Background paper 009

Title: Natural Resources including air, water, soil quality

This paper addresses the protection of Oxford's natural resources including the quality of air, water and land/soil.
Relevant Local Plan Objective(s): • Our resources, including land, soil, and raw materials, will be protected and used prudently, with consideration for replenishment and renewal. • Contribute towards continued improvement in the city's air quality and its further limit impacts upon public health. • The city's water resources are utilised efficiently with consideration for the future, whilst water quality is protected and enhanced for the benefit of the wider environment.
Relevant SA Objective(s): 8. To reduce traffic and associated air pollution by improving travel choice, shortening journeys and reducing the need to travel by car/ lorry. 9. To achieve water quality targets and manage water resources.
SEA theme(s): Water, air, climatic factors, soil, material assets, landscape

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1. Introduction

1.1 This background paper addresses the topic of environmental quality and natural resources in the city. In particular, it focuses on three aspects of Oxford's environment: the quality of air, land (including soils), and water and the issues that relate to these different aspects of the environment.

1.2 Oxford is a small city with a tightly drawn administrative boundary and contains a number of physical and policy constraints which means that land must be used prudently. Where land is available, it needs to be used in the most efficient way possible while ensuring that there is no harm to the city's natural environment, human health and well-being.

1.3 The issue of poor air quality is multi-faceted and has various causes which are discussed in greater detail later. It is an important topic for the Local Plan to address because air pollution has a direct link with health and well-being and has been evidenced to cause and exacerbate health problems. Poor air quality also has negative impacts for the wider natural environment, especially our most sensitive ecological habitats.

1.4 Oxford has a long history of settlement with different parts of the city having been used for a variety of types of development in the past, some of which can leave behind a legacy of contaminated materials and other pollution which is another issue the planning process needs to address. The development process can play an important role in helping to identify historic contamination and contributing to its remediation to make it safe for future generations, however, where this is not carried out appropriately, people can be brought into contact with harmful pollutants that can damage health. Equally, it is important to ensure that the quality of our soils is protected as these act as important natural capital which supports the environment in a number of ways, from mitigating flood risk and supporting healthy habitats, to acting as important sinks of carbon which could otherwise be released into the atmosphere exacerbating our impacts on climate change.

1.5 Water quality issues have been brought to the forefront of planning since the introduction of the Water Environment Regulations, which seek to ensure that the biological and chemical quality of watercourses in England and Wales reach a "good standard". Key concerns for the Local Plan to address include whether the availability of sufficient water resources for the existing and future population of Oxford. Also, that the quality of the water environment is preserved from further harm arising from new development, particularly because certain nature sites rely on certain amounts and quality of water to maintain the particular habitats and species for which they are protected.

1.6 The paper also considers wider issues of pollution such as impacts of noise and light which are also important for new development to address where necessary.

2. Policy Framework/Plans, Policies, Programmes (supporting Task A1 of Sustainability Appraisal)

2.1 There are a range of national and local plans, policies and strategies which form important context for the policies of the new Local Plan. Those of most relevance to the natural resources policies are summarised below.

National Planning Policy Framework (NPPF)

2.2 The NPPF addresses topics of natural resources and environmental quality in several sections. In particular, paragraph 187 of the NPPF states that policies should contribute to and enhance the natural and local environment in a number of ways including:

- Protecting and enhancing soils (in a manner commensurate with statutory status or identified quality in the development plan)
- 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
- Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

2.3 Paragraphs 196 to 201 of the NPPF set out various requirements relating to ground conditions and pollution including:

- Ensuring that sites are suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination.
- Ensuring that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment
- Policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, (including presence of Air Quality Management Areas and Clean Air Zones). Identify opportunities to

improve air quality or mitigate impacts such as through traffic and travel management, and green infrastructure.

2.4 Paragraph 124 of the NPPF sets out principles for effective use of land and strongly emphasises making as much use as possible of previously developed or "brownfield" land (paragraph 125(c) unless it would conflict with other policies in the NPPF. Paragraph 125 also sets out that plans should recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production. It also sets out that plans should give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land.

2.5 Water supply and wastewater treatment is briefly referenced in the NPPF, including that strategic policies should set out a strategy for and make provision for infrastructure to address this (paragraph 20(b)). Also, take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications of water supply (paragraph 162).

National Planning Practice Guidance, including National Design Guide

2.6 The Planning Practice Guidance (PPG) provides additional support for interpreting the policies of the NPPF related to these topics, for example:

- Air quality guidance, covering topics such as: the air quality considerations planning and local plans address; information sources available to assess air quality; detail required within air quality assessments; and how can air quality impacts be mitigated.
- Water supply, wastewater and water quality guidance, which sets out how this should be addressed within planning processes as well as where information can be obtained with respect to the water environment.
- The natural environment provides guidance on issues such as agricultural land quality, soil protection and brownfield land of environmental value.
- Land quality, is in several places including in guidance about contaminated land and land stability, about how the planning processes should interpret and address these issues as well as potential mitigation measures.
- The National Design Guide sets out ten components of what the government considers to be good design. One of these components is the efficient use of resources including issues of prudent use of resources and factoring risks of pollution into the design process.

The Environment Act 2021

2.7 The Environment Act 2021 does not revoke or replace the Environment Act 1995, but it does make amendments to strengthen and enforce adoption of the environmental provisions. The Act includes requirements for the Secretary of State for DEFRA, to set long-term legally binding targets on air quality, biodiversity, water, resource efficiency and waste reduction within the UK. Part 5 of the Act also aims to tackling discharge of sewage and places several duties on water companies regarding monitoring of water quality near storm overflows and sewage disposal works to secure a reduction in the adverse impacts of discharges from storm overflows.

Air Quality: other specific context

Air Quality Standards Regulations 2010 (as amended) and Air Quality Strategy

2.8 The European Directive 2008/50/EC was transposed to UK law through the UK Air Quality Standards Regulations 2010. This legislation sets legally binding limits for concentrations in outdoor air of air pollutants that impact public health such as particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO2). Key limits are:

- the annual mean standard for NO2, which is 40 µg/m3 for humans and 30 µg/m3 for vegetation.
- Targets for fine particulate matter (PM2.5) set through the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023, which require a maximum annual mean concentration target of 10µg/m3 to be achieved by 2040 (the AMCT), and a population exposure reduction target of 35% compared to 2018 to be achieved by 2040 (the PERT). Defra is developing guidance on how to consider PM2.5 targets in planning decisions.

2.9 The UK Air Quality Strategy sets out the UK government's plans for dealing with all sources of air pollution. The Environment Act 1995 Part IV of the Environment Act 1995 requires the Secretary of State to publish a national Air Quality Strategy and established the system of local air quality management. The Act also requires local authorities to regularly monitor air pollution in their areas against national targets and to take action where it is found that these targets are unlikely to be met. If areas are found to be in exceedance of the legal limit values and improvements are necessary, those areas need to be designated Air Quality Management Areas, and an Action Plan need to be developed and put in place by the local authority which set up the actions that are going to be put in place to address air quality.

