COLCHESTER NATURAL HISTORY SOCIETY

COLCHESTER BOROUGH COUNCIL (CBC) LOCAL PLAN EXAMINATION

MAIN MATTER 6 SOUTH COLCHESTER

POLICY SC2 MIDDLWICK RANGES

1. In August 2017 Colchester Natural History Society (CNHS) responded to the CBC Draft Local Plan by acknowledging the policy plan to review the Middlewick ecology. In August 2019 in response to a 'masterplan consultation' CNHS opposed development citing species rarity and closeness to SSSI sites and added that as the Local Plan at that time had not been examined the masterplan consultation was premature.

2. CBC's narrative supporting Local Plan Policy SC2: Middlewick Ranges, acknowledges that the site is a designated Local Wildlife Site (LOW). (Previously LoWS's were titled SINC's – Sites of Importance for Nature Conservation, a more accurate description of their function). The CBC narrative adds "3.3.2 Middlewick Ranges is a Local Wildlife Site (LoWS) dominated by acid grassland primarily designated for this and its invertebrate populations, but with important scrub, scattered trees and copses and hedgerows. Birch Brook LoWS to the south of the site supports the brook itself and mixed broadleaf and wet woodland, with some characteristics of ancient woodland. The habitats within the site are of high (up to County) biodiversity value, including approximately 53 Ha of acid grassland. The site supports a range of protected species such as invertebrates, breeding birds and bats."

3. An independent report by Midland Ecology which is an appendix to this submission identifies seven nationally threatened and eight nationally scarce species.

4. The Midland Ecology report paragraph 3.3 makes the point that an important function of Local Wildlife Sites is to "complement or buffer statutory conservation sites (SSSIs)". The Middlewick and Birch Brook LoWS's provide this buffer function for the Roman River Valley Site of Special Scientific Interest. (NB that Colchester Natural History Society has published jointly with Essex Wildlife Trust an in-depth ten-year study of the ecology of the Roman River Valley (*Roman River Valley Living Landscape: Habitats and Species 2009–2019*, ed. Darren Tansley, Great Wigborough, 2019. Available via CNHS website), and this report in turn must be studied fully to understand what is at risk from undermining the buffer zone to the north.

5. Furthermore, Birch Brook itself and its shallow valley are sensitive areas themselves (and we have argued in an earlier submission that it will be put at risk by this development). We note that CBC's document "FINAL Colchester Borough Council (CBC) Local Plan

Examination of Section 2…" states in paragraph 3.3.6 that the Council see the masterplan process as a way to (among other things) "create appropriate buffers to existing habitat". This statement is misleading in the extreme. It should be acknowledged that Birch Brook already has a buffer zone to the north, the area of Middlewick Range that is currently under discussion. Any decision to allow development on the site will manifestly *reduce* the buffer zone protecting Birch Brook, and will certainly *not* create a buffer. Indeed, Birch Brook will become subject to increased pressures, which are likely to create pollution and erosion, thus reducing the value of its habitat over time.

6. The evidence now available demonstrates that the site's biodiversity is certainly of significance at County, and probably at National level. This is at a time when Government is introducing the concept of 'nature recovery networks' to reverse the trend of habitat loss. Britain is reportedly the worst of the G7 nations for protecting flora and fauna. It is reported that 40% of species have declined in Britain in the past 50 years. This coincides with an estimated 90+% loss of wildflower meadows since the 1940's.

7. CBC sems to acknowledge the need to act - "The Council will safeguard the Borough's biodiversity … through the protection and enhancement of sites of international, national, regional and local importance." We ask, what steps has the Council taken to protect Middlewick and Birch Brook LoWSs? The site is important for both habitats (including, but not limited to, acid grassland and heathland) and a number of nationally threatened or nationally scarce species (at least 15 of them)

8. Acid grassland and lowland heath have undergone substantial declines and losses on account of agricultural intensification, afforestation and development, and sites with these habitats should be protected and enhanced, not built upon.

9. A review of the Middlewick Ranges ecology has been carried out on behalf of the MoD (the Stantec report). That report concludes that "whilst further ecological survey and assessment work is required to inform a planning application, there is no reason from an ecological perspective why this site cannot be allocated in CBC's emerging Local Plan…" This begs the question how this conclusion can be reached when it is admitted further assessment is required. It also demonstrates that the masterplan referred to in paragraph 1 above was indeed premature as the Local Plan is only now being examined.

10. The Midland Ecology report referred to in paragraph 3 above draws attention to several inadequacies in the MoD-commissioned survey assessment and also questions whether a satisfactory conclusion can be reached i.e. whether the site has been adequately assessed to be safely identified as suitable for inclusion in the Local Plan . Full details are in the attached Midland Ecology report but an overview follows.

11. No surveys were performed for mammal species by the Stantec study. Of the eight surveys that were done, only two were regarded as "adequate", two were regarded as "partly adequate" and four as "inadequate". The Midland Ecology Report concludes that the survey work (and, thus, evidence base) in respect of Dormice, Breeding Birds

(especially Nightingale and Skylark), Reptiles, Amphibians and Badgers are to varying extents inadequate. This undermines the ability to assess impacts, mitigation strategies and Biodiversity Net Gain calculations. These considerations, when combined with the admission that further assessment is necessary, demonstrates that the Stantec Report provides no justification for allocation of the site for housing development.

12. Paragraph 6 above is important. The MoD -commissioned ecology report suggests mitigation for habitat loss can be effectively achieved with a net biodiversity gain of at least 9%. It is not clear how this can be suggested, let alone achieved if biodiversity assessments are incomplete.

