

To: Oxfordshire Growth Board
Title of Report: Oxfordshire Rail Corridor Study – Progress Update
Date: 10 September 2019
Report of: Susan Halliwell, Director for Planning and Place,
 Oxfordshire County Council
Status: Public

Executive Summary and Purpose:

This report summarises progress on the Oxfordshire Rail Corridor Study and sets out the emerging conditional outputs which will form the basis of ongoing work.

Recommendations:

1. That the Growth Board notes progress of the Oxfordshire Rail Corridor Study,
2. That the Growth Board considers the emerging outcomes, and provides its view on them so these can be fed back to Network Rail and the study team;
3. That the Growth Board provides any views on how this study can dealing with additional growth up to 2050.

Introduction

1. The Growth Board endorsed the remit for the Oxfordshire Rail Corridor Study and agreed to make a contribution of up to £200,000 towards the second stage of the Study at its meeting on 11 June 2018.
2. The Oxfordshire Rail Corridor Study is following a two-stage structure. The first stage, which is currently being finalised, is a strategic study to assess changes in rail travel demand arising from planned housing and economic growth up to 2031 (i.e. that identified in current and emerging Local Plans), and additional growth beyond 2031 reflected in the Oxfordshire Plan 2050.

3. There is still a need to consider how, and if, the study should consider the additional growth to be set out in the Oxfordshire Plan 2050, as it has not been possible to evaluate this at the same time as planned growth. This is primarily because the Oxfordshire Plan has not yet progressed to the stage that gives sufficient clarity on the quantity or the location of growth likely to be required.
4. There is also an opportunity for the Study to influence development of the Oxfordshire Plan. It is logical to assume that locating additional growth close to existing or planned rail hubs will have the greatest potential to strengthen the case for new investment in the railway or optimise the benefits from committed investment.

Methodology

5. The Study follows the new approach to long term planning which aligns with the rail industry's move away from a fixed five-year funding pot of enhancements to a continuous enhancement pipeline. This "Continuous Modular Strategic Planning" process is built around the formulation and addressing of strategic questions.
6. The strategic questions are bespoke and focused on the aim of **supporting and enabling housing, jobs and economic growth in Oxfordshire**. They were agreed by the Steering Group overseeing the Study, and are:
 - **Planned Growth**: What is required from the rail network in Oxfordshire to support planned growth to 2031?
 - **Additional Growth**: How can the rail network in Oxfordshire influence the location and scale of additional growth sites?
 - **Freight**: What does the rail freight industry require of the rail network in Oxfordshire?
 - **Technology**: How can new technologies be used to improve operation of the rail network in Oxfordshire?
7. The Study has a baseline of 2018, with demand forecast intervals of 2023, 2028, 2033, 2038 and 2050 and has three growth scenarios:
 - **Do nothing**: exogenous growth based on a Department for Transport annual growth rate;
 - **Do minimum**: *do nothing* plus planned rail schemes, i.e. Oxford Station Phase 2 and East West Rail Phase 2;
 - **Planned growth**: housing & employment growth allocated to specific sites.

Conditional Outputs

8. Stage 1A of the strategic study has concluded and has defined the **Conditional Outputs** for freight, passenger capacity and connectivity. These are aspirational levels of service which are dependent on affordability and value for money and need to be proven to be deliverable commercially, operationally and physically as part of further scheme development.

9. **Capacity** requirements are in the form of additional carriages needed to provide a seat for all standard class passengers in the high peak hours (0800-0859 and 1700-1759), based on the current type of rolling stock.
10. **Connectivity** uses the measure of generalised journey time. This comprises the actual journey time on-board plus an allowance for waiting time (i.e. frequency) plus any allowance for the inconvenience of having to change trains (i.e. the connection time). Any or all these elements can be improved to achieve a better generalised journey time (i.e. reducing journey time, increasing frequency, or removing the need to interchange).
11. It is important to note that both areas effectively identify pressures and demand on the rail network, and do not at this stage identify the solution. These can be met in a number of ways – providing additional capacity, removing the need to change trains, more frequent train services, new services or altered stopping patterns. Further stages of study work will look at these in more detail.

Capacity

12. East West Rail Phase 2 (Oxford to Bedford and Milton Keynes) will significantly increase demand at key stations, such as Bicester Village, Oxford Parkway and Oxford, but there is sufficient capacity to meet forecast demand on this corridor.
13. Additional capacity is required to relieve congestion on Cross Country services, driven by the peak loadings at Oxford and Banbury. There is an immediate need for an additional 5-7 carriages per hour in each direction by 2023, with another two required by 2028 (so the equivalent of one long or two short trains). Looking further ahead, on top of the 2023 requirement a further 3-4 carriages per direction are needed by 2033 and a further 4-5 carriages per direction by 2050.
14. On the Chiltern Railways Oxford-London Marylebone corridor additional capacity is required to relieve congestion due to peak demand at Bicester Village station. An additional 2-3 carriages per direction are required from 2028 with a further 3 carriages per direction needed by 2050. The need for this extra capacity will become more urgent should there be any delay in the opening of East West Rail.
15. Peak loadings at Oxford will require additional capacity on GWR services on the Oxford-Didcot corridor from 2028, when an additional 1-2 carriages per direction will be required, increasing again by a similar number in 2038.

