Middlewick Biodiversity Statement

This statement addresses:

Main Matter 6 – South Colchester (Policies SC1 to SC3), particularly on Middlewick Ranges (SC2): Are the policies and site allocations for South Colchester justified by appropriate available evidence, having regard to national guidance, and local context, including the meeting the requirements of the CLP 1?

The statement is being submitted on behalf of the Save the Middlewick Ranges campaign group.

Colchester Borough Council's objectives and policies are detailed in the Sustainability Appraisal and the Emerging Local Plan. The building of 1,000 homes on Middlewick Ranges appears to be in direct opposition to several policy objectives mentioned in the Sustainability Appraisal:

- '**Protect and enhance landscapes, biodiversity, green spaces, air and water quality** …'
- '**Protect and enhance designated sites, geodiversity and soils**.'[1]

Policy ENV1 in the Emerging Local Plan states that: 'The Local Planning Authority will **safeguard the Borough's biodiversity**, geology, history and archaeology, which help define the landscape character of the Borough, through the **protection and enhancement of sites of international, national, regional and local importance**.'

The allocation of Middlewick for housing is in contradiction to several of these objectives and policies. Middlewick Ranges is **one of the prime designated Local Wildlife Sites** in Colchester (CO122). Lowland dry acid grassland, which is the dominant habitat at Middlewick Ranges, is one of the **habitats protected** under the UK Biodiversity Action Plan.[2] There are also fragments of Lowland Heathland, another protected habitat under the UKBAP. The Local Wildlife site assessment lists numerous threatened and protect species; the site is particularly significant for its **invertebrate** population, with seven nationally threatened (Red Data Book) and eight Nationally Scarce species mentioned in the Local Wildlife Site report. The area is also home to many birds, including protected species such as **Skylarks**, which are on the Red List of Species and protected under the Wildlife and Countryside Act of 1981, as well as being an Essex Biodiversity Action Plan species. Skylarks are known to nest on grassland across the Wick, as well as in the fields south of Birch Brook. Another protected species are **nightingales** who nest in the nearby woodland, particularly Birch Brook Local Wildlife Site which is directly adjacent to Middlewick Ranges. The Stantec reports remarks that the area is of at least 'county level' of importance for breeding birds. The area is also home to at least five species of **bats**, including rare species Barbastrelle and Nathusius' (see Stantec Report), and Pipistrelle Bats, another Essex Biodiversity Action plan species. A **reptile** survey carried out by the Save the Middlewick Ranges group revealed the presence of 'exceptional' populations of common lizard and 'good' population of slow worm across the area, as well as grass snakes close to the site margins and to gardens in neighbouring residential areas. All these are considered species of Principal Importance.[3] Middlewick easily meets the criteria of 'Key Reptile Site' under the

[1]Sustainability Appraisal, p. 51.
[2]https://www.essexfieldclub.org.uk/portal/p/UKBAP+Habitats

[3]https://en.wikipedia.org/wiki/List_of_species_and_habitats_of_principal_importance_in_England

Froglife/CIEEM guidance.[4] The site also presents a suitable habitat for small mammals which provide an important food source for predators such as barn owls, kestrels and other birds of prey which and often found flying across the Wick.[5]

The Ecology Report commissioned by the Save the Middlewick Ranges campaign group (Midland Ecology Survey; submitted as an Appendix) found **several shortcomings with the evidence provided by the DIO** (the Stantec report that forms part of the Evidence Base for the Local Plan):

- 4.9.1 Habitat Assessment – Phase 1 and botanical survey: Adequate; however, the report notes that 'it is not clear within the report if the condition of each habitat is accurately mapped and detailed on plans', which is relevant for 'biodiversity net gain' calculations.
- 4.9.2 Invertebrates – Inadequate; this is in spite of the fact that the site is 'designated for its invertebrate assemblage considered to be of County and potentially National value'. '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.
- 4.9.4 Riparian Mammals: Search on Birch Brook for field signs of Otter: Adequate. However: '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'. Water Voles can be found further downstream at Rowhedge; my house backs onto Birch Brook and I have seen them in my garden.
- 4.9.5 Breeding Birds – Habitat Assessment: Inadequate in part
- 4.9.6 Bats – range of methods: Inadequate in part
- 4.9.7 Reptiles: Inadequate. 'No reptile surveys have been completed … 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
- 4.10 Other Mammals. No surveys were carried out for small mammals Moles, Shrews, Woodmice, Field voles and Bank voles, another indicator of biodiversity.

Midland Ecology concludes about the quality of the surveys carried out by Stantec: 'There is some concern at the general level of survey effort and the timing of surveys outside of optimal season. … **there is concern that a major decision on whether to allocate this land at all for development based on this evidence is acceptable.'**

[4]Ecological Assessments: Local Wildlife Site Co. 122: Middlewick Ranges, Colchester, Essex. Reptile Surveys: 2019-2020. August 2020. Produced by: Save the Middlewick Ranges Group. Colchester Essex. (Appendix)
[5]Midland Ecology, Middlewick Ranges. Ecological Evaluation Report, February 2021. (Appendix)

The sustainability of the assignment of Middlewick Ranges for housing rests on the claim that 'biodiversity net gain' can be achieved. However, this is a highly dubious claim for a number of reasons:

(1) **Skylarks** have been found nesting across Middlewick Ranges as well as on the fields south of Birch Brook. Building on the grassland to the north will lead to a definite loss in habitat for this bird. Any mitigation measures that have been proposed will not compensate for this, as skylarks are already present in the fields to the south of Birch Brook. The net loss of skylark habitat will inevitably lead to a net loss in the number of birds, which cannot be mitigated by 'improving' any adjacent land.

(2) Building 1,000 homes on Middlewick will lead to an estimated increase in the **cat population** by 289 (calculation based on the 17% of households owning cats, with each cat owning households owning on average 1.7 cats). 'Predation of ground nesting birds by cats' is mentioned as a major problem in Colchester Borough Council's Habitat Regulation Assessment.[6] This document quotes the figure of 0.5km distance as the typical range of influence for domestic cats. Domestic cats constitute another significant risk factor to the ground nesting skylark population in the grassland close to the new housing development, as well as to the other birds, including protect species such as nightingales, and to reptiles.

