e: info@eadecology.co.uk w: www.eadecology.co.uk



### **Technical Note**

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| Project:   | Land at Lynchmead Farm, Weston-Super-Mare                      |  |  |  |  |
|------------|--|--|--|--|--|
| Title:     | Response to ecological comments made by North Somerset Council |  |  |  |  |
| Date:      | 31 March 2021  |  |  |  |  |
| Client:    | Mead Realisations Ltd  |  |  |  |  |
| Reference: | 210331_P886_Lynchmead Farm_Ecology Response: March 2021        |  |  |  |  |
| Prepared:  | Lauren Stothert BSc MCIEEM                                     |  |  |  |  |

#### 1 Introduction

- 1.1 This Technical Note has been prepared by EAD Ecology on behalf of Mead Realisations Ltd in relation to the proposed development at Lynchmead Farm, Weston-super-Mare (North Somerset Council (NSC) planning reference 20/P/1579/OUT).
- 1.2 Susan Stangroom of North Somerset Council provided a formal consultation response to the application in relation to ecological to matters on 03/02/2021. This Technical Note addresses matters raised in this response.

| NSC comment   | Response  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| UK Biodiversity Action Plan Priority Habitat 'Coastal Floodplain Grazing Marsh'   |   |  |  |  |  |  |  |  |
| Pasture fields within the site potentially<br>comprise 'Coastal and Floodplain Grazing<br>Marsh' (Priority Habitat)   | The UK Biodiversity Action Plan Priority Habitat description for 'Coastal Floodplain Grazing Marsh' defines grazing marsh<br>as "periodically inundated pasture or meadow with ditches which maintain the water levels, containing standing brackish<br>or fresh water". However, the Flood Risk Assessment prepared for the site by Vectos states that the "site is at risk of tidal<br>flooding, but it is protected by defences which are designed to prevent inundation from this source. It is not impacted by<br>river/fluvial flooding. It has limited susceptibility to surface water flooding. Therefore, the site will not become periodically<br>inundated from flooding. The ground conditions have some clay content and shallow groundwater, which may mean that<br>after very heavy or prolonged rainfall, some waterlogging could occur but this may not be classified as inundation."<br>Anecdotally, it is also noted that the landowner states that the land hasn't been flooded for somewhere in the region of<br>60 years. |  |  |  |  |  |  |  |
|   | The Phase 1 Habitat surveys of the site identified the grassland within the site as a combination of improved grassland and poor semi-improved grassland pasture, both common and widespread habitats of low botanical diversity. The wet ditches onsite contained little aquatic vegetation, limited mainly to floating sweet-grass and occasional common reed.  |  |  |  |  |  |  |  |
|   | For these reasons, it was concluded that the site did not meet the criteria for 'Coastal Floodplain Grazing Marsh'.   |  |  |  |  |  |  |  |
| North Somerset and Mendip Bats SAC  |   |  |  |  |  |  |  |  |
| Qualifying bat species (greater/lesser<br>horseshoe) from North Somerset and<br>Mendip Bats SAC have been recorded using<br>the site. "A better retention of habitat to the<br>north and west adjoining farmland is<br>indicated as more likely to continue to<br>support horseshoe bats, which are<br>particularly light sensitive". | The farmland to the north and west of the development is retained. The detailed design of the development, including the design of public-realm lighting and landscaping, will create 'dark' vegetated boundaries within the site, including a central 'dark corridor'. These features are likely to enhance conditions for horseshoe bats; refer to Appendix 1 for an ecological parameter plan for the proposed development, including proposed locations of the dark corridors. New habitat creation, including a net increase in native hedgerow, would ensure that the site would remain suitable for commuting/foraging bats.   |  |  |  |  |  |  |  |
| Habitats Regulations Assessment   |   |  |  |  |  |  |  |  |
| A 'shadow' Habitats Regulations<br>Assessment is indicated as required.   | We do not consider that a Shadow HRA is required. The LPA, as 'competent authority' is required to produce an HRA; sufficient information is included in the EcIA report (subject to addressing recreational mitigation; see below) to enable them to produce this.   |  |  |  |  |  |  |  |

