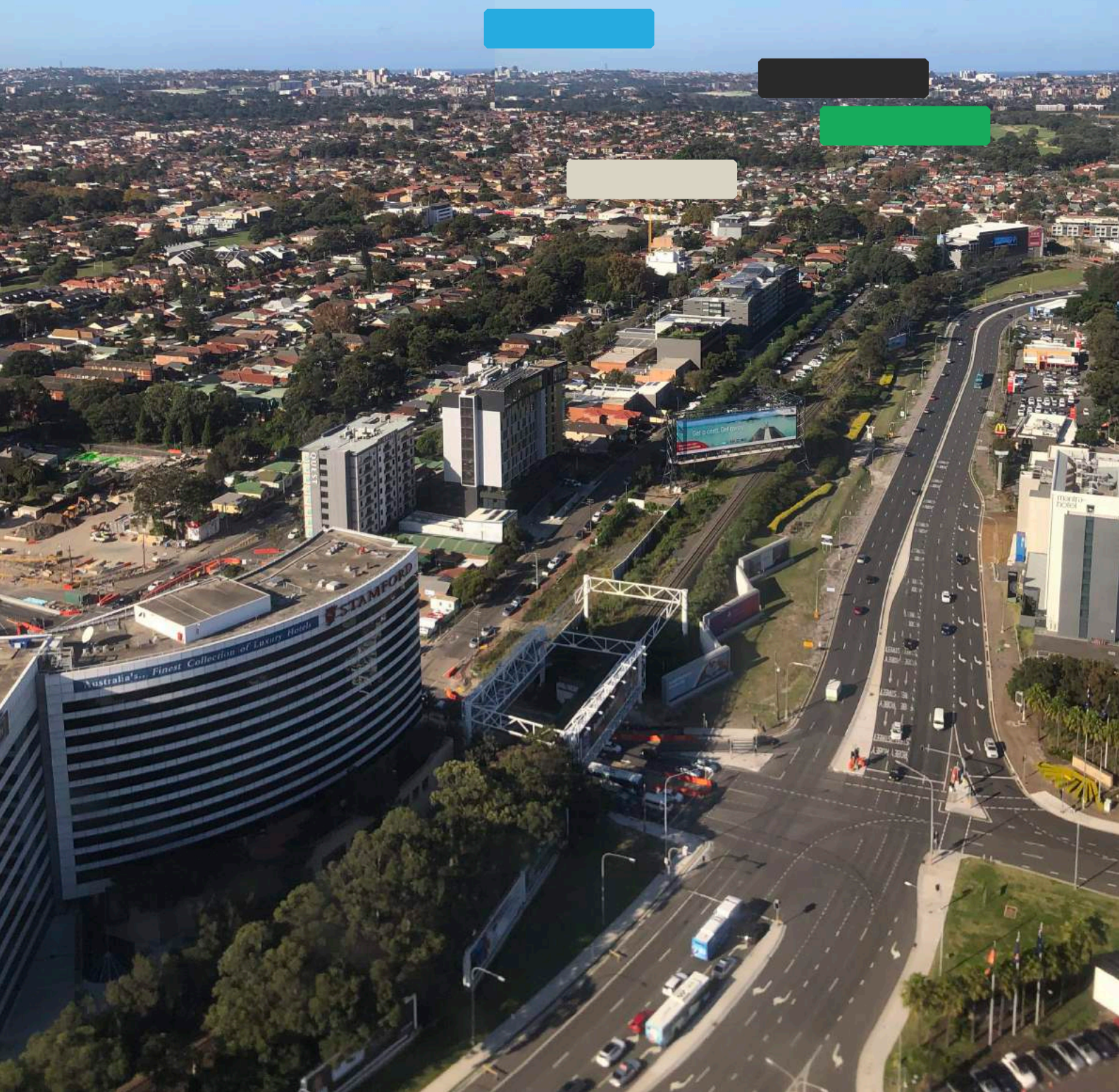
ARTC

GUIDE TO THE ENVIRONMENTAL IMPACT STATEMENT

BOTANY RAIL DUPLICATION

OCTOBER 2019



Contents

Submissions to the NSW Department of Planning, Industry and Environment should be made on the Environmental Impact Statement (EIS) and not this document, which provides a guide to the EIS only.

In May 2018 the Australian Government announced a funding commitment to duplicate the remaining section of single line track between Mascot and Botany, known as the Botany Rail Duplication project. Efficient access to and from Port Botany is critical to the economic growth and prosperity of Sydney.

About this document

Following consultation with the community, businesses and stakeholders and detailed environmental investigations an Environmental Impact Statement (EIS) for the project has been prepared. The Department of Planning, Industry and Environment (DPIE) has placed the Botany Rail Duplication Project EIS on public exhibition and is inviting submissions.

This document provides summary information about the design of the project, potential construction and operational impacts and the mitigation measures proposed which aim to manage impacts.

This document contains:

- An overview of the project
- Information about the construction and operational phases of the project and how they will be managed
- Details on how to make a submission to the NSW Department of Planning, Industry and Environment (DPIE) by 13 November 2019.
- An overview of the potential environmental impacts, both during construction and operation, and how these will be mitigated.

The project is subject to further refinement as it progresses though the planning approval process and detailed design.

Submissions to the DPIE should be made on the EIS and not this document, which provides a guide to the EIS only.

How were the impacts assessed?

The EIS was prepared through initial community and stakeholder consultation and detailed specialist assessment of key environmental issues, including field surveys, data analysis and predictive modelling where appropriate. The EIS process included a detailed environmental risk analysis to scope the level of assessment required, identify key risks and confirm those issues that require management and mitigation.

A summary of the potential impacts of the project are presented in Part B of the EIS. The detailed specialist assessments are contained in Volume 2 to 6 of the EIS.

What is the purpose of the EIS?

The EIS has been prepared by the Gateway to Sydney Joint Venture (WSP Australia Pty Limited and GHD Pty Ltd) on behalf of ARTC to assess the potential impacts of the Botany Rail Duplication Project and to determine the required management and mitigation measures to avoid and / or minimise potential impacts.

The preparation of the EIS has also been undertaken to meet the requirements of the Secretary's Environmental. Assessment Requirements which were issued by the former Department of Planning and Environment on 21 December 2018. The planning approval process is discussed in section 3 of the EIS.

About ARTC

At Australian Rail Track Corporation (ARTC) we're proud to be a vital part of the transport supply chain and the economic development of Australia. Across five states we manage and maintain an 8,500km rail network.

