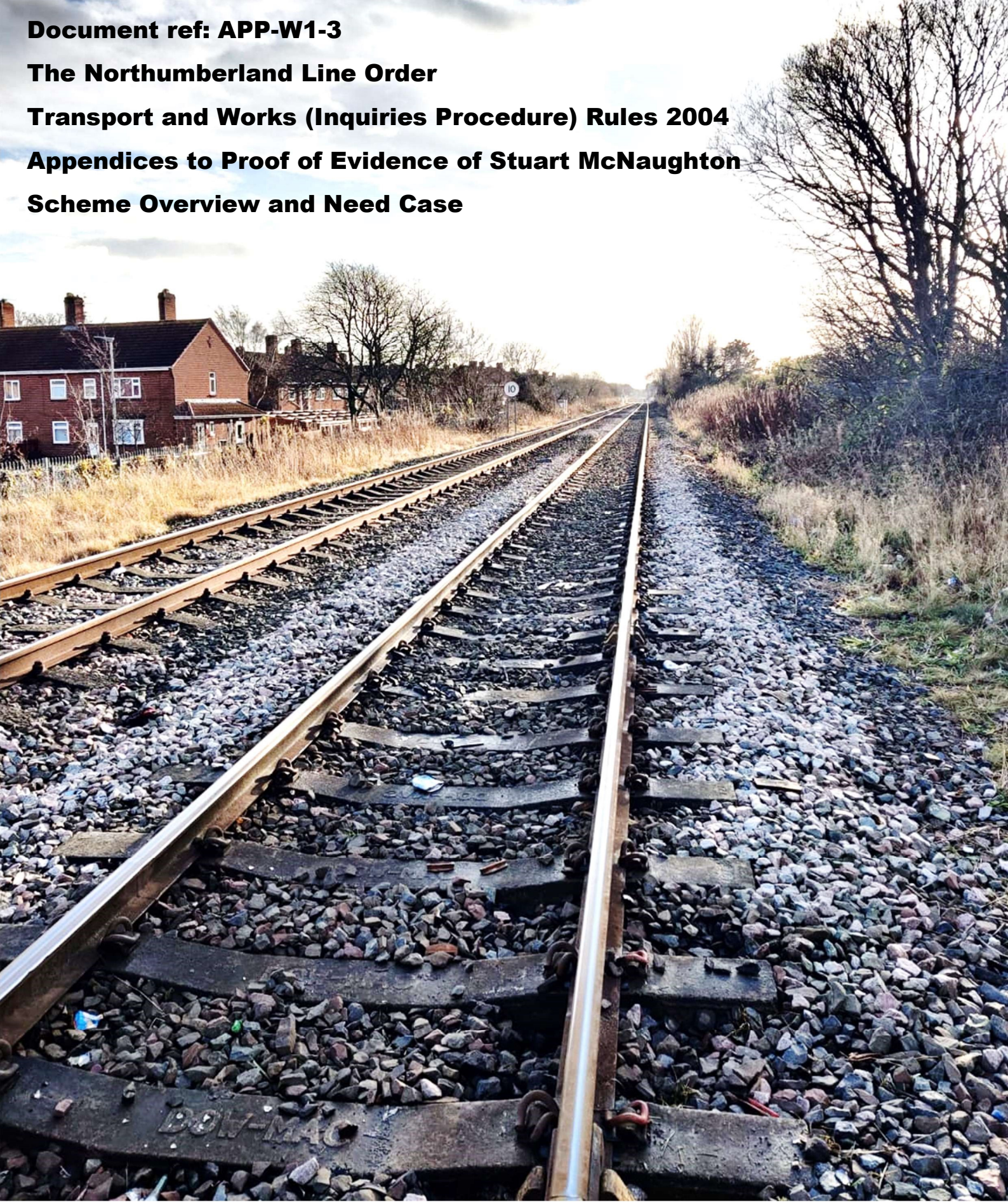
Document ref: APP-W1-3

The Northumberland Line Order

Transport and Works (Inquiries Procedure) Rules 2004

Appendices to Proof of Evidence of Stuart McNaughton

Scheme Overview and Need Case



Northumberland
County Council

APP W1-3 – Index of Appendices for Stuart McNaughton Proof of Evidence

1. Appendix A – Reopening Ashington, Blyth and Tyne Railway Line to Passenger Services: Station Assessment Report (July 2016)

Reopening Ashington, Blyth and Tyne Railway Line to Passenger Services

Station Assessment Report

July 2016

Reopening Ashington, Blyth and Tyne Railway Line to Passenger Services

Station Assessment Report

Quality information

Document name	Ref	Prepared for	Prepared by	Date	Reviewed by
Ashington, Blyth and Tyne Station Assessment Report	001	Northumberland County Council	G Paget	29/07/16	G Macdonald

Revision history

Revision	Revision date	Details	Name	Position
Xxxxx	xxxxx	xxxxx	xxxxx	Xxxxx
Xxxxx	xxxxx	xxxxx	xxxxx	Xxxxx
Xxxxx	xxxxx	xxxxx	xxxxx	Xxxxx

Contents

Introduction

01

1 Introduction

1.1 Introduction

Northumberland County Council (NCC) is currently progressing with the development of a scheme to reintroduce passenger services on the existing freight railway line between Ashington, Blyth and Tyne. As part of the development of the proposals, a number of options have been considered for the scheme looking at service pattern, line speed improvements and station locations. In advance of progressing the scheme to GRIP 3(Governance for Railway Investment Projects), a consensus on the location of the stations to be included in the scheme needs to be reached. AECOM has been assisting NCC with the development of the scheme and has therefore been commissioned to undertake an appraisal of each potential station location and develop a series of conclusions on each. The results of this assessment are set out in the remaining chapters of this report.

1.2 Background

Reopening the Ashington, Blyth and Tyne railway line to passenger services is a key priority of NCC. The scheme is seen as essential for improving connectivity and accessibility in the South East Northumberland Corridor (SEN Corridor). Improving the links from towns such as Ashington and Blyth is of key importance to encouraging more sustainable access to the key regional economic centres in Tyne and Wear. This will assist in reversing the decline in the deprivation of these areas of South East Northumberland which has been evident since the closure of the mining and shipbuilding industries over the last 30 year period.

The scheme was first considered in 1996 when Northumberland County Council and its partners commissioned a study to investigate travel demand in the SEN Corridor in order to assess the need for major improvements in public transport.

Three options were originally considered as follows:

- the re-introduction of passenger rail services on existing freight rail lines on the Ashington, Blyth and Tyne line;
- the extension of the Tyne & Wear Metro system or the introduction of other light rail systems into South East Northumberland; and
- improving the existing bus services through priority measures of bus guidance routes.

The study recommended the re-introduction of rail services on the Ashington, Blyth, and Tyne line as it was the most justifiable in terms of overall cost and benefit, and also provided good transport integration opportunities. Further review since 1996 (including a major scheme bid in July 2002) continues to find this option the most viable.

1.3 Proposed Scheme

The Ashington, Blyth and Tyne (ABT) passenger railway re-opening scheme will use (with the exception of 4 mile length of the East Coast Main Line), existing freight lines only and cover a distance of 18.7 miles from Newcastle to Woodhorn, with a single track section (circa 8 miles) between Benton North Junction and Newsham.

At present (with the exception of Northumberland Park, Manors and Newcastle Central) the line is considering the use of 6 stations, with the exact location of these stations still to be determined. The six station areas have been identified taking into consideration historical station sites, available land, feasibility of a station, key areas of housing and development and, importantly, the impact of the station on end to end journey times of the scheme being proposed. The station areas being considered are as follows:

- Woodhorn Colliery Park and Ride (2 locations identified);
- Ashington Town Centre (old station site);
- Bedlington (old station site);
- Blyth Park and Ride at Bebside (1 location identified to the west of the A189);
- South Newsham (3 locations identified);
- Seaton Delaval, Seghill or New Hartley (8 locations identified).

The scheme seeks to provide an end to end journey time between Ashington and Newcastle of 32 minutes with line speed improvements.

1.4 Current Status of Scheme

Initial demand and revenue forecasting of the proposed scheme has been undertaken to ensure there is a business case for taking the scheme forward. This has given NCC the confidence to take forward the scheme to the Network Rail GRIP process, which manages the development of railway schemes from initial option development through to construction and hand back. The scheme is currently at GRIP 2 in the Network Rail process with the outputs from this stage due to be reported in summer 2016. Before progressing to GRIP 3, decisions need to be made on some of the variables of the scheme; a key decision to be made is the location of the stations. The stages of the GRIP process are identified below:

- GRIP 1: Output definition;
- GRIP 2: Feasibility;
- GRIP 3: Option selection;
- GRIP 4: Single option development;
- GRIP 5: Detailed design;
- GRIP 6: Construction, test and commission;
- GRIP 7: Scheme hand back;
- GRIP 8: Project close out.

1.5 Report Structure

Following this introductory section, the report has been prepared so that the strengths and weaknesses of each proposed station location are identified, and conclusions drawn as to the preferred location for each of the six station areas. The structure of the document is as follows:

- Chapter 2: Scheme description;
- Chapter 3: Woodhorn;
- Chapter 4: Ashington;
- Chapter 5: Bedlington;
- Chapter 6: Blyth Bebside;
- Chapter 7: South Newsham;
- Chapter 8: Seaton Delaval, Seghill or New Hartley;
- Chapter 9: Conclusions.

Scheme Description

02

2 Scheme Description

2.1 Introduction

This section of the report provides a physical description of the proposed reopening of the Ashington, Blyth and Tyne railway line to passenger services. The scheme has been developed over a long period, taking account of previous studies and consultations. However, the scheme is only at stage 2 in the Network Rail GRIP process and therefore the detail of the scheme is still evolving and there is no firm commitment on station locations at this stage. Regardless of the conclusions of this report, the underlying philosophy and design of the proposed scheme will remain as documented in this chapter.

2.2 The Ashington, Blyth and Tyne Line Options

In collaboration with an active local stakeholder group, NCC are committed to growing the South East Northumberland economy, and overcoming the many accessibility challenges facing residents of South East Northumberland, by developing proposals for the reintroduction of passenger rail services on the Ashington, Blyth and Tyne line. The scheme has been prioritised in the North East Strategic Economic Plan and has received positive feedback from both Network Rail and DfT. A range of options are being considered but are likely to be focussed on:

- The provision of an hourly passenger rail service between Woodhorn and Newcastle with the service being increased to half-hourly during peak times. If a commitment is made to line speed improvements, journey times from Ashington to central Newcastle will be 32 minutes compared to the existing bus journey times of over an hour;
- Intermediate station stops to cater for the communities of Ashington, Bedlington, Blyth and Seaton Delaval/Seghill/New Hartley, with an additional stop at Northumberland Park providing opportunities for interchange and onward travel on the Tyne & Wear Metro system;
- A park and ride station adjacent to the A189 west of Blyth and at Woodhorn;
- Associated capacity, line speed and signalling improvements to support passenger services alongside forecast freight usage.

The proposed scheme, showing the potential station locations, is illustrated in Figure 1 on the adjacent page.

Figure 1: Proposed Scheme for the Ashington, Blyth and Tyne Railway Line

2.3 Existing Infrastructure

The Ashington, Blyth and Tyne railway line was originally built as double track throughout. It was originally built to convey coal traffic to the River Tyne but passenger services were operated through to Newcastle until 1964.

The route is now single track between Benton Junction and Newsham, a distance of just over 8 miles. With the maximum speed of the line limited to 40 mph, this single line section has the effect of limiting line capacity to two trains per hour in each direction.

After leaving Northumberland Park, the Ashington single line leaves the Tyne and Wear Metro coastal route on a sharp curve and is then straight as far as Seghill. From Seghill to Seaton Delaval there is a wide curve, followed by a sharp curve to the site of the former rail junction at New Hartley. The line is then straight as afar as Newsham South, and virtually straight on to Bedlington, where the Morpeth route diverges.

Both lines leave Bedlington on sharp curves – westwards to Morpeth and eastwards to Ashington. North of Bedlington there is a full double track triangle of junctions leading to the North Blyth/Cambois complex of lines, with the line through to Ashington remaining virtually straight. There are major viaducts across the rivers Blyth and Wansbeck.

Another feature of the route is the number of level crossings. These may have an adverse impact upon performance. Most of the level crossings are automatic with half-barriers, but those at Newsham South, Bedlington South and North, Marchey's House and North Seaton remain manually operated. Those at Newsham and Bedlington South, in particular, are crossings with very heavy road user levels.

