

# Executive Summary

## Strategic Case

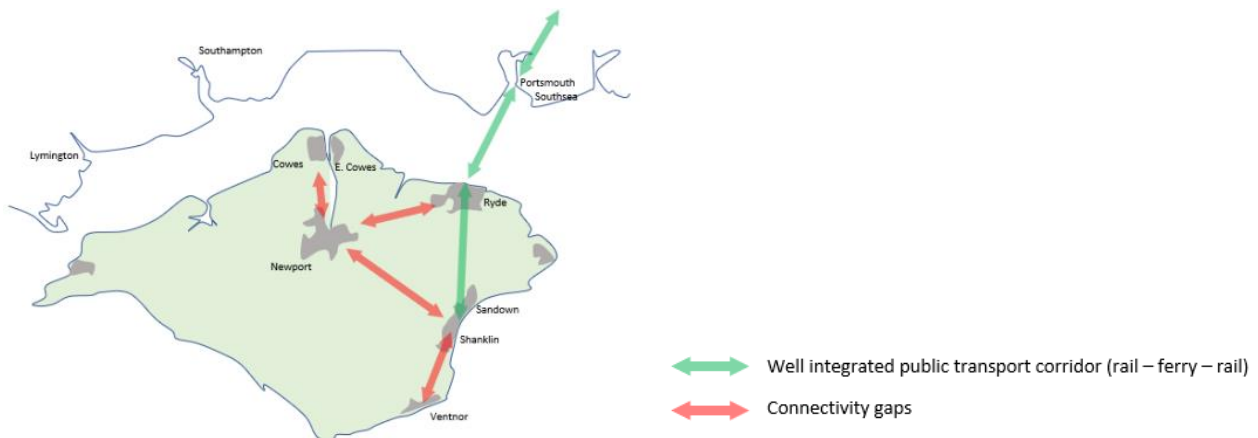
### Case for Change

The Isle of Wight (IW) has a population of around 141,500, well over half of whom live within the seven main towns of Newport, Cowes, East Cowes, Ryde, Sandown, Shanklin and Ventnor. The Island's physical separation from the mainland is at the root of some entrenched social and economic challenges:

- Over the 20 years from 1998, the IW's rate of real economic growth (GVA) was substantially below the rates for Hampshire and IW and the South East, and only half that of the UK as a whole;
- Below average wages and a shortage of high quality jobs on the Island have led aspirational young people to seek opportunity elsewhere, contributing to growing demographic pressures as the Island's population ages;
- Relatively high rates of deprivation compared to Hampshire, with pockets of more severe deprivation in and around some of the main towns, including Newport and Ventnor.

The poor connectivity of the Island's own 'inland' transport system itself contributes to the isolation challenges. Strategic connectivity with the mainland is hampered by relatively poor access to cross Solent transport services. An exception is the interchange provided by the Island Line at Ryde Esplanade and Pier, but the strategic benefit is limited by the line's peripherality, in that it doesn't serve the economic heart of the Island in and around Newport. Strategic connectivity gaps in key inter-urban corridors are shown in Figure 1.

Figure 1: Strategic connectivity gaps in the IW transport system



The IW Council recognises that a 'business as usual' or 'incremental' approach to the planning of the Island's future is unsustainable and would lead to unacceptable demographic, economic and environmental outcomes. Newport will play an increasingly important role in enabling IW's vision by providing a focus for:

- sustainable development patterns that reduce car dependency and enable a more urban lifestyle that will appeal to a range of people including younger, aspirational workers;
- higher business investment and the creation of more high quality jobs, helping to retain and attract IW workers;

- improved education, skills and training opportunities, helping raise the aspirations of younger Islanders.

Newport Harbour represents a substantial opportunity to develop a new, high-quality urban location and a masterplan was approved in November 2020. There are, however, substantial further opportunities for redevelopment and intensification in the town. To realise these successfully will require a transformation in the nature and quality of transport provision.

Ventnor has the potential to provide a very high quality visitor offer that could support a more diverse and sustainable IW visitor economy and also to make a greater contribution to people seeking to take advantage of opportunities for home working and the digitisation of services.

