

Transport  
for NSW

# Lower Hunter Freight Corridor Submissions Report

December 2022



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# Executive Summary

## Introduction

It has never been more important to ensure New South Wales (NSW) stays connected. Planning for infrastructure is critical to ensuring the delivery of goods across communities in NSW. Having a reliable freight network means everyday items, from groceries and household supplies to the essentials required to keep businesses running, can be delivered safely and on time.

The Hunter region, which includes the Greater Newcastle metropolitan area, has the largest share of both regional population and regional employment in New South Wales (NSW) and is located in the State's fastest growing corridor – from the northern edge of Sydney to Newcastle. The projected population along this corridor is estimated to be 1.1 million by 2036 (Department of Planning and Environment (DPE), 2016). The region is also an important hub for freight transport in NSW and plays a major role in supporting freight movement between Greater Sydney, Northern NSW and Queensland. The anticipated population growth and future demand for freight rail services in the Hunter region is expected to place increasing pressure on the existing rail network in this region.

The NSW Government is currently planning for the long-term transport needs of the Hunter region by identifying and protecting corridors of land that can be used to deliver transport infrastructure when needed in the future. Corridor protection is becoming essential in the face of rapid urban development in designated growth areas and other planned precincts. Urban release areas such as Minmi, Fletcher, Black Hill and Cameron Park and other growth areas in Greater Newcastle will each be home to new communities or employment areas, transforming the Lower Hunter and the Greater Newcastle metropolitan area. An efficient freight network across NSW will support residential and employment growth throughout the state. Protecting the corridors now will allow the integration of compatible land uses surrounding the corridor to ensure a sustainable transformation.

In 2021, Transport for NSW (Transport) announced a recommended Lower Hunter Freight Corridor between Fassifern in the south and Hexham in the north to allow for a future freight rail line to bypass Newcastle and invited the community to provide comments.

This vital future transport corridor will provide for an efficient freight rail connection to support the efficient delivery of goods for growing communities, businesses and industries in the Hunter region and support NSW and Australia as it recovers from the COVID-19 pandemic.

## Early planning and the process

The identification and protection of infrastructure corridors recognises the importance of understanding medium to longer term (10 to 20 years) planning scenarios. It is recognised that corridor identification and protection have direct implications for the landowners and communities who live or work in or near the corridors. Protecting the corridors now from future urban development will lessen disruption to people and the environment while making the best use of public resources.

The planning for the future growth of the Hunter region is underpinned by the Greater Newcastle Metropolitan Plan (DPE, 2018), Future Transport Strategy 2056 (Transport for NSW, 2018a), Hunter Regional Plan 2036 (DPE, 2016), and NSW Freight and Ports Plan 2018 – 2023 (Transport for NSW, 2018b). These strategies identify the importance of transport infrastructure to support the growth and prosperity of the Hunter region. It is noted that the DPE consulted on the draft Hunter Regional Plan 2041 from 6 December 2021 to 4 March 2022 and are now considering submission to inform the finalisation of the plan.

In alignment with these strategies and plans, early planning activities to identify and shape the corridors have been ongoing for a number of years. The planning process has included the following key activities:

- Comprehensive technical investigations for the corridors – these assessments considered engineering requirements, environmental constraints and future land uses.
- Draft Strategic Environmental Assessment – sets out the strategic justification for the project, including an assessment of the opportunities and constraints that have informed the recommended corridor alignment.

- Comprehensive communication and consultation programs – this involved seeking feedback from key stakeholders, including other project teams within Transport, State agencies and regulatory authorities, local communities and the wider Lower Hunter community between 2015 and 2021. Feedback has been considered, responded to and has informed the development of the corridor.

The protection of the corridors is proposed to be achieved through a State Environmental Planning Policy (SEPP), an environmental planning instrument that addresses matters of State or regional environmental planning significance. After consideration of this submissions report, The DPE is expected to make a recommendation to the Minister for Planning and Homes on the protection of the corridor within Chapter 4 of the State Environmental Planning Policy (Transport and Infrastructure) 2021 (formerly the State Environmental Planning Policy (Major Infrastructure Corridors) 2020).

## The Lower Hunter Freight Corridor

This submissions report refers to the Lower Hunter Freight Corridor released for key stakeholder and community consultation between July and September 2021.

The Lower Hunter Freight Corridor will provide for a 30-kilometre dedicated freight rail line between Fassifern in the south to Hexham in the north, bypassing Newcastle's densely populated urban area. The corridor will allow for the transport of freight by rail to the growing industrial areas and distribution centres in the Hunter region and will improve freight links to Newcastle Port for import and export opportunities. The separation of the majority of freight and passenger rail services between Fassifern and Hexham will increase the efficiency and reliability of the rail network for both freight and passenger services, and help businesses and industry move freight more efficiently, supporting growth across the Hunter region.

## Community and stakeholder participation

Between 12 July and 27 September 2021, Transport undertook a consultation and engagement program and invited submissions from stakeholders and the community on the proposed alignment for the Lower Hunter Freight Corridor. The DPE also exhibited an Explanation of Intended Effects, which proposed the protection of the corridor under the planning system. Feedback was also sought on the Explanation of Intended Effects.

The objectives of the consultation activities were to:

- Accept submissions from stakeholders and the community to inform ongoing planning activities and assessments
- Provide accurate and timely information about the recommended corridor to relevant stakeholders and the community
- Raise awareness of the recommended corridor and the benefits of early corridor protection
- Provide opportunities for stakeholders and the community to express their views about the location of the recommended corridor
- Provide opportunities for stakeholders and the community to express their views on the proposed rezoning and associated development controls to protect the corridor
- Understand and access valuable local knowledge from the community and stakeholders
- Facilitate positive interactions with interested community stakeholders
- Ensure a comprehensive and transparent approach
- Establish communication channels so stakeholders are kept informed throughout the project.

A number of consultation opportunities, along with supporting communication material, were delivered, including:

- Advertisements in local newspapers and posts on the Transport Facebook page
- A brochure distributed to directly impacted landowners and made available on the Transport Lower Hunter Freight Corridor website
- Letters to property owners directly impacted by the location of the corridor
- Emails sent to stakeholders
- Online community information sessions.

## Feedback summary and consultation outcomes

A total of 571 submissions were received during the consultation period about the Lower Hunter Freight Corridor. These submissions contained multiple submissions from the same individual.

Clear themes emerged from the feedback received during meetings with stakeholders, at the community information sessions and in written submissions. Many recognised the importance of long-term planning and transport corridor protection for Greater Newcastle.

The top five issues raised in submissions about the Lower Hunter Freight Corridor included:

- 1 Social – these included concerns about the potential future impacts to lifestyle and amenity, health and safety and connection between communities due to the location of the future infrastructure near neighbourhoods or separating/isolating neighbourhoods.
- 2 Noise, vibration, visual and air quality – these included concerns about potential future noise, vibration, visual and air quality impacts on sensitive receivers resulting from the future construction and operation of the infrastructure and requests for potential impacts to be mitigated and for affected receivers to receive compensation.
- 3 Biodiversity – these included concerns about the adequacy of the preliminary biodiversity assessment and potential future impacts on wildlife, native vegetation, connectivity and land reserved under the *National Parks and Wildlife Act 1974* such as national parks and nature reserves resulting from the future design and delivery of the infrastructure.
- 4 Property and acquisition – these included questions and concerns about compensation for affected and adjacent properties, the acquisition process and potential impacts on property values.
- 5 Alternative options – these included recommendations and suggestions for alternative corridor alignments and upgrades to existing infrastructure to avoid impacts on the environment and properties. Concerns were also raised about the adequacy of the options development and assessment process.

## Next steps

Transport has considered the issues raised in submissions on the Lower Hunter Freight Corridor and responded to these issues in this submissions report.

As a result of the submissions, Transport has made some refinements to the corridor alignment that are to be included in a revised Strategic Environmental Assessment. This will be found on the Transport website. The DPE will then consider the final Strategic Environmental Assessment, to inform a recommendation to the Minister for Planning and Homes on the protection of the corridor.

The proposed protection of the corridor will enable existing land uses to continue in the interim and ensure that new development does not inhibit the delivery of the major infrastructure when required in the future. The Transport and Infrastructure SEPP provides a pathway for the assessment of land uses that were previously permissible on the land prior to the protection of the corridor and includes the considerations for which Transport are to provide a concurrence assessment.

Planning authorities will ensure that land use and transport planning processes around the recommended corridor are integrated and coordinated. Any future proposal to build and operate infrastructure in the recommended corridor would be subject to a comprehensive environmental assessment in accordance with the provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Lower Hunter Freight Corridor will help to underpin the NSW Government's long-term intentions for the growth of the Hunter region and the objective of an efficient and reliable freight network.



# 1. Introduction

## 1.1 Background

The NSW Government has recognised the need for a number of long-term major infrastructure corridors to support growth. As outlined in the Future Transport 2056 (Transport for NSW, 2018a) and State Infrastructure Strategy 2018 -2038 (Infrastructure NSW, 2018), a whole of government approach is aligning policy and investment decisions to support the anticipated growth and need for infrastructure across the three cities.

Transport has identified a future rail link between Fassifern and Hexham to bypass Newcastle's urban areas. In planning for this vital transport link, the Lower Hunter Freight Corridor has been identified which will provide for a future dedicated freight rail line.

Separating freight and passenger rail is a NSW Government initiative to improve reliability and increase capacity on both freight and passenger rail networks. A dedicated freight rail corridor will also enable investment in freight infrastructure to support growth and improve freight connectivity and movement across the Hunter region. A dedicated Lower Hunter freight line will allow industries to get their goods to market, keep businesses running and provide households with their everyday needs, while supporting our economy through exporting goods. Most importantly, it will generate local jobs for the community and support economic growth across the region.

Securing land for the Lower Hunter Freight Corridor is an important step in realising the outcomes of Future Transport 2056 to better connect communities with jobs, services and amenities and to help businesses and industry move freight more efficiently.

Protecting corridors for new transport infrastructure now:

- Provides landowners and the community with certainty of where future infrastructure will be located.
- Prevents urban development from encroaching on the protected corridor and minimises disruption to future communities.
- Enables land use planning around the corridor to consider the compatibility of land uses with the future operation of infrastructure.
- Enables overall cost-efficient delivery of future infrastructure projects.
- Can minimise the environmental, economic and community impacts at the time the infrastructure projects are delivered.

Identifying and protecting land now for future infrastructure does not mean the land needs to be acquired immediately. Landowners and residents who live within the reserved transport corridors will be able to continue with current uses and currently permitted development can continue, subject to development consent.

Community and stakeholder feedback plays a key role in the early planning process. Community consultation on the freight rail corridor was held between 12 July 2021 and 27 September 2021 to give residents and businesses the opportunity to inform the planning process. During this time, the community and stakeholders were invited to make a submission to Transport on potential issues and opportunities.

## 1.2 Purpose of this report

The purpose of this submissions report is to:

- Outline the range of consultation and engagement activities undertaken on the Lower Hunter Freight Corridor between 12 July 2021 and 27 September 2021
- Present an overview of issues raised by stakeholders and the community in the more than 500 submissions received during this period about the Lower Hunter Freight Corridor
- Outline the proposed changes made to the corridor in response to the submissions
- Provide responses to key issues raised.

This report should be read in conjunction with supporting corridor information and documents available at [transport.nsw.gov.au/corridors](https://transport.nsw.gov.au/corridors).

### **1.3 Corridor and future infrastructure overview**

The Lower Hunter Freight Corridor project aims to identify and protect land for a future freight rail line that would bypass Newcastle between Fassifern and Hexham. The future freight rail line will help meet the long-term freight needs of NSW and support the growth of Greater Newcastle as a globally acknowledged emerging economic and lifestyle city.

At the time of future infrastructure delivery, the Lower Hunter Freight Corridor will:

- Increase capacity, efficiency and reliability of the rail network by separating the majority of the freight and passenger rail services on the congested Main North Rail Line between Fassifern and Newcastle.
- Support the efficient and safe movement of container and bulk freight by rail across Greater Newcastle by reducing freight service travel times by 15 to 20 minutes.
- Provide freight rail connections to serve employment lands and future industries across Greater Newcastle.
- Improve urban amenity and liveability in the Newcastle urban region by removing most of the freight trains within the urban area.
- Reduce network congestion and improve travel times and reliability for both freight rail and passenger rail services.
- Relieve some congestion at level crossings at the Adamstown and Islington level crossings.
- Relieve pressure on regional roads and highways by moving more freight via dedicated freight rail.
- Support the investment in the freight rail industry in the region and economic growth across the Lower Hunter region.

Figure 1.1 shows the exhibited Lower Hunter Freight Corridor.

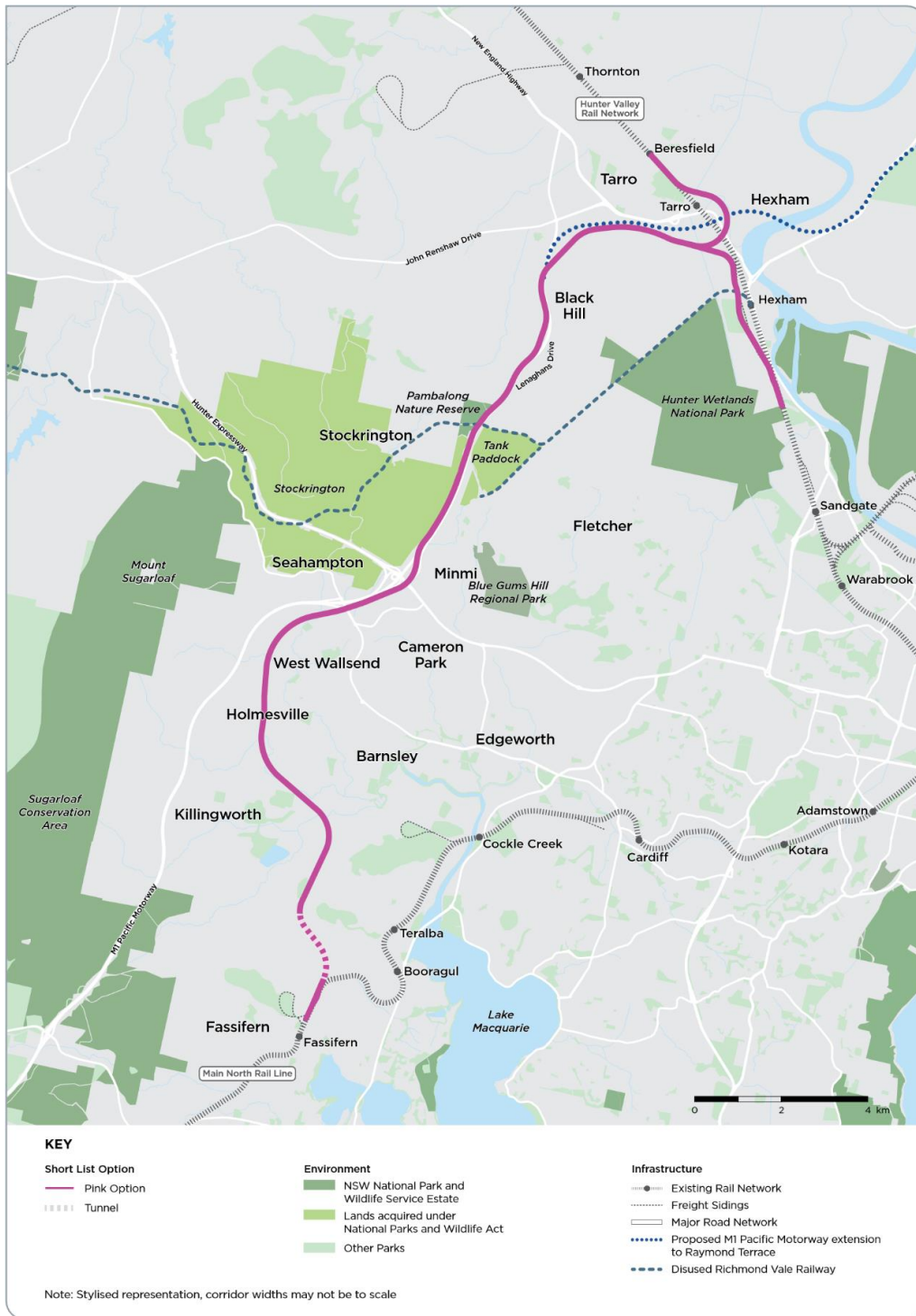


Figure 1.1 Exhibited Lower Hunter Freight Corridor

## 2. Consultation and engagement process

Consultation and engagement on the Lower Hunter Freight Corridor has been critical to the planning process. Community and stakeholder feedback received has helped shape the transport corridor and inform Transport in its decision making.

### 2.1 Consultation and engagement overview

On 9 July 2021, the Government announced the recommended alignment for the Lower Hunter Freight Corridor.

Community consultation on the recommended corridor was held between 9 July and 27 September 2021. This also included the proposed protection of the corridor under Chapter 4 of the State Environmental Planning Policy (SEPP) (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP). The proposed protection of the corridor was outlined in the Explanation of Intended Effects, prepared by the DPE. Residents, businesses, and key stakeholder groups such as community groups, councils, and representative bodies, were asked to provide feedback and make formal submissions during this time.

Although not publicly announced by Transport, submissions continued to be accepted, beyond the formal consultation period, up until October 2021. This decision was made in recognition of the high level of interest shown throughout the consultation period.

The consultation process included:

- virtual engagement sessions
- comments received through an online mapping tool
- online meetings/workshops with directly impacted landowners and key stakeholder groups (including government agencies, local councils and the freight industry).

A summary of the virtual engagement sessions held in 2021 is outlined in Table 2.1.

Table 2.1 Virtual engagement sessions held in 2021

Event	Platform	Date of Event	Number of Attendees
Virtual engagement event	MSTeams	28 July 2021	587
Virtual engagement event	MSTeams	17 August 2021	381
Virtual engagement event	MSTeams	3 September 2021	20
Aboriginal virtual engagement event	MSTeams	12 October 2021	206

Details of the consultation activities and information about how to provide feedback were advertised in local newspapers, made available on the Transport's website ([transport.nsw.gov.au/corridors](https://transport.nsw.gov.au/corridors)) and sent out to directly impacted landowners and stakeholders via post and emails.

The majority of the feedback received was about community concerns about the potential impacts on communities, recreational activities, property values and biodiversity and suggestions for alternative options.

The 2021 consultation activities provided Transport with a better understanding of potential constraints and opportunities for the project.

### 2.2 Consultation and engagement period

Residents, businesses and key stakeholder groups such as community groups, councils, and representative bodies, were asked to provide feedback and make formal submissions until 27 September 2021. However, submissions were ultimately accepted up until October 2021. This decision was made in recognition of the high level of interest shown throughout the consultation period.

