

Staging Report

M12 Motorway

Transport for New South Wales

April 2023

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Revision history

Revision	Date	Description
A	05/08/2021	First draft for TfNSW review
B	19/04/2022	Second draft
C	10/05/2022	Third draft for internal review
D	19/05/2022	Fourth draft for ER review
E	23/06/2022	Updated following ER review
F	23/03/2023	Updated due to revised project staging
G	03/04/2023	Updated following ER and WSO Co review

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Glossary/Abbreviations

Abbreviation	Expanded text
ARSR	Amendment Report to the Submissions Report
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
Construction	Includes all activities required to construct the CSSI as described in the documents listed in Condition A1, including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding Low Impact Work which is carried out to complete prior to the approval of the CEMP, works approved under a Site Establishment Management Plan, demolition of acquired residential houses, structures and sheds, and works specified in Appendix B and approved under an environmental management plan(s) in accordance with Condition A24.
Compliance audit	Verification of how implementation is proceeding with respect to a CEMP (which incorporates the relevant approval conditions)
CSSI	Critical State Significant Infrastructure
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DECC	Commonwealth Department of Environment and Climate Change, now DAWE
DPE	Department of Planning and Environment
Early works	Works included in Appendix B of the M12 Motorway CSSI Instrument of Approval
EES	Environmental, Energy and Science (a part of NSW DPE)
EIS	Environmental Impact Statement
Environmental Assessment Documentation	Collective reference to the M12 EIS (Oct 2019), Submissions Report (Oct 2020), Amendment Report (Oct 2020), Amendment Report-Submissions Report (Dec 2020) and supplementary reports as detailed in NSW CoA A1.
Environmental Representative (ER)	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPA	NSW Environment Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environmental Protection Licence
ERG	Environmental Review Group – generally comprising representatives of TfNSW, ER, Project delivery team, regulatory authorities (EPA, EES) and councils (Penrith City Council, Liverpool City Council and Fairfield City Council). The ERG will be maintained for the duration of the Project and will meet regularly and undertake environmental inspections. The role the ERG is to work collaboratively with the project team to provide proactive advice on environmental management issues on the Project.
km	kilometres
Non-compliance	Failure to comply with the requirements of the Project approval or any applicable licence, permit or legal requirements.
NRAR	Natural Resources Access Regulator

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Abbreviation	Expanded text
NSW CoA	NSW Conditions of Approval
OCEMP	Overarching Construction Environmental Management Plan
Operation	When the Project (whether in full or part) is open to motorists for travel <i>Note: There may be overlap between the carrying out of Construction and operation if the project is staged. Commissioning trials of equipment and temporary use of any part of the project are within the definition of Construction</i>
OSO	Outer Sydney Orbital
Planning Secretary	Secretary of the NSW Department of Infrastructure, Planning and Environment, or delegate
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
Pollution	Pollution (including air pollution, water pollution, noise pollution and land pollution) as defined in the dictionary to the POEO Act
Project, the	M12 Motorway Project
TfNSW	Transport for New South Wales (formerly Roads and Maritime Services)
Unexpected find	An unexpected discovery such as a heritage item, threatened species, contamination, asbestos or hazardous substance.
USP	Utilities Services Package
Work	Any physical work to build or facilitate the building of the CSSI, including low impact work, environmental management measures and utility works. However, it does not include activities that inform or enable detailed design of the CSSI and generate noise that is no more than 5 dB(A) above the rating background level at any sensitive receiver.
WSIA	Western Sydney International Airport

1 Introduction

1.1 Background

Transport for New South Wales (TfNSW) is planning to construct and operate the M12 Motorway (the Project) to provide direct access between the Western Sydney International Airport (WSIA) at Badgerys Creek and Sydney's motorway network. The M12 Motorway will run between the M7 Motorway at Cecil Hills and The Northern Road at Luddenham for about 16 kilometres (km) and is expected to be opened to traffic prior to opening of the WSIA. The regional context of the Project is shown on Figure 1-1.

The Project will be constructed in separate packages under separate contracts:

- M12 West – between The Northern Road, Luddenham and about 250 metres east of Badgerys Creek
- M12 Central – between about 500 metres west of South Creek and the Western Sydney Parklands at Cecil Road, Cecil Park
- M12 Central temporary roundabout installation
- M12 East as part of the M7/M12 Integration project:
 - Elizabeth Drive Connections (EDC) – a connection between the M12 Motorway and Elizabeth Drive at Cecil Park
 - M7/M12 interchange – a grade separated motorway to motorway connection between the M7 Motorway and M12 Motorway.

An Environmental Impact Statement (EIS) was prepared to describe and assess the Project and recommend management measures to address impacts (October 2019). An Amendment Report (October 2020) was prepared to assess changes to the design developed after the public exhibition of the EIS. Following exhibition of the Amendment Report, an Amendment Report to the Submissions Report (ARSR) was prepared (December 2020). This was followed by the ARSR – Amendment, which addressed biodiversity matters only (March 2021). Collectively these documents are referred to as the Environmental Assessment Documentation.

1.2 Project Description

The Project, as described in the ARSR, includes the following key components:

- A new dual-carriageway motorway between the M7 Motorway and The Northern Road with two lanes in each direction with a central median allowing future expansion to six lanes
- Motorway access via three interchanges/intersections:
 - A motorway-to-motorway interchange at the M7 Motorway and associated works (extending about 4 km within the existing M7 Motorway corridor) with connection between the M12 Motorway and Elizabeth Drive
 - A grade-separated interchange referred to as the WSIA interchange, including a dual-carriageway four-lane airport access road (two lanes in each direction for about 1.5 km) connecting with the Western Sydney International Airport Main Access Road

- A signalised intersection at The Northern Road with provision for grade separation in the future
- Bridge structures across Ropes Creek, Kemps Creek, South Creek, Badgerys Creek and Cosgroves Creek
- A bridge structure across the M12 Motorway into the Western Sydney Parklands to maintain access to the existing water tower and mobile telephone/other service towers on the ridgeline in the vicinity of Cecil Hills, to the west of the M7 Motorway
- Bridge structures at interchanges and at Clifton Avenue, Elizabeth Drive, Luddenham Road and other local roads to maintain local access and connectivity
- Inclusion of active transport (pedestrian and cyclist) facilities through provision of pedestrian bridges and an off-road shared user path, including connections to existing and future shared user path networks
- Modifications to the local road network, as required, to facilitate connections across and around the M12 Motorway, including:
 - Realignment of Elizabeth Drive at the WSIA, with Elizabeth Drive overpassing the airport access road and the future passenger rail line to the airport
 - Two new signalised intersections from Elizabeth Drive into the WSIA, with provisions for future connection to potential developments to the north
 - Widening of Elizabeth Drive under the M7 Motorway and approaches
 - Realignment of Clifton Avenue over the M12 Motorway, with associated adjustments to nearby property access
 - Relocation of the Salisbury Avenue cul-de-sac, on the southern side of the M12 Motorway
 - Realignment of Wallgrove Road north of its intersection with Elizabeth Drive to accommodate the M7 Motorway northbound entry ramp
 - Realignment of Wallgrove Road to connect to Cecil Road, including a connection between Elizabeth Drive and Wallgrove Road via Cecil Road with a signalised intersection with Elizabeth Drive
- Adjustment, protection or relocation of existing utilities
- Ancillary facilities to support motorway operations, smart motorways operation in the future and the existing M7 Motorway operation, including gantries, electronic signage and ramp metering
- Other roadside furniture including safety barriers, signage and street lighting
- Adjustments of waterways, where required, including Kemps Creek, South Creek and Badgerys Creek
- Permanent water quality management measures including swales and basins
- Establishment and use of temporary ancillary facilities, temporary construction sedimentation basins, access tracks and haul roads during construction
- Permanent and temporary property adjustments and property access refinements as required.

