



Report to the Partnership for South Hampshire Joint Committee

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Subject: Solent Rail – current studies and development initiatives

SUMMARY

This report provides an overview and update on several current studies and initiatives to develop and deliver improvements to passenger and freight services using the rail network in the South Hampshire area. The report will identify potential linkages between the proposals and the strategic planning role which PfSH and its constituent authorities play.

There is a significant amount of current activity to develop the case for future enhancements to the rail network in the Solent/South Hampshire area, the key areas of development including: Solent Connectivity, Waterside Rail, Main Line and Freight studies and business cases, all of which are being promoted by Network Rail in close engagement with Solent Transport and the local transport authorities. Other complimentary activities and studies are being led by others, such as Transport for South East (TfSE) and South Western Railway (SWR).

At this time it is judged that the impacts of the Covid-19 pandemic on travel patterns are unlikely to significantly alter the developing case for these interventions.

The proposals are being developed following the DfT- mandated Rail Network Enhancements Pipeline process and are at varying stages of development. As these develop, the need to more closely link them to strategic and land use planning will grow. It is hoped that the report could provide a starting point for greater coordination with current strategic planning initiatives in the area.

RECOMMENDATION

It is RECOMMENDED that Joint Committee NOTE the contents of this report.

INTRODUCTION

1. This report will update PfSH Joint Committee regarding current studies and initiatives to improve the rail network and its associated passenger and freight “offer” in the Solent area.
2. Several interconnected studies and initiatives are currently underway. These will be the main focus of this report (paragraphs 19 to 57).

STRATEGIC CONTEXT

3. The strategic context against which the proposals are being developed is important. It is widely agreed that heavy rail is the only mode that can offer a viable, large-scale alternative to road for medium and long distance passenger and freight transport flows.
4. Given the urgent need to reduce greenhouse gas (GHG) emissions from transport as part of efforts to achieve net zero emissions, and also considering that traffic congestion and related negative impacts are a widespread and damaging issue, increasing rail’s share of overall travel is a high priority nationally and locally.
5. Noise, air pollutant and greenhouse gas impacts from rail are considerably lower than from road transport. Consequently the Government’s flagship Transport Decarbonisation Plan (TDP), published in July 2020, and setting out the government’s commitments and the actions needed to decarbonise the entire transport system in the UK, gives a high priority to development of the UK’s railways:
 - The number 1 strategic priority is “*accelerating modal shift to public and active transport*”- *making these the natural first choice for our daily activities*”. Rail is a central element of this priority.
 - The number 3 strategic priority is to decarbonise the movement of goods, which includes increasing the amount of freight that is shifted from road and air to more sustainable modes (including rail).
6. Various commitments are made, including:
 - Building extra capacity on our rail network to meet growing demand and support significant shifts from road and air to rail
 - Decarbonisation of rail, with removal of all diesel powered trains by 2040 – replaced by further electrification of many lines and use of battery, hydrogen and hybrid trains on routes which cannot be electrified economically
 - Modernising fares, ticketing and retail to encourage a shift to rail
 - Support for measures which improve rail journey connectivity with walking, cycling and other modes of transport
 - Introduction of a rail freight growth target
 - incentivising the early take up of low carbon traction for rail freight

7. As well as these decarbonisation-led commitments, a significant component in the Government's high-priority "Levelling up" agenda is to make better use of the existing rail network and/or expand access to the network to new areas. Therefore there is significant central government support for (and opportunities to seek funding for) various types of initiative to grow the role of the rail network.
8. Additionally, there are numerous other reasons and benefits for promotion of rail enhancements, including (but not limited to):
 - Supporting strategies aimed at revitalising city and town centres through residential and economic regeneration; and to "retrofit" sustainable transport options to areas where public transport options are currently deficient
 - The fixed nature of rail lines and stations provides a level of long-term certainty which other public transport modes can struggle to match, which can be valuable for development strategies which cover many decades.
 - Access to Southampton Port/ enabler of port development: rail has a key role to play supporting more sustainable growth of this driver of the area's economy;
 - Climate neutrality/ net zero: many Local Planning Authorities in the area, as well as all the Local Transport Authorities, have declared climate emergencies. Putting these declarations into practice will require support for schemes which achieve passenger and freight mode shift to rail.
 - Air quality and clean air strategies: with zero emissions at source from electric trains, shifting vehicle mileage to rail supports the obligations of various authorities in the area which are subject to Ministerial Directions to improve air quality and/or have Air Quality Management areas within their boundaries
 - Providing accessibility for the circa 25% of the adult population who do not or cannot drive for various reasons, as well as those too young to drive.