Oxford City Air Quality Action Plan 2021-2025

2.10 Oxford City Council is committing to becoming the first UK Local Authority to set a local annual mean NO2 target in a citywide AQAP. The Oxford Air Quality Action Plan 2021-2025 sets an ambitious target of meeting a local annual mean (Nitrogen Dioxide) NO2 target of 30µg/m3 by 2025. The overall objective of this AQAP for the whole of the Oxford City area is to achieve a local annual mean NO2 target of 30 µg/m3 by 2025 "30 by 25".

2.11 The Plan sets out 30 actions and measures that will be delivered by Oxford City Council and partners, via four priority areas of intervention:

a) Developing partnerships and public education;
b) Support for the uptake of Low and Zero emission vehicles;
c) Reducing emissions from domestic heating, industry and services;
d) Reduce the need to travel, explore opportunities for modal shift and increase the uptake of sustainable transport.

2.12 Progress against the targets is reported annually in the Air Quality Annual Status Report, the most recent was published in June 2024.

2.13 The Council has produced a 2025 source apportionment study, which has updated the known picture of the contribution of various sectors (e.g. transport, domestic, industry, etc) to the levels of the multiple air pollutants in the city. This work will then inform a new Air Quality Action Plan in 2026, following the public consultation which took place at the end of 2025.

Land Quality: other specific context

Oxfordshire County Council Minerals and Waste Plan

2.14 Oxfordshire County Council has an adopted Minerals and Waste Core Strategy which sets out the over-arching county policy for minerals and waste in Oxfordshire to 2031.

Land Quality Strategy for Oxford (2020)

2.15 This City Council strategy seeks to ensure that Oxford's residents and the natural environment are not exposed to unacceptable risks from land contamination and to improve our environment for a sustainable future. The strategy seeks to achieve this through working with developers, landowners and other key stakeholders to manage risks from land contamination effectively and efficiently. The first objective of the strategy is "To deal with contamination through development control and building control wherever

possible". In order to achieve this, the strategy sets out that it seeks to "ensure that land contamination is taken into account when developing planning policy documents".

Water Quality: other specific context

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

2.16 These regulations aim to improve and integrate the way water bodies are managed in England and Wales. They require England and Wales to reach good chemical and ecological status in inland and coastal waters by 2027.

Thames River Basin District Management Plan, Environment Agency 2022

2.17 River Basin Management Plans provide a framework for the protection and enhancement of water environments at a river basin scale, as part of implementing the Water Framework Directive.

2.18 The Thames River Basin District Management Plan (updated 2022) covers a wide area including Oxford, and it identifies a number of significant water management issues impacting upon the river basin as a whole, (though not necessarily reflective of Oxford specifically) including issues relating to physical modifications to water bodies; pollution from waste water; pollution from towns, cities and transport; changes to the natural flow and level of water; negative effects of invasive non-native species; and pollution from rural areas.

Thames Water's Water Resources Management Plan 2024

2.19 Thames Water recently published its updated Water Resources Management Plan (WRMP) which sets out how the company will provide a secure and sustainable supply of water to their customers, whilst protecting the environment, over the next 75 years. WRMPs are important strategic plans that set out the preferred programme for managing water resources in the Thames Water supply area. The plan sets out forecasts of supply and demand, including the expected shortfalls in the future due to pressures such as climate change and population growth. It also sets out a programme of planned interventions to ensure that water resources within the Thames Water area are appropriately managed, including demand reduction measures like addressing leaks, and larger more strategic measures including water transfers and a new reservoir in the Abingdon area.

Thames Water's Drainage and Wastewater Management Plan

2.20 Thames Water's Drainage and Wastewater Management Plan (DWMP) addresses future pressures on our wastewater service and sets out their approach and the investment needed to deliver a sustainable service that manages wastewater for the area and protects the environment. The DWMP covers a 25 year period and was published in May 2023.

3. Current situation (supporting Task A2 and A3 of Sustainability Appraisal)

Air quality

3.1 The City Council declared an Air Quality Management Area (AQMA) for Nitrogen Dioxide (NO2) in central Oxford in 2003, which was expanded in 2005. Despite good progress being made as part of the responses enacted to address these designations, significant breaches of the national objectives for NO2 still existed and additional hotspots were identified. Following further detailed assessments of air quality, a city-wide AQMA was declared in September 2010. In 2021 the Council published its Air Quality Action Plan (AQAP) prepared to address poor air quality in the city covers the period from 2021-2025 and includes an ambitious headline target to "achieve a local mean NO2 target of 30µg/m3 by 2025".

3.2 Air pollution can have a variety of causes including tail pipe emissions from transport, the wearing of tyre and brake pads, as well as emissions from heating sources within buildings (e.g. gas boilers). The pollutants are comprised of various substances including nitrogen dioxide, ozone, and particulate matter (small particles of solids like soot and dust). The latest Air Quality Annual Status Report (published June 2025 and reporting on 2024 observations) indicates that the transport sector continues to be the largest contributor (44%) to total emissions of Nitrogen Oxides (NO + NO_2) in the city, followed by combustion from industry and services (30%), domestic combustion (26%), and others: waste, agriculture, solvents, nature (<1%).

3.3 The Council's annual air quality status report (published June 2025 and reporting on 2024 observations) indicates the following in terms of current situation:

- Air pollution levels have significantly improved in the city of Oxford over the last few years since the launch of the Air Quality Action Plan (AQAP) 2021-2025. Nitrogen Dioxide (NO_2) is the pollutant of greatest concern in Oxford, it is

emitted from high-temperature combustion processes and is generally concentrated around busy roads due to its short lifetime. Across the city, it is estimated to have decreased on average by 10% in 2024 compared to 2023. Despite this, there are still air quality challenges to address.

- Only one of the 118 sites that the city monitors for NO_2levels were in breach of the UK's legal annual mean limit value for this pollutant: Headington Hill (TF19), though this is not an area of primary concern (i.e. where members of the public are likely to be regularly present for a period of time).
- Only four of the 118 sites were in breach of Oxford's local annual mean target for NO_2 (30 µg/m3) – this target is the city's local commitment laid out in the city's AQAP, and which is expected to be achieved across the city by 2025. Those locations are St Clements (DT55), Headington Hill (TF19), and Oxford's ring road (TF31 and TF36).
- The reduction in NO_2 levels are likely linked with reductions in transport levels in the city seen recently, which are also expected to have been influenced by the closure of the Botley Road in April 2023 for improvements to the railway station, as well as the influence of the Zero Emission Zone Annual mean for particulate matter (PM2.5 and PM10) levels is measured in fewer locations than NO_2 (at AURN St Ebbes, representing urban background and Oxford High Street, representing roadside). For PM2.5, annual mean levels recorded at the city's two monitoring locations were of 6 and 7 µg/m3 respectively. These are below the current UK legal annual mean limit of this pollutant (10 µg/m3) but slightly above the WHO recommended annual mean (5 µg/m3). Annual mean PM10 levels were recorded as 9 and 13 µg/m3 respectively and have seen reductions of 0% and 7% at the city's monitoring sites compared with the levels measured at these sites in 2023. Values are well within compliance with the UK's annual mean limit value of 40 µg/m3, and just below the 15 µg/m3 guideline value recommended by WHO for this pollutant.
- Ozone is measured at one site in Oxford and levels exceeded the legal air quality objectives for this pollutant 114 times, during a total of 15 days in 2024, compared with 113 times over a total of 15 days during 2023. Therefore, AURN St. Ebbes has not met the AQ objectives for this pollutant in 2024. These breaches were likely caused by periods of warmer weather, linked with south-eastern winds coming from Europe, which brought pollutants that contributed to ozone formation.
- The report also details various positive steps that have happened over the last year with regard to addressing transport emissions. For example, the County

secured £3.6 million funding from the Department of Transport to triple its public EV chargers; the City and County held Air Quality Action Plan workshops; and the City and Canal & River Trust launched 'eco-moorings' for the first time along the Aristotle Canal for charging e-boats.