(3) 1,000 homes will also mean around **extra 2,400 people** (based on the average household size of 2.4) and an **extra 350 dogs** (calculation based on 25% of households owning dogs and each dog owning household owning an average of 1.4 dogs). These will put additional pressure on a reduced area of open green space. It will threaten the extremely sensitive sandy area on and behind the butts where rare lichens have been found. **Dog fouling** is already a major problem in that part of Middlewick Ranges.

(4) **Fly tipping and vandalism** are additional problems that can lead to the deterioration of habitat and endanger wildlife. The Habitat Assessment, which forms part of the evidence base for the Local Plan, notes that any development within 400m will have negative impact on wildlife sites in these respects (based on figures from Natural England). Already, there are fly tipping areas at the edges of the woodland of Middlewick and Birch Brook near the current housing estates to the East and West. It is to be expected that housing development on Middlewick will lead to a serious deterioration of adjacent Birch Brook Local Wildlife Site.

(5) **Increased noise and air pollution** also have a negative impact on wildlife. The construction of 1,000 homes and additional infrastructure is expected to take many years during which time there is a significant increase in noise and disruption from the construction process. This may disturb nesting birds including nightingales. The impact of increased noise and air pollution on wildlife from the extra roads and additional 1,400 cars should also be taken into account.[7]

(6) **Light pollution** from an additional 1,000 houses is a further concern: "Light pollution has an overall negative impact on wildlife because it disturbs the way animals and plants perceive daytime and night-time and thus upsets their natural behaviour. … Light pollution also affects entire habitats, with many animals either not using suitable habitats because they are lit up,

[6]Colchester Borough Council, Habitat Regulations Assessment Report, Spatial Policy Team, June 2017, p. 8.

[7]http://www.air-quality.org.uk/17.php

or species on roadsides being temporarily blinded and often killed by lights from cars for example. Research has also demonstrated that the whole predator/prey balance was disturbed by night light…" [8]

(7) Further concerns are raised by the proven record of **developers' destructiveness** towards habitats and wildlife. Quite often developers will destroy hedgerows, trees or grassland next to or within development sites, even those areas that are earmarked for preservation. This is what recently happened at Salary Brook nature reserve in Colchester, where a protected hedgerow was destroyed in the course of carrying out flood mitigation works next to a new student accommodation development. Colchester Borough Council lacks either the power, the political will or the expertise to prevent these acts of destruction from happening.[9]

(8) **Habitats lost to development cannot simply be recreated** in another place such as the proposed mitigation site. The specificity of habitats depends on many factors including soil type, ground water levels and micro climate. The proposed mitigation sites to the south of Birch Brook woods are currently used as arable farmland and are of far lesser biodiversity value than the grassland that is set to be destroyed. The prospect of recreating acid grassland on the arable fields south of Birch Brook within 5-7 years, as claimed by the DIO commissioned documents, is disputable. Some researchers find that recreating acid grassland is very complicated, make take much longer (one or two decades), and may not always succeed (see Midland Ecology report in the Appendix).

(9) Members of Save the Middlewick Ranges group, who have intimate knowledge of the site, found the grassland to the north (which is proposed for housing) to be of greater biodiversity value than the grassland further to the south near Birch Brook (which is to be spared). The **grassland to the north west**, which is semi-natural neutral grassland, is deemed by the DIO to be of little value at all. However, this is not the case. This part of Middlewick Ranges forms an important part of the interconnected ecosystems of the site. It is relatively rich in **wild flowers which provide an important food source for pollinating insects**, which inhabit the nearby hedgerows as well as the sandy areas on and next to the butts. As habitats form networks within a wider ecosystem, the loss of this grassland will directly impact surrounding wildlife and habitats. The decline in the population of pollinating insects is a major threat to biodiversity and to the survival of ecosystems and life on the planet itself. According to one recent report, 'Of 62 butterfly species, 19 (31%) are threatened and four have gone extinct in GB'.[10] The hedgerows, verges and grassland are populated by large numbers of different butterfly species, including some rare heathland specialists such as Green Hairstreak. Insects are at the bottom of the food chain; they are **an important source of food for birds, bats and other animals** that live in the nearby woods and hedgerows; hence **the loss of grassland will have a negative impact on the populations of the biodiversity of adjoining habitats**.

(10) Building houses on Middlewick Ranges will lead to **a fragmentation of habitat**. Isolated patches of habitats (such as the pieces of hedgerow that are allowed to remain) support fewer species and are less resilient to changes, for example those arising from global warming. In order to cope with climate change, wildlife needs corridors to move freely between different areas: "If wildlife can't move in response to temperature rises, then it's

[8] https://www.friendsofthelakedistrict.org.uk/news/guest-blog-how-light-pollution-impacts-wildlife

[9] See Appendix. Why Colchester Borough Council cannot be trusted on wildlife matters.

[10] https://researchbriefings.files.parliament.uk/documents/POST-PN-0619/POST-PN-0619.pdf

doomed to extinction."[11] **Middlewick Ranges Local Wildlife Site forms an important part of a wider network of interdependent habitats that stretches for many miles** which form the Borough's **green infrastructure**. Directly to the south is Birch Brook Wood Local Wildlife Site, followed by fields which adjoin to Donyland Woods and Friday woods (both part of Roman River Valley SSSI). To the east, along the river Colne, is Hythe Lagoons and Rowhedge marshes and the Colne Estuary area, which is a site of international importance. Some species such as birds of prey rely on large areas and destroying one part of the network of habitats it may have a knock-on effect on other parts of it. To the south west of Middlewick Ranges, within very near distance is Colchester Cemetery, also a designated Local Wildlife Site[12], another important green space which has large number of mature trees as well as some acid grassland. The housing development on Middlewick Ranges would drive a wedge between these two wildlife sites; this may negatively impact on the wildlife living on the cemetery, that may use the grassland of Middlewick as feeding ground. The loss of the green corridor between these two wildlife sites would also cut a wedge between the wider network of interconnected sites. Only separated by Mersea Road, Colchester Cemetery connects to Bourne Valley Local Wildlife Site, and so forth. The point I am making here is that Middlewick Ranges forms part of a large and interconnected network of natural green spaces of various character that ranges as far as the Colne Estuary and Roman River valley on the one hand and right across Colchester on the other side. The loss of substantial parts of Middlewick would create a gap in this large green corridor and thus definitely lead to a fragmentation of habitats.

