



Australian Government

BUILDING OUR FUTURE



M12 Motorway

Amendment Report - Appendix D

Socio-economic, land use and property
assessment supplementary technical memorandum
October 2020

Memorandum

Issued by Nicole Sommerville (Senior Associate Social Planning and Engagement Jacobs)
Subject M12 Motorway – Socio-Economic, Land Use and Property Assessment Supplementary Technical Memorandum
Client Transport for New South Wales
Project M12 Motorway
Date October 2020

1. Introduction and background

1.1 Overview

Transport for New South Wales (TfNSW; formerly Roads and Maritime Services) proposes to build the M12 Motorway between the M7 Motorway at Cecil Hills and The Northern Road at Luddenham (the project), over a distance of about 16 kilometres. The project would provide the main access from the Western Sydney International Airport at Badgerys Creek to Sydney's motorway network and is expected to be opened to traffic before the opening of the Western Sydney International Airport.

TfNSW is seeking approval under Part 5, Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to construct and operate the project. An environmental impact statement (EIS) was prepared to assess the potential impacts of the project and recommend management measures to appropriately address those impacts. The key features of the project as described in the EIS is provided in Section 1.1 of the amendment report. This EIS was placed on public exhibition from 16 October to 18 November 2019.

TfNSW proposes to amend the project following further design development since the exhibition of the EIS. The proposed changes include design changes and construction updates. These provide functional improvements to the design and improved integration with surrounding major transport infrastructure projects and potential future development. They also respond to issues raised in community and stakeholder submissions, and, in some instances, further reduce the potential impacts of the project as described in the EIS.

The proposed changes are presented in the **Section 1.2**.

1.2 Proposed design changes

The proposed changes to the project as described in the EIS are summarised below and are described in detail in Chapter 3 and Chapter 4 of the amendment report:

- Amendments to the motorway-to-motorway interchange at the M7 Motorway, including:
 - Changes to Elizabeth Drive and Cecil Road intersections, proposed exit ramps, the Wallgrove Road connection to Elizabeth Drive and proposed shared user path realignments
 - The widening of Elizabeth Drive under the M7 Motorway and approaches
- An option to provide a new connection between the M12 Motorway and Elizabeth Drive near the M7 Motorway interchange
- Two new signalised intersections into the Western Sydney International Airport, with provisions for future connection to potential developments north of the Western Sydney International Airport
- Additional ancillary facilities to support the delivery of the project.

Refinements have also been made as part of the ongoing development of the project since the EIS was exhibited. Refinements are changes that are consistent with the parameters of the project description as described in the EIS. For completeness, however, these refinements have been factored into the amended construction and operational footprint and included in the impact assessment described in this supplementary technical memorandum. The refinements are described in Section 3.3 and Section 4.2 of the amendment report and include:

- Lowering the height of the M12 Motorway in and around the Western Sydney International Airport interchange
- Reduction in the scope of work associated with the M12 Motorway and The Northern Road intersection
 - This intersection would still be constructed, but the main infrastructure work would be delivered as part of The Northern Road upgrade project
- Relocation of utilities
- Changes to property access and acquisition
- Changes to drainage
- Adjustments to construction access, hours, haulage, timing and material quantities.

The project with all proposed changes is referred to as the amended project.

1.3 Amended project

1.3.1 Overview

The amended project would continue to provide the main access from the Western Sydney International Airport at Badgerys Creek to Sydney's motorway network and be located between The Northern Road in the west and the M7 Motorway in the east. The amended project includes an option for a direct connection between the M12 Motorway and Elizabeth Drive at the eastern extent of the project. This option would include some realignment of Wallgrove Road and widening of Elizabeth Drive at the motorway-to-motorway interchange at the M7 Motorway to facilitate the connection. Therefore, two options are being proposed for the amended project at the interchange with the M7 Motorway.

The two options for the amended project would be consistent from The Northern Road in the west until Duff Road in the east. At the motorway-to-motorway interchange with the M7 Motorway, the project is proposed to be either:

- Option 1 – Without Elizabeth Drive connection
 - Interchange provides entry and exit ramps between the M12 Motorway and the M7 Motorway; in addition, it would maintain the existing connection of the M7 Motorway to Elizabeth Drive with new entry and exit ramps
- Option 2 – With Elizabeth Drive connection
 - Interchange as per option 1 and also provides entry and exit ramps between the M12 Motorway and Elizabeth Drive, Cecil Road and Wallgrove Road.

This section of the amended project is shown in **Figure 1-1**, with the Elizabeth Drive connection associated with option 2 shown in a different colour and detailed in inset A. The decision on which option would be built is dependent on funding being available to include the Elizabeth Drive connection. This will be determined during the detailed design and construction phase of the project. The key features of each option are described in the following sections.

The proposed changes (see **Section 1.2**) would result in an amended construction footprint (**Figure 1-2**) and an amended operational footprint (**Figure 1-3**). The footprints would be the same for both options, with each footprint assuming the worst case scenario (ie option 2).

The assessment of potential impacts described in **Section 4** relates to the worst case scenario and covers both options, unless stated otherwise.

The key features of the amended project are listed in **Section 1.3.2** and include both options.

1.3.2 Key features of the amended project

The key features of the amended project are listed below. Where the description of the proposed amended project key features differs from the description listed in the EIS (see Section 1.1 of the amendment report), those changes are shown in bold text:

- 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 four kilometres within the existing M7 Motorway corridor) **with the following options:**
 - **Option 1 – without connection between the M12 Motorway and Elizabeth Drive**
 - **Option 2 – with connection between the M12 Motorway and Elizabeth Drive**
 - A grade-separated interchange referred to as the Western Sydney International Airport interchange, including a dual-carriageway four-lane airport access road (two lanes in each direction for about 1.5 kilometres) 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 utilities, including 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 Western Sydney International Airport, with Elizabeth Drive overpassing the airport access road and rail infrastructure
 - **Two new signalised intersections from Elizabeth Drive into the Western Sydney International Airport, 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 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 basin
 - 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.

An overview of the amended project is shown in **Figure 1-1**.

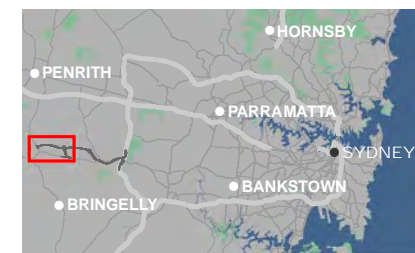
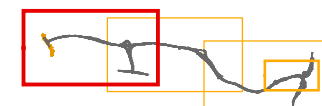
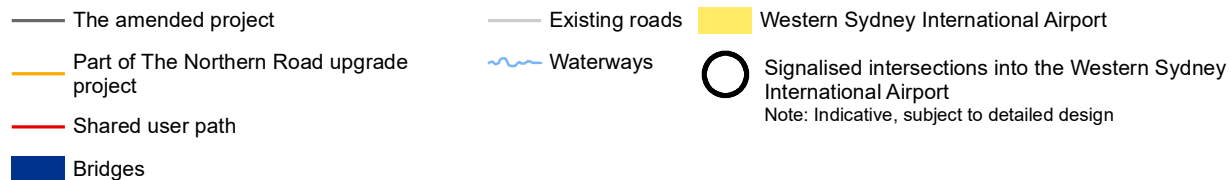
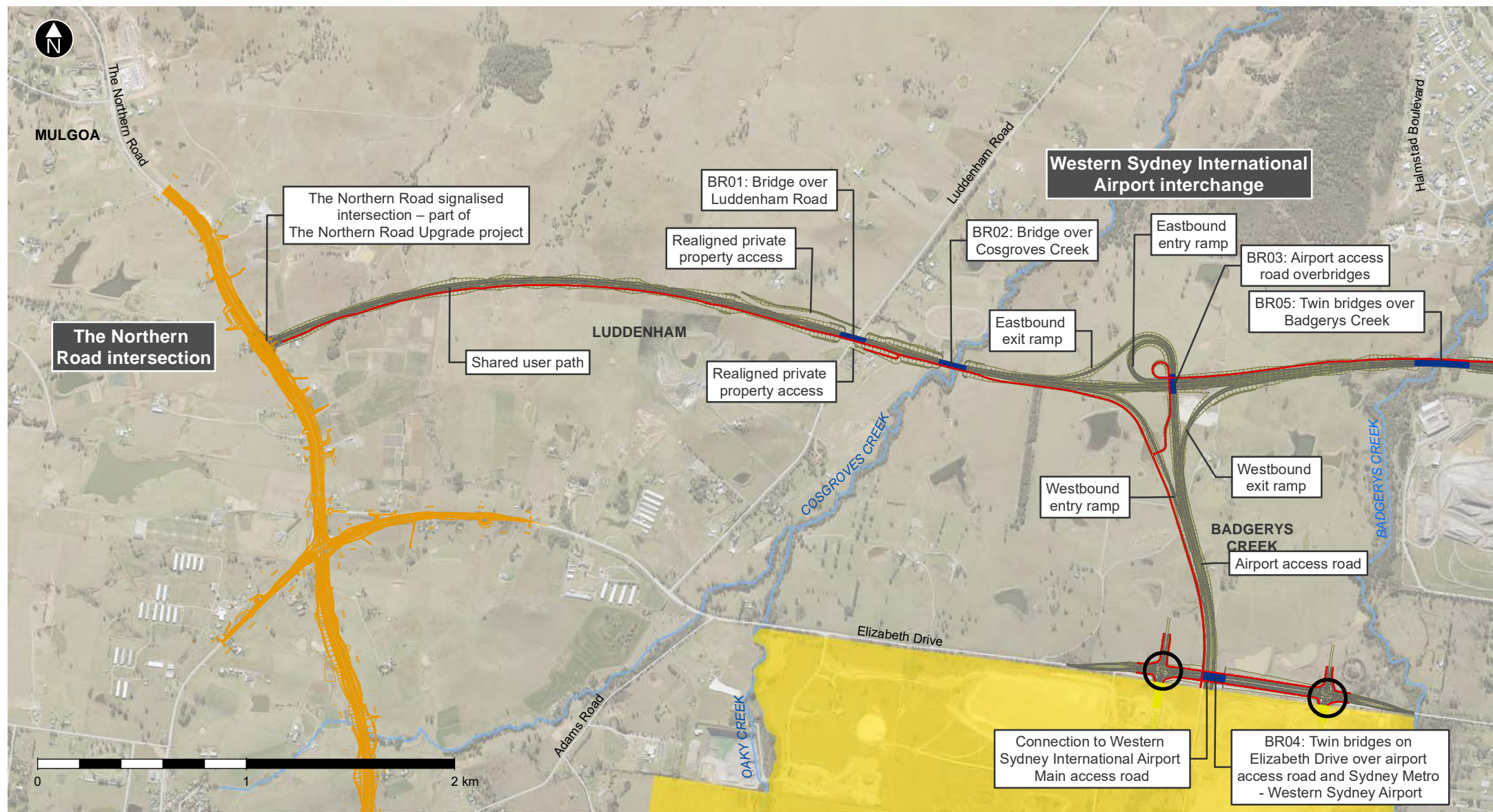
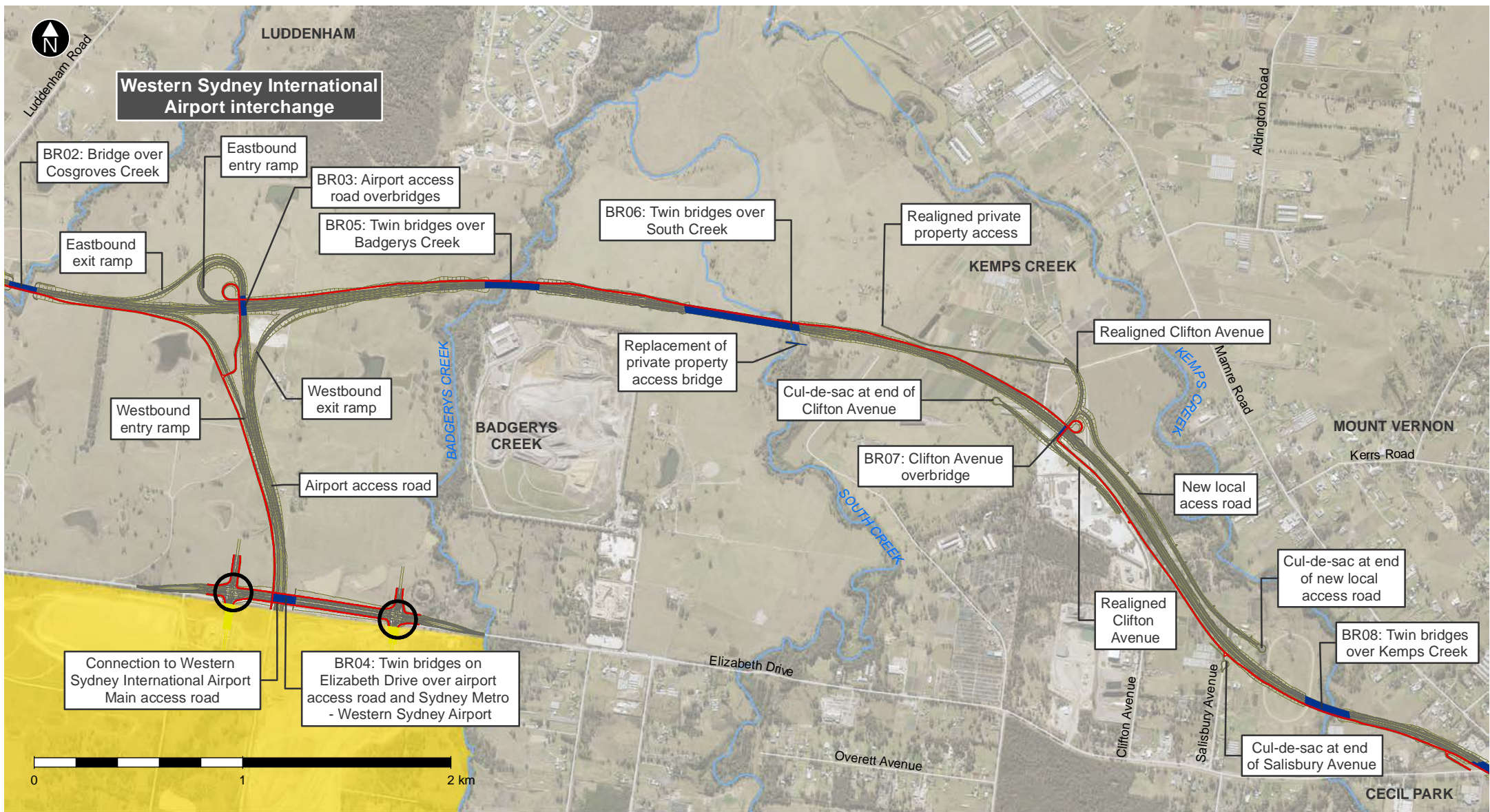
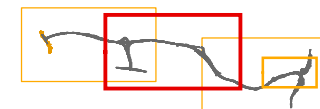


Figure 1-1 Key features of the amended project



- The amended project
- Existing roads
- Western Sydney International Airport
- Shared user path
- Waterways
- Signalised intersections into the Western Sydney International Airport
- Note: Indicative, subject to detailed design
- Bridges



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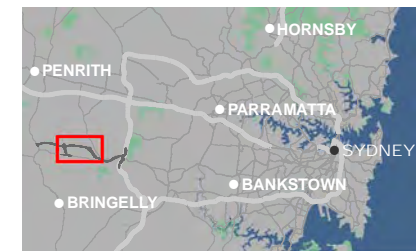
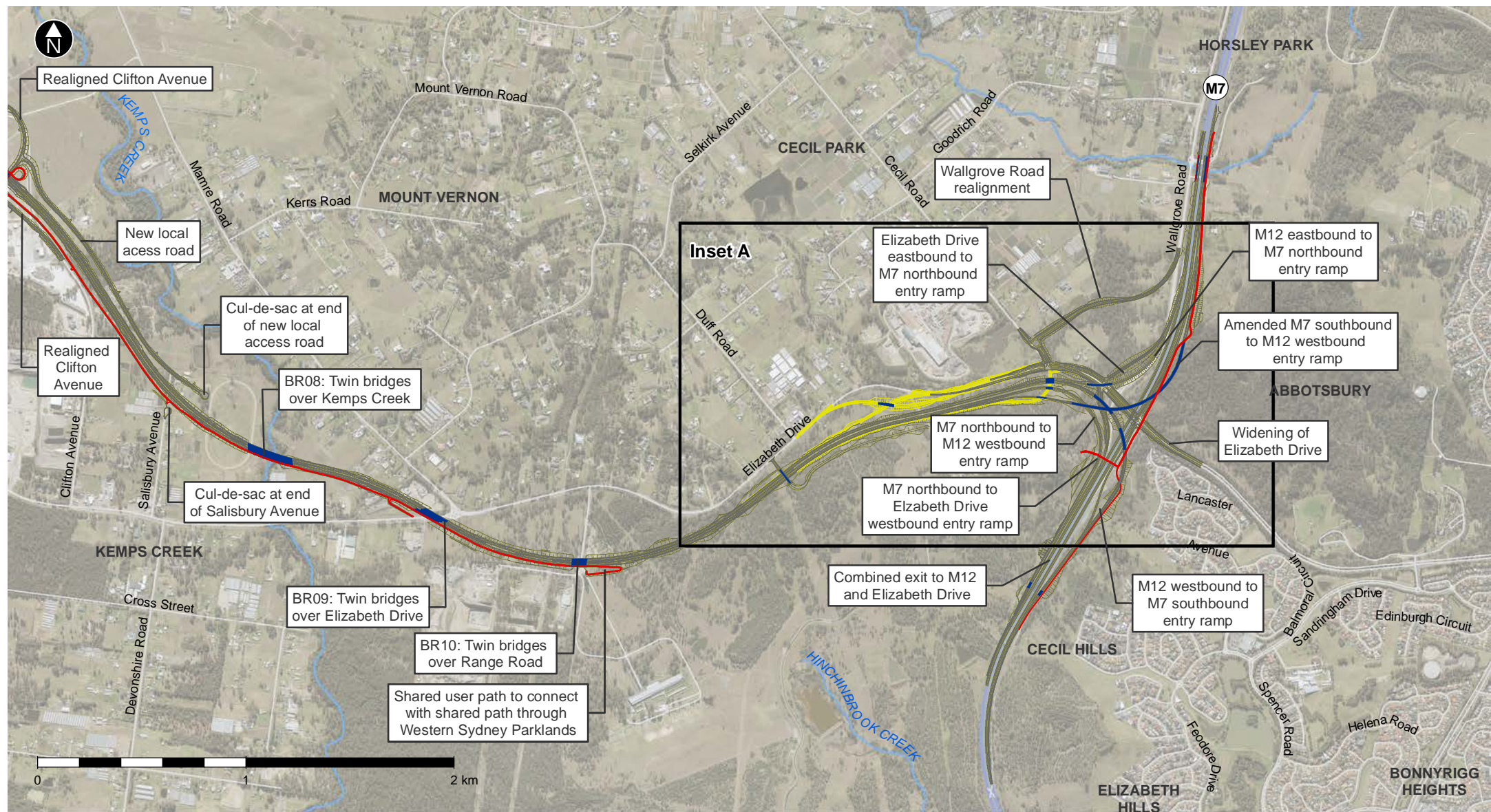
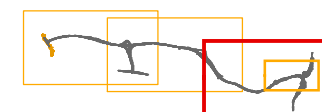


