

# APPENDIX

# D

## Operational Noise and Vibration Assessment

### Attachment F Operational Rail Vibration Modelling Contours

NARRABRI TO NORTH STAR SUBMISSIONS PREFERRED INFRASTRUCTURE REPORT





NARRABRI TO NORTH STA

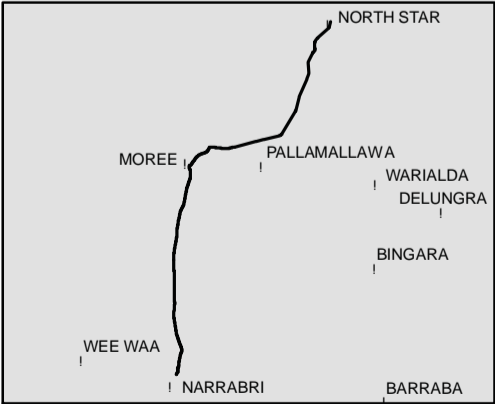
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 1 of 1

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:3,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

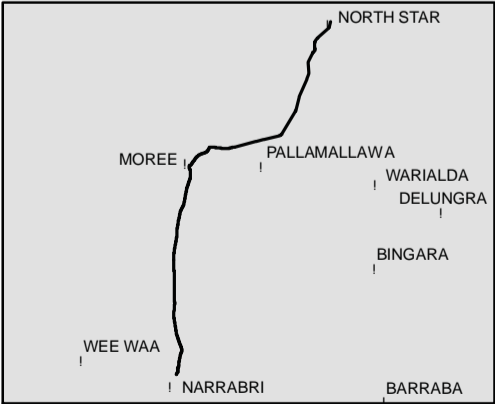
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 1 of 1

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
- 10
- 

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:3,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

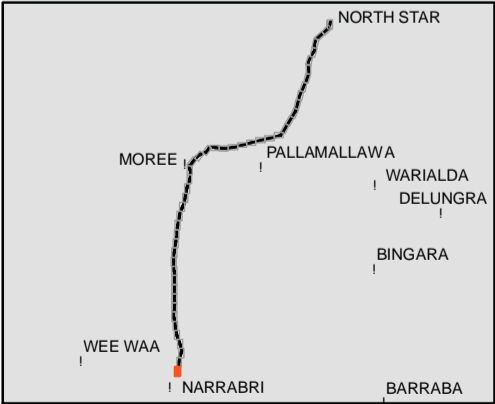
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 1 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- - - Proposed Rail Separation
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

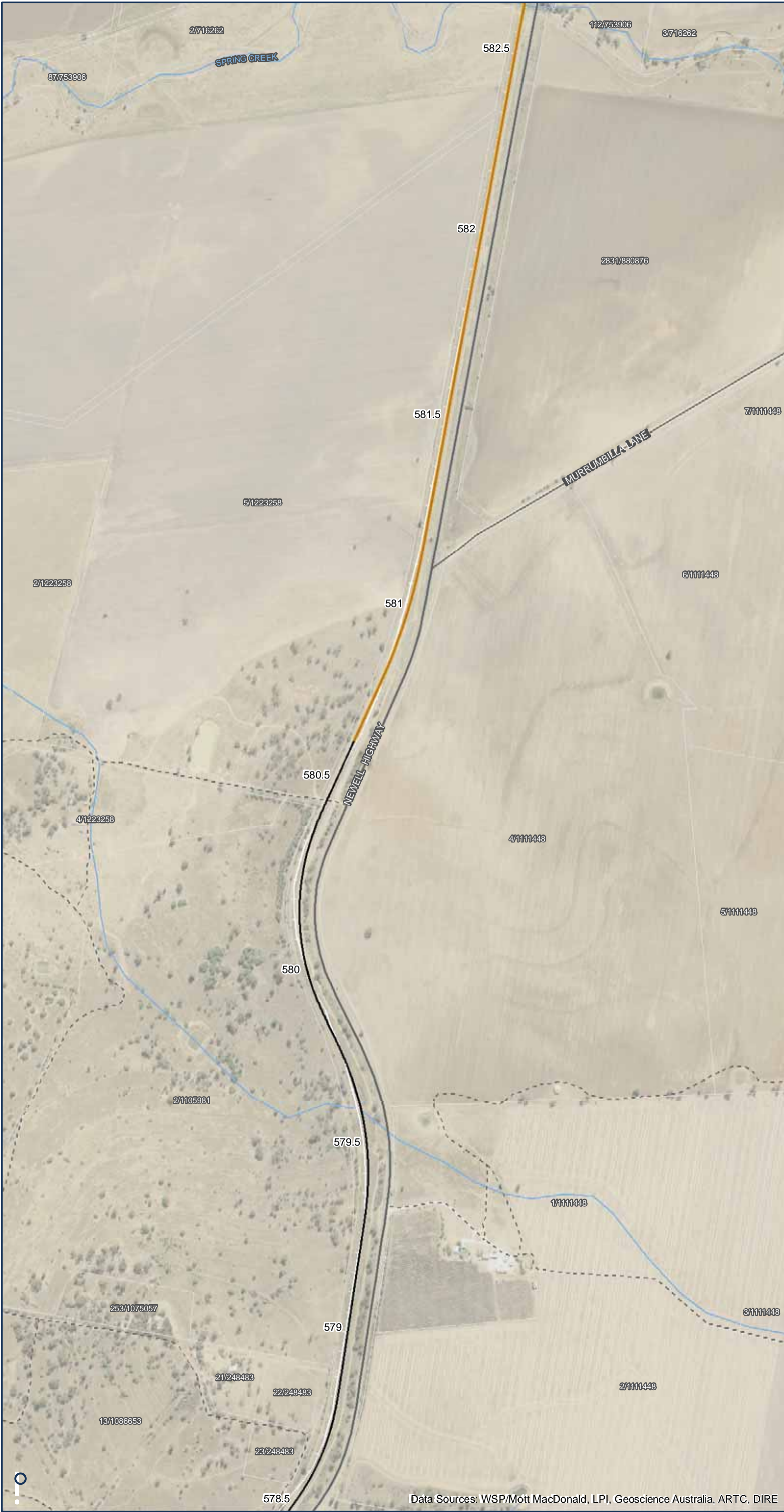
Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

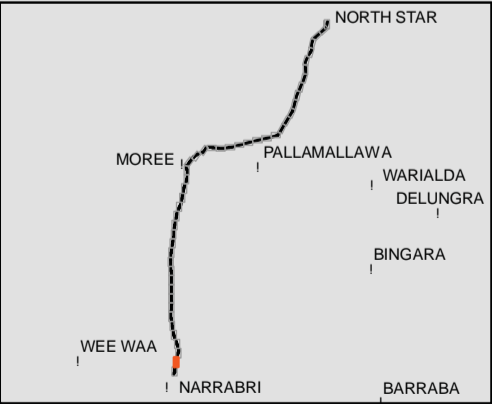
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 2 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



