

Local Plan 2040 Preferred Options

Habitat Regulations Assessment Background Paper

1. Introduction

Oxford City Council is intending to produce a Habitat Regulations Assessment to accompany the next consultation stage – our Proposed Submission Consultation (currently scheduled for 2023). We realise that it is important to keep interested parties up-to-date with our current thinking and our work to date on Habitat Regulations Assessment for the Oxford Meadows SAC. This Background Paper provides a written note of our work to date, our thinking and the approach we are considering taking with regard to our Habitat Regulations Assessment that will be produced to support the next consultation stage. It sets out our intended approach to examining the various conservation objectives for the Oxford Meadows SAC and considers how the approach taken in previous Habitat Regulations Assessments can be used going forward.

2. Which European Sites are we considering?

Previous Habitat Regulations Assessment (HRA) work has shown that although there are three “European Sites” within 20km of Oxford City’s administrative boundary (Oxford Meadows SAC, Cothill Fen SAC and Little Wittenham SAC). This previous work showed that Cothill Fen SAC and Little Wittenham SAC are unlikely to be impacted upon by proposed development resulting from the Oxford Local Plan 2036. Below is a map of the “European Sites” within 20km of Oxford City.

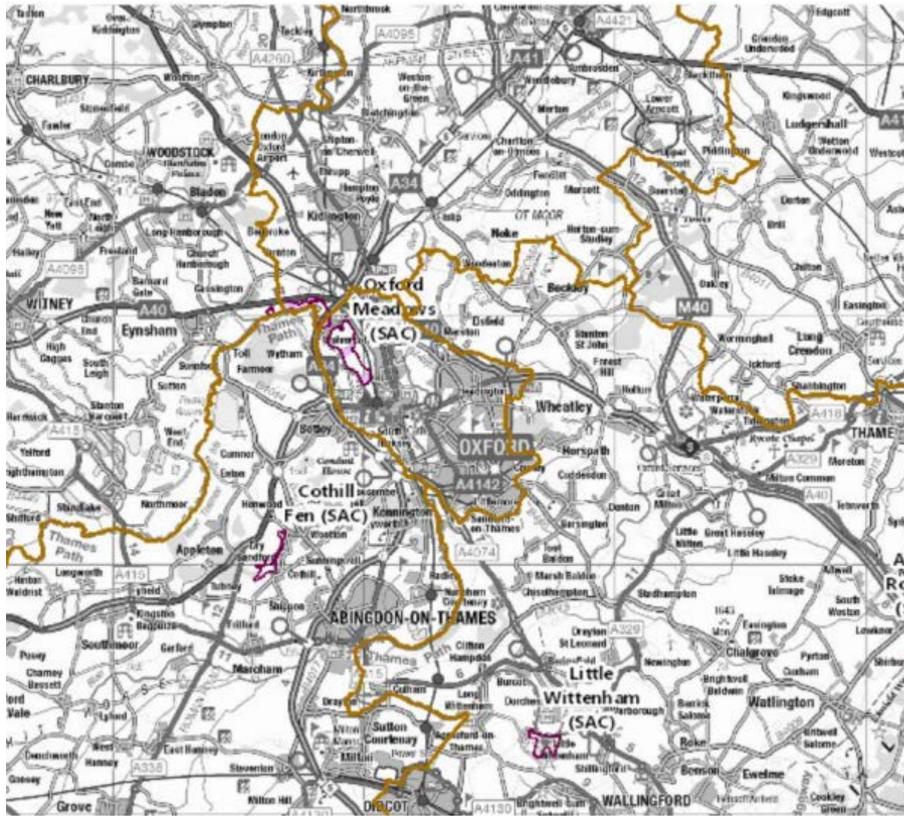


Figure 1: Map showing European Sites within 20km of Oxford City

A brief review will be undertaken but it is assumed since the underlying conditions have not changed then, the two sites (Cothill Fen SAC and Little Wittenham SAC) will be screened out again. It is worth noting that at a meeting with Natural England in on 8 June 2022, Natural England agreed that the Oxford City HRA should focus only on the Oxford Meadows SAC.