I contend that a plan which includes an allocation at Middlewick Ranges cannot be found sound because the process by which the site was assessed and identified as suitable does not meet the four soundness tests set out in paragraph 182 of the NPPF. The Local Plan is not consistent with national policy, not based on proportionate evidence and not effective or positively prepared. The policies in the paragraphs below have not been followed:

- 7. Planning should follow the principle of sustainable development, one dimension of which being environmental: "contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity";
- 9. Biodiversity should be improved by "moving from a net loss of bio-diversity to achieving net gains for nature"
- 17. "Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this Framework"
- 113. "LPAs should set criteria-based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged"

[11]https://www.theguardian.com/environment/2021/mar/21/pioneering-rewilding-project-faces-catastrophe-from-plan-for-new-houses?fbclid=IwAR1PXIayi7Giqzh47DQCbETmSp4m6JLn6Oi_4JlHQBRm2s7PmZKfdPCnS10

[12]Colchester Cemetery, LoW C113.
https://cbccrmdata.blob.core.windows.net/noteattachment/Colchester%20Local%20Wildlife%20Sites%202015%20Part%203.pdf

- 114. “LPAs should set out a strategic approach in Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure”
- 117. “To minimize impacts on biodiversity, local policies should: Plan for biodiversity; Identify and map components of local ecological networks; promote preservation, restoration, re-creation of priority habitats, ecological networks, protection and recovery of priority species populations”,
- 157. “A LP should identify land where development would be inappropriate”
- 158. “Adequate, up-to-date evidence base”

An NPPF compliant local plan process would not have resulted in the allocation of Middlewick Ranges for housing because it would have picked up on the following reasons against allocation and concluded that development is inappropriate:

1. It is a designated **Local Wildlife Site and Priority Habitat**, with European protected species;
2. The site is one of the last significant remaining pieces of **undisturbed lowland dry acid grassland/heath**, formerly widespread across the region.

Evidence

The **Wildlife site review** in 2015 is unsound because it is out-of-date, the timing was not optimal and only limited time was available. Chartered Institute of Ecology and Environmental Management (CIEEM) guidance states: *“It is important that planning decisions are based on up-to-date ecological reports and survey data.”* And that after three years “*the report is unlikely to still be valid and most, if not all, of the surveys are likely to be need to be updated*.”[13]

The **Sustainability Appraisal** is not fit for purpose; it does not take into account Middlewick’s designation as Local Wildlife site and a greenfield site.

Section 2 of the Local Plan is vague on green infrastructure selection – how was this done? What were the criteria? Under ‘Monitoring’, Section 2 says “Zero percent loss of Local Wildlife Sites; ancient woodland; and priority habitats and species” is the goal. Where does CBC take account of Ranges species? The inclusion of Middlewick has not been justified.

The **surveying carried out on behalf of the MOD** in the years since the site was allocated is inadequate. There is insufficient evidence to support the soundness of the development of the site or the allocation of specific areas within the masterplan, nor does it support the claim that ‘biodiversity net gain’ can be achieved.

[13]Residents call for ‘transparency and honesty’ over documents for Knowls Lane plans amendment – Saddleworth Independent (saddind.co.uk)

Ecological Assessments:

Local Wildlife Site Co.122: Middlewick Ranges, Colchester Essex.

REPTILE SURVEYS: 2019 – 2020.

10 August 2020

Produced for and on behalf of:

Save the Middlewick Ranges Group. Colchester Essex.

CONTENTS

1. INTRODUCTION.

1.1 Surveys to determine presence or likely absence, and distribution of reptile species within the Middlewick Ranges were undertaken in response to the proposed development of this site, as set out in the DIO Middlewick Consultation (2019) draft housing allocation public document.

1.2 Surveys were carried out in accordance with standard methodologies outlined in the Herpetofauna Workers Manual (Gent & Gibson 2003):

- Walk-over surveys recording reptiles observed on existing basking and refuge habitat (for example to fence-posts, debris, tussocks and open vegetation).
- Survey aided by artificial basking and refuge habitats. These included pads of vegetation, logs, litter and debris found within the site.

1.3 Observations were confined to public footpaths and areas with de facto public access. Site visits followed MoD guidelines relating to 'firing days', and access restrictions were strictly observed.

1.4 A minimum of 10 survey visits were completed during autumn – winter 2019, and 6 visits during spring- summer 2020, although it should be noted that surveys are ongoing at date of report and further records may become available.

1.5 This report details findings at time of survey, and outlines potential impacts arising from proposed development; it may be freely used to inform planning applications affecting the site.

2. Data search

2.1 A data search requested by Save the Middlewick Group was compiled by Essex Wildlife Trust Biological Records Centre (EWTBRC) and Essex Recorders Partnership (ERP) in August 2019. This identified common lizard *(Zootoca vivipara*), slow worm (*Anguis fragilis*), and grass snake (*Natrix natrix*) as previously recorded within the Middlewick Ranges site.

2.2 In addition, adder (Vipera berus) is recorded within 3km to the south-east of Middlewick, at Fingringhoe Wick nature reserve.

2.3 To fully evaluate this sites biodiversity, all applications associated with development (or other significant land-use change) should contain an up-dated records search, that includes data held by (EWTBRC), (ERP), Essex Amphibian and Reptile Group (EARG), and other local wildlife interest groups relevant to site conditions.

