

TECHNICAL REPORT 03

Updated flooding and hydrology assessment

Appendix N Assessment of local and regional flooding at Narrabri

(Part 25 of 25)

NARROMINE TO NARRABRI PROJECT



TECHNICAL REPORT 03

Updated flooding and hydrology assessment

Appendix B QDL compliance

Appendix B8 Narrabri regional QDL compliance (duration)

NARROMINE TO NARRABRI PROJECT





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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.1

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Local road

Watercourse

Change in duration of inundation

0%

5%

10%

20%

Existing Duration of Inundation

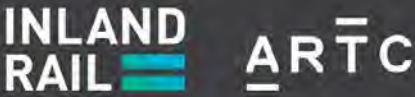
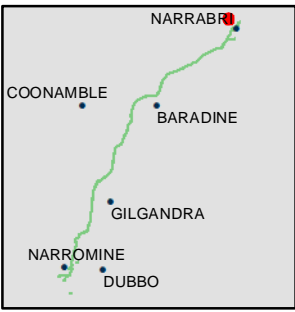
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.2

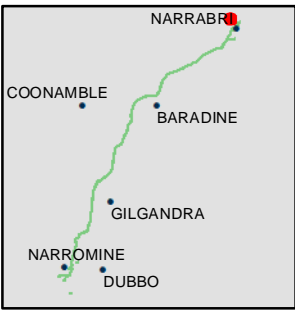
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Change in duration of inundation
- 0%
 - 5%
 - 10%
 - 20%
- Existing Duration of Inundation
- 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.3

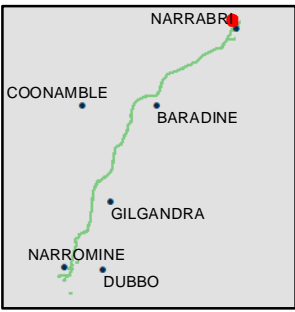
0 200 400 Metres
Coordinate System: GDA 1994 MGA Zone 55

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

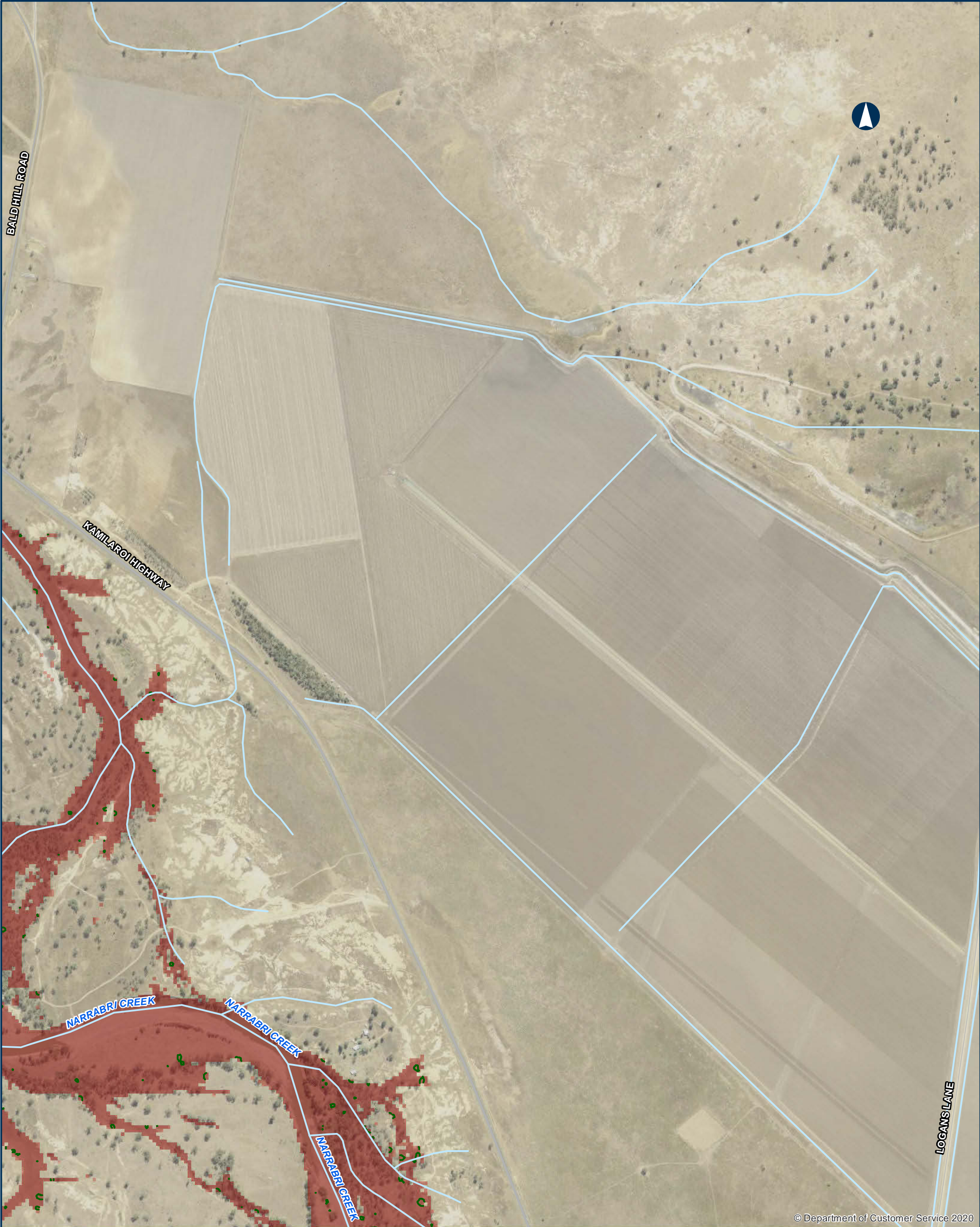
Change in duration of inundation
0%
5%

Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.4

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Sub arterial road

Local road

Watercourse

Change in duration of inundation

0%

Existing Duration of Inundation

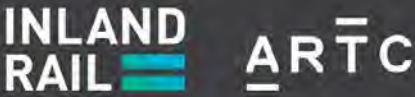
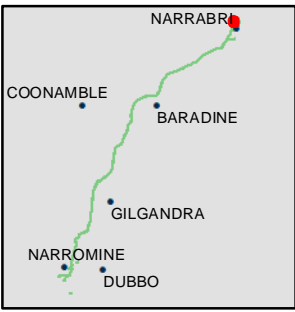
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.5

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 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
- Change in duration of inundation

0%

5%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation

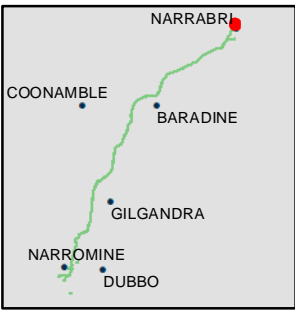
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

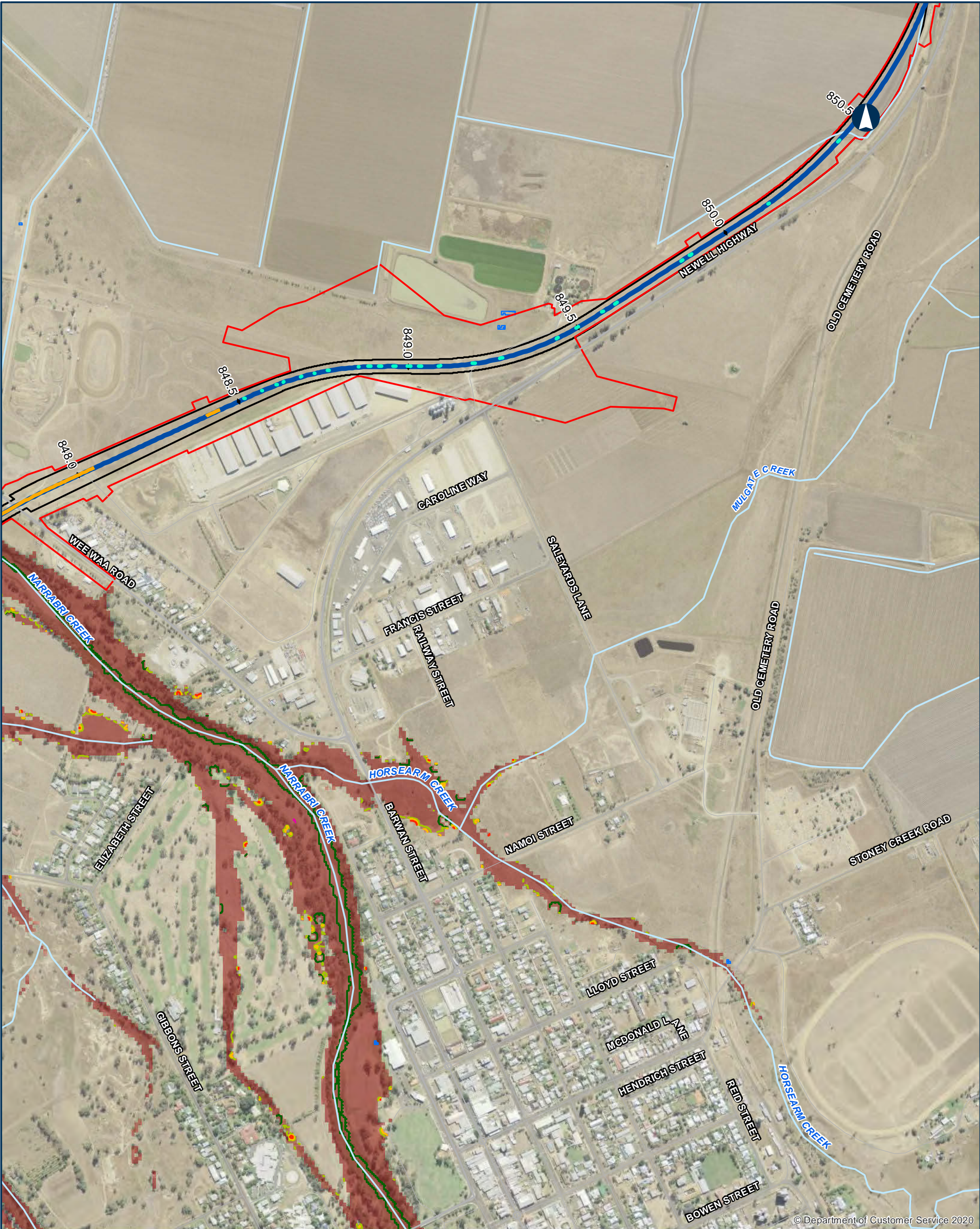
12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.6

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure**
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Legend**
- Bridge
 - Culvert
 - Alignment
 - Primary road
 - Sub arterial road
 - Local road
 - Watercourse
 - The proposal
 - Rail Corridor

- Existing Duration of Inundation**
- 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.7

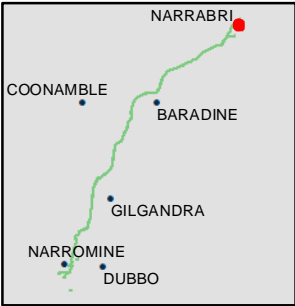
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Change in duration of inundation**
- 0%
 - 5%
 - 10%
- Area of departure**
- Exist duration <1hr, design duration >1hr
- Existing Duration of Inundation**
- 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs
- Sub arterial road
— Local road
— Watercourse



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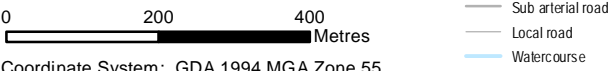
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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

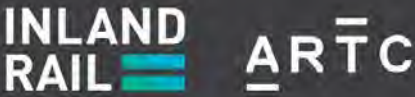
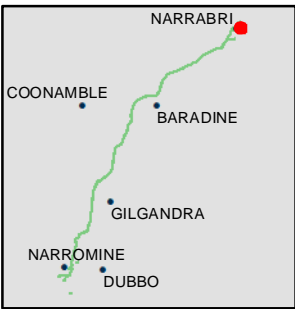
Appendix B - Figure 4.5.8



Coordinate System: GDA 1994 MGA Zone 55

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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.9

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

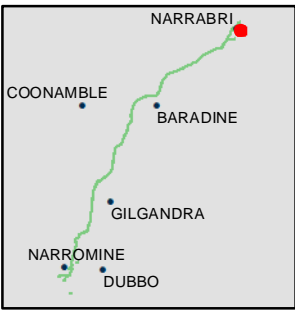
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Sub arterial road
Local road
Watercourse

Change in duration of inundation
0%

Existing Duration of Inundation
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.10

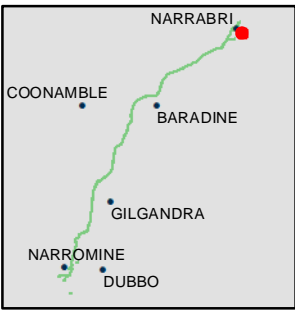
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Sub arterial road
Local road
Watercourse
- Change in duration of inundation**
0%
- Existing Duration of Inundation**
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

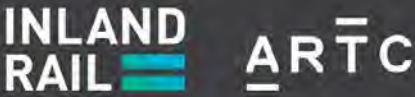
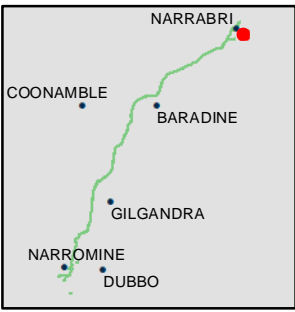
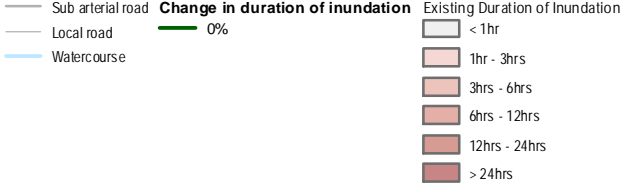
Appendix B - Figure 4.5.11

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

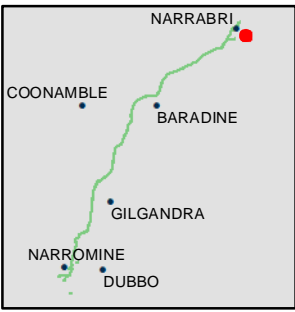
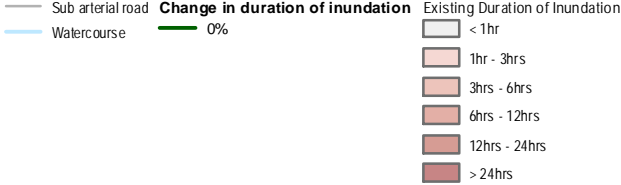
Appendix B - Figure 4.5.12

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

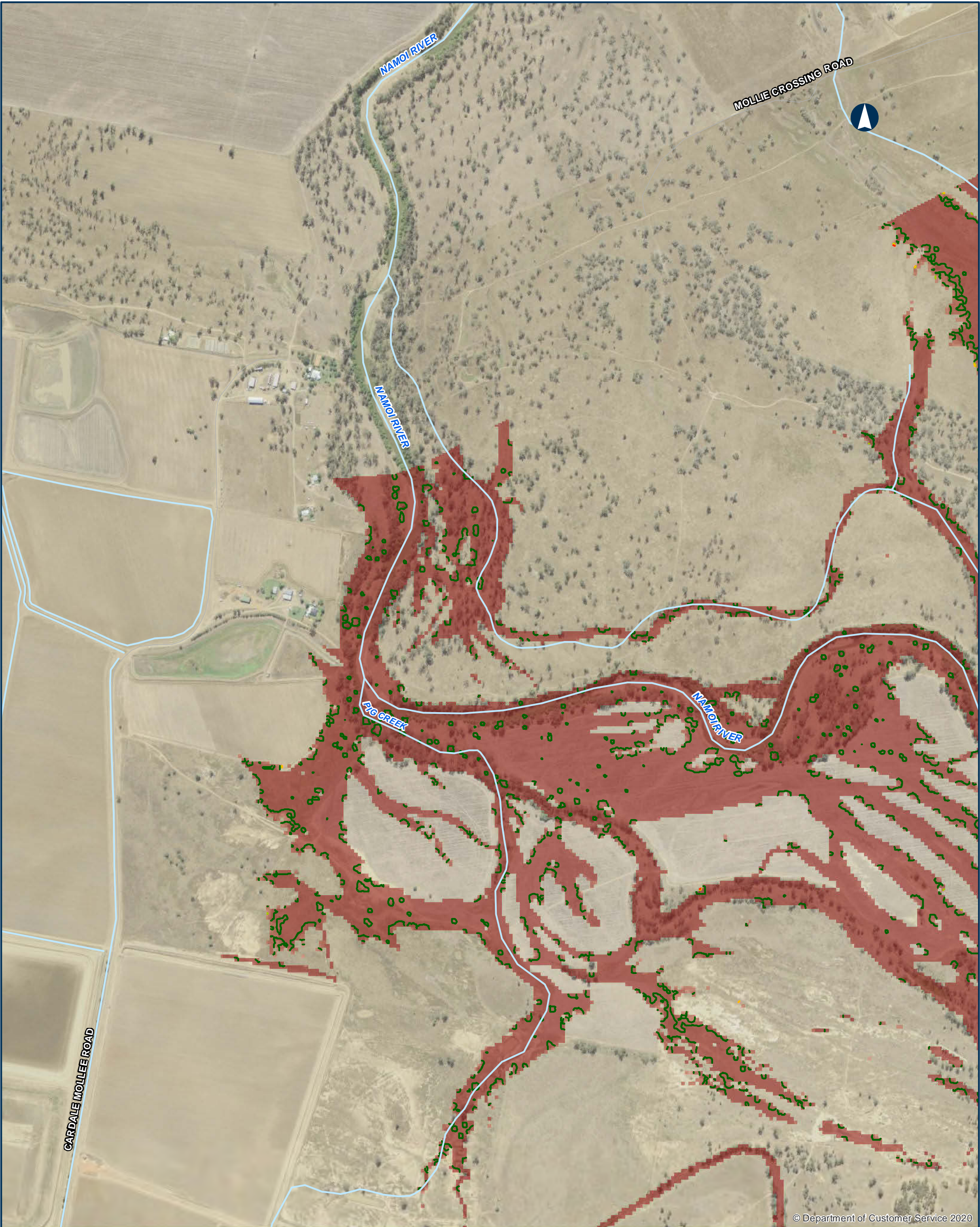
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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.13

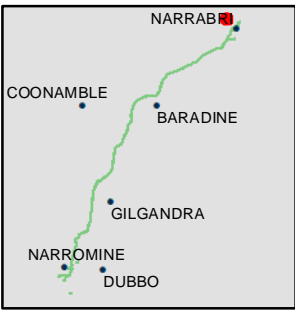
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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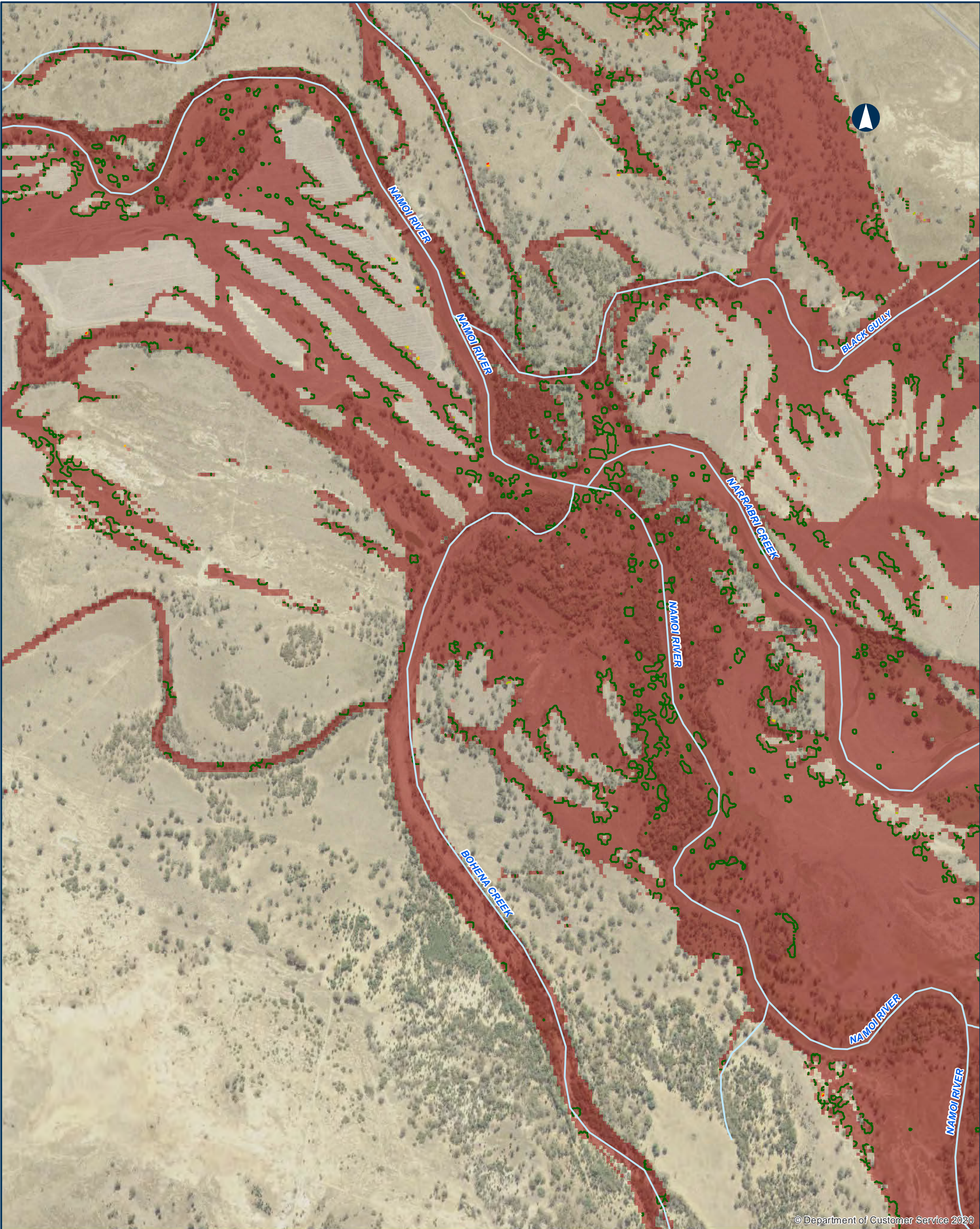
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road
Watercourse
- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Existing Duration of Inundation**
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.14

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Watercourse

Change in duration of inundation

0%

5%

10%

20%

Existing Duration of Inundation

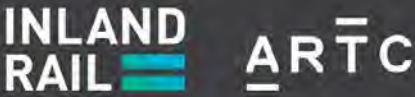
1hr - 3hrs

3hrs - 6hrs

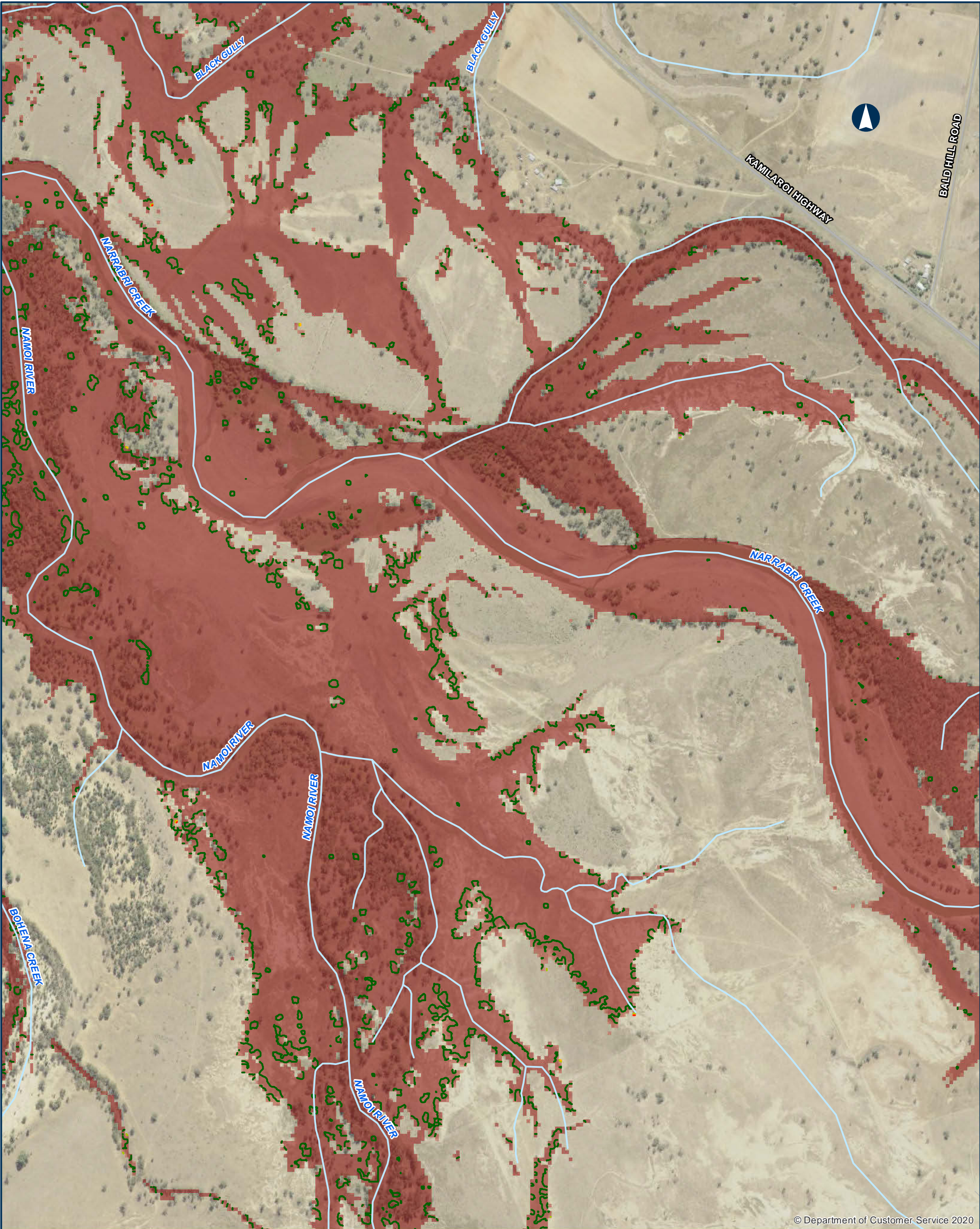
6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.15

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Sub arterial road

Local road

Watercourse

Change in duration of inundation

0%

5%

10%

20%

Existing Duration of Inundation

1hr - 3hrs

3hrs - 6hrs

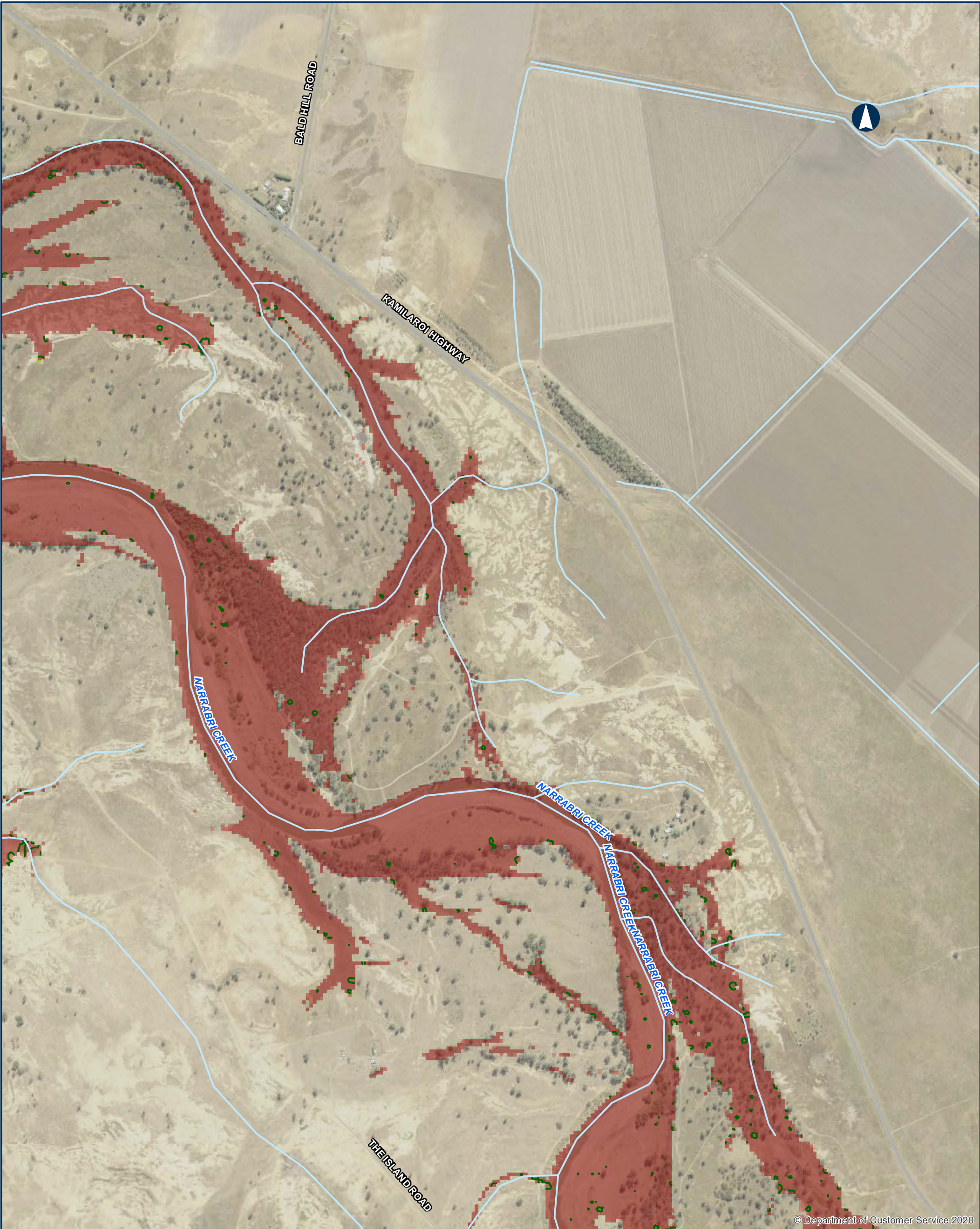
6hrs - 12hrs

12hrs - 24hrs

> 24hrs

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SP\IR\EIS\Flooding_Hydrology\Appendices\2500_EISFWAPP130_QDL_Regional_Duration_20pc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.16

0 200 400 Metres
Coordinate System: GDA 1994 MGA Zone 55

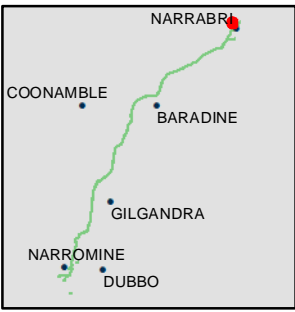
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Change in duration of inundation
0%
5%

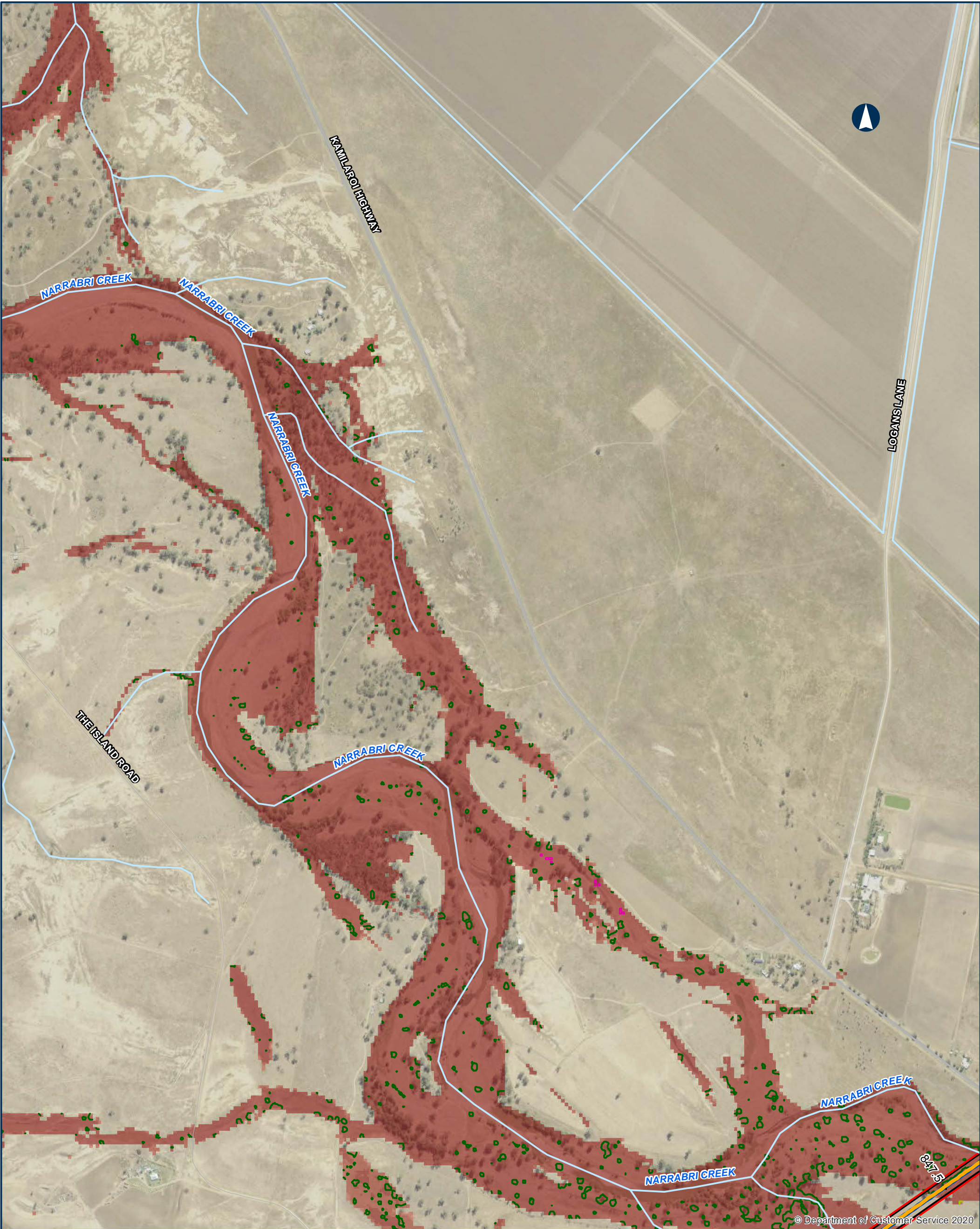
Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs

Primary road
Sub arterial road
Local road
Watercourse



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.17

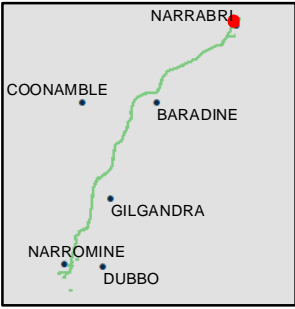
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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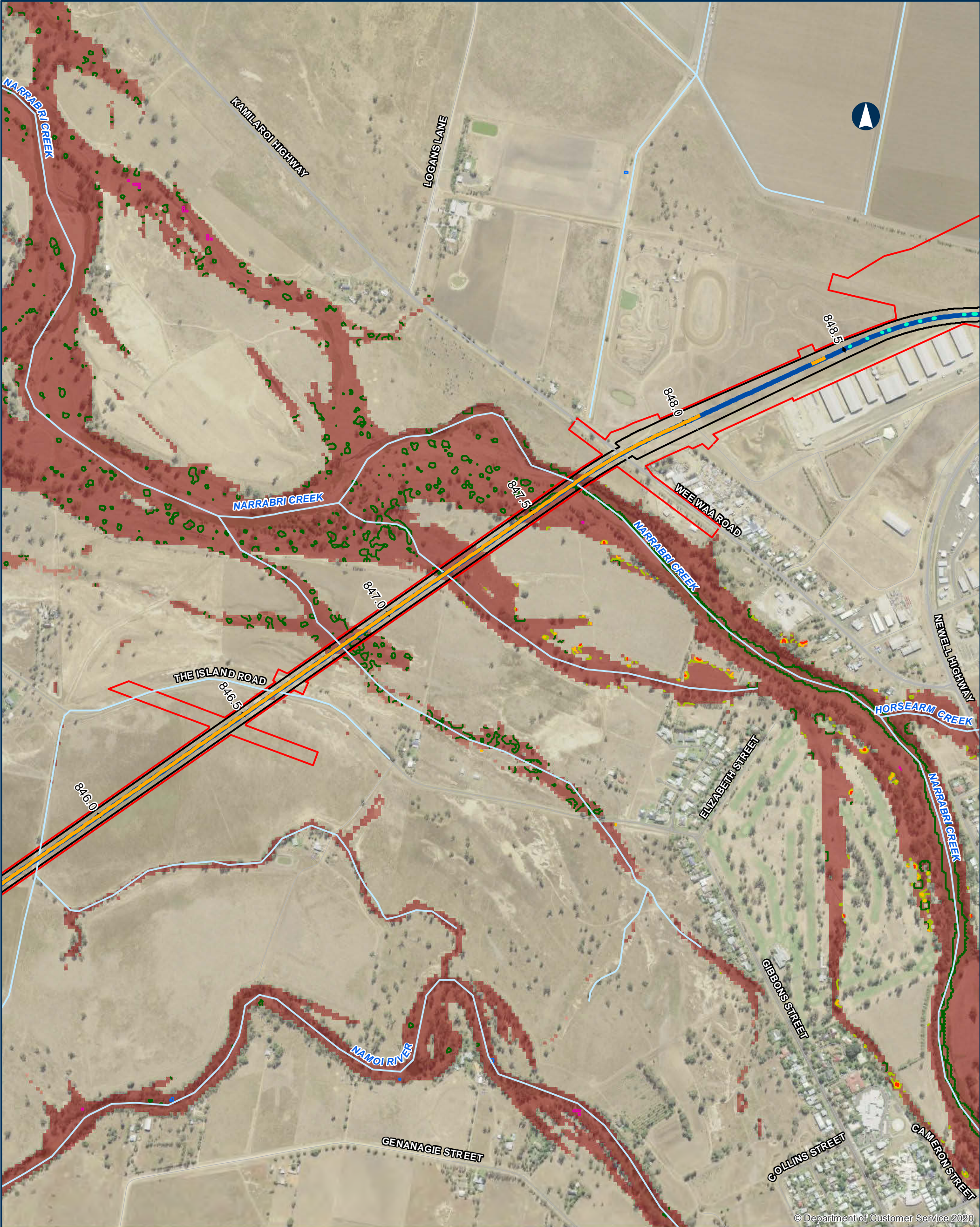
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- | | | |
|---------------|--|---------------------------------|
| Bridge | Change in duration of inundation | Existing Duration of Inundation |
| Alignment | 0% | 1hr - 3hrs |
| Primary road | 5% | 3hrs - 6hrs |
| Local road | 10% | 6hrs - 12hrs |
| Watercourse | Area of departure | 12hrs - 24hrs |
| The proposal | Exist duration >1hr, duration change > 10% | > 24hrs |
| Rail Corridor | | |



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.18

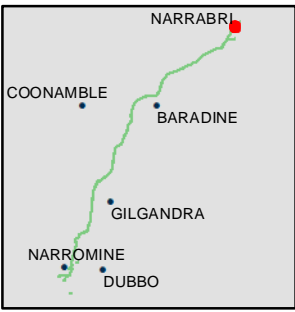
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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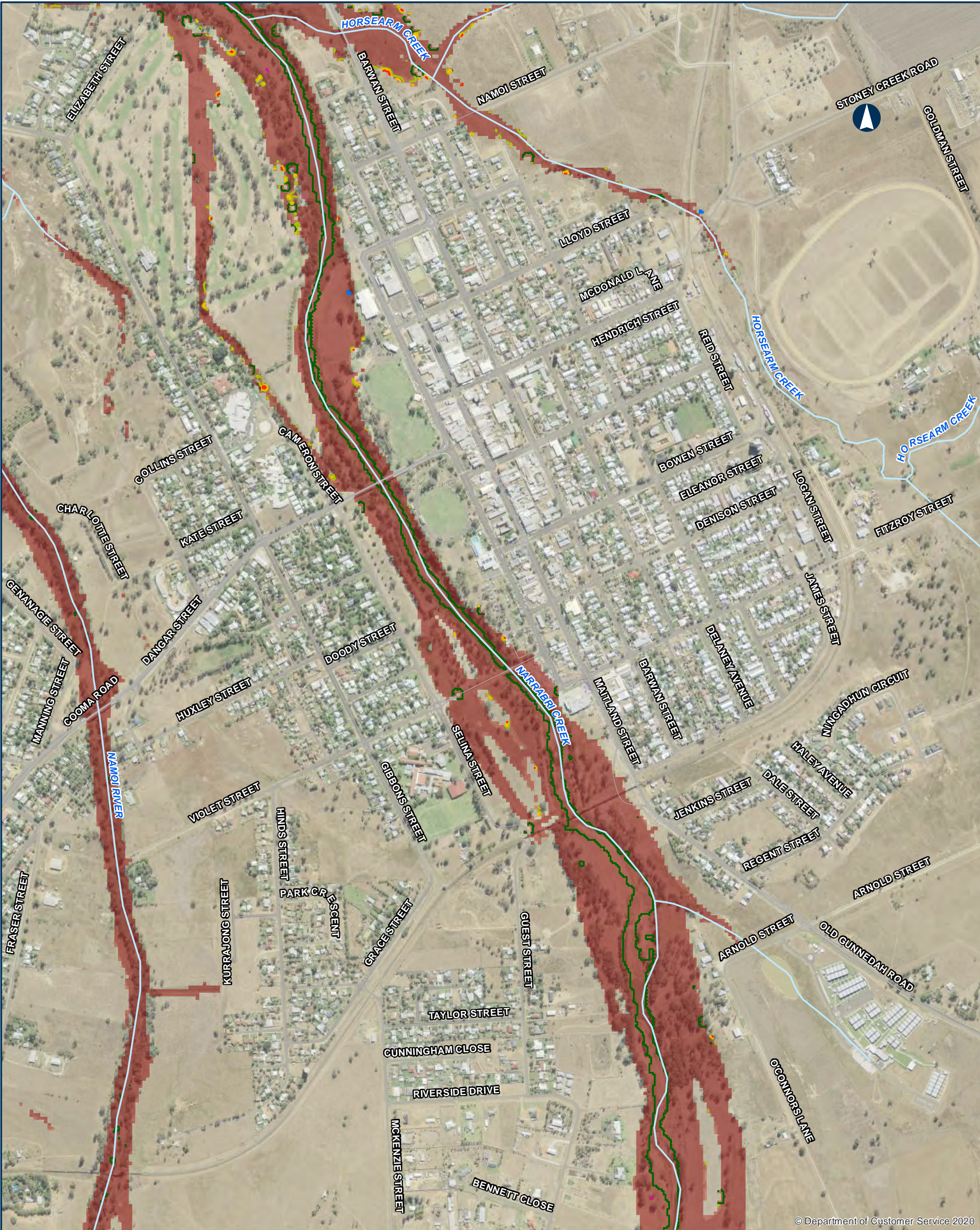
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- | | | |
|---------------|--|---------------------------------|
| Bridge | Change in duration of inundation | Existing Duration of Inundation |
| Culvert | 0% | < 1hr |
| Alignment | 5% | 1hr - 3hrs |
| Primary road | 10% | 3hrs - 6hrs |
| Local road | 20% | 6hrs - 12hrs |
| Watercourse | Area of departure | 12hrs - 24hrs |
| The proposal | Exist duration <1hr, design duration >1hr | > 24hrs |
| Rail Corridor | Exist duration >1hr, duration change > 10% | |



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.19

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

Change in duration of inundation

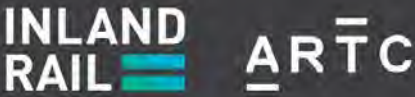
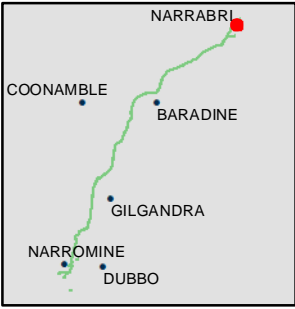
- 0% (green)
- 5% (light green)
- 10% (yellow)
- 20% (orange)

Area of departure

- Exist duration <1hr, design duration >1hr (blue outline)
- Exist duration >1hr, duration change > 10% (pink outline)

Existing Duration of Inundation

- 1hr - 3hrs (light pink)
- 3hrs - 6hrs (pink)
- 6hrs - 12hrs (darker pink)
- 12hrs - 24hrs (dark pink)
- > 24hrs (dark red)



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.20

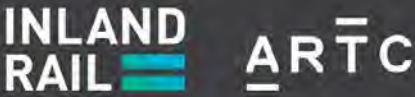
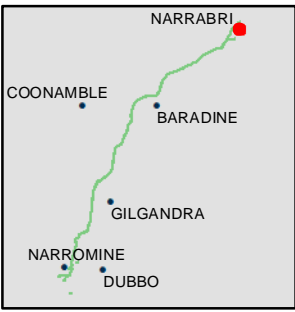
0 200 400 Metres

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

- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure**
- Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation**
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.21

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Sub arterial road

Local road

Watercourse

Change in duration of inundation

0%

5%

10%

Existing Duration of Inundation

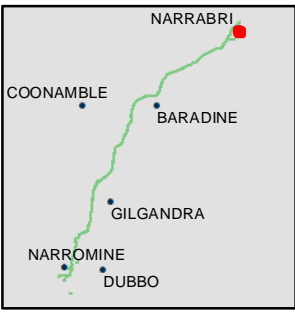
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.22

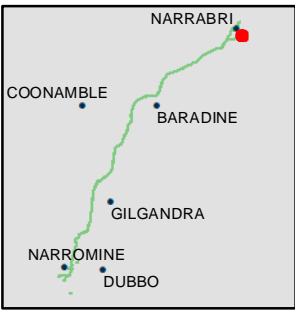
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Primary road
Sub arterial road
Local road
Watercourse
- Change in duration of inundation**
0%
- Existing Duration of Inundation**
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.23

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

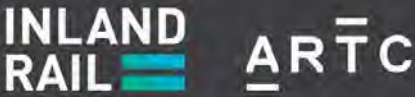
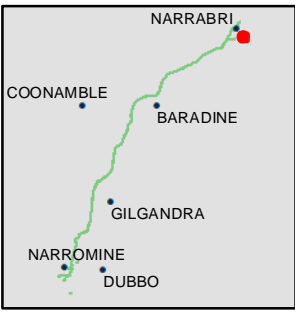
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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Primary road
Sub arterial road
Watercourse

Change in duration of inundation
0%

Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.24

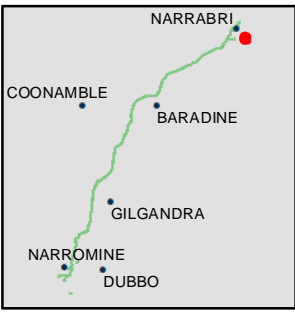
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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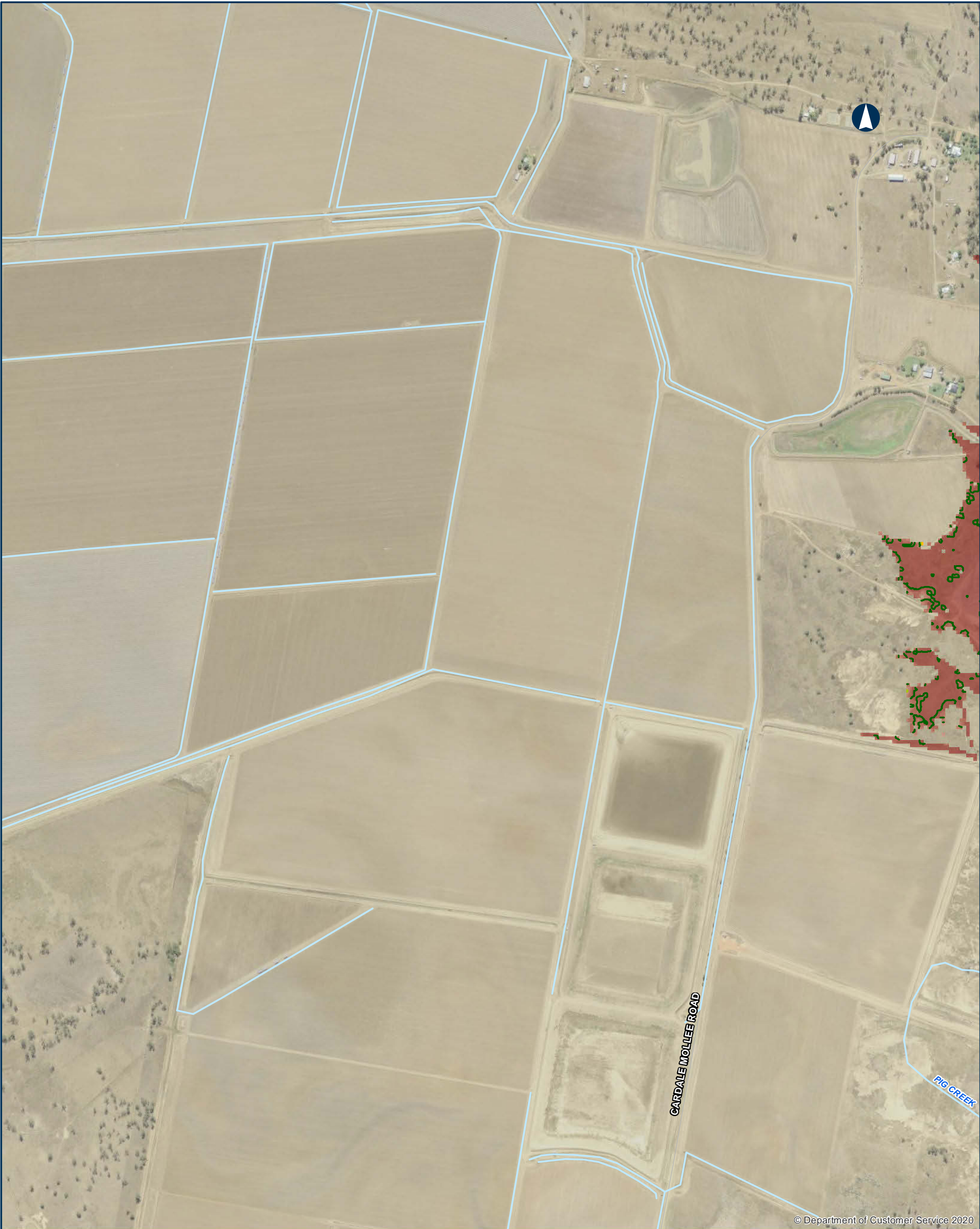
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Sub arterial road
Local road
Watercourse
- Change in duration of inundation**
0%
- Existing Duration of Inundation**
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.25

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Local road

Watercourse

Change in duration of inundation

0%

5%

10%

Existing Duration of Inundation

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP130_QDL_Regional_Duration_20pc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.26

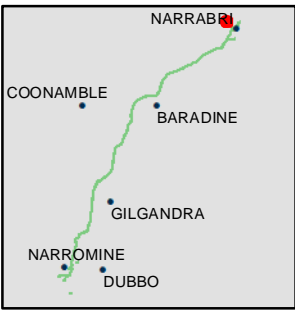
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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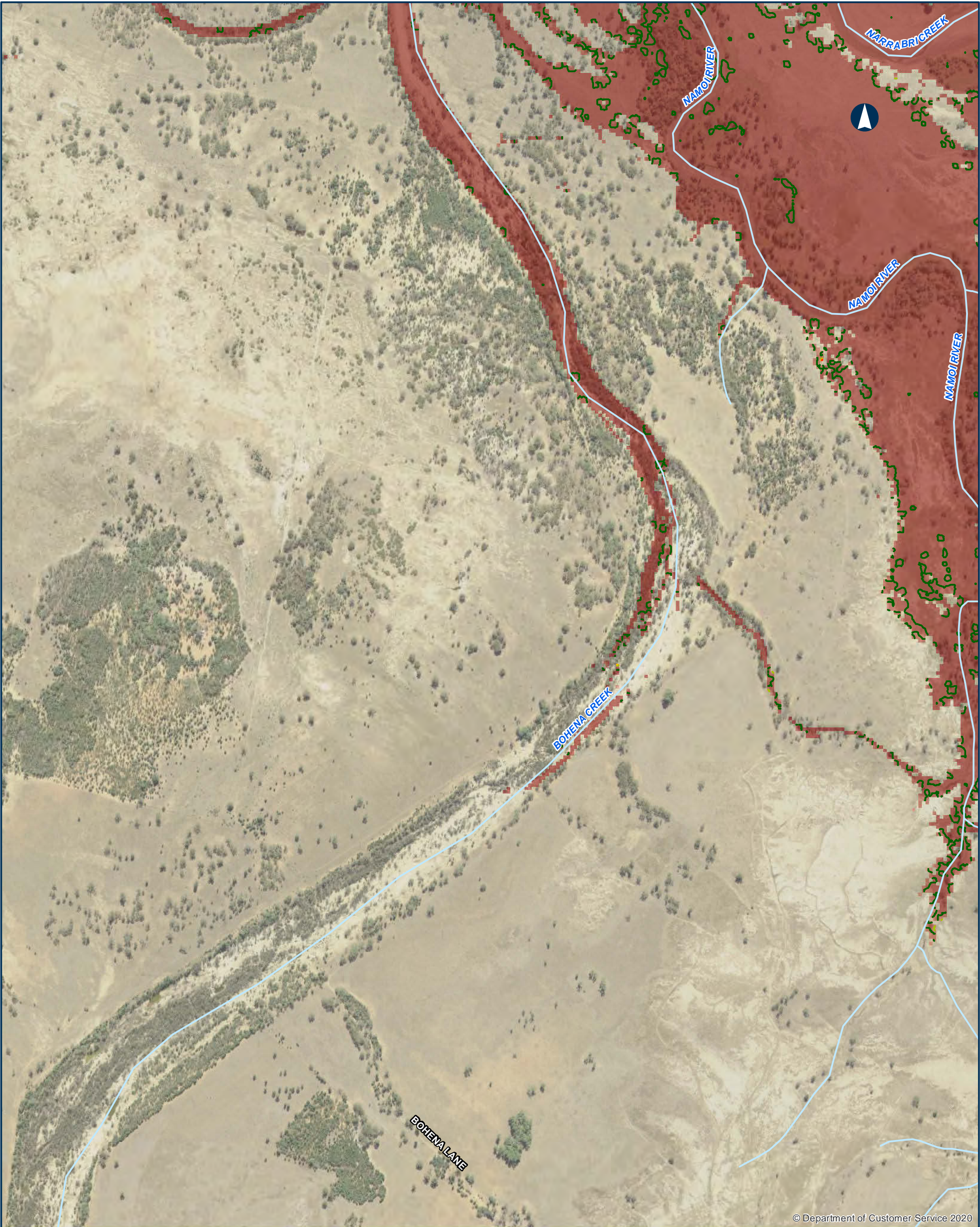
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road
Watercourse
- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Existing Duration of Inundation**
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.27

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Watercourse

Change in duration of inundation

Existing Duration of Inundation

0%

5%

10%

20%

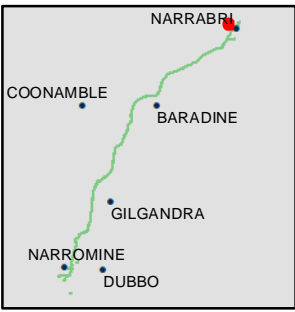
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