The track throughout is maintained for heavy axle-load freight traffic. The maximum permitted speed allowed is 40mph. Higher speeds may prove to be permissible for lighter axle-load passenger vehicles of the sprinter and pacer type using the differential speed limit concept. Such a dispensation, which would need to be discussed with Network Rail and might incur capital expenditure to achieve, would contribute to making the passenger service more reliable, and therefore, more attractive to users.

2.4 Freight

The existing line is a freight line and any proposals going forward will include provision for current and known future freight train requirements. A summary of future freight requirements are listed below:

- Lynemouth Power Station is in the process of converting to Biomass operation and hope to run 5 trains a day in each direction, probably to the Port of Tyne via Benton North Junction.
- Port of Blyth (both via Battleship Wharf and Alcan Loading Bunkers) at present runs 4 trains a day in each direction. This is likely to increase by a further 3 train a day in each direction to Widdrington, where option are available from Bedlington to the final destination. This two year project is due to be completed by late 2016. However, it is known that the Port of Blyth is keen on expanding the port and will want to generate additional traffic to enable it to retain the additional paths upon completion of the Bedlington service. It is likely that the preferred route for the additional paths would be via Benton North junction.
- UK Surface Mining Coal has aspiration to have a new freight connection at Bebside for an open case mine. This is currently at the planning stage and not yet approved. It may be necessary to use nearby Furnaceway Sidings to facilitate the splitting of trains. It is envisaged that 1 train a day in each direction via Benton North junction would be required.
- The above requirements have been accounted for in the transport modelling and appraisal of the Ashington, Blyth and Tyne line to passenger services. Freight operators will remain an important stakeholder in the development of the scheme and any decisions which are made will be taken with freight needs in mind.

Woodhorn

03

3 Woodhorn

3.1 Introduction

Woodhorn is located on the outskirts of Ashington and is a former colliery area. A park and ride site at Woodhorn has always been included in the proposals for the Ashington, Blyth and Tyne scheme as an optional station location. However, given the benefits a station in this location would bring for removing vehicle trips from the A189, as well as supporting the tourism attraction of Woodhorn museum and local development in the area, commitment has been given that it will be in the core option for the Ashington, Blyth and Tyne scheme going forward. The only disadvantage of having a station at Woodhorn is that it may require additional rolling stock; this however is still to be confirmed.

Following confirmation that Wood horn would be included in the core scheme for Ashington, Blyth and Tyne going forward, two sites were identified for a station in this location; Woodhorn West is located to the west of the A189 and north of the A197 and Woodhorn East is located to the east of the A189.

3.1 Woodhorn West

The Woodhorn West station site is located north of the A197 and adjacent to Woodhorn Museum; a major residential development and Wansbeck Hospital are located just south of the proposed site, on the opposite side of the A197. As Woodhorn Station would be the terminating stop for the railway line, only one platform will be required in this location. **Figure 2** and **Figure 3** show the geographical location of the proposed site.

Figure 2: Map of Proposed Station Location, Woodhorn West

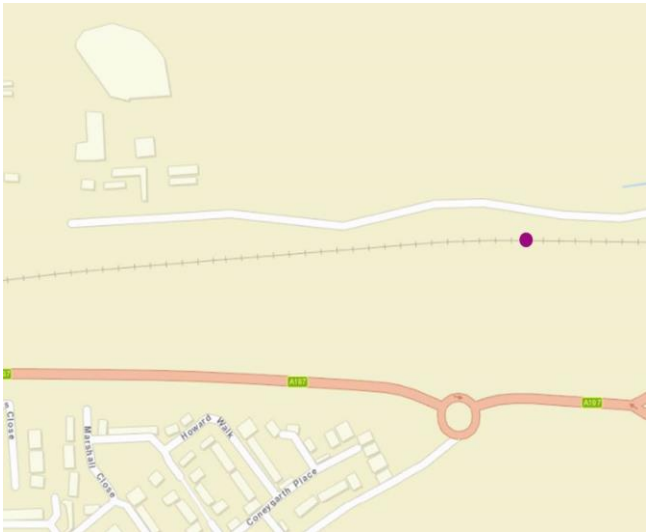


Figure 3: Aerial View of Proposed Station Location, Woodhorn West

Woodhorn West is located close to key principal roads, which offer convenient access from residential communities in Ellington, Lynemouth and Amble. It is proposed that access to the site will be provided from an existing spur off the A197/Woodhorn Road roundabout junction. This will need to be well signposted to attract trips from the A189 to use the park and ride facility.

The area offers sufficient space for the construction of a station car park, with some room for expansion depending on the uptake of the scheme. The disadvantage of a station in this location is that it is in a forested area, which may be considered a safety or security concern. This is coupled with the fact that the station would require removal of some woodland. It is likely objections would be raised due to habitat and ecological considerations

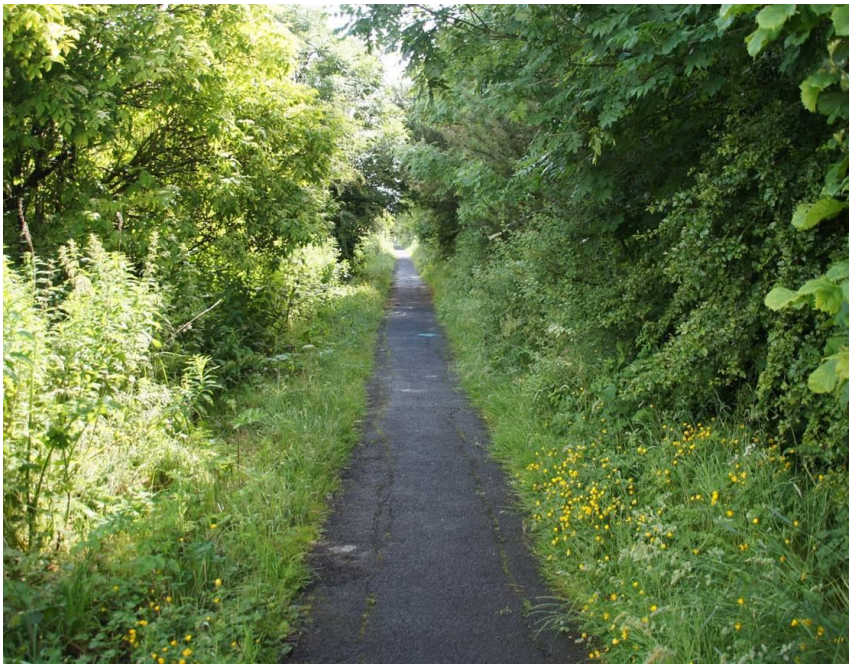
Acquisition of third party land will be required to construct the station site.

Figure 4: Rail track at Woodhorn West

The station will have a demand from both the northern and southern side of the station; this will therefore require the construction of a pedestrian overbridge. A structure for pedestrians to cross the tracks was previously part of the planning applications for Woodhorn Museum, however there have been no plans to construct this bridge.

A footpath currently exists to the south of the tracks, linking to residential areas, as shown in **Figure 5** below. This is not visible from the roadside and would need appropriate lighting and potential clearing of vegetation to address any safety concerns.

Figure 5: Footpath to the South of the Tracks, Woodhorn West



A number of informal crossing points have been identified along the tracks in this location; this is shown in **Figure 6,** where a safety barrier installed by authorities has been destroyed. With an increased frequency of trains on the line, this poses a safety concern and confirms the need for a pedestrian overbridge in this location..

Figure 6: Informal Crossing Point of Tracks, Woodhorn West

A station in this location has the potential to attract more visitors to Woodhorn Museum, which is located adjacent to the rail line. **Figure 7** shows the museum on the right, with the rail line being located behind the trees in the left of the image.

Figure 7: Woodhorn Museum

Tourism is an important sector within the Northumberland economy and any proposals to improve the attractiveness of tourist facilities are likely to be well received. It also demonstrates that reopening the railway line to passenger services will not only provide improved accessibility into Tyne and Wear, but also from Tyne and Wear into South East Northumberland.

Woodhorn West has a significant catchment area, with Newbiggin-by-the-Sea included in a 2 kilometres radius. The 2km radius has a population of 11,100 residents, and access to this population could be achieved through improved cycling and pedestrian provision to the station site.

Figure 8 below shows the development which is currently within a 15 minute walking distance of the proposed site. As there are no existing direct footpaths from the station site to the residential area south of the tracks, the area which is within walking distance is comparatively small. This demonstrates the need for improved pedestrian and cycling infrastructure as part of the development of a station site in this location.

Figure 8: 15-Minute Walking Catchment Area, Woodhorn West

The key strengths and weakness for a station site at Woodhorn West are summarised in the box below:

Strengths

- Large catchment area, including Newbiggin-by-the-Sea and Wansbeck Hospital
- Promotion of tourism through access to Woodhorn Museum

Potential Issues and Risks

- Environmental and safety concerns as the site is in a forested area
- Third party land will need to be acquired
- Line crossing facilities will be required at this location due to demand from both sides of the track

3.2 Woodhorn East

Woodhorn East is to the east of the A189, in close vicinity to the site at Woodhorn West described above. The proposed location of the site is shown in the figures below.

Figure 9: Map of Proposed Station Location, Woodhorn East

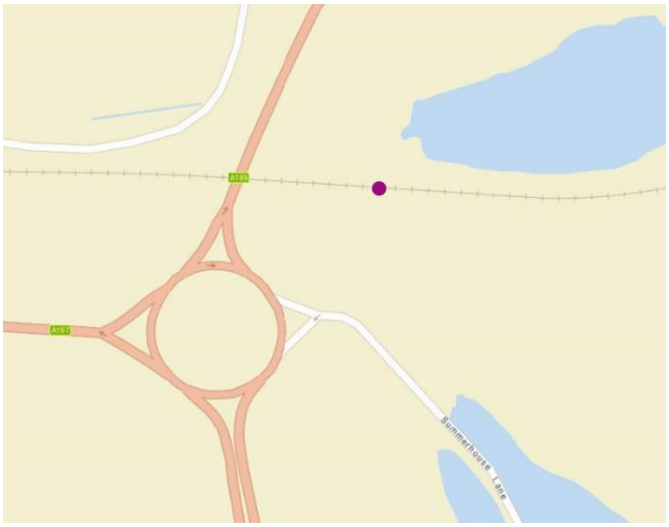


Figure 10: Aerial View of Proposed Station Location, Woodhorn East

The railway track in this location is situated on a high embankment. The location of a station in this location would therefore require significant structures and ramps to cater for the height difference between the car park and platform level. This is illustrated in Figure 11.

Figure 11: Embankment and Overhead Electricity Line, Woodhorn East

As illustrated in the figure above, an overhead electricity line crosses the embankment on which the railway tracks are located. This will impose a safety risk during the construction of a platform as there may be a lack of safe clearance.

Environmental constraints within the area are unknown. However, there is a water body within close proximity to the site, which will increase the risk of protected species being located in the area. At this stage, an ecological survey has yet to be undertaken.

The railway line at Woodhorn East is not currently owned by Network Rail and negotiations would therefore need to be undertaken to run the service through to this location. It is not however expected that the current owners would object to relinquishing ownership of the line, as long as they can continue to use it. Furthermore, a significant maintenance cost may be associated with the structure over the A189; this would need to be accounted for in the full life cost of the Ashington, Blyth and Tyne scheme.

Vehicles would access the station site from a spur needed from the A189/A197 roundabout. The site is clearly visible from the A189 route, which would increase the attractiveness of this site for a park and ride facility. There is an abundance of land suitable for car parking spaces, and this would allow for expansion of the site in the future depending on the uptake of the scheme. Ownership of the site is not clear at this stage, although it is expected that third party land acquisition would be required.

The site can be accessed by pedestrians and cyclists from the east via an old railway line. This could be upgraded as part of the proposals to provide a high quality non-motorised user link to the communities in Newbiggin-by-the-Sea. There are currently no suitable pedestrian and cycling facilities to connect the proposed site with the communities to the west. These facilities would need to be incorporated into proposals for a site in this location. Error! Not a valid bookmark self-reference. shows the 15-minute walking catchment area of Woodhorn East, which includes residential areas west of the A189 and Wansbeck Hospital.