| NSC comment  | Response  |
|--|---|
| HRA to consider recreational impacts on<br>Severn Estuary European Sites/confirm<br>appropriate mitigation.  | This is agreed. NE indicated in their pre-app consultation that North Somerset Council should have suitable schemes towards which the development could contribute. We repeatedly sought to consult with the LPA on this matter pre-app, but no response was received. The applicant would be pleased to undertake further consultation with the LPA to identify suitable schemes/mechanisms to mitigate 'in-combination' recreational impacts, proportionate to any requirement on other development in the District.  |
| HRA to consider effects on horseshoe bat<br>populations from North Somerset and<br>Mendip Bats SAC.  | The site lies outside the consultation zones for the North Somerset and Mendip Bats SAC and the distance from this site (5.7km) indicates that it is unlikely that bats recorded using the site would be part of the core designated population. Bat populations associated with the SAC are therefore unlikely to be affected by the development, indicating this is not an HRA matter. Nonetheless, the development incorporates measures to protect/enhance conditions for horseshoe bats (see above).   |
|  | It should be noted that NE has not raised this as part of its consultation response.  |
| The EcIA should reference North Somerset<br>Core Strategy HRA, rather than JSP HRA.  | It is acknowledged in the EcIA that the JSP has now been withdrawn. However, HRA of the JSP is more recent than the Core Strategy HRA (2018 vs 2016), and includes more information on proposed mitigation than within the Core Strategy HRA. The content of the JSP HRA therefore remains relevant to the proposed application. However, we acknowledge that the Core Strategy HRA could also have been referenced.  |
|  | It is noted that NE's pre-application response also references the JSP HRA.   |
| Biodiversity Net Gain  |   |
| BNG requirement. Consider retention/enhancement of habitat to the north of the site.   | A BNG calculation for the proposed development, using the Defra Metric 2.0, has been undertaken, and is provided in Appendix 2. This confirms that the development would achieve 'net gain' >10% in respect of both area habitats (33.32% gain) and hedgerows (51.87% gain).  |
| Bats   |   |
| "Actual numbers of bat registrations need to<br>be consistently provided, to allow<br>comparisons to be made with other<br>development sites, rather than relative to<br>other sites known to the ecological<br>consultants, but which are not specified." | Actual numbers of bat registrations recorded during transect surveys are provided in Appendix 3.<br>'Bat Activity Index' (BAI) numbers are provided in Appendix 10 of the EcIA. This gives the number of bat registrations per<br>night for static detector surveys. As detailed in Appendix 10, a comparison was made of the BAI number recorded on site<br>with the BAI of static detectors within a reference dataset, which allows levels of bat activity to be compared and put into<br>context. Details of the reference data set and how bat activity levels are categorised are also provided within Appendix 10. |

| NSC comment   | Response  |
|---|---|
| Trees with moderate and low bat roost<br>suitability were not surveyed except for a<br>tree with moderate potential indicated by<br>the site entrance; additional tree surveys<br>are required.   | The only tree with Bat Roost Potential likely to be directly impacted by the development (Tree 13; refer to Appendix 9 of EcIA) was subject to emergence/re-entry surveys, and no bat roosts were recorded. All other trees onsite identified as having Bat Roost Potential were located within retained land to the north of the proposed development footprint or would be located within proposed habitat buffers around the development. No impacts are predicted and no additional surveys are required. |
|   | Additional surveys could be undertaken to inform the RM submission if any changes to the layout are likely.   |
| Lighting assessment required – "The avoidance and mitigation measures need to be informed by lighting assessments in line   | Section A3.6 and 3.7 of the North Somerset and Mendip Bats SAC Guidance on Development SPD provide details of lighting assessments for planning applications affecting SAC bat Consultation Zones. The Lynchmead Farm development site lies outside of these consultation zones (see above).  |
| with Section A3.6 and 3.7 (p.33) of the<br>'North Somerset and Mendip Bats SAC<br>Guidance on Development SPD' to map the<br>areas that need to be retained at pre-<br>existing lighting levels; or ideally at or below<br>0.5lux, where reasonably practicable."   | As outlined in the EcIA, lighting proposals would be subject to review by an ecologist and any lighting along adopted highways would be subject to agreement with North Somerset Council. The proposed location of dark habitat corridors is set out in the ecological parameters plan; refer to Appendix 1. Further detail of lighting proposals would be provided as part of a Reserved Matters application, and lighting parameters secured by Condition.  |
| Hazel dormouse  |   |
| "As the data search of 2km indicates<br>potential presence (of dormice) within the<br>wider area, and the standing Gov advice<br>indicates the additional use of dormouse<br>boxes to increase the probability of<br>detection (and which are also recommended<br>to increase the carrying capacity of an<br>environment to support dormice), it is<br>recommended that dormouse boxes are<br>installed where there are suitable scrub<br>habitats present that will not be subject to<br>rhyne maintenance." | The desk study data requested from Bristol Regional Environmental Records Centre (BRERC) by EAD Ecology in 2018 returned no records of hazel dormouse within the 2km search area, and no dormice, or evidence of dormouse activity, were recorded within the survey area during the course of the survey. However, dormouse boxes could be installed within retained hedgerows and scrub. This could be secured by Condition.   |