13. The published masterplan proposes development in the northern part of the site. However, CNHS records show an area of this to be a key location for terrestrial invertebrates. These would need relocating to suitable mitigation habitat land as part of a biodiversity net gain strategy. This is a National Planning Policy requirement.

14. The ability to achieve biodiversity net gain in this circumstance requires suitable land within the site or at an alternative site or on land within the site that can be made suitable. The Stantec ecology report proposes the creation of habit on mitigation land at Middlewick. It is suggested that this land can become effective habitat within 10 years. This is questioned by Midland Ecology as the habitat in question, 'acid grassland', is difficult to create and is likely to take 25-30 years.

15. An important part of the site's biodiversity is the high count of nationally threatened and nationally scarce terrestrial invertebrates, notably Aculeates associated with the acid grassland. These have particular importance in addition to their threat-status, as many are valuable and often very specialised pollinators. The claims regarding the potential success of the proposed mitigation for loss of this habitat proposed in the Stantecreport are challenged by Midland Ecology, drawing on authoritative sources (Natural England, Defra and others). On that basis recreation to 'fairly good' or 'good' condition would take 25-30 years. The Stanrtec invertebrate survey took place over a brief period and in poor weather conditions. As Aculeates are generally inactive except under warm, sunny conditions, and many have very brief flight periods, it is quite certain that the survey greatly underestimated the value of the site for this taxonomic group.

16. This raises additional concerns about the mitigation strategy proposed. These species have complex habitat requirements, including vegetation height, density and composition, soil properties such as moisture, compaction, friability and structure, and microclimatic conditions such as aspect, exposure to sun, rainfall and temperature. Simply creating 'good' quality acid grassland, even if practically feasible, will not reproduce these conditions on a different site. The point is a simple one: there are reasons why species are rare. Highly specialised species depend on complex habitat requirements that are usually the outcome of a long history of stability in a locality. They cannot be recreated at will.

17. The Local Plan period is 2017 – 2033 and development of Middlewick is proposed around the mid-point, say 2025. Even if suitable mitigation habitat could be achieved in the questioned 10-year period this would result in no suitable habitat being available when required, biodiversity net gain would not be achievable and important species would be lost.

18. As stated above, CNHS expected to see effective ecological surveys undertaken. The Society also highlighted species threatened by the proposed masterplan development area. The Midland Ecology report identifies shortcomings in habitat and species surveys. Those findings suggest that effective mitigation plans are not present and loss of important species would result. The view is therefore drawn that it cannot be safe to conclude that Middlewick Ranges should form part of the Local Plan.

19. The Midland Ecology Report asks, "what consideration has been given to the choice of *alternative sites* that would cause less harm?" (a requirement of the revised Env1 Policy). Given that CBC acknowledges that the land is of "high biodiversity value", it would seem that there is a heavy burden on CBC to seek alternative sites. Indeed, we ask the question, can Colchester's housing development obligations be met without developing Middlewick Ranges? If they can, then surely the best and easiest way to avoid harm to this ecologically important site is not to develop it at all. Again, if development of this site is not essential in order to deliver Colchester's housing obligations, why are these high-value sensitive habitats and these threatened and scarce species being put at risk?

20. We further note how the current Covid 19 pandemic has brought home to us all how vital are our local green spaces for both our physical and mental health. It is now well established by a large research literature that access to green space is vital to well-being. Intense urbanisation in the borough of Colchester in recent decades has both eliminated much green space and destroyed connectivity among much of the rest. We have been moved by the passion, knowledge and effort shown by the Save Middlewick Ranges campaign group. This is surely evidence enough that local residents both need and deserve continuing access to this unique and environmentally rich local space.

Appendix

Middle wick Ranges report February 2021.pdf

MIDLAND ECOLOGY

MIDDLEWICK RANGES

Ecological Evaluation Report

February 2021

Contents

1 Purpose of Report

1.1 The purpose of this report is to evaluate the ecology report on Middlewick Ranges completed by Stantec Ecology consultancy and which forms part of the evidence base of information submitted to support the Emerging Colchester Borough Council (CBC) Local Plan and development at Middlewick Ranges;

1.2 An evaluation of other Local Plan requirements and particularly those of statutory authorities in their regard to biodiversity duty is considered;

1.3 The report concludes by setting out a number of options to safeguard all or part of the site at Middlewick Ranges and secure it for long-term nature conservation.

1.4 Two main considerations are recommended to determine the viability of the site

i) Although beyond the remit of this piece of work consideration should be given to whether CBC and adjoining authorities have clearly evidenced the housing requirement on this land given that the authorities have jointly agreed to work together to achieve the targets set and so release other sites of lesser environmental value;

ii) Have CBC demonstrated the process that informed on the decision to include Middlewick Ranges as one of the Site Allocations for the Local Plan by demonstrating an objective process to quantify the natural capital value and avoidance of areas of high ecological value?

2 Statutory Duty and Mitigation Hierarchy

2.1 Middlewick Ranges is currently a live military firing range and training area owned by the Ministry of Defence (MoD) located to the south of Colchester. The site has been identified for closure as part of the Defence Estate Optimisation (DEO) Portfolio and the MoD wish to have the site included within Colchester Borough Council's (CBC) Emerging Local Plan 2017-2033 to support the delivery of housing and associated infrastructure.