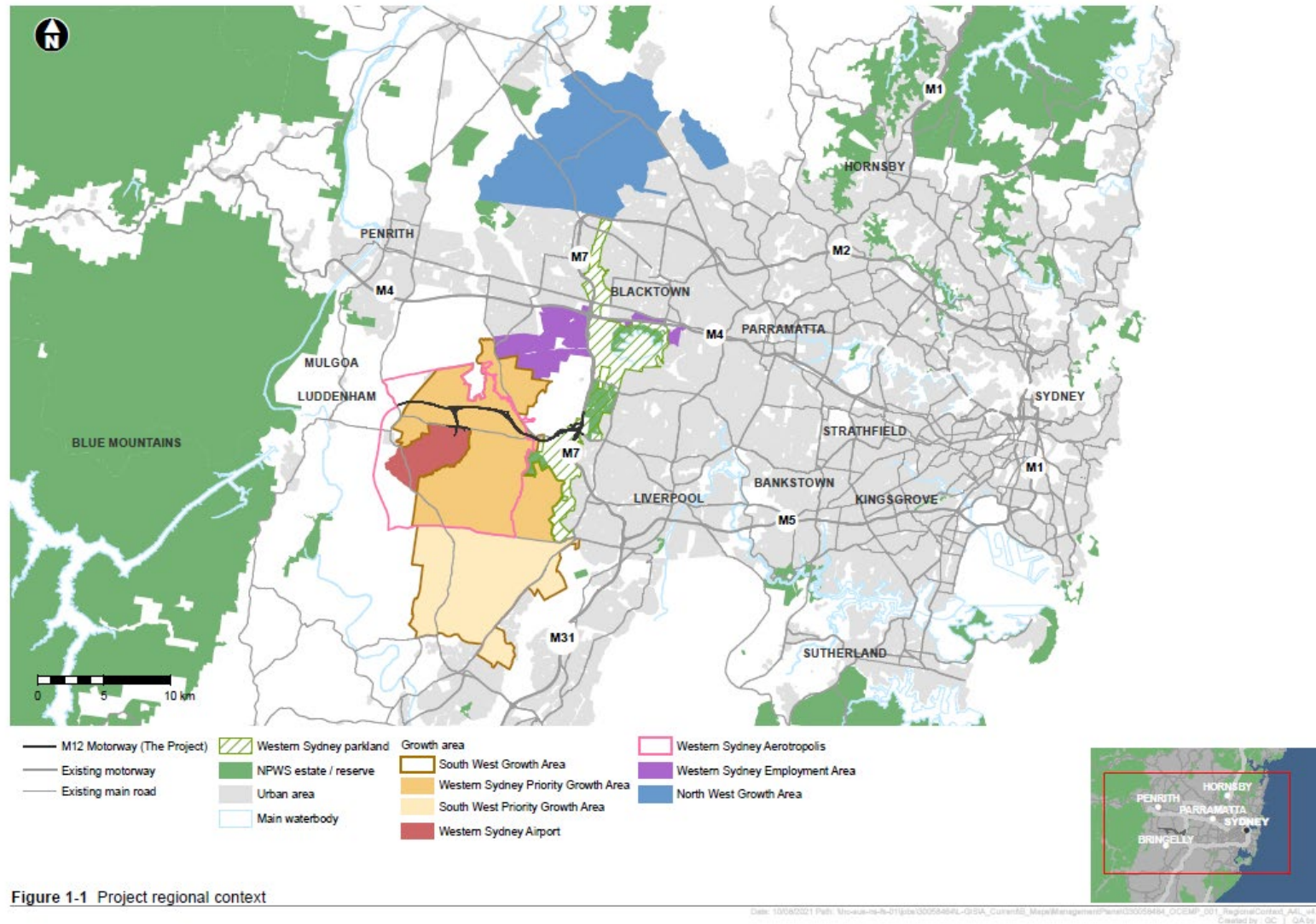


Figure 1-1: Project regional context

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1.3 Statutory context

The Project is subject to an approval under Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as Critical State Significant Infrastructure (CSSI) (SSI-9364). The Project is also a controlled action under Section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), requiring a separate approval from the Australian Minister for the Environment.

An EIS was prepared to describe and assess the Project and recommend management measures to address impacts. The EIS was exhibited by the NSW Department of Planning and Environment (DPE) for 34 days from 16 October 2019 to 18 November 2019 to give the community and stakeholders the opportunity to provide comment.

In accordance with Section 5.17 of the EP&A Act, the Secretary requested TfNSW to provide a response to submissions on 29 November 2019 to address the identified issues. Due to design developments since the exhibition of the EIS, an Amendment Report was developed to assess the impacts of these amendments. The Amendment Report was exhibited by DPE for 14 days from 21 October 2020 to 4 November 2020. Following exhibition of the Amendment Report, an Amendment Report Submissions Report (ARSR) was developed December 2020 to address the identified issues followed by the ARSR – Amendment in March 2021 which addressed biodiversity matters only.

Approval for the Project under the EP&A Act was granted by the Minister for Planning on 23 April 2021. Approval for the Project under the EPBC Act was granted by the Federal Minister for the Environment on 3 June 2021.

1.4 Purpose of this Staging Report

The purpose of this Staging Report is to satisfy the requirements of the NSW conditions of approval (CoA) A9 and A10 where Construction and Operation of the project is staged.

The CoA requires the Staging Report to describe the staging of Construction and Operational phases only, however pre-construction works have been included in this Staging Report for clarity and completeness. Pre-construction works have occurred prior to the one month before staging of construction in compliance with the CoA related to these works.

The detailed design phase of the project is generally carried out prior to Construction commencing with some design work continuing during construction. As NSW CoA A9 and NSW CoA A10 don't require discussion of detailed design in the Staging Report, this phase hasn't been considered further in this report.

Staging Report requirements, and where they are addressed in this report, are listed in Table 1-1.

1.5 Staging Report submission requirements

In accordance with NSW CoA A9, the Staging Report must be endorsed by the Environmental Representative (ER) and then submitted to the Planning Secretary (for information) no later than one (1) month before the commencement of construction of the first of the proposed stages of construction.

Table 1-1: NSW CoA relevant to the Staging Report

No.	Requirement	Reference
A9	The CSSI may be constructed and operated in stages. Where staged construction or operation is proposed, a Staging Report (for either or both construction and operation as the case may be) must be prepared and submitted to the Planning Secretary for information. The Staging Report must be endorsed by the ER and then submitted to the Planning Secretary no later than one (1) month before the commencement of construction of the first of the proposed stages of construction (or if only staged operation is proposed, one (1) month before the commencement of operation of the first of the proposed stages of operation).	This Staging Report Section 1.5
A10	The Staging Report must:	Section 2 Appendix A
	(a) if staged construction is proposed, set out how the construction of the whole of the CSSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when construction of each stage will commence and finish;	
	(b) if staged operation is proposed, set out how the operation of the whole of the CSSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when operation of each stage will commence and finish (if relevant);	Section 2 Appendix A
	(c) specify how compliance with conditions will be achieved across and between each of the stages of the CSSI; and	Section 3 Appendix A
	(d) set out mechanisms for managing any cumulative impacts arising from the proposed staging.	Section 2.6 Appendix A
A11	The CSSI must be staged in accordance with the Staging Report	Section 2.2 Appendix A
A12	Where staging is proposed, the terms of this approval that apply or are relevant to the work or activities to be carried out in a specific stage must be complied with at the relevant time for that stage.	Appendix A
A13	Where changes are proposed to the staging of construction or operation, a revised Staging Report must be prepared and submitted to the Planning Secretary for information no later than one (1) month before the proposed change in the staging. The revised Staging Report must be endorsed by the ER before submitting it to the Planning Secretary.	Section 1.6 Appendix A

1.6 Revision of Staging Report

In accordance with CoA A 13, where changes are proposed to the staging of construction, a revised Staging Report must be prepared and endorsed by the ER before submission to the Planning Secretary for information no later than one (1) month before the proposed change in the staging.

2 Proposed Project Staging

2.1 Project Packages

The Project will be delivered in multiple packages. M12 East has two components that will be delivered by one Contractor with some difference in delivery timing as described in Section 2.3 and Table 2.1. The packages are described as:

- **M12 West:** Approximately six kilometres of motorway from The Northern Road at Luddenham to approximately 250 metres east of Badgerys Creek. Includes a 1.5 kilometre access road to the Western Sydney International Airport and a 1.6 kilometre upgrade of Elizabeth Drive.
- **M12 Central (main construction):** Approximately 7.5 kilometres of motorway from west of Badgerys Creek to the Water Tower Access Road
- **M12 Central (temporary roundabout):** Temporary roundabout installation at Elizabeth Drive and Devonshire Road, Kemps Creek
- **M12 East (as part of the M7/M12 Integration project):**
 - **Elizabeth Drive Connection (EDC):** A two kilometre section from Duff Road to about 300 metres east of the M7 Motorway.
 - **M12/M7 Interchange:** An interchange between the M12 Motorway and M7 Motorway and tie-in works for approximately four kilometres on the M7 Motorway.

