

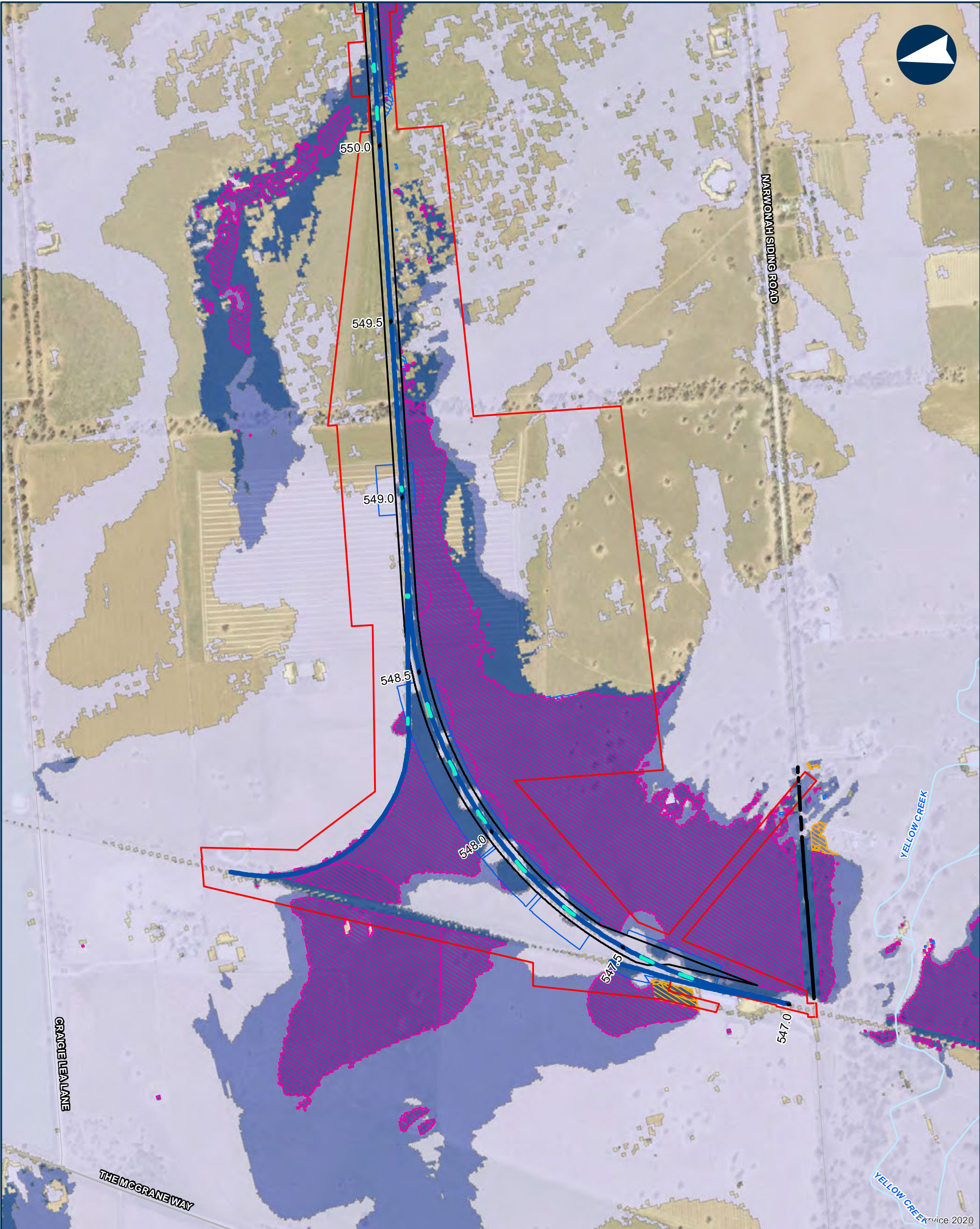
TECHNICAL REPORT 03

Updated flooding and hydrology assessment

Appendix I12 QDL compliance (hazard 1% AEP with blockage)

NARROMINE TO NARRABRI PROJECT





NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.1

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Author: JacobsGHD

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3

Scale: 1:10,000

Culvert

Road QDL departure

Alignment

Arterial road

Local road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Buildings and sealed surfaces, vd change >10%

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

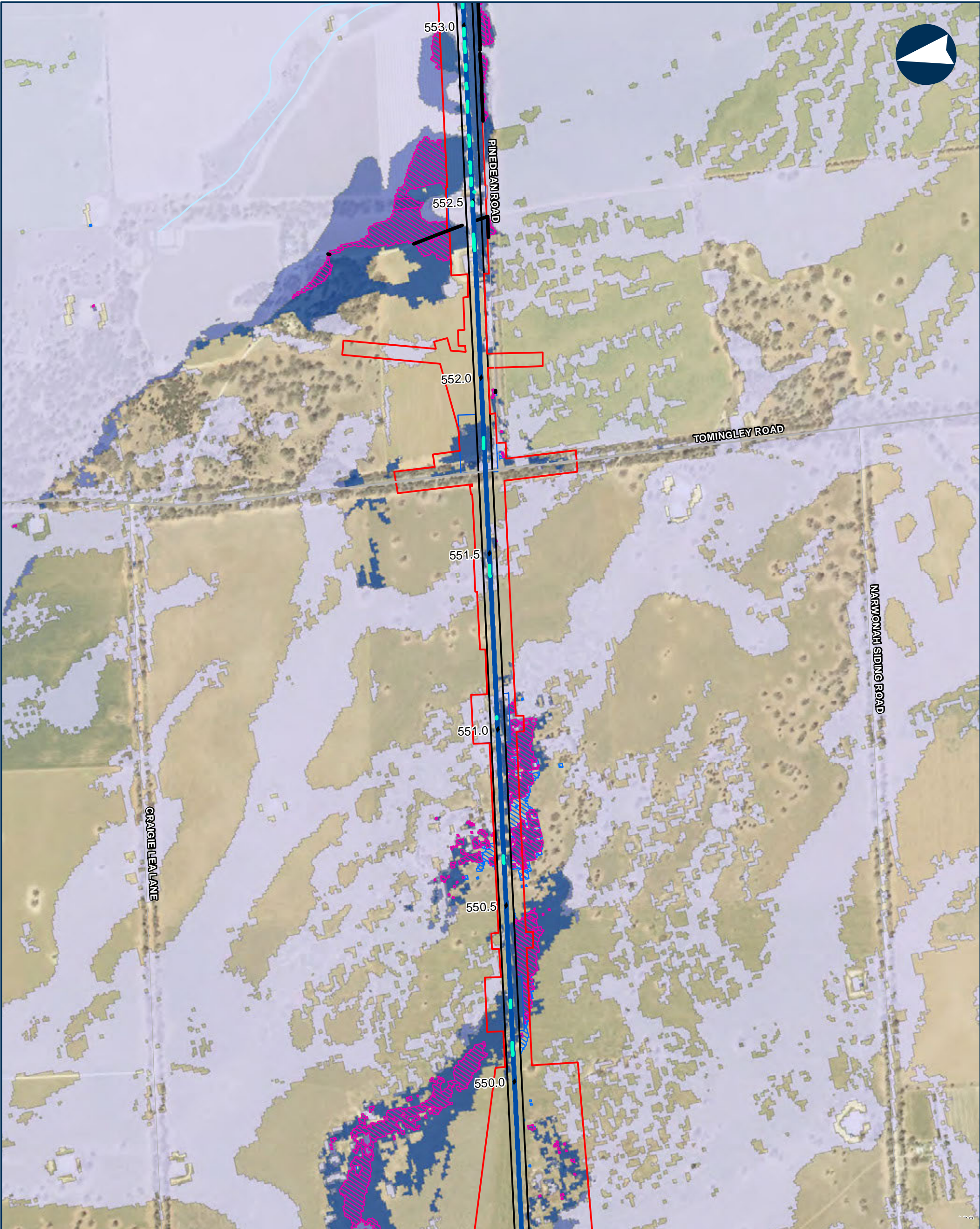
10% - 20%

20%+

INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.2

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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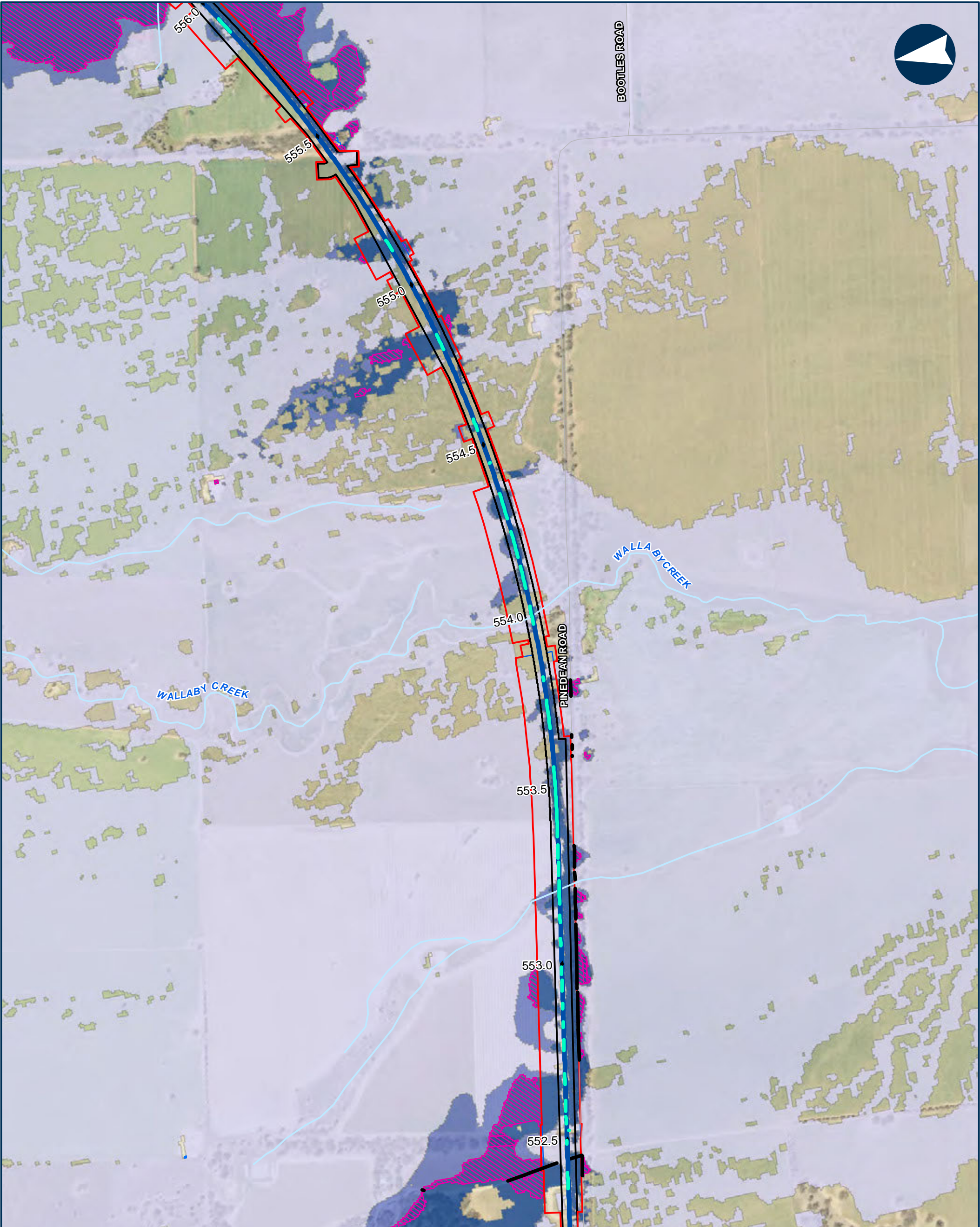
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
 - Road QDL departure
 - Alignment
 - Arterial road
 - Local road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.3

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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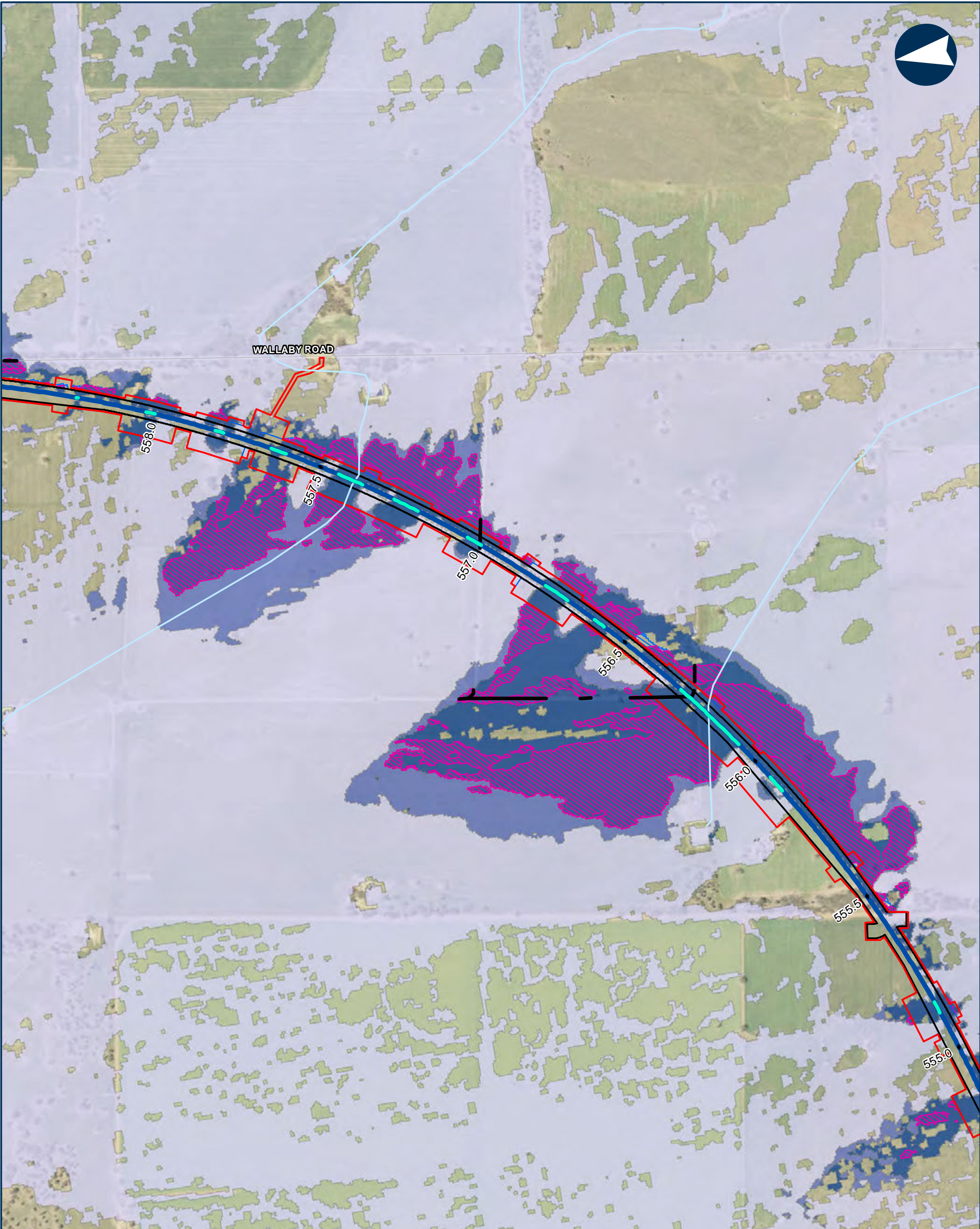
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.4

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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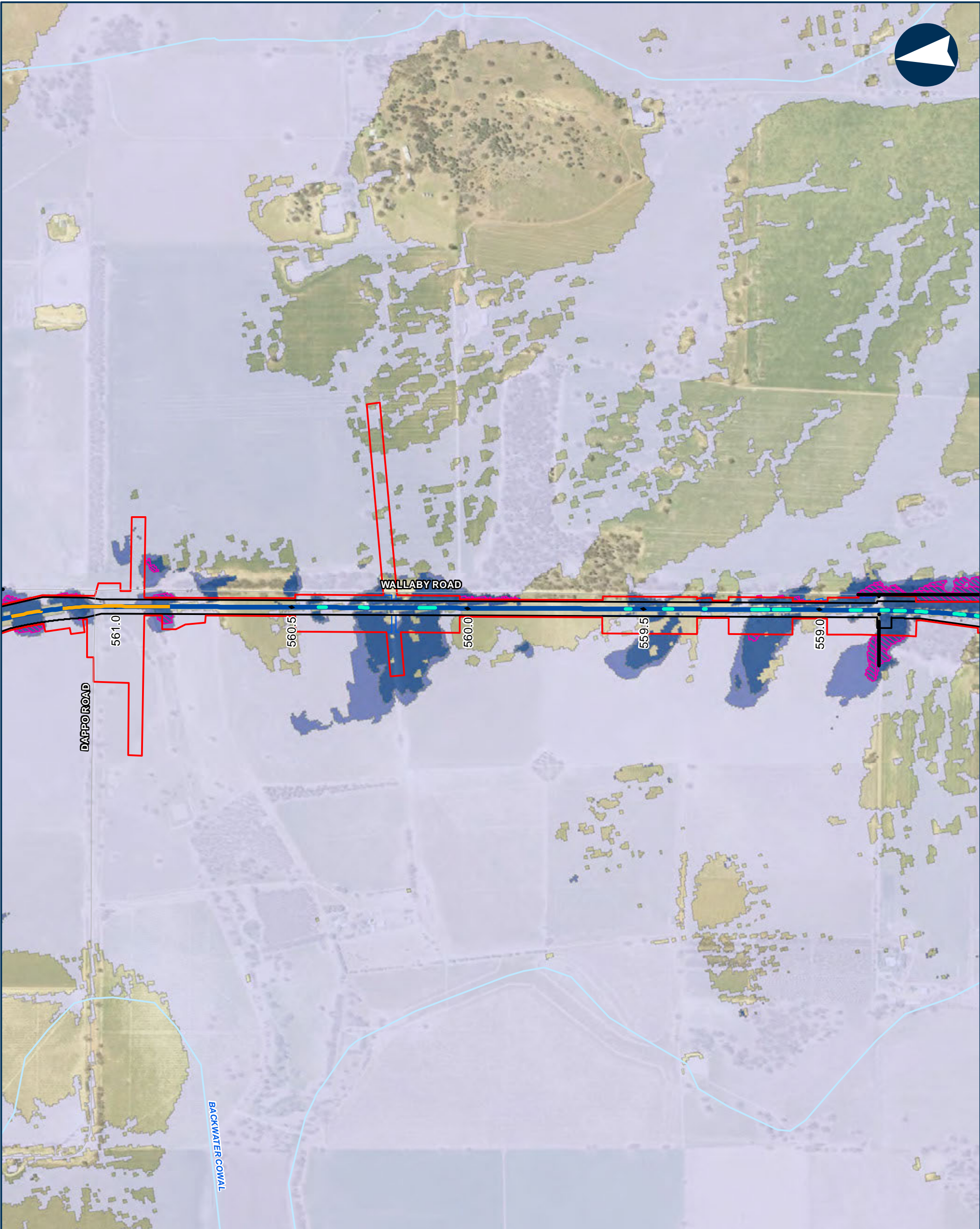
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.5

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Culvert

Road ODL departure

Alignment

Local road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

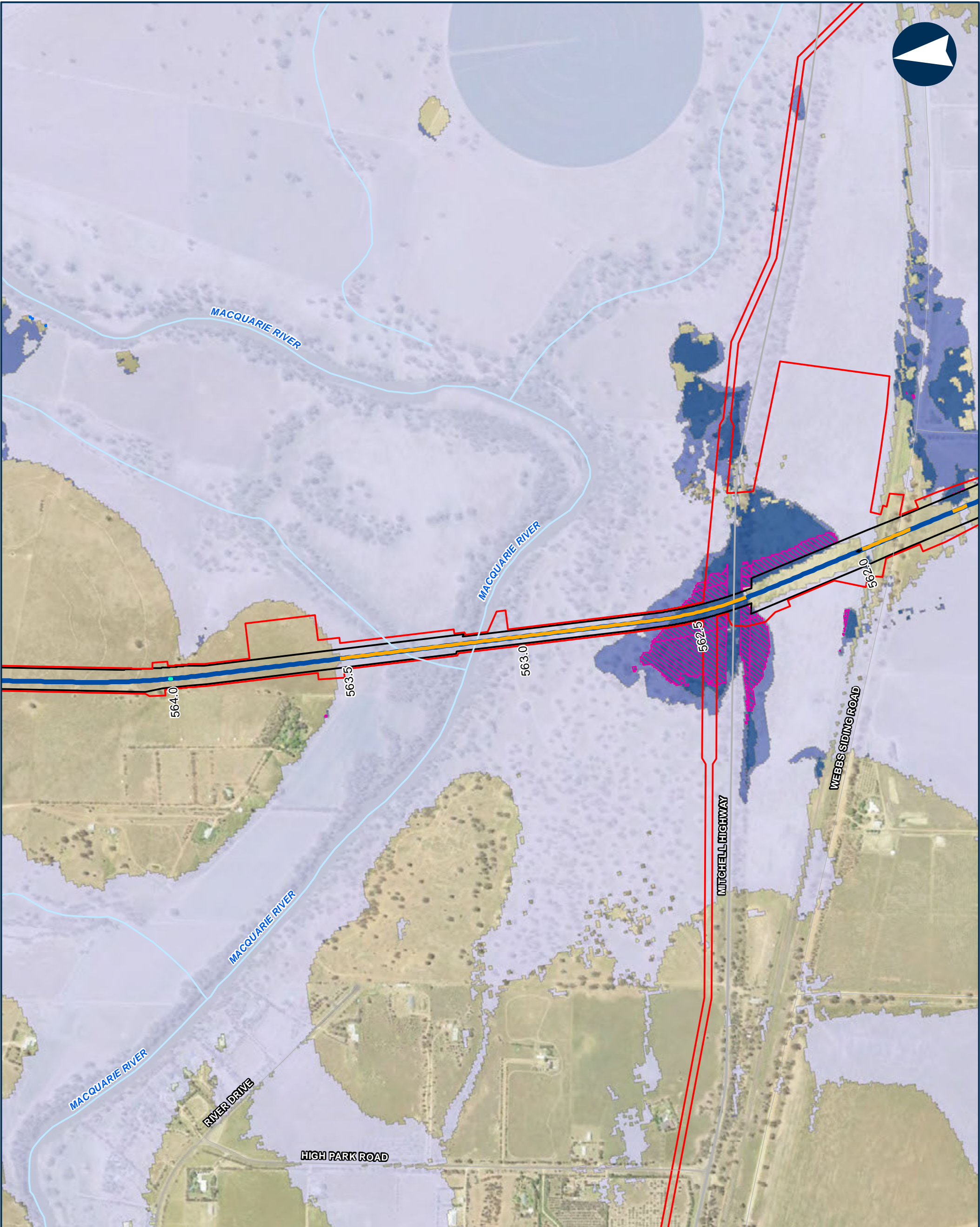
0% - 10%

10% - 20%

20%+

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.6

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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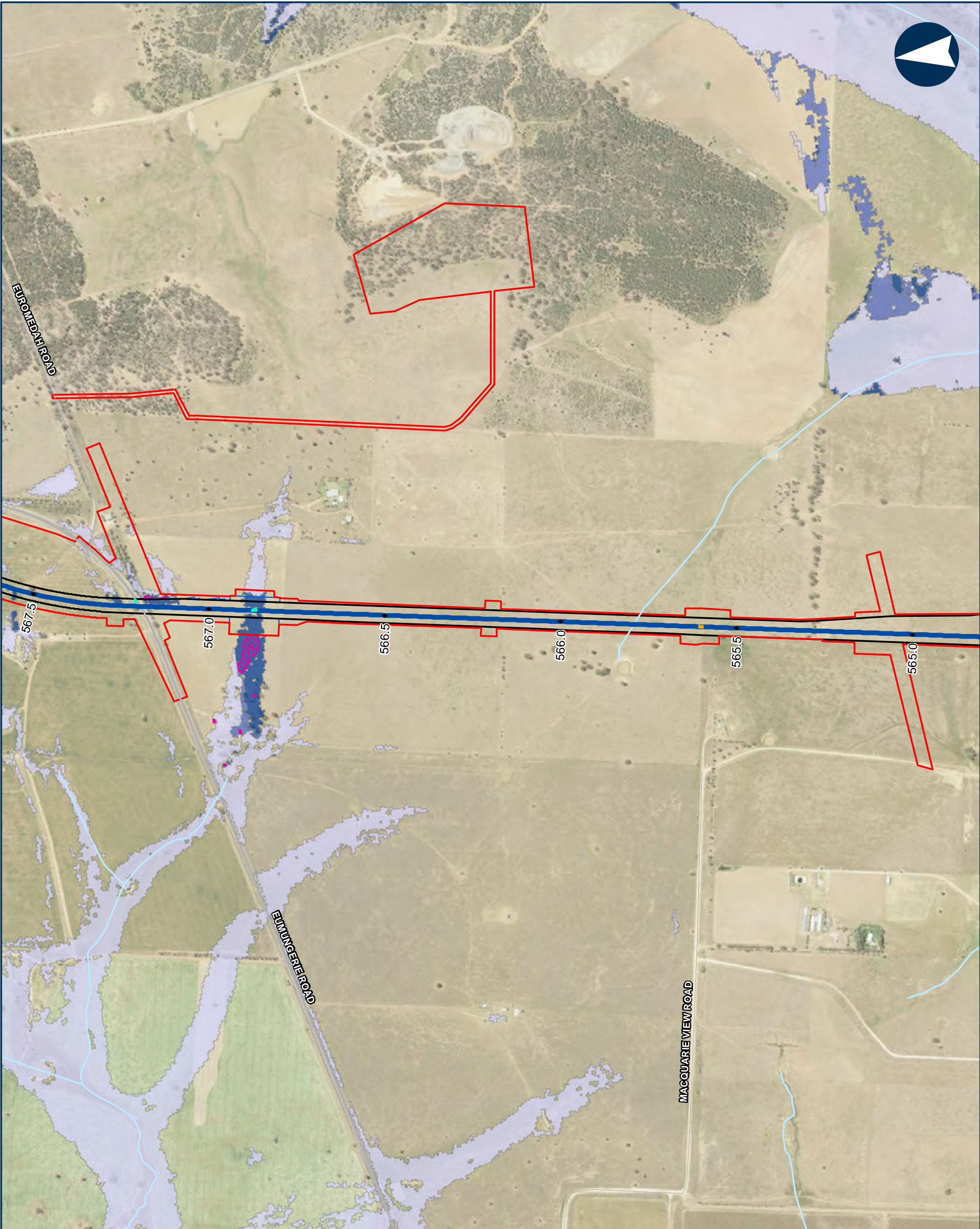
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Primary road
- Local road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.7

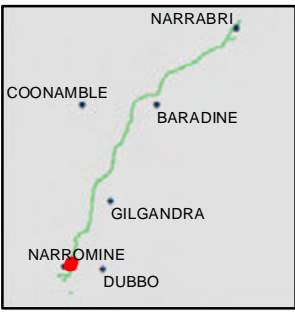
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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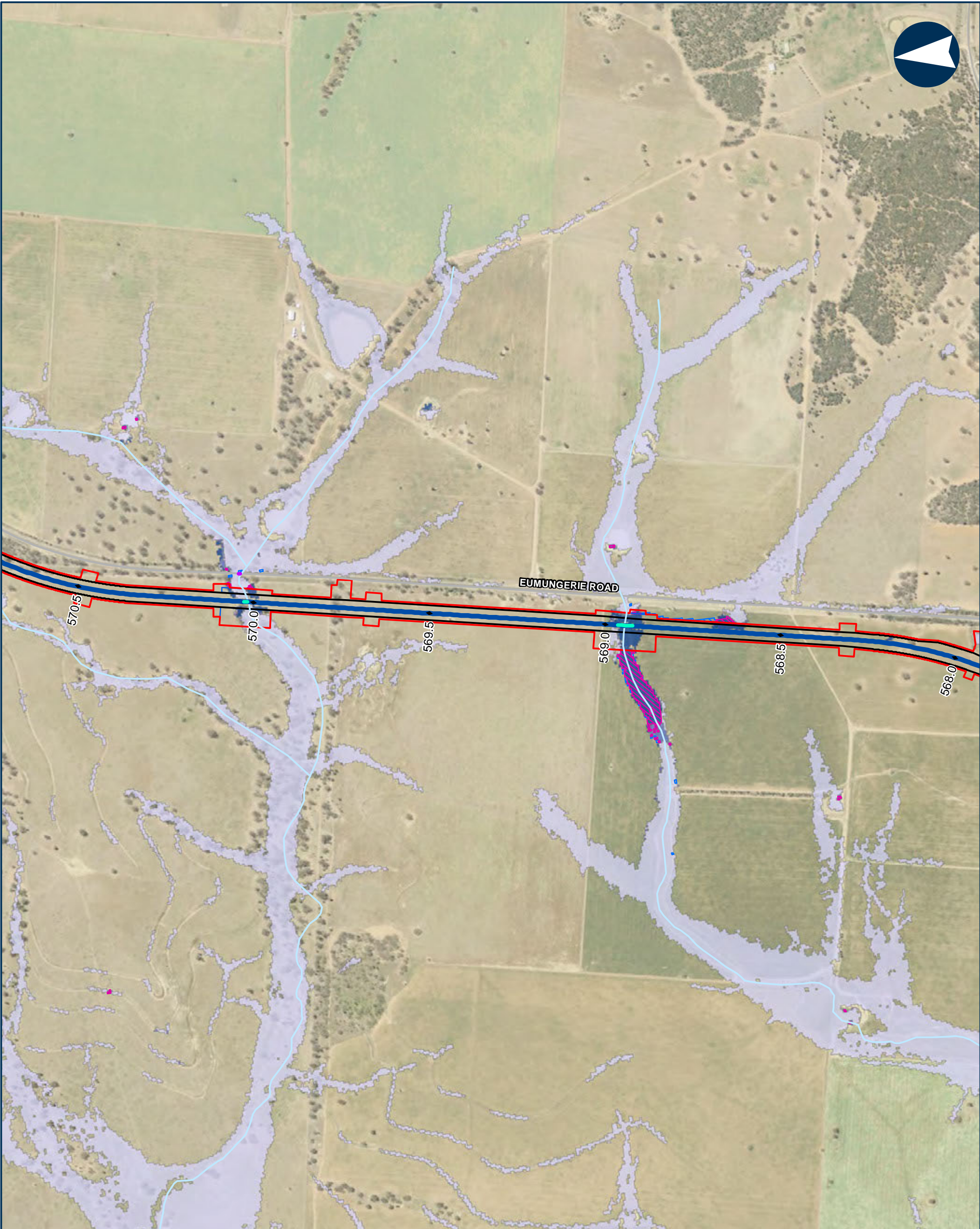
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.8

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- TINSW newly flooded roads
- Alignment
- Arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL **ARTC**

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.9

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.10

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- TfNSW newly flooded roads
- Alignment
- Arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.11

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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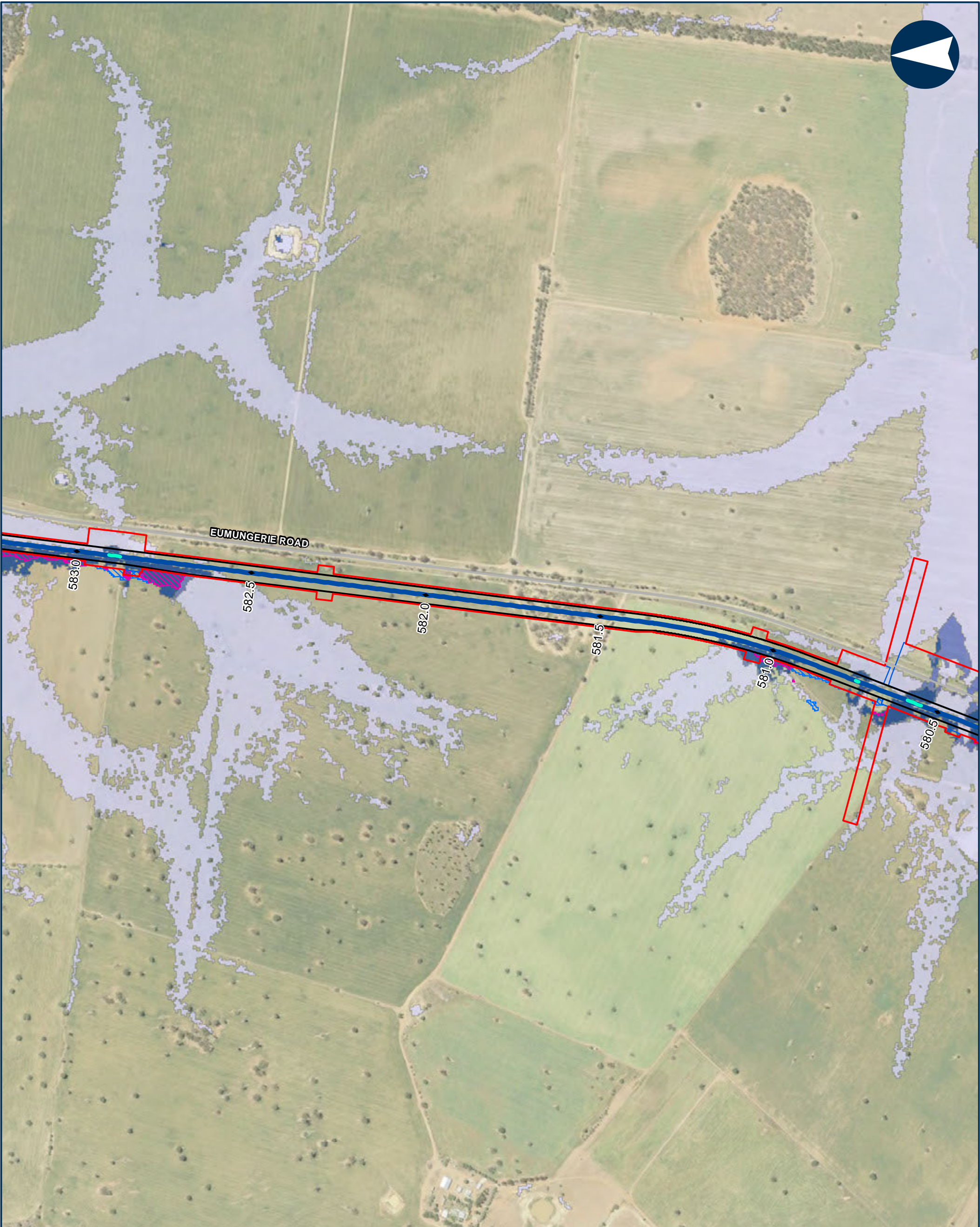
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Arterial road
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Buildings and sealed surfaces, vd change >10%
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.12

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.13

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Culvert

Road QDL departure

Alignment

Arterial road

Sub arterial road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

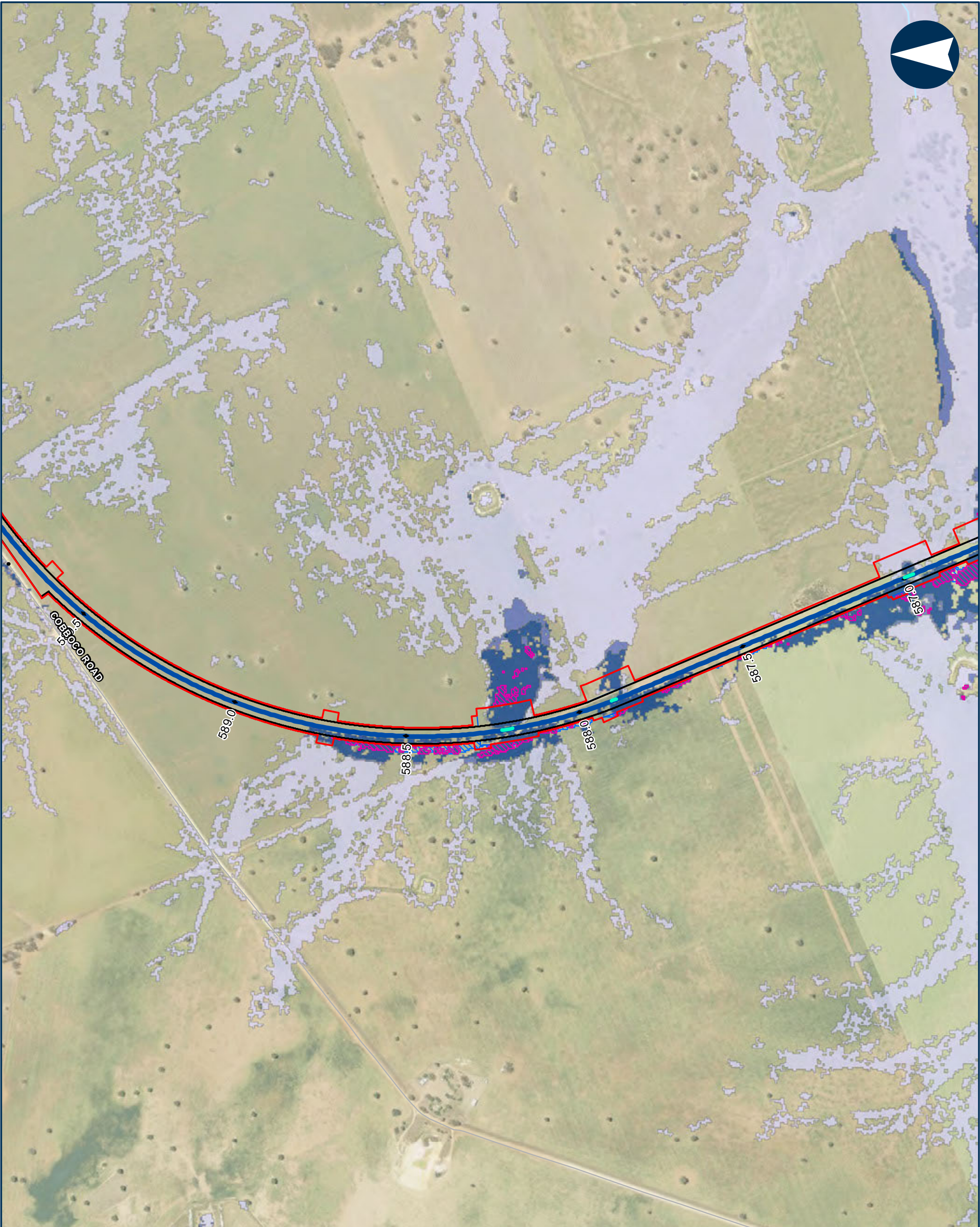
10% - 20%

20%+

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.14

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Author: JacobsGHD

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3

Scale: 1:10,000

Culvert

Road QDL departure

Alignment

Sub arterial road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

20%+

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.15

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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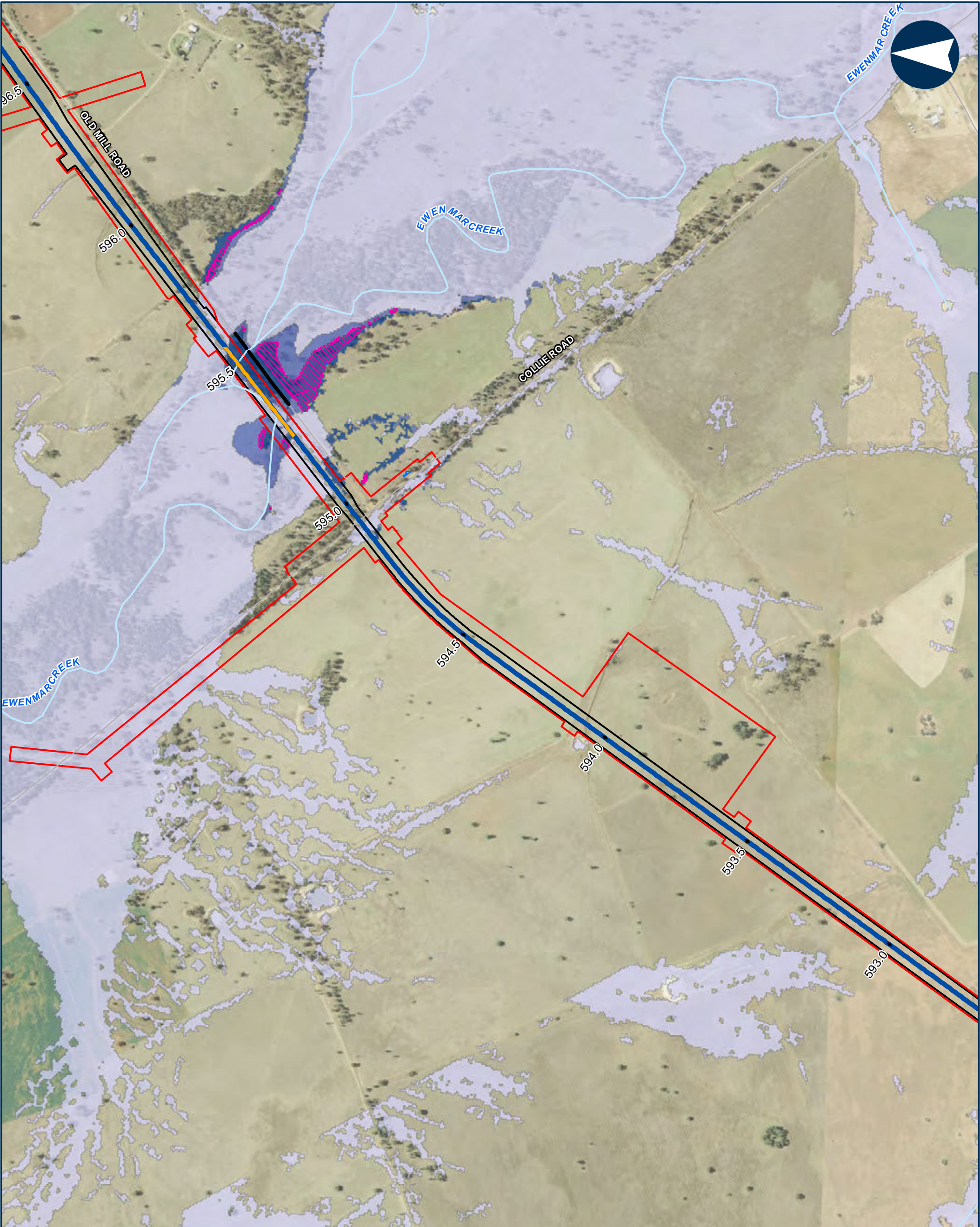
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.16