ARTC works with rail operators to provide access to rail for businesses and producers across Australia.

Community and environmental benefits are also being realised from growing our freight rail capacity. Fewer trucks mean fewer emissions and a safer journey for you on our highways and roads.

Sustainability and protecting the environment are central to our day to day operations. We assess and manage environmental risks and respond to the needs of the communities around us.

Read more at www.artc.com.au/about/.

About Botany Rail Duplication

The Botany Rail Duplication project forms part of a $400 million commitment by the Australian Government, and aims to improve efficiency, flexibility and reliability for freight rail customers, and encourage freight modal shift from road to rail.

Key project features

- **Track duplication –** constructing a new track predominantly within the rail corridor for a distance of about three kilometers
- **Track realignment and upgrading -** moving some sections of track sideways (slewing) and upgrading some sections of track to improve the alignment of both tracks and minimise impacts to adjoining land uses
- **New crossovers -** constructing new rail crossovers to maintain and improve access at two locations (totalling four new crossovers)
- **Bridge works -** constructing new bridge structures at Mill Stream, Southern Cross Drive, O'Riordan Street and Robey Street (adjacent to the existing bridges), and re-constructing the existing bridge structures at Robey Street and O'Riordan Street
- **Embankment/retaining structures -** construction of a new embankment and retaining structures adjacent to Qantas Drive between Robey and O'Riordan streets and a new embankment between the Mill Stream and Botany Road bridges.

Ancillary work would include bi-directional signalling upgrades, drainage work and protecting/relocating utilities.

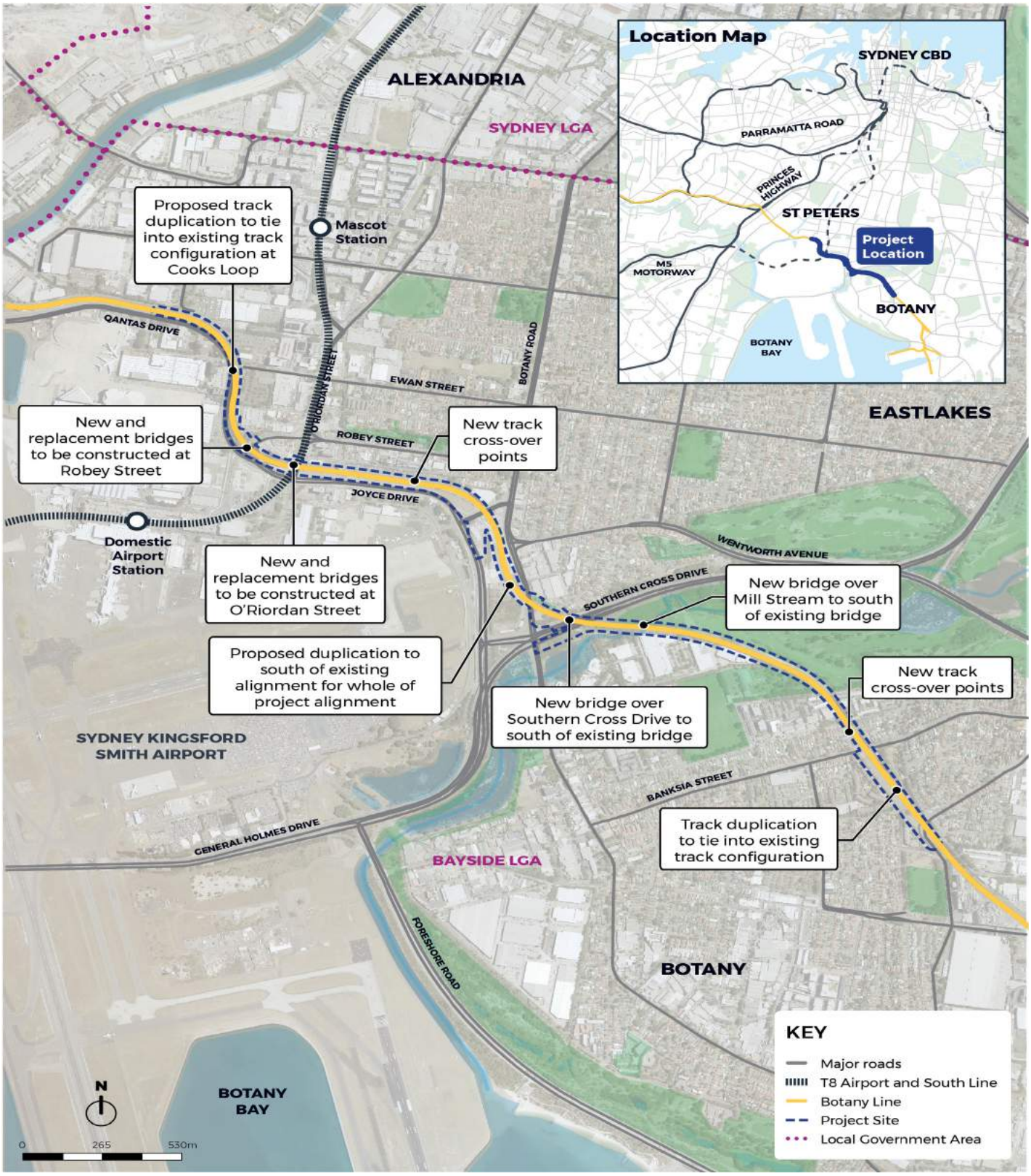
The project would involve construction and operation of a new second rail track predominately within the existing rail corridor between Mascot and Botany. This section of the existing Botany Line would be converted from one rail track to two parallel rail tracks. The proposed new second track would be located on the southern side of the existing track for the length of the duplication. Some sections of the existing single track would also be upgraded with sections proposed to be moved sideways (slewed) within the rail corridor to make room for the new second track.

Operation of the Project

The project would operate as part of the existing Botany Line and continue to be managed by ARTC. ARTC is not responsible for the operation of rolling stock. Train services are currently, and would continue to be, provided by a variety of operators. Following the completion of works, the existing functionality of surrounding infrastructure would be restored. The capacity of train movements on the Botany Line would increase from 20 movements per day to 45 movements per day in 2030.

For more information refer to EIS Part A, Chapter 6.

Above: Project benefits and opportunities in line with strategic context



Above: Key features of the project

Strategic context - Planning for the future

Transporting more freight to and from Port Botany by rail will place additional demands on the existing rail line. The existing freight infrastructure cannot support the predicted growth, increasing the use of heavy trucks on already congested roads. The Australian and NSW Governments have identified clear objectives to increase the share of freight moved by rail.