3. Legislation and Policy

3.1 The Wildlife and Countryside Act 1981 (as amended) provides protection against killing, injury and trade for widespread reptile species: common lizard, slow worm, grass snake and adder.

3.2 The Natural Environment and Rural Communities Act 2006 places a duty on public authorities to have due regard for the conservation of biodiversity. Section 41 of this act lists species of principle importance for the purpose of conserving biodiversity ('UK Priority Species', formerly 'UKBAP priority species'). (JNCC 2007). Common lizard, slow worm, grass snake, adder and common toad (also found on site) are UK Priority Species.

3.3 The National Planning Policy Framework sets out the government's policies for the protection and enhancement of biodiversity through the planning system. It encourages the planning system to contribute to and enhance natural and local environments, minimise impacts on biodiversity and provide net gains in biodiversity where possible.

3.4 Local planning authorities are required to follow key principles in their consideration of potential impacts of planning decisions on biodiversity conservation. Circular 06/05: Biodiversity and Geological Conservation provides administrative guidance on the application of the law relating to planning and nature conservation and complements the National Planning Policy Framework.

3.5 The presence of species protected under UK and European legislation are a material consideration when a planning authority is considering a development proposal that, if carried out, is likely to result in harm to the species or its habitat. Ecological assessments are therefore necessary to provide local planning authorities with the information they require in order to fully consider the potential ecological impacts of a planning application.

3.6 Biodiversity 2020: A strategy for England's wildlife and ecosystem services provides national and local biodiversity strategies for England, based on the habitats and species listed under the Natural Environment and Rural Communities Act 2006. Local biodiversity action plans give valuable information on local conservation priorities. The Essex Biodiversity Action Plan is the local biodiversity action plan relevant to this site.

4. Findings and Conclusions

See: Appendix 1: LOCATION MAP - Reptile Survey Middlewick 2019-20
Appendix 2: FINDINGS - Reptile Survey Middlewick 2019-20

4.1. Surveys recorded an 'exceptional' population of common lizard, and 'good' population of slow-worm as defined in Frog*life* Advice Sheet 10 (*see 4.4 below.)*
These species are widely distributed throughout the site and were found in all areas surveyed. It may reasonably be concluded therefore that they will be present in all suitable habitat areas within the site with reasonable connectivity to the survey areas.

4.2. Grass snake were recorded in low numbers, close to the site margins and to gardens of adjoining residential areas to the west (Speedwell Road area), and to the east (Cairns Road area). Grass snake typically live in smaller, more widespread populations than lizard species, and the dry habitat conditions that dominate the central part of the site appear sub-optimal, so less frequent records for this species were to be expected.

4.3. Adder was not found during site survey (to date) and there are no recent records of its presence here. However, a local population is recorded at Fingringhoe Wick, approximately 3km south-east of Middlewick.
Given that habitat conditions over large parts of Middlewick appear optimal for adders, and there does not appear to be any significant barriers to dispersal between these 2 sites, it is highly possible that adder is present within Middlewick.

4.4. Good Practice Guidance

Froglife Advice Sheet 10: Reptile Survey (Froglife 1999) is the basis of the Chartered Institute of Ecology and Environmental Management (CIEEM) document: *Good Practice Guidance for Amphibians and Reptiles* to evaluate reptile presence within a site. It provides an introduction to undertaking and interpreting surveys for snake and lizard conservation, and is used to obtain a basic evaluation of the size and importance of reptile sites.

4.5 Key Reptile Site designation

Under the above Froglife and CIEEM guidance, a 'Key Reptile Site' is determined if it meets **one** of a series of criteria based on the abundance and diversity of the reptile species present.
This survey finds Middlewick Ranges meets **three** of the required criteria and achieves 'Key Reptile Site' designation with ease in accordance with the following:

(1) Supports 3 or more reptile species:- *common lizard, slow worm & grass snake.*

(2) Supports an exceptional number of one species i.e. more than 20 adults seen by one person in one day:- *common lizard.*

(3) Supports an assemblage of species scoring 4 points or more on the Froglife evaluation table (reproduced below) as follows:-

- *Presence of low population of grass snake (scores 1 point);*
- *Presence of a good population of slow worm (scores 2 pts);*
- *Presence of an exceptional population of common lizard (scores 3 pts).*

Giving a total of 6 points overall.

Froglife Advice Sheet 10: Key Reptile Sites and survey evaluation table.

Survey assessment: Key Reptile Sites

The Key Reptile Site Register is a mechanism designed to promote the safeguard of important reptile sites. The criteria for site selection are given below, including a table which allows the classification of the relative size of reptile populations on the basis of survey counts. Compare your survey results with the criteria given below to obtain an objective evaluation of the importance of the reptile interest on your site.

To qualify for the Key Reptile Site Register, the site in question must meet at least one of the following criteria:

(1) supports three or more reptile species
(2) supports two snake species
(3) supports an exceptional population of one species (see table)
(4) supports an assemblage of species scoring at least 4 (see table)
(5) does not satisfy 1-5 but which is of particular regional importance due to local rarity (e.g. in the East Midlands of England, adders are very rare so even "low" populations should be designated as Key Sites)

	Low population *Score 1*	Good population *Score 2*	Exceptional population *Score 3*
Adder	<5	5 - 10	>10
Grass snake	<5	5 - 10	>10
Common lizard	<5	5 - 20	>20
Slow-worm	<5	5 - 20	>20

Figures in the table refer to maximum number of adults seen by observation and/or under tins (placed at a density of up to 10 per hectare), by one person in one day.

5. Impacts

5.1 The proposed development to Middlewick ranges will have a series of detrimental impacts to the current reptile interest, as outlined below. It is important to note that this is not an exhaustive list, and further impacts may come to light during additional assessments and other site activities including pre-development preparatory works.

5.1.1 The direct loss, degradation and modification of extensive areas of reptile habitat to development, associated working and storage areas, soft-landscaping and infrastructure.

5.1.2 The permanent loss of habitat connectivity, both within the site and between the site and wider environment, reducing reptile dispersal ability, and increased isolation of populations. This in turn is likely to lead to a decline in sustainability of local populations.