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Road QDL departure

Alignment

Sub arterial road

Watercourse

The proposal

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

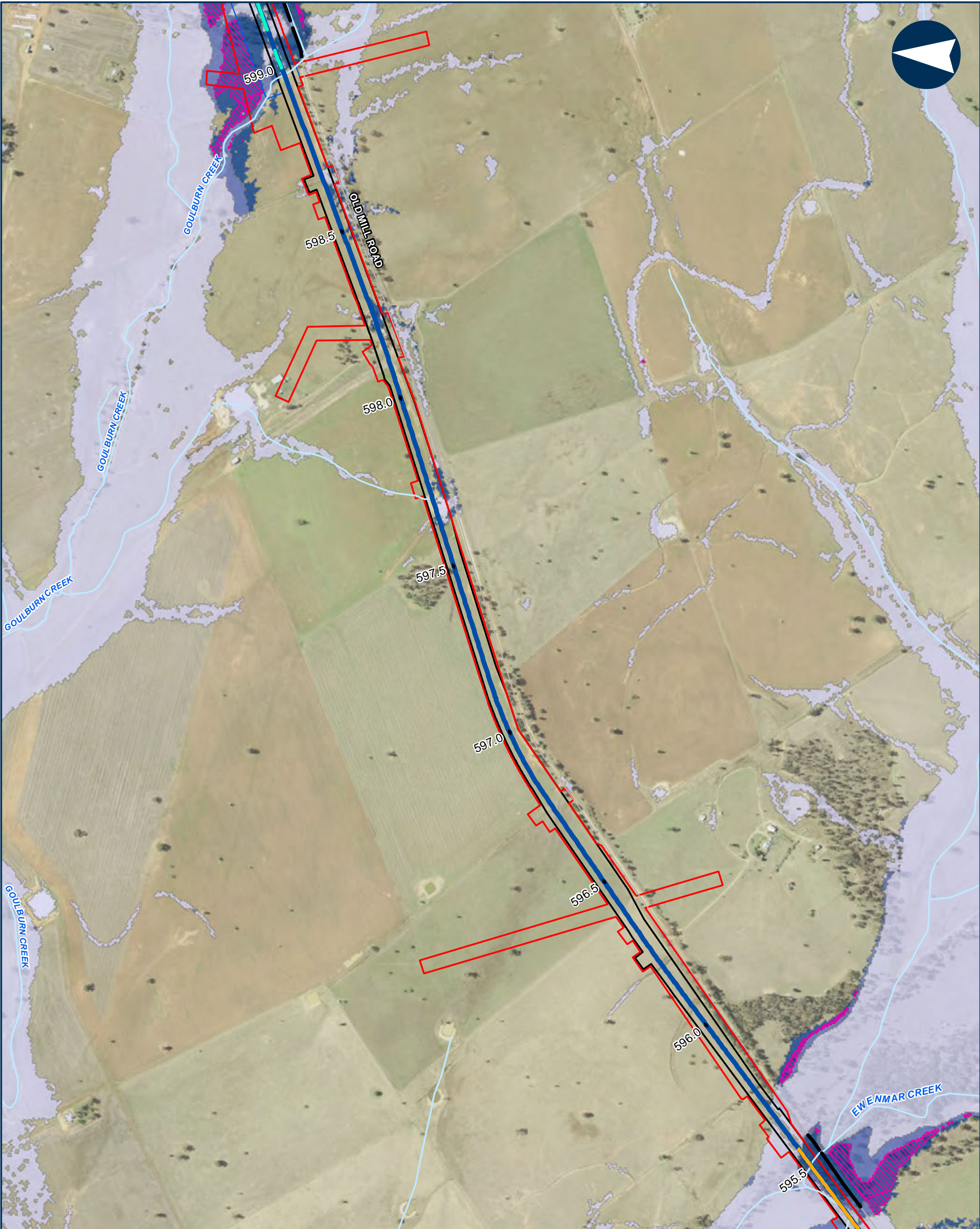
20%+

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.17

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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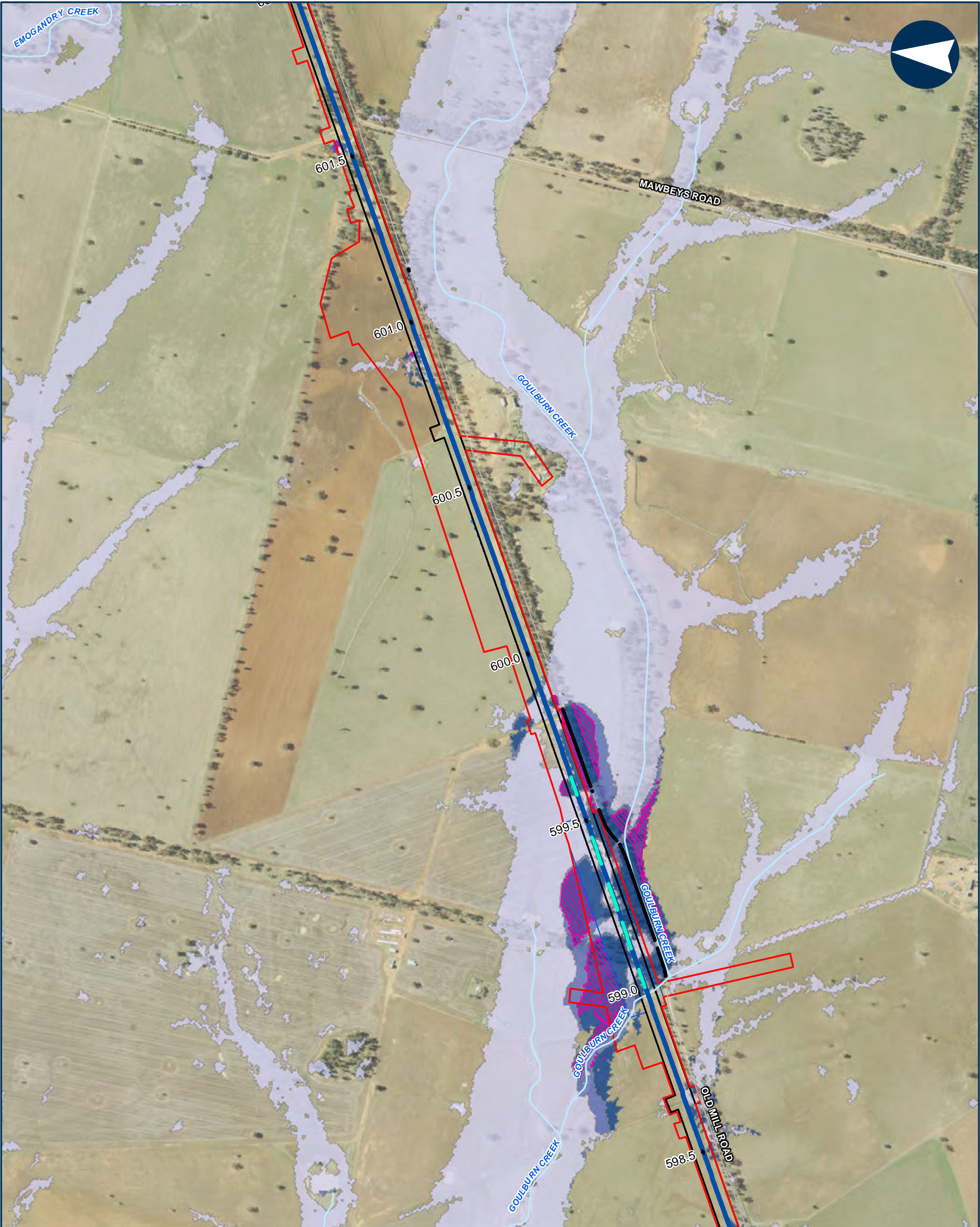
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Road QDL departure
 - Alignment
 - Sub arterial road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.18

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.19

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Road QDL departure

Alignment

Sub arterial road

Watercourse

The proposal

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

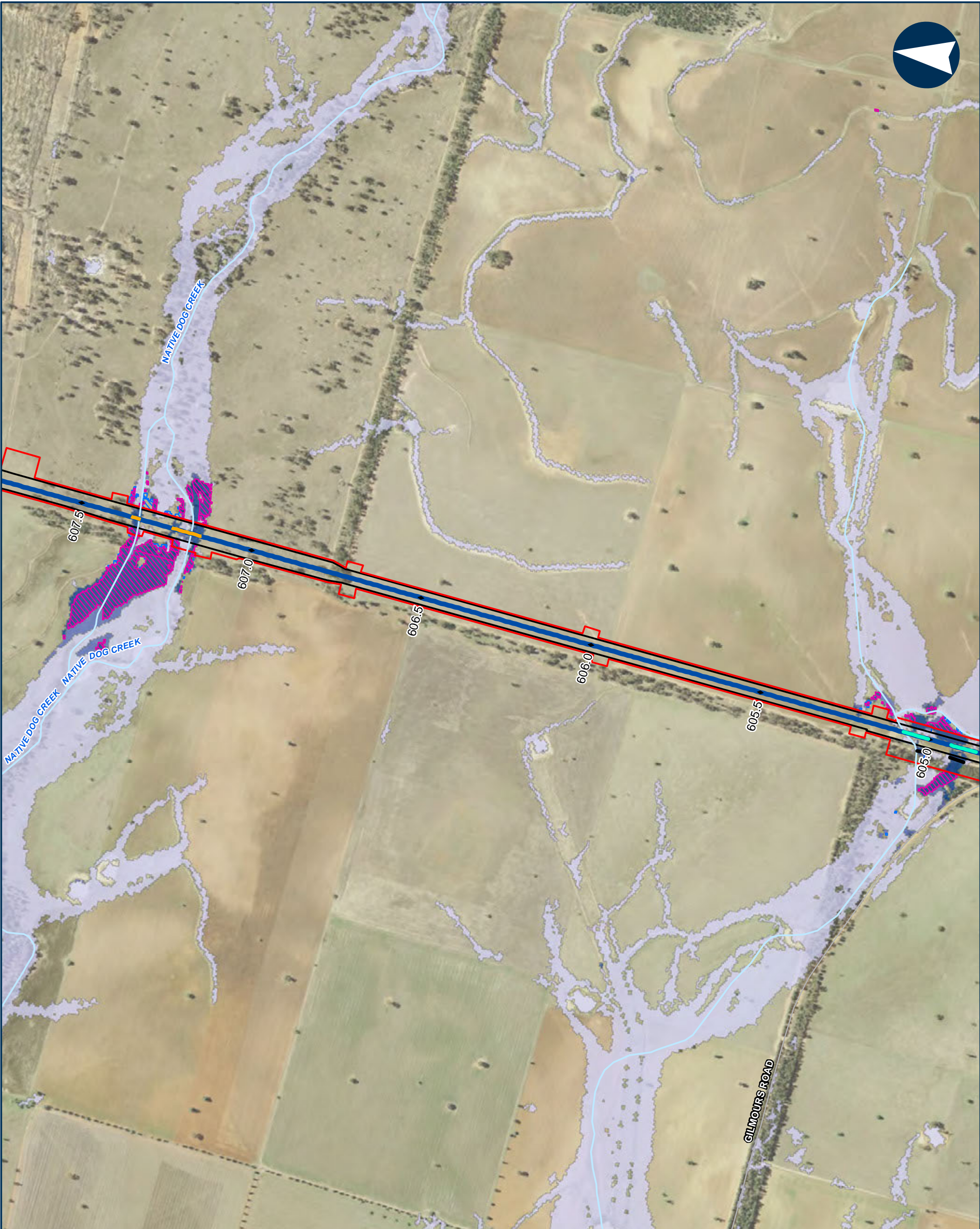
10% - 20%

20%+

INLAND RAIL = ARTC

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWAPP090_QDL_Hazard_1pcBlockage_revD.mxd



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.20

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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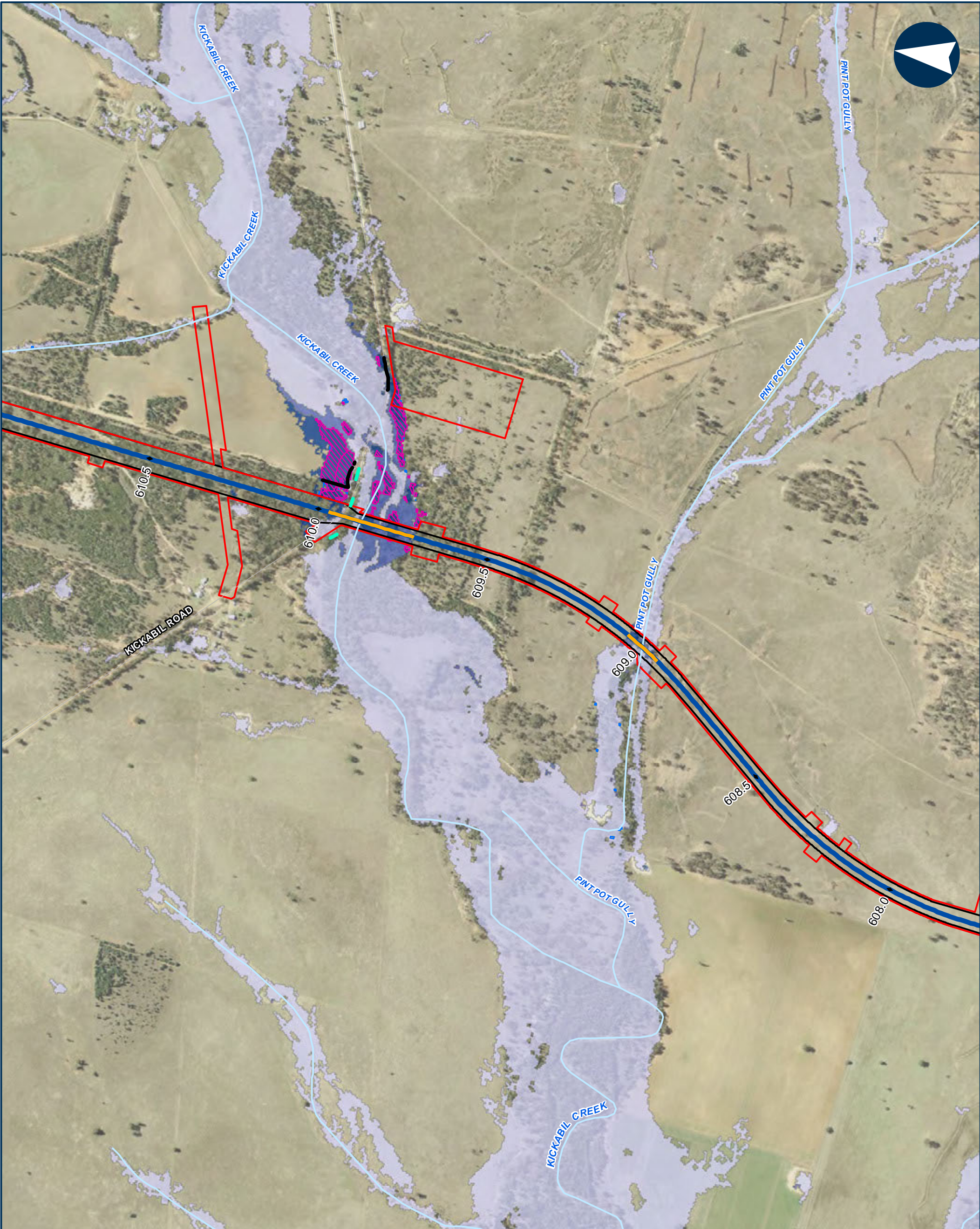
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.21

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Culvert

Road ODL departure

Alignment

Local road

Watercourse

The proposal

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

20%+

INLAND RAIL ARTC

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

N:\AU\Newcastle\Projects\2219593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWAPP090_QDL_Hazard_1pcBlockage_revD.mxd



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.22

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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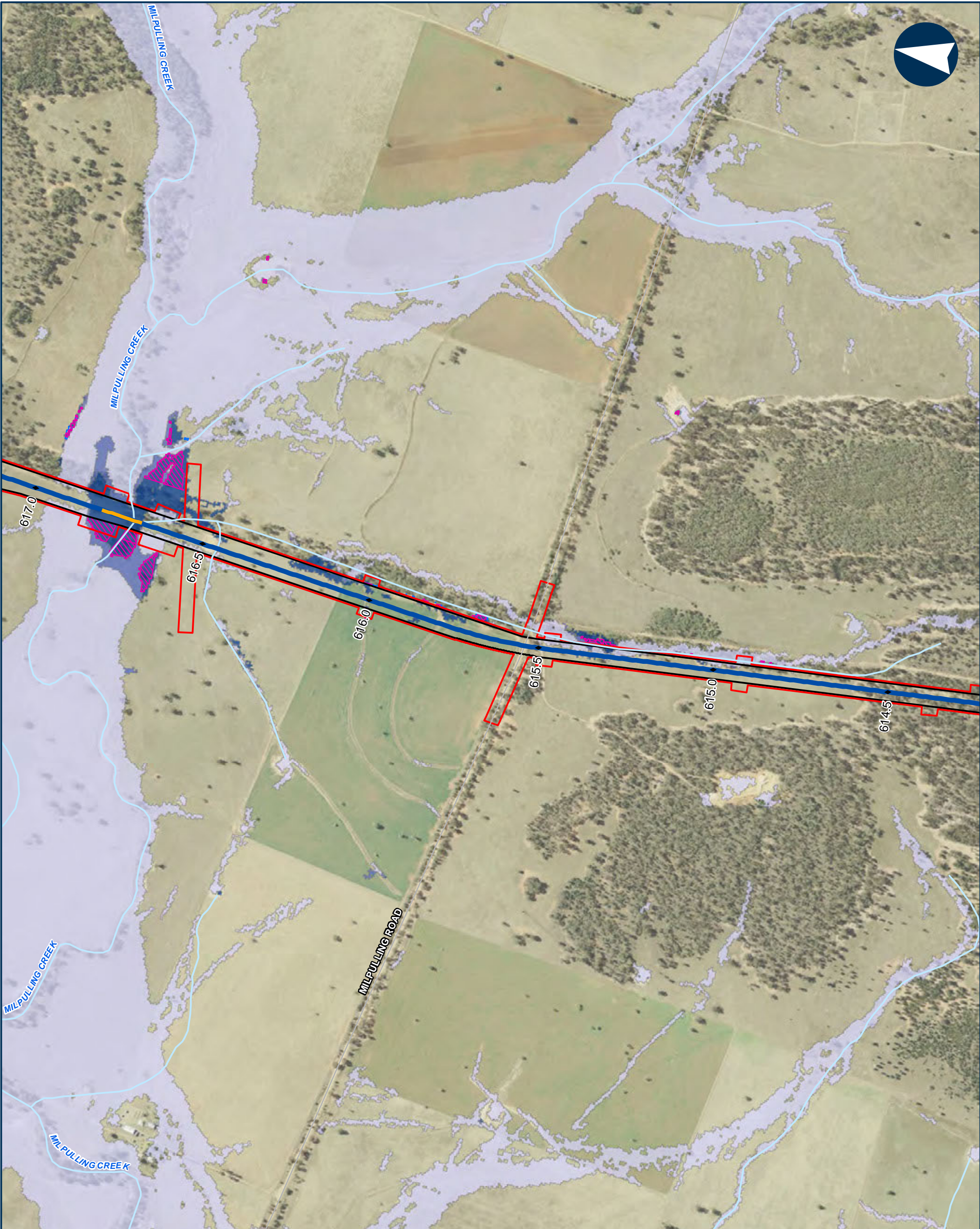
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Road QDL departure
- Alignment
- Local road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.23

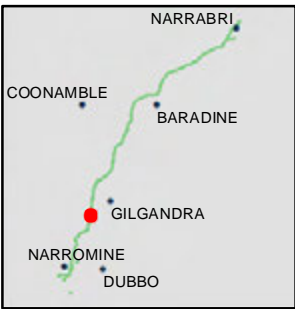
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL **ARTC**

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.24

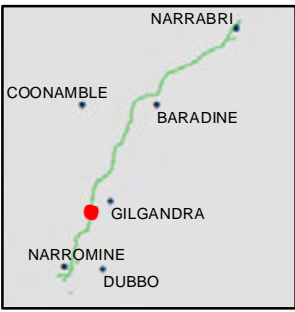
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Alignment
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL **ARTC**

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.25

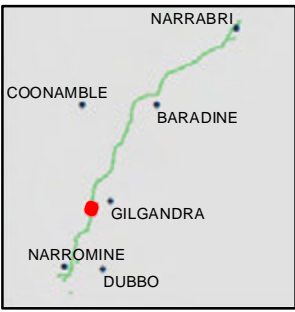
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.26

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.27

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Author: JacobsGHD

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3

Scale: 1:10,000

Culvert

Road QDL departure

Alignment

Local road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

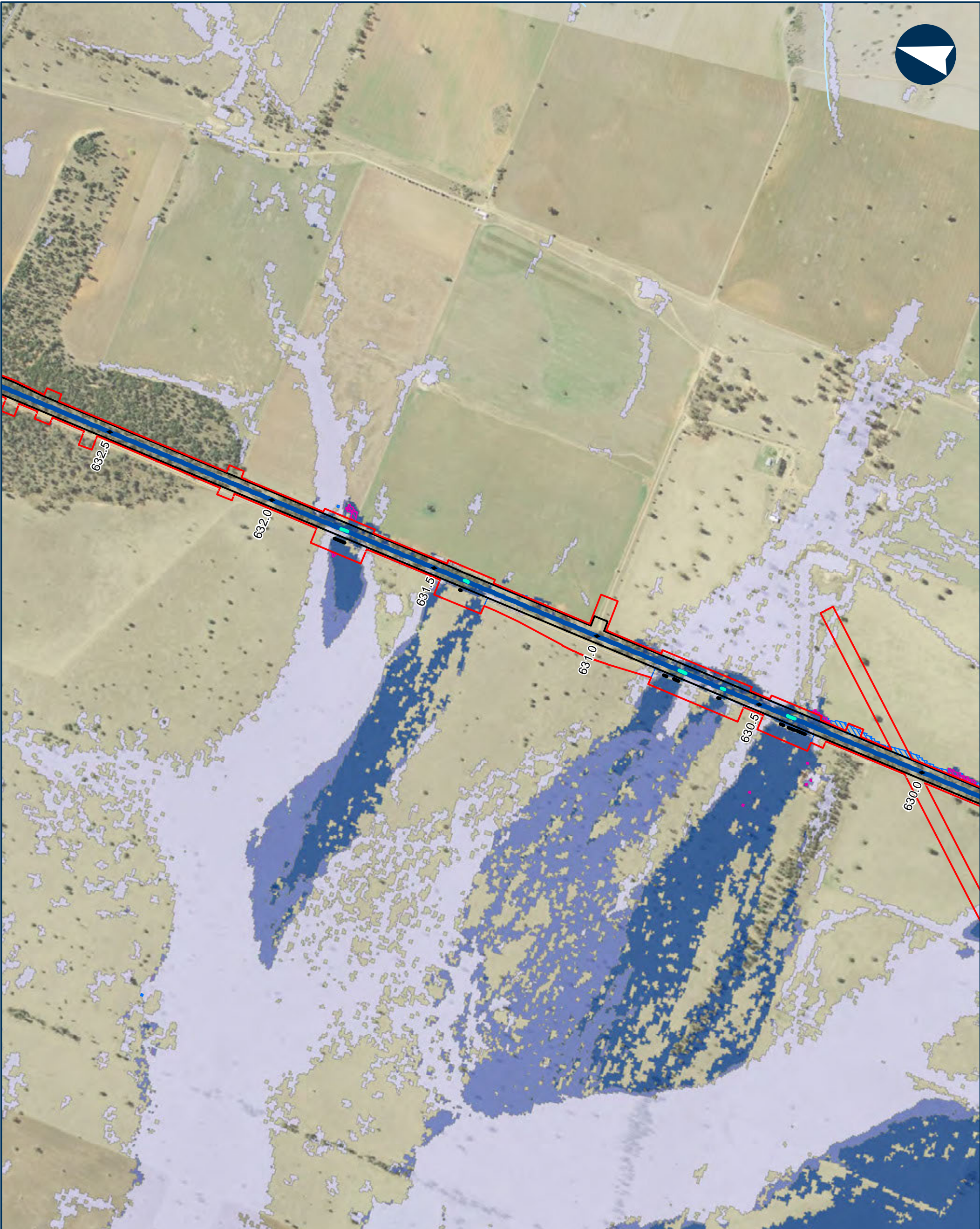
0% - 10%

10% - 20%

20%+

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP090_QDL_Hazard_1pcBlockage_revD.mxd



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.28

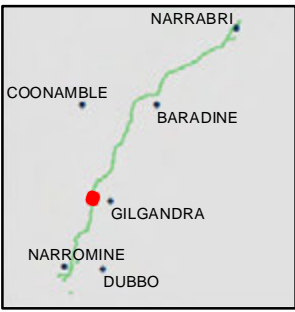
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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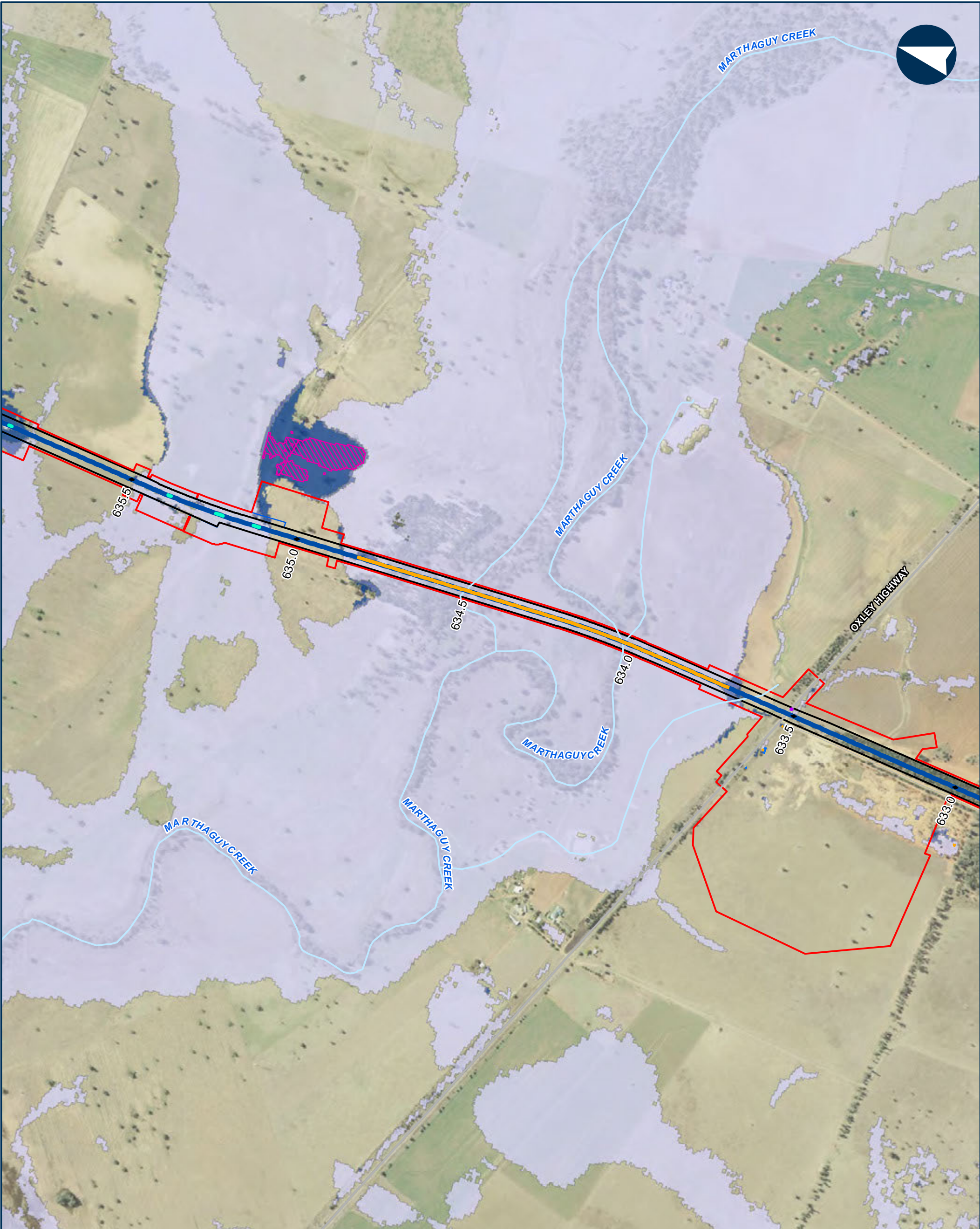
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Primary road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.29

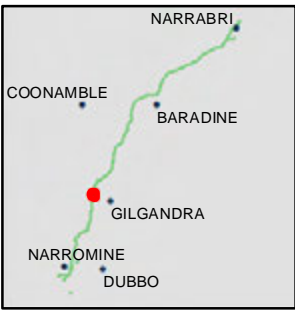
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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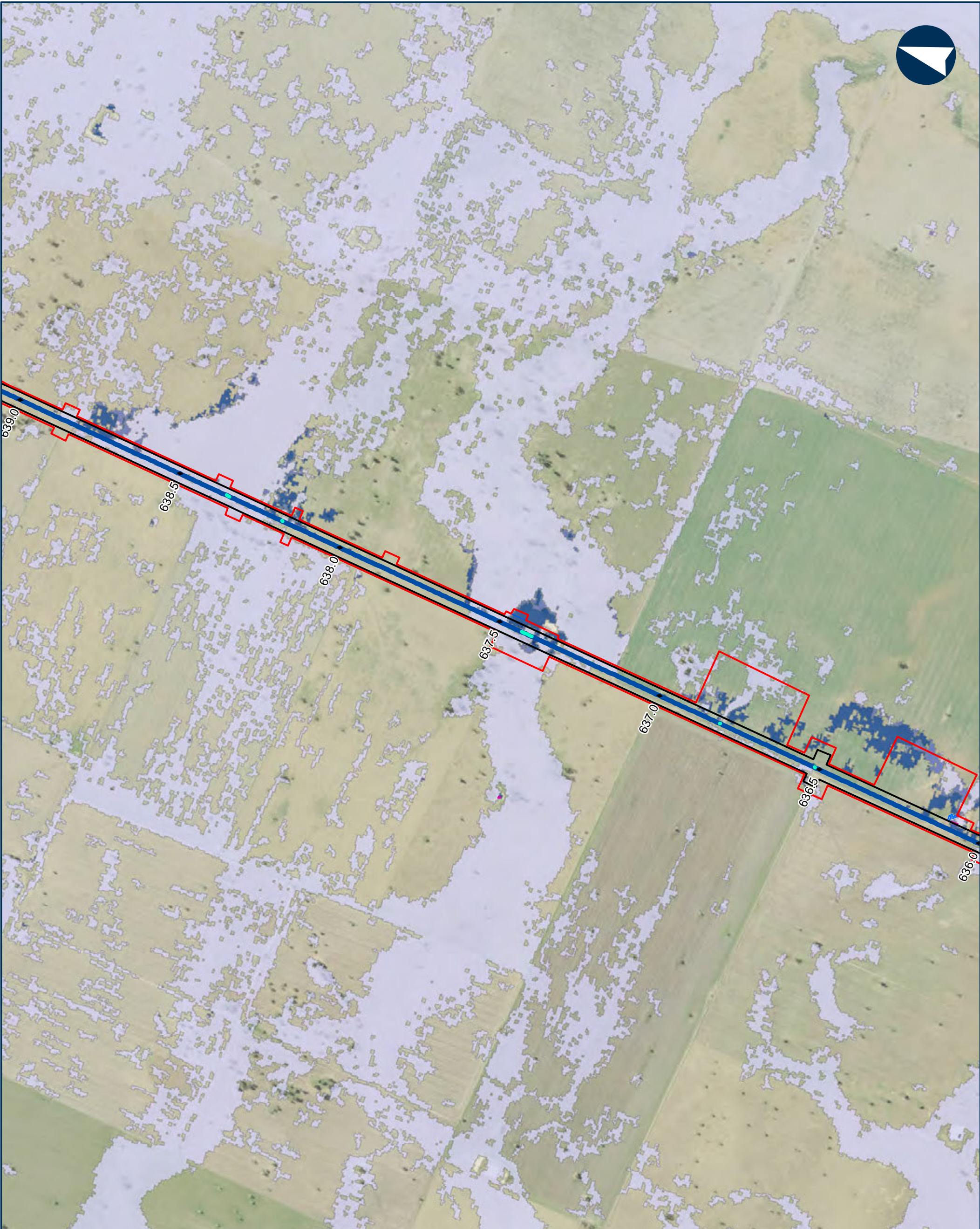
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - TfNSW newly flooded roads
 - Alignment
 - Primary road
 - Local road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Buildings and sealed surfaces, vd change >10%
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.30

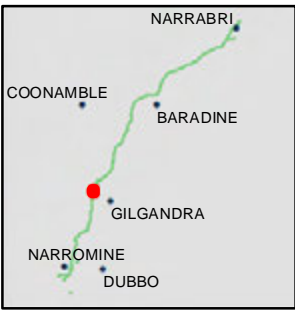
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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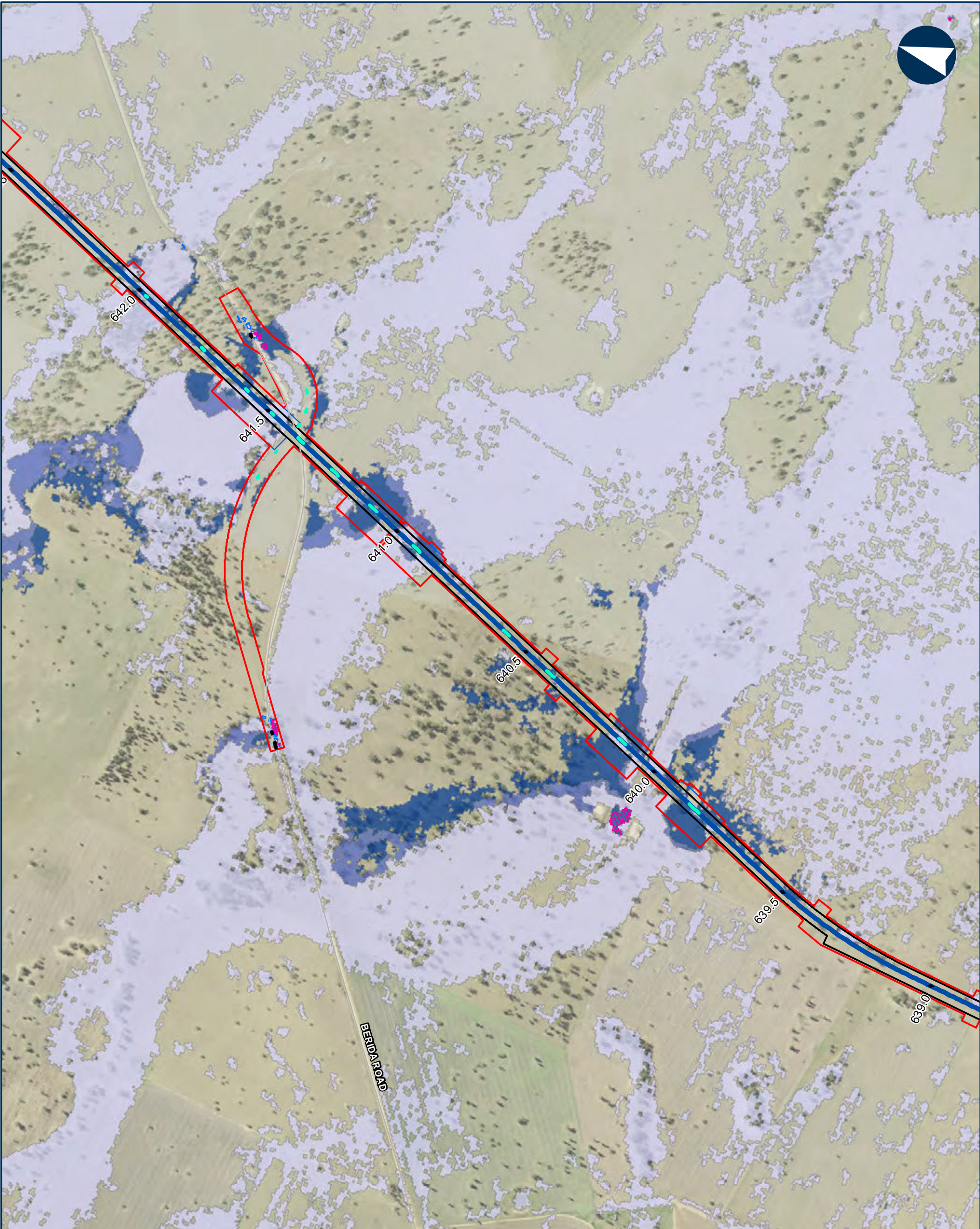
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.31

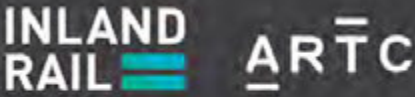
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Coordinate System: GDA 1994 MGA Zone 55