Each package will be delivered under separate major contracts with activities including utility adjustments, drainage work, road construction, bridge construction, traffic management, intelligent transport systems, lighting and finishing work). These activities are described in more detail in Section 2.2.

Some specific smaller scale activities which are excluded from the definition of Construction in the CoA will be carried out prior to award of major construction contracts and prior to the approval of the Contractors' Construction Environmental Management Plans (CEMPs). These activities are described further in Section 2.2 and include:

- Low impact works
- Early works
- Site establishment works
- Demolition works

An overview of key features of each package is described below, however some overlap may occur where the respective packages interface.

Figure 2-1 shows the three packages of the M12 Motorway project.

2.1.1 M12 West

The M12 West package is six kilometres long and runs from The Northern Road at Luddenham to about 250 metres east of Badgerys Creek and features a grade separated interchange with the Airport Access Road connecting the M12 Motorway to the WSIA.

The M12 West package will provide a dual carriageway with a narrow median and safety barriers running along the entire length and designed to integrate with the future Outer Sydney Orbital (OSO) project. The OSO eastbound carriageway will be built to the north of the M12 Motorway

alignment and the M12 Motorway carriageway would become the westbound carriageway for OSO. Emergency stopping bays and emergency crossovers will be provided at regular intervals.

The M12 West package also consists of:

- The Airport Access Road (1.5 kilometre)
- Multiple bridges
- Active transport (pedestrian and cyclist) facilities through the provision of a shared user path, including connections to existing paths
- A connection to the signalised grade intersection at The Northern Road with provision for grade separation in the future as part of the future OSO
- A realignment and duplication of approximately 1.6 kilometres of Elizabeth Drive with a new bridge over the Airport Access Road and Metro Rail corridor, a four-way signalised intersection east of Airport Access Road, and a left-in/left-out intersection west of the Airport Access Road, providing access to the WSIA.
- A signalised single point interchange with north facing ramps from Elizabeth Drive to M12 Motorway and south facing ramps from Elizabeth Drive to Airport Access Road (assessed under a consistency).
- Protection, relocation and installation of utility services
- Urban design features including Aboriginal artwork on bridges, rest areas on shared user paths, interpretive signage and landscape planting.

2.1.2 M12 Central – Main construction package

Construction of this package of the project will involve building 7.5 kilometre of motorway from west of Badgerys Creek to the Water Tower Access Road within Western Sydney Parklands.

The M12 Central package will include:

- A dual carriageway with a wide median to allow for future widening to six lanes
- Safety barriers along the length of the package
- Emergency stopping bays and emergency crossovers at regular intervals
- A shared user path with lighting will provide an active transport link along the motorway and eastward to the M7 Motorway through the Western Sydney Parklands
- Several bridges
- Provision for a future interchange at Devonshire Road and Mamre Road
- Adjustments to local roads including Clifton Avenue and Salisbury Road
- Protection, relocation and installation of utility services
- Urban design features including Aboriginal artwork on bridges, rest areas on shared user paths, interpretive signage and landscape planting.

2.1.3 M12 Central – Temporary roundabout

This small package will include construction of a temporary roundabout at the intersection of Devonshire Road and Elizabeth Drive, Kemps Creek. The roundabout is required to address Revised Environmental Management Measure TT10 to manage construction traffic impacts in the area and improve safety.

2.1.4 M12 East

The M12 East package will be delivered with the M7 Motorway (Modification 6 Widening; SSI-663-Mod-6) scope of work under what is referred to as the M7/M12 Integration project. M7 Widening involves widening about 26 kilometres of the M7 Motorway between Prestons and Oakhurst / Glendenning.

M12 East and M7 Widening packages have a complex interface in the vicinity of Cecil Hills and Cecil Park where the M7/M12 interchange is proposed. The packages will therefore benefit from design and construction (D&C) by one D&C Contractor under the M7/M12 Integration project.

The M12 East package involves two components of work as described below.

Elizabeth Drive connections

Construction of this package will involve connecting Elizabeth Drive to the M12 Motorway and the upgrade of approximately two kilometres of Elizabeth Drive from east of Duff Road to 300 metres east of the M7 Motorway. The package includes:

- M12 Motorway eastbound exit ramp to Elizabeth Drive and M12 westbound entry ramp from Elizabeth Drive
- The realignment of Wallgrove Road through properties to the existing Cecil Road and Elizabeth Drive intersection
- The realignment of Cecil Road to connect it to the new Wallgrove Road
- The realignment of the M7 Motorway northbound entry ramp from Elizabeth Drive and the northbound exit ramp to Elizabeth Drive
- Upgrading of Elizabeth Drive from two to three lanes in both directions from the Elizabeth Drive/M12 Motorway intersection to the Elizabeth Drive/M7 Motorway southbound entry and exit ramp intersection with provisions for three lanes on the remaining sections.
- Tie-ins to Elizabeth Drive
- Five signalised intersections
- Protection, relocation and installation of utilities
- Urban design features including interpretive signage and landscape planting.
- Active transport (pedestrian and cyclist) facilities through the provision of a shared user path, including connections to existing paths.

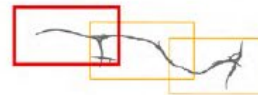
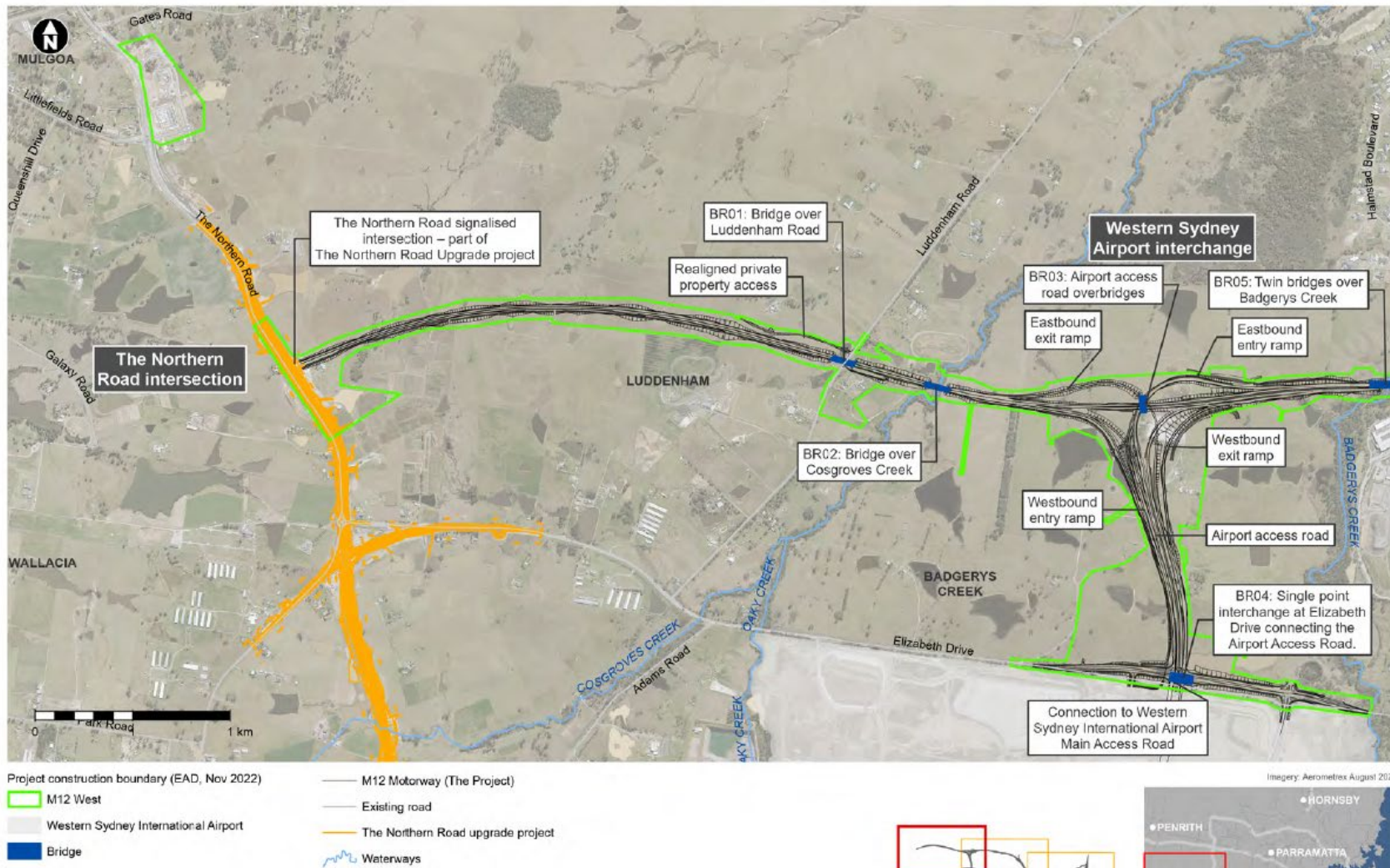
Wallgrove Road will be realigned to make room for as part of the construction of the Elizabeth Drive connection (EDC). This will also require decommissioning a section of the existing Wallgrove Road approximately 500 metres from where it currently intersects with Elizabeth Drive. The new Wallgrove Road will connect to and replace the existing Cecil Road and Elizabeth Drive intersection and Cecil Road will be realigned to connect back into the realigned Wallgrove Road.