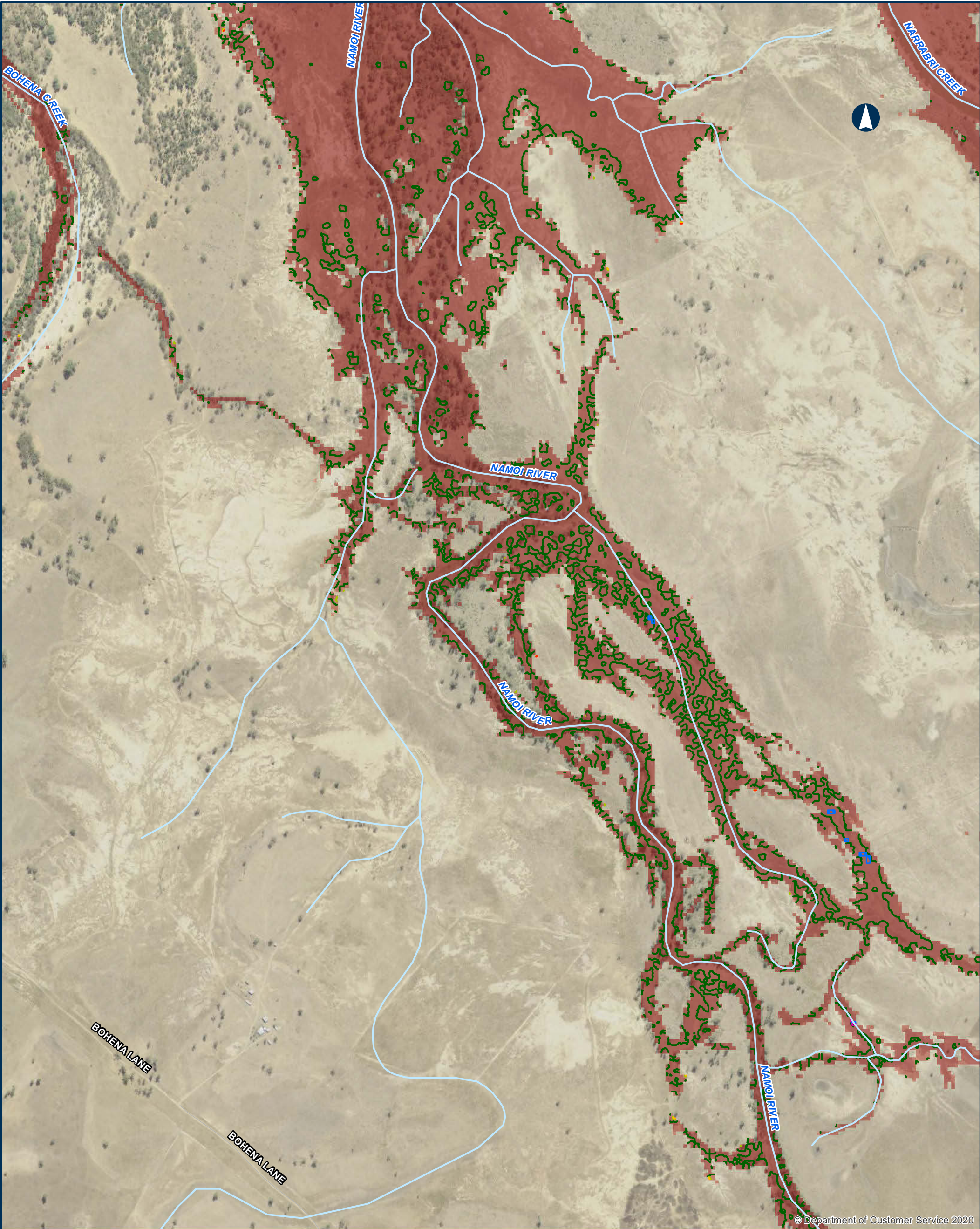
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.28

0 200 400 Metres

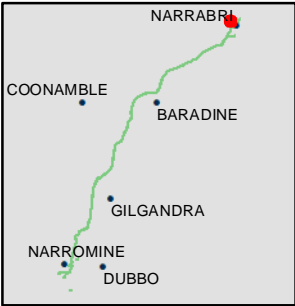
Coordinate System: GDA 1994 MGA Zone 55

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

- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure**
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%

- Existing Duration of Inundation**
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.29

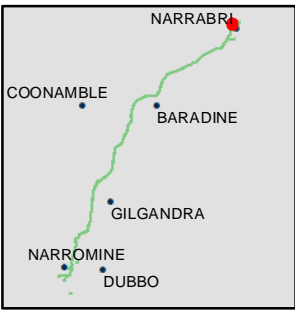
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure**
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation**
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.30

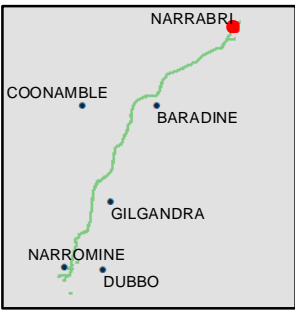
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- | | | |
|---|---|--|
| <ul style="list-style-type: none">BridgeAlignmentPrimary roadSub arterial roadLocal roadWatercourseThe proposalRail Corridor | Change in duration of inundation <ul style="list-style-type: none">0%5%10%20% Area of departure <ul style="list-style-type: none">Exist duration <1hr, design duration >1hrExist duration >1hr, duration change > 10% | Existing Duration of Inundation <ul style="list-style-type: none">< 1hr1hr - 3hrs3hrs - 6hrs6hrs - 12hrs12hrs - 24hrs> 24hrs |
|---|---|--|



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.31

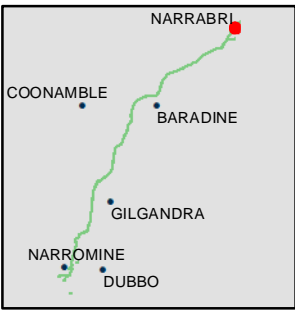
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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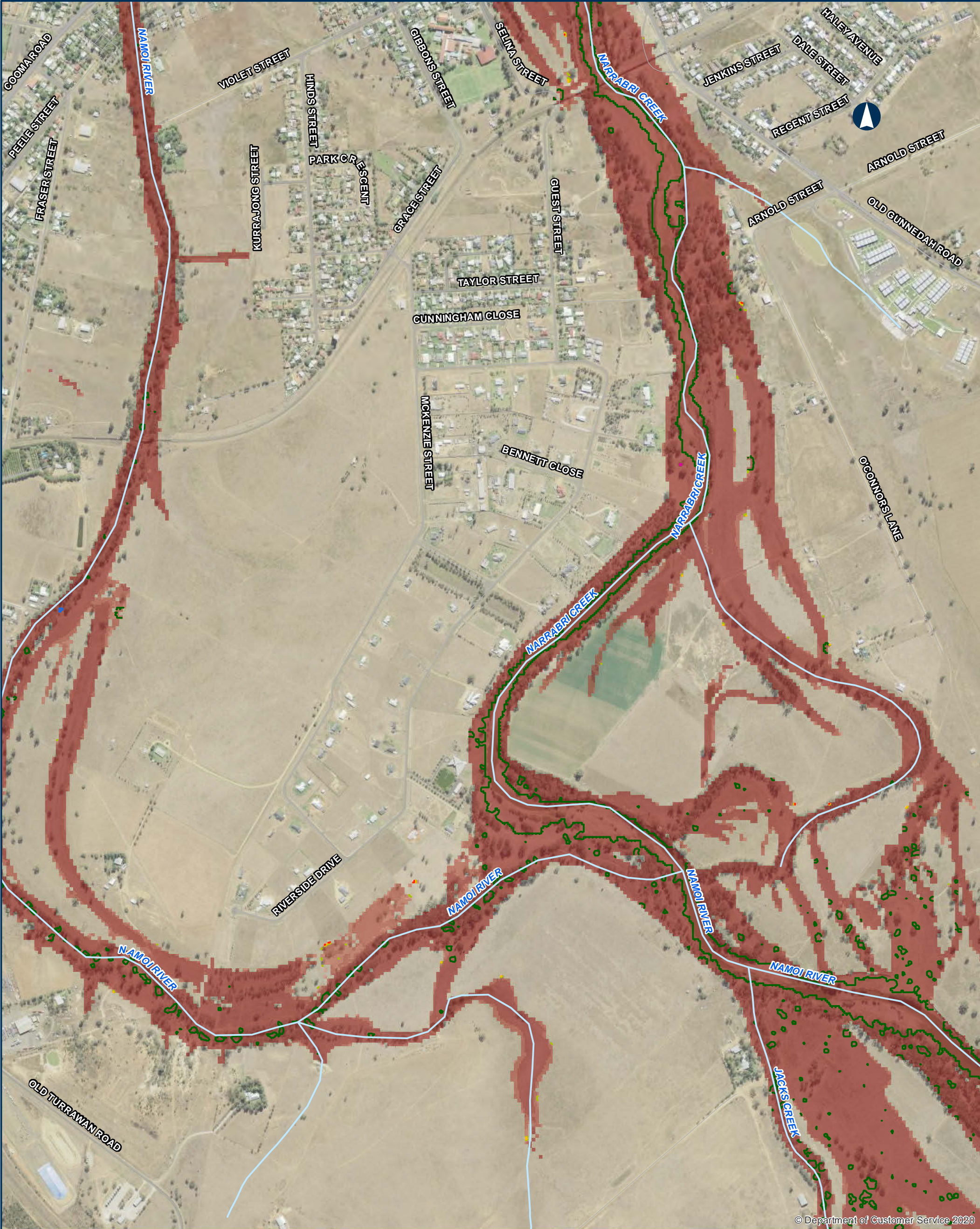
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- | | | |
|-------------------|--|---------------------------------|
| Bridge | Change in duration of inundation | Existing Duration of Inundation |
| Alignment | 0% | < 1hr |
| Primary road | 5% | 1hr - 3hrs |
| Sub arterial road | 10% | 3hrs - 6hrs |
| Local road | 20% | 6hrs - 12hrs |
| Watercourse | Area of departure | 12hrs - 24hrs |
| The proposal | Exist duration <1hr, design duration >1hr | > 24hrs |
| Rail Corridor | Exist duration >1hr, duration change > 10% | |



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.32

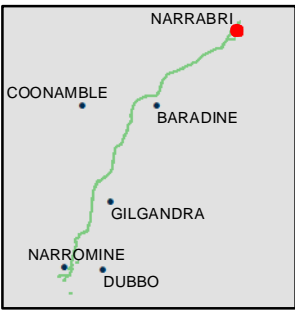
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure**
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation**
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.33

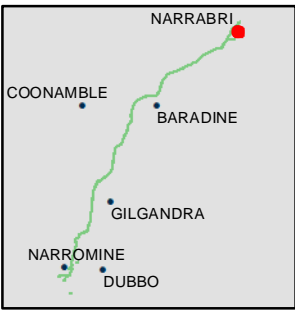
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Change in duration of inundation**
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure**
- Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation**
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.34

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Local road

Watercourse

Change in duration of inundation

0%

Existing Duration of Inundation

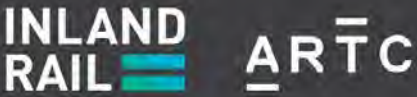
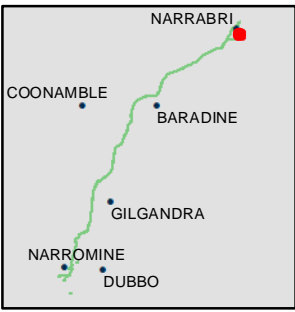
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.35

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

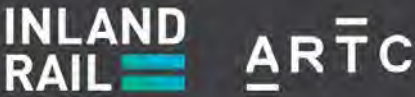
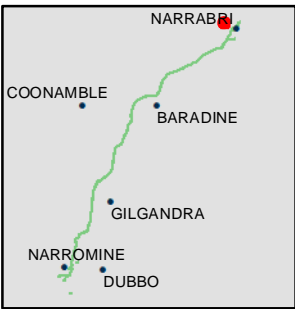
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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

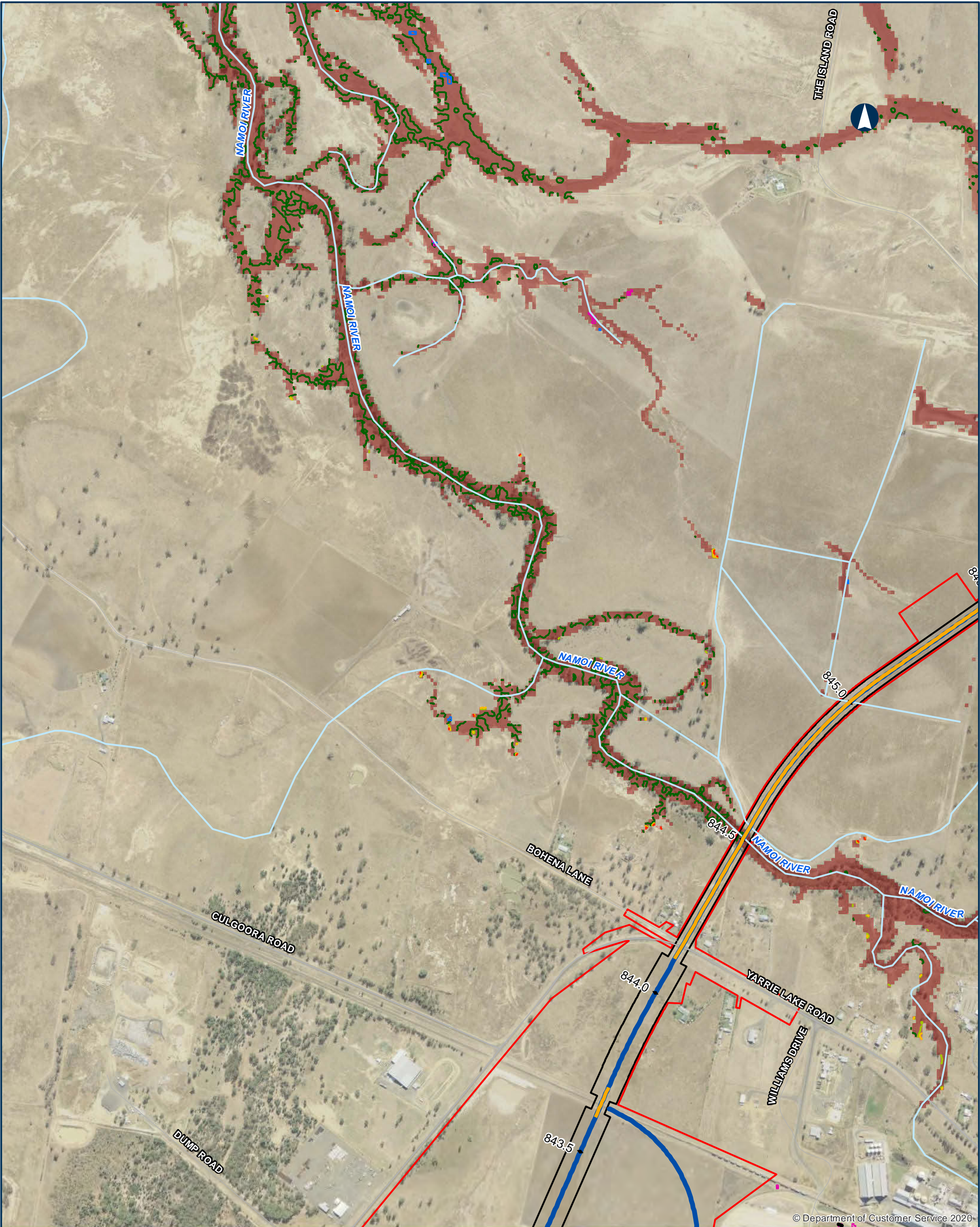
Local road
Watercourse

Change in duration of inundation
0%

Existing Duration of Inundation
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.36

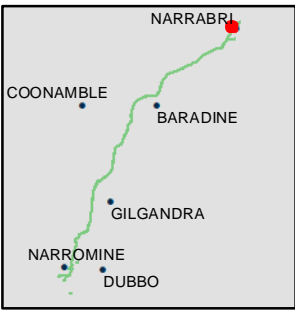
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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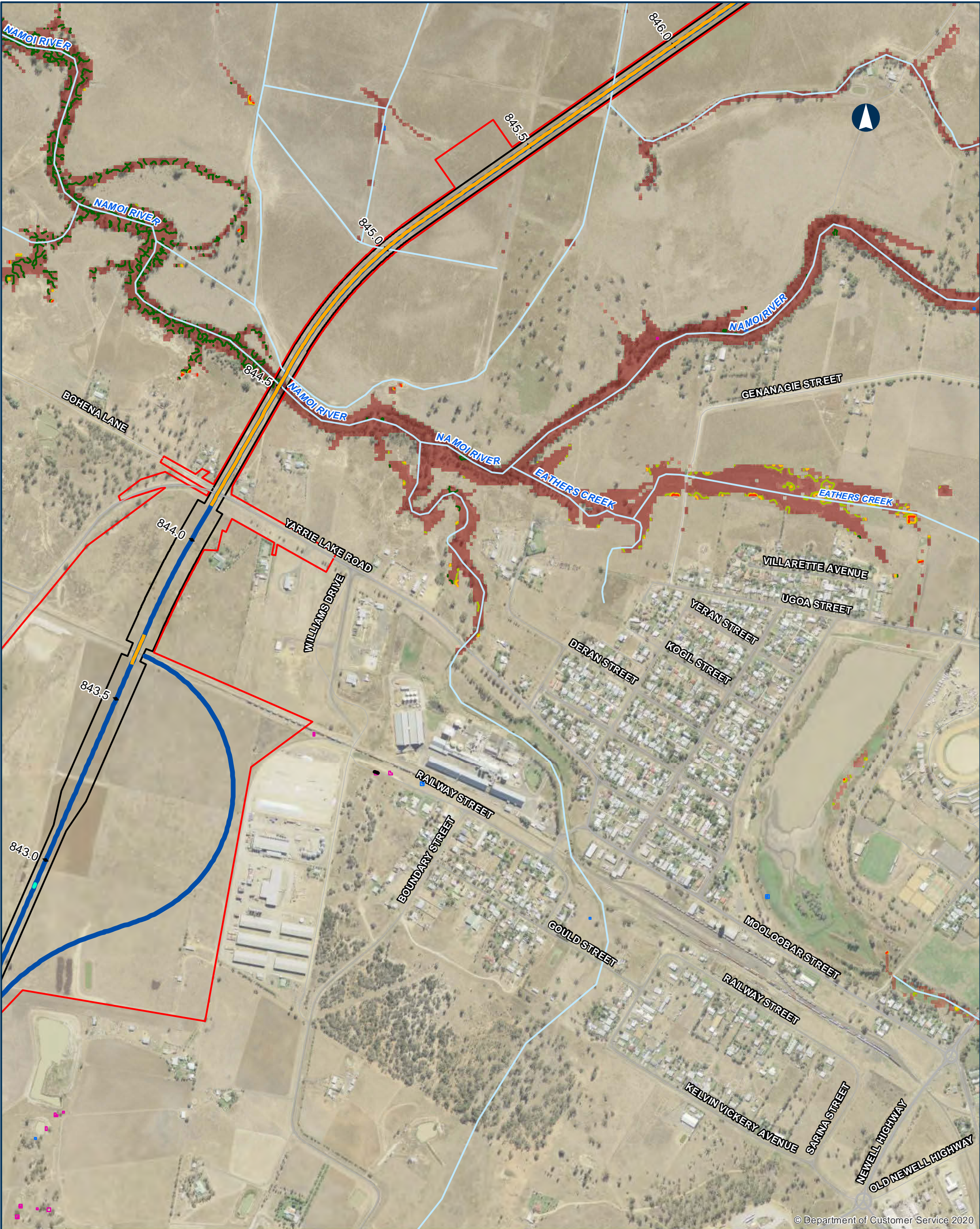
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- | | | |
|---|---|--|
| <ul style="list-style-type: none">BridgeAlignmentRoad QDL departureSub arterial roadLocal roadWatercourseThe proposalRail Corridor | Change in duration of inundation <ul style="list-style-type: none">0%5%10%20% Area of departure <ul style="list-style-type: none">Exist duration <1hr, design duration >1hrExist duration >1hr, duration change > 10% | Existing Duration of Inundation <ul style="list-style-type: none">< 1hr1hr - 3hrs3hrs - 6hrs6hrs - 12hrs12hrs - 24hrs> 24hrs |
|---|---|--|



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.37

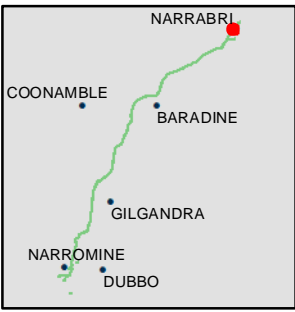
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- | | | |
|--------------------|--|---------------------------------|
| Bridge | Change in duration of inundation | Existing Duration of Inundation |
| Culvert | 0% | < 1hr |
| Alignment | 5% | 1hr - 3hrs |
| Road QDL departure | 10% | 3hrs - 6hrs |
| Primary road | 20% | 6hrs - 12hrs |
| Sub arterial road | Area of departure | 12hrs - 24hrs |
| Local road | Exist duration <1hr, design duration >1hr | > 24hrs |
| Watercourse | Exist duration >1hr, duration change > 10% | |
| The proposal | | |
| Rail Corridor | | |



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional Appendix B - Figure 4.5.38

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

Change in duration of inundation

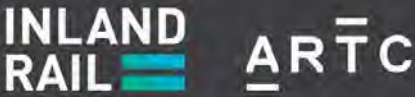
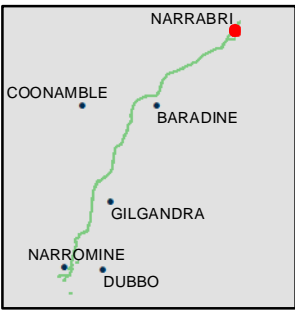
- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration <1hr, design duration >1hr

Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 20% AEP - Narrabri Regional

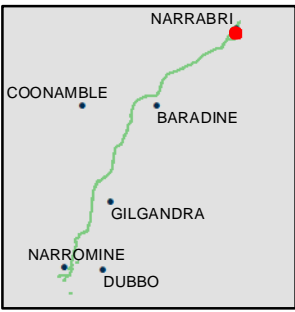
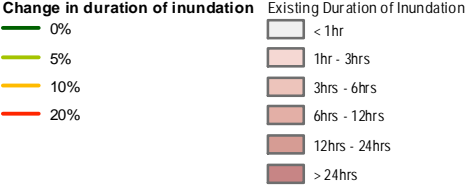
Appendix B - Figure 4.5.39

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 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 - Duration - 20% AEP - Narrabri Regional

Appendix B - Figure 4.5.40

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Primary road

Local road

Watercourse
- Change in duration of inundation

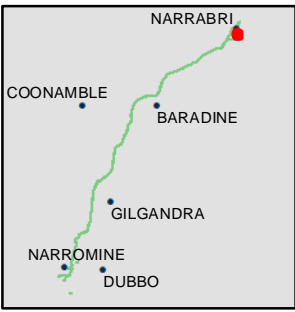
0%
- Existing Duration of Inundation

3hrs - 6hrs

6hrs - 12hrs

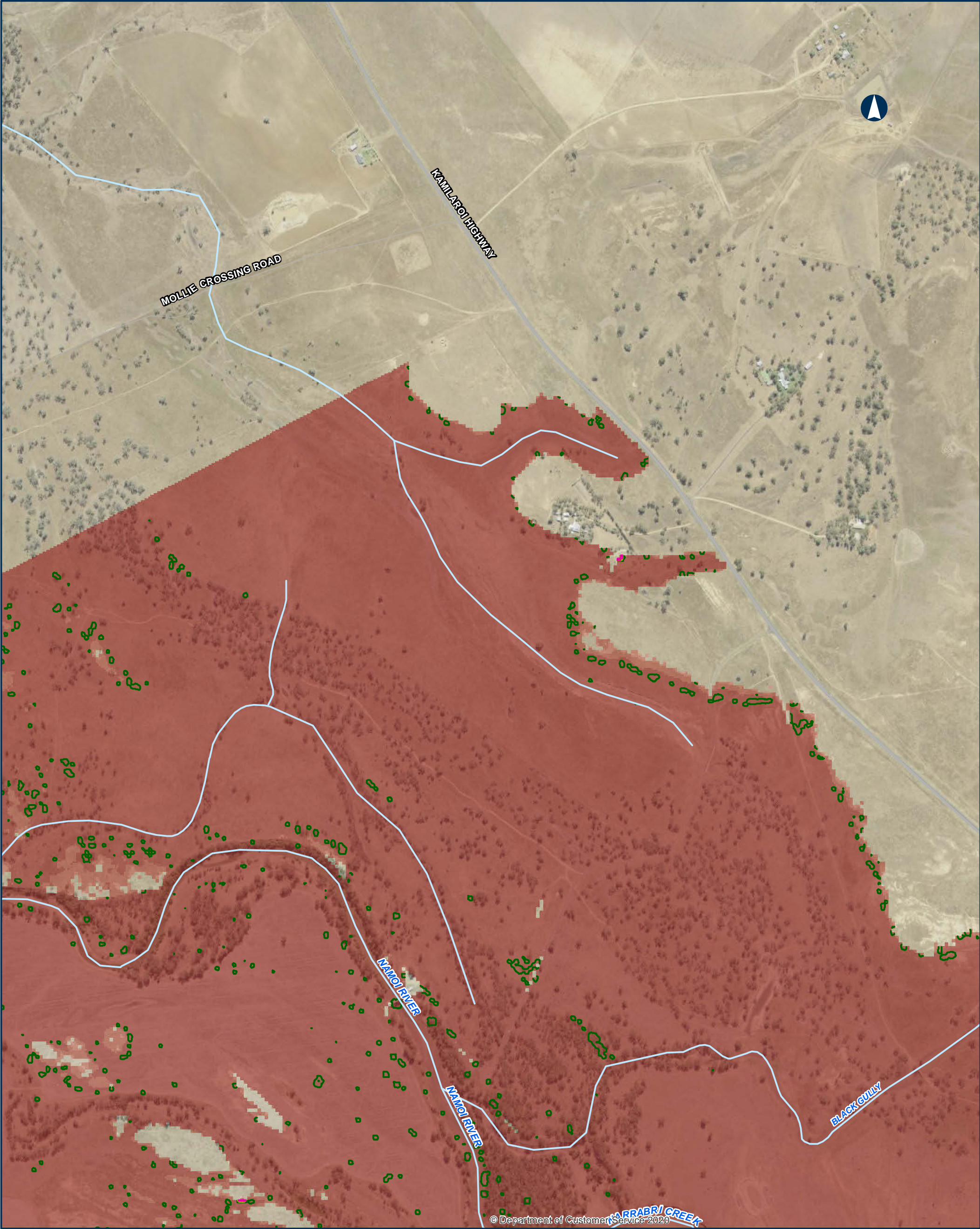
12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.1

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Author: JacobsGHD

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

Paper: A3

Scale: 1:10,000

Primary road

Local road

Watercourse

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

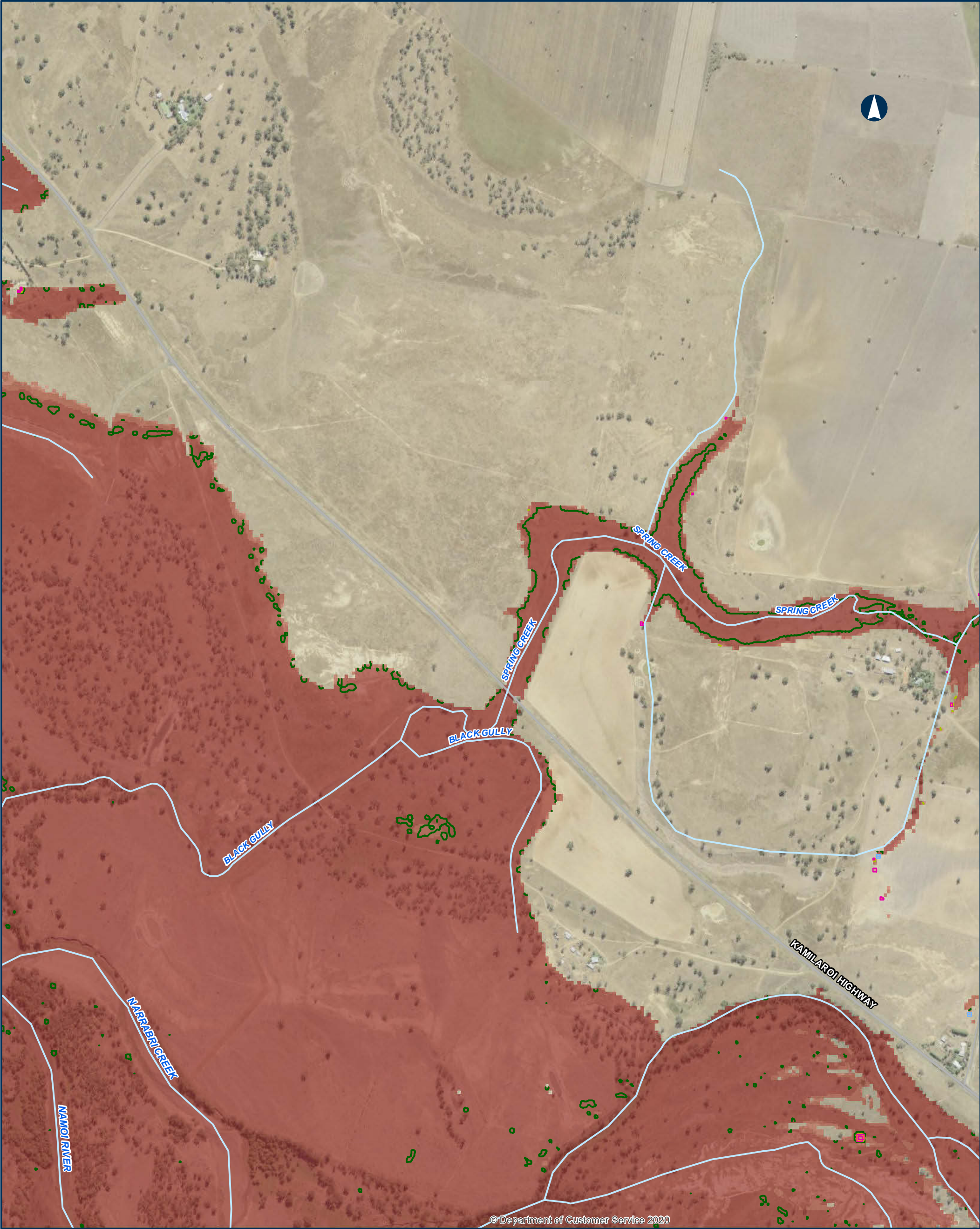
DUBBO

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N:\AD\Newcastle\Projects\2219593\GIS\GIS_2500_NZN_V2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EIS\WPAPP133_QDL_Regional_Duration_Spc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

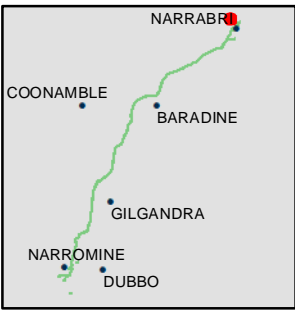
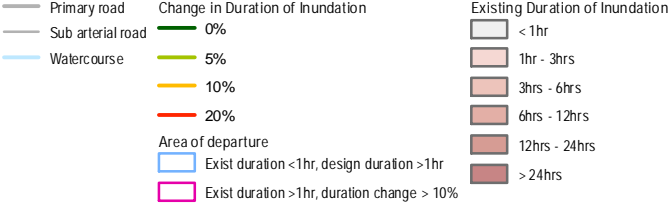
Appendix B - Figure 4.6.2

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

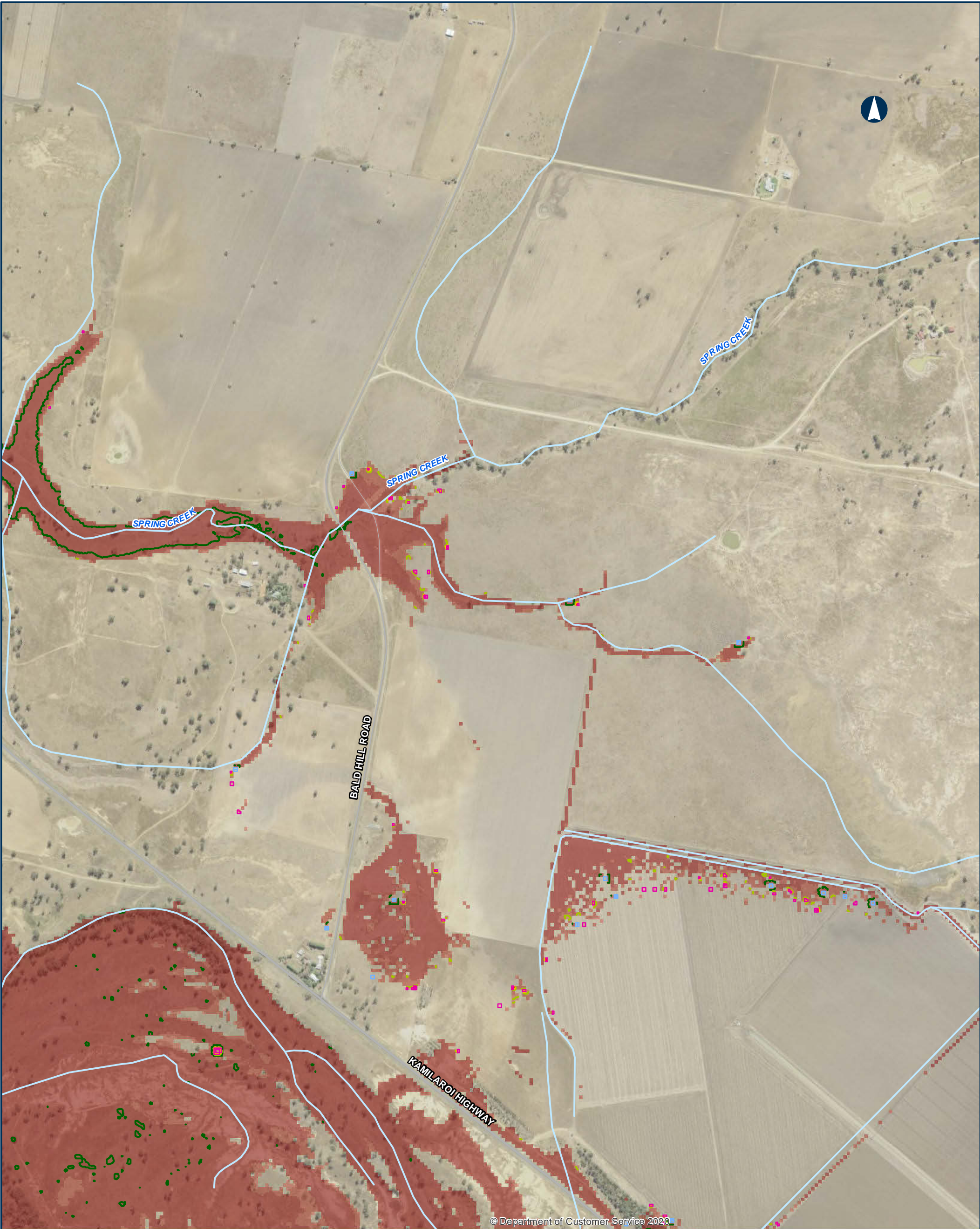
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.3

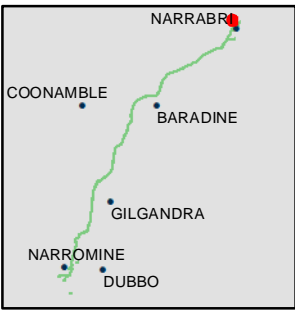
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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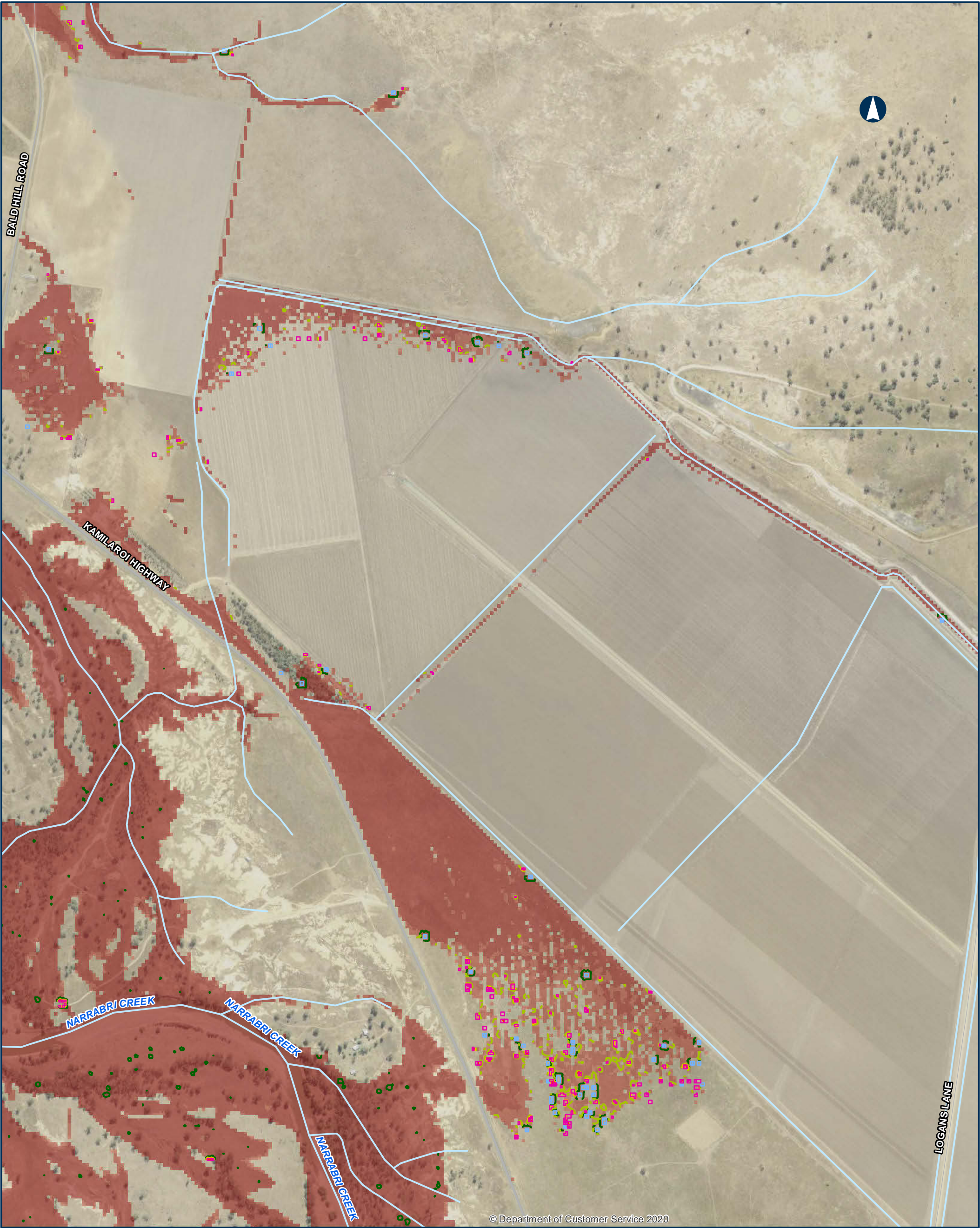
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
5%
10%
20%
- Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs
- Area of departure
Exist duration <1hr, design duration >1hr
Exist duration >1hr, duration change > 10%



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.4

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

Change in Duration of Inundation

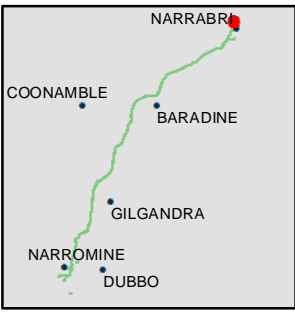
- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.5

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Culvert

Road QDL departure

Alignment

Primary road

Local road

Watercourse

The proposal

Rail Corridor

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

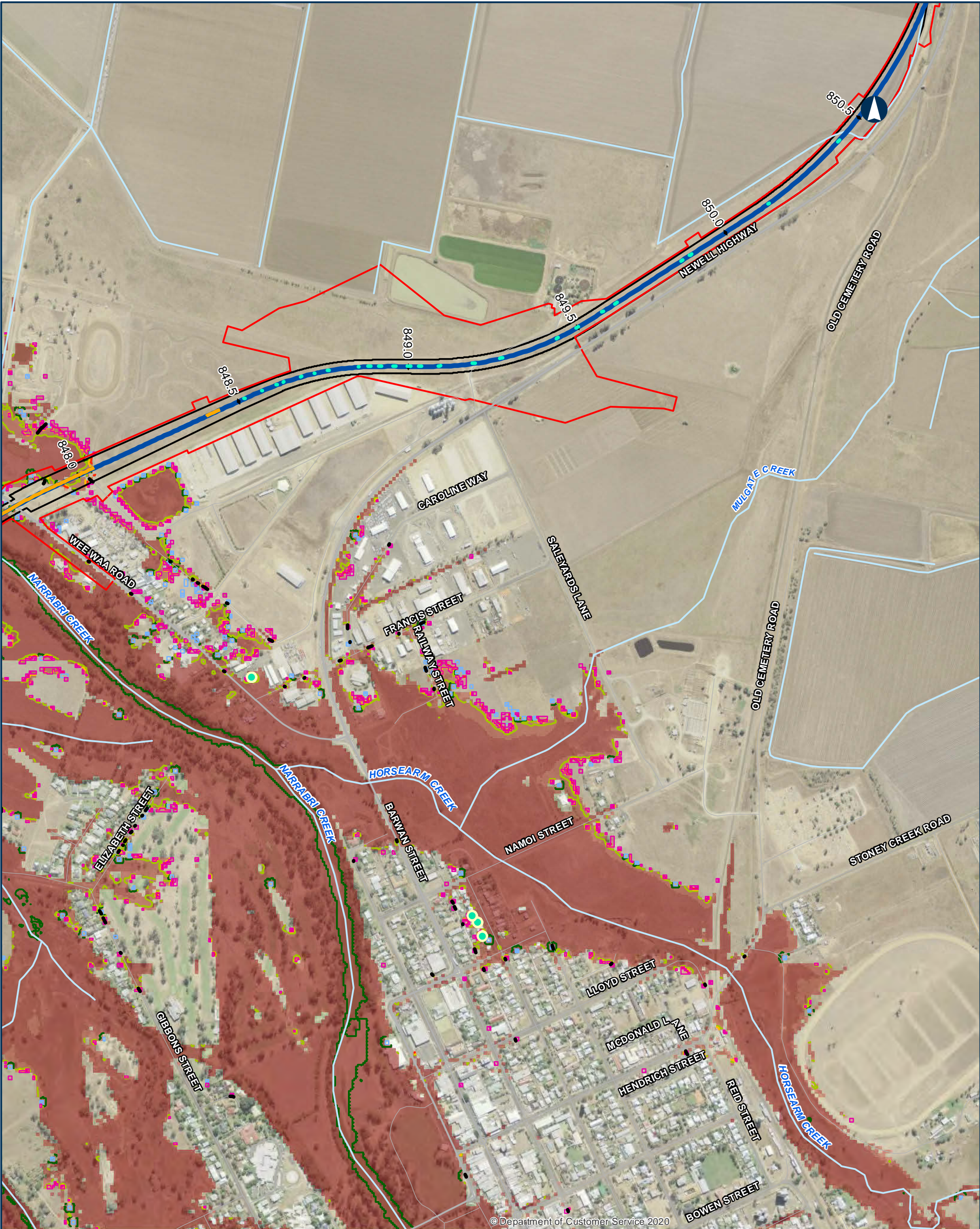
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N:\AU Newcasire\Projects\219593\GIS\GIS_2500_NZN_V2\Maps\Deliverables_SPIN\EIS\Flooding_Hydrology\Appendices\2500_EIS\FWPAPP133_QDL_Regional_Duration_Spc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.6

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- ODL departure habitable building
 - Bridge
 - Culvert
 - Road QDL departure
 - Alignment
 - Primary road
 - Sub arterial road
 - Local road
 - Watercourse
 - The proposal
 - Rail Corridor
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change >10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.7

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

Road QDL departure

- Sub arterial road
- Local road
- Watercourse

Change in Duration of Inundation

- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs

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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.8

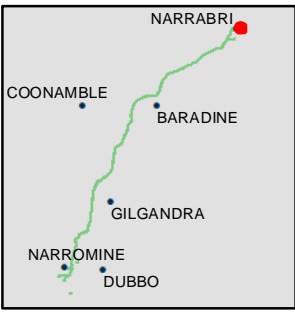
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Coordinate System: GDA 1994 MGA Zone 55

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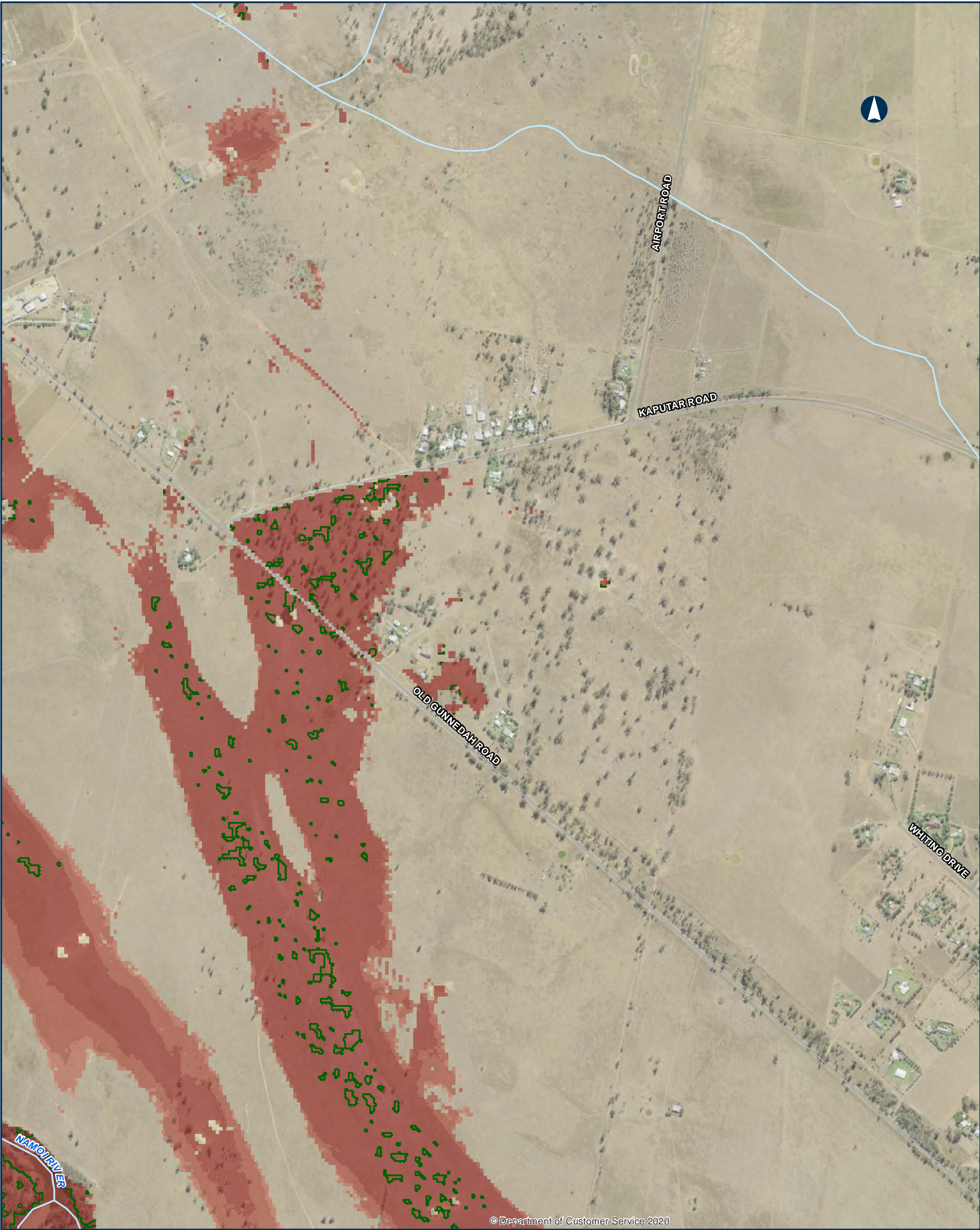
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.9

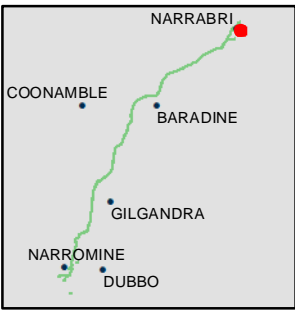
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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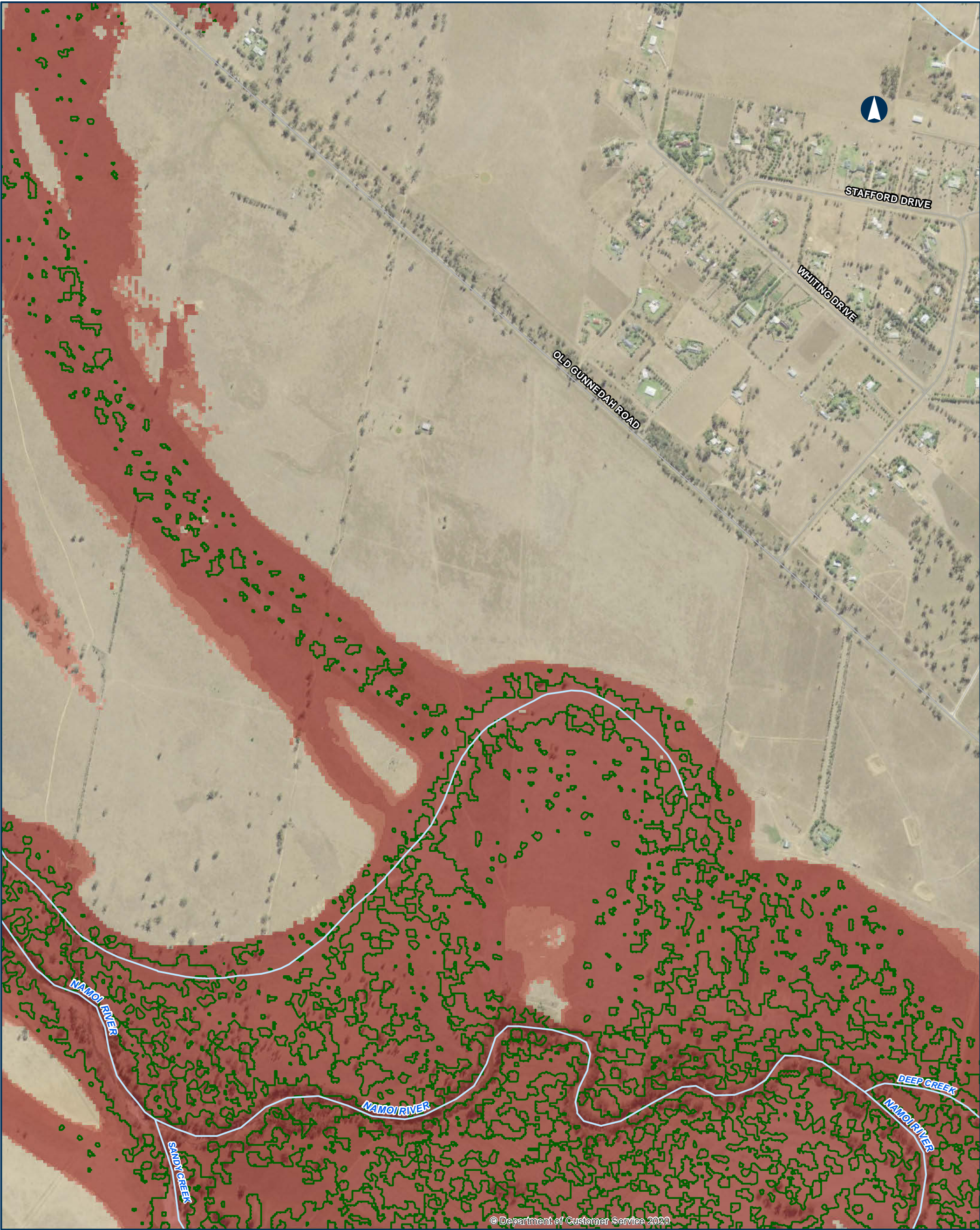
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.10

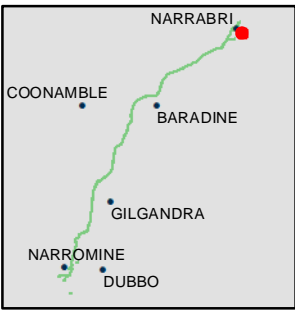
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



INLAND RAIL = ARTC

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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.11

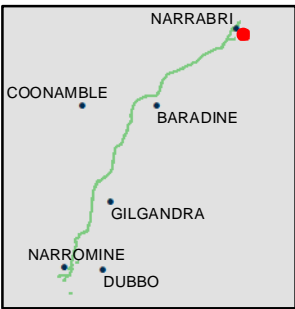
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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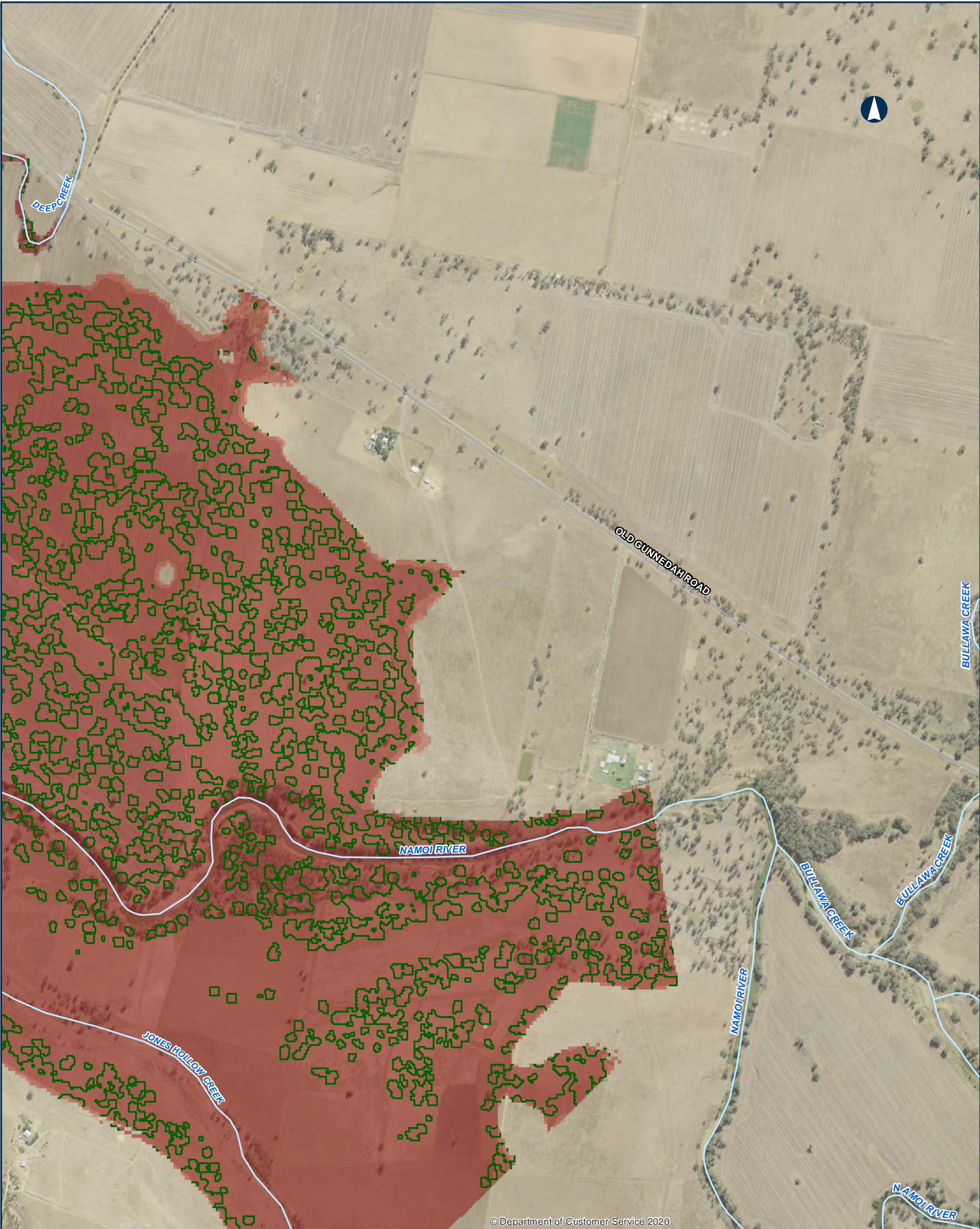
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.12

