

APPENDIX A

The future of Island Line - Options Report

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1 EXECUTIVE SUMMARY

1.1 Island Line is recognised as a vital transport service for the Isle of Wight (IW). From what we understand it needs a subsidy of at least £3m pa to operate. The Department for Transport (DfT) has made it clear that they have no wish to close the line but that a more cost effective solution needs to be found. The Isle of Wight Council (IWC) would wish to see the Island Line route improved, promoted and if possible extended.

- 1 The existing service needs investment with rolling stock that is now over 75 years old. The track is in poor condition. There is a lack of detailed knowledge about the state of the rolling stock and the infrastructure - including Ryde Pier, but in general terms both are considered to be in a poor state.
- 2 It is considered that if the present service is simply to be “improved” by the introduction of more modern London Underground Ltd (LUL) stock; this would not reduce the costs and if anything will increase them, because of the heavy rail standard of investment that is required. It is understood that replacement LUL stock is unlikely to be made available before 2027; the replacement stock would be over 40 years old and would be expensive to convert. Any more modern LUL stock would be longer, unlikely to fit through the tunnel and too mechanically complicated to run on the current line.
- 3 An alternative approach would be to operate the line as tram system with its much cheaper operating costs. There will still need to be investment in the track but in the longer term the conversion to tram system with overhead tram catenary offers benefits in terms of operation and costs. Work will need to be undertaken to ensure the tram will operate through Ryde Tunnel and elsewhere on the line. However second-hand trams are becoming available and have the potential to offer a more cost effective, modern and “future proof” alternative.
- 4 It is considered that converting to a single line tram operation, with passing places and “line of sight” running would greatly simplify the railway, reduce costs and allow for a 15 minute frequency.
- 5 Under this proposal, the Isle of Wight Steam Railway (IWSR) would be given the released section of double track between Smallbrook Junction and Ryde St Johns Station where they would be given access to the western platform. This would bring direct economic / tourist benefits to the Island and Ryde in particular; it would also clearly benefit IWSR who in return have offered to provide their

technical and engineering support including constructing the passing loop and other changes required.

- 6 Under any proposal safeguards must remain in place and Island Line must stay part of the National Rail Network for ticketing, revenue allocation, information and other relevant services.
- 7 The IWC would not have either the financial resources or skills to be able to operate the Island Line franchise. The line would have to be franchised by the DfT.
- 8 There does not appear to be any clear logical arguments for Island Line being part of a wider South Western Franchise, especially if it were to be operated as an Island based tram service. It must however remain subject to the normal protection that a franchised railway has in the event of a failure of the operator, or unforeseen issues with the track or infrastructure.
- 9 If Island Line was to remain as a heavy rail service it would be very difficult to ever expand the route. A tram system would offer the potential for expansion including “street running” if desired.

2 INTRODUCTION

- 2.1 Up until the early 1950s the IW enjoyed a railway network of approximately 60 miles. Since that time a series of closures has reduced that coverage to a single 8.5 mile (13.68km) stretch linking Ryde Pier Head to Shanklin.
- 2.2 Although comparatively short, it is recognised that this railway continues to play a very important social and transport role by providing a timetabled, traffic free, reliable and punctual link between the cross Solent connections at Ryde Pier and Ryde Esplanade and the settlements of Ryde, Brading, Sandown.
- 2.3 The railway gives easy access to these coastal settlements which with Ryde at 30,000, the Bay Area - Sandown, Shanklin and Lake, a further 30,000, together account for almost 50% of the Islands resident population of 131,400 (2011 Census). The Island is a popular tourist destination and the population almost doubles during the summer months. These coastal towns make a large contribution to the Islands tourist economy and during the summer months the population of the area is increased by staying visitors and day trippers.
- 2.4 The IW road network radiates like the spokes of a wheel from Newport at the hub. The A3055 which links these coastal settlements is the rim of the wheel and problems of congestion and poorer air quality are experienced particularly in the summer

months where this road passes through Sandown, Lake and Shanklin. Problems also exist where the A3055 meets the B3329 which links into Sandown Town Centre and the main roads the A3056 and A3020 which lead to Newport.