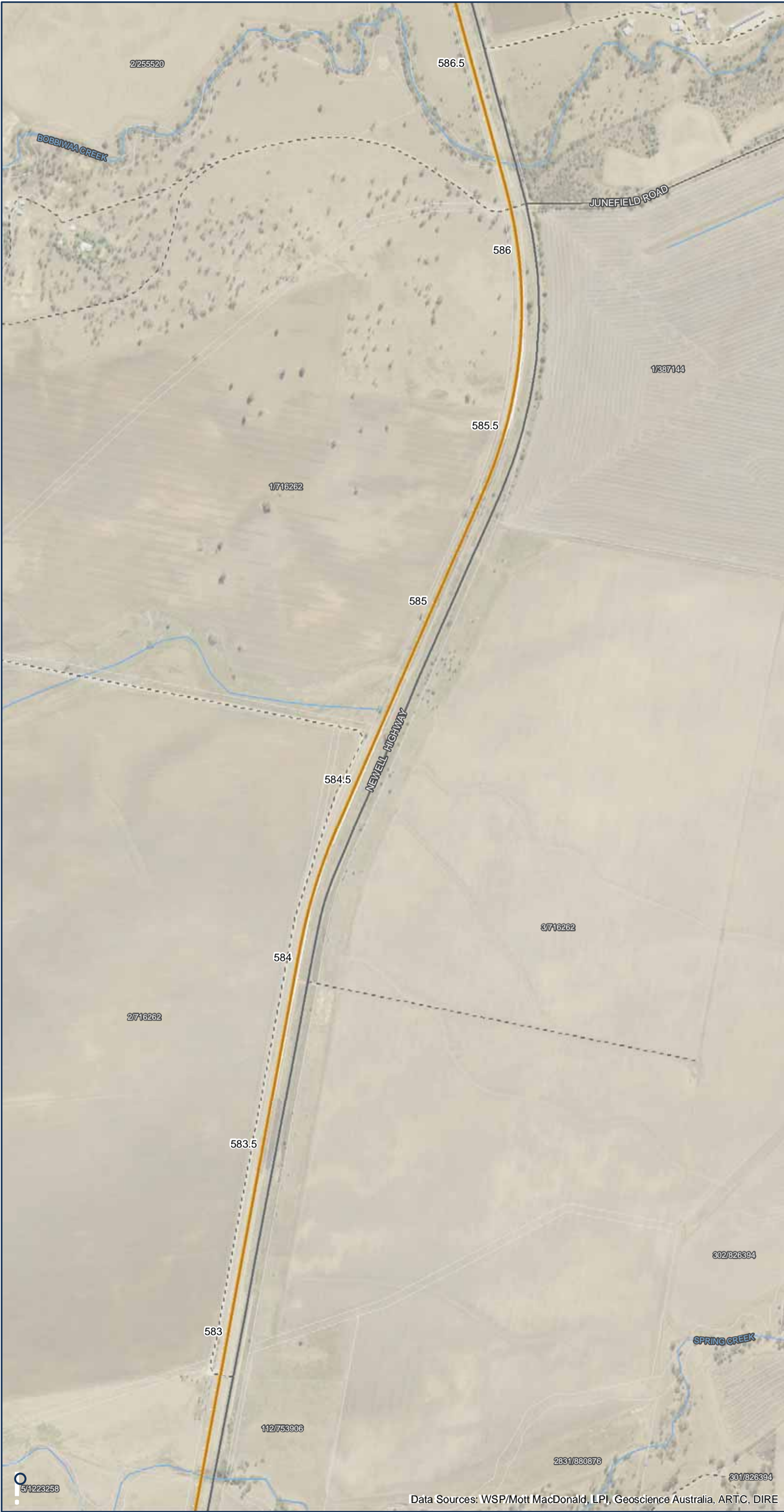
0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



INLAND RAIL

ARTC

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

NARRABRI TO NORTH STAR

Appendix F

Rail Vibration Modelling Contours 2040

Ground-borne Vibration Levels - RMS Vibration (mm/s)

Sheet 3 of 48

LEGEND

" Townships

— Highway

— Local Road

- - - Track

Existing Rail Network

— Watercourse

— Phase 3 Track Alignment

□ Cadastre

Vibration Contours (mm/s)

7.5mm/s

15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

0.75 Km

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE

D:\OneDrive\WSP O365\Williamson, Travis - ARTC\IN2NS\Tasks\2600\_016\_ENV\_NoiseMapping\Documents\2600\_ENV\_F012\_VibrationModelResults2040\_mms\_r2v1.mxd



NARRABRI TO NORTH STAR

Appendix F

Rail Vibration Modelling Contours 2040

Ground-borne Vibration Levels - RMS Vibration (mm/s)

Sheet 4 of 48

LEGEND

" Townships

— Highway

— Local Road

- - - Track

Existing Rail Network

Watercourse

Phase 3 Track Alignment

Cadastre

Vibration Contours (mm/s)

7.5mm/s

15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

An inset map shows the project location within the Inland Rail corridor. The corridor is represented by a thick black line. Key locations are marked with dots and labels: NORTH STAR, MOREE, PALLAMALLAWA, WARRIALDA, DELUNGRA, BINGARA, WEE WAA, NARRABRI, and BARRABA. The project area is highlighted with a red rectangle around NARRABRI.

0.75 Km

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

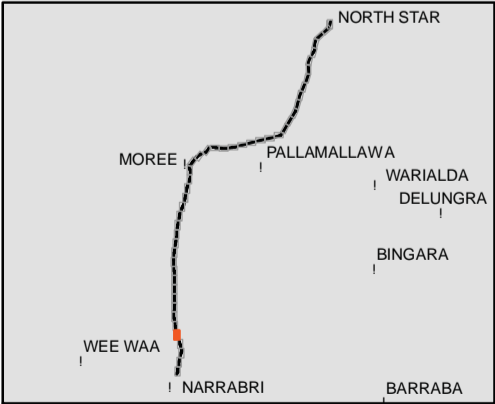
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 5 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

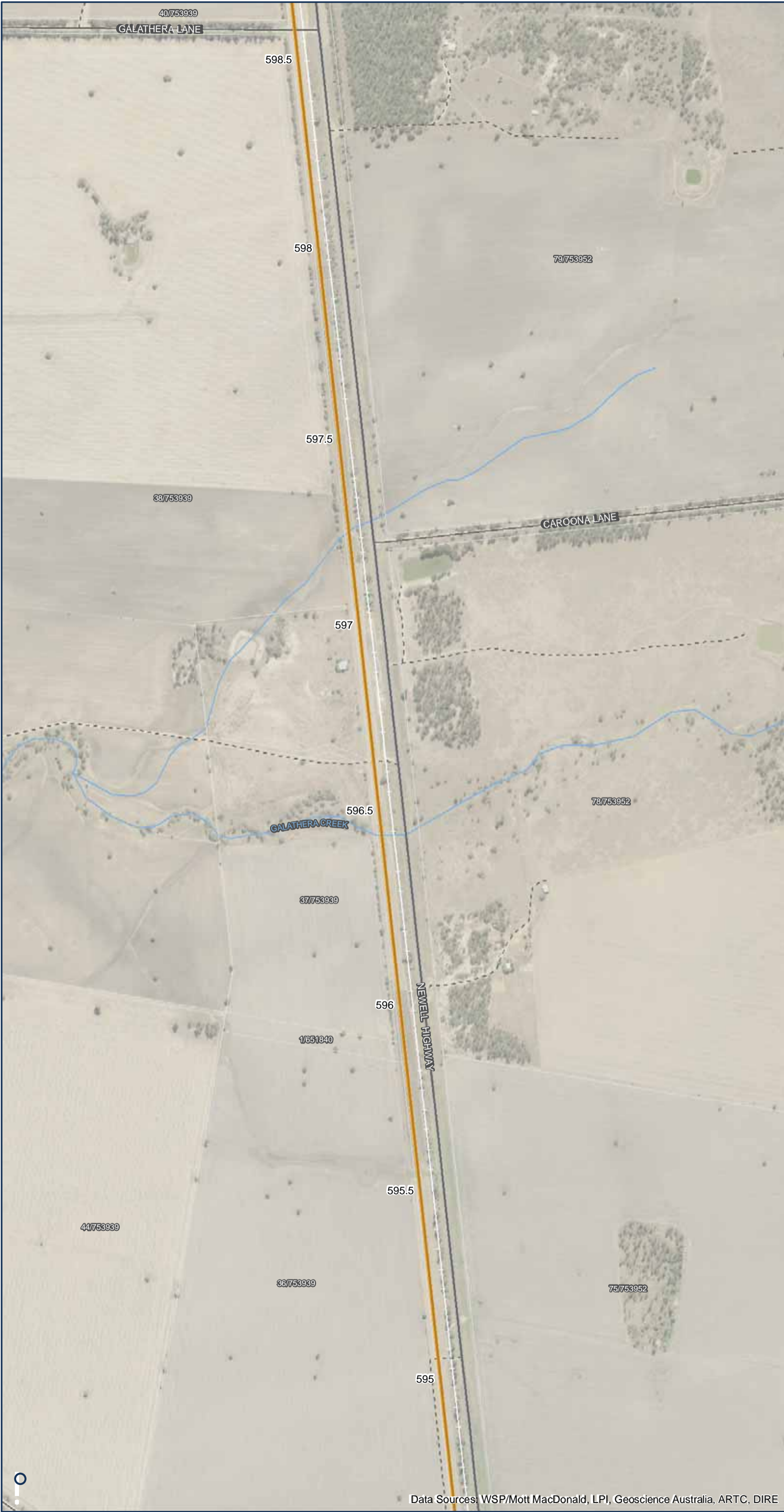
NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 6 of 48

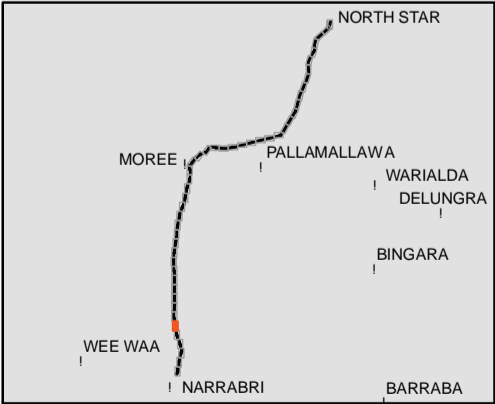
LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