2.2 CBC appears to have agreed the principle of site allocation for housing in the Emerging Local Plan (publication draft, June 2017) which contains Policy SC2: Middlewick Ranges. This policy states:

The allocation shown on the Policies Map is expected to deliver approximately 1000 new dwellings. The final number of dwellings will only be confirmed when full details of constraints are known… development will be supported on land within the area identified on the policies map which provides:

i. Up to 1000 new houses of a mix and type of housing to be compatible with surrounding development;

ii. Access and highway works on the local road network, including new junctions, to be agreed with The Highway Authority and delivered at the appropriate time commensurate with the development;

iii. ***Detailed ecological surveys and appropriate mitigation to enhance the ecology of the remaining areas of the Local Site including the provision of compensatory habitat to replace habitat lost to development****;*

iv. *Strategic areas of public open space;*

v. *Delivery of enhancements to sustainable travel connectivity including public transport, cycling and walking infrastructure;*

vi. *Mitigation measures to address site contamination; and*

vii. *Provision for retention or diversion of any existing public rights of way within the site.*

A masterplan will be required to inform the detailed definition and mix of uses within the site.

2.3 It is not clear what process CBC have conducted to determine the appropriateness of Middlewick Ranges as a site suitable for delivery of 1000+ houses. Having made the decision to include the site in the Emerging Local Plan with an associated Policy SC2 pre 2017, this policy also identifies a requirement to carry out detailed ecology surveys to fully inform on what level of mitigation and/or compensation is necessary;

2.4 **CBC should therefore fully demonstrate what measures have been taken to comply with their statutory duty to have full regard to biodiversity in their decision making under Sec 40 of Natural Environment & Rural Communities Act (2006). By doing so, they should clearly show what evidence was available for them to fully consider the (actual or potential) impacts on biodiversity and other ecosystem services for the full or partial loss of Middlewick Ranges to enable them to include the site in the Emerging Local Plan and when that decision was made.**

2.5 Evidence should show how the Mitigation hierarchy has been considered and implemented to avoid areas of high ecological value in their selection of the site in the emerging Local Plan and why it considered that avoidance of such loss was not possible.

In particular, CBC should demonstrate how the principle of development on this site meets National Framework guidance with regard to biodiversity net gain and the mitigation hierarchy.

Paragraph: 024 Reference ID: 8-024-20190721 of government guidance on the Natural Environment to support NPPF (2019) issued on 21 07 2019 states :

Biodiversity net gain (BNG) complements and works with the biodiversity mitigation hierarchy set out in NPPF paragraph 175a*. It does not override the protection for designated sites, protected or priority species and irreplaceable or priority habitats set out in the NPPF. Local planning authorities need to ensure that habitat improvement will be a genuine additional benefit, and go further than measures already required to implement a compensation strategy.*https://www.gov.uk/guidance/natural-environment

2.6 National Planning Policy Framework Para 175a states:

175. When determining planning applications, local planning authorities should apply the following principles: a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

2.7 Further to this National Planning Policy Framework Para 170 states:

170. Planning ***policies and decisions should contribute to and enhance the natural and local environment by****: a****) protecting and enhancing valued landscapes****, sites of biodiversity*** *or geological value and* ***soils*** *(in a manner commensurate with their* ***statutory status*** *or identified quality in the development plan);* ***b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services*** *– including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d)* ***minimising impacts on and providing net gains for biodiversity****, including by establishing coherent ecological networks that are more resilient to current and future pressures; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by,* ***unacceptable levels of soil****, air, water or noise pollution or* ***land instability****. Development should, wherever possible,* ***help to improve local environmental conditions*** *such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

2.8 Given that the Emerging Local Plan may be adopted fully and that recently (1/2/2021) the council has adopted Part 1 of the new Local Plan, the council should also fully demonstrate the following to assure compliance with the revised Env1 Policy

i) what consideration has been given to the choice of **alternative sites** that would cause less harm?

ii) that the benefits of the proposed development clearly outweigh the impacts on the features of the sites and the wider network of natural habitats (in terms of natural capital value); and

iii) sufficient baseline evidence has been collated in the form of surveys and historical data to ensure that recommended mitigation and compensation measures will fully mitigate and/or compensate for losses to justify that selection.

3 Site Designation and Ecological Value

3.1 The ecological value of the land at Middlewick Ranges is well-documented. It is a non-statutory designated Local Wildlife Site (LWS) reference CO122 Middlewick Ranges, Colchester. The site was designated in 1991 and has retained its wildlife value as overall favourable status for the last 30 years (Wildlife Trust monitoring reports). It was designated and is monitored by Essex Wildlife Trust and is in the ownership of the Ministry of Defence (MoD).

3.2 Despite its local designation, many Local Wildlife Sites across the UK meet the standards for designation at a higher level such as a Site of Special Scientific Interest (SSSI), but only a handful of sites may be designated to this higher level as Natural England only designate a limited number to act as a representative sample that meet the national criteria. **Any survey work should clearly demonstrate if the site does meet the criteria for designation as a SSSI or higher designation that that of LWS.**

3.3 Unlike SSSIs, **all** sites that meet the LWS criteria can be designated in full or as candidate LWSs. A LWS can act as a reservoir for vulnerable species which can re-colonise areas from which they have disappeared. LWS can also complement or buffer statutory nature conservation sites (SSSIs) and help to identify and protect stepping stone habitats along strategic wildlife corridors, such as rivers. This may be especially important in the context of climate change, where wildlife corridors may provide a means of dispersal for species at a time of environmental change.

3.4 The selection criteria for designation of Middlewick Ranges are based on habitat quality and quantity of HC11 – Other Neutral Grasslands and HC13 Heathland and Acid Grassland with sections of good quality Lowland Dry Acid Grassland present and the **nationally scarce** Lesser Calamint (*Clinopodium calaminta*) found in the western edge of the site.

The principal value of this site however is its invertebrate populations (SC18 Species of Principle Importance and SC19 – Important Invertebrate Assemblages). The main rifle butts at the south end of the site, along with smaller sandy banks to the north, provide significant nesting habitat for a range of insects, whilst the extensive grasslands surrounding them, including those areas kept closely mown over the active parts of the rifle range, provide the necessary additional foraging grounds.