5.1.3 Increased user pressure arising from new development rendering many remaining habitat areas, and associated soft landscaping, unsuitable for reptiles or other wildlife due to increased disturbance and degradation from dog walkers, walking, cycling and other sporting and recreational activities.

5.1.4 Habitat loss, degradation and/or disturbance creating barriers to dispersal between different but equally essential habitats e.g. hibernation sites and foraging areas, particularly for snake species.

5.1.5 Greater risk from fire and environmentally damaging litter due to increased user pressure.

5.1.6 Increased predation by domestic cats as population density increases associated with residential development: at least 26 percent of households in UK have one or more cats (Murray J et al. 2010) therefore a 1000 new houses equates to 260 additional predatory mammals (not dependent on prey for survival) impacting native wildlife (Woods et al. 2003).

5.2 While some impacts could in theory be mitigated against, measures will be required over an extensive area and time frame to comply with current legislation and planning obligations. Others, such as habitat loss, and reduction in size and viability of local reptile populations, cannot be mitigated against effectively.

References

DIO Middlewick Consultation (2019): www,middlewickconsultation.co.uk

Froglife (1999): Froglife Advice Sheet 10: reptile survey. Froglife, London.

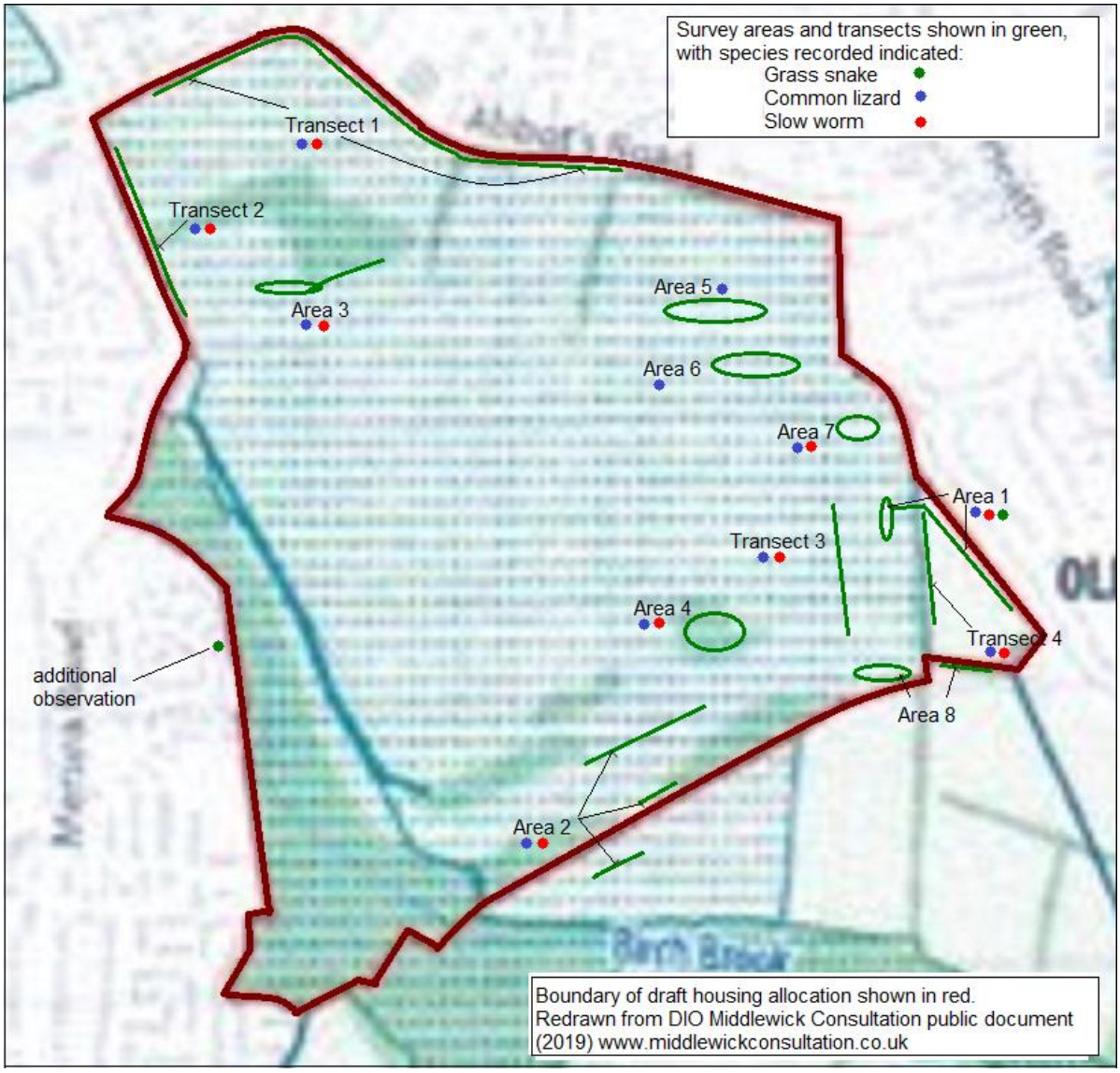
Gent & Gibson (2003) The Herpetofauna Workers'. Manual. JNCC, Peterborough.

JNCC (2007): List of UKBAP priority herpetile species - JNCC Open Data

Murray J. et al. (2010) Number and ownership profiles of cats and dogs in the UK. Veterinary Record, Bristol University.