Vibration Contours (mm/s)

- 7.5mm/s
- 15mm/s

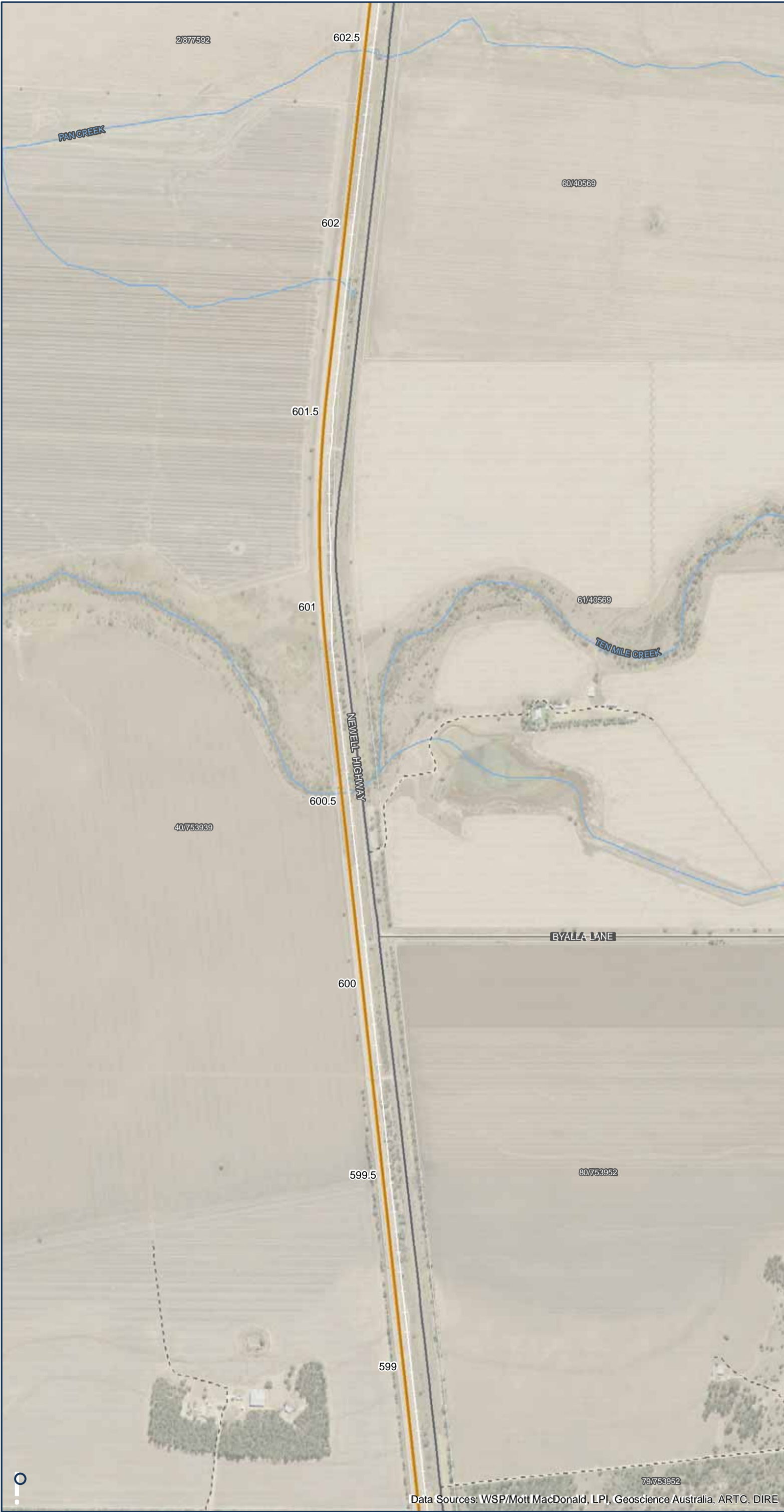
NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

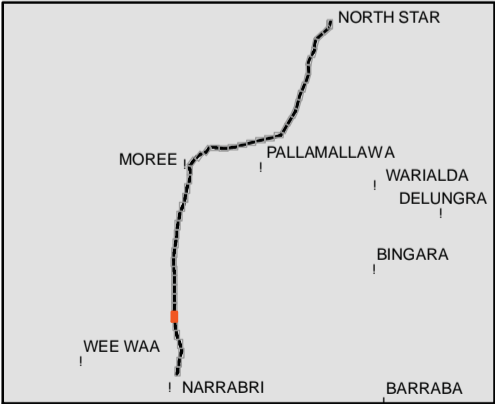
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 7 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

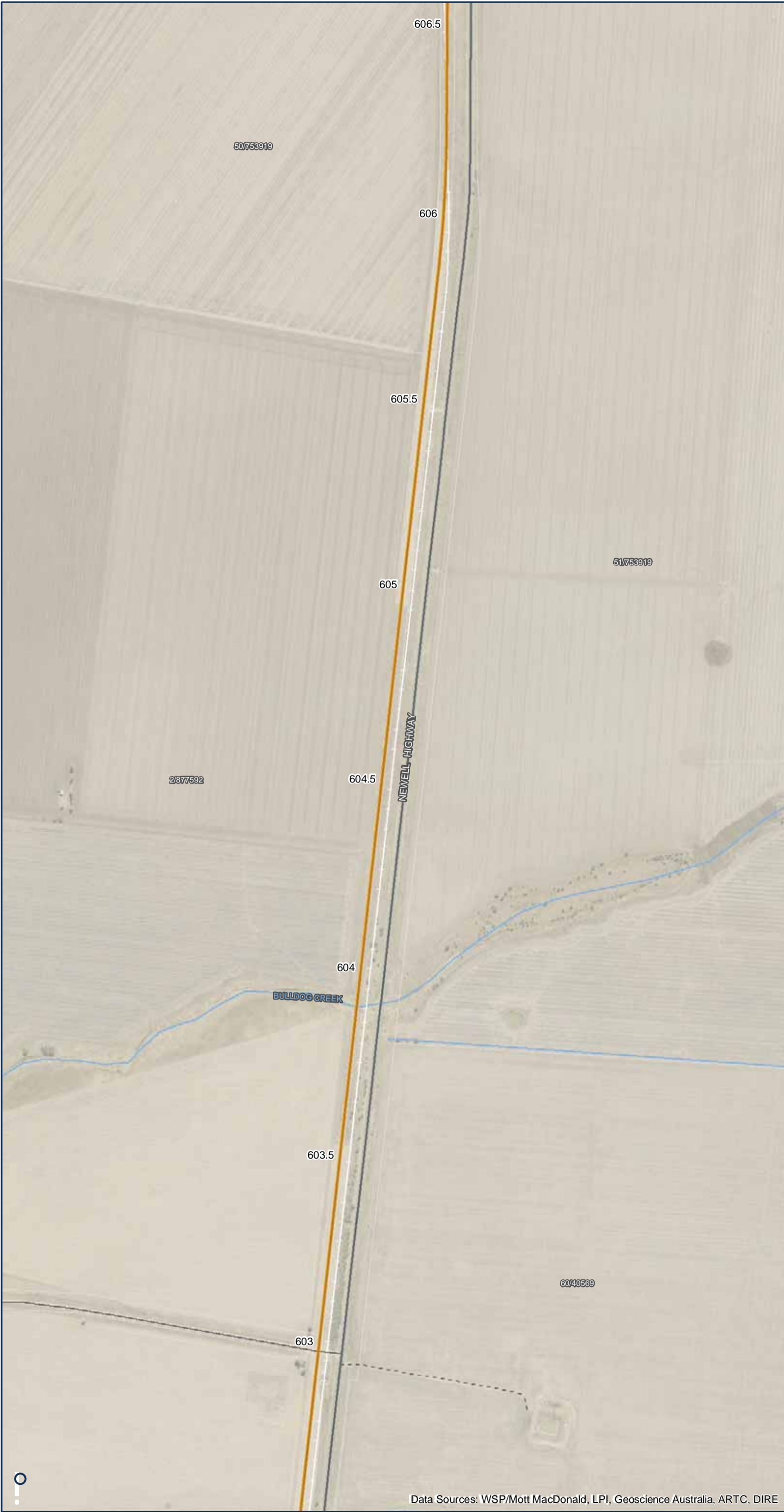


Coordinate System: GDA 1994 MGA Zone 55

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

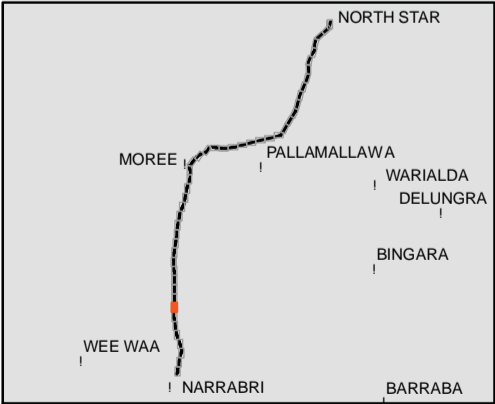
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 8 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