## 2.3 Key consultation and engagement activities

Throughout the consultation period, Transport undertook the following consultation and engagement activities:

- Advertised in local newspapers.
- Posted messages on the Transport Facebook page and other social media activities.
- Distributed brochures and postcards to Members of Parliament and local councils, and emails and letters to government agencies, stakeholders, businesses and directly impacted landowners and surrounding areas.
- Attended key stakeholder and landowner meetings via telephone and MSTeams due to COVID-19 restrictions.
- Hosted virtual engagement sessions.

### 2.3.1 Advertisements

In July 2021, advertisements were placed in the following local newspapers to inform the community about the recommended corridor and to ask for feedback:

- Newcastle Herald
- Port Stephens Examine
- Maitland Mercury
- Sydney Morning Herald
- Daily Telegraph.

### 2.3.2 Social media

Transport posted on departmental social media platforms, including Facebook ([facebook.com/TransportForNSW](https://facebook.com/TransportForNSW)), at regular intervals throughout the consultation and engagement period.

Social media posts were also utilised to encourage participation in the consultation process and direct traffic to Transport's website ([transport.nsw.gov.au/corridors](https://transport.nsw.gov.au/corridors)) for more information.

### 2.3.3 Corridor brochure, postcard and letters

On 9 July 2021, about 18,000 corridor brochures were letterbox dropped to the following areas: Barnsley, Toronto, Boolaroo, Cardiff, West Wallsend, Adamstown, Broadmeadow, Maryville, Islington, Waratah, Hamilton, Mayfield, New Lambton and Beresfield. Fifty (50) corridor brochures and fifty postcards were also distributed to each of the following Ministers of Parliament and local councils:

- Mr Tim Crakanthorp
- Mr Gregory Piper
- Mr Clayton Barr
- Ms Jenny Attchison
- Ms Sonia Horney
- Lake Macquarie City Council
- Newcastle City Council
- Cessnock City Council
- Maitland City Council.

An online version of the brochure was created for the corridor and made available on Transport's website ([transport.nsw.gov.au/corridors](https://transport.nsw.gov.au/corridors)). The online brochure received 50 unique views.

Letters were also sent out to 10 government agencies, 10 businesses and 14 directly impacted landowners.

### 2.3.4 Stakeholder email

At the commencement of the consultation and engagement period, a direct email was sent to a list of 18 stakeholders from Transport's email address ([corridors@transport.nsw.gov.au](mailto:corridors@transport.nsw.gov.au)) to advise them about the consultation and to direct them to Transport's website for more details.

The stakeholder list was compiled from parties who had previously registered interest in finding out more information about the corridors.

### 2.3.5 Virtual engagement sessions

As a result of the COVID-19 pandemic and social distancing requirements, face-to-face engagement with the community and stakeholders, such as drop-in information sessions and public meetings, were not held. In order to comply with Public Health Orders and ensure the safety of its customers and employees, Transport adapted community engagement in line with the health advice regarding COVID-19 to focus on digital engagement tools such as virtual engagement sessions, online meetings/workshops, the Transport's website ([transport.nsw.gov.au/corridors](https://transport.nsw.gov.au/corridors)) and Transport's social media platforms. Representatives from the DPE also attended the virtual engagement session in order to respond to respond to specific planning questions. A summary of the virtual engagement sessions held in 2021 is outlined in Table 2.1.

### 2.3.6 Communication channels

Community and stakeholders were encouraged to have their say on the corridor through multiple feedback channels. These channels are described below.

#### 2.3.6.1 Community information phone line, email address and postal address

A community information line and email address were established and maintained by Transport during the consultation period. Transport's contact details were included on all written communications distributed or made available to the community.

During the consultation and engagement period, Transport received and responded to:

- Email – [corridors@transport.nsw.gov.au](mailto:corridors@transport.nsw.gov.au): non-submission related emails (i.e. general enquiries were not considered a submission)
- Community information line – 1800 837 511: phone calls
- Post – PO Box K659, Haymarket, NSW, 1240: letters (these were considered a postal submission).

#### 2.3.6.2 Transport and DPE websites

Information contained on the Transport website ([transport.nsw.gov.au/corridors](https://transport.nsw.gov.au/corridors)) and the DPE Corridor Protection SEPP website ([www.planning.nsw.gov.au/Policy-and-Legislation/State-Environmental-Planning-Policies/Corridor-Protection-SEPP](http://www.planning.nsw.gov.au/Policy-and-Legislation/State-Environmental-Planning-Policies/Corridor-Protection-SEPP)) included:

- a summary of the recommended corridor
- the Draft Strategic Environmental Assessment of the recommended corridor
- frequently asked questions (FAQs)
- maps for consultation
- information about how to provide feedback, including details of the virtual engagement sessions
- a collaborative mapping tool and a webform for providing online submissions
- the Explanation of Intended Effects (produced by the DPE).

The Lower Hunter Freight corridors website had 7,148 unique visitors to the website during the consultation and engagement period. Documents providing information on the corridor were made available on the website. Fifty (50) documents were downloaded from the website.

#### 2.3.6.3 Webform submissions

Webform submissions were received via Transport's website. The webform captured the following information:

- enquiry type (provide feedback/subscribe to updates)
- corridor name
- stakeholder details, including address
- housing status (e.g. rent, owner occupier, business owner)
- issue type (e.g. social, infrastructure, heritage, environment, other)
- feedback on the corridor via free text
- the option of uploading a document (e.g. submissions/photos).



#### 2.3.6.4 Collaborative mapping tool

An online collaborative map on the Transport corridors website enabled community members and key stakeholders to view the recommended corridor alignment and provide feedback.

### 2.4 Consultation with Aboriginal community

Previous investigations undertaken by Transport indicated the potential corridor routes could pass through areas of Aboriginal cultural and archaeological sensitivity. In developing the preferred option, Transport wanted to ensure that the process was fully informed of the Aboriginal cultural landscape and Aboriginal community aspirations.

Transport worked with Aboriginal organisations and traditional knowledge holders, including the Awabakal, Biraban and Mindaribba Local Aboriginal Land Councils and conducted several preliminary walks on country.

Transport also worked with a team of Aboriginal subject matter experts that consisted of Professor John Maynard, Saretta Fielding, Josh Gilbert and Karen Iles to undertake an Aboriginal Cultural Values Assessment. This process ensured cultural values were considered early in the corridor selection process and affirmed Aboriginal leadership on issues affecting them and their heritage.

The project improved connections between Transport strategic planners, Aboriginal cultural knowledge holders and Aboriginal culture and cultural expression. The outcomes have had a genuine influence on corridor option selection by capturing and sharing knowledge.

### 3. 2021 Submissions overview

During the exhibition of the Draft Strategic Environmental Assessment, Transport received submissions from various stakeholder groups including residents, potentially impacted landowners, businesses, community and interest groups, local councils, government agencies and representative bodies.

Table 3.1 below summarises how Transport has processed the feedback received from the 2021 consultation process for the Lower Hunter Freight Corridor and other exhibited corridors.

Table 3.1 Feedback channels and treatment

Feedback channels	Treatment
One-on-one landowner meetings via phone or MS Teams.	Views expressed were considered by Transport’s technical team, as part of the technical review process.
Online stakeholder meetings including local councils, businesses, government authorities and agencies.	Views expressed were considered by Transport’s technical team, as part of the technical review process.  Formal submissions received via other channels were included in the submissions count.
Written feedback forms received via mail.	Considered by Transport’s technical team, as part of the technical review process.
Multiple submissions from the same person/individual with the same content.	Counted as one submission.
Multiple submissions from the same person/individual with different content.	Counted as separate submissions.
Multiple comments left on the interactive mapping tool by the same person.	Counted as one submission.
Submissions received after the formal consultation and engagement period ended on 27 September 2021, following the extension of the submissions period through to October 2021.	All submissions received up to October 2021 were accepted and considered in the overall submissions count. Submissions received after October 2021 were considered by the Transport technical team as part of the technical review process.
Petitions (with signatures) received by Transport about the corridors during the consultation and engagement period.	The following petition was received:  Change.org with 837 signatures as of 6 October 2021.
Proforma (or form letter) submissions received containing the same content submitted by more than five individuals.	Each proforma counted as one submission.
Verbal feedback provided via the community information line: 1800 837 511.	Excluded from the submissions count.  Considered by Transport technical team as part of the technical review process.  Not considered a formal submission.
General email enquiries to Transport’s project email address: <a href="mailto:corridors@transport.nsw.gov.au">corridors@transport.nsw.gov.au</a> .	Excluded from the submissions count as they were not considered a formal submission.

Feedback channels	Treatment
Submissions received by email: corridors@transport.nsw.gov.au.	Each submission received by email counted as one email submission.  Where one email was received with multiple submissions attached, each individual submission counted as one email submission.
Postal submissions to PO Box K659, Haymarket, NSW, 1240.	Each submission received by post counted as one postal submission.
Submissions via webform hosted on Transport’s corridors website.	Each webform counted as one submission.
Submissions referencing more than one corridor, e.g. Lower Hunter Freight Corridor and M1 Pacific Motorway.	Counted as one submission and included as one submission in the overall submissions count.

### 3.1 Number of submissions and types

A total of 571 submissions relating to the Lower Hunter Freight Corridor were received between 12 July 2021 and 27 September 2021. These submissions included multiple submissions from the same individual.

The number of submissions received for each submission type are presented in Table 3.2.

Table 3.2 Lower Hunter Freight Corridor submissions by type

Submission type	Number of submissions received
Post	30
Email (including proformas)	38
Webform	501
Phone calls	2

### 3.2 How submissions have been addressed

All submissions received during the consultation and engagement period were reviewed in detail, with issues and themes coded for further analysis, and summarised for a response to be developed.

Submitters who supplied legible contact details will be notified via post or email that this submissions report has been published.

Submissions have been classified into two categories, stakeholders and community, as outlined below.

#### 3.2.1 Stakeholders

For the purposes of this report, stakeholders are considered to be industry bodies/representatives, local councils, government departments and educational institutions. Stakeholders have been identified in this report where relevant.

It should be noted that a number of submissions were received from businesses and corporations, however to maintain privacy and confidentiality, they are not identified in this report.

#### 3.2.2 Community

Individuals, residents and community groups have been considered as community submissions.

All submissions received from members of the community have not been identified to maintain privacy and confidentiality.

### 3.3 Key issues raised in relation to the Lower Hunter Freight Corridor

All submissions received during the consultation and engagement period were reviewed in detail, with issues and themes coded for further analysis, and summarised for a response to be developed.

The top five issues, in terms of frequency, raised in submissions about the Lower Hunter Freight Corridor included:

- 1 Social – these included concerns about the potential future impacts to lifestyle and amenity, health and safety and connection between communities due to the location of the future infrastructure near neighbourhoods or separating/isolating neighbourhoods.
- 2 Noise, vibration, visual and air quality – these included concerns about potential future noise, vibration, visual and air quality impacts on sensitive receivers resulting from the future construction and operation of the infrastructure and requests for potential impacts to be mitigated and for affected receivers to receive compensation.
- 3 Biodiversity – these included concerns about the adequacy of the preliminary biodiversity assessment and potential future impacts on wildlife, native vegetation, connectivity and land reserved under the *National Parks and Wildlife Act 1974* (NPW Act) such as national parks and nature reserves resulting from the future design and delivery of the infrastructure.
- 4 Property and acquisition – these included questions and concerns about compensation for affected and adjacent properties, the acquisition process and potential impacts on property values.
- 5 Alternative options – these included recommendations and suggestions for alternative corridor alignments and upgrades to existing infrastructure to avoid impacts on the environment and properties. Concerns were also raised about the adequacy of the options development and assessment process.

A breakdown of issues raised in submissions relating to the Lower Hunter Freight Corridor is presented in Table 3.3.

Table 3.3 Number of times issues were raised

Issue category	Number of times issue was raised
Corridor planning	55
Alternative options	104
Design	58
Environmental impacts	331
Out of scope	29
Support	32

## 4. Project refinements

In response to community and stakeholder feedback since the exhibition of the Draft Strategic Environmental Assessment, Transport has made further changes to the corridor alignment. These changes are outlined below.

### 4.1 West Wallsend

Section 7.11.1 of the Draft Strategic Environmental Assessment acknowledges that the recommended corridor would transect the northern section of the former West Wallsend (No 1) Colliery near Johnston Park north of West Wallsend, which is listed as a local heritage item in the Lake Macquarie Local Environmental Plan 2014.

Lake Macquarie City Council is currently proposing to establish a 'Heritage Mining Park' (Umwelt, 2020a; Umwelt, 2020b) with informal walking and cycling tracks within the grounds of the former West Wallsend (No 1) Colliery. Transport has moved the corridor alignment further north to minimise impacts on the proposed Heritage Mining Park, as shown in Figure 4.1.

### 4.2 Barnsley

The recommended corridor as identified in the Draft Strategic Environmental Assessment is located approximately 250 metres away from the nearest residential dwelling in Barnsley (along Bendigo Street). Transport has moved the corridor alignment further to the west to provide further separation between the corridor and residences in Barnsley, as shown in Figure 4.2. This refinement of the recommended corridor would further minimise noise and amenity impact on residents in Barnsley.





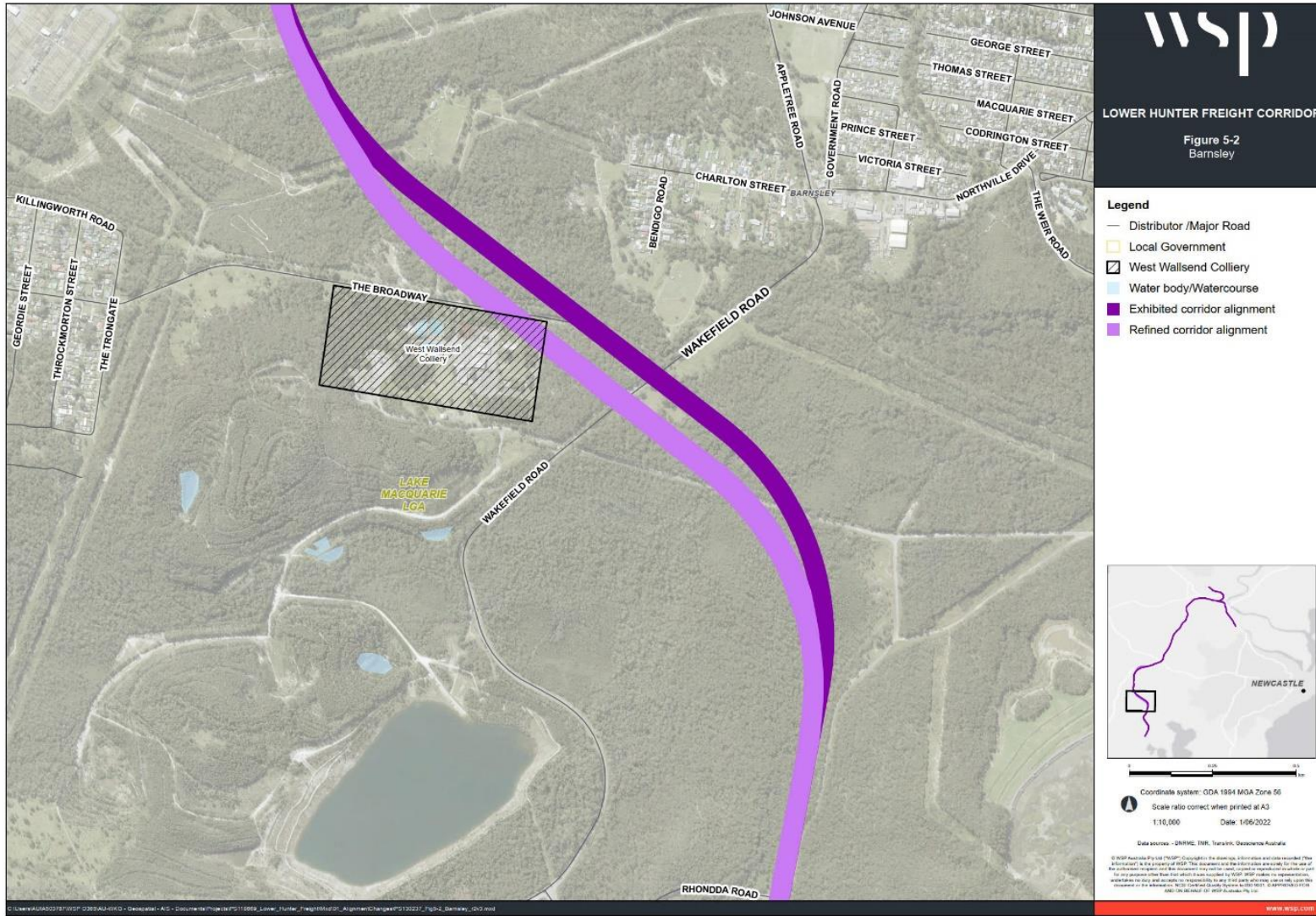


Figure 4.2 Changes to the recommended corridor alignment near Barnsley

## 5. Corridor planning

This section relates to concerns and questions about the need and justification for the Lower Hunter Freight Corridor, consultation carried out with the community and stakeholders and future stages of the project.

### 5.1 Key theme: Corridor need and justification

Concerns and questions about the need and justification for the Lower Hunter Freight Corridor.

#### 5.1.1 Need and justification

##### 5.1.1.1 Community / key stakeholder issue

The community and stakeholders raised questions and comments about the need and justification for the project, including:

- No evidence is provided to support the need, justification and stated benefits of the Lower Hunter Freight Corridor.
- Concerns that there is no need for the corridor since:
  - Freight train services between Newcastle and Sydney have reduced in recent years.
  - The Inland Rail will significantly reduce freight services on the Main North Rail Line and North Coast Rail Line.
  - Once the proposed automated container terminal development at Mayfield and the currently defective weighbridge at Port Kembla is in operation there will be fewer freight services between Sydney and Newcastle.
  - The progressive shut down of coal fired electricity generating stations will reduce and end the transport of coal to these facilities.
- Questions about why the Lower Hunter Freight Corridor would start from Fassifern northwards when there are growth areas further south that are experiencing congestion, including Morisset.
- Freight rail infrastructure would be improved while the area lacks public transport and bicycle paths which are greatly needed by the community.
- The majority of trains passing through level crossings (e.g. at Adamstown) will continue to be passenger trains, therefore the congestion at level crossings will continue regardless of whether the freight line is constructed or not.
- The project does not provide any detail about how passenger services would be improved, for example, how gate closure times at level crossings would change when freight trains are diverted to the new rail line.
- Many freight services would have to continue to use the existing route (Main North Rail Line) due to the movement of coal trains, freight trains with destinations on the Main North Rail Line, freight trains travelling to and from the Port of Newcastle, maintenance services at Georgetown, Carrington and Hexham, rail yards at Broadmeadow, Carrington, Mayfield and Hexham and the many sidings connected to the existing route.
- Freight services with destinations in Newcastle and surrounding suburbs would have to use the Lower Hunter Freight Corridor which would result in significant detours as well as congestion in other parts of the rail network.
- No data has been provided to support statements on the speed and safety of the future freight rail line; it is not clear what time and safety benefits would be gained.
- No information is provided on the current movements of freight rail along the existing route.
- Concerns that economic benefits would be achieved while there would be long term and irreversible negative impacts on the community.
- Questions about why the recommended corridor bypasses the Port of Newcastle and how the project would support increasing freight movement at the Port of Newcastle.