Aims of the project

The Botany Rail Duplication Project is one of a number of initiatives proposed to improve road and freight transport through the important economic gateways of Sydney Airport and Port Botany.

Transporting freight by rail is a key priority for the Australian and NSW Governments, ARTC and its customers. Following investigation of Sydney rail freight movements and forecasts, ARTC's 2015-2024 Sydney Metropolitan Freight Strategy (2015) identified that rail freight on this network is to increase over the next 15 years.

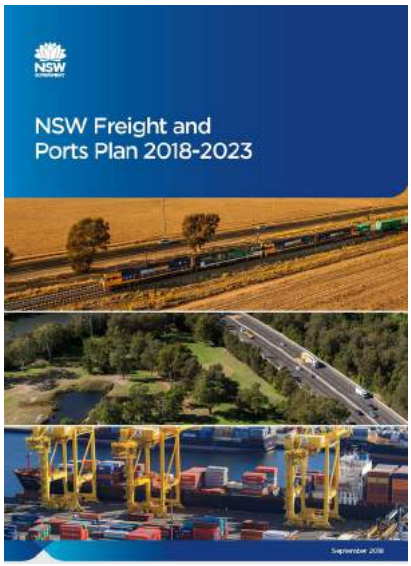
The project aims to:

- Alleviate constraints and increase the capacity of Sydney's freight rail network to meet existing and future demands
- Support connection to, and operation of, current and future metropolitan intermodal terminals
- Encourage a mode shift in freight transport from road to rail and support a reduced rate of growth in truck movements
- Provide capacity for freight traffic travelling to/from Port Botany well beyond 2030
- Enable efficient train paths and speeds delivering increased service reliability and productivity to freight rail customers
- Improving rail market share.
- Reduce environmental and other road related externalities.

In May 2018 the Australian Government announced a funding commitment to the Botany Rail Duplication, including the Cabramatta Loop Project.

NSW Freight and Ports Plan 2018-2023

The Plan is a collaboration of government and industry to outline clear initiatives and targets to make the NSW freight task more efficient and safe so NSW can continue to move and grow. The plan predicts a significant increase in containers handled by Port Botany, increasing from 14.4 million tonnes in 2016 to 25.5 million tonnes in 2036, representing an increase of 77 per cent. The Australian and NSW Governments have identified clear objectives to increase the share of freight moved by rail, from 17.5 per cent in 2016 to 28 per cent by 2021.



Navigating the Future, NSW Ports' 30 year Master Plan

The plan outlining a strategic vision for achieving sustainable and efficient port supply chains in NSW. The plan sets out a vision for the next 30 years and the actions that are needed to meet this vision. The NSW Ports have set a target of 40 per cent of total freight to be transported to/from the port by rail. This represents a substantial increase compared with the current 14 per cent of freight moved by rail.
The plan identifies over 80 per cent of containers moving through Port Botany are delivered to locations within a 40 kilometre radius of the port. This is projected to remain the dominant distribution pattern over the next 30 years.

The project would support these plans as the project aims to improve efficiency, flexibility and reliability for freight rail customers, and encourage freight modal shift from road to rail.

For more information refer to EIS Part A, Chapter 5.

Planning and consultation

ARTC

What is an Environmental Impact Statement?

An Environmental Impact Statement (EIS) provides a comprehensive assessment of the potential environmental and social impacts, benefits and mitigation measures associated with the construction and operation of the project. An EIS is used by the Department of Planning, Industry and Environment to inform development consent decisions.

About the planning approval process

The project is considered a State significant infrastructure project and so an Environmental Impact Statement (EIS) has been developed. The planning approval process is mapped in the following image.

The EIS for the Botany Rail Duplication Project includes six volumes, containing 16 technical reports. The first volume contains the main EIS. The other volumes contain specialist assessments that form the basis of the information in the EIS.

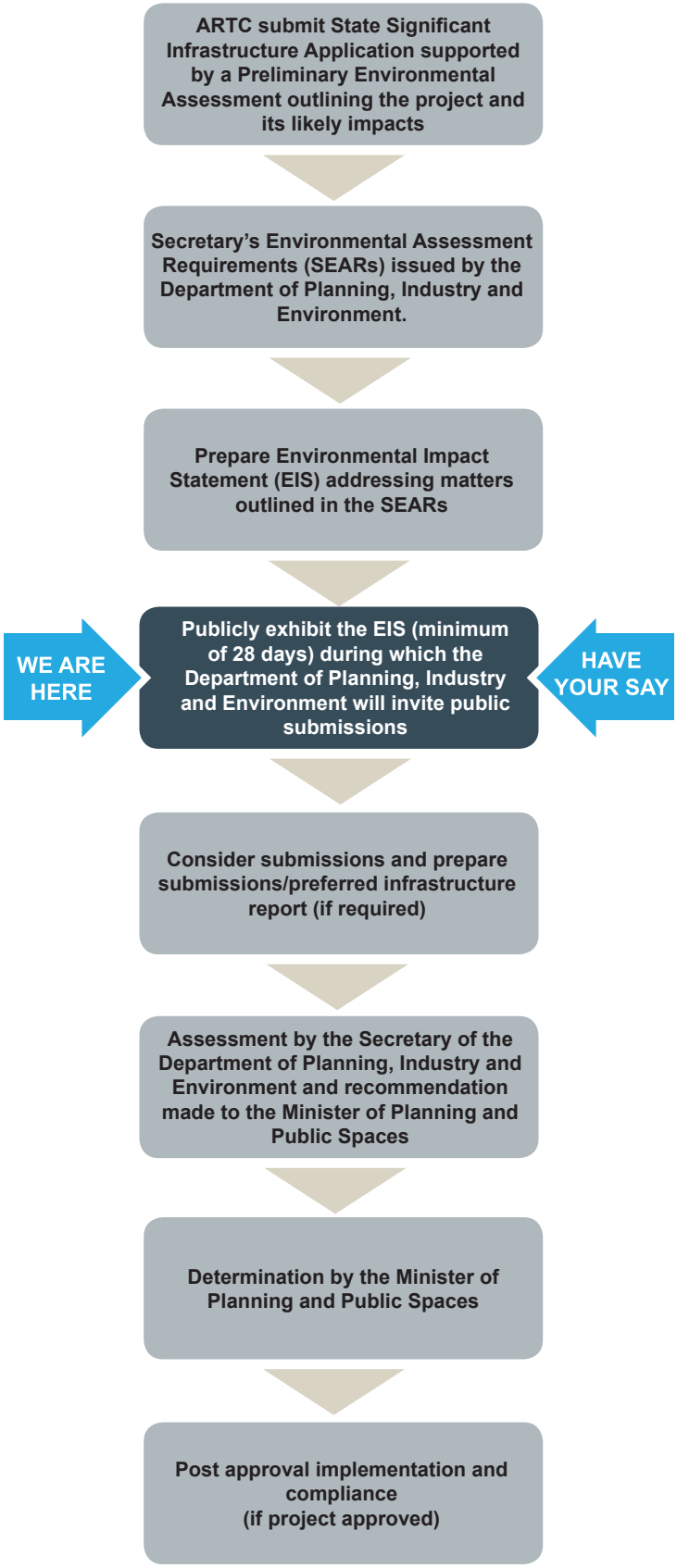
The construction approach presented in the EIS is indicative only and may be subject to change through detailed design and construction planning to be carried out by the successful contractor. The final design presented by the contractor will need to be consistent with any environmental management measures and conditions of approval for the project.