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Sub arterial road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

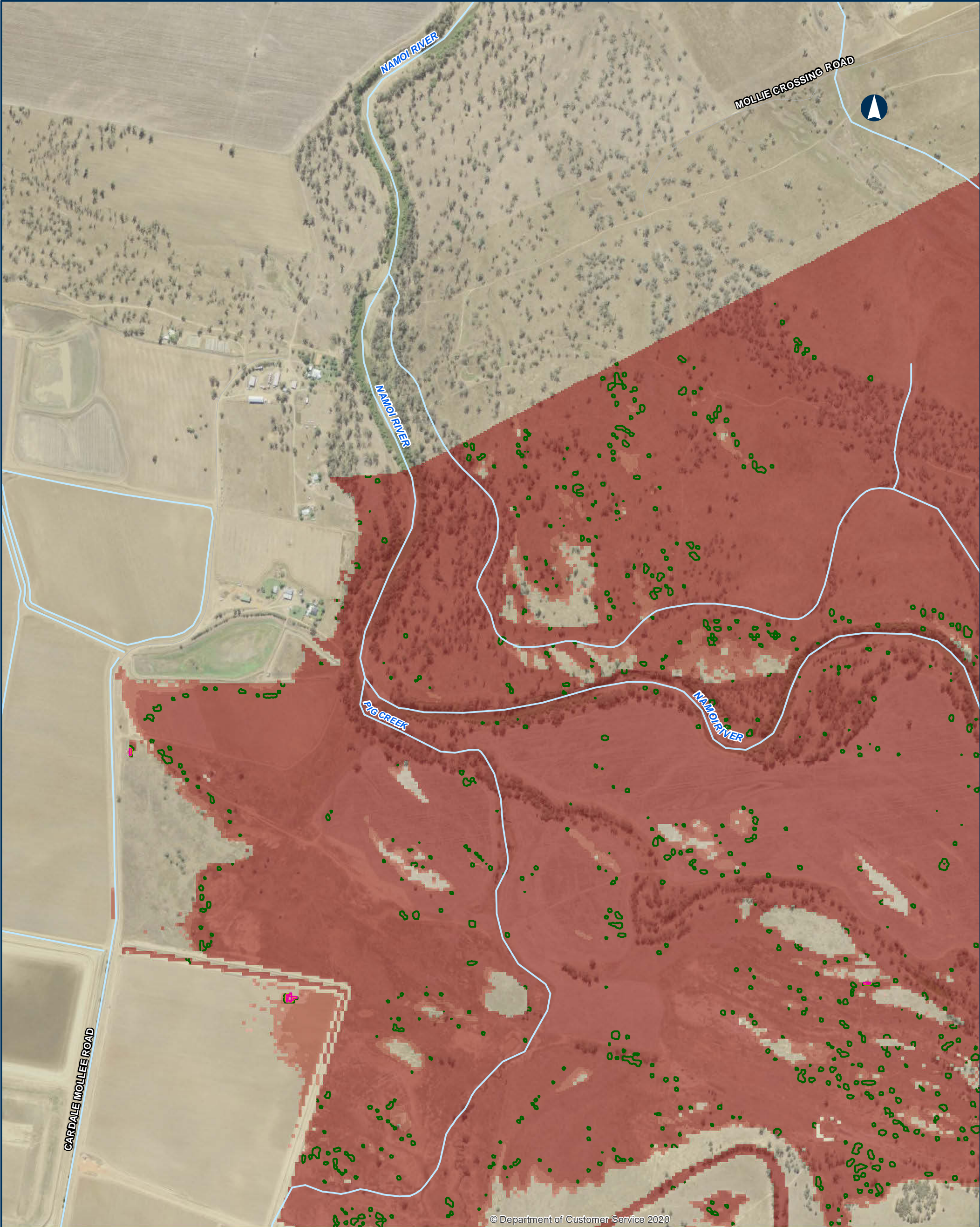
12hrs - 24hrs

> 24hrs

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N:\AU\Newcastle\Projects\219593\GIS\GIS_2500_NZN_V2\Maps\Deliverables_SPIN\EIS\Flooding_Hydrology\Appendices\2500_EIS\FWPAPP133_QDL_Regional_Duration_Spc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.13

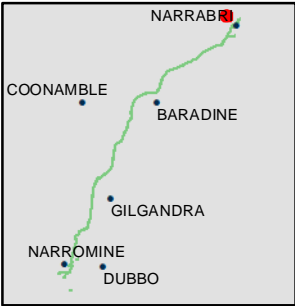
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Local road
Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
 - Area of departure
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.14

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Watercourse

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

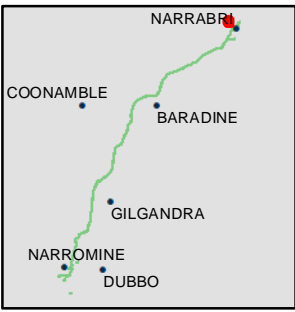
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

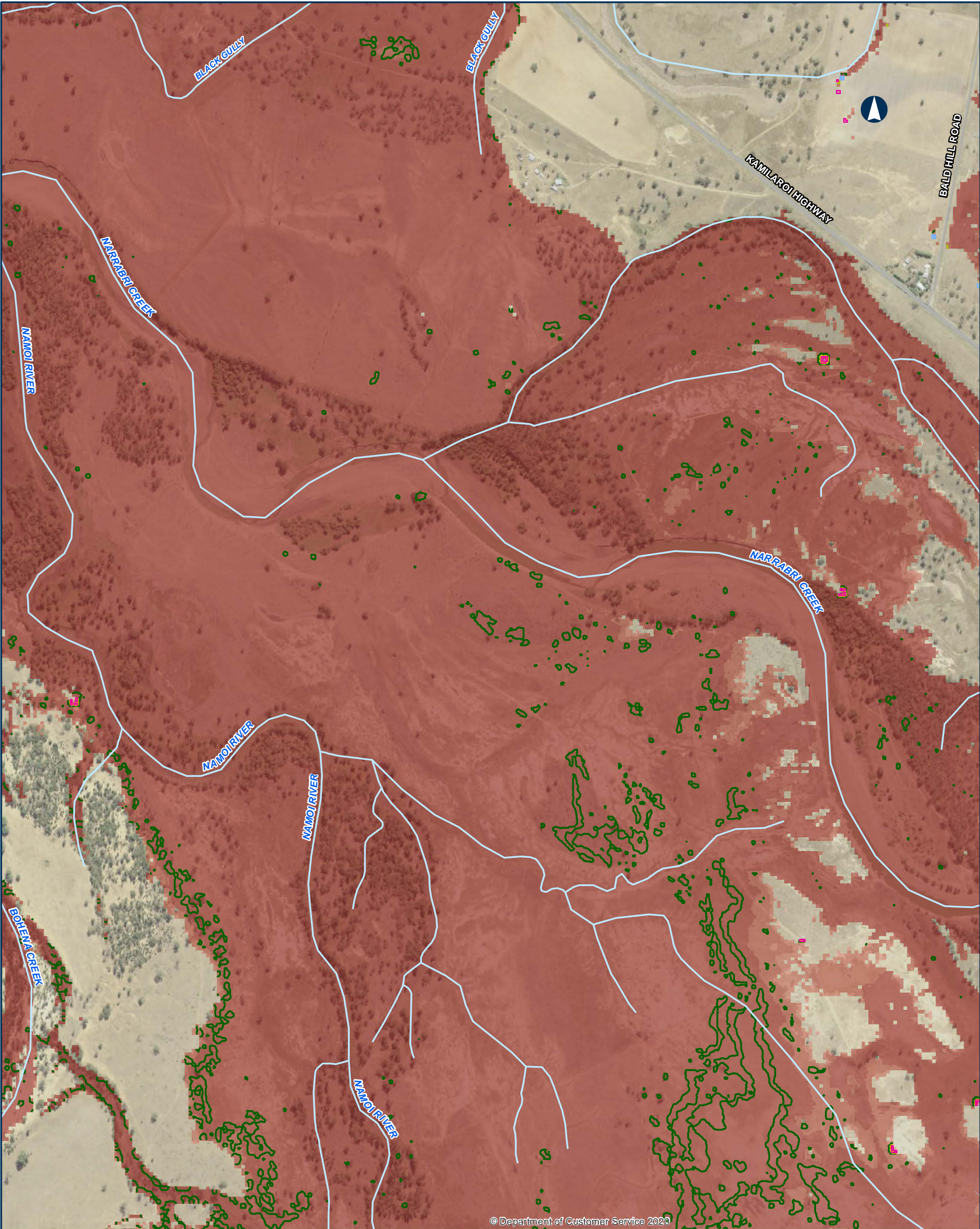
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.15

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

Change in Duration of Inundation

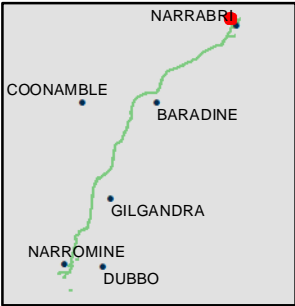
- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration < 1hr, design duration > 1hr
- Exist duration > 1hr, duration change > 10%

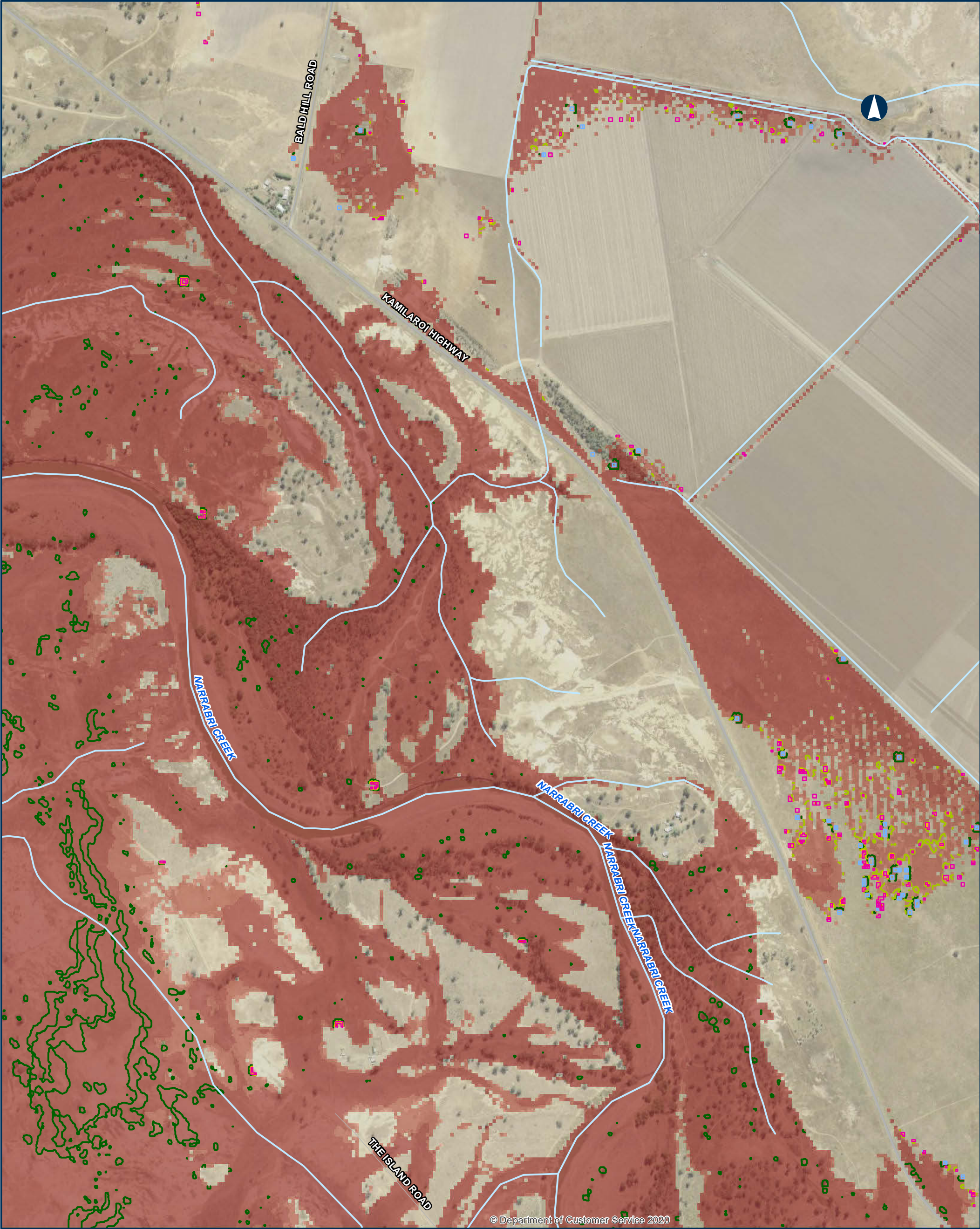
Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.16

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

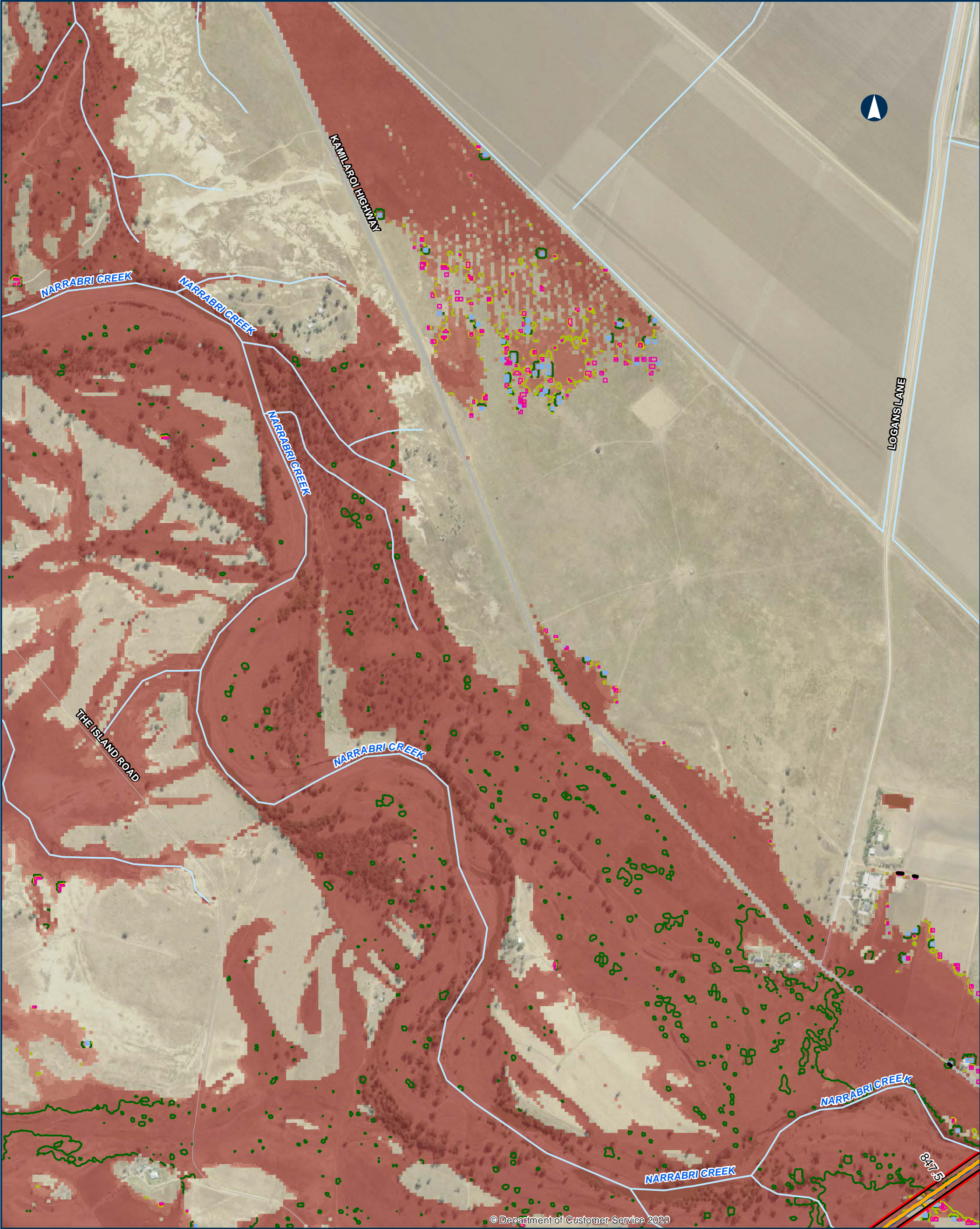
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.17

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Bridge

Road QDL departure

Alignment

Primary road

Local road

Watercourse

The proposal

Rail Corridor

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

DUBBO

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N:\AD\Newcastle\Projects\2119593\GIS\GIS_2500_NZN_V2\Maps\Deliverables_SPIN\EIS\Flooding_Hydrology\Appendices\2500_EIS\FWPAPP133_QDL_Regional_Duration_Spc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.18

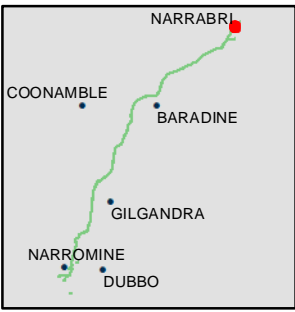
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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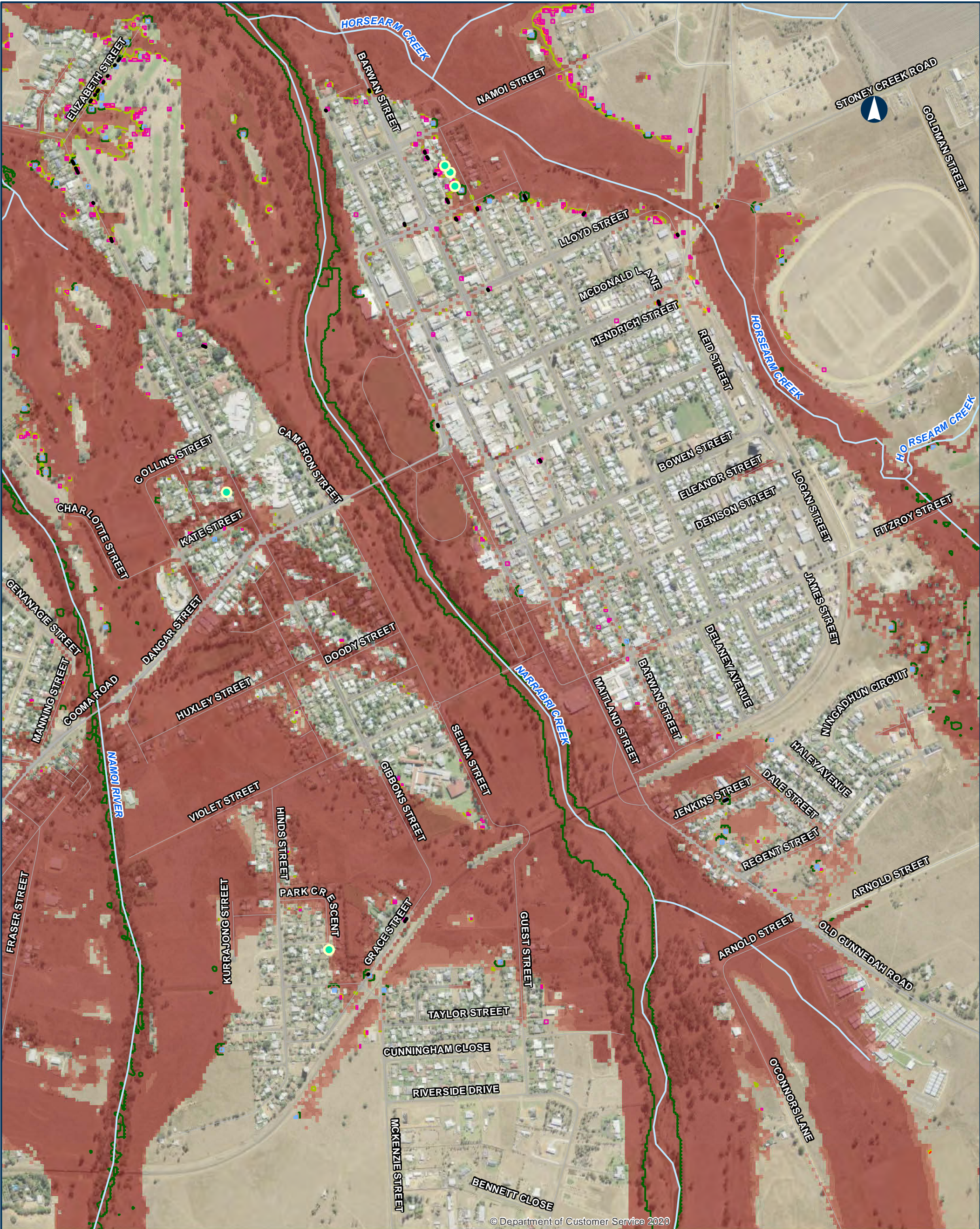
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- QDL departure habitable building
 - Bridge
 - Culvert
 - Road QDL departure
 - Alignment
 - Primary road
 - Local road
 - Watercourse
 - The proposal
 - Rail Corridor
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.19

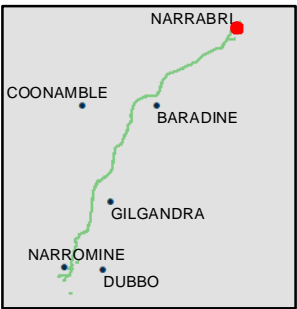
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.20

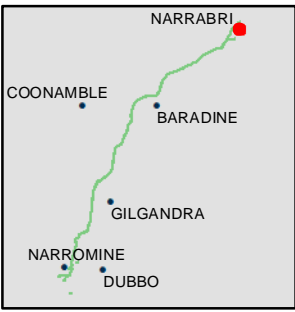
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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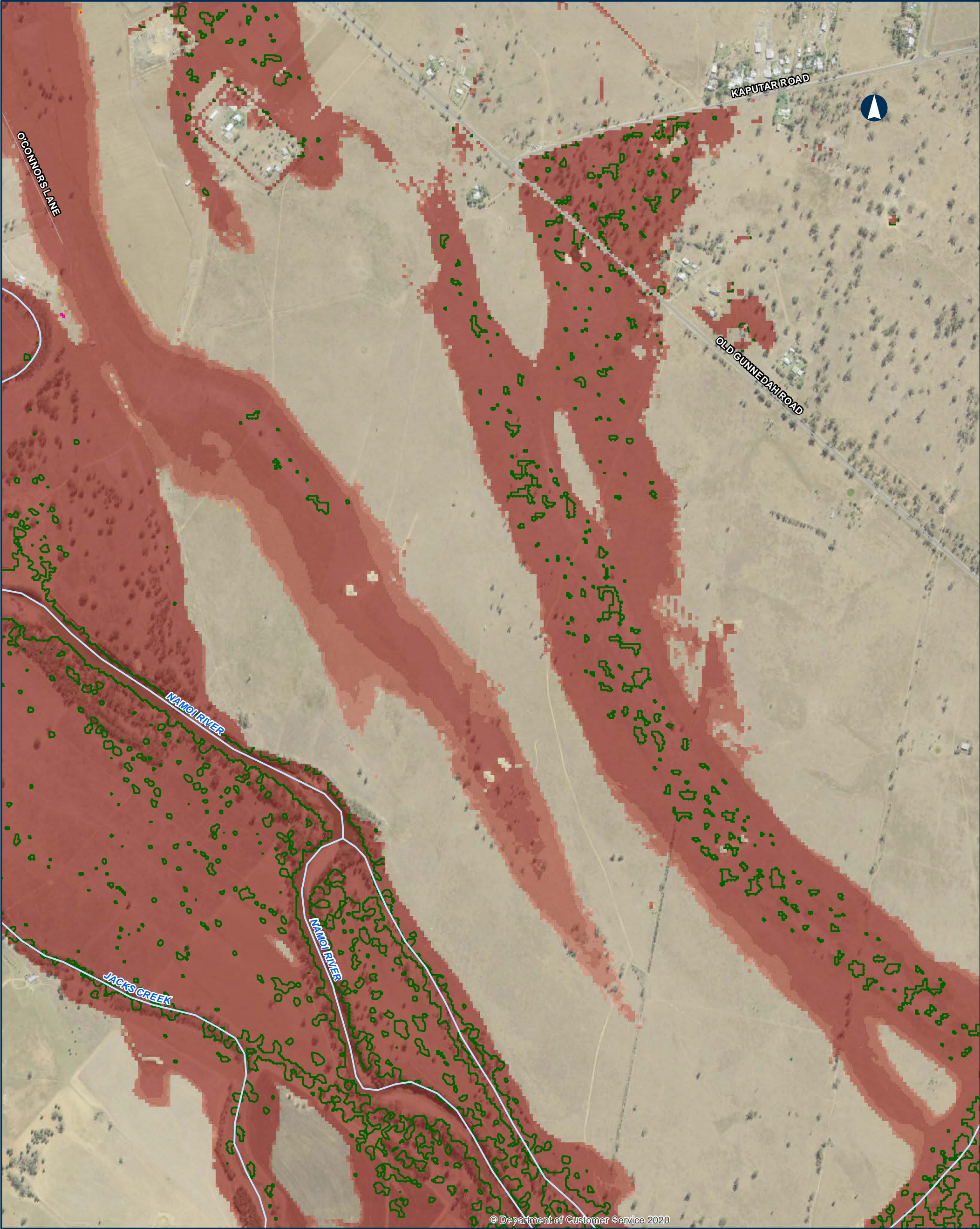
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Road QDL departure
- Sub arterial road
 - Local road
 - Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.21

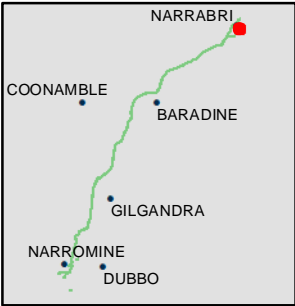
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.22

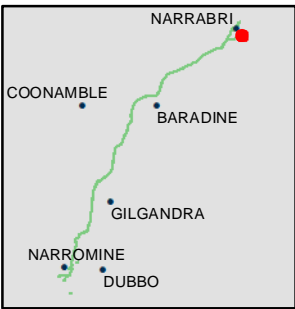
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Primary road
Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.23

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

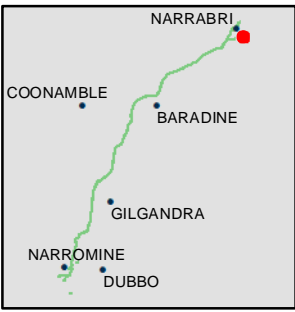
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Primary road
Sub arterial road
Watercourse

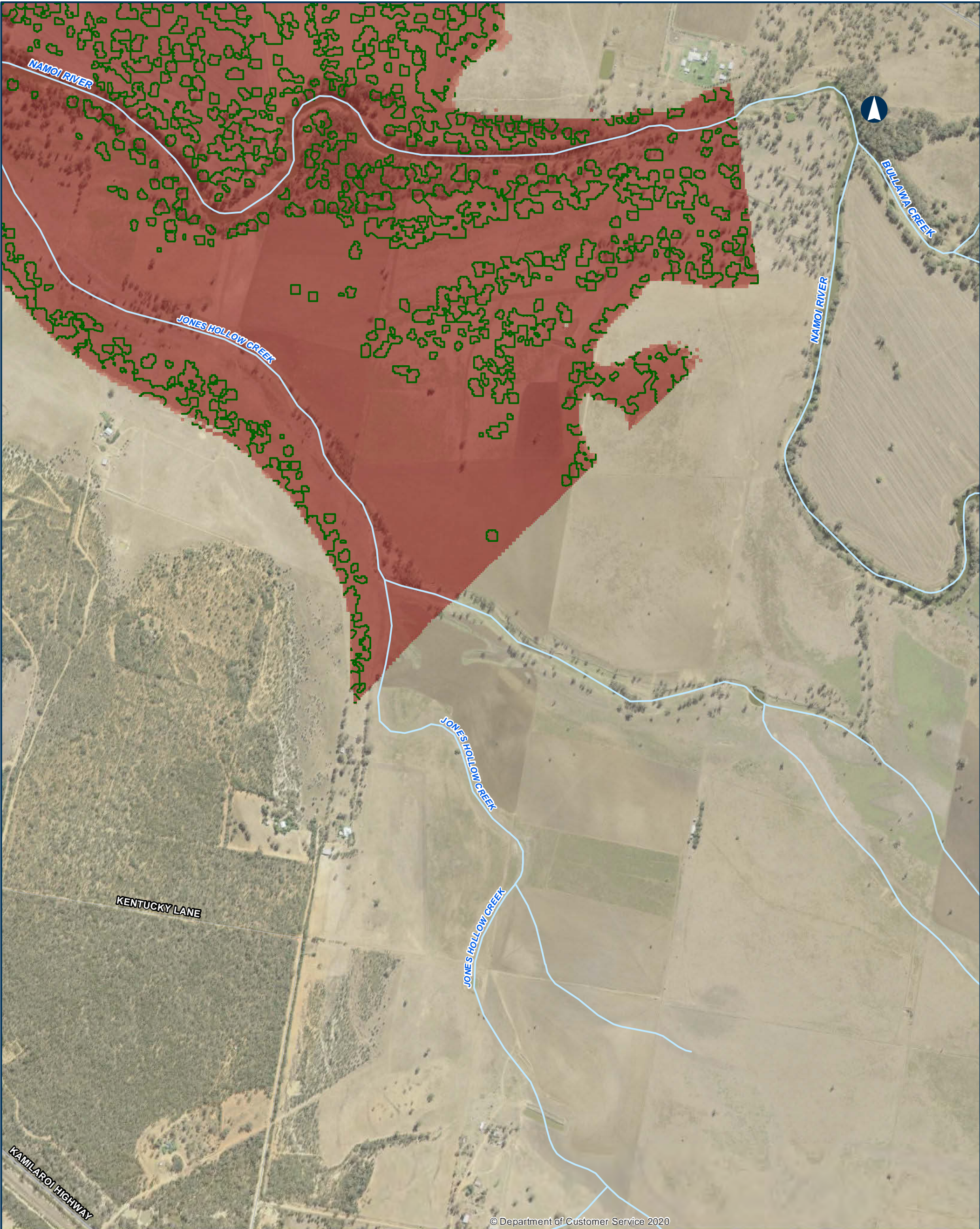
Change in Duration of Inundation
0%

Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.24

0200400

Metres

Primary road

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

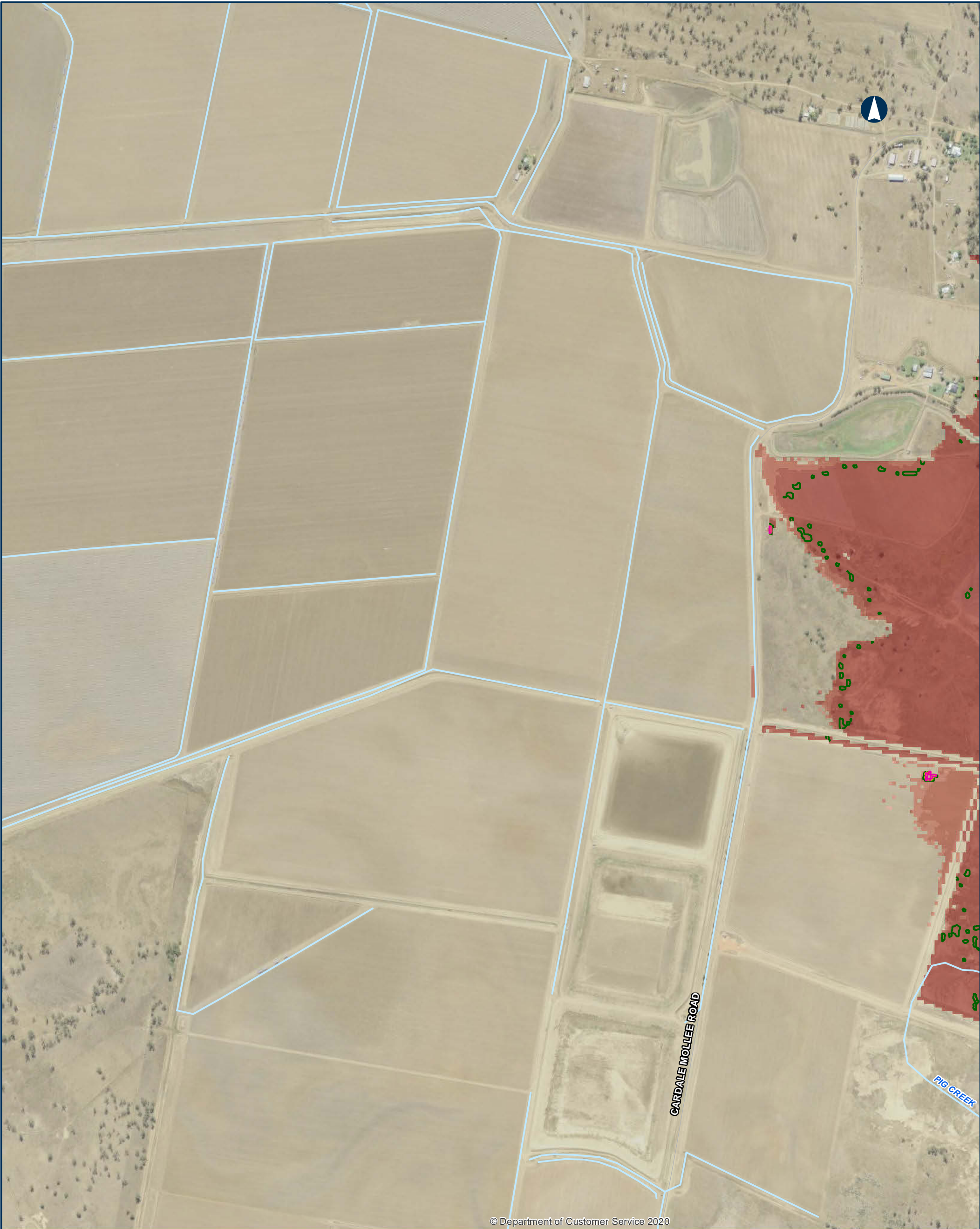
Author: JacobsGHD

Scale: 1:10,000

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

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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.25

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Local road

Watercourse

Change in Duration of Inundation

0%5%10%20%

Area of departure

Exist duration >1hr, duration change > 10%

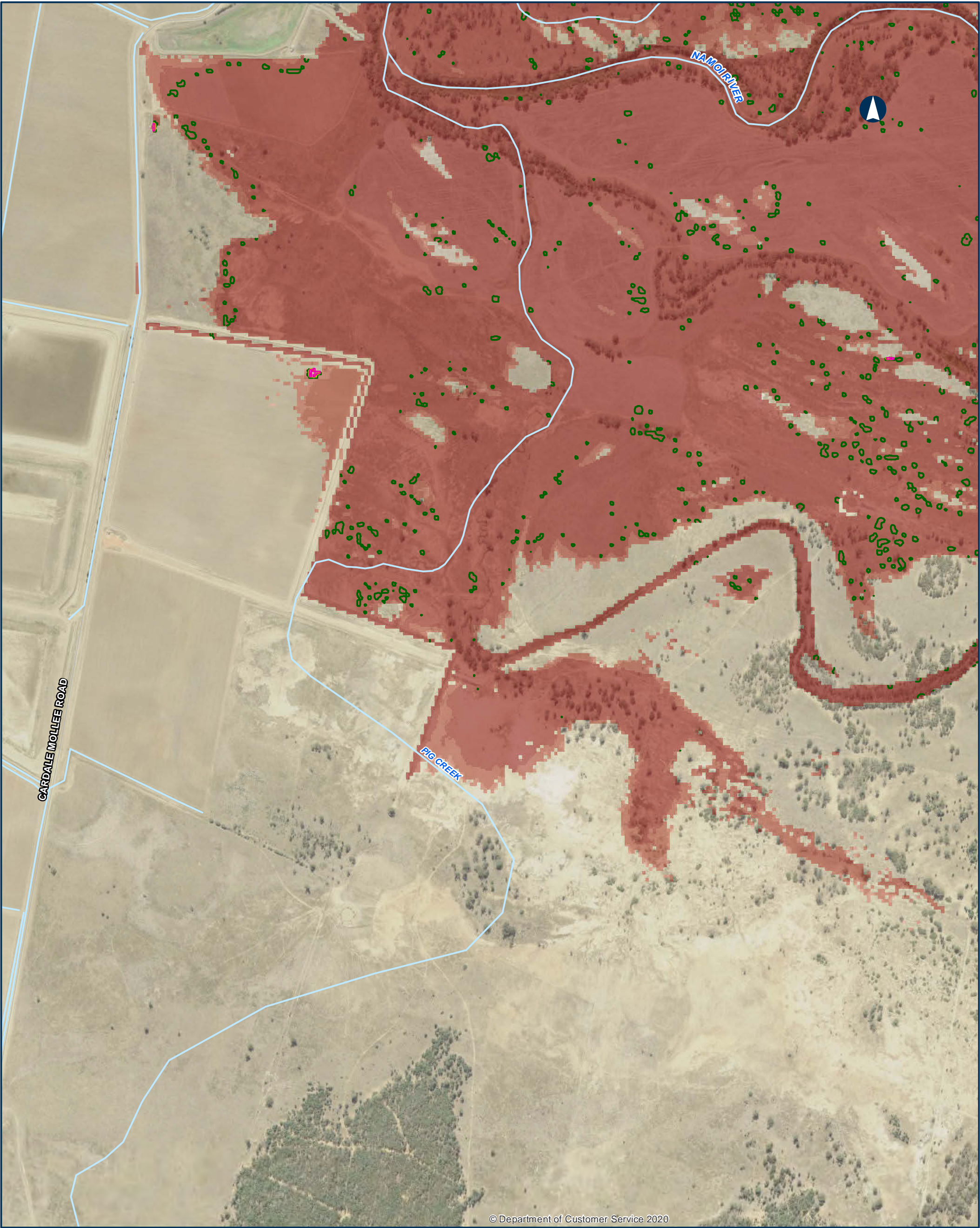
Existing Duration of Inundation

< 1hr1hr - 3hrs3hrs - 6hrs6hrs - 12hrs12hrs - 24hrs> 24hrs

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N:\A\Newcastle\Projects\219593\GIS\GIS_2500_N2N_V2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EIS\FWPAPP133_QDL_Regional_Duration_Spc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.26

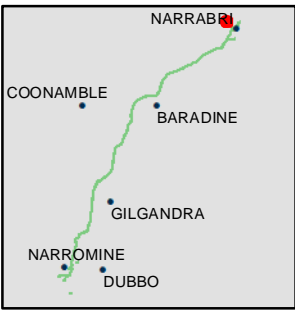
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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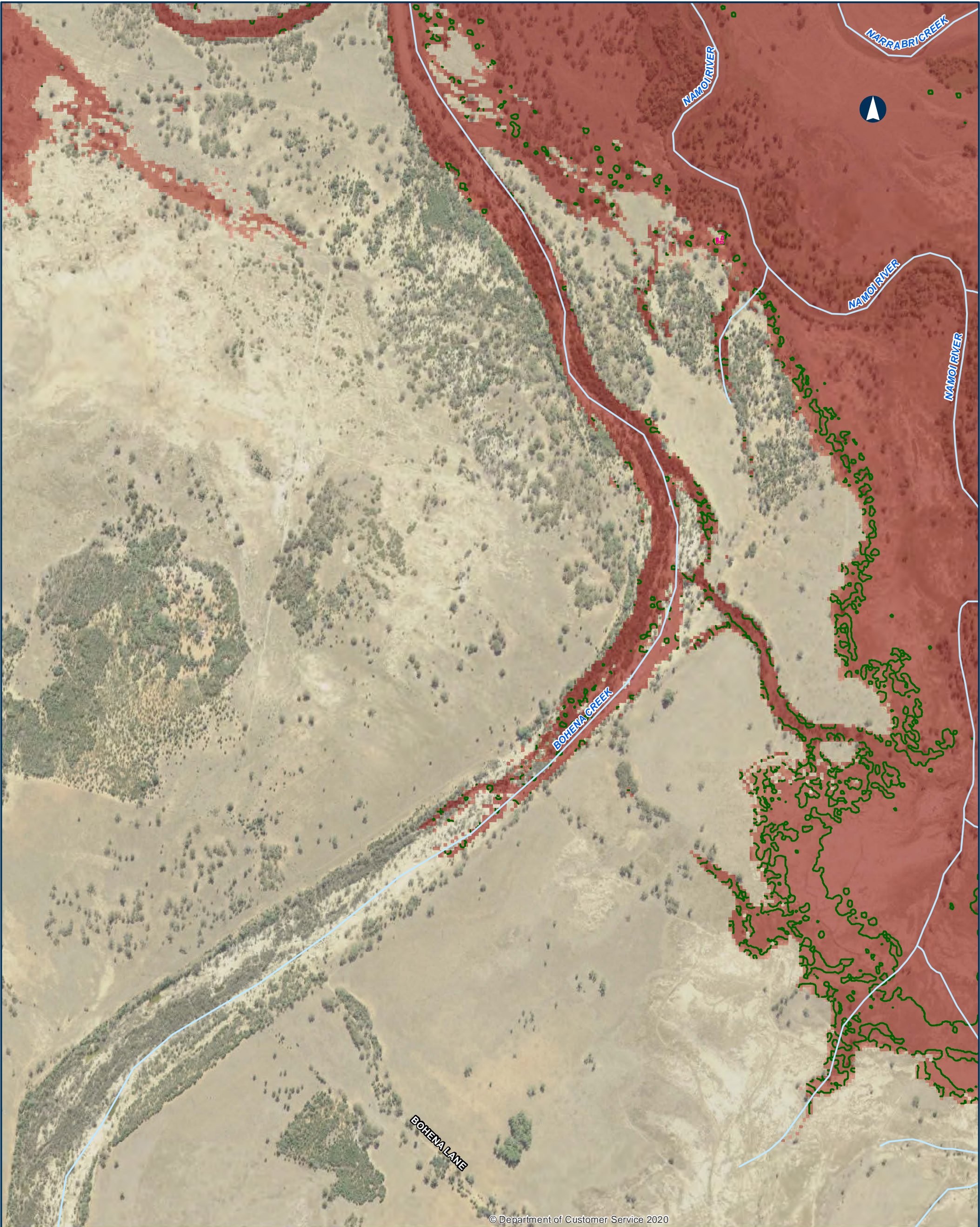
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road
Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
 - Area of departure
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.27

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Watercourse

Change in Duration of Inundation

Existing Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration >1hr, duration change > 10%

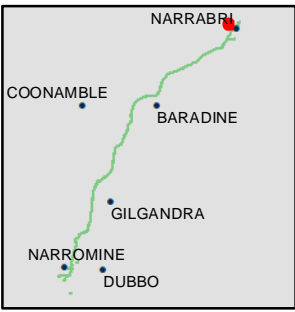
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.28

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Local road

Watercourse

Change in Duration of Inundation

Existing Duration of Inundation

0%

5%

10%

20%

Exist duration >1hr, duration change > 10%

< 1hr

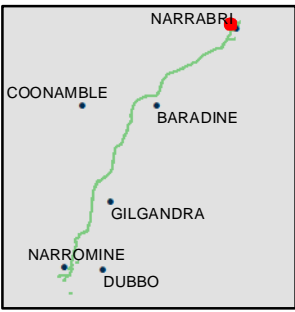
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.29

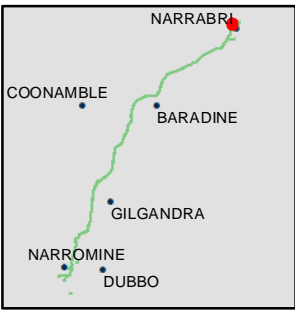
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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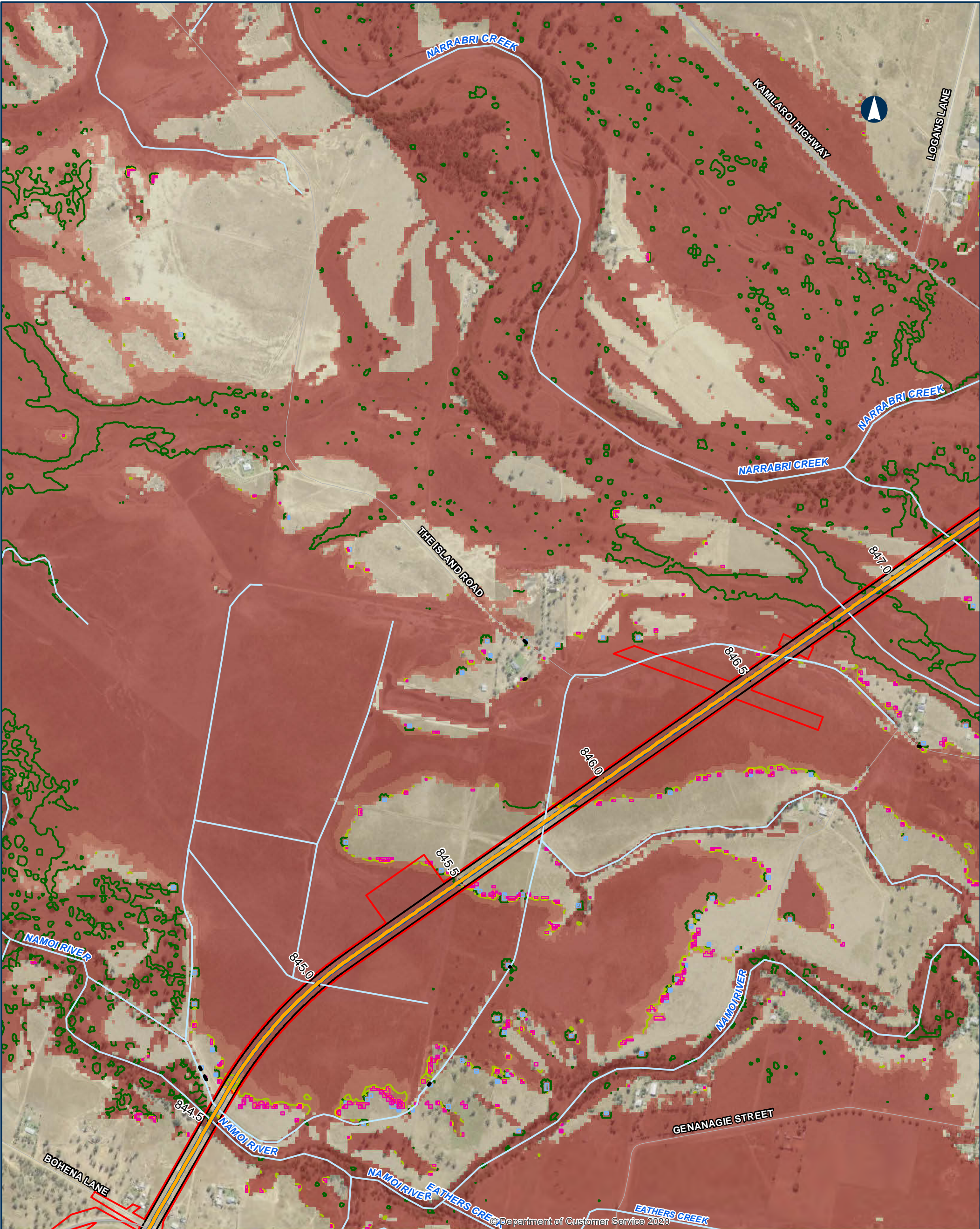
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Road QDL departure
- Primary road
 - Local road
 - Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.30

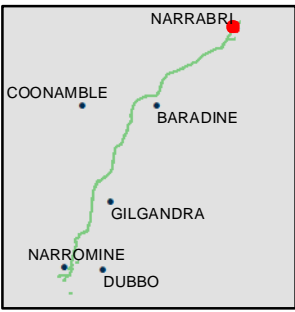
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Bridge
 - Road QDL departure
 - Alignment
 - Primary road
 - Sub arterial road
 - Local road
 - Watercourse
 - The proposal
 - Rail Corridor
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.31

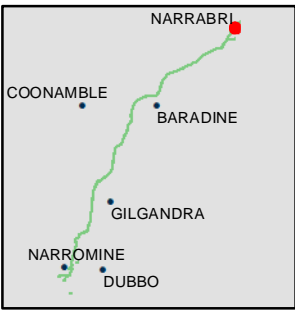
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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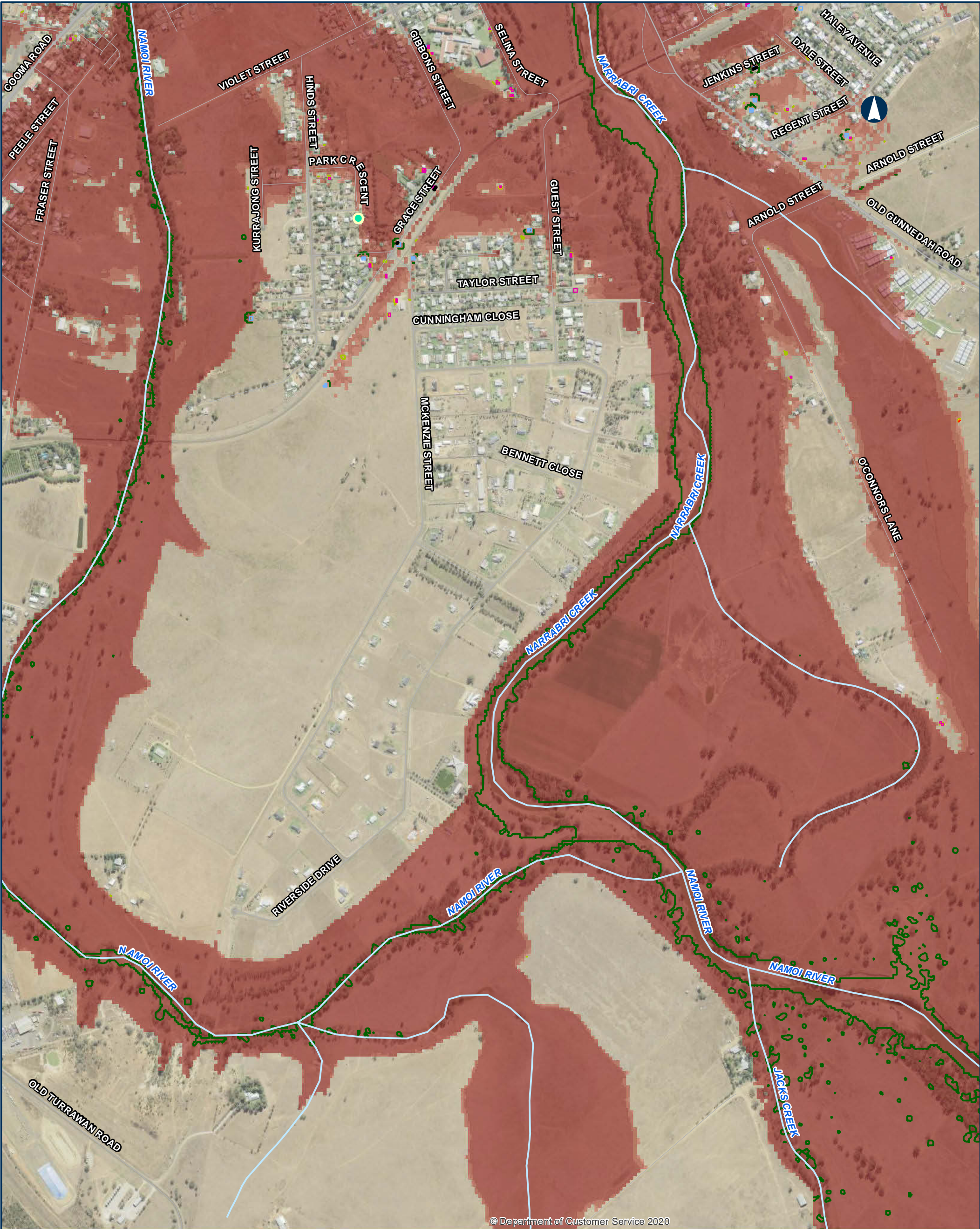
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- ODL departure habitable building
 - Bridge
 - Road QDL departure
 - Alignment
 - Primary road
 - Sub arterial road
 - Local road
 - Watercourse
 - The proposal
 - Rail Corridor
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.32

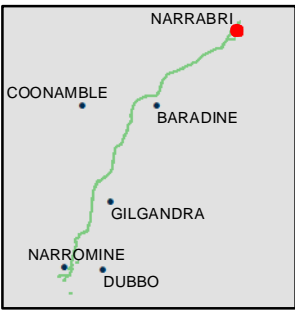
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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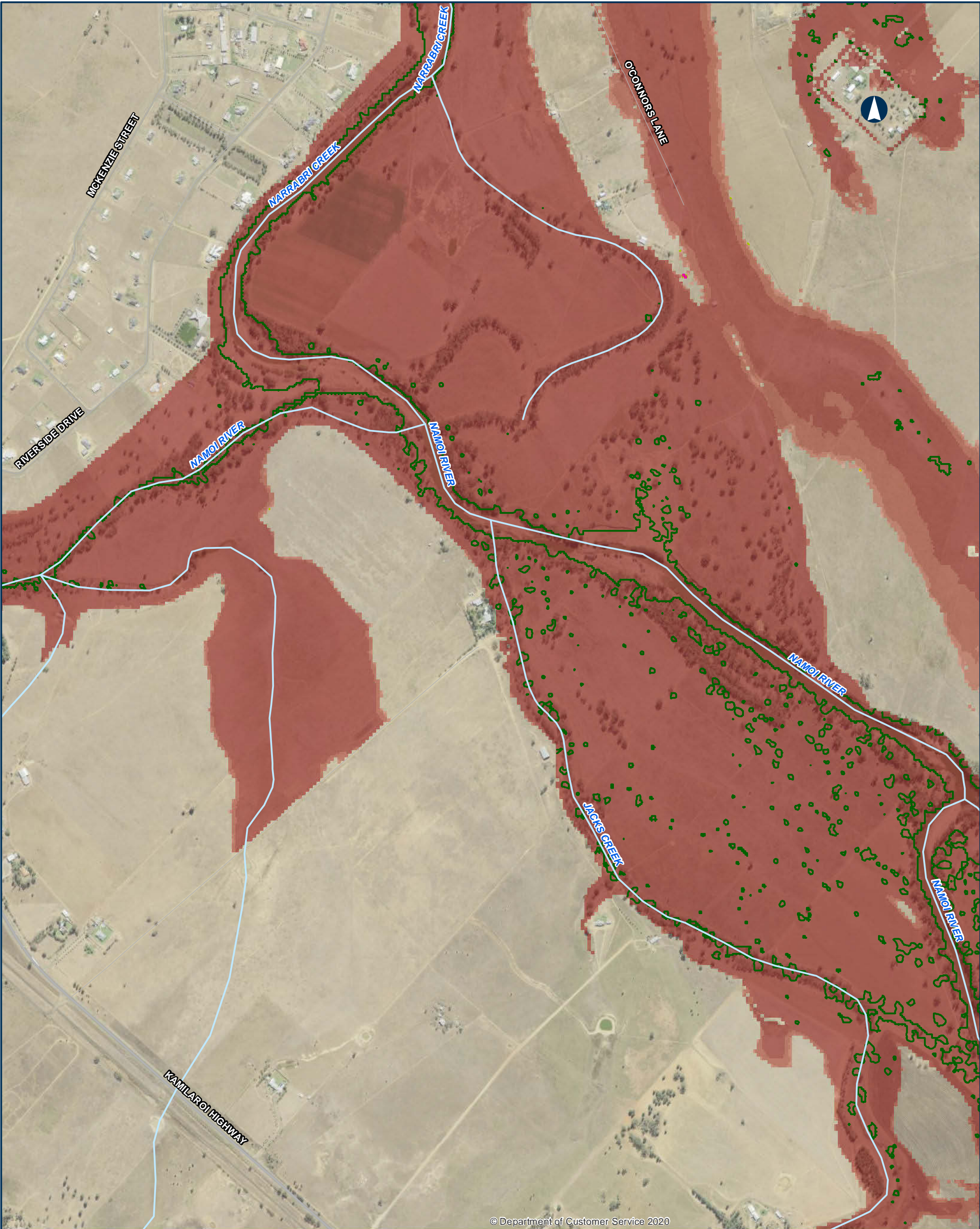
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- ODL departure habitable building
 - Road QDL departure
 - Primary road
 - Sub arterial road
 - Local road
 - Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.33