COVID-19 IMPACTS AND LONG-TERM DEMAND

9. The short-term impacts on demand during and potentially after the Covid-19 pandemic may offer an opportunity to address some short-term issues and constraints which the rail industry had been struggling with prior to 2020.
10. Over the last 20-25 years use of the rail network has grown much faster than the network has been updated and improved to accommodate growth. Rail carried 9% of UK passenger transport mileage in 2019, up from 5% of UK passenger miles in 1996. Car's share of passenger miles dropped slightly in the same period from 87% to 84%, suggesting some gradual mode shift from road to rail was occurring.
11. In the Solent area, this translated to 13.1 million station entries and exits in 1997, growing to 24.8 million entries/exits during 2018 (88% growth). The population of the area grew by only 11.5% over the same time period. Whilst additional train

services and new trains were introduced during this time to help stimulate/accommodate the increased demand, the fundamental rail infrastructure in the Solent area (amount of track, signalling, stations etc) has changed relatively little.

12. During the 2010s, the issue of declining reliability of train services became a high profile issue nationally and locally. The Independent Review of SWR's performance between 2011 and 2018¹ listed growing passenger numbers, the operation of longer trains, increasing numbers of speed restrictions, and ageing infrastructure as contributing to the decline. The review identified a number of infrastructure improvements (some of which are being carried forward in the studies/initiatives covered in this report) which would help to improve reliability and network capability.
13. With passenger train services significantly reduced during the Covid-19 pandemic reflecting reduced passenger demand, access for engineering work has improved. Network Rail removed 23% more speed restrictions in 2020/21 than in 2019/20. Running fewer trains reduces the pressure on infrastructure, leading to a more reliable train service. Overall customer satisfaction improved by 22% between the start of the pandemic in March 2020 and March 2021, reflecting much more reliable train services.
14. With demand not expected to return to 2019 levels for some years there are opportunities to improve the network in the short term to address these issues whilst inconveniencing fewer passengers.
15. The period between now and early 2023 will also be one of considerable change in the rail industry as the formation of Great British Railways (GBR) occurs, creating a single brand for rail with united, accountable leadership and a single strategic "guiding mind" (as opposed to the often fragmented approach which existed previously). A new public body, GBR is intended to integrate the railways, owning the infrastructure, collecting fare revenue, running and planning the network, and setting most fares and timetables. The proposed changes may lead to local authorities having more say over local services, but whether funding to enable significant improvements will follow is not yet known.
16. A view is sometimes stated that widespread adoption of electric /autonomous vehicles, and/or long term changes to travel and transport demand in the post-pandemic era will negate the role of passenger rail or the case for investment.

¹ [Independent performance review | South Western Railway](#)

17. Whilst there is some substance to these views (both factors will undoubtedly have some impacts), it is viewed as unlikely that the case for investment in rail is seriously undermined by these trends:

- Whilst electric cars generate similar emissions per passenger km to rail², they do not solve other issues eg traffic congestion, severance or noise from major / high speed roads, or issues related to car-dependence such as sedentary lifestyles and inefficient land use in car-oriented developments.
- At present development of completely autonomous vehicles appears to be many years away (if it is achievable at all). For the foreseeable future “autonomous” vehicles are likely to still require driver input in at least some circumstances (eg urban areas or bad weather) and will still require drivers to be trained/licenced and able to drive, (thus excluding a significant segment of the population from using them).
- Population growth will increase demand (Office for National Statistics figures suggest the UK population will be 69.6 million by mid-2029 and 72 million by mid-2041, compared to 67 million in mid-2020). Accommodating the travel demand of this forecast 7% population growth on the road network alone is likely to be very challenging.
- In the short term the Covid-19 pandemic has clearly impacted some key markets for rail but passenger figures have now recovered to around 60% of pre-Covid levels. Rail freight has already largely fully recovered. The London commuter market, a key driver of demand on SWR, is likely to remain impacted, but with road traffic levels already back to pre-Covid levels it is evident that overall travel demand is likely to be mostly unchanged but that the patterns of patterns of demand may be somewhat different to before. Therefore a need/case for mode shift still remains.

