

## Appendix 14.4: Hatfield Biodiversity Calculation

### Introduction

- 1.1 The current and potential future biodiversity value of the Application Site was evaluated by use of a Biodiversity Calculator. This was done to ensure that the proposed development provides a net gain in biodiversity, in line with Paragraph 170 of the National Planning Policy Framework (NPPF, 2019) which states that "*Planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity*".
- 1.2 Paragraph 5.35 of the Welwyn Hatfield District Plan states that "*In addition to protecting specific sites, the Council wishes to enhance biodiversity throughout the district by ensuring that all new development contributes positively to increasing the range of habitats and species in the area*" (Welwyn Hatfield Borough Council, 2005).
- 1.3 In July 2019, a biodiversity calculation was carried out on the masterplan for the Hatfield development, using the Warwickshire, Coventry & Solihull Habitat Impact Assessment Calculator, Version 19.1.
- 1.4 Consultation on the subject of the biodiversity calculation was carried out with Martin Hicks (Senior Ecology Officer at Hertfordshire County Council) by email exchange on 24 and 25 June 2019. He noted that the use of any current biodiversity calculator would be acceptable, and that he would expect '*net gains for biodiversity*' to constitute a minimum 10 % increase on the baseline score for this development.

### Assumption Habitat Areas

- 1.5 The calculation of the baseline biodiversity value of the Application Site used habitat type and area data from the Phase 1 habitat survey of the Site. Areas and biodiversity calculator habitat types of all Phase 1 habitat categories at the Site (i.e. the baseline condition of the Site) are indicated in Figure A14.4-1.
- 1.6 The calculation of the post-development biodiversity value of the Site is based on the current Hatfield Development Framework (Draft version dated July 2018).
- 1.7 The land use categories within the masterplan were converted into categories of proposed habitat as shown in Table A14.4-1 below and indicated on Figure A14.4-2.

Table A14.4-1: Habitat assumptions.

Land use category*	Area (ha)	Habitat	Target condition	Time (yrs)
Residential (higher density)	25.89	16.82 ha (65%) Buildings and hardstanding	N/A	N/A
Residential (lower density)		9.07 ha (35%) Gardens	Poor	3 years
Care home	0.56	0.39 ha (70%) Buildings and hardstanding	N/A	N/A
		0.17 ha (30%) Gardens	Poor	3 years
Local centre	0.92	0.92 ha (100%) Hardstanding	N/A	N/A
Roads	2.41	2.41 ha (100%) Hardstanding	N/A	N/A
Primary school	2.24	1.12 ha (50%) Buildings and Hardstanding	N/A	N/A
		1.12 ha (50%) Amenity grassland	Moderate	3
Retained woodland	2.18	0.40 ha Broadleaved semi-natural woodland	Moderate	N/A

		0.59 ha Broadleaved plantation woodland	Poor	
		1.19 ha Dense/continuous scrub	Moderate	
Retained and enhanced grassland / semi-natural greenspace	19.87	14.22 ha (71%) retained semi-improved neutral grassland	Good	N/A
		5.36 ha (27%) retained and enhanced poor semi-improved grassland	Good	10 years
		0.29 ha (2%) enhanced bare ground	Good	15 years
Amenity space	3.42	3.42 ha (100%) amenity grassland	Poor	3 years
Water attenuation	0.62	0.62 ha (100%) Reedbed	Good	3 years
Retained running water	0.16	0.16 ha (100%) running water	Moderate	3 years
New running water (de-culverted Ellen Brook)	0.06	0.06 ha (100%) running water (4 m includes marginal vegetation)	Good	3 years
Retained and enhanced ponds	0.12	0.12 ha (100%) standing water	Good	3 years
Compensation ponds	0.2	0.4 ha (100%) standing water	Good	10 years
Allotments	0.31	0.31 ha (100%) allotments	Poor	3 years
Proposed woodland planting	2.90	2.9 ha (100%) Broad-leaved plantation	Moderate	32+ years
Sports pitches & buildings	4.81	4.81 ha (100%) Buildings and hardstanding	N/A	N/A
<b>Total Area</b>	<b>66.67</b>			
* As per Development Framework				