Figure 12: 15-Minute Walking Catchment Area, Woodhorn East

.The key strengths and weakness for a station site at Woodhorn East are summarised in the box below:

Strengths

- Large catchment area, including Newbiggin-by-the-Sea and Wansbeck Hospital
- Space for station car park
- Convenient road access via A189 / A197

Potential Issues and Risks

- Located on a high embankment and requires significant access ramps
- Environmental risks due to water body
- Difficult access for pedestrians from the west due to a need to cross the A189
- Network Rail does not currently own the line
- Additional cost incurred due to maintenance of the structure over the A189
- Location of overhead electricity might impose a risk on safe construction

3.2 Woodhorn Conclusion

Two sites have been identified for a proposed station at Woodhorn as part of the reopening of the Ashington, Blyth and Tyne railway line to passenger services. The strengths and weaknesses of both of these sites have been considered. On balance, the site at Woodhorn West is the most feasible site to develop, and offers a number of advantages over the site at Woodhorn East. These benefits are summarised below:

- There are significant engineering constraints at Woodhorn East due to the location being on a high embankment.
- The line must cross the A189, and the cost of maintenance of the structure over the A189 will increase the full life cost of the scheme;
- The line to Woodhorn East is not within Network Rail ownership;
- It is acknowledged that there is more land available for car parking at the Woodhorn East site. However, there is sufficient available land for car park development at Woodhorn West.
- The site at Woodhorn West will provide improved access to Woodhorn Museum, which is a key tourism facility in Northumberland;
- With improved pedestrian facilities, the site at Woodhorn West will provide easier access to and from the residential communities, as well as Wansbeck Hospital, to the south of the A197.

Ashington

04

4 Ashington

4.1 Introduction

Ashington is identified as a future hub for employment growth in the Northumberland draft Local Plan, with the expectation that it will drive economic growth across the county. Fundamental to driving this economic growth, will be the delivery of proposals to develop Ashington North East Quarter and the Wansbeck Square retail and office development.

The Ashington North East Quarter proposals are currently being developed and are as follows:

- A new office facility for Northumberland County Council. The complex would be located adjacent to the new leisure facility and would accommodate 500-750 employees;
- Development of further office space;
- A new community and leisure facility.

The scale, nature and precise timeframe of development of the Wansbeck Square will be dependent on the reintroduction of passenger services on the Ashington, Blyth and Tyne railway line. It is envisaged that this will facilitate the development by increasing footfall in the area of Station Road. The increased footfall would also strengthen all other planned developments and investments by providing easy access to the town centre for visitors and by allowing commuters to live close to the town centre, rather than on the periphery of Ashington, close to the strategic road network.

A station site in Ashington is therefore essential if the ambitious growth plans identified above are to be realised. The site that has been identified is the old station site, which is located in the town centre. The location of the site is shown *Figure 13* and Figure 14 below.

Figure 13: Map of Proposed Station Location, Ashington

Figure 14: Aerial View of Proposed Station Location, Ashington

4.1 Description

The Ashington, Blyth and Tyne railway line was closed to passenger services in 1964 as an outcome of the Beeching report, which looked to restructure the railways across Great Britain. Since this time, the old station site at Ashington has stayed intact but has remained unused and is currently in a poor state of repair; this is illustrated in Figure 15 below.Figure *15Figure 15: Ashington Station, Old Platforms*

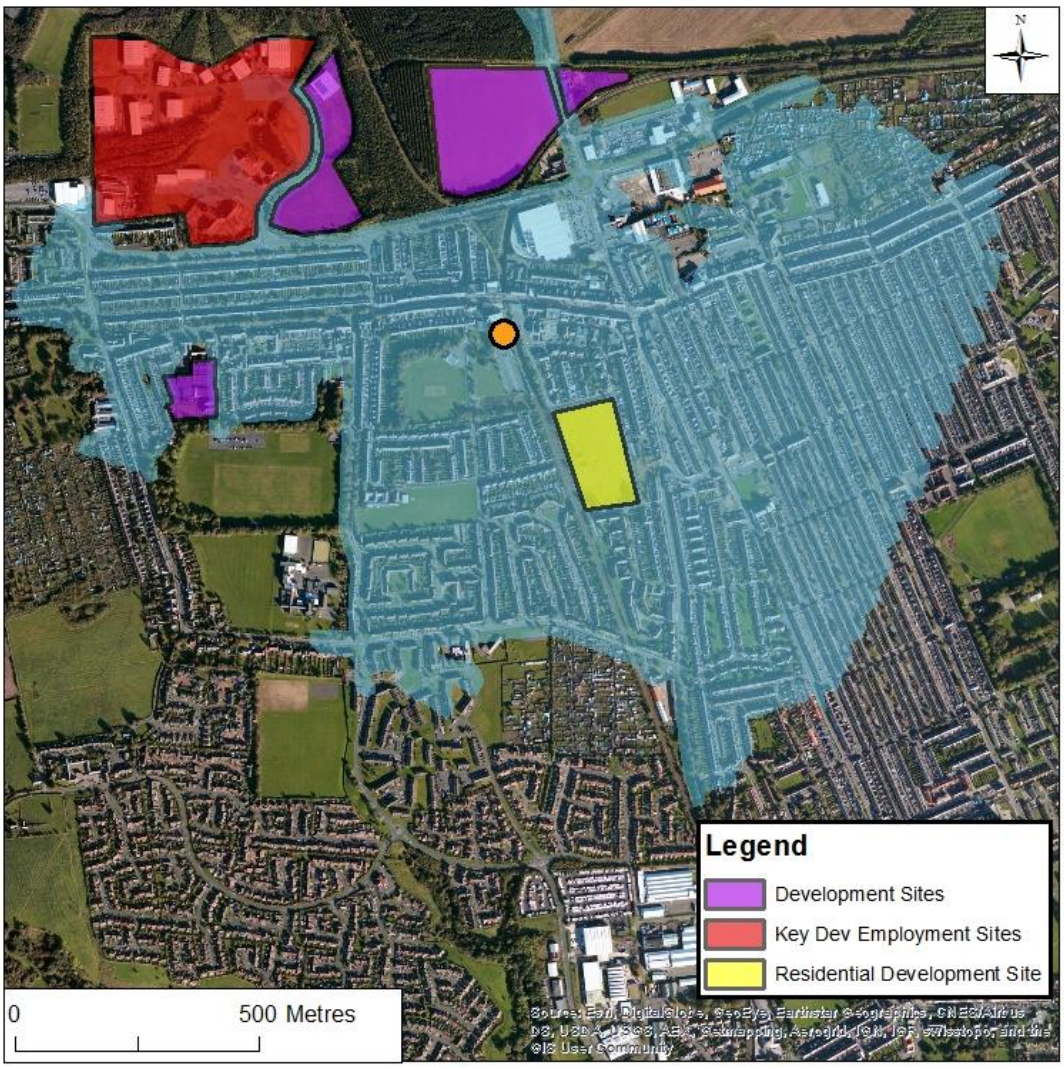
The station will require extensive refurbishment before it can be reopened to passenger use. However, the general layout will largely match what was previously in operation with a platform on either side of the carriageway, which can be accessed via an overbridge at Station Road.

A station in this location will bring many benefits to the town of Ashington, which has suffered from significant economic decline since the closure of the mining industry. The development of Ashington North East quarter has been mentioned previous, and the station is seen as essential to serving this development. The station will therefore not only be a point of origin, for residents who live in Ashington and wish to travel elsewhere for employment or other trip purposes, it will also become a destination in its own right, with people using the railway line to access the new employment and retail opportunities that the redevelopment of the town centre will bring.

The station will however be an important transport hub for the residents of Ashington, with many currently excluded from travelling further afield due to low car ownership in the area and public transport times which currently take in excess of 60 minutes to reach Newcastle. The locations of those people who will be able to access the station within a 15 minute walking distance are shown in

Figure 16 overleaf.

Figure 16: 15-Minute Walking Catchment Area, Ashington



As illustrated above, there are large parts of the town of Ashington that will be able to walk to the station within a 15 minute period. For those that are unable, Ashington bus station is within a 250m radius of the proposed station site.

The sustainable transport links to the station identified above are an essential component of the proposals for a railway station in Ashington. Traffic congestion is currently an issue in the centre of the town and it is not proposed to attract a significant number of new car trips into the town to access the railway station. Provision of good sustainable transport links to the station, as well as the provision of a park and ride site at Woodhorn, will ensure that the operation of the highway network is not materially impacted by the scheme.

A summary of the key benefits and issues of a station site located in the centre of Ashington is given in the box below.

Strengths

- Located in centre of town, high population and employment surrounding the station
- Good public transport connectivity
- Former station site and essential for the redevelopment of the town

Potential Issues and Risks

- Restricted access by car

Bedlington

05

5 Bedlington

5.1 Introduction

Similar to Ashington, discussed in the previous chapter, the town of Bedlington is a former mining community and has suffered much economic decline since the closure of the mining industry. This decline has manifested itself in areas of significant deprivation, with Bedlington, and many other areas of South East Northumberland, being amongst the most deprived in the country. Bedlington faces many challenges if it is to sustain its future as a location that is attractive to live, work and visit.

The Ashington, Blyth and Tyne railway line currently runs through the area known as Bedlington Station, which lies to the east of the town of Bedlington. A station was previously operational in this location until the closure of the line to passenger services in 1964. The station remains intact and it is proposed to reopen this station as part of the current proposals for Ashington, Blyth and Tyne. This will ensure that the town of Bedlington, and the area known as Bedlington Station, are served by the public transport links necessary to regenerate the local economy and connect the resident population with the jobs which are available to serve that population. The location of the old station site is shown in the figures below.

Figure 17: Map of Proposed Station Location, Bedlington

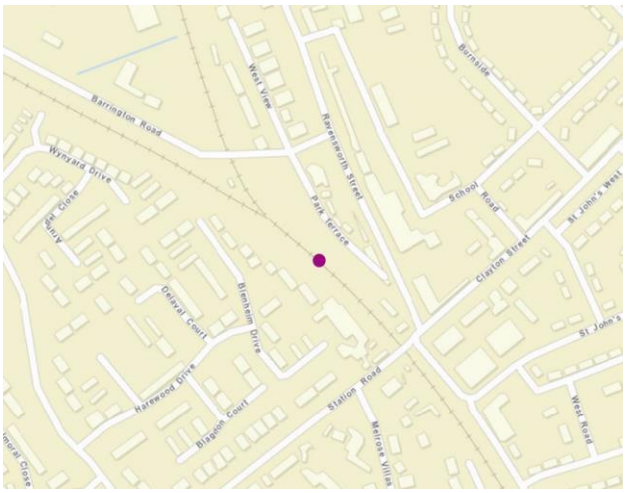


Figure 18: Aerial View of Proposed Station Location, Bedlington

5.2 Description

The town of Bedlington, including Bedlington Station, has a population of 17,500 people according to the 2011 census. It is identified in the draft Local Plan for Northumberland as a main town, and will be a key hub for housing, employment, education, healthcare, retail, transport and tourism in the future, to underpin the economic, social, environmental and cultural regeneration of the area.

As discussed in the introductory chapter however, the town has suffered serious economic decline since the closure of the mining industry and has struggled to maintain an economic identity. It is reliant on neighbouring towns, as well as further afield in Tyne and Wear, to provide employment opportunities to the resident population. This trend of outward commuting is expected to continue in

the future as it is acknowledged within the draft Local Plan that available employment land for future development is better provided in adjacent towns with better access by road.

The impact of the decline in the economy of Bedlington on society has been severe, with the town scoring poorly on many social statistics. It has a higher than average proportion of people classed as in poor health, a higher than average proportion of people with no qualifications and a higher than average proportion of people who are unemployed. It is therefore essential that measures are put in place to reverse this decline in the economy if the status as a main town, aspired to in the draft Local Plan, it to be achieved.

Bedlington was previously served by passenger train services with the old station site at Bedlington Station remaining intact, although currently unused. It is hoped that restoring this station, and providing a passenger train service that connects Bedlington with neighbouring towns and cities, will provide the transport infrastructure necessary to connect the local population with the economic and social opportunities it is currently without. The figure overleaf shows the catchment of Bedlington that will be within a 15 minute walking distance of the proposed station.

Figure 19: 15-Minute Walking Catchment Area, Bedlington Station

Before the station can be reopened however, it is in need of upgrade and repair. Although the platforms still exist, they are currently in a poor condition. As part of this upgrade however, there are no plans to change the arrangement of the old station site, and access will still be provided via the level crossing on Station Road. The station facilities are illustrated in the figure overleaf.