18. Looking 10, 20 or 30 years or more into the future it is likely that all the above factors will mean the case for development of and investment in the rail network will still exist. Because of the timescales involved in strategic infrastructure investments, development work must continue now.

CURRENT INITIATIVES & STUDIES RELEVANT TO SOUTH HAMPSHIRE

19. Four key areas of work are currently underway, all led by Network Rail and with significant input /partnership working from a number of local stakeholders including the Local Transport Authorities (HCC, SCC, PCC) and the Solent Transport partnership. These are:

- Solent Connectivity: proposed improvements to East-West local service frequency and connectivity to enhance the rail offer for local and medium

² [Transport and Environment Statistics: 2021 Annual Report \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

distance journeys within the urbanised areas of Solent – ie Portsmouth-Fareham- Southampton-(Totton) / Eastleigh routes parallel to the M27

- Waterside Rail: re-opening of the Waterside Branch Hythe-Totton-Southampton for passenger service, supported via DfT “Restoring Your Railway” fund
- Mainline strategic study (part 2): development of future strategy for longer distance links on the mainlines between Portsmouth/ Southampton-Woking-London
- Solent to Midlands Multimodal Freight: Joint Network Rail/ National Highways study of opportunities to accommodate future freight growth and achieve freight mode shift to rail on the Southampton Port – A34- Midlands axis

20. These different “threads” interact with each other, particularly at key locations eg Southampton and Portsmouth. There is ongoing coordination between these different projects within Network Rail and within key stakeholders/partners.

SOLENT CONNECTIVITY STUDY & SOBC

21. The Solent Connectivity Strategic Study (published in May 2020³) was a joint Network Rail/ Solent Transport study which examined what role rail could play in improving local connectivity in the Solent area. The study sought to build on previous studies (such as Solent LEP’s “Solent Metro” study in 2016/17) to answer questions around rail how rail could do more to support sustainable growth and development in the Solent area, enhance the public transport offer and secure mode shift away from the private car. Issues such as Portsmouth to Southampton (“city to city”) connectivity and increasing use of under-utilised stations were also considered.

22. The scope of the study was largely confined to Totton to Portsmouth via Southampton, Netley and Fareham; Southampton to Eastleigh; and Eastleigh to Fareham.

23. The principal conclusion was that infrequent train services, leading to poor generalised (travel plus wait) journey times, was a key factor behind rail’s underperformance and low current use compared to other travel options. At present, more than half of all stations in Solent are served by just one train per hour and the average station is served by just over two trains per hour.

24. Out of 363 potential station-to-station journeys in Solent that were analysed, current rail (on-train) journey times are equal to or faster than driving on:

- 65% of all possible journeys in the AM peak; and
- 44% of all possible journeys in the off peak.

³ [Solent Connectivity - Continuous Modular Strategic Planning \(windows.net\)](#)

25. However once wait times (a product of train frequency) are included to give Generalised Journey Time (GJT), rail is only quicker than driving on:
- 6% of all possible journeys in the AM peak; and
 - 3% of all possible journeys in the off peak.
26. These results indicate that frequency of trains, not physical speed/ journey times of the trains themselves, are a key issue holding rail back from competing more effectively with driving for journeys in and around Solent and undermine what could be developed into a competitive offer for many major travel flows. Detailed review of factors affecting five low-use stations (including some within the cities) also supported this position, finding no common factor to explain why passenger usage was low, other than the once-hourly service at all stations.
27. Further, whilst vehicle journeys are forecast to become slower in future due more congestion, this is unlikely to be enough to “push” car users to rail: positive action to improve the rail offer, including increasing train frequency especially at “local” stations, was concluded to be required.
28. Review of data from other similar urban areas indicated that to achieve a rail mode share sufficient to offset forecast traffic growth resulting from development by the 2040s, (ie aiming to maintain today’s road journey times), would require approximately a doubling of rail’s (pre-2020) mode share. In turn, based on the relationship between train frequency and mode share demonstrated elsewhere, this would require achieving train frequencies of around 4 trains per hour across the network in Solent. If this was achieved, rail would have a good chance to position itself as a viable, attractive alternative to driving for about 40% of the journeys it is able to serve in Solent – compared with only around 5% today.
29. The subject of “city to city” connectivity was also explored in detail. The conclusion was that Portsmouth-Southampton connectivity is poor compared to other similar city pairs (which was already known) but that achieving an oft-requested 30 minute journey time, or parity with driving journey times, would require significant sections of entirely new rail alignment (a highly challenging proposition given how heavily developed much of the area between the cities is, and well beyond the scope/remit of the study to examine further). Even achieving a 40 minute journey time several times per hour (similar to the fastest possible time achieved today which is only provided once-hourly) would require unpalatable trade-offs eg service reductions at many well-used intermediate stations in order to create line capacity for express services which, according to high level analysis, would carry few passengers.
30. The options recommended for further development would still significantly improve city to city connectivity albeit not to the extent that some stakeholders would like,