The best-studied group of insects is the hymenoptera (bees, wasps and ants), within which **seven nationally threatened** (Red Data Book) and **eight Nationally Scarce** species recorded. The most significant species are the SPIE digger wasps *Cerceris quadricincta* (RDB1) and *Cerceris quinquefasciata* (RDB3), the latter's brood-parasite cuckoo-wasp *Hedychrum niemela*i (RDB3) and the Small Blue Carpenter-bee *Ceratina cyanea* (RDB3). Some of the short-mown sandy banks bordering the range roads support a large population of the RDB2 Bee-wolf (*Philanthus triangulum*).

3.5 The evidence provided is in the public domain and clearly demonstrates that the site is of local and national importance due to the presence of lowland acid grassland which has undergone a substantial decline and loss in the 20th century due to agricultural intensification, afforestation and development.

3.6 Many of the invertebrates that occur in acid grassland are specialist species which do not occur on other types of grassland. Middlewick Ranges supports open parched acid grassland on sandy soils which are the favoured habitat for a considerable number of ground-dwelling and burrowing invertebrates such as solitary bees and wasps

3.7 In terms of NPPF(2019) government guidance Paragraph: 012 Reference ID: 8-012-20190721 Revision date: 21 07 2019 states:

Locally designated 'Local Wildlife Sites' and 'Local Geological Sites' are areas of substantive nature conservation value and make an important contribution to ecological networks and nature's recovery. They can also provide wider benefits including public access (where agreed), climate mitigation and helping to tackle air pollution. They can be in rural, urban or coastal locations, can vary considerably in size, and may comprise a number of separate sites.

National planning policy expects plans to identify and map these sites, ***and to include policies that not only secure their protection from harm or loss but also help to enhance them and their connection to wider ecological networks****.*

3.8 CBC should demonstrate how their decision making to include Middlewick Ranges as a suitable site for housing complies with this government guidance as well as their own policy Env1 in CBC Adopted Local Plan 2001-2021 which remained the current point of reference. This states that, "The Council will safeguard the Borough's biodiversity… through the protection and enhancement of sites of international, national, regional and **local importance**." It also states that where new development within a 'rural location' is proposed, it should demonstrably "be in accord with national, regional and local policies for development within rural areas, including those for European and nationally designated areas; be appropriate in terms of its scale, siting, and design; **protect, conserve or enhance landscape** and townscape character, including maintaining settlement separation; **protect, conserve or enhance the interests of natural and historic asset**s; apply a sequential approach to land at risk of fluvial or coastal flooding in line with the guidance of PPS25; **protect habitats and species and conserve and enhance the biodiversity of the Borough**; and provide for any necessary mitigating or compensatory measures."

3.9 Similarly, the MoD, as a statutory authority should also demonstrate what measures have been taken to have full regard to biodiversity under Sec 40 of Natural Environment & Rural Communities Act (2006) to dispose of the site when found to be surplus to requirements in favour of development (as opposed to management as a National Nature Reserve for example) knowing that the land has been designated as a Local Wildlife Site (LWS) and supports nationally rare species;

4 Ecology Evidence-base for Middlewick Ranges

4.1 The MoD have provided CBC with a suite of documents to inform on the rationale to secure the site to deliver 1000+ homes and associated infrastructure. This section concentrates on the evaluation of the ecology report produced by Stantec;

4.2 The Stantec report is a detailed report which provides information on the site, the habitats present, types of species **likely** to be associated with those habitats. Details of the surveys undertaken to inform on the masterplan, the likely losses incurred and proposed mitigation and/or compensation on site. These are detailed in a series of Appendices. A bespoke metric to quantify how Biodiversity Net Gain (BNG) can be achieved is also contained in the appendices and is discussed separately in Section 5;

4.3 The report details the personnel who have carried out the surveys and assessments. It is accepted that the ecologists are suitably qualified and have the relevant licences where required. Additional specialist advice has been sought and provided by Dr Putwain on habitat creation and enhancement of acid grassland and heathland creation (Appendix M) and importance of invertebrate assemblages by a specialist entomologist;

4.4 One of the main purposes of undertaking the surveys and assessment of the site was to fully inform on the viability and suitability for its development, where to avoid areas of highest ecological value and whether it is possible to mitigate and/or compensate for the losses incurred to achieve an overall net gain in biodiversity;

4.5 A number of desk-top and field surveys have been undertaken over a period of time from 2017 – 2020 to inform on the ecological value of Middlewick Ranges which provide an extended period on which to assess the site. However, the methodologies differ in the depth of survey undertaken which range from desk-top or walk-over surveys to detailed studies (mainly of bats);

4.6 The report provides a level of detail on some aspects, there are other areas which need more detail to fully inform on whether the scheme is truly viable. CBC Local Plan policy Env1 states "*The Local Planning Authority will take a precautionary approach where* ***insufficient information*** *is provided about avoidance, mitigation and compensation measures and secure mitigation a and compensation through planning conditions/obligations where necessary*".

Whilst it is accepted that this is an open-ended statement to capture most eventualities, it remains unclear how CBC will fulfil their duty under Sec 40 of NERC Act (2006) to have full regard to biodiversity in their decision-making if they do not have a suite of surveys to fully inform on potential impacts and whether proposed mitigation and compensation is adequate to aid with their decision-making.