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Primary road

Local road

Watercourse
- Change in Duration of Inundation

0%

5%

10%

Area of departure

Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation

< 1hr

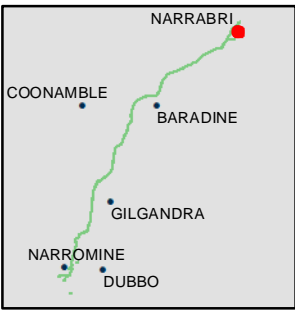
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

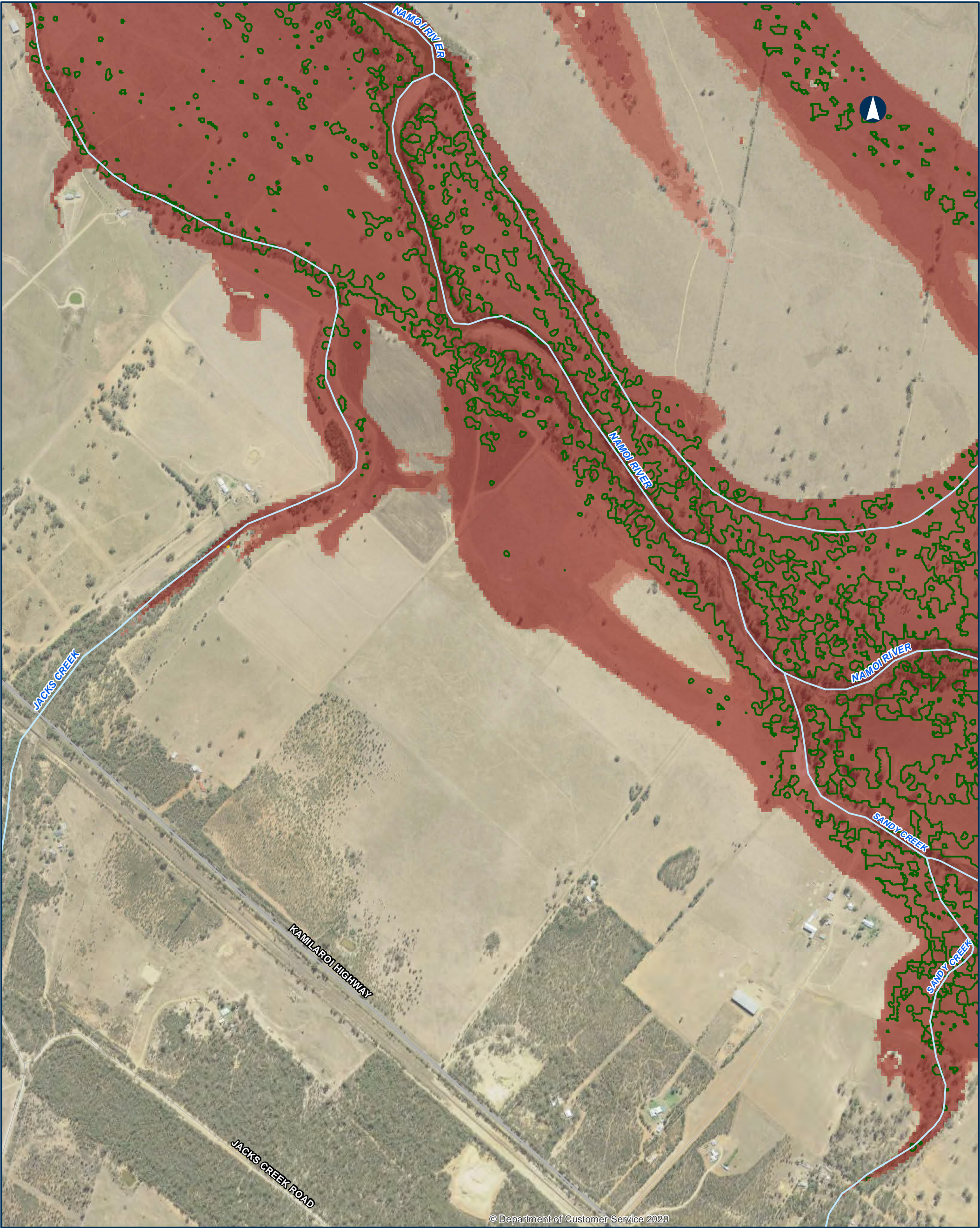
12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.34

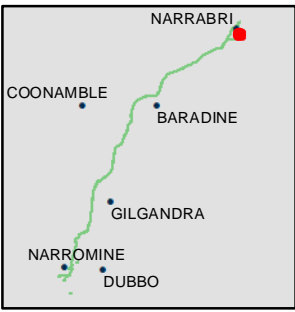
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- | | | |
|--------------|----------------------------------|---------------------------------|
| Primary road | Change in Duration of Inundation | Existing Duration of Inundation |
| Local road | 0% | < 1hr |
| Watercourse | 5% | 1hr - 3hrs |
| | 10% | 3hrs - 6hrs |
| | | 6hrs - 12hrs |
| | | 12hrs - 24hrs |
| | | > 24hrs |



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.35

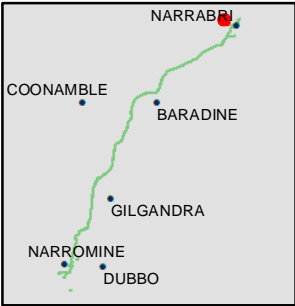
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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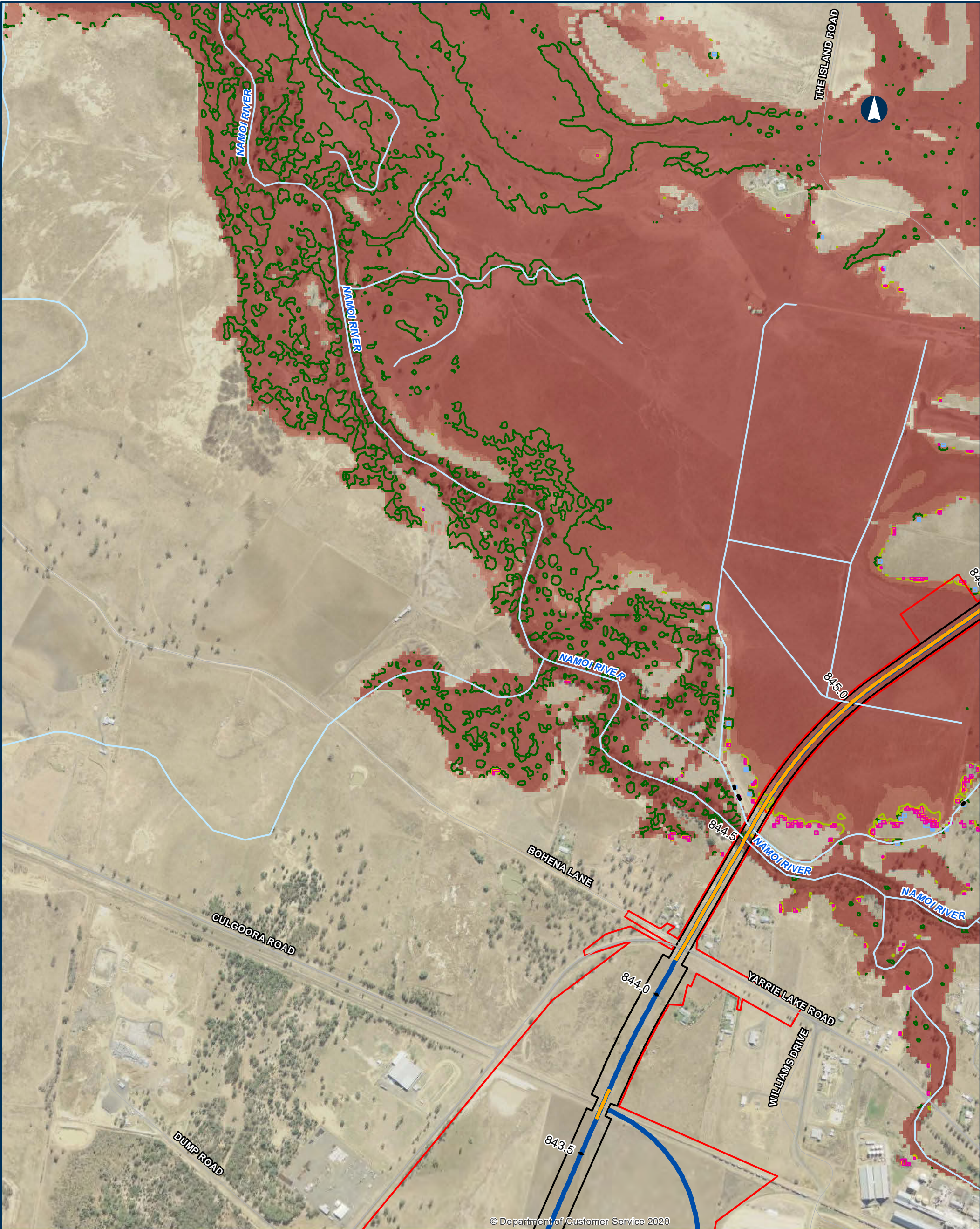
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road
Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.36

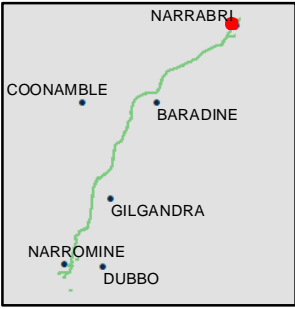
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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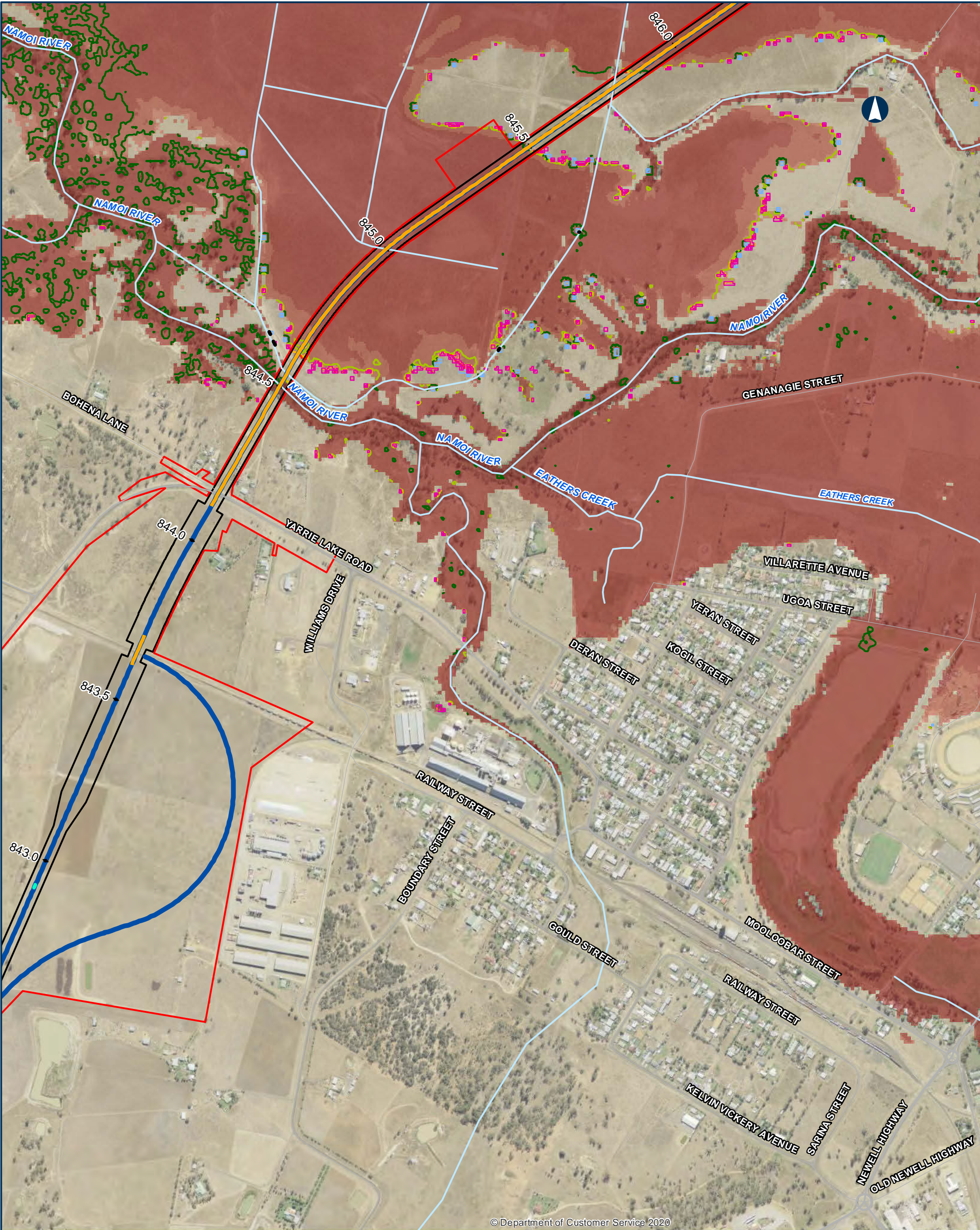
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
 - Road QDL departure
 - Alignment
 - Sub arterial road
 - Local road
 - Watercourse
 - The proposal
 - Rail Corridor
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.37

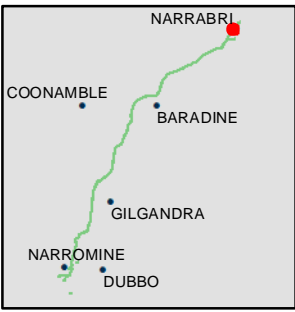
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- | | | |
|--------------------|--|---------------------------------|
| Bridge | Change in Duration of Inundation | Existing Duration of Inundation |
| Culvert | 0% | < 1hr |
| Road QDL departure | 5% | 1hr - 3hrs |
| Alignment | 10% | 3hrs - 6hrs |
| Primary road | 20% | 6hrs - 12hrs |
| Sub arterial road | | 12hrs - 24hrs |
| Local road | | > 24hrs |
| Watercourse | Area of departure | |
| The proposal | Exist duration <1hr, design duration >1hr | |
| Rail Corridor | Exist duration >1hr, duration change > 10% | |



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

Appendix B - Figure 4.6.38

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

Change in Duration of Inundation

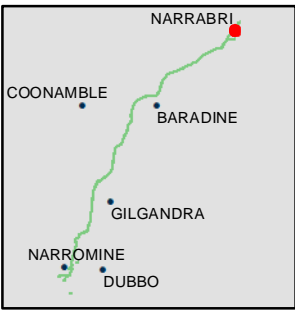
- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 5% AEP - Narrabri Regional

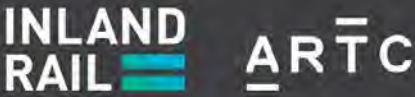
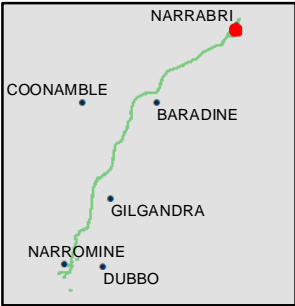
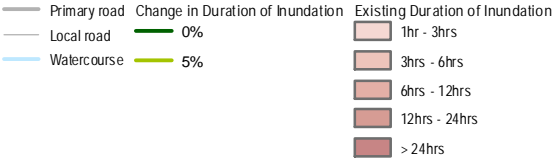
Appendix B - Figure 4.6.39

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 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 - Duration - 5% AEP - Narrabri Regional

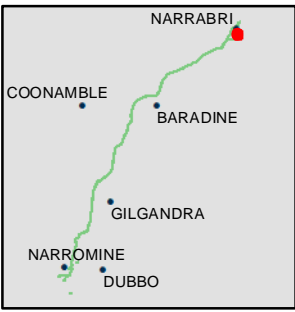
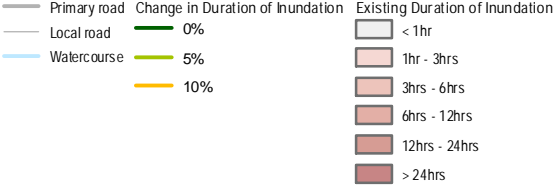
Appendix B - Figure 4.6.40

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

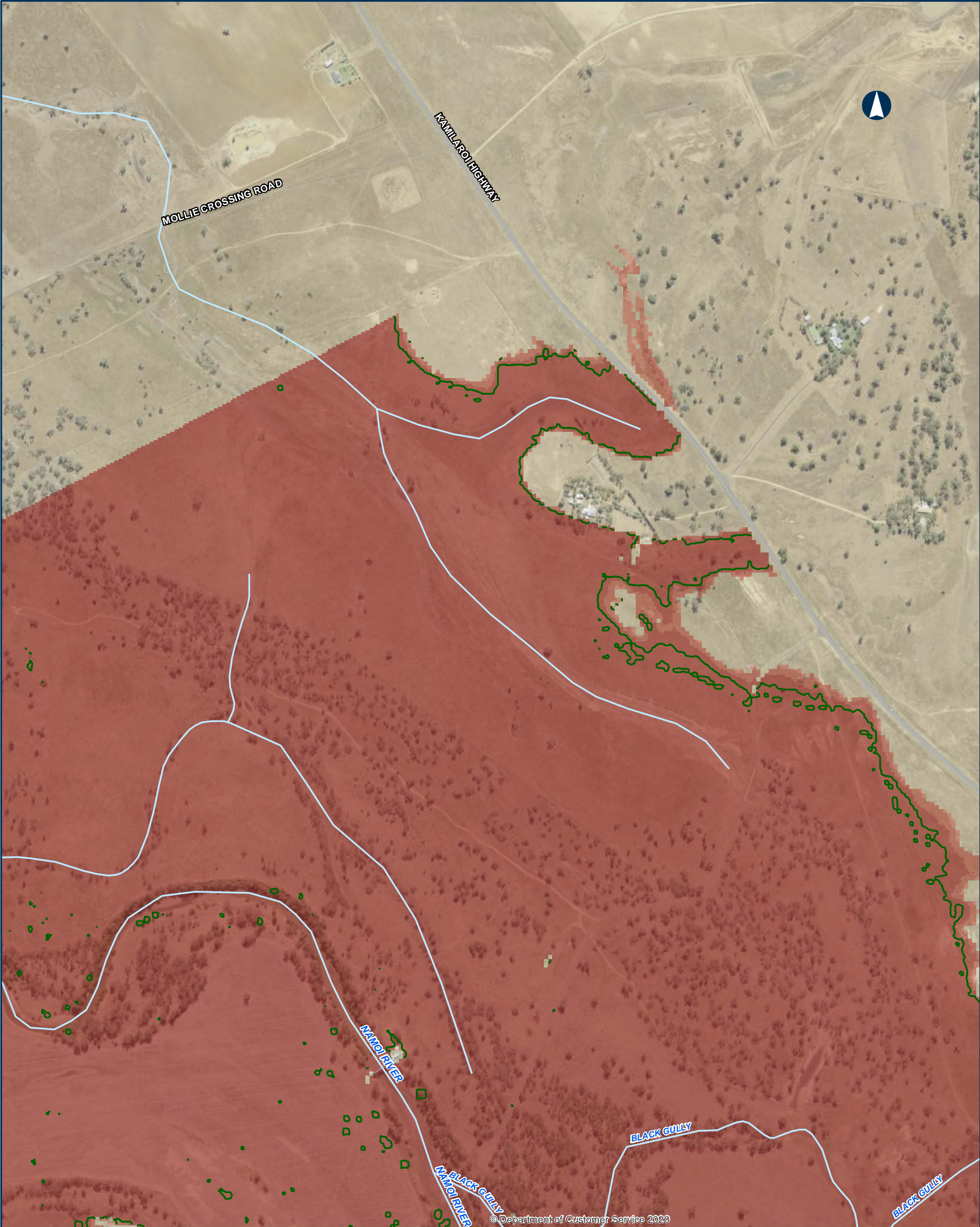
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.1

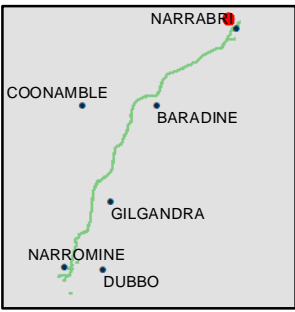
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.2

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

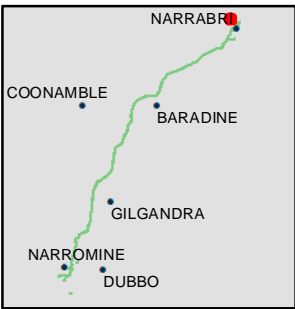
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Change in Duration of Inundation
0%
5%
10%

Area of departure
Exist duration >1hr, duration change > 10%

Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



INLAND RAIL ARTC

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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.3

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Change in Duration of Inundation

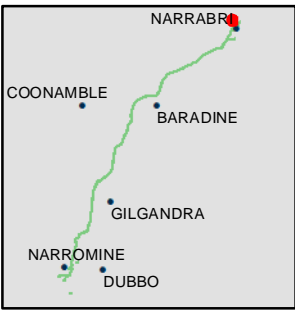
- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

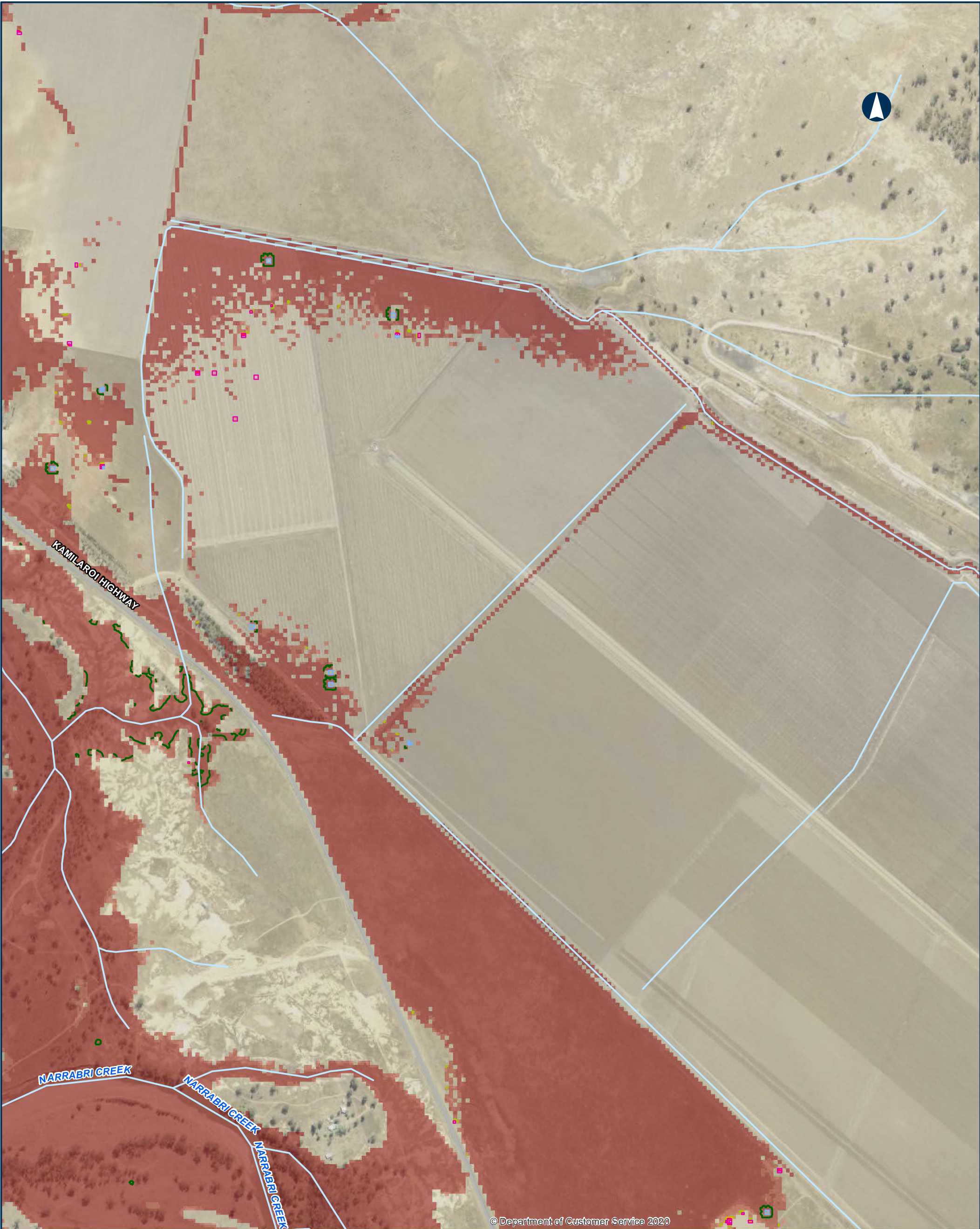
Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.4

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Primary road

Watercourse

Change in Duration of Inundation

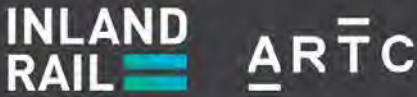
Area of departure

Existing Duration of Inundation

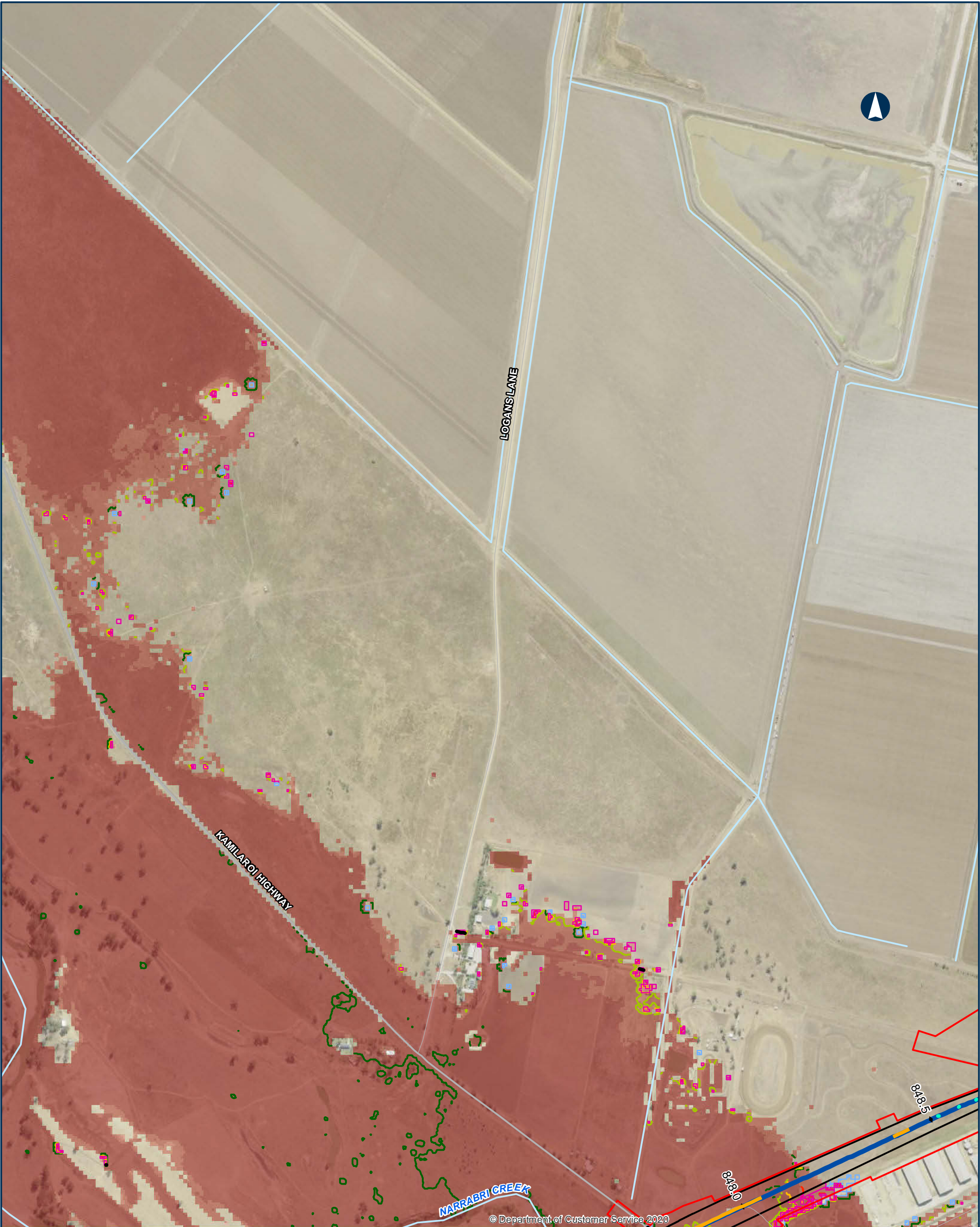
0%
5%
10%
20%

Exist duration <1hr, design duration >1hr
Exist duration >1hr, duration change > 10%

< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.5

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3
Scale: 1:8,480

Bridge

Culvert

Road QDL departure

Alignment

Primary road

Local road

Watercourse

The proposal

Rail Corridor

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

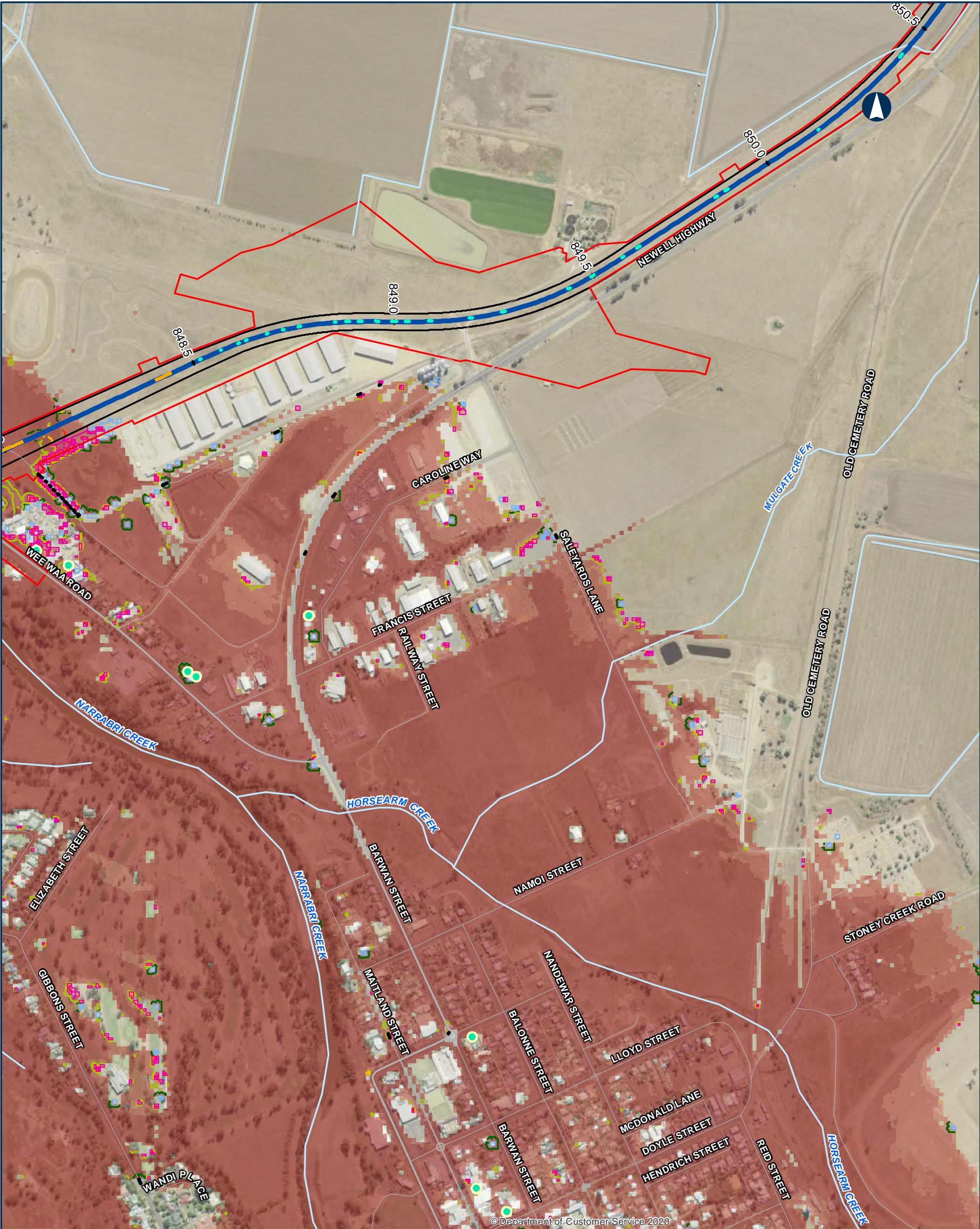
DUBBO

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_EISFWPAPP137_QDL_Regional_Duration_2pc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.6

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

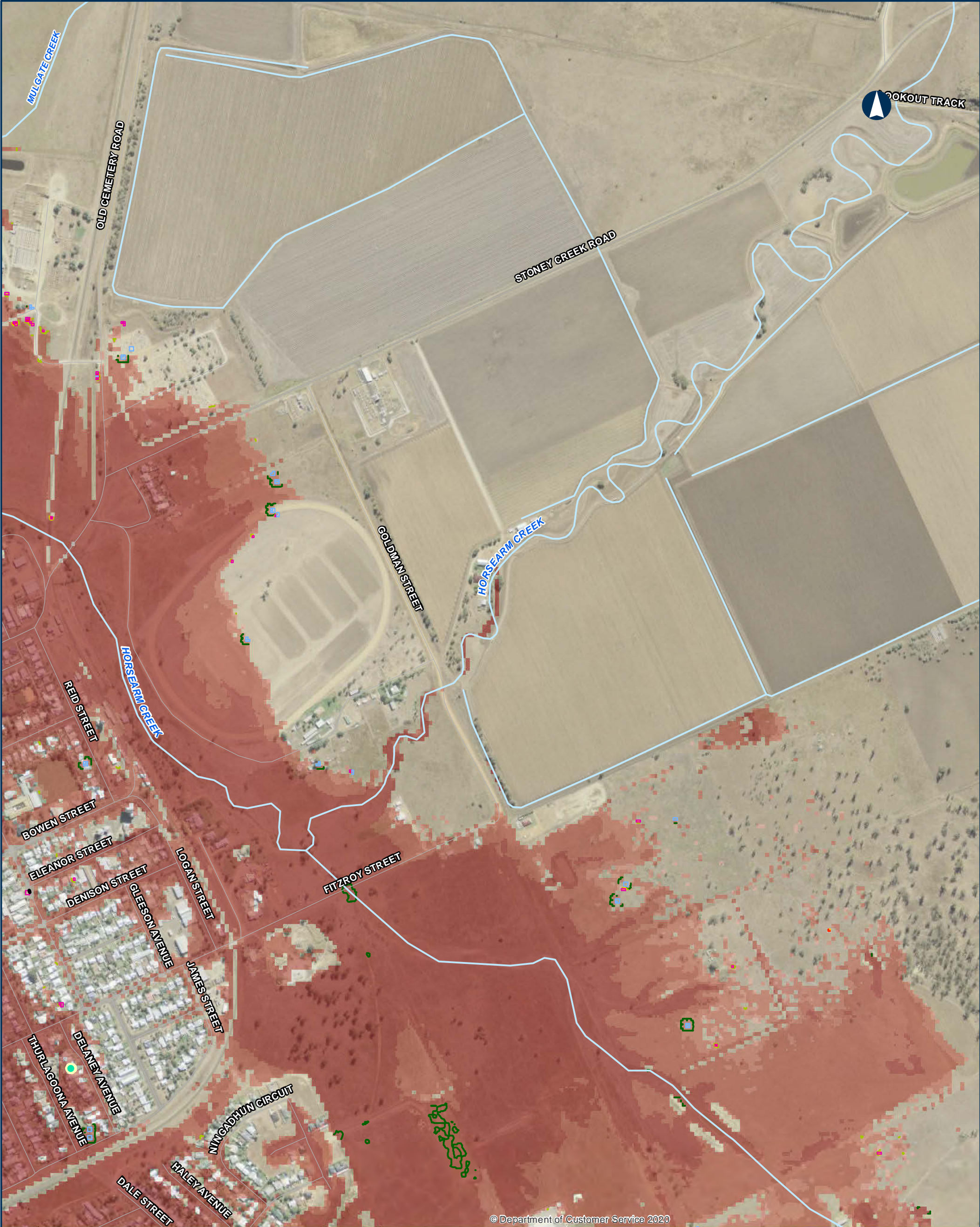
Paper: A3

Author: JacobsGHD

Scale: 1:8,480

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





NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.7

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

● QDL departure habitable building

— Road QDL departure

— Local road

— Watercourse

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

DUBBO

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP137_QDL_Regional_Duration_2pc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.8

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Change in Duration of Inundation

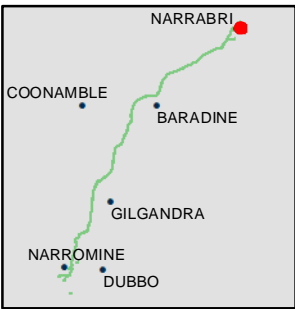
- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

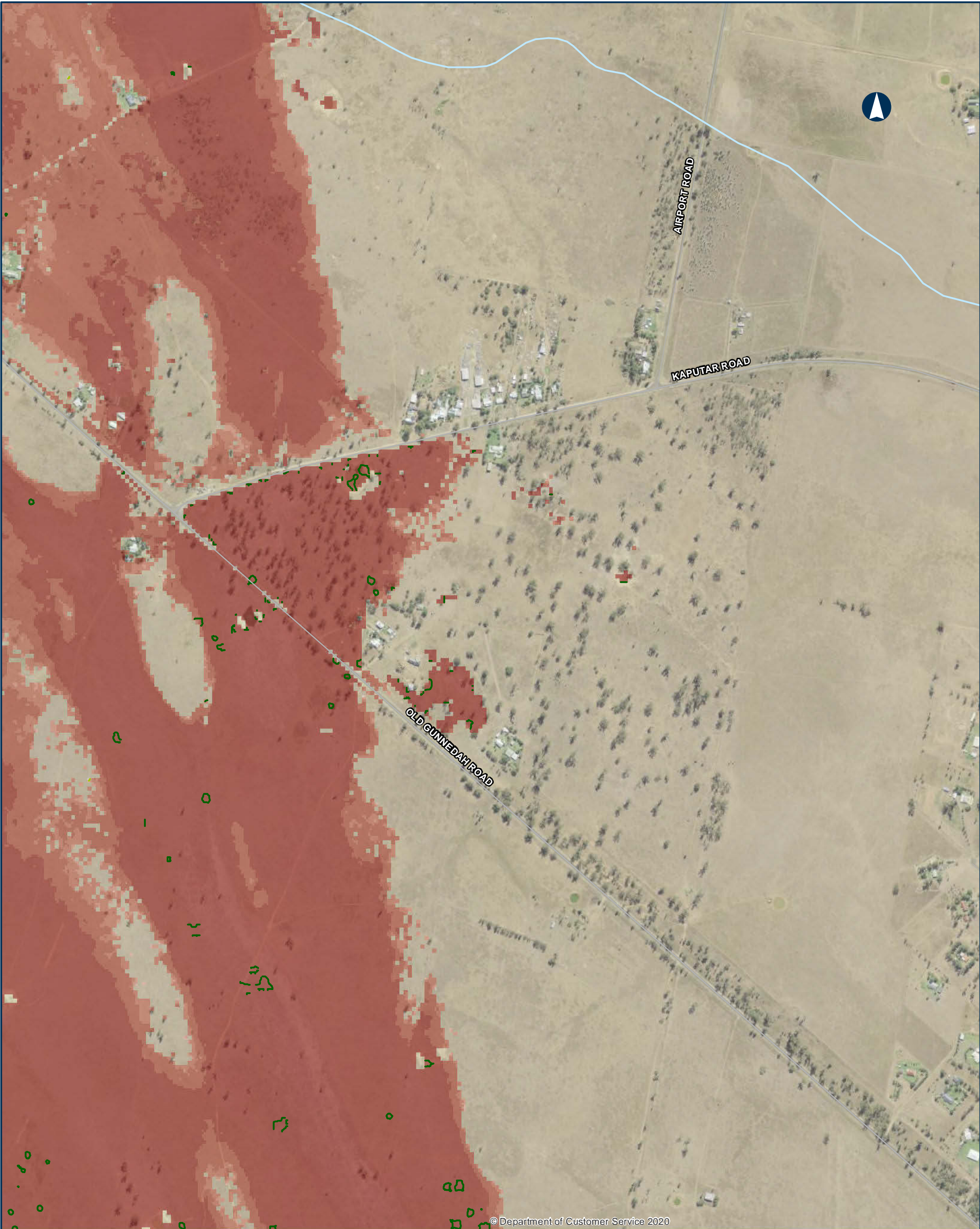
Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.9

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:8,480

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

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

5%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

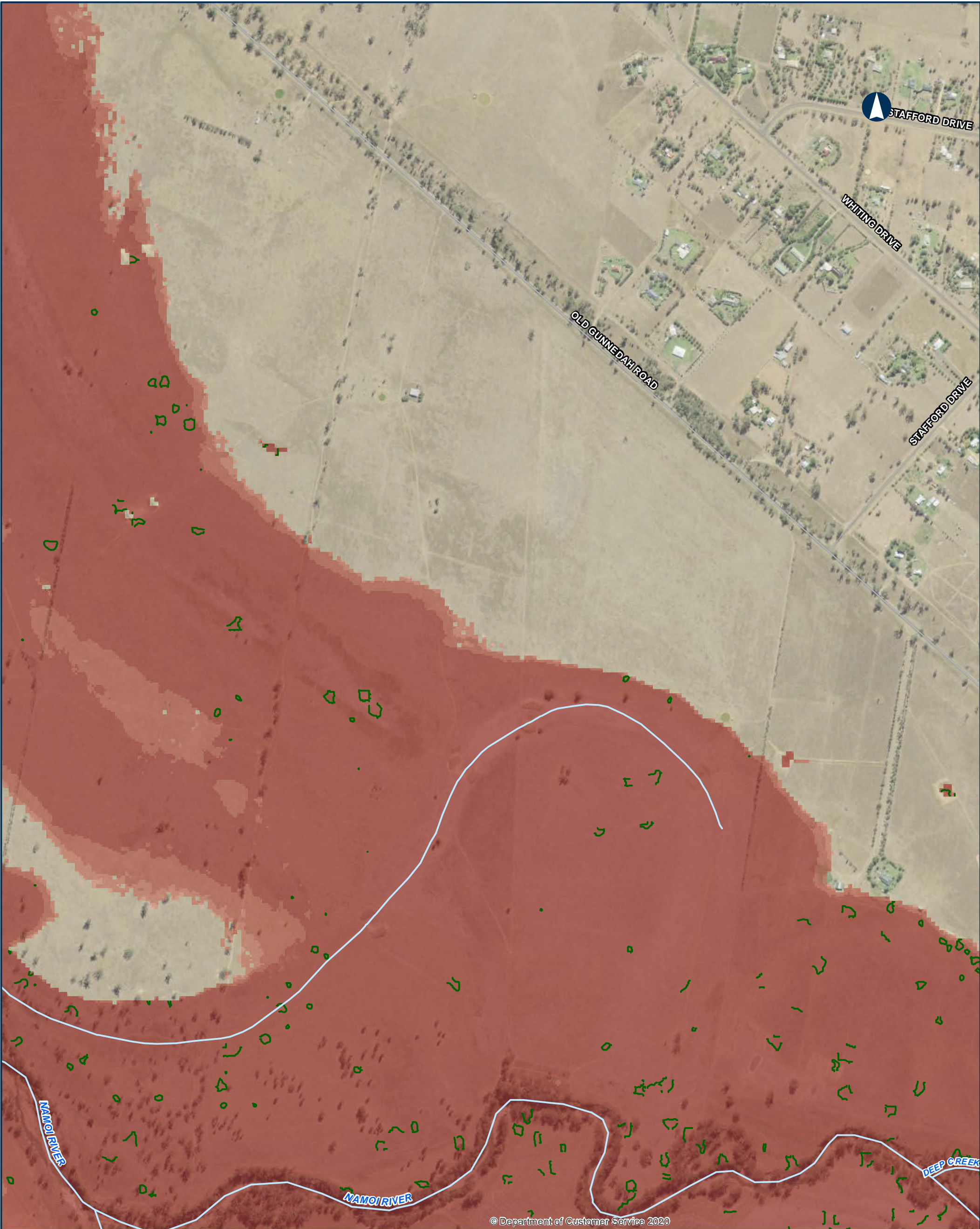
12hrs - 24hrs

> 24hrs

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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP137_QDL_Regional_Duration_2pc_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.10

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

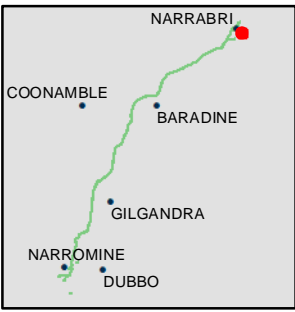
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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Sub arterial road
Local road
Watercourse

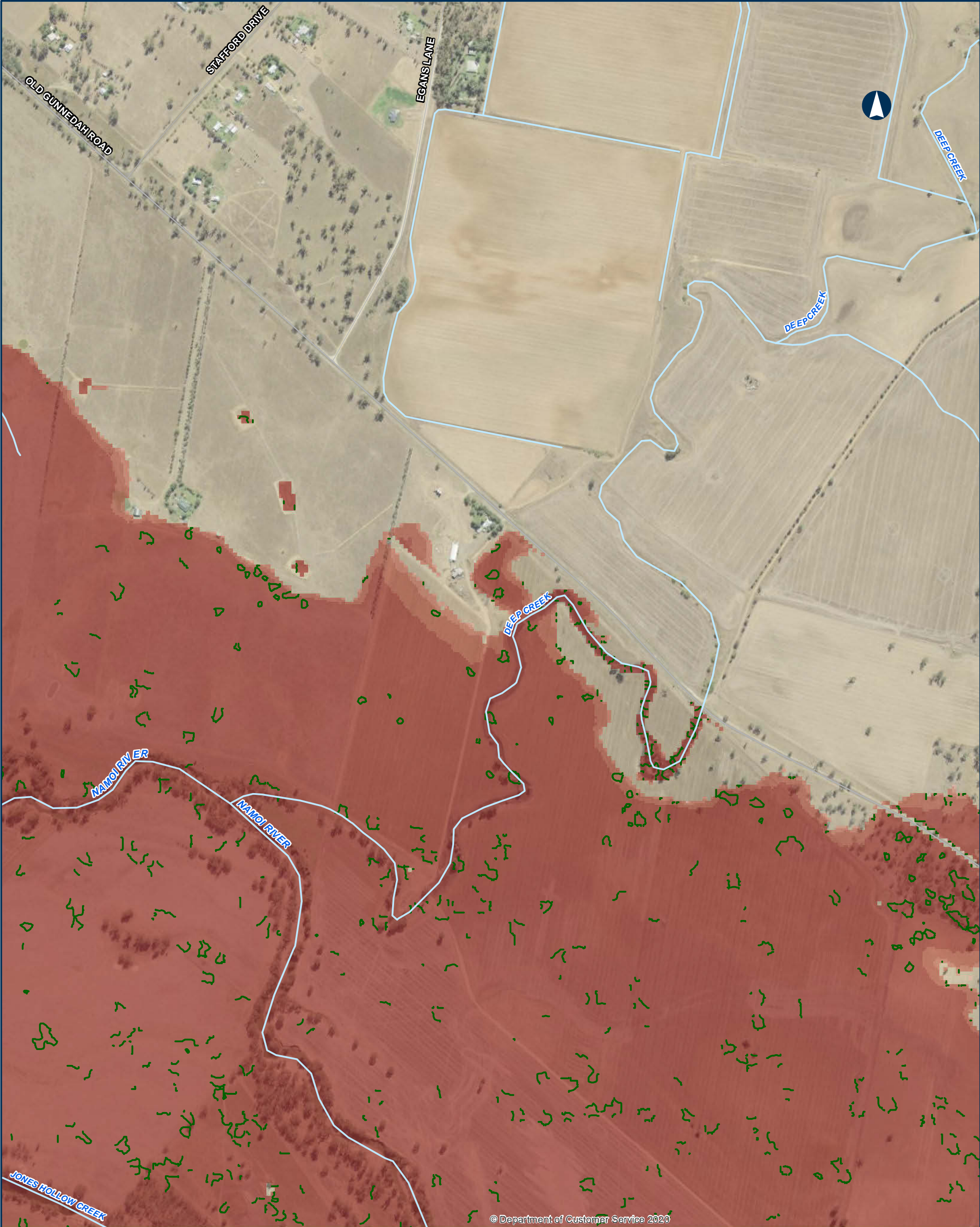
Change in Duration of Inundation
0%

Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

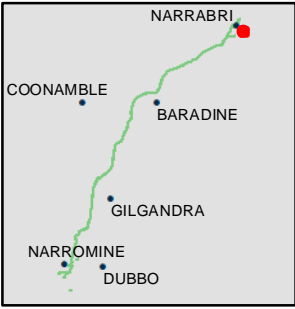
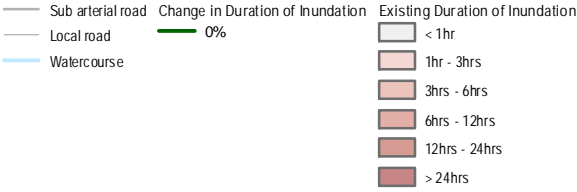
Appendix B - Figure 4.7.11

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

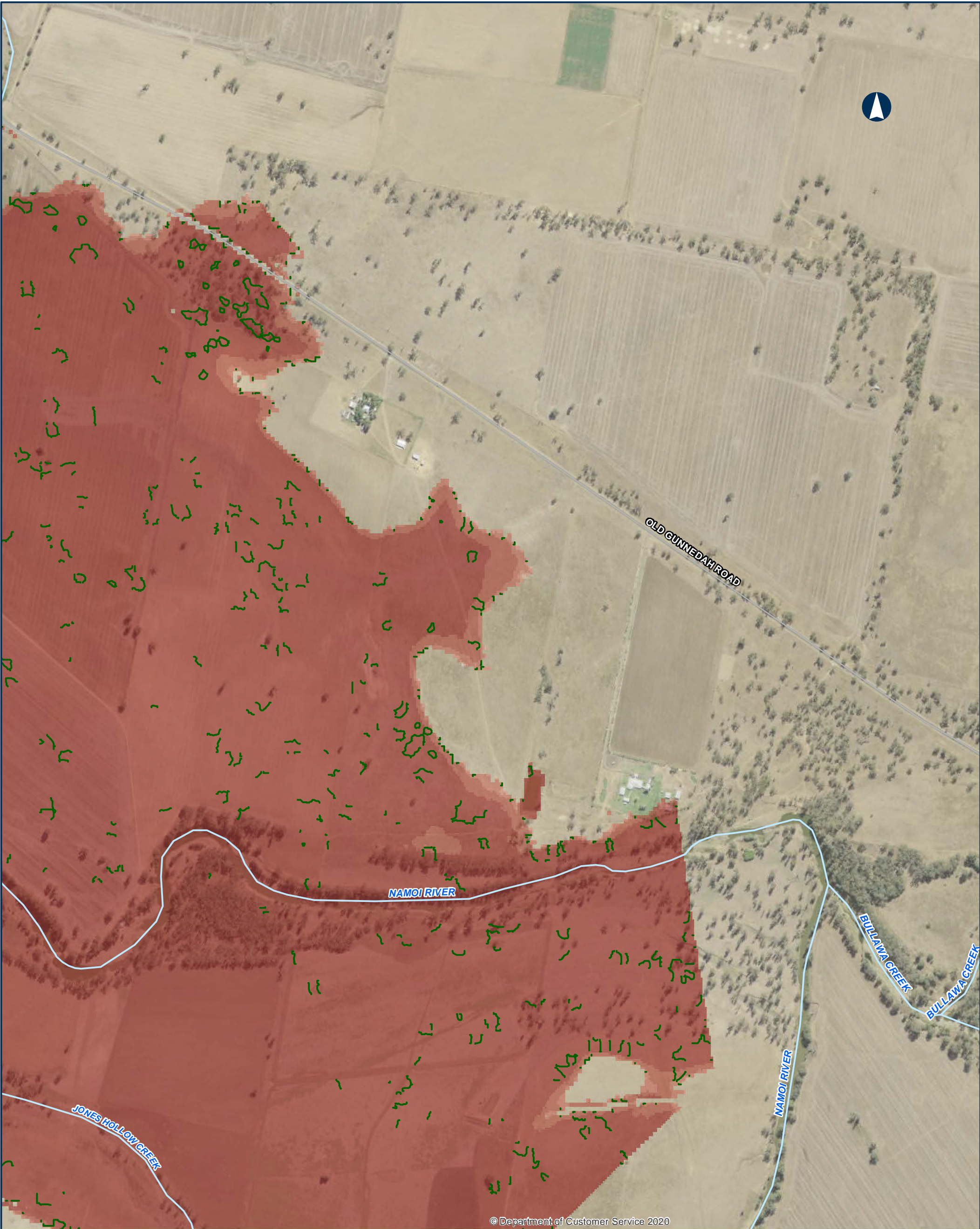
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.12

0 200 400 Metres

Sub arterial road
Watercourse

Change in Duration of Inundation
0%

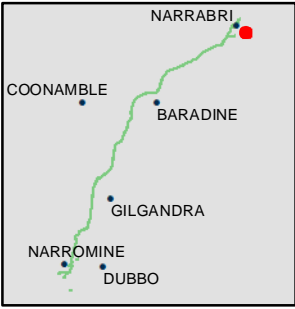
Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs

Coordinate System: GDA 1994 MGA Zone 55

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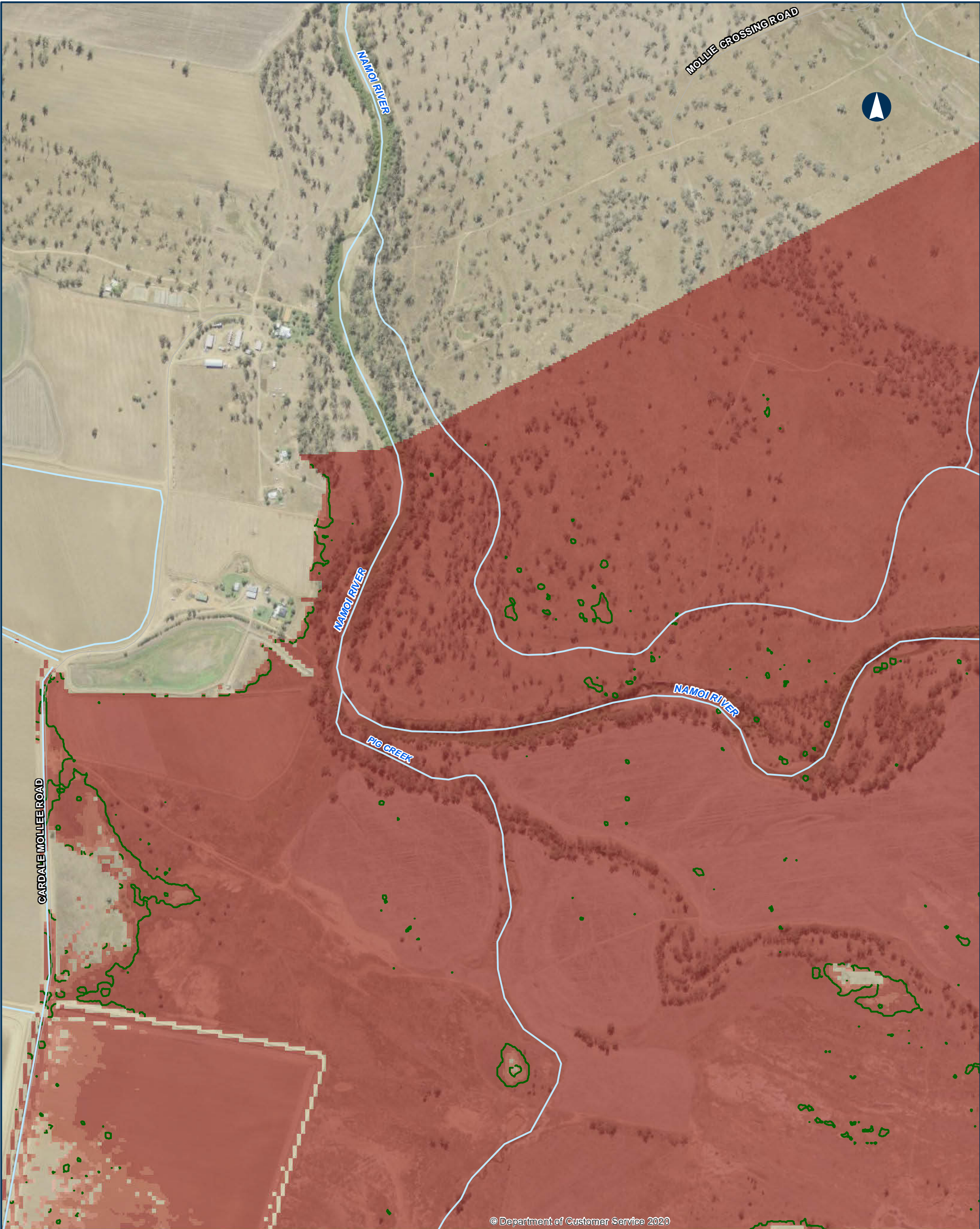
Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3
Scale: 1:8,480



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.13

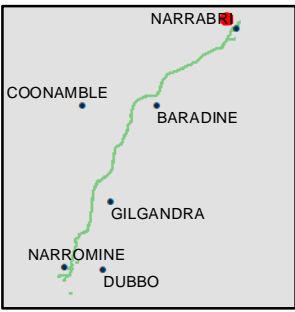
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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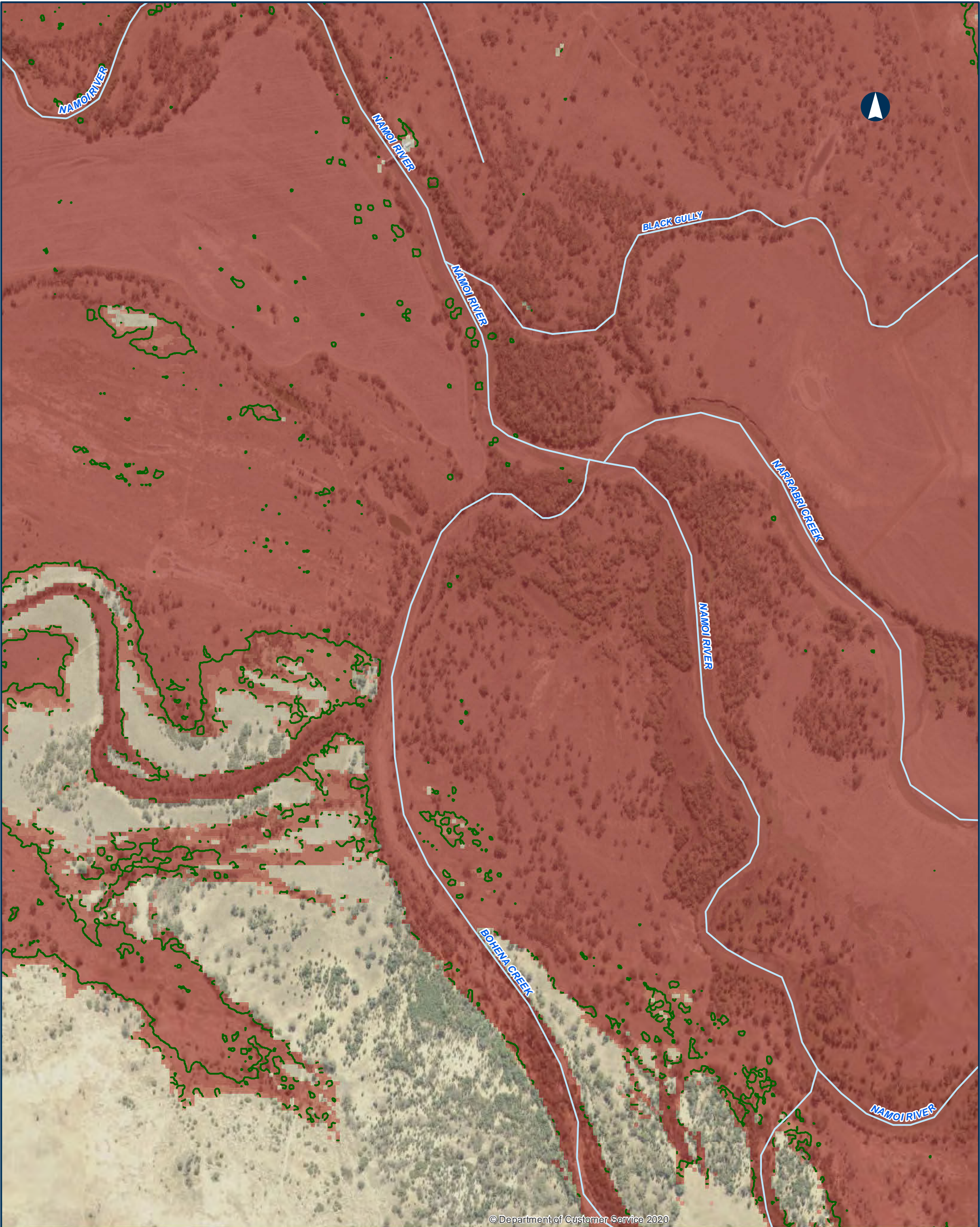
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.14

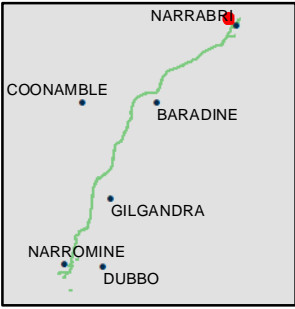
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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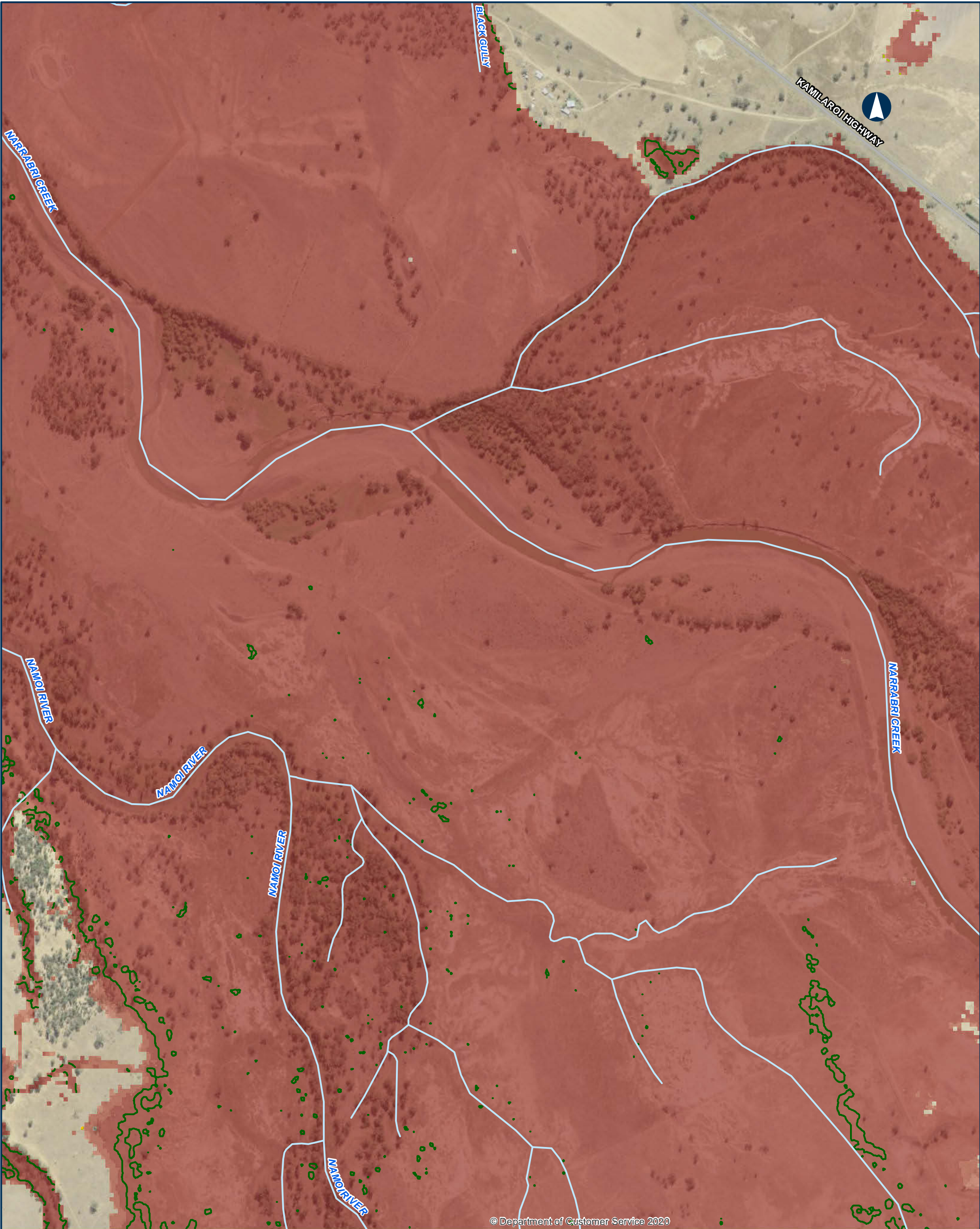
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Watercourse Change in Duration of Inundation Existing Duration of Inundation
- 0%
 - < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.15

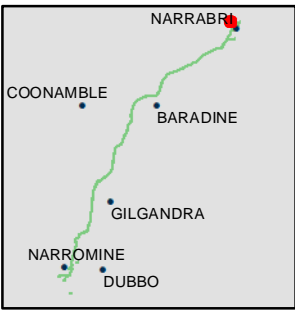
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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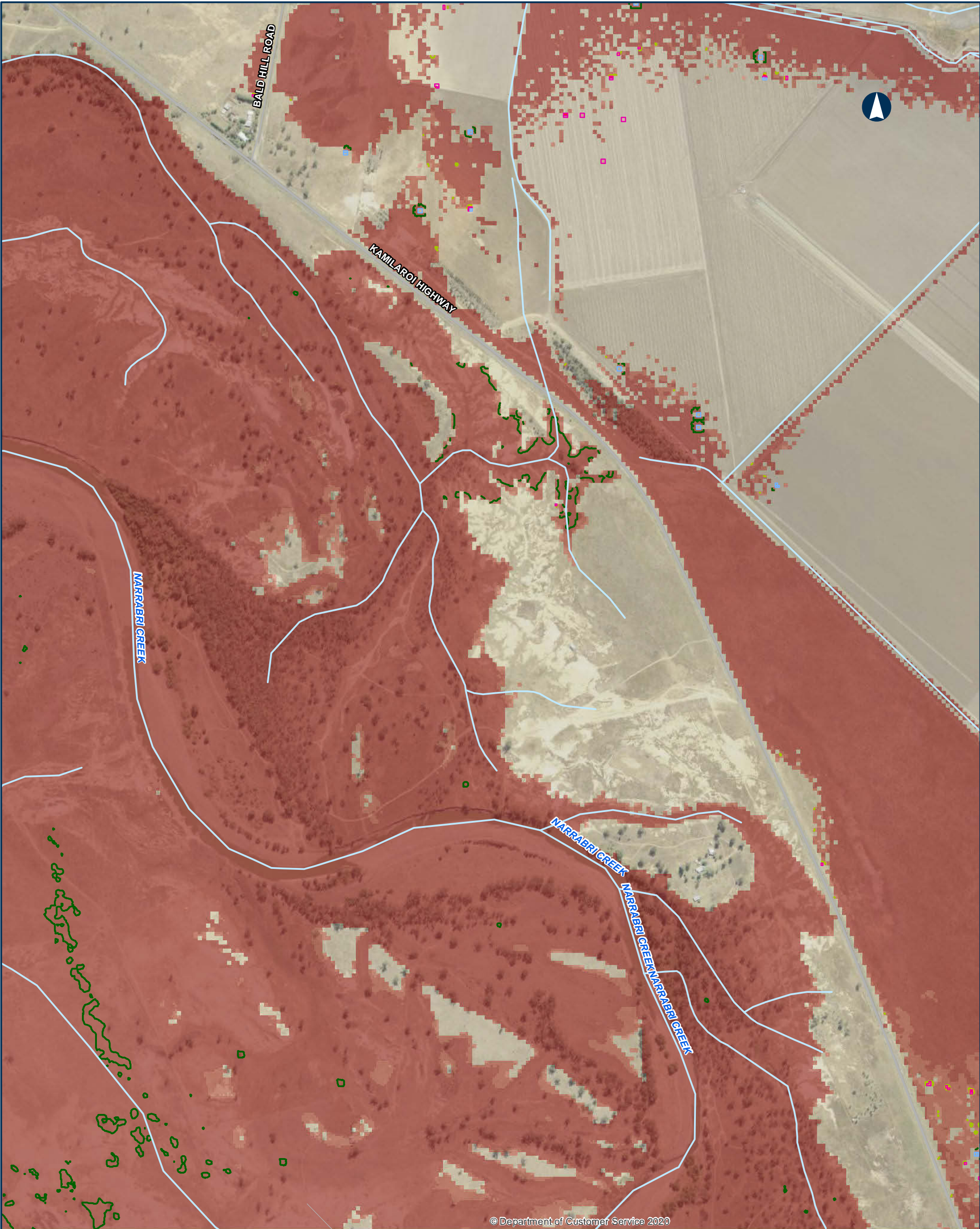
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Watercourse
- Change in Duration of Inundation
0%
5%
10%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.16

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Change in Duration of Inundation

- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration < 1hr, design duration > 1hr
- Exist duration > 1hr, duration change > 10%

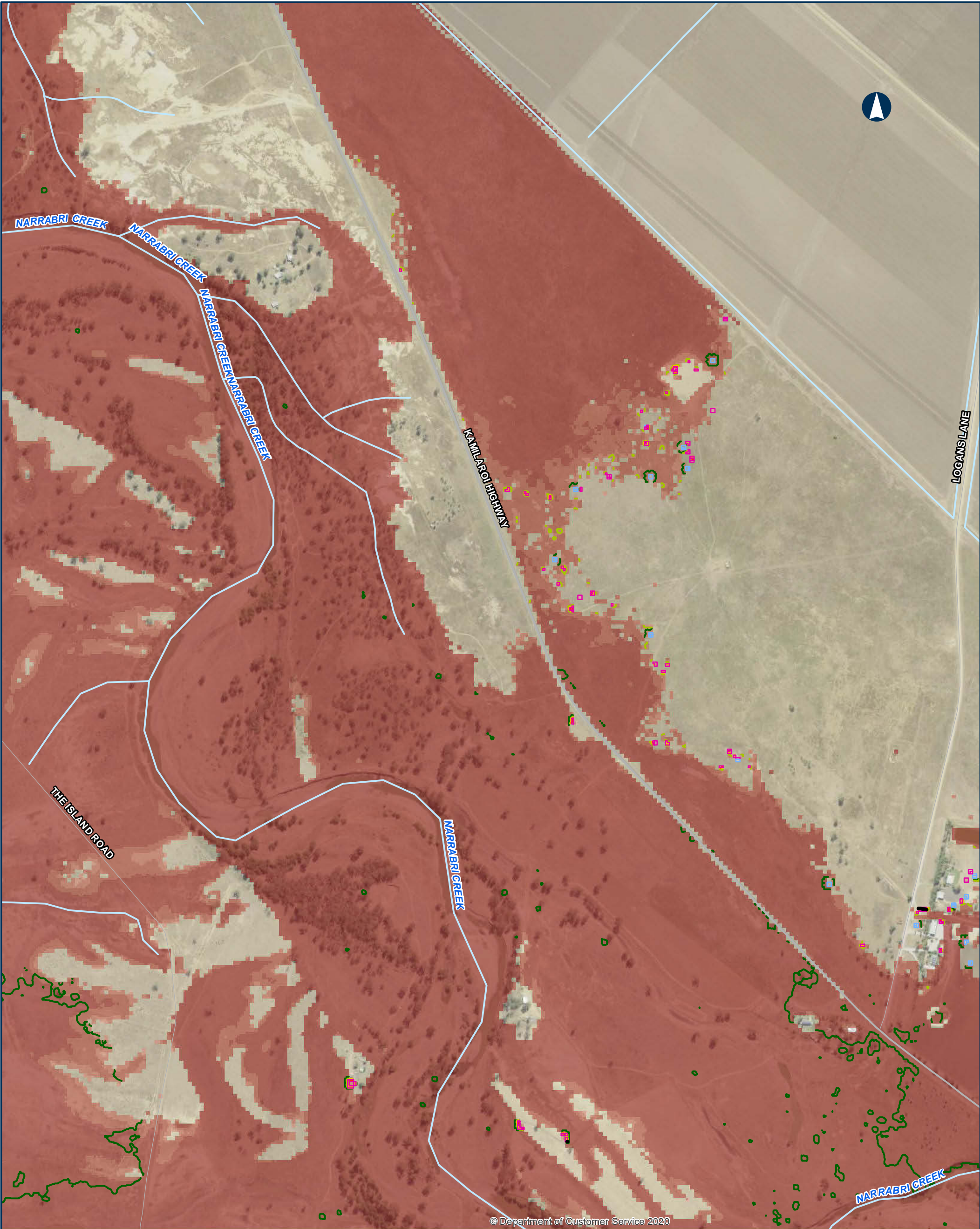
Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.17

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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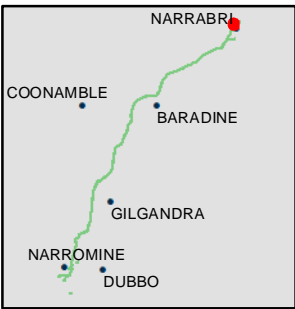
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

— Road QDL departure
— Primary road
— Local road
— Watercourse

Change in Duration of Inundation
0%
5%
10%
20%

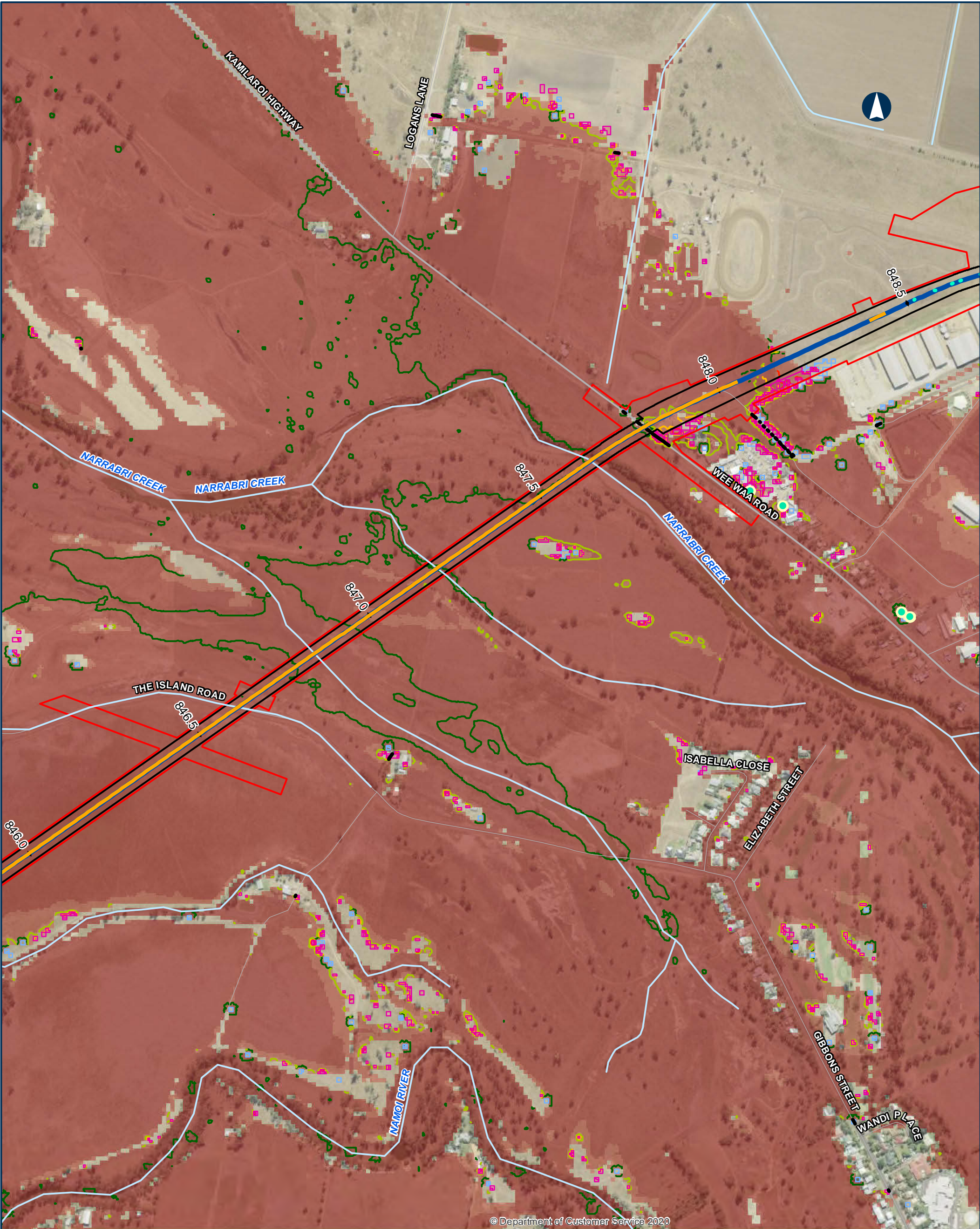
Area of departure
Exist duration <1hr, design duration >1hr
Exist duration >1hr, duration change > 10%

Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.18

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

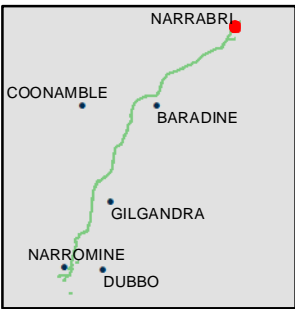
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- QDL departure habitable building
- Bridge
- Culvert
- Road QDL departure
- Alignment
- Primary road
- Local road
- Watercourse
- The proposal
- Rail Corridor

- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%

- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.19

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Change in Duration of Inundation

- 0%
- 5%
- 10%
- 20%

Area of departure

- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change >10%

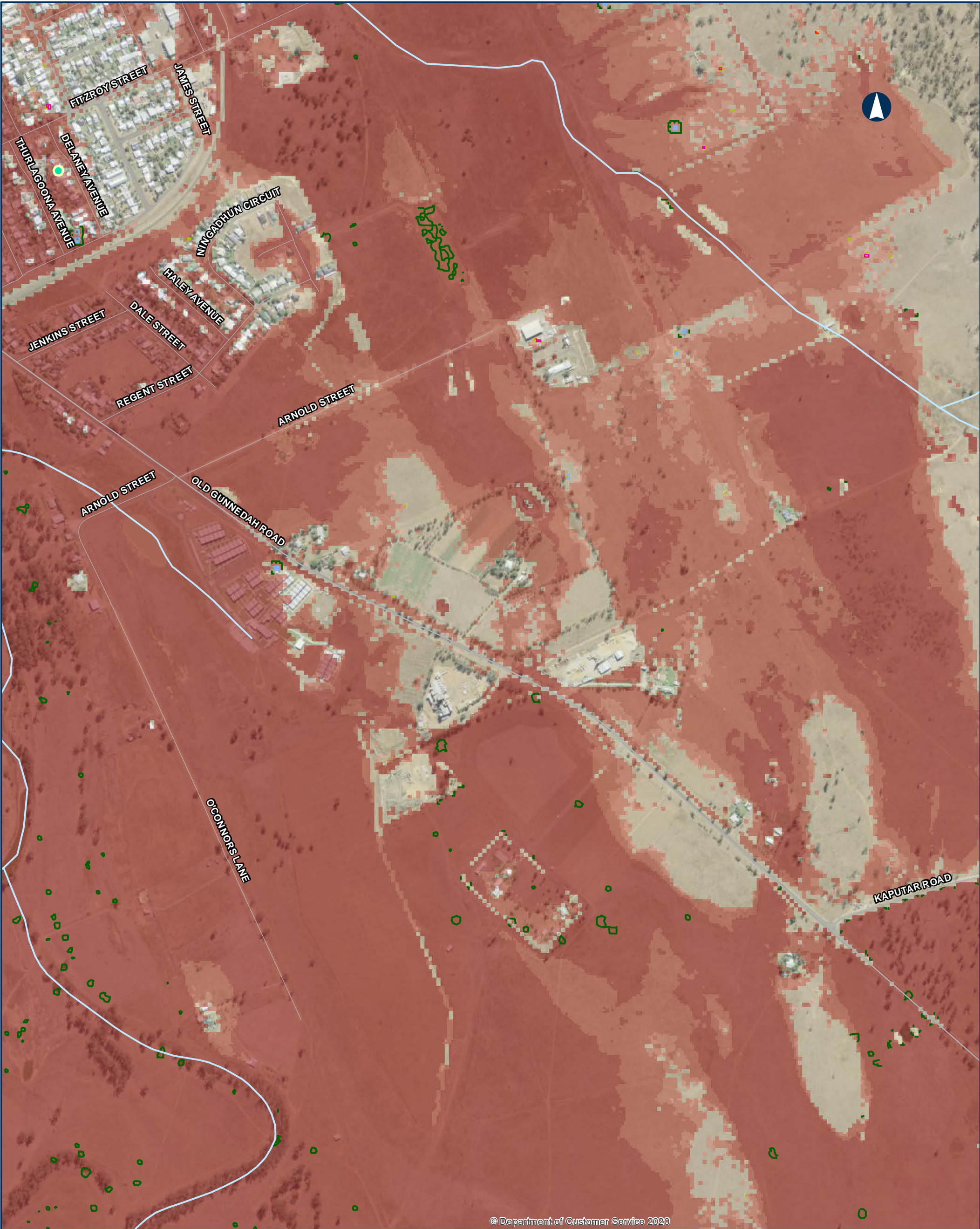
Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.20

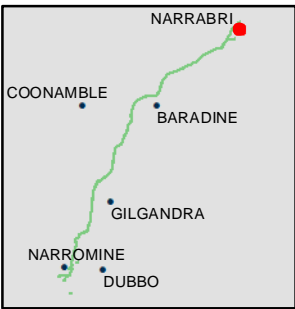
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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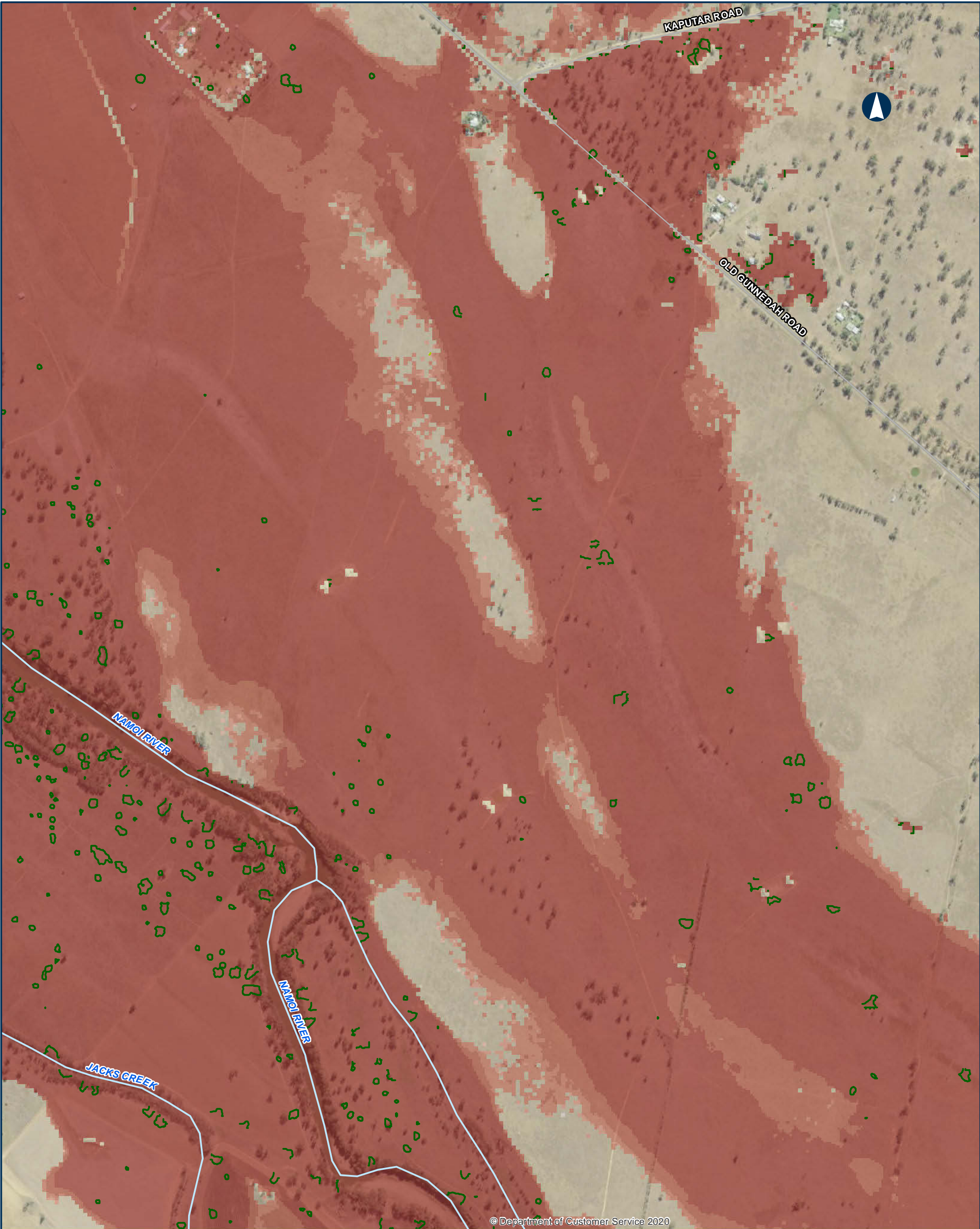
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.21

0200400

Metres

Sub arterial road

Watercourse

Change in Duration of Inundation

0%

5%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

Coordinate System: GDA 1994 MGA Zone 55

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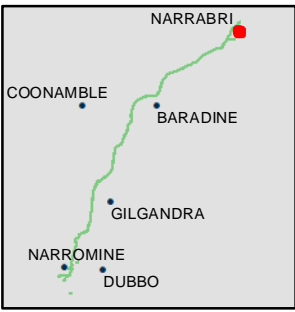
Date: 10/08/2022

Paper: A3

Author: JacobsGHD

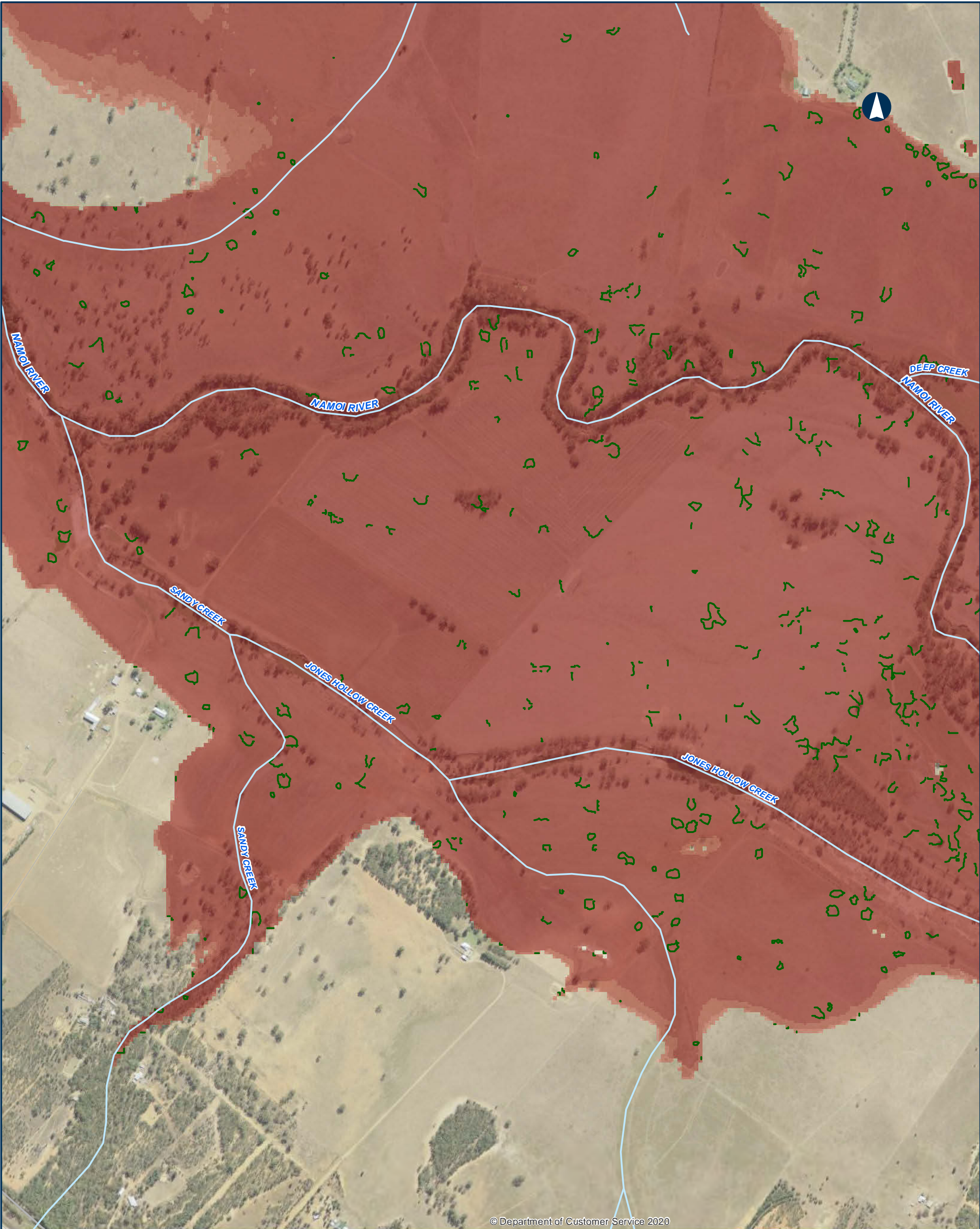
Scale: 1:8,480

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



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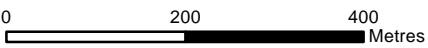
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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

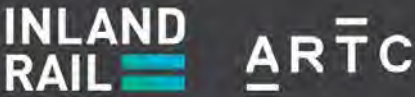
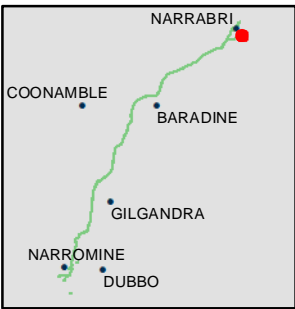
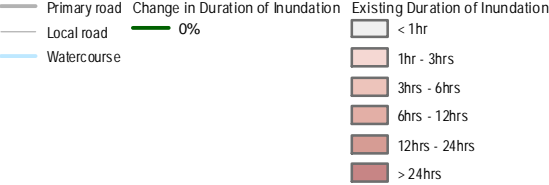
Appendix B - Figure 4.7.22



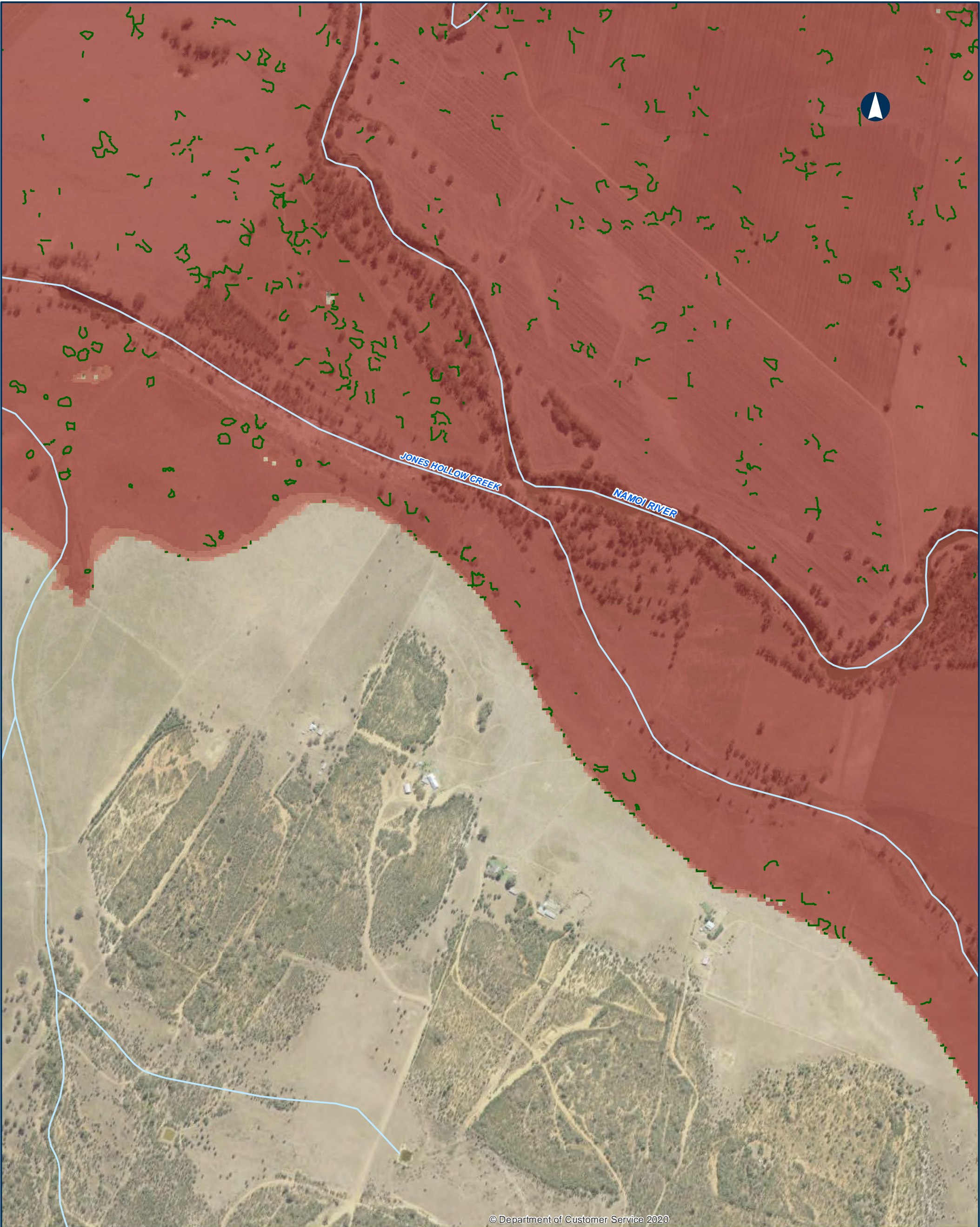
Coordinate System: GDA 1994 MGA Zone 55

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Author: JacobsGHD Scale: 1:8,480
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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.23

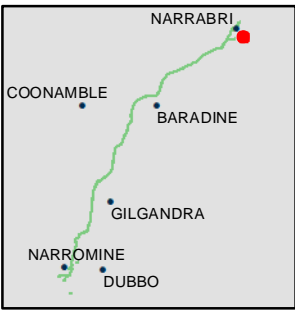
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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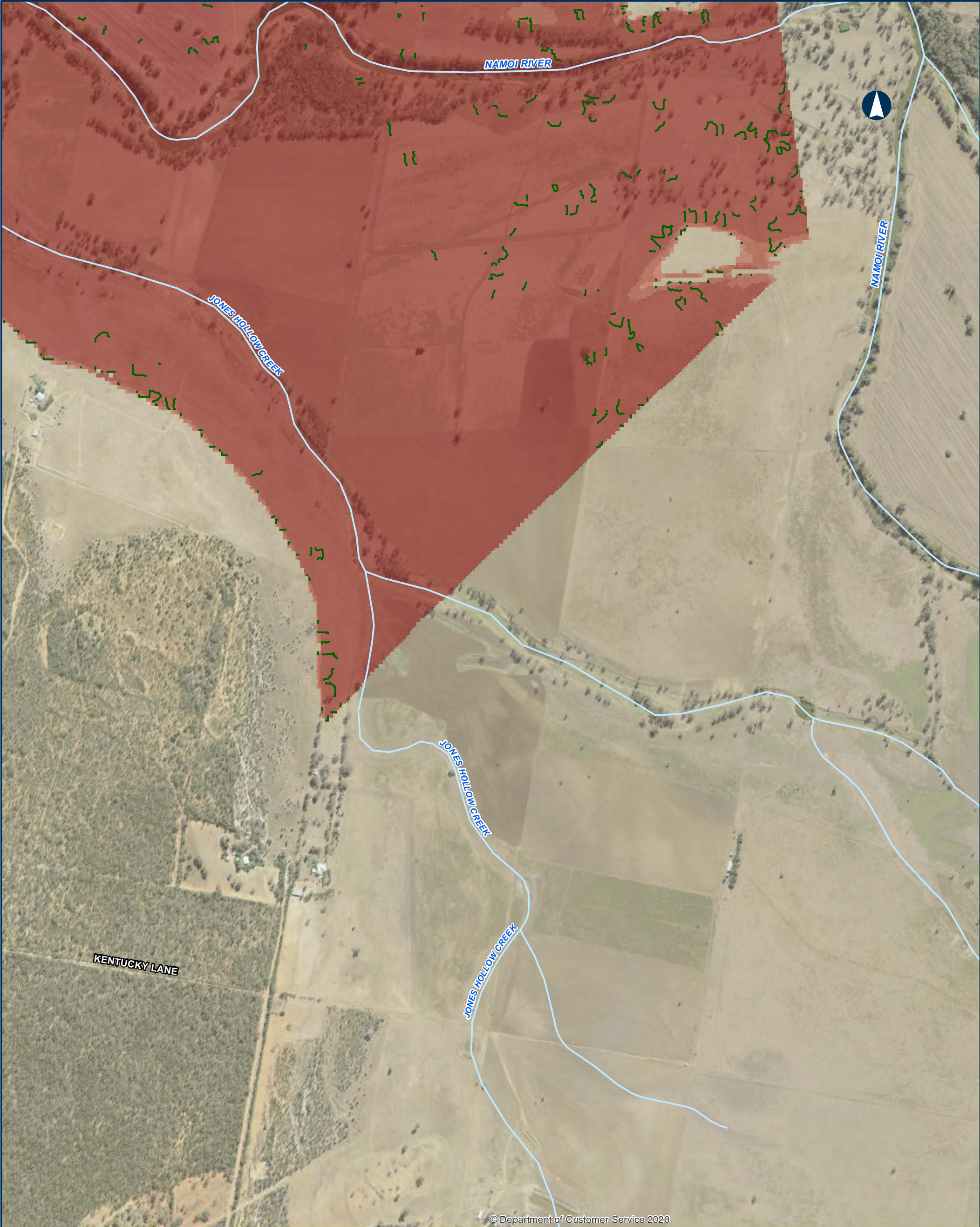
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Watercourse Change in Duration of Inundation Existing Duration of Inundation
- 0%
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.24

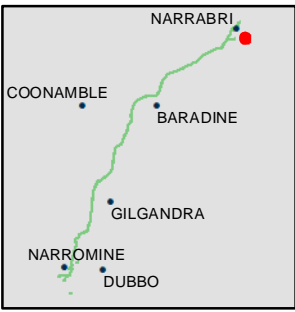
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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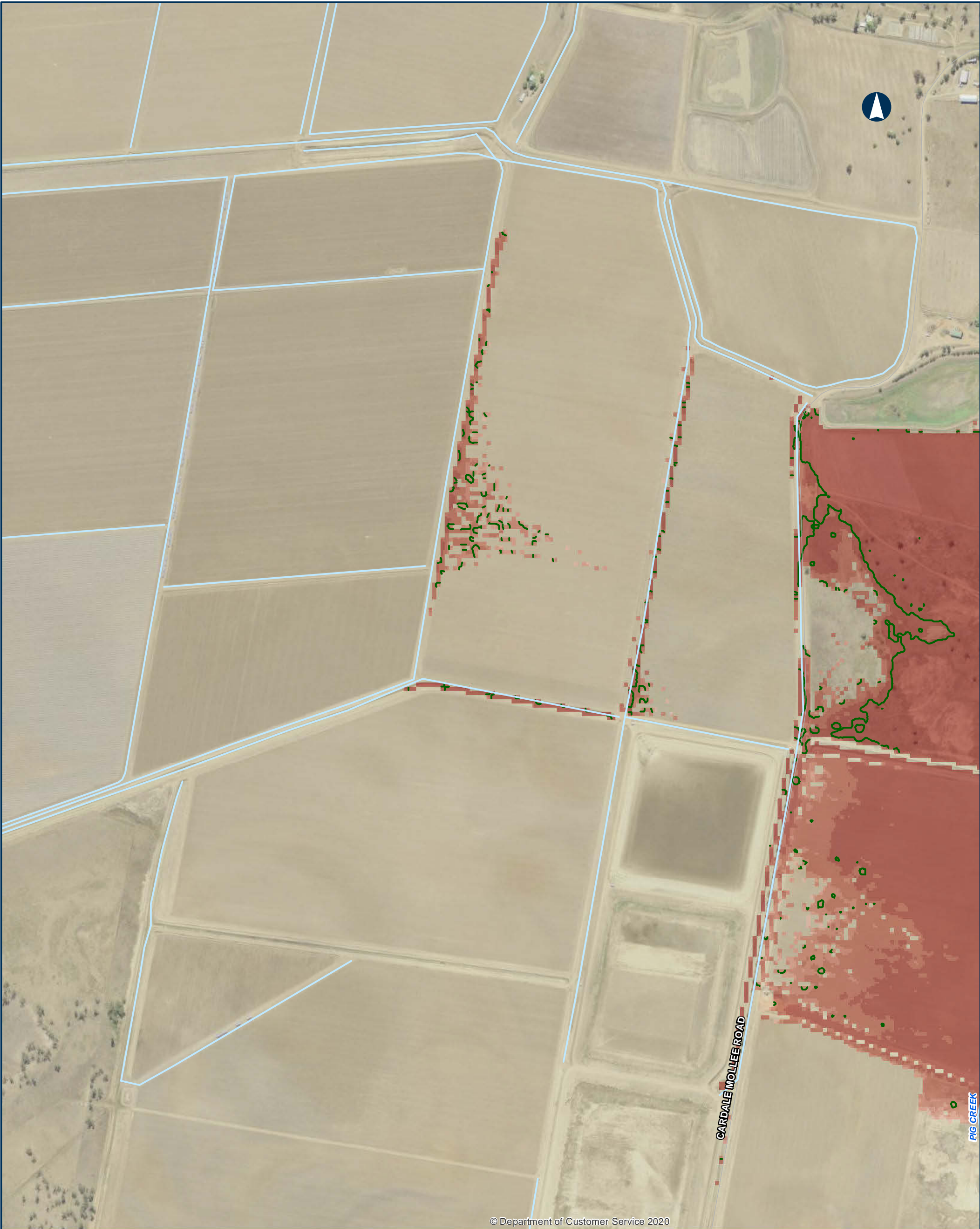
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road Watercourse Change in Duration of Inundation Existing Duration of Inundation
- 0%
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.25

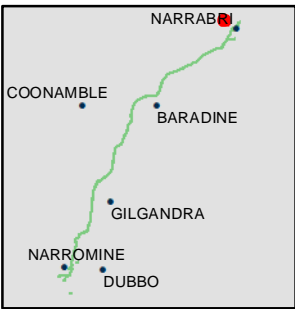
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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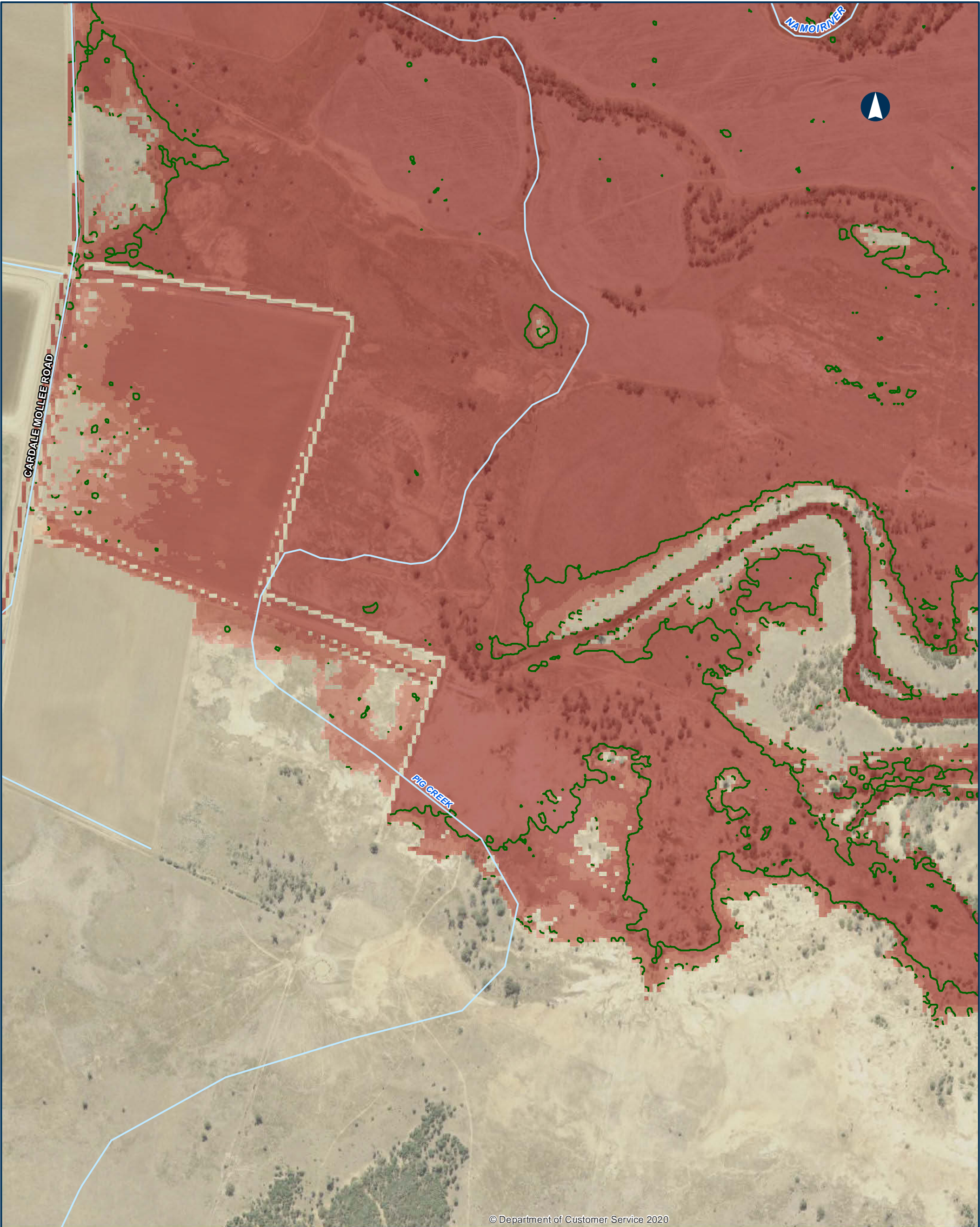
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road Watercourse Change in Duration of Inundation Existing Duration of Inundation
- 0%
 - < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.26

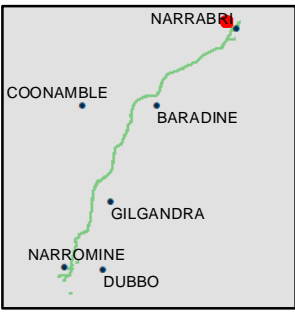
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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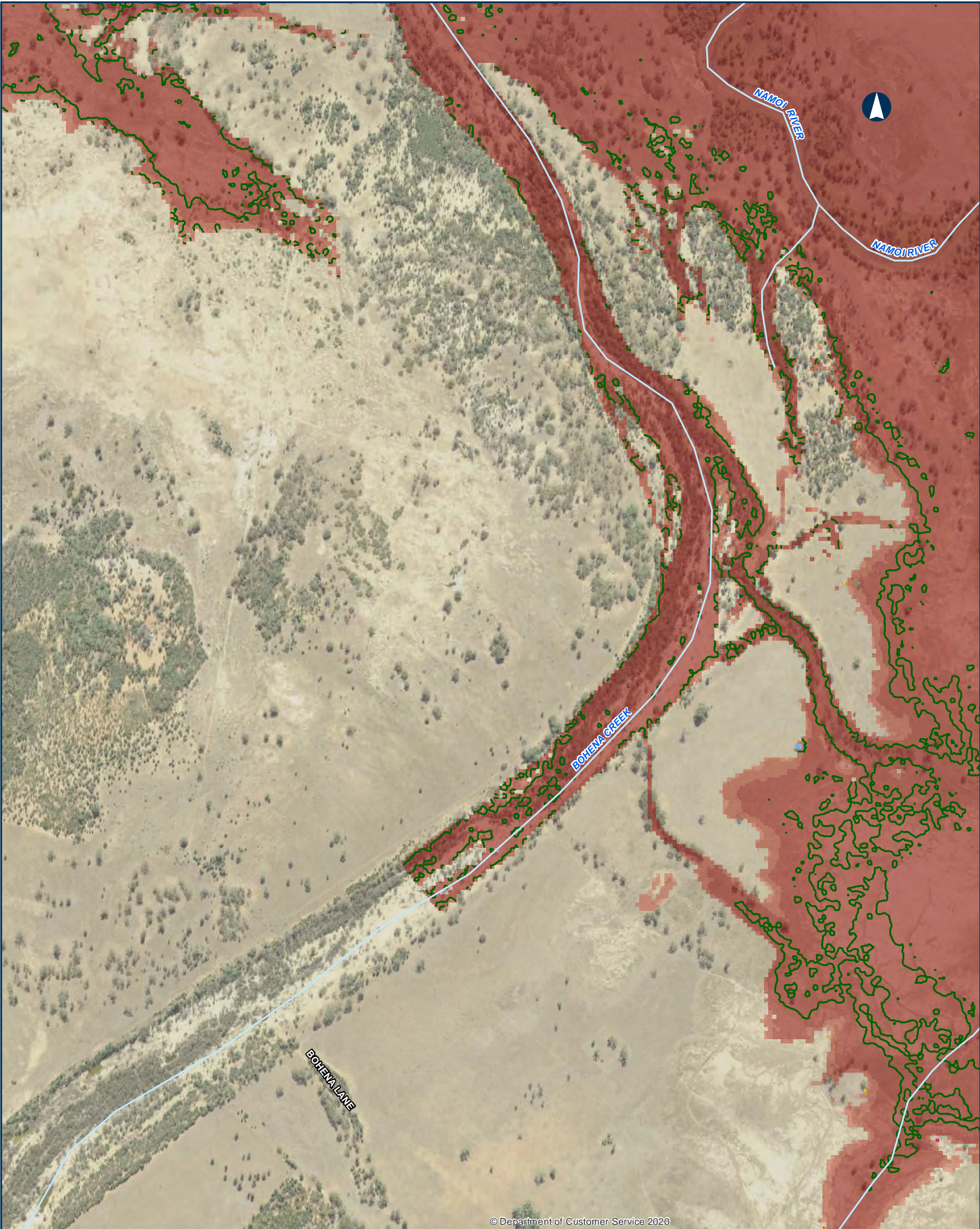
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road Watercourse
- Change in Duration of Inundation 0%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.27