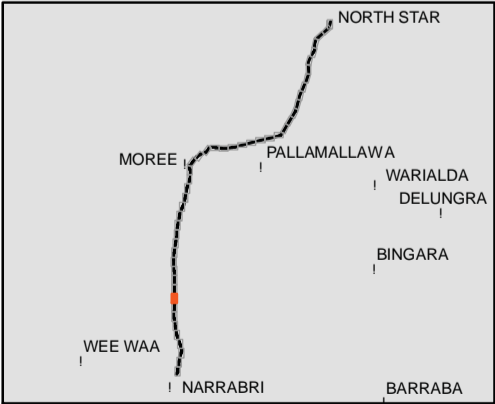
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 9 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

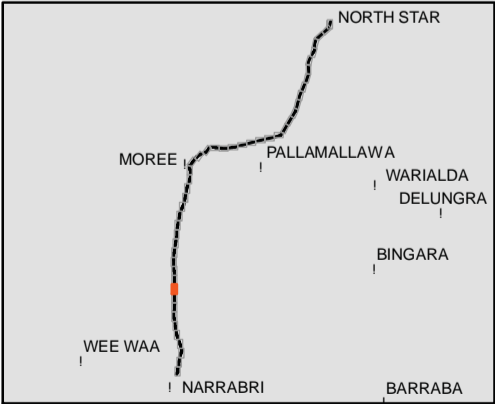
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 10 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

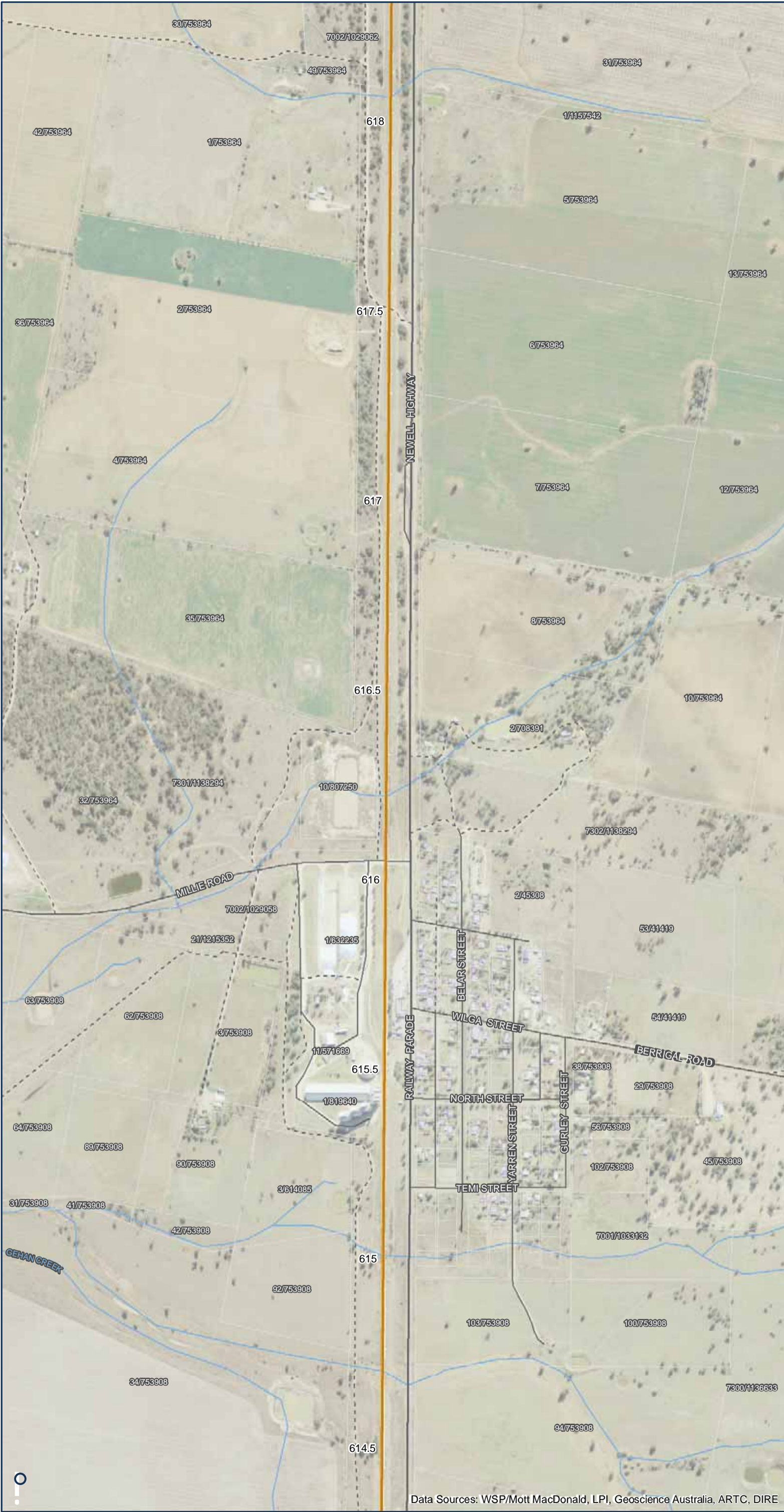


0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

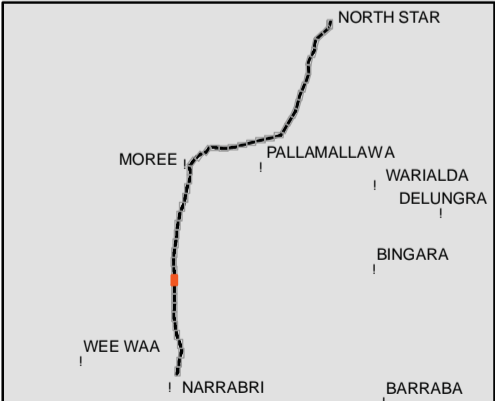
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 11 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastrate
- Building Footprints
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



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

NARRABRI TO NORTH STAR

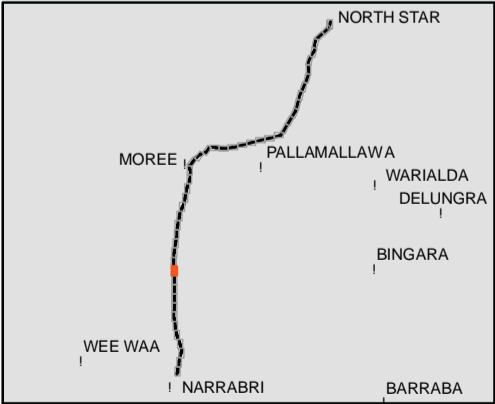
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 12 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

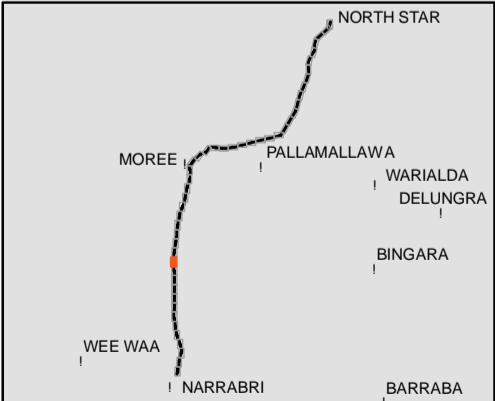
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 13 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

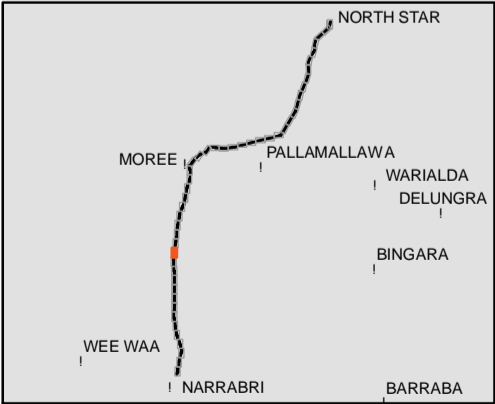
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 14 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