4.7 Home Office Circular 06/2005 Paragraph 99 has been retained for use to aid decisions and states that

99. It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, ***is established before the planning***

permission is granted, *otherwise all relevant material considerations may not have been addressed in making the decision****. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted.*** *However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted. In appropriate circumstances the permission may also impose a condition preventing the development from proceeding without the prior acquisition of a licence.*

4.8 The British Standards Biodiversity & Development BS 42020 Para 8.1 also states that decisions must be based on adequate information to assess impacts on biodiversity

4.9 The following section evaluates the surveys undertaken and considers whether they are of sufficient detail to inform on the viability of the site for development and therefore inclusion in the Local Plan

4.9.1 ***Habitat Assessment – Phase 1 and botanical survey: Adequate***

Surveys were undertaken in May 2017, June 2018 and March 2019. The May and June periods are during optimum survey seasons and the March survey was carried out to confirm the mapped status of habitats completed previously. The report details that the LWS status and Acid grassland are generally in good condition and are valuable at **County level**.

A desk-study evaluation of the methodology used, results and mapped areas is accepted, although it is not clear within the report if the **condition of each habitat** is accurately mapped and detailed on plans. This may have more relevance to achievement of biodiversity net gain discussed in Section 5.

4.9.2 ***Invertebrates – Inadequate***

The site is designated for its invertebrate assemblage considered to be of **County and potentially National value.** A walk-over survey was undertaken in June 2019 and was restricted to certain dates when the firing range was not in use. The dates coincided with poor weather (drizzle and cool conditions) which did not enable samples to be collected for later analysis or field observation (as most invertebrates would be in burrows, longer grass thatch etc for protection from rain and wind). The sites to the south of Birch Brook had also been cut and caused further difficulties in assessment of habitat value for invertebrates.

The report has had to rely mostly on a habitat based assessment, but concludes that the terrestrial invertebrate assemblage is of at least County level. The report concludes that the survey effort and findings may not reflect true population status and states: *Whilst such an invertebrate assemblage is suggestive of potentially* ***national level importance for terrestrial invertebrates****, it is unknown how representative the survey work has been in terms of*

taxonomic coverage, temporal spread (i.e. across all seasons, or focussed on specific periods) and geospatial coverage. This dataset (when considered in the absence of a habitat appraisal considering current habitat conditions) is indicative that the Invertebrate Survey Area could have a terrestrial invertebrate assemblage of elevated nature conservation interest, beyond the County Level for which Middlewick Ranges LWS is already designated.

It should be noted that at a National level this may be a key consideration in determining whether the loss of the site should be avoided and/or whether any mitigation and/or compensation measures proposed are adequate.

4.9.3 ***Dormice – Nut search: Inadequate***

A search of the woodlands for field signs for hazelnuts nibbled by dormouse is inadequate for purposes of identifying if this species is present/absent or to inform on appropriate mitigation;

4.9.4 ***Riparian Mammals – Search on Birch Brook for field signs of Otter: Adequate***

The survey was undertaken in September 2019 and found no evidence of Otter. Whilst these findings are accepted, evidence of presence of other riparian mammals is not adequately detailed. The watercourse was not considered suitable for Water voles (a UK and EU Protected Species), but photographs of the brook contained in the report seem to show that this may not be the case as the brook appears fairly narrow with grassed, earth banks in places. Water voles do use sub-optimal habitats and further survey work would be required to adequately confirm presence/absence of this species and mitigation required;

4.9.5 ***Breeding Birds – Habitat Assessment: Inadequate in part***

Section 4.4.18 – 4.4.23 and Appendix I provides details of the walk-over survey and habitat assessment carried out in January 2019. This is outside of the optimum time of year to undertake assessments and support any casual observations of likely usage, but the report acknowledges the presence of Nightingale with 19 territories alone present in the Allocation Boundary and breeding bird survey appraisal area. The site is also considered suitable for other ground nesting birds such as Skylark and generally for foraging and nesting. Presence of notably rare birds on the Red list of Birds of Conservation Concern includes Song thrush, Fieldfare, Barn owl and Grasshopper warbler.

The report states that the site is of at least **County level importance** for the breeding bird assemblage, including Nightingale, but that this is based on an assessment of habitat quality only and not based on a full breeding bird survey.

4.9.6 ***Bats – range of methods: Inadequate in part***

A range of methods and at various levels have been undertaken over a period of time to establish presence of Bats and types of species/population size, location and the types of Bat roost present . The methodology is more in depth for this species due to the likelihood of a licence from Natural England being required for disturbance and destruction of some roosts and to accompany a full planning application.

There is concern that the initial Bat activity survey was carried out in September to October 2018, a period outside of which Bats are more active (generally late April to end of August) and only two transect surveys were completed on two routes across the whole site which is unlikely to inform on bat usage due to limitations on timing and spatial studies. Towards the autumn, Bats will start to hibernate depending on weather conditions and food availability. In addition the report accepts that current best practice guidance of two survey visits per month (April to October) in appropriate weather conditions for bats in moderate/high habitat, but this survey effort was not followed and only one survey per month was required/carried out (and only during September and October).

These initial findings may therefore not be representative of the sites status for foraging and commuting;

A Bat Hibernation Survey was carried out in December 2018 –February 2019 and a further general Habitat Appraisal for Bat foraging and roosting was undertaken in January 2019 of the whole site.

A more detailed Bat Trapping and Tracking survey was completed in June, August and September 2019 and confirmed the presence of the rare Barbastrelle bat (and other Bat species) within the Birch Brook woodland.

Overall relatively rare species of bats (Barbastrelle and Nathusius') were recorded along with Brown long-eared, Natterer's and Daubenton. The woodland complex is considered of Regional importance to Barbastrelle bats and other sites of County value.