Any design modifications that occur as a result of matters arising during the exhibition of this EIS would be identified in a submissions report or a preferred infrastructure report.

Some of the key areas the EIS has considered include:

- Needs and objectives of the project
- Community consultation
- Construction work
- Traffic and transport
- Noise and vibration
- Environmental management and mitigation.

For more information refer to EIS Part A, Chapter 3.



Above: Planning approval process

Consultation inputs to the EIS

Community engagement for the project first started in 2015 with stakeholders during initial concept design stage when ARTC undertook a capacity assessment. More detailed consultation for the project started in June this year ahead of an EIS being prepared.

ARTC is committed to minimising impacts of the project on the community. The EIS for this project assesses all potential environmental and social impacts that may occur during construction and operation, and proposes mitigation measures which aim to manage these impacts.

Early engagement

Consultation activities this year included:

- Consultation with potentially impacted landowners and residents
- Doorknocks and letterbox drops in the project area
- Letterbox drop to the wider area
- 'Pop-up' community information events in the local area
- Community information drop-in event
- Briefings to stakeholders in the project area.

Continued engagement

Communication with stakeholder has been ongoing throughout the project and will continue as the project progresses. We have continued to collect feedback via:

- Community information events
- Face to face meetings and briefings
- Local media including advertisements and media releases
- Social media
- Community contact mechanisms
- Toll free community information line (1300 550 402)
- Project email (enviroline@artc.com.au)
- Project website www.artc.com.au/projects/botany-rail-duplication-project/

How we have listened

Through talking to you at doorknocks, 'pop-ups' and our community information session, you identified to us that impacts to community amenity through noise and vibration, and traffic and access were key concern arising from the project.

We are committed to working with the community and stakeholders to get your feedback which will help us with further planning. Consultation is vital to the success of the project and we welcome your participation by making a submission on the EIS to the NSW Department of Planning, Industry and Environment.

For more information refer to EIS Part A, Chapter 4.

Design and construction methodology

Key constraints to construction

The project is located in a highly constrained location, shaping the construction methodology.

Construction planning must consider three key constraints for when and where work can occur, and these include:

- **Active rail environment –** maintaining train movement to/from Port Botany. This requires working outside the rail danger zone.
- **Sydney Airport constraints** - The east-west runway and its associated obstacle limitation surface (OLS) lies adjacent to the project
- **Road constraints** - A heavily trafficked road network.

Key phases of works

Construction would likely be delivered in three key phases:

- Early and enabling works
- Main construction of the project
- Testing and commissioning works.

Early and enabling works

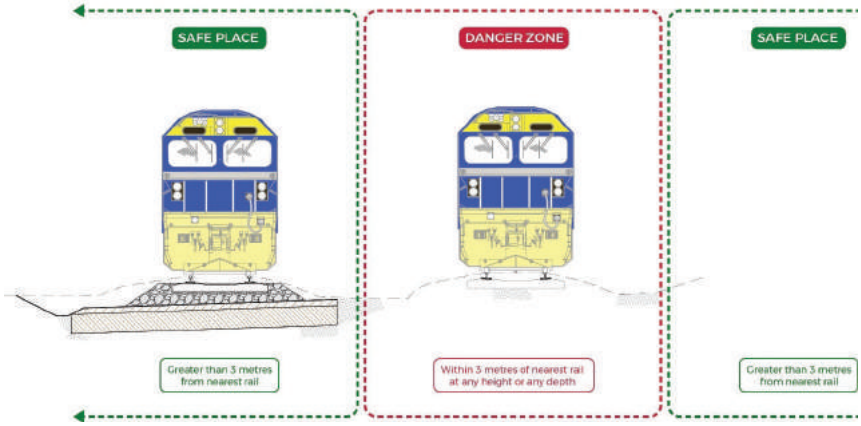
Key activities during early and enabling works include:

- Utility service relocation and/or protection
- Billboard removal
- Site establishment including construction compound set up
- Property adjustments.

Construction

Key activities during main construction include:

- Bridge works – New bridges over Mill Stream, Southern Cross Drive, Robey Street and O'Riordan Street. Replace existing bridges at Robey and O'Riordan Streets
- Civil works - earthworks, retaining walls, drainage, access roads
- Track works – formatting, capping and track works
- Signalling
- Testing and commissioning
- Demobilisation and finishing.



Above: Illustration of the rail danger zone.

The detailed design for the project will be developed with the objective of minimising potential impacts on the local and regional environment, and the local community.

Construction hours

The majority of work would be undertaken during recommended standard construction work hours as defined by the *Interim Construction Noise Guideline* which are:

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm
- Sundays and public holidays: no work.

As the project site is in an operational rail corridor, over busy roadways and adjacent to Sydney Airport, a number of works would be required to be undertaken outside standard construction work hours to align with low peak road, rail and air operations.

The following key activities may require some works to be undertaken outside of standard construction working hours:

- Billboard demolition
- Utility adjustments
- Vegetation clearing
- Compound establishment and operations
- Bridge demolition and construction
- Retaining wall construction
- Track works
- Signalling
- Testing, commissioning and finishing.