Connectivity

16. The Study is showing that improvements are required throughout the Didcot-Oxford-Bicester Knowledge Spine, both for end-to-end journeys and between intermediate stations at Culham, Oxford and Oxford Parkway. Housing growth around Hanborough also supports improved connectivity to Oxford and Didcot.
17. In total there are 20 flows that require better connectivity through a reduction in the generalised journey time. For example:
 - Between Bicester Village and Didcot Parkway by c.20 minutes
 - Between Culham-Didcot and Culham-Oxford by c.5-10 minutes

- Between intermediate stations at Oxford Parkway, Oxford and Culham
- Between Hanborough and Didcot Parkway by c.15 minutes

18. The first of these is particularly notable, in terms of connecting centres of growth, and directly supports the argument being made for extending East West Rail Phase 2 services through Oxford down to Didcot.

Heathrow Connectivity

19. As it is not yet a funded scheme, delivery of the Western Rail Link to Heathrow has not been assumed. The Study therefore aims for a generalised journey time from Oxford of 100 minutes, on the basis that people travelling from Oxfordshire (and beyond) will be required to change at Reading and use the existing RailAir coach service to the airport. This journey time does not compare favourably with driving or using the express coach, although it could be cut by 30 minutes if the Western Rail Link goes ahead, reinforcing the importance of this project.

Inter-regional connections

20. The Study supports direct services to Bristol, Swindon and Northampton as a means of improving connectivity through a reduction in the generalised journey time.

21. Although the study is Oxfordshire-centric, it is important to understand and take cognisance of rail proposals which are being developed by other bodies, such as Midlands Connect, which may have a bearing on the solutions identified to meet these output requirements. These may also increase the justification for investment by combining strategic and local benefits.

New stations

22. The Study provides a pointer for further development of four potential new stations, identified below. It has considered each proposed station and the potential demand from planned housing and/or employment growth in its immediate vicinity. At this stage, it is not a robust demand forecast and has not considered wider catchment areas or means of access to the station.

23. The two new stations on the Cowley branch line (close to the Oxford Science and Business Parks respectively) have the strongest justification due to the proximity of the strategic housing allocations at Grenoble Road and Northfield.

24. A station at Wantage & Grove could also be justified on the basis of the new housing currently being built or planned for in the area.

25. At this stage, the case for Begbroke has the weakest justification due to the perceived low demand from the housing and employment allocation and its proximity to other rail hubs, at Oxford Parkway and potentially Hanborough. It is recognised that circumstances may change and the proposals for the station, including location, role, services, etc have not been finalised, so this should be explored further through the Oxfordshire Plan 2050.

Cowley Branch Line

26. Network Rail has made good progress on the outline definition study for the Cowley Branch Line, which is being 'fast-tracked' in parallel with the strategic study, and it is on schedule to complete this work by October.
27. They have completed an assessment of BMW's freight operations and drafted a concept of operation which sets out how the railway will operate with freight and passenger trains. An achievable journey time from Oxford to the Science Park (7 minutes) and Business Park (11 minutes) has been identified using the existing 25mph line speed, but there is the potential to improve this with additional track improvement works.
28. The Achilles heel is the capacity on the main line between Kennington and Oxford which will need to be considered by the strategic study when considering the wider network requirements. The strategic study will also provide the strategic case for the Cowley Branch Line. The expectation is that main line interventions will be included in the scope of the Oxford Station Phase 3 project, which is currently not a committed scheme.

Freight

29. Similar work has been undertaken on freight, looking at capacity, opportunities and what some of the detailed requirement would be. There is recognition of the clear need to retain freight capacity and that the rail network through Oxford is critical for freight operations – and that there is an opportunity to support major infrastructure projects with rail freight.
30. For example, at this stage, the number of freight paths (both directions) between Didcot and Oxford is predicted to rise from 6 in 2023, to 7 by 2023 and 8 by 2043

North Cotswold Line

31. The North Cotswold Line Taskforce will shortly issue the Strategic Outline Business Case for the next stage of work, progress of which will need to be integrated with the further stages of this rail study.

Next Steps

32. The second part of Stage 1 will be to develop a Train Service Specification that delivers these Conditional Outputs, to form part of the final report this autumn. A further report setting out the final conclusion of the strategic study will be presented to the Growth Board on 26th November, when members will be invited to agree the final Study outputs. In parallel, similar endorsement will be sought from the DfT and Network Rail decision making bodies.
33. The second stage of the study, likely to start at the beginning of 2020, will be to carry out initial more detailed Outline Definition Studies for three or four selected interventions. Work on this is expected to be concluded later in the Spring and reported back to this Group and the Board in June 2020.

34. The Growth Board is jointly funding Stage 2 of the Study and, at its November meeting, as well as being will be asked to endorse the final Stage 1 report, the Board will be invited to express a preference for the interventions they would like taken forward for further development

35. The overall study programme still needs to reach a view on how additional growth expected up to 2050 (which is being considered in the emerging Oxfordshire Plan 2050) is taken into account. This would enable the study to identify potential interventions that provide the capacity and connectivity necessary to accommodate passenger and freight growth over a 30-year timeframe.

Financial Implications

36. None at this stage.

Legal Implications

37. None at this stage.

Other Implications

38. None at this stage.

Conclusion

39. The Growth Board is asked to provide any views in relation to sections (b) and (c) of the recommendations.

Background Paper(s)

40. None.

Report Writing Guidance

Report Authors:	John Disley, Infrastructure Strategy & Policy Manager Adrian Saunders, Strategic Rail Policy Officer on behalf of Oxfordshire County Council
Contact information:	adrian.saunders@oxfordshire.gov.uk john.disley@oxfordshire.gov.uk