4.9.7 ***Reptiles: Inadequate***

No reptile surveys have been completed, but historical data and Habitat assessment confirm the likely use of the site by Adder, Grass Snake, Common lizard and Slow worm. Appendix J considers that the habitat is of high suitability within the site and Allocation boundary. The presence/absence of these species and to what level of population significance is required to fully establish their value at a local, country or regional level;

4.9.8 ***Amphibians: Inadequate***

No amphibian surveys have been carried out and the Phase 1 survey identified only one pond that held water within the Birch Brook woodland corridor and supported marginal vegetation considered suitable for Great Crested Newts (GCNs) as a breeding pond whilst two other ponds provided sub-optimal habitat due to them drying out. Terrestrial habitat both within the Allocation Boundary and Mitigation land was identified as suitable.

A Habitat Suitability Score (HSI) is normally undertaken on each pond to quantify the value to support GCNs. This does not appear to have been carried out. A further five ponds have been noted on the Phase 1 Habitat map on the Mitigation land but these do not appear to be described or assessed within the report. An assessment of the ponds is required and evaluation of their connectivity (there do not appear to be any major obstructions such as roads, fast-flowing rivers etc);

Although the presence of GCNs on site would be unlikely to stop any development per se, it would be necessary to agree a licensing approach and suitable mitigation prior to any planning approval;

No reference has been made to the presence of Common toad which is a Priority Species on Sec 41 of NERC Act (2006) due to is vulnerable status, and is likely to be present on the site;

Confirmation of the presence/absence of the Palmate newt should be provided as it is normally associated with slightly acidic ponds and terrestrial habitat that occur in this area and has previously been recorded in Colchester. This is a nationally rare species and may require separate mitigation measures.

4.10 ***Other Mammals***

No specific surveys have been carried out for mammal species, but undoubtedly the habitat described will be suitable for small mammals such as Moles, Shrews, Woodmice, Field voles and Bank voles which provide food source to larger prey already recorded such as Barn owl, Kestrel and Fox. Although not protected their presence is another indicator of the diversity of species present;

Badgers and their setts are protected and several outlier setts have been noted during the surveys as incidental records. The woodland, hedgerows and scrub areas within the site provide opportunities for Badger setts and adjacent habitats provide suitable foraging and commuting habitat.

Whilst the presence of Badgers and small setts would be unlikely to be considered as a key constraint, the locations of setts, their status and population size are required to determine the full constraints. Badgers are particularly highly mobile and adaptable species that can create setts with multiple holes and chambers to support large, well-established clans. These details would need to be established and a clear Badger strategy developed to ensure their setts and foraging/commuting routes would not be compromised should the decision to proceed with Site allocation be accepted. See Section 6 on Mitigation and Compensation.

4.11 ***Summary***

A suite of habitat/botanical and species surveys have been carried out over a 3 year period by suitably qualified ecologists and specialists to more fully inform on the actual and/or potential constraints to development and areas suitable for development and retention of natural green space;

There is some concern at the general level of survey effort and the timing of surveys outside of optimal season. Whilst it is unlikely that this level of evidence would be accepted for a full planning application (as is pointed out repeatedly within the Stantec report), there is concern that a major decision on whether to allocate this land at all for development based on this evidence is acceptable.

5 Biodiversity Net Gain

5.1 Biodiversity Net Gain (BNG) is a requirement under National Planning Policy Framework Para 175 which requires developers to ensure habitats for wildlife are enhanced and left in a measurably better state than they were pre-development. Following the Mitigation hierarchy (as detailed in Section 2) clear evidence must be shown of how the applicant has avoided those areas of highest ecology value, mitigated on site and only as a last resort compensated off-site to achieve an overall net gain in biodiversity. These principles are considered a necessity in demonstrating that this development would be sustainable by achieving an overall BNG to allow the site to be allocated in the Local Plan.

An assessment must be undertaken to fully quantify and transparently show how a net gain can be achieved. This is done using a biodiversity metric, to show the type of habitat and habitat condition within the site before any development; and then demonstrate how the development is improving biodiversity, such as through the creation of new habitats, or the enhancement of existing habitats.

Biodiversity improvements on-site are preferable, but where this is not possible, habitat creation or enhancements can be provided off-site if agreed by the Local Planning Authority. The metric in this situation (i.e. for Middlewick Ranges allocation) seeks to provide an indication that a net gain for biodiversity is achievable using the Mitigation Land, and with the defined developable footprint.

5.2 The Environment Bill (likely to become statute in 2021) states a 10% net gain in biodiversity will be mandatory. Until then, most Local authorities can decide what level of gain is acceptable.

5.3 Stantec have tried to demonstrate within their report the processes they have taken to comply with the Mitigation hierarchy to Avoid, Mitigate and Compensate – and by doing so, achieve the overall BNG. Appendix N provides a detailed analysis of the calculation and assessment which are summarised and evaluated below:

Avoidance – the survey work carried out has been used to determine the layout of development on the site. The ecology report details ecological assessment of the Allocation site and Mitigation Site and no other assessment is included at a wider level (it is not clear if this has been done at a Strategic level across the local authority areas as part of the Local Plan evidence base – see Section 1)

The Masterplan show development is concentrated in the northern part of the Allocation Site where the ecological value is considered of lower value and that the areas of higher ecological value have been avoided. For this premise to be accepted the level of detail available in the ecology reports should be fully considered in terms of survey effort and timings to ensure best practice and guidance was complied with to fully inform (see Section 4);

Mitigation – some mitigation for loss of habitat has been included in the developable area with the principle of green routes, buffers to existing development and connectivity to the Mitigation land identified. Those landscaped areas within the development area will provide

some biodiversity value within any new development but will be calculated against the natural habitats lost and would therefore result in a loss of biodiversity if no other mitigation or compensation were put in place.