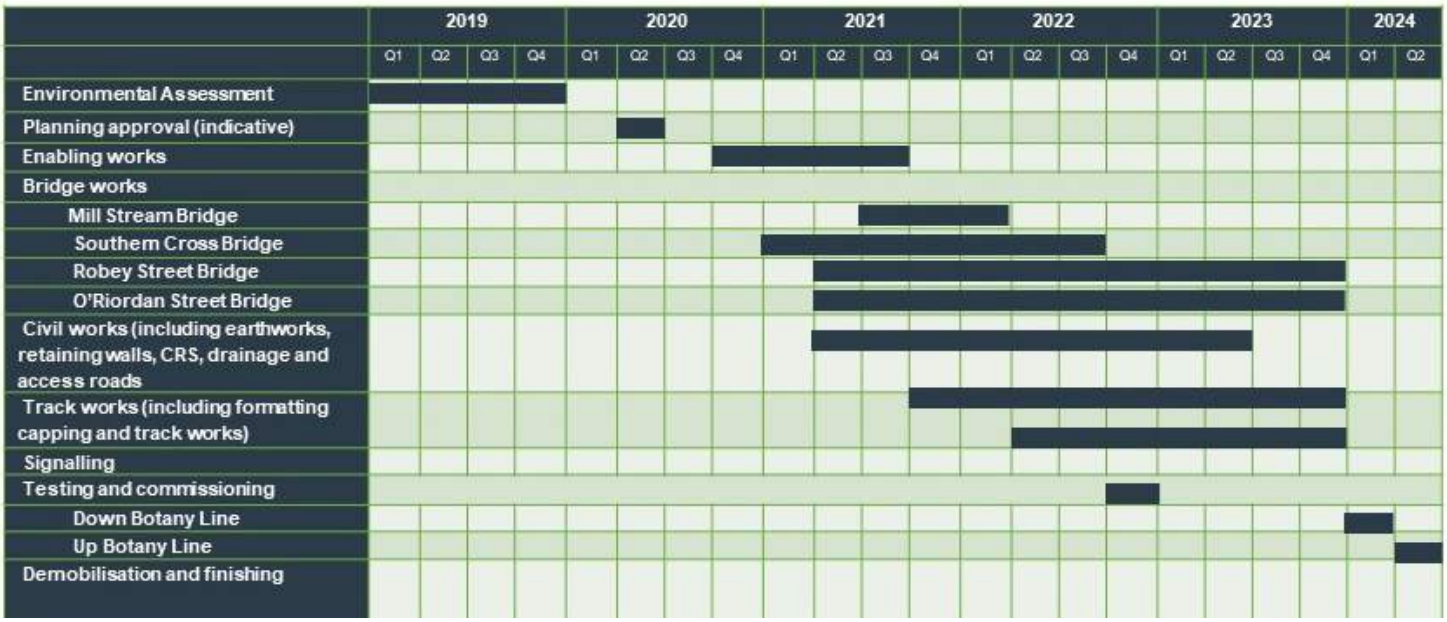
Employment

Around 270 jobs during non-possession work and 405 jobs during possession work would be created during construction of the project.

Construction of the project

Indicative construction program

A summary of the proposed staging for the main construction work is provided below. The main construction work outlined in section 7.2.2 would be completed over a period of about three year.



Above: Indicative construction program

Construction work areas and compounds

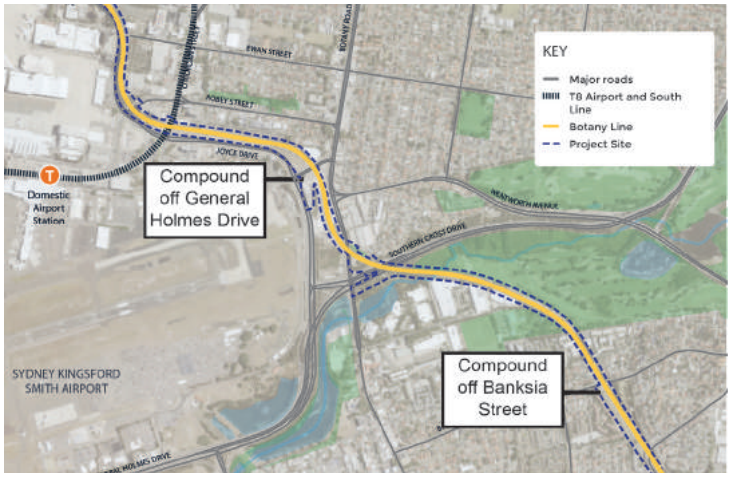
Compounds are areas used as the base for construction activities, usually for the storage of plant, equipment and materials, deliveries and/or construction site offices and worker facilities.

Two main compound areas would be established for the construction of the project to ensure sufficient access and storage within proximity of construction work.

The first main compound may be located off General Holmes Drive. This compound would contain the main site office and worker facilities for the project. This facility would be in use 24 hours a day during construction and would be set up and utilised at the commencement of the early and enabling work. This compound is currently being used as a compound area/site office for the Airport East Precinct Upgrade project.

The second main compound would be located within the existing cleared area of rail corridor generally between Banksia Street and the Stephen Road overbridge at Botany. This site would be a major compound site typically servicing the southern end of the project.

The site would be utilised for out of hours and possession period co-ordination and would also be used in standard hours for compound, materials delivery, laydown, stockpiling and storage as well as site offices.



Above: Indicative main compound areas

For more information refer to EIS Part A, Chapter 7.

Testing, commissioning and demobilisation

In order to maintain rail operations to and from Port Botany, the construction of the O'Riordan Street and Robey Street bridges are currently proposed to be staged with a new bridge structure to be constructed to the south of each of the existing bridges. Following construction of the new bridge, the existing tracks would be relocated to the new bridge and commissioned for operation. Following this, the existing northern bridge would be demolished and the new bridge would then be constructed in the position of the existing bridge.

Testing and commissioning (checking) of the rail line and communication/signalling systems would be undertaken to ensure that all systems and infrastructure are designed, installed, and operating according to ARTC's operational requirements.

At the end of the construction phase, the contractor would remove construction equipment from within the project site. Where relevant, areas that were occupied temporarily and do not form part of the operational footprint would be rehabilitated (in consultation with the relevant landowner). All construction work areas, compounds and access routes would be returned to the same or better condition than before construction began, where required.

For more information refer to EIS Part A, Chapter 7.

Construction activity

The main construction work will take around three years to complete. It is expected to be operating mid 2024, subject to approval. Detailed construction timing and staging will be confirmed when construction contractors have been engaged.