3.4 Long-term exposure to air pollution has been linked to chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy. Short-term increases in levels of air pollution are associated with a range of health impacts, including lung function, exacerbation of asthma, increases in respiratory and cardiovascular hospital admissions and mortality. It can be particularly detrimental for society's most vulnerable individuals including the children, the elderly, and those with long-term health conditions. Air quality was legally recognised as a contributing factor in the death of an individual in the UK for the first time in 2020. The issues of poor air quality affect everyone, but there are often inequalities in exposure towards those living in more deprived communities for reasons such as: living in poorer quality buildings; reduced access to open space and green infrastructure; proximity to busier main roads where pollution is worst.

3.5 Poor air quality can also have negative impacts on sensitive habitats, particularly near to sources of emissions like roads with deposits of substances like nitrogen altering the suitability of the environment for certain species and changing the makeup of the ecosystem over time. Previous iterations of Habitats Regulations Assessment (HRA) have flagged that air quality impacts are a particular sensitivity that risks the habitats and species of the Oxford Meadows Special Areas of Conservation (SAC). The HRA which has been published alongside the Regulation 19 Local Plan should be referred to for additional detail.

Land quality/soils

3.6 Oxford contains several wedges of agricultural land. The best and most versatile agricultural land (Grades 1, 2, and 3a) is considered to be a national resource and should not be lost. Most of the agricultural land in Oxford is not of this quality, however, there are some parcels of Grade 2 agricultural land north of Binsey and in the Cherwell Valley.

3.7 Oxford has seen significant industrial change to the present day in fact Oxford's industrial history has resulted in a substantial amount of land affected by contamination. Almost all of the former major industrial sites have now been remediated and redeveloped, such as Lucy's in Jericho and the former car factory site in Cowley. However, there remain a number of smaller sites that have the potential to be affected by contamination.

3.8 In 1989, Oxford City Council commissioned a review of former landfill sites in the city. It was a comprehensive review that allowed the city council to manage the risks associated with those sites. A review of council-owned allotment sites was also carried out in the 1990s following some concerns about the quality of the land for growing produce. Since then, some council-owned land, such as former depots, has been redeveloped for housing and the necessary site investigations and remediation has been secured through the planning process.

3.9 Oxford City Council maintains a public Contaminated Land Register in accordance with the relevant legislation. There are currently no entries on the Contaminated Land Register. It is worth noting that the register does not include the details of sites that have been remediated through the planning process. There is the possibility that contaminated sites which have not been identified remain and thus could be added to the register in the future.

3.10 Oxford also has a number of peat-rich soil deposits which are located in several locations across the city. Peat rich soils are particularly valuable natural features which not only act as important storage for carbon (carbon sinks) but are also important for managing/storing water and also for retaining archaeological deposits. Historic British Geological Survey/Natural England mapping has these identified at Dunstan Park, around the Churchill Hospital and Lye Valley, as well as along Littlemore Brook in the south of the city. Engagement with Natural England officers previously suggests that this mapping was only approximate and that a future project is likely to result in refinements to this mapping (discussed further in Section 5). Indeed, the Council is aware of the potential for deposits more widely in the city despite historic development having likely removed much of what was once present.

Water resources/water quality

3.11 The Council has produced a separate Water Cycle Scoping Study which should be referred to for a detailed assessment of water conditions in the city. This follows best practice for preparing such studies as set out by the Environment Agency. The following is a summary of the situation in relation to water resources (supply and quality).

3.12 In terms of water supply, the city remains in an area of serious water stress as identified by the EA and this is the basis for the more stringent water use limits imposed by Building Regs which the Local Plan 2036 requires of new development. Thames Water are responsible for water supply for the city and their Water Resources Management Plan (see earlier in this background paper) notes several key challenges facing the management of the water supply for the region in the future: a growing population, climate change and the

need to protect the environment. By 2050, without taking action, the plan projects a water supply shortfall for the region of 1060 million litres per day, which increases to 1100 million litres per day by 2075. In order to tackle the shortfall, the plan proposes a variety of measures including leakage reduction, smart meter installation, free water efficiency measures and advice for customers, as well as new water supply schemes.

3.13 Water quality issues are ongoing in the city, with the majority of watercourses either classified as moderate or poor in ecological status for a variety of reasons. Oxford is located within the Thames River Basin District which is covered by the Thames River Basin Management Plan (TRBMP) which was last updated by the Environment Agency in 2022. As part of this update, revised condition assessments are available showing the variety of reasons for the condition of water quality in waterbodies, in particular:

- Agricultural practices (poor nutrient management)
- Sewage discharge
- Invasive species
- Urbanisation
- Global pollutants (uPBTs) - causing all waterbodies across country to currently be classed as fail for chemical status

3.14 Some of these stressors are not within the Local Plan's influence, for example, pollution arising from agricultural practices within the catchment, as well as the influx of invasive species into watercourse or the chemical contamination arising from global pollutants. Others are more within the influence of planning policies that guide the quality of new development, for example the treatment of urban run-off arising from urbanisation, as well as the pressures on wastewater infrastructure leading to sewage discharges (though this is partial in relation to new development, as there is already a significant proportion of existing development that new planning policies are not able to influence).

3.15 There are known capacity concerns in relation to wastewater infrastructure in the city and upgrades are required to the Wastewater Treatment works which services the city to address current capacity problems and future needs. On 20 March 2025, following a rigorous process to find a solution to the existing concerns, an announcement was made that the EA, Thames Water and Oxford City Council agreed a scheme to provide the capacity needed at the Oxford Sewage Treatment Works, this will help provide the confidence and certainty that water quality will be protected and communities in the area will have the water services they need, allowing projected growth to come forward. Separately, Thames Water's Drainage and Wastewater Management Plan (covering the period 2025 to 2050), proposes various measures to address targets for addressing known issues with the wastewater and drainage systems across their region which will include

Oxford. The Council has been engaging with representatives of Thames Water and the EA during preparation of the Local Plan 2040 and continues to do so on throughout the preparation of the new Local Plan 2045.