In addition to contributing towards the Levelling Up agenda, the plans set out in this SOBC contribute toward a range of wider policy objectives, including:

- Achieving the UK’s legally-binding 2050 net zero target;
- Delivering sustainable development that meets the needs of the present without compromising the ability of future generations to meet their own needs; and
- Providing access to opportunities for lifelong learning which respond to and meet local needs.

With improved access to its wider region, IW is also well placed to benefit from the Solent Freeport, including higher inward investment and job creation.

### **Investment aims and transport objectives**

A set of investment aims reflecting the Island’s ambitions for a more prosperous and sustainable future were identified. The required changes in the transport system ‘supply side’ and transport behaviour necessary to realising these aims were identified through team and stakeholder workshops and a set of SMART strategic transport objectives were then derived – see Table 1.

### **Option Development**

Following an option generation and sifting process, a shortlist of five options was identified, as summarised below:

- Option 1 – Extend railway to Newport via Wootton -
  - shares the Island Line between Ryde Pierhead and Smallbrook Junction;
  - joins the route of the existing Isle of Wight Steam Railway (IWSR) to Wootton;
  - approaches Newport close to the eastern bank of the River Medina;
  - either shares infrastructure with IWSR or IWSR is relocated.
- Option 2 – Extend railway to Newport via Blackwater -
  - shares the Island Line between Ryde Pierhead and new junction in Sandown area;
  - utilises the former Sandown to Newport railway;
  - approaches Newport from the south, serving an area on the edge of the town centre that contains major redevelopment opportunities;
- ‘new’ section could be built and operated as a ‘hybrid light rail’ semi segregated railway with less costly infrastructure, simpler signalling and locally controlled simple light/barrier crossings with battery powered tram trains or modified Class 484 vehicles.

Table 1: Strategic assessment against transport objectives, standalone options and phased package of options

Strategic Transport Objectives		Option 1: Extend Railway to Newport via Wootton	Option 2: Extend Railway to Newport via Blackwater	Option 3: Bus Rapid Transit in A3054 corridor	Option 4: Reinstate railway from Shanklin to Ventnor	Option 5: Extend active travel route from Wroxall to Ventnor
Improve non car-based journeys between major population centres and employment hubs on the Isle of Wight, specifically between Ryde, Newport, Ventnor, and The Bay (Sandown and Shanklin) by 2030. In doing so:	Deliver door-to-door journey times that are competitive with the equivalent car journey	✓✓✓	✓✓✓	✗	✓✓✓	✗
	Improve the reliability of journey times, measured by % of journeys arriving within 5 minutes of planned/expected free-flow journey time	✓✓✓	✓✓✓	✓	✓✓	✓
	Make a material contribution to reducing the share of trips made by car to 80% of the 2011 level.	✓✓	✓✓	✓	✓	✓
	Support sustainable development objectives by reducing the car-dependency of new residential and commercial developments as measured by the number of parking spaces per new dwelling.	✓✓✓	✓✓✓	✓	✓	✗
Improve transport links between major population centres and employment hubs on the Isle of Wight, and mainland locations including Portsmouth, London and the wider South East by 2030. In doing so:	Materially improve capacity of sustainable transport modes to serve Ryde ferry terminals in order to support up to 25% cross-Solent journeys in each direction per year.	✓✓✓	✓✓✓	✓	✓✓	✗
	Remove the need to interchange by providing direct access to Ryde Pier Head and, where necessary, integrated though-ticketing to mainland public transport services.	✓✓✓	✓✓✓	✗	✓✓✓	✗
	Reduce the car-dependency of cross-Solent travel by increasing the proportion of foot passengers	✓✓	✓✓	✗	✓	✗
	Materially improve the reliability, speed and convenience of journeys in in-scope transport corridors	✓✓	✓✓	✓	✓✓	✗
<b>Supplementary Transport Objectives</b>						
Preserve the heritage character of the IW Steam Railway		✗	✓	✓	✓	✓
Ensure no detriment to existing provision of active travel modes		✓	✓	✓	✓	✓
Ensure no significant detriment in transport provision for smaller, intermediate settlements		✓	✓	✓	✓	✓