### Linear features

1.8 Hedgerows and ditches have been excluded from the calculation, on the basis that all loss of these features will be compensated for by the creation of sufficient new hedgerows/ditches to allow a net gain in biodiversity in terms of the hedgerow network considered in isolation. For hedgerows, the following assumptions have been made:

- The vast majority of the hedgerow network (550 m of 560 m, or 98%) will be retained in the Proposed Development under the current Masterplan.
- For every 1 m of hedgerow/ditch to be lost in the development, 2 m of new species-rich native/fruited hedgerow will be created. This is over and above the compensation required under the biodiversity calculator to compensate for the loss of species-rich hedgerow in good condition.
- Under these assumptions, the exclusion of hedgerows will therefore not reduce the net gain/loss calculation, but will likely lead to an increase in net gain.

### Results

1.9 The Warwickshire, Coventry & Solihull Biodiversity Calculator yields the following key results:

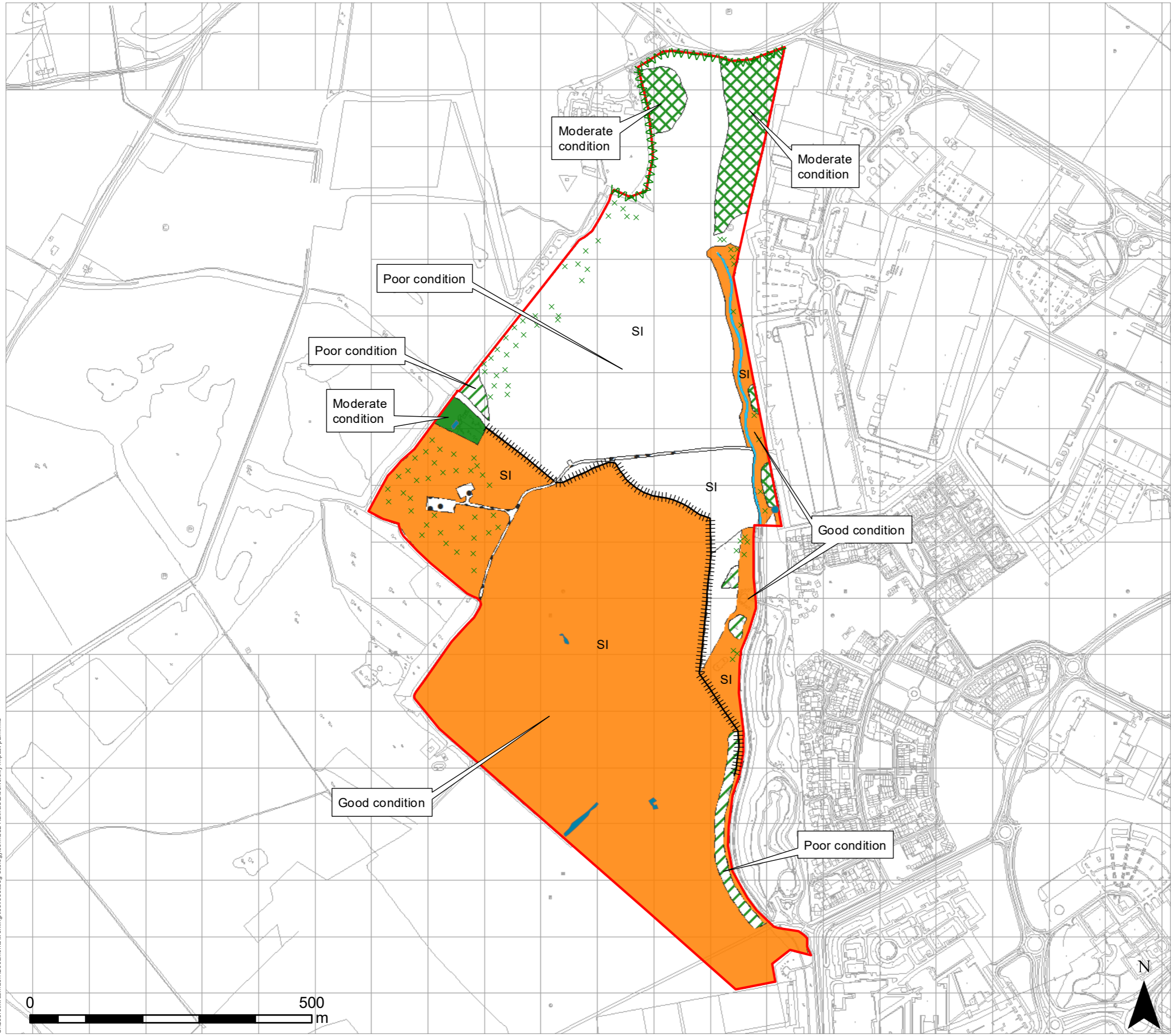
- Existing score: 553.61 credits
- Proposed score: 259.08 credits
- Difference (i.e. biodiversity gain or loss): -294.53 (i.e. net loss)