Figure 1-1 Key features of the amended project



- The amended project
- The amended project (Elizabeth Drive connection)
- Shared user path
- Bridges
- Motorway
- Existing roads
- Waterways



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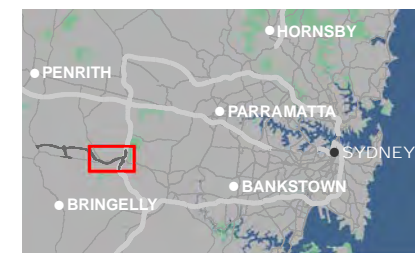
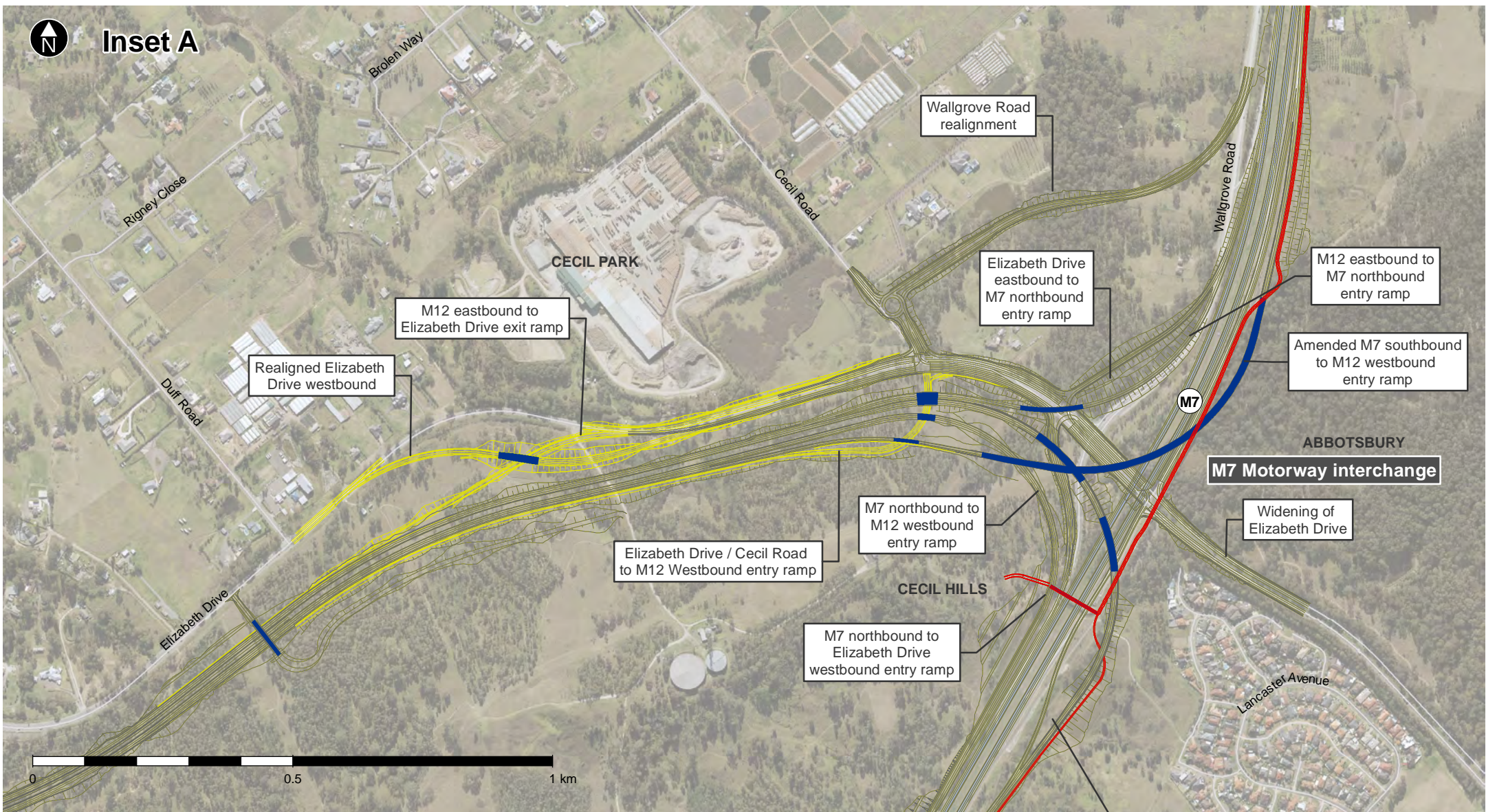
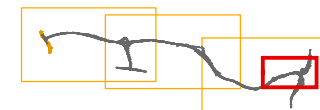


Figure 1-1 Key features of the amended project



- The amended project
- The amended project with Elizabeth Drive connection
- Shared user path
- Bridges
- Motorway
- Existing roads



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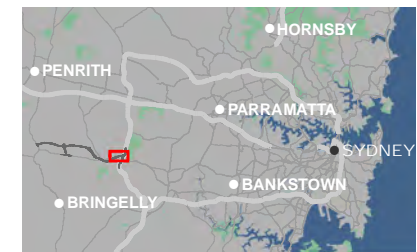
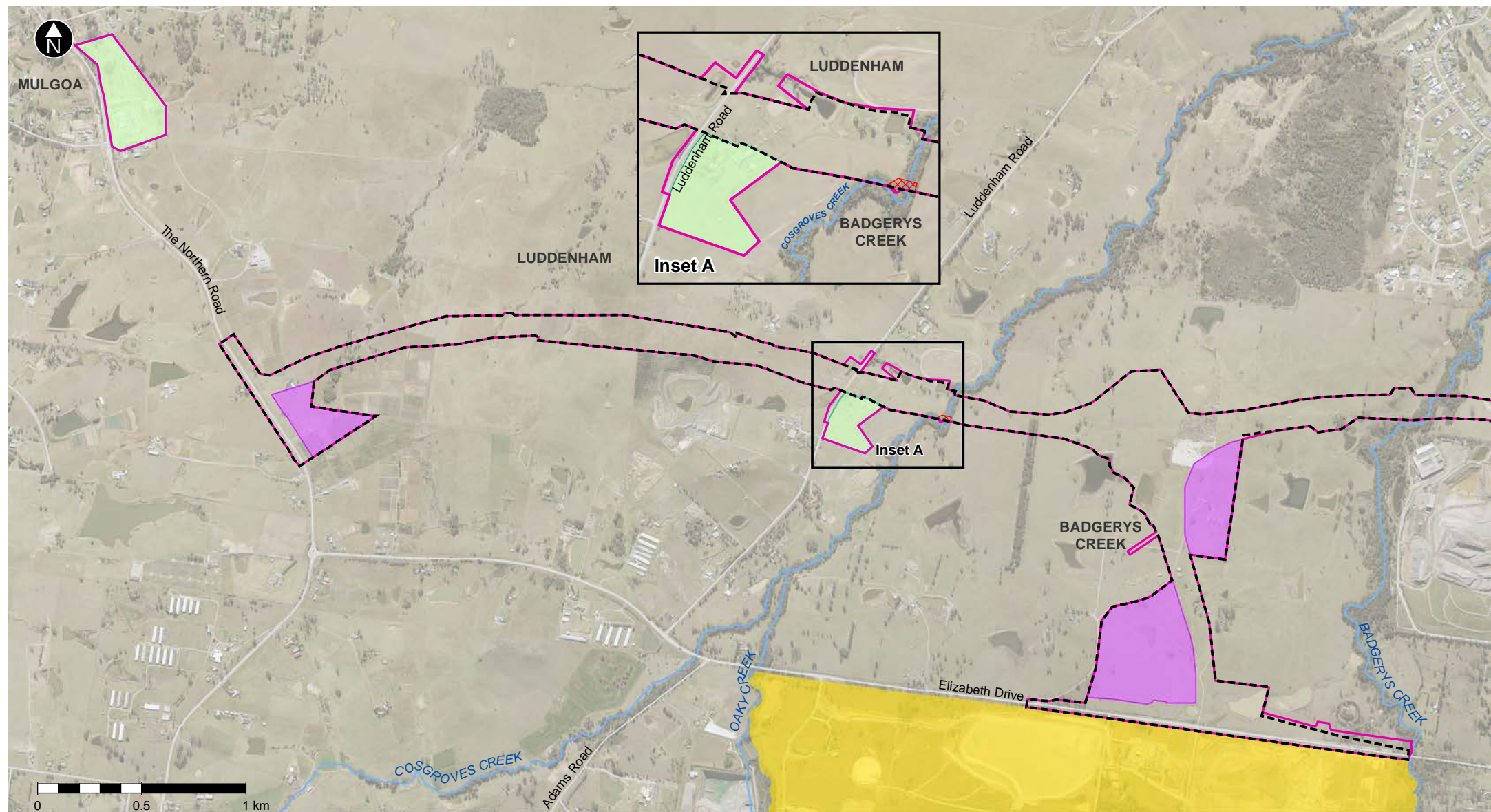
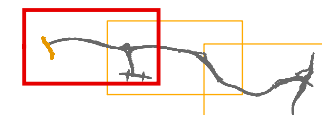


Figure 1-1 Key features of the amended project



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project exclusion zones

- Ancillary facilities as per the EIS
- Additional ancillary facilities
- Western Sydney International Airport
- Waterways
- Motorway
- Existing roads



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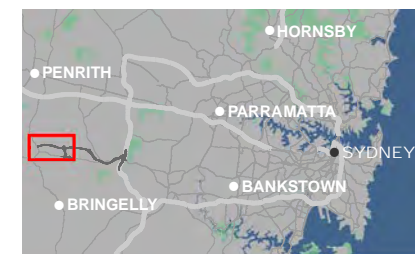
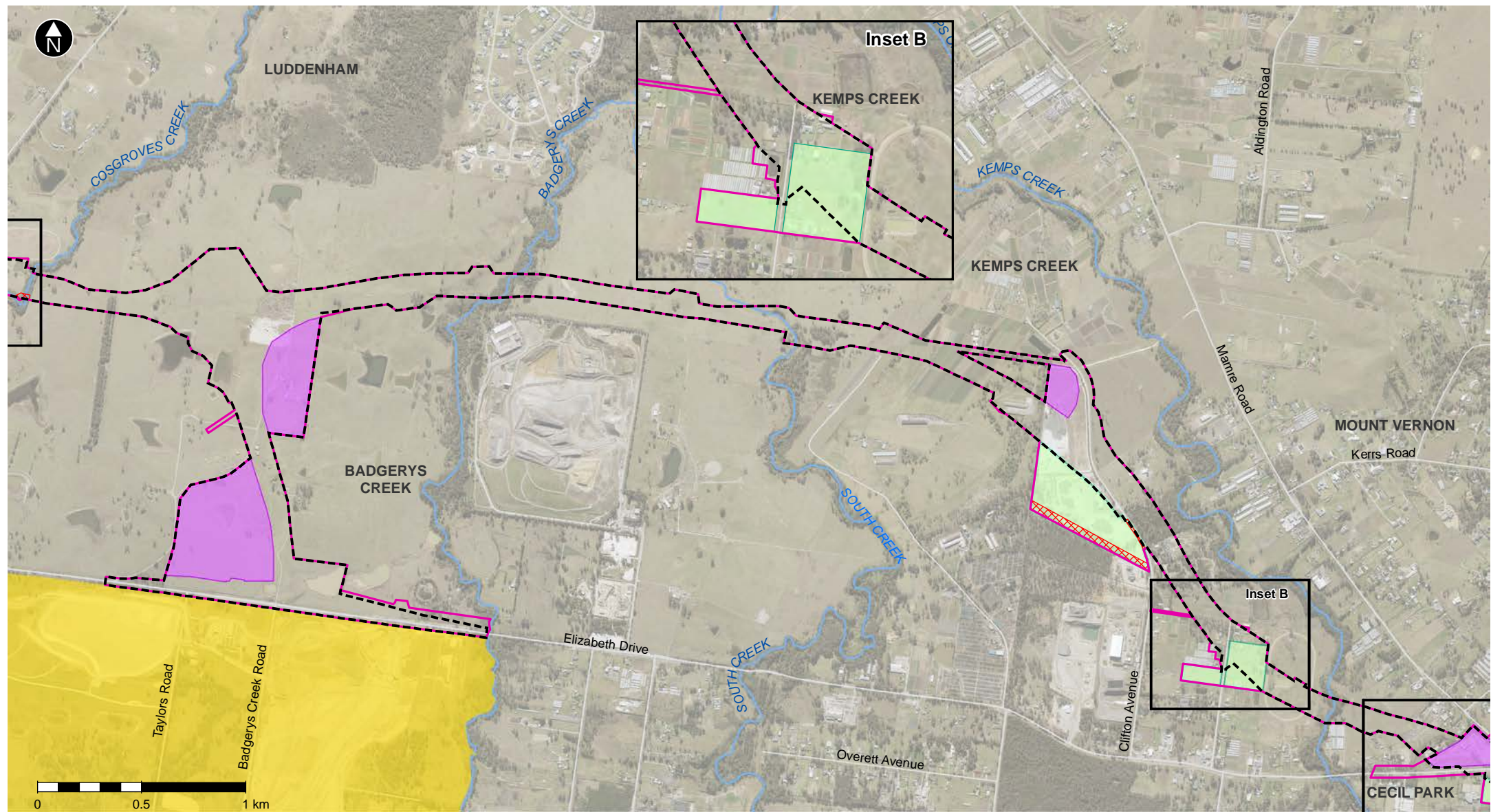


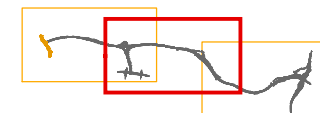
Figure 1-2 Construction footprints of the amended project and the project as described in the EIS



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project exclusion zones

- Ancillary facilities as per the EIS
- Additional ancillary facilities
- Western Sydney International Airport

- Waterways
- Motorway
- Existing roads



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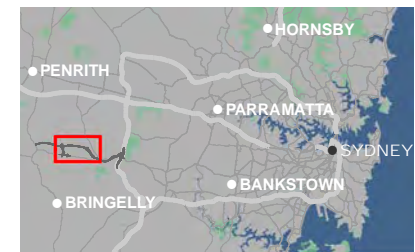
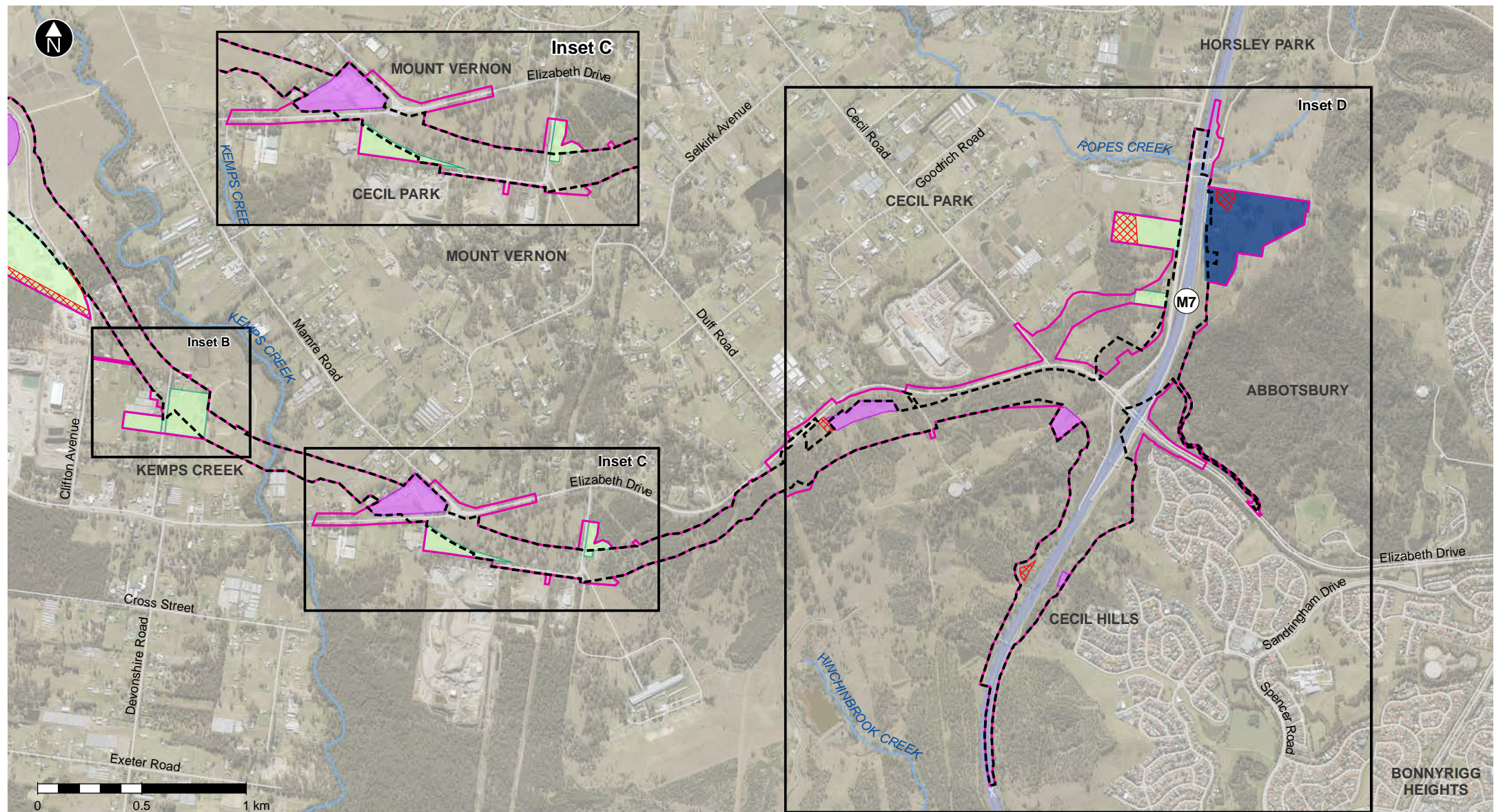
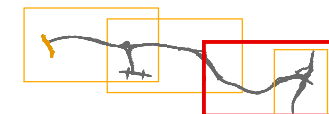


Figure 1-2 Construction footprints of the amended project and the project as described in the EIS



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project exclusion zones

- Ancillary facilities as per the EIS
- Additional ancillary facilities
- Amended ancillary facilities
- Waterways
- Motorway
- Existing roads