- 3 trains per hour (tph) service with an end to end journey of between 21 and 26 minutes.
- Option 3 – Bus Rapid Transit in A3054 corridor -
  - follows the main road (A3054) between Newport and Ryde;
  - package of measures including a 0.9 km section of guided busway to enable buses to avoid peak period traffic queuing delay westbound on approach to Newport;
- Option 4 – Reinstatement of former railway to Wroxall and Ventnor;
  - reinstates the former railway from Shanklin to Wroxall and Ventnor -
  - shares Ventnor Tunnel with existing utility services;
  - first / last mile transport at Ventnor required owing to elevation of station site;
  - 3 trains per hour (tph) service with 6 minute journey from Shanklin to Ventnor;
- Option 5 – Extend active travel corridor from Wroxall to Ventnor -
  - Extends existing walking and cycling route between Shanklin and Wroxall;
  - 1.1 km Ventnor tunnel would be renovated and opened as a new route for public use to Ventnor;
  - provides an active travel feeder link to the Island Line at Shanklin.

## Strategic Assessment

A summary of the five options' performance against the transport objectives is shown in Table 1.

Option 1 was ruled out on cost and feasibility grounds; Options 3 and 5 didn't adequately address the strategic objectives and were ruled out.

Extending the railway to Newport via Blackwater (Option 2) is expected to have a dynamic set of impacts that goes to the heart of the strategic objectives and benefits a wide range of people and places across IW and on the mainland. By contrast, while reinstating the railway to Wroxall and Ventnor performs well, it would play a more localised role and is less central to the strategic vision of a more prosperous, inclusive, and sustainable Island. As a result, the rail extension to Newport provides more opportunities for a rollout of benefits that build on one another, i.e. the case for the Ventnor line is likely to be strengthened if the railway to Newport is in place and has started generating dynamic economic benefits that will themselves boost prospective demand on the Ventnor line.

The following options were taken forward for quantitative assessment in the Economic Case:

- Option 2 - Extend railway to Newport via Blackwater;
- Option 4 - Reinstatement of railway to Wroxall and Ventnor; and
- A longer term vision incorporating both Option 2 and Option 4 and a third rail service between Newport and Shanklin / Ventnor.

## Economic Case

### Introduction

A high-level financial and non-financial appraisal was undertaken for the options that were taken forward. Each was tested using three alternative scenarios ('Business as Usual', 'Economic Catch Up' and 'Sustainable Transformation'), which were constructed to reflect alternative assumptions about the various strategic drivers of demand, including:

- Population growth, ageing and demographics;
- The scale, location, and nature of development;
- Strategic markets, including cross-Solent markets and the visitor economy;
- Modal policies such as car parking charges and public transport fares; and

- Post-Covid transport and economic behaviours.

## Option 2: Extend railway to Newport via Blackwater

The indicative costs of this option are shown in Table 2.

Table 2: Indicative costs, 2018 prices

	Cost excluding optimism bias	Optimism bias	Total cost
<b>Capital costs</b>			
Extension of railway to Newport via Blackwater with north facing junction South of Sandown Station	£64m	64%	£110m
<b>Operating costs</b>			
3 tph Newport to Ryde via Sandown	£2.3m	41%	£3.2m

The indicative benefit to cost ratio is based on the building blocks shown in Table 3.

Table 3: benefit to cost ratios for BAU and alternative scenarios; build of benefit to cost ratio elements for BAU case.

	Newport via Blackwater (jcn south of Sandown)	
	No savings in bus opex	Savings in bus opex
<b>Business as Usual</b>	<b>0.8</b>	<b>1.3</b>
Economic Catch-Up		1.6
Sustainable Transformation		2.3
Economic Catch-Up & Sustainable Transformation		3.6

Changes in the value for money case through the various combinations of the ‘Economic Catch-Up’ and ‘Sustainable Transformation’ scenarios show that the benefit cost case is strongly affected by the future nature of Island development and policy.

Assumptions about potential long term negative impacts of Covid-19 significantly hamper the economic case. For comparison, the 3tph Newport via Blackwater scheme with a junction to the south of Sandown sees the BCR fall from from between 0.8 and 1.3 under Business as Usual to between 0.4 and 0.6 as future transport markets – and public transport markets in particular – contract.

## Option 4: Reinstate former railway to Wroxall and Ventnor

The indicative costs of this option are shown in Table 4.