3.16 Groundwater is another important element of the city's water environment and the Environment Agency includes various pieces of guidance in relation to its protection. The quality of groundwater and the way it flows below the ground can be particularly important for maintaining the healthy functioning of various sensitive ecological sites around the city, including the Oxford Meadows SAC and SSSIs such as the Lye Valley. New development coming forward in particular areas needs to ensure that risks of introducing pollutants into groundwater are mitigated sufficiently but also that subterranean development, such as introduction of basements, does not interrupt water flows.

3.17 Climate change is likely to put additional pressures on the water environment in future. Drier, warmer summers could put pressure on water supply and the quality of waterbodies in the city, as well as impacting the more sensitive habitats that rely on a certain hydrological profile to support species that exist there. Equally, more intense rainfall events could put additional pressures on wastewater systems and result in additional releases of pollutants into waterbodies without appropriate mitigation measures in place.

Other impacts on the environment

3.18 The development process can have other impacts on the environment and people's health unless sufficient mitigations are put in place. In denser urban areas, sources of different types of amenity impact and pollution can be more common and their impacts increased. For example,

- Impacts of noise pollution arising from construction processes as well as when a development is in operation and from other sources such as traffic can have a variety of health impacts such as sleep disturbance, impairing concentration and causing stress in people whilst also disturbing wildlife.
- Impacts of dust released arising from during construction processes like demolition and processing materials can exacerbate air pollution
- Impacts from odour, including where development arises in proximity to particular odour sources such as sewage treatment works or industrial uses.
- Excessive artificial lighting can impair natural functions of wildlife such as birds and insects.

4. Likely trends without a new Local Plan (supporting Task A2 and A3 of Sustainability Appraisal)

4.1 The policies of the adopted Local Plan 2036 would continue to apply. There would also be national policy which affords various protections and requirements for addressing issues of pollution/contamination of air, land and water. This would be supported by the range of other associated environmental legislation, including what was touched upon in the policy context section.

4.2 Whilst air pollution arises from various sources, it is predominantly transport-related emissions (particularly fossil fuel burning engines) which is responsible for the bulk of pollutants in Oxford. The Local Plan has limited influence on transport emissions as the Council is not the highways authority. However, there are a number of schemes proposed for Oxford through the Local Transport and Connectivity Plan (LTCP) and the Central Oxfordshire Travel Plan (COTP) which, in combination, should improve air quality by reducing emissions associated with transport. These include: traffic filters, low traffic neighbourhoods (LTNs), and the zero-emission zone (ZEZ). These are likely to bring benefits even without a new local plan as they are being driven via different work-programmes and funding. The Transport background paper 012 explains these programmes in more detail.

4.3 Nationally, transport-related emissions are expected to continue to reduce as transport shifts towards electric vehicles with the phasing out of new petrol/diesel engines (previously this was delayed to 2035, although the current government have pledged to bring this date forward to 2030). Indeed, Oxford is already shifting public transport to electric modes, with the recent delivery of 159 electric buses which will help to shift 69% of the total bus mileage operating in the city to electric. There are likely to remain air quality impacts from brakes/tyres, however, small improvements could also occur in this regard as technologies improve.

4.4 Government proposals to phase out gas boilers in domestic heating, alongside tighter Building Regulations and general improvements in the efficiency of these systems, are also likely to bring improvements in relation to domestic sources of air pollutants in the absence of a new Local Plan, at least for new buildings. The effect of these improvements in reducing the sources of emissions from existing buildings will likely take more time as the retro-fitting of existing stock is a significant challenge. These issues are explored more in the Background paper 008 Carbon Reduction and Climate Resilient Design.

4.5 In terms of efficient use of land, development pressures will continue in the city regardless of a new Local Plan, with high demand for land for housing and commercial

uses in particular; pressure for higher density development; and a continued reliance on previously developed land (which also now has greater emphasis in the 2024 NPPF updates). The absence of an up-to-date Local Plan could potentially increase the pressure for development on greenfield sites within the city boundary, including open spaces which could be used for agricultural land. This could have subsequent implications for degrading soils if unmitigated, including areas of more carbon-rich peat reserves which have not already been lost, as well as the potential to have an adverse impact on the amenity of residents and visitors to the city. With use of previously-developed land, there is also likely to be a continued need to address issues of contaminated land including appropriate remediation where necessary to ensure that people do not come into contact with harmful pollutants.

4.6 In terms of water resources, Oxford is already in an area of water stress, and climate change may exacerbate this. Increased development and associated population growth will also put more pressure on water resources without appropriate mitigations. Thames Water has various plans in place to address water supply and wastewater treatment which will likely have benefits for Oxford. To be most effective, these will also need to be combined with appropriate water efficiency measures in homes and businesses, which a new Local Plan could help to implement for new developments only (not for retrofitting) as is the case with the extant Local Plan 2036. A new Local Plan would also provide infrastructure providers like Thames Water with the best certainty over the location, scale, and type of future development expected to come forward in the city allowing them to better plan for future needs.

4.7 In relation to water quality, Local Plans have varying levels of influence over the different factors negatively impacting the quality of the water environment in the city. Without a new Local Plan, problems associated with urbanisation and sewage discharge could be exacerbated as the current Local Plan policies grow out of date, meanwhile impacts of pollution relating to agriculture, or invasive species in the environment are likely to persist without other types of interventions outside of planning. There are various infrastructure upgrades and improvements that will need to be carried out by Thames Water in order to address existing capacity concerns and meet demands for the future, which will support improvements to the water environment by addressing problems of sewage discharges. Again, having an up-to-date Local Plan can help ensure that there is a clear picture of how future development will come forward in order to help inform those upgrades. Whilst the current Local Plan sets policies that help to mitigate water quality impacts from new development (e.g. SUDs policies), a new Local Plan will help to ensure the right policies are in place up to 2045 in order to mitigate impacts of future growth and complement the upgrades to infrastructure that also need to be put in place.

5. Key issues addressed through the Local Plan

5.1 The Regulation 18 consultation identified that there were a number of topics that the Local Plan could implement policy to address which relate to impacts on natural resources. Under each of these topics, there were various options for policy approaches which could be taken, with differing impacts and these were presented in tables to better facilitate comparison between them. The options considered have been reviewed in light of the Regulation 18 feedback (as summarised in the consultation report) and the updates to the Local Plan period, these are reproduced in Appendix A along with the preferred approach taken forward for the Local Plan.

5.2 This section will now discuss the key issues that are being addressed through the Local Plan and how the Local Plan's policies respond to them.

5.3 The new Local Plan continues the approach of the Local Plan 2036 in addressing different elements of natural resources and environmental quality across a number of policies. Overarching across all the topics discussed in this paper is policy R8 Amenity and Environmental Health impacts of development which covers a wide range of issues that can arise during the construction and operational phases of development. The policy sets out various impacts a development may need to mitigate including various types of pollution such as noise and vibration, light, as well as impacts of odour. This is supported by requirements for construction management plans as set out in policy C6. The Local Plan then also includes several bespoke policies which address particular issues that need more nuanced responses.