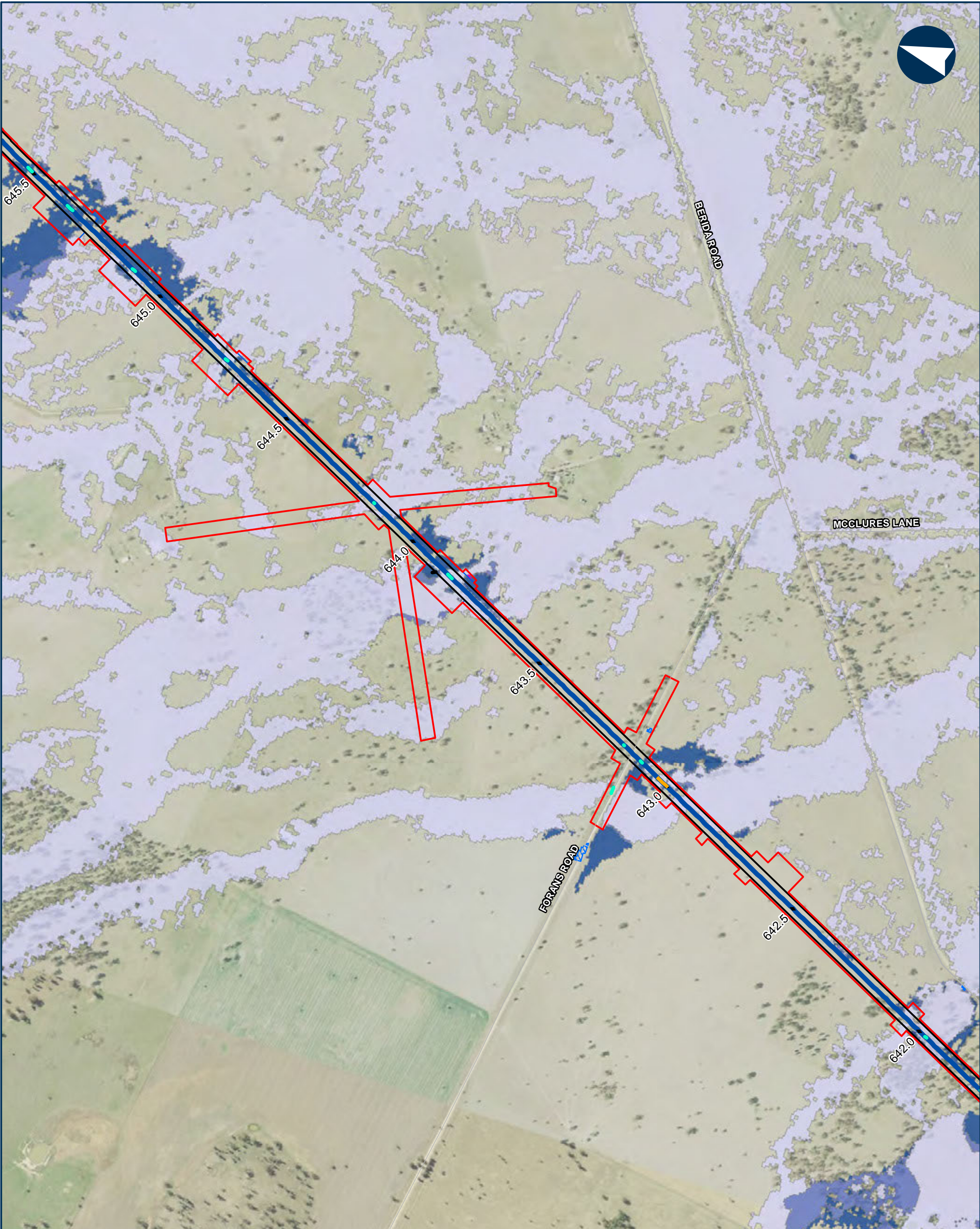
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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.32

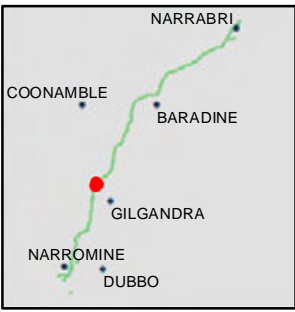
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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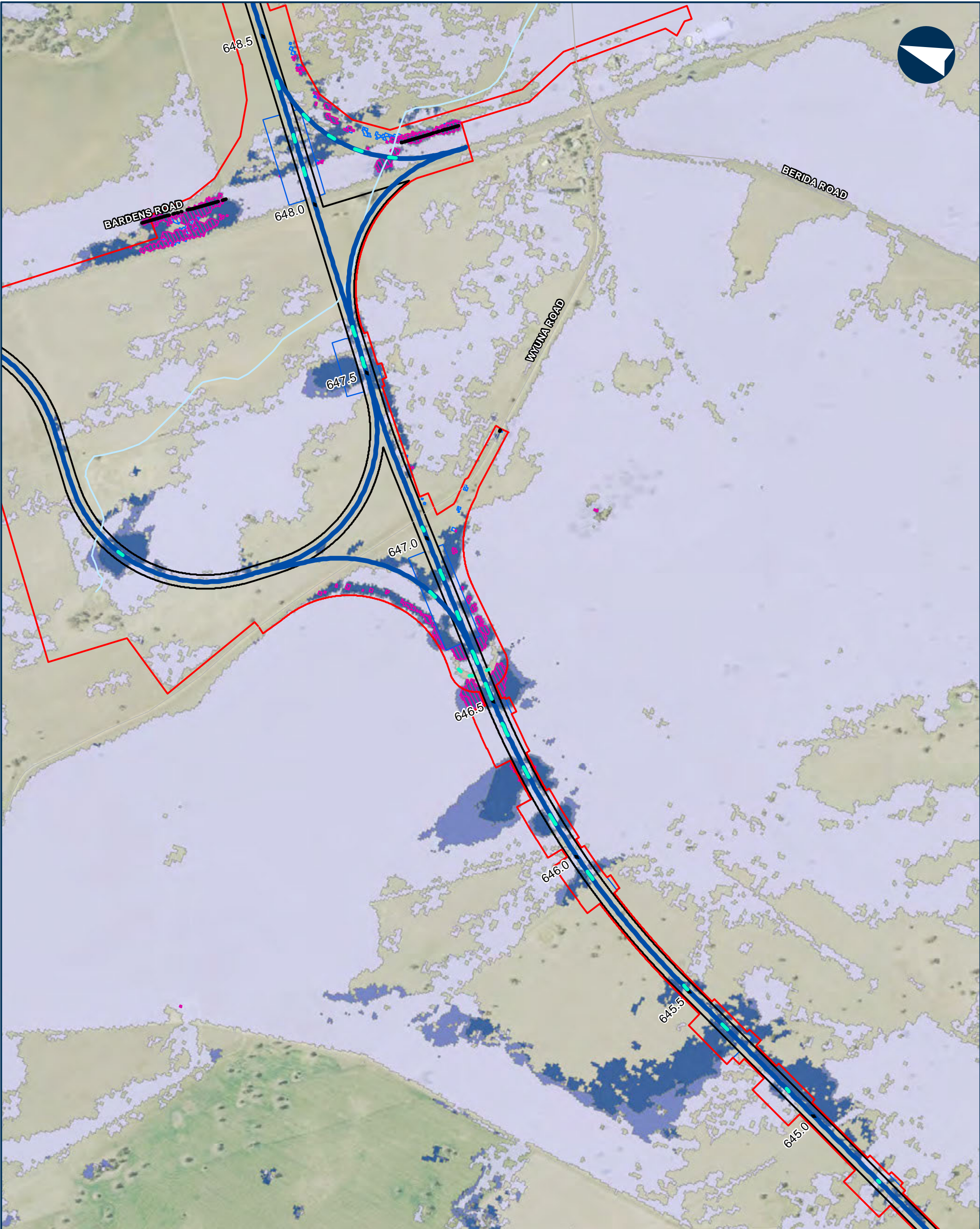
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Road ODL departure
 - Alignment
 - Sub arterial road
 - Local road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.33

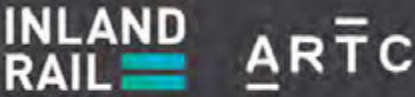
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

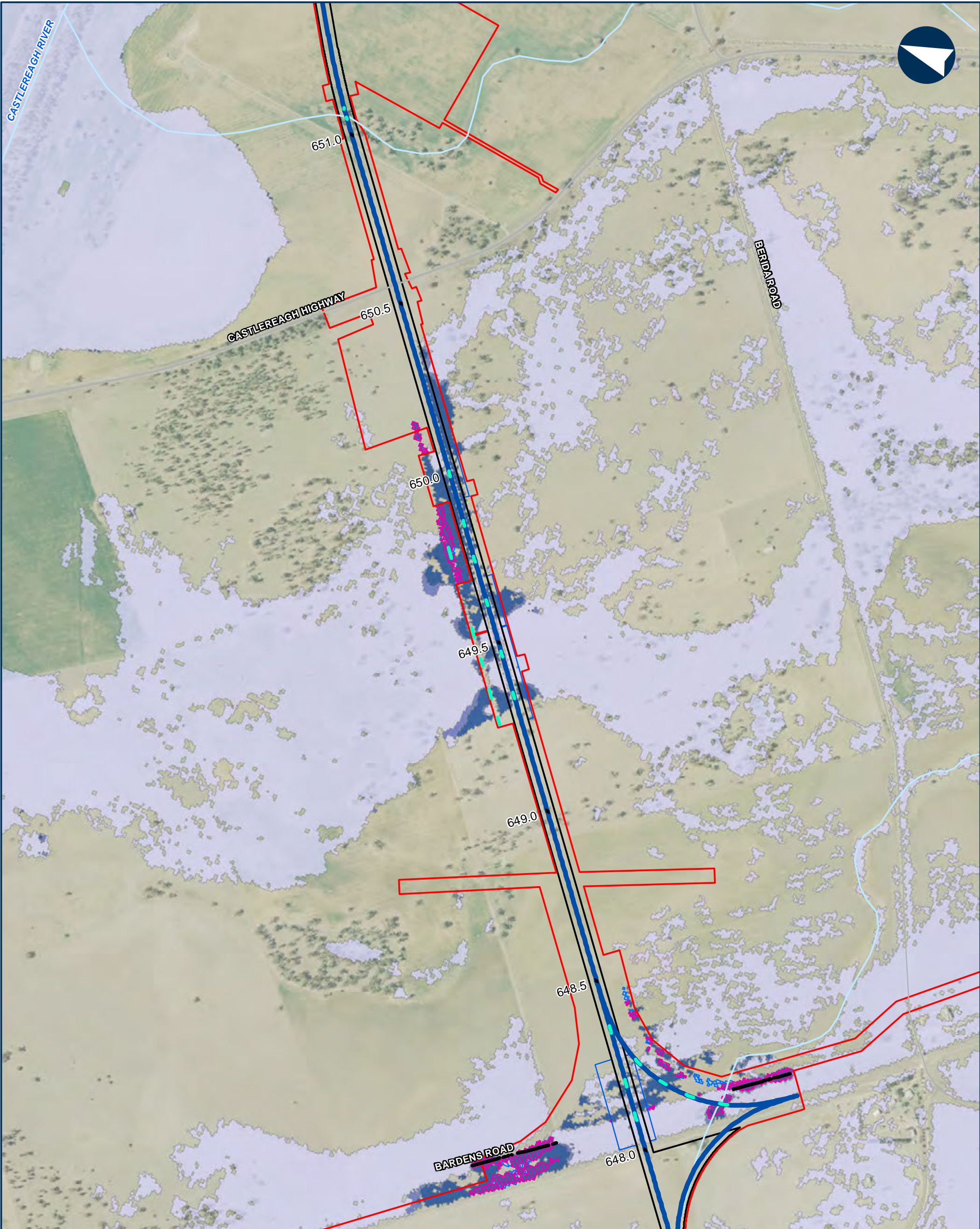
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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
 - Road QDL departure
 - Alignment
 - Sub arterial road
 - Local road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.34

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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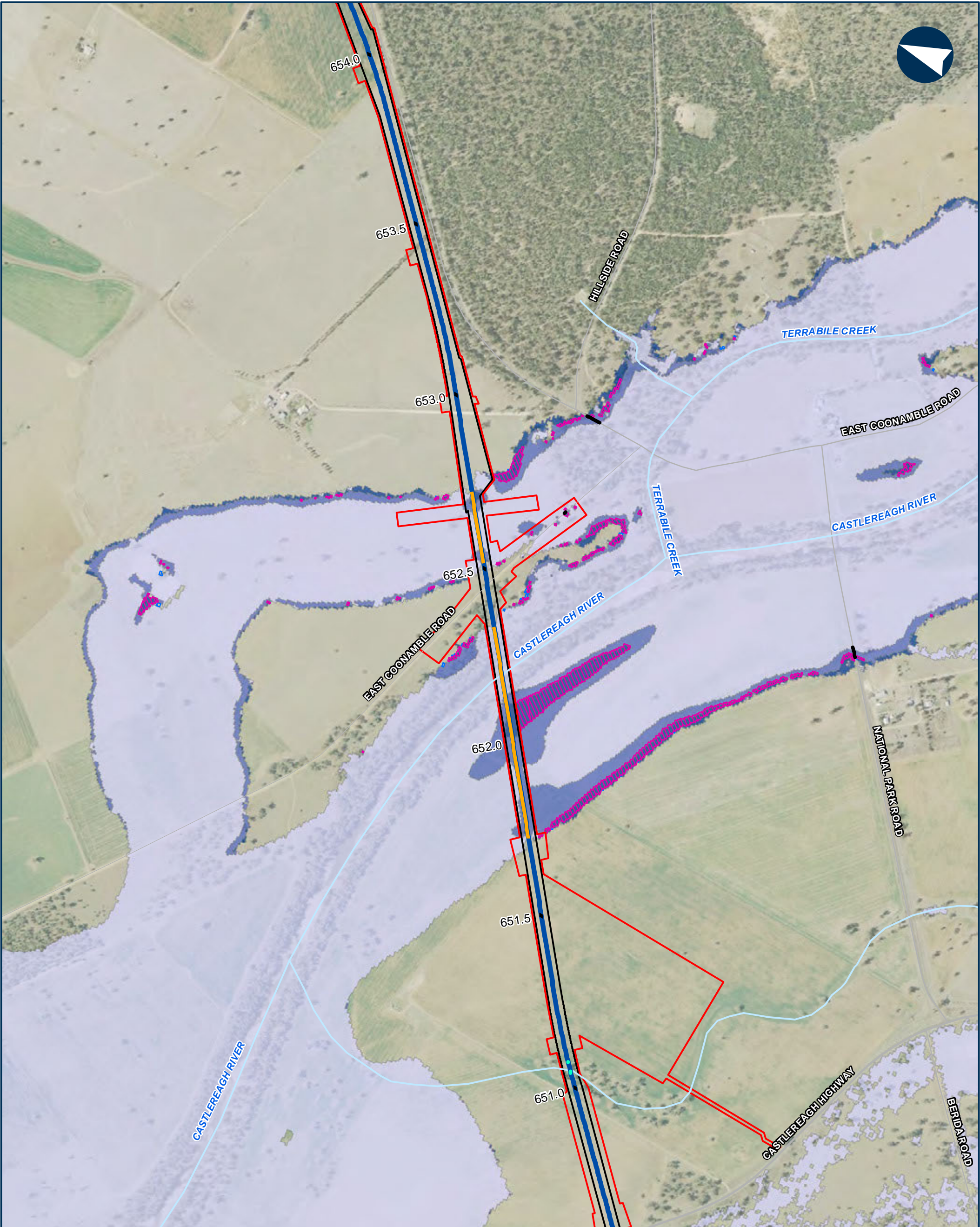
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Primary road
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.35

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Culvert

Road QDL departure

Alignment

Primary road

Sub arterial road

Local road

Watercourse

The proposal

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

20%+

INLAND RAIL

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP090_QDL_Hazard_1pcBlockage_revD.mxd



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.36

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.37

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL ARTC

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.38

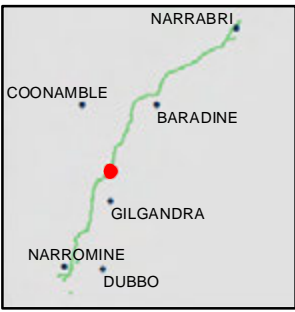
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Coordinate System: GDA 1994 MGA Zone 55

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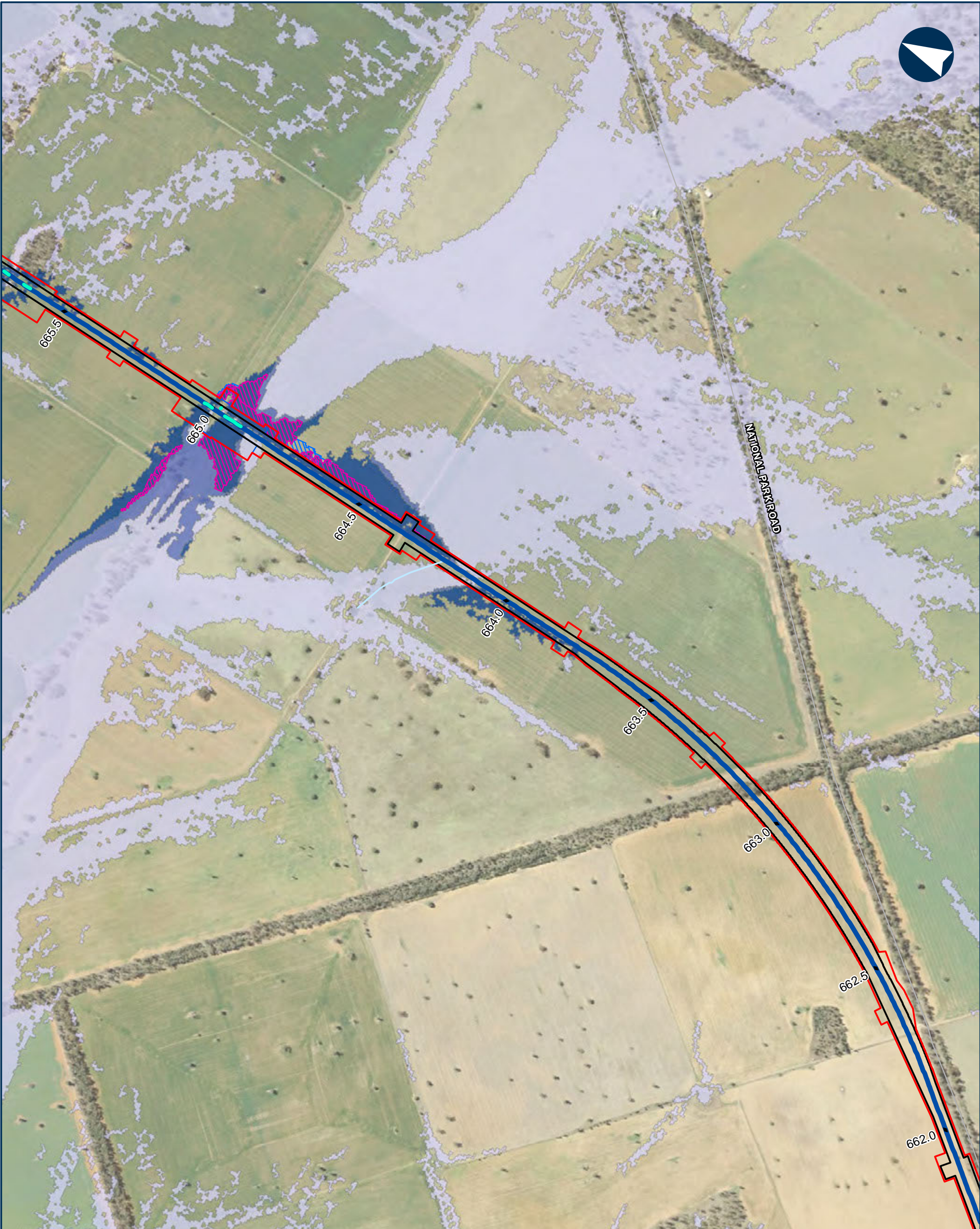
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
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- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
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- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.39

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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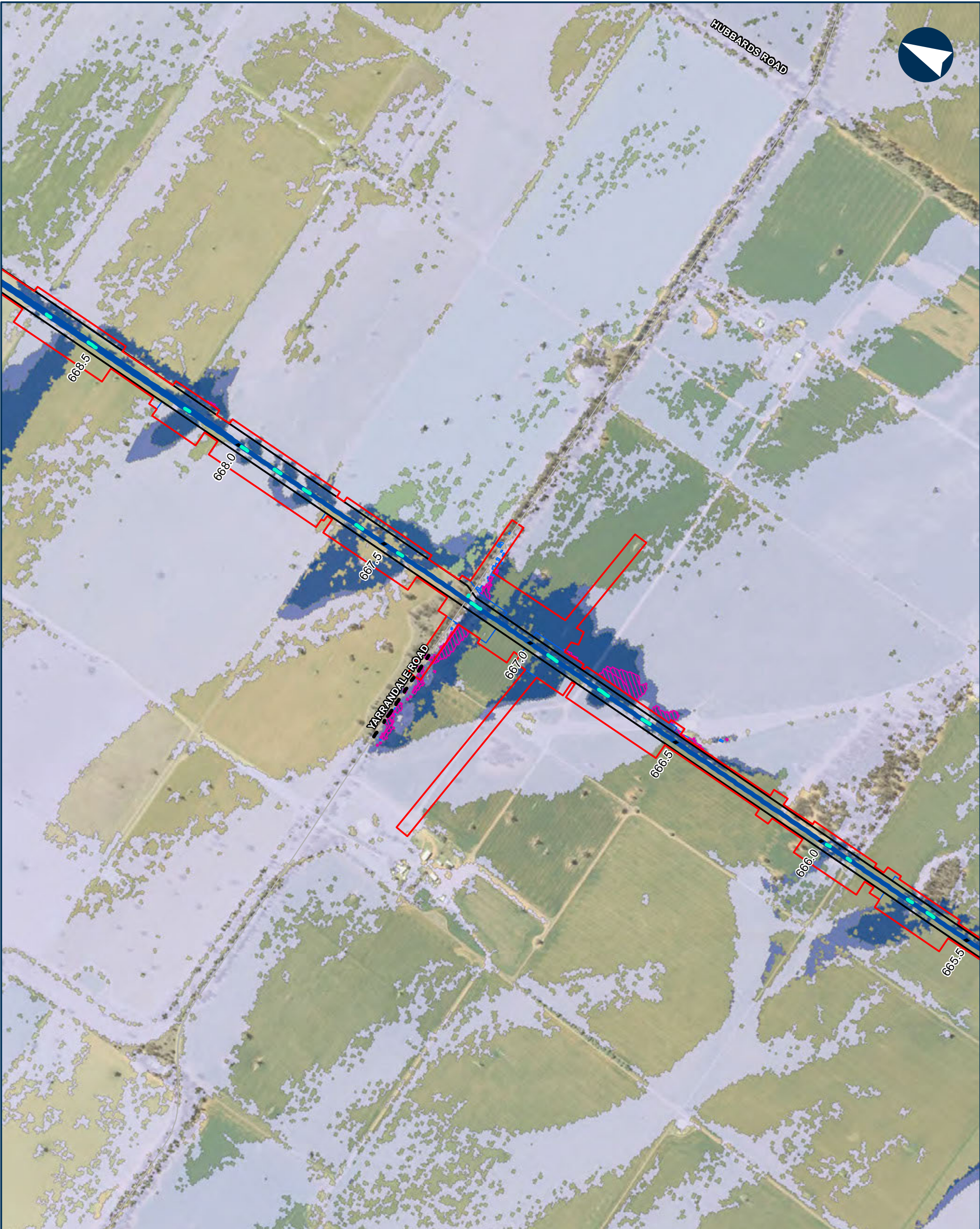
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Sub arterial road
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- Drainage Control Area
- Rail Corridor
- Area of departure
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- Percentage Change
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- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.40

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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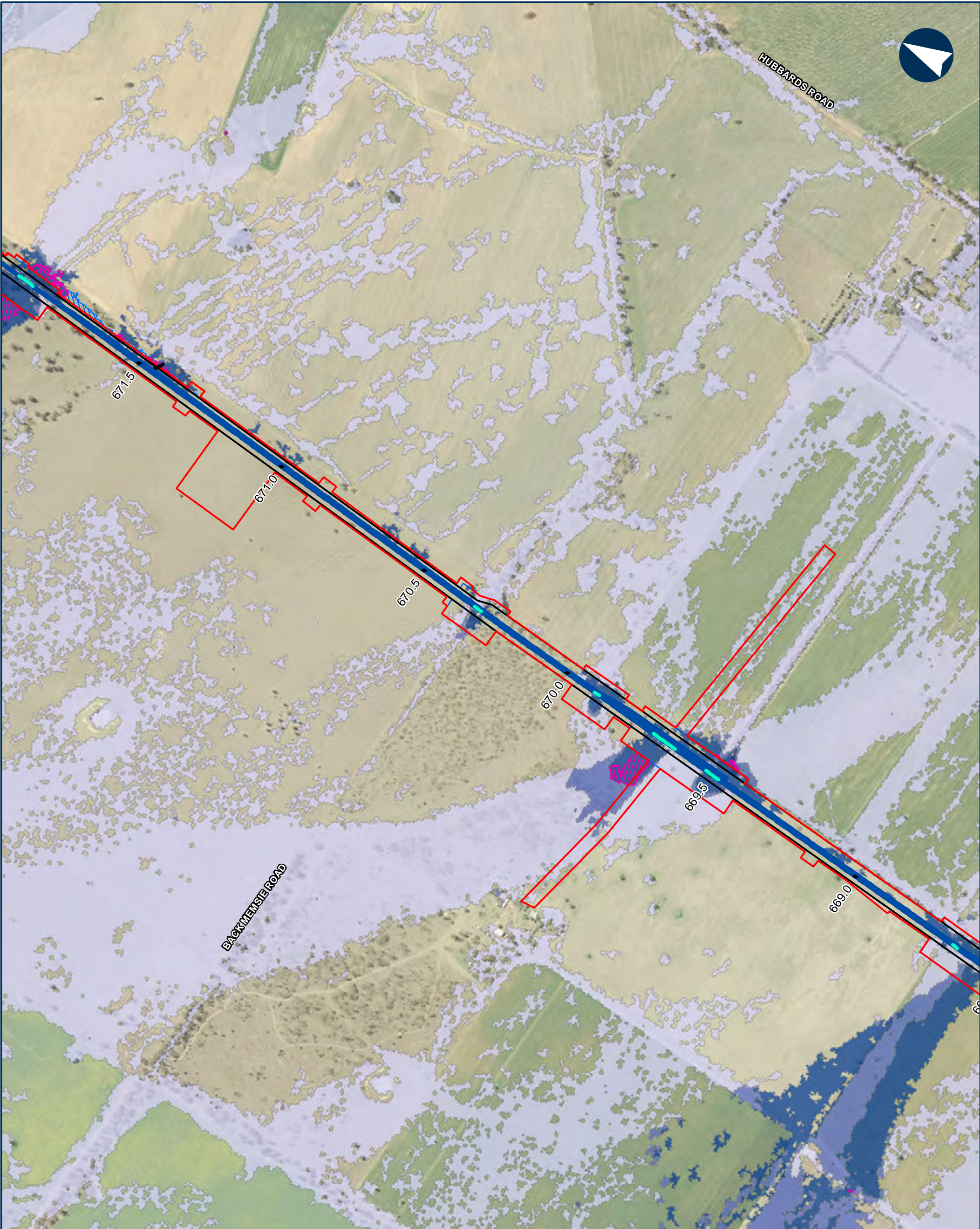
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

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INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.41

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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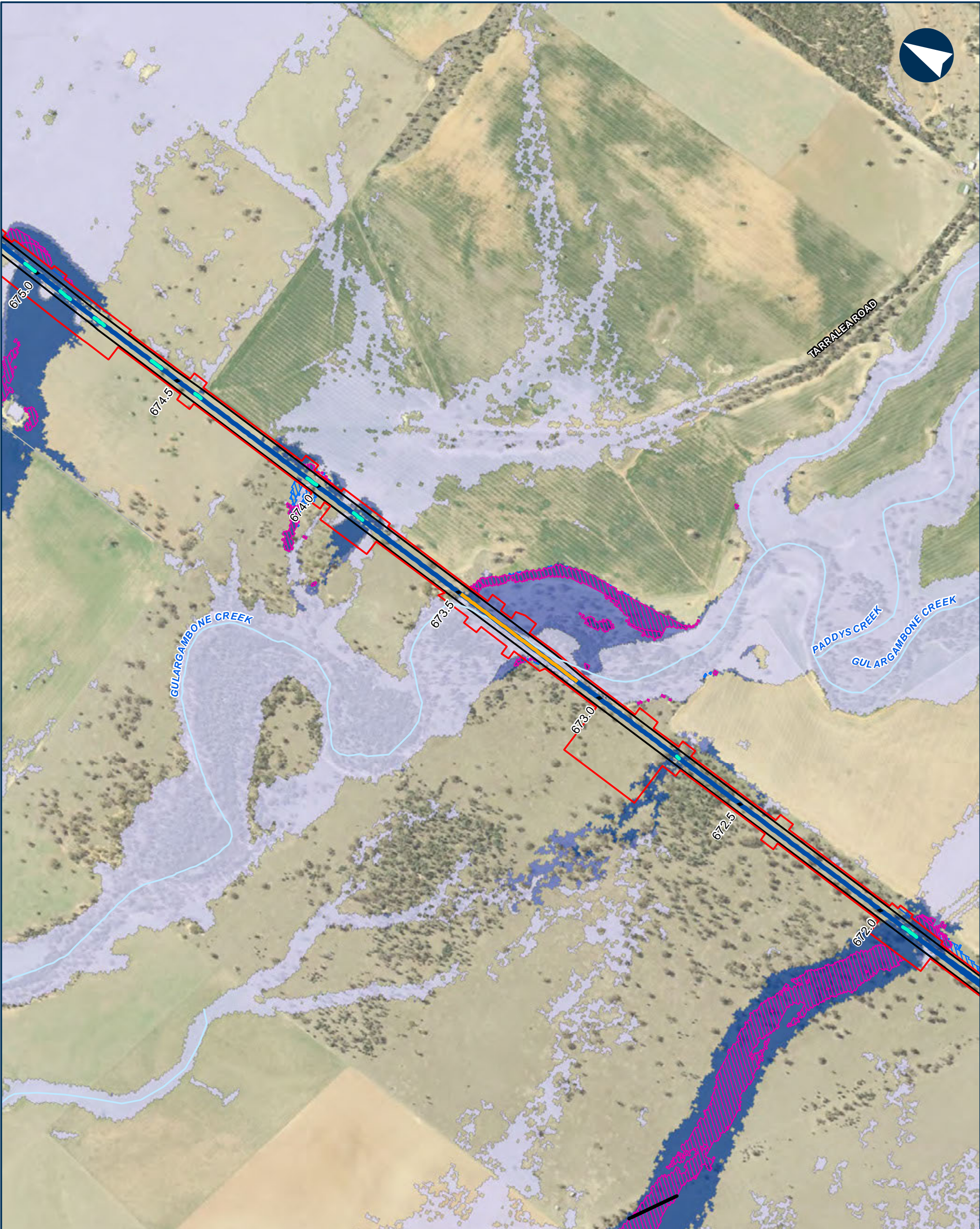
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
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INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.42

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Culvert

Road ODL departure

Alignment

Sub arterial road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

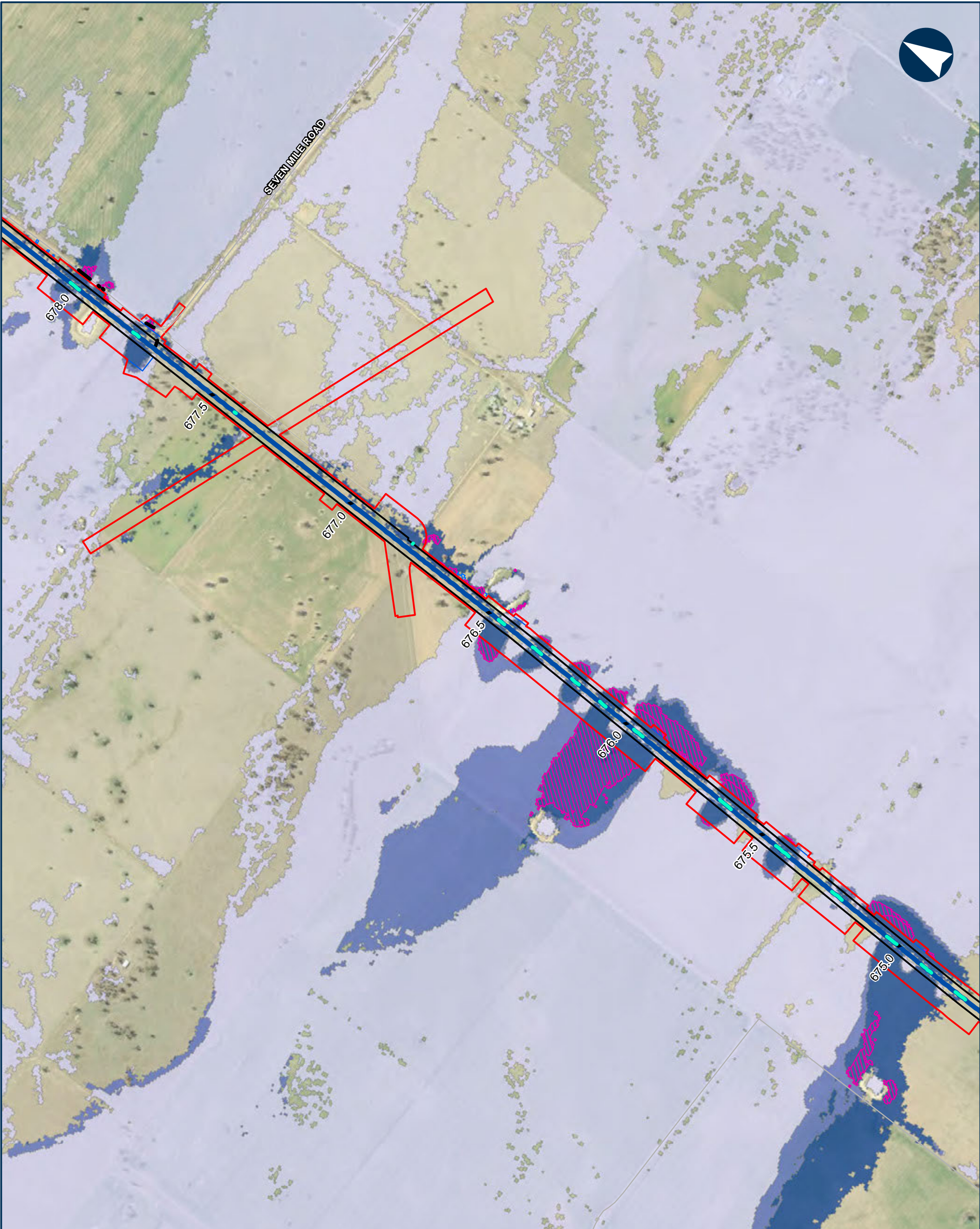
20%+

INLAND RAIL

ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.43

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Culvert

Road QDL departure

Alignment

Sub arterial road

Local road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

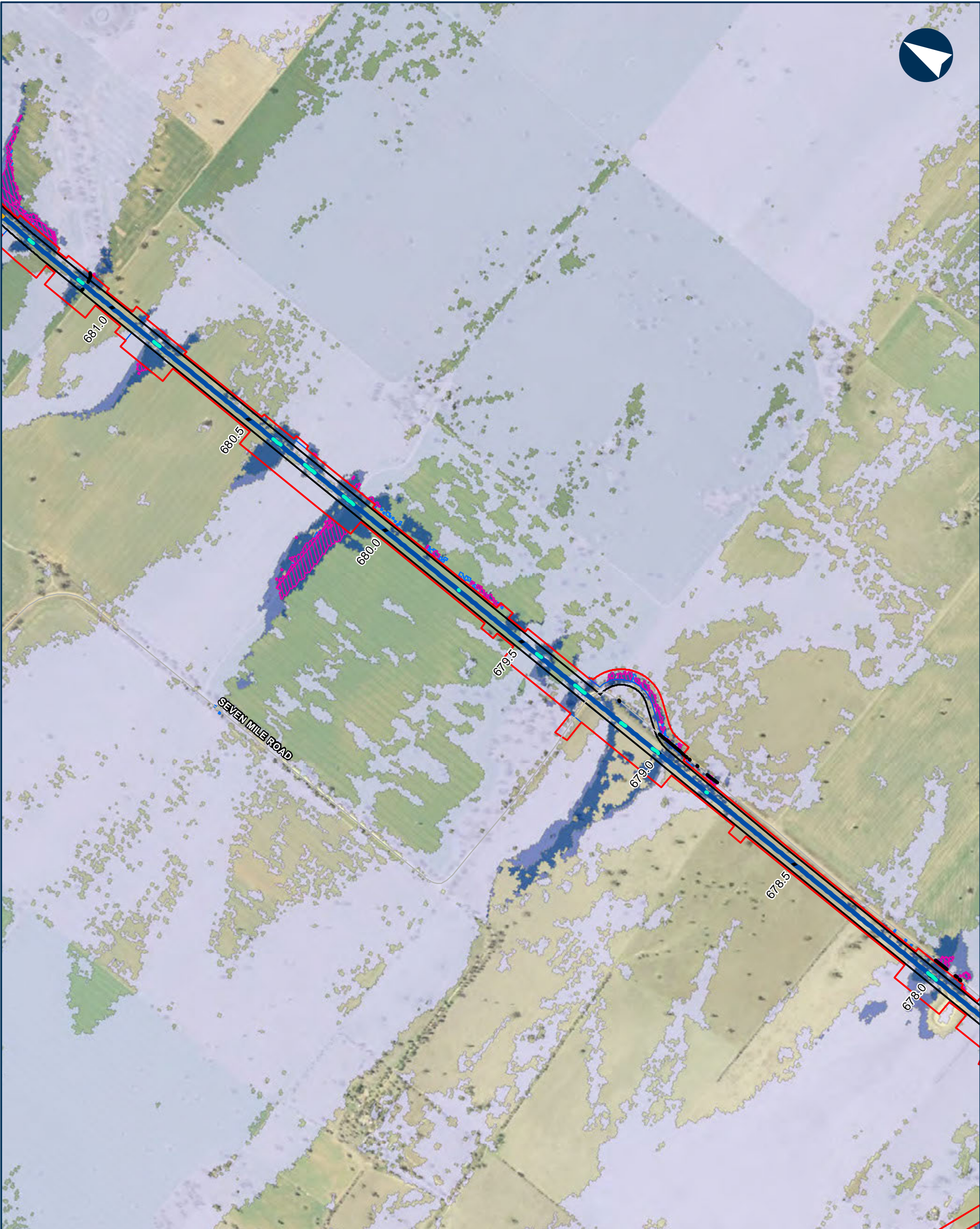
0% - 10%

10% - 20%

20%+

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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.44

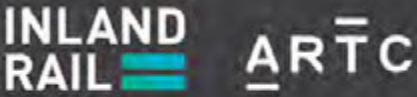
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Coordinate System: GDA 1994 MGA Zone 55

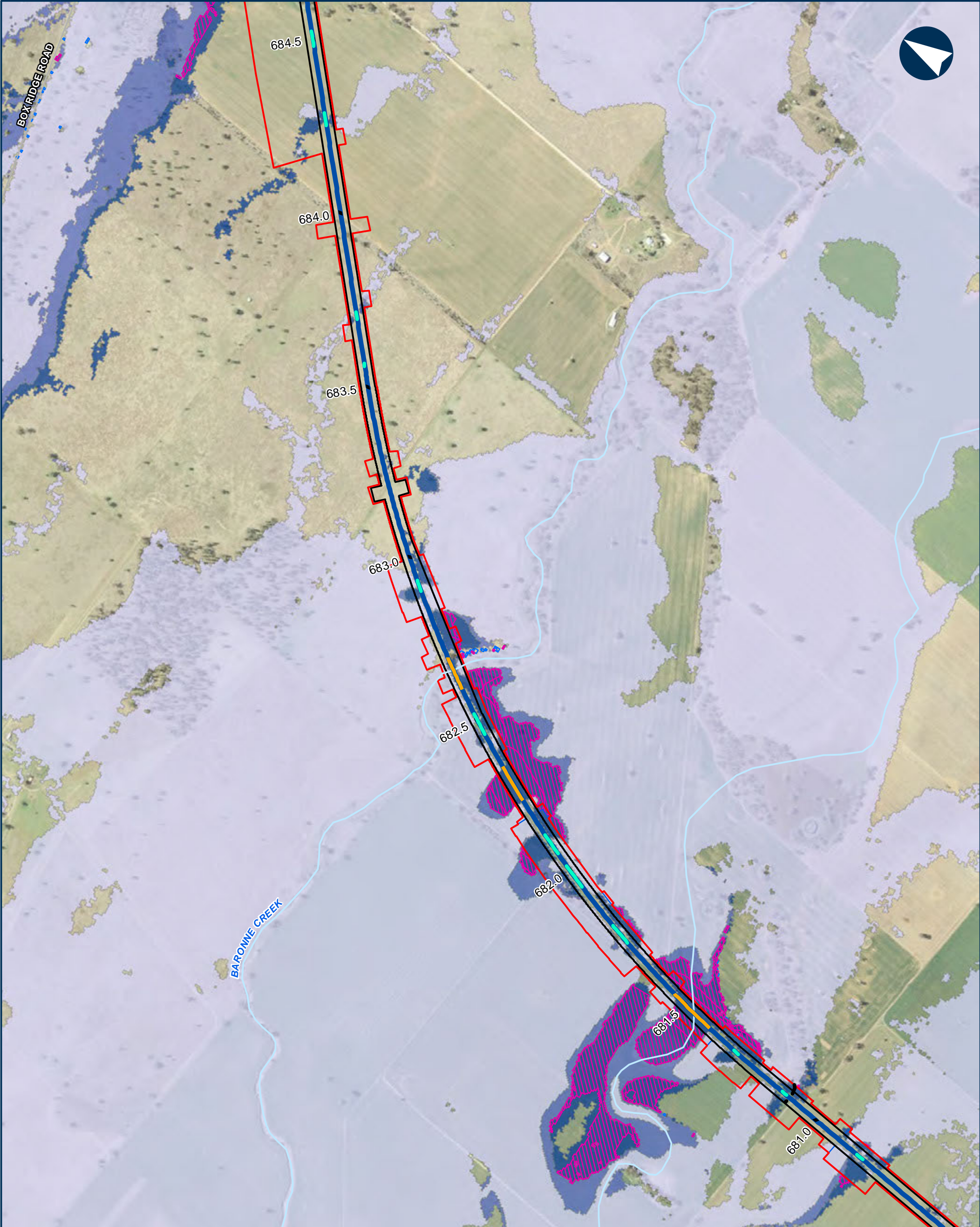
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Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