Table 4: Indicative costs, 2018 prices

Option	Indicative cost (including optimism bias)
<b>Capital costs</b>	
Reinstatement of former railway to Wroxall and Ventnor including Ventnor tunnel and new station	£46m
<b>Operating cost</b>	
3 tph Shanklin to Ventnor	£1.2m

An access penalty over and above the usual station access/egress penalties was applied in the model, to reflect the elevated location of Ventnor station. This reduced demand and revenue by around 15%. Overall, it appears that the economic case for reopening the Ventnor line offers a benefit to cost ratio of greater than one whether or not there are associated changes in bus operating costs. If no bus cost savings are possible, then the BCR is around 1.2 while if reduced bus revenues can be translated into lower bus operating costs, then the BCR under Business as Usual assumptions is around 1.6. This

option appears to offer a good prospect for delivering medium value for money and may be able to achieve high value for money in some scenarios.

### Longer term vision

In a longer term vision for the Island’s rail system, the Ryde to Newport via Blackwater and the Ventnor extension would combine to offer a three route service pattern covering Ryde, The Bay, Newport, and Ventnor. This longer term vision meets most of the strategic requirements for the transport corridors examined and could be further extended with future extensions from Newport to Cowes (Phase 4).

Adding a 3 trains per hour service from Newport to Shanklin would not require significant new infrastructure but would incur additional operating cost of around £1.8m. The value for money is between 0.6 and 0.9, with and without bus operating cost savings, and excluding other impacts such as wider economic benefits, decongestion, safety, and carbon emissions.

As modelled, the overall programme delivers lower value for money than either Option 2 or Option 4 alone. This is because the additional third service provides modest benefits as the link between Sandown and Newport is already served in Phase 1, so the marginal benefits do not cover the marginal costs of the service.

When considered against the Island’s development ambitions however, the longer term vision shows that it could provide medium value for money – or potentially greater once cost synergies and other benefits are calculated. The BCR of 0.9 with BAU increases to 1.0 under the Economic Catch Up scenario, 1.5 under the Sustainable Transformation scenario and 1.9 with both of these scenarios applied.

### Financial Case

An indicative cost profile for a first phase of work to provide a railway service between Ryde and Newport is shown in Table 5.

*Table 5: Indicative infrastructure cost profile for Phase 1 scheme (Option 2 - Ryde to Newport railway), 2021 prices*

	Total	2023	2024	2025	2026	2027	2028
Infrastructure costs	£67.04m	£ -	£ -	£ -	£16.76m	£33.52m	£16.76m

Cost estimates are expressed in 2021 prices and include both a location uplift of 20% to reflect the relative difficulty of undertaking infrastructure works on the island, and a management and design uplift of 25%.

The cost estimates shown here are consistent with, albeit presented differently to, the equivalent cost figures presented within the Economic Case. In line with Department for Transport (DfT) Transport Appraisal Guidance (Unit A5.3, Section 2.5), no adjustment for either upside or downside risk has been included within the cost estimates presented.

Additional development funding to progress the scheme is anticipated to be provided via the Restoring Your Railway Fund, subject to agreement of the business case. A range of potential funding sources for the capital works has been identified, both from Government sources and third parties. The latter include a number of innovative options, such as:

- Vehicle testing fees - testing of battery powered vehicles in a segregated environment;
- Improving grid stability – the railway would provide a ready on-Island market for excess renewable energy;

- Testing alternative standards – the railway could be a testbed for innovation in the application of infrastructure and rolling stock standards;
- Dependent development – capturing a share of Land Value Uplift at key development sites in Newport.

## **Management Case**

The Management Case outlines how the proposed scheme, and its intended outcomes will be delivered successfully. It gives assurances that the scheme content, programme, resources, impacts, problems, affected groups and decision makers, will all be handled appropriately, to ensure that the scheme is ultimately successful.

## **Commercial Case**

Subject to agreement of the business case, further funding to develop the business case may be available from the Restoring Your Railways Ideas Fund, together with a contribution towards the capital costs of the scheme. It is expected that a preferred strategy for procurement for capital works would be identified by Network Rail (NR) or its successor Great British Railways (GBR) during the Outline Business Case development stage. In line with NR processes, the preferred strategy would be selected in order to ensure that value for money is achieved, and that all procurement is compliant with all relevant processes and standards.

## **Conclusion**

The 'ask' is for development funding to proceed to an Outline Business Case for Phase 1 of the Island's transformational rail vision – the implementation of a frequent, fast, and reliable railway service between Ryde Pierhead and Newport.