Above: Existing Botany Line

Our environment

Traffic, transport and access

Construction impacts

As part of the installation of key elements of the rail bridges, some lane and road closures would be required including:

- Temporary closure of Robey Street and O'Riordan Street at the proposed rail bridge locations. This would be for a weekend period of 54-hours and will take place on around 10 occasions over a three-year construction period at either Robey or O'Riodan Street (ie they will not both be closed at the same time).
- Temporary partial closure of Southern Cross Drive. This would likely be between 11pm and 5am to align with the airport curfew. Closures would require multiple nights and it is anticipated up to six closures would be required across the construction period.
- Localised temporary lane closures to facilitate construction activities and associated vehicle movements.

Pedestrian and cycle access

Pedestrian and cycle access would be maintained during construction. There would be some localised diversions around worksites at times. The potential increase in construction traffic on the nominated construction vehicle routes and in particular at the existing access gates may lead to intermittent disruptions to pedestrian and cycle movements along the adjacent footpaths and intersection crossing point.

Construction traffic

During construction, the project may also impact the surrounding road network as a result of:

- Heavy/oversized vehicle movements
- Temporary lane closures and traffic diversions
- Temporary changes to speed limits

To minimise impacts to the community, changes to the transport network will be planned to consider other projects in the area, and maintain traffic movements.

Truck movements and haulage routes will follow main roads where possible when accessing the construction sites.

Mitigation to minimise impacts

A traffic management plan will be developed and implemented during construction. The aim of the plan will be to maintain the safety of road users, pedestrians and cyclists within and adjacent to the site.

Operation of the project

Following completion of construction, no changes to the road network, pedestrian footpaths or bus networks are proposed.

As such, no permanent impacts to traffic or access are anticipated.

Above: Existing rail bridge over O'Riordan Street, Mascot

For more information refer to EIS Part B, Chapter 8.

Noise and vibration

The potential noise and vibration impacts during construction and operation of the project have been assessed in accordance with relevant NSW noise and vibration guidelines, and within the context of the existing environment.

Construction noise

A detailed noise and vibration assessment has been undertaken for the construction and operation of the project. The assessment found that construction would be noisy at times. The assessment identifies a range of construction 'scenarios', and predicted noise levels for each activity. The assessment identifies the noisy activities and when they are likely to be carried out - during daytime, evening and/or night time.

Several construction scenarios are likely to create noise impacts at residential receivers. These include the following activities:

- Scenario 1 – Enabling works as well as vegetation clearing and property adjustments
- Scenario 3 - Bridge Works – demolition and construction
- Scenario 5 - Track works
- Scenario 6 – Testing and commissioning

While most construction activity would be undertaken during standard construction hours some construction activities would need to be carried out outside of these hours. This would allow trains to continue accessing Port Botany, prevent traffic congestion on major roads, or for particular construction requirements (works within the OLS).

Construction vibration

The main potential sources of vibration from the construction work would include vibratory rollers and rock breakers.

To assess the potential for construction vibration impacts, vibration offset distances have been estimated from the recommended minimum working distances for cosmetic damage and human comfort (taken from relevant guidelines and standards).

Human comfort

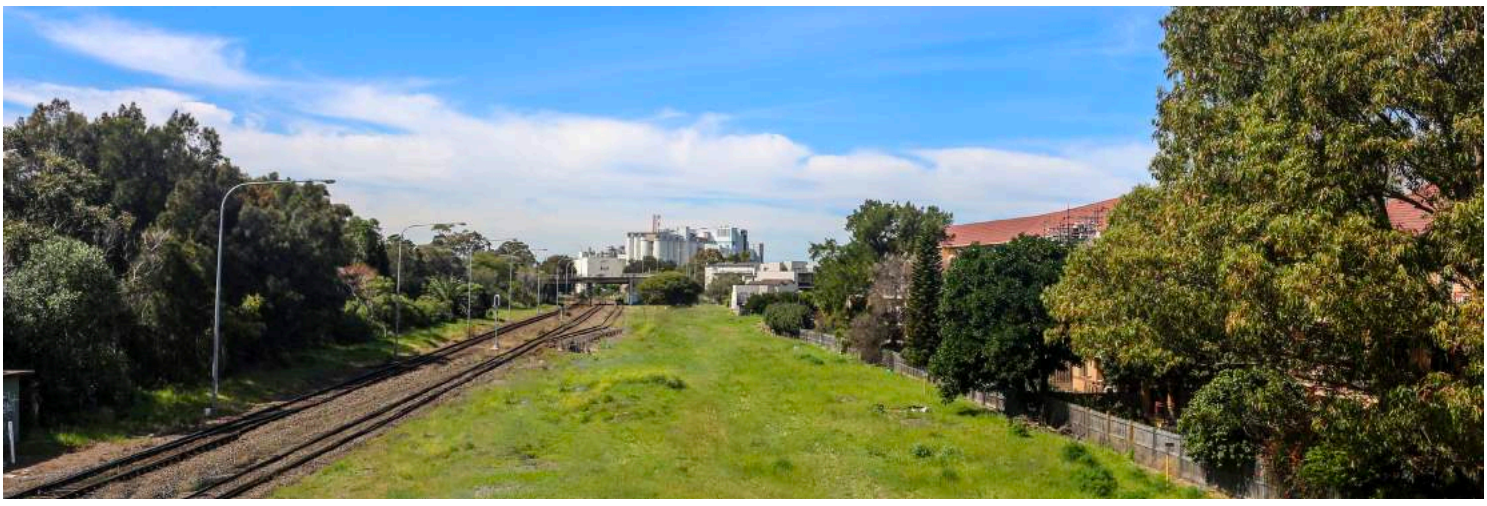
People are sensitive to vibrations and can often detect vibration levels well below those required to cause any risk of damage to a structure, or its contents.

The criteria to avoid annoyance to humans are therefore more stringent than those to prevent cosmetic damage. Some exceedances of this criteria may be expected during some construction activities, however vibration during construction activities will generally be short and intermittent in nature and may be felt within proximity of the project.

Structural damage

In general, the distance between the project site and nearest sensitive receivers is considered to be large enough to prevent cosmetic damage impacts. However, as shown on Figure 9.7 of the EIS, some buildings are located within the minimum recommended working distance for cosmetic damage.

The potential for cosmetic damage as a result of vibration will be minimised through implementation of management and mitigation measures.



Above: Photomontage illustrating the duplicated Botany Line, looking southeast towards Port Botany

Our environment

Noise and vibration cont.