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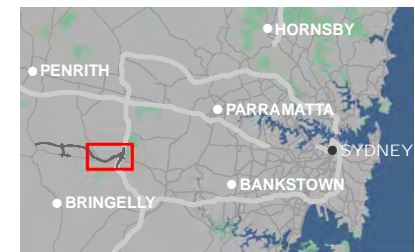
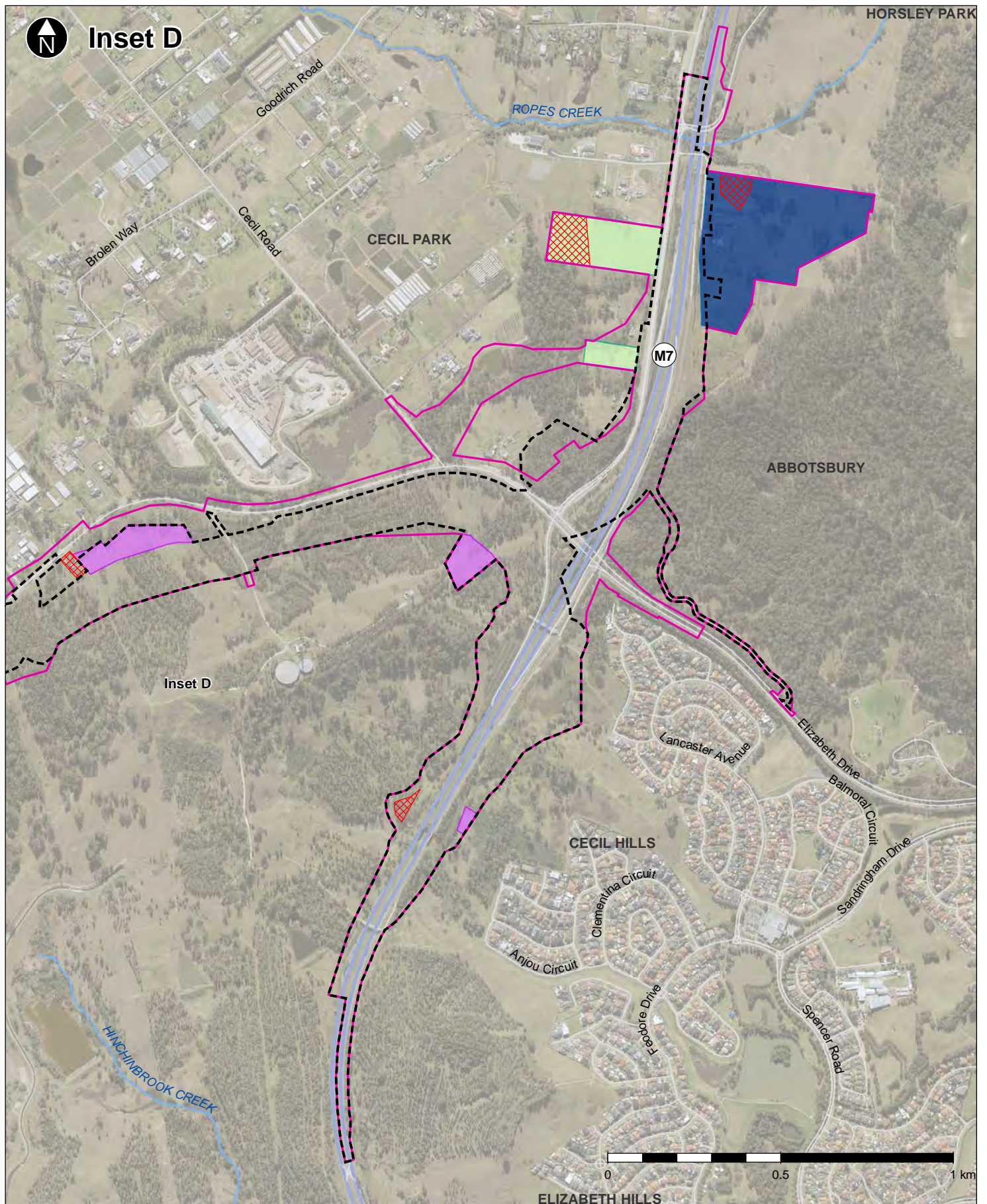
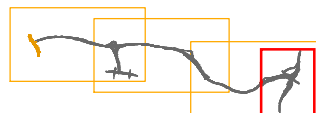


Figure 1-2 Construction footprints of the amended project and the project as described in the EIS



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project exclusion zones
- Ancillary facilities as per the EIS
- Additional ancillary facilities
- Amended ancillary facilities



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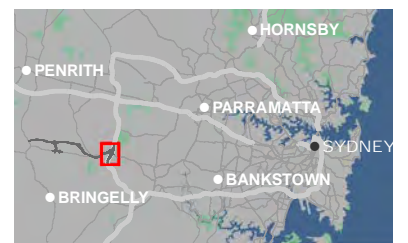
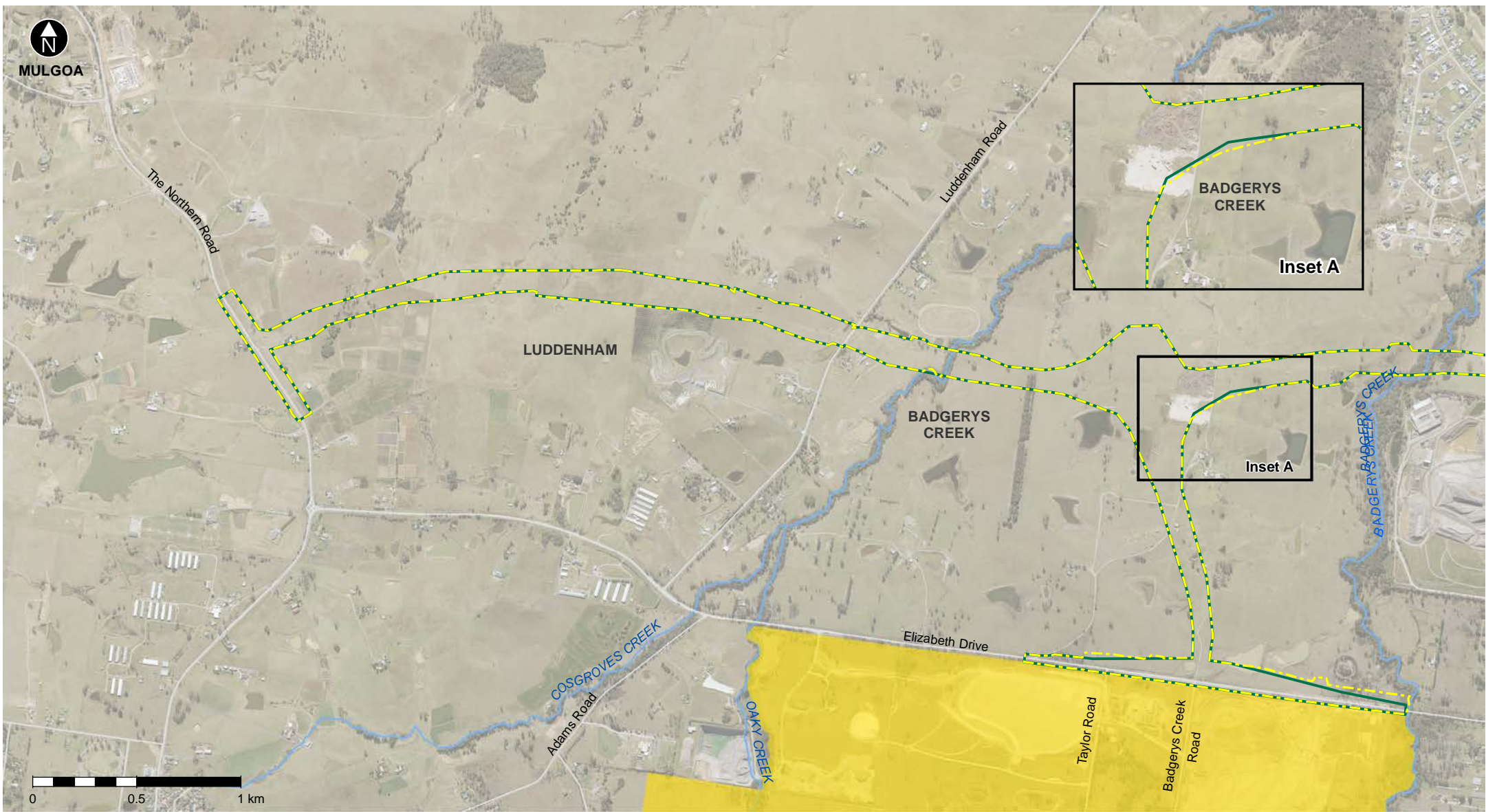
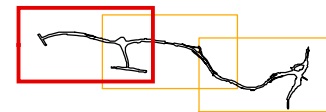


Figure 1-2 Construction footprints of the amended project and the project as described in the EIS



- The project operational footprint as per the EIS
- The amended project operational footprint
- ~~~~~ Waterways
- Western Sydney International Airport
- Existing roads



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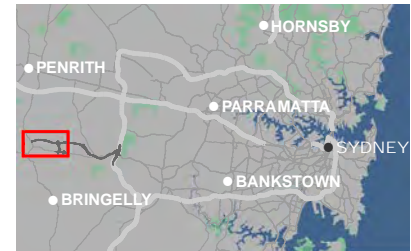
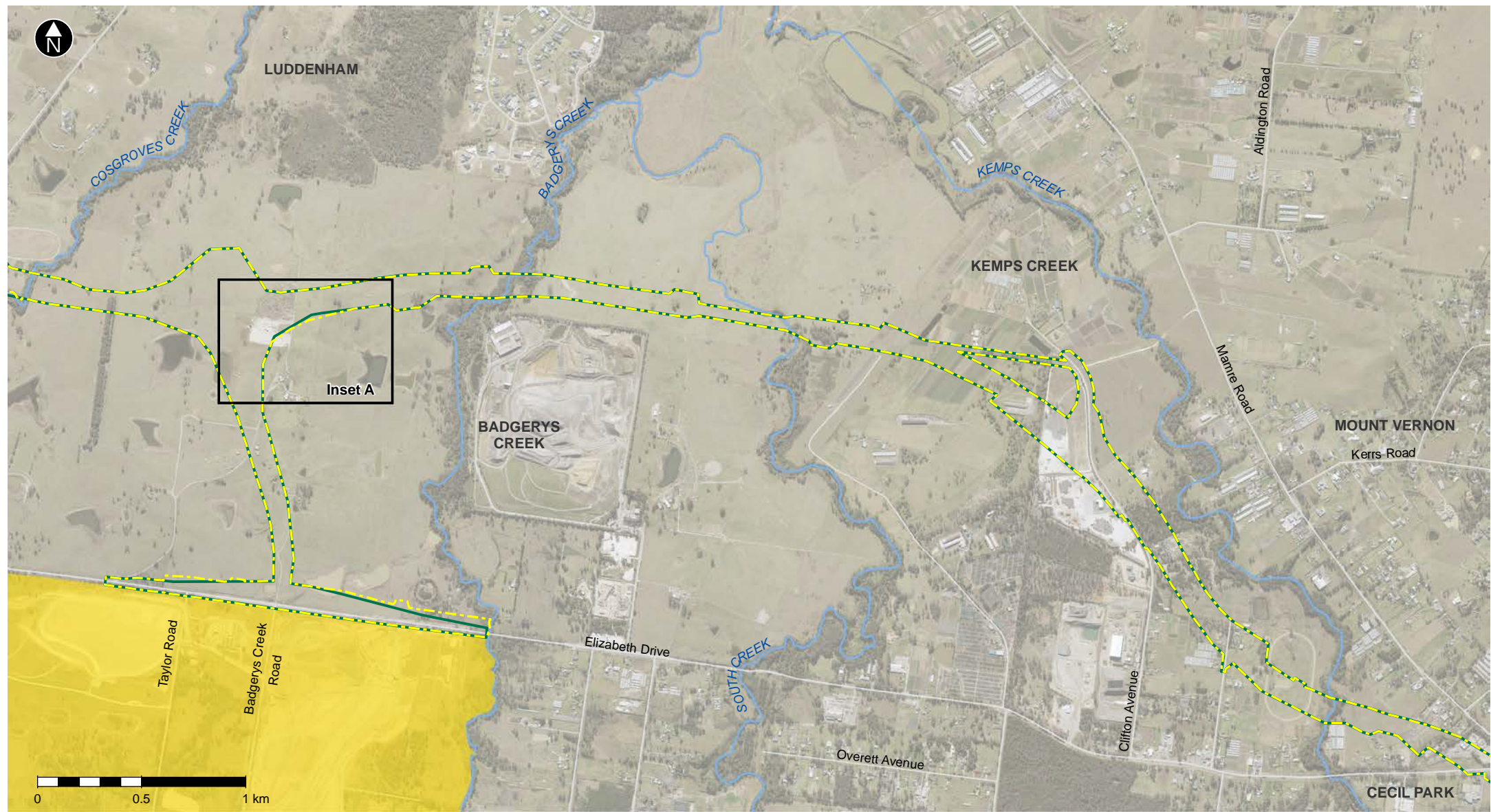
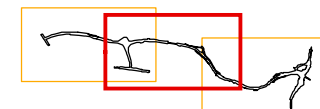


Figure 1-3 Operational footprints of the amended project and the project as described in the EIS



- The project operational footprint as per the EIS
- The amended project operational footprint
- ~~~~~ Waterways
- Western Sydney International Airport
- Existing roads



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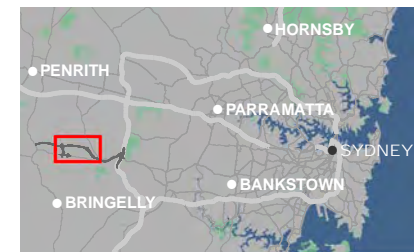


Figure 1-3 Operational footprints of the amended project and the project as described in the EIS

1.4 Purpose of document

This supplementary technical memo has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued 30 October 2018 to support the Amendment Report. The purpose of this memo is to identify and assess the potential construction, operation and cumulative socio-economic, land use and property impacts of the amended project, including an assessment of the proposed design changes against the impacts documented in the EIS and, where required, recommend any changes or feasible and reasonable additions to the management measures.

2. Policy and planning setting

The policies and strategies relevant to the property, land use and socio-economic assessment are outlined in Section 3.1 and Section 7.4.1 of the EIS and discussed in detail in Chapter 2 of Appendix H of the EIS. These policies and strategies are relevant to the amended project. In addition, new planning documents have been released and are detailed below.

Draft Western Sydney Aerotropolis Planning Package

Since the EIS was prepared, the NSW Government has released a number of planning documents for the next phase of planning for the Western Sydney Aerotropolis, including:

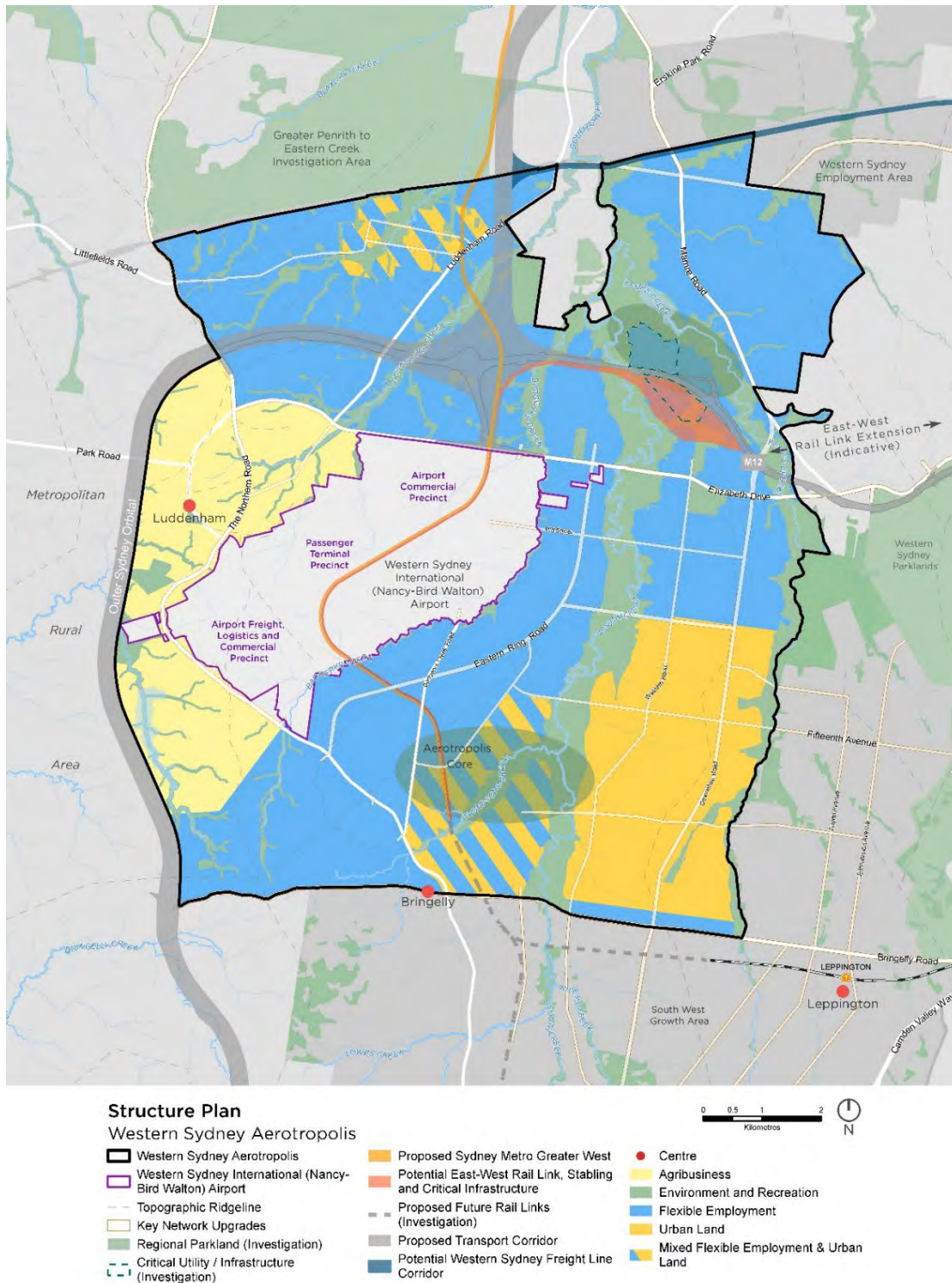
- Draft Western Sydney Aerotropolis Plan (Draft WSAP December 2019)
- Draft Western Sydney Aerotropolis Development Control Plan December 2019
- Western Sydney Aerotropolis Discussion Paper on the Proposed State Environmental Planning Policy December 2019.

The Draft WSAP updates the structure plan presented in the Stage 1 Land Use Infrastructure and Implementation Plan (Stage 1 LUIIP) in response to feedback received on the Stage 1 LUIIP and outcomes of further investigations. These include changes to the Aerotropolis and precinct boundaries, inclusion of an additional precinct, and increase in the number of 'initial precincts' from three to six.

The project would be located within the area covered by the Northern Gateway Precinct, North Luddenham Precinct, Wianamatta – South Creek Precinct, and the northern extents of the Badgerys Creek and Kemps Creek precincts (see **Figure 2-1**). The project has been considered as part of the future transport network for the Aerotropolis, with a key implementation strategy being the protection of the project corridor to prevent conflict with adjoining land use. Interface with the project corridor and connection to the proposed motorway were also identified as key considerations for the precinct planning.