| NSC comment  | Response  |
|--|---|
| Otter  |   |
| "Water quality within rhynes needs to be<br>protected and key likely locations for lying<br>up retained within the landscaping."   | The proposed drainage strategy for the site is set out in the Flood Risk Assessment submitted with the application (Vectos, 2019). This confirms that a SuDS drainage scheme would be implemented for the development, comprising a number of measures including a network of swales. This would ensure that 'greenfield' runoff from the development would be achieved, and that the SuDS components would have a 'pollution index' that would exceed the 'pollution hazard index' for the development; i.e. that pollution risk would be fully mitigated. |
|  | As detailed in the EcIA, construction would be undertaken following industry best practice to minimise the risk of pollution or run-off affecting retained habitats within and adjacent to the site, including the ditches. This would include full adherence to Defra pollution prevention guidance. All contractors' compounds would be located away from ditches to minimise potential lighting, disturbance and dust impacts. These measures could be secured by Condition.   |
|  | Prior to construction, an update otter survey of the site would be undertaken to ensure no otter holts/couches were present within or in close proximity to the working area. Should a holt/couch be found, any work likely to cause disturbance or damage would be covered by a Natural England Otter Mitigation Licence.  |
| Water vole   |   |
| "Not detected in surveys, but as potentially<br>suitable habitat and as they species can by<br>dynamic in distribution, update surveys<br>would be expected to be conditioned to<br>inform Reserve Matters." | Update surveys for water vole could be undertaken at the same time as the pre-commencement update otter survey (see above), although the mitigation detailed above to protect water quality would provide suitable protection for the watercourses, and ensure they remained potential habitat for any future colonisation by water vole.   |
| Badgers  |   |
| "Key location of badger habitat (sett) and<br>run must be retained and protected within<br>proposals."   | The development footprint would be more than 120m from the main badger sett in the north of the site, and 20m from the outlier sett on the western boundary of the site. Therefore, there would be no impacts on these setts. A pre-construction survey of the development site and surrounding area would be undertaken to confirm that no new setts had established that could be affected by the development.  |
|  | Mitigation measures would be implemented to ensure legal compliance and protect the welfare of any affected animals during construction, and proposed habitat creation measures would offset habitat loss associated with site clearance.   |

| NSC comment   | Response  |
|---|---|
| Birds   |   |
| "It is important to ensure that the key<br>habitats supporting notable species of<br>birds are retained, protected and<br>enhanced Notably the scrub/hedgerow<br>habitat that is identified as supporting<br>dunnock and house sparrow, and the dense<br>thorny hawthorn scrub that provides<br>protective foraging and nesting<br>opportunities in proximity to the buildings<br>where house sparrow are nesting." | The boundary hedgerows which were identified on the Breeding Bird Survey Plan as the confirmed territories of breeding<br>birds are to be retained and protected. As detailed in the EcIA, new tree and hedgerow planting would result in an increase<br>in habitat available for nesting birds, including dunnock, and nesting boxes would benefit a range of species, including<br>species of conservation concern / Priority Species such as house sparrow and swift.<br>The "dense thorny hawthorn scrub that provides protective foraging and nesting opportunities in proximity to the buildings<br>where house sparrow are nesting" lies outside of the development footprint. |
| Snipe have not been mitigated for.  | A single snipe was recorded onsite within the retained habitat to the north of the development footprint. This species is associated with wet grasslands, and as detailed above, the site has limited susceptibility to surface water flooding and is not subject to inundation. The Phase 1 survey did not identify any areas of wet or marshy grassland, and while small numbers of snipe may occur within the retained habitat there are larger areas of more suitable habitat in the vicinity. Therefore, specific mitigation for this species is not considered necessary.   |
| Habitat survey  |   |
| "The early surveys of the site (March and<br>April) are not optimum for assessing<br>botanical and invertebrate interest; and any<br>such site interest is therefore likely under<br>recorded/under estimated."   | Extended Phase 1 Habitat surveys of the site were undertaken in April 2018 and March 2020, however, EAD ecologists attended the site monthly from April 2018 to January 2019 to undertake protected species surveys and in that time a good overall knowledge of the site was obtained, and any significant changes to the botanical or invertebrate interest of the site would have been noted. Therefore, the results of the habitat surveys are considered to be suitable to inform the impact assessment and mitigation strategy of the EcIA.   |
| Brown hare, harvest mouse and hedgehog  |   |
| Brown hare and hedgehog should be accommodated within the development   | Habitat creation, including wildflower meadow, and native tree and shrub planting, and the retention of grassland habitat to the north would provide habitat for these species. As detailed in the EcIA, hedgehog passes would be created within new garden fences to allow hedgehogs to move round the site post-development.  |