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

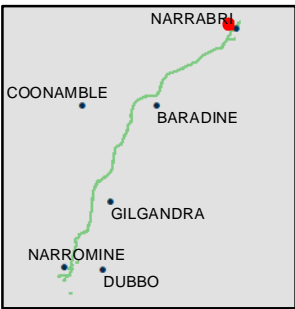
Watercourse

Change in Duration of Inundation
0%
5%
10%
20%

Area of departure
Exist duration <1hr, design duration >1hr
Exist duration >1hr, duration change > 10%

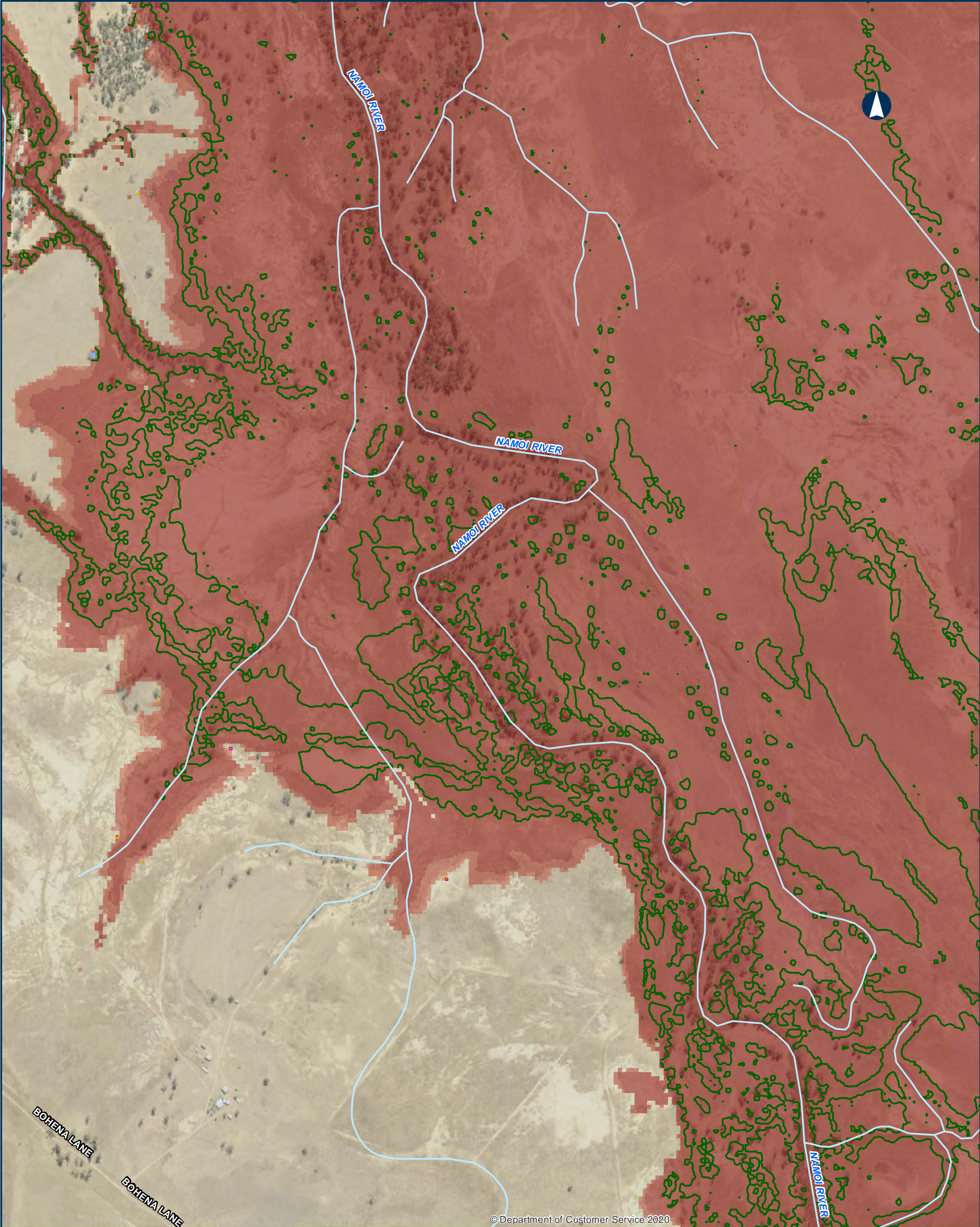
Existing Duration of Inundation

< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.28

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Local road

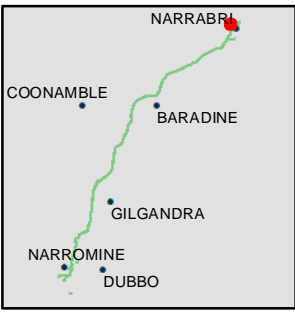
Watercourse

Change in Duration of Inundation
0%
5%
10%
20%

Area of departure
Exist duration <1hr, design duration >1hr
Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.29

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:8,480

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

Primary road
Local road
Watercourse

Change in Duration of Inundation

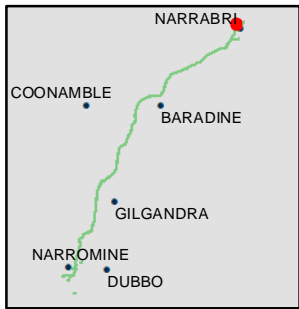
0%
5%
10%
20%

Area of departure

Exist duration >1hr, duration change > 10%

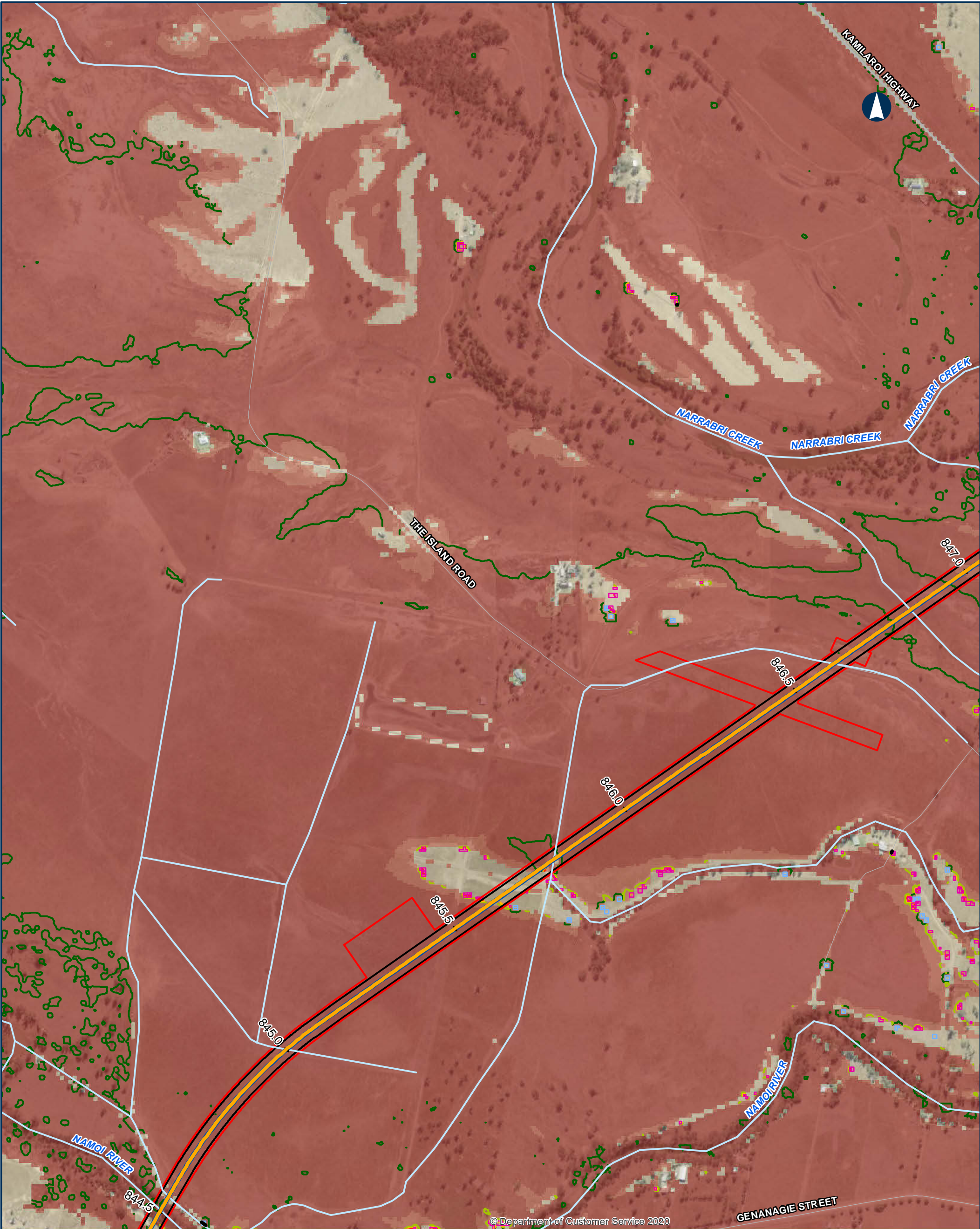
Existing Duration of Inundation

1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.30

0 200 400 Metres

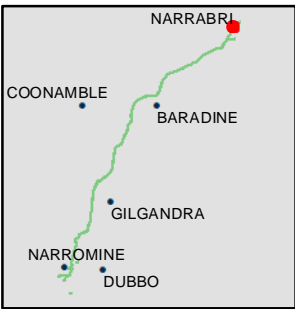
Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- | | |
|--------------------|--|
| Bridge | Change in Duration of Inundation |
| Road QDL departure | 0% |
| Alignment | 5% |
| Primary road | 10% |
| Local road | 20% |
| Watercourse | Area of departure |
| The proposal | Exist duration <1hr, design duration >1hr |
| Rail Corridor | Exist duration >1hr, duration change > 10% |

- | |
|---------------------------------|
| Existing Duration of Inundation |
| 1hr - 3hrs |
| 3hrs - 6hrs |
| 6hrs - 12hrs |
| 12hrs - 24hrs |
| > 24hrs |



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.31

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

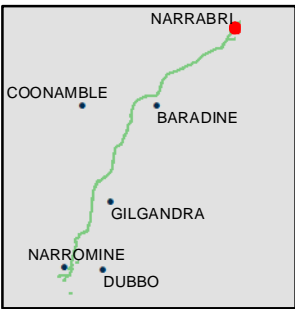
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Road QDL departure
- Alignment
- Primary road
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Rail Corridor

- Change in Duration of Inundation
- 0%
- 5%
- 10%
- 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

- Existing Duration of Inundation
- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.32

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

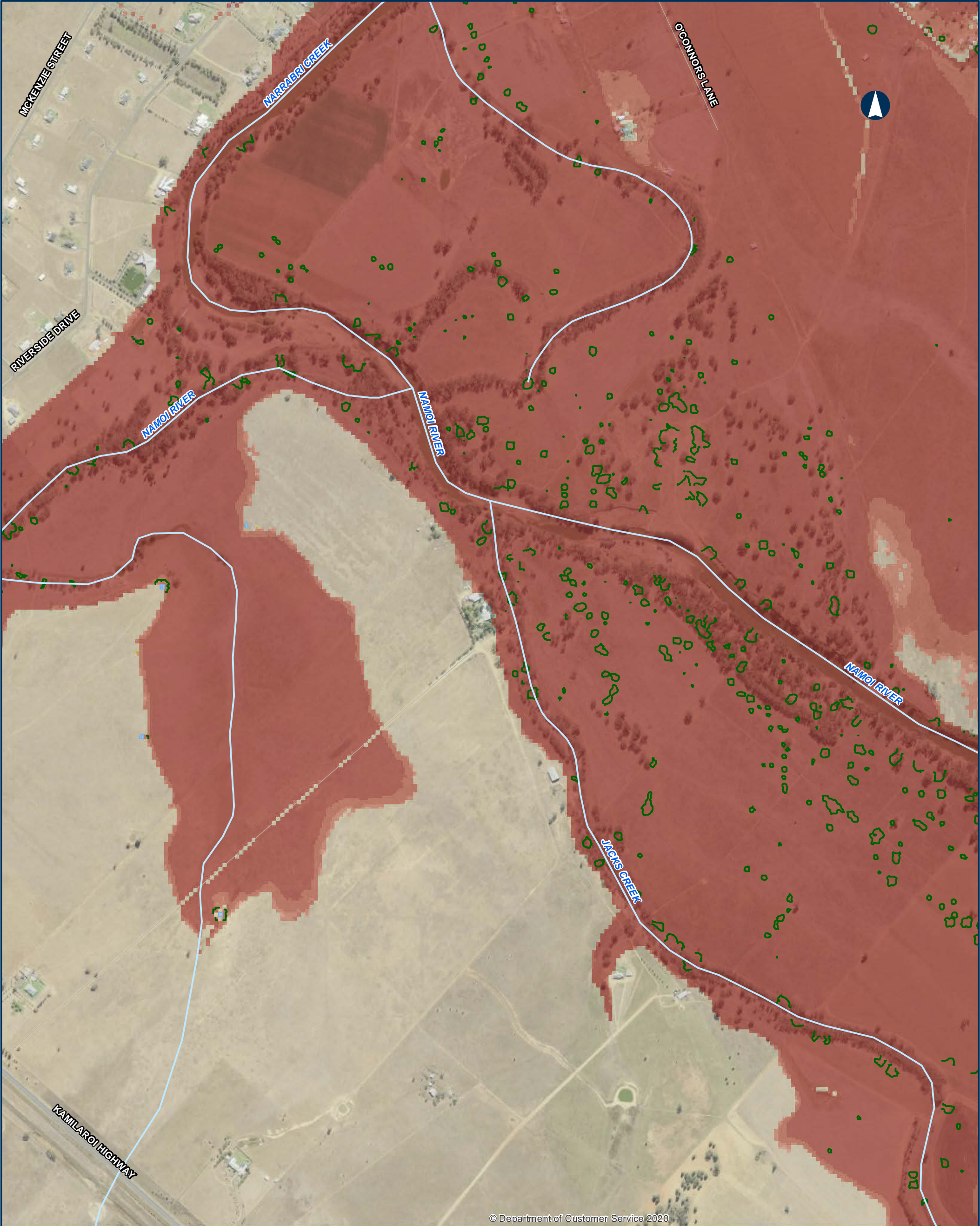
DUBBO

INLAND RAIL

ARTC

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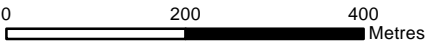
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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

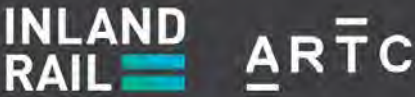
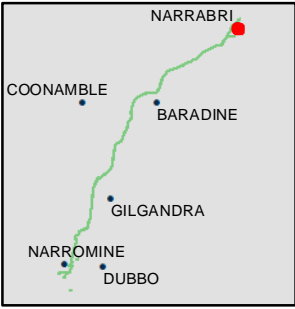
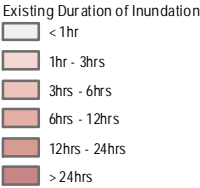
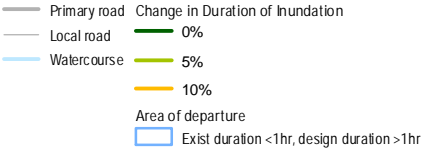
Appendix B - Figure 4.7.33



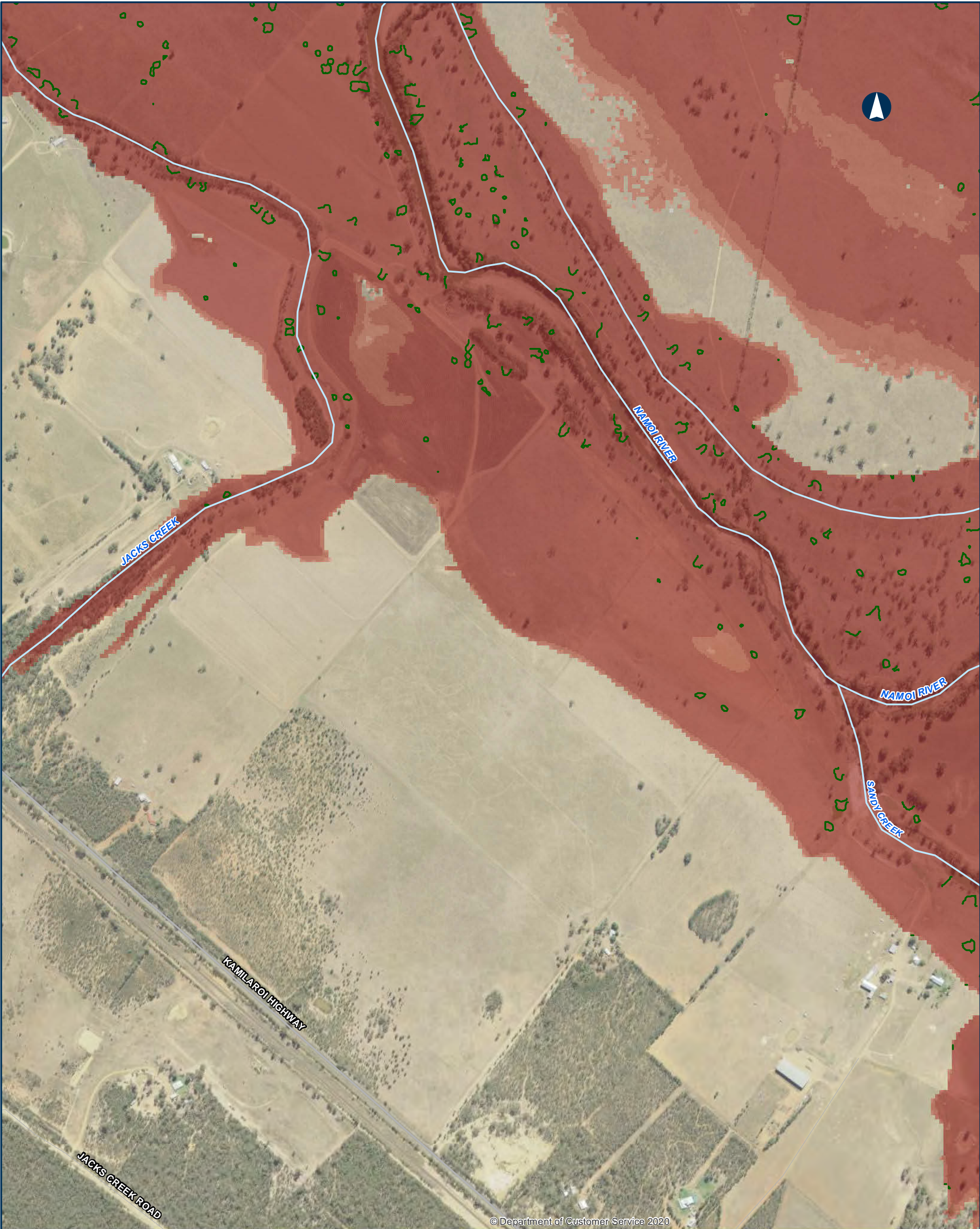
Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



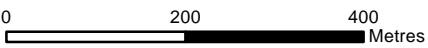
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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

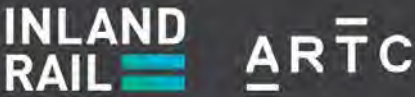
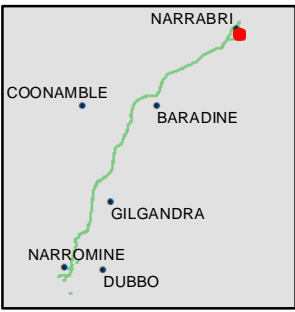
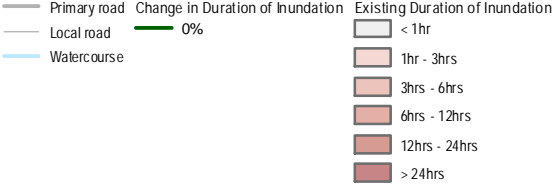
Appendix B - Figure 4.7.34



Coordinate System: GDA 1994 MGA Zone 55

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Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.35

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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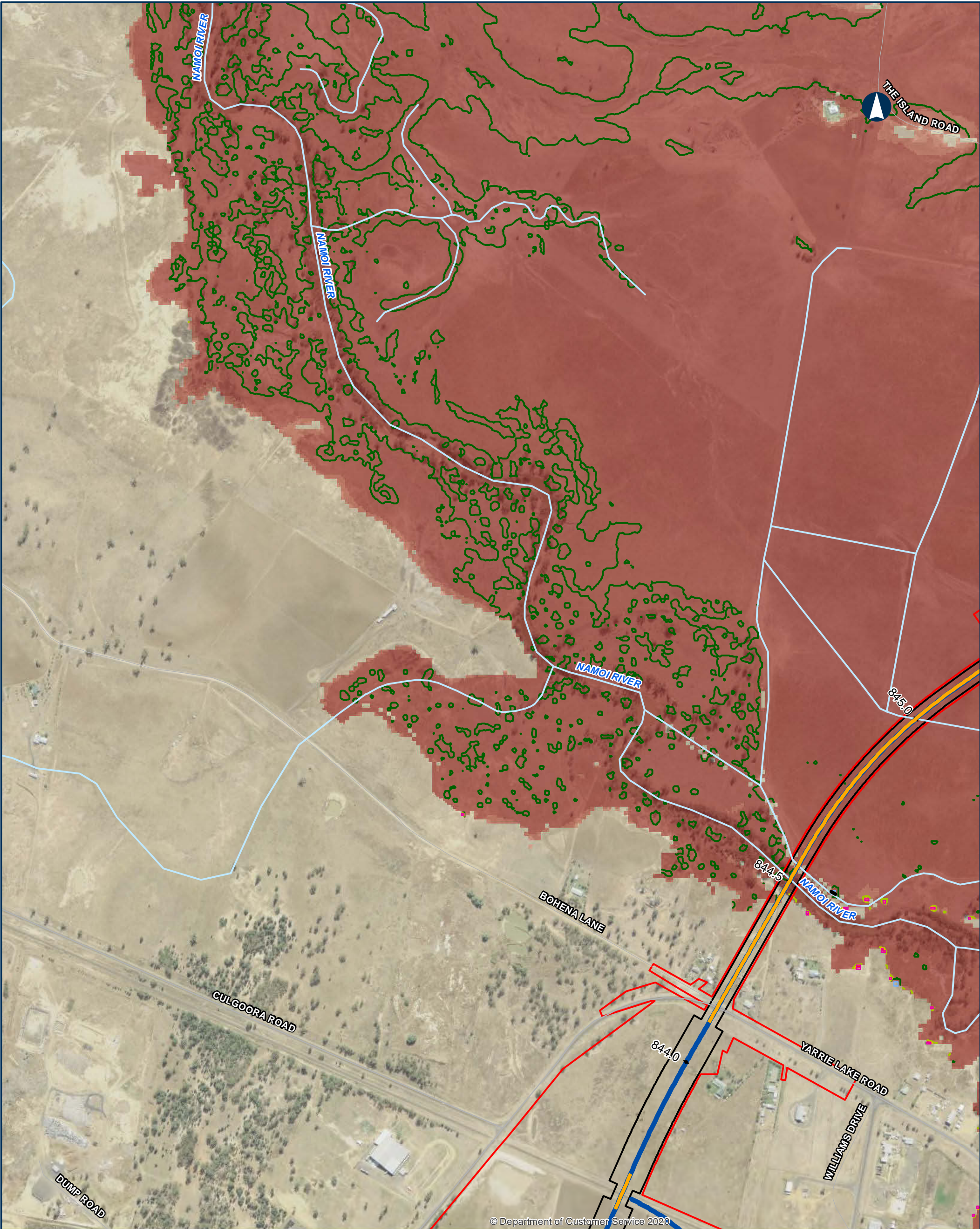
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.36

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Bridge

Road QDL departure

Alignment

Sub arterial road

Local road

Watercourse

The proposal

Rail Corridor

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

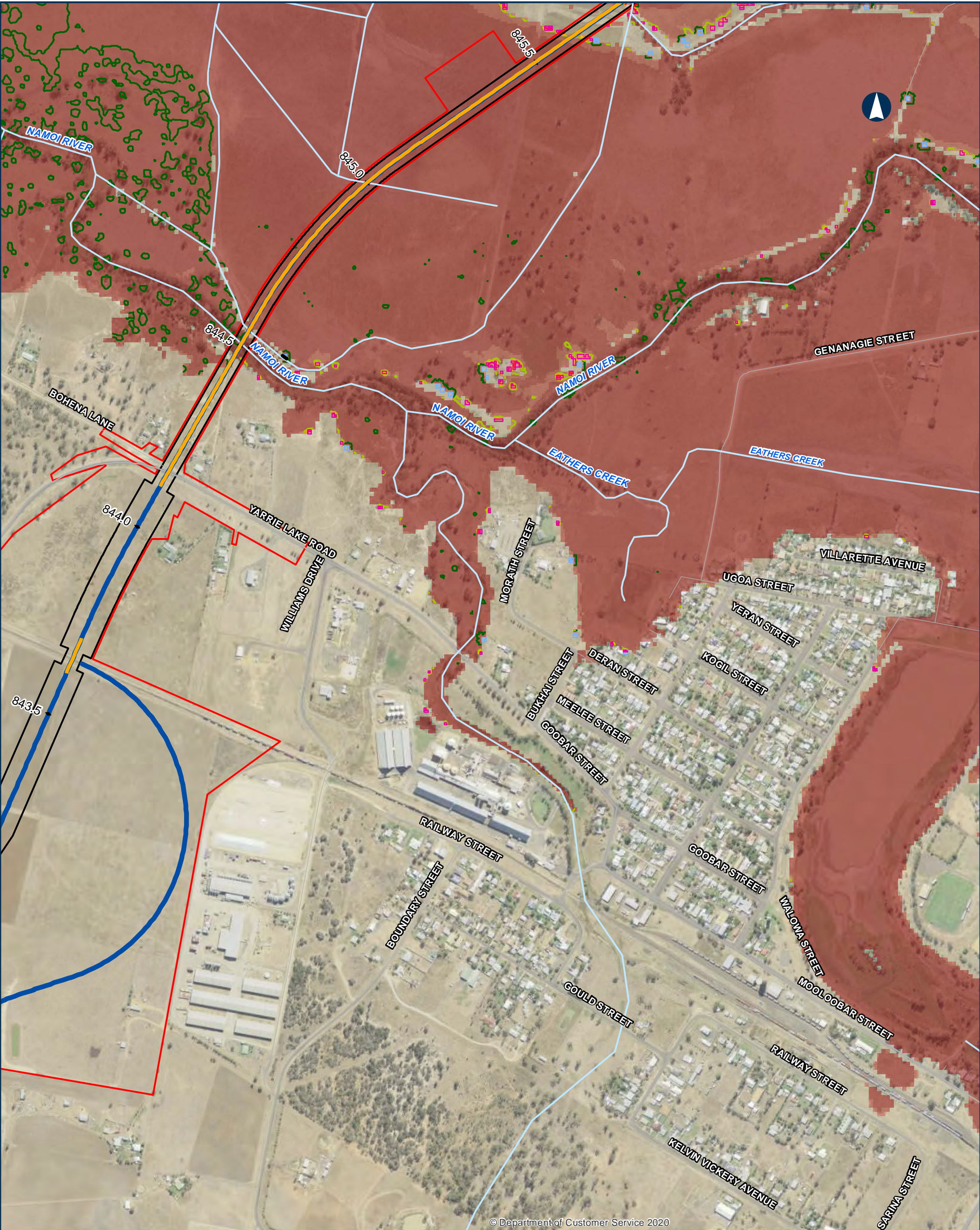
DUBBO

INLAND RAIL

ARTC

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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

Appendix B - Figure 4.7.37

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

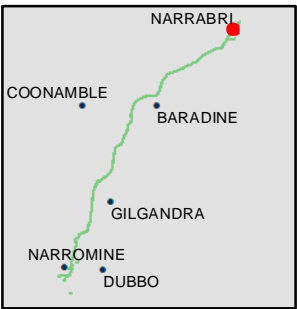
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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Bridge
- Road QDL departure
- Alignment
- Primary road
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Rail Corridor

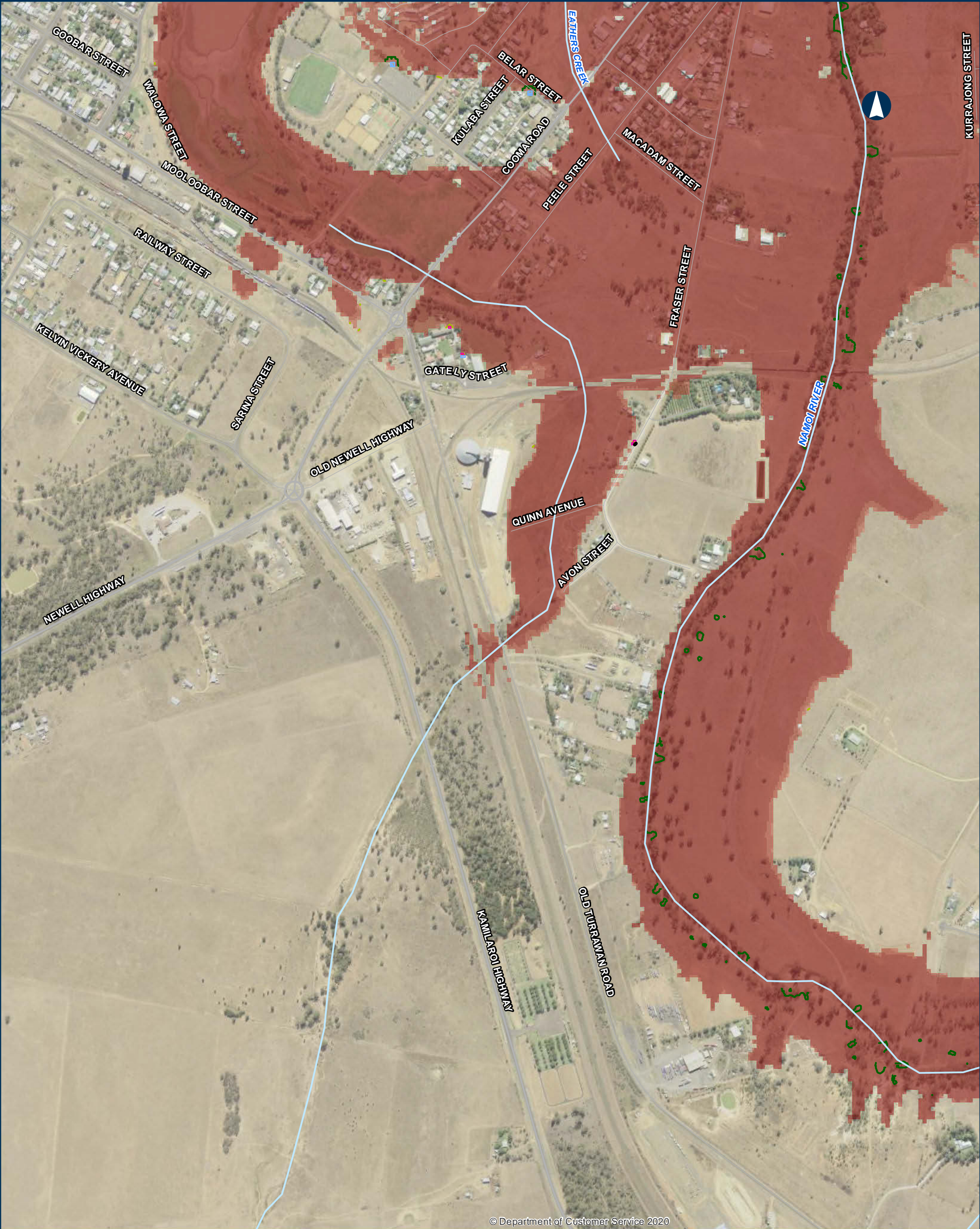
- Change in Duration of Inundation
- 0%
- 5%
- 10%
- 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

- Existing Duration of Inundation
- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs



INLAND RAIL ARTC

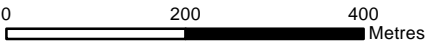
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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

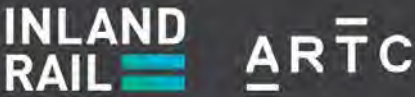
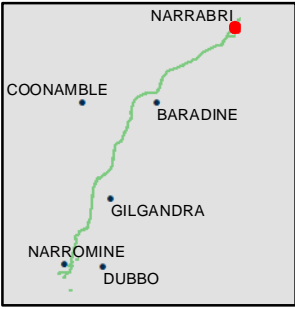
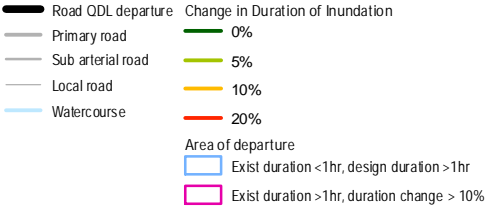
Appendix B - Figure 4.7.38



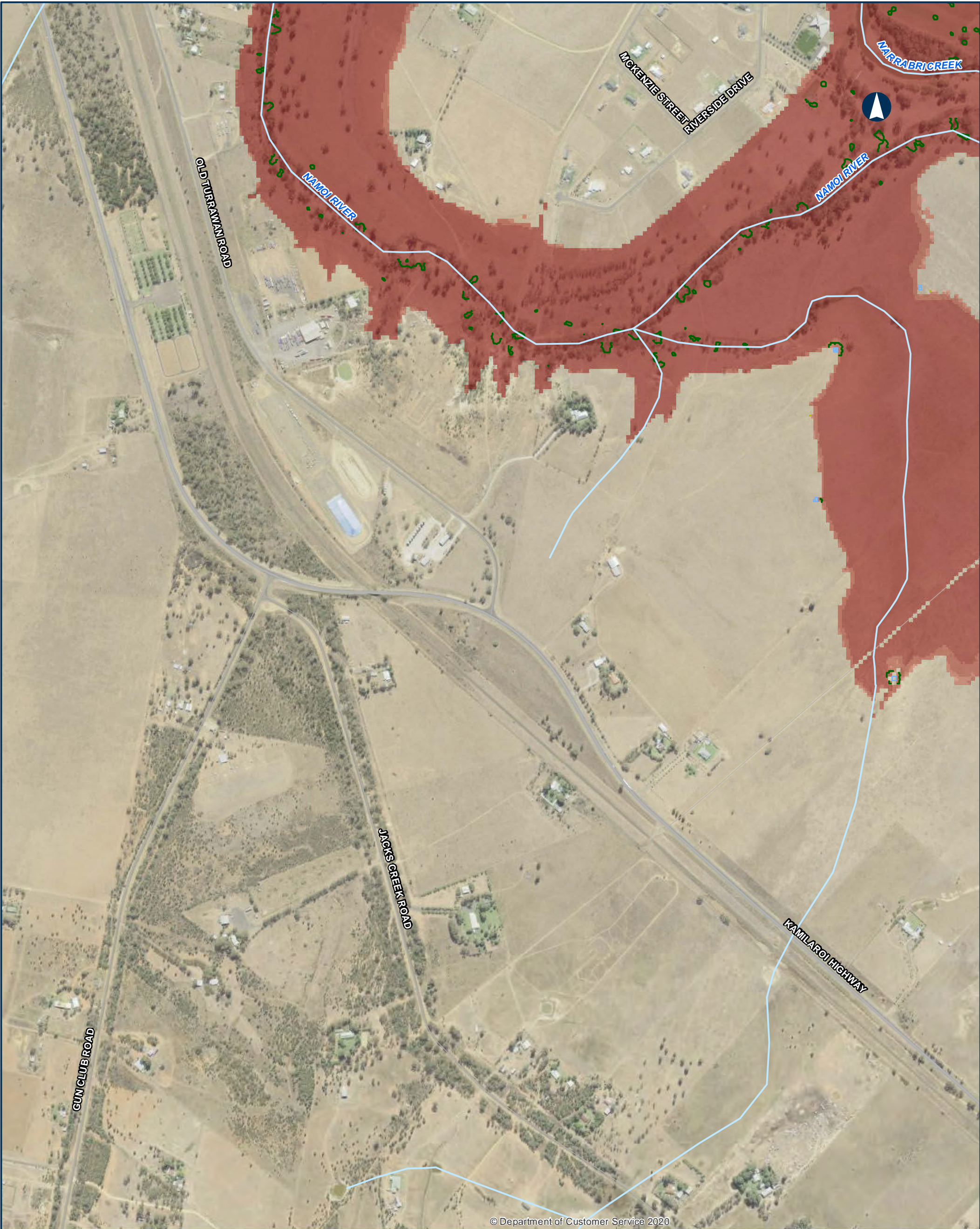
Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
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Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



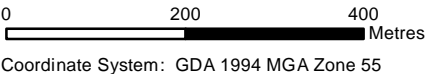
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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

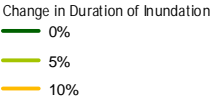
Appendix B - Figure 4.7.39



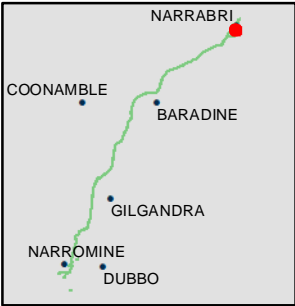
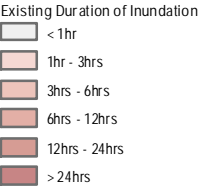
Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

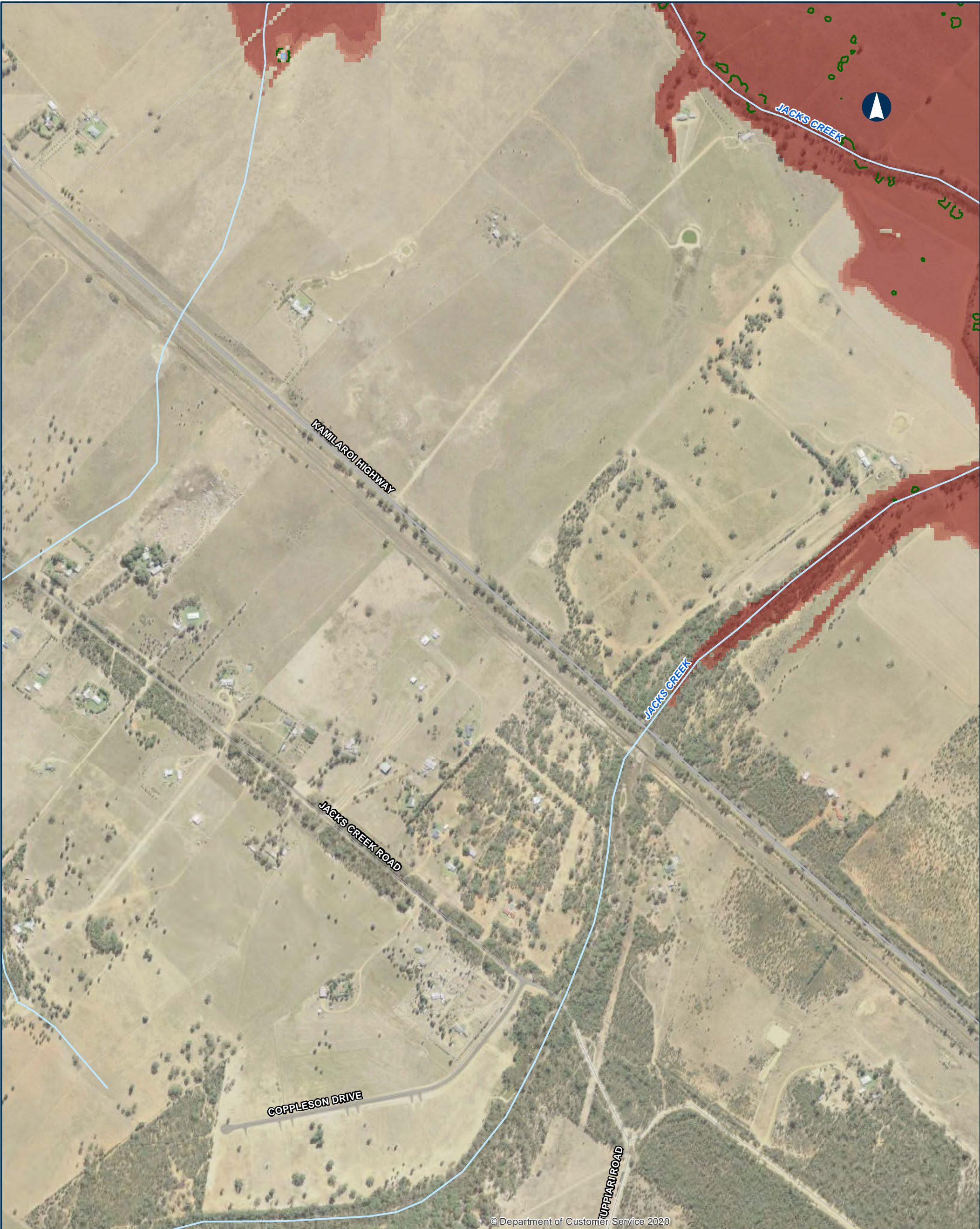


Area of departure
Exist duration <1hr, design duration >1hr



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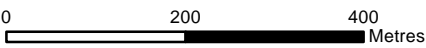
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NARROMINE TO NARRABRI QDL departures - Duration - 2% AEP - Narrabri Regional

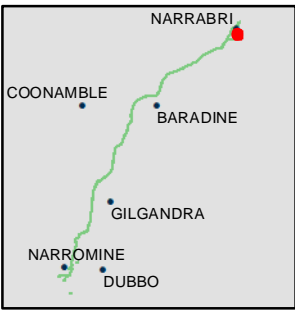
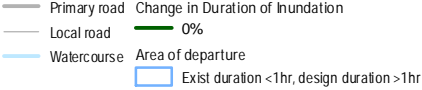
Appendix B - Figure 4.7.40



Coordinate System: GDA 1994 MGA Zone 55

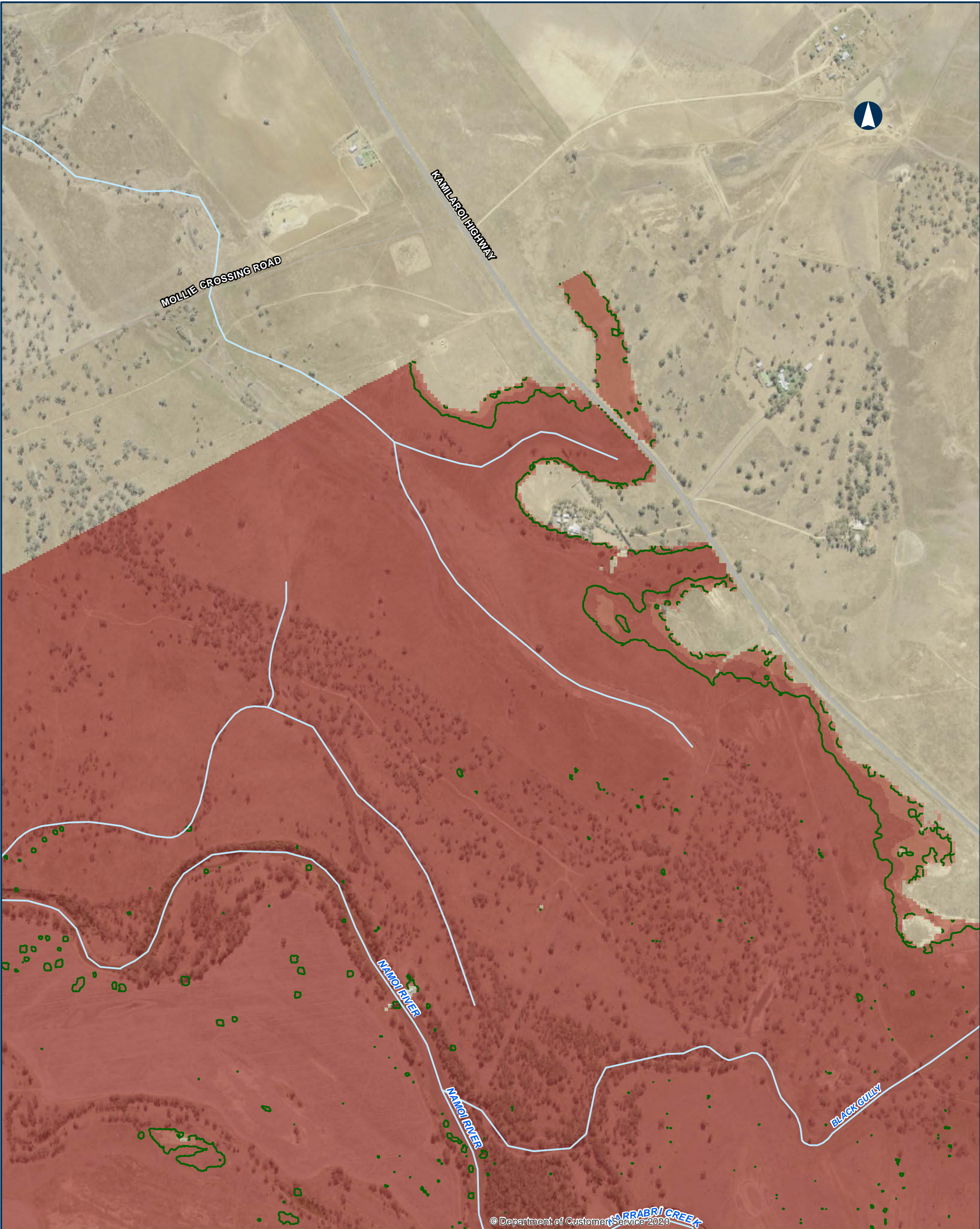
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Author: JacobsGHD Scale: 1:8,480
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.1

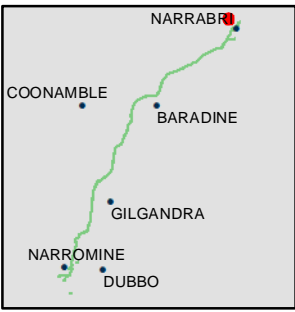
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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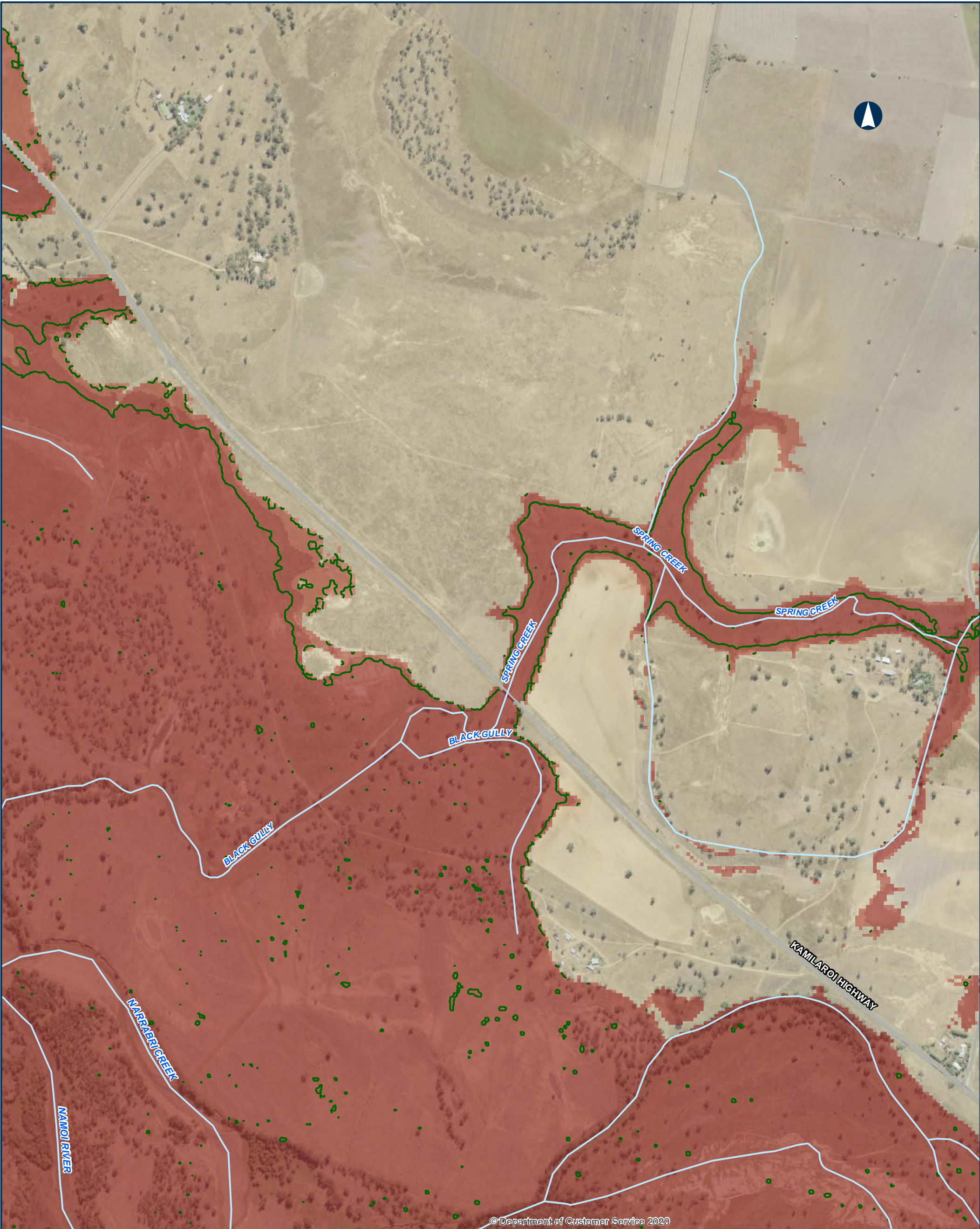
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.2

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Sub arterial road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

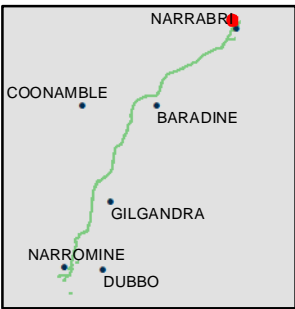
Appendix B - Figure 4.8.3

0 200 400 Metres
Coordinate System: GDA 1994 MGA Zone 55

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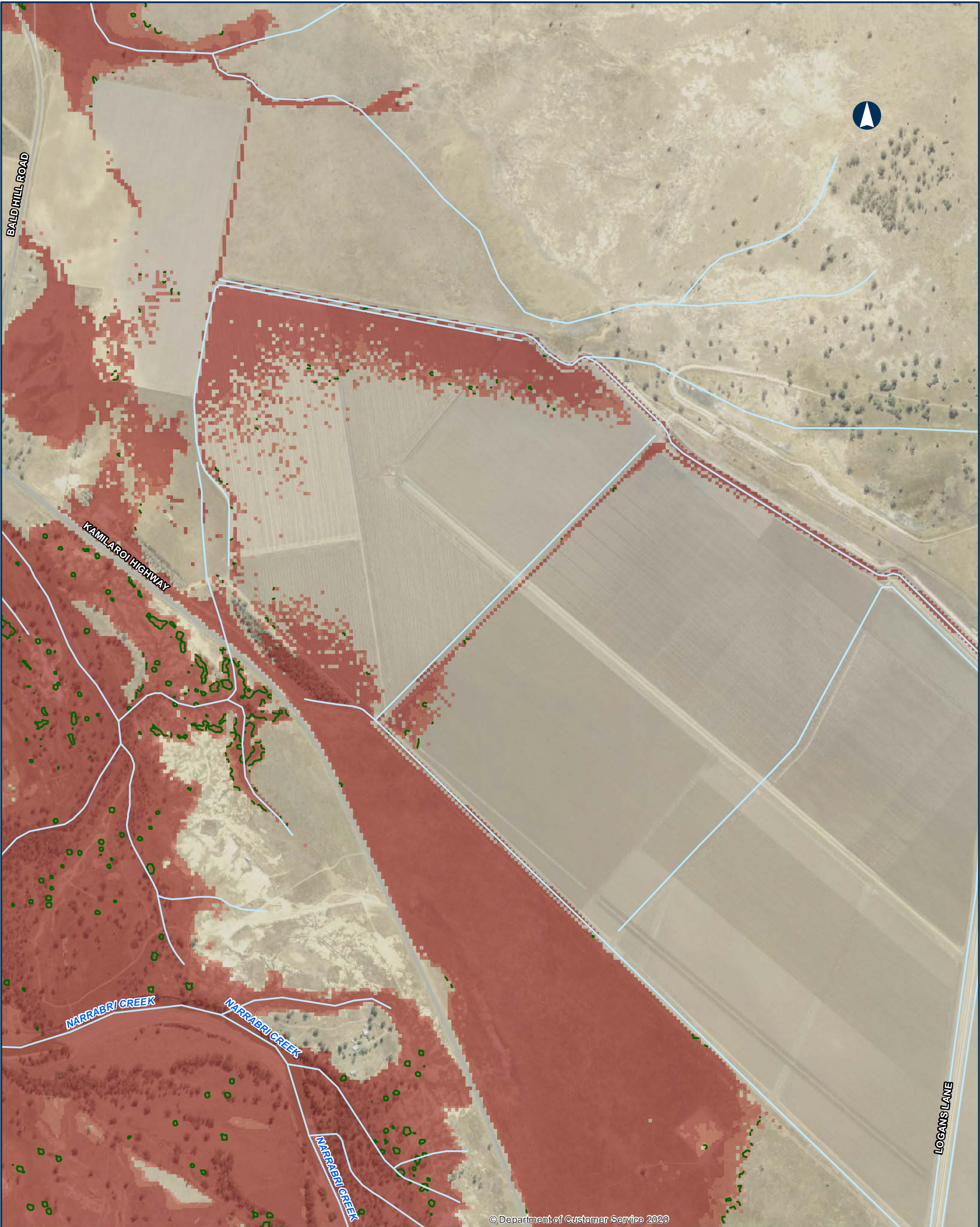
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.4

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3
Scale: 1:10,000

Primary road

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

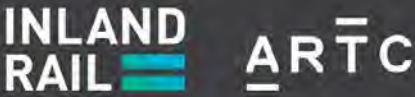
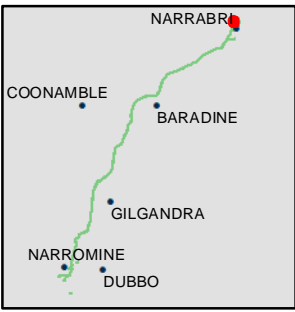
1hr - 3hrs