The Draft Western Sydney Aerotropolis Development Control Plan 2019 (the Draft DCP) provides the vision and objectives for each of the initial precincts. The role of the project in providing links to the Aerotropolis and surrounding areas is recognised in the vision for the Northern Gateway Precinct.

The Western Sydney Aerotropolis Discussion Paper on the Proposed State Environmental Planning Policy provides details the development pathways for the Aerotropolis, including development applications and master plans. (Western Sydney Planning Partnership, 2019c). The project is identified on the Western Sydney Aerotropolis Structure Plan as needed to support the growing population of Western Sydney and particularly the Aerotropolis.

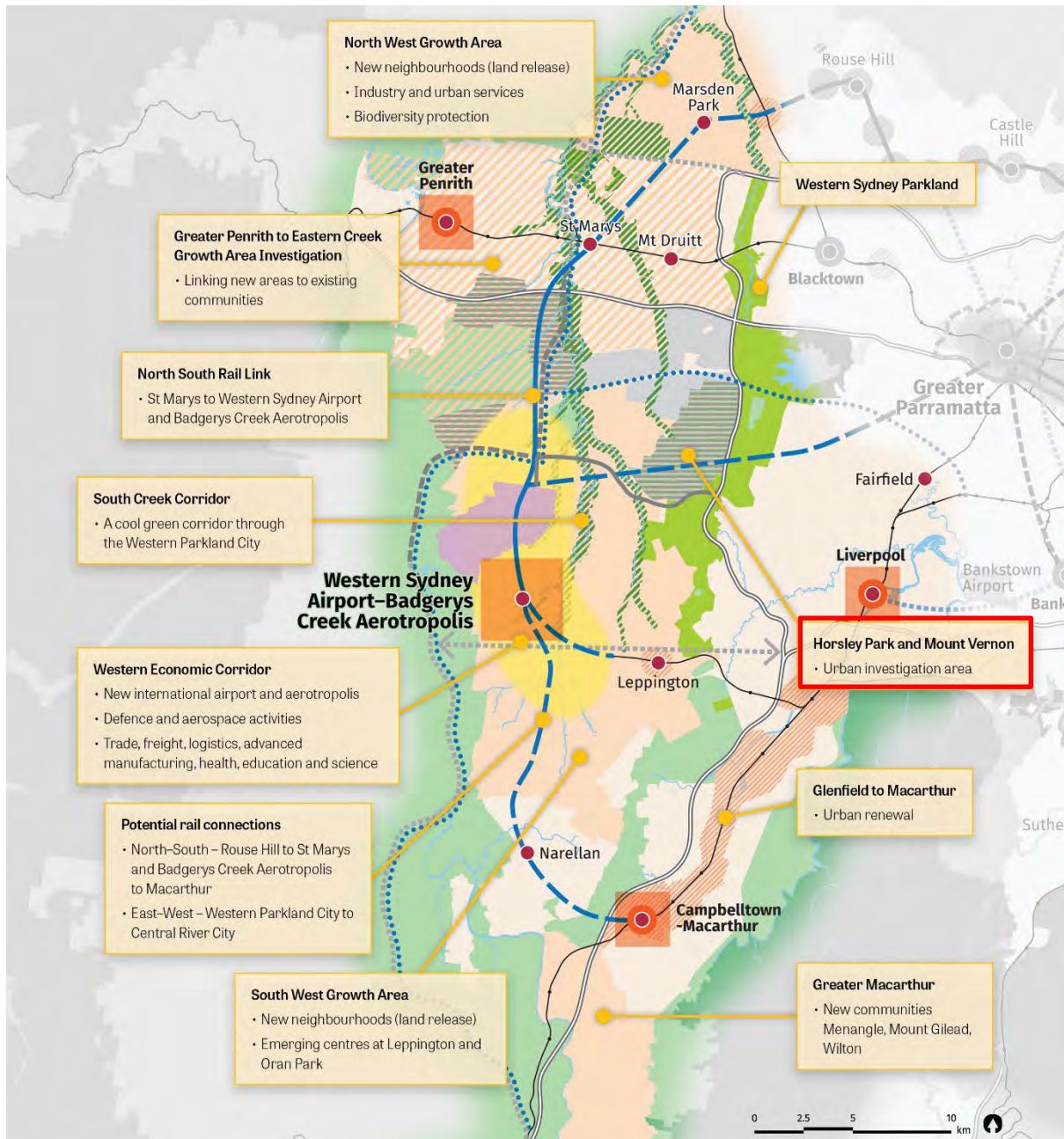


Source: Western Sydney Planning Partnership, December 2019

Figure 2-1 Draft WSAP Structure Plan

Horsley Park and Mount Vernon Urban Investigation Area

The GSC Western City District Plan (March 2018) identified the Horsley Park and Mt Vernon Urban Investigation Area (UIA) (see **Figure 2-2**) as part of a structured approach to managing the long-term growth of Greater Sydney. The amended project construction and operational footprints have moved further to the north at Cecil Park to account for the realignment of Wallgrove Road. As such, the amended project now encroaches on the south eastern boundary of the UIA.



(Source: Greater Sydney Commission, 2018)

Figure 2-2 Horsley Park and Mount Vernon Urban Investigation Area (UIA)

Fairfield City Council has progressed planning for its section UIA, referred to as the Fairfield Rural Lands UIA, and released a preferred draft structure plan in April 2019. At the time of writing, the Fairfield City Council were still considering feedback from GSC and State agencies on the preferred draft structure plan. The feedback highlighted the need for further detailed investigations into a range of infrastructure, environmental and transport planning issues relevant to the proposed draft structure plan. As the UIA is yet to be endorsed, it has not been considered further in this assessment. In addition, Penrith City Council is yet to publish any information covering the western half of the UIA that is within the Penrith local government area.

The realignment of Wallgrove Road and signalisation with Elizabeth Drive as part of the amended project would provide improved access to the area covered by the UIA. The implementation of Option 2 of the amended project would also provide a better connection from the Cecil Park, Horsley Park and Mount Vernon areas to the M12 Motorway and Western Sydney International Airport.

3. Assessment methodology

The methodology for the socio-economic, land use and property assessment is consistent with the methodology outlined in Section 7.4.2 of the EIS. The primary and secondary study areas also remain unchanged to those presented in the EIS.

This assessment focuses on the changes in potential impacts to socio-economic, land use and property associated with the construction and operation of the amended project, including changes in the construction and operational footprints, traffic volumes and connectivity. The assessments detailed in **Section 5** relate to both options (with and without a connection to Elizabeth Drive presented in section 1.3) unless stated otherwise.

4. Existing environment

Section 7.4.3 of the EIS provides a detailed description of the existing environment within which the project is located including existing and planned future land use; population, demography and housing characteristics, local business and industry; social infrastructure; community values; and transport and access. The existing environment has not changed since the preparation of the EIS but there have been some changes in planned future land with the release of the Draft Western Sydney Aerotropolis Planning Package.

4.1 Future land use

The Draft WSAP identifies precincts based on likely future character and connectivity and outlines future land use proposed for the Western Sydney Aerotropolis. **Table 4-1** provides an overview of the precincts that would be impacted by the amended project.

Table 4-1 Western Sydney Aerotropolis precinct

Draft WSAP Precinct	Description
Northern Gateway	<p>The Northern Gateway precinct will be a major airport interface and as a key strategic centre within the Western Economic Corridor, linking the Western Sydney Airport with the Metropolitan Cluster. The M12 Motorway and Elizabeth Drive are proposed to connect the precinct to the Western Sydney International Airport. Protection of these transport corridors and preventing possible conflict with adjoining land uses are key strategies of the Northern Gateway precinct.</p> <p>Desirable land uses include high technology commercial enterprise/industry, warehousing and logistics, education, offices, retail, residential, health services, entertainment, tourism facilities, cultural and creative industries, green public and private open spaces, recreation and visitor accommodation.</p>
North Luddenham	<p>This precinct will leverage from its proximity to the proposed Outer Sydney Orbital, the airport and the Agribusiness and Northern Gateway precincts. It will be an area focused on high technology research and development associated with food production and processing. Desirable land uses include commercial offices, urban services, warehousing and logistics, food technology and research, food production and process, and agribusiness and fresh produce markets.</p>
Wianamatta – South Creek	<p>This precinct is an important part of the broader Wianamatta–South Creek corridor. Protection of the Wianamatta–South Creek Precinct allows planning for the Aerotropolis to be structured around the landscape. Desirable uses identified in the Draft WSAP include environment protection and water management, open space, recreation facilities, pedestrian and cycle connectivity, community and cultural facilities and restaurants/cafes.</p>

Draft WSAP Precinct	Description
Badgerys Creek	This precinct will support airport operations and the new urban centre in the Aerotropolis Core and Northern Gateway precincts. The precinct will meet the demand for a range of employment generating uses that benefit from its proximity to airport operations and the new urban centre, but do not require direct access to high capacity public transport. Desirable land uses include defence and aerospace uses, advanced manufacturing and high technology industry, local retail, Aerotropolis enabling industries, resource recovery, light industrial and non-noise sensitive social infrastructure.
Kemps Creek	The Kemps Creek Precinct will create opportunities for flexible employment development connected to surrounding residential communities, the Aerotropolis Core, the Western Sydney International Airport and other centres, such as Liverpool CBD. The precinct is proposed to accommodate mixed business development such as smaller innovative and creative industries that seek more affordable, out of centre accommodation with accessibility and amenity. Desirable land uses include small and medium enterprises, creative industries, high technology industries and urban services.

Source: Western Sydney Planning Partnership, 2019a

5. Assessment of potential impacts

5.1 Property impacts

5.1.1 Directly affected properties

The project as described in the EIS would directly affect 41 properties by either property acquisition or temporary lease. The proposed amended project (see **Section 1.2**) would require the acquisition or temporary lease of eight additional private properties, of which five would be partial acquisition and three would be temporary leases. This brings the total number of directly affected properties to 49 for the amended project.

Table 5-1 provides a summary of properties directly affected by the amended project. Properties within the amended project construction footprint are shown on **Figure 5-1** and properties within the amended project operation footprint are shown on **Figure 5-2**.

Seventeen of the properties identified in the EIS would be subject to increases in acquisition or temporary lease requirements associated with the amended project. This would include privately owned rural residential land and publicly owned land within the Western Sydney Parklands, which is managed by the Western Sydney Parklands Trust. No changes are proposed to the other properties identified in the EIS for acquisition or temporary lease. Changes to directly affected properties would comprise:

- Increase in the area of land affected by property acquisition for the provision of two intersections into the Western Sydney International Airport and connection to future development to the north of Elizabeth Drive
- Acquisition and temporary lease of additional properties for local road changes at Cecil Road and Wallgrove Road
- Temporary lease of additional land for construction ancillary facilities AF 1 to AF 9
- Temporary lease of new properties for the additional construction ancillary facilities AF 10 to AF 18.

The additional construction ancillary facility AF 10 is currently being leased for construction of Stages 5 and 6 of The Northern Road. The construction of the M12 Motorway would extend the temporary lease of this land by four years to a total of eight years.

The proposed changes generally affect the following land uses:

- Rural land used for grazing and horticulture
- Rural residential uses
- Commercial and business uses
- Recreational and non-recreational uses within the Western Sydney Parklands.

The total area of land managed by the Western Sydney Parklands Trust impacted by the amended project would be 81.1 hectares, of which 24.7 hectares is for the construction phase only. This comprises land used for both recreational and non-recreational purposes (e.g. rural residential and agriculture) and represents a total increase from the EIS of 28.5 hectares (13.9 hectares of which is for the construction phase only). Land required for the construction phase only will be reinstated to its existing use following construction.

The types of impacts on the land use and access to properties subject to temporary lease associated with the amended project would be consistent with those described in Section 7.7.4 of the EIS.

Acquisition of additional land required for the amended project would be undertaken in accordance with the process described in the EIS. Specifically, acquisitions for the amended project would be undertaken by TfNSW in accordance with the provisions of the NSW *Land Acquisition (Just Terms Compensation) Act 1991* and the Land Acquisition Reform 2016 process (<https://www.propertyacquisition.nsw.gov.au/>). Where properties are only partly affected by the project, TfNSW would generally undertake a partial acquisition of the directly affected portion in consultation with the landowner.

Impacts of property acquisition on land use, businesses and social infrastructure are discussed in **Section 5.2.1**, **Section 5.2.5** and **Section 5.2.6** respectively.

Table 5-1 Summary of properties directly affected by the amended project

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
1	1/DP200435	Private	Agriculture (The Honey Shed), home based business (transport company), utilities (mobile phone tower)	8.7	1.5 (17.2%)	7.2 (82.8%)	Dwelling(s), internal roads/ tracks	No change***
2	1/DP1240402	Private (company)	Rural	315.2	13.5 (4.3%)	9.3 (3.0%)	-	Increase in property area affected by construction with the temporary lease of the area currently used for The Northern Road upgrade (Stage 5 and 6) construction ancillary facility (9.3 hectares)
3	26/DP604586, 1/DP228498	Private	Agriculture – grazing	48.3	16.1 (33.3%)	-	-	No change
4	25/DP604586	Private	Agriculture – grazing	12.8	4.7 (36.4%)	0.2 (1.6%)	Farm dams (two)	Increase in the property area affected by construction with the temporary lease of 0.2 hectares to fully incorporate a farm dam that would be impacted by the amended project
5	2/DP529885	Private (company)	Commercial (Luddenham Raceway)	37.8	0.5 (1.4%)	-	Olive trees	No change

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
6	1/DP235124	Private (now owned by TfNSW)	Commercial (former Karingal Training Stables – no longer operating)	17.6	5.2 (29.8%)	5.4 (30.7%)	Sheds, horse paddocks/ stables, farm dams, training facilities, training track, internal roads/tracks	Increase in the property area affected by construction (by 5.0 hectares) for a construction ancillary facility (AF11) following acquisition of the property by TfNSW
7	35/DP211842	Private	Agriculture – intensive animal husbandry (horses)	11.3	1.0 (8.7%)	0.7 (6.2%)	Farm dams	Change to the property area affected by temporary lease (from 0.6 hectares to 0.7 hectares) to fully incorporate the farm dams that would be impacted by the amended project
8	101/DP848215	Private (company)	Agriculture – grazing, commercial (quarrying, waste management and/or resource recovery)	343.4	47.7 (13.8%)	13.1 (3.8%)	Farm dams, quarry, farm dams (two), internal roads/tracks	Minor adjustment in operational footprint to accommodate amended design of airport interchange (47.2 hectares to 47.5 hectares). Reduction in the property area subject to temporary lease (from 13.4 hectares to 13.1 hectares), which is partly due to adjustments in the operational footprint

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
9	63/DP1087838, 62/DP1087838, 3/DP164242, 1/DP74574, 21/DP258414, 1/DP88836	Private	Rural land – The University of Sydney farms	343.9	34.0 (9.9%)	23.2 (6.7%)	Farm dams	Change to the operational footprint (from 30.9 hectares to 33.6 hectares) at Elizabeth Drive to incorporate intersections into the Western Sydney International Airport and connection to future development to the north of Elizabeth Drive. Reduction in the area subject to temporary lease (from 27.9 hectares to 23.2 hectares), which is mainly due to the change in the operational footprint
10	2/DP88836	Private (company)	Model aircraft airstrip/ rural land, commercial (radio testing)	25.3	1.6 (6.2%)	-	-	No change
11	55/DP734584	Private	Agriculture – horticulture	10.1	0.04 (0.4%)	-	-	No change
12	1/DP587135, 2/DP587135, 7/DP812284	Private (company)	Agriculture – horticulture, grazing (identified for future urban development)	88.1	10.8 (12.2%)	0.1 (0.1%)	Horticultural gardens, internal roads	Minor increase in the property area affected by construction with the temporary lease of 0.1 hectares to fully incorporate a shed impacted by the amended project

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
13	47/DP734584	Private (company)	Rural land	10.7	6.1 (56.8%)	4.6 (43.0%)	-	Change to the property area subject to temporary lease (from 3.0 hectares to 4.6 hectares), to incorporate residual land within the construction ancillary facility (AF12)
14	3/DP812284	Private (company)	Recycling facility, commercial (TreeServe)	12.8	0.8 (6.3%)	12.0 (93.8%)	-	Increase in the property area affected by construction with the temporary lease of 12.0 hectares for an ancillary facility (AF12), in response to approach from owner offering lease
15	6/DP812284	Private	Agriculture – grazing	16.3	6.4 (39.1%)	-	Sheds, internal roads/tracks	No change
16	5/DP812284	Private	Wrecked car yard	6.1	1.7 (27.5%)	-	-	No change
17	4/DP812284	Private	Rural land	5.7	1.8 (30.9%)	-	-	No change
18	41/DP734584	Private	Agriculture – horticulture	13.1	2.2 (17.1%)	-	Horticultural gardens, shed	No change
19	1/DP981721	Private	Rural residential	2.1	1.3 (60.6%)	-	Dwelling, sheds	No change

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
20	1/DP981720	Private	Agriculture – horticulture	2.1	0.2 (9.0%)	0.2 (10.0%)	Shade houses, farm dam	Increase in the property area affected by construction with the temporary lease of 0.2 hectares to fully incorporate a farm dam and a small number of additional shade houses (up to five in total)
21	1/DP736951	Private	Commercial (horse training)	1.9	1.05 (56.8%)	0.03 (1.6%)	Dwellings (two), sheds/ stables, horse paddocks	Change to the construction footprint to fully incorporate a shed impacted by the amended project, increasing the property area affected from 1.05 hectares to 1.08 hectares
22	2/DP736951	Private	Rural residential	1.9	1.9 (100.0%)	-	Dwelling, sheds, horse paddocks	No change
23	B/DP416720, 39/A/DP2566	Private	Commercial (horse training facility – Bara Lodge)	2.2	1.0 (45.4%)	1.2 (54.5%)	Horse paddocks, shed, internal roads/tracks	Increase in the property area affected by construction with the temporary lease of 1.2 hectares to include additional area for a construction ancillary facility (AF13)
24	B/DP102214	Private	Commercial (horse training facility – Bara Lodge)	18.8	4.0 (21.5%)	-	Training track, farm dam, internal roads/tracks	No change
25	29/DP30265	Private (company)	Commercial (Vac Group Australia)	2.4	0.3 (12.4%)	-	-	No change

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
26	8/DP737052	Private	Residential	2.1	0.8 (35.9%)	-	-	No change
27	7/DP737052	Private (company)	Commercial	2.1	0.5 (22.7%)	-	-	No change
28	17/DP30265	Private	Rural residential	2.9	0.02 (0.6%)	-	-	No change
29	18/DP30265	Private	Rural residential	3.1	0.5 (15.0%)	-	-	No change
30	19/DP30265	Private	Rural residential	3.2	1.0 (31.7%)	-	-	No change
31	20/DP30265	Private (company)	Rural residential	2.3	0.2 (7.6%)	-	-	No change
32	21/DP30265	Private	Rural residential	2.3	0.6 (23.9%)	-	-	No change
33	22/DP30265	Private (company)	Commercial	2.3	0.9 (40.6%)	-	Hardstand	No change
34	23/DP30265	Private (company)	Commercial – Western Safety Fences	2.3	1.3 (55.2%)	-	-	No change
35	24/DP30265	Private	Rural residential	2.0	0.8 (39.9%)	-	Shed	No change