3. Previous Habitat Regulations Assessments

Previous HRA work was undertaken supporting the Oxford Core Strategy, the Sites and Housing Plan (which allocated development sites), the Northern Gateway Area Action Plan and more recently the Oxford Local Plan 2036. This HRA work focussed around a number of previously agreed conservation objectives. The previously agreed conservation objectives were as follows:

- Minimal air pollution;
- Absence of nutrient enrichment of waters/ good water quality;
- Balanced hydrological regime – alteration to adjacent rivers may alter flooding regime and botanical diversity;
- Maintenance of traditional hay cut and aftermath grazing
- Absence of direct fertilisation
- Ensuring recreational impacts are maintained at a reasonable level

Since the previous HRA work was undertaken to support the Oxford Local Plan 2036, Natural England has published some supplementary advice discussing the conservation objectives for the Oxford Meadows SAC. In 2019 a document entitled “Oxford Meadows SAC Conservation Objectives Supplementary Advice” was published¹. This advice distinguishes between the conservation objectives for the two qualifying features at the Oxford Meadows SAC.

The first of these is a qualifying habitat: the H6510 Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*) is described as a distinct plant community as MG4 *Alopecurus pratensis* – *Sanguisorba officinalis* grassland. According to the Supplementary Advice produced by Natural England, the MG4 grassland type occupies extensive areas of Pixey and Yarnton Meads SSSI, Wolvercote Meadows SSSI and Cassington Meadows SSSI. The grassland type is confined to lowland situations and is mostly associated with relatively fertile alluvial soils in floodplain situations which are subject to seasonal (i.e. winter) flooding. These grasslands are almost exclusively managed as traditional hay meadows with cutting taking place in in early summer, followed by grazing of the re-growth or ‘aftermath’ in autumn or early winter. They are vulnerable to degradation through excessive nutrient input, changes in the cutting or grazing regime, and changes in hydrology.

The second qualifying feature is a single species, for which Oxford Meadows is classified as an SAC: S1614 *Apium repens* creeping marshwort is a rare plant of seasonally-flooded habitats which are unshaded and have very low levels of competition with surrounding vegetation. It is a perennial plant capable of surviving summer flooding. The species is tolerant of heavy grazing, growing very close to the ground and flowering below the grazing level of cattle and horses. According to the Natural England document, *Apium repens* flowers in most years and produces an abundance of fruit which are capable of survival for several years buried in the soil. At the time of SAC classification Port Meadow, a component part of the Oxford Meadows complex, was the only known locality for this plant in the UK. Two ‘new’ colonies have been successfully established through translocation however the Natural England Supplementary Advice notes that on Port Meadow *Apium repens* is confined to a narrow ecological zone, associated with seasonally inundated hollows in the middle and southern parts of the site.

4. HRA for the Oxford Local Plan 2040

At a meeting with Natural England on 8 June 2022, it was agreed that the focus of work for the Oxford Local Plan 2040 HRA should be on the following key conservation objectives:

- Air Pollution
- Water Quality
- Balanced Hydrological Regime
- Recreational pressure

¹ <http://publications.naturalengland.org.uk/publication/5815888603250688>

As stated above, significant work has previously been undertaken to examine each qualifying feature. Previous work and approaches have been established through undertaking the Appropriate Assessment Stage of a Habitat Regulations Assessment. This allowed mitigation measures through the form of policy wording to be introduced previous plans where there was concern about particular proposed site allocations or policies in the plan which could have a potential for a significant impact on the SAC.

4.1 Air Pollution

Oxford City Council is anticipating to be able to produce an air quality assessment based on transport modelling as was undertaken previously to support the Oxford Local Plan 2036.

In July 2018, Natural England published an internal operational guidance note which set out *Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations (NEA001)*². This guidance note describes how Natural England advises competent authorities and others on the assessment of plans and projects as required by the Conservation of Habitats and Species Regulations 2017 ("the Habitat Regulations") likely to generate road traffic emissions to air which are capable of affecting European sites.

This guidance sets out at paragraph 4.10 that *"Natural England and Highways England are in agreement that protected sites falling within 200 metres of the edge of a road affected by a plan or project need to be considered further."* The second step of this guidance note asks the question: Are the qualifying features of sites within 200m of a road sensitive to air pollution? Both qualifying features are susceptible to air pollution however only the part of the Oxford Meadows that is bisected by the A34 and bounded by the A40 are likely to be impacted by air pollution. The threshold set out by the Natural England guidance note for a likely significant impact (where further air quality work would be necessary) is set out as part of Step 4 paragraph 4.25 which considers that *"Widely accepted Environmental Benchmarks for imperceptible impacts are set at 1% of the critical load or level, which is considered to be roughly equivalent to the DMRB (Design Manual for Roads and Bridges)³ thresholds for changes in traffic flow of 1,000AADT and for HDV 200AADT... A change of >1,000AADT on a road was found to equate to a change in traffic flow which might increase emissions by 1% of the Critical Load or Level and might consequentially result in an environmental effect nearby (e.g. within 10m of roadside).*

The Oxford Local Plan 2036 undertook an air quality assessment alone, and in combination with the other relevant plans and programmes. The 'in-combination' assessment took account of all planned developments in Oxfordshire at that time and looked at all of the adopted plans across the county as well as the partial review plans and other plans which took account of Oxford city's unmet housing need.