3hrs - 6hrs

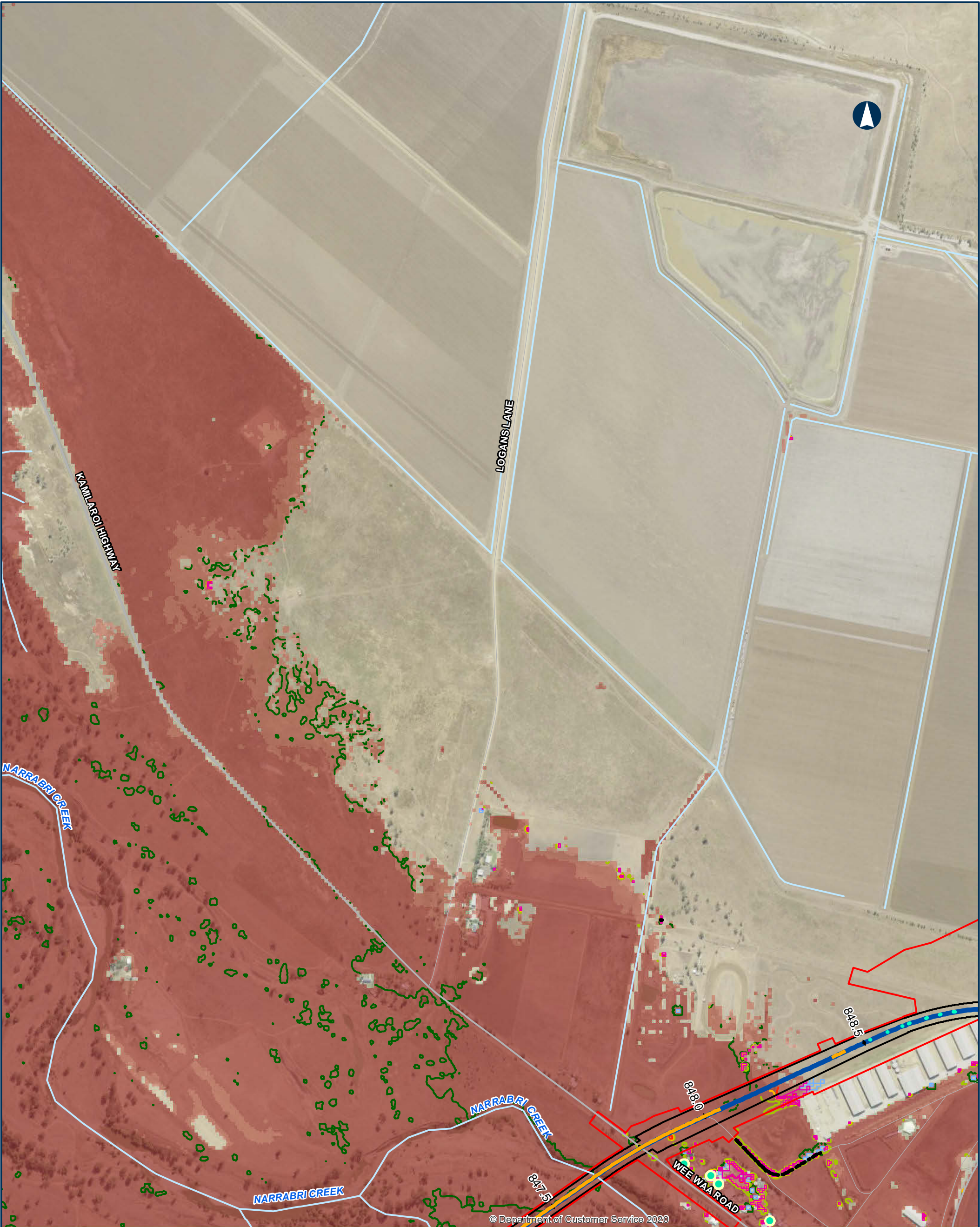
6hrs - 12hrs

12hrs - 24hrs

> 24hrs

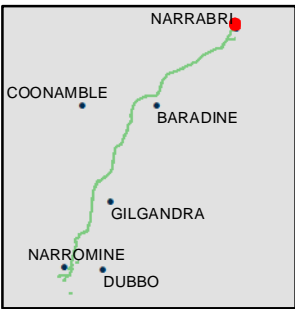
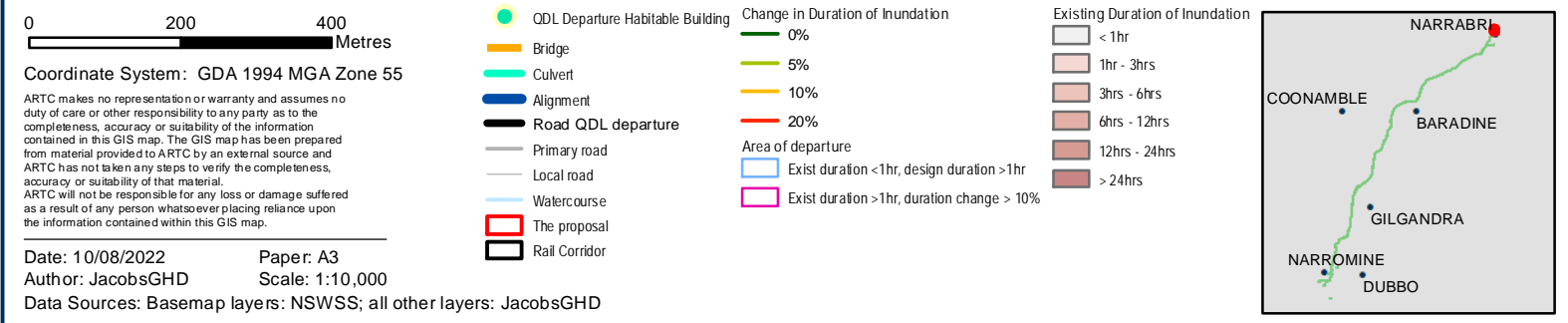


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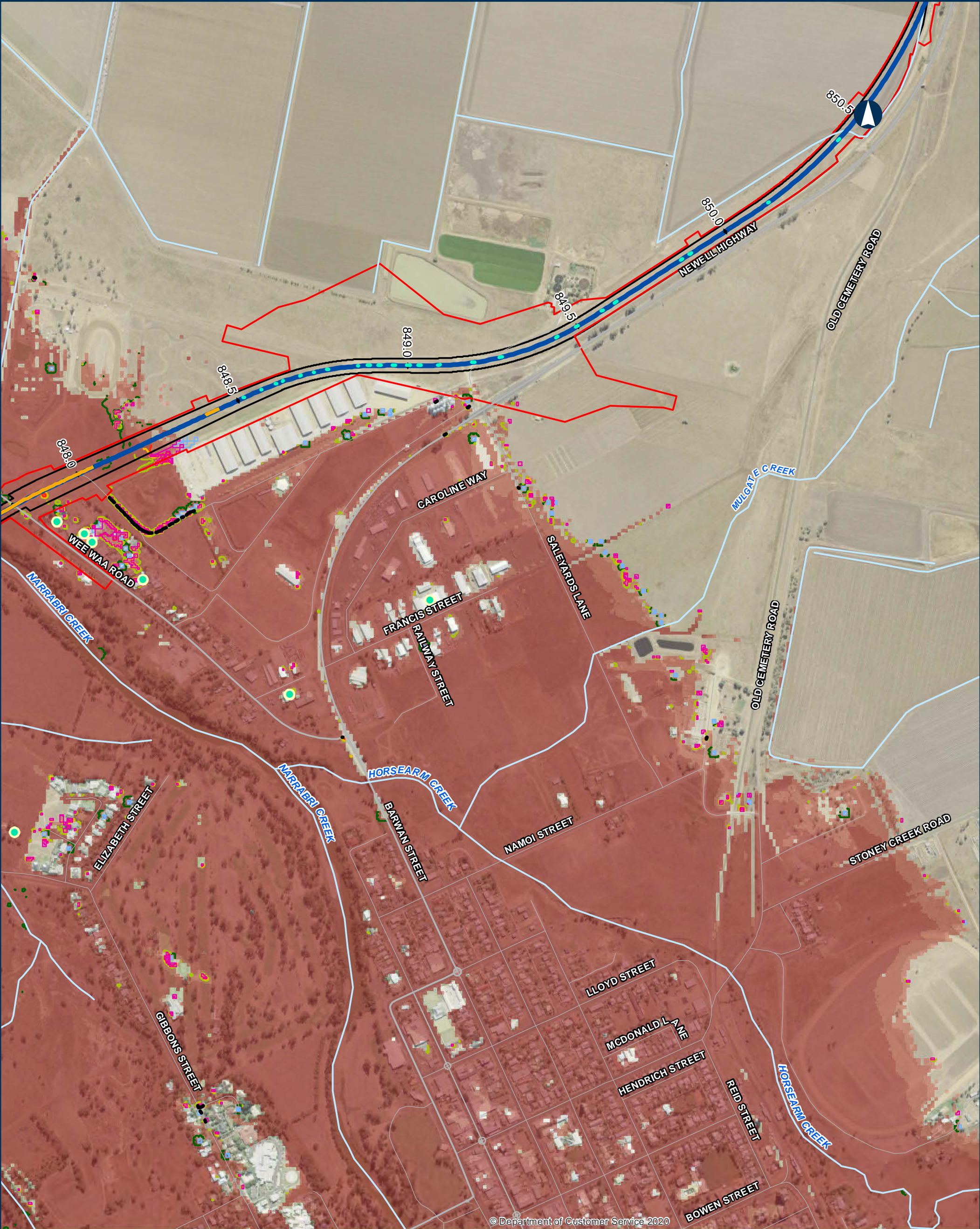
NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.5



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.6

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

Legend

- QDL Departure Habitable Building
- Bridge
- Culvert
- Alignment
- Road QDL departure
- Primary road
- Sub arterial road
- Local road
- Watercourse
- The proposal
- Rail Corridor

Change in Duration of Inundation

- 0%
- 5%
- 10%
- 20%

Area of departure

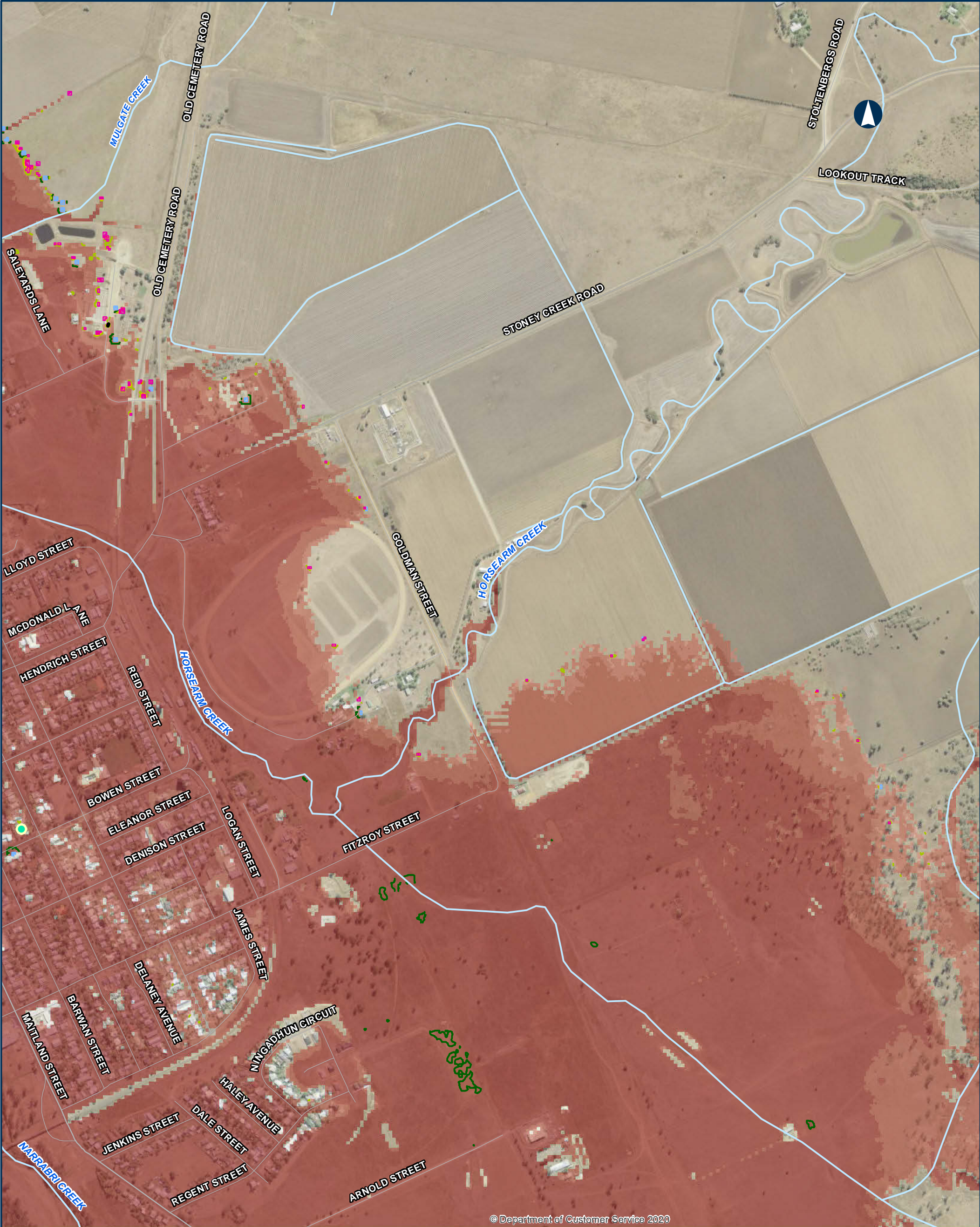
- Exist duration <1hr, design duration >1hr
- Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

- < 1hr
- 1hr - 3hrs
- 3hrs - 6hrs
- 6hrs - 12hrs
- 12hrs - 24hrs
- > 24hrs

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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.7

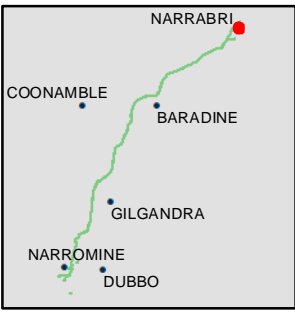
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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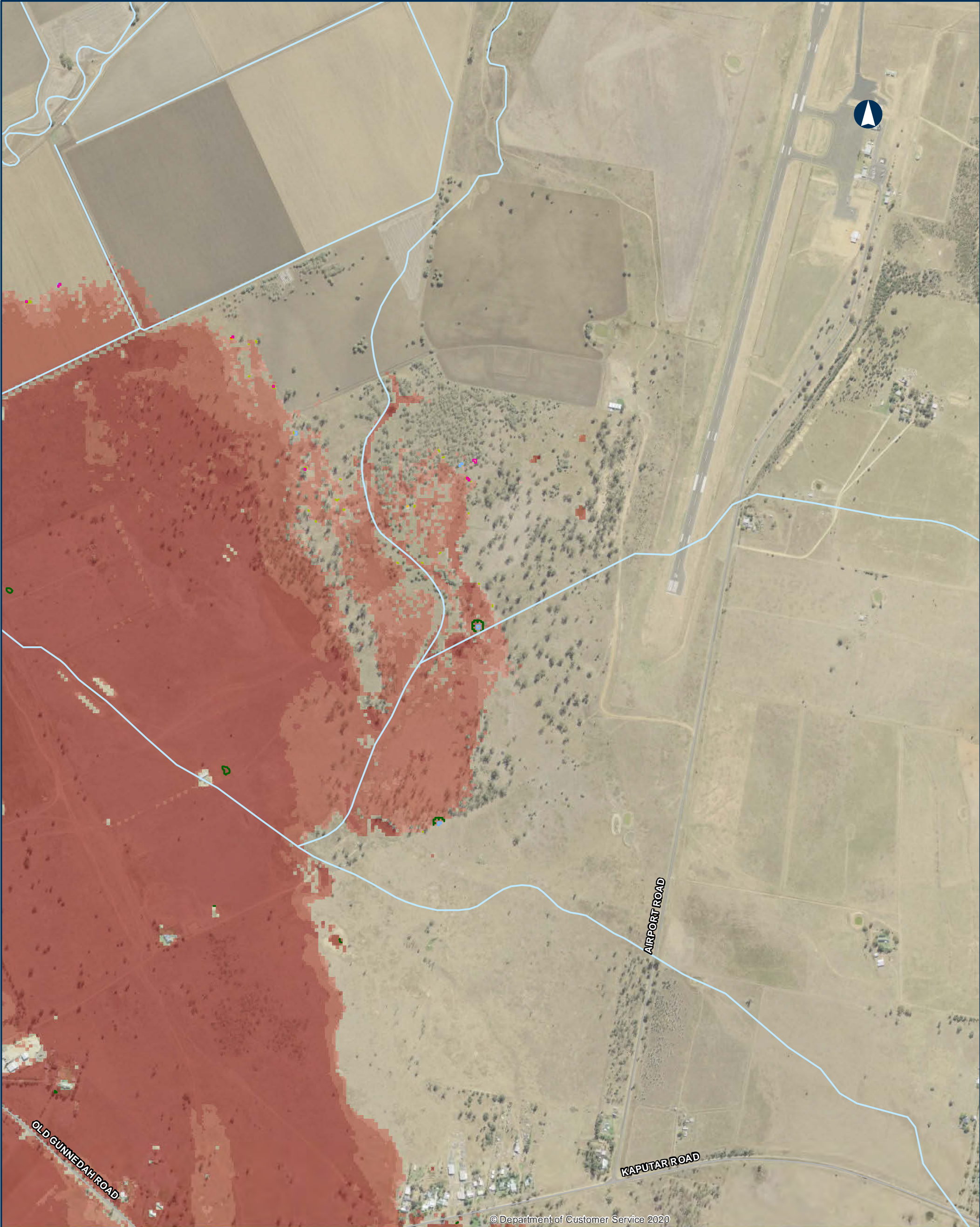
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- QDL Departure Habitable Building
 - Road QDL departure
 - Sub arterial road
 - Local road
 - Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.8

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation

< 1hr

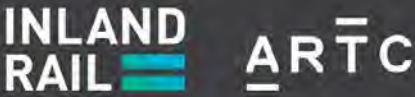
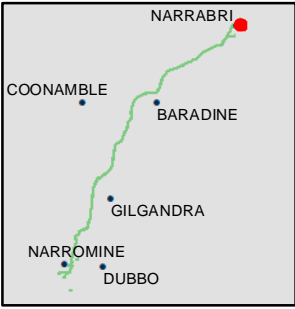
1hr - 3hrs

3hrs - 6hrs

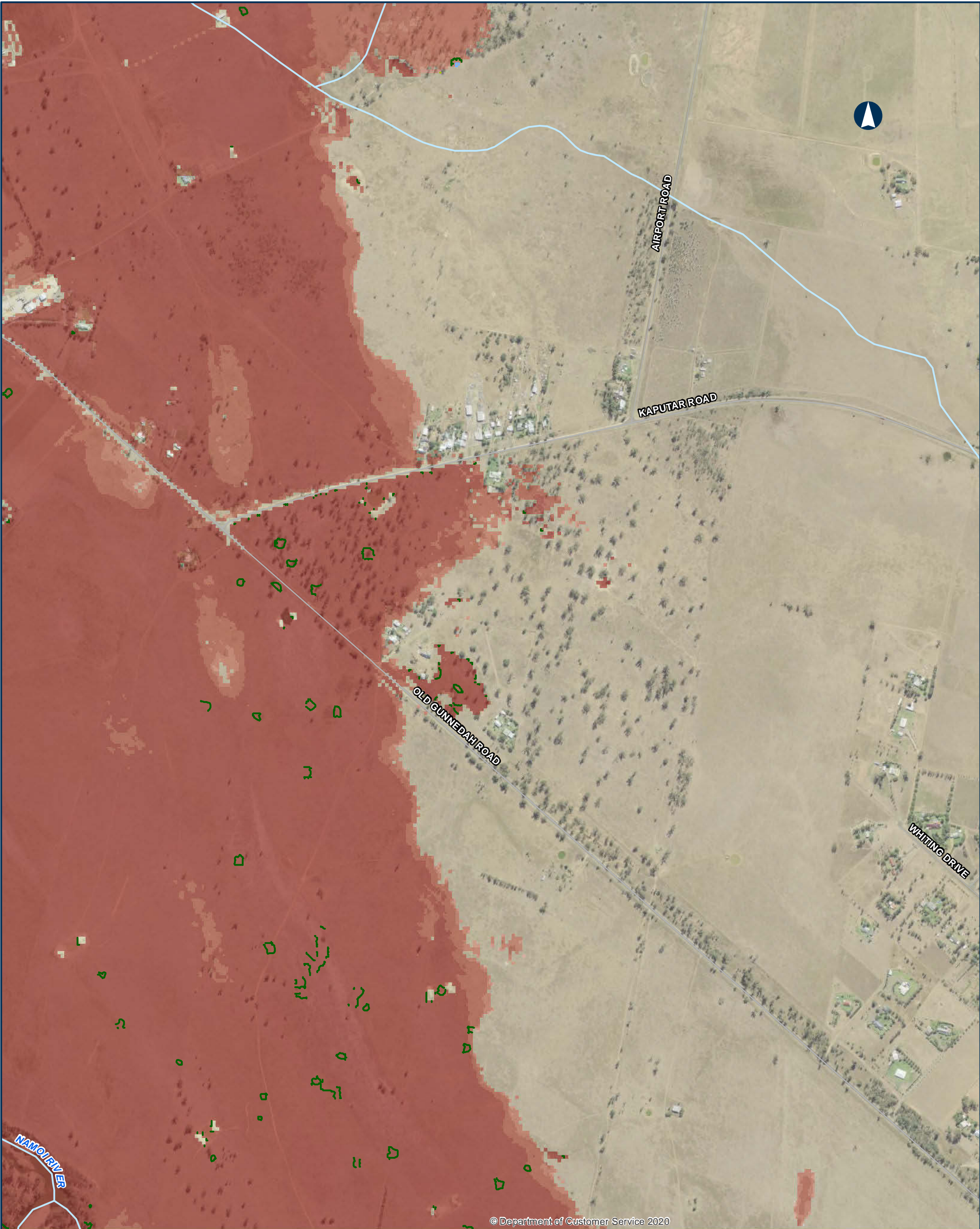
6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.9

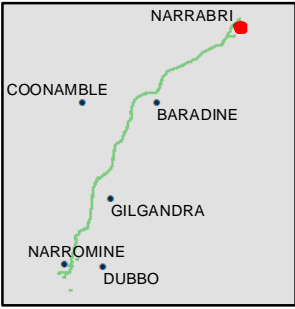
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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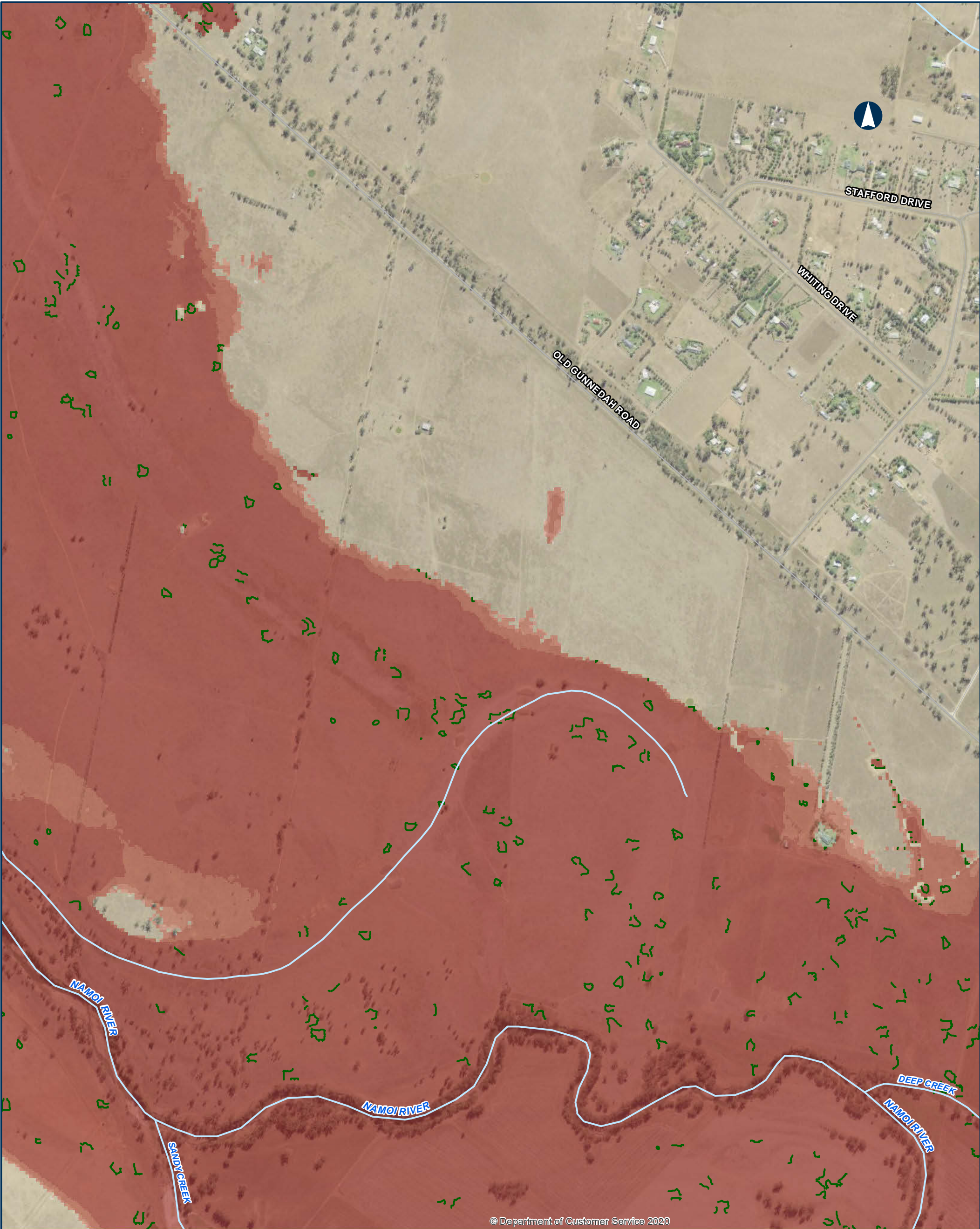
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
5%
- Area of departure
Exist duration <1hr, design duration >1hr
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.10

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

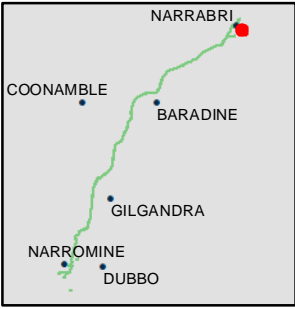
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

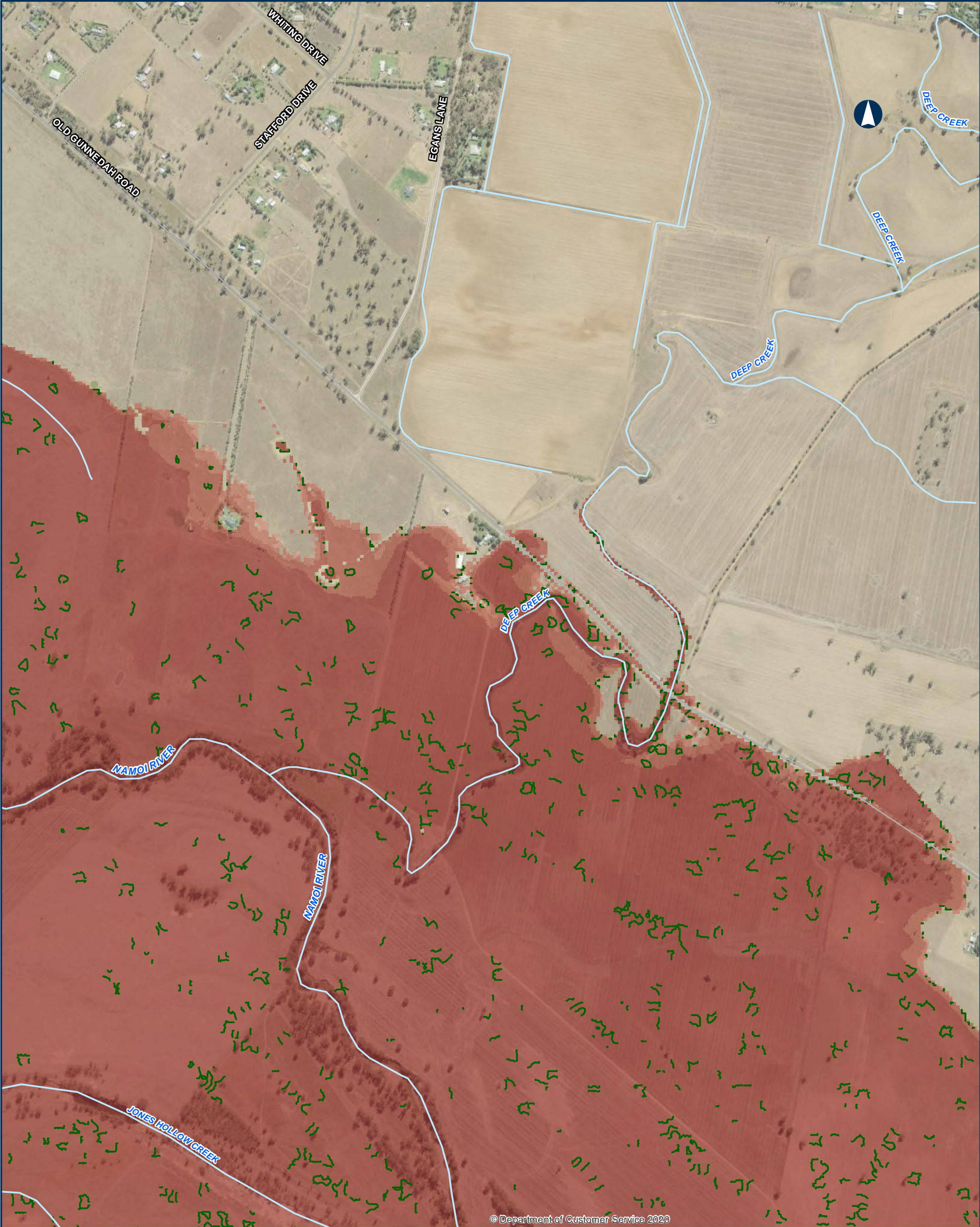
12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.11

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

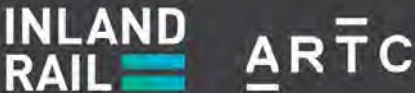
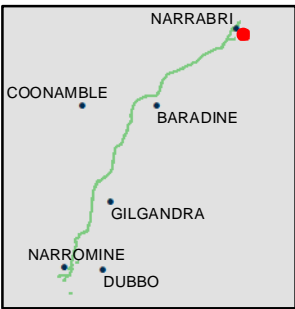
1hr - 3hrs

3hrs - 6hrs

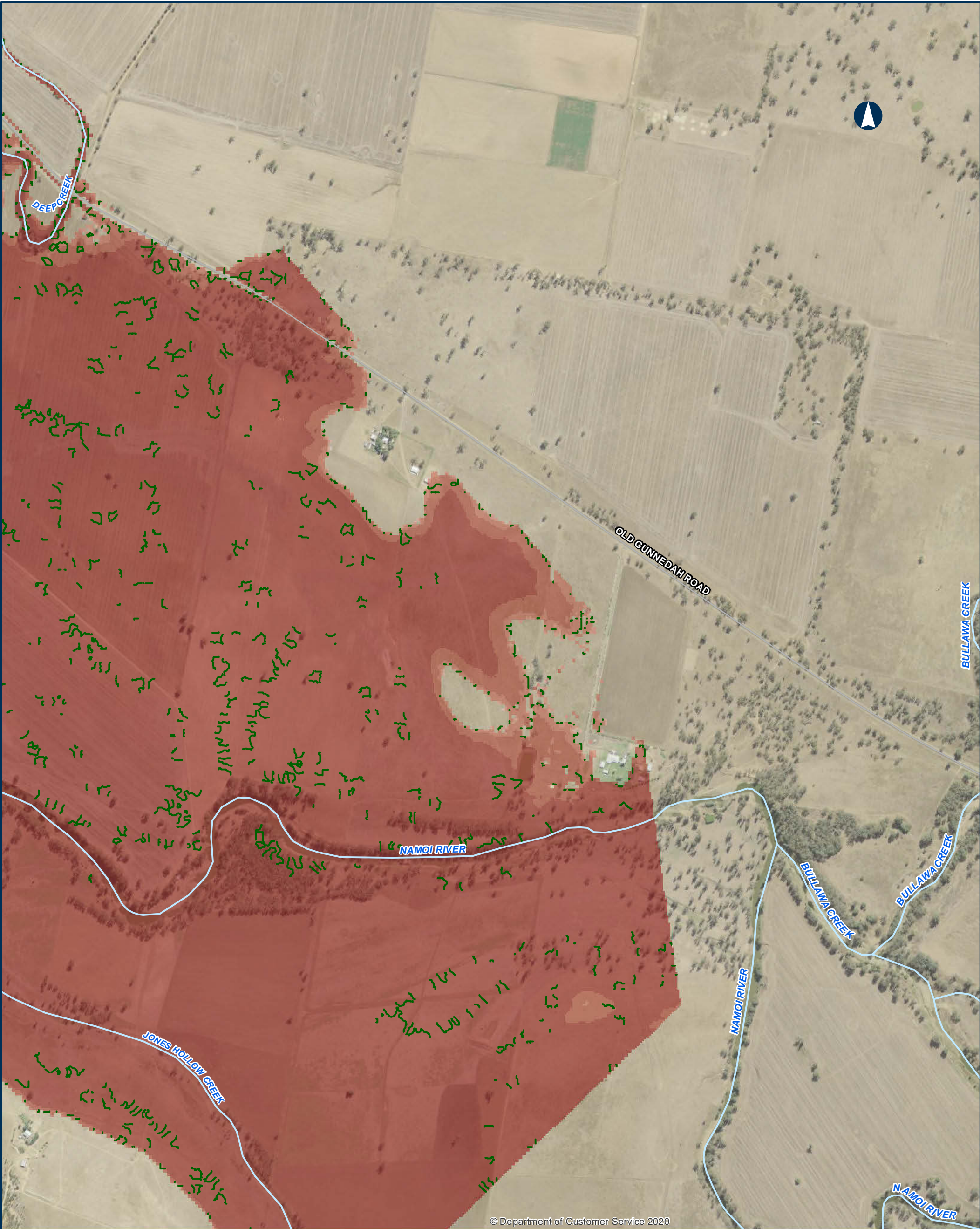
6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.12

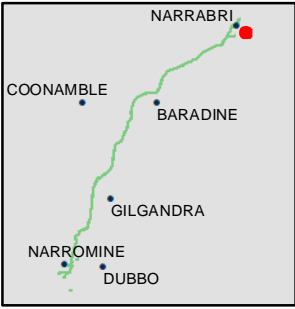
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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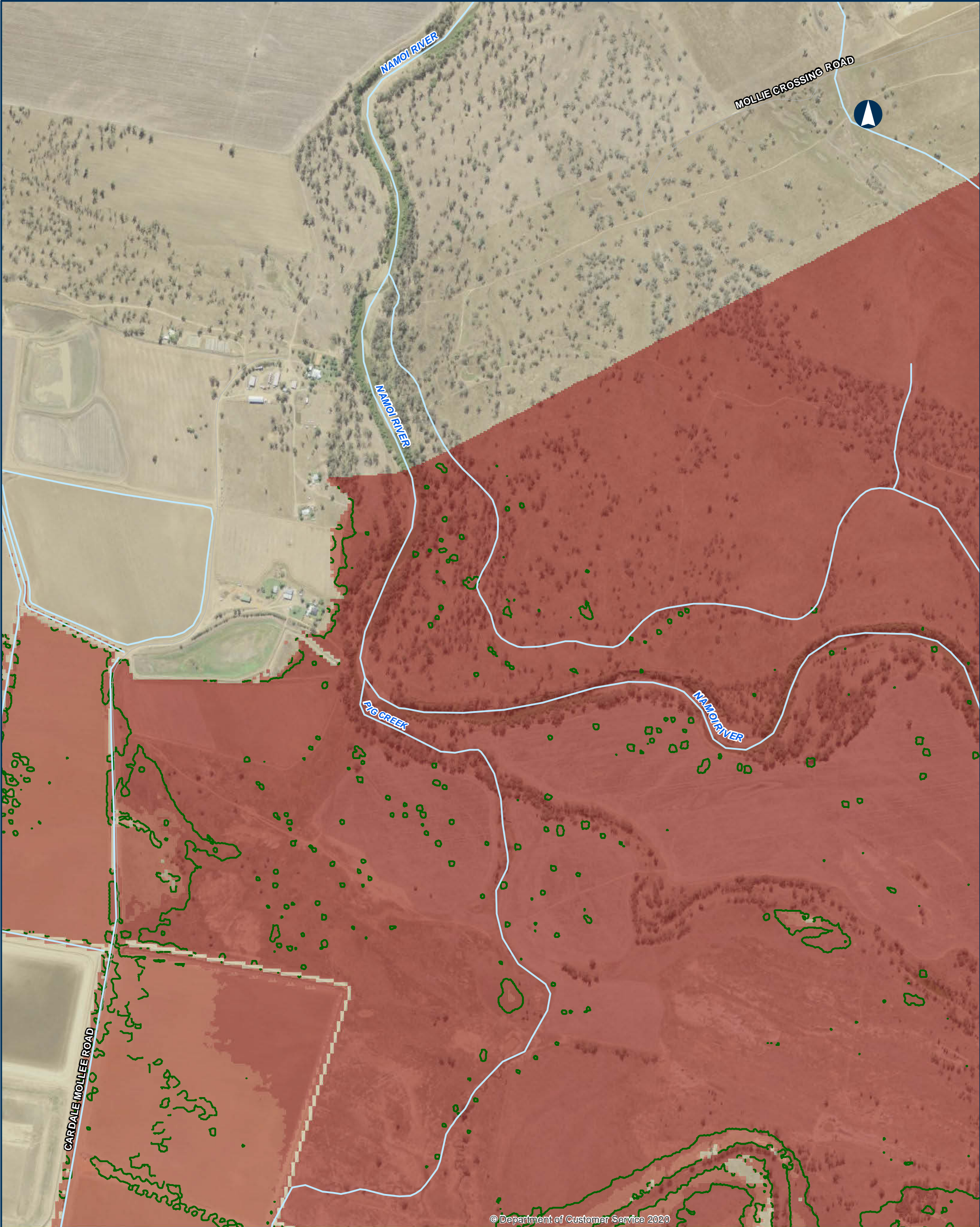
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Sub arterial road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.13

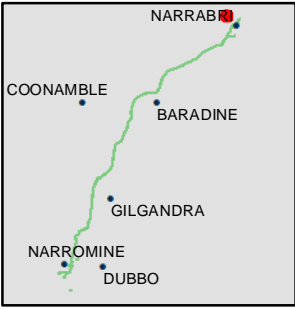
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.14

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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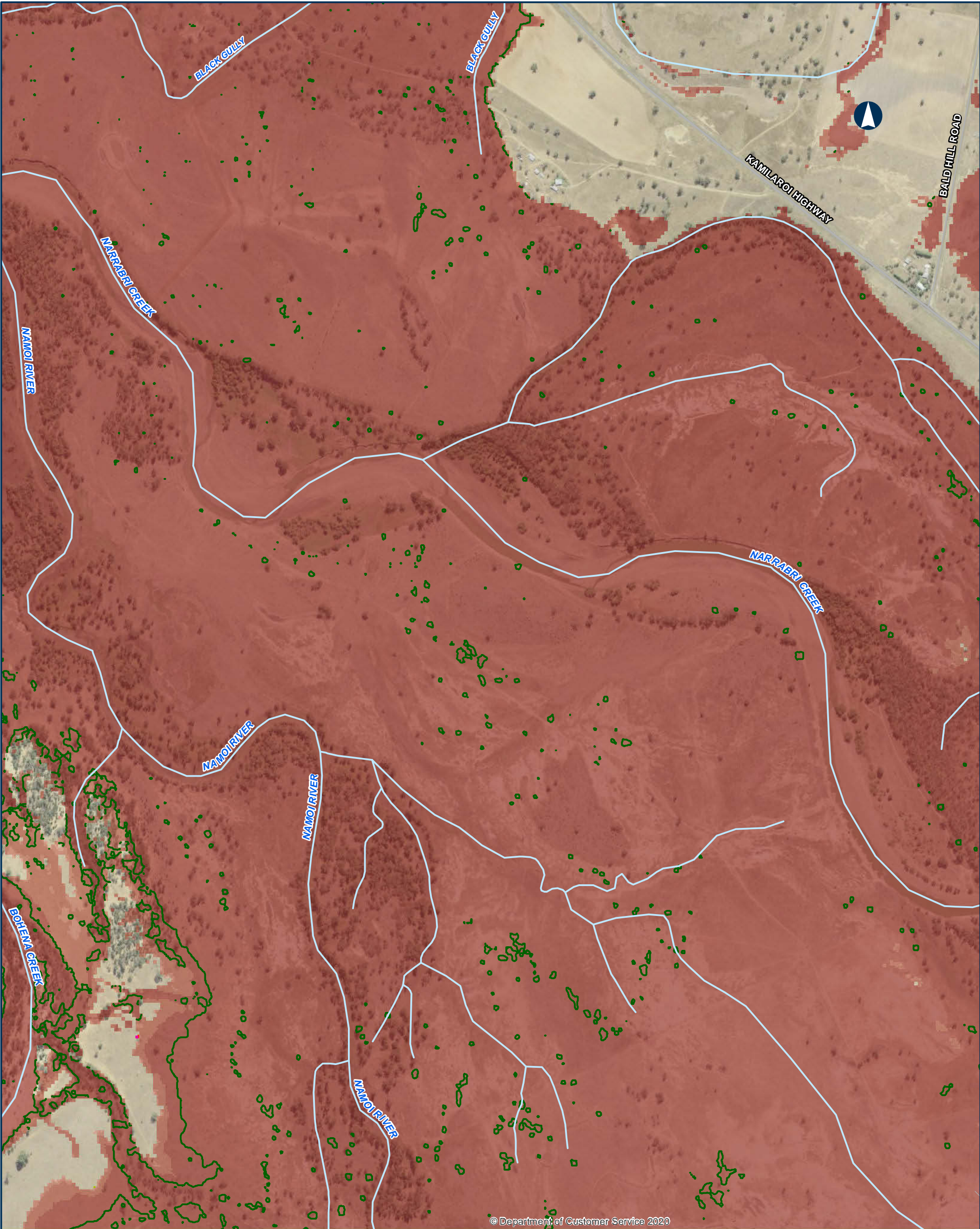
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.15

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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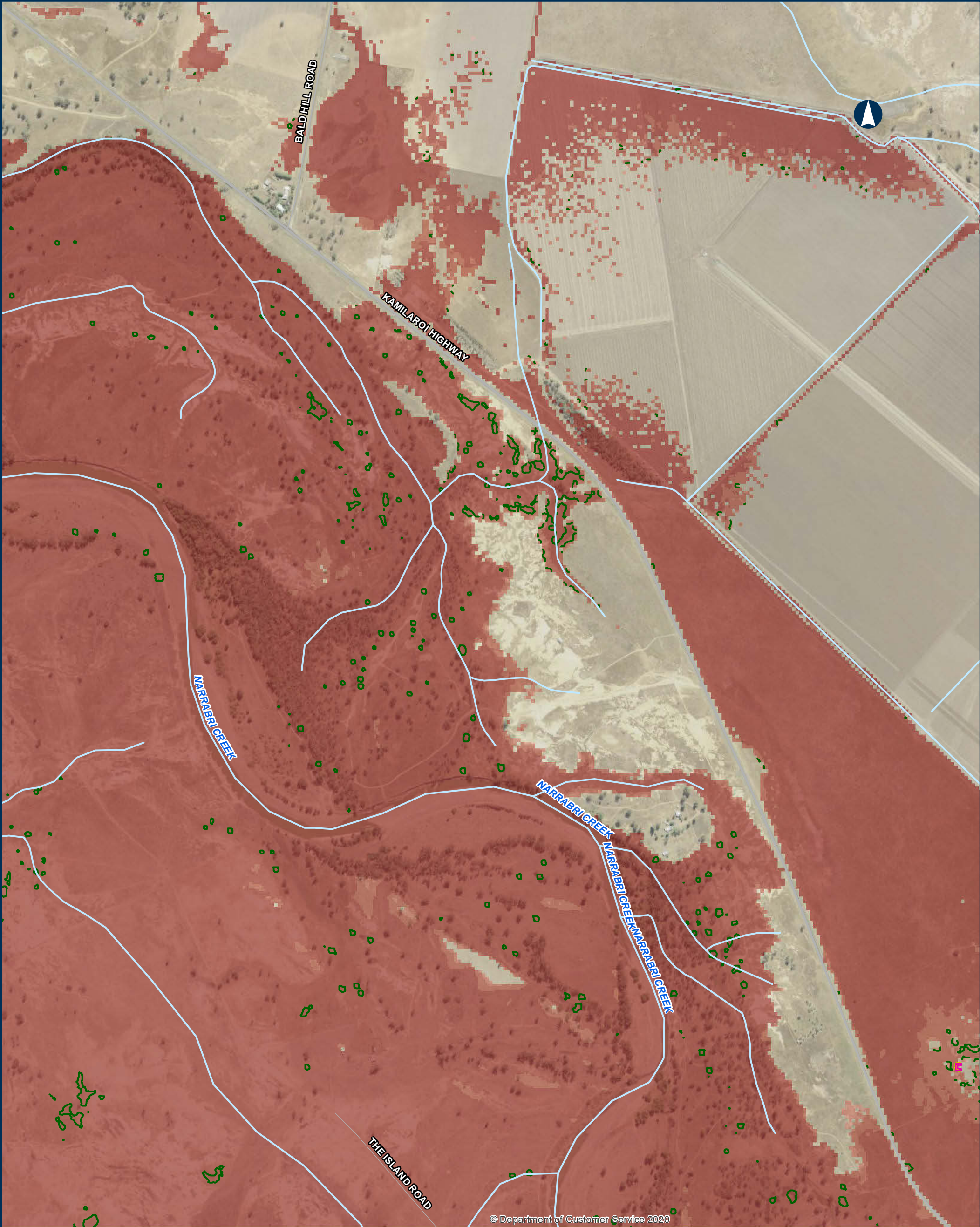
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
5%
10%
20%
- Area of departure
Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.16

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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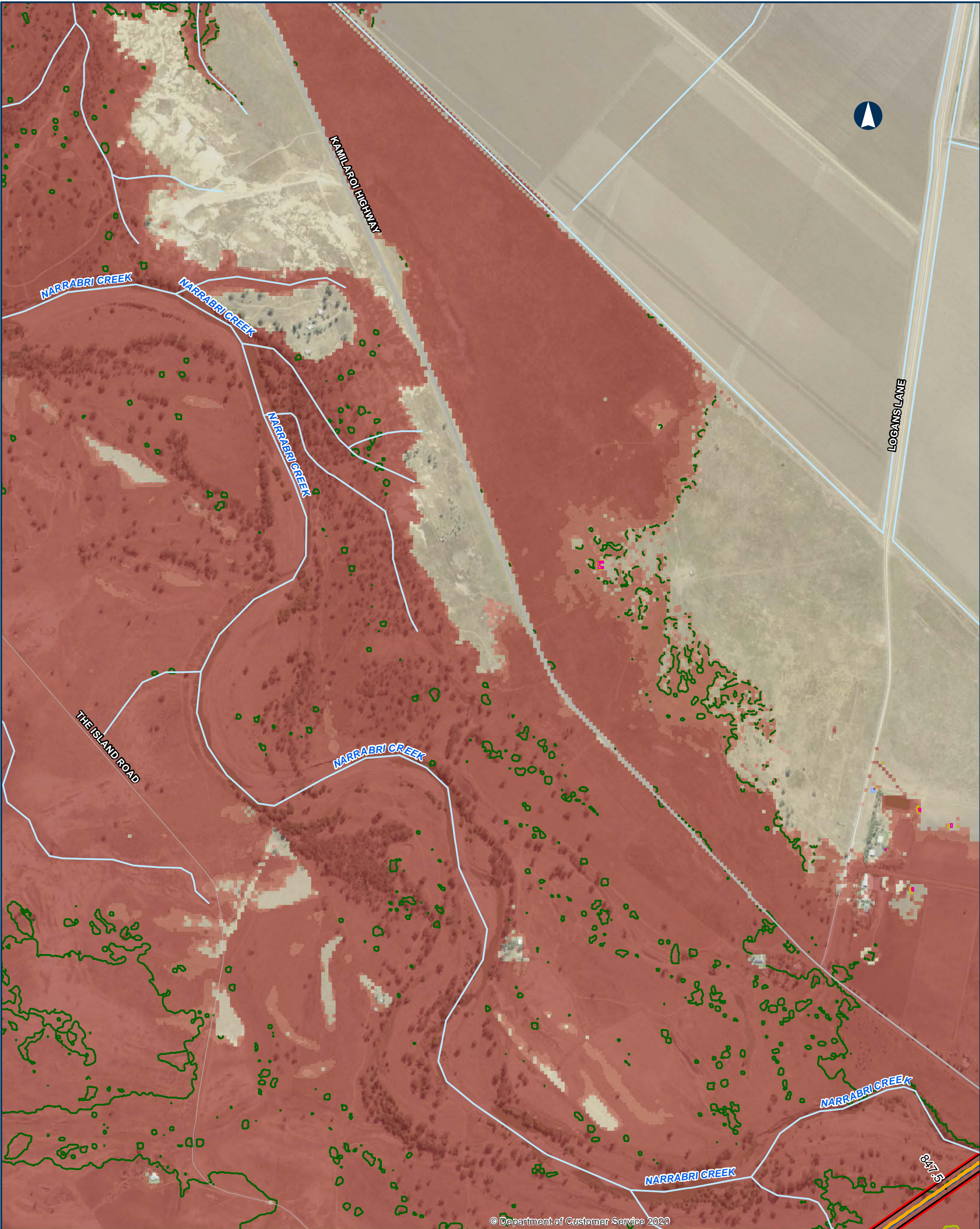
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Sub arterial road
Local road
Watercourse
- Change in Duration of Inundation
0%
5%
10%
20%
- Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs
- Area of departure
Exist duration >1hr, duration change > 10%



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.17

0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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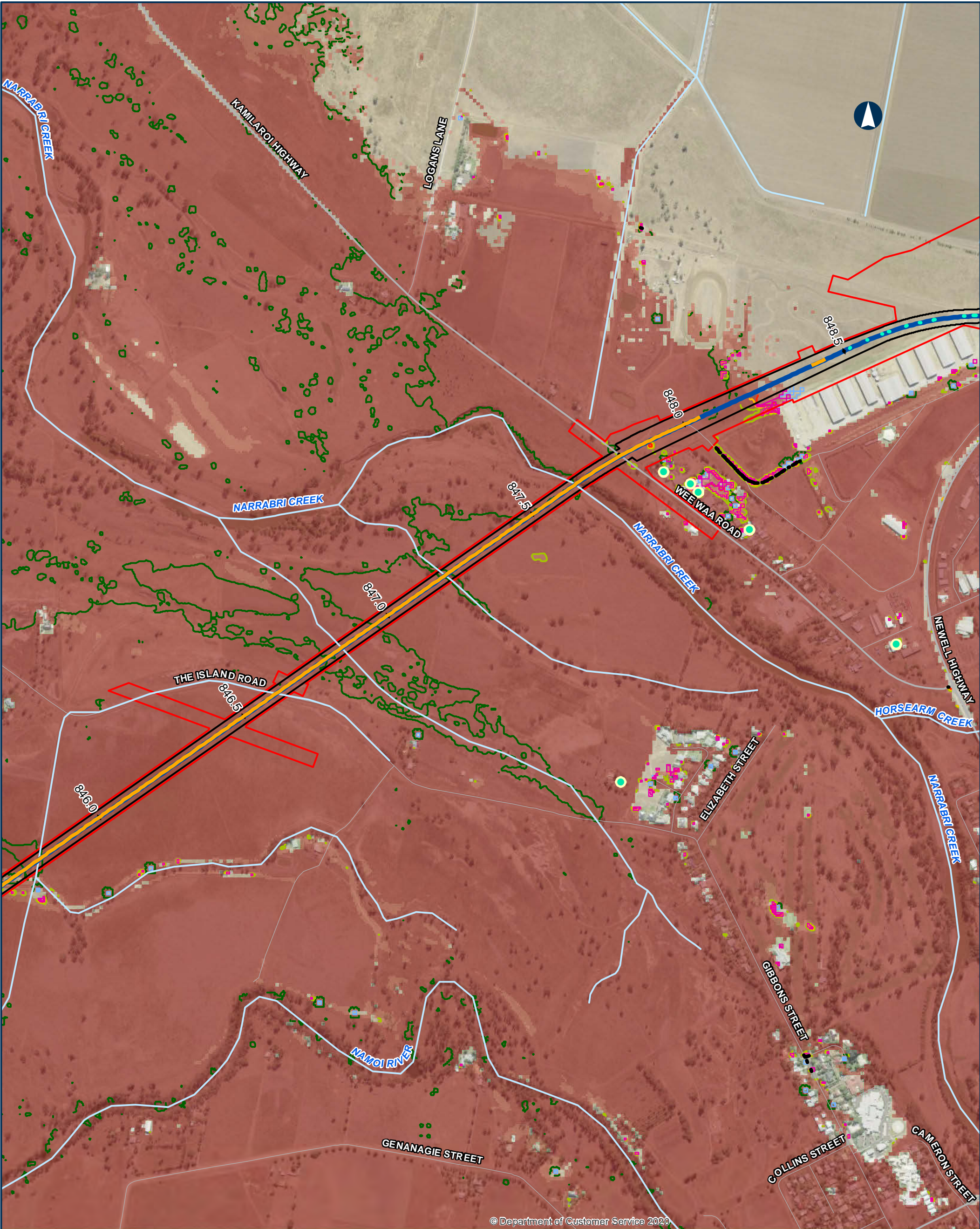
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- | | | |
|---------------|---|---------------------------------|
| Bridge | Change in Duration of Inundation | Existing Duration of Inundation |
| Alignment | 0% | < 1hr |
| Primary road | 5% | 1hr - 3hrs |
| Local road | 10% | 3hrs - 6hrs |
| Watercourse | 20% | 6hrs - 12hrs |
| The proposal | Area of departure | 12hrs - 24hrs |
| Rail Corridor | Exist duration < 1hr, design duration > 1hr | > 24hrs |
| | Exist duration > 1hr, duration change > 10% | |



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.18

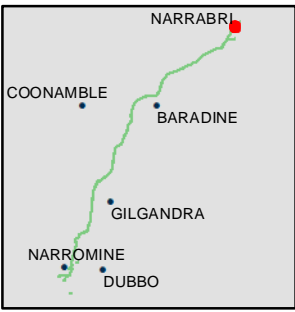
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- QDL Departure Habitable Building
 - Bridge
 - Culvert
 - Alignment
 - Road QDL departure
 - Primary road
 - Local road
 - Watercourse
 - The proposal
 - Rail Corridor
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.19

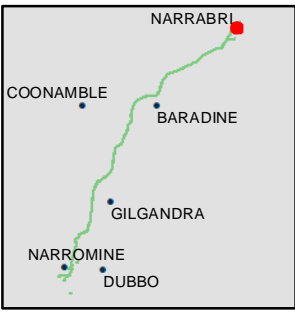
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- QDL Departure Habitable Building
 - Road QDL departure
 - Primary road
 - Sub arterial road
 - Local road
 - Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.20