Air

5.4 Policy R4 sets out requirements in relation to air quality including requirements for Air Quality Assessments on major developments as well as general requirements with regard to designing to mitigate impacts of poor air quality, particularly on sensitive receptors. Air quality limits of new development are expected to fall in line with the local target for Nitrogen Dioxide (NO2) as set within the Council's Air Quality Action Plan, this is intended to ensure that the standards of development are aligned with the wider strategy for addressing poor air quality in the city. With the shift towards electric vehicles and electric forms of heating in buildings (as opposed to burning fossil fuels), it is expected that accordance with this target should become increasingly manageable over time.

5.5 Additional policy requirements set out elsewhere in the Local Plan, including those related to net zero carbon buildings (Policy R1) which restrict burning of fossil fuels in new development, as well as policies promoting walking/cycling/wheeling in Chapter 7 will also support air quality.

Water

5.6 The Local Plan 2045 includes a new water focussed policy—Policy R5—which addresses both the use of water (water resources) and protection of the water environment in the city (water quality). This is an important policy which responds to various pressures on water in and around the city and requires applicable proposals to submit a water awareness statement as part of their application setting out how the policy's requirements have been met.

5.7 The policy sets requirements that seek to promote prudent use of water including the tighter water use restriction of Building Regulations, as well as more general water saving/efficiency measures. This is important for seeking to mitigate impacts on water resources, which we know from the Council's Water Cycle Study are under pressure now and increasingly so in future due to factors like increased demand from population growth and hotter, drier summers due to climate change.

5.8 Additionally, the policy seeks to protect the water environment from the impacts of new development, seeking to ensure that proposals demonstrate that development will not have an adverse impact on the quality of controlled water bodies and groundwater. The policy works in tandem with a range of policy requirements across the Local Plan, such as:

- Policy G2 encouraging buffers along watercourses which seek to protect and enhance these areas where development happens adjacent to them.
- Policy G6 setting out the protection and mitigations required where development could potentially have an impact on ecological sites including those that are particularly sensitive to impacts on water quality (and/or flows of surface/groundwater and groundwater recharge.
- Policy G8 setting out requirements for multi-functional green Sustainable Drainage Systems (SuDS) which are important for helping to filter contaminants of surface water run off.

Land and soils

5.9 There are two policies in chapter 5 which deal with land and soils, policies R6 and R7. Policy R7 addresses the potential for presence of land contamination. This policy is largely unchanged from the currently adopted policy within the Local Plan 2036, with minor revisions including reference to sustainable remediation practices. It seeks to ensure applications are accompanied by appropriate investigation of land contamination where it could be present and that remediation efforts are put in place where necessary to ensure it is made safe.

5.10 Another new policy for the Local Plan, first proposed as part of the withdrawn Local Plan 2040, is Policy R6 which addresses soils and peat reserves. The purpose of these requirements are to help mitigate impacts on soils, which are a resource which takes a very long time to replenish, but one that can be impacted in various ways through development (e.g. compaction from heavy equipment during construction, sealing off by overuse of artificial surfaces etc). General requirements are included which encourage more sustainable use of soils, and whilst these will be more relevant on greenfield sites, it is important that they are considered in any development which affects soil where this could be a risk as these are important resources.

5.11 Additionally, the policy also includes requirements for preserving remaining peat reserves in the city, of which there are several recorded reserves in Oxford. Previous engagement with Natural England on mapping of peat across the UK has identified that existing mapping can be patchy and subject to some uncertainty. Indeed, the new national peat map published by Natural England in 2025 does not appear to currently identify any of the previously recorded deposits in the city on Natural England's old mapping or that appear on British Geological Survey records, although the guidance associated with this new mapping indicates it is subject to some uncertainties based on how deposits have been modelled. As such, the historic mapping has been utilised as the basis of the policies map layer as the Council is fairly confidend that this acts as a good indicator for significant existing deposits in the city based on existing knowledge of ground conditions in the city.

5.12 To accommodate for uncertainties in existing mapping, the policy also includes a requirement for investigations within 200m of the previously recorded reserves identified on the policies map if proposing development on undeveloped land. This requirement is considered to be a pragmatic solution so that the development process is informed by a sound understanding of below ground conditions in areas with a higher likelihood of deposits being found. It will also help to ensure that the Council is provided with sufficient information to make a determination about impact of proposals on other peat deposits in the city when applications come forward.

Appendix A – Regulation 18 Policy options sets

Policy options set 009a (draft policy R4): Air quality assessments and standards

Whilst air quality is improving in the city, it is important that new development is designed with appropriate consideration for existing pollutant exposure in area, potential impacts on users of the development (including sensitive users), and also the potential for the new development to exacerbate existing issues. Whilst the key pollutant of concern in the city to date has been Nitrogen Dioxide, there are a range of other pollutants which have impacts on people's health that need to be considered, including particulate matter. These various pollutants can have a range of sources including transport, boilers, manufacturing and construction processes. The city's Air Quality Action Plan (currently being updated), includes local targets for air quality that are more stringent than national targets and it is important that new development is aligned with this.

The policy options set out include requirements for undertaking air quality assessments and demonstrating that proposals have considered the range of pollutant sources during operation but also construction and that any significant impacts on air quality are mitigated. There is also an option for requiring new development to align with the city's locally set air quality targets as outlined in the latest Air Quality Action Plan. There is also an alternative option of having no locally set policy on air quality.

Table 1: Policy options set 009a: Air quality assessments and standards

Option for policy approach	**Potential positive consequences of the approach**	**Potential negative/neutral consequences of the approach**
Option a Require Air Quality Assessments (AQAs) for all major developments, and any other development considered to have a potentially significant impact on air quality. The AQA must consider all the different sources of air pollution during operational and construction phases (including but not	Improving local air quality, mitigating the impact of development on air quality and reducing exposure to poor air quality across Oxford is key to safeguarding public health and the environment. The whole of the city was declared an AQMA in September 2010. A policy in the Oxford Local Plan can influence and seek improvements in air quality at both a local and strategic level. For example, the	Additional assessment/modelling requirements for applicants which adds to the information they would need to submit with a planning application.

limited to: transport, heating, dust generated from construction activities, etc). Any resultant significant impacts on air quality inside an AQMA must be mitigated.	encouragement of active travel options reduces dependence upon use of private cars, the majority of which are currently non-electric vehicles (EVs). The Air Quality Action Plan (AQAP) has been produced as part of the City Council's statutory duties and it outlines actions to be taken to improve air quality in Oxford 2021-2025. Key objective is to bring NO2 emissions into legal compliance as soon as possible and to go beyond legal compliance.	
Option b Require all new major developments within the city's AQMA to comply with the locally-set, more stringent, air quality standard for Nitrogen Dioxide (NO2) set out in the city's latest air quality action plan (AQAP) (currently a target of 30µg/m3) as well as compliance with current national air quality objectives (unless superseded by local standards).	This target would set an ambitious standard for accepted Nitrogen Dioxide emissions from all new development in recognition of the rigorous target the City Council has set locally within its Air Quality Action Plan (AQAP). The standard would potentially become more challenging if the AQAP is updated with tighter standards in future. The target is currently 10ug/m3 lower than the UK's current annual mean limit value for this pollutant.	A more stringent target will set a higher standard for new development in the city which could be considered more onerous for applicants. This is an additional standard to the requirements that developments currently follow in the current local plan.
Option c Do not include a policy about air quality assessments but rely on other regulatory regimes.	None identified	This option is not considered to be reasonable due to the poor air quality across the city, and the whole city already covered by an AQMA. Relying upon national legislation ignores the Oxford context and the city's ambition to go beyond national targets.