| NSC comment   | Response  |
|---|---|
| Toad  |   |
| "A toad breeding migration assessment and<br>mitigation plan is indicated as required to be<br>conditioned, with appropriate timings of<br>vegetation removal. In addition, amphibian-<br>friendly drainage would be required to be<br>conditioned, to include the avoidance of<br>conventional gully drain covers that trap<br>toads within gully drains." | Mitigation measures for amphibians are detailed in the EcIA, including habitat manipulation under ecological supervision.<br>Further details of habitat and species protection measures during construction would be outlined in the Construction<br>Environmental Management Plan; these measures could be secured by Condition. |
| Invertebrates   |   |
| "A moth and ditch invertebrate survey is<br>required to inform site avoidance,<br>mitigation and enhancement measures."   | As detailed above, the FRA states that the proposed drainage strategy for the site would ensure that pollution risk to the ditches onsite would be fully mitigated. All ditches would also be retained within habitat buffers. A ditch invertebrate survey is therefore not considered to be necessary to inform the assessment.  |

## Appendix 1: Ecological parameters plan



Appendix 2: Biodiversity Net Gain assessment

#### 1 Introduction

1.1 This document presents the results of the Biodiversity Net Gain assessment undertaken of the proposed development at Lynchmead Farm, Weston-super-Mare, as requested in Natural England's consultation response to the Planning Application.

#### 2 Approach

#### Ecological baselines

2.1 An Extended Phase 1 Habitat survey of the development site was undertaken on 5 April 2018, and updated on 11 March 2020, following IEA guidelines (1995) and JNCC methodology (2010). The results of these surveys were detailed in the EcIA Report (2020). Condition assessments of the habitats onsite were not undertaken at the time of the surveys, therefore habitat conditions were estimated from existing survey information from the Phase 1 Habitat surveys.

#### Biodiversity offsetting metric calculations

2.2 The measurements of biodiversity losses and gains resulting from the proposed development have been calculated using 'Biodiversity Metric 2.0' (beta version; Natural England 2019). Habitat gains are based on the Illustrative Landscape Masterplan (Viridian Landscape Planning Drawing No 2714/05 Rev A). Refer to the Ecological Parameters Plan (Appendix 1) for proposed habitat creation areas used in the calculations.

#### 3 Metric calculation

- 3.1 A summary of the Biodiversity Net Gain (BNG) Assessment using 'Biodiversity Metric 2.0' (beta version; Natural England 2019) is provided in Annex 1. All measurements are approximate and subject to detailed landscape proposals. Note that Biodiversity Units for habitats are treated separately from linear habitats (hedgerows and watercourses) in the Metric and the numbers of Units are not interchangeable.
- 3.2 The BNG Assessment indicates that pre-development, the site comprises approximately 10.89 Habitat Units and 8.83 Hedgerow Units. Post-development, there is opportunity for the site to comprise approximately 14.52 Habitat Units and 13.41 Hedgerow Units (taking into account habitat loss, together with proposed habitat creation and enhancement). This would be a net gain of +3.63 Habitat Units (+33.32%) and +4.58 Hedgerow Units (+51.87%).

Land at Lynchmead Farm, West-super-Mare Headline Results

Return to results menu

|   | Habitat units  | 10.89  |
|---|----------------|--------|
| On-site baseline  | Hedgerow units | 8.83   |
| on site baseline  | River units    | 0.00   |
|   |                |        |
| On-site post-intervention   | Habitat units  | 14.52  |
| (Including habitat retention, creation, enhancement &                   | Hedgerow units | 13.41  |
| (including habitat retention, creation, enhancement &                   | River units    | 0.00   |
|   |                |        |
|   | Habitat units  | 0.00   |
| Off-site baseline   | Hedgerow units | 0.00   |
|   | River units    | 0.00   |
|   |                |        |
| Off-site post-intervention  | Habitat units  | 0.00   |
| On-site post-intervention   | Hedgerow units | 0.00   |
| (Including habitat retention, creation, enhancement &                   | River units    | 0.00   |
|   |                |        |
| Total net unit change   | Habitat units  | 3.63   |
| <u> </u>  | Hedgerow units | 4.58   |
| (including all on-site & off-site habitat retention/creation)           | River units    | 0.00   |
|   |                |        |
| Total net % change  | Habitat units  | 33.32% |
| J   | Hedgerow units | 51.87% |
| (including all on-site & off-site habitat creation + retained habitats) | River units    | 0.00%  |