as they balance connectivity between the cities, with improving service to locations at the edges of and outside the cities which have grown in population and importance in the last few decades.

31. A long list of 27 potential options for new/ revised train services overlaid on existing timetables were evaluated at high level against various objectives, with five of the most promising options shortlisted for further analysis.
32. Of the five shortlisted options, an additional 2 trains per hour Totton-Southampton-Portsmouth via the Netley line with either stopping or “semi fast” calling patterns performed best against the criteria considered. Operating these trains as all-stations stopping services (similar to how many “metro” services operate) would come very close to achieving the 4 trains per hour network-wide target and may provide slightly greater economic benefits, but would be more difficult to timetable (even with infrastructure interventions) and would also provide less improvement to Portsmouth-Southampton “city to city” connectivity than the “semi fast” option. These options would double the number of city to city services per hour from 2 trains per hour today to 4 trains per hour, thereby reducing the average wait time plus journey time by 10 to 15 minutes (12% to 19%) compared to today.
33. An additional 2 trains per hour Portsmouth-Eastleigh-Winchester was also noted as performing well in many aspects of the evaluation and could link well with options being considered by the Mainline Strategic Study Phase 2 (paras 44-51).
34. The study identified that at least some of the following infrastructure enhancements would likely be needed to enable these changes. Initial design feasibility studies have been undertaken for these interventions:
 - Additional capacity (extra platform) to terminate more trains at Portsmouth Harbour or Portsmouth & Southsea
 - Conversion of Fareham platform 2 to a through platform to improve flexibility and allow faster trains to overtake slower ones near to the mid-way point between the cities
 - Re-doubling much of the single-track Botley line, to increase capacity and improve timetabling flexibility
 - Alterations to track layout at Eastleigh to increase capacity and improve timetabling flexibility
 - Electrification and upgrade of existing Totton sidings so electric trains can terminate and reverse here (helping to reduce pressure on track/platform capacity at Southampton Central and providing better service at Totton which is currently under-served). Additional trains over Totton Level Crossing would likely also require a solution at this location.

35. Network Rail have recommended that the interventions identified above be entered into the Rail Network Enhancements Pipeline (RNEP-see paras 55-57) and the Solent Connectivity Strategic Study was endorsed by the three Solent Local Transport Authorities in 2020 as the supported approach for east-west rail connectivity improvements in south Hampshire.

Current status:

36. Development of a Strategic Outline Business Case (SOBC), led by Network Rail, is programmed for October 2021 to March 2022. This will include detailed timetable modelling and more detailed economic modelling, as well as updating the strategic case to account for the post-Covid “new normal”.

37. Some of the Local Transport Authorities are considering providing funding to support enhancement of the SOBC content and evidence; to explore possible synergies with Waterside rail (see below), and also to start to fund the Outline Business Case that is intended to follow subject to a satisfactory case being demonstrated in the SOBC.

WATERSIDE RAIL

38. Proposals to re-open the Waterside rail line to passenger use have recently gained momentum. Hampshire County Council adopted a policy position in 2017 which concluded that although previous assessment of the case for passenger rail indicated a relatively modest capital investment was required to develop passenger rail services, at that time there was insufficient demand in the area to support the service, resulting in a relatively poor Benefit Cost Ratio. The recommendation at that time was that further work should only be undertaken if there were significant changes in either future funding arrangements for rail projects or local circumstances.

39. By 2020 several changes in local circumstances had occurred, including allocations in the new Forest District Local Plan for a number of new major development proposals, and the Solent Freeport plan with Waterside area likely to be at the forefront of this scheme as a result of a significant clustering of major ports, and strategic road, rail and pipeline links to key industries. This resulted in a decision to re-assess the Waterside Rail proposal’s viability.