- 2.5 Other problems exist on the local road network where the A3055 passes through the historic town of Brading which is very narrow in places, and has a reduced speed limit.
- 2.6 The retention and improvement of the Island Line service therefore seen as an important alternative to car travel and if it were to be closed would inevitably place additional burden on a part of the Islands road network which is already working at or near capacity.

3 CURRENT OPERATION AND FRANCHISE

- 3.1 Island Line is unique amongst Britain's national railways, not only in its geographical separation from the rest of the network, but also in the way in which it is operated and maintained. Under the current contractual and management structure the infrastructure is leased to Island Line Ltd from Network Rail (NR) on a 25 year lease till 2019 and operated as what is called a vertically integrated railway. Whilst South West Trains (SWT) is in the main responsible for the track itself all other structures are the responsibility of NR. It is understood that under the terms of the agreement between NR and SWT that when work needs to be carried out NR obtain the costs for this and subject to agreement from SWT this work is undertaken by NR or its contractors. The cost is then charged back to Island Line as a lease cost spread over 20 years. More information is needed on the exact details of the agreement.
- 3.2 Island Line is currently included as part of the South Western Franchise operated by SWT. A new franchise is due to start in 2017. The government is currently drawing up detailed plans for the next franchise¹, which covers the route between London, Surrey, Hampshire and Dorset. As part of these considerations the Government expects bidders to plan to sustain Island Line for the short term, while suggesting ideas to turn it into a separate and self-sustaining business during the rest of the franchise².
- 3.3 The Government expects bidders to develop proposals for how they will reduce the cost of running the line, which they say currently costs £4 million a year to run, against an income of £1 million. The solution they say could involve the next operator securing an investment partner or working with the community and stakeholders to set up a social enterprise to take over the running of the line.

¹ A copy of the South Western franchise completion prospectus can be found on the DfT website [here](#)

² Details of the franchise process and Press Releases can be found on the DfT website [here](#)

- 3.4 The DfT has set out a process to consult with passengers and the public on its plans for the South Western franchise. Additionally the IWC has been asked by the DfT to give their views on the best possible outcome for the line recognising the Government's desire to have a more cost efficient operating model. This document therefore seeks to provide both the IWC's view but also the views of those organisations and people the IWC has consulted with during this process.

4 LOCAL TRANSPORT AND PLANNING POLICY

- 4.1 The IWC policy regarding Island Line has been established for a number of years and in simple terms is to support the retention, maintenance and extension of the line. This policy has been developed and refined through a number of planning and transport policy documents including the Isle of Wight Local Transport Plan, the first of which (LTP1) covering the years 2001-2006. Policy C.2.27 of that plan states that "The Council believes that the railway should be seen as an important and integral part of the Islands transport infrastructure" and recognises it as "a vital link to the largest segment of the tourism industry."
- 4.2 The latest LTP the Island Transport Plan 2011-2038³ continues to recognise the important contribution the railway plays C.7.3 and in C.12.6 Objective F – Promote Travel Choice (Public Transport – including train) states that we should "make the best use of the existing transport infrastructure and work with others to support improvements that will update and enhance the service and facilities".
- 4.3 The forward looking planning document the Unitary Development Plan 1996-2011 adopted in May 2001 included a specific policy TR18, - "Railway Line and former railway network" which stated "The Council will support and encourage the retention and extension of the Islands railway lines and will ensure that discussed railways as identified on the proposals map, are safeguarded from development to allow their use for sustainable transport purposes. This use could include rail schemes, cycle routes, pedestrian paths and bridleways".
- 4.4 This approach has been continued in the Island Plan – Core Strategy⁴ adopted in March 2012 which in SP7 seeks to "support proposals that increase travel choice, provide alternative means of travel to the car and help reduce the impact on air quality and climate change." This is expanded in policy DM17 which supports

³ A copy of the Island Transport Plan can be found at www.iwight.com, and [here](#)

⁴ A copy of the Island Plan Core Strategy can be found at www.iwight.com and [here](#)

“improved accessibility for public transport” and seeks to “retain former railway line routes for future sustainable transport use”.

- 4.5 The issue is covered in more detail in the Area Action Plan for Ryde⁵ published for consultation in November 2015. This document recognises in the text on page 37 and Policy RT12: Rail Infrastructure (Page 38), the importance of maintaining, improving, promoting and if possible extending the route. It also recognises the importance of working with the IWSR and getting steam back into Ryde.