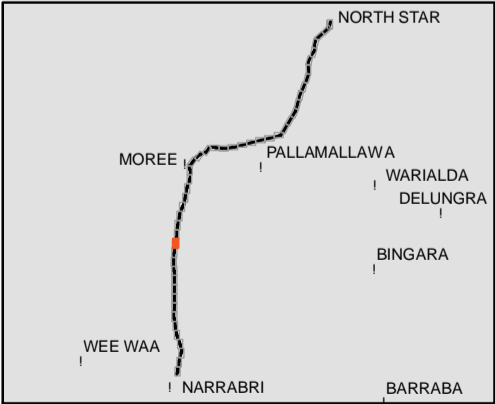
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 15 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

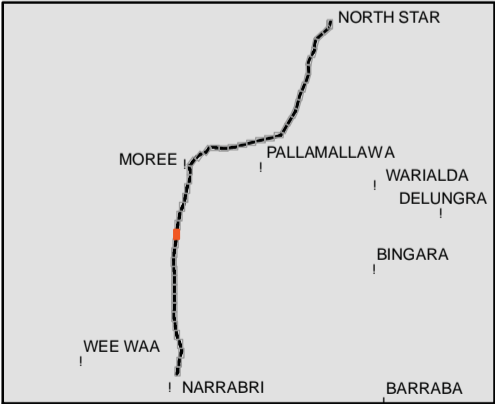
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 16 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

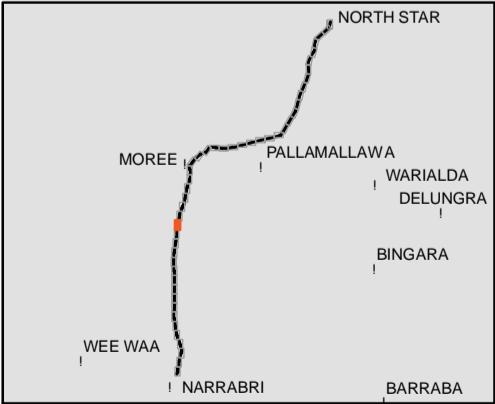
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 17 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.

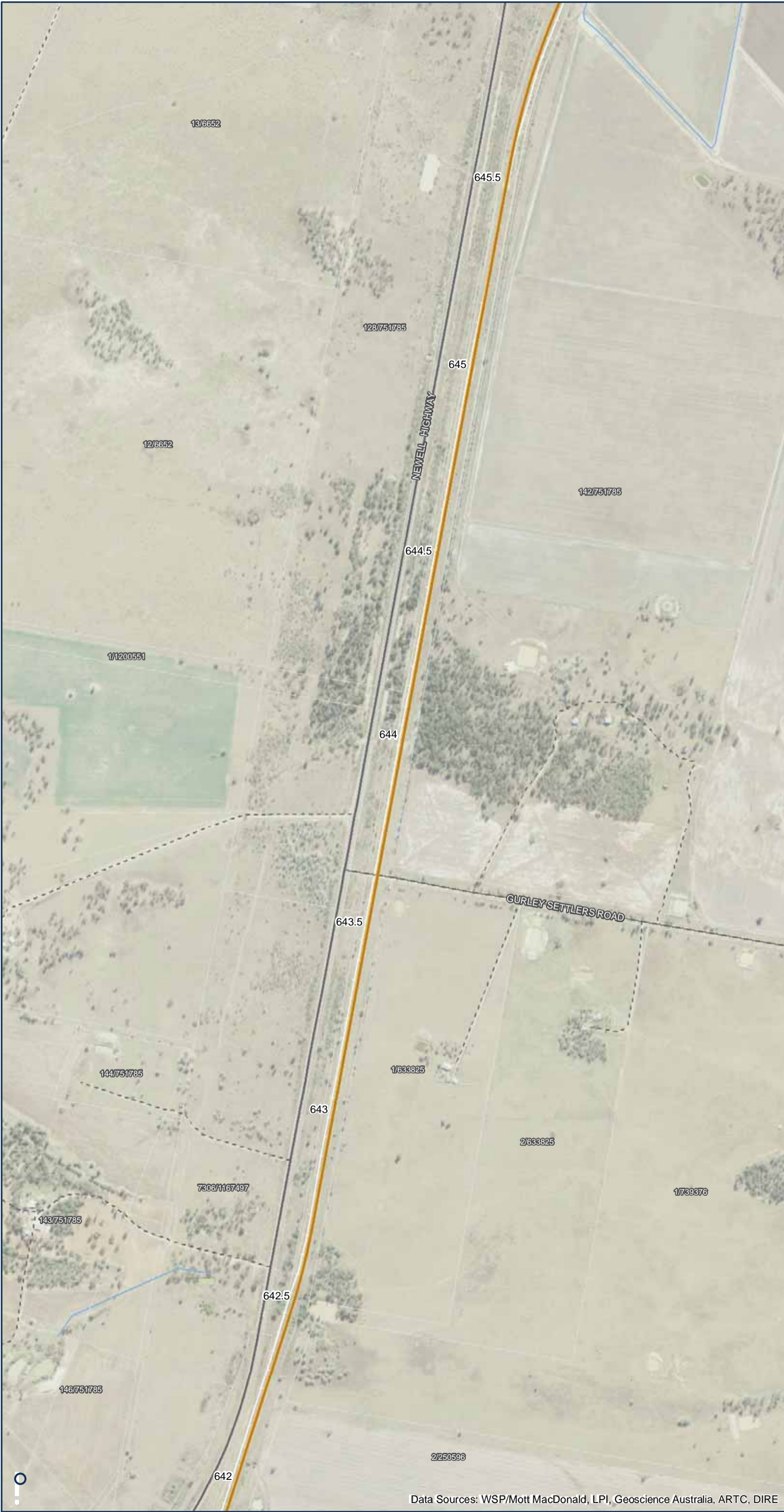


0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

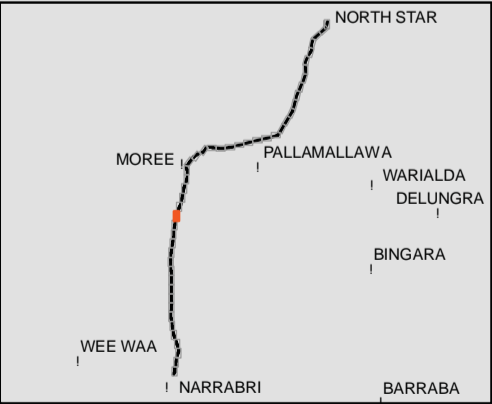
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 18 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