40. A new study indicated it would be operationally feasible (in rail terms) to re-introduce passenger services, and that a more robust economic and strategic case for further development of this scheme existed. HCC subsequently decided to conditionally support the re-introduction of passenger services on the Waterside rail line between Totton and a point south of Hythe as a part of its waterside transport strategy and subject to further development work. An SOBC was

published in February 2021⁴ and submitted to the DfT for its further consideration as part of the 'Restoring your Railway' Fund which is intended to re-open previously closed passenger routes.

41. As currently proposed the scheme is likely to extend from Totton to a point south of Hythe but will not extend as far south as Fawley Waterside development. Several options for location of new stations and timetables/service patterns have been analysed by work to date. Analysis of three shortlisted options indicated a capital cost of £43m to £64m to deliver the scheme, and that by 2036 the line could be used by between 541,000 and 991,000 passengers per year, with a reduction in car trips of between 312,000 and 735,000 trips per year. The highest estimated Benefit-Cost ratio (of 1.7- "medium" value for money according to DfT's criteria for transport investments) was forecast for the most frequent (3 trains per hour) option.

Current status:

42. Network Rail have taken over the promoter role for this scheme and are currently leading the preparation of an Outline Business Case, with DfT as project client under the auspices of the Restoring Your Railway fund, and involvement of relevant Local Authority stakeholders, particularly HCC. Consideration is being given to an initial "interim" service on part of line as a precursor to delivery of a "fuller" scheme in later years.
43. Given the potential overlap between the Waterside Rail and Solent Connectivity proposals between Totton and Southampton Central, there is an ambition as part of the next stage of the Solent Connectivity work to explore potential linkages/ synergies between these proposals.

SOUTH WEST MAIN LINE STRATEGIC STUDY

44. This study commenced in June 2021, and is due to conclude in July 2022. It will refresh and build on previous studies, such as the Wessex Route Study published in August 2015.
45. In particular, phase 2 of this study will focus on main line demand into and out of regional hubs such as Southampton, Portsmouth and Winchester and potential to improve main line services to these locations. It will explore ways of improving connectivity, opportunities for new services to match demand, faster journey times, and means of encouraging mode shift to rail.

⁴ [Waterside Rail Reopening SOBC \(railfuture.org.uk\)](https://www.railfuture.org.uk)

46. The phase 2 study follows on from the South West Main Line Strategic Study (Phase 1)⁵, undertaken between April 2020 and March 2021, which examined the need for and approach to additional capacity between Woking and central London (Waterloo). This study considered several post-Covid future passenger demand scenarios.
47. Although the pandemic has unquestionably had a significant impact on rail demand, the South West Main Line was considerably over capacity before 2020, with a resultant impact on performance, so even a long-term reduction in demand is very unlikely to negate the need for any future investment. Three out of four future demand scenarios forecast demand to be exceeding seated capacity by the mid-2020s, and even in a “low growth” scenario demand would exceed capacity by the late 2030s.
48. In the medium to long-term, several potential interventions Woking and Waterloo to release additional capacity on the SWML have been identified together with, most notably, a reaffirmation of the case for the Woking Area Capacity Enhancement (conversion of the “flat” junction between Portsmouth and Southampton lines at Woking to a grade separated “flyover” arrangement). Modelling indicated that this set of interventions would release up to eight train paths on the SWML between Woking and Waterloo.
49. To provide any additional train paths beyond these would require the delivery of further enhancements, particularly the proposed London Crossrail 2 scheme (development of which is now on hold).
50. The Phase 2 study will now (essentially) consider options regarding where best to route these up to eight additional services beyond Woking towards Portsmouth, Southampton/Dorset, and Salisbury/ the West Country.
51. This study has recently commenced (and Local Transport Authorities along the route are engaged). It is already apparent that Southampton Central capacity and future development will be a critical question / potential constraint to resolve (and resolving this question will need to take into account Solent Connectivity, Waterside Rail, future Freight and SCC ambitions for developing the station as a key “gateway” development site). There are also several other interfaces /overlaps between the Mainline study and the Solent Connectivity proposals.