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
36	26/DP30265, 25/DP30265	Private	Commercial (Hi-Quality Group Head Office)	4.2	2.2 (51.6%)	2.0 (47.6%)	Shed, office, hardstand	Increase in the property area affected by construction by 2.0 hectares to incorporate the whole of this property
37	9/DP1054778, 8/DP1054778, 7/DP1054778, 6/DP1054778, 5/DP1054778, 4/DP1054778, 3/DP1054778, 2/DP1054778, 1/DP1054778	Private	Agriculture – grazing	18.9	8.3 (43.7%)	1.7 (9.0%)	-	Increase in the property area affected by construction with the temporary lease of 1.7 hectares to incorporate land south of the M12 Motorway into a construction ancillary facility (AF15)
38~/ 40	3/DP1087825, 1/DP875790, 2/DP922940, 28/DP654786, 1/DP308358, 6/DP629798, 5/DP629798, 1/DP1041390, 2/DP1041390, 10/DP1021940, 11/DP1021940, 12/DP1021940, 14/DP1021940, 1/DP724970,	Public (Western Sydney Parklands Trust)	Western Sydney Parklands	801.3	53.5 (6.7%)	20.4 (2.5%)	Wylde Mountain Bike Trail and other recreation uses, International Shooting Centre, car parking area, vegetated areas, orchard trees, dwelling, sheds, farm dams (two)	Increase in the property area affected by construction with the temporary lease of an additional 13.9 hectares of land to incorporate the existing Wylde Mountain Bike Trail car park area (which would be relocated) into construction ancillary facility (AF16), land east of the M7 Motorway (AF9), and other minor adjustments. Increase in the property area affected by the operational footprint from

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
	11/DP860893#, 13/DP1021940 1/DP522269,							46.1 hectares to 53.5 hectares, to accommodate the amended project at Elizabeth Drive
39	21/DP1109551, 26/DP1109551, 22/DP1109551	Public	Water NSW	9.5	2.1 (22.6%)	-	-	Minor change to the operational footprint east of the M7 Motorway, increasing the property area affected from 2.0 hectares to 2.1 hectares
41	2/DP1230172, 1/DP129674, 2/DP996420, 1/DP996420	Public†	Elizabeth Drive road reserve	0.3	0.3 (99.7%)	-	-	No change
42 (New)	33/A/DP2566	Private	Rural residential	1.5	-	1.5 (100%)	-	Property to be used for construction ancillary facility (AF14)
43 (New)	2/4/DP2954	Private	Rural residential	7.4	3.3 (45.4%)	-	Vegetated area, farm dam	Change to the operational footprint for the realignment of Wallgrove Road
44^	7/DP629798, 1/DP1222339, 26B/DP387529, 26A/DP387529, 25/4/DP2954, 24/DP1152887	Public (Western Sydney Parklands Trust)	Rural and rural residential	14.9	2.9 (19.6%)	4.3 (28.9%)	Dwelling, sheds, vegetated area	Change to the operational footprint for the connection to Wallgrove Road and temporary lease of 4.3 hectares for an additional construction ancillary facilities (AF 17 and AF18))

ID *	Lot (lot or section/ DP)	Ownership	Existing land use**	Total property area (hectares)	Area of land within amended operational footprint (hectares) (proportion of property in brackets)	Area of land subject to temporary lease (hectares) (proportion of property in brackets)	Property improvements affected (eg dwellings, sheds, farm dams, shade houses)	Change from EIS
45 (New)	302/DP1122172 303/ DP1122172 304/DP1122172	Private	Residential	4.3	0.02 (0.5%)	0.02 (0.5%)	-	Minor adjustment to driveway access at Cecil Road Temporary lease of 0.02 hectares of land to incorporate whole of dam
46 (New)	301/DP1122172	Private	Residential	1.3	0.02 (1.6%)	-	-	Minor adjustment to driveway access at Cecil Road
47 (New)	300/DP1122172	Private	Residential	1.0	0.01 (1.3%)	-	-	Minor adjustment to driveway access at Cecil Road
48 (New)	303/DP1122172	Private	Residential	1.2	0.004 (0.4%)	-	-	Minor adjustment to driveway access at Cecil Road
49 (New)	91/DP1101411	Private	Commercial (quarry)	7.7	-	0.1 (1.3%)	-	Minor adjustment to driveway access at Range Road

Note: * Refer to Figure 5-1 for location

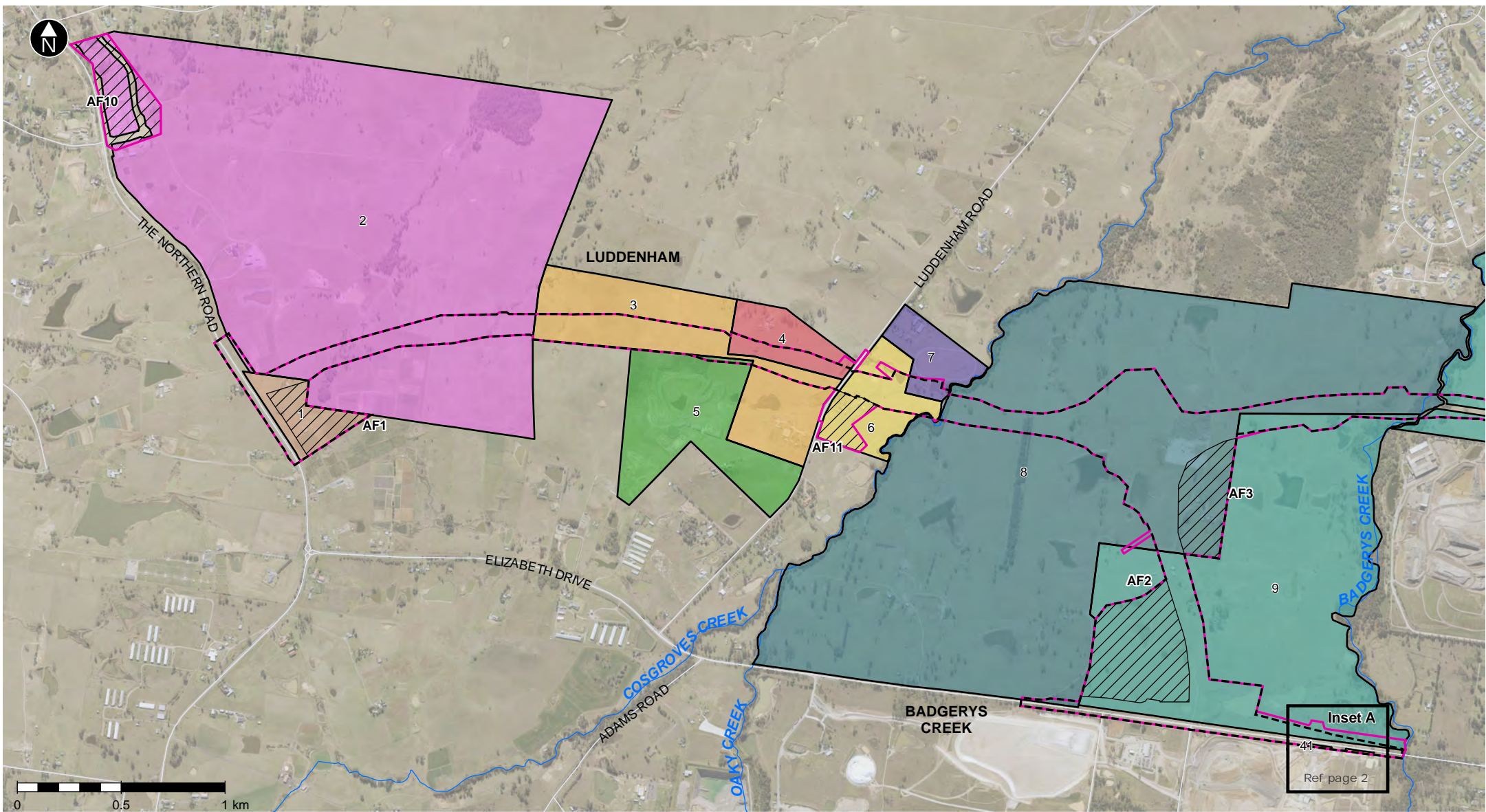
**Based on review of GIS dataset and aerial photography

*** Since the M12 Motorway EIS, Lot 1/DP200435 has been subdivided into two separate lots – Lot 4/DP1238606 and Lot 1/DP1238606. Lot 4/DP1238606 (comprising 1.7 hectares) will form part of The Northern Road Stage 5 and 6 and has been excluded from the calculations for Property ID1

† Transfer of Commonwealth land to TfNSW currently ongoing

^ Property ID38 now includes land within the Western Sydney Parklands identified separately in the EIS as Property ID40. Rural residential land owned by the Western Sydney Parklands Trust has also been removed from Property ID38 and is shown separately as Property ID44

#This property was previously affected by an access track for the project as described in the EIS, but was not included in the list of affected properties



- The project construction footprint as per the EIS
- The amended project construction footprint
- Affected properties
- The amended project ancillary facilities
- ~~~~~ Waterways

Note: Different colours have been used for each affected property for ease of identification

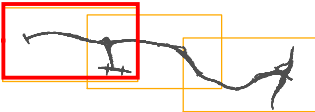
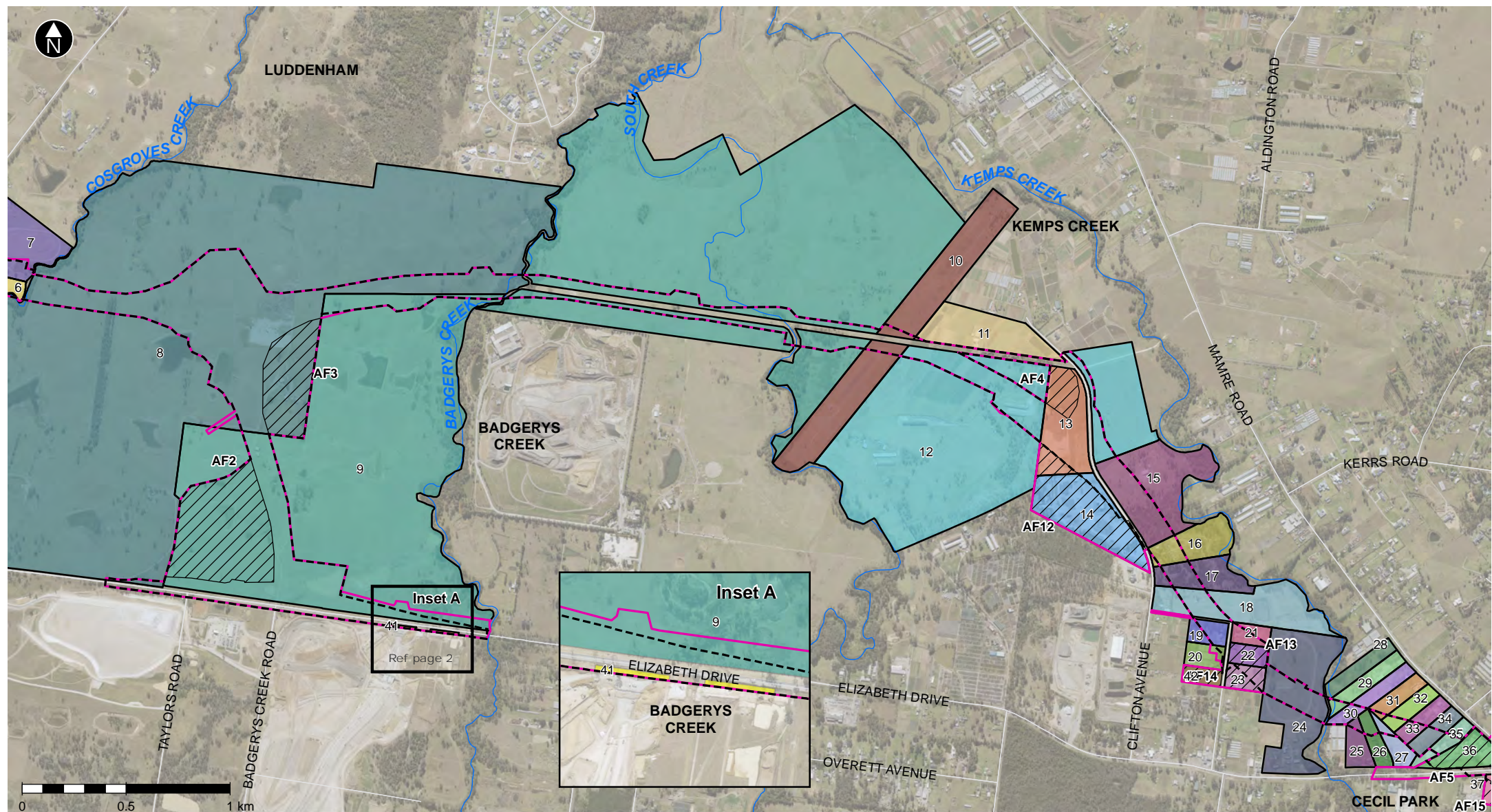


Figure 5-1 Properties within amended project construction footprint



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project ancillary facilities
- ~ Waterways
- Affected properties

Note: Different colours have been used for each affected property for ease of identification

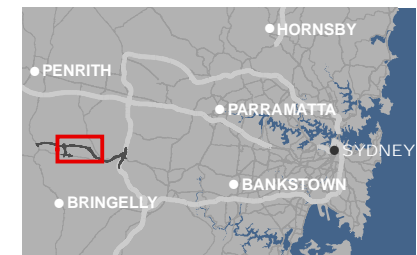
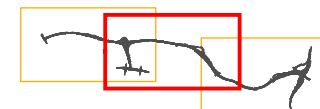
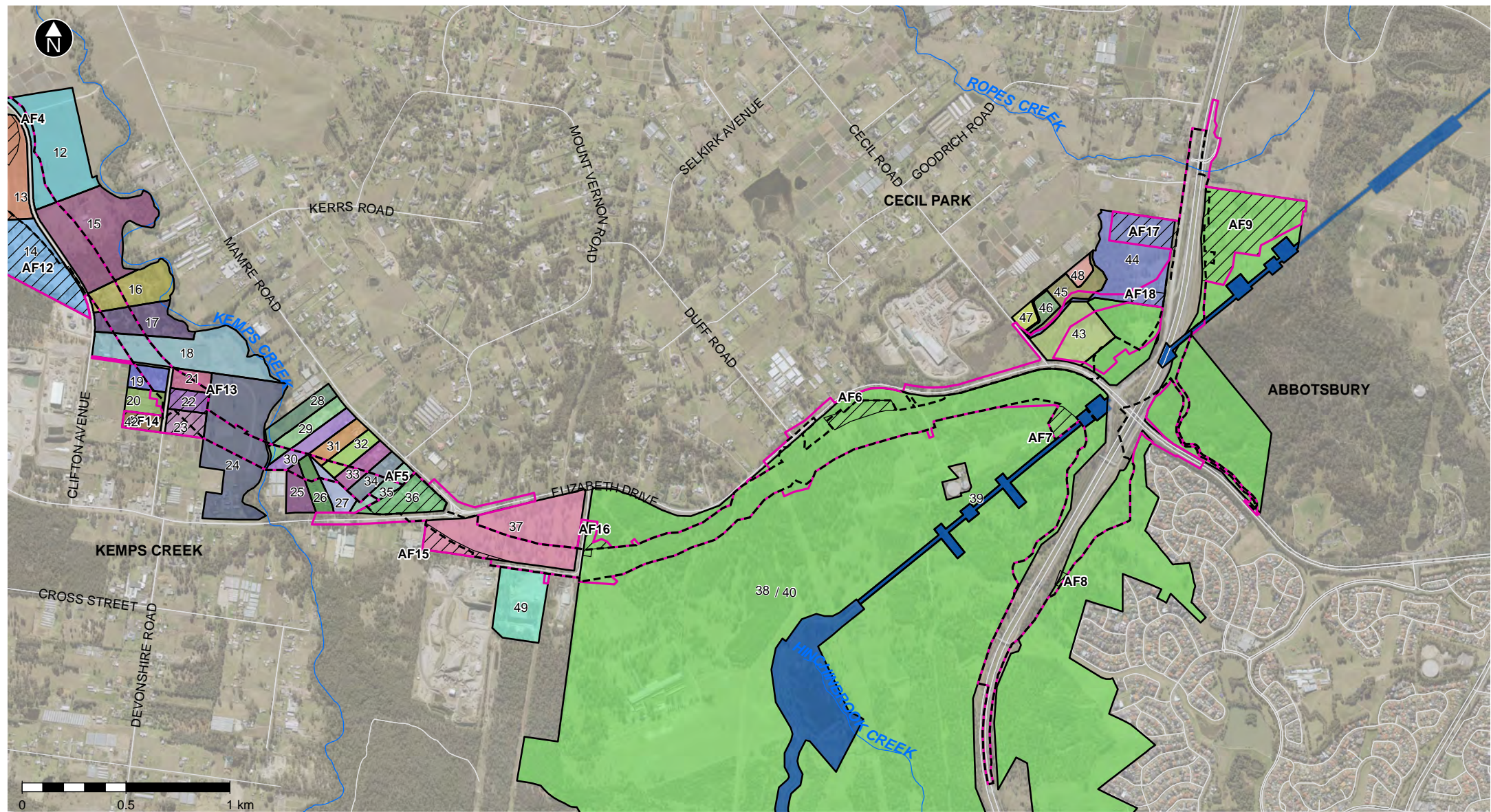


Figure 5-1 Properties within amended project construction footprint



- The project construction footprint as per the EIS
 - The amended project construction footprint
 - Affected properties
 - The amended project ancillary facilities
 - ~~~~~ Waterways
- Note: Different colours have been used for each affected property for ease of identification**