Woods M. et al. (2003) Predation of wildlife by domestic cats (Felis catus) in Great Britain. Mammal Society, London

Appendix 1: LOCATION MAP - Reptile Survey Middlewick 2019-20



Appendix 2: FINDINGS - Reptile Survey Middlewick 2019-20

Survey data 2019

For survey areas see: Appendix 1: Reptile Survey Middlewick 2019-20 – LOCATION MAP

Description of survey Areas: September – October 2019

Area 1 – transect along fence-line to Speedwell Road gardens, adjoining hedge-line and adjoining grass / scrub area. Common lizard, slow worm and common toad known to be present; anecdotal record for adder from this area. Some disturbance from walkers & dog walkers; high cat presence / potential impact. OS grid ref: TM01552266 to TM01382283

Area 2 – two transects behind the butts: scrub and sparse grassland along the fence-line, and rough grassland with scattered trees and scrub to the south. Good reptile habitats and appears best area for adder presence although high levels of disturbance (walkers & dog walkers).
OS grid ref: TM01242258 to TM01032246; and TM01122239 to TM01032229 respectively.

Area 3 – Area of scrub and grassland with transect east along scrub margin / track from pillbox. Good habitat to margins of mature scrub and grassland but relatively high levels disturbance (walkers & dog walkers). OS grid ref: TM00542303 to TM00652306

Table 1: 2019 Survey Findings

Key: CL = common lizard; SW = Slow worm; GS = grass snake. (Data includes adults and sub-adults)

Visit no. / Date	Conditions /notes	Findings
Survey set up & Visit 1. 08/09/19	Warm and dry with cool light wind.	
Area 1		CL x 1
Area 2		0
Area 3		CL x 1
Visit 2. 10/09/19	Warm, hazy sunshine	
Area 1		GS x1; CL x2; SW x2
Area 2		
Area 3		CL x 2; Sw x1
Visit 3. 11/09/19	Warm and sunny, dry	

Area 1		CL x 9; SW x 14
Area 2		not checked
Area 3		Sw x2; CL x 4
Visit 4. 13/09/19	Warm and sunny, dry.	
Area 1		CL x1; SW x 1
Area 2		not checked
Area 3		CL x 4
Visit 5. Sat 14/09/19	Warm and dry; hot later.	
Area 1		CLx7; SW x 1
Area 2		CLx1
Area 3		CLx2
Visit 6. 17/09/19	Cool and sunny	
Area 1		CL x 1
Area 2		Not checked
Area 3		CL x4, SW x2
Visit 7. 18/09/19	Warm and sunny	
Area 1		CL x 5 Common toad x 1
Area 2		Not checked
Area 3		CL x3, SW x1
Visit 8. 19/09/19	Cool and sunny	
Area 1		CL x 1
Area 2		Not checked
Area 3		Not checked
Visit 9. 20/09/19		
Area 1		CL x 2
Area 2		Not checked
Area 3		CL x 2
Visit 10. 28/9/19	Overcast with warm sunny spells after rain overnight; strong breeze.	
Area 1		CL x14; SW x 4

	6 x CL juvs basking on one site	
Area 2	Only found 7 out of 10 mats.	CL x 10; SW x 1
Area 3	All 8 mats.	Cl x 11
October, November and December 2019	Further sighting during winter months within Area 1 & Area 2.	CL x 8 SW x 4

Survey data: 2020

For survey areas see: Appendix 1: Reptile Survey Middlewick 2019-20 – LOCATION MAP

Description of survey areas 2020

Areas 1, 2 & 3 as detailed in 2019 survey.

Area 4. Mozaic of mixed scrub and grassland in front of disused butt. TM0125 2265

Area 5. Raised grass bund (north) within wider grassland habitat. TM 0122 2307.

Area 6. Raised grass bund (centre) within wider grassland area. TM 0124 2298.

Area 7. Raised grass bund (south) within wider grassland area. TM 0134 2291.

Area 8 Area of open scrub and grassland from dead tree to fp, and tree line / field margin further east; centred: TM 0133 2282 & TM 0135 2266 respectively.

Transect 1. Abbotts Road boundary, rough grassland margin plus existing wooden fence posts, grass tussocks, bare ground and debris.
OS grid ref: TM 00442329 to 01252315 following road /site boundary.

Transect 2. Mersea Road boundary, rough grassland with scattered scrub and debris. OS grid ref: TM00422324 to 00462311

Transect 3. Scrub and grassland mozaic TM 013226 to TM013228.

Transect 4. Bracken-grassland margin to hedge-line behind Speedwell Rd. TM014 228 to TM014 226.

Table 2: 2020 Survey Findings.

Key: CL = common lizard; SW = Slow worm; GS = grass snake. (Data includes adults and sub-adults)

Date: survey visits.	**Conditions, notes & surveyors**	**Findings**
Jan 2020.	Dry, overcast with light breeze.	
Transect 2		-
Transect 3.	Scrub / grass mozaic.	-
Area 4.	Scrub and grass mozaic	-
26 Feb 20	Dry, overcast with cold strong breeze. Restricted access as red flag flying.	
Area 3	Pill box-scrub/grass margin	-
Transect 1	Abbotts Rd. boundary.	-
Area 5	Raised grass bund (north) x 2 mats	-
Area 6	Raised grass bund (centre) x 2 mats	-
Area	Raised grass bund (south) x 1 mat	-
Transect 4.	Bracken / grass margin.	-