SOLENT TO MIDLANDS MULTI-MODAL FREIGHT STUDIES

⁵ <https://www.networkrail.co.uk/wp-content/uploads/2021/07/South-West-Main-Line-Strategic-Study.pdf>

52. For reasons mentioned elsewhere in this report, growth in rail freight is expected to continue in the medium to long term. As with passenger demand, accommodating further growth on a network which is currently operating close to its capacity requires investment if trade-offs are to be avoided, and therefore development of a case to do so.
53. The Solent to the Midlands Multi-Modal Freight study is an area of study work being carried out jointly by Highways England (recently renamed National Highways) and Network Rail focused on the critical corridor from the key manufacturing and distribution areas of the midlands, to the UK's second busiest port at Southampton, via the A34/ M40 roads and via several north-south rail lines. A stage 1 study was published in summer 2021 and can be found here⁶.
54. The stage 1 study recommended work to forecast/ explore in detail the potential for rail to serve new goods/commodity flows (such as supermarket produce) where there may be a market for movement of more goods by rail which is not currently being exploited, and also specific recommendations that Network Rail's Wessex Strategic Planning team progress a Wessex specific strategic study in their 2021/22 programme, to investigate the solutions and interventions required to remove barriers which hinder increased freight flows out of the Solent.

PROPOSAL DEVELOPMENT PROCESS

55. The process by which schemes to enhance the rail network are developed is called the Rail Network Enhancement Pipeline (RNEP)⁷, which is a rolling programme of investment managed by the Department for Transport.
56. There are 5 stages in the RNEP "pipeline". Moving between stages requires demonstration by promoters of an escalating level of evidence and certainty regarding acceptable strategic, economic, financial, management and delivery cases.
57. Decisions about enhancements entering and progressing through the pipeline may be taken at any time. There is no "window" in which decisions are taken and there is no formal competition between Enhancements. This means it can be difficult to forecast timescales for delivery of proposals still at relatively early stages of development, as most of the studies referred to in this report are. The table below indicates where each of the areas of study described previously currently sit on the RNEP development pipeline.

⁶ [Solent to the Midlands Multimodal Freight Strategy - Phase 1, June 2021 \(networkrail.co.uk\)](https://www.networkrail.co.uk)

⁷ [Rail network enhancements pipeline - GOV.UK \(www.gov.uk\)](https://www.gov.uk)



Solent Connectivity	Complete	<input checked="" type="checkbox"/>	Underway						
Waterside Rail	Complete	<input checked="" type="checkbox"/>	Complete	<input checked="" type="checkbox"/>	Underway				
Mainline Strategic Study Ph.1	Complete	<input checked="" type="checkbox"/>	Underway / complete for parts						
Mainline Strategic Study Ph.2	Underway								
Solent to Midlands freight	Underway								

RELATED STUDIES, INITIATIVES AND ISSUES

58. There are several other current rail-related matters and studies which have links to the key areas of work affecting South Hampshire described above.

South Western Railway December 2022 Timetable Consultation

59. SWR have recently consulted on proposals for a timetable change in December 2022⁸, to take account of the potential impacts on demand given potential changes in working patterns post-Covid, and to improve reliability whilst also reducing costs.

60. In short, the proposals retain pre-Covid off-peak frequencies but withdraw many additional peak services to/from London Waterloo. Whilst impacts on SWR services in the South Hampshire area are fairly limited, there are some missed opportunities to improve services at some smaller stations on the mainline in the Southampton urban area (in line of the recommendations of the Solent Connectivity Study).

61. Solent Transport and the three Solent LTAs have submitted formal responses to this consultation, seeking to persuade SWR to trial some positive changes for our area as part of this timetable change.

⁸ [December 2022 Timetable Consultation | South Western Railway](#)

West Coastway Study

62. This study (published in Spring 2020⁹) looked primarily at ways to improve services using the coastal line between Brighton and Chichester. These services currently extend through Hampshire to Portsmouth (3 tph) and Southampton (2 tph), the latter serving stations such as Havant, Fareham, Swanwick and Southampton Central.
63. Among its recommendations was that further development work should be undertaken with TfSE with a view to increasing the volume of services between Brighton and Southampton, extending onwards to Salisbury/Bristol. If implemented, this could increase frequencies at stations such as Havant, Fareham, Southampton Central and Romsey by a further 1 tph.