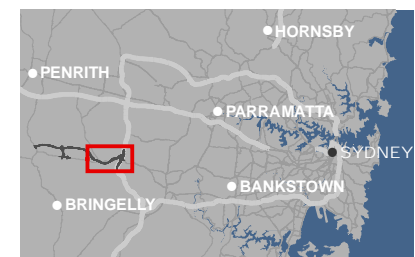
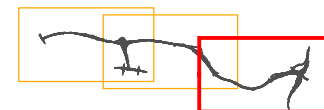
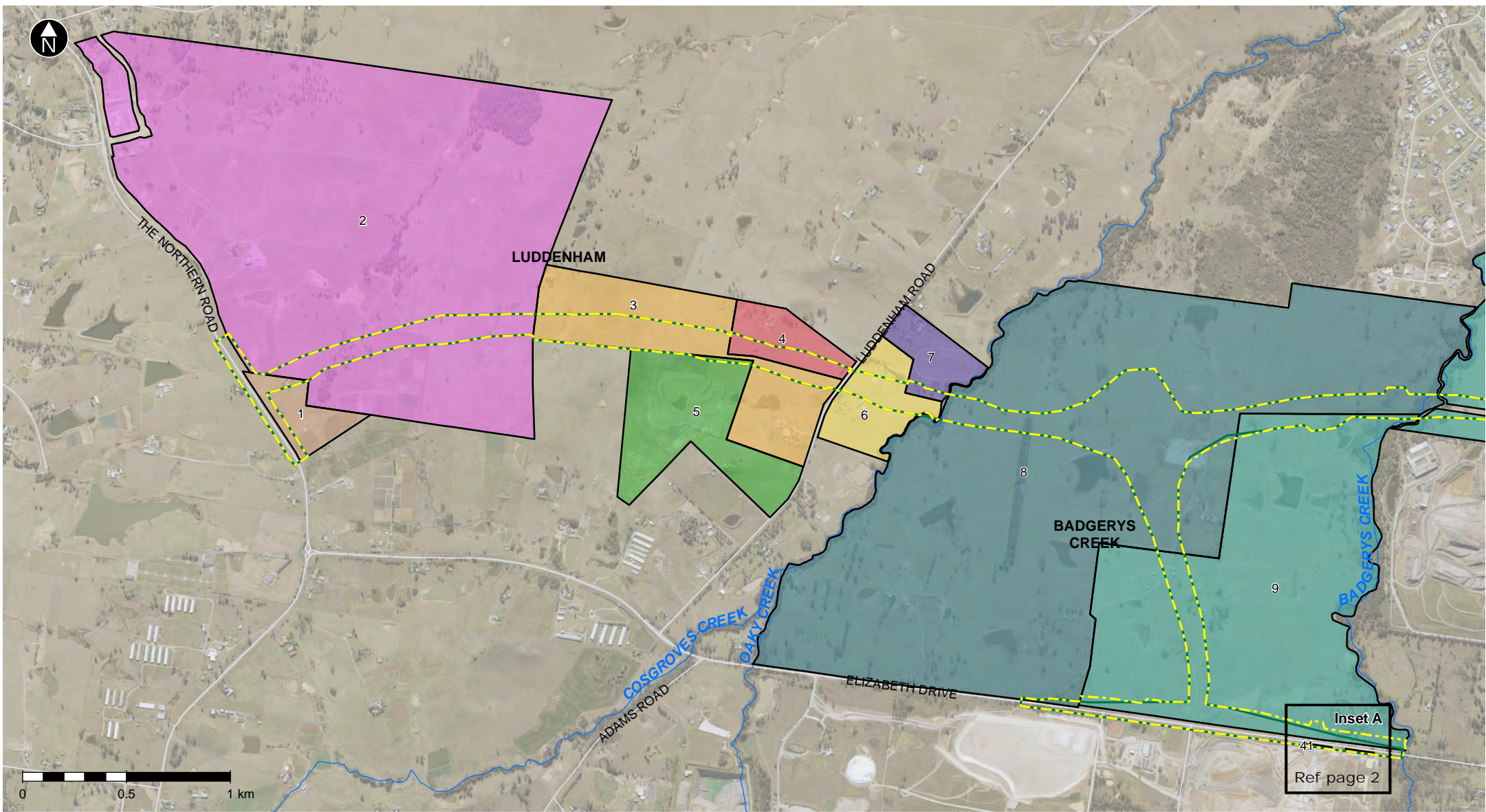


Figure 5-1 Properties within amended project construction footprint

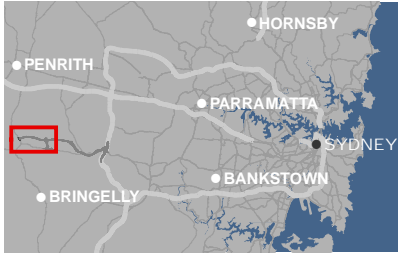
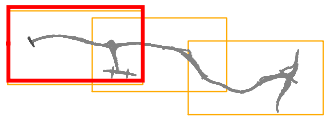


The project operational footprint as per EIS
 Affected properties

The amended project operational footprint

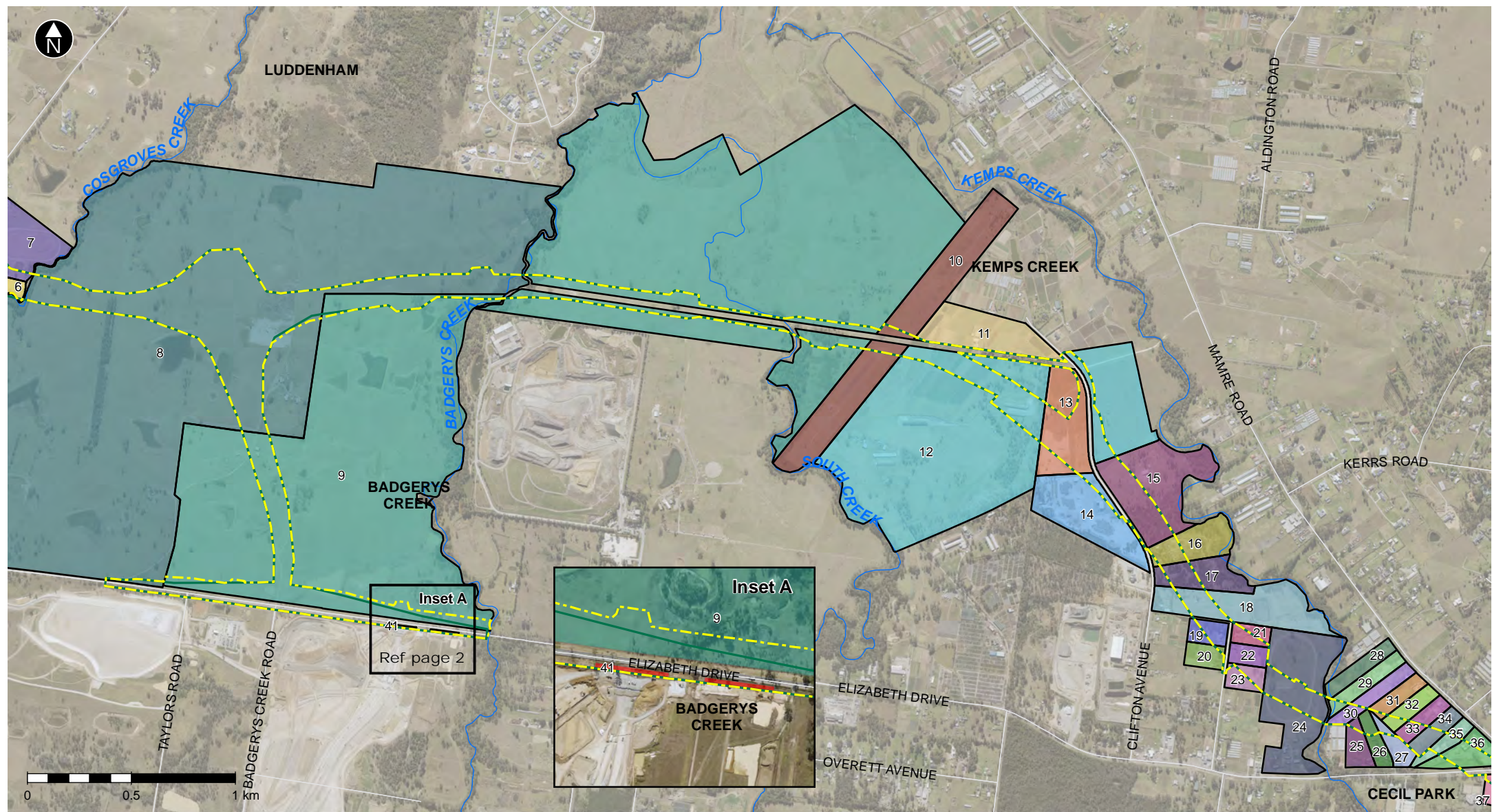
~~~~~ Waterways

**Note: Different colours have been used for each affected property for ease of identification**



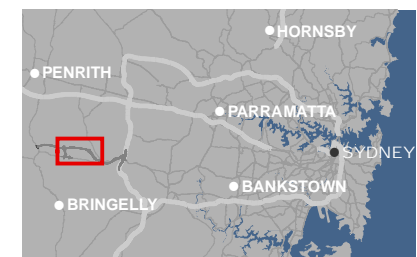
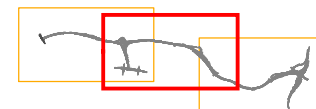
**Figure 5-2** Properties within amended project operational footprint





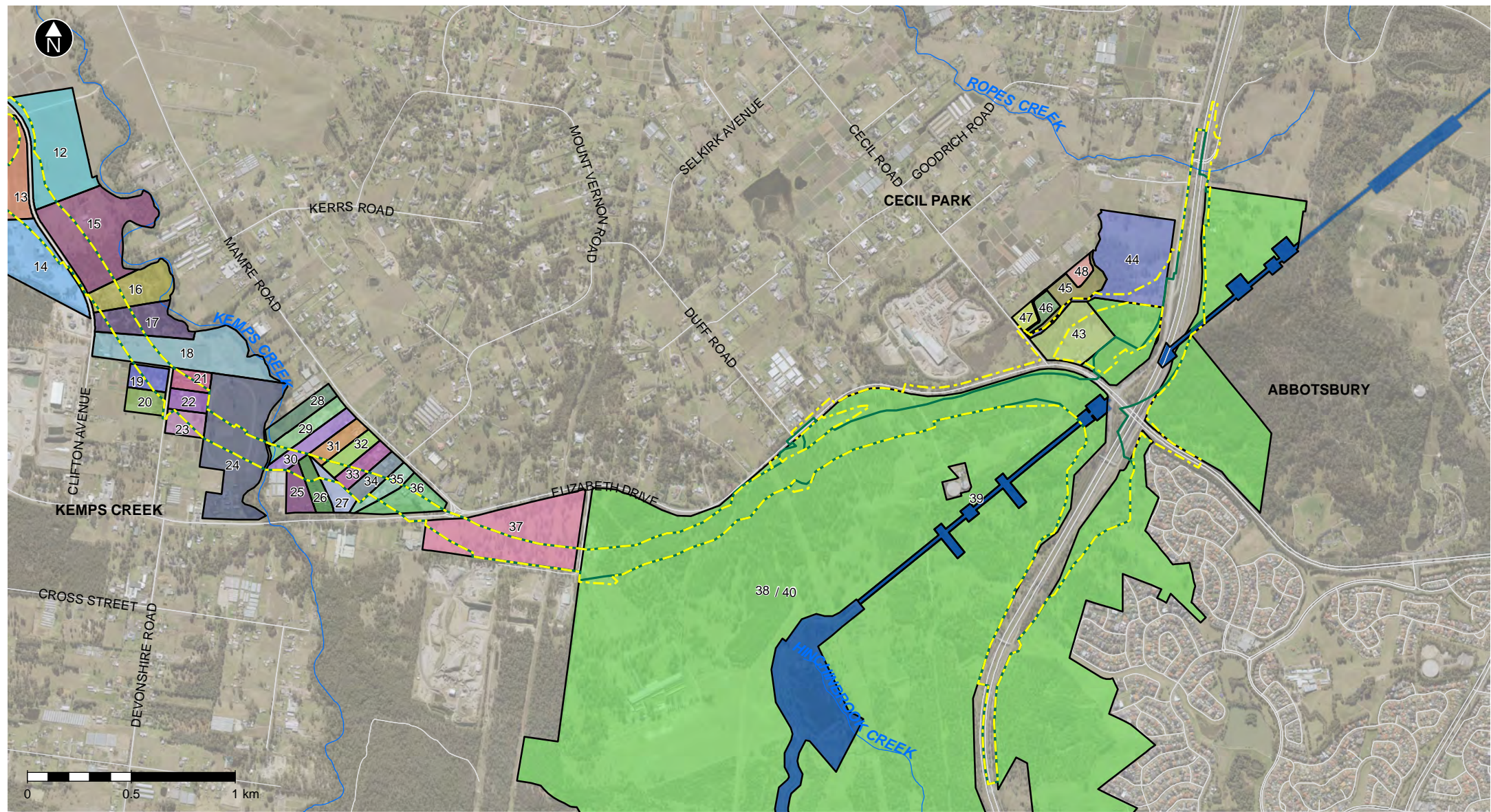
- The project operational footprint as per EIS
- Affected properties
- The amended project operational footprint
- ~~~~~ Waterways

**Note: Different colours have been used for each affected property for ease of identification**



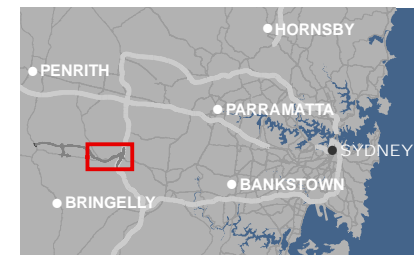
**Figure 5-2** Properties within amended project operational footprint





- The project operational footprint as per EIS
- The amended project operational footprint
- ~ Waterways

**Note: Different colours have been used for each affected property for ease of identification**



**Figure 5-2** Properties within amended project operational footprint



### 5.1.2 Impact of property acquisition

The proposed design changes would require the demolition of one additional dwelling located on a rural residential property at Cecil Park. This increases the total number of dwellings to be demolished for the project to 10 dwellings, including the nine dwellings identified in the EIS.

Other potential impacts associated with property acquisition would generally be consistent with those described in the EIS and would mainly relate to disruption of social networks and community relationships, loss of family heritage and potential stress and anxiety for residents associated with the changes.

### 5.1.3 Other property impacts

Other property impacts that would result from the amended project would generally be consistent with the EIS and would mainly relate to local access changes, adjustments to private properties due to partial property acquisition and disruption to local amenity.

As indicated in the EIS, access would be maintained to individual properties near the operational footprint. Some permanent changes would be required to some access roads, including realignment or closure of local roads. In addition to local road changes already described in the EIS, the proposed amended project includes the realignment of Wallgrove Road to connect to Elizabeth Drive via Cecil Road. This would change access routes for properties at Wallgrove Road, potentially increasing travel distances to individual properties, by about 550 metres. Further discussion about potential impacts from changes to local road access and connectivity is discussed in **Section 5.3.8**.

TfNSW will continue to consult with property owners affected by partial acquisition and temporary lease arrangements about property access and property adjustments as the project progresses.

## 5.2 Construction impacts

### 5.2.1 Land use impacts

#### Existing land use

During construction, land use impacts associated with the amended project would generally be consistent with those presented in the EIS. The construction footprint for the amended project would directly impact an additional 87 hectares of land compared to the construction footprint as described in the EIS (see **Table 5-2**). Urban uses comprise the largest area of the additional land affected by the amended project (39.2 hectares), with this mainly comprising:

- Land used for resource and waste facilities at Clifton Avenue, Kemps Creek
- Land used for recreation at Luddenham Road, Luddenham and within the Western Sydney Parklands at Cecil Park.

Potential impacts on these uses are discussed in Section 5.2.5 (business impacts) and Section 5.2.6 (social infrastructure).

About 29.3 hectares of additional land affected by the amended project comprise rural and agricultural uses. This includes about 16.4 hectares of grazing land, mainly being land within the existing construction ancillary facility currently used for The Northern Road Stage 5 and 6, 12.5 hectares of land used for rural residential uses at Salisbury Avenue, Kemps Creek and at Wallgrove Road, Cecil Park, and 0.4 hectares of rural land.

Table 5-2 Summary of land uses within the construction footprint

| Land use                            | Construction footprint as per EIS (hectares) | Amended construction footprint (hectares) | Difference (hectares) |
|-------------------------------------|----------------------------------------------|-------------------------------------------|-----------------------|
| <b>Rural and agricultural uses</b>  | <b>223.9</b>                                 | <b>253.2</b>                              | <b>29.3</b>           |
| Grazing                             | 168.1                                        | 184.5                                     | 16.4                  |
| Intensive agriculture               | 15.0                                         | 15.0                                      | 0.0                   |
| Rural                               | 25.8                                         | 26.2                                      | 0.4                   |
| Rural residential                   | 15.0                                         | 27.5                                      | 12.5                  |
| <b>Environmental areas</b>          | <b>3.0</b>                                   | <b>3.1</b>                                | <b>0.1</b>            |
| Watercourse or water infrastructure | 3.0                                          | 3.1                                       | 0.1                   |
| <b>Urban</b>                        | <b>72.8</b>                                  | <b>112.0</b>                              | <b>39.2</b>           |
| Commercial/ industrial              | 11.8                                         | 17.2                                      | 5.4                   |
| Resource and waste facility         | 9.9                                          | 23.6                                      | 13.7                  |
| Recreation use                      | 51.1                                         | 71.2                                      | 20.1                  |
| <b>Infrastructure</b>               | <b>54.6</b>                                  | <b>72.8</b>                               | <b>18.2</b>           |
| Roads and transport                 | 54.6                                         | 72.8                                      | 18.2                  |
| <b>Total land affected</b>          | <b>354.3</b>                                 | <b>441.1</b>                              | <b>86.8</b>           |

Source: Based on analysis of existing land uses

During construction, potential impacts of the amended project on areas classified as environmental areas, resource and waste facilities and infrastructure and utilities would generally be consistent with those described in the EIS.

Clearing of some additional areas of bushland on land classified as rural residential within the Western Sydney Parklands – Cecil Park North Precinct would be required due to changes to Wallgrove Road and Cecil Road. Impacts on land within the Western Sydney Parklands is described in **Section 5.2.6**, while further discussion about potential impacts on the biodiversity values of this area are described in Section 6.2 of the amendment report.

The amended project would result in additional utility impacts including electricity transmission lines, communications infrastructure, and water and gas pipelines. These services would be modified, protected or relocated as part of the project's construction, in consultation with the relevant service provider to minimise any service disruptions. A summary of proposed utility modifications required for the amended project is provided in Section 3.3.4 of the amendment report. TfNSW will continue to engage with utility providers to refine potential utility modifications and protection measures through the detailed design.

## Future land uses

Potential impacts of the amended project on future growth and development for the Western Sydney Aerotropolis and Western Sydney Growth Area would be consistent with those described in the EIS.

### 5.2.2 Water use impacts

As indicated in the EIS, a combination of potable mains supply and recycled water would be required during construction. As a result of the proposed construction and design changes associated with the amended project, the estimated total water use during construction would be about 822 megalitres (an increase of 146 megalitres from the project as described in the EIS). This represents an increase of about 22 per cent. As indicated in the EIS,

strategies would be implemented to reduce reliance on potable water and identify opportunities for using recycled water where feasible.

### 5.2.3 Population and demography

Potential impacts on population and demography during construction of the amended project would be consistent with those described in the EIS.

### 5.2.4 Employment impacts

Potential impacts during construction of the amended project on population and demography would be consistent with those described in the EIS.

### 5.2.5 Business and industry impacts

#### Directly affected businesses

No new businesses would be directly affected by property acquisition or temporary leases as a result of the proposed amended project. Increased impacts would occur for three businesses previously identified as directly impacted. Overall, potential impacts on other businesses directly affected by the project would be consistent with those described in the EIS.

Potential changes to businesses impacted by additional property acquisition or temporary leases as a result of the amended project are described in **Table 5-3**.