M7 / M12 interchange

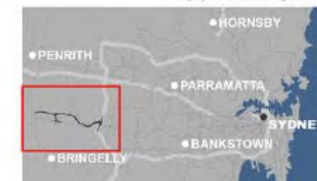
The M7/M12 interchange provides a grade separated motorway to motorway connection between the M7 Motorway and M12 Motorway. Located in Cecil Park, this package involves:

- Provision of four connections at the grade separated interchange including:
 - Connection from M7 southbound onto M12 westbound

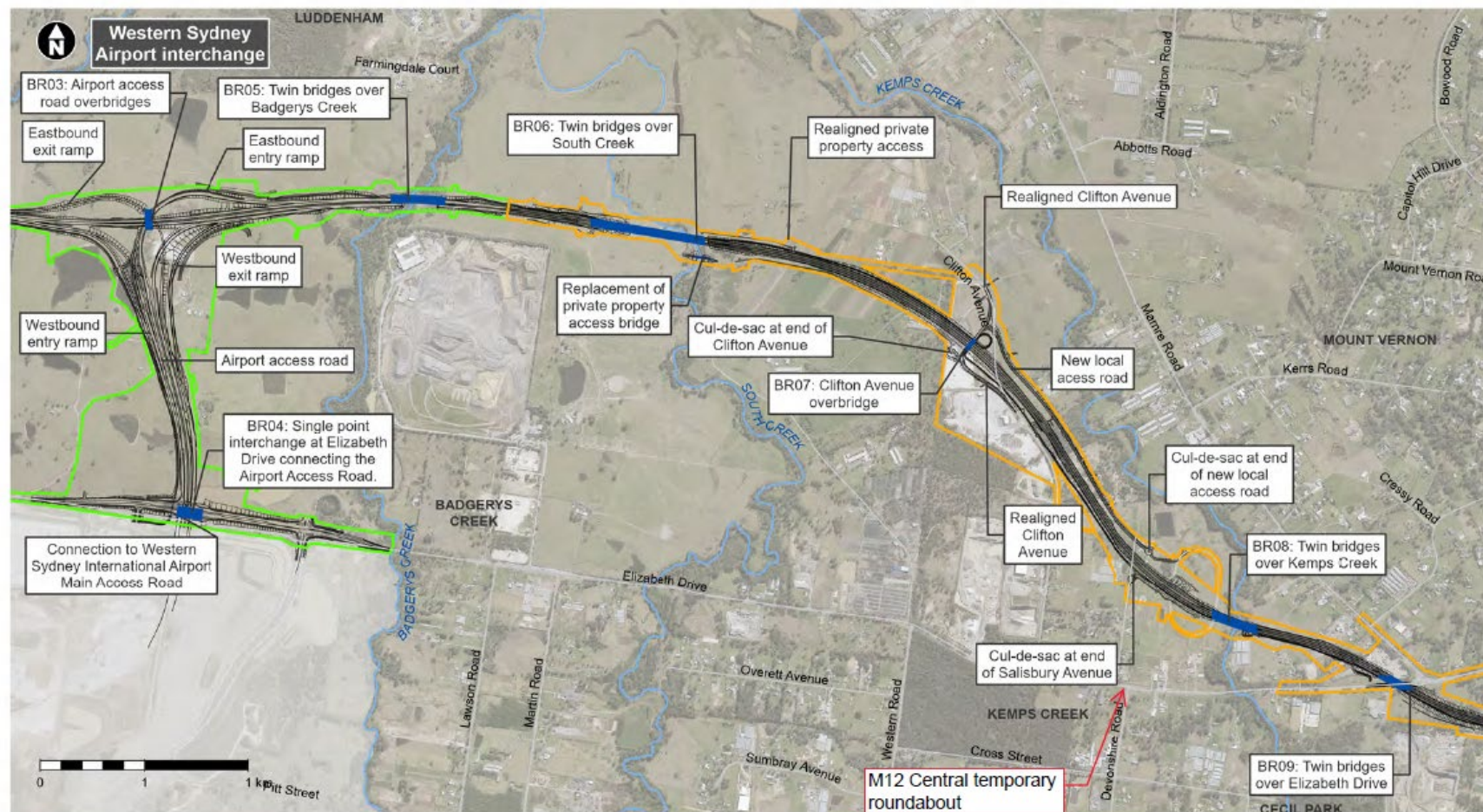
- Connection from M7 northbound onto M12 westbound
 - Connection from M12 eastbound onto M7 southbound
 - Connection from M12 eastbound onto M7 northbound.
- Interchange tie-in extending about four kilometres into the M7 Motorway corridor



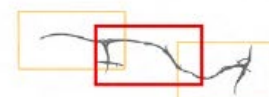
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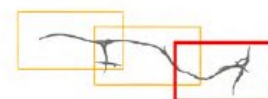
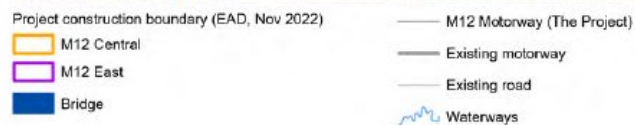
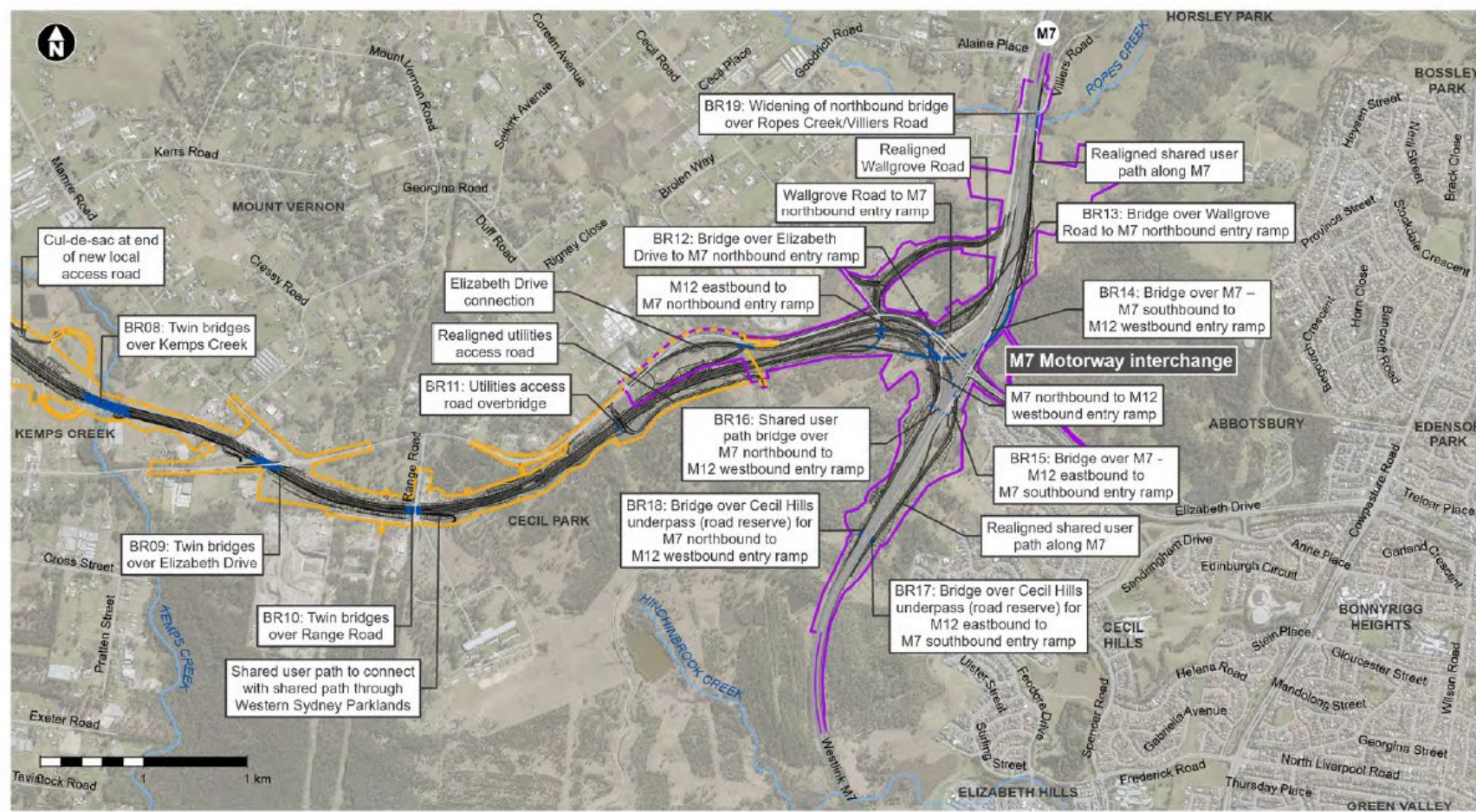