Figure 20: Bedlington Station Existing Site

The key benefit to using the existing station site for a station at Bedlington is that it is currently in Network Rail ownership and therefore third party land acquisition is not necessary. The acquisition of land can be a timely process and have serious implications on programme when developing and implementing a major transport infrastructure scheme.

However, although there are benefits in terms of the land ownership of the existing station site, the station is in a constrained location with existing issues of traffic congestion and restricted space available for car parking. It is therefore crucial that the station is connected to the wider Bedlington area by good sustainable transport links if the new passenger service really is going to assist in reversing the social decline that the town is currently experiencing. A number of bus stops are currently located adjacent to the station, with regular services to the wider community. These connections, along with pedestrian and cycling links, will be reviewed as the plans for the station develop.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Located in centre of town with a good catchment area
- Provides connections to employment and other opportunities located in neighbouring towns
- Good public transport connectivity at existing site to connect to the wider Bedlington area
- Former station site will reduce construction costs
- Land acquisition not required

Potential Issues and Risks

- Restricted access by car
- Constrained location limits the level of car parking which can be provided

Blyth Bebside

06

6 Blyth Bebside

6.1 Introduction

Bebside is a small former mining community, which is located to the west of Blyth. It has a strategic location being adjacent to the A189 and alongside the A193, which serves the key economic development areas of Blyth. A station was identified for this location to serve the northern area of Blyth and to extract trips which are currently using the A189 to travel into Tyne and Wear.

Similar to the locations of the previous stations already discussed, Blyth was seriously affected when its key industries went into decline. It suffers from many of the social problems frequently observed in old industrial towns including poverty, poor health, high unemployment and low educational attainment. It has already undergone significant regeneration to try and revitalise the local economy, with further development identified in the draft Local Plan.

However, unlike some of the other towns, Blyth can take advantage of its strategically important location on the North East Coast, which has enabled it to benefit from industry in this area. Within the Strategic Economic Plan (SEP) for the North East, Blyth Estuary has been identified as a strategic employment area with proposals to accommodate around 220 hectares of land. It is being actively promoted to the renewable and low carbon energy, advanced manufacturing and offshore sector, and is regarded as having the potential to become an 'innovation hub' in this field of activity. It is hoped that by providing a train station within close proximity to this site, it will help facilitate development in the area and expand the pool of labour to take up the jobs facilitated by the development.

Although there are many benefits associated with providing a station at Bebside, a number of concerns have also been raised as to the impact that a station could have on existing transport problems in this area. The opportunities and issues are discussed in the section overleaf. The location of the proposed site is illustrated in **Figure 21** and **Figure 22** below.

Figure 21: Map of Proposed Station Location, Blyth

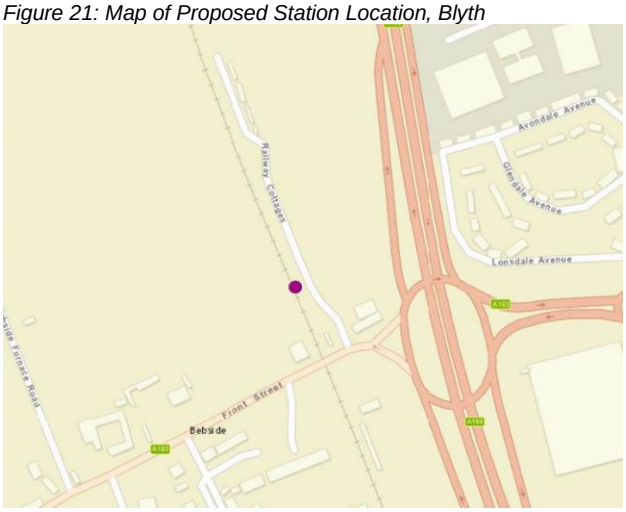


Figure 22: Aerial View of Proposed Station Location, Blyth

6.2 Discussion

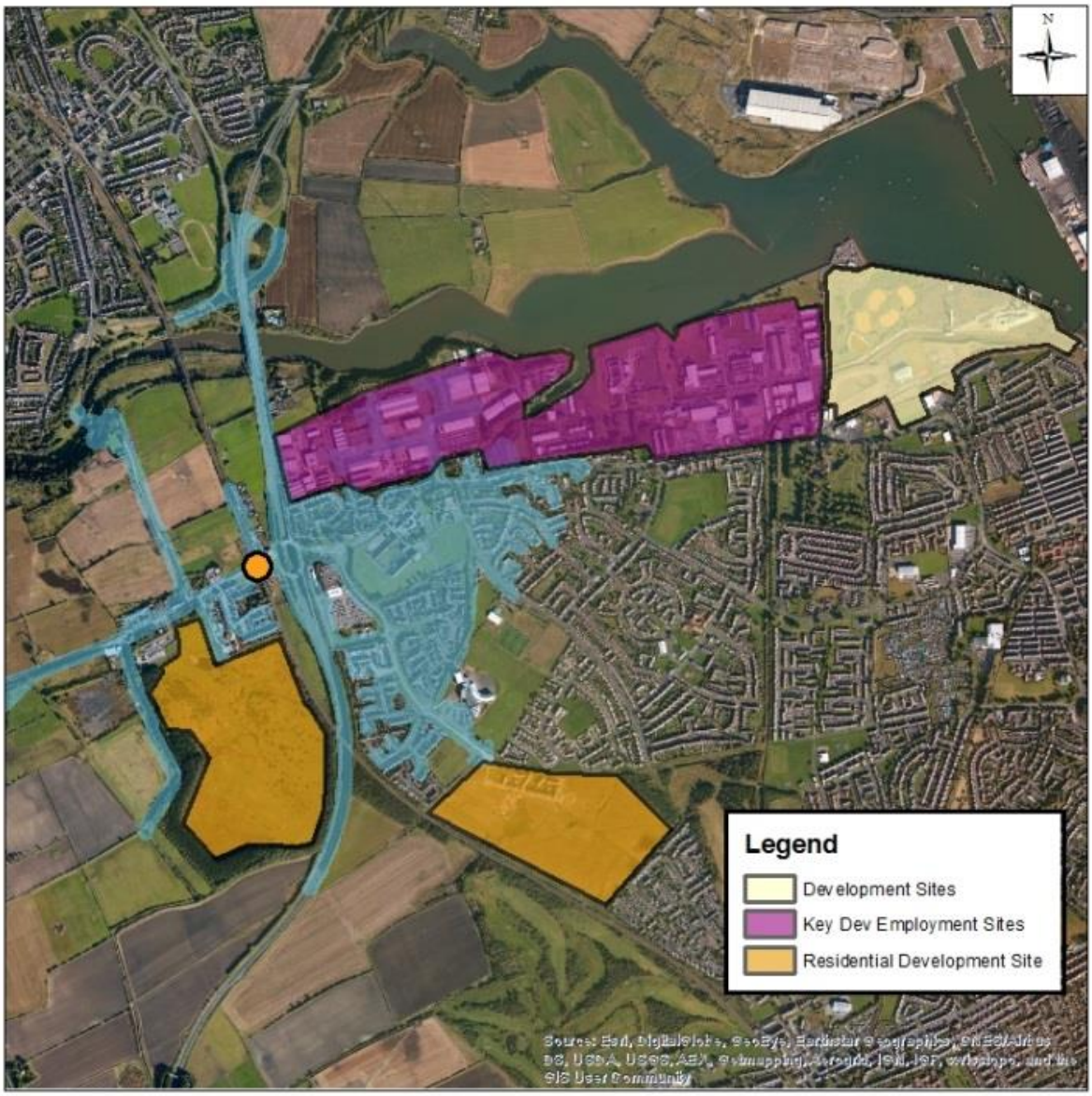
The site identified for a station at Bebside is to the north of the A193 Front Street and west of the A189. It is adjacent to the Bebside Inn car park and some of this land will be required to facilitate the development of a station and car park in this location; recent discussions with the new owner of the Bebside Inn have been positive and the owner is in favour of a station in this location. The land required for development is shown in the figure below.

Figure 23: Land Requirements, Blyth Bebside

The railway line in this location is twin track and therefore platforms will be provided on both the northbound and southbound lines. These platforms will be accessible via the existing level crossing and therefore pedestrian overbridges, which can come at significant extra cost, will not be required.

The many benefits to a station in this location are well understood. The northern area of Blyth is the focus of significant redevelopment within the draft Local Plan for Northumberland. Not only will employment development be encouraged, as discussed in the introductory chapter, proposals exist for further residential development. This development is crucial for the regeneration of the town, and the reintroduction of passenger services on the railway line is seen as essential for ensuring this development is sustainable, by providing two-way sustainable links between residential development and employment opportunities within and beyond the county. **Figure 24** highlights the area from which the station can be accessed within a 15-minute walk, as well as displaying the sites earmarked for future development.

Figure 24: 15-Minute Walking Catchment Area, Bebside



It is noted that, whilst the proposed site is currently within a 15 minute walking distance of a sizeable catchment area, improved pedestrian and cycling links would need to be provided at the grade separated A189/A193 junction as part of the station proposals. The catchment area is expanded when taking into consideration that the A193 corridor provides a frequent bus service between the proposed station site and development with Blyth town centre.

Despite the station's many advantages, concern has been raised that a station site in this location will exacerbate existing traffic congestion and increase safety concerns at the A189/A193 junction. The A193 Cowpen Road is one of the most congested routes in Northumberland and any development which would increase traffic along this route could be viewed negatively. Given the close proximity of the site to the station proposed at Bedlington, the question was raised whether a station in this location was actually necessary. Removing the station would reduce end to end journey times and would remove the cost of an additional station from the overall scheme costs.

To understand the implications of not having a station in this location, the demand and revenue forecasting, which has been undertaken as part of the development of the business case, was updated to remove the site at Bebside. Demand from zones previously feeding into the station was re-directed to use alternative stations at Bedlington and Newsham. The results showed a reduction in demand for the scheme of 5%. This is seen as significant in terms of the impact that this will have on demonstrating the value for money of the scheme. It has therefore been concluded that a station at Bebside is necessary. There is an acceptance that work needs to be undertaken to address congestion issues on the A193 and there are ongoing studies to look at this issue.

It is noted that the area to the north west of the proposed site has been identified at high risk of surface water flooding and this will need to be mitigated as the plans for the station are developed.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Strategically located adjacent to the A189 and A193
- Good public transport connectivity
- High demand forecast to use the station
- Essential for providing sustainable links to new development

Potential Issues and Risks

- Relatively close to Bedlington station, which has implications for end to end journey time
- Traffic congestion issues on the A193, which will need to be addressed
- Pedestrian and cycling infrastructure will need to be provided at the junction of the A193/A189
- Surface water flooding to the north west of the site, which will need to be mitigated

South Newsham

07

7 South Newsham

7.1 Introduction

South Newsham is located at the southern end of Blyth and serves the catchment area of South Beach. Similar to the northern section of Blyth, the area developed around the mining and ship building industries and has suffered economic and social deterioration in recent years due to the decline of the industrial sector

Although the southern section of Blyth is still suffering from the consequences of its industrial past, the area within the vicinity of South Newsham has seen much investment in recent years with the nearby coastline transformed into a renowned coastal landscape. Noticeable housing developments have been constructed in the area and the area is seen as an ideal location for providing cheaper residential properties within commuting distance of Tyne and Wear.

Blyth is identified in the draft Local Plan as a main town within Northumberland, which is expected to drive the local economy going forward. South Newsham, with its vast open fields, has been identified for further housing development in an effort to stimulate this economic growth. Providing a railway link between this housing development and the employment opportunities within the wider South East Northumberland area, and further afield in Tyne and Wear, is seen as an essential component in ensuring that these development plans are realised.

A railway station was previously located in South Newsham as part of the old Ashington, Blyth and Tyne passenger service. This station building ceases to exist and three new stations have been identified for the current proposals. The station sites are as follows:

- Newsham North;
- Newsham Central;
- Newsham South.

The advantages and disadvantages of each station site are summarised in the following sections of the report. The chapter concludes with the identification of the preferred location for the site of the South Newsham station.

7.2 Newsham North

The proposed location for a station at Newsham North is situated in the east of Miners' Welfare Park, between the Blyth Golf Club in the north and Delaval Street in the south. This is illustrated in the figures below.