5 ISSUES

- 5.1 In producing this report it has not been able to get any authoritative report on the condition of the assets of Island Line. However NR have done some work on what they consider are the major areas of work that need to be undertaken over the next five years. We have not seen this analysis. It is reported that in 2014 NR and SWT carried out a joint confidential report into the state of the track, following a complaint from a user to the ORR. It is understood this report made a number of comments regarding the state of the infrastructure. It is imperative that a condition survey is carried out on the state of the line.

The current service

- 5.2 Island Line runs a two train per hour service, but because the passing loop is at Sandown there is no even interval service. The trains run at a 40 minute interval followed by a 20 minute interval, which clearly is not good for the passengers.
- 5.3 Only one of the two services connects with the ferry. This being the services that arrive at Ryde Pier Head at XX42 and departing at XX49. This is not a major problem when Wightlink are operating an hourly service but in busy periods it leads to difficult connections and uneven loading of the trains. Also if a passenger wishes to purchase a special Wightlink ticket that is not sold on the train it is difficult to make the connection.
- 5.4 The journey from Ryde Pier Head to Shanklin takes 24 minutes with all the intermediate stops excluding Smallbrook Junction for interchange with the IWSR. The service is very reliable with good punctuality, which given the age of the railway is a good achievement. On the other hand it is a very simple service to operate.

⁵ A copy of the Area Action Plan can be found at www.ight.com and [here](#)

Condition of track.

- 5.5 The quality of the track is poor giving a rough ride, particular in the stretch between Smallbrook Jct and Brading around Rowborough. Work was carried out by NR on this stretch this track which suffered from either wash outs or severe collapse of the embankment. This work was carried out in the past three years. Work was also carried out near Sandown again following for similar reasons. We have not been able to establish that NR has undertaken any other track work. South West Trains (SWT) has carried out routine maintenance but this has not addressed the basic issue of ride quality.
- 5.5 The track maintenance is further complicated by the lease arrangement between SWT and NR where the operator is responsible for track maintenance down to a depth of 450 mm below rail. This appears to lead to unnecessary debate between the parties as to responsibility for the repair. When work is needed NR contractors come over from the mainland, there being no contractors on the Island that NR use. This includes bringing over a tamper when required.

Rolling Stock

- 5.7 The existing rolling stock is ex London Underground Limited (LUL) 1938 stock operating with third rail collection but following conversion no centre rail return is required. The existing stock is now about 78 years old. Its condition is unknown to us, but we think there are now only 5 pairs of two car stock available, which can run as a 4 car set. The rolling stock will not meet the RAVR 2010 requirements in January 2020, but with investment it is thought they could be made compliant.
- 5.8 There have recently been issues from the Office of Rail Regulators (ORR) about staff not being able to pass between the carriages when the train is moving. This has seriously effected the ability to check/sell tickets on the route especially when the trains are busy.

Signalling

- 5.9 We understand that NR spent about £200,000 recently on the signalling; however the state of the signalling needs to be the subject of a separate study (see 7.4 below)

Power Supply

- 5.10 It is reported that there is not enough power to let Island Line run 2, four car sets at the same time. The line operates with one four car set and 1 two car set when extra capacity is required. There are three substations on Island Line but it has been reported that there is a serious voltage drop on the line. It is thought that at Shanklin the voltage drops to around 350v. The condition of the substations that provide the

DC supply gives cause for concern. The HV supply to the substations is thought to be satisfactory. The actual condition of the DC supply needs to be ascertained as there was a recent failure of the total system with service not starting till about 1430.

Ryde Pier

5.10 The condition of Ryde Pier is not known, but according to Wightlink no work has been carried out by NR for a long time. Wightlink stated that when they had to repair their part of the pier which included replacing the deck timbers, they only found one upright going into the sea that had to be replaced. However in discussion with NR it appears that work was undertaken on the Pier around 3 years ago. This work involved strengthening the deck of the Pier. This needs to be clarified.