Table 5-3 Summary of changes to business impacts

| Business               |                            | Summary of change to business impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B18<br>(property ID14) | Treeserve                  | <p>The site is currently used by the business as a green waste recycling facility and depot for the western Sydney region, with the main business headquarters located at Horsley Park.</p> <p>The EIS indicated acquisition of about 0.8 hectares of this property would be required for the operational footprint and local access to Clifton Avenue.</p> <p>The amended project would use the land accommodating this business as a construction ancillary facility (AF 12), which could result in a potential temporary relocation of the business to an alternate site.</p> <p>The use of the site as a construction ancillary facility has the potential to result in temporary disruptions to business operations, including re-establishment costs, although it is expected that an alternate depot site would be available in the wider study area to support the business' western Sydney operations, helping to minimise potential impacts associated with relocation.</p> <p>This business approached TfNSW about utilising the site as an ancillary facility and TfNSW will continue to consult and negotiate with the property owner about arrangements for an ancillary facility on this property.</p> |
| B20<br>(Property ID20) | Farm<br>(Salisbury Avenue) | <p>No changes are proposed to the area of land identified for property acquisition in the EIS.</p> <p>About 0.2 hectares of additional land would be subject to temporary lease during construction of the amended project, resulting in a total property impact during construction of 0.4 hectares or 20 per cent of the property.</p> <p>Changes to the construction footprint would result in the dam being fully within the construction footprint and impact on additional two shade house structures (up to five in total with those identified in</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Business               |                                         | Summary of change to business impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                                         | <p>the EIS). While this may result in a further loss of land available for growing, this is not expected to impact on the wider horticultural operations.</p> <p>Construction impacts relating to dust, noise and traffic would be consistent with those described in the EIS.</p>                                                                                                                                                                                                                                                                                                                                            |
| B28<br>(Property ID23) | Bara Lodge<br>(horse training facility) | <p>The property accommodating this business would be totally acquired by TfNSW for the operational footprint and establishment of a construction ancillary facility (AF 13) (an increase from the 45.4 per cent of the property as described in the EIS). This business would be required to relocate prior to construction, potentially resulting in temporary disruptions to business operations, including re-establishment costs. The continued operation of this business locally would be dependent on the availability of facilities to support harness horse race training, including access to a training track.</p> |

### Impacts on businesses in the primary study area

As described in the EIS, there are some businesses in the primary study area at Luddenham, Badgerys Creek, Kemps Creek and Mount Vernon, which may experience impacts due to their proximity to construction activities or from access changes during construction.

During construction, potential impacts on local businesses in the primary study area would be consistent with those described in the EIS and would mainly relate to changes in local access, impacts on business amenity and potential for increased expenditure by construction workers on local goods and services.

The expansion of the construction ancillary facility within the Western Sydney Parklands at Cecil Park (AF 9) has the potential to disrupt amenity for users of Calmsley Hill City Farm, which is located about 270 metres east of AF 9 (see **Figure 5-3**). Calmsley Hill City Farm is an interactive farm that offers visitors the opportunity to interact with a range of native and farm yard animals. The farm is open daily and provides activities such as animal shows, education programs for students and teachers, and picnicking. The farm is also used for overnight camping, private functions and as a location for filming movies, television, advertisements and fashion shoots (<https://www.calmsleyhill.com.au/>).

Increased noise and dust from construction activities has potential to impact on the farm's business operations, by reducing its attractiveness for such things as private functions and location filming. Environmental management measures would be implemented at AF 9 to assist in managing potential impacts on the farm operations and users of the facility.

### Agricultural uses and agribusinesses

Potential impacts on agricultural uses in the primary study area as a result of the amended project would be consistent with those described in the EIS and would generally relate to direct impacts from property acquisition and temporary lease of land, and changes in access, farming operations and amenity.

The amended project would require the temporary lease of additional agricultural land for the construction of the amended project. Additional impact on agricultural land would mainly be associated with:

- Refinements to the construction footprint to fully incorporate farm dams and structures such as sheds and shade houses, that were previously identified in the EIS as being partly impacted
- Establishment of additional construction ancillary facilities, with these mainly impacting land previously identified in the EIS for property acquisition or temporary lease or on

grazing land currently being used for the construction of The Northern Road upgrade (Stage 5 and 6) at Luddenham.

The amended project would require the temporary lease of two additional properties that are currently used for agricultural or rural uses that were not previously identified in the EIS. This includes land used for the agistment of horses at Salisbury Avenue and rural land within the Western Sydney Parklands.

The establishment of additional construction ancillary facilities on newly affected land and land previously identified as being affected by the project as described in the EIS would directly impact on farm infrastructure such as fencing, dams, sheds and other structures. In particular:

- Two rural properties on land owned by the Western Sydney Parklands have dams within the amended construction footprint, including one property that has two dams that were not affected by the project as described in the EIS.
- Three properties have sheds impacted by the amended construction footprint that were not affected by the project as described in the EIS. These would be relocated prior to construction, in consultation with the affected property owner, and is not expected to disrupt agricultural operations.
- The amended construction footprint would impact additional horticultural gardens, shade houses and orchard trees within the Western Sydney Parklands not affected by the project as described in the EIS on two properties. While this may result in the loss of land available for growing, this is not expected to impact on the wider horticultural operations of these properties.

As indicated in the EIS, farm infrastructure impacted by the project would be relocated in consultation with affected property owners.

It is likely that much of this infrastructure would need to be demolished or relocated prior to construction, in consultation with the affected property owners. Land needed for the construction of the amended project, but not required for the ongoing operation of the project, would be rehabilitated and restored to its existing condition. This includes affected infrastructure, or as otherwise agreed with the landowner.

Potential impacts on agricultural uses in the wider primary study area would be consistent with those described in the EIS.

#### **5.2.6 Social infrastructure**

##### **Directly affected social infrastructure**

No new social infrastructure would be directly affected by the amended project, although additional recreational land would be required within the Western Sydney Parklands for:

- The establishment of construction ancillary facilities, including on the existing car park area at the Wylde Mountain Bike Trail and rural land at Cecil Park and Horsely Park/ Abbotsbury
- The Elizabeth Drive connections and local road changes across the proposed M12 Motorway operational footprint connecting Range Road to Elizabeth Drive, at Cecil Hills. This would result in the permanent loss of a small area of additional land adjacent to the amended operational footprint, although this is not expected to have any additional impacts to those of the project as described in the EIS.

As indicated in the EIS, redesign and relocation of the Wylde Mountain Bike Trail would take place before the start of construction. This would allow access to the trails and other facilities to be maintained during construction and help reduce disruptions to users. The use of the existing Wylde Mountain Bike Trail car park for construction would not impact on the use of the trail during construction.

Non-recreational land (for example rural and rural residential uses) owned by the Western Sydney Parklands Trust would also be directly affected by local road changes at Wallgrove Road and Cecil Road for the amended project. Further information is provided in **Table 5-1** (property number 44).

### **Social infrastructure in the primary study area**

As described in the EIS, some social infrastructure in the primary study area may experience impacts due to the proximity of these facilities to the project. During construction, potential impacts on social infrastructure in the primary study area from the amended project would be consistent with those identified in the EIS and would mainly relate to amenity impacts from increased noise, dust and construction traffic, and access changes.

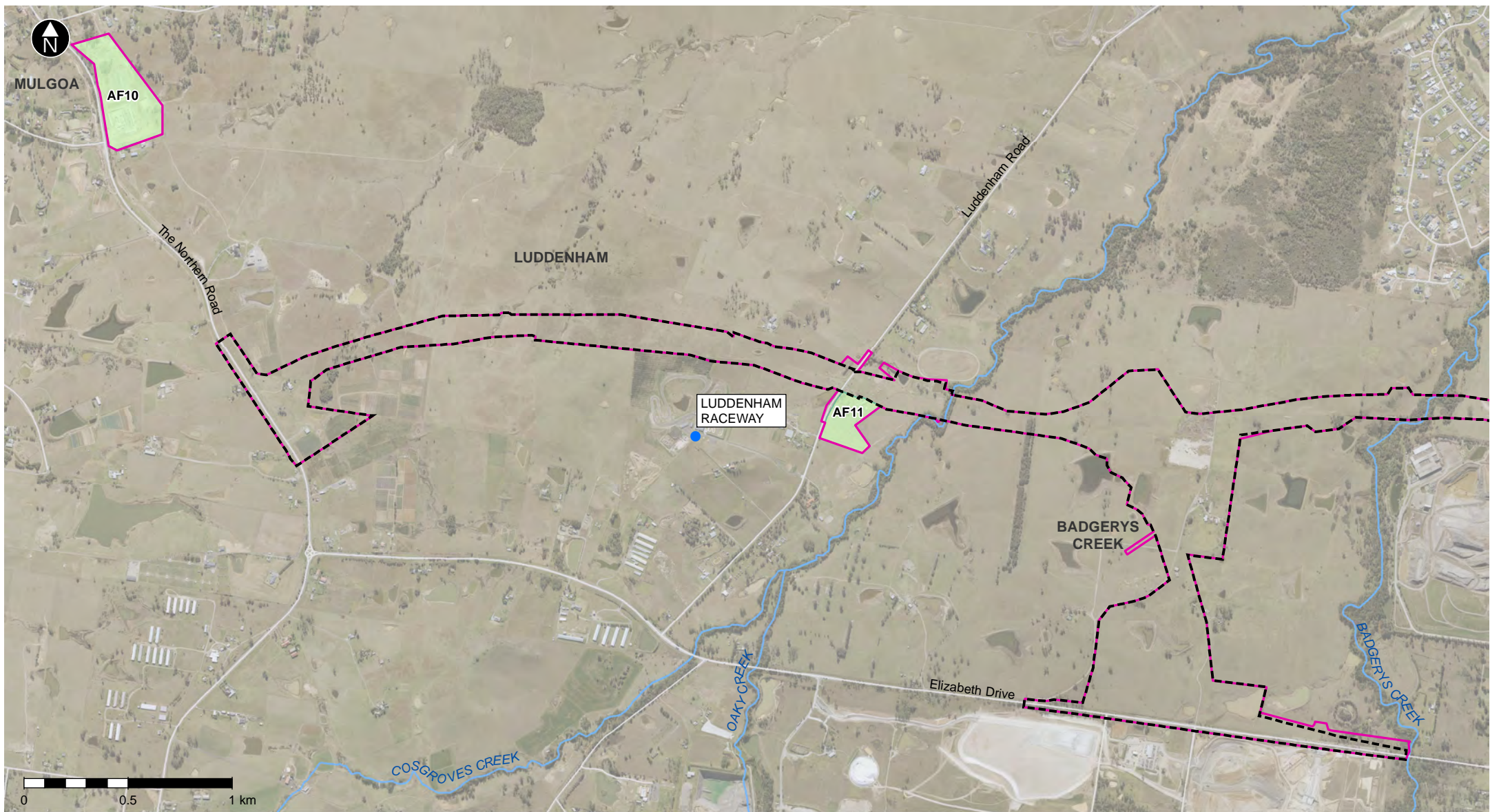
The establishment of additional construction ancillary facilities near to existing social infrastructure has potential to increase disruptions and amenity impacts for these facilities, specifically:

- Luddenham Raceway, approximately 450 metres from works within the construction ancillary facility at Luddenham Road (AF11)
- Muhammadi Welfare Association of Australia, which has a common fence with works within the construction ancillary facility at Clifton Avenue (AF12)
- Kemps Creek Sporting and Bowling Club, which has a common fence with works within the construction ancillary facility at Elizabeth Drive (AF15)
- St Peter and Paul Assyrian Church approximately 170 metres from works within the construction ancillary facility at Wallgrove Road (AF17).

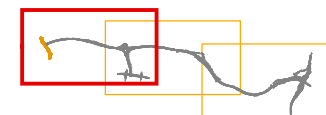
The establishment of a construction ancillary facility within the Western Sydney Parklands at Cecil Park (AF9) has potential to disrupt amenity for users of Calmsley Hill City Farm. As indicated in **Section 5.2.5**, the farm provides a range of formal and informal activities for visitors. Increased noise and dust from construction activities has potential to reduce amenity of the farm, particularly within outdoor areas, impacting on the use and enjoyment of the farm for visitors and possibly deterring some people from visiting the farm. Environmental management measures would be implemented at the construction ancillary facility to assist in managing potential impacts on the farm operations and users of the facility.

The location of this social infrastructure is shown in **Figure 5-3**.