Figure 25: Map of Proposed Station Location, Newsham North

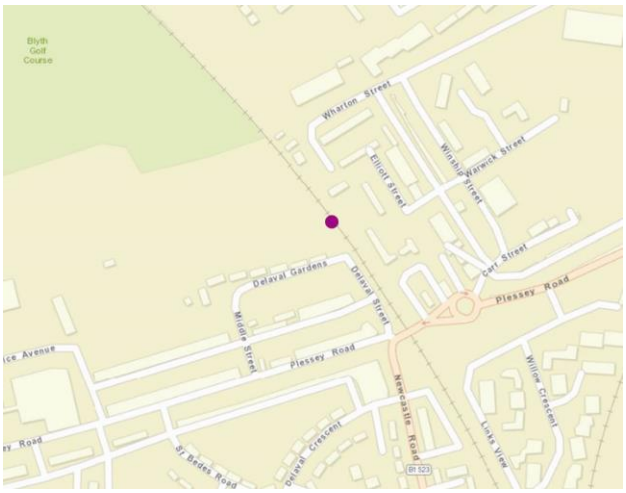
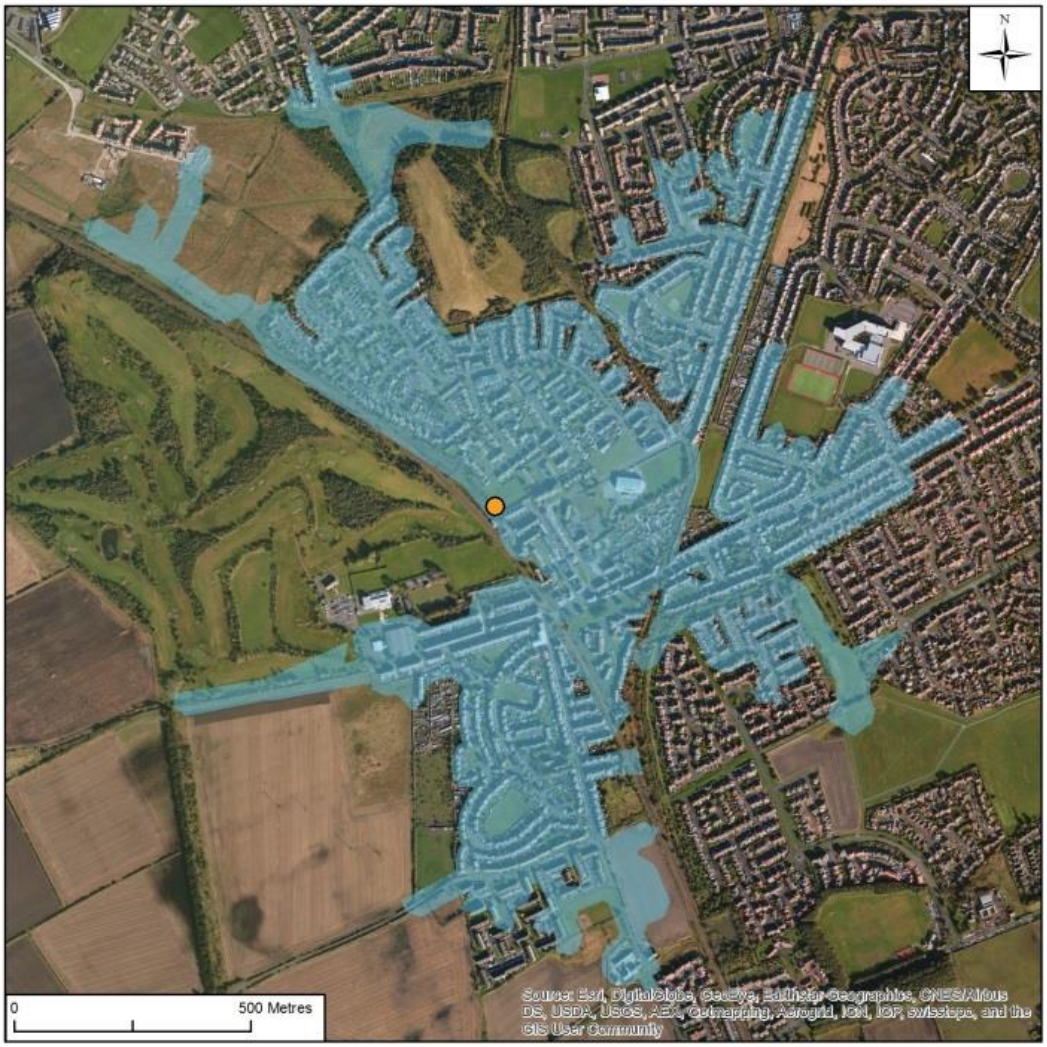


Figure 26: Aerial View of Proposed Station Location, Newsham North

A station site in this location is centrally located to serve the community of Blyth. As well as being located close to residential areas, the site is located close to a number of shops and restaurants on Newcastle Road, Plessy Road and Whiship Street. The proposed station site therefore has a large catchment area, which is illustrated by the 15 minute walking distance shown in the figure below.

Figure 27: 15-Minute Walking Catchment Area, Newsham North



The site is easily accessible by non-motorised users and has good public transport links to the wider Blyth Valley community.

Despite the good access facilities for non-motorised users and public transport users to the proposed site, the site is not easily accessible using the car. The northbound platforms will need to be accessed via Delaval Street, which is a narrow single carriageway road with current problems of on-street parking. This is illustrated in the figure below.

Figure 28: Delaval Street, Blyth

As well as the current site constraints on Delaval Street, the road would need to be extended to Miners' Welfare Park, which offers the only possible location for car parking facilities for the station. This in itself is seen as controversial and may struggle to receive planning permission given that the park currently serves as a recreational facility and is also home to a Grade 2 listed war memorial.

Access to the southbound platforms can be achieved from Phoenix Street which has fewer site constraints. However, depending on the location of car parking facilities for the site, a pedestrian overbridge may need to be provided between the two platforms.

As well as concerns regarding access to the site, there is also a concern as to the impact a station located in this area of Blyth would have on existing levels of traffic congestion. The Plessey Road level crossing, as shown in **Figure 29,** and the Plessey Road / Carr Street junction are currently extremely busy, particularly in peak periods of demand. This frequently manifests itself in peak period congestion and impacts on the performance of neighbouring junctions. The situation is exacerbated when the level crossing is down, and this is expected to get worse with the scheme in place as more trains use the line. If vehicles are also travelling into the area to use a station in this location, the highway network is unlikely to cope with the increase in traffic demand. It is likely that some form of traffic mitigation would be required to facilitate the station, but the built up landscape of the area limits the proposals that could be developed.

Figure 29: Plessey Road Level Crossing, Newsham North

Figure 30: View towards Station Location, Newsham North

The key advantages and disadvantages of a station in this location are summarised in the box below.

Strengths

- Central location with significant population in catchment area
- Good access links for non-motorised users and public transport users

Potential Issues and Risks

- Proximity to level crossing and congested road network during peak hours
- Access would need to be provided via a park with a Grade 2 listed memorial

7.3 Newsham Central

The proposed station site at Newsham Central is located to the east of the B1523 South Newsham Road and adjacent to a new housing development. The location of the site is shown in **Figure 31** and **Figure 32** below, although it should be noted that the aerial view does not include the new housing development which is now located on the land. The development is separated from the track through wooden fencing as shown in **Figure 33**.

Figure 31: Map of Proposed Station Location, Newsham Central

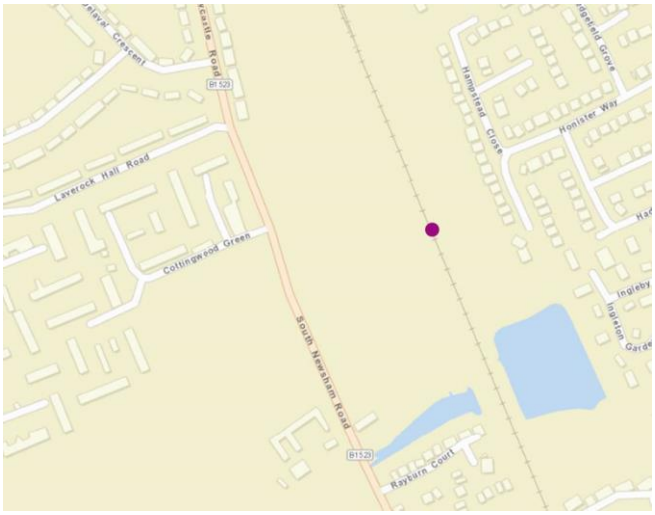


Figure 32: Aerial View of Proposed Station Location, Newsham Central

Figure 33: Fence between New Housing Development and Railway Line, Newsham Central

The proposed station in this location is centrally located to take advantage of a wide catchment area, with approximately 15,000 people living within a 2km distance of the site. This will increase in the future as further developments are planned in the area.

However, although the site is within a 2km distance of a substantial population, there is currently not a footpath which connects the station with communities to the east. This is illustrated in the figure below which shows the 15-minute walking catchment of the proposed site.

Figure 34: 15-Minute Walking Catchment Area, Newsham Central

As part of proposals for a station in this location, it would be essential to develop these sustainable transport links to the existing communities and this will add cost to the capital costs of the scheme.

Vehicular access to the site would need to be provided from the west, as residential buildings are located adjacent to the track in the east. The level of traffic which would likely access the station in this location will be limited due to the constraints that the size of the site will impose on car parking facilities.

It is noted that the area is at high risk of flooding from surface water and this could impact on the resilience of the scheme in providing a real alternative to the private car.

The key advantages and disadvantages of a station in this location are summarised in the box below.

Strengths
- Central location with large population catchment area
- Future development located within close proximity of the site

Potential Issues and Risks
- Pedestrian links need to be provided to neighbouring communities
- Constrained space for car park extension

7.4 Newsham South

The proposed site at Newsham South is situated just south of the A1061 South Newsham Road level crossing and can be seen in **Figure 35** and **Figure 36** below.

Figure 35: Map of Proposed Station Location, Newsham South

Figure 36: Aerial View of Proposed Station Location, Newsham South

The proposed station is located at the southern extents of Blyth but still covers a wide catchment area when considering the people who could walk to the station within 15 minutes. The population within this 15 minute walking time will be expanded in the future with development of the land within the immediate vicinity of the site. This is illustrated in Figure 37 overleaf.

Figure 37: 15-Minute Walking Catchment Area, Newsham South

It is noted from the figure above that as part of developing the sites to the east of the proposed station location, the pedestrian infrastructure will need to be enhanced to ensure the sites are contained within the 15 minute walking catchment area.

The site lies adjacent to the A1061, which provides one of only two highway routes into and out of Blyth. The site therefore offers a strategic location for extracting trips from the highway network for vehicles travelling out of Blyth, providing that sufficient car parking spaces are made available at the site. It is noted that there are existing issues of peak period congestion on the A1061, but studies are currently being undertaken to develop proposals to address these congestion issues. That said, any option which looks to remove trips from the A1061, which a railway station and associated car parking in this location would, must be viewed favourably.

A potential risk in the location of a station at the South Newsham site is the proximity of the station to the level crossing on the A1061. Whilst a decision has not yet been made, there could be a need to close the level crossing when a northbound train is waiting at the station to address safety concerns. If this was the case, this would have a negative impact on traffic congestion and further mitigation measures would be necessary. The figure overleaf shows a southbound view of the proposed station site taken from the level crossing of the A1061.

Figure 38: View at the Potential Station Location from Level Crossing, Newsham South

A further issue to be considered is that the site is currently located on the greenbelt. Whilst this offers many advantages in terms of the land available for development of the station and associated car parking facilities, policy guidance currently discourages development on greenbelt land. Consultation with the planning department at Northumberland County Council has been undertaken and they have advised that this would be more in relation to development of housing or employment land. Development of proposals which should cause a shift to more sustainable modes of travel would likely be viewed favourably.

It is noted that the area to the south of the proposed station site is at medium risk of surface water flooding but this should not impact on the site itself. A telecommunications facility is currently located in close vicinity to the site, which would need to be factored into the safe construction of a station in this location.

The key advantages and disadvantages of a station in this location are summarised in the box below.