² <http://publications.naturalengland.org.uk/publication/4720542048845824>

³ <https://standardsforhighways.co.uk/dmrb/> LA105 – Air Quality

Oxford City’s ‘in-combination’ assessment is currently the most up-to-date air quality/transport assessment available. This assessment examined jobs growth in the city as well as taking a precautionary approach to assessing the city’s housing potential. It examined what impact the delivery of 11,720 new homes and 29,000 jobs would have on the sections of the A34 and A40 which are adjacent to the Oxford Meadows SAC. It is worth noting that the figure for the number of homes used was higher than the capacity-based target for the plan (10,884 homes) because it represents the maximum number of homes that could be delivered if all development sites came forward.

Following the submission of the Oxford Local Plan 2036, before the start of the hearing sessions, a statement of Common Ground⁴ was reached with Natural England as part of the Oxford Local Plan 2036 examination. This Statement of Common Ground provided technical evidence in the form of transport modelling work as well as some critical analysis of other HRA work that had been undertaken by neighbouring authorities.

Table 1 below shows the vehicle movements associated with the plans that were coming forward at that time.

	Cherwell	South Oxfordshire	Oxford City	Total
A34 (AADT)	1,008	-500	86	594
A40 (AADT)	1,129	100	6	1,235

Table 1: AADT increases resulting from emerging plans in Oxfordshire at 01 October 2019

The Statement of Common Ground demonstrated that that a significantly higher amount of AADT than the threshold provided in the Natural England guidance note (1,000AADT) would in fact give rise to a 1% increase in Nitrogen deposition. The additional work was commissioned jointly by the Vale of White Horse and Cherwell District Councils determine whether (in the absence of transport modelling) the additional homes and jobs put forward as part of the Vale of White Horse Part 2 Local Plan (which included development sites to meet Oxford’s unmet housing need) would cause a potentially significant increase in N deposition at the Oxford Meadows SAC.

The Vale/ Cherwell HRA work found that AADT increases associated with a 1% increase in N deposition would need to exceed 9,000AADT on the A34 and 10,000AADT on the A40 for there to be a significant impact on air quality at the Oxford Meadows SAC. The work concluded that there would be sufficient headroom on both the A34 and A40 to accommodate the number of homes proposed the Vale Local Plan Part 2 without causing a likely significant adverse impact on the Oxford Meadows SAC. As such, it was agreed with Natural England, that given the low additional vehicle movements associated with the new homes and jobs proposed as part of Oxford City’s Local Plan that the Oxford Local Plan 2036 would be unlikely to have an adverse impact either alone, or in combination with the other Local Plans in Oxfordshire.

⁴ [https://www.oxford.gov.uk/downloads/file/6680/com6a -
_addendum_to_statement_of_common_ground_-_natural_england_october_2019](https://www.oxford.gov.uk/downloads/file/6680/com6a_-_addendum_to_statement_of_common_ground_-_natural_england_october_2019)

The Oxford Local Plan 2040 is proposing a capacity-based housing requirement. Section 3.2 - Summary of Development Potential – in the Oxford City Council Housing and Economic Land Availability Assessment (HELAA) Interim Report (September 2022), provides a figure for new homes to be provided by the Plan.

The total supply position for the city's Local Plan 2040 if all sites were developed would be a 8047 new homes (this does not include the 10% discount for non-delivery as it applies the precautionary principle). In addition to this, there is an estimated windfall contribution of 127 dwellings per year, which adds (127x15) 1905 homes to the HELAA supply figures. The total Interim (undiscounted) supply position for the Oxford City Local Plan 2040 is therefore 9,952 homes between 2020 and 2040.