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 - Culvert
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 - Alignment
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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.45

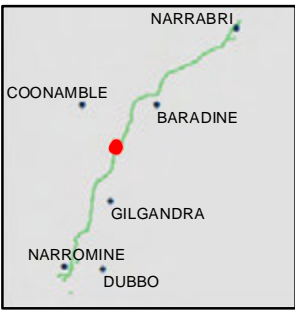
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Coordinate System: GDA 1994 MGA Zone 55

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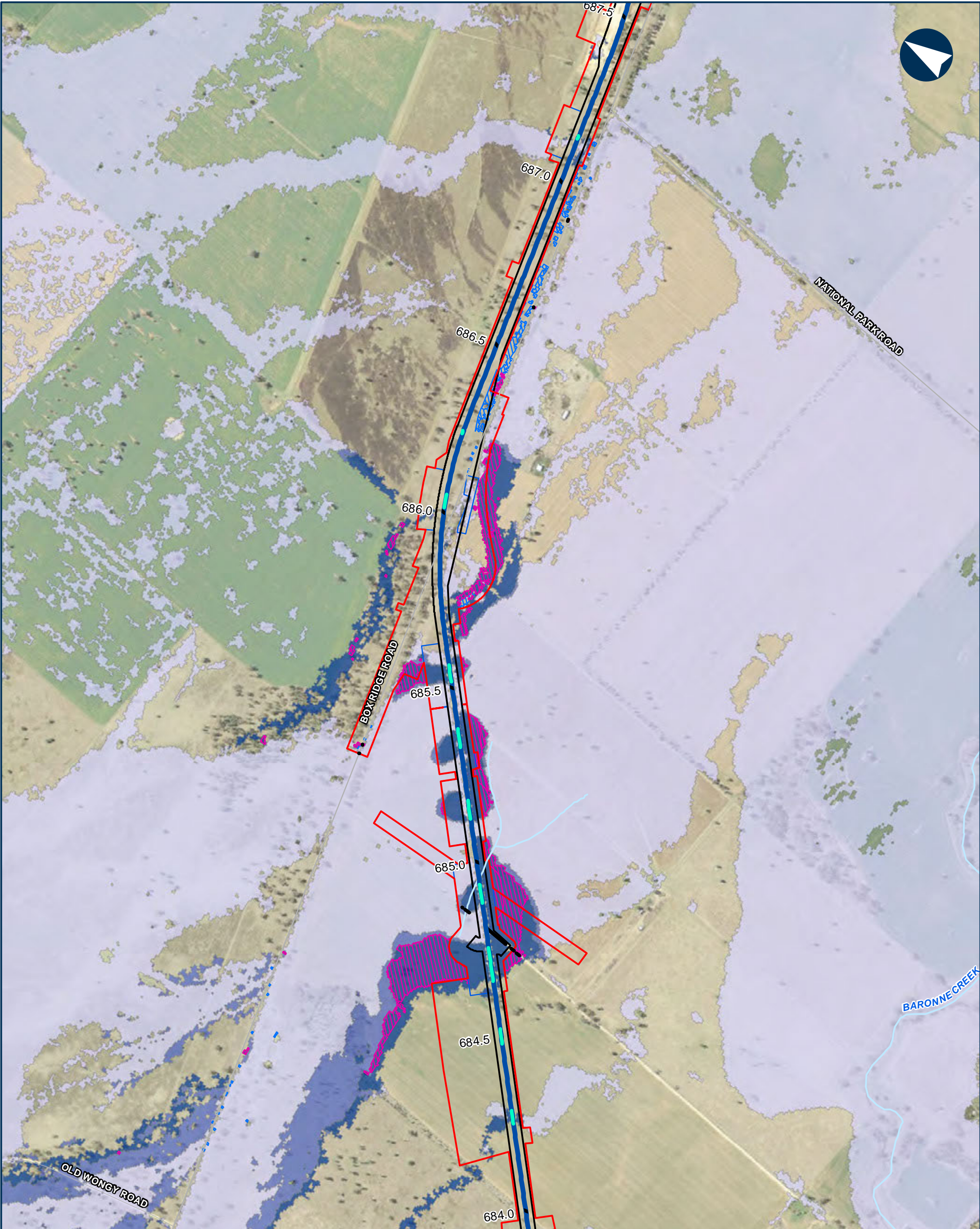
Date: 9/08/2022 Paper: A3
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Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
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INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.46

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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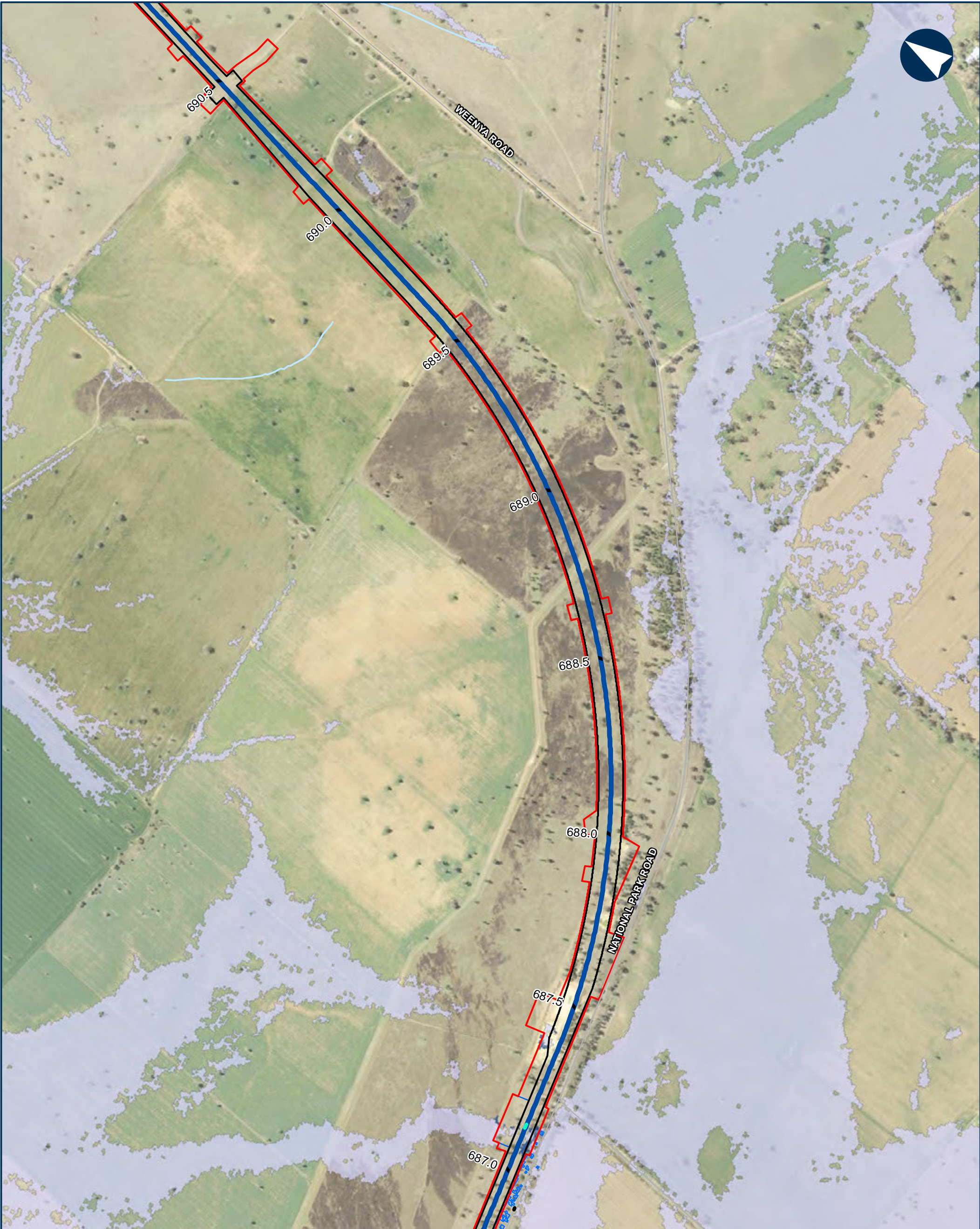
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
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- Percentage Change
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INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.47

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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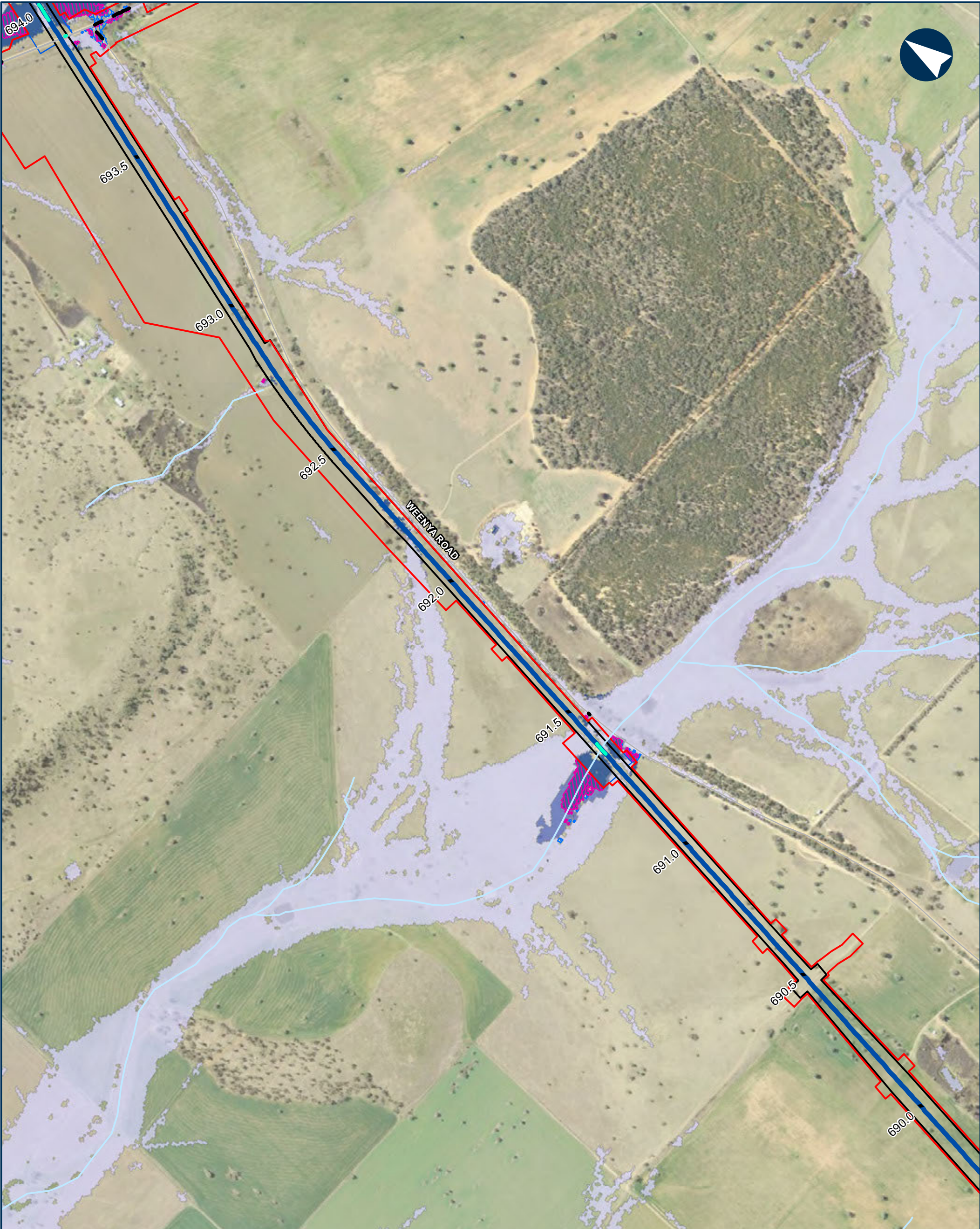
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
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- Sub arterial road
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- Rail Corridor
- Area of departure
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- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.48

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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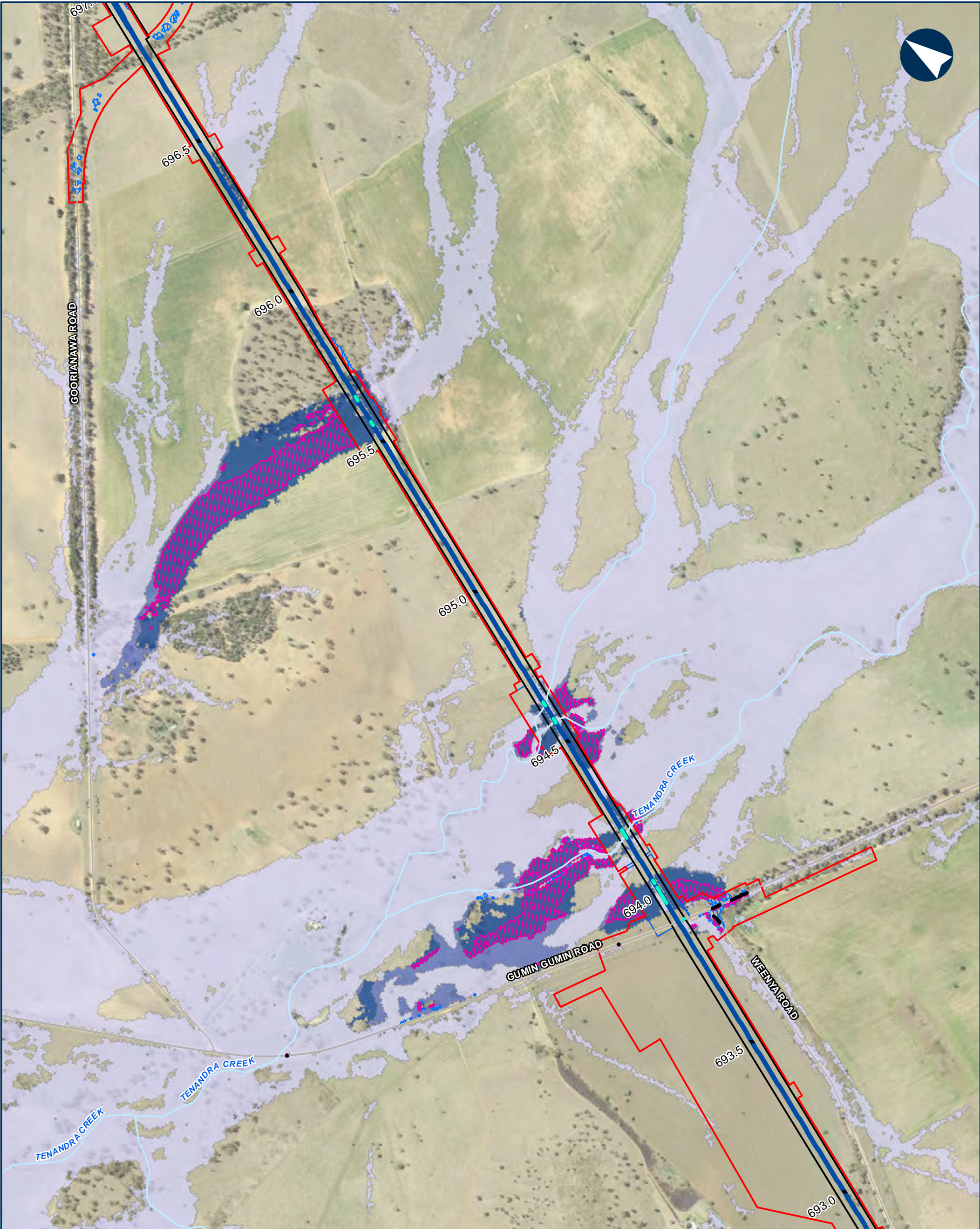
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Arterial road
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
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- Percentage Change
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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.49

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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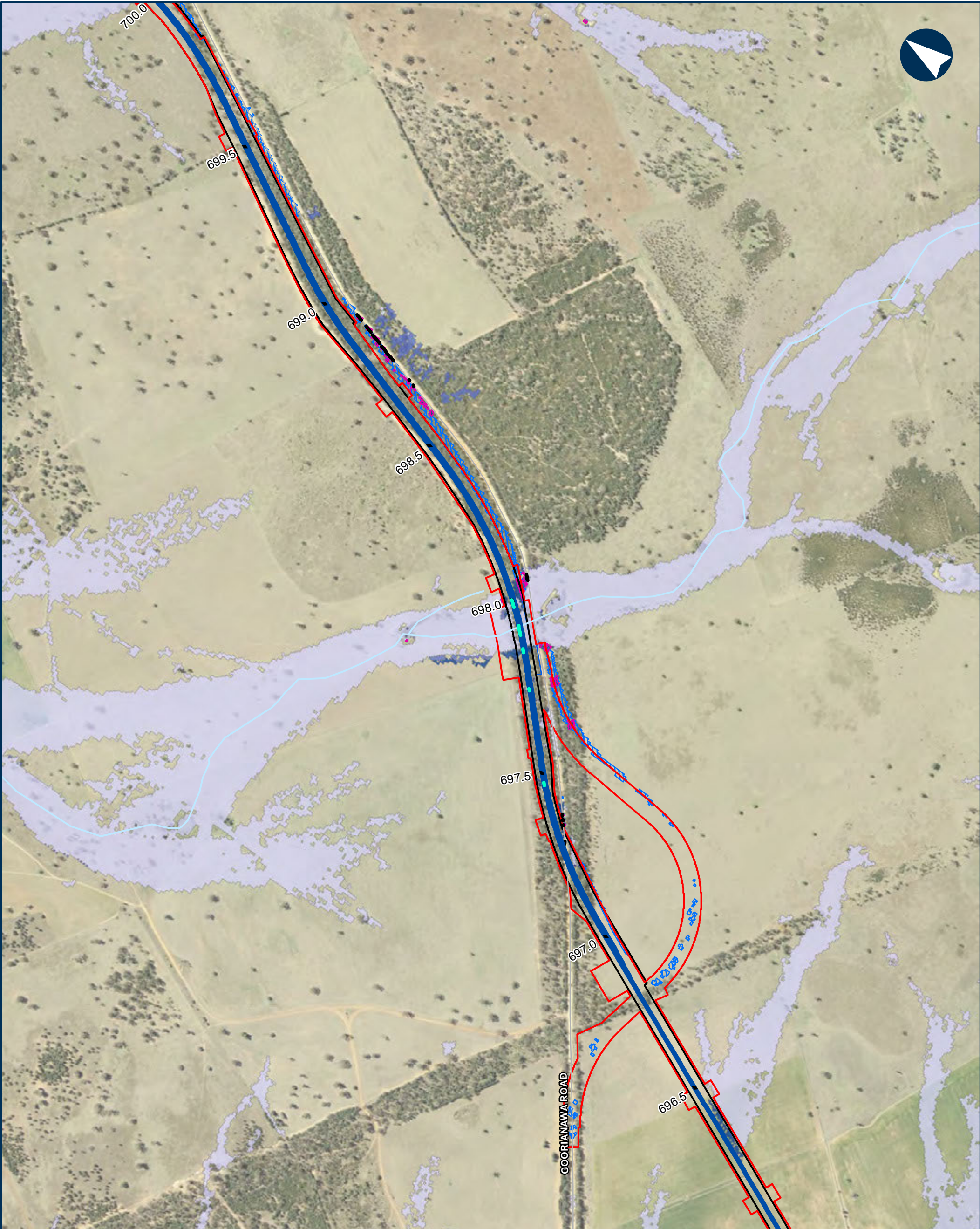
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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.50

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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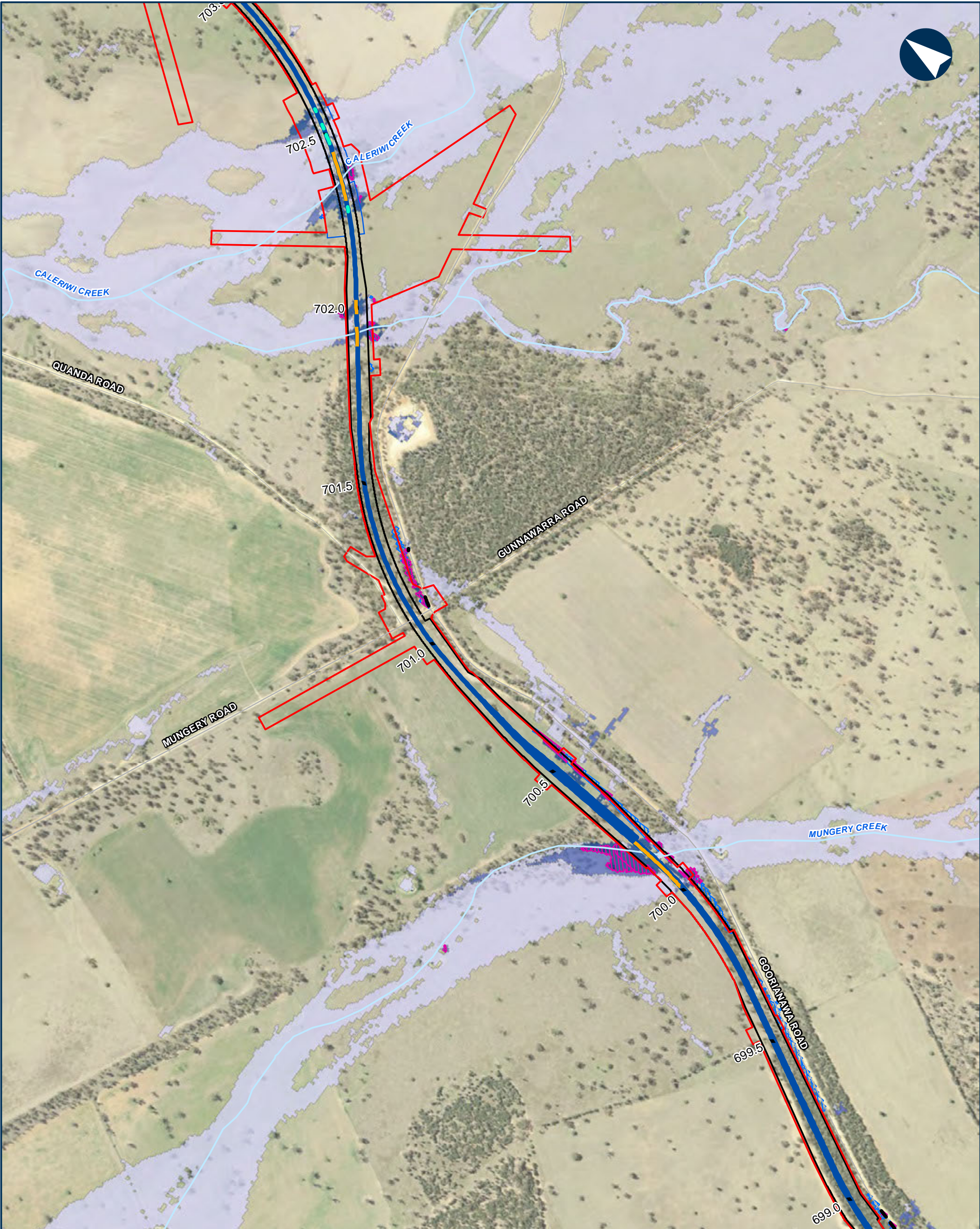
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.51

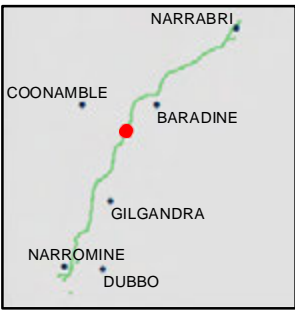
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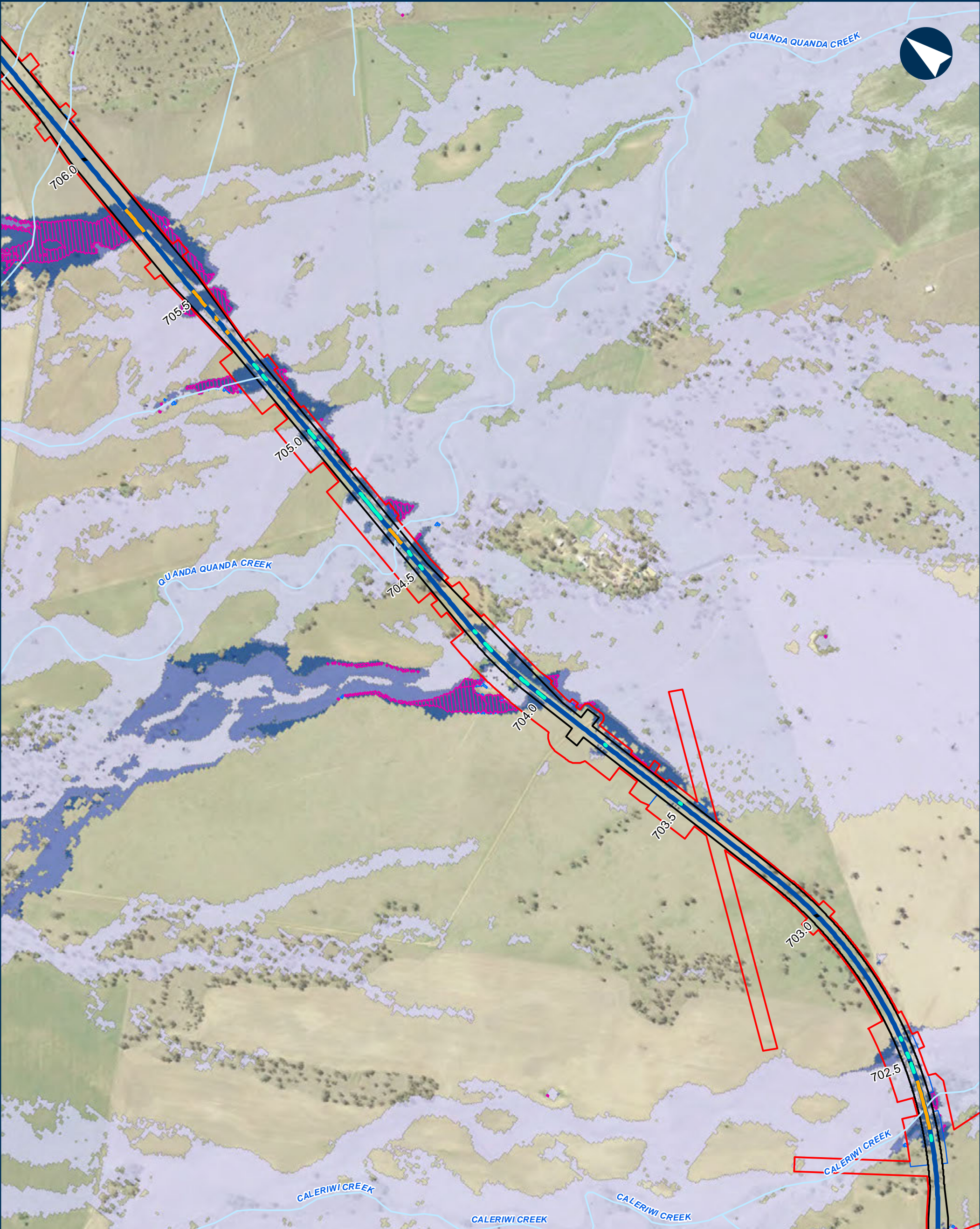
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

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- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.52

0 200 400 Metres

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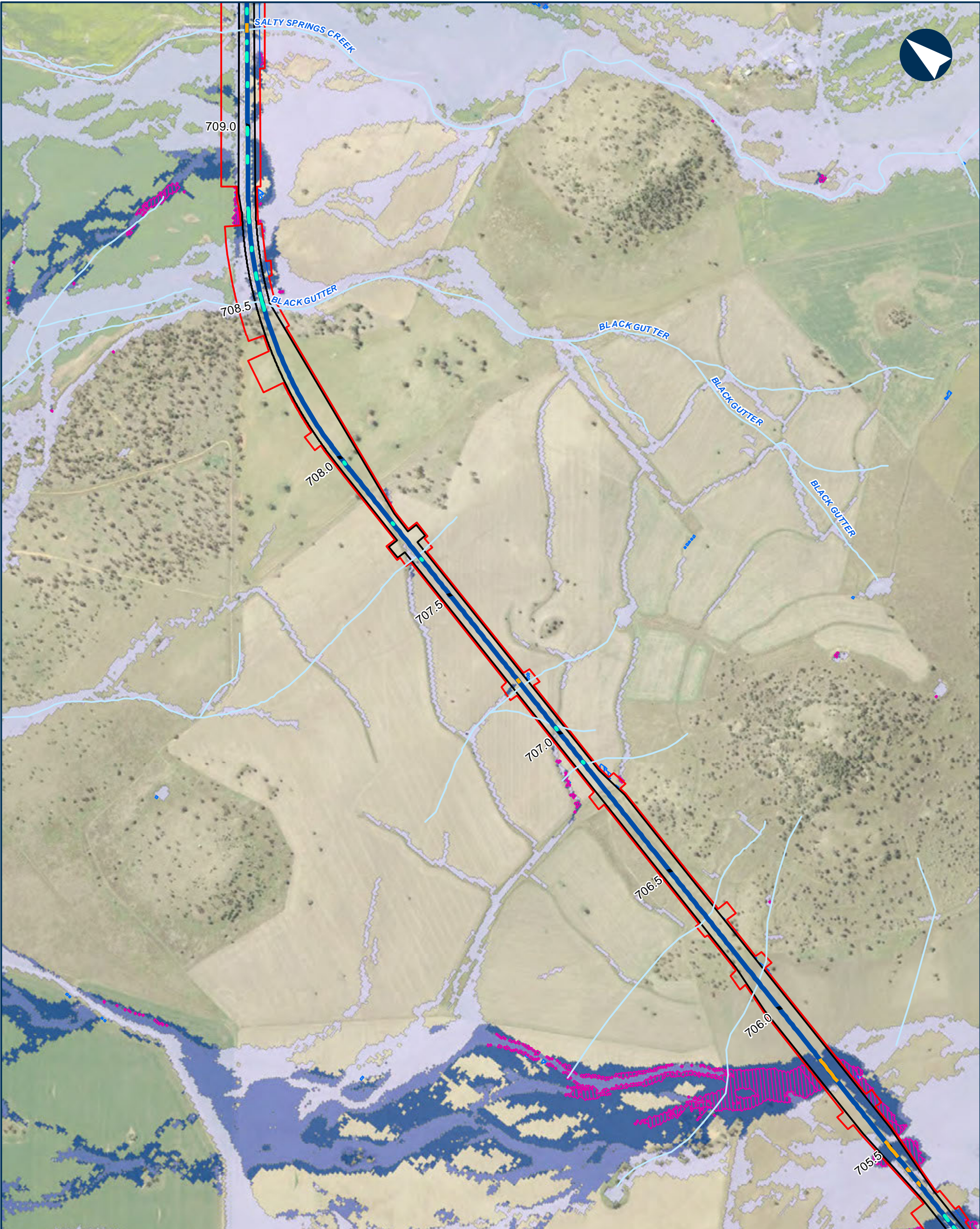
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
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- Alignment
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- The proposal
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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.53

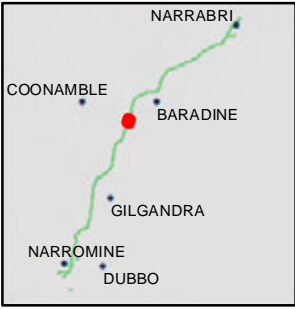
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Coordinate System: GDA 1994 MGA Zone 55

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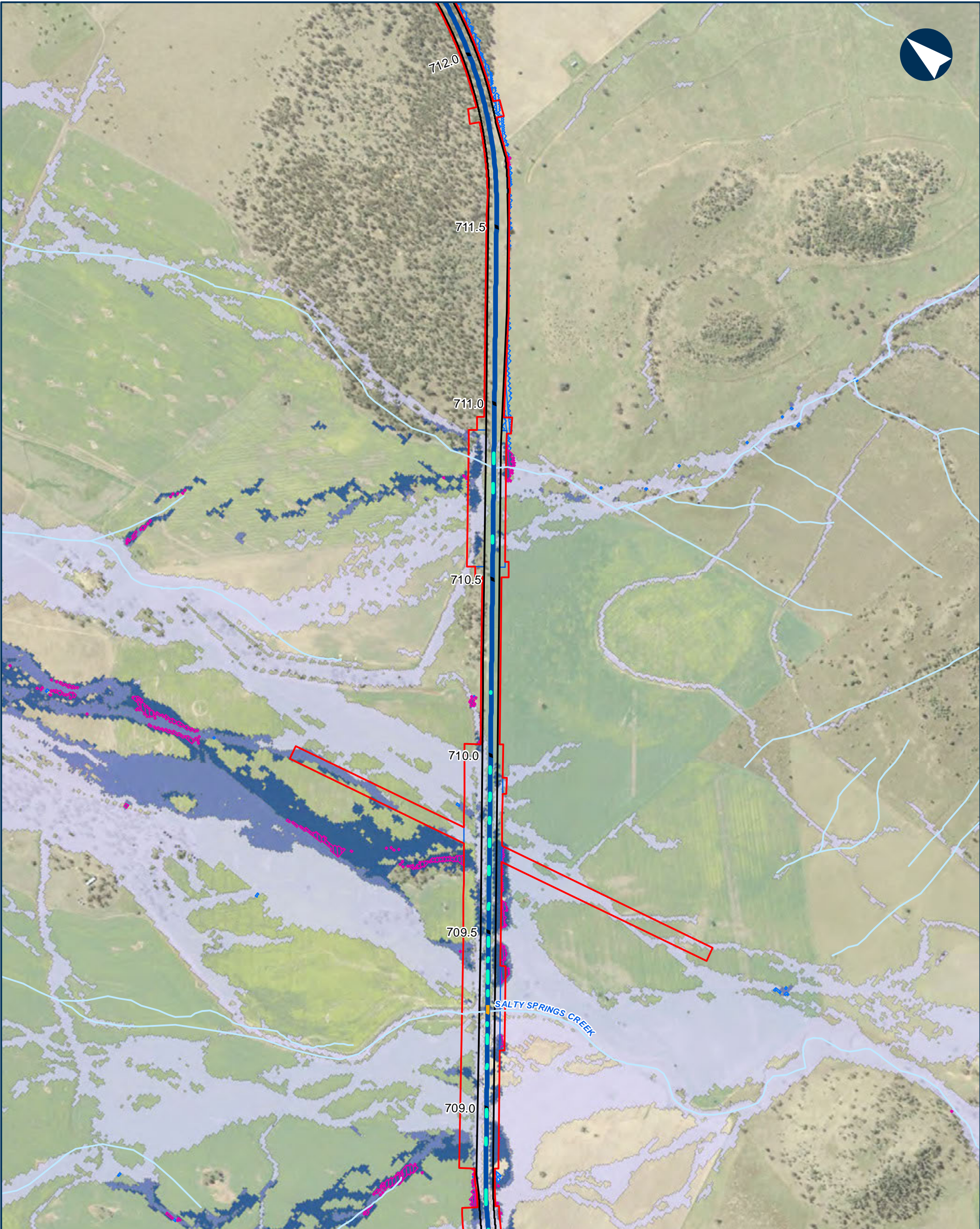
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.54

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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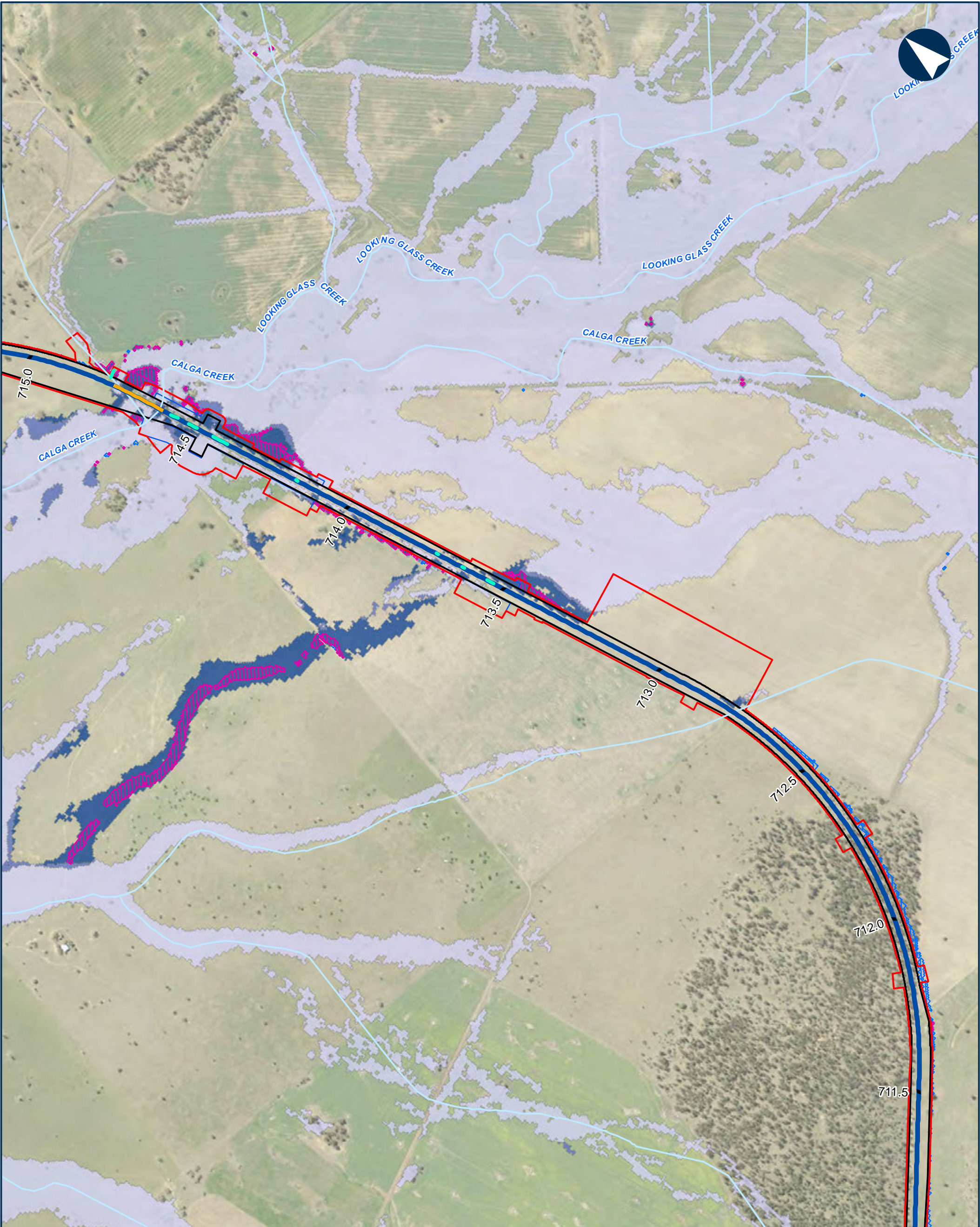
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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.55