TFSE Outer Orbital Area Study (OOAS)

64. This is a multi-modal strategic study being led by Transport for The South East (TFSE), the shadow Sub-National Transport Body for the entire south-east of England which is developing strategic plans to improve the transport network and grow the economy of the whole area. It commenced in autumn 2020 and is expected to report in autumn 2021¹⁰.
65. East-west rail connectivity along the route between Southampton and Brighton, as well as between intermediate points on this route, is a major focus in recognition of un-attractive rail journey times and localised capacity challenges. The case for mass rapid transit for local/urban journeys in the urbanised areas of the Solent is being considered. It is noted that the Solent urban area is the second largest UK urban area not to have a heavy rail metro, underground, tram or similar mass transit system.
66. Analysis undertaken as part of the OOAS suggests that when placed into the context of other conurbations in the UK, the South Hampshire conurbation is comfortably populous enough and dense enough to justify investing in a high-quality mass transit system. The OOAS is developing proposals for seven “packages” of investments, one of which is for railway improvements in South Hampshire. The Solent Connectivity and Waterside proposals form the medium-term core of this package and high-level transport, economic and carbon modelling is indicating a good case for these interventions when compared to other options across the south-east of England.
67. The OOAS is also assessing concepts for how a transformational improvement in Portsmouth to Southampton rail journey times might be achieved in the long term.

⁹ [West Sussex Connectivity Modular Strategic Study \(windows.net\)](#)

¹⁰ [Outer orbital area study - Transport for the South East](#)

New Stations

68. Except for the Waterside route, the one new station proposal in Solent that is being seriously developed is Welborne. In many cases, achieving a positive business case for new stations is challenging, often because of the impact extra stops have on journey times for existing users and on capacity of busy lines.

Step-Free Access

69. Currently 14 out of 34 stations in the South Hampshire area full step-free access to and between platforms. Most of the major/ high footfall stations are included in these 14 stations. Many of the remaining 20 stations with limited/ no step free access are minor/lower footfall stations. The lack of step-free access to platforms may act as a disincentive to travel through these stations for those with restricted mobility (which includes those with heavy luggage, pushchairs etc as well as those with mobility difficulties).

70. The ongoing DfT funded “access for all” programme¹¹ is a key source of funding for station accessibility improvements, but at present there are no schemes at stations in the Solent area except for a minor scheme at Totton. Greater effort on station accessibility improvements is likely to be needed as a measure to support the rail service/infrastructure enhancements being developed.

Ticketing and fares

71. Flexible season tickets, offering 8 days of travel in 28 days at any time between two stations have been introduced across the network in June 2021 as an early response to changed commuting patterns for a future where greater numbers of people will not travel to their workplace every day.

72. However, there is more to be done. In the Solent area, Solent Transport is leading the development of a Mobility as a Service app and enhancements to the Solent Go multi-operator public transport tickets as part of the Solent Future Transport Zone programme. This includes seeking to develop, as far as possible, more seamless ticketing systems across all public transport modes, exploiting new booking and payment technologies offered by MaaS. This also includes seeking to extend the Solent Go product for use on rail services, which SWR’s 2017 franchise had previously committed to achieve by the summer of 2019 (subject to DfT approval) but which has not yet been achieved.

73. It is worth noting that such initiatives will be specifically encouraged as part of the transition to Great British Railways.

¹¹ [Access for All: funding to improve accessibility at rail stations - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/access-for-all-funding-to-improve-accessibility-at-rail-stations)

Level Crossings

74. Level-crossings are one of the biggest risks to safety on the railway, as well as causing delays on the road network. Network Rail would always like to replace them where the benefits exceed the costs of doing so, although the ORR also sees a role for Local Authorities in seeking funding for closures when developments would lead to significant increases in vehicle and pedestrian usage over existing crossings. However if level crossings are removed and
75. Within the Solent area there are nine public road level crossings on Network Rail infrastructure, and if significant increases in train services occurred (as is being promoted by the various studies), a requirement to close or replace many of these crossing with bridges / underpasses may rise up the agenda.