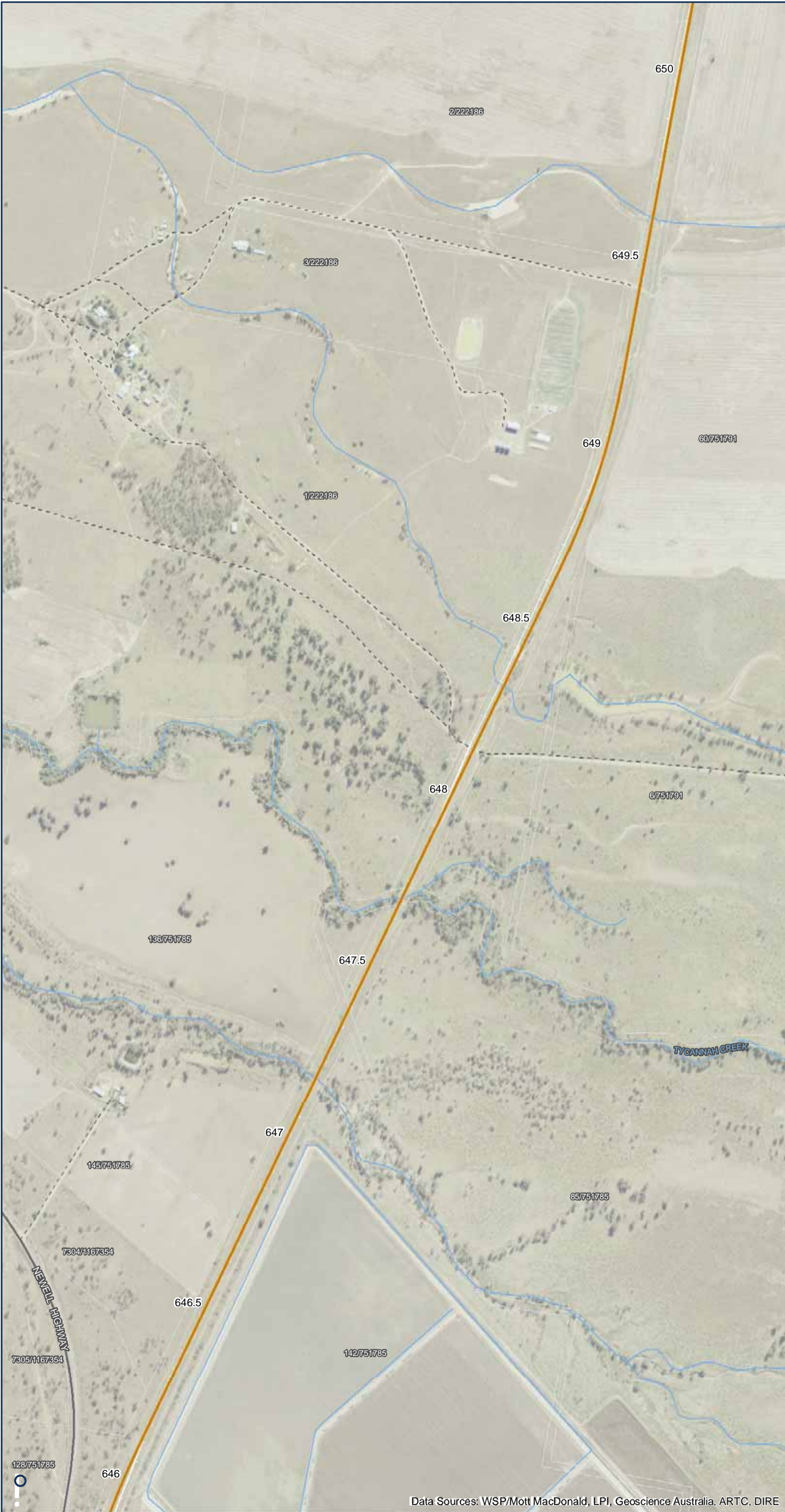


0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 19 of 48

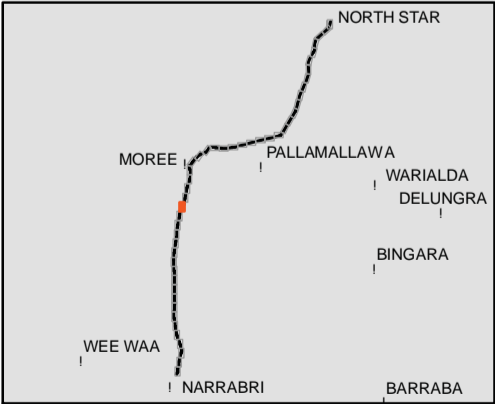
LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

Vibration Contours (mm/s)

- 7.5mm/s
- 15mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

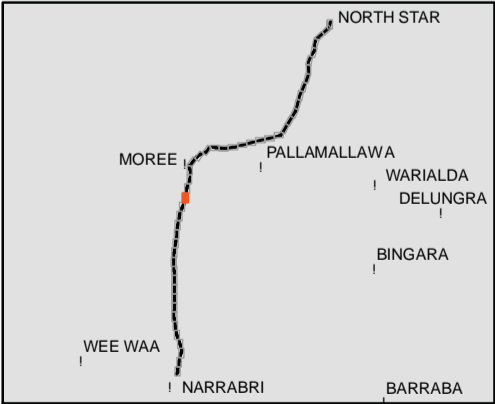
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 20 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



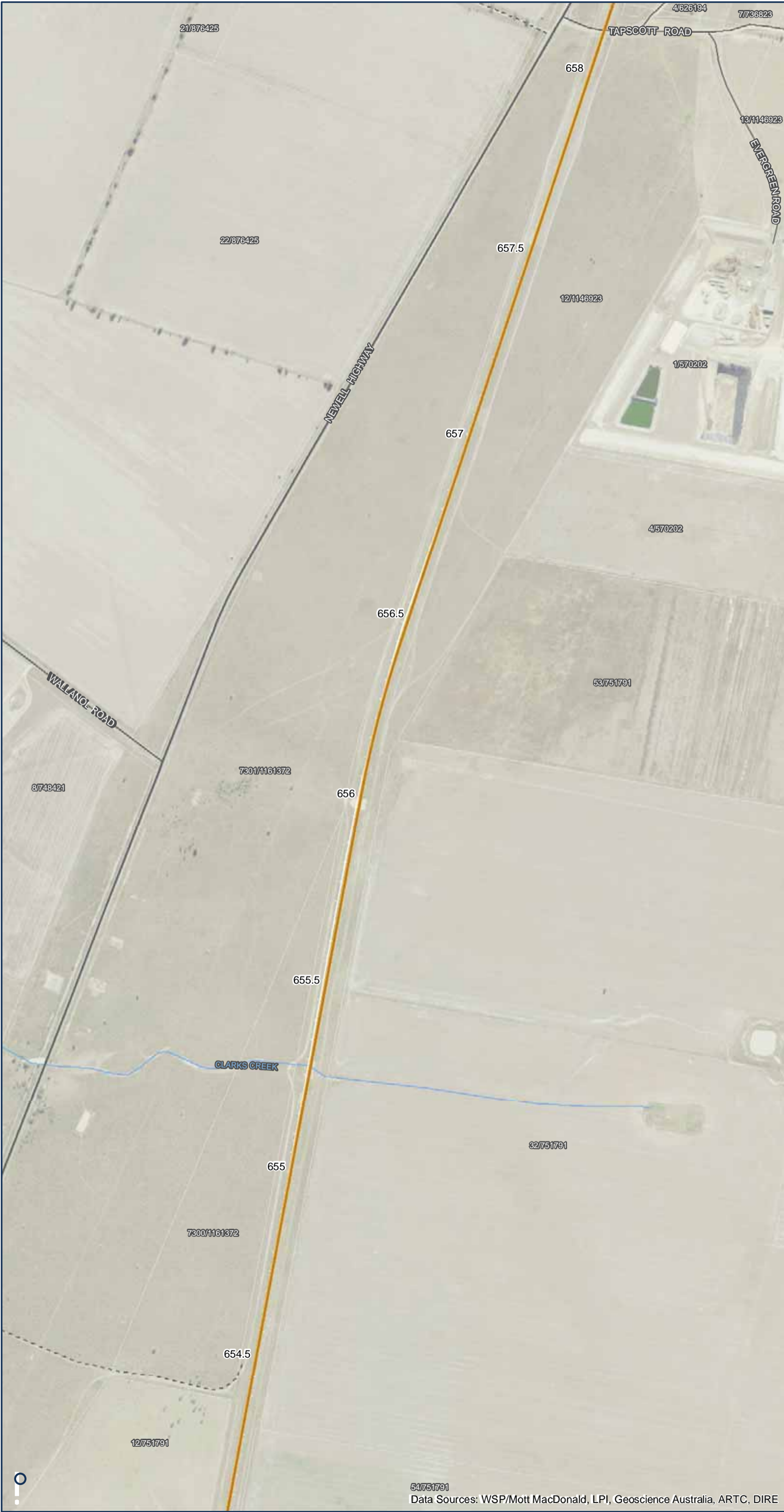
0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



INLAND RAIL

ARTC

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

NARRABRI TO NORTH STAR

Appendix F

Rail Vibration Modelling Contours 2040

Ground-borne Vibration Levels - RMS Vibration (mm/s)

Sheet 21 of 48

LEGEND

" Townships

— Highway

— Local Road

- - - Track

Existing Rail Network

Watercourse

Phase 3 Track Alignment

Cadastre

Vibration Contours (mm/s)

7.5mm/s

15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

0.75 Km

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000



NARRABRI TO NORTH STAR

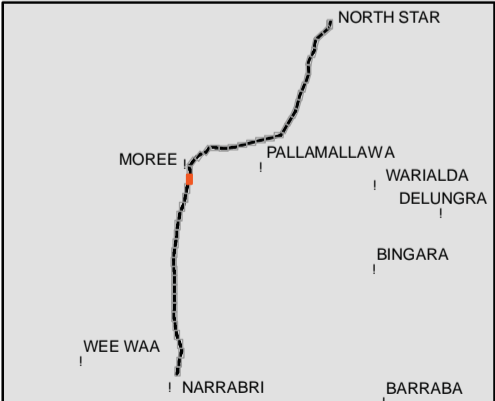
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 22 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

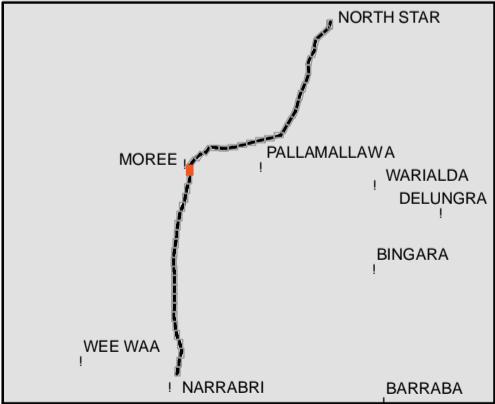
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 23 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- Vibration Contours (mm/s)
  - 7.5mm/s
  - 15mm/s