6 CONSULTATION

6.1 As an important part of the preparation of this report the IWC sought the views of a broad range of stakeholders including:

- IW Chamber of Commerce.
- IW Tramway.
- Keep Island Line in Franchise (KILF).
- IWSR.
- Transport operators – including Hovertravel, Wightlink, Southern Vectis and (Red Funnel).
- Community Rail Partnership (CRP)
- Island Business representatives – including Hoteliers and Federation of Small Businesses.
- Local Elected Members,
- The IOW Quality Transport Partnership (QTP) Isle of Wight Bus and Rail Users Group.
- Town and Parish Councils.
- Trade Unions – TUC, RMT.
- Visit Isle of Wight.
- Isle of Wight MP – Andrew Turner.

6.2 Meetings also took place with representatives from DfT Rail, DfT Roads and Trams, the Office of the Rail Regulator (ORR), UK Tram and Transport for London (TfL).

Summary of discussions

6.3 The meetings took place over a number of days between 6th November 2015 and mid December 2015 and were generally about an hour to an hour and a half in length.

Whilst it must be recognised some groups or individuals had a particular slant or interest, the comments expressed could be summed up as follows:

- Concern over the future of the line.
- Distrust over commitment to the future of the line and what they saw as moves to close the route.
- Need to keep a timetabled link between Ryde Pier Head and Shanklin and to provide a regular half hourly timetable
- Desire to keep it in the franchise where many thought the financial losses would be lost or absorbed in a bigger franchise.
- No absolute requirement to keep heavy rail - light rail / tram would do and would help possible extension.
- Desire to work more closely with IWSR and efforts to get them back into Ryde (realistically Ryde St Johns Station)
- Desire to see the line promoted better.

6.4 It was agreed that there was a "lot of noise" around the issue, but that this had actually helped to highlight the issue and raise the profile in the local and national press.

6.5 All agreed that there was now an urgent need to consider the longer term future of Island Line. The inability to agree an extension of the current franchise meant that what was already a tight timescale was now even tighter.

7 OPTIONS FOR THE FUTURE

7.1 In undertaking this investigation we have had very limited financial information on the costs for the service. In the Halcrow September 2005 report some information was made available. However whilst figures were given for the staff costs and income, there was no information on the cost of the rolling stock or infrastructure.

7.2 The line is said to have revenue of about £1m and in the most recent release costs have risen to about £4.5m pa. It is difficult to see how under the present structure and arrangements for operating the line costs can be significantly reduced. We have made the assumption that it is unlikely that any prospective bidder would be able to operate the line for much less than SWT does today, given that SWT are rightly perceived as one of the most efficient operators in the country.

7.3 We do not believe that transferring the overall control of the line to some other body such as the IWC would reduce costs as they do not have the skills to run a railway and certainly do not have the financial resources to support the line. Equally given the

economics of the line no private sector company would invest in the line other than through a franchise with some sort of Government support.

- 7.4 The IWC thinks that it is essential that a full condition survey of the track is undertaken to clarify what needs to be spent on the line over the coming years. Without this it is nearly impossible to know what the future costs of Island Line would be. There appears to be a lack of clarity as to who is responsible for ensuring the track is in good condition. Clearly the present totally unsatisfactory ride that passengers experience has to be resolved. However for any real decision regarding the future of the line the survey also needs to include a complete condition survey of the route including Ryde Pier and Ryde Tunnel. The survey also needs to ascertain the condition of the signalling which whilst receiving regular maintenance is thought to have a life of about 10 years.
- 7.5 In then deciding, whether to continue with the existing method of operating the line, work will also be required to understand the condition of the rolling stock. According to LUL the first rolling stock that would be suitable to replace the 1938 stock is the Bakerloo Line trains, but these will not be available until 2027 at the earliest when the existing stock would be 89 years old! Whilst the Piccadilly Line stock becomes available before the Bakerloo line stock it is slightly longer and would create problems at Ryde Esplanade Station
- 7.6 We do not have knowledge of what the cost of the Bakerloo Line stock would be. It would however need to be altered for service on Island Line in a similar way that the 1938 stock was converted, however TfL have said that the conversion of the Bakerloo Line stock will be more difficult than the 1938 stock. Whilst the electrical controls are similar the equipment attached to each coach is different. In the case of the 1938 stock nearly all the power equipment was in the driving trailers. In the case of the Bakerloo Line stock some power equipment is attached to the trailer coach. This equipment would need to be transferred to the driving trailers. Whilst this is technically feasible TfL have said that it would be very difficult, take time and be expensive. TfL have also been asked to supply information of the minimum voltage the Bakerloo Line could operate at because of concerns about the voltage drop on the line. Additionally is the power requirement greater than for the 1938 stock?
- 7.7 Subject to a loading gauge study of the Island particularly for the Ryde Tunnel and Bridge 12 close to Smallbrook Stadium, it is assumed that the Bakerloo Line stock would fit, given that the carriage length and height is similar to the 1938 stock. However all this work will achieve is the continuation of the Island as it is today except with more modern rolling stock and better infrastructure. The basic financial structure would be the same and it is unlikely that the total cost of the railway will be reduced.