Mitigation to minimise construction impacts

Strategies to minimise the noise and vibration of construction activities will be considered during construction planning. This will include a detailed review of work methods and equipment selection with the aim of avoiding the use of equipment within the relevant vibration safe working buffer distances.

A construction noise and vibration management plan will be developed and implemented during construction.

Operation of the project

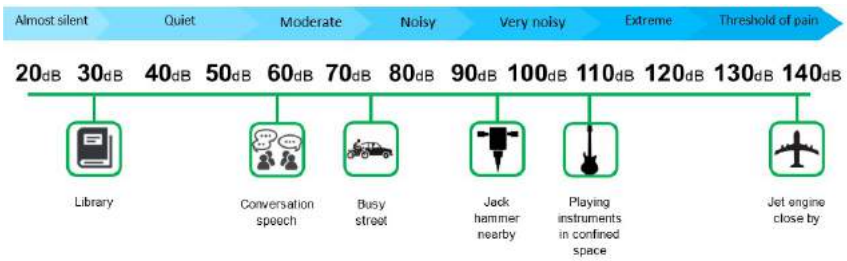
The assessment identified existing rail noise levels within the study area are already high in most areas where receivers are close to the rail tracks.

An increase in operational noise levels would results from:

- increased train speeds and noise created from trains running along curves (wheel squeal and flanging)
- a higher volume of trains
- the new track being closer to some receivers.

A worst-case increase of up to 8 dB are predicted for maximum noise levels, with daytime and night-time average noise levels predicted to increase by around 3 dB.

A range of options will be explored to mitigate this increase in noise. One particular option which is considered feasible will include the use of a modern track lubrication system on track curves. This will likely reduce the number exceedances of the noise criteria from 189 properties to 36. Further proposed mitigation is discussed in the EIS.



Above: Indicative sound levels (decibels)

For more information refer to EIS Part B, Chapter 9.

Above: Photomontage illustrating the duplicated Botany Line, looking southeast towards Port Botany

Heritage

Non-Aboriginal Heritage

A review of existing literature (eg databases, historical research) and field survey identified a number of heritage items directly in and within 100 metres of the project footprint. Design development and construction planning for the project has included a focus on avoiding or minimising the potential for environmental impacts during all key phases of the process.

Heritage items directly affected by the project include:

- O'Riordan Street Underbridge
- Robey Street Underbridge.

Both bridges would be demolished and replaced with a dual carriageway rail underbridge. The Botany Road Underbridge would undergo some minor remediation works. All three underbridges are listed on the NSW State Agency Heritage register (Section 170).

Heritage items indirectly affected would be the Botany Water Reserves, the Sydney Kingsford Smith Airport and the Beckenham Memorial Church. These items are located outside of the project site however indirect impacts would be as a result primarily from temporary visual impacts during construction.

Given the history of the Botany Rail Line in this area, it has been identified as having some heritage value and therefore as an unlisted heritage item. As the project would not result in any major changes to the operation of the existing Botany Rail Line with the exception of an increase in freight train movements, the project is not expected to have any additional non-Aboriginal heritage impacts.

Some areas were identified as having potential archaeology, particularly relating to former structures on the project site. Detailed construction planning and further assessment will aim to avoid potential impacts to archaeology and may include monitoring or testing where applicable.

A heritage interpretation plan will be prepared for the project. It will focus on the areas' historic development and target items considered to contain heritage significance within the project site. It will be prepared in consultation with Bayside Council, NSW Heritage Council and Randwick and District Historical Society.

For more information refer to EIS Part B, Chapter 15.

Above: Construction of a cutting (foreground) and embankment (background) for the Botany Line, 1916 - Refer to technical report for source.

Aboriginal Heritage

A review of existing literature (eg databases, historical research), previous field surveys and a recent field survey identified a number of heritage items directly within and adjacent to the project footprint.

No Aboriginal archaeological objects or areas of potential archaeological deposits were identified within the study area. Archaeological evidence indicates that Botany Bay, the Cooks River and its tributaries were a focus for intensive Aboriginal occupation, due to the combination of maritime, estuarine and terrestrial resources available in the area.

The terraces surrounding these waterways are likely to have functioned as camp sites from which past Aboriginal people could have exploited these resources. The survivability of this archaeological evidence is dependent on low levels of soil disturbance (from both natural and anthropogenic factors).

The project is considered unlikely to impact any Aboriginal heritage items or places, potential Aboriginal archaeology, or intangible cultural heritage values during construction or operation. Mitigation measures would be implemented during construction to manage any unexpected finds.

For more information refer to EIS Part B, Chapter 16.

Our environment

Summary of other key environmental assessments

Topic	Outcome	Location in EIS
Air quality	Potential impacts would result from the generation of dust during construction works and the movement of equipment and machinery. In general, air quality impacts are expected to be minor however the assessment found that there may be short term impacts within seven meters of construction activities. The potential impacts are considered to be manageable through established mitigation and management measures. The assessment predicts no exceedances of the relevant criteria for any of the potential pollutants and therefore is not predicted to result in adverse air quality impacts. No impacts to air quality are anticipated as a result of the increase in freight train movements that the project would enable.	***Volume 1, Part B, Chapter 10***
Biodiversity	The project site contains two native vegetation plant community types (PCTs) and clearing for the project would require 0.72ha clearing of native vegetation. Two threatened fauna species were recorded within the project site, the Eastern Bentwing-bat and the Grey-headed Flying-fox. No evidence of the threatened Green and Golden Bell Frog was found. The technical assessment concluded the impact on fauna habitat would not result in a significant impact on threatened species. The project has been purposefully designed to avoid or minimise effects on biodiversity values as far as is practicable, including through the location of compound sites in already disturbed areas where possible. Mitigation measures will be implemented to further minimise effects on biodiversity values of the project site.	***Volume 1, Part B, Chapter 11***