Initial sustainability appraisal screening of options sets
Is there only one option or are there various options we could take? a or b or a+b, or c **High-level screening conclusion? -** the options are similar to each other from a sustainability perspective

Screened in for detailed appraisal? No

Rationale: These options are about whether to set local policies about air quality (options a and b) or to rely on national policy and regulatory regimes (option c). The whole of Oxford is covered by an Air Quality Management Area (AQMA) so air quality is a sustainability issue of particular relevance to Oxford. Historically there have additionally been air quality 'hotspot' areas identified, where pollutant levels were of even greater concern than the rest of the city, although in recent years the levels at the majority of these hotspots have now reduced significantly as a result of various measures to improve air quality (as set out in the Oxford Air Quality Action Plan), such that they no longer warrant bespoke policy measures for those areas. The AQAP sets more stringent targets for air quality than national targets, and as the monitoring in the AQAP report sets out, those more ambitious targets are being met in recent years, so it would a reasonable approach for LP2042 to continue to set ambitious targets to tackle the issue of air quality.

In terms of sustainability impacts, options a and b could potentially help to meet **criterion 8 reduce traffic and associated air pollution**, because although the options aren't about traffic, they encourage consideration of air pollution and as emissions from transport are one of the biggest contributors in Oxford then any AQA would need to consider the operational impacts which would include transport (as well as other sources of air pollutants). This is partly however subject to implementation. Option b is likely to have the greatest positive impact because that sets stringent targets whereas option a only requires consideration of air quality but does not set targets. Option c would be neutral because it does not go beyond the national policy baseline and sets no targets, however emissions from transport are likely to continue to reduce under this scenario as the national transition away from fossil fuel transport and heating sources continues. Overall, it is considered that the sustainability impacts from the options do not differ enough to warrant them being scoped in for detailed appraisal.

Air quality assessments and standards – Draft policy R4

The preferred approach for the Local Plan policy is to have a local policy that addresses air quality so as to ensure that impacts on health, particularly for the most sensitive groups, are fully considered and that progress on improving the city's air quality continues. This recognises that this issue is an important one locally, as well as a particular objective to be addressed by the new Local Plan, and responds to the ongoing AQMA designation which covers the entire city.

This means a combination of **options A and B**, with option A helping to ensure that new development fully considers the issues of relevance in relation to existing air quality issues in the area, but also how a proposal could be impacted by this or could impact upon it via submission of an Air Quality Assessment. Option B will also help to ensure that new development is designed in a way that is aligned with the city's local objectives for addressing air quality, including aligning with the local air

quality targets which are tighter than national targets in relation to Nitrogen Dioxide (for which past exceedances are the reason for which the city's AQMA designation is in place).

Policy options set 009b (draft policy R5): Water quality and resources

The city is subject to various issues impacting the water environment. Oxford is in an area of water stress and this stress is likely to increase due to climate change, meaning that it is imperative that new development uses water prudently and minimises waste. Equally, watercourses around the city are subject to pollution from various sources which impact on their ecological status, some of which is associated with the development process (e.g. urbanisation increasing pollutant run off; pressures on wastewater systems leading to sewage discharges). Whilst the Local Plan cannot fully protect or mitigate all of the ongoing challenges facing the water environment (which is subject to actions carried out by stakeholders across the wider catchment), it can help to ensure that the impacts from new development are fully considered and appropriately mitigated.

Various design choices can help to address pressures on the water environment, from the way services and water fittings are implemented within buildings, to the way that green infrastructure and sustainable drainage systems are incorporated in areas around buildings. As such, one option would be to ensure that considerations affecting water are spread throughout relevant policies of the Local Plan to ensure a wholistic approach to assessing new development. Alternatively, because issues impacting the water environment are so pronounced, and subject to increasing concern, it may be more appropriate to include a bespoke policy addressing these requirements, though there may be some repetition/crossover with other policy areas. The options also include requirements for separating foul and surface water in when designing drainage for new sites, to reduce pressure on the sewage system.

Table 2: Policy options set 009b: Water quality and resources

Option for policy approach	**Potential positive consequences of the approach**	**Potential negative/neutral consequences of the approach**
Option a Include a bespoke policy on water resources and water quality. This would include various requirements such as	Ensures that water quality is addressed separately in any development. Having a bespoke policy is a clearer way of presenting the various requirements for water use and water quality for applicants and also decision	This could result in unnecessary repetition in the Local Plan and additional information being prepared for a proposal that would have already been undertaken as part of the SuDs design, and would have already been considered in assessing any potential impacts of the proposal on water quality.

requiring measures to limit water use and conserve water, including meeting the tighter Building Regs water use limits. Also, measures to mitigate impacts on water quality, such as use of Sustainable Drainage Systems (SuDs).	makers, and transparently demonstrating compliance with Water Framework Directive requirements.	
Option b Do not have a bespoke policy but instead incorporate water resources/ quality considerations into other policies about managing the impacts of development.	This approach ensures that water quality is addressed through approaches such as: ensuring water use is limited to certain standards in new development through resilient design and construction; the use of SUDs in development; and the provision of evidence in any planning application submitted which demonstrates that there would not be a negative impact on water quality.	Previous feedback on the Local Plan 2040 from the Environment Agency flagged concerns about this approach including that there was potential for it to result in elements of water quality being overlooked. It is also potentially a more complicated way of presenting the policy position rather than having a bespoke policy.
Option c Expect that foul water is separated from surface water drainage on development sites. Require a Foul and Surface Water Drainage Strategy for all new build residential development and non-residential development above a certain threshold.	Would ensure that appropriate consideration is given to foul water drainage and how this is handled on site regarding sewer system. Would ensure that design of foul water drainage is appropriately informed by strategy on larger developments.	Additional requirements placed upon developers in order to achieve planning permission.

Option d Do not include any policy direction about water quality but rely on other regulatory regimes and national policy.	The NPPF includes high level guidance about water quality and drainage (paragraph 182).	Would not address Environment Agency concerns raised at LP2040.

Initial sustainability appraisal screening of options sets
Is there only one option or are there various options we could take? Option a or b or d (they are alternatives) or combination with option c **High-level screening conclusion?** the options are similar to each other from a sustainability perspective **Screened in for detailed appraisal? -** No **Rationale:** These options are about whether to set local policy requirements about water quality (options a or b) or to rely on national policy and regulatory regimes (option d). Option c would require additional information to be submitted in relation to foul and surface water drainage which is important for reducing impacts on sewer network. Options a, b and c would score positively for **criterion 9 water quality targets**, but option a would set out the requirements in a single policy whereas in option b the issue of water quality would be woven into other relevant policies through the plan (the requirements themselves are not expected to differ, the choice is principally in how they are presented). Option d will be neutral in some respects because there are regulatory regimes that should prevent deterioration of water quality in various ways, alongside Thames Water's own responsibilities for addressing this challenge, however, there could potentially be some negative impacts where national standards are not considered enough, particularly in light of known challenges with water quality in the city and this makes this option unlikely to be reasonable to take forward. Overall, it is considered that the sustainability impacts from the options do not differ significantly enough to warrant them being scoped in for further detailed appraisal.

Water quality and resources – Draft policy R5

6.7 Again, the preferred approach for the Local Plan policy is to have a local policy that addresses the issues of water resources and water quality. Whilst the local plan will not be able to fully address the various stressors on the water environment which arise from various sources such as climate change, pollution from land use management like some agricultural practices, as well as the actions of stakeholders beyond the city, it can still help to ensure the impacts from new

development are appropriately considered and mitigated. Previous feedback on the Local Plan 2040, which proposed addressing water issues across various policies instead of one policy, suggested that stakeholders such as the Environment Agency wanted to see a bespoke policy which would provide more clarity and better signpost this as a key issue facing the city.

6.8 As such, the preferred approach is a combination of **Options A and C. Option A** will mean setting out a policy with various requirements for how development should address conserving water, including that they follow the optional tighter standard for water use limits, as well as incorporating other water saving measures. It also means including requirements for how water quality should be preserved, which would have overlap with other policies in the plan such as use of sustainable drainage measures. The preferred approach would also include **option C** which is to ask applicants to ensure foul water is separated from surface water in drainage systems, which can help reduce the strain on wastewater systems, and, on larger developments, go further and ensure their application is supported by a foul and surface water drainage strategy which can fully set out how these issues have been considered.

Policy options set 009c (draft policy R6): Soil quality

Earlier sections of the background paper identify that construction practices and inappropriate design of new development can have harmful impacts for soils, of which Oxford has varying quality. Soils are important for providing a range of benefits, from supporting green infrastructure and habitats, to flood storage and locking up carbon. In particular, Oxford has several areas of particularly valuable peat deposits, which are especially important carbon sinks as well as sources of archaeological deposits. Whilst existing mapping identifies several recorded deposits, there is potential for additional areas of deposits in undeveloped land nearby which have not been officially recorded.

The options set includes an option for setting out requirements to ensure new development considers its impact on soils, regardless of their quality, and seeks to adapt design and construction practices to help ensure sustainable management of soils and mitigate harmful impacts. In addition, there is an option for having additional requirements in relation to protecting peat reserves because of their particular range of benefits they provide, which would focus on the known peat deposits, but could also incorporate requirements for investigating and addressing potential undiscovered deposits nearby.

Table 3: Policy options set 009c: Soil quality

Option for policy approach	Potential positive consequences of the approach	Potential negative/neutral consequences of the approach
Option a Set out requirements/principles for conserving and enhancing soils.	Construction practices, including use of heavy machinery, below ground construction and reworking of soil layers can have detrimental impacts on long-term health of soils. Incorporating standards within policy to guide design and construction would help to ensure the least impactful practices are followed wherever possible to avoid and mitigate impacts. Preserving soil health could help to secure multiple benefits in the long term, including for biodiversity, flood risk (improved flood storage) and climate change (healthier soils can better lock up carbon).	Different sites and types of proposed development will result in a variety of considerations and different solutions that will be needed. Unlikely to be a one-size-fits-all solution that a policy could guide applicants towards. Asking applicants to tailor construction processes to avoiding impacting soil quality e.g. through avoiding loss, erosion, compacting soils with heavy machinery is likely to impose additional challenges for design and construction and potentially incur additional cost and resource.
Option b Set out additional standards for the protection of peat reserves including no loss/dewatering of these reserves.	This approach would help to ensure that some of the most valuable types of substrate, not only for locking up carbon, but also archaeological remains, are preserved where they still remain. This is particularly important as peat deposits take a significant period of time to develop. The most pragmatic approach would be to focus this policy requirement on the known areas of recorded peat deposits in the city according to public mapping from Natural England with a precautionary buffer area, whilst treating the surrounding areas with an element of caution, focusing requirements for additional investigation only to proposals on undeveloped sites in the vicinity.	Known, publicly accessible mapping of peat reserves that applicants could rely upon is potentially patchy. Whilst it seems most appropriate to focus requirements for additional investigation to areas within or around recorded deposits, the approach could potentially miss out on unknown deposits located more widely across the city. Requirements for additional investigations within the buffer zones to known reserves will incur additional cost and resource from applicants, though this could be reduced by focusing on undeveloped land where potential for underlying peat is potentially higher.
Option c	None identified	National policy is fairly limited in guidance for conserving soils and peat so a lack of local policy may

No additional policy for addressing soil quality or protection of peat.		lead to further deterioration and loss of peat (which is effectively irreplaceable).

Initial sustainability appraisal screening of options sets
Is there only one option or are there various options we could take? - either option A, B, A+B, or C **High-level screening conclusion? -** the options are similar to each other and are unlikely to have significant sustainability impacts **Screened in for detailed appraisal? -** No **Rationale:** The options represent varying levels of protection that local plan policy could provide for soils, with option a setting out general requirement and guidance, and option b setting out additional protections for peat reserves (which could theoretically be standalone or in combination with option a). Option c would mean setting no local policy. The sustainability impacts relate most directly to **SA criterion 3. Efficient Use of Land** with option a and b representing minor significant impacts for protecting soils. Admittedly, the additional protections for peat could have negative impacts for the same criterion at the site scale in a select number of locations in the city where development capacities of sites in proximity to peat reserves could be limited by their additional protection (although these circumstances are expected to be quite limited). Option b would also represent an additional indirect positive impact for **criterion 1. Carbon Emissions** because it would help to ensure that the most carbon-rich reserves recorded in the city (peat reserves are typically significant carbon sinks) would be protected from further loss arising from the development process – although these resources are not factored into the city's specific net zero target roadmap. Option c is likely to be a minor negative impact for criterion 3. in relation to soil quality because there is little specific guidance in national policy alone that development would need to follow, thus without local guidance development has a far greater likelihood of coming forward in ways that degrade soils. The same is likely true for criterion 1. although the impact of option c may be closer to neutral in this regard as peat reserves in the city do tend to occur near to waterbodies or within areas of green space that mean they may benefit from additional protections that could mitigate some of the harm, although these are not specific to conserving below ground deposits like peat. Overall, the sustainability impacts are unlikely to be significant or to differ much between the options and screening in for detailed appraisal is not considered necessary.

Soil quality – Draft policy R6

6.11 To ensure impacts on soils are fully considered and opportunities for sustainable soil measures incorporated, the preferred approach is to follow **Option A and B** and include a local policy on soil quality. **Option A** will allow the Council to set

out various principles which applicants will need to follow, depending on the context of the site. This should help to ensure that future development mitigates impacts on soils as much as possible and ensure the issue of soil quality has greater prominence than in the current Local Plan.