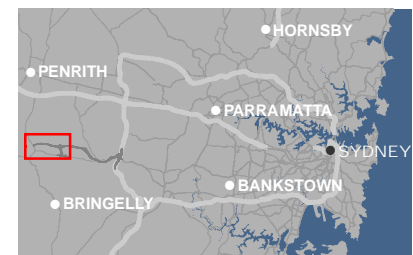




- The project construction footprint
- The amended project construction footprint
- Additional ancillary facilities
- ~~~~~ Waterways
- Motorway
- Existing roads
- Social infrastructure types**
- Sport, recreation and leisure facilities

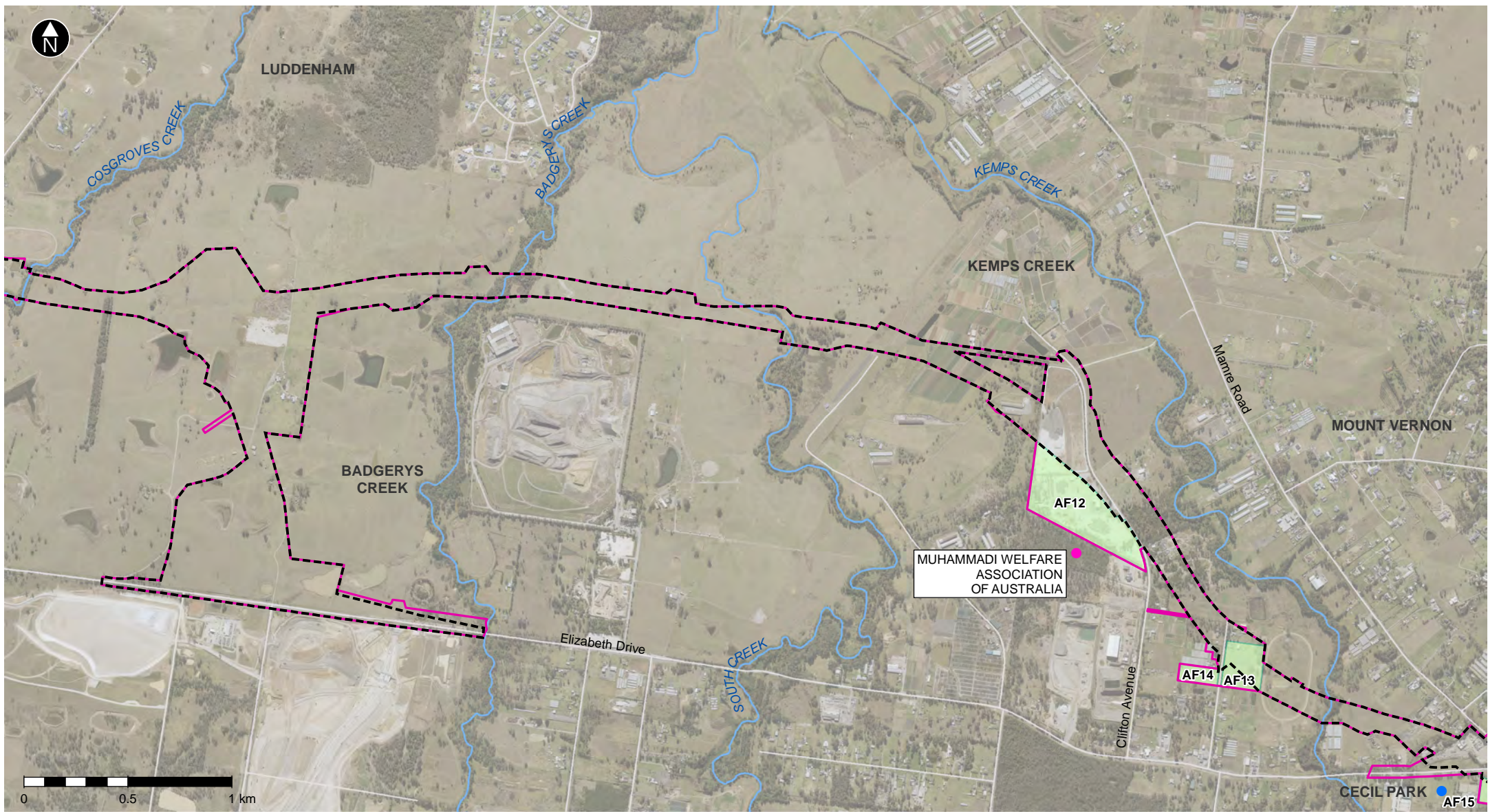


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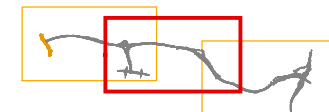


**Figure 5-3** Social infrastructure affected by increased construction impacts

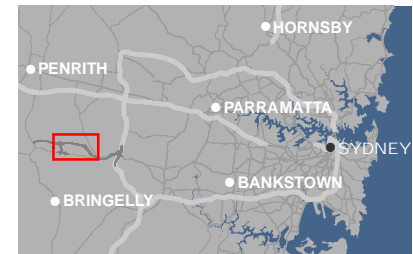




- |                                            |                |                                          |
|--------------------------------------------|----------------|------------------------------------------|
| The project construction footprint         | Waterways      | <b>Social infrastructure types</b>       |
| The amended project construction footprint | Motorway       | Sport, recreation and leisure facilities |
| Additional ancillary facilities            | Existing roads | Cultural facilities                      |

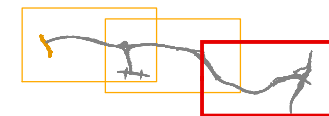
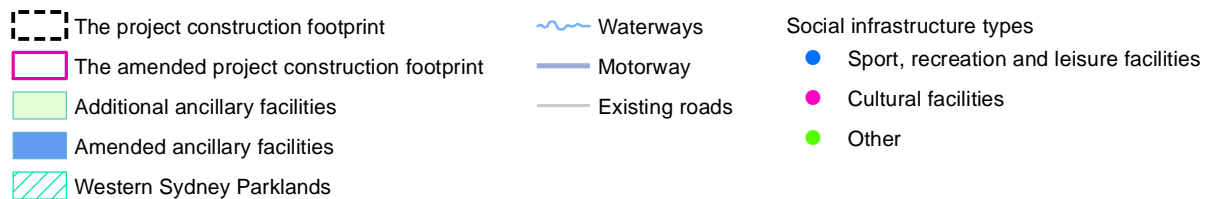
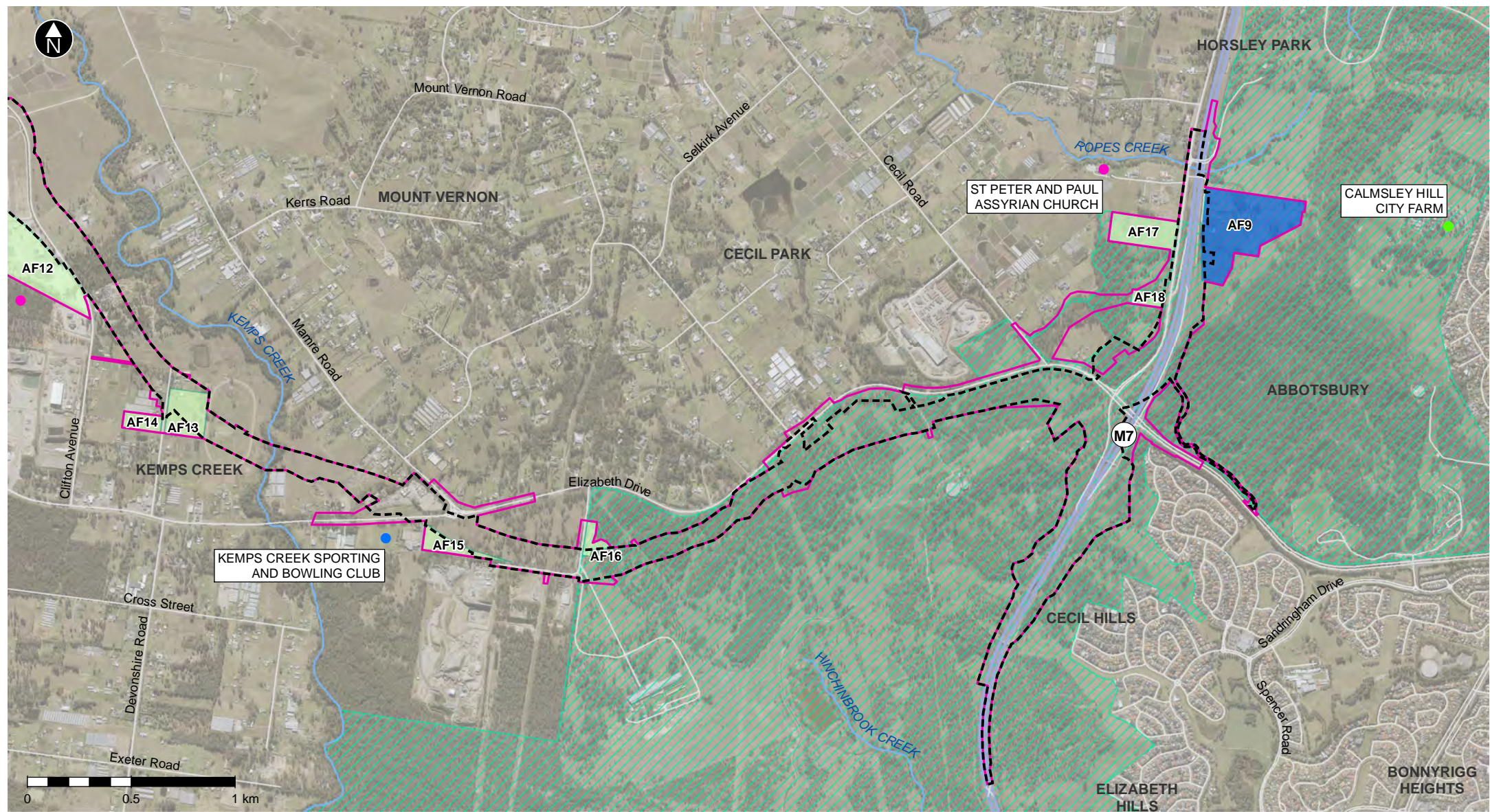


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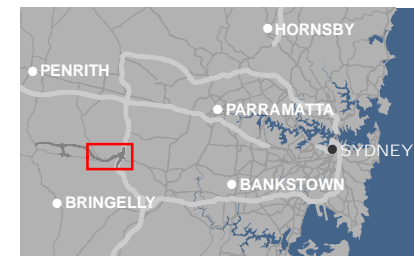


**Figure 5-3** Social infrastructure affected by increased construction impacts





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**Figure 5-3** Social infrastructure affected by increased construction impacts



### 5.2.7 Community values

Overall, potential impacts associated with the construction of the amended project on community values such as local amenity and character, community cohesion and community health and well-being, and the natural environment are expected to be similar to those described in the EIS.

The proposed changes, including local road changes and establishment of additional construction ancillary facilities, have the potential to increase impacts on local amenity and character for some communities, including:

- Residents of rural residential properties at Cecil Park, during construction of local road changes at Wallgrove Road and Cecil Road
- Rural and rural residential uses at Kemp Creek near the AF 13
- Users of community uses within the Western Sydney Parklands and at Elizabeth Drive and Clifton Avenue at Kemps Creek from the establishment of construction ancillary facilities (see **Section 5.2.6**).

The construction ancillary facility at The Northern Road (AF 10), which is currently being used for the construction of The Northern Road upgrade (Stage 5 and 6), also has potential to extend potential adverse amenity impacts for residents of nearby rural residential properties at The Northern Road and Gates Road, particularly from dust generated by construction traffic and construction haulage operations (see **Section 5.4** for further discussion on potential cumulative impacts of the amended project).

The amended project would also require the clearing of additional vegetation, particularly within the Western Sydney Parklands at Cecil Park for the construction of the realigned Wallgrove Road. As indicated in the EIS, the protection and conservation of the environment, biodiversity and natural assets is important to local and regional communities. An increase in the area of bushland and vegetation required to be cleared for the amended project is likely to be a concern for community members, impacting on community values relating to the natural environment.

### 5.2.8 Access and connectivity

Potential impacts associated with the construction of the amended project on access and connectivity would generally be consistent with those described in the EIS and would mainly relate to:

- Increased construction traffic on roads within the primary study area
- Temporary changes to road conditions near construction works
- Potential changes to bus services, including temporary relocation of bus stops
- Changes to pedestrian and cycle access near construction works.

In addition to the bus stop changes outlined in the EIS, existing bus stops at Cecil Road and Elizabeth Drive may be affected by construction activities at the Cecil Road and Elizabeth Drive intersection. This will be confirmed during the detailed design phase and consultation undertaken with the bus operators and community if changes to bus stops such as temporary relocation, is required. Potential impacts of these changes on bus users are expected to be similar to those described in the EIS.

## 5.3 Operational impacts

### 5.3.1 Land use impacts

Land use impacts associated with the operation of the amended project would generally be consistent with those presented in the EIS. The operation footprint for the amended project would directly impact an additional 26.3 hectares of land compared to the operation footprint for the EIS (see **Table 5-4**).



Roads and transport uses comprise the largest area of the additional land affected by the amended project (11.2 hectares). Other areas of additional land affected by the amended project mainly comprise:

- Rural and agricultural uses including rural residential uses at Cecil Park (5.1 hectares) and grazing uses at Badgerys Creek and Luddenham (3.1 hectares)
- Recreational uses within the Western Sydney Parklands.

Potential impacts on land within the Western Sydney Parklands are described in **Section 5.3.6**.

Table 5-4 Summary of land uses within the operation footprint

| Land use                            | Operational footprint as per EIS (hectares) | Amended operational footprint (hectares) | Difference (hectares) |
|-------------------------------------|---------------------------------------------|------------------------------------------|-----------------------|
| <b>Rural and agricultural uses</b>  | <b>174.5</b>                                | <b>182.7</b>                             | <b>8.2</b>            |
| Grazing                             | 126.5                                       | 129.6                                    | 3.1                   |
| Intensive agriculture               | 7.8                                         | 7.8                                      | 0                     |
| Rural                               | 25.2                                        | 25.2                                     | 0                     |
| Rural residential                   | 15.0                                        | 20.1                                     | 5.1                   |
| <b>Environmental areas</b>          | <b>2.8</b>                                  | <b>2.9</b>                               | <b>0.1</b>            |
| Watercourse or water infrastructure | 2.8                                         | 2.9                                      | 0.1                   |
| <b>Urban</b>                        | <b>60.2</b>                                 | <b>66.9</b>                              | <b>6.7</b>            |
| Commercial/ industrial              | 9.5                                         | 9.5                                      | 0                     |
| Resource and waste facility         | 6.9                                         | 6.9                                      | 0                     |
| Recreation use                      | 43.8                                        | 50.5                                     | 6.7                   |
| <b>Infrastructure</b>               | <b>53.2</b>                                 | <b>64.4</b>                              | <b>11.2</b>           |
| Roads and transport                 | 53.2                                        | 64.4                                     | 11.2                  |
| <b>Total</b>                        | <b>290.7</b>                                | <b>316.9</b>                             | <b>26.2</b>           |

Potential impacts of the operation of the amended project on environmental areas, resource and waste facilities and infrastructure and utilities would generally be consistent with those described in the EIS.

### Future land uses

During operation, potential impacts of the amended project on future growth and development for the Western Sydney Aerotropolis and Western Sydney are generally consistent with those described in the EIS.

#### 5.3.2 Water use impacts

Potential water use impacts associated with the operation of the amended project would be consistent with those described in the EIS.

#### 5.3.3 Population and demography

Potential impacts on population and demography of the operation of the amended project would be consistent with those described in the EIS.

#### **5.3.4 Employment impacts**

The acquisition or temporary lease of additional commercial land for the amended project has potential to result in further impacts on local employment, with an additional two businesses required to temporarily or permanently relocate from their current location. Potential impacts on employees would be similar to those described in the EIS.

Further discussion about potential impacts on individual businesses affected by the proposed design changes is provided in **Section 5.2.5** and **Section 5.3.5**.

#### **5.3.5 Business and industry impacts**

##### **Directly affected businesses**

As indicated in **Table 5-3**, one business previously identified for partial acquisition in the EIS has been identified for total acquisition by TfNSW and will need to cease operations at this location. Impacts on other directly affected businesses from the operation of the amended project would be consistent with those described in the EIS.

##### **Impacts on businesses in the primary study area**

As described in the EIS, there are some businesses in the primary study area at Luddenham, Badgerys Creek, Kemps Creek and Mount Vernon that may experience impacts for the project's operation.

During operation of the amended project, potential impacts on local businesses in the primary study area would be consistent with those described in the EIS and would mainly relate to:

- Improved road safety, accessibility and connectivity supporting general improvements to local business and industry
- Reduced traffic using Elizabeth Drive, potentially reducing levels of trade for some businesses at Elizabeth Drive and Mamre Road
- Changes to business amenity.

Local road changes at Wallgrove Road and Cecil Road are not expected to result in any significant changes to access for businesses at Wallgrove Road.

##### **Agricultural uses and agribusinesses**

Potential impacts on agricultural uses and agribusinesses from operation of the amended project would be consistent to those impacts described in the EIS.

#### **5.3.6 Social infrastructure**

Potential impacts on social infrastructure in the primary study area from operation of the amended project would be consistent to those impacts described in the EIS.

#### **5.3.7 Community values**

Potential impacts of the operation of the amended project on community values relating to local amenity and character, community cohesion and community health and well-being, and the natural environment are generally expected to be consistent with those described in the EIS.

Changes to impacts on community values from the operation of the amended project would mainly be associated with local road changes at Wallgrove Road and Cecil Road. The realignment of Wallgrove Road and changes to the intersection with Cecil Road would result in the operational footprint being located closer to rural residential properties at Cecil Road, potentially impacting on the amenity for residents of these houses.

The amended project would also result in existing rural residential properties at Cecil Park being isolated between the M7 Motorway and Wallgrove Road. This would potentially reduce

amenity for residents of these properties. Some land in this area is proposed to be developed for higher-density residential uses. TfNSW is currently consulting with the developer of this property about potential implications and management measures.

For many locations in the primary study area, amenity impacts due to road traffic noise from the amended project would be similar to those described in the EIS, although reduced amenity would occur at some residential uses that were not previously identified as being affected by road traffic noise in the EIS.

Residential receivers most likely to be affected by reductions in amenity from the amended project are located near the realigned section of Wallgrove Road and Duff Road at Cecil Park, and near Salisbury Avenue at Kemps Creek. Noise mitigation options, including noise barriers, will be determined during detailed design as described in Appendix G of the amendment report.

The amended project is not expected to result in any significant change in local or regional air quality from what was determined for the project as described in the EIS. Further information on operational air quality is in *Air Quality Supplementary Technical Memorandum* (see Appendix L of the amendment report).

### **5.3.8 Access and connectivity**

Operational impacts of the amended project on access and connectivity for local and regional communities would generally be consistent with those described in the EIS.

The realignment of Wallgrove Road to connect to Elizabeth Drive via Cecil Road would change access routes for properties at Wallgrove Road. This would increase travel distance for some motorists by up to about 550 metres. This is only expected to result in a minor increase in travel times but may be an inconvenience for some motorists.

The amended project would provide improved access to the Western Sydney International Airport through the provision of two intersections at Elizabeth Drive. The intersections would also support improved access to future developments north of Elizabeth Drive. Further information on traffic and transport impacts of the amended project are described in the *Transport and Traffic Updated Technical Report* (see Appendix B of the amendment report).

TfNSW has participated in regular consultation with Western Sydney Planning Partnership to discuss district plans and how best to integrate the development of transport projects with the Western Sydney Planning Partnership's strategic planning for the Western Parkland City. TfNSW would continue to work with Western Sydney Planning Partnership and strategic planning divisions within DPIE to integrate the M12 Motorway and the arterial roads with the future local road network, and is committed to ongoing consultation with Western Sydney Planning Partnership during the detailed design phase of the project.

## **5.4 Cumulative impacts**

The main change to cumulative impacts of the amended project from that described in the EIS and presented in Section 7.4.5 of the EIS would relate to the use of the construction ancillary facility at Luddenham that is currently being used for construction of The Northern Road upgrade.

The use of this site for the amended project would prolong the duration of construction activities in this location by about four years extending possible disruptions for residents of nearby rural residential properties at Gates Road and The Northern Road associated with construction noise, dust and traffic. This has potential to result in construction fatigue for some community members and possibly impact on the health and well-being of some residents. As indicated in the EIS (see Section 7.4 of the EIS), construction fatigue would be managed in accordance with the Construction Fatigue Protocol to be prepared for the project as part of the Community Communication Strategy.

Elsewhere, cumulative socio-economic impacts are generally consistent with those described in the EIS.



## **6. Revised environmental management measures**

Socio-economic, land use and property impacts associated with the amended project are generally consistent with impacts described in the EIS and would therefore be managed through the implementation of the proposed management measures described in Chapter 7 of the amendment report.

The amended project would not require any additional or revised environmental management measures.

## **7. Conclusion**

This supplementary technical memo identifies and assesses the potential construction, operation and cumulative socio-economic, land use and property impacts of the amended project and compares them to that of the environmental impacts associated with the project as described in the EIS.

Overall, potential impacts of the amended project on the socio-economic environment, land use and property within the primary and secondary study areas would generally be consistent with those presented in the EIS. Changes to socio-economic, land use and property impacts would mainly relate to:

- Changes to directly affected properties:
  - Acquisition and temporary lease of additional properties for local road changes at Cecil Road and Wallgrove Road
  - Increase in the area of land affected by property acquisition due to changes to Elizabeth Drive near the M12 Motorway connection to Western Sydney International Airport
  - Temporary lease of additional land for construction ancillary facilities, including on newly affected properties and properties previously identified for acquisition or temporary lease in the EIS
- Land use impacts:
  - Impact on an additional 87 hectares of land within the construction footprint, with this mainly being urban uses (39.2 hectares) comprising land used for recreation at Luddenham Road and within the Western Sydney Parklands at Cecil Park, and land used for resource and waste facilities at Kemps Creek
  - Increase in the area of rural and agricultural uses impacted by construction, including grazing land within the construction ancillary facility at The Northern Road and rural residential uses at Kemps Creek and Cecil Park
  - Direct impact on an additional 26.2 hectares of land within the amended operation footprint, including road and transport uses, rural and agricultural uses at Cecil Park, Badgerys Creek and Luddenham, and recreational uses within the Western Sydney Parklands
- Business and industry impacts:
  - Additional property acquisition or temporary lease of land on three businesses identified as being impacted in the EIS, requiring temporary relocation of one business during construction and permanent relocation on another
  - Potential impacts on business amenity for Calmsley Hill City Farm from the construction ancillary facility (AF 9) within the Western Sydney Parklands at Cecil Park

- Agricultural uses and agribusinesses:
  - Temporary lease of additional agricultural land for the construction of the amended project associated with refinements to the construction footprint and establishment of additional construction ancillary facilities, mainly on properties previously identified in the EIS for property acquisition or temporary lease
  - Temporary lease of two properties that are currently used for agricultural or rural purposes that were not previously identified in the EIS, including land for the agistment of horses at Kemps Creek and rural land within the Western Sydney Parklands at Cecil Park
- Social infrastructure:
  - Additional impacts on land within the Western Sydney Parklands associated with local road changes impacting on rural and rural residential uses at Cecil Park, the establishment of construction ancillary facilities at the Wylde Mountain Bike Trail (to be relocated prior to construction) and Cecil Park, and Elizabeth Drive connections and local road changes at Range Road
  - Potential for increased disruptions and amenity impacts on social infrastructure near the additional construction ancillary facilities, including Luddenham Raceway, Muhammadi Welfare Association of Australia, Kemps Creek Sporting and Bowling Club, and St Peter and Paul Assyrian Church
  - Potential impacts on the amenity and the use and enjoyment of Calmsley Hill City Farm for visitors from the construction ancillary facility (AF 9) within the Western Sydney Parklands at Cecil Park
- Community values:
  - Increased impacts on local amenity and character for some communities from the construction of local road changes or additional construction ancillary facilities including residents of rural residential uses at Cecil Park, rural and rural residential uses at Kemps Creek and users of community uses within Western Sydney Parklands
  - Changes to community values from the operation of the amended project associated with the realignment of Wallgrove Road closer to rural residential properties at Cecil Road
- Access and connectivity:
  - Temporary changes to bus stops at Cecil Road and Elizabeth Drive due to construction of local road changes
  - Increase in travel distance during operation for some motorists by up to 1.3 kilometres due to the realignment of Wallgrove Road
- Cumulative impacts associated with the use of the construction ancillary facility at Luddenham that is currently being used for construction of The Northern Road upgrade, prolonging the duration of construction activities in this location and extending possible disruptions for surrounding rural residential uses.

## 8. References

Calmsley Hill City Farm website (<https://www.calmsleyhill.com.au/>), viewed February 2020

Transport for New South Wales (formerly Roads and Maritime Services), 2019, *M12 Motorway Environmental Impact Statement, Appendix H Socio-economic, land use and property working paper*, October 2019

Transport for New South Wales (formerly Roads and Maritime Services), 2019, *M12 Motorway Environmental Impact Statement*, October 2019

Western Sydney Planning Partnership, 2019a, *Western Sydney Aerotropolis Plan, Draft – for public comment*, December 2019

Western Sydney Planning Partnership, 2019b, *Western Sydney Aerotropolis Summary of key Planning Documents*, December 2019

Western Sydney Planning Partnership, 2019c, *Western Sydney Aerotropolis Discussion Paper on the Proposed State Environmental Planning Policy – Draft for public comment*, December 2019

Greater Sydney Commission, 2018, *Greater Sydney Region Plan: A Metropolis of Three Cities – connecting people*, March 2018