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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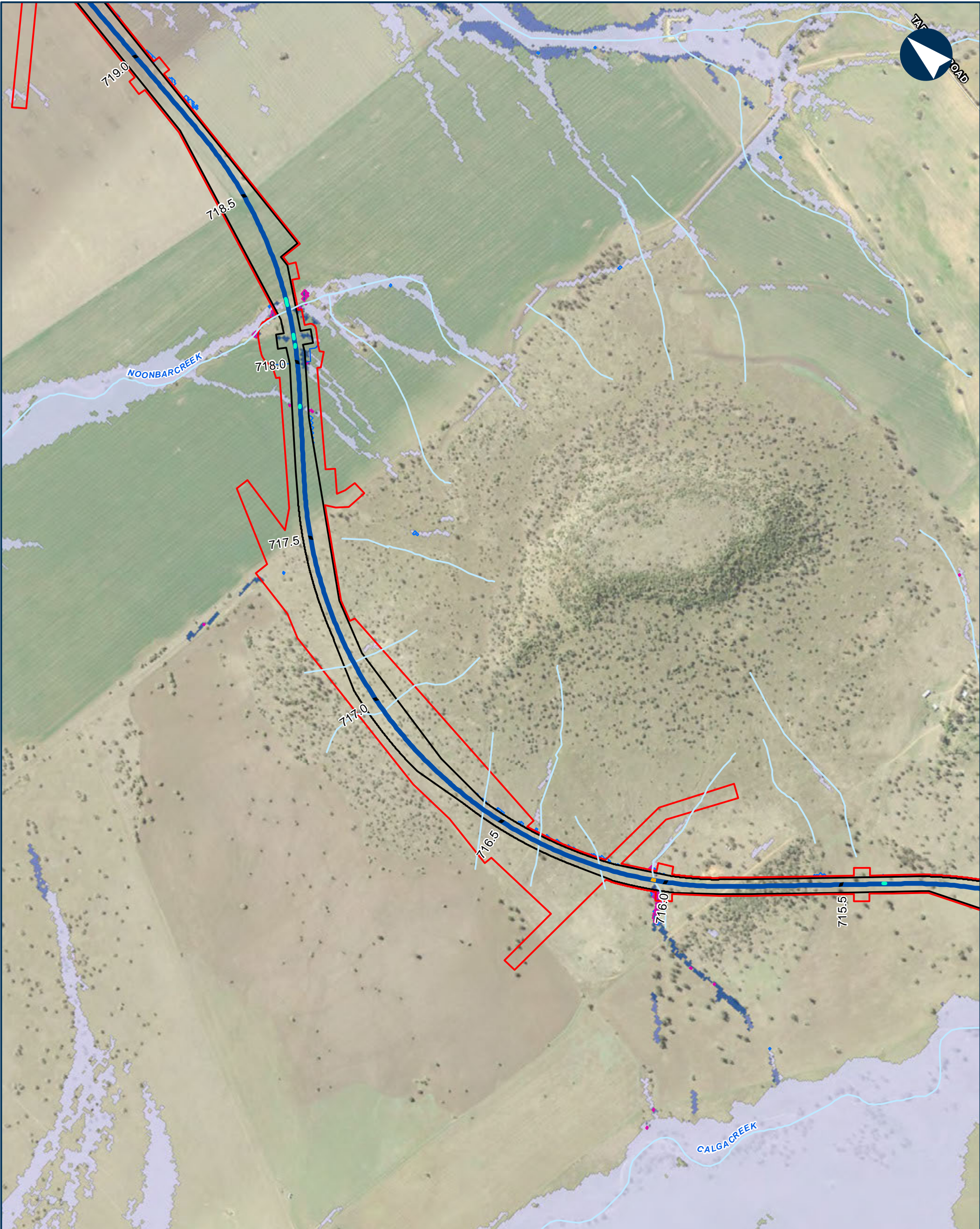
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.56

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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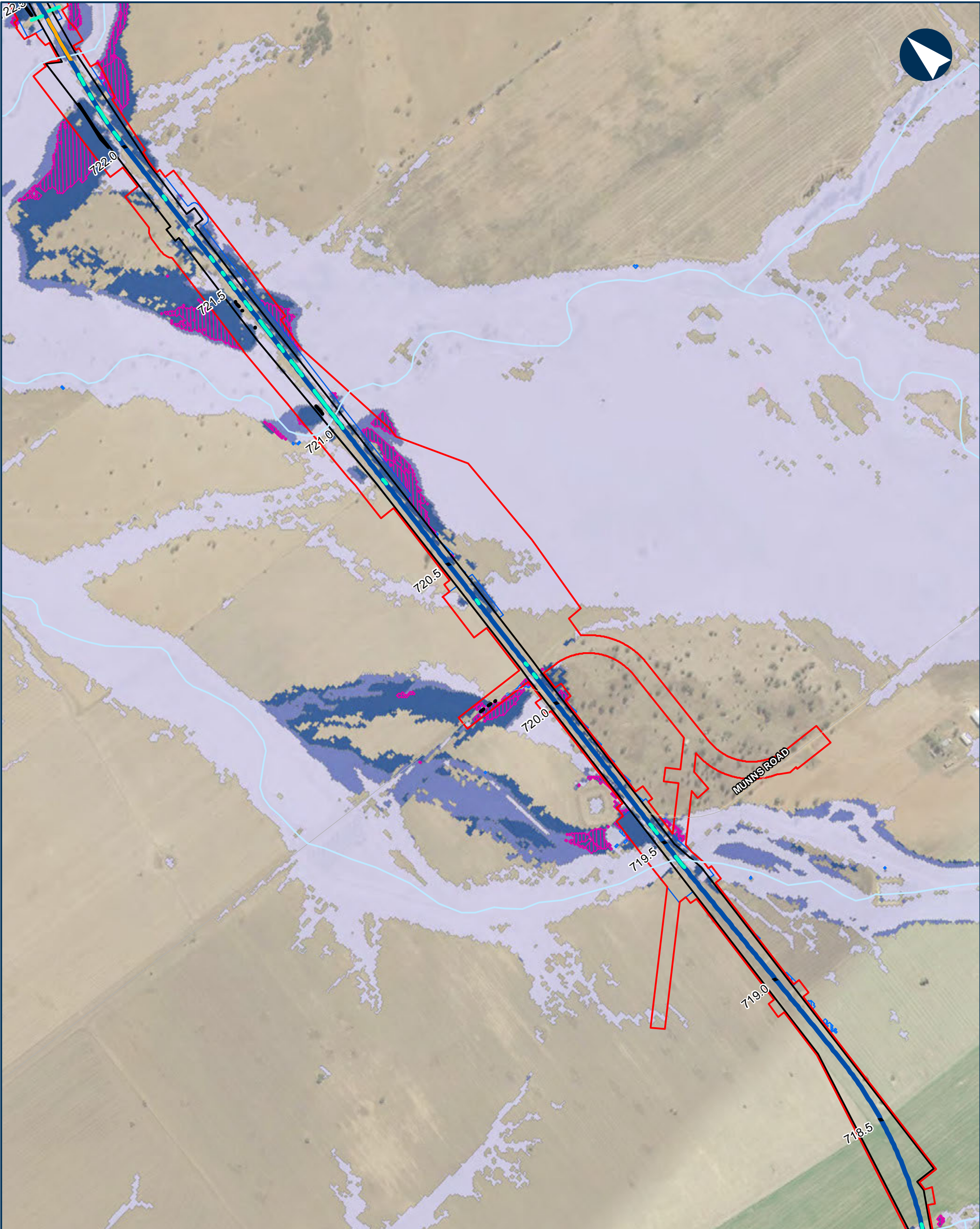
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.57

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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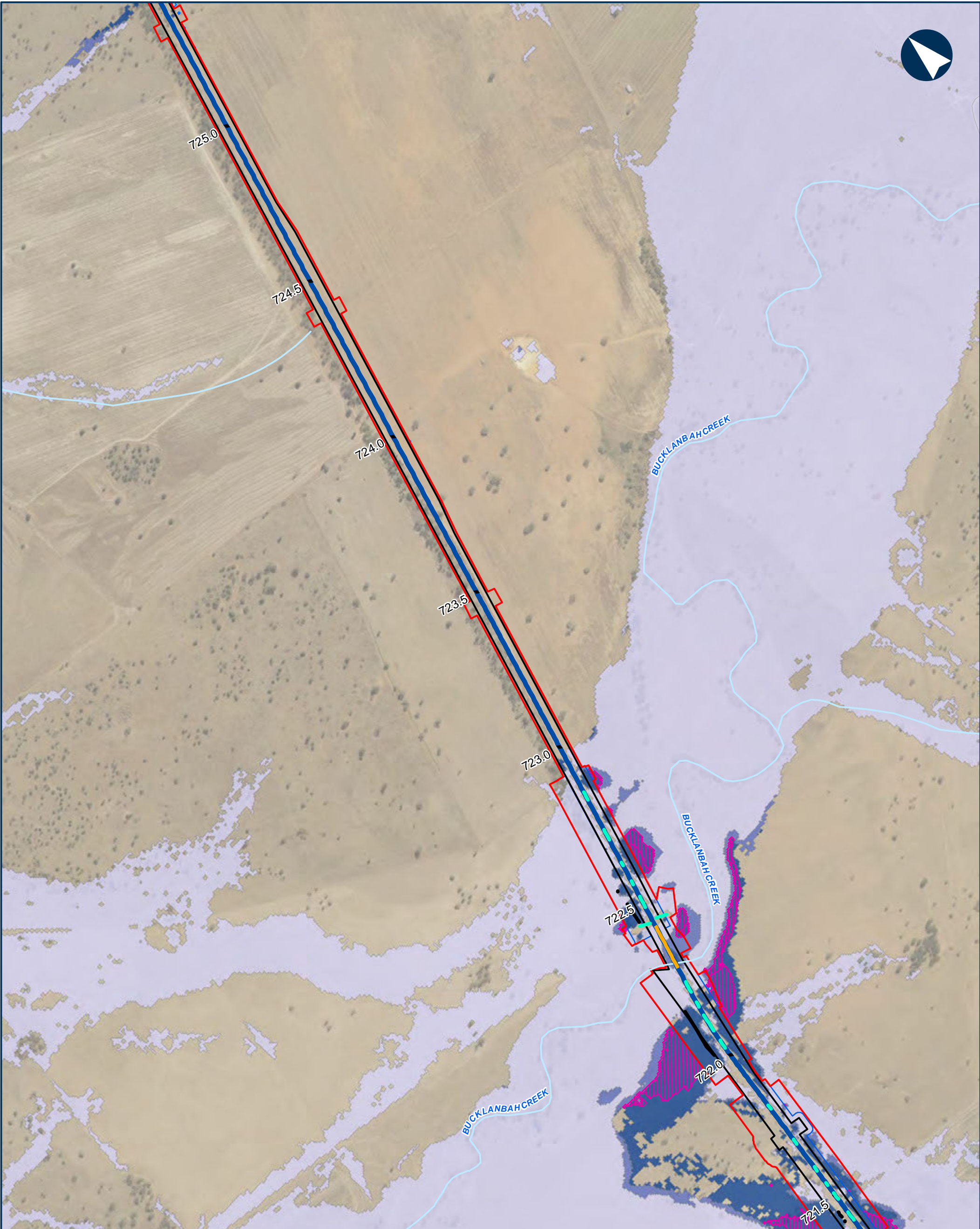
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road QDL departure
- Alignment
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.58

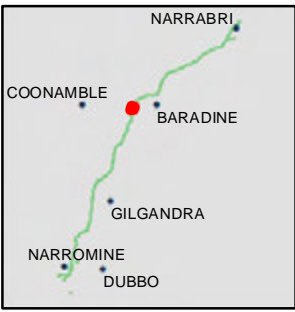
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Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.59

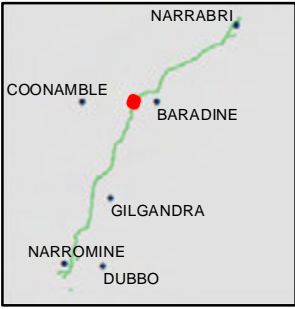
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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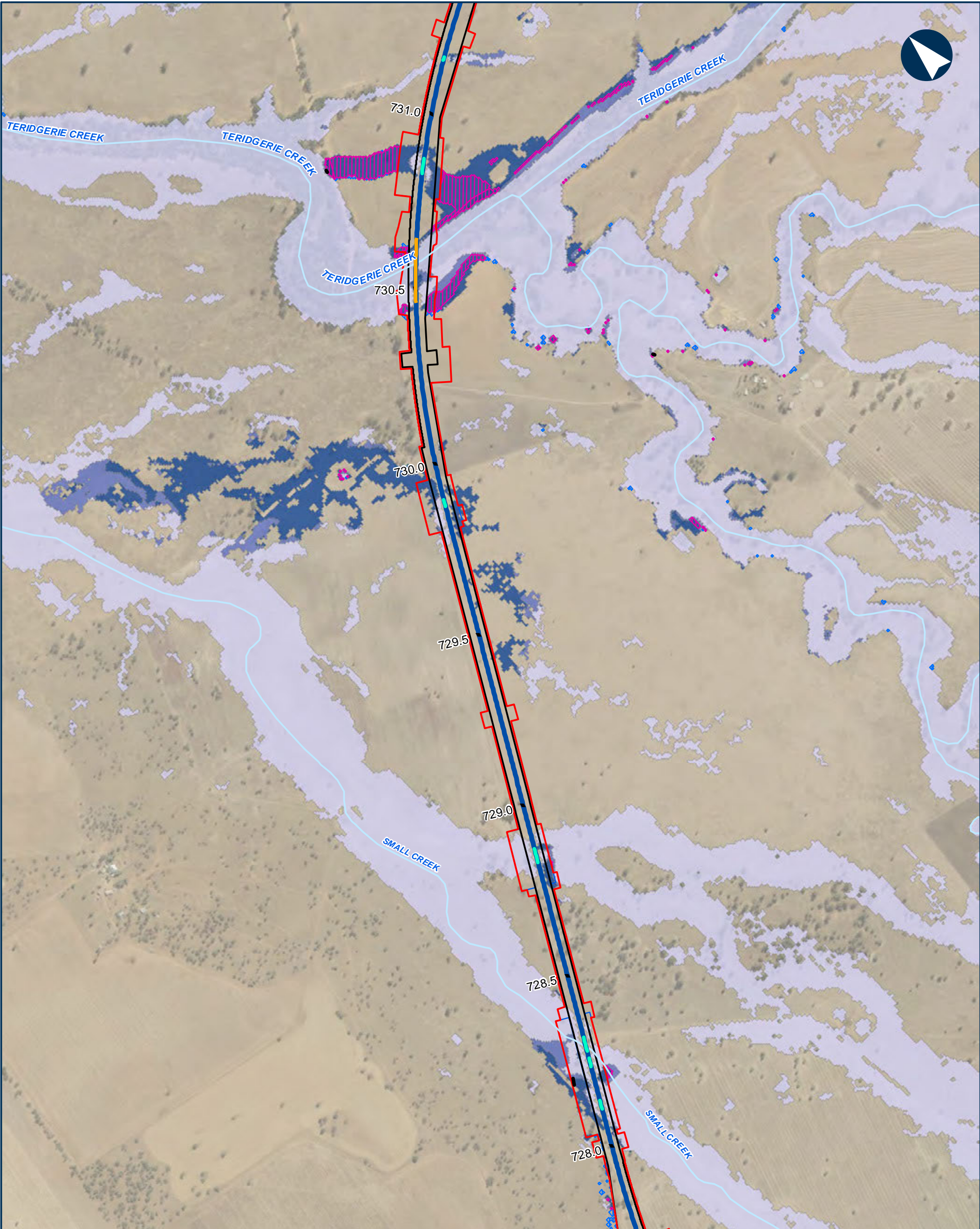
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.60

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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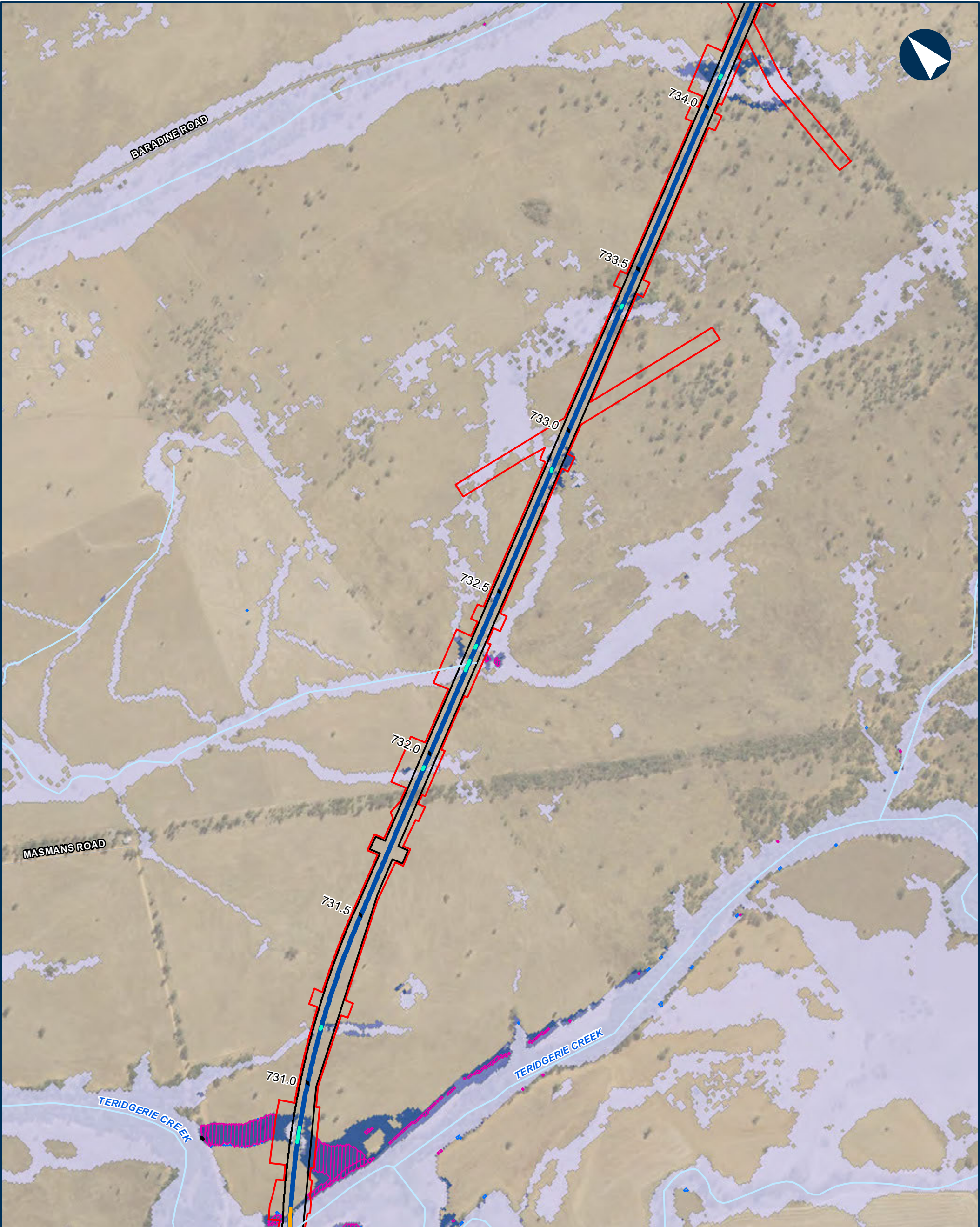
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.61

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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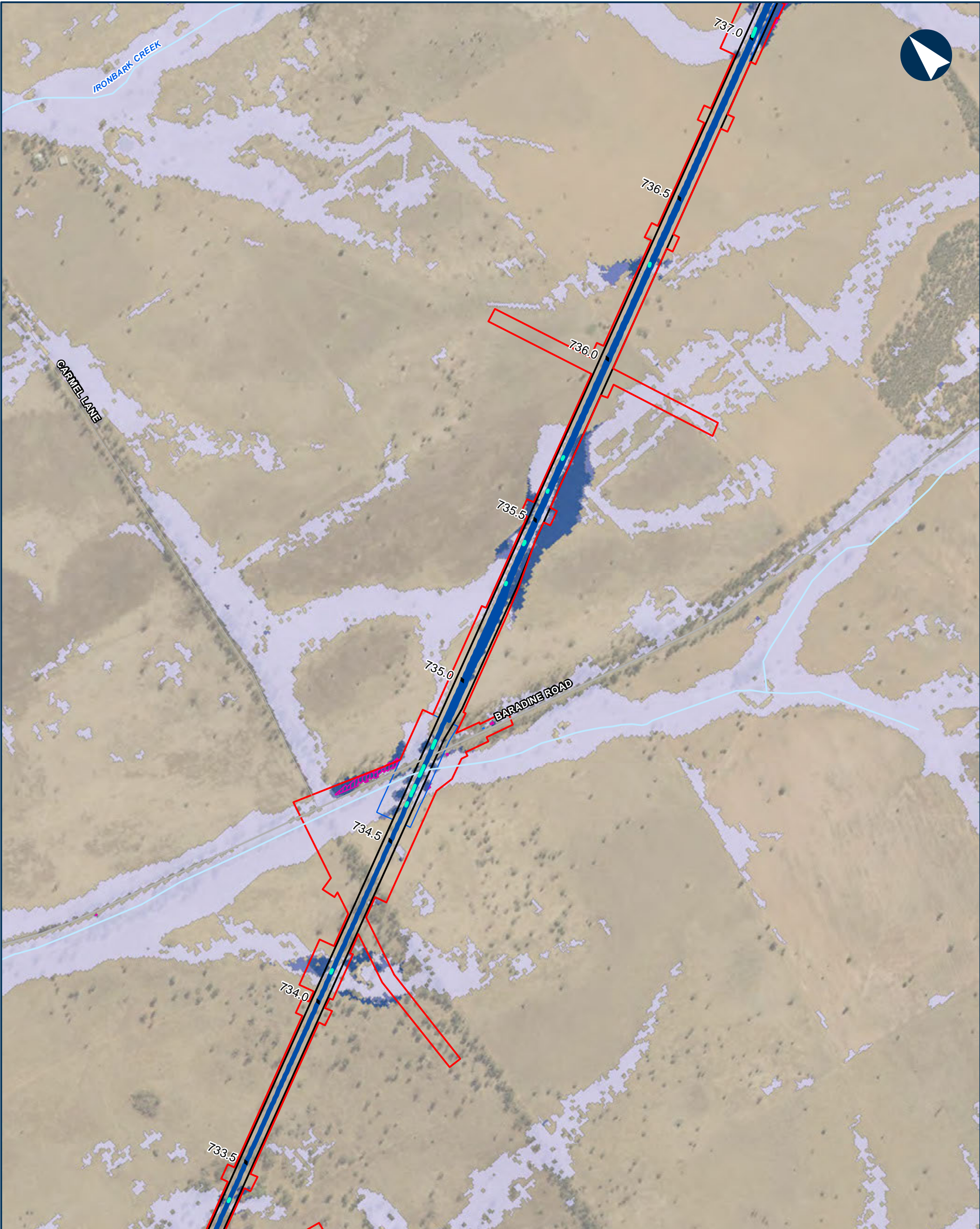
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road QDL departure
- Alignment
- Arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL **ARTC**

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.62

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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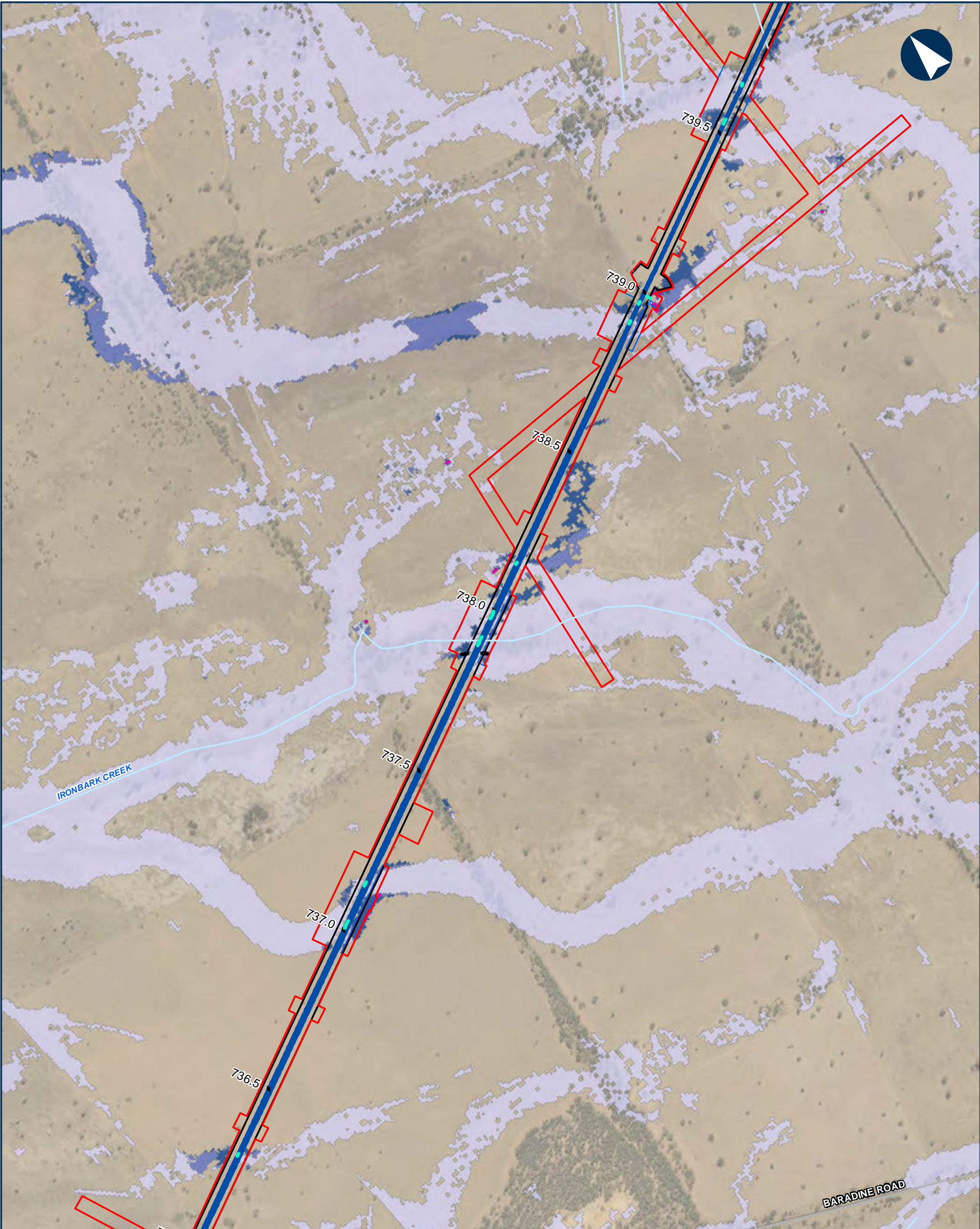
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.63

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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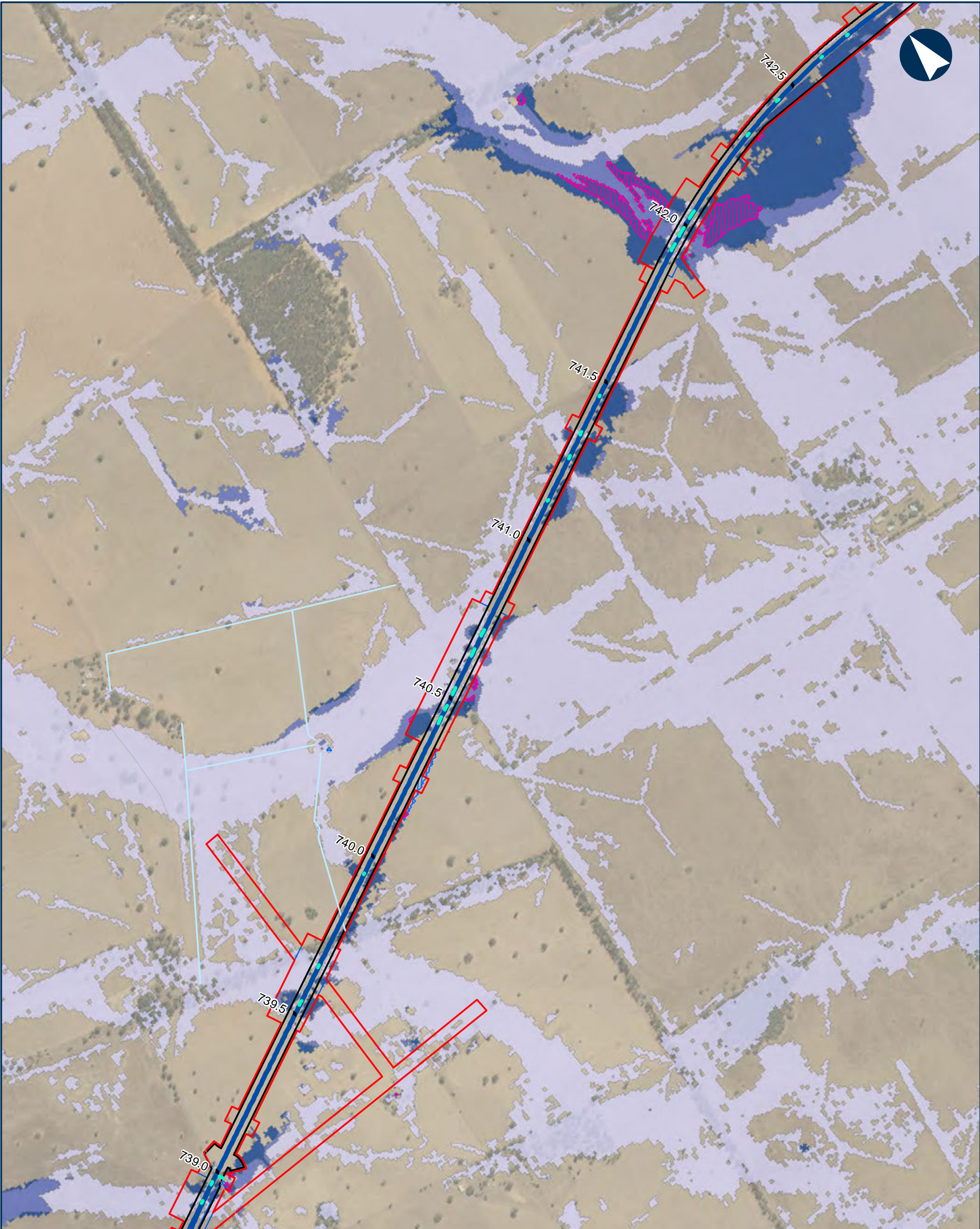
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL **ARTC**

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.64

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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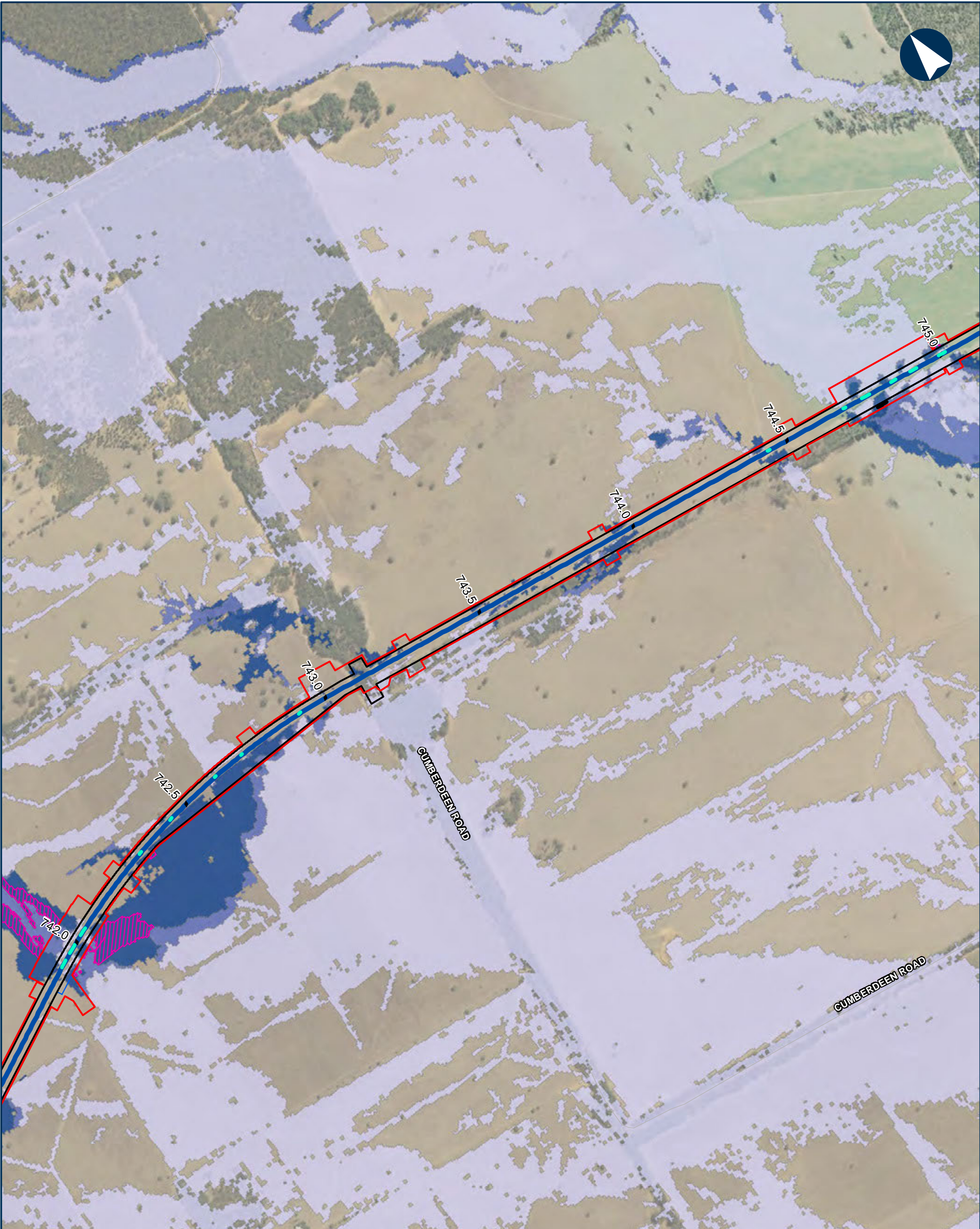
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL **ARTC**

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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.65

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Culvert

Road QDL departure

Alignment

Local road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

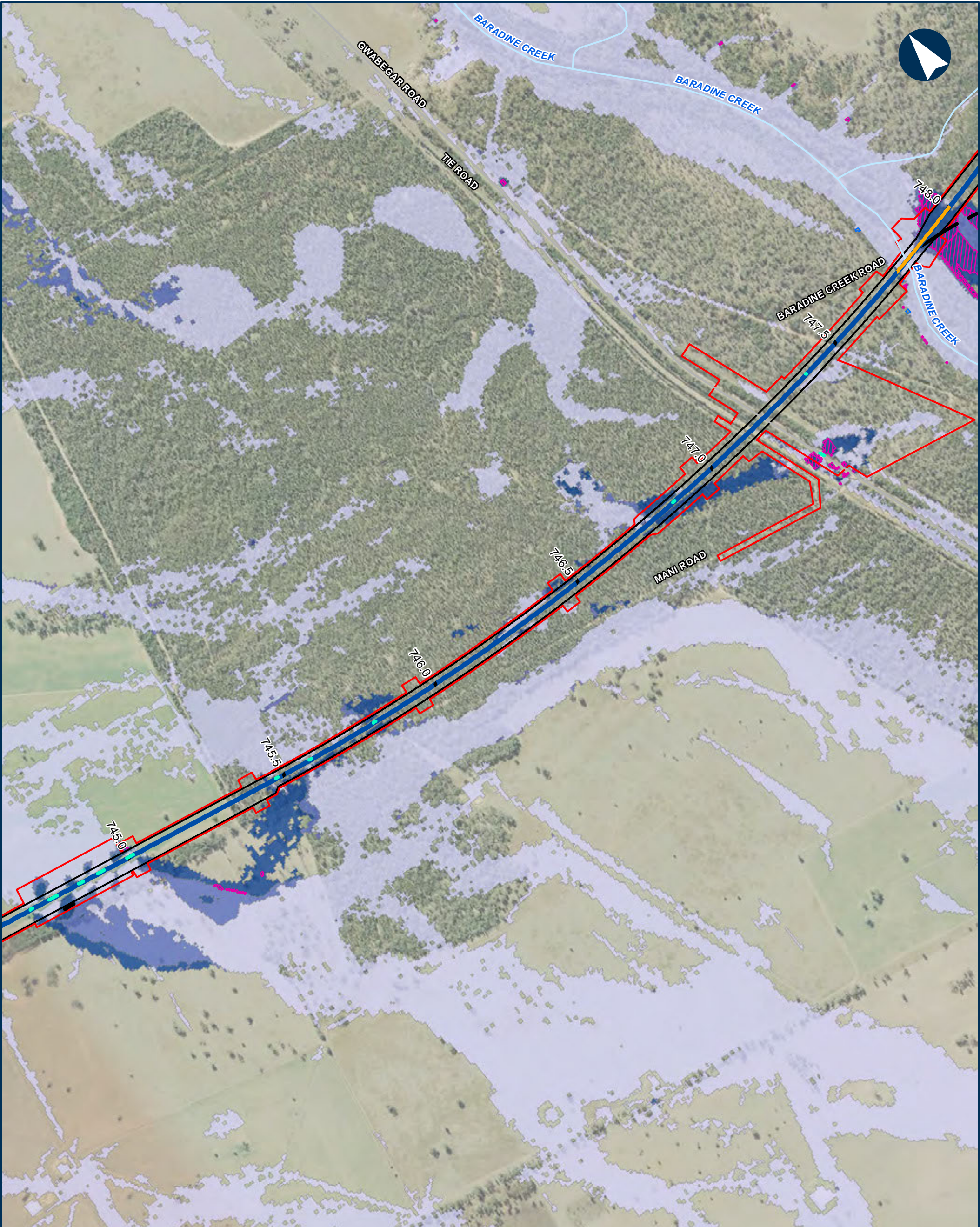
20%+

INLAND RAIL

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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.66