- Project construction boundary (EAD, Nov 2022)
- M12 West
 - M12 Central
 - Western Sydney International Airport
 - Bridge
 - M12 Motorway (The Project)
 - Existing road
 - Waterways



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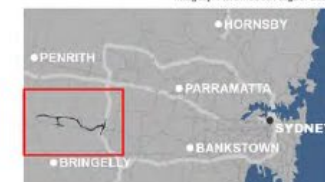


Figure 2-1: M12 Project delivery packages

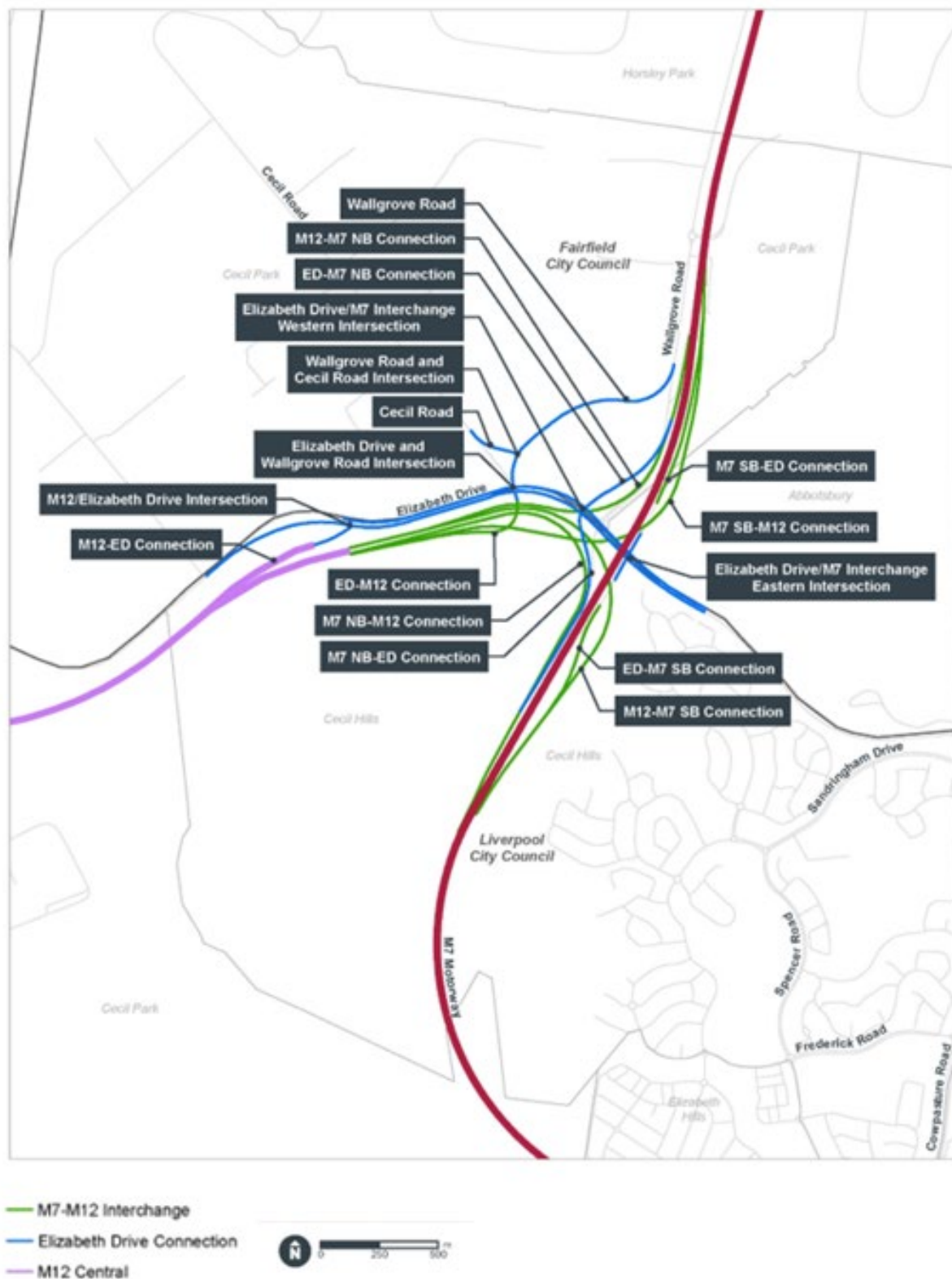


Figure 2-2: M12 East (Elizabeth Drive Connection, M7/M12 Interchange)

2.2 Project stages

This section outlines the project stages and describes work activities associated with each stage.

2.2.1 Pre-construction

There are a number of activities carried out prior to the main Construction stage. These include low impact works, early works, site establishment works and demolition works and collectively known as pre-construction works. The M12 CoA don't require these activities to be described in the Staging Report, however they have been added to this report for clarity.

2.2.1.1 Low impact works

Low impact works are defined in the M12 Motorway NSW Planning Approval as:

- Survey work including carrying out general alignment survey, installing survey controls (including installation of global positioning systems), installing repeater stations, carrying out surveys of existing and future utilities and building and road dilapidation surveys
- Investigations including investigative drilling, contamination investigations and excavation
- Operation of construction ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community
- Minor clearing and relocation of native vegetation
- Installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and at- property treatments
- Property acquisition adjustment work including installation of property fencing, and relocation and adjustments of utilities to property including water supply, gas and electricity
- Relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER
- Archaeological and cultural salvage undertaken in accordance with a strategy or salvage operation required by the conditions of this approval
- Maintenance of existing buildings and structures required to facilitate the carrying out of the CSSI
- Other activities determined by the ER to have minimal environmental impact which may include but not be limited to construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access
- Archaeological testing under the *Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010)* or archaeological monitoring undertaken in association with the above to ensure that there is no impact on heritage items.

Low impact works are excluded from the definition of 'Construction' in the conditions of approval and are allowed to be carried out or completed prior to the approval of the contractor's CEMP for each package. Low impact works will become 'Construction' once the construction contractor's CEMP for the applicable package is approved.

Each package would include some low impact works which would be carried out by various contractors including main construction contractors. Some low impact works, particularly investigations, may be required outside the project construction footprint. In some instances, "low

impact work” for a later stage may occur following approval of a CEMP for an earlier, separate stage, e.g. “low impact work” undertaken as part of the M12 East stage may occur following approval of the stage specific CEMP for the M12 Central or M12 West stages.

The environmental impacts associated with these works are managed in accordance with specific low impact work method statements (LIWMS) which are prepared and approved in accordance with the process outlined in Section 3.3.