### **Achieving a 10% net gain in biodiversity**

- 1.10 A 10 % increase on the baseline score is  $1.10 \times 553.61 \text{ credits} = 608.97 \text{ credits}$ .
- 1.11 Taking account of the proposed score for the site following the Proposed Development gives  $608.97 - 259.08 = 349.89 \text{ credits}$ .
- 1.12 Therefore, for the Proposed Development to achieve a 10 % net gain in biodiversity requires off-site habitat creation within Welwyn Hatfield District generating 349.89 credits. The Ecology chapter of the Environmental Statement for the Proposed Development has assumed that this level of off-site habitat creation will take place.

### **References**

- DEFRA (2018) *Net gain: Consultation proposals*. [https://consult.defra.gov.uk/land-use/net-gain/supporting\\_documents/netgainconsultationdocument.pdf](https://consult.defra.gov.uk/land-use/net-gain/supporting_documents/netgainconsultationdocument.pdf) [accessed 18/07/19].
- NPPF (2019) *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government. <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [accessed 08/07/2019].
- Welwyn Hatfield District Council (2005) *Welwyn Hatfield District Plan*. Welwyn Hatfield District Council. <http://www.welhat.gov.uk/districtplan> [accessed 07/09/2018].



- LEGEND**
- Site boundary
  - Species-rich hedge
  - Fence
  - Semi-natural broadleaved woodland (0.40 ha)
  - Broadleaved plantation woodland (1.05 ha)
  - Dense scrub (3.17 ha)
  - Semi-improved neutral grassland (37.28 ha)
  - SI Poor semi-improved grassland (23.21 ha)
  - Running water (0.16 ha)
  - Standing water (0.13 ha)
  - Scattered scrub (0.72 ha)
  - Bare ground (0.55 ha)