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Culvert

Road ODL departure

Alignment

Arterial road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

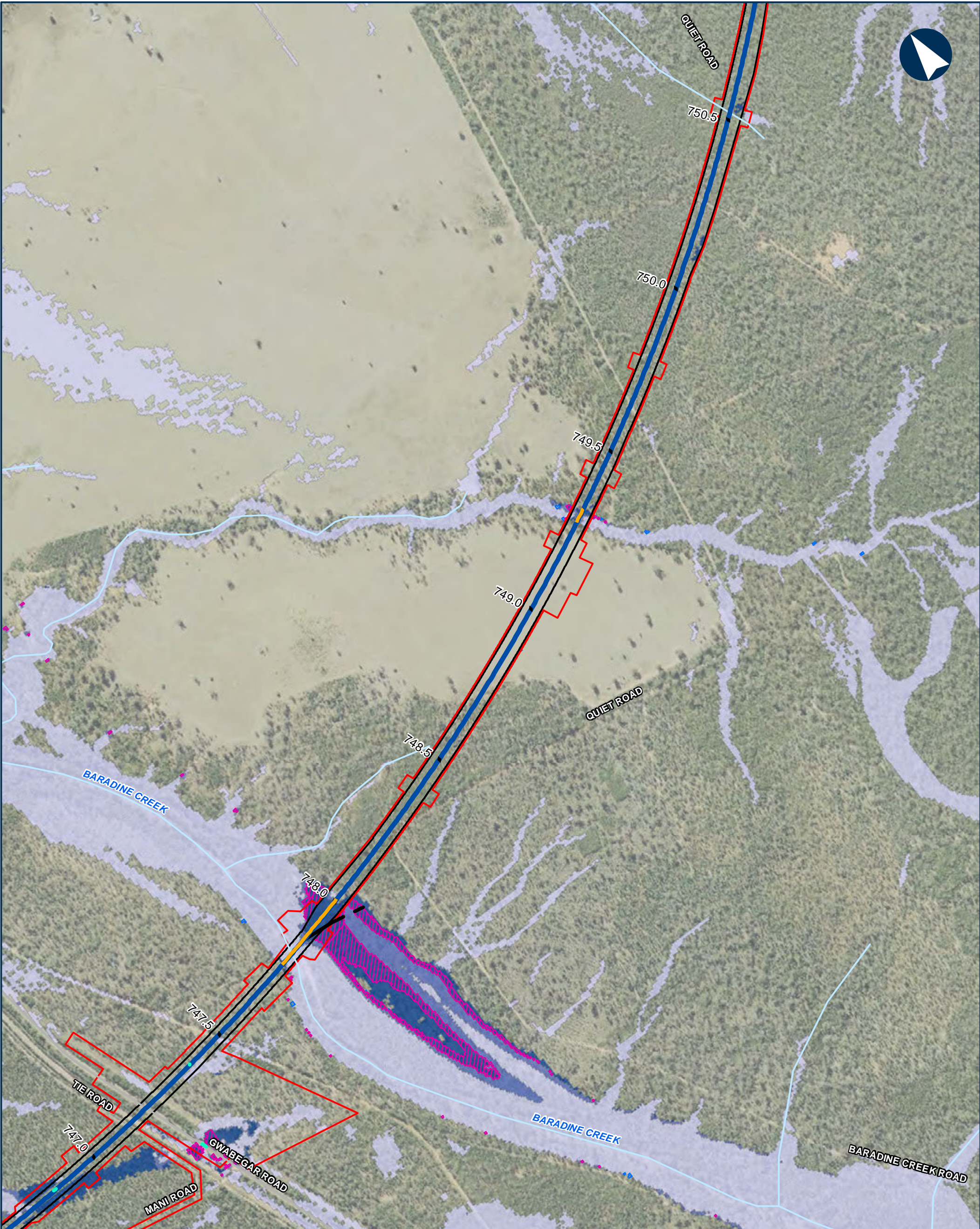
0% - 10%

10% - 20%

20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.67

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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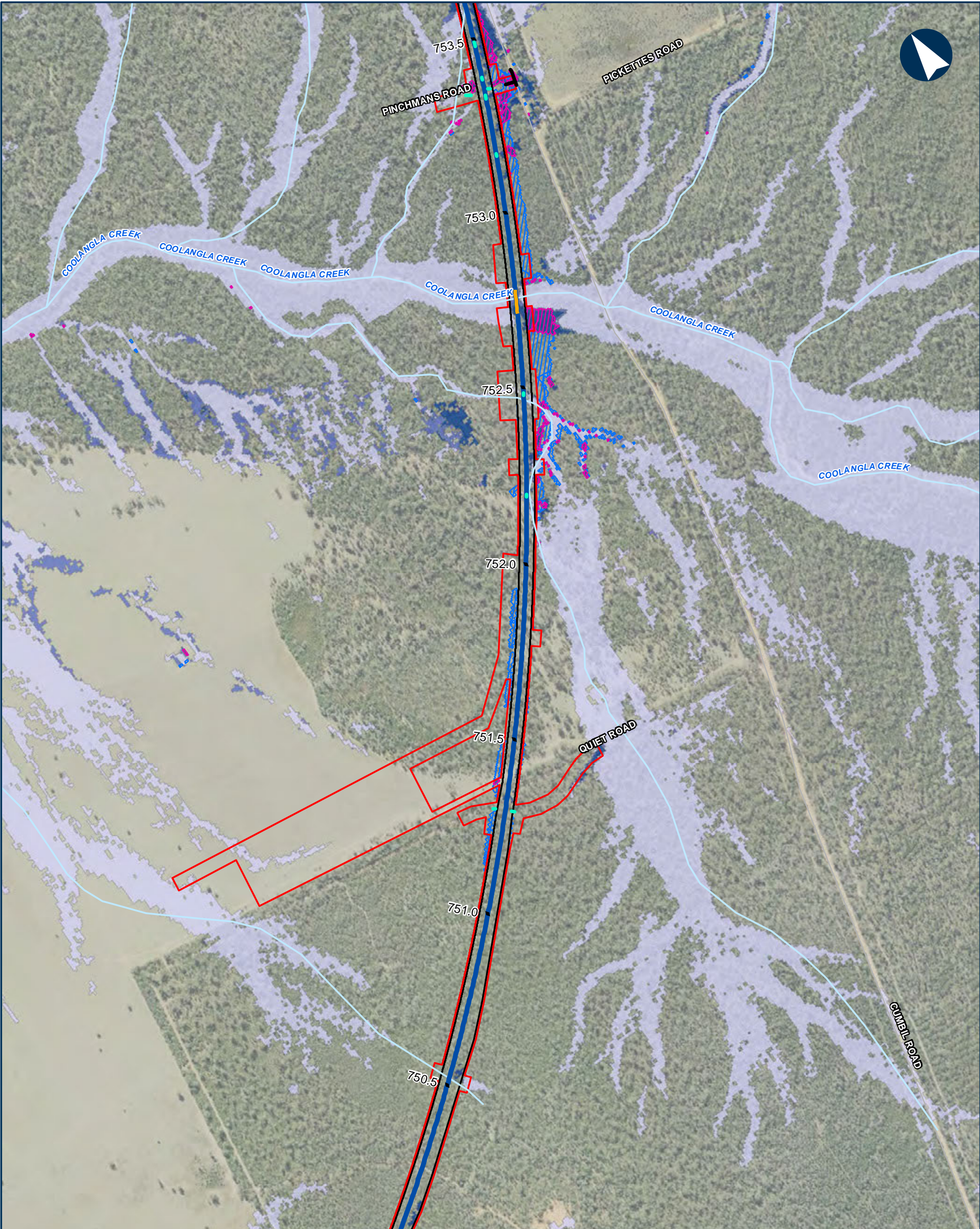
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Road QDL departure
 - Alignment
 - Arterial road
 - Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.68

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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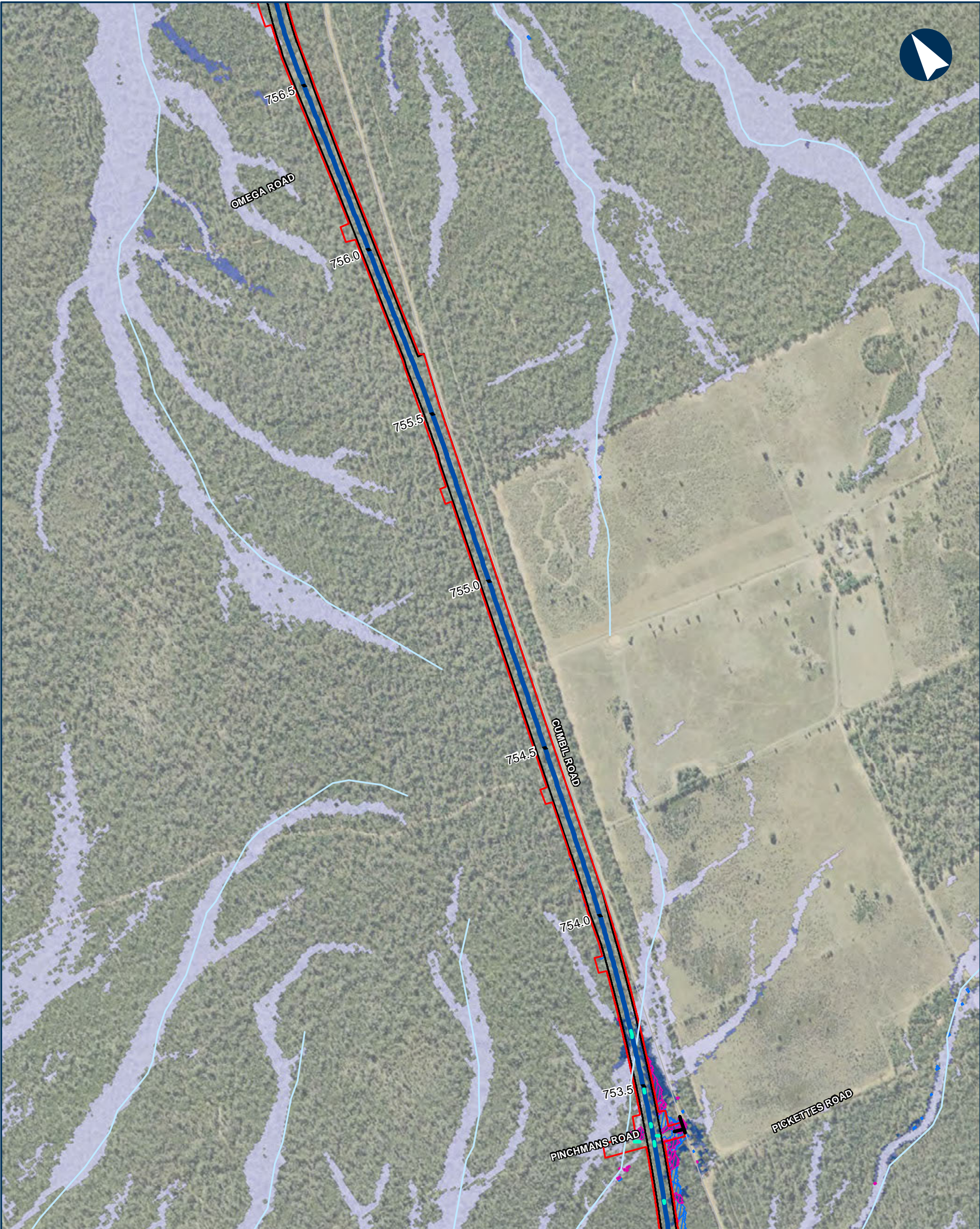
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Road ODL departure
 - Alignment
 - Sub arterial road
 - Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.69

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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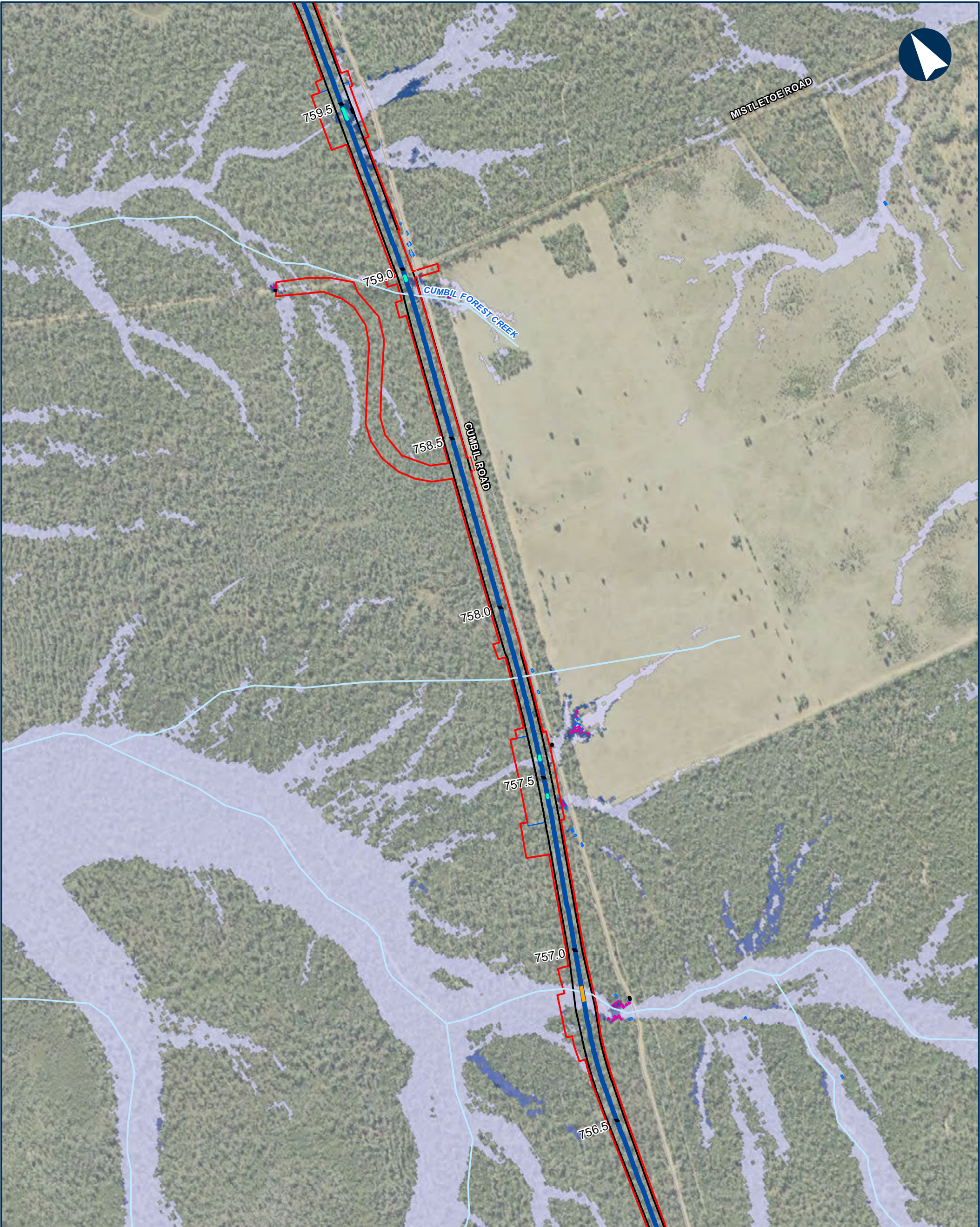
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
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- Percentage Change
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- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.70

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge

Culvert

Road ODL departure

Alignment

Sub arterial road

Local road

Watercourse
- The proposal

Drainage Control Area

Rail Corridor

Area of departure

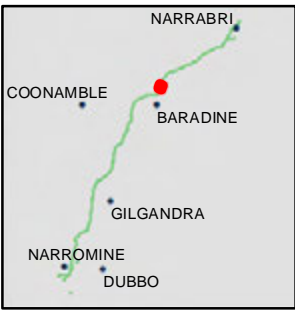
Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change

0% - 10%

10% - 20%

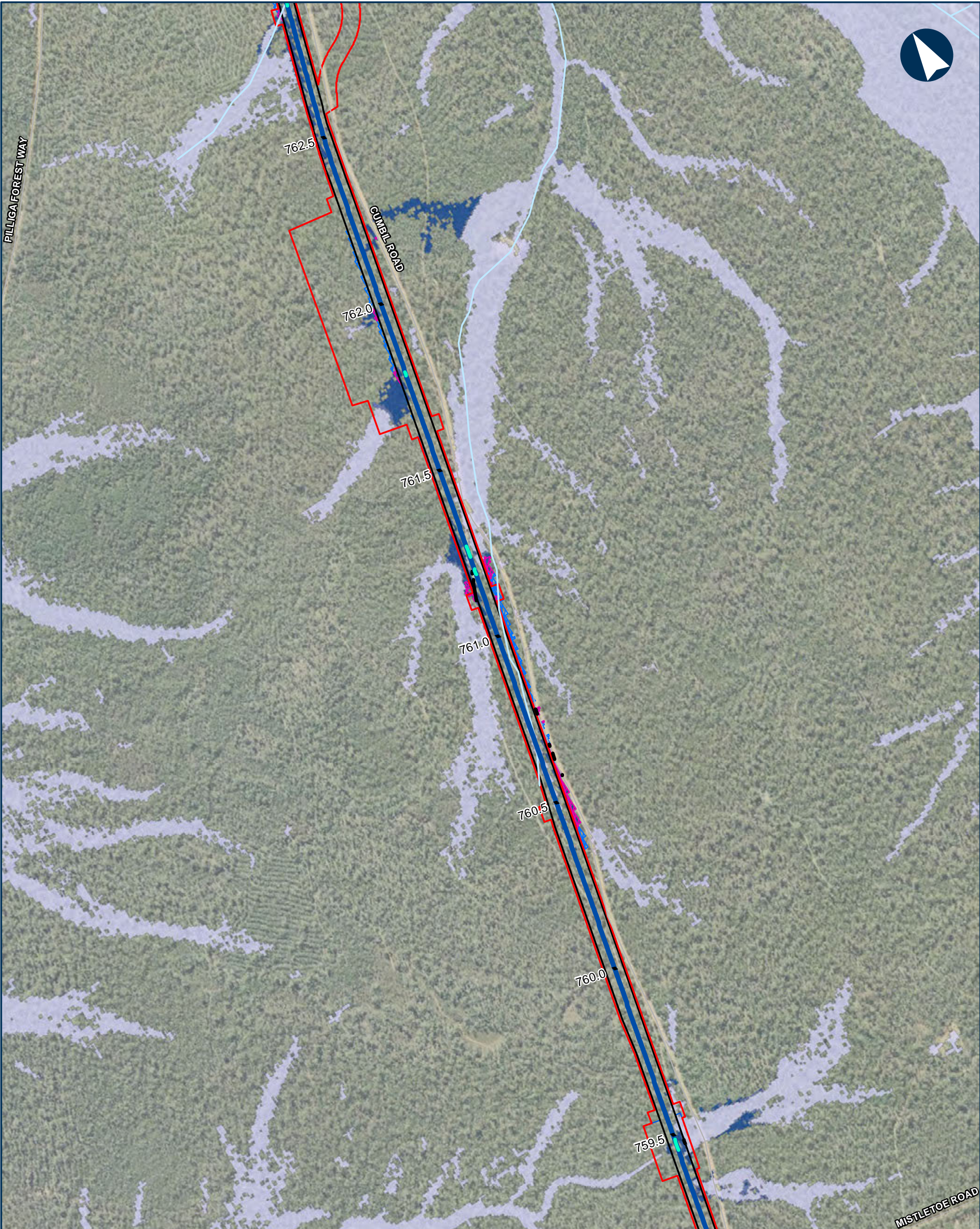
20%+



INLAND RAIL

ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.71

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.72

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Alignment
 - Sub arterial road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.73

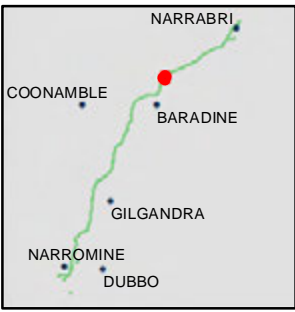
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Coordinate System: GDA 1994 MGA Zone 55

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Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.74

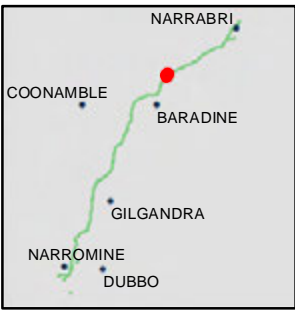
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Coordinate System: GDA 1994 MGA Zone 55

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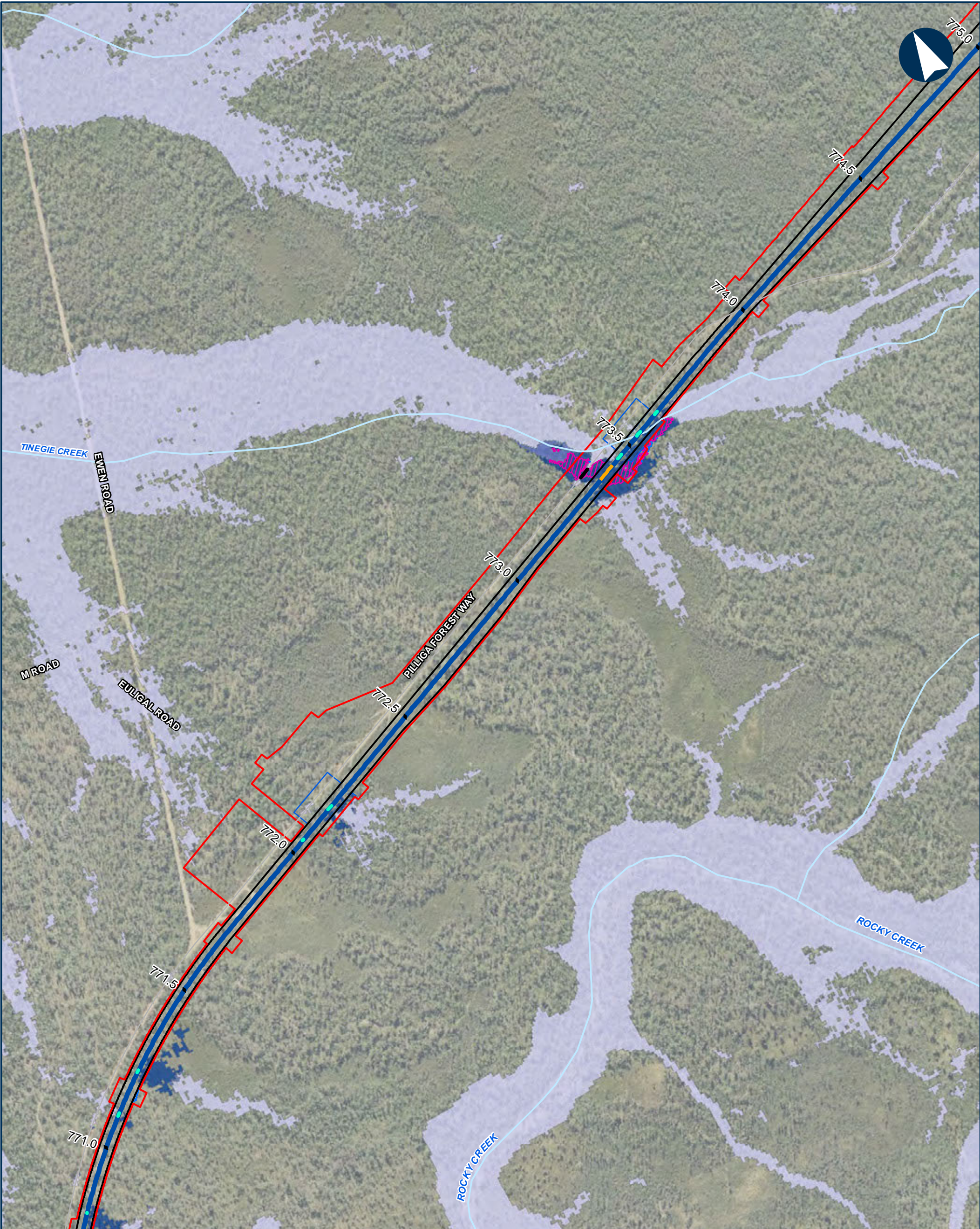
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL **ARTC**

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.75

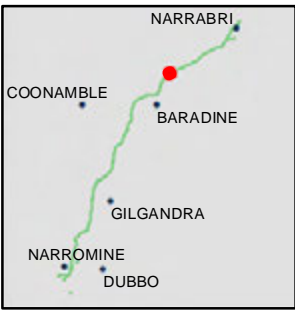
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Coordinate System: GDA 1994 MGA Zone 55

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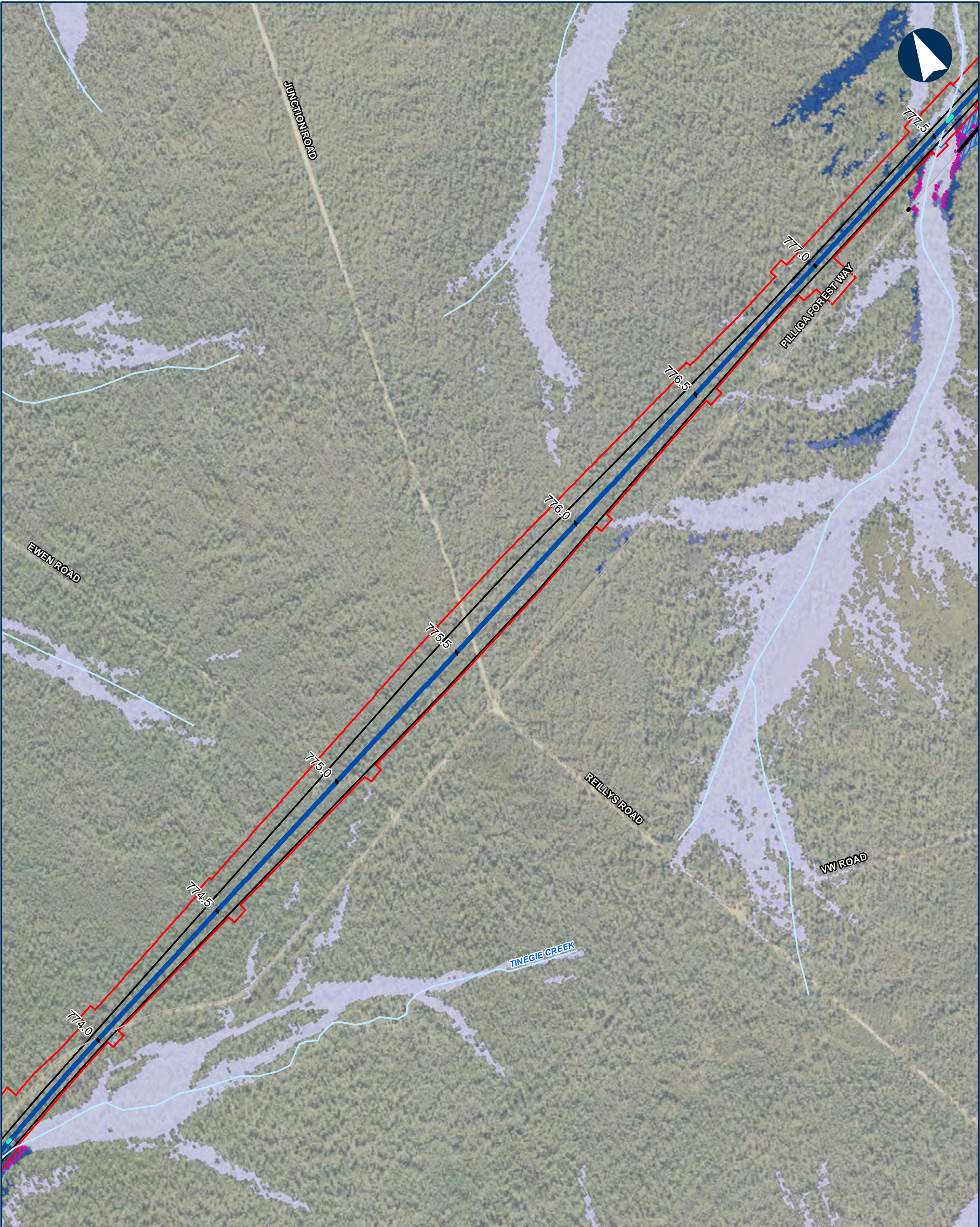
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.76

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Author: JacobsGHD

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3

Scale: 1:10,000

Culvert

Road QDL departure

Alignment

Sub arterial road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

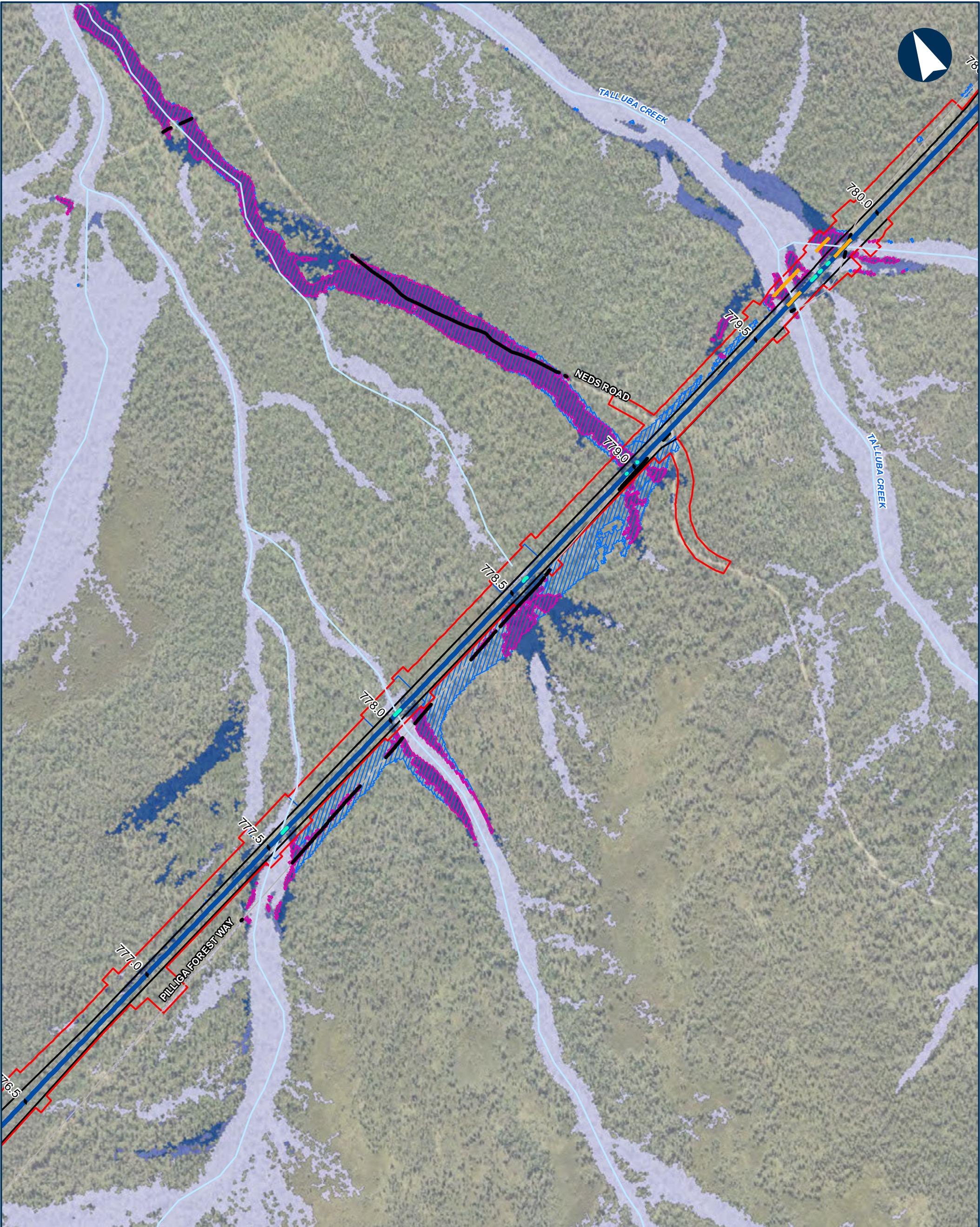
20%+

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP090_QDL_Hazard_1pcBlockage_revD.mxd



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.77

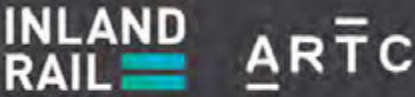
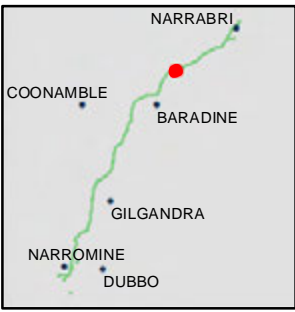
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

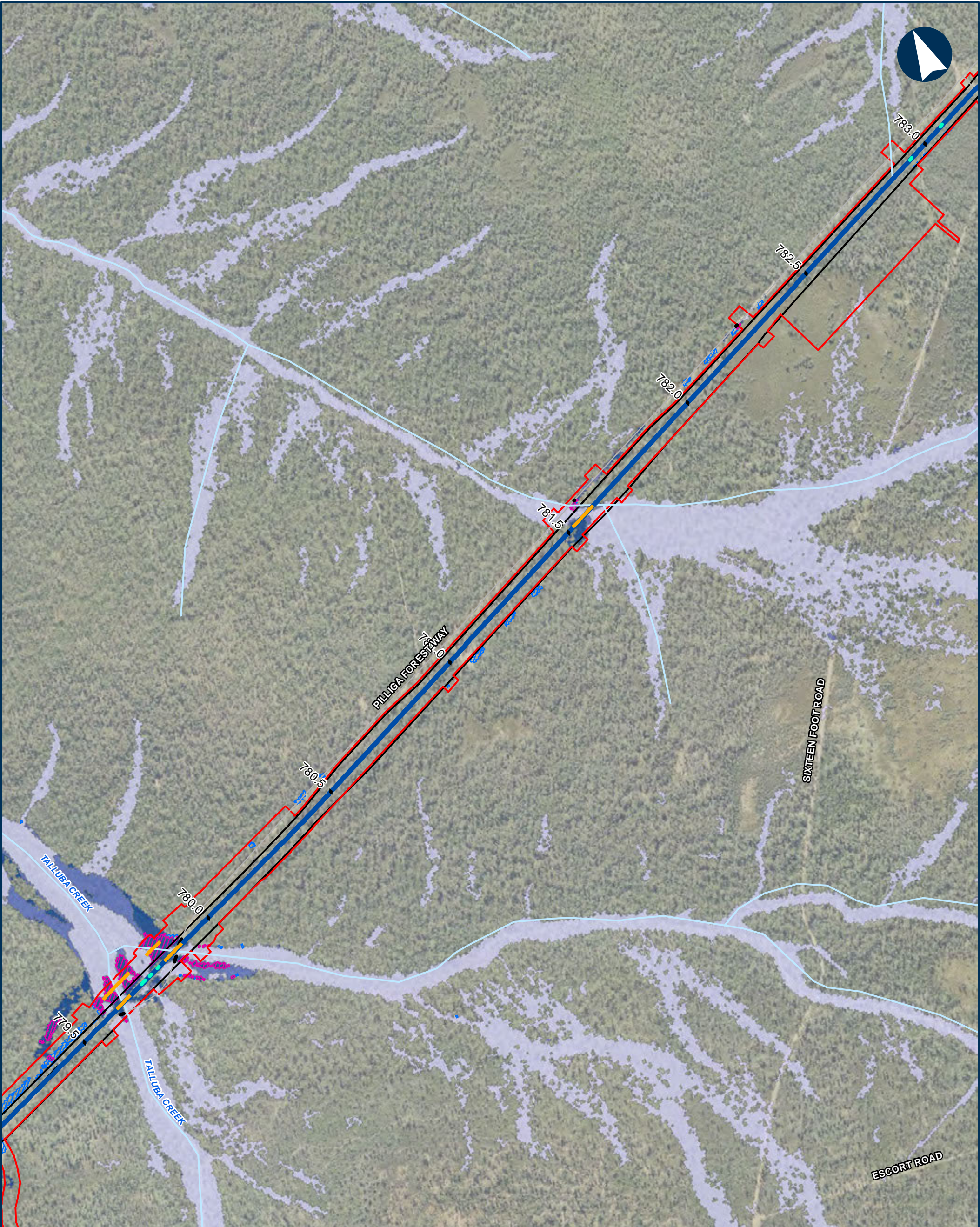
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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.78

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Author: JacobsGHD

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3

Scale: 1:10,000

Bridge

Culvert

Road QDL departure

Alignment

Sub arterial road

Watercourse

The proposal

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

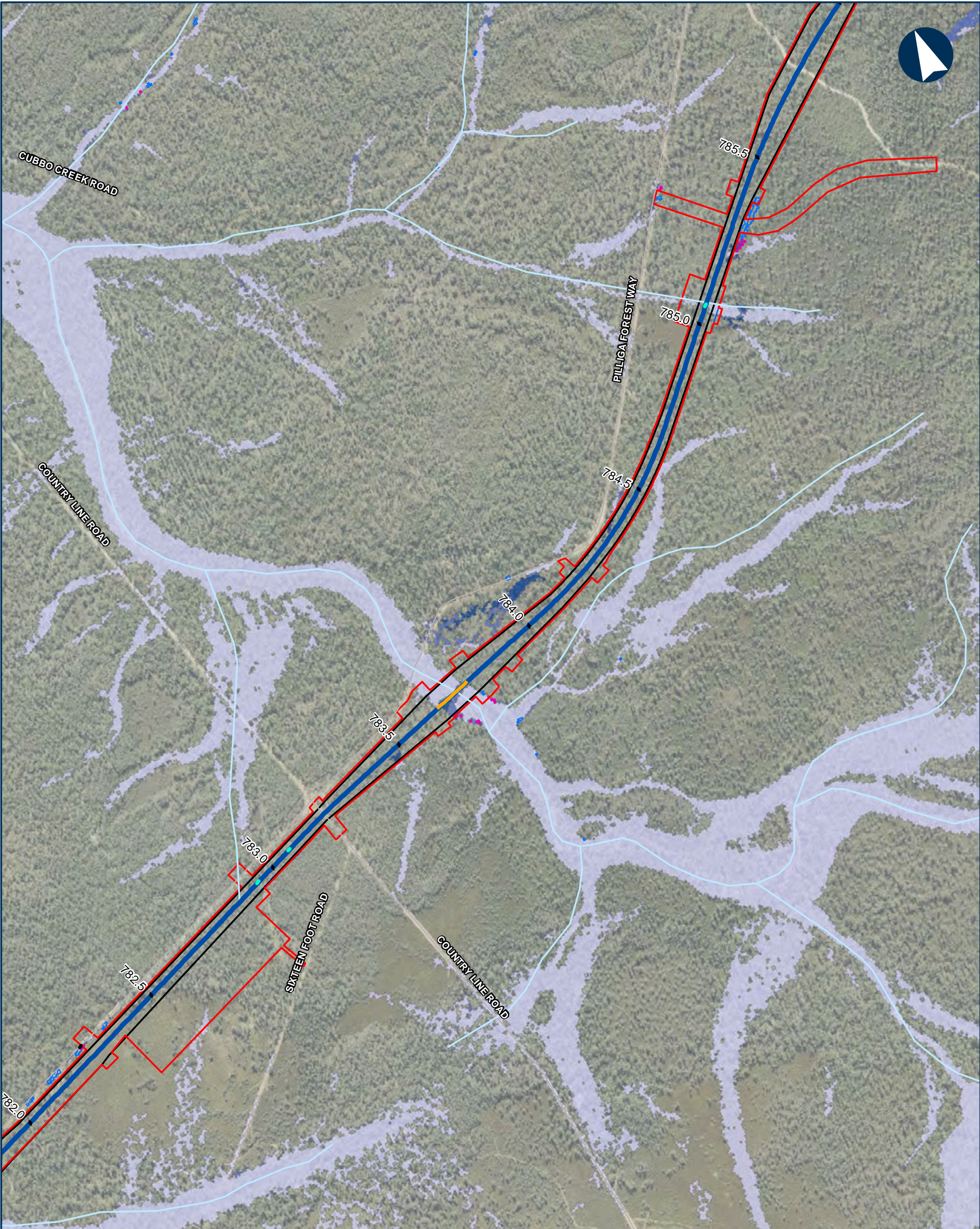
0% - 10%

10% - 20%

20%+

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP090_QDL_Hazard_1pcBlockage_revD.mxd



NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.79

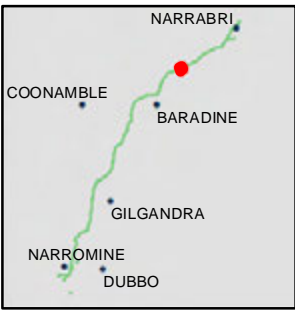
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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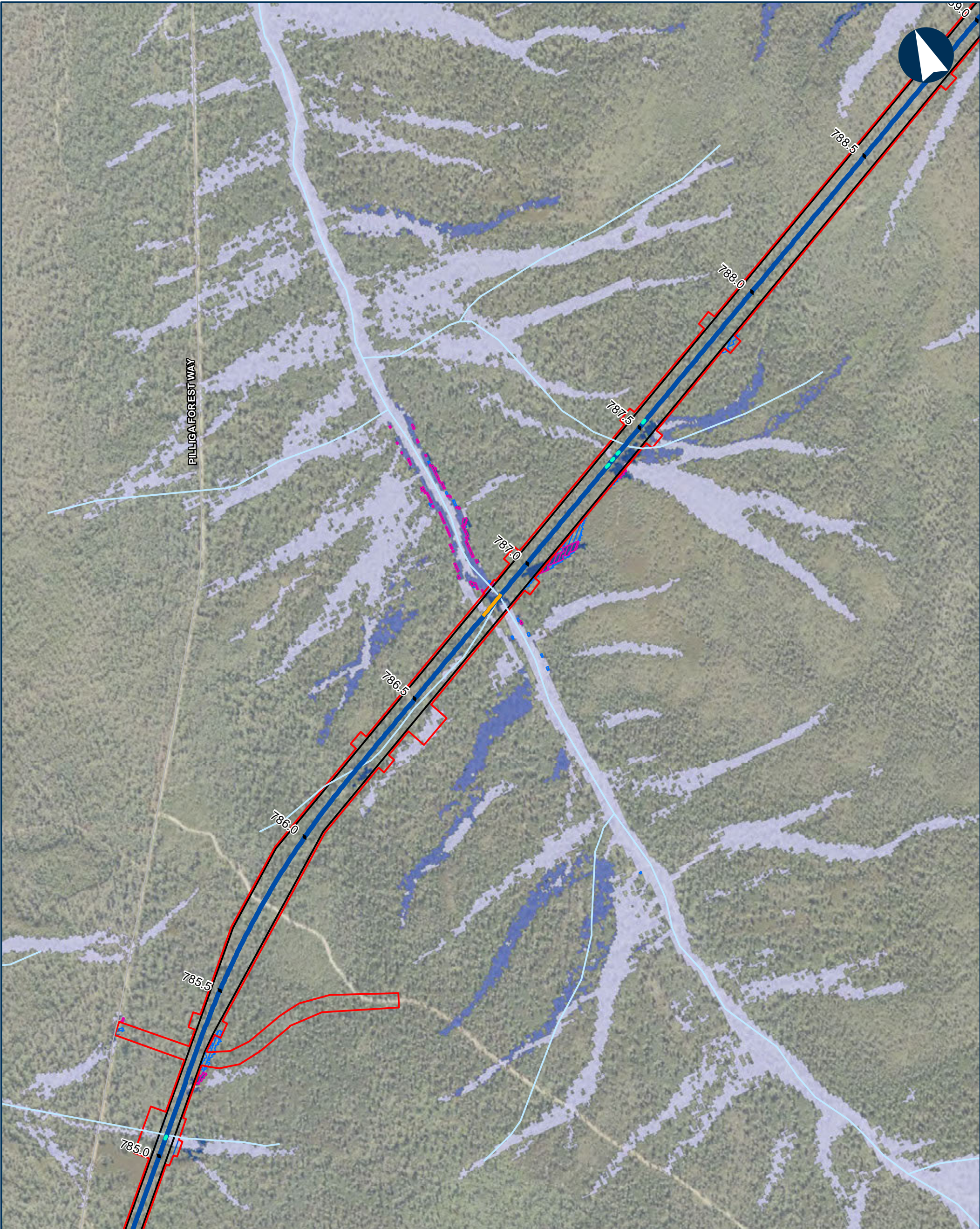
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.80