LINKS TO THE PLANNING AND DEVELOPMENT AGENDA

76. The Department for Transport (DfT) is the main funder of rail infrastructure improvements, normally providing funding to Network Rail to deliver rail schemes. The role of DfT/central Government as the main funder is unlikely to change following the creation of Great British Railways in 2023.
77. When deciding on funding for business cases, a major consideration for DfT is the level of local stakeholder support for proposals, both statements of support but also policy statements and tangible actions - eg. local funding contributions or “in kind” support, or other actions which support the case for a scheme (eg Local Plan development allocations which take into account / aim to support demand for a scheme).
78. Future land use planning is therefore an important means by which to support the strategic and financial case for rail improvements:
- through generating new travel demand in locations which can access improved rail services, generating fare income and economic benefits;
 - rail schemes can act as an enabler of development, helping to unlock sites or increase potential income from development schemes (thus there is potential to part-fund through Community Infrastructure Levy)
 - by capturing a share of journeys which would otherwise be made by car, improved rail services can function as a mitigation for transport impacts of new developments (and thus can attract Planning Obligation funding such as S106 contributions).
79. The overall shape of long-term land use planning strategies could (and, to demonstrate sustainability will likely need to) take account of potential to maximise the amount of new travel demand that can be served by public transport modes,

including by rail. Therefore there is a clear role for Local Planning Authorities and Local Plans in the process of developing the case for significant enhancements to rail services in the South Hampshire area.

80. There is also an evident role that PfSH could play given that the strategic rail proposals described here extend across multiple Local Planning Authorities. In particular, the current Statement of Common Ground process, and work to identify potential Strategic Development Opportunity Areas to inform a planned review/update of the Spatial Position Statement, may provide an opportunity to develop a land use strategy that supports the strategic rail proposals being developed, and vice versa. As the various proposals move forward in development, the need to demonstrate these links will grow in importance.
81. If a strong linkage between spatial planning and developing proposals for significantly improved rail services can be developed, this could make rail-accessible strategic development sites more viable for LPAs and developers to plan and deliver, as well as creating more environmentally sustainable and desirable places to live and work. In return, such developments would need to commit support to strategic rail enhancements, both financially (eg through S106 or CIL, or perhaps Land Value Capture – see below) and through masterplanning, design and policy features which help to maximise the utility of rail (“transit-oriented design”). Such approaches can be mutually beneficial for all parties involved. Solent Transport and its member Local Transport Authorities believe there is high scope for such an approach to be developed in south Hampshire, as part of the Statement of Common Ground process, which could provide a route map for making some sites more transport efficient and more viable- we would be keen to work with PfSH to examine this opportunity further.
82. Finally, an emerging innovation is the part-funding of rail schemes through Land Value uplift Capture (LVC). This is based on the principle that land and property close to improved transport facilities experiences a measurable increase in value above that of property in less well served areas. Until now, the only UK examples of this being harnessed to fund infrastructure schemes have been in London. The re-opening of the Northumberland Line between Newcastle, Blythe and towns on the north-east coast, a recently committed scheme that is part-funded via the “renewing your railway” fund, is the first rail line reopening in the UK outside London to be part funded through LVC.
83. Around 25% to 30% of the total cost of the Northumberland scheme is to be funded through a process which has created a partnership between landowners and the public sector to share this newly created wealth to improve profits and help fund the railway. It also helps to create sustainable communities around stations.

84. Whilst the proposals in Solent are different (mostly major service improvements, rather than entirely new stations or lines) the potential for land value uplift to occur may still exist, and there may be scope to explore if an LVC approach could generate local funding for proposals currently under development. It is suggested that such an approach might best be explored under the auspices of a sub-regional partnership such as PfSH or Solent Transport.

CONCLUSION

85. There is a significant amount of activity currently in progress related to developing the case for significant future enhancements to the rail network in the Solent/South Hampshire area, in response a variety of strategic and local drivers for change. The key areas of development include Solent Connectivity, Waterside Rail, Main Line and Freight studies and business cases, all of which are being promoted by Network Rail in close engagement with the Local Transport Authorities in the area.

86. Activities being led by others, such as TFSE, are also complimentary to this strategic approach, and efforts are also being made to promote the case for some limited “interim”/ early interventions for example via the proposed SWR December 2022 timetable change - but delivery of significant improvements will require a level of investment in/ change to rail infrastructure not seen in the Solent area for some decades.

87. At this time is judged that the impacts of the Covid-19 pandemic on travel patterns are unlikely to significantly alter the developing case for these interventions.

88. The proposals are being developed following the DfT- mandated Rail Network Enhancements Pipeline process and are at varying stages of development. As development of proposals continues, the need to more closely link them to strategic and land use planning will grow. It is hoped that this paper could will provide starting point for greater coordination with current strategic planning initiatives in the area.

RECOMMENDATION

It is RECOMMENDED that Joint Committee NOTE the contents of this report.

Background Papers: None

Reference Papers: None

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