8 ADOPTING A POSITIVE APPROACH

- 8.1 An alternative approach, which would be worthy of further consideration, subject to certain conditions, would be to turn Island Line into a tram operation. The key issue is, whether in operating the line as a tram, the infrastructure and other operating costs could be reduced to offset the capital investment of converting the line to a tram system.
- 8.2 In summary this tram proposal would consist of the following:
- 1 NR carries out the condition survey but then the line is improved to meet tram requirements rather than the existing NR standards. The ORR have stated that trams could not operate on the present track because of the level of twist in the track. Equally the existing points and crossings are not suitable.
 - 2 Whilst there is a debate as to whether the existing operators should be paying to bring the track up to an acceptable standard NR should not carry out the work to convert the track to tram standards. This work should be done as by specialist contractors who have done this work in a number of places in England.
 - 3 The track layout could be greatly simplified by reducing the track between Ryde St John's Station and Ryde Pier Head to a single line, but retaining the lines to both platforms at the Pier Head. Also the track between Smallbrook Junction and Ryde St John's would be singled with the other track being transferred to the IWSR who in return would undertake take the following:
 - A. Receive all engineering track supplies that currently use the Sandown Depot at Havenstreet. This would enable the release of this land on the west side of Sandown Station for housing or other property development.
 - B. The IWSR would then move these materials at their cost with their own diesel locomotive and wagons to where required on the line via the junction that would be maintained at Ryde St John's.
 - C. Lay a new passing loop at or near Brading with material supplied by Island Line.
 - D. Ensure that when specialist equipment is required such as tampers this is sourced from one supplier and used on both lines. At the present time the IWSR brings over its own tamper and NR also bring over theirs. All this is subject to detailed negotiation but it all helps to reduce the Island Line costs.

5. After meetings with UK Tram and Centro it has been ascertained that it would be possible to purchase second hand trams from Centro. We have been offered the T69 tram at a very reasonable price. The tram has a height of 12' 2". The trams are 15 years old, were refurbished internally in 2013 and are in good condition. The trams should have life of at least 10 years. To have the facility to operate a 15 minute service 6 trams would be required. There would then need to be two operational spares and another 1 or 2 trams for spares.
6. It will be necessary to ascertain that, if the track level in Ryde Tunnel is reduced to the level it was prior to the introduction of the underground stock, trams could pass through and have enough room for the catenary. This is the most important physical issue as to whether trams are a solution for the replacement of the rolling stock. The old steam rolling stock had a height of 11ft 8 ins. Work is ongoing to get more information on this issue but it is thought to be achievable.
7. The signalling would be simplified with the trams running on line of sight, which is the norm for tram systems. This would save the current cost of maintaining the existing system and clearly avoid the total replacement cost in about 10 years' time.
8. The voltage will need to be checked. The Island line runs on 630v DC. The T69 trams run on 750v DC but can operate at 630v DC. It will be necessary to check that there is no significant loss of performance. However as stated earlier there are serious questions about the DC supply of power over the whole route.
9. A passing loop will need to be installed somewhere between Smallbrook Junction and Brading to enable a regular half hourly service to operate. The exact location will need to be investigated to ensure an even interval timetable. Subject to verification of the voltage issue the tram will complete the journey from Ryde Pier Head to Shanklin in the same time as today. Additionally as the interchange with the IWSC will take place at Ryde St John's the station at Smallbrook Junction can be closed for Island Line operation.
- 10 The option needs to be retained of providing another passing loop so that if the service is expanded and /or in periods of high demand a fifteen minute service could be operated. It is thought that this extra passing loop would need to be provided somewhere between Smallbrook Jct and Ryde St Johns Station. Additionally the platform on the south side at Ryde Esplanade would need to be built out so that passengers could alight/join the tram from both sides. This would enable Hovertravel passengers to have step free access onto the service.