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

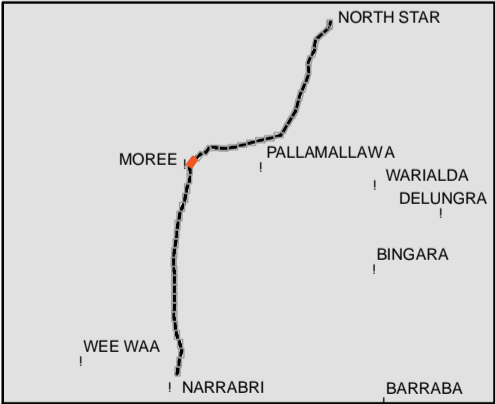
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 24 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

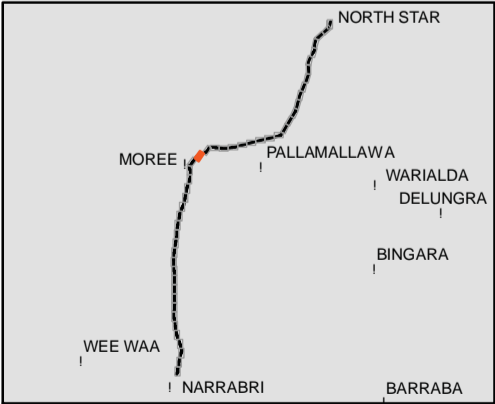
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 25 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

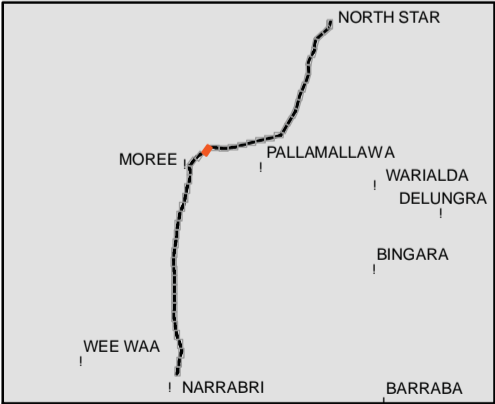
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 26 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

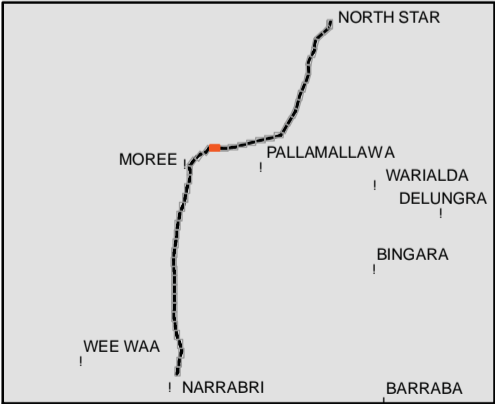
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 27 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

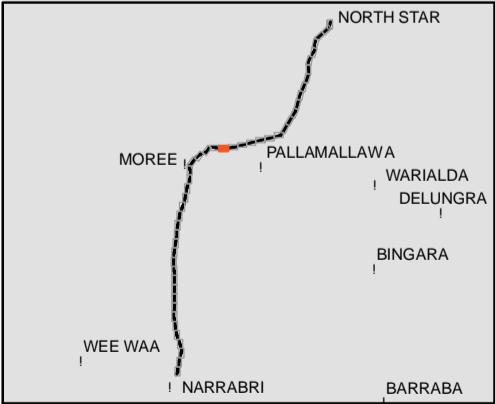
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 28 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

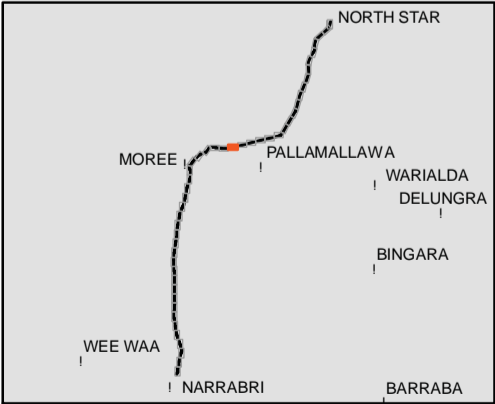
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 29 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

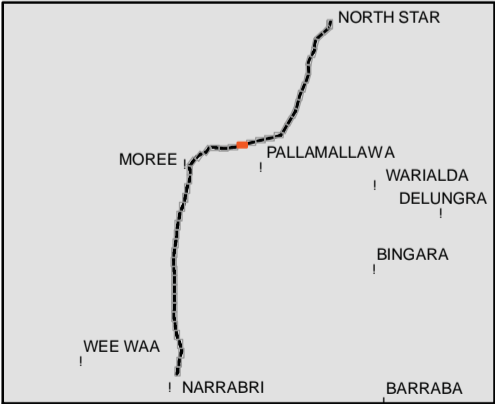
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 30 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

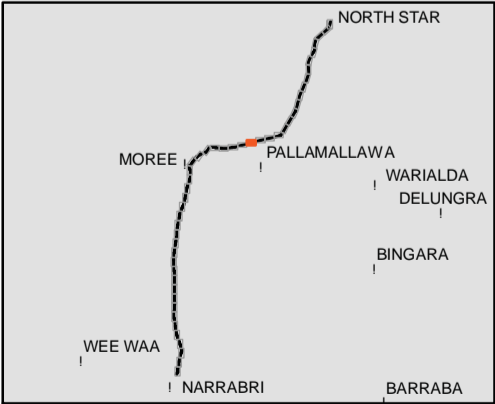
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 31 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

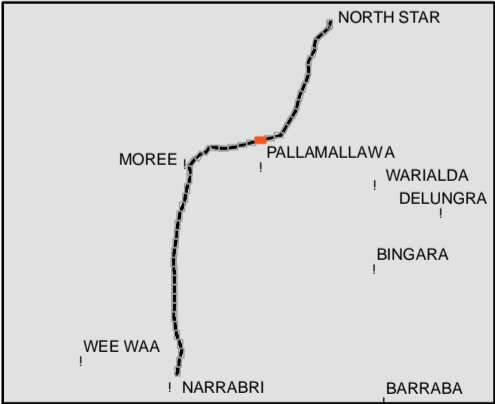
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 32 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE

22/751773

704

18/751773

32/751773

703.5

703

20/751773

702.5

1/717285

702

RIMBANDA ROAD

701.5

STANESTER ROAD

1/361619

701

11/1042024

1/33226

GOOLLEEARLIE WATERCOURSE

700.5

12/1042024

2/33226

INLAND RAIL ARTC

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

NARRABRI TO NORTH STAR

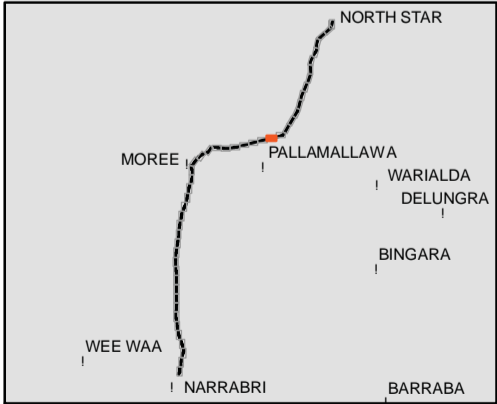
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 33 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