## Land at Lynchmead Farm, West-super-Mare A-1 Site Habitat Baseline

Main Menu Instructions

|     |               | Habitats and areas                     | Habitat<br>distinctiveness | Habitat<br>condition | Ecological<br>connectivity | Strategic significance     | Suggested action to address                                  | Ecological<br>baseline   |                        |
|-----|---------------|--|----------------------------|----------------------|----------------------------|----------------------------|--|--|------------------------|
| Ref | Broad Habitat | Habitat type                           |                            | Distinctiveness      | Condition                  | Ecological<br>connectivity | Strategic significance                                       | habitat losses   | Total habitat<br>units |
| 1   | Urban         | Urban - Developed land; sealed surface | 0.13                       | V.Low                | N/A - Other                | N/A                        | Location ecologically desirable but<br>not in local strategy | Compensation Not Required  | 0.00                   |
| 2   | Grassland     | Grassland - Modified grassland         |                            | Low                  | Poor                       | Low                        | Location ecologically desirable but<br>not in local strategy | Same distinctiveness or better<br>habitat required                 | 0.46                   |
| 3   | Urban         | Urban - Vegetated garden               |                            | Low                  | Poor                       | Low                        | Location ecologically desirable but<br>not in local strategy | Same distinctiveness or better<br>habitat required                 | 0.04                   |
| 4   | Grassland     | Grassland - Modified grassland         |                            | Low                  | Poor                       | Low                        | Location ecologically desirable but<br>not in local strategy | Same distinctiveness or better<br>habitat required                 | 9.50                   |
| 5   | Lakes         | Lakes - Ditches                        |                            | Medium               | Poor                       | Low                        | Location ecologically desirable but<br>not in local strategy | Same broad habitat or a higher<br>distinctiveness habitat required | 0.88                   |
| 6   |               |  |                            |                      |                            |                            |  |  |                        |
| 7   |               |  |                            |                      |                            |                            |  |  |                        |
| 8   |               |  |                            |                      |                            |                            |  |  |                        |
| 10  |               |  |                            |                      |                            |                            |  |  |                        |
|     |               | Total site area ha                     | 4.88                       |                      | •                          | •                          |  | Total Site baseline  | 10.89                  |

|                  |                  |                    |                               |                  |                                 | Bespoke<br>compensation | Comm       | ients                                |  |                   |
|------------------|------------------|--------------------|-------------------------------|------------------|---------------------------------|-------------------------|------------|--------------------------------------|--|-------------------|
| Area<br>retained | Area<br>enhanced | Area<br>succession | Baseline<br>units<br>retained | units<br>enhance | Baseline<br>units<br>succession | Area lost               | Units lost | agreed for<br>unacceptable<br>losses | Assessor comments  | Reviewer comments |
|                  |                  |                    | 0.00                          | 0.00             | 0.00                            | 0.13                    | 0.00       |                                      | Phase 1 category: Hardstanding   |                   |
|                  |                  |                    | 0.00                          | 0.00             | 0.00                            | 0.21                    | 0.46       |                                      | Phase 1 category: Tall ruderal   |                   |
|                  |                  |                    | 0.00                          | 0.00             | 0.00                            | 0.02                    | 0.04       |                                      | Phase 1 category: Amenity grassland                                    |                   |
|                  |                  |                    | 0.00                          | 0.00             | 0.00                            | 4.32                    | 9.50       |                                      | Phase 1 category: Poor semi-improved grassland &<br>improved grassland |                   |
| 0.18             |                  |                    | 0.79                          | 0.00             | 0.00                            | 0.02                    | 0.09       |                                      | Phase 1 category: Wet ditches  |                   |
|                  |                  |                    |                               |                  |                                 |                         |            |                                      |  |                   |
|                  |                  |                    |                               |                  |                                 |                         |            |                                      |  |                   |
|                  |                  |                    |                               |                  |                                 |                         |            |                                      |  |                   |
|                  |                  |                    |                               |                  |                                 |                         |            |                                      |  |                   |
| 0.18             | 0.00             | 0.00               | 0.79                          | 0.00             | 0.00                            | 4.70                    | 10.10      |                                      | •  |                   |