Strengths

- Large population catchment
- Located adjacent to key highway routes
- Sufficient space for car park development
- Land in close vicinity to the site is allocated for development

Potential Issues and Risks

- Proximity to level crossing and congested road network during peak hours
- Located on the greenbelt
- Telecommunications facility located close to the site

7.5 Conclusions

Three sites have been identified in South Newsham for a potential railway station as part of proposals to introduce passenger services on the Ashington, Blyth and Tyne railway line. Only one of these stations will be taken forward as part of the scheme proposals. The previous section has discussed each of the stations that have been identified and the advantages and disadvantages of each location. The following section gives a summary of the key findings and draws a conclusion as to the preferred location of a proposed station site.

- Newsham North: Site has poor vehicular access and would require site access through a recreational area, which also contains a Grade 2 listed memorial;
- Newsham Central: Limited space for car park expansion but could attract trips from a wide catchment area providing suitable non-motorised user facilities are provided;
- Newsham South: Available space for car parking facilities and could attract trips from a wide catchment area providing suitable non-motorised user facilities are provided. However, the proximity to the level crossing is a key concern as this could impact on the operation of the highway network.

Whilst there are many different factors that need to be taken into consideration when determining the preferred location for a station site, a key consideration needs to be the potential future development of the site. Unlike a bus service, a railway link will always have a limited catchment area within a reasonable walking distance of the site. However, providing that suitable car parking facilities can be provided, the catchment area can be expanded and the desired shift from car to public transport trips is still achieved for a large portion of the transport journey. From the previous assessments, only the site at Newsham South would be able to provide an abundance of land for car parking development, depending on the future needs of the station. This would therefore be the preferred site for the location of a station. Clearly the proximity of the site to the level crossing is a big risk and this will need to be mitigated through the option development process for the scheme.

Seaton Delaval, Seghill or New Hartley

08

8 Seaton Delaval, Seghill or New Hartley

8.1 Introduction

As part of the development of proposals for the reopening of the Ashington, Blyth and Tyne railway line to passenger services, there has been an ongoing discussion as to whether there should be a train station located at Seaton Delaval or Seghill, or indeed both. More recently, proposals have also been raised to introduce a station at New Hartley.

Whilst it would be technically feasible to have a station at both Seaton Delaval and Seghill, it would have implications on the end to end journey time of the proposed railway service. Not only would the service incur delay from the additional stop, as the sites are within close proximity to each other, the train would not have time to build up speed between the sites. A further disadvantage to having a station at two sites would be the increased cost of station construction and the ongoing operating costs of the station. This would not be offset by increased patronage use as there is a noticeable overlap in the catchment area of the sites.

In total, eight sites have been identified for a station in his location; three sites in New Hartley, two sites in Seaton Delaval and three sites in Seghill. Each of these sites is reviewed in the text below before a conclusion is drawn as to the optimum site for a station to be located.

8.2 New Hartley

New Hartley is a small village located adjacent to Seaton Delaval and Seaton Sluice. The village developed around the mining industry, and was the site of one of the worst mining accidents in the UK, when 204 people were killed in 1862 as result of the beam from the pumping engine falling down the shaft, entombing all who were down there. Today, New Hartley serves as a dormitory community with few employment opportunities and no significant retail outlet. Those residents who currently live there must commute into neighbouring towns and villages, or further afield into Tyne and Wear, to access key services and facilities.

Three sites have been identified for a proposed station in New Hartley, to be served by the Ashington, Blyth and Tyne passenger service. The locations of these sites are as follows:

- To the north of the New Hartley rail curve;
- Within the New Hartley rail curve;
- To the west of the New Hartley rail curve.

A railway station has been proposed for New Hartley as it is seen as being an important factor in helping to facilitate development in the area. Plans have previously been submitted, and rejected, for housing development in New Hartley, with concerns from local residents raised over the pressure the housing would place on the inadequate single carriageway road through the village; existing public transport links have also been cited as inadequate.

In terms of engineering feasibility, the key benefit that a site in New Hartley would offer is that the train is already slowing down in this location due to the tight curve of the railway line, and therefore stopping a train in this location would have less impact on end to end journey times than a station in either Seaton Delaval or Seghill.

The relative advantages and disadvantage of the three different sites are summarised below.

8.2.1 North of New Hartley Curve

The site north of the New Hartley Curve is located adjacent to the farm at Lysdon Burn. This is illustrated in **Figure 39** and **Figure 40** below.

Figure 39: Map of Proposed Station Location, New Hartley North

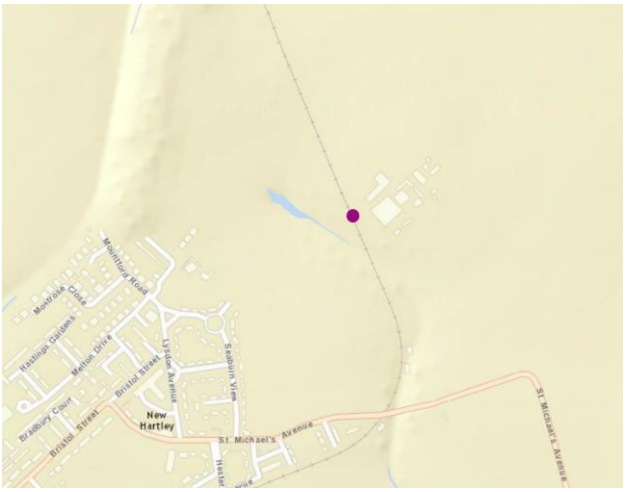


Figure 40: Aerial View of Proposed Station Location, New Hartley North

The location of the site is remote from existing development with the nearest residential properties being some 250 metres to the west. There are no access roads, footpaths or cycle paths currently available which connect these properties with the proposed station site. Significant cost would therefore be incurred to develop the infrastructure which would be necessary if a station was to be developed in this location.

It was identified above that a proposed housing development in New Hartley had previously been rejected. This development would have seen the construction of 285 houses to the east of the railway line in this location. If this development was to be taken forward, then a station in this location would likely be beneficial to serve that development. However, there were several reasons other than transport that the development was rejected and there are currently no plans to progress with the site.

In terms of the engineering considerations for a station in this location, the railway line is single track and therefore the station would require only one platform. Given that demand is only likely to be from the west of the line, a pedestrian overbridge might not be required. The site is however prone to flooding, due to the presence of surface water, which is a significant risk to constructing a station in this location.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Positive impact on end to end journey times as trains already slowing down due to the tight alignment of the railway curve
- A station in this location might help to facilitate development in the area

Potential Issues and Risks

- Area is liable to surface water flooding
- Location is isolated from existing development
- No existing access roads or pedestrian and cycling links to the site

8.2.2 New Hartley Curve

The proposed site within the New Hartley Curve is the location of the original Hartley station which was closed in 1964; the station has since been demolished. The location is illustrated **Figure 41** and **Figure 42** below.

Figure 41: Map of Proposed Station Location, New Hartley Curve

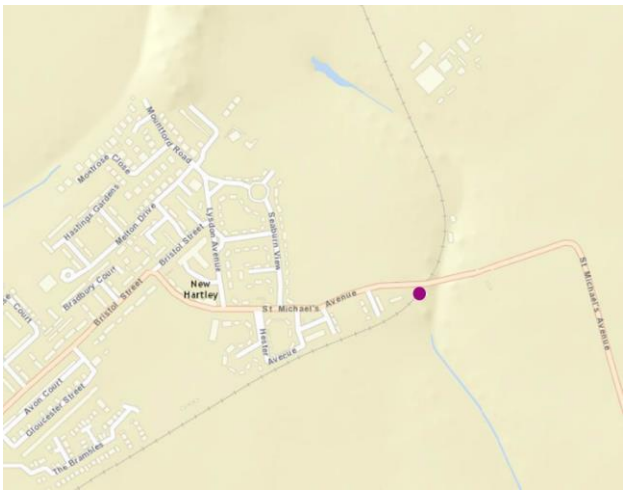


Figure 42: Aerial View of Proposed Station Location, New Hartley Curve

On initial inspection, the proposed site is located closer to the existing residential communities of New Hartley, and would therefore offer some advantage over the proposed site to the north. However, despite this site being the location of the old station at Hartley, in accordance with current standards, the curve of the railway line is too tight to accommodate a station in this location. No further assessment of the site has therefore been undertaken.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Located closer to existing residential development
- Positive impact on end to end journey times as trains already slowing down due to the tight alignment of the railway curve

Potential Issues and Risks

- Curve of railway line is too tight for a station in this location according to existing standards

8.2.3 West of New Hartley Curve

The third possible station site for a station in New Hartley is located to the west of the New Hartley curve. The location is shown in **Figure 43** and **Figure 44** overleaf.

Figure 43: Map of Proposed Station Location, New Hartley West

Figure 44: Aerial View of Proposed Station Location, New Hartley West

The optimum access for a station in this location would be adjacent to Hester Avenue as there is no access to the south of the railway along this section. As can be seen from the image in the figure below, Hester Avenue is extremely constrained due to the existing residential properties and narrow carriageway of the road.

Figure 45: Hester Avenue, New Hartley West

It would not be feasible to provide car parking facilities to the northern side of the station, and it is also questionable whether it would even be possible to create a drop-off area for the station along Hester Avenue. If a drop off facility in this location was considered feasible, it would likely attract objection from the nearby residential properties due to the increased congestion and visual intrusion that a drop off facility would bring in such close proximity to their houses. A station car park could be built to the south of the railway, but this would require a substantial access road and a bridge over the railway to access the platform. This would add significant cost to the overall capital costs of the Ashington, Blyth and Tyne scheme.

Despite the concerns regarding vehicular access to a proposed station in this location, the site would offer a number of benefits for access by pedestrians when compared to the previous two sites. The figure below shows that the majority of people living in the village of New Hartley would be able to access the station within a 15-minute walking time. A station in this location would

therefore assist in addressing the public transport connectivity issues which are currently cited for New Hartley, and provide improved connectivity between the residents of New Hartley and the opportunities and facilities located in nearby villages, towns and cities.

Figure 46: 15-Minute Walking Catchment Area, New Hartley West

It is noted that the site of the proposed station at New Hartley West, is the location of Hester Pit tragedy which was discussed previously. Whilst an obvious concern for construction would be the presence of mineshafts in this location, opposition could be received from local residents who view the area as a memorial to the 204 people who lost their lives in the disaster.

An alternative site has been identified slightly to the west of Hester Avenue, adjacent to the existing playing fields in New Hartley. This would require a new short access road from St Michael's Avenue, which could follow the alignment of an existing small access track. Car parking could also be provided adjacent to the station However, a station in this location would require the loss of the playing fields, which offer the only recreational space within New Hartley, and is therefore considered unacceptable

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Positive impact on end to end journey times as trains already slowing down due to the tight alignment of the railway curve
- Central location within New Hartley

Potential Issues and Risks

- Unknown underground mineworks and memorial site
- Car parking facilities not possible without significant infrastructure expenditure
- Narrow access road

8.3 Seaton Delaval

Seaton Delaval is the biggest village within the Seaton Valley area of South East Northumberland, with just short of 5,000 residents. Similar to other villages within the area, mining is in integral part of the village's past, and dictated much of the development pattern of the area.

Whilst mining was a crucial element of the past economy of Seaton Delaval, the village is now home to the Proctor and Gamble factory, which is a significant employment location for the area. The village also has its own independent cooperative, which runs a number of facilities within the village. Seaton Hall, which is part of the National Trust, is located approximately half a mile from the village and is an important element of the visitor economy for Northumberland.

Despite the many positive developments within Seaton Delaval since the decline of traditional industries at the end of the last century, the village is still dependent on neighbouring Tyne and Wear for the employment opportunities and the range of services and facilities it can provide. The location of a railway station in Seaton Delaval is therefore seen as essential for reinforcing these links.

The location of a railway station in Seaton Delaval is not only seen as important for reinforcing the existing links between the village and neighbouring Tyne and Wear, it will help to facilitate future development within Seaton Delaval, which is aspired to in the draft Local Plan for Northumberland. There are currently plans for up to 800 houses to be constructed in this area within the lifetime of the Local Plan, and the railway line will provide the sustainable transport solutions necessary to deliver this development. The figure overleaf shows the existing 15 minute walking catchment area of a proposed station at Seaton Delaval alongside the proposed developments which have been identified in the Local Plan.

The significant drawback to a station being located in Seaton Delaval is that it is located on a stretch of single track. Whilst this can offer cost savings to the scheme in that only one platform needs to be provided, it reduces the efficiency and capacity of the new service where trains need to wait behind a stopped train due to the absence of any passing loop. Whilst this is seen as a disadvantage to the site, a site visit by AECOM engineers identified that there is sufficient space for construction of a second track in this location if it was desired.