2.2.1.2 Early works

Early works as described in Appendix B of the CoA are excluded from the definition of ‘Construction’ and include:

- Relocation of electrical infrastructure at Luddenham Road, Luddenham and Elizabeth Drive, Badgerys Creek
- Installation of new Sydney Water pipeline at Elizabeth Drive, Badgerys Creek
- Installation of a temporary roundabout at Elizabeth Drive, Badgerys Creek
- Protection of high-pressure gas mains located within Western Sydney Parklands and existing road corridor in proximity to the M7 Motorway, Elizabeth Drive and Wallgrove Road, Cecil Park
- Relocation of gas mains along the northern side of Elizabeth Drive and to the west of the existing Wallgrove Road, Cecil Park.

All Early works packages except for the gas mains relocation at Elizabeth Drive and Wallgrove Road will be completed between November 2021 and early 2023. Following further design work and engagement with Jemena, this gas relocation package was deemed too complex to be completed as an early works package. The gas mains relocation will instead form part of M12 East main construction works.

The environmental impacts associated with early works will be managed in accordance with specific Early Works Environmental Management Plans (EWEMP), which have been prepared and approved in accordance with CoA A24. The exception is for the gas relocation work activities which will be managed by the M12 East construction contractor’s approved CEMP and sub-plans.

2.2.1.3 Site establishment works

Site establishment works approved by the Planning Secretary under a Site Establishment Management Plan are excluded from the definition of ‘Construction’ in the CoA.

Site establishment works include construction of ancillary facilities and associated works and would be carried out by the major construction contractors for each package and would typically occur prior to the approval of the construction contractor’s CEMP.

The environmental impacts associated with these works will be managed in accordance with approved Site Establishment Management Plans (SEMPs) prepared for each package in accordance with CoA A16.

2.2.1.4 Demolition works

Demolition of acquired residential houses, structures and sheds is excluded from the definition of ‘Construction’ in the CoA.

Demolition of acquired residential houses, structures and sheds in the M12 West and M12 Central packages would be carried out by the major construction contractors and commence in mid to late

2022. Demolition of some residential houses, structures and sheds in the M12 East package may occur in 2023 prior to commencement of major construction contracts.

Environmental impacts associated with these works will be managed in accordance with specific EWMS prepared for the activity. Once the construction contractor's CEMP is approved, demolition works would be managed in accordance with the approved contractor CEMP and sub-plans for the applicable package.

2.2.2 Construction stage

Works defined as construction includes all activities required to construct the Project excluding Low Impact Works, Early Works, Site Establishment Works and Demolition Works, as described in Sections 2.2.1 to Section 2.2.4. Generally, construction activities will include:

- Vegetation clearing
- Earthworks
- Traffic management and access
- Road widening and new road work
- Intersection works
- Construction of bridges and viaducts
- Construction of drainage
- Construction of pavements
- Installation of at-source noise mitigation measures
- Relocation of utilities and services
- Commissioning trials of operational equipment and temporary use of any part of the CSSI for Operation
- Finishing work and site restoration.

Construction of the project will be delivered in three packages (M12 West, M12 Central and M12 East) by separate contractors. M12 East has two components including Elizabeth Drive Connections and M7/M12 Interchange.

The environmental management approach for construction related activities is outlined in Section 3.

2.2.3 Operation stage

The operation stage of the project will commence once the M12 Motorway is open to motorists for travel. As a minimum this will require completion of M12 West, M12 Central and M12 East Elizabeth Drive Connections. It is expected these packages will become operational at the same time in early 2026. The M7/M12 Interchange operation stage is expected to commence later in mid-2026.

2.3 Indicative timing

Construction will take approximately three years. Early Works (including utility relocation work) and Low Impact Works (including geotechnical and archaeological investigations) commencing in November 2021. Site establishment works and demolition works are expected to commence mid-

late 2022. Project construction is anticipated to be completed in 2025 and be operational by mid-2026.

- M12 West package: Construction contract awarded April 2022. Construction commenced August 2022.
- M12 Central (main construction) package: Construction contract awarded in April 2022. Construction commenced August 2022
- M12 Central (temporary roundabout) package: Contract to be awarded in May 2023 and construction expected to commence in June 2023
- M12 East package: Design and construction contract awarded in February 2023. Construction expected to commence mid-2023 on Elizabeth Drive Connections and mid to late 2023 for the M7/M12 interchange.

The indicative timing of project stages including the general timing of construction commencement and completion for the Project is outlined in Table 2-1.

2.4 Changes to staging

Where changes are proposed to the staging of construction or operation, a revised Staging Report will be prepared, endorsed by the ER and submitted to the Planning Secretary for information no later than one month prior to the proposed change in the staging.

Table 2-1: Indicative timing of project stages

Project stage		Indicative timing of project stages																							
		2021		2022		2023		2024		2025		2026													
M12 West	Low impact works																								
	Early works: Roundabout and electrical																								
	- Early works: Water main - Site establishment and demolition works																								
	Construction and Operation																								
M12 Central	Low impact works																								
	Site establishment and demolition works																								
	Construction and Operation																								
M12 East (EDC)	Low impact works																								
	Early works: Gas mains and Demolition works																								
	Site establishment works																								
	Construction and Operation																								
M12 East (M12/M7 Interchange)	Low impact work																								
	Site establishment work																								
	Construction and Operation																								

Key

	Works		Construction		Operation
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2.5 Cumulative impacts

Cumulative impacts may occur because of the project being delivered concurrently, or consecutively, with other approved projects in the area, including M7 Widening Modification 6, WSIA, Sydney Metro Western Sydney Airport and the Upper South Creek Advanced Water Recycling Centre.

A key interface exists between the M7 Widening Modification 6 and M12 East works in the vicinity of Cecil Hills and Cecil Park and the works will be delivered together as the M7/M12 Integration project. Potential cumulative impacts associated with this interface would include but not be limited to traffic, noise and vibration and air quality impacts.

The pre-construction work carried out for the project is generally low impact in nature and extent and is not expected to lead to cumulative impacts with the commencement of construction in adjoining package areas. Cumulative impact aspects are considered during approval processes for pre-construction works including through Low Impact Work Method Statements and Early Works Environmental Management Plans.

Proposed site establishment activities for M12 East will involve establishing construction ancillary facilities that will be used to support both the M12 project and M7 Widening Modification 6. It is proposed that construction ancillary facilities approved under the M12 project in the vicinity of M7 Motorway at Cecil Hills and Cecil Park will be utilised for both projects. As noted in the M7 Widening Modification Report these ancillary facilities will include AF8, AF9, AF17 and AF18. The Site Establishment Management Plan/s (SEMP) prepared for these ancillary facilities will consider the risks associated with cumulative impacts and include relevant mitigation measures.

Cumulative impacts during construction of the project will be managed through compliance with the relevant CoA and environmental management measures related to key environmental impacts including noise and vibration, transport and traffic and construction fatigue.

Key CoA established to manage cumulative impacts during construction of the project include but are not limited to:

- C5(d) (CEMP): Management of issues during construction (including cumulative impacts)
- C6(e) (CEMP): Measures to minimise cumulative construction impacts
- E37 (Out of Hours Work Protocol – works not subject to an EPL): to facilitate the coordination of out-of-hours work to ensure appropriate respite is provided to the community
- E45 (Utility Co-ordination and Respite): to coordinate and ensure respite periods are provided for all work undertaken for the delivery of the CSSI, including those undertaken by third parties (such as utility relocations)
- E47 (Out-of-Hours Works – Community Consultation on Respite): to ensure appropriate respite periods for out-of-hours work are implemented in consultation with the community at each affected location on a regular basis

Key mitigation measures to manage cumulative impacts are outlined in the Overarching CEMP approved by DPE in December 2021 and include regular interface meetings between adjacent contractors and projects.

Further details of how compliance with these requirements will be achieved, monitored, and reported during construction are provided in Section 3.2.

3 Compliance

3.1 Consistency across stages

This Staging Report is required to detail how compliance with the CSSI conditions will be achieved across and between each of the stages of the project for Construction and Operation.

Appendix A includes a full list of the CoA and identifies the CoA which are applicable to the specific project packages and stages identified in Section 2.

To ensure consistency, efficiency and clear responsibilities, a number of CoA requirements will be delivered on a Project-wide basis. This includes aspects such as the biodiversity offsets and specific documentation such as the Sustainability Strategy. No aspect of the staged approach to construction will affect the ability of the project to comply with the CoA.