Above: Image of existing Botany Line at O'Riordan Street, Mascot

Topic	Outcome	Location in EIS
Contamination	A preliminary (Phase 1) investigation identified land contamination (soil, groundwater and surface water) within the project site. Fill material within the project site has been found to include asbestos containing material (ACM). Contamination within the project site, if not managed appropriately, could pose a potential risk to human health and the environment during construction or operation of the project. A Remediation Action Plan would be developed and would include the installation of a capping layer in an area with known ACM. Additional mitigation measures will be implemented to manage potential impacts during construction.	***Volume 1, Part B, Chapter 12***
Hydrology flooding	There are some locations adjacent to the rail line where both main stream flooding and major overland flow occur under pre-project conditions. Where construction facilities are located within these areas, there could be impacts both on construction and on the surrounding environment from construction. Detailed construction planning will aim to prioritise facilities such as material storage, outside these areas. The flooding assessment found that the project would result in an increase in peak flood levels in two key locations where flooding generally exists in pre-project conditions; in a residential area north of the rail line at Myrtle Street (104 Bay Street and 15 Begonia Street) and along travel lanes of Southern Cross Drive and Botany Road. Detailed design will aim to reduce these impacts and where they cannot be reduced, ground level survey will assist in determining whether the project will increase flood damages in adjacent development.	***Volume 1, Part B, Chapter 13***
Water quality and soil	The construction of the project has the potential to impact surface water quality and soil by increased water runoff and sedimentation of waterways. The project site includes several areas of known contaminated soil and if this contaminated soil is disturbed during construction and not appropriately managed, it could be transported via wind or water into the surrounding waterways. Acid sulfate soils is also likely to be encountered in the area of the project site between Southern Cross Drive bridge to the Mill Stream Bridge which has the potential to result in acidic runoff into Mill Stream and Mill Pond. The surface water features surrounding the project site, including Cooks River, Alexandra Canal and Mill Stream, are already highly contaminated and frequently exceed the adopted ANZECC 2000 guidelines for water quality. Additional water quality impacts from construction of the project would likely be negligible. However, a construction environmental management plan will be developed to manage all soil and water risks during construction of the project. The operation of the project may slightly increase the magnitude and/or frequency of potential impacts to the existing surface water quality and soil. This could be due to the additional train movements within the project site, which would slightly increase the potential for spills or leaks, and there would be a minor increase in impervious surface area from the duplication of the rail track and new capping material. Potential impacts will continue to be minimised through implementation of ARTC's operational Environmental Management System.	***Volume 1, Part B, Chapter 14***

Our environment

Topic	Outcome	Location in EIS
Land use and property	Construction of the project would require temporary lease of some land in the form of construction easement including for use of compounds, and other various construction activities. The project would require some land acquisition to accommodate a wider rail corridor. These properties are located adjacent to the southern side of the rail corridor to the north of Qantas Drive and Joyce Avenue. No residential properties are required to be acquired for the project.	***Volume 1, Part B, Chapter 17***
Landscape and visual assessment	Temporary visual impacts would be experienced during construction of the project in the vicinity of the construction compounds and work sites. Visible elements would include: machinery and equipment, site hoardings, partially complete structures and other works during the day and night time. These impacts would be temporary and limited to the construction period. The project would comprise the operation of a second track mainly within the existing rail corridor which is consistent with the existing character of the area. The urban design and landscaping principles would incorporate specific measures to respond to the identified landscape character and visual impacts. In addition, this project would be aligned with the urban design concepts of the Sydney Gateway project where the projects interface. Potential impacts resulting from the project are considered manageable through the implementation of the proposed mitigation measures provided in the EIS.	***Volume 1, Part B, Chapter 18***
Social	Around 270 jobs during non-possession work and 405 jobs during possession work would be created during construction of the project. This would result in direct employment opportunities for skilled workers across Greater Sydney including roles such as engineers, designers and construction workers in the short term. The social impact assessment for the project considered the impact of the project on the businesses and the local community. The assessment considered the existing social environment including demographics, connectivity, economics, community values, current amenity and community infrastructure. During construction there may be impacts to the amenity for the local community as a result of an increase in noise levels, traffic movements and congestion, dust, and changes in visual outlook. This may cause nuisance and reduce some people's ability to utilise the outdoor spaces at optimum function or enjoyment. These sites are however, already impacted by noise from the airport and adjacent roads. Once the project is in operation there may be potential impacts on the amenity of the local community due to the increased train volumes over time, however given the services already in operation in proximity this is considered to be minor.	***Volume 1, Part B, Chapter 19***

The EIS also includes assessments of additional matters including: risk, health & safety, sustainability, risk of climate change to the infrastructure, waste management and cumulative impacts.

Next steps

View the EIS

The EIS can be viewed on the Department of Planning, Industry and Environment website **planningportal.nsw.gov.au/major-projects/project/10206**

Hardcopies are available to view during the exhibition period at:

Mascot Library | 2 Hatfield Street, Mascot

Eastgardens Library | 152 Bunnerong Road, Eastgardens

St Peters/Sydenham Library | 39 Unwins Bridge Road, Sydenham

An electronic copy of the EIS is available to view at **Service NSW Botany** | 5 Lord Street, Botany.

Make a submission

The NSW Department of Planning, Industry and Environment encourages you to have your say by making a submission on the project.

All formal submissions on the EIS are to be made directly to the Department of Planning, Industry and Environment.

To make a submission, visit **www.planningportal.nsw.gov.au/major-projects/** and follow the steps.
Noting: the project name is 'Botany Rail Duplication' and application number 'SSI-9714'.

You can also send a physical copy of your submission - Hand deliver to one of the Departments offices, or post to

Planning Services, NSW Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

The following information needs to be provided:

- your name and address, at the top of the letter only
- the application name is 'Botany Rail Duplication Project' and application number 'SSI-9714'
- a statement on whether you support or object to the proposal
- the reasons why you support or object to the proposal; and
- a declaration of any reportable political donations made in the previous two years.
- **Please note, your submission must reach the Department by 13 November 2019.**

Next steps

Following the public exhibition of the EIS, ARTC will consider the issues raised in any submissions and will respond to community feedback in a submissions report. The report will also document the outcomes of any ongoing investigations and design work identified following the exhibition of the EIS. **The Submissions Report will be made publicly available on the Department of Planning, Industry and Environment Major Projects website.**

If the project is approved, it would be undertaken in accordance with the mitigation measures proposed in the EIS, the submissions report and the conditions of approval.

ARTC is implementing an ongoing comprehensive community and stakeholder consultation program to engage proactively with local communities and stakeholders about the project. Consultation with stakeholders and the community will continue throughout the detailed design and construction phases.

Above: Key project stages

ARTC

Botany Rail Duplication

CONTACT ARTC

Web: artc.com.au/projects/botany-rail-duplication-project/

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Email: enviroline@artc.com.au

If you need an interpreter, please call TIS National on 131 450 and ask them to call ARTC on 1300 550 402. Our business hours are 0900 – 1700.