### 5.1.1.2 Transport response

Detailed information about the strategic need and justification for the project is provided in Chapter 4 of the Draft Strategic Environmental Assessment.

#### Demand for freight rail services

The existing Main North Rail Line running through Greater Newcastle currently services interstate and intrastate freight traffic (including freight with destinations within Newcastle) in conjunction with passenger train services and is currently operating very close to capacity in times of peak demand. Congestion on the Main North Rail Line, and the priority given to passenger trains on shared parts of the rail network, is currently reducing the efficiency and cost effectiveness of freight movement in the Lower Hunter region. This affects bulk freight destined for the Port of Newcastle as well as containerised and general freight being transported on the east coast freight rail network linking Melbourne, Sydney and Brisbane. Rail freight inefficiency increases costs and makes rail less competitive than road. This in turn creates an incentive to use trucks to transport freight, which increases congestion, vehicle emissions and noise and affects amenity.

Over the next 20 years, Transport expects that forecast demand for freight rail services and urban growth will place increasing pressure on the Main North Rail Line and has estimated that an additional 66 freight services per week (in each direction) will be required by 2056 (refer to Section 1.1 of the Draft Strategic Environmental Assessment). It is predicted that the capacity of the current rail network will be reached by 2036, meaning growth in freight demand would not be met over time. The strain on network capacity would likely lead to freight being forced to travel via other modes such as roads. This could have wider impacts on production levels, employment, road congestion and investment occurring in the region.

Numerous Australian, State and local government plans and strategies, including the 2016 Australian Infrastructure Plan (Infrastructure Australia, 2016), Future Transport Strategy 2056 (Transport for NSW, 2018a), Hunter Regional Plan 2036 (Department of Planning and Environment (DPE), 2016), Draft Hunter Regional Plan 2041 (Department of Planning, Industry and Environment (DPIE), 2021) and Greater Newcastle Metropolitan Plan (DPE, 2018) also highlight the need to accommodate the predicted growth in freight demand and protect freight corridors to avoid conflicts with future urban development (refer to Section 4.2 of the Draft Strategic Environmental Assessment). The Greater Newcastle Metropolitan Plan 2036 (DPE, 2018) and the NSW Freights and Ports Plan 2018 – 2023 (Transport for NSW, 2018b) indicate that a reduction in the volume of freight trains through urban areas of Newcastle is needed to improve connections to jobs, services and recreation by protecting major freight corridors.

Creating a new dedicated freight rail line between Fassifern and Hexham to bypass the existing shared rail network through Newcastle's inner suburbs would provide a significant improvement in the overall capacity and efficiency of the rail network of Greater Newcastle, while meeting financial and engineering requirements for the project. This would also help to reduce freight services through Newcastle's urban area, thereby improving amenity for local communities and enabling both freight and passenger networks to grow.

Preserving the Lower Hunter Freight Corridor is the first step in delivering this additional freight capacity and is one part of a complementary and integrated, multi-modal transport strategy being implemented by the NSW Government to ease congestion and improve efficiency and reliability of the rail network.

The Lower Hunter Freight Corridor would complement the benefits of Inland Rail by relieving pressure on freight rail services between Sydney and the Lower Hunter. Some freight currently transported through Sydney would be diverted to Inland Rail to avoid passing through the Sydney rail network and would reduce north-south freight movements between Sydney and the Lower Hunter. Thereby Inland Rail could also extend the timing before rail infrastructure in the Lower Hunter Freight Corridor is needed.

#### Level crossings

Enabling freight trains to bypass Newcastle would relieve congestion and delays for all road users at level crossings, as travel times are relative longer when encountering freight trains at level crossings when compared to encountering passenger trains (taking into account the larger likelihood of encountering passenger rail services at these crossings). Separating freight services and passenger services would result in significantly less freight trains through level crossings in Newcastle, which would improve the level of service at these crossings.

### Benefits of a Lower Hunter Freight Corridor

Future rail infrastructure within the recommended corridor would result in significant freight transport cost and time savings (between 15 to 20 minutes per average trip) for businesses, as the Lower Hunter Freight Corridor would reduce travel distances by bypassing Newcastle and allow additional freight to travel on rail. This would result in increased productivity for businesses. Less freight transported by road would reduce congestion and accidents on roads as well as road maintenance, that all bear economic costs. Future rail infrastructure within the recommended corridor would also have wider economic benefits on employment and investment in the Hunter region and improve access to/from markets in regional areas, particularly export through Port Botany. Initial estimates suggest that the development of a dedicated freight line within the recommended corridor could generate economic benefits with a present value of around \$440 million (subject to the year of opening).

### Port of Newcastle

Port Kembla in Wollongong has been identified by the NSW Government as the location for the development of a future container terminal to augment capacity of Port Botany in Sydney when required. Current arrangements do not prohibit the development of a container terminal at the Port of Newcastle but rather allow for the growth of container volumes through Newcastle that service the Hunter region.

The Port of Newcastle currently has excellent access and connectivity to the national highway and rail networks that link to other capital cities and regional businesses. Both the immediate road network and the broader highway system has the capacity to accommodate the current and forecasted vehicle growth without the need for major infrastructure upgrades. Similarly, the existing rail network has the capacity to accommodate the contracted coal volume, as well as latent capacity to move non-coal trade, including bulk grain and containers, from regional NSW to Newcastle. In addition, the Australian Rail Track Corporation (ARTC) has developed a range of rail infrastructure enhancement projects that will eliminate connectivity constraints on the rail network between regional NSW and Newcastle.

The Lower Hunter Freight Corridor would connect to the Hunter Valley Rail Network (servicing northwest and western regions of NSW) at Tarro, Beresfield and Hexham, thereby supporting interstate and regional freight movement to and from the Port of Newcastle. The future rail line would also support the future expansion of the Port of Newcastle by providing improved access to Sydney, regional NSW and interstate destinations.

The Port of Newcastle - Port Master Plan 2040 (Port of Newcastle, 2018) supports the utilisation and optimisation of existing road and rail transport infrastructure to their full capacity to support and improve the efficiency of the NSW freight task. It notes that 'incremental improvements in capacity on parts of the network do have overall positive impacts in terms of network efficiency' and expresses support for the Lower Hunter Freight Corridor (page 46).

## 5.2 Key theme: Consultation

Comments and questions on the effectiveness of the consultation process undertaken between 12 July 2021 and 27 September 2021 and planned future consultation with the community and stakeholders.

### 5.2.1 Lack of adequate consultation

#### 5.2.1.1 Community / key stakeholder issue

Concerns were expressed by the community and stakeholders that the consultation process was inadequate, including that the level of consultation provided was inadequate and that there was a lack of transparency of the consultation process. These concerns included:

- There was no dedicated effort by Transport to engage with the community on the Lower Hunter Freight Corridor.
- Consultation did not follow an appropriate or transparent process.
- The community and stakeholders should have been involved in the corridor planning process and presented with alternative options for their consideration and feedback.
- Directly impacted property owners only received notification that their properties would be impacted after the release of the recommended corridor.
- Indirectly impacted community members heard about the project only through word-of-mouth and not through direct consultation or notification.



- Property owners of land adjacent to the corridor should have been consulted during early consultation phases about both the corridor and State Environmental Planning Policy (SEPP) proposals, as this land will potentially be subject to restrictions on excavation and development activities once the corridor is secured.
- Directly impacted property owners and community members did not receive formal notification about the submissions period.
- Lower Hunter residents were not made aware of the information sessions held online in July 2021 to September 2021.
- The virtual engagement sessions were scheduled at inconvenient times.
- Participation from 571 residents and businesses is not representative of the Lower Hunter community and stakeholders.
- Issues raised by the community during the virtual engagement sessions were evaded or inadequately answered.
- There was insufficient time for the public to provide meaningful feedback for a project of this scale.
- Community and stakeholder feedback will not be adequately considered or responded to.
- A question about whether the community would be given the opportunity to provide any further feedback.

#### 5.2.1.2 Transport response

Community and stakeholder engagement has been an integral component in the identification of the Lower Hunter Freight Corridor (refer to Section 8 of the Draft Strategic Environmental Assessment). Since early 2015, Transport has consulted extensively with NSW State agencies and regulatory authorities during the corridor options development and assessment process, including the DPE, Department of Premier and Cabinet, Hunter and Central Coast Development Corporation, Lake Macquarie City Council, City of Newcastle and Local Aboriginal Land Council and community representatives. During this process, corridor options and alternatives were evaluated through a multi-criteria analysis that involved subject matter experts (e.g. ecologists, flooding and geology specialists, heritage experts and social planners) to identify a recommended corridor that represents the best balance between engineering and constructability, minimises impacts on the community, environment and land use planning, and achieves project objectives and business and operational requirements (discussed in Section 6.1.1 of this submissions report). Once a recommended corridor alignment was identified, Transport initiated consultation with the Lower Hunter community members and groups, councils, representative bodies and businesses to increase public understanding of the project and encourage participation in the corridor planning process.

The range of engagement activities carried out to date for the project are outlined in Section 2.3 of this submissions report. Consultation for the project was carried out from July 2021 to September 2021 during the global COVID-19 pandemic, which presented a unique set of challenges for any face-to-face engagement (refer to Section 2.3.5 of this submissions report). As such, the engagement strategy was adapted to focus predominately on digital engagement tools such as the Transport's website ([transport.nsw.gov.au/corridors](https://transport.nsw.gov.au/corridors)), Transport social media platforms (including Facebook), online meetings/workshops and virtual engagement sessions.

The community was advised of the consultation by an announcement advertised in various papers, community newsletters, postcards, brochures, posters and email notifications (refer to Section 2.3 of this submissions report). Online information about the consultation process was also posted on Transport social media platforms at regular intervals throughout the consultation and engagement period, to encourage participation in the consultation process and direct traffic to Transport's website for more information. The consultation process included:

- three virtual engagement sessions
- one Aboriginal virtual engagement session
- the provision of an online collaborative map on the Transport website, that allowed community and stakeholders to view the recommended corridor alignment and provide feedback
- online meetings/workshops with key stakeholder groups (including government agencies), representatives of residents, local councils and the freight industry.

One-on-one phone or MS Teams meetings with the project representatives were also available and the community and stakeholders were able to provide comments through the Transport's website, email, post and phone enquiries. These communication tools have provided a range of opportunities for the

community and stakeholders to be engaged and consulted, provide feedback and be involved throughout the consultation period.

The virtual engagement sessions were scheduled for early afternoon to avoid the morning and evening peak hours and provide more opportunity for community attendance. The aim of the virtual information sessions was to provide a high-level understanding of the project. Questions were answered by the project team both via the chat function in the virtual information session and live on camera. The team updated the FAQs documents progressively which were made available (and are still available) on the project's interactive online portal following the virtual information sessions to provide more detailed responses to the most popular questions from the sessions. Representatives from the DPE were part of the virtual engagement sessions to respond to specific planning matters, such as what the proposed rezoning and controls would mean for possible development.

Transport acknowledges that some technical difficulties were experienced during the first and third engagement sessions, so they were not able to be recorded. The project team apologies for any concern this has caused. A recording of the second engagement session on 17 August 2021 was published on the project's interactive online portal ([www.transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor](http://www.transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor)) to ensure the community had access to this discussion even if they were not able to attend. The recorded session has been viewed over 1,180 times during the exhibition period.

The consultation period for the Lower Hunter Freight Corridor was carried out over a period of 11 weeks between 12 July 2021 and 27 September 2021 which is consistent with consultation periods applied to other comparable large transport projects.

Feedback and issues received by stakeholders and the community during the engagement program have been considered and responded to in this submissions report. A summary of changes to the alignment that have occurred as a result of community and stakeholder feedback is provided in Chapter 4 of this submissions report.

Ongoing engagement with the community and stakeholders will be carried out during future design development and planning approvals phases of the project, as described in Section 5.2.2. The project phone number (1800 837 511) and email ([corridors@transport.nsw.gov.au](mailto:corridors@transport.nsw.gov.au)) remain available as channels for the community and stakeholders to find out more information about the project, ask further questions or provide feedback, although the official consultation period for the Lower Hunter Freight Corridor has closed.

## 5.2.2 Future consultation

### 5.2.2.1 Community / key stakeholder issue

Requests for further consultation to be carried out with communities and stakeholders, including:

- requests to carry out face-to-face consultation once COVID-19 restrictions are lifted
- requests to maintain ongoing consultation with communities and stakeholders about the potential impacts of the project.

### 5.2.2.2 Transport response

An extensive community and stakeholder engagement process has been carried out for the identification of the recommended corridor as described in Section 5.2.1. Transport has taken into consideration feedback received during this consultation period and has refined the recommended corridor where appropriate (refer to Section 4 of this submissions report).

Transport aims to engage in an open, proactive and transparent community and stakeholder engagement and consultation process throughout future design and development phases of the Lower Hunter Freight Corridor. Future freight rail infrastructure may not be required in the corridor for many years or decades.

Further consultation on the future project development and planning approvals phase of the project will occur in the future, when freight rail infrastructure is likely to be required in the corridor. Transport will be required to submit a State Significant Infrastructure Application to propose the design, operation and construction of the future freight infrastructure. In assessing the State Significant Infrastructure Application, the DPE is required to assess the impacts of the infrastructure and the appropriateness of any proposed mitigation measures. The State Significant Infrastructure Application will be placed on public exhibition once lodged with the DPE. At this future stage of design development, additional details will be made available to communities and stakeholders.



### 5.3 Key theme: Future stages

Comments and questions about future stages of the corridor protection process and project development.

#### 5.3.1 Corridor protection and future rail infrastructure

##### 5.3.1.1 Community / key stakeholder issue

Questions and comments about future stages of the project, including:

- A question on how long the corridor would be protected for.
- A request for more information about the next stage in the planning process.
- Recommendations for Transport to develop timely, streamlined review mechanisms to scrutinise and approve or reject development proposals that fall within or near the rezoned corridor.
- Comments and questions about the cost of the project.
- The business case for the project should consider the project being utilised for a diversity of freight transportation uses, not just coal transportation, which will reflect the current and future transition away from coal.
- Questions about the timing of property acquisitions and construction of future rail infrastructure.

##### 5.3.1.2 Transport response

Future stages of the project are outlined in Section 10 of the Draft Strategic Environmental Assessment.

As yet, there is no commitment to the timing for future freight rail infrastructure, although future freight rail infrastructure is likely to be required in 10 to 20 years. The protection and rezoning of the corridor for future freight rail infrastructure is an important first step in ensuring that the land is available when a decision is made to progress with the project.

The DPE has prepared an Explanation of Intended Effects (available at [www.planning.nsw.gov.au/Policy-and-Legislation/State-Environmental-Planning-Policies/Corridor-Protection-SEPP](http://www.planning.nsw.gov.au/Policy-and-Legislation/State-Environmental-Planning-Policies/Corridor-Protection-SEPP)), which details how the corridor is proposed to be protected under an amendment to Chapter 4 of the Transport and Infrastructure SEPP. The Explanation of Intended Effects was on exhibition alongside the Draft Strategic Environmental Assessment for the recommended corridor alignment.

All feedback received during the public consultation process for the Lower Hunter Freight Corridor has been considered to refine the alignment of the recommended corridor and proposed amendment to the Transport and Infrastructure SEPP.

Once Transport has finalised the alignment for the Lower Hunter Freight Corridor and Strategic Environmental Assessment and released the submissions report to the public, a formal request will be made to the DPE to protect the corridor. The DPE will consider the finalised Strategic Environmental Assessment and submissions report to determine whether the protection of the corridor under the Transport and Infrastructure SEPP should be supported and provide a recommendation to the Minister for Planning and Homes.

If an amendment to Chapter 4 Of the Transport and Infrastructure SEPP (formerly the State Environmental Planning Policy (Major Infrastructure Corridors) 2020) is made, land within the recommended corridor will be rezoned SP2 Infrastructure – Future Infrastructure Corridor and new planning controls will apply. This will ensure that new development will not inhibit the delivery of the freight line in the future. Transport will then notify relevant landowners of the protection of the Lower Hunter Freight Rail Corridor.

When assessing a development application for development on land where Chapter 4 of the Transport and Infrastructure SEPP applies, the consent authority must consider whether the proposed development will compromise, restrict or otherwise prevent the future use of the land for infrastructure (refer to Section 8.2.3 of this submissions report).

The Transport and Infrastructure SEPP provides a pathway for the assessment of land uses that were previously permissible on the land prior to the rezoning of the corridor to SP2 Infrastructure – Future Infrastructure Corridor. Where a development application for a previously permissible use has a capital investment value of more than \$200,000 or proposes excavation within or adjacent to the corridor with a depth of two metres or greater, the consent authority is required to refer the application to Transport for

concurrence. The Transport and Infrastructure SEPP includes the considerations for which Transport are to provide a concurrence assessment.

All major infrastructure investment decisions taken by the NSW Government are required to be supported by a final business case. A business case will be prepared for the project in accordance with NSW Treasury guidelines, outlining the analysis and information required to assess how the project would support government objectives and priorities, consideration and mitigation of risks, which option represents the greatest value for money and how the project would be financed, funded and delivered. This will include the consideration of all freight transport uses of future rail infrastructure in the recommended corridor. Consistent with NSW Government policy, a summary of the business case for the project will be released by Infrastructure NSW at an appropriate time once an investment decision has been made. Prior to the delivery of the infrastructure, Transport will lodge a State Significant Infrastructure Application for the proposed design, construction and operation of the infrastructure. This will be assessed by the DPE in accordance with the *Environmental Planning and Assessments Act 1979* and will include a public engagement phase.

There is no intention or need to immediately acquire land or property for the recommended corridor. The acquisition of land generally occurs following approval for the construction of the project which will be 10 to 20 years into the future.

Once a corridor has been rezoned, property owners may have an opportunity to initiate early acquisition under hardship provisions of the *Land Acquisition (Just Terms Compensation) Act 1991* before the land is needed by the government. Following a decision to protect a corridor, and if property owners wish to pursue early acquisition, property owners can approach Transport to further discuss property acquisition. Further information on early acquisition and other property acquisition matters are provided in Section 9.2 and on the Transport project website ([transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor](https://transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor)).

## 6. Alternative options

This section relates to concerns about the adequacy of the options development and assessment process and alternative options that were considered to minimise environmental and property impacts. Alternative alignments and other options were suggested to avoid these impacts.

### 6.1 Key theme: Options development and assessment

Concerns and questions about the options development and assessment process.