3.2 Environmental management approach

An overview of the Project Environmental Management Document System for the M12 Project is provided in Figure 3-1. Project documentation will be prepared at various levels, including:

- Project-wide documentation (e.g. Overarching Communications Strategy)
- Project-wide management plans (e.g. Overarching Construction Environmental Management Plan (OCEMP) and sub-plans)
- Package-specific management plans and procedures which will be prepared by each Contractor (e.g. EWEMPs, CEMPs, Vegetation Clearing Procedure, Sensitive Area Plans)
- Site-specific documentation (e.g. Low impact works EWMS).

For the M12 Central temporary roundabout package at Kemps Creek, a streamlined CEMP will be prepared with no monitoring programs or sub-plans so as to be commensurate with the nature and extent of the required construction activities. No consultation on the streamlined CEMP is proposed due to the minor nature of the works.

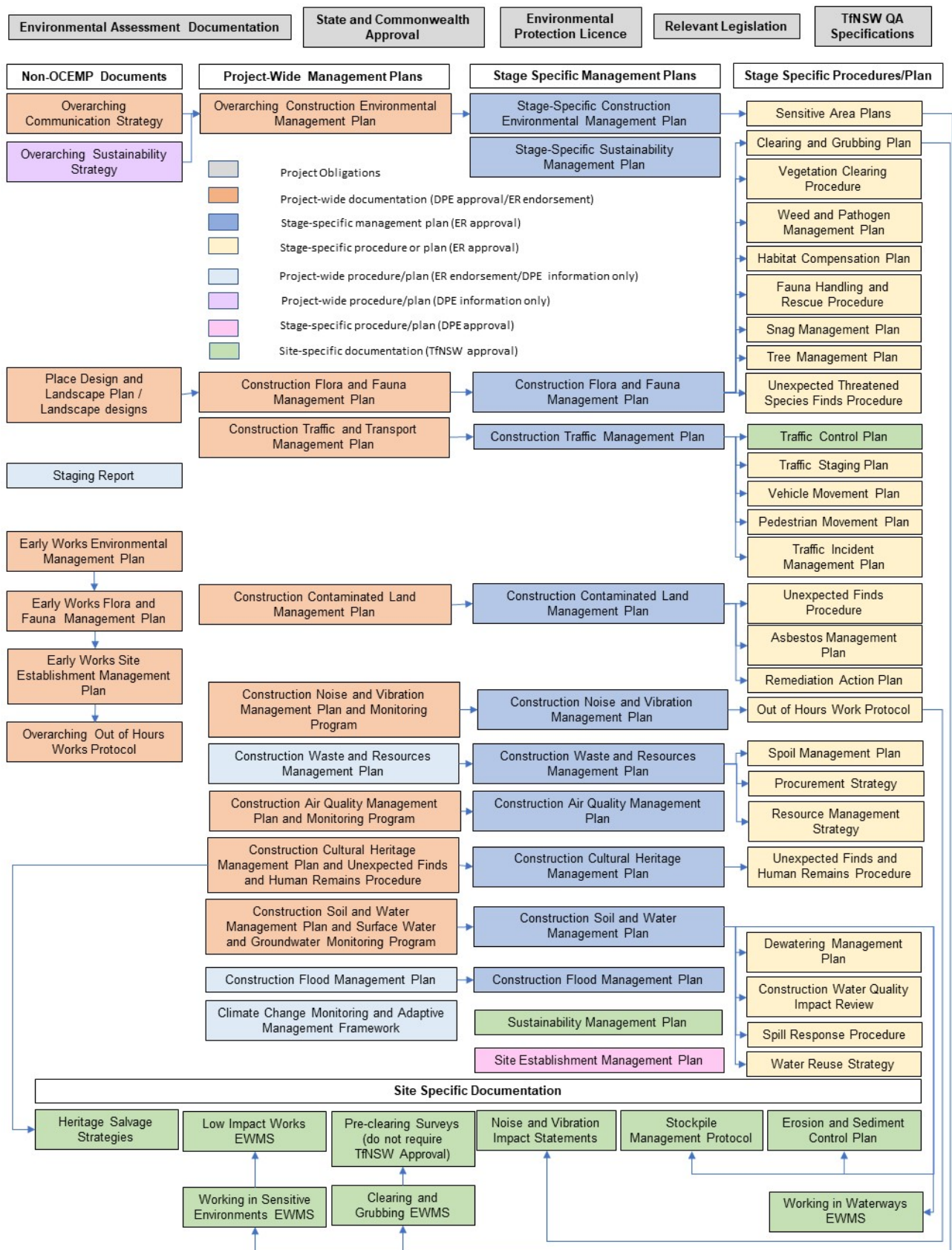


Figure 3-1: Project Environmental Management Document System overview

Early Works will be delivered under specific Early Work Environmental Management Plans in accordance with CoA A24 and Early Works Contractors must comply with this documentation. The exception is for the gas relocation work activities which will be managed by the M12 East construction contractor's approved CEMP and sub-plans.

The OCEMP and associated Sub-plans provide an overarching management system to ensure that TfNSW and its Construction Contractors establish and maintain consistent, best practice controls to manage potential environmental impacts during the construction of the Project packages.

The strategies defined within the OCEMP have been developed to address the NSW and Commonwealth CoA and the management measures presented in the Environmental Assessment Documentation. The OCEMP also includes general requirements for implementation, monitoring and auditing which will be applied to, and further developed in, the package specific Construction Contractor CEMPs prepared by the Construction Contractors responsible for delivering the Project packages.

The OCEMP and associated Sub-plans have been approved under NSW CoA C3 in December 2021. The package specific CEMPS will not require individual approval from DPE, however will be approved by the Environmental Representative.

3.3 Low impact works

Low Impact Works will only occur after the following activities have been undertaken:

- Consideration of relevant regulatory requirements
- Identification of relevant Conditions of Approval (CoA) and Revised Environmental Mitigation Measures (REMMs)
- Preparation of a Low Impact Work Method Statement by the relevant contractor and approval by TfNSW to confirm that the works meet the definition of Low Impact Works in accordance with the M12 CSSI planning approval. This application must include (as a minimum):
 - Detailed description of activities to be undertaken for the proposed works
 - Environmental risk assessment (including identification of actual and potential environmental impacts)
 - Identification of management measures to be implemented to address any actual or potential environmental risks and/or impacts (including details on community consultation relevant to the works)
 - References to relevant sections of the approved overarching Construction Environmental Management Plan (OCEMP)
 - Location map of proposed low impact works
 - Endorsement by the Environmental Representative as necessary in accordance with the nature of the Low Impact Works and/or the definitions in the M12 CSSI planning approval.

Appendix A – CoA Applicable to Staging

Table A1 - Applicable conditions of approval for each M12 project stage¹

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
PART A – ADMINISTRATIVE CONDITIONS																		
General																		
Requirements	A1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Requirements	A2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inconsistencies	A3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Secretary directions	A4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Consultation	A5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lapse of approval	A6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
References to guidelines etc	A7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timeframes	A8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Staging																		
Preparation of staging report	A9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Requirements	A10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Accordance with report	A11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Timeframes	A12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Report revisions	A13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Staged submissions of strategies, plans or programs																		
Progressive submissions	A14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Construction Ancillary Facilities																		
Additional construction ancillary facilities	A15	NA	NA	NA	✓	✓	✓	✓	✓	✓	NA	NA	NA	✓	✓	NA	✓	N/A
Site establishment management plan	A16	NA	NA	NA	✓	✓	✓	✓	✓	✓	NA	NA	NA	✓	✓	NA	✓	N/A
	A17	NA	NA	NA	NA	NA	NA	✓	✓	✓	NA	NA	NA	✓	✓	NA	✓	N/A
Use of Construction Ancillary Facilities	A18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA

¹ M12W = M12 West; M12C = M12 Central; M12C-MC = M12 Central Main Construction; M12C-TR = M12 Central Temporary Roundabout; M12E = M12 East