| Land at Lynchmead Farm, West-super-Mare    |                    |                 | ]               |                            |  |                                |                                       |                            |
|--|--------------------|-----------------|-----------------|----------------------------|--|--------------------------------|---------------------------------------|----------------------------|
| A-2 Site Habitat Creation                  |                    |                 |                 |                            |  |                                |                                       |                            |
| Condense / Show Columns Co                 | ondense / Shov     | v Rows          | J               |                            |  |                                |                                       |                            |
| Main Menu                                  | Instructior        | ıs              | )               |                            |  |                                |                                       |                            |
|  |                    | Post developme  | nt/ post interv | vention habitats           |  |                                |                                       | 1                          |
|  |                    |                 |                 | Ecological                 | Strategic significance                                       | Temporal                       | Difficulty                            |                            |
| Proposed habitat                           | Area<br>(hectares) | Distinctiveness | Condition       | Ecological<br>connectivity | Strategic significance                                       | Time to target condition/years | Difficulty of<br>creation<br>category | Habitat units<br>delivered |
| Urban - Developed land; sealed surface     | 1.69               | V.Low           | N/A - Other     | Low                        | Location ecologically desirable but not<br>in local strategy | 0                              | Low                                   | 0.00                       |
| Urban - Vegetated garden                   | 1.11               | Low             | Poor            | Low                        | Location ecologically desirable but not<br>in local strategy | 1                              | Low                                   | 2.36                       |
| Heathland and shrub - Mixed scrub          | 0.19               | Medium          | Moderate        | Low                        | Location ecologically desirable but not<br>in local strategy | 3                              | Low                                   | 1.50                       |
| Cropland - Traditional orchards            | 0.04               | High            | Moderate        | Low                        | Location ecologically desirable but not<br>in local strategy | 20                             | Low                                   | 0.26                       |
| Urban - Sustainable urban drainage feature | 0.51               | Low             | Moderate        | Low                        | Location ecologically desirable but not<br>in local strategy | 3                              | Medium                                | 1.35                       |
| Grassland - Other neutral grassland        | 1.34               | Medium          | Moderate        | Low                        | Location ecologically desirable but not<br>in local strategy | 10                             | Low                                   | 8.26                       |
|  |                    |                 |                 |                            |  |                                |                                       |                            |
|  |                    |                 |                 |                            |  |                                |                                       |                            |
|  |                    |                 |                 |                            |  |                                |                                       |                            |
|  |                    |                 |                 |                            |  |                                |                                       |                            |
| Totals                                     | 4.88               |                 | 1               | 1                          | I  |                                |                                       | 13.73                      |

Land at Lynchmead Farm, West-super-Mare B-1 Site Hedge Baseline

| Condense / Show Columns | Condense / Show Rows |
|-------------------------|----------------------|
| Main Menu               | Instructions         |

|   |                 |                 | UK Habitats - existing habitats<br>Habitat Habitat Ecological<br>distinctiveness condition connectivity Strategic significance |       |  |          |                        |  |  | Ecological<br>baseline |
|---|-----------------|-----------------|--|-------|--|----------|------------------------|--|--|------------------------|
|   | Baseline<br>ref | Hedge<br>number | - Hedgerow type  |       | Hedgerow type length KM Distinctiveness Condition Ecological connectivity Strategic sign |          | Strategic significance | Suggested action to<br>address habitat losses                | Total<br>hedgerow<br>units             |                        |
|   | 1               |                 | Native Hedgerow - Associated with bank or ditch  | 0.738 | Medium   | Moderate | Medium                 | Location ecologically desirable but not in local<br>strategy | Like for like or better                | 7.14384                |
|   | 2               |                 | Native Hedgerow with trees - Associated with bank or ditch   |       | Medium   | Moderate | Medium                 | Location ecologically desirable but not in local<br>strategy | Like for like or better                | 0.66792                |
|   | 3               |                 | Native Hedgerow  | 0.157 | Low  | Moderate | Medium                 | Location ecologically desirable but not in local<br>strategy | Same distinctiveness<br>band or better | 0.75988                |
|   | 4               |                 | Line of Trees (Ecologically Valuable) - with Bank or Ditch   | 0.027 | Medium   | Moderate | Medium                 | Location ecologically desirable but not in local<br>strategy | ke for like or better                  | 0.26136                |
| [ | 5               |                 |  |       |  |          |                        |  |  |                        |
|   | 6               |                 |  |       |  |          |                        |  |  |                        |
|   | 7               |                 |  |       |  |          |                        |  |  |                        |
|   | 8               |                 |  |       |  |          |                        |  |  |                        |
|   | 9               |                 |  |       |  |          |                        |  |  |                        |
|   |                 |                 | Total Site length/KM   | 0.99  |  |          |                        |  | Total Site baseline                    | 8.83                   |

|                    | Retention of       | ategory bio       | odiversity va     | lue            |               | Comments          |                   |  |  |  |  |  |  |
|--------------------|--------------------|-------------------|-------------------|----------------|---------------|-------------------|-------------------|--|--|--|--|--|--|
| Length<br>retained | Length<br>enhanced | Units<br>retained | Units<br>enhanced | Length<br>lost | Units<br>lost | Assessor comments | Reviewer comments |  |  |  |  |  |  |
| 0.375              |                    | 3.63              | 0                 | 0.363          | 3.51384       |                   |                   |  |  |  |  |  |  |
| 0.049              |                    | 0.47432           | 0                 | 0.02           | 0.1936        |                   |                   |  |  |  |  |  |  |
|                    |                    | 0                 | 0                 | 0.157          | 0.75988       |                   |                   |  |  |  |  |  |  |
| 0.027              |                    | 0.26136           | 0                 | 0              | 0             |                   |                   |  |  |  |  |  |  |
|                    |                    |                   |                   |                |               |                   |                   |  |  |  |  |  |  |
|                    |                    |                   |                   |                |               |                   |                   |  |  |  |  |  |  |
|                    |                    |                   |                   |                |               |                   |                   |  |  |  |  |  |  |
|                    |                    |                   |                   |                |               |                   |                   |  |  |  |  |  |  |
| 0.45               | 0.00               | 4.37              | 0.00              | 0.54           | 4.47          |                   |                   |  |  |  |  |  |  |

|                    |                        | La        | nd at Lynchmead Farm, West-super-Mare                      | ]     |                            |  |                            |  |                                |             |                   |                   |  |  |
|--------------------|------------------------|-----------|--|-------|----------------------------|--|----------------------------|--|--------------------------------|-------------|-------------------|-------------------|--|--|
| B-2 S              | ite H                  | Hedg      | e Creation   |       |                            |  |                            |  |                                |             |                   |                   |  |  |
|                    | Conde                  | lense / S | Show Columns Condense / Show Rows                          |       |                            |  |                            |  |                                |             |                   |                   |  |  |
|                    | Main Menu Instructions |           |  |       |                            |  |                            | Multipliers  |                                |             |                   |                   |  |  |
|                    |                        | _         |  |       |                            |  |                            | Spatial quality  | Temporal                       |             |                   |                   |  |  |
|                    |                        |           | Proposed habitats Habitat type Len                         |       | Habitat<br>distinctiveness | Habitat Habitat<br>stinctiveness condition | Ecological<br>connectivity | Strategic significance                                       | multiplier                     | Hedge units | Comments          |                   |  |  |
| Baseline<br>ref    | hed                    | dge       |  |       | Distinctiveness            | Condition                                  | Ecological<br>connectivity | Strategic significance                                       | Time to target condition/years | delivered   | Assessor comments | Reviewer comments |  |  |
| 1                  |                        |           | Native Species Rich Hedgerow                               | 1.43  | Medium                     | Moderate                                   | Medium                     | Location ecologically desirable but not in<br>local strategy | 5                              | 7.76        |                   |                   |  |  |
| 2                  |                        |           | Line of Trees (Ecologically Valuable) - with Bank or Ditch | 0.405 | Medium                     | Moderate                                   | Medium                     | Location ecologically desirable but not in<br>local strategy | - 20                           | 1.29        |                   |                   |  |  |
| 3                  |                        |           |  |       |                            |  |                            |  |                                |             |                   |                   |  |  |
| 4                  |                        |           |  |       |                            |  |                            |  |                                |             |                   |                   |  |  |
| 6                  |                        |           |  |       |                            |  |                            |  |                                |             |                   |                   |  |  |
| 7                  |                        |           |  |       |                            |  |                            |  |                                |             |                   |                   |  |  |
| Creation Length/KM |                        |           |  |       |                            |  |                            |  |                                | 9.05        |                   |                   |  |  |

# Appendix 3: Bat registrations recorded on static bat detectors at Lynchmead Farm during 2018 surveys

(Refer to Appendix 10 of the EcIA report for static detector locations and detailed methodology)