#### 6.1.1 Adequacy of options development and assessment process

##### 6.1.1.1 Community / key stakeholder issue

The community and stakeholders raised comments and concerns about the adequacy of the options development and assessment process, including:

- Concerns that the full range of options and urban development considerations associated with new rail infrastructure have not been considered.
- No substantive corridor options were considered other than several deviations of the same general route and a 'Do nothing' option.
- Questions on whether issues like transport needs, route suitability, settlement, land use, topography, travel times, impacts on the community and other environmental impacts were considered during the options development and assessment process.
- No option has been considered that would avoid impacts on suburbs.
- There is no clear indication as to why the recommended corridor was selected from the range of options.
- A question on whether areas of concern were surveyed on site during the options development and assessment process.
- A cost-benefit analysis has not been carried out for the options.

##### 6.1.1.2 Transport response

The project has undergone an extensive options development and assessment process, supported by a multi-criteria analysis of the options, as outlined in Section B1 of the Draft Strategic Environmental Assessment. A wide range of social, environmental, economic, constructability and operational criteria were considered during this process as follows:

- An initial constraints and opportunities analysis was carried out to refine the broad investigation area and identify the areas that would be considered for further investigation. This analysis considered issues such as topography, land use, biodiversity, geotechnical considerations (e.g. mine subsidence), heritage, flooding and hydrology, the proximity to noise sensitive receivers, utilities and existing and planned transport infrastructure.
- A range of possible corridors were identified across the southern, central and northern sections of the investigation area (long list of options), based on the project objectives, business requirements and the constraints and opportunities analysis. A total of eleven corridor options were identified for further analysis, as shown in Figure B.2 of the Draft Strategic Environmental Assessment.
- A multi-criteria analysis process was used to examine the comparative performance of the long list of corridor options. This was based on six criteria and sixteen sub criteria, which considered environmental, socio-economic and constructability factors as well as the project objectives and business and operational requirements. The project team and other subject matter experts (e.g. ecologists, flooding and geology specialists, heritage experts, and social planners) scored the options through a collaborative process that involved consideration of these criteria with the aid of constraints and opportunities mapping. From this analysis, four shortlisted options were identified, as shown in Figure 6.1 of the Draft Strategic Environmental Assessment.
- The shortlisted options were evaluated again via a detailed multi-criteria analysis process, which considered criteria relating to freight movement, economic growth, community impacts, environmental impacts, integrated land use and transport and future proofing, as well as the initial

multi-criteria analysis scores, specific issues raised during the multi-criteria analysis deliberations and further inputs from subject matter experts. The comparative analysis of sub-options also involved consideration of relative advantages and disadvantages of each shortlisted option.

The recommended corridor was ranked highest at the completion of the multi-criteria analysis process as it represents the best balance between engineering and constructability, minimises impacts on the community, environment and land use planning, avoids complex structures such as significant tunnels or bridges/viaducts and meets the objectives of the project.

The options development and assessment process involved high level strategic assessments of the criteria mentioned above, based on relevant literature and desktop studies. Further detailed investigations would be required to confirm potential impacts as part of the next phase of design development, which would include site surveys.

Costs were considered during the multi-criteria analysis process as follows:

- Costs to operate and maintain the new corridor were compared to operating and maintaining the existing route. This considered amongst other metrics the gradients of each option, i.e. those with more increases in gradients will generate increases in fuel consumption and emissions.
- The ability of each option to support the Hunter region's long term economic growth by providing freight rail capacity (i.e. considering cost effective ways of constructing and delivering the project) and certainty for investment (i.e. creating opportunity through increased rail freight capacity for businesses to invest in the region) was evaluated.
- Sustainability indicators, including the ability of options to adapt to future engineering and economic challenges, such as future upgrades/extensions to the corridor and more flexible freight rail operations (i.e. potential 'double stacking' of containers on freight trains – noting broader network changes would need to be made to accommodate these operations), was considered.

More detailed cost-benefit analyses would be undertaken as part of the development of a business case for the construction and operation of future freight rail infrastructure (refer to Section 5.3.1).

## 6.2 Key theme: Alternative options

Suggestions to upgrade existing rail infrastructure, interchanges and crossings instead of preserving the corridor.

### 6.2.1 Upgrades to existing rail infrastructure, interchanges and crossings

#### 6.2.1.1 Community / key stakeholder issue

It was suggested by the community and stakeholders that existing rail lines such as the Main North Rail Line, Richmond Vale Railway Line and South Maitland Railway Line be used for freight services rather than constructing a new rail corridor.

Suggestions to construct new overpasses to replace level crossings and to upgrade interchanges instead of building a new railway and tunnel.

#### 6.2.1.2 Transport response

There are currently no alternatives for rail freight services to bypass Newcastle, even if they are just travelling through the region. With all rail traffic forced to travel through the inner suburbs of Newcastle, trains that do not have a destination in Newcastle are contributing to congestion, extended transit times and unreliable services. This includes impacts on passenger services.

Any upgrade of the existing network would therefore be a less desirable option to a future freight bypass in terms of operation and efficiency and would likely raise the intensity of existing land use conflicts. However, the use of existing rail infrastructure for the corridor alignment was considered during the options development and assessment process as an opportunity to minimise impacts on land use, future construction costs and constructability risks (refer to Section 5.2 and Appendix B of the Draft Strategic Environmental Assessment).

Alignments along previously developed railways were eventually discounted based on a number of engineering, socio-economic, biodiversity, heritage constraints and operational requirements, as discussed below.

### Main North Rail Line

The upgrade of the existing operational Main North Rail Line between Fassifern and Broadmeadow would be limited to a single rail line within the existing corridor along its western edge. Transport has advised that this option would require upgrades to numerous existing bridges, and potential modifications to the Fassifern and Adamstown stations. Upgrading the existing railway network through these built-up urban areas would likely have significant and direct property impacts and expose a larger number of existing homes to higher amenity impacts due to the increased freight services and proximity to the expanded rail corridor. It would also further exacerbate the congestion issues caused at the level crossings in Adamstown and Islington.

The main impact of expanding the existing Main North Rail Line corridor would be noise from trains negotiating 4.5 kilometres of tight radius curves, including through the townships of Cardiff and Teralba. The areas around the existing railway are also undergoing residential development and urban renewal, meaning additional homes would significantly reduce the viability of expanding the existing rail corridor to accommodate dedicated freight lines.

### Richmond Vale Railway Line

The Richmond Vale Railway Line runs along a disused rail corridor from Hexham through Stockrington to Kurri-Kurri. Three of the five Northern connection options that were considered during the options development and assessment process were partly aligned along the Richmond Vale Railway corridor, as shown in Figure B.2 of the Draft Strategic Environmental Assessment.

The railway embankment of the Richmond Vale Railway corridor was found to be structurally unsuitable for a modern freight rail line and would generally require complete removal and reconstruction to make it suitable for current engineering and operational requirements. Use of the embankment as a future freight rail corridor could also impact the highly sensitive environmental areas of the Pambalong Nature Reserve, Tank Paddock and Hunter Wetlands National Park (preserved under the State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP)) and further sever important pathways of Aboriginal cultural significance that link Hexham Swamp to the Sugarloaf Range. The embankment has also been identified by the City of Newcastle for a proposed cycleway (the Richmond Vale Rail Trail) and a development application is currently under consideration for the first stage of the project (refer to Section 7.2.2 of this submissions report).

### South Maitland Railway Line

The South Maitland Railway Line runs from Cessnock via Kurri Kurri to Maitland. One of the Northern connection options considered during the options development and assessment process was the Four Mile connection that extended from West Wallsend via Kurri Kurri towards Maitland. This option was not progressed further as it would have significantly longer journey impacts, greater impacts to private property and areas of National Park, increased subsidence risks and other engineering challenges which would increase cost and constructability risks. The recommended corridor alignment was preferred since it is located closer to the Port of Newcastle and would allow interstate and regional travel to continue.

## 6.3 Key theme: Alternative alignments

Suggestions received by the community and stakeholders for alternative corridor alignments to avoid impacts on the environment and/or properties.

### 6.3.1 Hunter Link Rail

#### 6.3.1.1 Community / key stakeholder issue

A Hunter Link Rail Line was proposed that largely follows existing rail and road corridors to connect Fassifern, Glendale, Kurri Kurri and Maitland. The southern section from Fassifern to West Wallsend would follow the recommended corridor alignment, from where it would continue northwest to Kurri Kurri and Maitland. The Hunter Link Rail Line would provide a shorter freight bypass of Newcastle, avoid impacts on the Watagan-Stockton biodiversity corridor by tunnelling beneath the northern flank of the Sugarloaf Range, avoid flood-susceptible sections near Hexham and be able to accommodate passenger services in addition to freight services.

### 6.3.1.2 Transport response

The main objectives of the Lower Hunter Freight Corridor are to separate passenger and freight rail services by bypassing Newcastle's metro region, thereby reducing network congestion and improving travel times and reliability for both freight and passenger rail services. The recommended corridor has also sought to avoid existing and planned communities and utilise government owned land as the project aims to alleviate current and future issues for both freight and passenger rail services.

The use of complex structures such as tunnelling has been minimised in the design of the recommended corridor to ensure economic feasibility of the project (refer to Section 6.5.1 of this submissions report). The strategic assessment of ecological constraints and impact mitigation corridor design enabled high biodiversity areas to be avoided where possible and reduce the potential impacts of any future freight rail line (refer to Section 8.4.2 of this submissions report). Transport actively mitigates the biodiversity impacts of major infrastructure projects through the identification and preservation of biodiversity offset lands. Strategically located Government owned land has been identified that will be considered as potential offset areas and would extend and adjoin existing National Parks and Wildlife Service (NWPS) estate (refer to Section 8.4.4 of this submissions report).

The recommended corridor would cross into the north western and northern margins of Hexham Swamp. Since the New England Highway and the existing Main North Rail Line at this location are currently flooded during the five per cent Annual Exceedance Probability (AEP) or greater flood events, the landscape in this location was not considered a major constraint for the project due to the fact that rail services on the existing Main North Rail Line would currently be suspended during such flood events. Future freight line infrastructure and connections to the existing rail network would be designed to minimise flood impacts on existing infrastructure and property near Tarro and Hexham (e.g. via viaducts or other alternative engineering solutions) (refer to Section 8.7 of this submissions report).

## 6.3.2 Port Side Rail Line

### 6.3.2.1 Community / key stakeholder issue

Recommendations to include a Port Side Rail Line in the Lower Hunter Freight Corridor to connect Dyke Point at Newcastle Harbour to the major rail facilities at Hexham. The proposed Portside Rail Line would follow the southern bank of the south arm of the Hunter River and link the existing rail lines from Dyke Point to a rail corridor that leads to Kooragang Island. The Port Side Rail Line would allow for the closure of the Selwyn Street rail lines and the Islington Rail Junction, thereby improving passenger rail services and reducing impacts on a large number of residents. The Portside Rail Line would also reroute the transport of coal from the Carrington Coal Terminal away from the residential areas and service the movement of containers from the proposed container terminal at Mayfield.

### 6.3.2.2 Transport response

One of the project's main objectives is to separate freight and passenger rail services to improve reliability and capacity on both freight and passenger rail networks (refer to Section 3.1 of the Draft Strategic Environmental Assessment). Removing freight services along the existing Main North Rail Line will allow for additional capacity on the freight rail network as well as additional passenger rail services to connect communities with jobs and services, resulting in less service delays and reduced travel times.

The recommended corridor has sought to avoid residential areas and future residential growth areas to the greatest extent possible to avoid impacts on residents. When the rail infrastructure is required in 10 to 20 years, the designs for the future rail infrastructure will be subject to a further environmental assessment and approval process and refinement to avoid and minimise impacts on communities and traffic and transport as far as possible.

The Lower Hunter Freight Corridor would connect to the Hunter Valley Rail Network (servicing north-west and western regions of NSW) at Tarro, Beresfield and Hexham, thereby supporting interstate and regional freight movement to and from the proposed container terminal in Mayfield.

Although the proposed Port Side Rail Line is located outside the investigation area for the project, it could be investigated in the future as a separate proposal.



### 6.3.3 Extended corridor

#### 6.3.3.1 Community / key stakeholder issue

From community and stakeholder submissions, it was suggested that the corridor be extended along the whole of the north coast from Sydney to Brisbane.

#### 6.3.3.2 Transport response

The key objective of the Lower Hunter Freight Corridor is to allow for a dedicated freight rail line to bypass Newcastle's urban areas and increase the efficiency and reliability of the rail network for both freight and passenger services, thereby supporting growth across the Hunter region. The corridor has therefore been limited to the area between Fassifern and Hexham to achieve the objectives and operational and business requirements for the project. However, the project does not preclude the extension or construction of a future freight line from Sydney to Brisbane.

### 6.3.4 West Wallsend Colliery

#### 6.3.4.1 Community / key stakeholder issue

It was suggested by the community and stakeholders that the Lower Hunter Freight Corridor should be realigned to run along the south-western side of West Wallsend Colliery instead of the north-eastern side, so that it would be located further away from residential areas.

#### 6.3.4.2 Transport response

In response to community concerns about the potential impacts on residential areas in Barnsley near West Wallsend Colliery (along Bendigo Street and Charlton Street), Transport has moved the corridor alignment further to the west, as shown in Figure 4.1, to further minimise noise and amenity impacts on residents in Barnsley (refer to Section 4.1 of this submissions report).

### 6.3.5 M1 Pacific Motorway

#### 6.3.5.1 Community / key stakeholder issue

Suggestions for the corridor alignment to divert from the existing rail line south of Awaba to the west of the M1 Pacific Motorway to avoid impacts on growing suburban areas, including Killingworth, Barnsley, Holmesville, West Wallsend and Cameron Park, or following the alignment of the M1 Pacific Motorway as much as possible.

#### 6.3.5.2 Transport response

Alternative corridor alignments for the Lower Hunter Freight Corridor, including alignments west of the M1 Pacific Motorway, were assessed during the options development and assessment process described in Appendix B of the Draft Strategic Environmental Assessment. The process was supported by a multi-criteria analysis that was based on a range of criteria that considered the objectives and operational requirements for the Lower Hunter Freight Corridor and environmental and socio-economic factors, including topography, slope stability, existing infrastructure, urban areas, present and past mining activity and areas of ecological importance (refer to Section 6.1.1 of this submissions report).

The analysis indicated that options located to the west of the existing M1 Pacific Motorway corridor are generally less feasible due to:

- Longer travel times to the Port of Newcastle compared with other options and the existing rail network through Newcastle between Fassifern and Hexham.
- Areas of significant ecological importance located west of the M1 Pacific Motorway, including Pambalong Nature Reserve, Mount Sugarloaf National Park and biodiversity offset lands that have been dedicated to the NSW Government at Stockrington.
- Undulating land with steeper slopes. West of the M1 Pacific Motorway, options would require significant tunnelling in challenging areas for construction which include existing areas of National Park. Aside from substantial cost, long tunnels for rail freight present challenges for future operation and potential significant reductions in service capacity.
- Unstable terrain due to mine subsidence. The Sugarloaf Range west of the M1 Pacific Motorway has a history of geological instability and subsidence events.

- Significant potential impacts for existing communities at Thornton and Tarro resulting from a future rail junction near Thornton.

Due to these considerations, as well as interface considerations with existing road infrastructure at both George Booth Drive and the Hunter Expressway, the recommended corridor is located on the eastern side of the M1 Pacific Motorway until north of the Hunter Expressway at Cameron Park.

While the proximity of the M1 Pacific Motorway to Awaba Station relative to Fassifern Station is 1.4 kilometres closer, an earlier deviation of the Lower Hunter Freight Corridor at Awaba Station would result in a minimum of five kilometres of additional double track freight rail thereby lengthening the corridor but also very likely impacting significant areas of the Sugarloaf Conservation Area, which is located on both sides of the M1 Pacific Motorway between Awaba and Fassifern.

The recommended corridor includes or follows the alignment of existing and planned infrastructure corridors, including the M1 Pacific Motorway, where practicable to minimise the overall infrastructure footprint and impacts on property, biodiversity and visual amenity. However, it is acknowledged that this would also result in some cumulative impacts (such as noise).

The recommended corridor was ranked highest at the completion of the multi-criteria analysis process as it represents the best balance between engineering and constructability, minimises impacts on the community, environment and land use planning, avoids complex structures such as significant tunnels or bridges/viaducts and meets the objectives of the project.

### 6.3.6 Avoiding residential areas between Hexham and Port of Newcastle

#### 6.3.6.1 Community / key stakeholder issue

It was suggested that the recommended corridor be realigned near Hexham so that it crosses over Maitland Road and the Hunter River to Kooragang Island and continue south to maintain a reasonable distance from the residential suburb of Mayfield up to a point where it can cross the river again at Tighes Hill or Carrington. This alignment would minimise impacts on Inner Newcastle communities, such as Mayfield, and support economic growth.

#### 6.3.6.2 Transport response

Crossing of the Hunter River from Sandgate/Mayfield West to Kooragang Island would incur significant construction costs and increase construction complexity. The multi-criteria analysis of project options carried out during the options development and assessment process focused on six criteria which included integration of existing transport and coordination of precinct planning (refer to Section 6.1.1 of this submissions report). The recommended corridor was ranked highest at the completion of the multi-criteria analysis process as it represents the best balance between engineering and constructability, minimises impacts on the community, environment and land use planning, avoids complex structures such as significant tunnels or bridges/viaducts and meets the objectives of the project.

## 6.4 Key theme: Use of corridor

Comments and suggestions about the future use of the corridor.

### 6.4.1 Passenger and multi-use services

#### 6.4.1.1 Community / key stakeholder issue

Suggestions were made by the community and stakeholders that the Lower Hunter Freight Corridor should allow for passenger rail services and/or other transport uses, such as the future Sydney/Newcastle fast rail or faster rail planned by the NSW Government and active transport, as it would be more consistent with transit-orientated development policy and other current rail projects, such as the Sydney Metro and Sydney Bradfield Airport. Requests were made to build new stations along the corridor.

Concerns were raised by the community and stakeholders that the Lower Hunter Freight Corridor would use the only viable corridor for the future fast rail line between Sydney and Newcastle.

#### 6.4.1.2 Transport response

The key objective of the Lower Hunter Freight Corridor is to allow for a dedicated freight rail line between Fassifern and Hexham to bypass Newcastle's urban areas to help businesses and industry move freight more efficiently, thereby supporting growth across the Hunter region. Although the corridor is not intended for the use of passenger rail or a future fast rail or faster rail service, it does not preclude the construction of a passenger rail line through the Lower Hunter in the future. Since the route has been designed to provide a rail bypass of Newcastle for freight and avoid communities where practicable, stations have not been actively considered in the design of the alignment.

The separation of freight and passenger services on the Main North Rail Line, as a result of providing the Lower Hunter Freight Corridor infrastructure, will help deliver increased passenger rail capacity on the Main North Rail Line and increase the efficiency and reliability of the rail network for both passenger and freight services.