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Use of Early Works Ancillary Facilities	A19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Minor Construction Ancillary Facilities	A20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Boundary Screening	A21	NA	NA	NA	✓	✓	✓	✓	✓	✓	NA	NA	NA	✓	✓	✓	✓	NA
	A22	NA	NA	NA	✓	✓	✓	✓	✓	✓	NA	NA	NA	✓	✓	✓	✓	NA
Project identification	A23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Environmental Management – Early Works	A24	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	A25	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Independent Appointments																		
Guidelines	A26	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Membership	A27	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Audit	A28	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Withdrawal	A29	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Environmental Representative																		
Engagement of ER	A30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Approval of ER	A31	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Requirements	A32	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Engagement of more than one ER	A33	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
ER Role	A34	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Proponent obligations	A35	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Notification of Commencement																		
Notification	A36	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Notification of stages	A37	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Auditing																		
Engagement of Auditor	A38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Operational compliance auditing	A39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Timing of audits	A40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Additional audits	A41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Audit requirements	A42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Submission to Secretary	A43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Website notification	A44	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Subsequent notification	A45	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Non-Compliance (NC) Notification																		
NC website notification	A46	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NC requirements	A47	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NC requirements	A48	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Identification of Spoil Haulage Vehicles																		
Marking vehicles	A49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
PART B - COMMUNITY INFORMATION AND REPORTING																		
Community Information, Consultation, and Involvement																		
Communication Strategy	B1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Complaints Management System	B6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Provision of Electronic Information	B10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PART C – CONSTRUCTION ENVIRONMENTAL MANAGEMENT																		
Construction Environmental Management Plan																		
Preparation of CEMP	C1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Requirements	C2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
ER Endorsement	C3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
CEMP Sub-plans Consultation	C4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Sub-plans requirements	C5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Noise and Vibration sub-plan requirements	C6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Surface Water and Groundwater sub-plan requirements	C7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Flora and Fauna sub-plan requirements	C8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Submission timing	C9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Approval	C10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Construction Monitoring Programs																		
Required Consultation	C11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Provision of information requested during consultation	C12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Requirements	C13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Requirements	C14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
ER endorsement and submission	C15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Secretary Approval	C16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Implementation for construction duration	C17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Construction Monitoring Report requirement	C18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
PART D – OPERATIONAL ENVIRONMENTAL MANAGEMENT																		
Operational Environmental Management																		
Preparation of OEMP	D1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Requirements	D2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Submission to Secretary	D3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Requirements	D4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Operational Monitoring Program																		
Required consultation	D5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Requirements	D6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Submission to Secretary	D7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Baseline data requirement	D8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Implementation for specified duration	D9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Operational Monitoring Report	D10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
OEMP sub-plans	D11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
PART E – KEY ISSUE CONDITIONS																		
Air Quality																		
Requirements	E1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Biodiversity																		
Minimise clearing of native vegetation	E2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Offsetting requirements	E3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Reviewing and updating credit requirements	E4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Requirements	E5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Verification Surveys	E6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Required submissions for retirement of credits	E7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Additional Surveys of <i>Pimelea spicata</i>																		
Surveying	E8	NA	NA	✓	NA	NA	✓	NA	NA	✓	NA	NA	✓	NA	NA	NA	✓	NA
Offsetting of any impacts	E9	NA	NA	✓ (none found)	NA	NA	✓ (none found)	NA	NA	✓ (none found)	NA	NA	✓ (none found)	NA	NA	NA	NA (none found)	NA
Biobanking site																		
Provide evidence to Secretary	E10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Key Fish Habitat																		
Minimise impacts to Key Fish Habitat	E11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓ Badgerys Creek Cosgroves Creek	✓ Kemps Creek South Creek	NA	NA	NA

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Payment of Offset Requirements	E12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	NA	NA
Submission of receipt confirming payment	E13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	NA	NA
Fauna Connectivity Design Principles																		
Fauna Passage Requirements	E14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓ Badgerys Creek Cosgroves Creek	✓ Kemps Creek South Creek	NA	NA	NA
Re-use of Timber																		
Requirements	E15	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	NA	NA	✓	✓	✓	✓	NA
Flooding																		
Minimising impacts on flood behaviour	E16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Requirements	E17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Hydrological and Hydraulic assessments	E18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Flood modelling	E19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Provision of flood information to relevant groups	E20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
NSW Flood Data Portal upload	E21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Design for potential blockages	E22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Future raising of Elizabeth Drive to achieve min. 1% flood immunity	E23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Requirements	E24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Heritage																		
Aim to not diminish potential of specified heritage items	E25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	NA	✓
Heritage specialist requirements	E26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heritage Interpretation Plan requirements	E27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Archival photographic digital recording	E28	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	✓	NA	✓	✓	NA	NA	NA

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Preparation of Heritage Report	E29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓ Heritage Report
Submission of Heritage Report	E30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓ Heritage Report
Preparation of Unexpected Heritage Finds and Human Remains procedure	E31	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Implementation of Unexpected Heritage Finds and Human Remains procedure	E32	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Discovery of previously unidentified Aboriginal objects	E33	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Noise and Vibration																		
Work Hours	E34	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Highly noise intensive work	E35	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Variation to work hours	E36	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Out of hours work protocol – works not subject to an EPL	E37	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Noise Management Levels and Vibration Criteria for Work	E38	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Timetabling of noise generating work in the vicinity of potentially affected sensitive areas	E39	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Preparation of Noise and Vibration Impact Statements	E40	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Notification of owners and occupiers of properties at risk for cosmetic damage	E41	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Construction Vibration Mitigation - Heritage	E42	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Seek advice from heritage specialists	E43	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Obtaining advice of built heritage specialist	E44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Utility Coordination and Respite	E45	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Out of Hours Works - Mitigation	E46	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Out of Hours Works – Community Consultation on Respite	E47	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Crushing and Grinding Works	E48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Blasting	E49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Operational Noise	E50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Noise Mitigation – Operational Noise Modelling	E51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Operational Noise Review	E52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Timeframe	E53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Timeframe	E54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Requirement of requests to Secretary being accompanied by report	E55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Range of mitigation and management measures implemented	E56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Implementation of measures prior to operation	E57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Operational Noise Validation	E58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Traffic Counts	E59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Operational Noise Compliance Report	E60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Place Design and Landscaping																		
Construction ancillary facilities	E61	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Lighting and Security	E62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Active Transport	E63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Place, Design and Landscape Outcomes	E64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Landscaping	E65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Active Transport Infrastructure and Facilities	E66	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Minimise impacts on useable open space	E67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Design independence and review	E68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Place, Design and Landscape Plan	E69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Requirements	E70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tree Survey	E71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Timing	E72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Implementation during construction and operation	E73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	✓
Operational maintenance	E74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓
Socio-economic, Land use and Property																		
Utility and service impacts	E75	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Pre-condition surveys	E76	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Post condition surveys	E77	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Rectification work	E78	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Agricultural operations	E79	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	✓	NA
Agricultural operations	E80	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Upper Canal System	E81	NA	NA	✓	NA	NA	✓	NA	NA	✓	NA	NA	✓	NA	NA	NA	✓	NA
Upper Canal System	E82	NA	NA	✓	NA	NA	✓	NA	NA	✓	NA	NA	✓	NA	NA	NA	✓	NA
Property Access	E83	NA	NA	NA	✓	✓	✓	✓	✓	✓	NA	NA	NA	✓	✓	✓	✓	NA
Soils																		
Erosion and sediment controls	E84	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Contaminated sites	E85	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	✓	NA
Detailed site investigations	E86	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	✓	NA
Remediation action plan	E87	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	✓	NA
Site audit statement	E88	NA	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	✓	NA

Conditions of Approval		Low Impact Works			Early Works			Site Establishment			Demolition Works			Construction				Operation
		M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C	M12E	M12W	M12C - MC	M12C - TR	M12E	
Unexpected finds	E89	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Unexpected finds	E90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Sustainability Strategy	E91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	✓
Submissions of Sustainability Strategy	E92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	✓
Use of local roads	E93	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Approval for use of local roads	E94	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Dilapidation report	E95	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Access	E96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	NA
Road safety	E97	NA	NA	NA	NA	NA	NA	✓	✓	✓	NA	NA	NA	✓	✓	NA	✓	NA
Road safety audit	E98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Pedestrian and cyclist access	E99	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Waste generation	E100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Waste requirements	E101	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Waste exportation	E102	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Waste classification	E103	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Waste tracking register	E104	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA
Water quality objectives	E105	NA	NA	NA	✓	✓	✓	NA	NA	NA	NA	NA	NA	✓	✓	✓	✓	✓
Drainage crossing and swales	E106	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Work on waterfront land	E107	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	NA	NA
Design consultation	E108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rehabilitation of the riparian corridor	E109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	✓	✓	NA	✓	NA
Stormwater drainage	E110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA