

CABINET
14 July 2026

The Oxfordshire Infrastructure Strategy (OxIS)

Report by Director of Economy and Place

RECOMMENDATION

1. **The Cabinet is RECOMMENDED to**
 - a) **Endorse the Oxfordshire Infrastructure Strategy Stage 2 Prioritisation Report (provided at Annex 1)**

Executive Summary

1. The 2026 Oxfordshire Infrastructure Strategy (OxIS) Stage 2 Prioritisation Report is the third iteration of an OxIS, the previous iterations being published in 2016 and 2021.
2. The purpose of the 2026 Oxfordshire Infrastructure Strategy (OxIS) is to identify the strategic infrastructure needed to support future development across Oxfordshire to 2050. It provides a robust evidence base to inform the planning of sustainable development across the county.
3. The development of OxIS has been led through a collaborative working group made up of officers from Oxfordshire County Council, the district councils and Oxford City Council. This joint approach has ensured that the Strategy reflects a shared understanding of the county's long-term infrastructure requirements, draws on local knowledge from across Oxfordshire, and supports alignment between county-wide infrastructure planning, Local Plans and wider strategic priorities.
4. The scope of OxIS is to prioritise the strategic infrastructure required to support growth in Oxfordshire up to 2050, considering short-term needs to 2030, medium-term needs to 2040 and longer-term needs to 2050. It considers infrastructure requirements at national, regional, county and local geographic levels, with a focus on transport, energy and utilities, green infrastructure, water, social infrastructure, health and care infrastructure.
5. There are four stages to the project methodology:
 - Baseline infrastructure analysis
 - Growth scenarios
 - Digital infrastructure database

- Prioritisation and delivery mechanisms
6. The methodology of the infrastructure strategy has produced a tool which can be used to look at future infrastructure priorities and is adaptable to looking at infrastructure from differing policy lenses.
 7. The 2026 OxIS Report was subject to public consultation, which closed on 13 March 2026.
 8. OxIS was then considered at the meeting of the Oxfordshire Leaders Joint Committee (OLJC) on 24 April 2026. The report asked the OLJC to note and endorse the final OxIS, and to recommend its subsequent approval by constituent councils, including Oxfordshire County Council.
 9. This report to Cabinet outlines the key findings of the OxIS Stage 2 Prioritisation Report, particularly in relation to the strategic infrastructure that is key to the county council's statutory responsibilities and that will support sustainable growth in Oxfordshire up to 2050.

Introduction

10. The Oxfordshire Infrastructure Strategy (OxIS) has been prepared on behalf of the Oxfordshire Leaders Joint Committee (OLJC) to provide a comprehensive understanding of the key strategic infrastructure necessary to support future development to 2050.
11. The OxIS builds upon previous iterations to align with the partnership's 2050 Strategic Vision for Sustainable Development, focusing on nine key outcomes that include carbon neutrality, enhanced natural environments, and transformed connectivity.
12. As a high-level strategy, it identifies the critical systems, facilities, and services required to enable long-term growth across Oxfordshire. The OxIS functions as both a statement of ambition and a tool for engagement with key stakeholders, intended to inform Local Plans and guide investment priorities for local authorities, government bodies and infrastructure providers. As set out below, the OxIS Framework is a flexible decision-making tool, rather than a fixed set of outcomes.

Responding to growth

13. Oxfordshire is planning for substantial growth scenarios by 2050, with its population forecast to grow by approximately 221,000 to 250,000 people, a 29% to 33% increase that will see the total number of residents reach one million. To support this rising population, the Strategy outlines theoretical scenarios projecting between 123,000 and 134,000 additional homes across the county by 2050. Members are asked to note that these figures are based on current National Planning Policy Framework (NPPF) numbers.

14. This housing growth is matched by significant economic ambitions, driven by Oxfordshire's role in the Golden Triangle and the Oxford-Cambridge Growth Corridor, with major developments planned, including the UK's first AI Growth Zone at Culham, with approximately 400,000 sqm of data centre floorspace in the Science Vale Enterprise Zones.
15. This future development represents a significant infrastructure delivery challenge across sectors.

Key Infrastructure Challenges facing Oxfordshire

16. With regards to transport infrastructure, the Stage 1 Report highlighted a significant expansion of services, specifically a 70% increase in rail passenger services with more frequent stops at key stations by 2028 to meet rising demand. These projects will reduce travel times between towns, increase public transport capacity, and make new housing developments more accessible to major employment centres.
17. Furthermore, the analysis highlighted an essential need to address bus depot capacity, as the transition to electric fleets requires additional space and has already pushed depots to operate at full capacity. To support modal shift, the Strategy highlights the important development of Strategic Active Travel Networks (SATN) and the continued rollout of Local Cycling and Walking Infrastructure Plans (LCWIPs) across major settlements.
18. Total electricity demand is estimated to rise by at least 966 MWh by 2050, requiring changes in the energy system that will be further detailed in the upcoming Oxfordshire Local Area Energy Plan (OxLAEP) and related strategic reinforcements to the electricity network that will be set out annually by the Distribution Network Operators.
19. Additionally, the newly announced AI Growth Zone at Culham and a surge in data centre demand, which currently totals approximately 637 MW, present significant challenges to Oxfordshire's energy infrastructure.
20. For digital connectivity, the goal is to achieve 99% gigabit-capable coverage by 2030 while overcoming the heritage-related engineering challenges that have left Oxford City with only 27% full-fibre coverage.
21. Water and environmental management recommendations focus on resilience against climate change and resource scarcity, with a projected supply-demand deficit of -90 Ml/d by 2045. In terms of wastewater, major upgrades to Oxfordshire's Sewage Treatment Works, including Oxford Sewage Treatment Works, are critical to unlocking planned housing development from 2027 onwards. These upgrades are essential to prevent overloading the current system and to ensure new housing developments do not compromise water quality.
22. The OXiS also identifies the Oxford Flood Alleviation Scheme as a priority for protecting existing homes and key transport corridors. Green infrastructure

needs are similarly substantial, with a theoretical requirement for over 280 hectares of formal outdoor playing fields and 420 hectares of natural greenspace to support the growing population.

23. Planning for social and health infrastructure is centred on the needs of an ageing population and more students. The OxIS projects that Oxfordshire will need about twelve new 10-form-entry secondary schools and nearly 1,900 extra SEND places by 2050.
24. Collaboration with the Integrated Care Board (ICB) has revealed that primary healthcare projects face delays due to reimbursement plans not matching national Premises Cost Directions. Although a new mental health hospital is planned at Warneford Park, funding for Horton General Hospital remains an issue after its central government bid was rejected. Bridging the £370 million gap is crucial for sustaining acute care in the north of the county.

The funding gap and infrastructure funding schedule

25. Providing infrastructure for growth from 2025 to 2050 will require at least £9 billion in capital. Currently, only £1.4 billion is secured, leaving a funding gap of over £7.6 billion, not accounting for potential developer contributions or other future investments.
26. The OxIS lists over 550 infrastructure projects to support development through to 2050, emphasizing the need for a clear and consistent process to narrow down projects for prioritization.

Infrastructure Prioritisation

27. A key aspect of the OxIS Stage 2 Report is the prioritisation of Infrastructure schemes across the County.
28. The OxIS Framework is a flexible decision-making tool, rather than a fixed set of outcomes.
29. While the Strategy presents a single 'base case' set of priorities to demonstrate a balanced scorecard approach across all agreed themes, the Framework can be adapted to reflect different thematic, geographic or time-based interests.
30. Using built-in filters, it can generate focused views of infrastructure priorities by infrastructure type and location, project purpose (for example unlocking stalled development, mitigating growth impacts or supporting strategic innovation), delivery status and timing, and indicative funding position.
31. At the point of prioritisation, the schedule comprised 550 projects, which were sifted using agreed criteria to identify those infrastructure projects suitable for more detailed assessment, without diminishing the importance of projects not taken forward.

32. A total of 115 projects progressed to a Multi-Criteria Assessment, aligned to the Strategic Vision and covering environment, place, social outcomes, productivity and connectivity.
33. Projects were scored using a balanced scorecard approach, with no single theme weighted above another.
34. The resulting 'ranking' provides an evidence-based platform to inform future investment decisions, while recognising that the order does not dictate funding sequence and can be refined further for specific decision-making purposes.
35. Whilst the list can be viewed through an aggregated lens, the flexibility of the built-in filters allows for it to be viewed through multiple lenses, enabling the user to tailor analysis to specific policy or investment questions.

Dependencies and synergies

36. The OxIS has identified a number of key infrastructure delivery dependencies and synergies, including:
 - Oxfordshire's ability to deliver sustainable development depends on addressing electricity network constraints.
 - Integrating blue and green infrastructure with other sector investments to bring cross-sector benefits for local greenspace and nature recovery.
 - Cross-sector and joint infrastructure planning that is critical to help identify delivery interdependencies.
 - Recognising that while Oxfordshire's life sciences sector is set to grow through investments like Warneford Park Mental Health Hospital and Research Campus, there remain major challenges in estate, funding, and procurement for primary and acute healthcare.
 - Highlighting the potential for coordinated infrastructure delivery to support regeneration opportunities in Banbury, Bicester and Oxford West End, as well as ambitions for the Science Vale area.

Corporate Policies and Priorities

37. The OxIS aligns with the Vision as expressed in the Strategic Plan 2025-2028 which sets out a clear vision for Oxfordshire:

'To make Oxfordshire a greener, fairer and healthier county, centred around strong and connected communities, healthy places to live, and a thriving local economy that benefits everyone'.

Financial Implications

38. The OxIS Stage 2 report states that the capital infrastructure investment needed to support growth between 2025 and 2050 is estimated to be at least

£9 billion of capital investment. This figure excludes ongoing revenue costs, maintenance, and land acquisition. Half of that investment is in rail infrastructure and water supply, whilst nearly a third of the investment is in local authority infrastructure.

39. The report identifies that there is currently a funding gap of £7.6 billion, with only £1.4 billion secured. The secured funding does not take into account future developer contributions, utility company investment, or other funding sources that have yet to be confirmed. Further funding routes and options for funding will be explored as part of the implementation of the OxIS.

Comments checked by:

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Legal Implications

40. There are no direct legal implications for the Council arising from this report, which has been developed within the existing statutory powers of the Council, specifically the Council's general power of competence under Section 1 of the Localism Act 2011.
41. Any legal implications that arise through the development and delivery of OxIS will be considered and assessed at that time in accordance with the appropriate legal framework and before any recommendations are brought forward for decision.

Jennifer Crouch, Principal Solicitor (Regulatory),
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Staff Implications

42. There are no staff implications. Work on the delivery of the OxIS will form part of the work programmes of existing staff. Where additional resources are required for particular projects, this will be considered when county council officers negotiate a Planning Performance Agreement with the developers and promoters of the identified scheme.

Equality & Inclusion Implications

43. There are no equality and inclusion implications to be considered as part of the OxIs and its delivery as the paper does not in itself propose specific policies, programmes or decisions with direct equality or inclusion impacts. An appropriate Equality Impact Assessment will be undertaken and considered as part of any recommendations arising from the delivery of OxIS.

Sustainability Implications

44. The OxIS focuses on six key strategic infrastructure areas and over 20 sub-topics identified by and agreed with the Oxfordshire Leaders Joint Committee, including transport, energy and utilities, green infrastructure, water, social infrastructure, as well as healthcare and social care.

Risk Management

45. Appendix 2 of the OxIS Stage 2 Report provides details on each infrastructure project, including delivery status, organisation, risks, dependencies, complexity, cost and funding.
46. OxIS will also act as a key investment document for local authorities and stakeholders, supporting engagement and consultation while aligning with, and informing, related plans, strategies and initiatives.

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Annex 1 – Oxfordshire Infrastructure Strategy Stage 2 Report

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