A Fast Rail Program is being planned by the NSW Government to improve passenger travel times on the existing network between Sydney and Newcastle (more information available at [www.nsw.gov.au/projects/a-fast-rail-future-for-nsw](http://www.nsw.gov.au/projects/a-fast-rail-future-for-nsw)). A 'Faster Rail Plan' has also been released by the Australian Government setting out the commitments of the Australian Government to a faster rail network that, in combination with Fast Rail, includes the objective of improving travel times between Sydney and Newcastle (more information available at [investment.infrastructure.gov.au/files/national\\_rail\\_program/Faster-Rail-Plan.pdf](http://investment.infrastructure.gov.au/files/national_rail_program/Faster-Rail-Plan.pdf)).

Fast or faster rail between Sydney and Newcastle is currently being investigated for feasibility and details of any future route are yet to be released. As this investigation advances, it would need to consider possible implications with future infrastructure associated with the Lower Hunter Freight Corridor.

The Lower Hunter Freight Corridor would complement the planned Fast Rail Program and Faster Rail Plan by removing rail freight from the Main North Rail Line and allowing an increase in passenger services that would be more reliable, faster and capable of meeting future demand. The Lower Hunter Freight Corridor would also complement and help to maximise the benefits of a number of other transport infrastructure projects being planned and delivered by the Australian Government, NSW Government and local government, such as regional cycleways projects.

### 6.5 Key theme: Tunnelling

Suggestions for tunnels instead of above ground structures to minimise impacts.

#### 6.5.1 Support for tunnelling to minimise impacts

##### 6.5.1.1 Community / key stakeholder issue

Suggestions for tunnels instead of above ground structures to minimise disruption to communities and impacts on the environment, including ecological, noise and amenity impacts.

##### 6.5.1.2 Transport response

As complex structures such as tunnels often result in increased construction complexity and construction and operational costs (Infrastructure Australia, 2017), the requirement for tunnelling has been limited as far as is practicable in the selection of the recommended corridor.

It is anticipated that the steeper terrain where the recommended corridor leaves the Main North Rail Line north of Fassifern would require a 1.6 kilometre tunnel for the future freight rail line to achieve desirable rail gradients. This tunnel would minimise ecological impacts, as well as noise and amenity impacts on the Fassifern community.

## 7. Design

This section relates to comments and questions about the corridor alignment, design of road and rail intersections and future rail infrastructure and consideration of mine subsidence in tunnel design.

### 7.1 Key theme: Recommended corridor

Comments and questions about the recommended corridor design and alignment.

#### 7.1.1 Corridor design and alignment

##### 7.1.1.1 Community / key stakeholder issue

Comments, concerns and questions were raised in relation to the design and alignment of the recommended corridor, including:

- Comments that the map of the recommended corridor is not very clear.
- Concerns that a detailed layout with tunnels, bridges and crossings has not been provided.
- Questions about where the corridor would be located in relation to The Broadway near Barnsley.
- Questions on whether the former South Maitland Railway would form part of the alignment.

##### 7.1.1.2 Transport response

A map of the recommended corridor is provided in Figure 6.2 of the Draft Strategic Environmental Assessment. More detailed maps of the recommended corridor are available on the Transport's website ([www.transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor](http://www.transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor) - see 'Property Impact Maps for Lower Hunter Freight Corridor') and in Attachment A of the Explanation of Intended Effects for the protection of the corridor ([www.planning.nsw.gov.au/-/media/Files/DPE/Other/LowerHunterFreightCorridor\\_210709.pdf](http://www.planning.nsw.gov.au/-/media/Files/DPE/Other/LowerHunterFreightCorridor_210709.pdf)). The mapping provided on the Transport website illustrated the proposed alignment in relation individual lot boundaries. These maps would be updated once the recommended corridor alignment is finalised.

In response to community and stakeholder feedback since the exhibition of the Draft Strategic Environmental Assessment, Transport has made further changes to the corridor alignment at Barnsley and West Wallsend. These changes are described in Section 4 of this submissions report and are as follows:

- The corridor has been moved further north of the former West Wallsend (No 1) Colliery near Johnston Park north of West Wallsend, to minimise impacts on the Heritage Mining Park proposed within the grounds of the colliery (refer to Figure 4.2).
- Near Barnsley, the corridor has been moved further to the west, to minimise impacts on residents (refer to Figure 4.1).

The former South Maitland Railway Line would not form part of the recommended corridor alignment, as discussed in Section 6.2.1 of this submissions report.

### 7.2 Key theme: Intersections

Comments on how road and rail intersections would be designed to minimise traffic and transport impacts and safety risks.

#### 7.2.1 Existing and proposed roads

##### 7.2.1.1 Community / key stakeholder issue

The community and stakeholders raised questions about the types of crossings that would be provided at intersections with existing roads, including the M1 Pacific Motorway, Wakefield Road, Killingworth Road, The Broadway, Rhonda Road and Minmi Road. Concerns were raised about the number of crossings and grade separations required where the recommended corridor intersects the proposed M1 Pacific Motorway extension to Raymond Terrace.

### 7.2.1.2 Transport response

The recommended corridor would not impact existing and proposed road networks along the corridor as future freight rail infrastructure would be grade separated from the road network, including the M1 Pacific Motorway, Wakefield Road, Killingworth Road, The Broadway and Rhonda Road. Grade separation of roads refers to the placement of roads at a different grade or elevation using tunnels, ramps or bridges and is used to improve traffic flow without stopping or slowing where roads, rails or paths cross.

The recommended corridor is located over 500 metres from Minmi and does not propose to cross Minmi Road.

It is expected that the M1 Pacific Motorway extension to Raymond Terrace would be constructed before the future Lower Hunter Freight Line. The recommended corridor is located to the south of the proposed motorway extension between Black Hill and Tarro and would cross under a proposed road bridge that would span the New England Highway (Maitland Road), Main North Rail Line and Hunter River. The location of the recommended corridor has been determined in liaison with the project team for the M1 Pacific Motorway project to future proof the construction of the freight infrastructure without impact to the proposed road infrastructure (based on the current concept design). The Lower Hunter Freight Corridor project team would continue to engage with the M1 Pacific Motorway project team to ensure both infrastructure projects are appropriately designed at this location.

During future detailed design, a detailed assessment of any infrastructure constraints would be carried out and any issue would be mitigated during the design and construction phases in 10 to 20 years when the freight line is required.

## 7.2.2 Richmond Vale Rail Trail

### 7.2.2.1 Community / key stakeholder issue

Concerns were raised about the two intersections of the Lower Hunter Freight Corridor with the Richmond Vale Rail Trail. The intersection at Lenaghan would need to consider two nearby sensitive environments, the Tank Paddock and Pambalong Nature Reserve. The amenity of Lenaghan/Stockrington residents would need to be considered, as well as any future widening of the M1 Pacific Motorway. The intersection near Tarro involves a complex set of intersections between different transport routes and modes, including the proposed M1 Pacific Motorway extension to Raymond Terrace, the New England Highway and Tarro interchange, the Aurizon access road, the Main North Rail Line and Tarro station as well as the Richmond Vale Rail Trail. Suggestions were made to provide separated underpasses for the Richmond Vale Rail Trail and the realigned Aurizon access road at the Tarro intersection.

A request was made to amend the Draft Strategic Environmental Assessment to identify the Richmond Vale Rail Trail as a current transport infrastructure proposal.

### 7.2.2.2 Transport response

The Richmond Rail Vale Trail is a project lead by Newcastle City Council and is assumed to be constructed and operational before the construction of any future rail freight infrastructure ([newcastle.nsw.gov.au/council/news/projects-and-works/richmond-vale-rail-trail](http://newcastle.nsw.gov.au/council/news/projects-and-works/richmond-vale-rail-trail)). Transport will work with Newcastle City Council to ensure that the Lower Hunter Freight rail infrastructure project design minimises impacts on the future bicycle trail project.

The future design and construction of the freight line infrastructure will address the intersection of the recommended corridor and the Richmond Vale Rail Trail at Lenaghan and Tarro to ensure continued operation of the cycleway and minimise impacts on existing road and rail infrastructure and nearby sensitive environments and receivers. The elevation difference between the proposed level of the future rail line and the level of the Richmond Vale Rail Trail at these locations will ensure that there will be no impact on the operation of the future cycleway.

### 7.2.3 Rail infrastructure

#### 7.2.3.1 Community / key stakeholder issue

Requests for adequate provision for grade separation and crossover of the existing rail lines at Hexham, to ensure freight has unimpeded paths and no conflict is created.

#### 7.2.3.2 Transport response

The recommended corridor would connect to the existing rail network at Hexham on the Hunter Valley Rail Network. At this location, the Hunter Valley Rail Network supports the interstate and regional freight movements to/from Northwest NSW and Brisbane (Up Main/Down Main), and movements to/from the Port of Newcastle (Up Coal/Down Coal). The northern connection (at Tarro / Beresfield) would need to cross over the Up and Down Main and Coal lines and provide for dual tracks to facilitate parallel movements from the Lower Hunter Freight Corridor to and from the west. The southern connection (at Hexham) would cross over the Down Coal line and provide for dual tracks to facilitate parallel movements to and from the Lower Hunter Freight Corridor. Minor adjustments to the existing lines to enable these connections may be required within the recommended corridor. Each connection would be around 2.2 kilometres long to provide storage for freight trains before the main line connection. This would provide sufficient storage to avoid standing trains on the main line of the future Lower Hunter Freight Line.

## 7.3 Key theme: Consideration of mine subsidence

Questions about whether mine subsidence has been considered in the selection of the recommended corridor.

### 7.3.1 Consideration of mine subsidence

#### 7.3.1.1 Community / key stakeholder issue

Questions about whether the potential impacts of mine subsidence have been considered in identifying the recommended corridor alignment, including the engineering challenges it will present to tunnelling.

#### 7.3.1.2 Transport response

The Hunter region's mining history and the potential risk that it presents to the construction and operation of future rail infrastructure was a key consideration during the options development and assessment process, as described in Section 5.1.4 and Section 7.7.1 of the Draft Strategic Environmental Assessment. The investigation area for the project traverses eight existing mine sites, predominantly in the southern portion, with one mine site north of Black Hill.

The geological instability that results from historical mine workings could increase construction complexity and impact the structural integrity of future rail infrastructure. Within the recommended corridor, there is a risk of encountering unstable rock, abandoned mine workings, or ground affected by mine subsidence between Fassifern and Minmi. The recommended corridor north of Minmi is generally unaffected by underground mining and subsidence issues.

The future design phases of infrastructure in the recommended corridor would need to address undermining and possible subsidence. The design of all tunnels, slopes, earthworks and foundations would be subject to geotechnical field investigations, materials testing and analysis as part of the next phase of project development to determine the extent of subsidence risk. Additionally, consultation with industry, affected mine owners, Subsidence Advisory NSW and the Division of Resources and Geoscience within the DPE would need to be carried out to ensure the future freight rail design is compatible with existing and future mine operations.



## 7.4 Key theme: Future rail infrastructure

Questions about the design and operation of future rail infrastructure.

### 7.4.1 Future rail infrastructure

#### 7.4.1.1 Community / key stakeholder issue

Comments and questions about the operation of future rail infrastructure, including:

- Requests for more information about future train services, including the volume and length of trains that will be using the train line, the frequency, origin and destination of train services, type of freight that will be transported, whether double stacking will be allowed and the locations of maintenance facilities, freight loading/unloading and transfer facilities, sidings and stations.
- Requests to allow for double tracks with minimal grades and curves, that would allow for full-size loaded coal trains.
- For both Newcastle Airport and the Port of Newcastle to fully realise their potential as global gateways, it is imperative that the selected rail corridor enables 24/7 rail freight operation.
- Questions on who will own the rail line and whether ongoing upgrades and maintenance would be the owner's responsibility.

#### 7.4.1.2 Transport response

The recommended route has been designed to satisfy the design and operational requirements outlined in Table 3.1 of the Draft Strategic Environmental Assessment. These requirements have been developed so that any future infrastructure would meet current industry and rail design standards for operational efficiency, rail safety and to minimise emissions (noise and air). These requirements include specifications for formation width, maximum corridor width, minimum speed of trains, curve radii, noise guidelines, minimum corridor clearance and train length. The recommended corridor would allow for trains up to 1,800 metres in length and double stacked trains where possible. The proposed double stacking design clearance enables potential electrification of the rail line if required in the future.

Future rail infrastructure within the recommended corridor would connect the Main North Rail Line with the Hunter Valley Rail Network and support freight movements within the Hunter region and between Greater Sydney and Northern NSW and Queensland. The NSW regional freight task for all commodities is forecast to rise by approximately 25 per cent over the next 40 years. The future Lower Hunter Freight Line is expected to be used for the transport of bulk exports and imports as well as commodities such as coal, grains, and construction materials, as well as interstate containers. The need for supporting infrastructure such as maintenance facilities, freight loading/unloading and transfer facilities, sidings and stations would be determined at a future stage during the design of the freight rail infrastructure.

The recommended corridor has been designed to allow for flat or larger curves (generally greater than 800 metres) to maintain a minimum 80 kilometres per hour speed and reduce noise impacts. The corridor width of 60 metres would accommodate a double track, potentially additional tracks (if required), access roads, supporting structures and noise walls and cuttings (where required) and enable construction. The decision to proceed with a double track or single track with passing loops would be made at the time of investment and prior to the delivery of the future infrastructure.

It is expected that the future rail infrastructure would operate over a 24-hour period, seven days a week. A future environmental approval process for rail infrastructure would address in greater detail the number, frequency and composition of trains expected to use the rail line.

The NSW Government will acquire the land within the recommended corridor once the due diligence and business case have been approved. The future owner and manager of the Lower Hunter Freight Line will be appointed once the development of future rail infrastructure within the recommended corridor has been approved. The rail infrastructure manager will be responsible for ongoing maintenance and upgrades of the Lower Hunter Freight Line.

## 8. Environmental impacts

This section relates to comments and questions about the environmental impacts of the corridor, including noise and vibration, visual amenity, air quality, property, land use, social, biodiversity and heritage impacts.

### 8.1 Key theme: Noise, vibration, visual amenity and air quality impacts

Concerns and questions about the potential noise, vibration, visual amenity and air quality impacts of the project, both during construction and operation of the future freight rail infrastructure.

#### 8.1.1 Impacts on sensitive receivers near the corridor

##### 8.1.1.1 Community / key stakeholder issue

Concerns and questions were raised about the adequacy of the strategic noise and vibration assessment carried out for the project and the potential noise, vibration, visual and air quality impacts on sensitive receivers near the recommended corridor, including:

- A quantitative noise and vibration assessment has not been carried out for the project.
- Concerns about the potential noise, vibration, visual and air quality impacts on residents near the recommended corridor.
- A question on whether future rail infrastructure would be developed in accordance with the NSW Environment Protection Authority (EPA) Rail Infrastructure Noise Guideline 2013 (EPA, 2013).
- Questions on whether the hours of operation and frequency of future freight services would be restricted since noise is particularly noticeable at night.
- Requests for noise barriers and noise treatments to be installed at residential properties along the corridor to attenuate noise impacts.
- Concerns that noise restrictions would not be complied with or enforced.
- Questions asking whether freight trains transporting coal would be covered to prevent any coal dust blowing off the carriages and dispersing around the corridor and surrounding areas.
- Questions on whether dust monitors would be placed along the corridor and mitigation measures would be implemented if dust levels exceed air quality criteria.
- Questions on whether the community would be compensated for property damages from vibrations and physical or mental health impacts resulting from noise and air quality impacts.

##### 8.1.1.2 Transport response

The strategic reviews of potential noise, vibration, visual and air quality impacts that would result from the protection of the recommended corridor and the construction and operation of future rail infrastructure in the corridor are provided in Sections 7.5, 7.6 and 7.12 of the Draft Strategic Environmental Assessment. These strategic assessments informed the corridor selection process. Where full avoidance of impacts has not been possible, the Draft Strategic Environmental Assessment discusses the possible mitigation measures, which will be explored at infrastructure design stage.

The noise, vibration, visual and air quality impacts have not been modelled in detail for the Draft Strategic Environmental Assessment due to the strategic nature of the corridor identification and protection process. Once the project is in the development application/assessment phase (in 10 to 20 years), detailed noise, vibration, air quality and visual impact assessment would be undertaken to inform the design of the infrastructure and any required mitigation measures. This would include the identification of sensitive receivers around the corridor and the modelling of noise, vibration, visual and air quality impacts.

The recommended corridor has avoided existing and future urban areas where practicable to minimise impacts on sensitive receivers as far as possible.

There is a potential for noise and vibration levels to exceed recommended criteria during the construction and operation of future rail infrastructure where the recommended corridor is near sensitive receivers at West Wallsend, Barnsley, Minmi, Lenaghan, Black Hill and Tarro. Management measures will need to be implemented in these locations. The proposed management measure will be determined at the infrastructure design stage and assessed by the DPE as part of the State Significant

Infrastructure Application assessment process. Visual impacts during the construction and operation of future rail infrastructure are expected to be low as the recommended corridor has been aligned with existing infrastructure and government owned land where possible and surrounding bushland would be retained in woodland areas where possible. The recommended corridor has been designed to minimise steep gradients to improve the efficiency of freight movements, and therefore emissions to air. Modelling of air quality emissions indicates that contributions from a future freight line for the key air quality pollutants (CO, NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>) are unlikely to exceed the EPA's air quality criteria. The protection of the Lower Hunter Freight Corridor would have a low impact on the existing landscape character and views and no impact on existing air quality and noise and vibration levels.

During the next phase of project development, Transport will be required to prepare a State Significant Infrastructure application which will be subject to community consultation and assessed by the DPE. Through this process, it must be demonstrated that impacts during construction and operation, including noise, vibration, visual and air quality impacts, can be suitably mitigated or managed to required noise, vibration, urban design and air quality standards and guidelines at the time of delivery. The environmental assessment of future rail infrastructure will consider that the future freight rail line will operate without any restrictions on hours of operation or frequency of services.

The potential for noise impacts from the future Lower Hunter Freight Line will be assessed against the applicable rail noise guidelines at the time of detailed design and environmental approval. At present, the relevant guideline is the NSW EPA Rail Infrastructure Noise Guideline (EPA, 2013). This guideline provides noise triggers for residential and other sensitive receivers to assess and manage potential noise.

The suggestions for installation of noise attenuation and dust monitors are acknowledged and will form part of future considerations to mitigate potential noise and air quality impacts. Transport does not consider financial compensation to be a reasonable and feasible environmental management measure to manage impacts of the project. Mitigation measures developed during the next phase of project development will be required to meet environmental regulations and will be developed with input from the community.

## **8.2 Key theme: Property and land use**

Comments and questions about property ownership in the recommended corridor, the potential impact of the project on property values and compensation for affected property owners.

### **8.2.1 Land ownership**

#### **8.2.1.1 Community / key stakeholder issue**

A question about the percentage of land in the recommended corridor that is owned by the NSW Government.

#### **8.2.1.2 Transport response**

Around 65 per cent of land in the recommended corridor (around 21 kilometres of a total corridor of approximately 33 kilometres) is under State or local government ownership (refer to Section 7.1.1 of the Draft Strategic Environmental Assessment). The remaining 35 per cent is under private ownership, which broadly comprises rural residential land and industrial land under a combination of corporate (22 per cent) and individual (13 per cent) ownership. The recommended corridor would not impact on National Park or community use lands.

Around 30 per cent of the overall alignment, representing approximately half of the land under State or local government, is zoned as transport corridor.

### **8.2.2 Property values, acquisitions and compensation**

#### **8.2.2.1 Community / key stakeholder issue**

Residents raised concerns that property values would decrease along the recommended corridor due to concerns about potential noise and dust emissions from future freight rail operations. Questions were raised about whether acquisition of properties would be required and whether residents would be compensated for any decreases in property values.

### 8.2.2.2 Transport response

The recommended corridor has been chosen to avoid and minimise potential impacts on nearby communities, including noise and air quality impacts, to the greatest extent possible. Transport has also carried out consultation with the community and stakeholders to identify potential issues and has made design refinements in response to feedback received to reduce potential impacts (refer to Section 4 of this submissions report).

Changes to property values, both positive and negative, are driven by a range of economic, social and amenity factors, for example housing supply and demand, interest rates, economic growth, local amenity and accessibility to issues such as employment and social infrastructure. Generally, the long-term improvements of the project such as time travel savings and increased productivity for industry would likely have a positive influence on property values in the Lower Hunter region. Based on this, it is likely that broader external factors would influence property values more than perceived or actual impacts resulting from new transport infrastructure, including the project.

Land within the Lower Hunter Freight Corridor may need to be acquired at some point in the future. An amendment to the Transport and Infrastructure SEPP has been proposed that will identify land required for the future delivery of the Lower Hunter Freight Corridor and reserve that land for a public purpose, as per Section 3.14(1) (c) of the *Planning and Assessment Environmental Act 1979*. The proposed amendment will identify Transport as the relevant acquisition authority for land mapped as a major infrastructure corridor. The land proposed by Transport to be reserved by the Transport and Infrastructure SEPP is identified in Attachment A of the Explanation of Intended Effects (available on the DPE website ([www.planning.nsw.gov.au/-/media/Files/DPE/Other/LowerHunterFreightCorridor\\_210709.pdf](http://www.planning.nsw.gov.au/-/media/Files/DPE/Other/LowerHunterFreightCorridor_210709.pdf))) and in property impact maps available on the Transport project website ([www.transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor](http://www.transport.nsw.gov.au/projects/current-projects/lower-hunter-freight-corridor)) - see 'Property Impact Maps for Lower Hunter Freight Corridor'.

Subject to successful consultation outcomes and gazettal of the corridor, the land within the recommended corridor would be rezoned for the future rail infrastructure. If impacted property owners are unable to sell their property as a result of the rezoning of the corridor, they would have the opportunity to apply for early acquisition under the hardship provisions of the *Land Acquisition (Just Terms Compensation) Act 1991*. To be successful in a hardship acquisition, landowners must be able to show that they would suffer 'hardship' if the acquisition of their land is delayed, meeting the criteria identified in the *Land Acquisition (Just Terms Compensation) Act 1991*. Eligible landowners may choose to begin this request at any time once their land has been designated for future acquisition.

The Acquiring Agency will instruct a qualified and independent Valuer to carry out an inspection of the property and determine its market value and other entitlements under Section 55 of the *Land Acquisition (Just Terms Compensation) Act 1991*. This information is used to prepare a valuation report, which will be provided to the Acquisition Manager for review and form the basis of the offer made to the landowner. As noted previously, the market value is determined as if the corridor does not impact the property.

Transport has been in contact with affected landowners since 9 July 2021 and will continue to stay in touch with landowners as the future rail infrastructure project is developed and before the pre-construction acquisition process commences.

A Personal Relationships Manager, Acquisition (PRMA) will be provided as a support person to all landowners. The PMRA will act as landowners' primary point of contact during the application and subsequent valuation, offer and settlement phase. Early engagement and ongoing support from the PRMA, will assist landowners in having a clear understanding of the acquisition process and the options available to them. This will allow property owners to make informed decisions, based on their unique circumstances.

Outside the designated corridor, Transport is continuing to note the community's concerns. Every effort will be taken to minimise the impacts of the future infrastructure when it is built, including noise barriers and visual landscaping. A detailed assessment of the environmental impacts of the construction and operation of the future Lower Hunter Freight Line on the natural and built environment will be completed during a future development phase of the project to obtain planning approvals. Consultation with the community and stakeholders will continue throughout the remainder of the planning process to further minimise project impacts wherever possible.

## 8.2.3 Land rezoning and land use

### 8.2.3.1 Community / key stakeholder issue

Concerns that the project would have significant land use consequences for the Lower Hunter region by changing planning controls for land within the recommended corridor and restricting future use.

A question on whether entire properties would be rezoned under the proposed amendment to the Transport and Infrastructure SEPP or only the areas of properties that fall within the recommended corridor.

### 8.2.3.2 Transport response

Section 7.1 of the Draft Strategic Environmental Assessment and the Transport and Infrastructure SEPP provide details of the implications for land uses within and adjacent to the protected corridor.

Once the recommended corridor is finalised by Transport and the amendment to the Transport and Infrastructure SEPP is made, land will be rezoned SP2 Infrastructure – Future Infrastructure Corridor and new planning controls will apply. This will ensure that new development will not inhibit the delivery of the freight line in the future.

Prior to land within the recommended corridor being required for future infrastructure, development that is currently permissible on land within the corridor will continue to be permitted with consent. For example, works relating to an existing dwelling will remain permissible where the works were permissible under the previous zoning (subject to a requirement for development consent). However, when assessing a development application for development within the SP2 Infrastructure – Future Infrastructure Corridor, the consent authority must consider whether the proposed development will compromise, restrict or otherwise prevent the future use of the land for infrastructure. Where the development application proposes a new development with a cost of works that exceeds \$200,000, or proposes excavation of greater than two metres in depth in or adjacent to the corridor, councils are required to refer the application to Transport for concurrence. The Transport and Infrastructure SEPP prescribes the considerations for which Transport are to provide a concurrence assessment.

Examples of development that would usually be deemed unacceptable include major residential intensification of use of the site through subdivision, strata units, major commercial or industrial works, or development which would make relocation of the proposed land use difficult, such as community facilities, cemeteries, places of worship and major utilities.

Development immediately adjacent to the corridor which would involve excavations will also need to be considered by Transport. Excavations which run the risk of undermining the integrity of the corridor or future infrastructure in the corridor will need to be carefully considered.

The proposed SP2 Infrastructure zoning will only apply to the portion of a property that is located within the recommended corridor. All other parts of the property will retain their existing zoning under the relevant Local Environmental Plan.

One aim of identifying the Lower Hunter Freight Corridor is to provide certainty for adjoining land use development. Development can proceed on the basis that the transport infrastructure will be provided at some time in the future.

## 8.2.4 Proposed and planned future development

### 8.2.4.1 Community / key stakeholder issue

Concerns were raised about the potential impacts of the project on a number of proposed and planned future developments, as described below:

#### RU6 Transition land

The recommended corridor traverses land zoned RU6 Transition under the Lake Macquarie Local Environmental Plan 2014 to the west of the West Wallsend and Holmesville townships. The Newcastle-Lake Macquarie Western Growth Corridor Strategy (Department of Planning, 2010) identified this land to cater for significant employment and industrial development, with an associated freight rail corridor, major road and road interchanges to the M1 Pacific Motorway. This land is also identified as a 'Housing Release Area' in the Greater Newcastle Metropolitan Plan 2036 (DPE, 2018) and is identified in the Lake Macquarie City Council's Local Strategic Planning Statement (Lake Macquarie City Council, 2019) for

investigation for future development. Concerns were raised that the recommended corridor may create a barrier for the future development and use of the RU6 zoned land and that it would create amenity impacts for any future development of the land.

A request was made to consult with the Hunter and Central Coast Development Corporation to understand their intent for the future development of the RU6 zoned land and ensure that future rail infrastructure can accommodate road and infrastructure connections to realise the development objectives of the land.

#### Cockle Creek West Precinct

The recommended corridor traverses land within the Cockle Creek West Precinct of the Northwest Lake Macquarie Catalyst Area. This Catalyst Area was established under the Greater Newcastle Metropolitan Plan 2036 (DPE, 2018) as a regionally significant gateway to Greater Newcastle. This precinct may undergo significant change from the adaptive reuse of former mining land in a medium to long term future and may provide improved road connections east to west connecting Cockle Creek to the M1 Pacific Motorway, while utilising existing private haulage road and rail infrastructure. If the Cockle Creek West Precinct underwent adaptive reuse, local planning policies would be prepared to identify appropriate land use and transport infrastructure, which would likely commence before the final design of future rail infrastructure.

A request was made to carry out further consultation with Lake Macquarie City Council and the DPE to understand the intent for the Cockle Creek West Precinct and ensure that future adaptive reuse and transport network opportunities can be realised.

#### Black Hill Precinct and the M1 Pacific Motorway

The emerging Black Hill Precinct includes approximately 300 hectares of land for light industrial, freight and logistic uses and is recognised in the Hunter Regional Plan 2036 (DPE, 2016) and Greater Newcastle Metropolitan Plan 2036 (DPE, 2018) to be of strategic importance to the region. The Black Hill Precinct is also identified as a Catalyst Area.

The staging plan and indicative lot layout have recently been approved for the project to guide the subdivision pattern for 200 lots at 198 Lenaghan Drive. The recommended corridor encroaches the approved indicative lot layout and also impacts the southern access to the M1 Pacific Motorway. These parts of the Black Hill Precinct are expected to be developed in the next decade, well before refined planning and design for the recommended corridor is expected to commence.

A request was made to investigate this encroachment in greater detail to identify the industrial land required for the rail corridor so that appropriate amendments to the approved indicative layout can be considered and alternative options for the southern access ramps connecting to the M1 Pacific Motorway can be considered. The potential impacts of noise and vibration on permissible uses in the IN2 Light Industrial zone within the Black Hill Precinct would also need to be considered and allowances would have to be made for appropriate mitigation measures. There is potential for a rail siding to be constructed from the recommended corridor into the Black Hill Precinct which would enable a greater modal shift of freight haulage away from roads and trucks.

#### Commercial agreements

Concerns about the impact of the proposed protection and potential construction and use of the Lower Hunter Freight Corridor on contractual arrangements for the sale of parcels of land.

#### Richmond Vale Rail Trail

Concerns that the implementation of future sections of the cycleway, particularly the connection between Hexham Junction and Tarro, will be made more onerous and costly due to the rezoning of land within the recommended corridor.

### 8.2.4.2 Transport response

#### Future growth areas and transport infrastructure

The recommended corridor has sought to avoid residential areas and future residential growth areas to the greatest extent possible (refer to Section 6.3 of the Draft Strategic Environmental Assessment). Impacts on future industrial lands have been minimised by largely avoiding the existing Black Hill Industrial Area, while being complementary to the planned Black Hill-Beresford expansion precincts.



The recommended corridor aligns with existing and planned transport infrastructure where possible. The recommended corridor traverses a small section of the eastern boundary of the approved subdivision development at 198 Lenaghan Drive. The recommended corridor is located adjacent to the future M1 Pacific Motorway extension to Raymond Terrace, that would be constructed prior to construction of the corridor. The location of the recommended corridor has been determined in liaison with the project team for the M1 Pacific Motorway extension to Raymond Terrace project to future proof the construction of the freight infrastructure without impact on the proposed road infrastructure (refer to Section 7.2.1 of this submissions report). For example, the corridor has been positioned to enable possible future south facing ramps at the existing Black Hill Road interchange to the M1 Pacific Motorway, if required. The Lower Hunter Freight Corridor project team would continue to liaise with the M1 Pacific Motorway extension to Raymond Terrace project team to ensure both infrastructure projects are appropriately designed at this location.

When the rail infrastructure is required in 10 to 20 years, the designs for the future rail infrastructure will be subject to a further environmental assessment and approval process and refinement to avoid and minimise impacts on communities and traffic and transport as far as possible.

#### Commercial agreements

Transport will engage directly with local property owners as plans for the corridor and future infrastructure are progressed. During the next phase of project development, the design and supporting environmental impact assessment will consider the final project footprint and infrastructure to determine interaction with existing and future developments.

#### Richmond Vale Rail Trail

Transport will work with Newcastle City Council to ensure that the future Lower Hunter Freight rail infrastructure minimises impacts on the future Richmond Vale Rail Trail cycleway (refer to Section 7.2.2 of this submissions report).

## 8.2.5 Approved and existing development

### 8.2.5.1 Community / key stakeholder issue

Concerns were raised about the potential direct and indirect impacts of the project on approved and/or existing developments as described below. It was recommended that consultation with affected landholders be carried out to ensure minimal impact through appropriate realignment and design options or mitigation measures.

#### BlackRock Motor Park at 282 Rhondda Road, Wakefield

The recommended corridor intersects two lots of the approved development (DA/1556/2017). Concerns were raised that the corridor would have a significant impact on the location and amenity of approved structures for the development, including a village with 64 accommodation units, and result in the approved development becoming unfeasible.

#### Place of public worship at 100 Stenhouse Drive, Cameron Park

The recommended corridor traverses the northern property boundary of the approved development and would impact both access and car parking arrangements prescribed as a condition of consent, as well as the type of construction and services to support the development. The project would also have an adverse impact on the amenity of the approved development. Questions were raised about whether compensation would be received for any future amendments to the development application that would be required as a result of the project.

#### Minmi, Newcastle Link Road and Stockrington Concept Plan

Land at Minmi, Newcastle Link Road and Stockrington is currently subject to a Concept Approval (MP10\_0090) issued on 6 August 2013 for a proposed residential and commercial subdivision that would include up to 3,300 residential dwellings. The land is currently zoned for residential and commercial development and construction was commenced in 2019. The development is likely to be completed prior to the construction of the freight corridor.

The recommended corridor would be within 250 metres of the proposed residential development. Requests were made to consider acoustic treatment in this area and maximise the distance of the recommended corridor from the proposed development.

#### 8.2.5.2 Transport response

The future rail infrastructure in the recommended corridor will be designed to mitigate any potential impacts on the approved and existing developments. During future phases of design development and environmental assessment, further assessment of the potential noise, traffic, access and amenity impacts of future freight rail operations will be undertaken which will again be subject to community and stakeholder consultation.

Acoustic modelling carried out for the Draft Strategic Environmental Assessment (refer to Section 7.5 of the Draft Strategic Environmental Assessment) has confirmed that noise mitigation measures, such as noise barriers, will reduce airborne noise levels sufficiently to meet the relevant noise criteria.

Transport will continue to engage with landowners within or adjacent to the future freight rail corridor to ensure the design and mitigation measures minimise potential impacts on existing developments.

### 8.3 Key theme: Social

Comments about the potential impacts of the corridor on rural amenity, community connection, lifestyle, health, wellbeing and safety.

#### 8.3.1 Impacts on communities near the corridor

##### 8.3.1.1 Community / key stakeholder issue

Concerns, comments and questions regarding the potential impacts on communities near the corridor, including:

- Concerns about the potential physical and mental health impacts on residents in close proximity to the corridor, including residents in West Wallsend, Holmesville, Barnsley, Killingworth, Cameron Park, Black Hill and Stockrington.
- Recommendations to carry out further investigations to determine potential impacts.
- Concerns about the close proximity of the future rail line to residences.
- The recommended corridor runs through land zoned E4 Environmental Living that has special environmental or scenic values. Questions about how the environmental and scenic qualities of the land would be preserved.
- Concerns that local communities will be cut off from each other or isolated by the corridor which could lead to adverse social, and amenity impacts on local communities, especially during emergency situations like bushfires.
- People from lower socio-economic backgrounds would be adversely impacted for the benefit of people in more affluent neighbourhoods in Inner Newcastle.
- Residents of affected communities consciously chose to buy property further away from rail lines as they do not require public transport and are not concerned with the efficiency of the freight or passenger rail network.
- Concerns that fire trails would be impacted and that sparks from freight trains would cause bush fires.
- Concerns about the cumulative noise and visual impacts from future rail infrastructure and the M1 Pacific Motorway.
- Concerns about the cumulative impacts of the project and other significant industrial development being proposed in the Lower Hunter.
- A question about whether the corridor would be fenced off for public safety.
- Questions about whether residents would be compensated for impacts on physical and mental health.
- Recommendations to engage with affected property owners to address potential impacts and develop appropriate mitigation measures.

##### 8.3.1.2 Transport response

The recommended corridor has been chosen to minimise the environmental, economic and community impacts at the time the infrastructure projects are delivered to the greatest extent possible. Upgrading the existing railway network through Inner Newcastle is likely to have more significant and direct property impacts and expose a larger number of existing residents to higher amenity impacts, as outlined in Section 6.2.1 of this submissions report.

The proximity of the Lower Hunter Freight Line to residents and sensitive receivers has been a key consideration during the development of the recommended corridor (refer to Sections 7.1, 7.2 and 7.14 of the Draft Strategic Environmental Assessment). The recommended corridor is located approximately 70 metres from the nearest residential property (at Black Hill). Further refinements of the recommended corridor have resulted in reduced impacts on residential properties, a heritage item and a planned public park (refer to Section 4 of this submissions report).

Although impacted communities may not directly benefit from improved freight or passenger services as a result of the project, they may be positively impacted by the wider economic benefits of the project, including the improved flow of goods and increased productivity, reliability and employment opportunities.

Once the project is in the development application/assessment phase (in 10 to 20 years), detailed assessments of the potential impacts associated with construction and operation of freight rail infrastructure will be undertaken. The future delivery of the Lower Hunter Freight Line will be subject to a State Significant Infrastructure development assessment and approval process under the NSW planning system (refer to Section 8.1.1 of this submissions report). This will include further consultation with the community and detailed assessment of the potential environmental impacts of the proposed rail infrastructure, including noise, air quality, traffic, transport and access, landscape character, amenity, social and cumulative impacts, and hazards and safety risks (e.g. bushfires). Transport will need to demonstrate that potential impacts can be suitably mitigated or managed to required standards at the time of delivery, to minimise potential impacts on the community, stakeholders and environment. Security fencing to ensure public safety will also be considered as part of the future detailed design of the railway infrastructure.

Transport does not consider financial compensation to be a reasonable and feasible environmental management measure to manage impacts of the project. Compensation will only be payable to property owners where temporary use and/or permanent acquisition of property is required, as outlined in Section 8.2.2 of this submissions report.

Further consultation on the future project development and planning approvals phase of the project will occur in the future. During this phase, mitigation measures will be developed with input from the community to minimise impacts on communities and property owners.

### 8.3.2 Impacts on recreational activities

#### 8.3.2.1 Community / key stakeholder issue

The recommended corridor appears to cut directly through popular recreational areas in Fassifern, Killingworth, Barnsley, Teralba, West Wallsend and Holmesville that are used extensively for mountain biking, motorbike riding, horse riding, running and bush walking by Newcastle and Lake Macquarie residents, including the planned Richmond Vale Rail Trail.

The community and stakeholders raised concern that bushland and recreational activities would be impacted in these areas which would impact on people's mental and physical health. The community and stakeholders suggested that underpasses or overpasses of the rail line be incorporated into the design in bushland areas to allow people to continue to use these areas safely.

Concerns were raised about potential direct impacts on a public reserve in Cameron Park and the proposed Heritage Mining Park in West Wallsend.

Questions were raised about whether access to Hexham Swamp Nature Reserve would be affected.

#### 8.3.2.2 Transport response

Transport acknowledges that bushland in the Lower Hunter region offers a range of recreational opportunities in this region and have sought to minimise impacts on recreation by appropriate selection of a corridor which has the least impact on the ecology of the local area. The recommended corridor avoids existing public open space and recreational lands; however, it impacts several informal trails used for mountain biking, motorbike riding, horse riding, running and bush walking that intersects with the corridor.

During the design development of the future rail infrastructure, 10 to 20 years in the future, opportunities to further avoid and minimise impacts on recreational activities, such as mountain biking, motorbike riding, horse riding, running and bush walking would be considered to enable the community

to continue to enjoy the use of the area. The design of the project would consider a wide variety of factors including safety, connectivity and accessibility of recreational facilities, including trail networks. The detailed designs for the future rail infrastructure would be subject to a further environmental assessment and approval process, including community consultation, as described in Section 8.1.1 of this submissions report.

The recommended corridor does not traverse any National Parks or other land reserved under the NPW Act, including Hexham Swamp Nature Reserve. Although the recommended corridor crosses into a section of Hexham Swamp outside of the Hexham Swamp Nature Reserve, access to the reserve would not be impacted.

In response to community and stakeholder concerns about the potential impacts on the proposed Heritage Mining Park within the grounds of the former West Wallsend (No 1) Colliery near Johnston Park north of West Wallsend, Transport has moved the corridor alignment further north to minimise impacts on the proposed Heritage Mining Park, as shown in Figure 4.1 (refer to Section 4.1 of this submissions report).

## **8.4 Key theme: Biodiversity**

Concerns, questions and recommendations on the adequacy of the strategic ecological assessment carried out for the project, potential impacts of the project on sensitive environments, native vegetation and wildlife and offsetting of biodiversity impacts.

### **8.4.1 Adequacy of preliminary biodiversity assessment**

#### **8.4.1.1 Community / key stakeholder issue**

Concerns were raised about the adequacy and accuracy of the strategic ecological assessment carried out for the Draft Strategic Environmental Assessment, including:

- Sufficient information is not provided to identify significant biodiversity values or how impacts on these values can be avoided.
- Additional field surveys should be carried out for important threatened species prior to the finalisation of the corridor.
- Information on biodiversity corridors and connectivity is out of date and regional in scale and does not adequately consider long term strategic conservation requirements or local species characteristics and requirements.
- The recommended corridor severs a number of critical native vegetation corridors and adds to the width of other barriers in some locations. An assessment of the fragmentation of habitat and cumulative impacts that would result from the corridor and other linear barriers (i.e. motorways, railways, transmission line easements, and service roads) should be undertaken, together with opportunities to reserve suitable biodiversity offsets before determination of the corridor.
- Opportunities to mitigate impacts from the recommended corridor need to be considered at the strategic environmental assessment stage and throughout the project design process, e.g. fauna and flora bridges, overpasses and underpasses and the identification and protection of biodiversity offset areas.
- Cumulative biodiversity impacts should be considered and included in the cumulative assessment in Section 7.16.1 of the Draft Strategic Environmental Assessment.
- Figure 5.2 (Land use characteristics and community facilities) of the Draft Strategic Environmental Assessment does not include environmental protection land zones in its legend. Land acquired under the NPW Act is indicated as 'Major parks and open space', however this land is zoned C1 National Parks and Nature Reserves.
- Sections 5.1.3 and 7.9 of the Draft Strategic Environmental Assessment should be amended to remove reference to Kooragang Nature Reserve, which is now part of the Hunter Wetlands National Park.

#### 8.4.1.2 Transport response

##### Adequacy of biodiversity assessment

The aim of the strategic assessment of ecological constraints carried out for the Draft Strategic Environmental Assessment was to provide a preliminary high-level understanding of biodiversity values within the investigation area to inform the corridor options development and assessment process. This enabled high biodiversity areas to be avoided where possible and minimise the potential impacts of future rail infrastructure on biodiversity values.

The assessment of green corridors and connectivity involved the consideration of key fauna habitat corridors mapped by NPWS and green corridors mapped by the Lower Hunter Regional Strategy (Department of Planning, 2006) and Lake Macquarie City Council. Impacts to these corridors have been avoided as far as possible.

Further detailed ecological investigations would be undertaken during the next phase of project development that would involve seasonal surveys within the recommended corridor and potential offset lands to understand the extent and condition of flora and fauna communities, populations and species and the potential impacts of future rail infrastructure on biodiversity values. This would include the assessment of potential impacts on wildlife and landscape corridors and cumulative biodiversity impacts. The additional ecological information would be considered to:

- Refine the location of the future freight rail line within the 60 metre wide corridor, for example, designing the rail corridor to adjoin some of the existing power line easements would result in a reduction in fragmentation and widen an existing corridor.
- Investigate engineering solutions to mitigate any potential impacts, such as tunnels, viaducts and bridges, the installation of supplementary habitat (such as nest boxes, created hollows, bushland regeneration or frog ponds) and fauna overpasses and underpasses to maintain connectivity for terrestrial fauna species.
- Determine future offset requirements and mitigation measures in consultation with the DPE (Environment, Energy and Science division) and the Department of Agriculture, Water and the Environment (DAWE).

##### Cumulative impact assessment

Potential cumulative biodiversity impacts of the project and other planned major future infrastructure in the Lower Hunter are considered in Table 7.4 of the Draft Strategic Environmental Assessment. Cumulative biodiversity impacts are likely to occur as a result of the construction of the project and the M1 Pacific Motorway extension to Raymond Terrace due to the removal of vegetation within the same bioregion and/or other impacts to biodiversity. The potential for cumulative impacts as a result of the Lower Hunter Freight Corridor and the delivery of the future rail freight infrastructure is highly dependent on the timing and design of other identified major infrastructure projects. Cumulative impacts would be considered during the next phase of project development and addressed in the supporting environmental impact assessments.

##### Inaccuracies

Figure 5.2 (Land use characteristics and community facilities) has been updated in the revised Strategic Environmental Assessment to show protected areas set aside for conservation. Sections 5.1.3 and 7.9 have also been updated in the revised Strategic Environmental Assessment to indicate that Kooragang Nature Reserve is now part of the Hunter Wetlands National Park.

#### 8.4.2 Impacts on biodiversity values

##### 8.4.2.1 Community / key stakeholder issue

Concerns were raised that the recommended corridor passes through or is located near sensitive environments, including coastal wetlands, the Tank Paddock, Hexham Swamp Nature Reserve and areas with threatened ecological communities such as the Lower Hunter Spotted Gum Ironbark Forest. The community and stakeholders also expressed concern that native vegetation would be cleared unnecessarily and that the rail corridor would fragment and degrade the Watagans-Stockton regional biodiversity corridor, which is recognised by the Hunter Regional Plan 2036 (DPE, 2016).

The community and stakeholders expressed concern about the potential impacts of vibrations generated by future freight rail operations on wildlife. Questions were raised about how wildlife habitat (including koala habitat) and biodiversity corridors would be preserved and whether biodiversity impacts from the clearing of native vegetation and fauna habitat would be offset. A request was made to provide an integrated corridor of forested mature woodland of at least 200 metres width within residual lands on the southern side of the recommended corridor near Black Hill.

#### 8.4.2.2 Transport response

During the corridor options development and assessment process, areas with high biodiversity values have been avoided where possible and the re-use of existing disturbed areas, such as using historic rail lines, electrical transmission lines or disturbed areas next to existing roads, was prioritised where possible (refer to Section 7.9.1 of the Draft Strategic Environmental Assessment). Locating the recommended corridor near the M1 Pacific Motorway north of the Newcastle Link Road, for example, minimised significant impacts on ecological communities relative to other options outlined in Appendix B of the Draft Strategic Environmental Assessment.

The rezoning of land for the Lower Hunter Freight Corridor would not in itself impact biodiversity values.

The recommended corridor has avoided direct impacts to Internationally important wetlands (including the Hunter Estuary Wetlands), Hexham Swamp Nature Reserve (a wetland of national importance) and the Tank Paddock (that has been dedicated to the NSW Government for biodiversity offsets and holds important community significance). The corridor would pass through a number of coastal wetlands protected under the Resilience and Hazards SEPP and five threatened ecological communities listed under the *Biodiversity Conservation Act 2016* (BC Act), including two which are also listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The recommended corridor would also fragment a number of key fauna habitat and vegetation corridors mapped by the NPWS, Lower Hunter Regional Strategy (Department of Planning, 2006) and Hunter Regional Plan 2036 (DPE, 2016).

Although the recommended corridor is based on a land clearing within a 60 metre wide corridor, future potential rail infrastructure are expected to have less impacts than described above based on the following considerations:

- The entire 60 metre wide corridor is unlikely to be used for future potential infrastructure.
- The design would include tunnels and other structures to minimise impacts in sensitive areas.
- The corridor makes use of some of the existing M1 Pacific Motorway road reservation and land adjoining existing powerline transmission lines west of West Wallsend, that both demonstrate edge effects from this existing infrastructure.
- Existing clearing and disturbed landscapes are located between Minmi and Hexham.

Opportunities to further avoid and minimise biodiversity impacts would be considered during the next phase of project development. Further detailed ecological investigations would be undertaken during future design phases that would involve seasonal surveys within the recommended corridor and potential offset lands, as described in Section 8.4.1 of this submissions report. The additional ecological information would be considered to refine the location of the future freight rail line to reduce habitat and/or landscape fragmentation, determine offset requirements and investigate engineering solutions to mitigate any potential impacts, such as tunnels, viaducts and bridges, the installation of supplementary habitat (such as nest boxes, created hollows, bushland regeneration or frog ponds) and fauna overpasses/underpasses to maintain connectivity for terrestrial fauna species.

Impacts on koala species and habitats was considered as part of the strategic ecological assessment carried out for the Draft Strategic Environmental Assessment (refer to Section 7.9.1 of the Draft Strategic Environmental Assessment). Koala protection is provided under the State Environmental Planning Policy (Biodiversity and Conservation) 2021 (Biodiversity and Conservation SEPP). The recommended corridor is identified within the Biodiversity and Conservation SEPP as being within the Central Coast koala management area, which requires development assessments to consider relevant koala plans of management. Although the Biodiversity and Conservation SEPP does not have any statutory control over the process of protection of the Lower Hunter Freight Corridor and is unlikely to apply to any future environmental assessment process applicable to the project, the principles of koala protection as outlined in the Biodiversity and Conservation SEPP have been taken into consideration in the establishment of the recommended corridor and would be considered further in future phases of project



development. Significance assessments for threatened species under the BC Act and/or the EPBC Act would be required as part of a future potential application for rail infrastructure.

### 8.4.3 Impacts on land reserved under the NPW Act

#### 8.4.3.1 Community / key stakeholder issue

The NPWS is seeking clarification over the extent of the corridor in proximity to land reserved under the NPW Act. Section 7.1.1 of the Draft Strategic Environmental Assessment states that the recommended corridor would not impact any national parks whereas Table 7.2 (Key land uses by zoning impacted by the corridor) indicates that 0.2 kilometres of land zoned C1 National Parks and Nature Reserves would be impacted. It is not clear on the maps for the recommended corridor whether the corridor encroaches on NPWS managed lands.

#### 8.4.3.2 Transport response

The recommended corridor has sought to minimise the impact on environmentally sensitive land as far as possible. The recommended corridor does not traverse any gazetted National Parks or other land reserved under the NPW Act (refer to Section 7.1.1. of the Draft Strategic Environmental Assessment). Table 7.2 has been updated in the revised Strategic Environmental Assessment to reflect this.

Detailed assessment of the potential impacts on biodiversity values within adjacent or nearby NPWS estate would be carried out during the next phase of project design development. Opportunities to avoid and minimise impacts (e.g. alternative innovative engineering solutions) would be considered during this assessment in consultation with NPWS.

### 8.4.4 Biodiversity offsets

#### 8.4.4.1 Community / key stakeholder issue

Questions were raised about how wildlife habitat and biodiversity corridors would be preserved and whether biodiversity impacts from the clearing of native vegetation and fauna habitat would be offset.

Recommendations were made to engage with NPWS to investigate potential suitable additions to existing National Park reserve estate (as identified in Section 7.9 of the Draft Strategic Environmental Assessment) and/or the establishment of biodiversity stewardship sites on lands acquired but not yet reserved under the NPW Act, as part of future biodiversity offsetting considerations.

#### 8.4.4.2 Transport response

Once the maximum avoidance and mitigation measures has been incorporated into the future rail infrastructure design, unavoidable impacts would require compensatory biodiversity offsets in accordance with the requirements of the NSW Biodiversity Offsets Scheme, established under Part 6 of the BC Act. Offsets are likely to be required at both State and Australian Government levels as complete avoidance of significant ecological areas is not likely to be possible. At the current stage of the project, a definitive offset package requirement cannot be determined. Offset requirements would be determined at the design phase and would be required prior to project approval.

Transport has identified strategically located Government owned land to be considered as potential offset areas that could extend and adjoin the existing NPWS estate. These potential offset areas are located within the investigation area, bordering both sides of the M1 Pacific Motorway to the west of West Wallsend and on both sides of Killingworth. These potential offset areas could provide offset credits for some vegetation communities likely to be impacted upon by any future freight rail infrastructure. If there are still shortfalls in offsets of some vegetation communities following future design phases and mitigation, additional biodiversity offset areas may be required to be sourced.

Early engagement with the DPE (Environment, Energy and Science Group) would be carried out to agree on an approach to offset planning. If additions to NPWS estate are proposed, Transport would engage with NPWS to discuss biodiversity offset requirements for the project.

## 8.5 Key theme: Heritage

Comments and questions about the potential impacts on Aboriginal and Non-Aboriginal heritage and history and consultation carried out with the Aboriginal community.

### 8.5.1 Impacts on Aboriginal heritage

#### 8.5.1.1 Community / key stakeholder issue

Concerns were raised about the potential impacts on Aboriginal community values since several areas near the recommended corridor have Aboriginal heritage significance. Questions were raised about whether sufficient research and consultation with the local Aboriginal community has been undertaken to understand the potential impacts on Aboriginal heritage.

It was recommended that archaeological surveys be carried out within the recommended corridor in consultation with the Aboriginal community to identify opportunities to avoid direct or unacceptable impacts to Aboriginal heritage values and items. Prior to construction commencing, a construction heritage management plan should be developed in consultation with the Aboriginal community that would include protocols for archaeological monitoring and unexpected finds.

A comment was made that the Guringai, Guringay, Gringai Country, Nation, Tribe, Language, Clan or Sub Clan is not part of the East Coast, as acknowledged by the Office of the *Register Aboriginal Land Rights Act 1986*, NPWS and Local Aboriginal Land Councils, including the Wonnarua Plains Clans.

#### 8.5.1.2 Transport response

Section 7.10 of the Draft Strategic Environmental Assessment and Section 2.4 of this submissions report outline how Aboriginal heritage and the local Aboriginal community has been considered during the corridor identification and evaluation process. This included:

- a review of the Aboriginal Heritage Information Management System database
- reviews of relevant studies and reports
- field visits to certain publicly accessible sites
- consultation with Local Aboriginal Land Councils.

The strategic review of Aboriginal heritage found that the impact of the protection of the Lower Hunter Freight Corridor on Aboriginal heritage would be negligible. However, the review found that there could be potential impacts from the provision of any future infrastructure within the recommended corridor, depending on detailed studies and ground truthing.

A detailed assessment of the potential impacts of future freight rail infrastructure on known and potential Aboriginal heritage will be carried out during the next phase of project development. This assessment will be completed to inform the statutory environmental assessment and approvals process and will occur in accordance with the requirements of relevant legislation, including the NPW Act. The assessment will include engagement with Aboriginal stakeholders, archaeological surveys and testing and the development of appropriate management strategies to ensure potential impacts on Aboriginal cultural heritage are minimised.

Transport acknowledges that the Guringai, Guringay, Gringai Country, Nation, Tribe, Language, Clan or Sub Clan is not part of the East Coast, including the Wonnarua Plains Clans.

### 8.5.2 Impacts on non-Aboriginal heritage

#### 8.5.2.1 Community / key stakeholder issue

Areas or buildings with historical significance are located within or near the recommended corridor. Concerns were raised about the potential direct and indirect impacts of future rail infrastructure on historical buildings and other heritage items, including the West Wallsend Cemetery and West Wallsend (No 1) Colliery.

A comment was made that a number of historic mine sites to the west of Killingworth, Holmesville and West Wallsend have not been identified in the Draft Strategic Environmental Assessment.

The community and stakeholders recommended that archaeological surveys of the recommended corridor be carried out and opportunities be identified to avoid direct or unacceptable impacts to heritage values and items. Recommendations were also made to undertake heritage impact assessment

and geotechnical assessments to assess the potential impacts of the recommended corridor on heritage items and historic mines.

Questions were raised about whether any unexpected heritage items discovered during site investigations or construction would be investigated and recorded.

#### 8.5.2.2 Transport response

The recommended corridor has been selected to avoid direct impacts on heritage items and conservation areas as far as possible. The strategic review of non-Aboriginal heritage found that the protection of the Lower Hunter Freight Corridor would have a negligible impact on non-Aboriginal heritage, however, there could be impacts on heritage items from the provision of future rail infrastructure within the recommended corridor (refer to Section 7.11 of the Draft Strategic Environmental Assessment).

Table 7.3 of the Draft Strategic Environmental Assessment lists local and State heritage items where the recommended corridor intersects their curtilages. This includes a number of former mine sites, including the Colliery Relics Archaeological (Booragul Ruins) and Rhondda Colliery (Built) and West Wallsend (no 1) Colliery (Archaeological) heritage items. Potential indirect impacts on other former mine sites not intersected by the recommended corridor would depend on the design of the future rail infrastructure. As such, this would be considered during the next phase of project development.