Further mitigation has been identified on land within Middlewick Ranges which is shown as retained. This is an area of mainly acid grassland and other scrub/woodland habitat. Measures to enhance the ecological value have been recommended to increase its biodiversity value and add to the metric. Note that the percentage gain in biodiversity value of this area is relatively low due to the site and habitats already being of high conservation value and largely favourable status informed by the ecology surveys;

Compensation/Mitigation – Due to the comparatively high value of land to be lost to development and the high value of land to be retained, Stantec identified a further need to create more habitats off-site and in comparatively low ecological areas in order to maximise the percentage increase. The Mitigation land is comprised largely of intensive agricultural (arable) fields which have been improved through nitrification and which are of comparatively low ecological value (and from an ecological point of view more suitable for development not withstanding other constraints);

5.4 The main habitat-type to be lost from the proposals is acid grassland and Appendix M details the proposed methodology to allow new areas of acid grassland to be created on the agricultural fields. This methodology includes the application of sulphur to increase acidity levels, careful translocation of turf from the northern section of Middlewick Ranges and spreading of green hay from the retained acid grassland onto the new site (see Section 6).

5.5 These complex processes are contained in the Acid Grassland Management Strategy produced by Stantec and supported by Dr Putwain in a letter dated 29th September 2020 documented in Appendix M which considers the creation of acid grassland in the Mitigation Land at Middlewick. Dr Putwain provides details of his experience as an academic, researcher and practitioner in applying his evaluation of whether the proposed methodology will succeed and concludes the letter by stating, "*the acid grassland restoration strategy proposed by Stantec has a very high probability of successfully creating a functioning acid grassland ecosystem that will have very close similarity with the existing reference acid grassland occurring within the Allocation Boundary. This can be achieved within 10 years and possibly within 5-7 years*".

5.6 The issue of ease/difficulty in creating a priority habitat such as acid grassland is also of concern. Dr Putwain has confidence in this being achievable in a comparatively short period of time compared to Defra, Natural England and a host of other specialists who devised the Defra metric. The Biodiversity Metric 2.0 states that acid grassland creation is 'highly' difficult to create, and will take 25 – 30 years to create either a fairly good or good condition respectively (with moderate condition grassland taking 20 years and fairly poor condition grassland taking 15 years). Due to this incompatibility with their assessment in 5.5, Stantec devised a bespoke metric to place lesser weighting on the type of habitat to be lost. Put simply, the harder the habitat is to recreate, the higher the score and therefore more compensation/mitigation required.

5.7 The addition of a large area of acid grassland on a land that is of low ecological value will support a higher percentage of biodiversity gain and with the three elements of avoidance, mitigation and compensation in place, Stantec have calculated that 9-16% BNG could be achieved based on the proposed layouts, habitats to be created or enhanced and length of time to achieve optimum ecological value.

5.7 To calculate the BNG Stantec have used four options for layouts and habitat creation and a bespoke metric based on the Defra metric to calculate the net gain. The calculation is contained in a series of tables within the report. The Defra metric uses Excel software which can be interrogated to determine changes in size, types, condition and connectivity of habitats to calculate biodiversity values pre and post development. The metric used by Stantec is complex and such interrogation is not possible in the report format and lies beyond the remit of this report. However, Stantec do acknowledge that there may be a series of measures required and the exact requirements will be dependent on further surveys to inform on future planning applications. There is concern that proposed compensation areas may have influenced the size and scale of the developable area, but due to the lack of evidence still outstanding, there could be an issue in whether the Masterplan is actually a true reflection of how much land could be developed at all and therefore whether this site is a viable option given the costs of mitigation and compensation alone to achieve BNG.

5.8 Long-term management of mitigation and compensation areas is also a requirement of any overall scheme to achieve BNG. The Defra metric gives higher scores and longer periods for habitats that are difficult to establish or for those such as woodland that will take time to mature and achieve optimum biodiversity value. The Environment Bill stipulates a minimum period of 30 years to allow for maximum biodiversity value to be achieved and that the person(s) responsible for undertaking that management will be identified and a management plan agreed as part of any planning approval. This aspect of the after-care and long-term management is briefly referred to in the report and there is concern that full consideration of the long-term care and management of these new areas and associated costs of establishment have not been fully recognised. Although the MoD have confirmed in writing (letter dated 14th October 2020 Appendix O) that they are content the proposed “post development habitats” align with anticipated training needs, this does not confirm who will be responsible for creation, management and maintenance of this and areas within the Mitigation land.

6 Species and Habitat Mitigation

6.1 Whilst the Stantec report has used a bespoke metric to quantify if gains or losses are possible from the proposed development of Middlewick Ranges, neither the metric used or the Defra metric take the presence of protected/priority species or more common species of animals into account when calculating its biodiversity value.

6.2 The presence of species at a National, Regional, County and Local level have been recorded at this site and acknowledged as part of a desk-top study or by surveys already completed. Stantec readily identify that more surveys are necessary to fully inform. However, the surveys and desk-top studies already undertaken confirm the presence of important invertebrate assemblages, reptiles and amphibians, small and large mammals, birds and bats. All species are reliant on the terrestrial habitats which support the range of plants on soil substrate;

6.3 One of the main factors in delivering biodiversity gain at this site is the translocation of the acid grassland. Much emphasis has been placed on the methodology to do so and the support of plants from various sources to help this succeed. Little/no consideration has been given to the displacement of associated species groups which readily rely on these habitats – particularly the associated soils biota, invertebrates, reptiles and mammals along with the impacts and loss of foraging and commuting areas as one habitat is displaced to create another. The impacts on associated fauna from translocation should be fully considered in any viability study to determine the use of this site for development along with the need to mitigate, monitor and manage sites in the long-term;