15 March 20	Overcast, dry, sunny spells, cold wind; 9C	
Transect 2	Mersea Road boundary	CL x2
Transect 1	Abbots road margin. Works starting.	0
Transect 3	Scrub/grass mozaic	SW x1 large female
Area 2	Behind butts and to short grass margin.	Cl x 2
	Rough grassland (nr birch)	SW x1
Areas 5, 6 & 7	Grass mounds	0, 0, CL x1
Transect 4	Bracken areas	Common toad x 1
3 May 20	Overcast, sunny spells dry, cool breeze temp 10C +/-	
Transect 1	Abbots road margin to tussocks, posts. Ground works: trashed nesting and rept habitats	CLx12 SWx3
Area 4	Scrub in front of Butts	Sw x1; CL x9
Transect 3	Grass/scrub margin (sapling - brown plastic nr. tree at other side to Area 1	SWx2; Clx4
Area 2 (2019)	Behind butts and to short grass margin	Not surveyed
	Nr birch to rough grassland	Not surveyed
Areas 5, 6 & 7	Grass mounds North Centre South-east	CL x 5 CL x 4 Swx1; CL x8
Transect 4	Bracken areas checked	CLx5
Transect 2	Mersea Rd. Ground works: trashed nesting habitats but boundary survey area intact.	Cl x 5 Sw x2
14 May 20	Overcast, sunny spells, cool strong breeze. O=7, b=3, t=12- 22C (becoming too hot)	
Transect 1	Mats cleared. Abbots road margin.	CL x16 Sw x2
Transect 2	Mats cleared. Mersea Road margin.	CL x 2 SW x 3
Transect 3	Added (= 16)	0 (too hot)
Area 4	Scrub grass mozaic.	CL x 2
Area 2	Behind butts and to short grass margin	CLx2
	Nr birch to rough grassland	0 (too hot)
Areas 5, 6 & 7	Grass mounds: north centre south-east	CL x2 CL x3 CLx 6
Transect 4	Bracken areas 4 mats	CL x 7
Area 8	Open scrub from dead tree to fp And field margin east	
19 July 2020	Overcast, light drizzle, cool breeze. Access restricted due to red flag / firing.	
Transect 4	bracken.	CL x 3 gravid females

		SW x 2
Transect 3	First mat (brown plastic)	SW x 1

Additional observations 2020:

February 2020

Grass snake to garden backing onto Middlewick (TM0058 2257)
Slow worm to grass stem at grass mound. (TM 01412278)
Common lizard (tail-less) (TM0144227)

May 2020

Slow worm to Weir Lane (TM 00761 21467).

August 2020

Grass snake (adult) to Area 1

Why Colchester Borough Council cannot be trusted on biodiversity matters

Introduction

After the Ministry of Defence announced the sale of the site of Middlewick Ranges for housing, Colchester Borough Council decided to allocate the site for 1,000 homes in the Emerging Local Plan. This was done despite the fact that this site is not only a designated Local Wildlife Site but is one of the prime Local Wildlife Sites in the borough, containing rare habitat including acid grassland, and being home to several endangered species. This is in contrast to Colchester Borough Council's own objectives and policies as set out in the Emerging Local Plan and the accompanying Environmental Impact Assessment/Sustainability Appraisal, which commits the council to protect and enhance Local Wildlife Sites as well as protecting and enhancing biodiversity in general.[1]

The plan for Middlewick Ranges suggests that 'biodiversity net gain' can be achieved (to comply with the stipulations in the National Planning Policy Framework) through preserving and enhancing some of the area of Middlewick while implementing mitigation measures in adjacent areas (also owned by the MOD). While this approach can be questioned in various respects[2], the purpose of this statement is to focus on one particular aspect: the way in which questions of biodiversity have been approached by Colchester Borough Council in recent years, in relation to two issues: the events at Salary Brook and Colchester Borough Council's tree planting project, the Woodland Project, recently renamed the Woodland and Biodiversity Project. Looking closely at the council's actions in regards to these two issues will shed light on the council's lack of understanding and expertise in biodiversity matters, the lack of joined-up thinking, as well as the council's apparent unwillingness and/or inability to prevent destruction of biodiversity, to enforce remedial action and to prosecute developers for wildlife crimes. This allows us to draw conclusions as to the council's capacity, or lack thereof, of guaranteeing to meet commitments to enhancing biodiversity with regards to the proposed development at Middlewick Ranges. The findings in this report do not bode well for the prospect of protecting and enhancing biodiversity at Middlewick Ranges.

Salary Brook

Salary Brook is a local nature reserve in Greenstead.[3] To the east of the nature reserve, on a greenfield site, new student accommodation is being built, and here is where the problems derive from. The sorry saga of Salary Brook started on 10 September 2019, when Shawn Boughton, parish councillor of Wivenhoe, alerted Mark Cory of CBC of work going on at the meadow next to salary brook; when Mark Cory was told it was flood work he took the developers at their word. However, in December 2019 it became apparent the contractors had torn up the hedgerow. As this was an old hedgerow and habitat to door mice, a protected species, this was reported to the police as a potential wildlife crime, Essex Wildlife Trust being the prosecutors.[4]

---

[1]The objectives stated in the Environmental Impact Assessment include the following: 'Protect and enhance landscapes, biodiversity, green spaces, air and water quality'; 'Protect and enhance designated sites, geodiversity and soils.' (Environmental Impact Assessment, p. 51).
[2]Other submissions to the hearings will discuss different aspects of 'biodiversity net gain'.
[3]https://www.visitcolchester.com/things-to-do/salary-brook-local-nature-reserve-p1190851

[4]The story was reported in the Gazette. https://www.gazette-news.co.uk/news/18136441.call-answers-salary-brook-hedge-ripped/

A meeting was then called by Colchester Borough Council, attended by representatives of the contractor Osbourne, including its managing director, the ecologist employed by the developer, Tim Goodwin of Ecology Solutions, Darren Tansley of Essex Wildife Trust and several others including local residents (including Glyn Evans, the source of this report). It was revealed at the meeting that the ecologist employed by the developer claimed there were no dormice within 400m of the hedge, which Colchester Borough Council took as true. However, Darren Tansley, EWT expert for mammals, knows that to be false, and records held by the EWT confirmed that there were indeed dormice living in the hedgerow. Thus Tim Goodwin's ecology report was obviously incorrect. For whatever reason, CBC have not followed up on that. It was alleged that CBC were in no legal position to take action against the developers; however, the police investigation is still ongoing (as of March 2021).

As a result of this meeting, negations took place to right the damage, including an agreement to replant the hedge around the edge of the flood area.[5] Furthermore, it was suggested to try to enhance the biodiversity of the area; however that seemed to have been forgotten afterwards. A new hedge was planted (which may yet to be flooded depending on the efficacy of the floodworks). The developer claimed that the floodwork leading to the destruction of the hedge had been instructed by the Environmental Agency; however, no evidence has been presented that confirms this.