11. Work is currently going on with Transport for London (TfL) Rail Division on operating costs to try to understand how much cheaper it is to operate a service as a tram rather than heavy rail. However this is unlikely to be very helpful as the passenger volumes of the TfL services are so high. Additionally the costs of construction for Croydon were undertaken during the period of the Public-Private Partnership (PPP) and TfL does not have these figures.
 12. UK Tram is obtaining information on the latest costs for installing overhead line equipment. UK Tram has commissioned consultants Mott MacDonald to undertake this work. A provisional figure on overhead line installation is expected shortly.
- 8.3 The other major issue for the IWC is how the franchise will be operated. As stated earlier the IWC does not believe, even with the hoped for reduced costs of a tram operation that IWC could run it.
- 8.4 It is not entirely clear what benefits Island line has had as a result of being part of the SWT franchise. In fact it can be argued that if Island Line became a tram system it should not be part of a heavy rail operation as the franchisee would probably not have the management skills to run a tram based system as part of its operation. (see section 9 below) However the following guarantees are needed:
1. The Island Line has to be part of National Rail for ticketing, revenue allocation, timetable information and rules on fares increases etc.
 2. There would need to be some sort of guarantee that in the event of the failure of the operator there would be operator of last resort as happens today.
 3. There would need to be a clear statement about the continuing operation of Island Line which would be subject to the same rules of closure of any other railway line in the UK.
- 8.5 The view that the franchise could be a separate franchise is the one area where there is not a uniform view on the Island. A number of the consultees thought the line would have a more secure future as part of the main SWT franchise.

9 WHAT TYPE OF FRANCHISE?

- 9.1 In undertaking this work there has been a high degree of agreement that the future of the Island Line could be either as it is today but modernised or converted to a tram system. The area of greatest disagreement is in relation to whether Island Line should remain part of the main SWT franchise or be set up as a small, separate franchise.
- 9.2 There is a perception that because Island Line is part of the main franchise it is provided with more protection and investment than if it was on its own. It is not

understood that even when part of the main franchise Island Line is a separate cost centre. No extra money is, or would be invested by the franchisee into Island Line over and above the amount contracted in its franchise agreement, unless it is not achieving the targets in its franchise agreement, or there was a clear economic return for the franchisee, which in the case of the Island Line is difficult to see.

- 9.3 The reality of this is that other than those instances where the infrastructure has required urgent maintenance – such as when the embankment collapsed recently, very little general investment has been made in Island Line by the existing franchise. However the actual investment is made by NR with the franchisee only paying an annual amortised payment over a number of years.
- 9.5 The facts are that Island Line is about 0.1% of the SWT revenue and about 0.2% of its costs with the result that any organisation running the SW Franchise will, in common with what happens today not give much attention to Island Line. Island Line does not carry SWT branding and with the exception of some specific themed events is generally very poorly promoted. It is difficult to identify examples of where the existing franchisee has used its size or location to boost or promote the use of the line.
- 9.6 By contrast a franchisee who is solely responsible and accountable for operating the line and totally dependent on the performance of the Island Line for its viability is much more liable to actively support and promote it.
- 9.7 If Island Line were to operate on a different basis to the main franchisee, for example as a tram, the case for it to be independent of the larger franchise becomes even stronger. If the main franchise is running a heavy rail operation and Island Line was operating as a tram the franchisee would be very unlikely to have any transferable skills.
- 9.8 The Island franchisee could well be operated by one of the existing train operators but through a tram subsidiary rather than rail subsidiary and would need its own operators and engineers.
- 9.9 The key underlying requirement for the IW is that if Island Line became a small franchise it would still have to retain all the benefits of the national network including through ticketing, revenue allocation, travel information, rules on fare increases as exists elsewhere.
- 9.9 It also must also be subject to the same rules about delivery of performance and protection if the operator got into financial difficulties with the DfT as the “safety net” and stepping in as operator of last resort.