Detailed non-Aboriginal heritage assessments will be carried out by qualified archaeologists during future phases of design development and environmental assessment, to identify items and areas of heritage significance that may be materially impacted by future freight rail operations and to determine the nature and extent of potential impacts. Design and construction mitigation measures would also be identified as part of these assessments to minimise any impacts on the curtilage, fabric or setting of heritage items, including local heritage items such as the West Wallsend Cemetery. This would include the implementation of an unexpected finds procedure during construction to manage any unanticipated archaeological discoveries. Transport will ensure that access to the West Wallsend Cemetery is not impeded.

### 8.6 Key theme: Soils and water

Comments about the potential impacts of the construction and operation of future rail infrastructure on soil erosion, contamination and water quality and flooding.

#### 8.6.1 Soil erosion and contamination

##### 8.6.1.1 Community / key stakeholder issue

The community and stakeholders commented that the recommended corridor alignment overlays land contaminated with coal washery rejects, which are likely to be unsuitable for construction purposes.

Concerns were raised that the removal of trees would cause soil erosion.

##### 8.6.1.2 Transport response

It is acknowledged in Section 7.13 of the Draft Strategic Environmental Assessment that a number of known contaminating activities have been and are being carried out within the recommended corridor, including mining and extractive industries and waste storage.

The need for further contaminated land investigations would be determined during the next phase of design development and would be guided by the Resilience and Hazards SEPP and the associated Managing Land Contamination: Planning Guidelines (Department of Urban Affairs and Planning and Environment Protection Authority, 1998). The future investigations would entail a detailed appraisal of the protected corridor's land use history and an assessment of potential contamination based on a visual site inspection and analysis.

Once the contamination issues are known, appropriate engineering and control measures may need to be implemented during construction to mitigate impacts from contamination, such as the development of an Acid Sulphate Soil Management Plan and remediation of contaminated areas.

The recommended corridor has minimised the need for land clearing as far as possible. A detailed assessment of the potential impacts of land clearing on soils during the construction of future rail infrastructure will be carried out during the next phase of project development and will include consideration of potential soil erosion impacts and mitigation measures to minimise these impacts (e.g.

restrictions on vegetation clearing and the implementation of standard erosion and sediment control measures).

## **8.7 Key theme: Hydrology, water quality and flooding**

### **8.7.1 Community / key stakeholder issue**

Concerns and comments were raised about the consideration of flooding impacts and the potential impacts of future rail infrastructure on hydrology and water quality, including:

- Concerns about the potential impact of the construction and operation of future rail infrastructure on water quality and flood behaviour.
- The recommended corridor would be vulnerable to Hunter River estuary flooding and sea level rise.
- Recommendations to identify options for an alternative route that would remove vulnerability to flooding.
- Recommendations to carry out detailed hydrological and hydraulic modelling during the detailed design stages of the project to understand baseline conditions and to allow for an assessment of future infrastructure on hydrological characteristics, particularly the hydrological regime of sensitive receiving environments such as wetlands.
- Further flood investigations should consider the cumulative impact of the recommended corridor in combination with the M1 Pacific Motorway extension to Raymond Terrace.
- Questions on whether creeks that intersect the recommended corridor would be redirected to other areas.
- All outlets should be designed to be fit for purpose (scour resistant, suitable capacity and energy dissipation) and allow for appropriate access to perform maintenance.

### **8.7.2 Transport response**

A strategic review of the potential impacts of the project on water quality and flood behaviour, which was informed by a strategic hydrology and hydraulic analysis, is provided in Section 7.8 of the Draft Strategic Environmental Assessment. This included a review of flood studies for the Hunter region that included flood modelling and mapping of flood behaviour within the Hunter River floodplain.

The strategic hydrological and hydraulic analysis concluded that the protection of a Lower Hunter Freight Corridor would have no impact on key hydrological features and that any future freight rail could be designed to maintain the existing hydrological regimes and minimise impacts on neighbouring properties.

The review also considered potential impacts on sensitive receiving water environments such as wetlands protected under the Resilience and Hazards SEPP, such as Pambalong Nature Reserve and Hexham Swamp. The review found that the provision of appropriately designed cross drainage infrastructure, such as bridges, viaducts and culverts, would minimise changes to the hydrological regime of these water environments.

A number of alternative alignments were considered during the options development and assessment process to minimise environmental impacts, including flooding impacts (refer to Section 5.1.7 and Appendix B of the Draft Strategic Environmental Assessment). The recommended corridor was ranked highest at the completion of the multi-criteria analysis process as it represents the best balance between engineering and constructability while minimising impacts on the community, environment (including flooding impacts) and land use planning, avoiding complex structures such as significant tunnels or bridges/viaducts and meeting the objectives of the project.

A detailed flood and hydrology modelling and assessment would be carried out as part of the next phase of design development to inform the supporting environmental impact assessment (refer to Section 8.1.1 of this submissions report) and ensure that existing hydrological regimes are maintained and flooding impacts on surrounding properties are minimised. This would include the consideration of cumulative impacts, the need for drainage and adjustment works and the design of discharge outlets.

## **8.8 Key theme: Traffic and transport**

Comments and questions about the potential impacts of the corridor on property access, illegal vehicular access and freight transport.

### **8.8.1 Access to properties/towns**

#### **8.8.1.1 Community / key stakeholder issue**

Concerns were raised about the potential impacts on access to properties and towns as the recommended corridor traverses public and private access roads.

#### **8.8.1.2 Transport response**

The maintenance of access to properties and towns would be further addressed during the next phase of project development. Future rail infrastructure would be designed to ensure the continued operation of public and private roads that intersect with the recommended corridor and would be grade separated from the road network to improve traffic flow, as discussed in Section 7.2.1 of this submissions report. No level crossings are proposed.

Grade separation of existing road infrastructure would be achieved with either bridges over or under crossings of the existing road. Minor realignments of these roads at the point of crossing may need to be considered and would be confirmed during the next phase of project development. Any adjustments to private access roads would be identified in consultation with property owners.

### **8.8.2 Illegal vehicular access**

#### **8.8.2.1 Community / key stakeholder issue**

Transport has indicated that it would allow four-wheel drive access through the freight corridor to allow vehicles to gain entry to adjacent private lands, where agreements are in place with private landholders. It is recommended that Transport liaise as required with the NPWS and relevant council in order to identify and implement ongoing controls to stop illegal vehicular access from the corridor into adjacent environmental and conservation lands or utility easements.

#### **8.8.2.2 Transport response**

Transport will continue to consult with NPWS and Lake Macquarie City Council and Newcastle City Council to develop strategies to prevent illegal vehicular access from the Lower Hunter Freight Corridor into adjacent NPWS estate, sensitive protected environments or utility easements.

### **8.8.3 Freight transport**

#### **8.8.3.1 Community / key stakeholder issue**

Concerns that the project would result in an increase in freight volumes, which could lead to restrictions on freight volumes and increased freight transport costs for freight transported on the Hunter Valley Rail Line.

#### **8.8.3.2 Transport response**

For freight that is transported beyond Newcastle by rail, including via the Hunter Valley Rail Line, the project would result in reduced travel times for freight (between 15 to 20 minutes for an average trip) as the Lower Hunter Freight Corridor would reduce the distance freight needs to travel by bypassing Newcastle and allowing additional freight to be transported by rail. This would result in reduced operating costs, improved reliability and a potential increased demand in goods as it becomes cheaper to transport goods.

## 8.9 Key theme: Mining

Comments about the potential impacts of the corridor on mining activities and mine closure operations.

### 8.9.1 Mining activities and mine closure operations

#### 8.9.1.1 Community / key stakeholder issue

Parts of the recommended corridor are located on land that is the subject to mining titles and leases and exploration licenses. Concerns were raised about the potential impacts on rehabilitation activities and obligations and existing mining activities, which could result in impacts on future rail infrastructure (e.g. subsidence).

#### 8.9.1.2 Transport response

Transport is currently liaising with the DPE regarding the continuation of existing mining activities. Transport will consult with mining industry stakeholders during the future phases of design development and environmental assessment to ensure that the recommended corridor does not preclude existing and future mining activities where possible. The future design and construction stages would need to address undermining and possible subsidence issues. Additionally, stakeholder engagement with industry, affected mine owners, and the Division of Resources and Geoscience within the DPE, will be undertaken to ensure the future rail line is compatible with existing mining operations.

## 8.10 Key theme: Existing infrastructure

Comments and questions about the potential impacts of the corridor on existing electricity, gas, water and rail infrastructure.

### 8.10.1 Electricity, gas and water infrastructure

#### 8.10.1.1 Community / key stakeholder issue

Concerns about the potential impacts on existing electricity, gas and water infrastructure within or near the recommended corridor, including:

- Concerns about the long-term impacts on electricity substations and associated powerlines and transmission towers due to vibrations generated by multi-carriage freight trains.
- The recommended corridor overlays the existing Hunter Water pipeline. Concerns that the pipeline would have to be relocated outside the corridor which would have additional environmental impacts.
- Concerns that a major gas pipeline is located near the recommended corridor.
- Other options for nearby infrastructure should be considered, such as the realignment of powerlines and easements and the potential to relocate these powerlines underground, to reduce future fire hazards and other environmental impacts.

#### 8.10.1.2 Transport response

Utilities investigations and consultations with utility providers would be carried out during future stages of project design development to determine the interactions of existing utilities with temporary and permanent project infrastructure. Transport would work with all impacted utility owners to ensure that their assets are protected. The future freight rail infrastructure would be designed to safely pass over or under existing transmission lines and gas and water pipelines without jeopardising their integrity or the safety of construction or maintenance personnel. Where necessary, utilities would be relocated or adjusted to minimise potential hazards within or near the corridor, such as fire hazards.

### 8.10.2 Rail infrastructure

#### 8.10.2.1 Community / key stakeholder issue

The Aurizon Hexham Train Support Facility (TSF) is Aurizon's only NSW locomotive and wagon maintenance facility responsible for maintaining Aurizon's NSW operational fleet. The recommended corridor bisects the Arizon Hexham TSF land holding and will directly impact infrastructure of the facility, including turning angle, bulk fuel facility, wayside equipment, septic irrigation area and pond and access to the site. Concerns were raised that these impacts will prevent Aurizon from complying with the requirements of its development approval and severely impact the operational viability of the facility, as



there are currently no viable alternative locations for the relocation of any of the abovementioned infrastructure.

#### 8.10.2.2 Transport response

Transport acknowledges that the recommended corridor would intersect the Aurizon Hexham TSF facility. Transport will continue to engage with landowners within or adjacent to the future freight rail corridor to ensure the design and mitigation measures minimise the impact on existing developments.

### 8.11 Key theme: Cumulative impacts

This section relates to concerns about the cumulative impacts of other infrastructure projects and the Lower Hunter Freight Corridor.

#### 8.11.1 Cumulative impacts of future projects

##### 8.11.1.1 Community / key stakeholder issue

Concerns about the cumulative impacts that would result from the construction and operation of the Lower Hunter Freight Corridor, the M1 Pacific Motorway extension to Raymond Terrace and other infrastructure developments near the corridor.

##### 8.11.1.2 Transport response

A strategic assessment of potential cumulative impacts of the project with other existing and future infrastructure projects is provided in Section 7.15 of the Draft Strategic Environmental Assessment.

The potential for cumulative impacts as a result of the Lower Hunter Freight Corridor and the delivery of the future rail freight infrastructure is highly dependent on the timing and design of the identified infrastructure projects. Generally, the protection of the recommended corridor would not lead to cumulative impacts, however, some private properties may be impacted by the M1 Pacific Motorway extension to Raymond Terrace project and the recommended corridor. Transport will consult with the relevant property owners concerning future potential impacts from both projects and seek to integrate a future freight rail line into the works being undertaken for the M1 Pacific Motorway extension to Raymond Terrace.

Cumulative impacts would be considered during the next phase of project development and addressed in the supporting environmental impact assessments.

### 8.12 Key theme: Climate change

Comments about the consideration of greenhouse gas emission targets.

#### 8.12.1 Greenhouse gas emissions and climate change

##### 8.12.1.1 Community / key stakeholder issue

The construction and operation of the Lower Hunter Freight Corridor should align with the NSW Government's Net Zero Plan Stage 1: 2020-2030 (DPE, 2020) that aims to achieve a 35 per cent reduction in greenhouse gas emissions from 2005 levels by 2030 and net zero emissions by 2050.

##### 8.12.1.2 Transport response

Greenhouse gas emissions generated by the project would be managed and minimised as part of a sustainability management plan that would be developed during further design development and construction planning. This plan would include objectives and targets to minimise energy use and greenhouse gas emissions during construction and operation, optimise resource efficiency and waste management during construction and integrate sustainability-specific processes into procurement and labour practices. This plan would be generally aligned with the NSW Government stated intention to reduce net greenhouse gas emissions.

## 9. Out of scope

This section relates to requests that are considered to be out of scope for the project.

### 9.1 Key theme: Out of scope

Requests that are considered to be out of scope for the project as it involves projects outside the investigation area or other types of transport infrastructure.

#### 9.1.1 Out of scope

##### 9.1.1.1 Community / key stakeholder issue

The following requests raised by the community and stakeholders are considered to be out of scope:

- Provision of additional passenger rail services between the Lower Hunter and Inner Newcastle.
- The establishment of the following new rail links:
  - Rail links to Newcastle Airport and Williamtown Airport.
  - A rail link between the Port of Newcastle and the Inland Port of Narrabri.
  - A rail line linking Maitland to Kurri Kurri, Cessnock and Morisset.
  - Rail links that would connect Newcastle to regional centres such as Maitland, Taree, Tamworth, Narrabri and Dubbo.
- Replacement of the Ardglen Tunnel.
- Completion of the Maldon-Dombarton Railway and repairment of the weighbridge at Port Kembla.
- The construction of new roads, cycleways, walking trails and connections to parking areas and public transport.

##### 9.1.1.2 Transport response

The main objective of the Lower Hunter Freight Corridor is to protect a corridor of land for future freight rail infrastructure that would bypass Newcastle. A corridor alignment that would connect West Wallsend to Thornton via Kurri Kurri was considered in the long list of options for the corridor (Four Mile Northern Connection). The Four Mile option was not progressed further as it would have significantly longer journey impacts, greater impacts to private property and areas of National Park, increased subsidence risks and other engineering challenges which would increase cost and constructability risks. Other comments related to projects that would provide additional passenger rail services, provide rail links to regional centres, Newcastle or airports or involves projects outside the investigation area or other types of transport infrastructure are not within the scope of the project and have not been further considered.

## 10. Support for the project

This section relates to positive feedback about the proposed Lower Hunter Freight Corridor.

### 10.1 Key theme: Support for the project

Comments that expressed general support for the project.

#### 10.1.1 Support

##### 10.1.1.1 Community / key stakeholder issue

Some stakeholders and members of the community expressed support for the project, including:

- The project aligns with a wide range of policies and strategic plans for the Hunter region and Newcastle.
- Improving the capacity of the freight rail network will improve efficiency of the rail network and businesses and industries that rely on freight transport and support community and economic growth across the Hunter region.
- The project will enable the Northwest Lake Macquarie Catalyst Area to become the strategic gateway for Greater Newcastle and the hub for State significant economic growth in regional NSW by supporting new and diverse jobs to attract people to live and work in Lake Macquarie City and the Lower Hunter.
- The project would have a beneficial economic outcome for Greater Newcastle, as it will:
  - Reduce traffic congestion at multiple railway crossings, including at Glebe Road in Adamstown and Clyde Street in Islington.
  - Relieve pressure on the Fassifern-Broadmeadow section of the Main North Rail Line.
  - Increase amenity and liveability in high density residential areas along the existing rail network.
  - Increase opportunities and desirability of transit-orientated developments along the existing rail network through urban areas.
  - Reduce carbon emissions due to a decrease in road-based freight movements.
  - Improve access to regional markets to the north and west of NSW.
  - Allow for an increase in freight movements into and out of the Port of Newcastle.
- The recommended corridor has the least impact on the Richmond Vale Rail Trail.
- The recommended corridor minimises the infrastructure footprint by aligning with the M1 Pacific Motorway and thereby minimises impacts on the natural and built environment.
- The recommended corridor avoids future growth areas and employment zones.
- The recommended corridor would allow for rail connections in and out of the Beresfield-Black Hill precinct which is designated as a “leading freight and logistics hub” in the Newcastle Strategic Planning Statement.
- The project would relieve pressure on regional roads and highways by moving more freight via a dedicated freight rail corridor.
- Corridor protection gives industry and the community certainty around the alignment and reduces the future financial costs of delivering infrastructure, while minimising the social costs of acquiring homes and businesses and disruption to existing communities.

##### 10.1.1.2 Transport response

Transport acknowledges the in-principle support provided for the project by the community and stakeholders.

# 11. Conclusion

Community and stakeholder feedback on the Lower Hunter Freight Corridor has been assessed by Transport and responded to in this report.

The protection of the corridor under the Transport and Infrastructure SEPP will enable the continuation of existing land uses. Protection will provide a layer of oversight and assessment for development in the corridor so that development does not inhibit the delivery of the infrastructure when required in the future. The identification and protection of the corridor will also enable planning authorities to ensure that land use and transport planning processes around the transport corridor are integrated and coordinated.

Any future proposal to build and operate infrastructure in the corridor will be subject to an environmental assessment in accordance with the provisions of the EP&A Act. Environmental impacts, including noise, vibration, air quality, biodiversity, heritage, traffic and transport and visual amenity impacts, will be subject to technical assessment during the preparation of an Environmental Impact Statement in accordance with the State Significant Infrastructure development assessment and approval process. This work is not required now and would be the subject of a future business case based on the need for infrastructure and available funding.

The finalisation and rezoning of the corridor will provide certainty to the community on the future location of the freight infrastructure. There is no intention or need to immediately acquire land or property for the corridor. The acquisition of properties generally occurs following approval for the construction of the project and in this case, it could be years in the future.

The Lower Hunter Freight Corridor has been selected following a comprehensive process that has involved extensive consultation and investigation of multiple alignments. As a result of the comprehensive selection process that has been undertaken, it is considered that potential environmental and social impacts arising from the corridor's protection or future freight rail infrastructure have been minimised.

Protection of the Lower Hunter Freight corridor represents an integrated transport solution that balances infrastructure benefits and opportunities with land use and environmental impacts and meets the stated objectives of Australian and NSW strategic policies.

Transport is committed to keeping stakeholders and the community informed as the planning for the corridor and rail infrastructure progresses.

## 12. References

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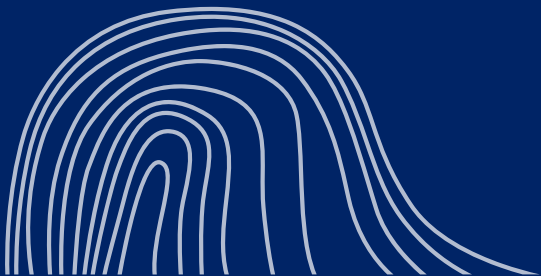
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