Housing completions between 2016 and 2020 are detailed in the Authority Monitoring Report (AMR). The most recent AMR is the Authority Monitoring Report 2020/21⁵ which is available on the City Council website. It is important to consider the correct monitoring years to avoid double counting. As the supply position for homes between 2020 and 2040 are taken account of in as part of the housing numbers in the Local Plan 2040, we need to consider completions for the monitoring years 2016/17 to 2019/20. Table 7 of the AMR shows net additional completions. Considering years 2016/17 to 2019/20 would result in a total of 1,948 completions. When we add these completions to the total (undiscounted) interim supply position for the Oxford Local Plan 2040, the total number of dwellings is 11,900.

This is a very small increase in homes (180) from the 11,720 previously assessed under the Oxford Local Plan 2036 and as such it is unlikely to generate significant additional transport movements on the A34 or A40.

4.2 Water Quality

Water quality issues were considered by the HRA for the Oxford Local Plan 2036, which resolved the issues of potential pollution through effluents from wastewater treatment works and potential groundwater pollution. The site allocations proposed as part of the Oxford Local Plan 2036 did propose some sites upstream of the Oxford Meadows however through critical analysis and appropriate policy wording it was possible to ensure that these sites would not have an adverse impact on the SAC. There is also a risk that any sites allocations proposed on the North Oxford Gravel terrace have the potential to impact water quality at the at Oxford Meadows SAC via groundwater. Previous HRAs through sought to mitigate this by providing policy wording to ensure that any development on the North Oxford gravel terrace is ensures no change to groundwater quality. It is proposed to follow a similar approach when considering the site allocations for the Oxford Local Plan 2040. It is anticipated that our previous HRA work will be used as a basis to support our new local plan when considering this issue. This will be considered in more detail in the formal HRA submission.

⁵ https://www.oxford.gov.uk/downloads/download/420/annual_monitoring_report

4.3 Balanced Hydrological Regime

Previous HRA reports have considered the water requirements for the Oxford Meadows and have set out that three main sources of water have been identified. These are: direct rainfall, surface water and groundwater flowing in from outside the area. Any of these sources, or a combination, may contribute to the water, which supports the plant communities on the meads⁶.

The Environment Agency's flood alleviation scheme for Oxford, which is likely to consist of enlargement of existing watercourses and/or creating flood relief channels, may affect the flooding regime of the River Thames. However, Natural England has stipulated that a key requirement of the Oxford flood alleviation scheme is that it does not have an adverse impact on the Oxford Meadows hydrological regime. Previous HRAs considered that sites located on the North Oxford Gravel Terrace had potential to impact groundwater flows if left unchecked. As such, policy wording was provided to ensure that development sites located on the North Oxford Gravel Terrace would not adversely affect either the flow of groundwater or groundwater recharge.

It is anticipated that a similar approach will be taken for the Oxford Local Plan 2040 HRA as has previously been undertaken for previous HRAs, with progression to a Stage 2 – Appropriate Assessment being utilised if sites cannot be screened out.

4.4 Recreational Pressure

Previous HRA assessments have considered the impact of recreational pressure in particular, the increases of nutrients associated with dog-fouling at Port Meadow. In 2017 a recreational assessment was undertaken following Natural England guidelines. At a meeting on 8 June 2022, it was agreed with Natural England that it would be appropriate to use the findings from this recreational survey to inform any Habitat Regulations Assessment work which examines recreational pressure.

Previous studies have shown that residents of Oxford are generally willing to walk 1,900m to large green spaces. We are proposing to use the 1,900m as a screening threshold for site allocations.

It has been previously confirmed by Natural England that *A. Repens* (creeping marshwort) is not particularly sensitive to trampling and it is in fact the nutrient enrichment associated with dog-fouling which causes an issue for this plant. Previous HRA studies therefore only considered developments which had the potential to increase the number of dogs at the Oxford Meadows. For instance, student accommodation does not allow pets and as such this development type was screened out of the assessment process. We will provide a full

⁶ A. Dixon (2005), The Hydrology of Oxford Meadows

rationale as to which uses are screened into or out of the assessment process for the Oxford Local Plan 2040 HRA.

4.5 Proposed Policies Assessment

As in previous HRA documents a full screening of all the policies in the plan will take place. Where it is considered that policies cannot be screened out, the screening document will suggest that an Appropriate Assessment is carried out in order that mitigation measures can be used.

4.6 Other Relevant Plans and Programmes

An assessment of all other relevant plans and programmes will be considered as part of the 'in-combination' assessment process. Previous HRAs have considered the Development Plans of neighbouring authorities, the County Council's Minerals and Waste Plan, the Local Transport and Connectivity Plan and any other relevant plans (e.g., rail industry plans, water industry plans and flood risk management strategies and plans).