6.12 In addition, **Option B** would help to respond to concerns flagged about the Local Plan needing to protect remaining peat reserves in the city as part of the previous Local Plan 2040 preparation and would recognise the particularly important role these deposits serve as carbon sinks and sources of archaeology which will be hard to replace if lost. It is acknowledged that mapping of peat reserves in the city is subject to some uncertainty, however, the focus on the recorded reserves according to publically accessible Natural England mapping would be bolstered by a buffer zone that seeks to ensure proposals nearby sufficiently investigate potential for peat on their sites and respond accordingly.

Policy options set 009d (draft policy R7): Contaminated land

Many of Oxfords past major industrial sites have been subject to remediation to address potential land contamination in the past, however, there is potential for additional contamination on smaller sites across the city due to Oxford's long history of settlement. Whilst national policy already sets various requirements for developers to address contamination, there is the option to set out specific local policy expectations for ensuring that potential contamination investigated and appropriately mitigated, with the alternative option being not to include a local policy at all.

Table 4: Policy options set 009d: Contaminated land

Option for policy approach	Potential positive consequences of the approach	Potential negative/neutral consequences of the approach
Option a Include a policy that requires the submission of details of investigations of any site suspected to be contaminated and details of remedial measures which must then be carried out.	This would be a continuation of the existing policy (currently set out in policy RE9). This approach ensures that there will be no threat to the health of future users or occupiers and no adverse environmental impacts.	Additional assessment/modelling requirements for applicants which adds to the information they would need to submit with a planning application.

Option b Do not include a policy about land quality but rely on national planning policy and other regulatory regimes.	NPPF includes general policies about ground conditions and pollution and remediation.	This option is not considered to be optimal as the relatively large proportion of brownfield sites in Oxford means that there are more sites with potentially contaminated land than in other areas.

Initial sustainability appraisal screening of options sets
Is there only one option or are there various options we could take? - either option a or b (they are alternatives) **High-level screening conclusion? -** the options are unlikely to have significant sustainability impacts **Screened in for detailed appraisal? -** No **Rationale:** The options presented are either to have a local policy that requires applicants to demonstrate they have sufficiently investigated potential for land contamination where relevant (and carried out sufficient remediation) or not to have a local policy. In terms of sustainability impacts, the options relate most directly to SA **criterion 3. efficient use of land** and would also indirectly impact upon **5. Inequalities** (in relation to impacts on health). Option a would likely have a minor positive impact for criterion 3. in that it would allow for the efficient reuse of brownfield land through ensuring the previous contamination is investigated and remediated, ensuring this land can be brought back into use. It would have neutral or slight positive impacts for criterion 5. in that it would help ensure any harm to future occupiers' health is avoided, though the sites may not have been suitable for redevelopment at all without appropriate action to address any existing contamination too. Option B is likely to have a neutral impact across the criteria, as there is at least national policy guidance about addressing contamination, as well as other environmental quality legislation. The options are not considered to have significant sustainability impacts to warrant further detailed sustainability appraisal.

Contaminated land – Draft policy R7

6.14 Whilst national policy is already fairly strong on requirements for considering contaminated land, the preferred approach is to follow **Option A** and set out a local policy for addressing contaminated land. This would allow the Local Plan to clearly set out the specific local context of contamination in Oxford and provide applicants with a steer on the Council's expectations for how potentially contaminated sites are investigated and remediated.

Policy options set 009e (draft policy R8): Amenity and environmental health impacts of development

The constrained nature of the city means that development is often coming forward in close proximity to existing uses with various amenity implications where design has not considered this existing context. New development can have various impacts either as part of the construction process, or once in operation, particularly in relation to noise, dust and vibration, but also in other respects, such as glare, emission of pollutants and other forms of nuisance. These impacts can affect not only people but also the wider environment. Equally, the operation of existing uses nearby can impact upon users of a new development if a proposal is brought forward without due consideration. These existing uses may mean appropriate mitigation needs to be incorporated as part of the new development to ensure a reasonable and healthy environment for new occupants.

Some of these considerations, particularly those arising from the construction process and transport movements, will be factored into the production of construction management plans which would be required elsewhere in the Local Plan (discussed more in background paper 012/ draft policy C6). However, an option has also been considered for a broader amenity policy that could address these issues as a whole, alongside an option not to include a local policy.

Table 5: Policy options set 009e: Amenity and environmental health impacts of development

Option for policy approach	Potential positive consequences of the approach	Potential negative/neutral consequences of the approach
Option a Require that new proposals do not result in unacceptable impacts on amenity as a result of noise, nuisance from light, dust, fumes etc. Continue to require that impacts of developments must be mitigated to ensure that the amenity of communities, occupiers	This approach ensures that any potential threat to the residents, future occupants and existing communities from the development are assessed and mitigated appropriately. This is not a prescriptive policy but one that ensures that the impacts of development are comprehensively considered and mitigated where applicable. This option should provide greater protection to the health and wellbeing of the population.	Additional assessment/modelling requirements for applicants which adds to the information they would need to submit with a planning application.

and residents are protected.		
Option b Do not include a policy but rely on national planning policy and other regulatory regimes.	Relying on regulatory regime would be familiar to developers and not unreasonable burden.	Regulatory regimes may provide the minimum standards of protection, however, having a local policy helps to ensure the impacts of development are properly considered and assessed in the local context of Oxford.

Initial sustainability appraisal screening of options sets
Is there only one option or are there various options we could take? - either option a or b (they are alternatives) **High-level screening conclusion? -** the options are unlikely to have significant sustainability impacts **Screened in for detailed appraisal? -** No **Rationale:** One option is to include local policy that sets standards for protecting amenity and environmental health from the impacts of new development, and the other is to not include a local policy. The nature of this policy option set is that it is likely to impact upon a range of SA criteria such as **8. traffic and associated air pollution, 9. Water Quality, and 5. Inequalities** (the health element of this), due to the broad range of considerations it addresses. However, as it is focussed on ensuring mitigation to avoid negative impacts from new development this is likely to result in neutral impacts overall for these criteria. Option b would potentially therefore result in minor negatives for the same criteria, where development could come forward and cause amenity/environmental health consequences, however, this impact is mitigated by the presence of various other types of environmental health legislation and national requirements that could reduce these negatives, although it is less likely these would align with local objectives. Overall, the sustainability impacts of the options are not significant or different enough from each other to warrant further detailed appraisal.

Amenity and environmental health impacts of development – Draft policy R8

6.17 Again, the preferred approach for the Local Plan is following **Option A** to include a local policy on amenity and environmental health impacts of development. This recognises that the nature of the many constrained sites in the city means

that applicants need to consider a variety of impacts from their development on the surrounding area and vice versa and allows the Council to set out the key issues it wants to see applicants address.

6.18 The local policy can help ensure issues like noise, dust and vibration are considered as well as other impacts, to ensure that amenity for occupiers and neighbours as well as impacts on wider environment are sufficiently mitigated, although not all issues will be relevant to all applications. There is likely to be some crossover with other policies, such as the requirements for Construction Management Plans, however this policy would address broader issues like the impacts arising from the development once in operation too (not just the construction stages). Without a local policy, some of these considerations risk being missed, or not being sufficiently addressed upon submission of an application, potentially delaying the decision process.