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PROJECT TITLE  
HATFIELD

DRAWING TITLE  
Figure A 14.4 - 1: Biodiversity impacts plan

DATE: 14/08/2019      CHECKED: TF      SCALE: 1:6,500  
DRAWN: KW      APPROVED: TF      VERSION: 1.2

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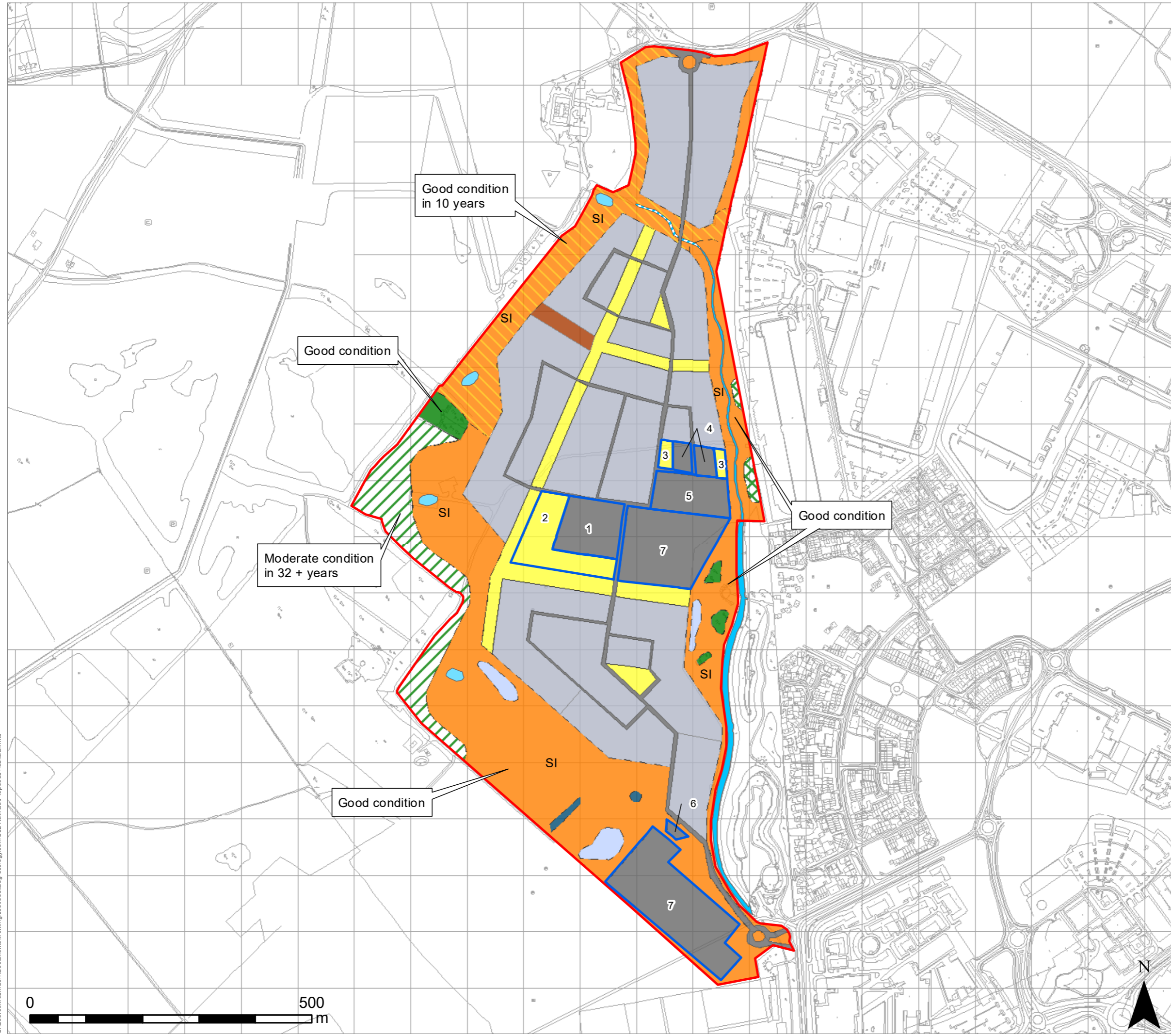
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- LEGEND**
- Site boundary
  - Area referenced in calculator
  - Enhanced grassland (5.66 ha)
  - Retained grassland (14.22 ha)
  - Retained scrub (1.19 ha)
  - Retained woodland (0.99 ha)
  - Plantation woodland (2.9 ha)
  - Reedbed (0.62 ha)
  - Allotments (0.31 ha)
  - Amenity grassland (4.71 ha)
  - Buildings and hardstanding (9.65 ha)
  - Residential (16.82 ha building and hardstanding, 9.07 ha gardens)
  - Retained pond (0.12 ha)
  - Retained running water (0.16 ha)
  - Compensation ponds (0.2 ha)
  - Created running water (0.05 ha)

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PROJECT TITLE  
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Figure A 14.4 - 2: Proposed habitats plan

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