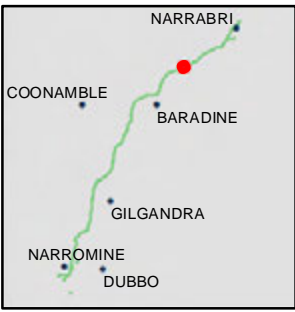
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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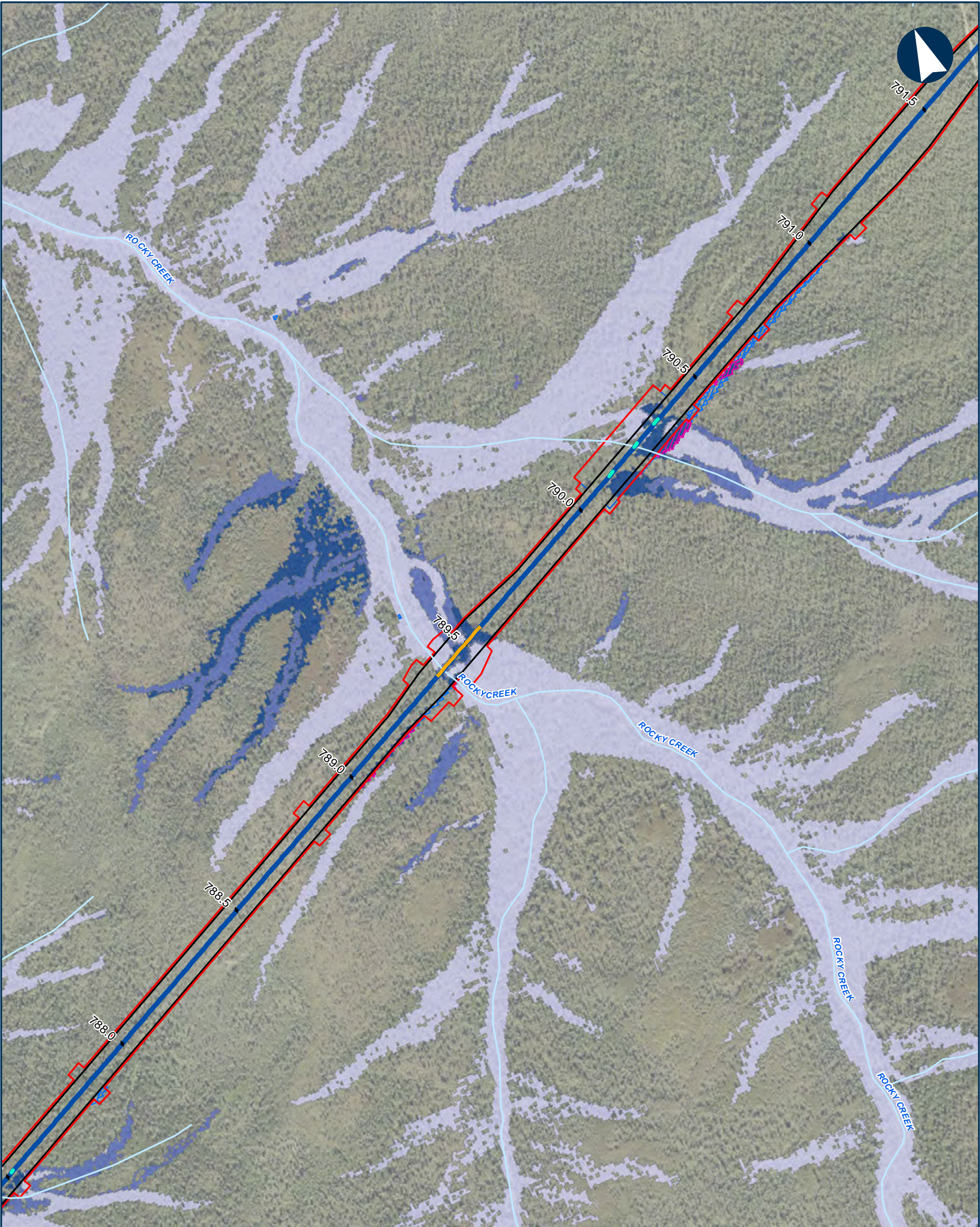
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.81

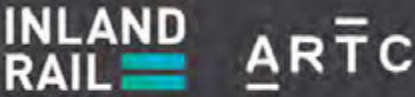
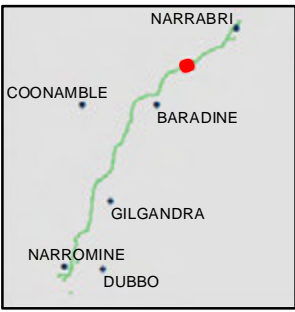
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Coordinate System: GDA 1994 MGA Zone 55

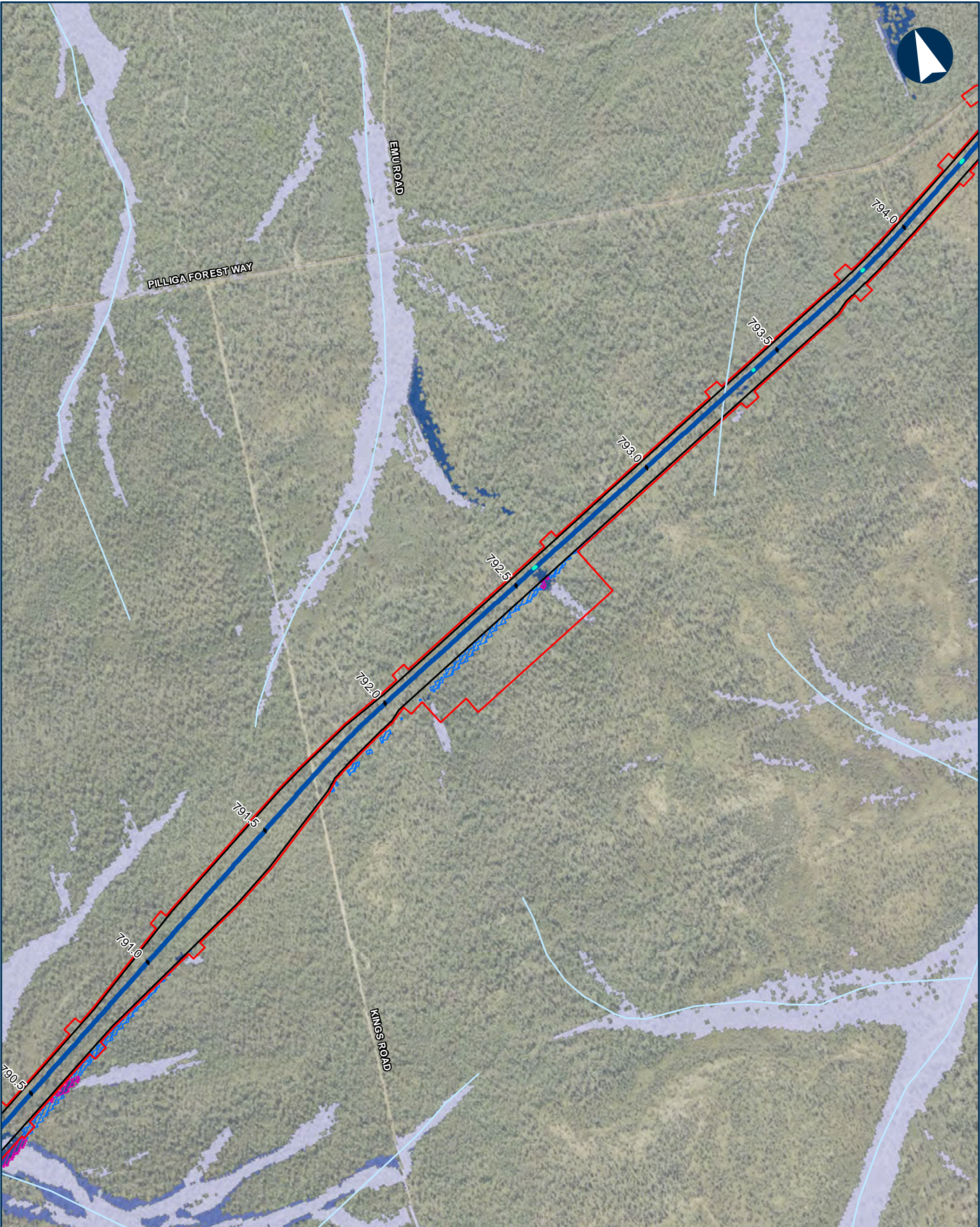
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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.82

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3
Scale: 1:10,000

Culvert

Alignment

Sub arterial road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

20%+

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

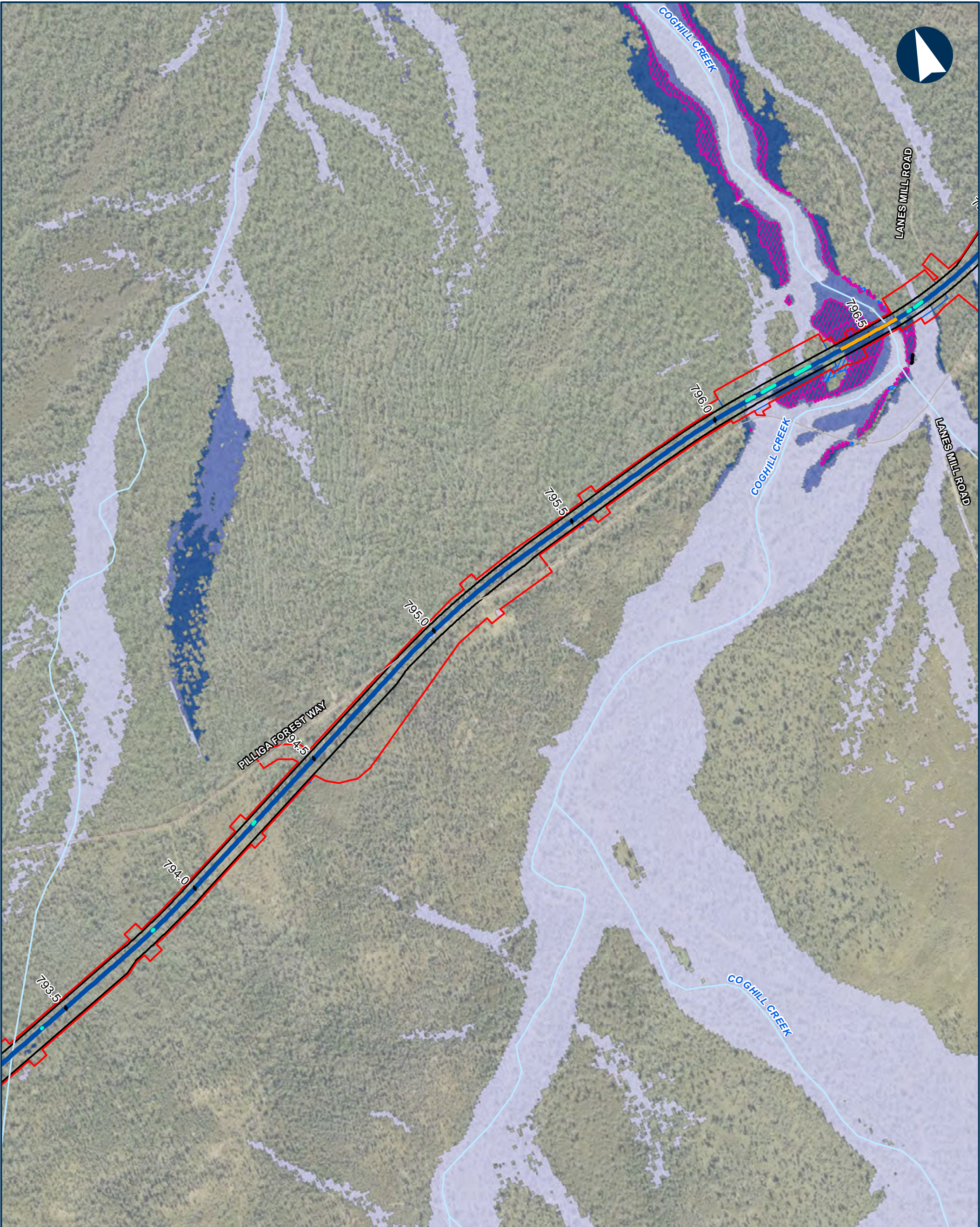
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NARROMINE TO NARRABRI

QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.83

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Culvert

Road ODL departure

Alignment

Sub arterial road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

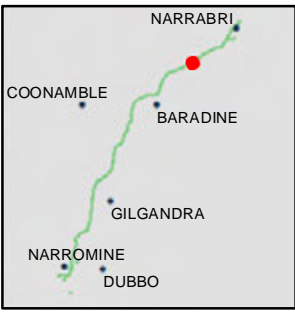
Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

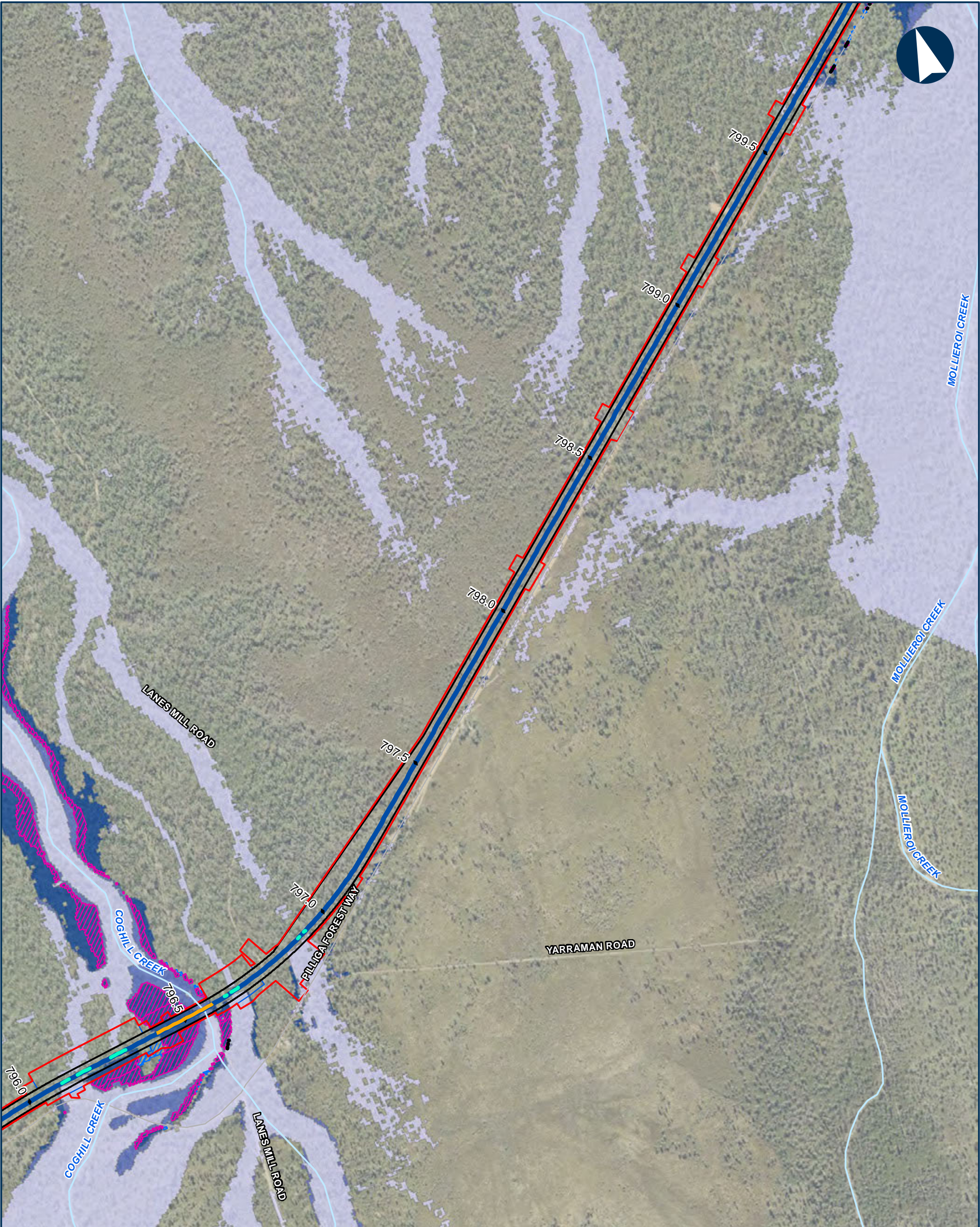
20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.84

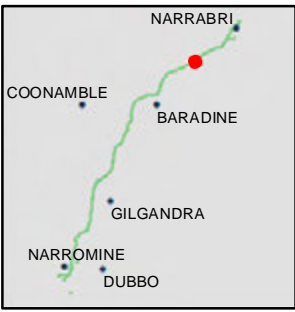
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Coordinate System: GDA 1994 MGA Zone 55

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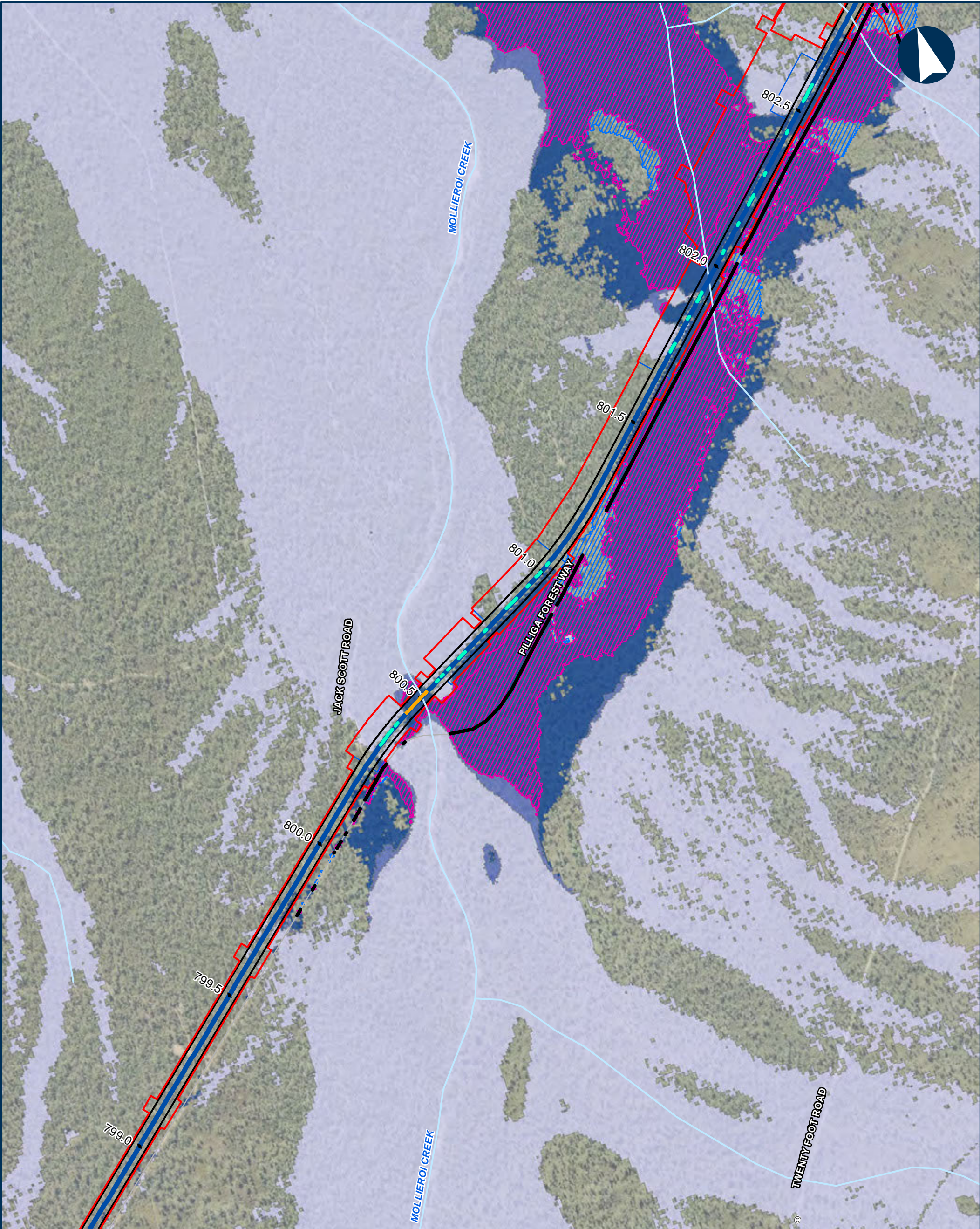
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.85

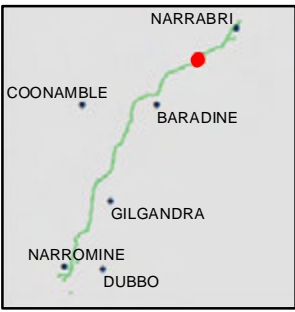
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Coordinate System: GDA 1994 MGA Zone 55

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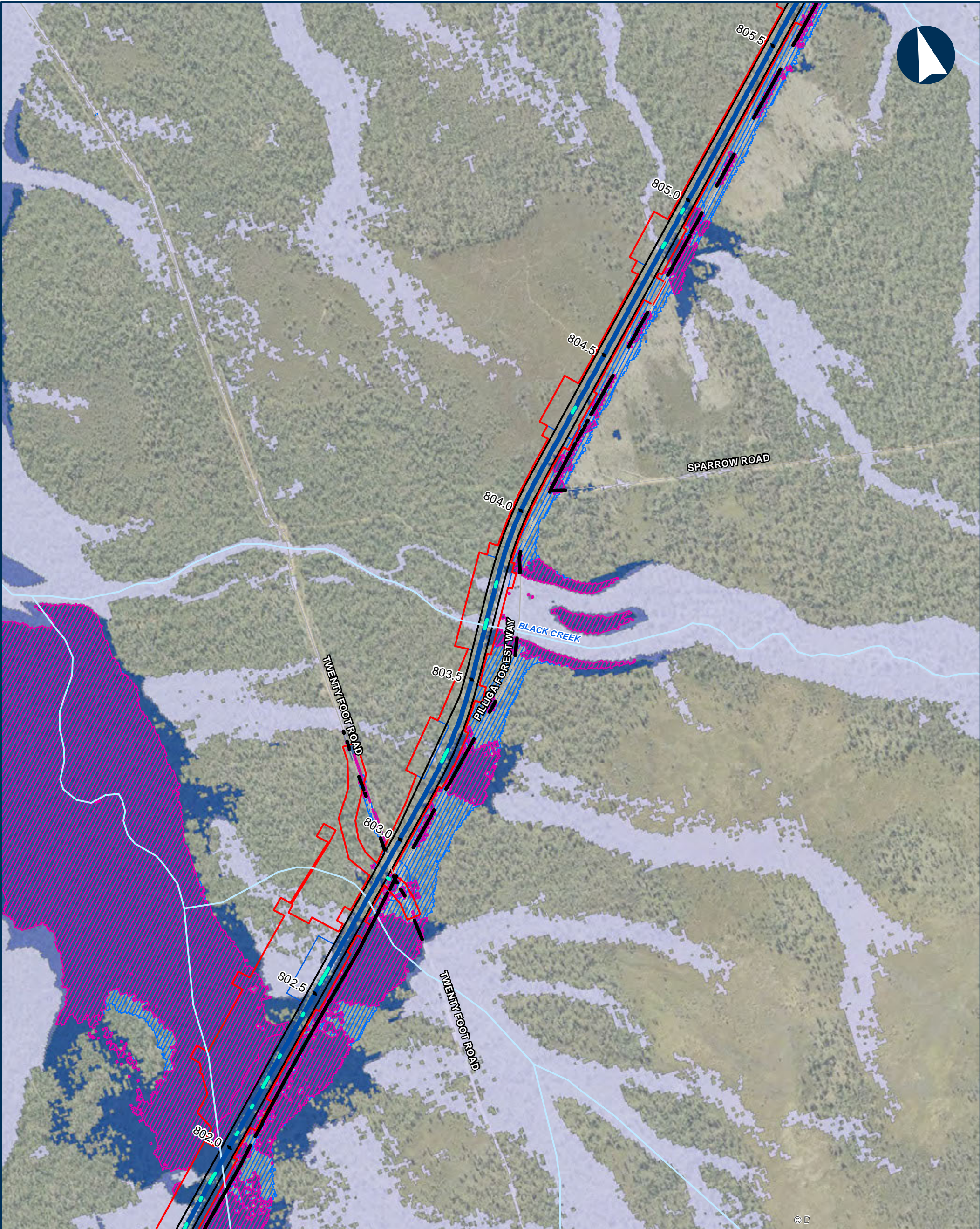
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Road ODL departure
 - Alignment
 - Sub arterial road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.86

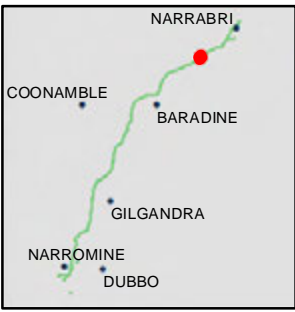
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Coordinate System: GDA 1994 MGA Zone 55

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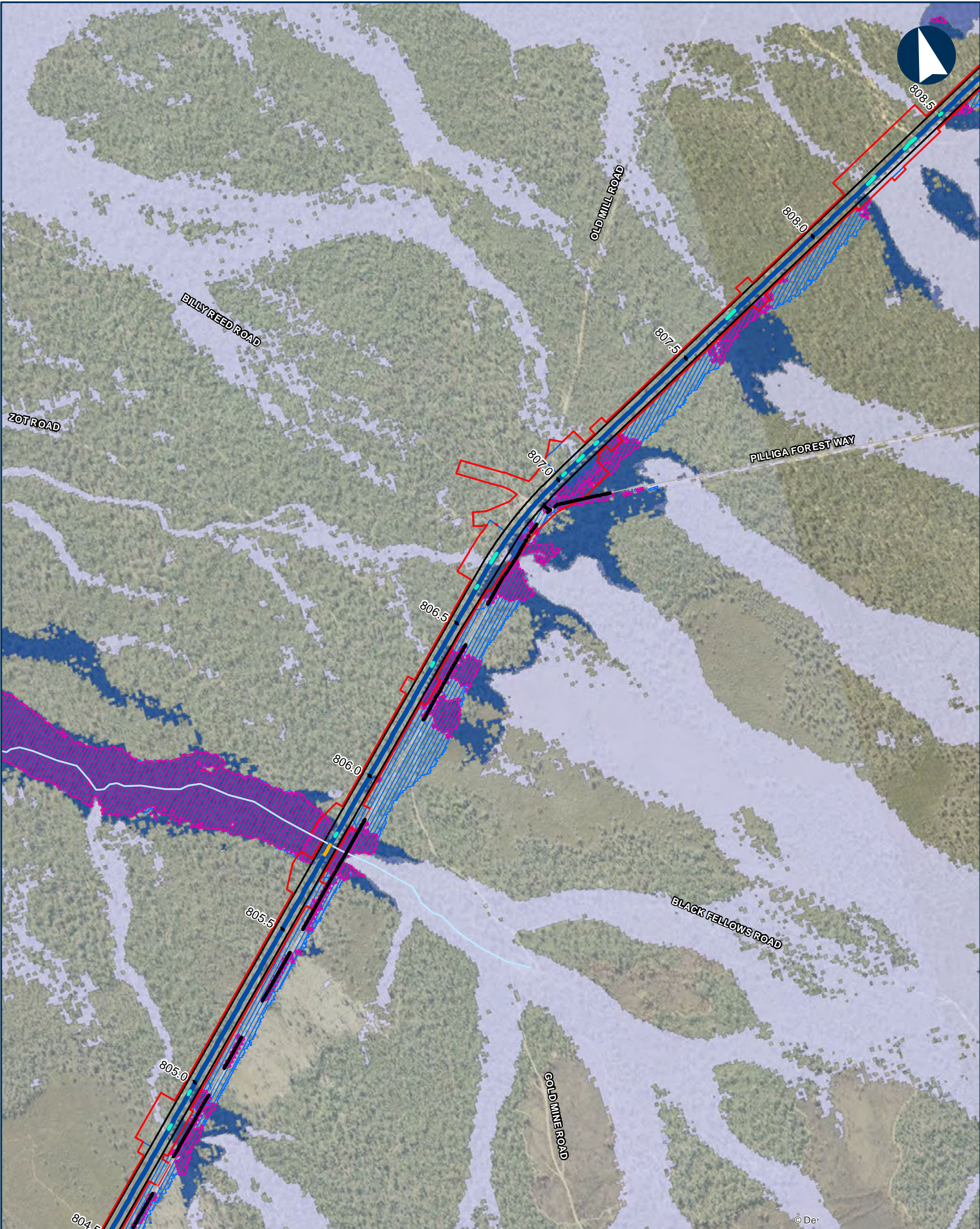
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Road QDL departure
- Alignment
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



INLAND RAIL **ARTC**

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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.87

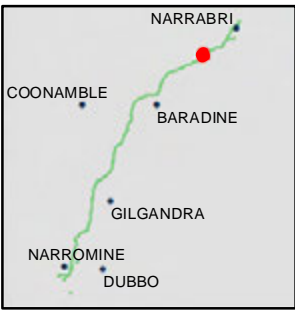
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Coordinate System: GDA 1994 MGA Zone 55

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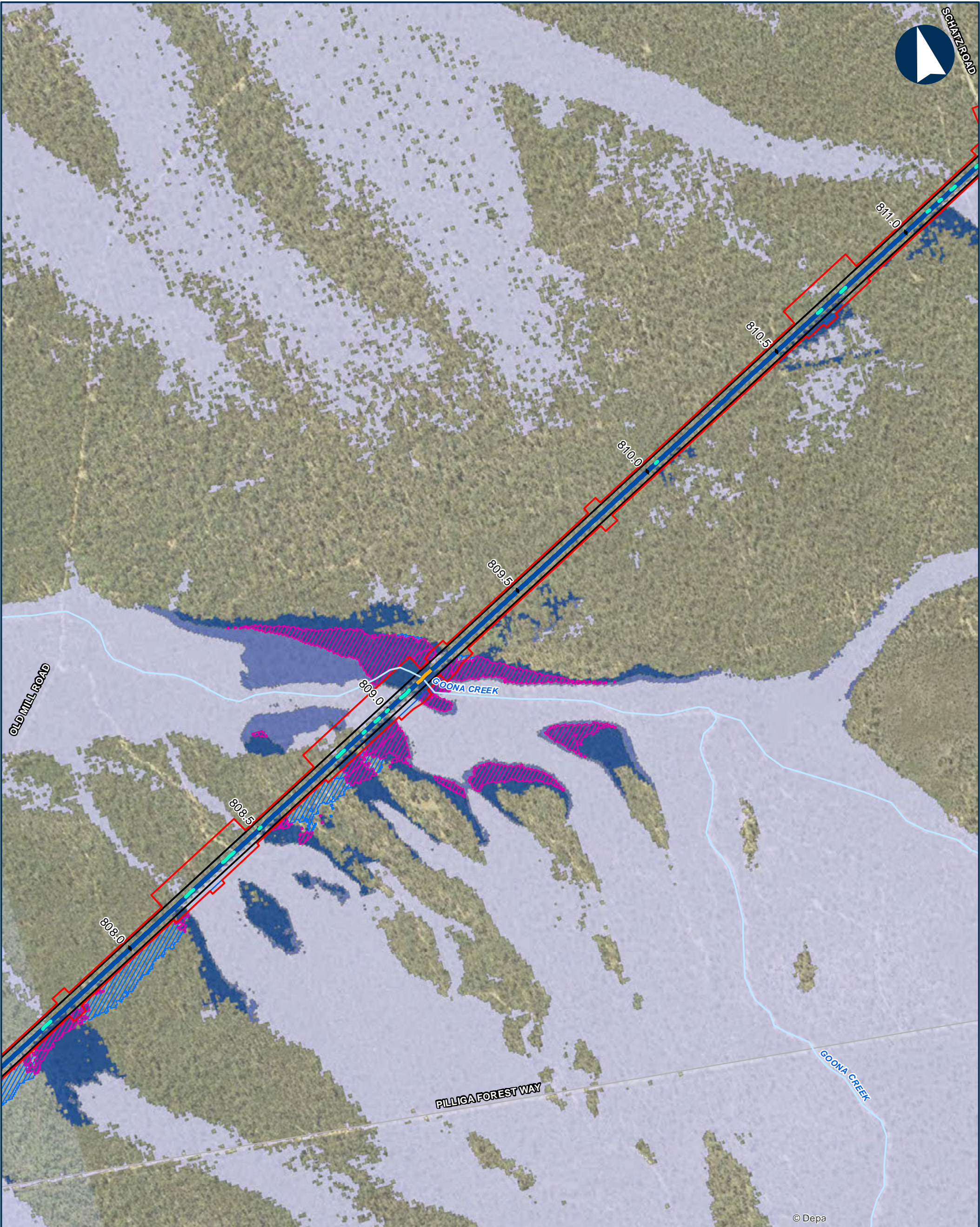
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
- Sub arterial road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.88

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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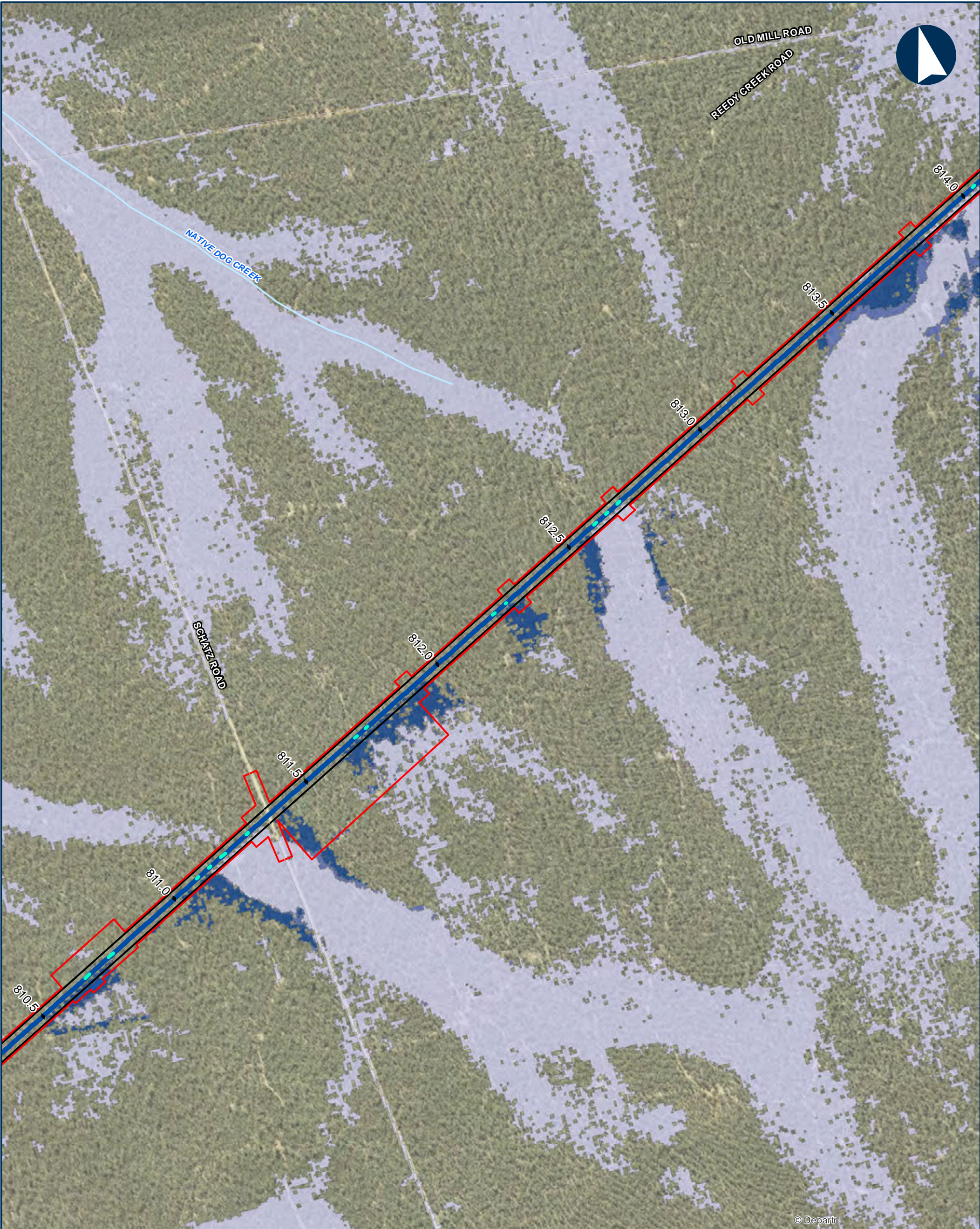
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Alignment
 - Sub arterial road
 - Local road
 - Watercourse
- The proposal
 - Drainage Control Area
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.89

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Culvert

Alignment

Local road

Watercourse

The proposal

Drainage Control Area

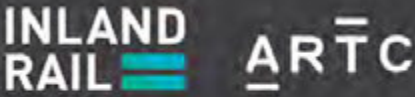
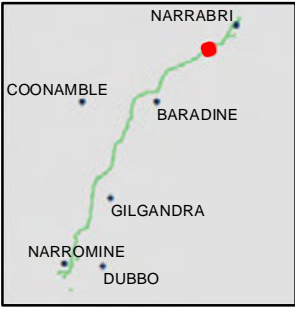
Rail Corridor