6.4 The Joint Nature Conservancy Council (JNCC) publication A Habitats Translocation Policy (2003) should be read fully in this context https://sblpublicinquiry.files.wordpress.com/2014/01/5-21-a-habitats-translocation-policy-for-britain-2003.pdf

Section 5 of this is particular relevant and is inserted below:

5. Key conservation issues in relation to habitats translocations

5.1 Habitats translocations have been proposed as offering a solution when an area recognised as of importance for wildlife is threatened by development*. From the point of view of a developer, habitats translocation is an attractive solution because it can be cheaper and more convenient to move the habitat than to proceed with the development elsewhere. Thus transport, housing and industrial development interests are greatly affected by policies and practices concerning habitats translocation. The response by conservationists to habitats translocation is most strongly negative for those sites which are of high conservation interest (internationally important or of SSSI quality) for their habitats and species. Even for sites of more local interest, opposition to habitats translocation is strong from conservationists because of the poor track record of sustaining the original quality of translocated habitats, coupled with their dislocation from their ecological and historical context. This has resulted in strongly opposing views on the merits and role of habitats translocation, between conservationists on one side and developers on the other.*

***5.2 Proposals for translocating habitats have increased recently in Britain**, typically as part of development proposals affecting sites of known or potential importance for wildlife. In these circumstances, habitats translocation has been portrayed as a means of mitigating (in the sense of seeking to reduce the impact) damaging developments, by moving the conservation interest affected to a new "safe" location. However, experience shows that habitats translocation is, at best, merely a means of achieving partial compensation (in the sense of seeking to make amends for the impact) for development. The available evidence (as reviewed by Bullock et al. (1997)) indicates that habitats translocations have not been successful in maintaining the characteristic biodiversity of the assemblage that is moved, and so the practice is regarded as damaging by statutory and voluntary conservation organisations and many academic researchers. This was the clear view that emerged from discussions at the June 1997 Joint Committee meeting and from subsequent meetings of the Inter-agency Translocations Working Group. Bullock et al. (1997) summarise much of the factual background to habitats translocations in Britain, while Jefferson et al. (1999) review in detail the experience relating to translocation within a grassland site in Devon (Brocks Farm). There are circumstances where translocations of individual species may require the associated movement of other species and associated substrate material, but the scale of habitats translocation will typically be much larger in terms of the range of species and amount of substrate to be moved.*

***5.3 Habitats translocation has also been suggested as a tool to assist the restoration of degraded habitats**. The rationale here is that moving samples of habitats from areas rich in biodiversity to places where biodiversity has been lost through development, intensive land management or pollution, will help to accelerate re-colonisation by assemblages of typical species. The problems with this approach are twofold: first, there will be damage to the donor site, and second, the process of translocation will result in changes to the assemblage of species moved, so that the original interest will not persist unchanged in its new location. Therefore, habitats translocation for restoration projects should only be carried out after a thorough prior assessment of the likely losses and gains involved. Nevertheless, there are situations where the restrained and selective use of habitats translocation may help to restore degraded habitats, at least partly by resulting in the establishment of additional species characteristic of the habitat concerned. This is particularly the case for early successional stage habitats, which depend upon intensive management or disturbance to retain their biological interest. Heathland restoration has been investigated widely, including the use of experimental trials of alternative techniques (for and earlier review of this topic see the handbook by the Environmental Advisory Unit, 1988). In most situations, however, relying on a combination of natural colonisation, initiation of appropriate management regimes and judicious species translocation (as a tool for the re-establishment of characteristic species where there is evidence that they will not return soon), will be the best restoration strategy. Where species translocation is employed it should comply with the guidance given by JNCC (2003).*

7 Conclusion and Recommendations

7.1 The key concerns are

i) Have CBC demonstrated a sequential process and evidenced use of the Mitigation hierarchy in their decision to select Middlewick Ranges as a suitable site for development and in doing so, can demonstrate that land of less ecological value has been rejected as not suitable and supported by an objective rationale;

ii) Has CBC demonstrated the necessity to achieve their housing allocation target is dependent on the land at Middlewick Ranges being developed to enable 1000+ houses to be constructed and that no other suitable sites of lesser ecological value are available in the surrounding districts of Colchester, Braintree and Tendring;

7.2 i) Has CBC demonstrated that they have sufficient information from ecology surveys completed to inform on the proposed masterplan and delivery of sustainable development that is fully viable without later compromising on the ability to achieve BNG

ii) Has CBC demonstrated that the necessity of such development to deliver the housing targets outweighs the ecological and natural capital assets associated with this site;

7.3 Not with-standing that CBC and other local authorities are under intense pressure to deliver these targets and are required to assess ecological importance against many other constraints to reach their decision and achieve a planning balance, it should be noted that there are a number of concerns that have been identified within the ecology report and evidence base of CBC that require clarification to determine if this site is suitable for allocation.

7.4 If the site is of great value to local communities and naturalists there may be options to either save the site completely from development or to greatly reduce the footprint of development if that is an approach that is wished to be taken. The below are put forward as possible options and examples based on successes on other sites across the UK

i) Use social media and other mechanisms as part of a “Save Middlewick Ranges” type campaign backed by the Wildlife Trust, Campaign for Rural England, Friends of the Earth, Buglife, Plant Life etc and if possible, associated local conservation celebrities to get public support to save the site from development;

ii) Localised recording groups could record species on iRecord or similar recording systems available in the public domain to openly show and publicise the importance of this local area of wildlife and people;

iii) Work with the MoD, Natural England and other statutory authorities partnered by organisations and led by the Wildlife Trust or similar independent organisation to have the site designated as, for example a National Nature Reserve and managed by Natural England;

iv) A Crowd-funding programme and/or local benefactors and sponsorship may assist in funds to support the above and secure future management of the site on its release by the MoD