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Paper: A3
Scale: 1:10,000

● QDL Departure Habitable Building

— Sub arterial road

— Local road

— Watercourse

Change in Duration of Inundation

0% 5% 10%

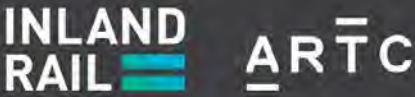
Area of departure

Exist duration <1hr, design duration >1hr

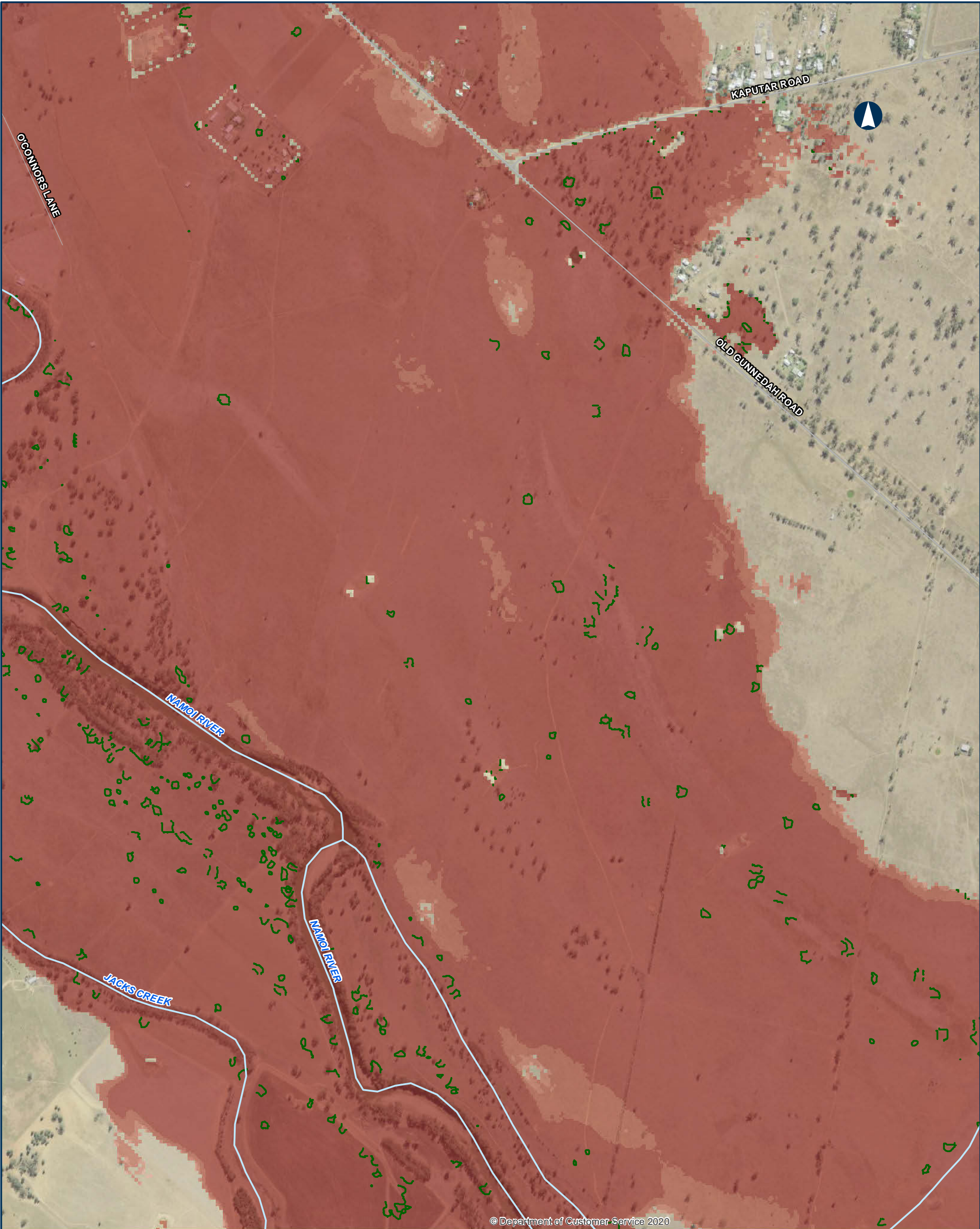
Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr 1hr - 3hrs 3hrs - 6hrs 6hrs - 12hrs 12hrs - 24hrs > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.21

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

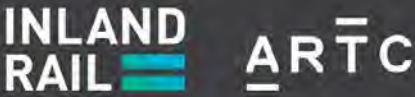
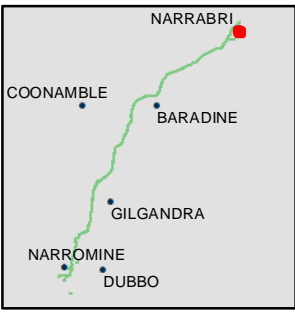
1hr - 3hrs

3hrs - 6hrs

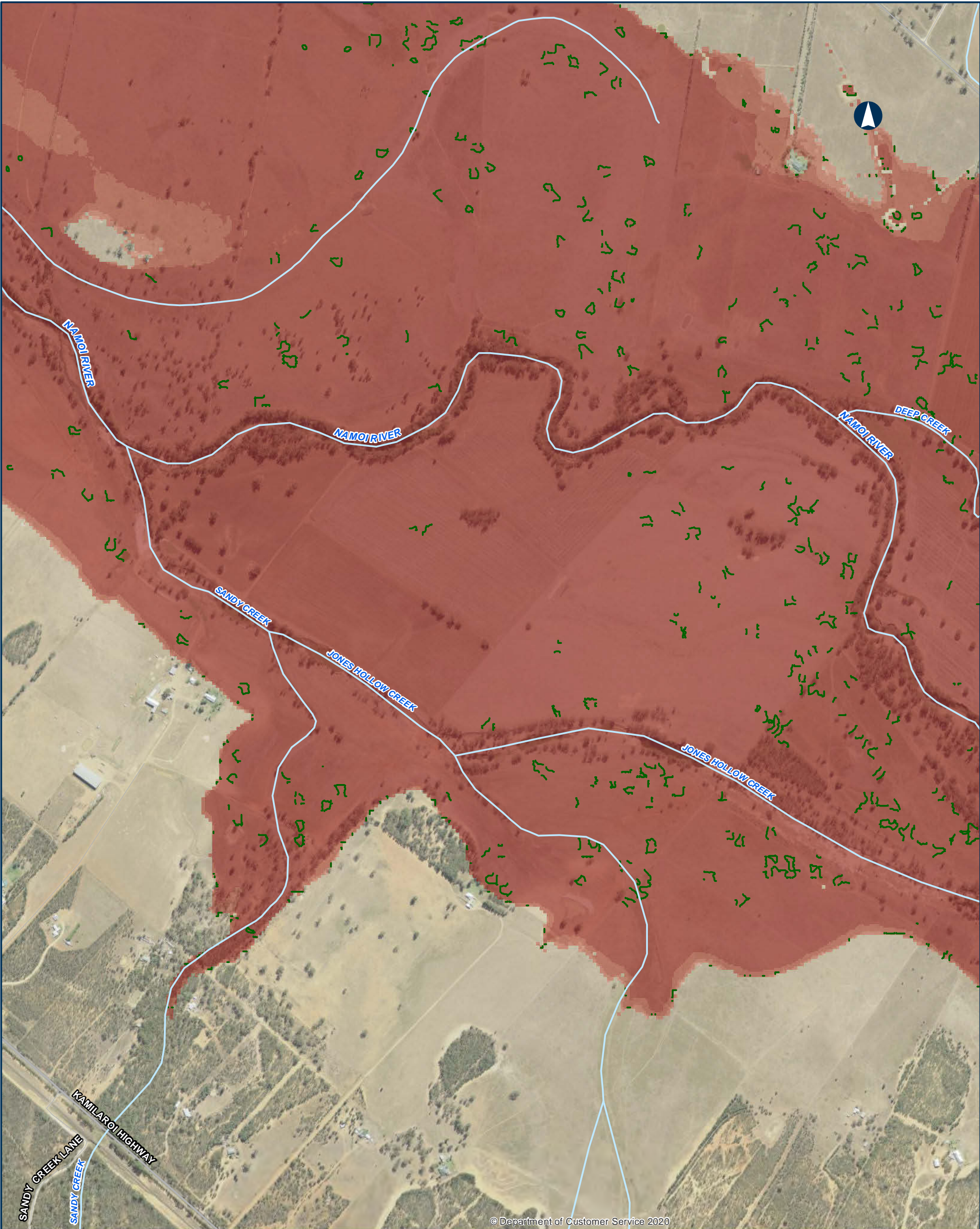
6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.22

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

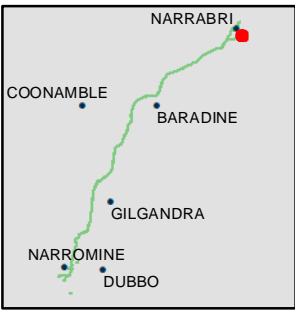
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

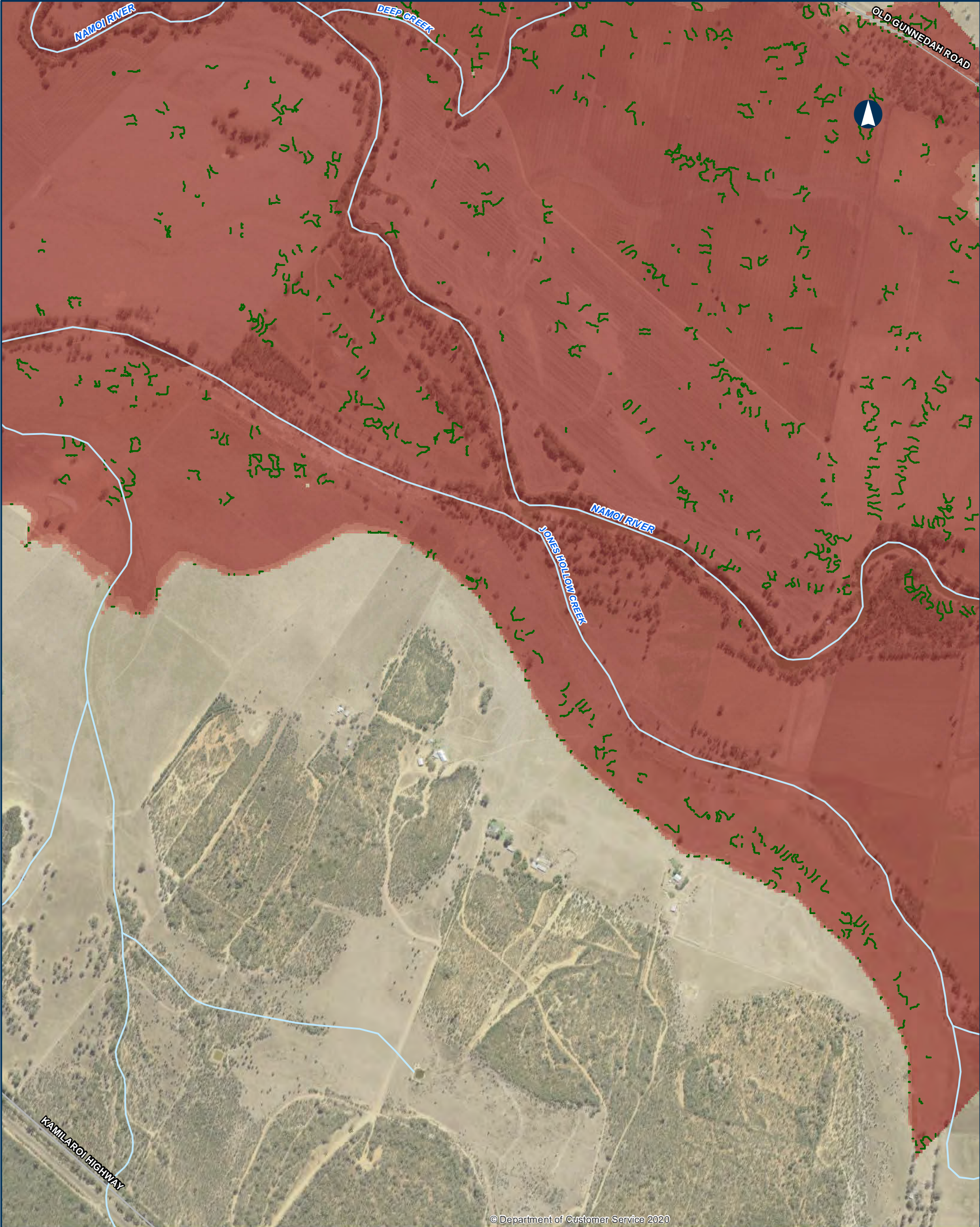
12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.23

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Sub arterial road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

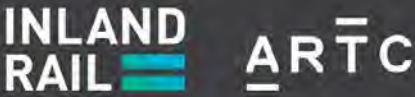
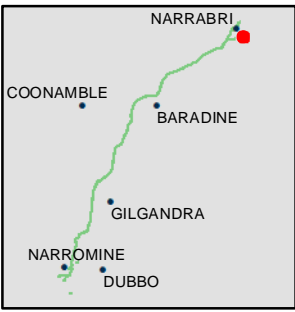
1hr - 3hrs

3hrs - 6hrs

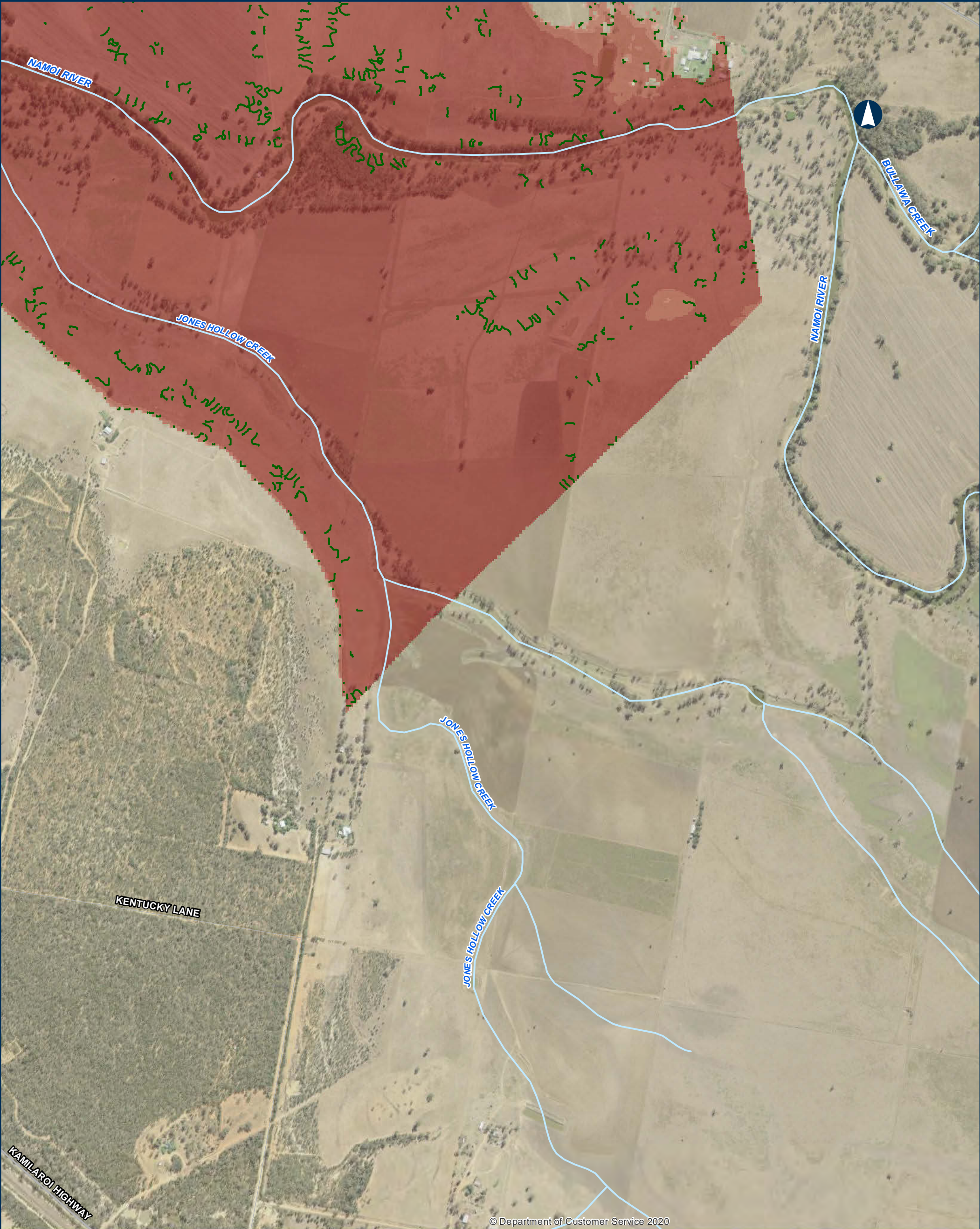
6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.24

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Sub arterial road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

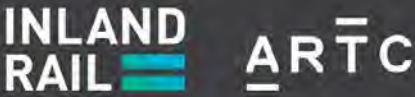
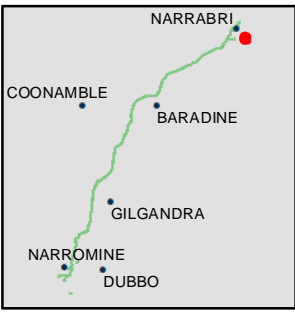
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.25

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

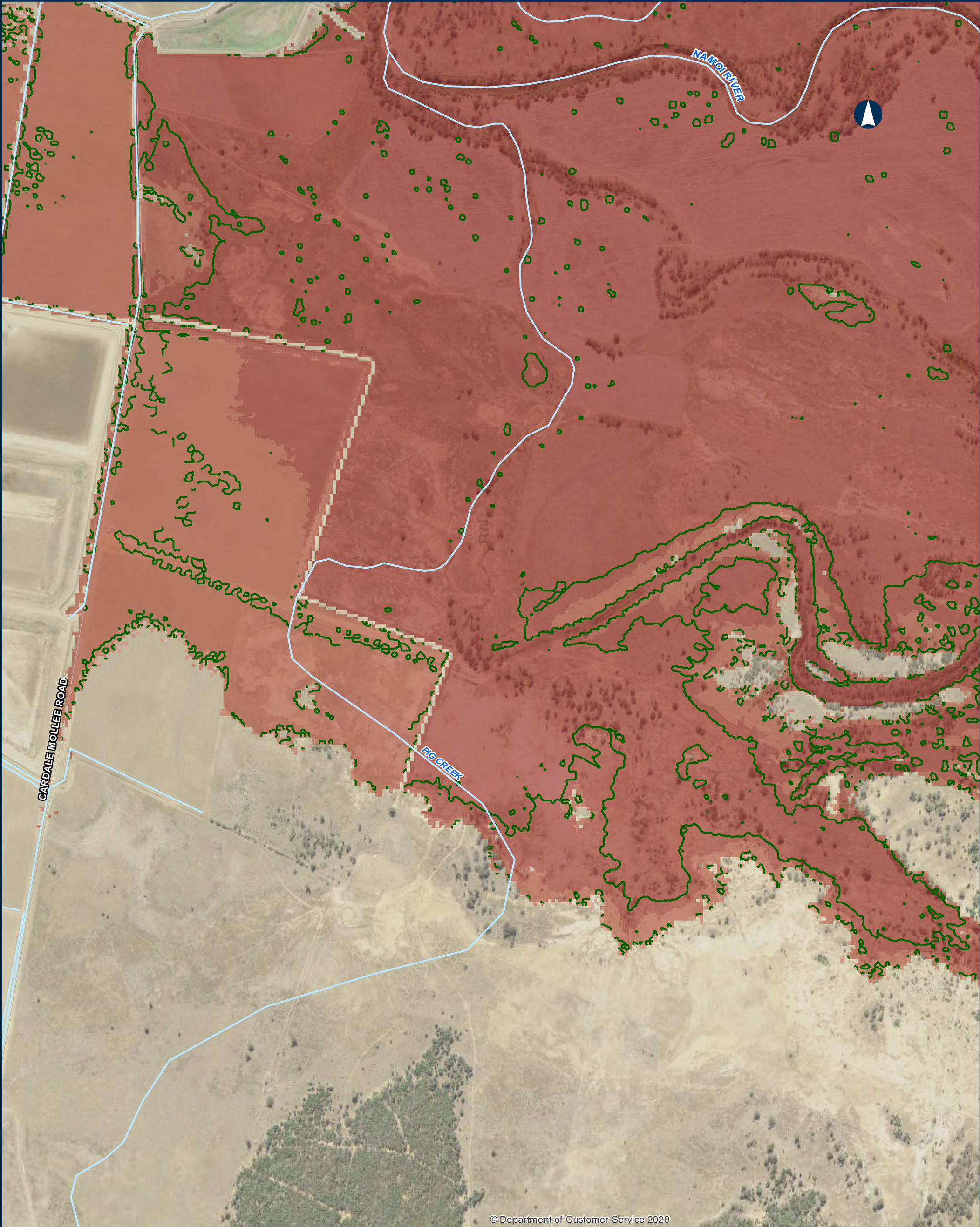
DUBBO

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_EIS\WPAPP141_QDL_Regional_Duration_1pcBlockage_revA.mxd



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.26

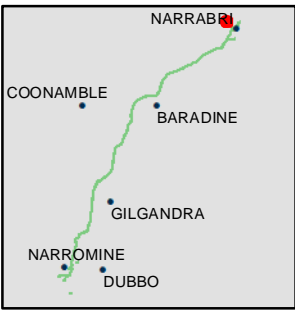
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Local road Watercourse
- Change in Duration of Inundation 0%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



INLAND RAIL = ARTC

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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.27

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022
Author: JacobsGHD
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

Watercourse

Change in Duration of Inundation

0%
5%
10%
20%

Area of departure

Exist duration <1hr, design duration >1hr
Exist duration >1hr, duration change >10%

Existing Duration of Inundation

< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

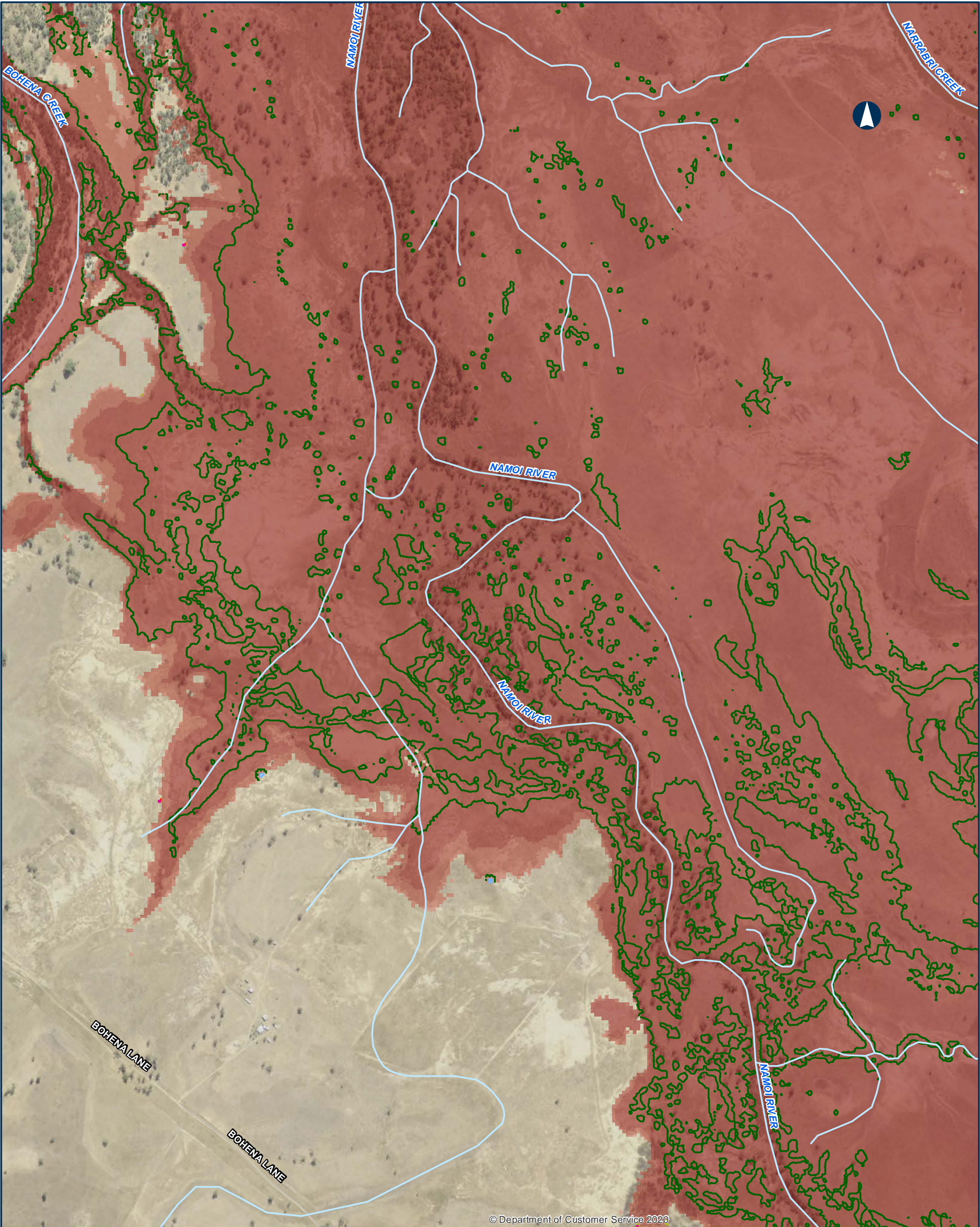
NARROMINE

DUBBO

INLAND RAIL

ARTC

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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.28

0200400Metres

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: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Local road

Watercourse

Change in Duration of Inundation

Area of departure

0%

5%

10%

20%

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

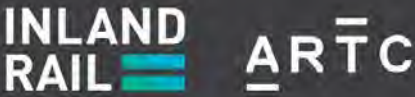
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.29

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Local road

Watercourse

Change in Duration of Inundation

0%

Existing Duration of Inundation

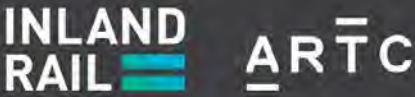
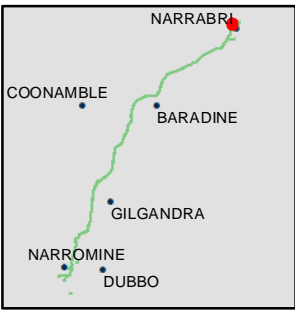
1hr - 3hrs

3hrs - 6hrs

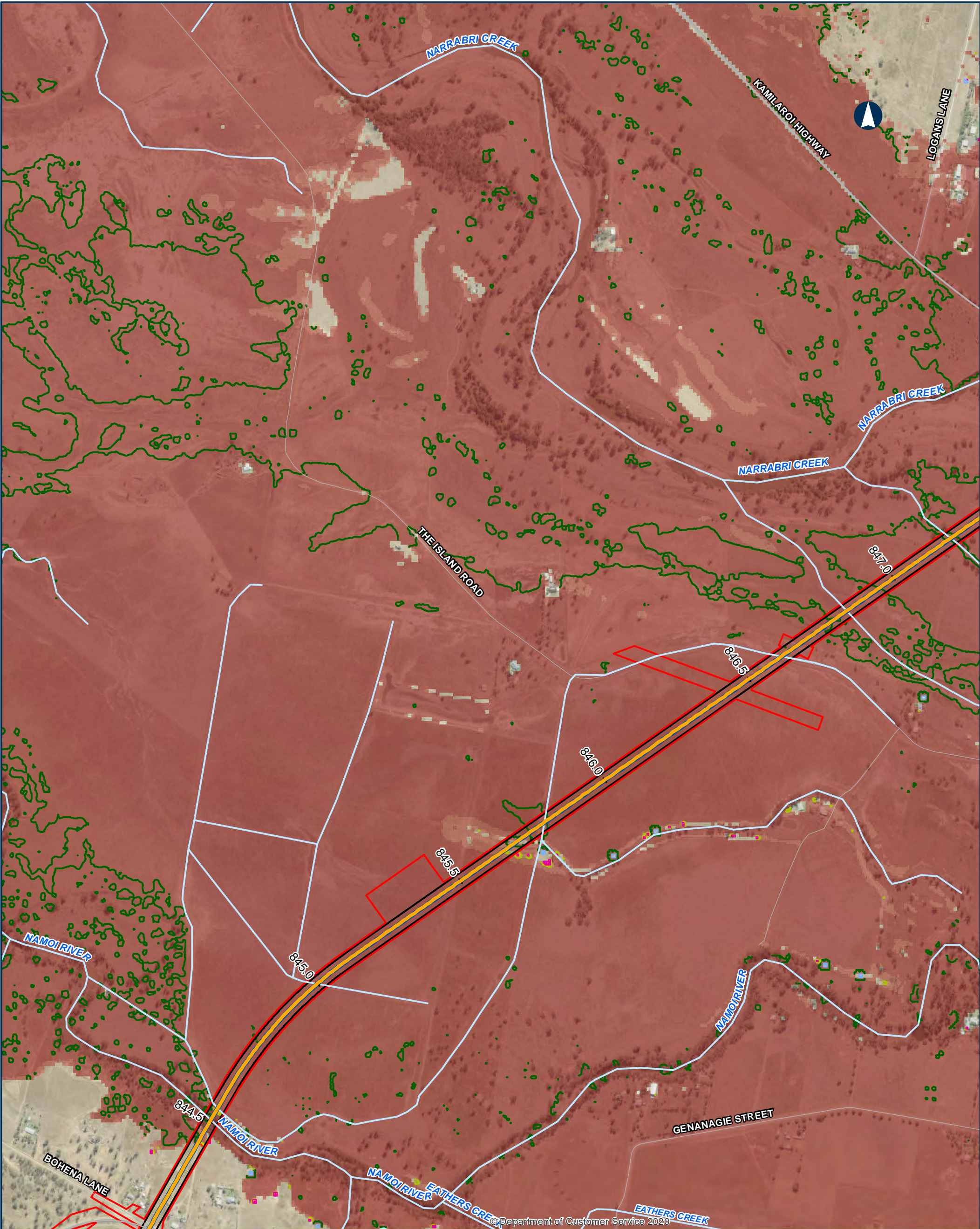
6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.30

0200400

Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Bridge

Alignment

Primary road

Sub arterial road

Local road

Watercourse

The proposal

Rail Corridor

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs

NARRABRI

COONAMBLE

BARADINE

GILGANDRA

NARROMINE

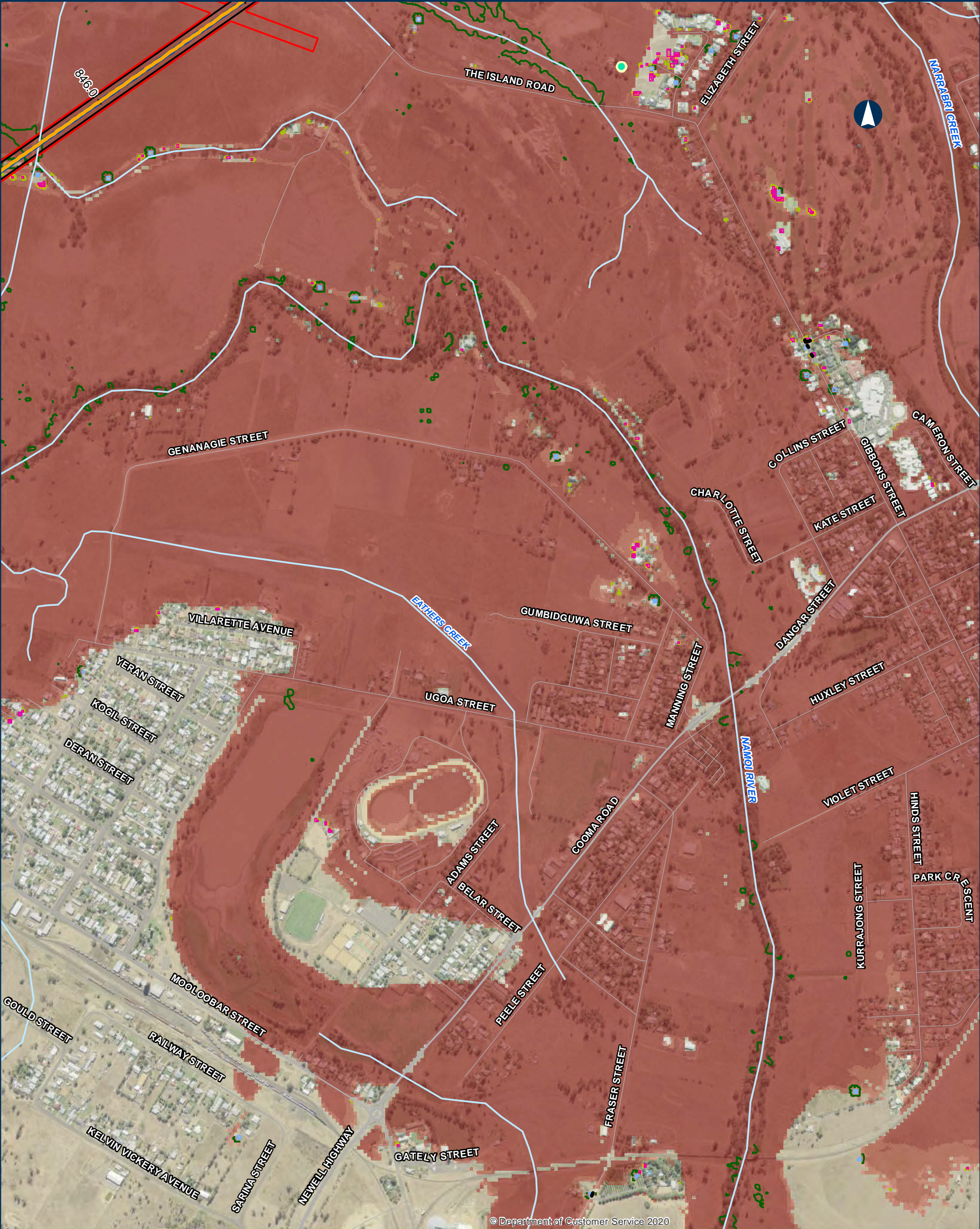
DUBBO

INLAND RAIL

ARTC

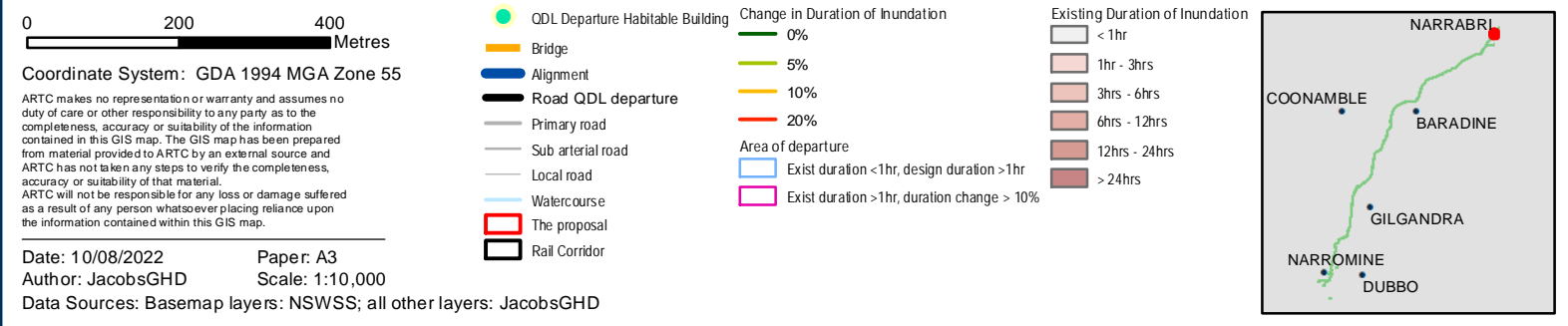
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N:\AU\Newcastle\Projects\22\19593\GIS\GIS_2500_N2N_v2\Maps\Deliverables_SPIR\EIS\Flooding_Hydrology\Appendices\2500_EISFWPAPP141_QDL_Regional_Duration_1pcBlockage_revA.mxd



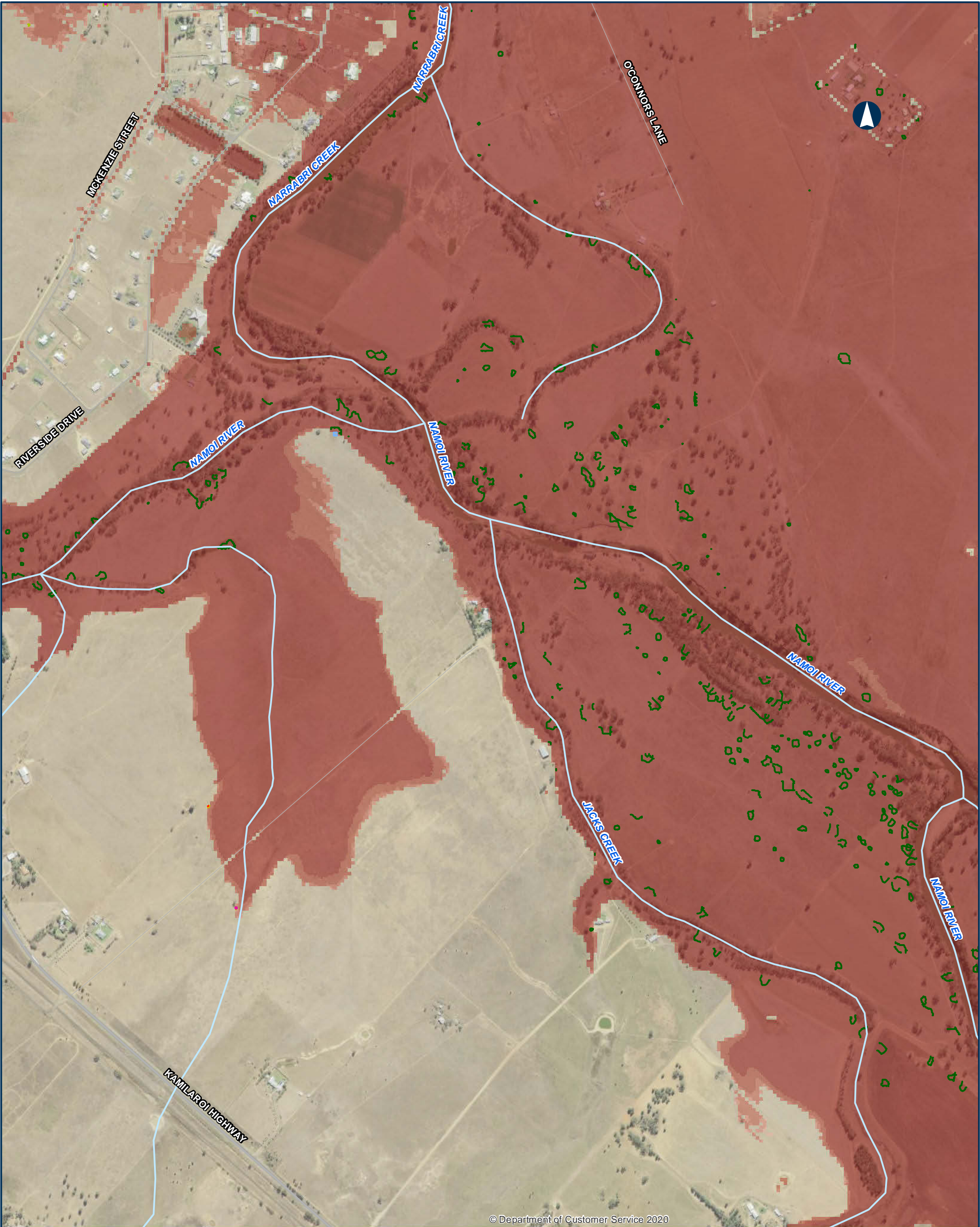
NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.31



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.33

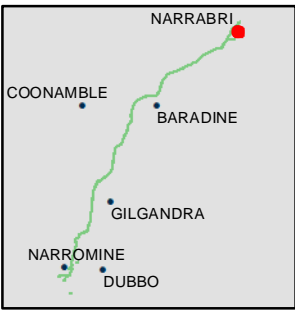
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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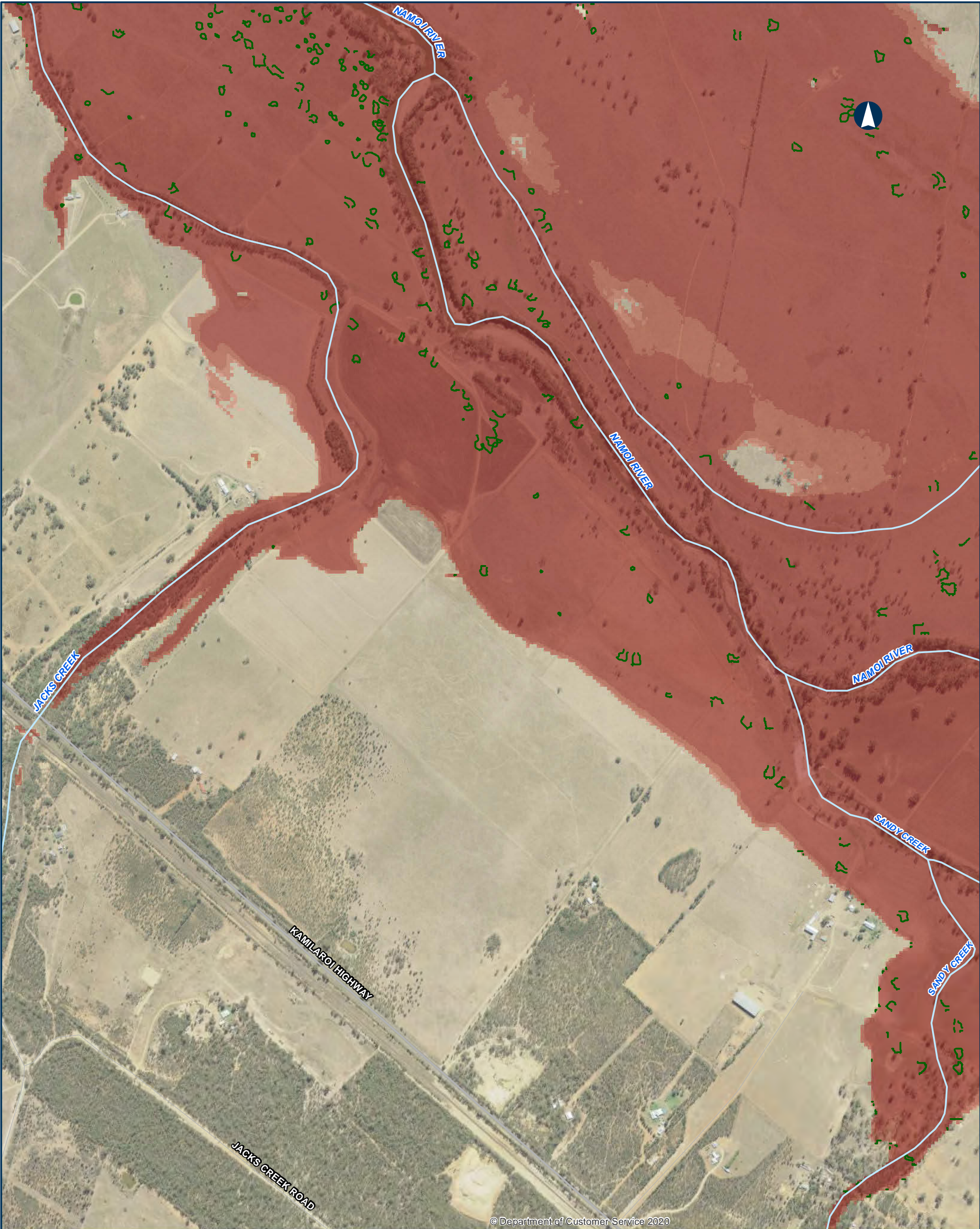
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- Primary road
Local road
Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.34

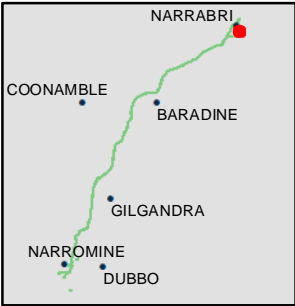
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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

- Primary road
Local road
Watercourse
- Change in Duration of Inundation
0%
- Existing Duration of Inundation
< 1hr
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.35

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

- Local road

Watercourse

Change in Duration of Inundation

Existing Duration of Inundation
- 0%

< 1hr

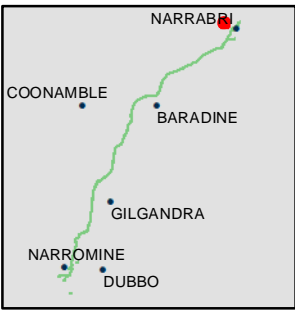
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

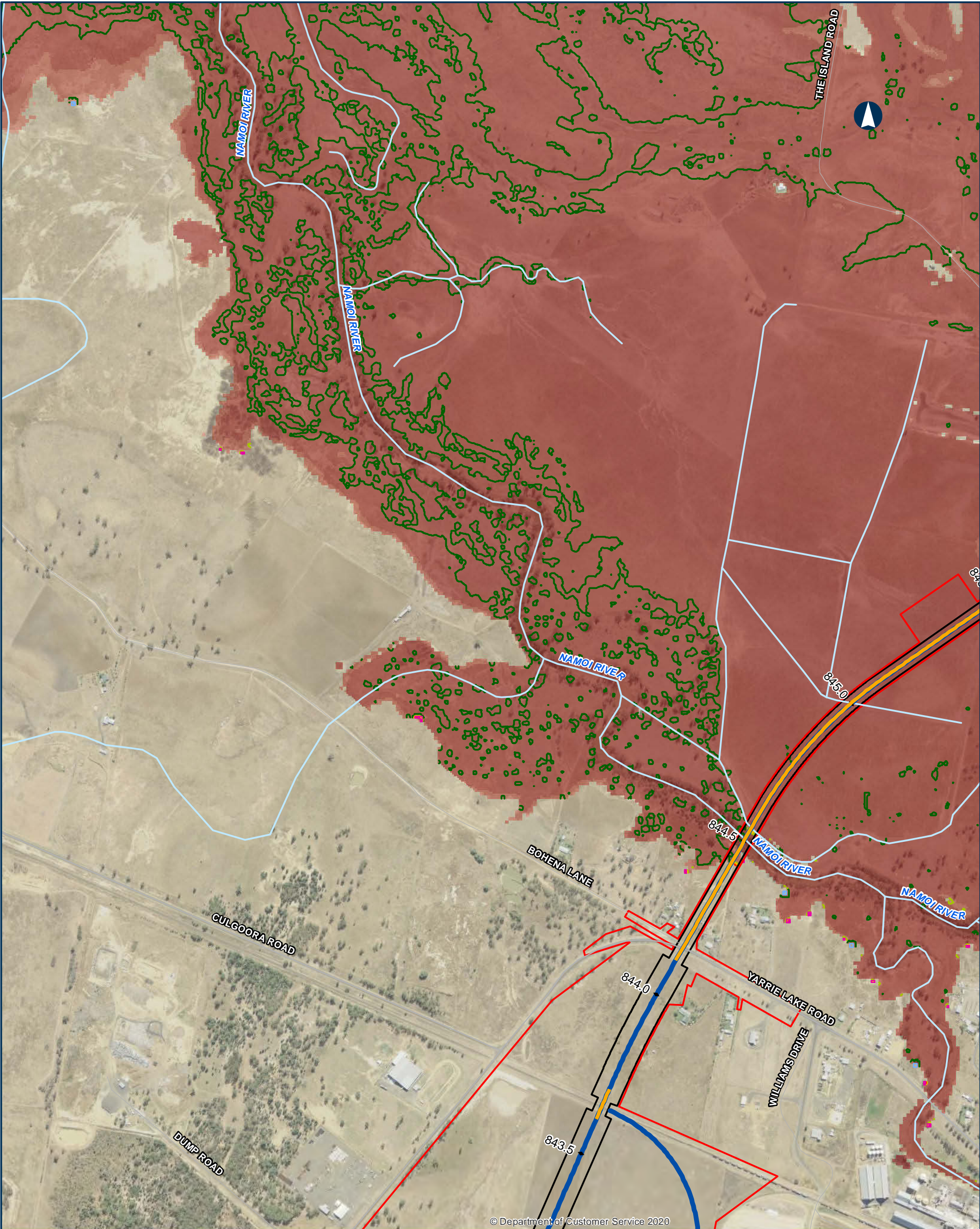
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.36

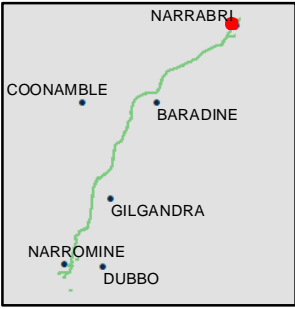
0 200 400 Metres

Coordinate System: GDA 1994 MGA Zone 55

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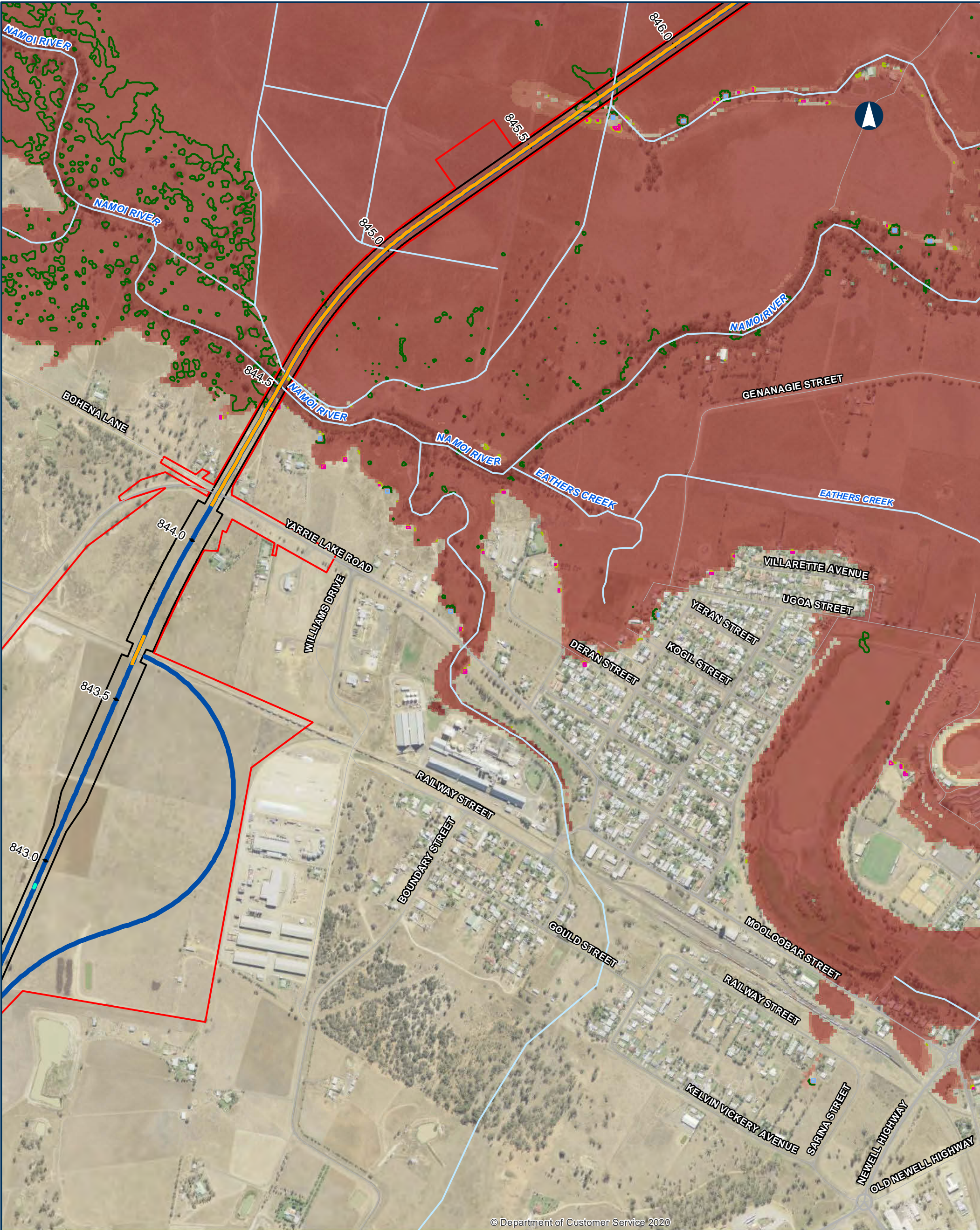
Date: 10/08/2022 Paper: A3
Author: JacobsGHD Scale: 1:10,000
Data Sources: Basemap layers: NSWSS; all other layers: JacobsGHD

- | | | |
|-------------------|--|---------------------------------|
| Bridge | Change in Duration of Inundation | Existing Duration of Inundation |
| Alignment | 0% | 1hr - 3hrs |
| Sub arterial road | 5% | 3hrs - 6hrs |
| Local road | 10% | 6hrs - 12hrs |
| Watercourse | 20% | 12hrs - 24hrs |
| The proposal | Area of departure | > 24hrs |
| Rail Corridor | Exist duration <1hr, design duration >1hr | |
| | Exist duration >1hr, duration change > 10% | |



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.37

0 200 400 Metres

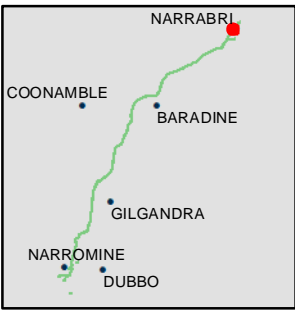
Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022 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
- Change in Duration of Inundation
0%
5%
10%
20%
- Area of departure
Exist duration <1hr, design duration >1hr
Exist duration >1hr, duration change > 10%

- Existing Duration of Inundation
1hr - 3hrs
3hrs - 6hrs
6hrs - 12hrs
12hrs - 24hrs
> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.38

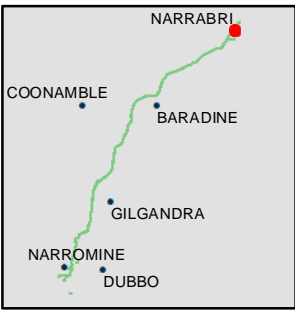
0 200 400 Metres

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

- Road QDL departure
- Primary road
 - Sub arterial road
 - Local road
 - Watercourse
- Change in Duration of Inundation
- 0%
 - 5%
 - 10%
 - 20%
- Area of departure
- Exist duration <1hr, design duration >1hr
 - Exist duration >1hr, duration change > 10%
- Existing Duration of Inundation
- < 1hr
 - 1hr - 3hrs
 - 3hrs - 6hrs
 - 6hrs - 12hrs
 - 12hrs - 24hrs
 - > 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.39

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Local road

Watercourse

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration <1hr, design duration >1hr

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

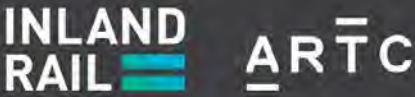
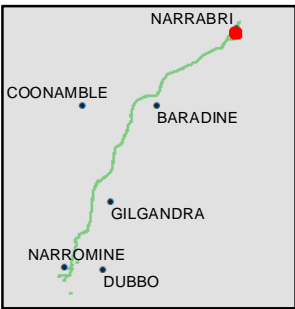
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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NARROMINE TO NARRABRI QDL departures - Duration - 1% AEP with Blockage - Narrabri Regional

Appendix B - Figure 4.8.40

0200400Metres

Coordinate System: GDA 1994 MGA Zone 55

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Date: 10/08/2022

Paper: A3

Author: JacobsGHD

Scale: 1:10,000

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

Primary road

Local road

Watercourse

Change in Duration of Inundation

0%

5%

10%

20%

Area of departure

Exist duration >1hr, duration change > 10%

Existing Duration of Inundation

< 1hr

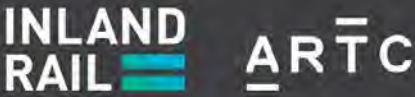
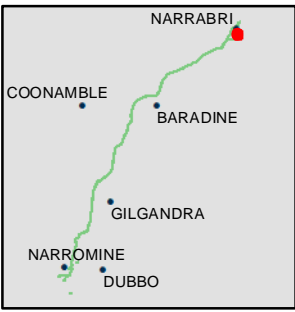
1hr - 3hrs

3hrs - 6hrs

6hrs - 12hrs

12hrs - 24hrs

> 24hrs



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