Percentage Change

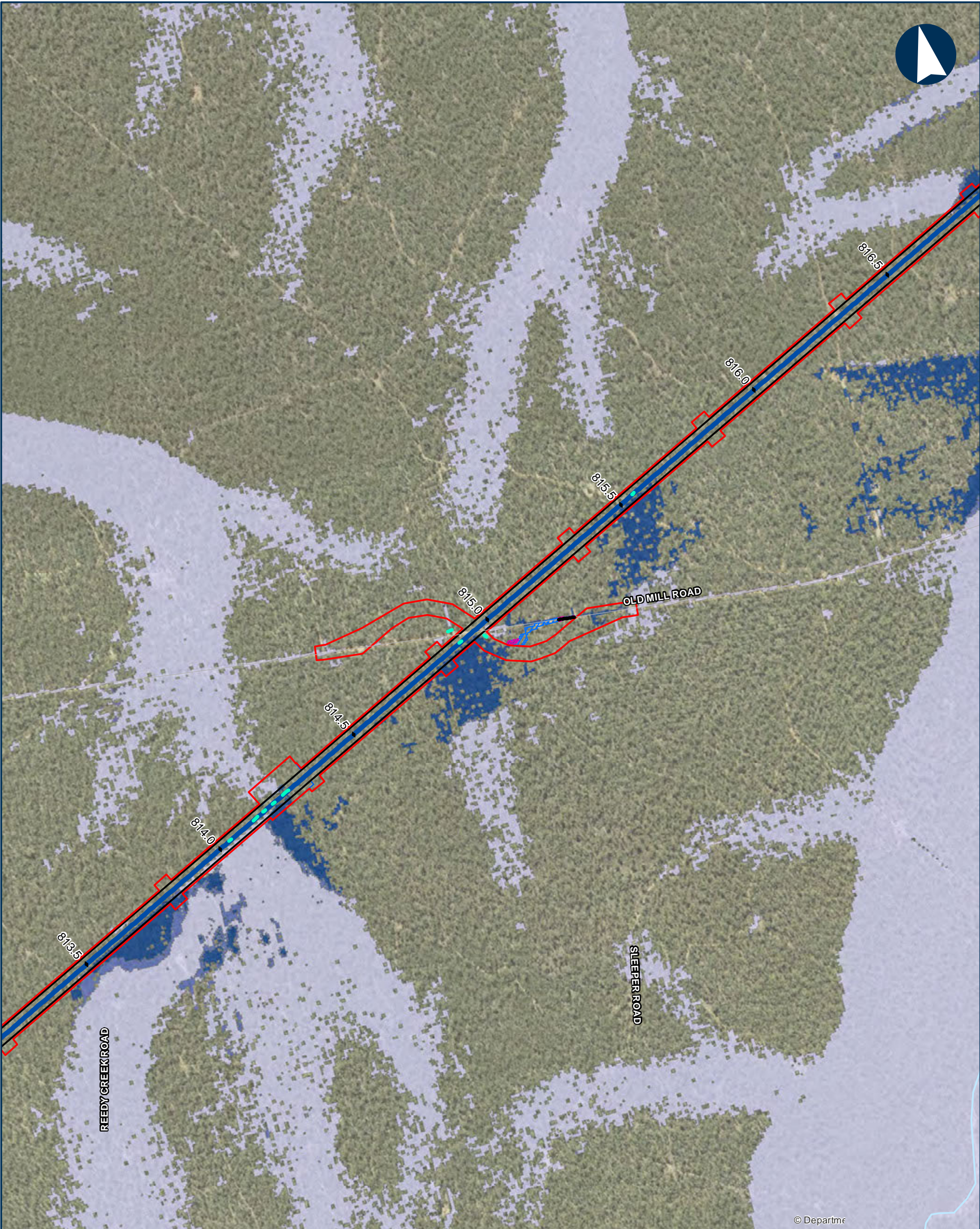
0% - 10%

10% - 20%

20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.90

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Culvert

Road QDL departure

Alignment

Local road

Watercourse

The proposal

Drainage Control Area

Rail Corridor

Area of departure

Design flooded, not flooded existing

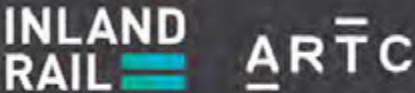
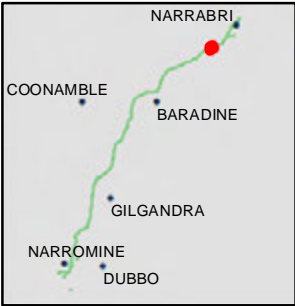
Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

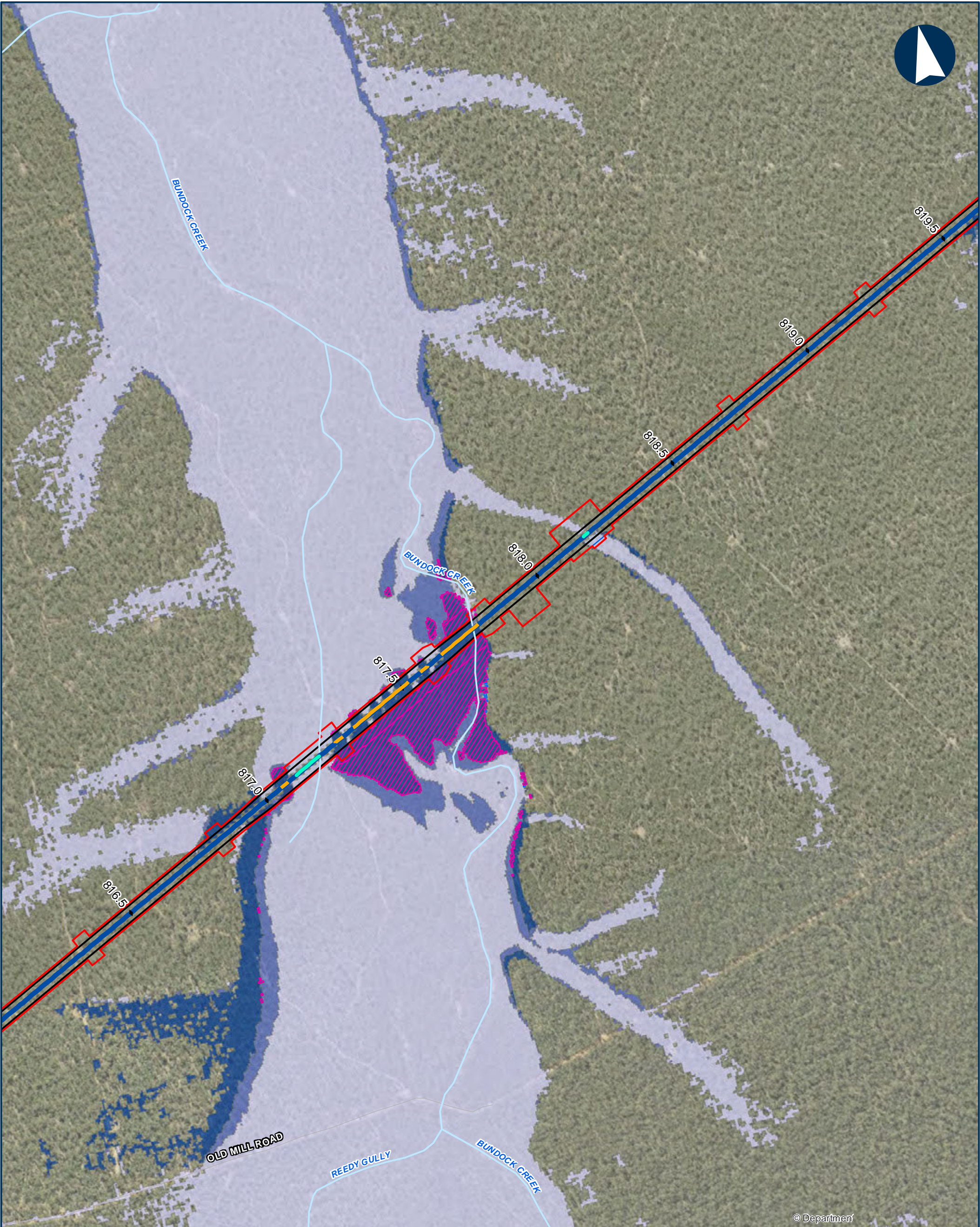
0% - 10%

10% - 20%

20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.91

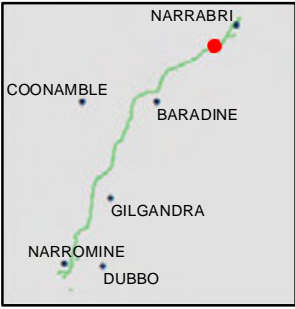
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.92

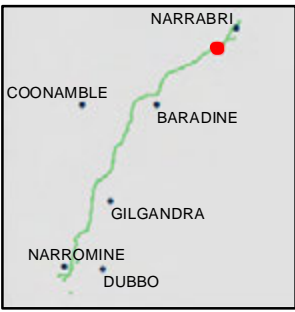
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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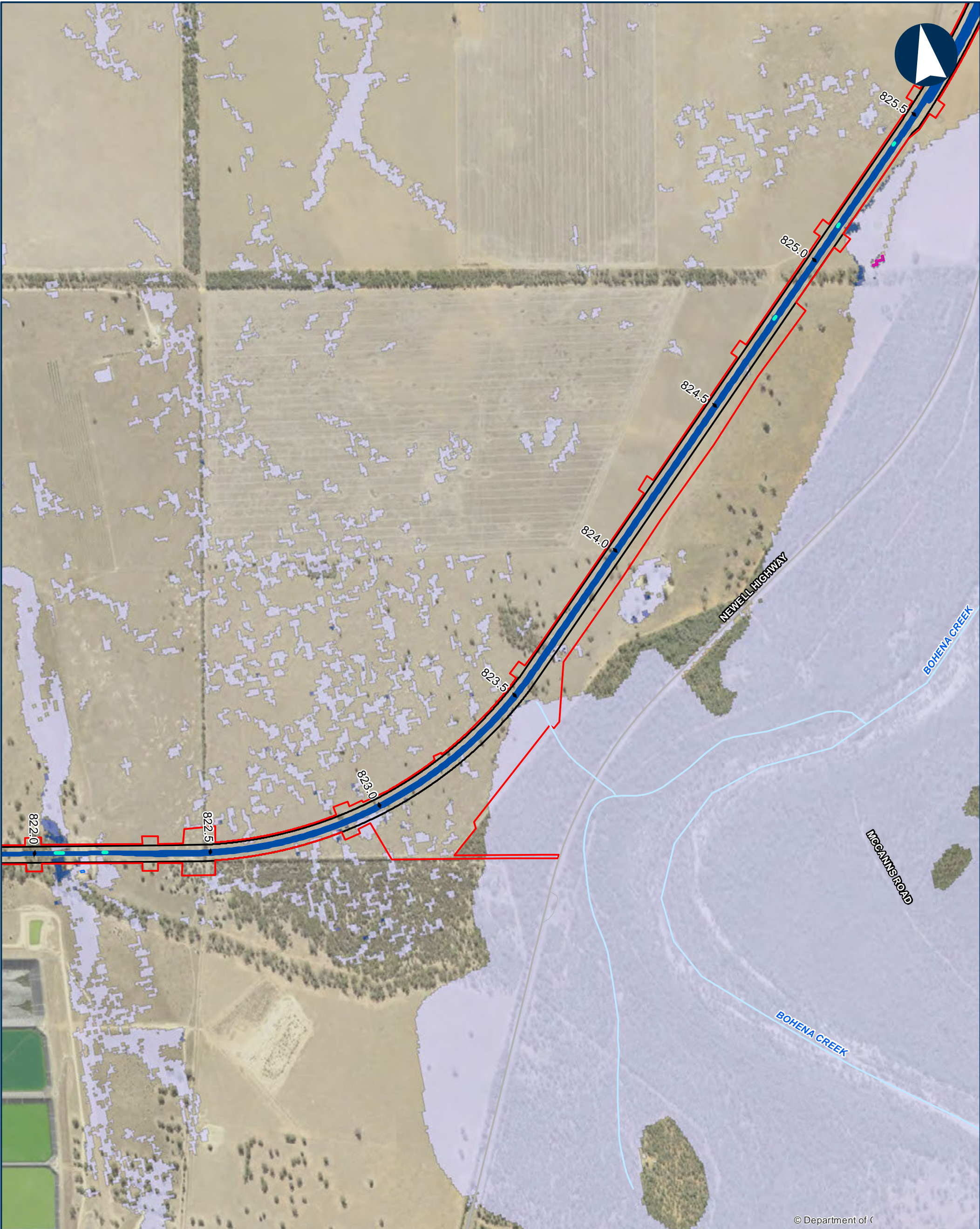
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.93

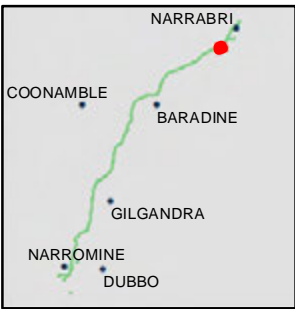
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Primary road
- Local road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.94

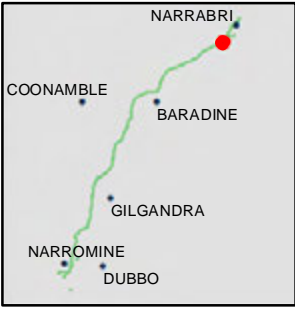
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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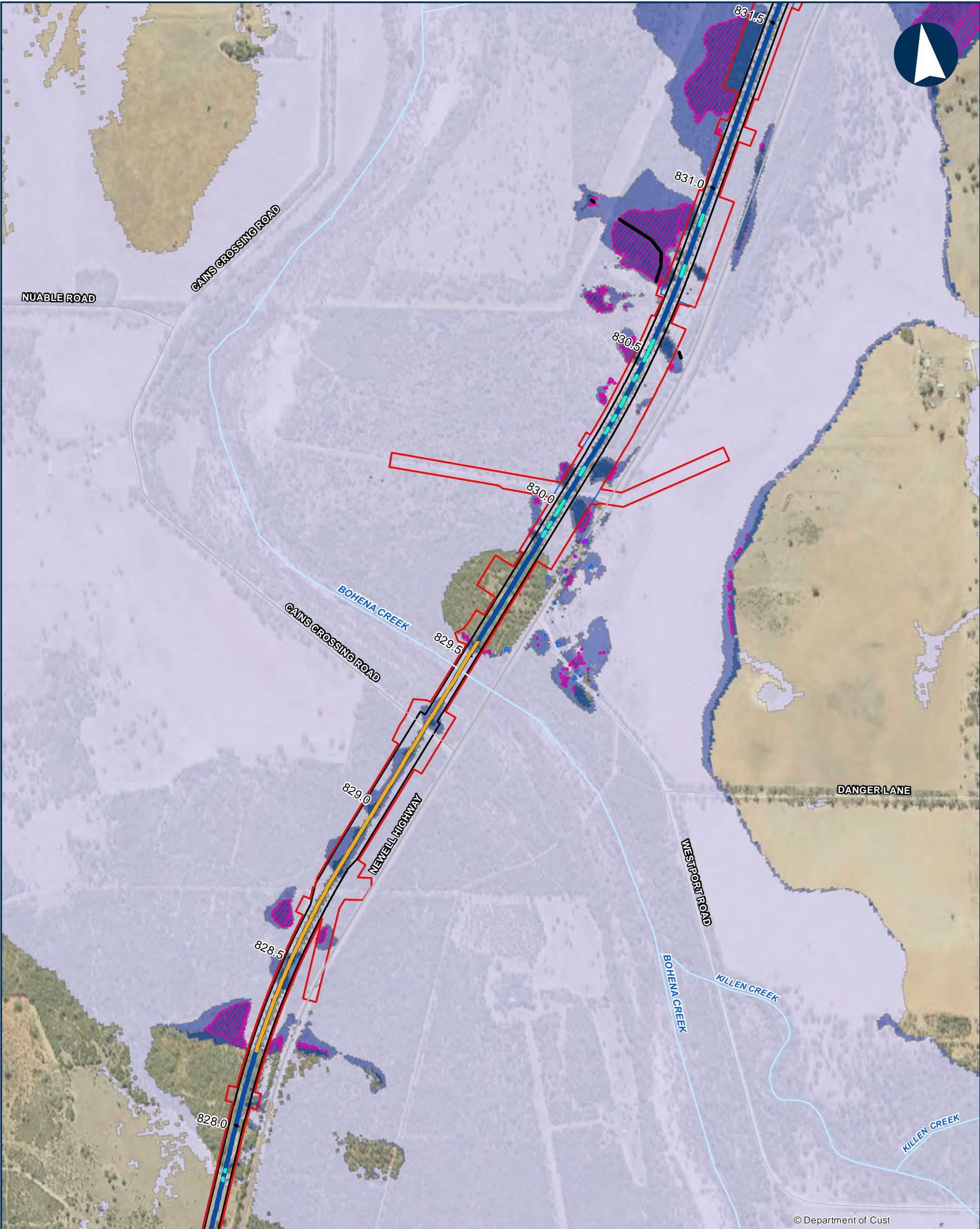
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Primary road
- Local road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.95

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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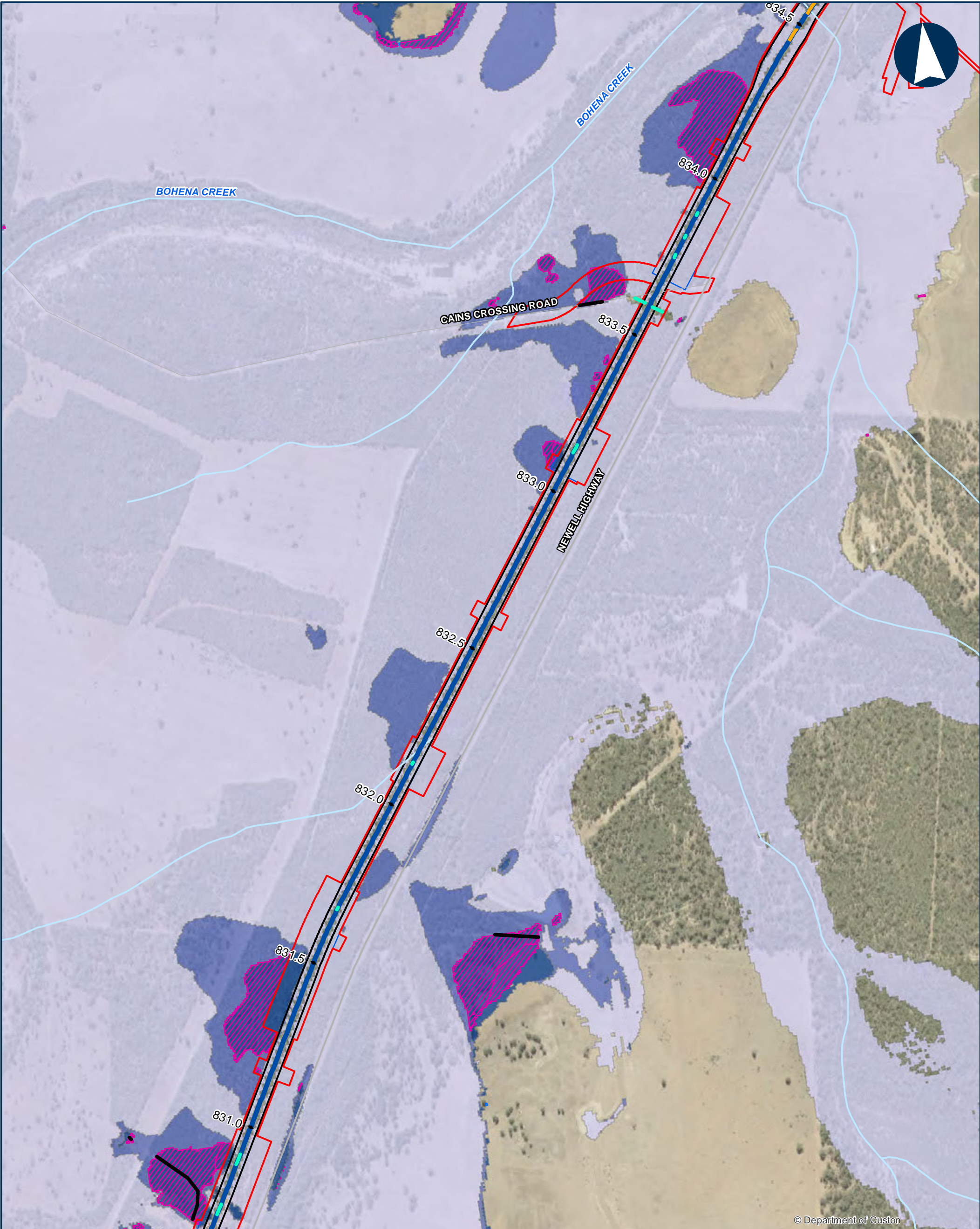
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road QDL departure
- TINSW newly flooded roads
- Alignment
- Primary road
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.96

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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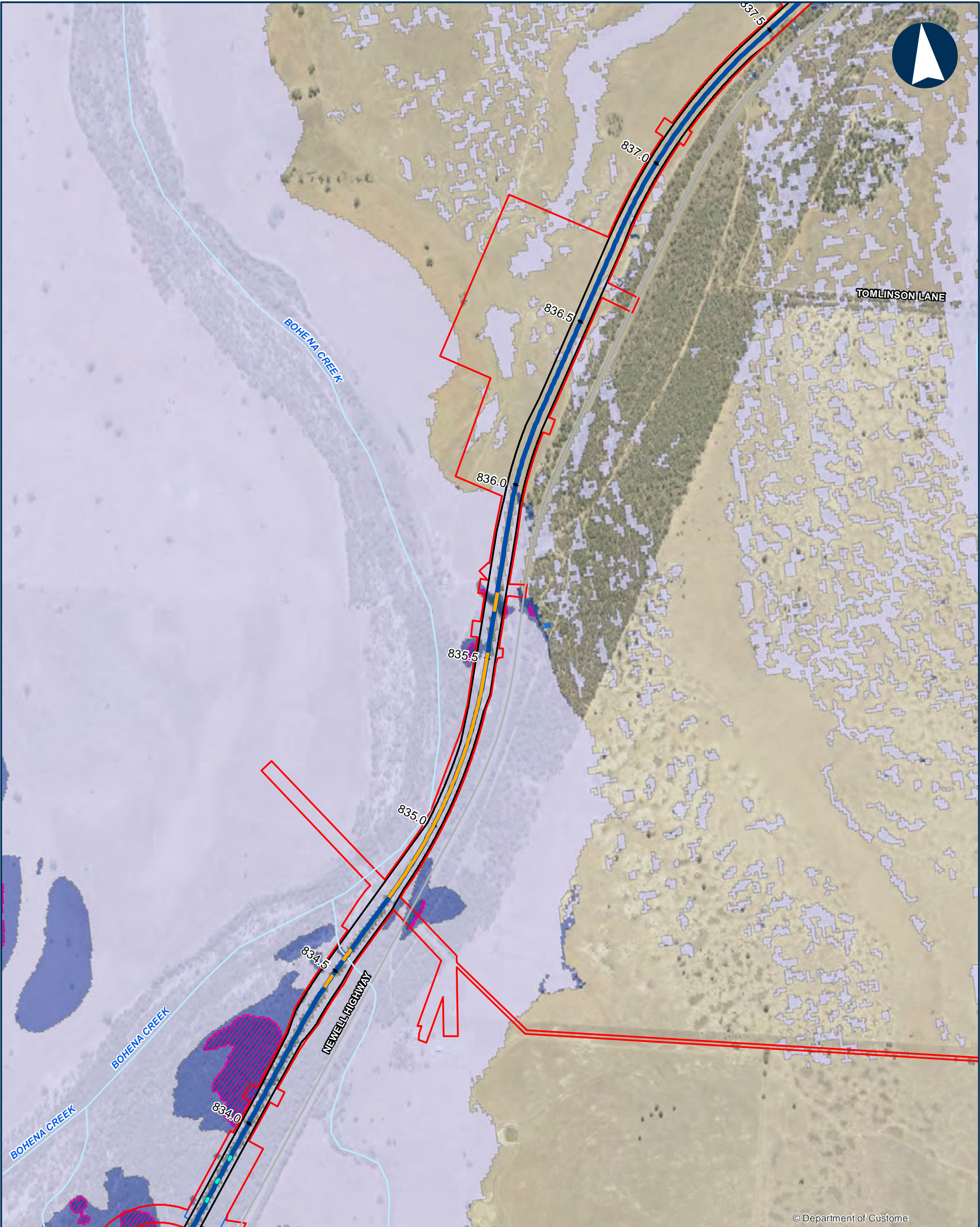
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Road ODL departure
- Alignment
- Primary road
- Local road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
 - 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.97

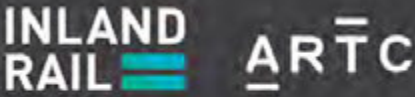
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Coordinate System: GDA 1994 MGA Zone 55

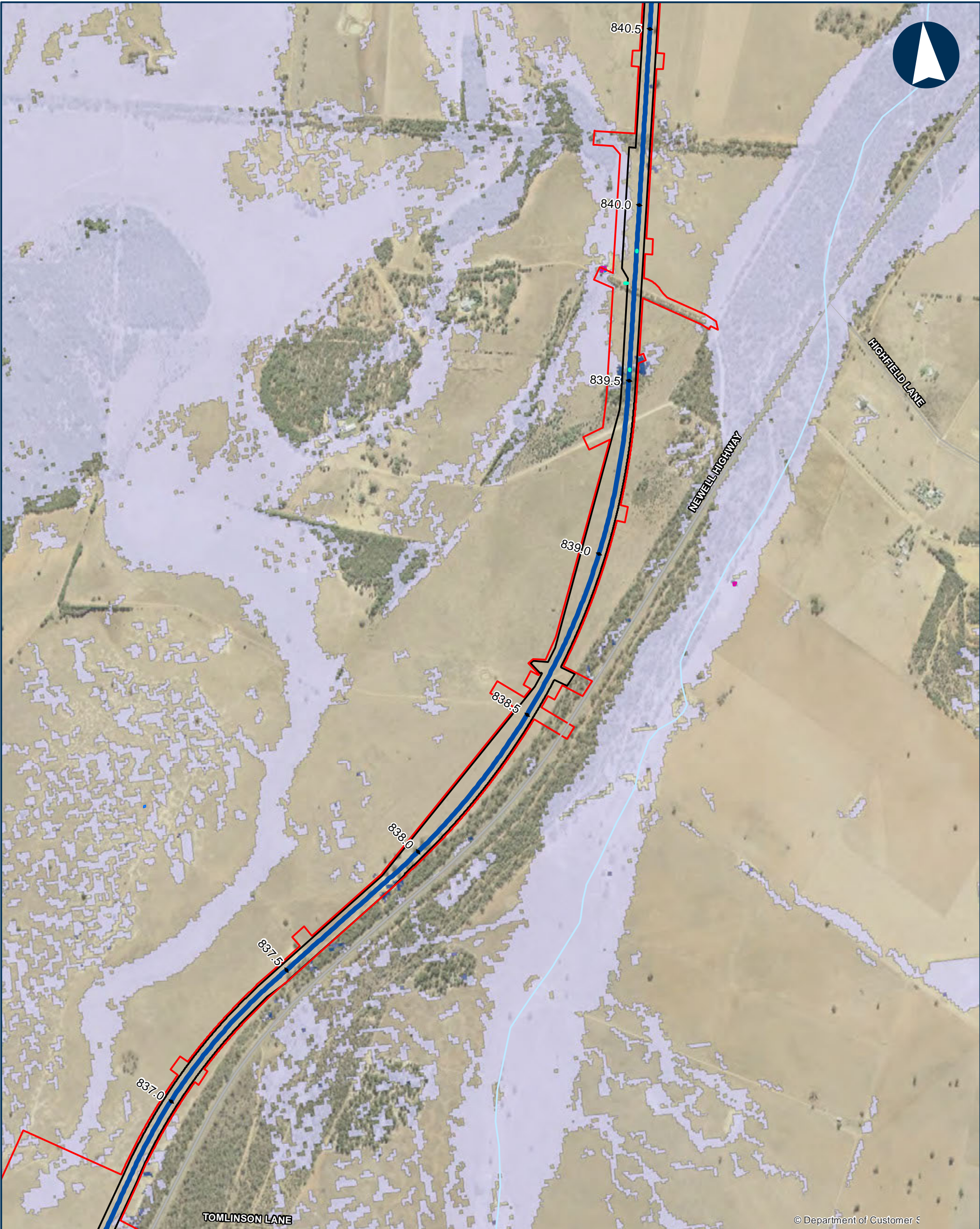
ARTC makes no representation or warranty and assumes no duty of care or other responsibility to any party as to the completeness, accuracy or suitability of the information contained in this GIS map. The GIS map has been prepared from material provided to ARTC by an external source and ARTC has not taken any steps to verify the completeness, accuracy or suitability of that material. ARTC will not be responsible for any loss or damage suffered as a result of any person whatsoever placing reliance upon the information contained within this GIS map.

Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Primary road
- Watercourse
- The proposal
- Drainage Control Area
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.98

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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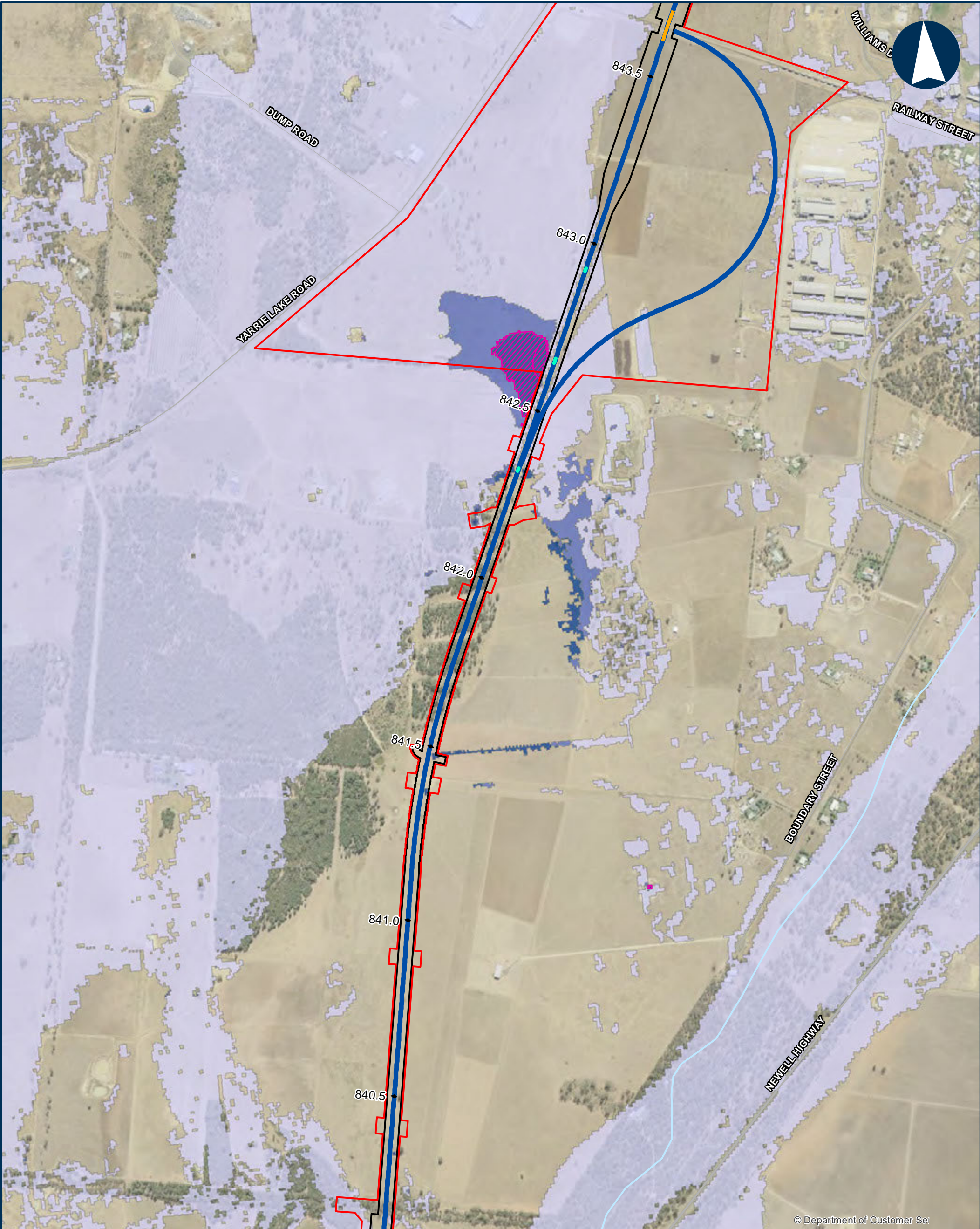
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Primary road
- Local road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.99

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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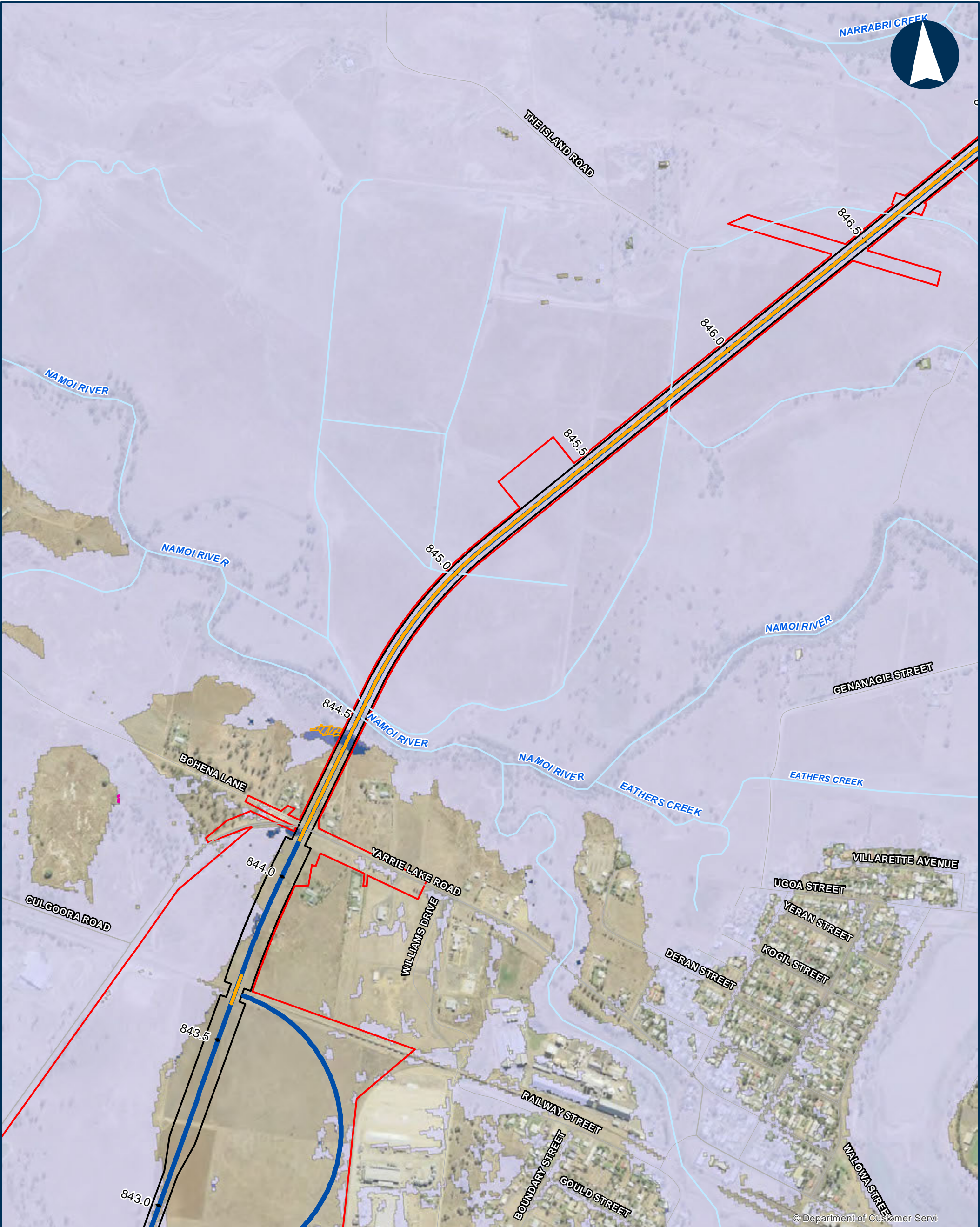
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Culvert
- Alignment
- Primary road
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.100

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Alignment
 - Sub arterial road
 - Local road
 - Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Buildings and sealed surfaces, vd change >10%
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.101

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Culvert
 - Road ODL departure
 - Alignment
 - Primary road
 - Sub arterial road
 - Local road
 - Watercourse
- The proposal
 - Rail Corridor
 - Area of departure
 - Design flooded, not flooded existing
 - Buildings and sealed surfaces, vd change >10%
 - Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
 - 10% - 20%
 - 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.102

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Primary road
- Arterial road
- Local road
- Watercourse
- The proposal
- Rail Corridor
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.103

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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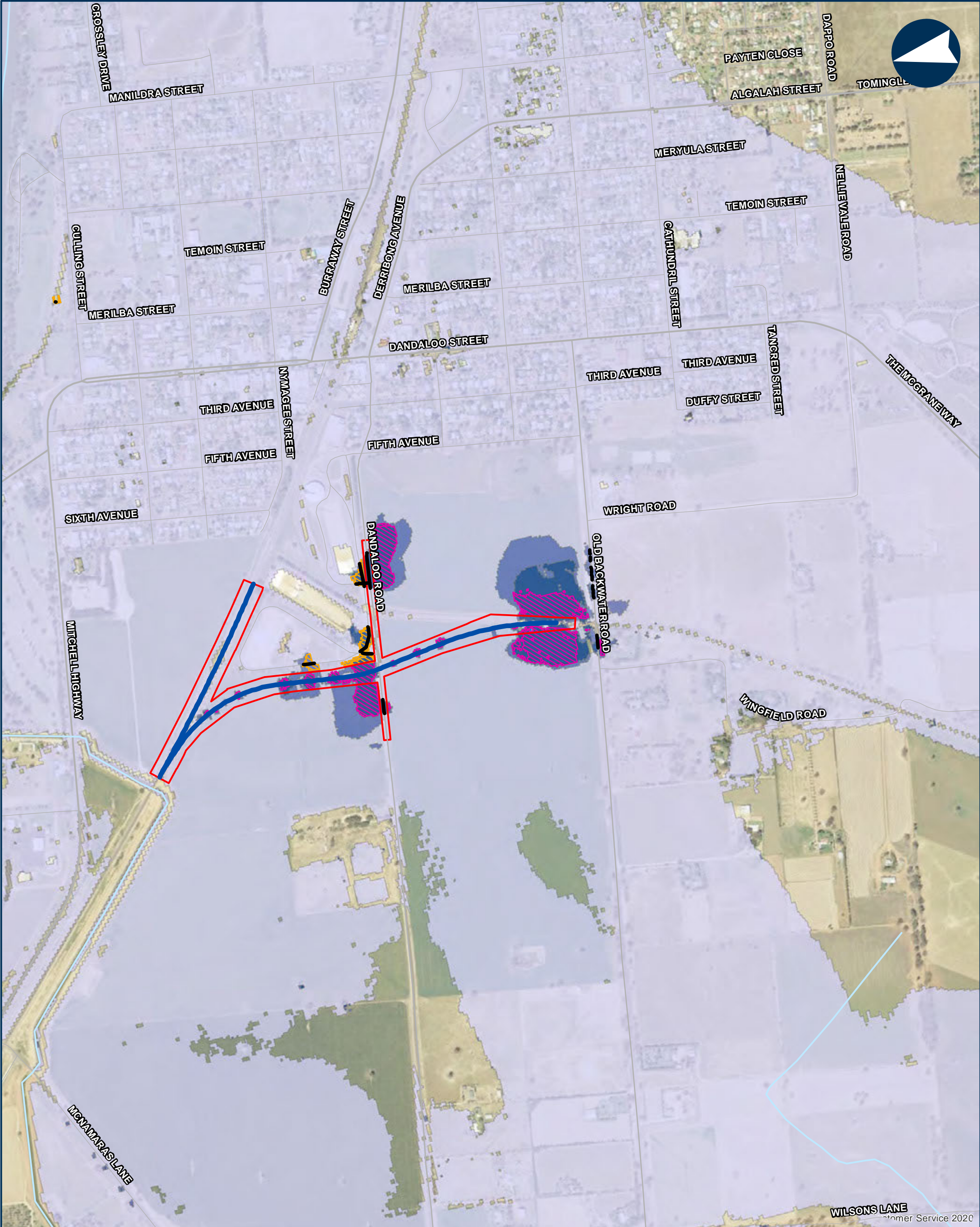
Date: 9/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Culvert
- Alignment
- Primary road
- Arterial road
- Watercourse
- The proposal
- Area of departure
- Design flooded, not flooded existing
- Other unsealed surfaces / elsewhere, vd change >20%
- Percentage Change
- 0% - 10%
- 10% - 20%
- 20%+



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NARROMINE TO NARRABRI QDL departures - Hazard - 1% AEP with blockage

Appendix I - Figure 3.4.104

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 9/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Road QDL departure

Alignment

Primary road

Arterial road

Sub arterial road

Local road

Watercourse

The proposal

Area of departure

Design flooded, not flooded existing

Buildings and sealed surfaces, vd change >10%

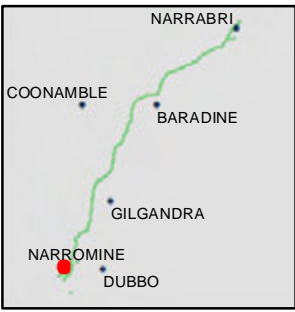
Other unsealed surfaces / elsewhere, vd change >20%

Percentage Change

0% - 10%

10% - 20%

20%+



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