Figure 47: 15 Minute Walking Catchment Areas, Seaton Delaval

Two potential sites have been identified for a station in Seaton Delaval. For the purposes of this report, these sites are referred to as Seaton Delaval West and Seaton Delaval East. The key advantages and disadvantages of these sites are discussed in the sections below.

8.3.1 Seaton Delaval West

The proposed location for a station in Seaton Delaval West is adjacent to the rail bridge at A192 Station Road, close to the location of the old Seaton Delaval station site. The location is illustrated in **Figure 48** and **Figure 49** below.

Figure 48: Map of Proposed Station Location, Seaton Delaval West

Figure 49: Aerial View of Proposed Station Location, Seaton Delaval West

Access to a station in this location will be provided from the overbridge of the A192. An existing footpath from the bridge currently runs adjacent to the rail line and could be improved to provide a safer, more convenient access for people. Access by car might prove more problematic as no access roads currently exist to the site. The provision of an access road will require the acquisition of third party land, as a pub is currently located where the access would likely be provided. **Figure 50** shows the Station Road overbridge and the access point to the pub's car park.

Figure 50: Potential Station Location as seen from A192 Station Road Overbridge, Seaton Delaval West

As well as providing access from the A192 for pedestrians, a path currently exists which would connect this station site with the community of Seghill. This will need upgrading as part of the station proposals to ensure it provides a safe and secure link for pedestrians. Several bus routes also pass through the area, which provide frequent sustainable links to the wider Seaton Valley community.

Although the sustainable transport links to a station at Seaton Delaval are considered good, it is accepted that any station site will require provision for people to drive to the site. The site which has been identified to the south of the A192 provides sufficient land for a car parking facilities to be developed as part of the station proposals. It is acknowledged that the local road network within the

vicinity of the site sometimes suffers from peak period congestion, but this can be mitigated with appropriate junction improvements.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Central location
- Good public transport connectivity
- Space for car park expansion
- Land in close vicinity is allocated for residential developments

Potential Issues and Risks

- New access road requires third party land acquisition
- Single track imposes risks on efficient operation of railway line

8.3.2 Seaton Delaval East

The site at Seaton Delaval East is located to the east of the A192 Station Road, adjacent to the car park of the new Co-Op shop in Seaton Delaval. The location is shown in the figures below. It should be noted that the aerial photograph does not include the newly constructed Co-op car park, which is located off Blackhaugh Drive and to the south of the railway line.

Figure 51: Map of Proposed Station Location, Seaton Delaval

52: Aerial View of Proposed Station Location, Seaton Delaval East

As the location of Seaton Delaval East is in close vicinity to Seaton Delaval West, many of the advantages and disadvantages of Seaton Delaval West are also relevant to this site. The key difference between the two sites in Seaton Delaval is the access arrangements for vehicles using the site.

Seaton Delaval East will be accessed through the Co-op car park, and no new access road will be required to develop a station in this location. The arrangement was agreed as part of a planning application for the store. However, the site is extremely constrained and there will be little available land for expansion of the car park in this location. This is illustrated in the figure overleaf.

Figure 53: Co-op Car Park with Rail Line in Background, Seaton Delaval East

The availability to expand car parking facilities is seen as a big advantage to any station site as it is currently unknown what the uptake of the scheme will be.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Central location
- Good public transport connectivity
- Safety benefits as car park is CCTV monitored
- Land in close vicinity is allocated for residential developments

Potential Issues and Risks

- Space for car park expansion very constrained
- Single track imposes risks on efficient operation of the railway line

8.4 Seghill

Seghill is also a small village located in the Seaton Valley area of Northumberland, which previously operated as a busy pit village. Since the decline of the mining industry, it has developed many of the social problems evident in other former industrial areas, with poor health, high unemployment and low educational attainment. Implementation of a station in this location is seen as beneficial to the area by providing the connections to employment and educational opportunities in Tyne and Wear which will thus stimulate the local economy.

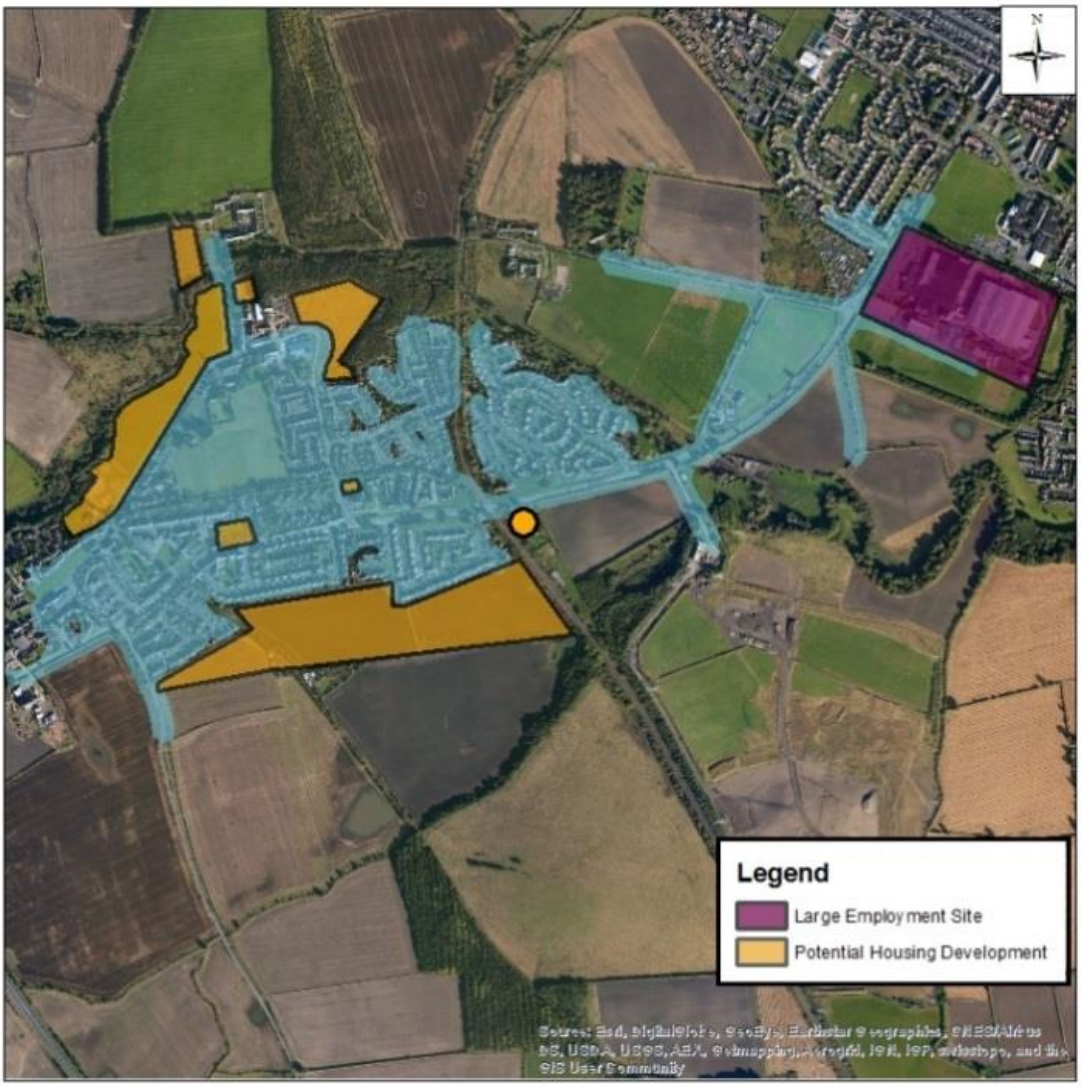
Three sites have been identified for a potential station in Seghill as follows:

- Seghill North;
- Seghill Central;
- Seghill South.

Both Seghill North and Seghill Central are located in the central area of Seghill where a railway station previously existed before its closure in 1964. A station in this location would be centrally located to serve the whole community of Seghill, with the Proctor and Gamble site located on the outskirts of the village also accessible within a 15 minute walking distance of the station. Similar to

Seaton Delaval discussed in the previous section, the village is identified in the draft Local Plan for Northumberland as a key service area, and sites for housing development have been identified for this location. However, the development within Seghill is not to the extent that has been identified for Seaton Delaval. The 15 minute walking catchment and proposed future development for Seghill is illustrated in the figure below.

Figure 54: 15 Minute Catchment Area, Seghill



The advantages and disadvantages of each of the three sites are discussed in greater detail below.

8.4.1 Seghill North

The site at Seghill North is located adjacent to the level crossing at A190 Avenue Road, at the northern side of the carriageway. The location is shown in the figures overleaf.

Figure 55: Map of Proposed Station Location, Seghill North

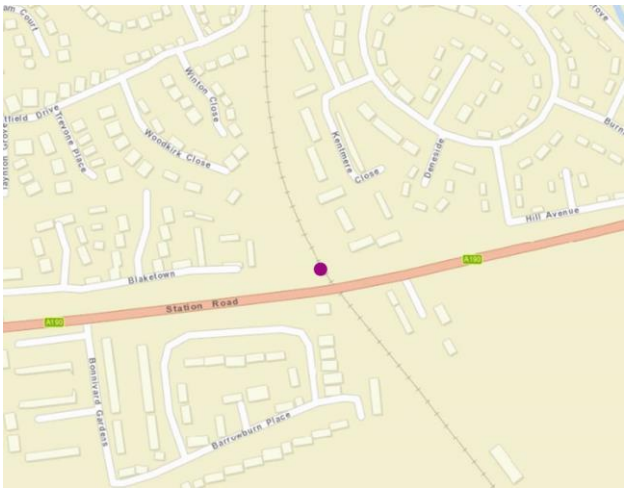


Figure 56: Aerial View of Proposed Station Location, Seghill North

The site is located along a single track part of the railway line which can be accessed at-grade by the adjacent level crossing. This is illustrated in the figure below. The section of track in this location was previously double track and therefore could be upgraded as part of the scheme.

Figure 57: Potential Station Location, Seghill North

As well as access from the A190 Avenue Road, a path currently exists which would connect this station site with local residential estates and the community of Seaton Delaval. This will need upgrading as part of the station proposals to ensure it provides a safe and secure link for pedestrians. Several bus routes also pass through the area, which provide frequent sustainable links to the wider community.

Figure 58: Footpaths Connecting Proposed Site with Residential Areas

However, recognising the need to provide available facilities for people who live further afield and would likely drive to the railway station, the key disadvantage of a station in this location is the availability of land to develop car parking spaces. The site is extremely constrained and future expansion of the site would not be possible. Given that the uptake of the scheme is not yet known, this is a significant risk for developing a station in this location.

It is noted that a small area to the west of the station site is at medium risk of flooding but this is considered outside of the boundaries of the site.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Central location within Seghill
- Good public transport connectivity
- Good pedestrian links
- At-grade access

Potential Issues and Risks

- Space for station car park very constrained
- Double track required for efficient line operation

8.4.2 Seghill Central

The Central Seghill site is located to the south of Station Road, at the same location where the old Seghill train station previously existed. The location is illustrated in the figures below.

Figure 59: Map of Proposed Station Location, Seghill Central

Figure 60: Aerial View of Proposed Station Location, Seghill Central

Due to the proximity of the site to the Seghill North site, many of the characteristics of the site are the same. The railway line is again single track and access will be provided from the level crossing off the A190 Avenue Road. The view of the station site from the level crossing is shown in the figure below.

Figure 61: Potential Station Location, Seghill Central

Similar to the Seghill North site the big disadvantage to a station in this location is the availability of land for the development of car parking facilities. The limited space which is available for the site will significantly impact of the future demand of the Ashington, Blyth and Tyne railway scheme.

The following box summarises the advantages and disadvantages of a station in this location.

Strengths

- Located in centre of town
- Good public transport connectivity
- Former station site
- At-grade access

Potential Issues and Risks

- Restricted access by car
- Space for station car park very constrained
- Double track required for efficient line operation

8.4.3 Seghill South

Network Rail has identified a new station site to the south of Seghill, south of the A190 Avenue Road and east of the railway line. The proposed location is shown in the figures below.