In May or June 2020 machinery returned to the site, presumably to complete the ground engineering work. This was carried out by SRC Aggravates. This company are not flood engineering specialists but specialise in extracting minerals, raising the question if they were the best qualified subcontractors. Following the restarting of the ground work, Glyn Evans, naturalist and Wivenhoe parish councillor, who had already been involved in this case, asked the question on social media whether a full survey of ground nesting birds had been carried out. This question was raised because as the grass and wildflower meadow had been pulled up, the site was now bare ground, which may attract the Little Ringed Plover to nest on the site. These birds were also known to breed very closely nearby at Hythe Lagoons and in Wivenhoe. The question about the survey was asked twice but there was no reply from CBC each time.

Following on from this a photograph of a Little Ringed Plover was posted on the social media site Eco Colchester, expressing concern about the lack of a ground nesting bird survey as these birds were hard to see. This triggered a kneejerk reaction from Colchester Borough Council, bearing down on the developers. The developers now instructed the same ecologist, Tim Goodwin, to draw up a report. Goodwin visited the site on 25 July, long after any potential Little Ringed Plover chicks would have flown. As no ground nesting bird survey could be carried out at this time of year, the only result presented in the report was a photograph of the ground conditions, pointing out that they were different from those of the picture presented on the Eco Colchester facebook group, and that hence machine drivers would have been able to see the little birds. When Cllr Julie Young posted screengrabs of the report onto the Eco Colchester group, she was asked by Glyn Evans whether she was happy with the report. No answer was given. Glyn asked the same question to all councillors on CBC, but did not get a response from anyone. Similar as the first report by the same ecologist, the second report was also a work of fiction, as the 'survey' was carried out long after the chicks would have flown![6]

---

[5]https://www.gazette-news.co.uk/news/18533731.hedge-salary-brook-replaced-removal/

[6]The story and sources can be found on the Eco Colchester facebook group, 13 July 2020; 30 July 2020.

This was not the end of it. There were further concerns raised regarding the work being carried out. Glyn Evans consulted with council officer Simon Cairns regarding the efficacy of work carried out and the loss of wild flower meadow. The groundworks had led to the creation of a steep edge, like a cliff, where there previously had been a steady slope, leading to concerns about the danger of subsidence, not a desirable outcome for flood work. In addition to this, the landowner had been drilling to the edge and planting grass. Not only did this reduce the biodiversity of the area (as grass would outcompete any wildflowers that had previously been there), but the drilling also loosened surfaces thus exacerbating the landslide. It is unknown who advised the landowner to sow grass on that land.

In summary, there have been several issues with the work going on at Salary Brook in 2019/2020:

- A biodiversity rich hedgerow was turned up as part of work the necessity of which has not been confirmed as being required by the Environmental Agency (and is still being investigated as a wildlife crime)
- The Qualification of the civil engineer doing the groundwork, and the effectiveness of the groundwork are questionable.
- Two ecology reports of questionable nature were presented which have gone unchallenged by Colchester Borough Council.
- The landowner has compounded the situation further with planting a monoculture of grass.

****

<u>Colchester Borough Council's Woodland Project (now the Woodland and Biodiversity Project)</u>

The other issue highlighting Colchester Borough Council's haplessness in matters of biodiversity is their tree planting project, the commitment to plant 200,000 trees in the borough in an effort to battle climate change. This project drew criticism from conservationists and other members of the public who were concerned about the fact that this project had not been thought through and that often trees were planted in the wrong place. For example, where trees were planted in grassland or wetland habitat, important habitats in their own right, this would lead to a degradation of these habitats and hence a net loss in biodiversity. These issues were discussed at a meeting in summer 2019 between Cllr David King with Dr. Chris Gibson, naturalist and former Natural England planning specialist, Prof Ted Benton of Colchester Natural History society, a renowned bee specialist, and naturalist Glyn Evans. Cllr King was advised at the meeting that there are many other things that could be done to address climate change that do not have the same negative effects. However, in spite of these concerns being raised by renown ecologists and naturalists, no follow up to the meeting happened and the borough's tree planting strategy remained unchanged, while renaming the project the Woodland and Biodiversity Project. A more recent update to the story is the fact that the council's Environment and Sustainability Committee on 11 March 2021, in recognition that preservation of biodiversity involved more than tree planting, the council was now, in the name of the renamed 'Woodland and Biodiversity Project' calling for sites they could turn into grassland! (We know an important grassland site that deserves protection, it is called Middlewick Ranges.) At the same meeting, it was revealed that 80% of trees that had been planted had died.

Conclusion

There are several issues of relevance for the Middlewick Ranges arising from both the Salary Brook saga and CBC's tree planting project. In both cases, Colchester Borough Council have proven they lack the necessary understanding of biodiversity matters to prevent damage being done to biodiversity in the borough, be it as an apparent 'accident' happening as a result of remediation work carried out next to a development site, or be it as part of one of their own flagship projects. This highlights CBC's inability for preventing damage to wildlife, biodiversity, and the land from happening in the first place (as with the tearing up of the hedgerow, the landslide and the planting of grass on a former wildflower meadow), and, as with the tree planting in wrong places, sometimes even causing damage to biodiversity by projects claiming to be environmentally friendly. CBC also seem to be either unwilling or unable to enforce anything with regards to wildlife protection, as with their claim to be in no legal position to sue the developer for destroying a species rich hedgerow that was the home to an endangered species.

The inclusion of Middlewick Ranges, one of the borough's prime Local Wildlife Sites, in the Local Plan for the building of a thousand homes, runs in contrast to the council's own commitment to preserve and enhance biodiversity. The acceptance of the site is based on the claim that 'biodiversity net gain' can be achieved in compliance with the National Planning Policy Framework. However, looking at CBC's previous failures of protecting and enhancing biodiversity, it seems highly dubious that CBC while overseeing the implementation of the Local Plan, is in a position to ensuring that the remaining habitat at Middlewick (which include hedgerows, amongst others) will be protected effectively and that any mitigation measures aimed at enhancing biodiversity in other parts of the site will be enforced. This is just one reason while the claim of "biodiversity net gain" is highly questionable.