| Detector<br>Position | Month<br>(2018) | No. of nights | Рр   | Рруд | Pip | Pn | LHS | GHS | Nn | Nysp | Es  | Bb | EorNy | Mysp | Plsp | Total |
|----------------------|-----------------|---------------|------|------|-----|----|-----|-----|----|------|-----|----|-------|------|------|-------|
| rosition             |                 | 7             | 74   | 3    | 0   | 0  | 1   | 20  | 7  | 0    | 0   | 0  | 11    | 0    | 0    | 116   |
|                      | April           |               |      | -    | -   |    |     |     |    |      |     |    |       |      |      |       |
|                      | May             | 6             | 85   | 13   | 0   | 0  | 1   | 4   | 24 | 4    | 9   | 0  | 10    | 2    | 3    | 155   |
| Desition 1           | June            | 6             | 75   | 11   | 0   | 0  | 0   | 4   | 15 | 104  | 5   | 0  | 22    | 1    | 3    | 240   |
| Position 1           | July            | 9             | 300  | 10   | 2   | 0  | 0   | 5   | 4  | 56   | 47  | 0  | 4     | 4    | 4    | 436   |
|                      | August          | 7             | 589  | 15   | 0   | 0  | 0   | 10  | 1  | 59   | 21  | 0  | 13    | 4    | 1    | 713   |
|                      | September       | 6             | 219  | 13   | 0   | 0  | 0   | 2   | 3  | 72   | 39  | 0  | 26    | 31   | 3    | 408   |
|                      | October         | 5             | 130  | 5    | 0   | 0  | 0   | 1   | 0  | 11   | 1   | 0  | 1     | 1    | 3    | 153   |
| Total for position   |                 | 46            | 1472 | 70   | 2   | 0  | 2   | 46  | 54 | 306  | 122 | 0  | 87    | 43   | 17   | 2221  |
|                      | April           | 7             | 4659 | 1205 | 0   | 1  | 1   | 29  | 11 | 0    | 0   | 0  | 6     | 1    | 0    | 5913  |
|                      | May             | 6             | 121  | 13   | 0   | 0  | 1   | 27  | 17 | 0    | 8   | 0  | 9     | 5    | 0    | 201   |
|                      | June            | 6             | 403  | 15   | 1   | 0  | 0   | 22  | 15 | 110  | 58  | 0  | 20    | 6    | 5    | 655   |
| Position 2           | July            | 9             | 1157 | 175  | 5   | 0  | 0   | 26  | 16 | 193  | 105 | 0  | 77    | 7    | 3    | 1764  |
|                      | August          | 7             | 875  | 49   | 7   | 0  | 0   | 88  | 4  | 105  | 38  | 0  | 109   | 8    | 4    | 1287  |
|                      | September       | 6             | 617  | 19   | 0   | 0  | 0   | 0   | 2  | 52   | 1   | 0  | 17    | 20   | 1    | 729   |
|                      | October         | 6             | 1892 | 357  | 0   | 0  | 0   | 1   | 0  | 1    | 0   | 0  | 5     | 30   | 1    | 2287  |
| Total fo             | or position     | 47            | 9724 | 1833 | 13  | 1  | 2   | 193 | 65 | 461  | 210 | 0  | 243   | 77   | 14   | 12836 |
|                      | April           | 7             | 379  | 50   | 0   | 0  | 5   | 12  | 12 | 0    | 0   | 0  | 8     | 0    | 0    | 466   |
|                      | May             | 6             | 3591 | 276  | 0   | 0  | 1   | 29  | 13 | 0    | 18  | 0  | 6     | 26   | 1    | 3961  |
|                      | June            | 6             | 755  | 38   | 1   | 0  | 0   | 13  | 2  | 70   | 20  | 0  | 23    | 19   | 9    | 950   |
| Position 3           | July            | 9             | 1072 | 79   | 0   | 0  | 3   | 10  | 27 | 130  | 43  | 0  | 34    | 17   | 0    | 1415  |
|                      | August          | 7             | 788  | 54   | 4   | 0  | 0   | 5   | 2  | 53   | 45  | 0  | 3     | 3    | 6    | 963   |
|                      | September       | 6             | 831  | 306  | 14  | 0  | 8   | 2   | 1  | 58   | 37  | 0  | 28    | 7    | 5    | 1297  |
|                      | October         | 6             | 1591 | 299  | 6   | 0  | 10  | 1   | 1  | 5    | 3   | 0  | 2     | 22   | 6    | 1946  |
| Total for position   |                 | 47            | 9007 | 1102 | 25  | 0  | 27  | 72  | 58 | 316  | 166 | 0  | 104   | 94   | 27   | 10998 |
| Position 4           | April           | 7             | 1356 | 141  | 0   | 0  | 6   | 9   | 13 | 0    | 0   | 0  | 6     | 9    | 0    | 1540  |
| 1 031(101) 4         | Мау             | 6             | 325  | 49   | 0   | 0  | 1   | 4   | 4  | 0    | 0   | 0  | 5     | 11   | 1    | 400   |

Table A1: Bat registrations recorded on static detectors at Lynchmead Farm during 2018 surveys

|                    | June      | 6  | 496  | 60  | 0   | 0 | 0 | 5  | 5  | 31  | 17 | 0 | 14  | 14  | 14 | 656  |
|--------------------|-----------|----|------|-----|-----|---|---|----|----|-----|----|---|-----|-----|----|------|
|                    | July      | 9  | 1539 | 244 | 9   | 0 | 0 | 1  | 11 | 54  | 2  | 3 | 98  | 16  | 20 | 1997 |
|                    | August    | 7  | 864  | 330 | 170 | 0 | 0 | 9  | 4  | 167 | 13 | 0 | 48  | 16  | 2  | 1623 |
|                    | September | 6  | 764  | 60  | 2   | 0 | 0 | 1  | 1  | 14  | 0  | 0 | 26  | 43  | 3  | 914  |
|                    | October   | 6  | 72   | 0   | 0   | 0 | 1 | 0  | 0  | 4   | 0  | 0 | 0   | 18  | 0  | 95   |
| Total for position |           | 47 | 5416 | 884 | 181 | 0 | 8 | 29 | 38 | 270 | 32 | 3 | 197 | 127 | 40 | 7225 |