Figure 62: Map of Proposed Station Location, Seghill South

Figure 63: Aerial View of Proposed Station Location, Seghill South

The proposed site is located some distance from the village of Seghill, and there is currently a limited catchment area within a 15 minute walking distance of the site due to the lack of available footpaths in the area. There are currently also no access roads to the site and these would need to be constructed as part of the scheme if the demand potential for a station in Seghill is to be realised.

Although there are currently no access roads to the proposed site, the location does offer space for the construction of a sizeable station car park, which would allow for growth in future demand for the railway service. This was the key disadvantage to both of the sites identified in the centre of Seghill.

Whilst a site in this location would allow for car parking facilities to be provided, the railway line is situated on an embankment approximately 4 metres above ground level. This will mean that ramps have to be provided between the station car park and the station platforms. From previous experience, a length of approximately 100 metres is required to cover a vertical distance of about 5 metres. This will therefore add significant expenditure to the scheme.

Aside from the access constraints of a station site in this location, there are also a number of environmental constraints which would need to be taken into consideration. The culvert over which the platform is proposed has a history of flooding and the future risk of flooding is unknown. Construction of the station would reduce the existing flood plain, further exacerbating the potential risk. Developing a key transport infrastructure scheme in an area prone to flooding jeopardises the future resilience of the service. If service reliability is not achieved, the scheme is unlikely to cause the modal shift from car to public transport that it is expected to deliver.

The key benefits and disadvantages to a station in this location are summarised in the box below.

Strengths

- Available space for car parking requirements

Potential Issues and Risks

- New access road required
- Remote site not within catchment area of Seghill
- Track located on an embankment, requires long access ramp
- Area prone to flooding

8.5 Conclusions

Eight sites have been identified for a potential train station as part of the Ashington, Blyth and Tyne proposals in New Hartley, Seaton Delaval and Seghill. It is only considered feasible to develop a station in one location due to the cost implications and impact on end to end journey times if multiple stations were considered. The previous section has discussed each of the stations that have been identified and the advantages and disadvantages of each location. The following section gives a summary of the findings and draws a conclusion as to the preferred location of a proposed station site.

- North of New Hartley Curve: The site is remote from existing development and would have a limited catchment area;
- Within New Hartley Curve: A station in this location would not conform to existing guidance and is therefore not possible;
- West of New Hartley Curve: A station is possible in this location but car parking facilities and access for private vehicles would be restricted due to site constraints;
- Seaton Delaval West: A station in this location would serve the existing and future needs of Seaton Delaval. The disadvantage is that the site is located on a section of single track which could impact on efficiency. This could be mitigated as part of the scheme;
- Seaton Delaval East: The site would also serve the existing needs of Seaton Delaval but access would need to be provided via the Co-op car park. The site is extremely constrained and would not allow for future development of car parking facilities;
- Seghill North: The site would serve the existing needs of Seghill but there is limited room for car parking facilities which would limit the future expansion of the scheme;
- Seghill Central: Similar to the above, the site would serve the existing needs of Seghill but there is limited room for car parking facilities which would limit the future expansion of the scheme;
- Seghill South: There are a number of environmental constraints associated with the site which would jeopardise the future resilience of the scheme.

Whilst there are many different factors that need to be taken into consideration when determining the preferred location for a station site, where a station is technically and environmentally feasible, key considerations need to be the catchment area, both now and in the future, as well as constraints on future development of the site. Taking these factors into consideration, Seaton Delaval West is the only station site which serves a large and expanding catchment area, as well as having sufficient land for available expansion of car parking facilities in the future. Whilst it is accepted that providing sustainable transport links to station sites should be important, it is acknowledged that Northumberland is a rural authority and there will continue to be a reliance on the private car. The availability of car parking spaces can therefore not be ignored.

Conclusions

09

9 Conclusions

9.1 Introduction

Northumberland County Council (NCC) is currently progressing with the development of a scheme to reintroduce passenger services on the existing freight railway line between Ashington, Blyth and Tyne. As part of the development of the proposals, a number of options have been considered for the scheme looking at service pattern, line speed improvements and station locations. In advance of progressing the scheme to GRIP 3(Governance for Railway Investment Projects), a consensus on the location of the stations to be included in the scheme needs to be reached. AECOM has been assisting NCC with the development of the scheme and has therefore been commissioned to undertake an appraisal of each potential station location and develop a series of conclusions on the preferred locations. The detailed appraisal of each station is presented in the previous chapters of this report. The key strengths and weakness of each site, as well as the decision on which sites to proceed with are presented in the table below.

Table 1: Summary of Station Assessments

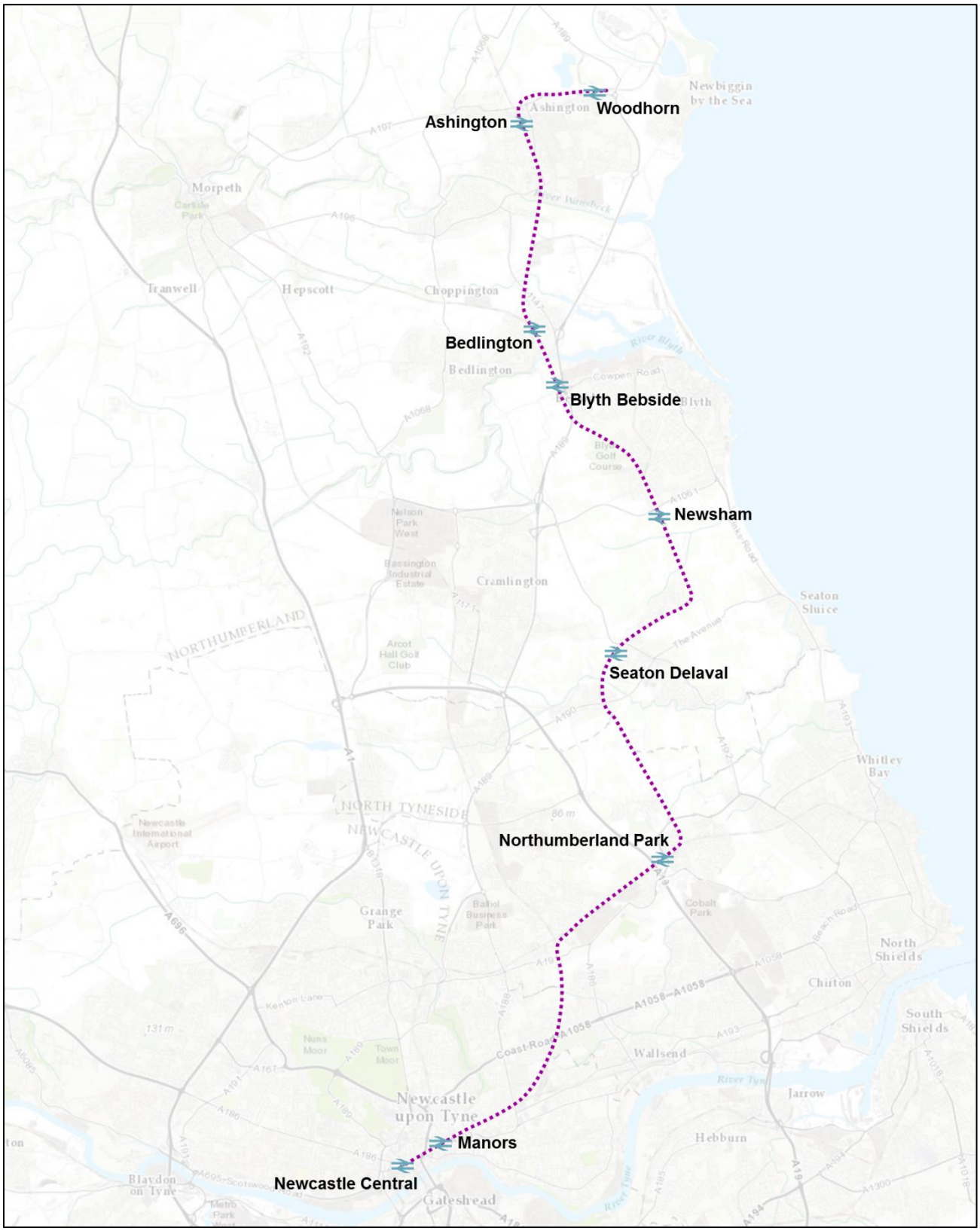
Station	Strengths	Weaknesses	Decision
Ashington	- Located in centre of town, high population and employment surrounding the station - Good public transport connectivity - Former station site and essential for redevelopment of town	- Restricted access by car	Proceed
Bedlington	- Located in centre of town with a good catchment area - Provides connections to employment and other opportunities located in neighbouring towns - Good public transport connectivity at existing site to connect to the wider Bedlington area - Former station site will reduce construction costs - Land acquisition not required	- Restricted access by car - Constrained location	Proceed
Blyth Bebside	- Strategically located adjacent to the A189 and A193 - Good public transport connectivity - High demand forecast to use the station - Essential for providing sustainable links to new development	- Relatively close to Bedlington station, which has implications for end to end journey time - Traffic congestion issues on the A193, which will need to be addressed - Pedestrian and cycling infrastructure will need to be provided at the junction of the A193/A189 - Surface water flooding to the north west of the site, which will need to be mitigated	Proceed

New Hartley, Seaton Delaval or Seghill			
North of New Hartley Curve	- Positive impact on end to end journey times as trains already slowing down due to the tight alignment of the railway curve - A station in this location might help to facilitate development in the area	- Area is liable to surface water flooding - Location is isolated from existing development - No existing access roads or pedestrian and cycling links to the site	Disregard
New Hartley Curve	-	- Curve of railway line is too tight for a station in this location according to existing standards	Disregard
West of New Hartley Curve	- Positive impact on end to end journey times as trains already slowing down due to the tight alignment of the railway curve - Central location within New Hartley	- Unknown underground mineworks and memorial site - Car parking facilities not possible without significant infrastructure expenditure - Narrow access road	Disregard
Seaton Delaval West	- Central location - Good public transport connectivity - Space for car park expansion - Land in close vicinity is allocated for residential developments	- New access road requires third party land acquisition - Single track imposes risks on efficient operation of railway line	Proceed
Seaton Delaval East	- Central location - Good public transport connectivity - Safety benefits as car park is CCTV monitored - Land in close vicinity is allocated for residential developments	- Space for car park expansion very constrained - Single track imposes risks on efficient operation of the railway line	Disregard
Seghill North	- Central location within Seghill - Good public transport connectivity - Good pedestrian links - At-grade access	- Space for station car park very constrained - Double track required for efficient line operation	Disregard
Seghill Central	- Located in centre of town - Good public transport connectivity - Former station site - At-grade access	- Restricted access by car - Space for station car park very constrained - Double track required for efficient line operation	Disregard
Seghill South	- Available space for car parking requirements	- New access road required - Remote site not within catchment area of Seghill - Track located on an embankment, requires long access ramp - Area prone to flooding	Disregard

Newsham			
Newsham North	- Central location with significant population in catchment area - Good access links for non-motorised users and public transport users	- Proximity to level crossing and congested road network during peak hours - Access would need to be provided via a park with a Grade 2 listed memorial	Disregard
Newsham Central	- Central location with large population catchment area - Future development located within close proximity of the site	- Pedestrian links need to be provided to neighbouring communities - Constrained space for car park extension	Disregard
Newsham South	- Large population catchment - Located adjacent to key highway routes - Sufficient space for car park development - Land in close vicinity to the site is allocated for development	- Proximity to level crossing and congested road network during peak hours - Located on the greenbelt - Telecommunications facility located close to the site	Proceed
Woodhorn			
Woodhorn West	- Large catchment area, including Newbiggin-by-the-Sea and Wansbeck Hospital - Promotion of tourism through access to Woodhorn Museum	- Environmental and safety concerns as the site is in a forested area - Third party land will need to be acquired - Line crossing facilities will be required at this location due to demand from both sides of the track	Proceed
Woodhorn East	- Large catchment area, including Newbiggin-by-the-Sea and Wansbeck Hospital - Space for station car park - Convenient road access via A189 / A197	- Located on a high embankment and requires significant access ramps - Environmental risks due to water body - Difficult access for pedestrians from the west due to a need to cross the A189 - Network Rail does not currently own the line - Additional cost incurred due to maintenance of the structure over the A189 - Location of overhead electricity might impose a risk on safe construction	Disregard

The station locations which will be taken forward to GRIP3,and developed as part of proposals to reintroduce passenger services on the Ashington, Blyth and Tyne railway line, are shown Figure 64 overleaf.

Figure 64: Preferred Station Locations



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