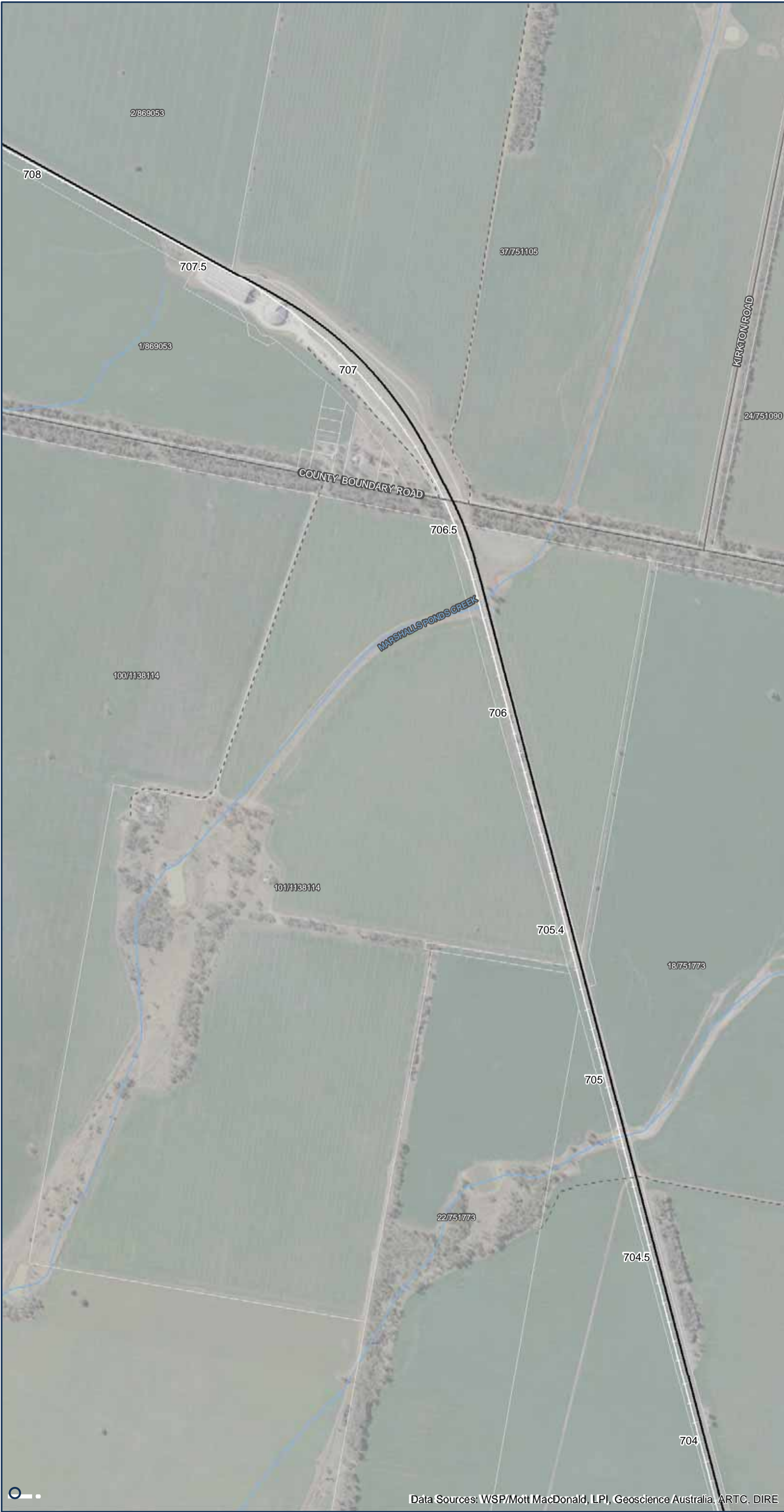
Coordinate System: GDA 1994 MGA Zone 55

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV

Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

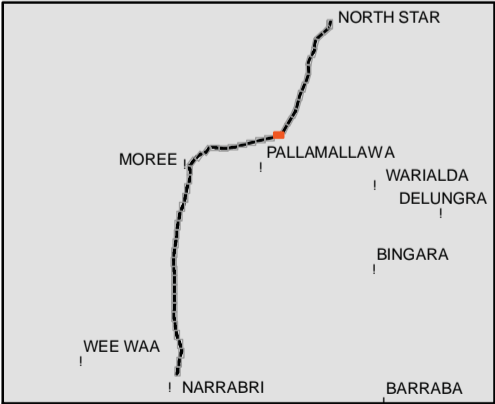
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 34 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

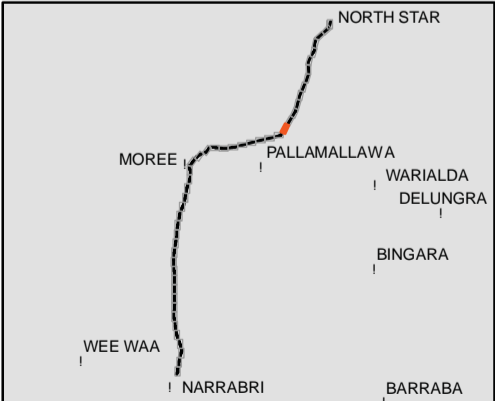
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 35 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

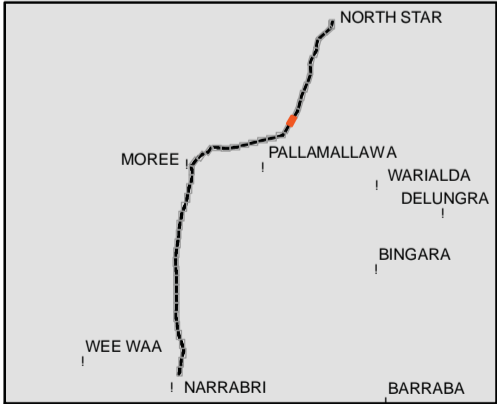
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 36 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

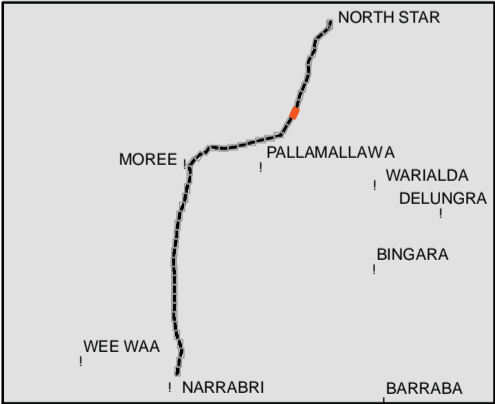
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 37 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



LEGEND

" Townships

— Highway

— Local Road

- - - Track

Existing Rail Network

— Watercourse

— Phase 3 Track Alignment

Cadastre

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000

D:\OneDrive\WSP O365\Williamson, Travis - ARTC\IN2NS\Tasks\2600\_016\_ENV\_NoiseMapping\Documents\2600\_ENV\_F012\_VibrationModelResults2040\_mms\_r2v1.mxd



NARRABRI TO NORTH STAR

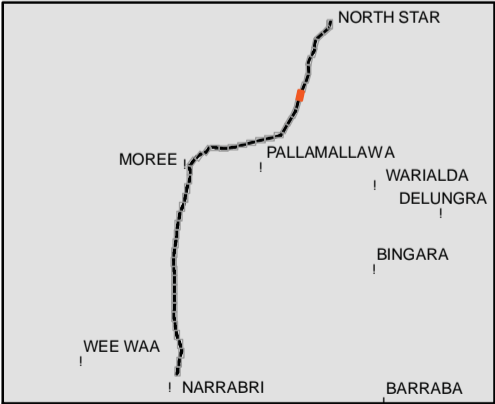
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 39 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

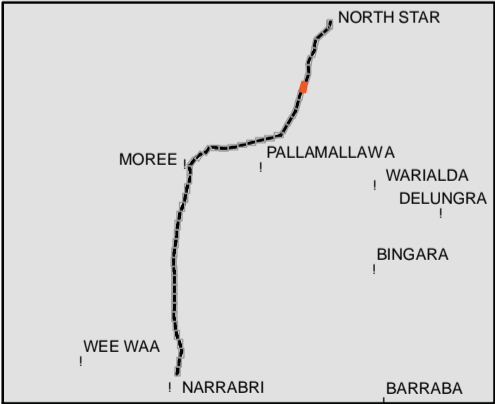
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 40 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

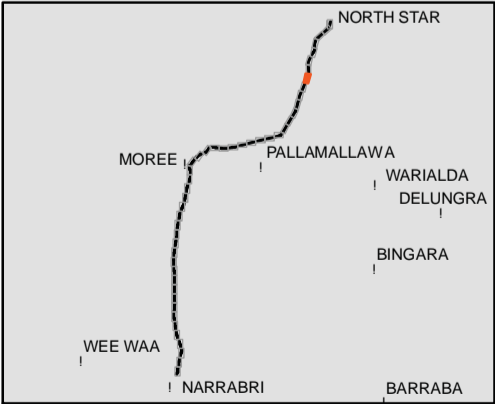
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 41 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

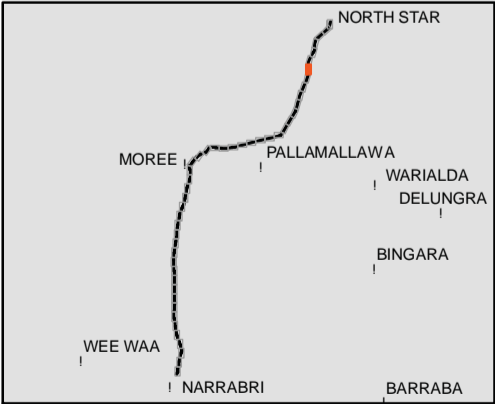
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 42 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

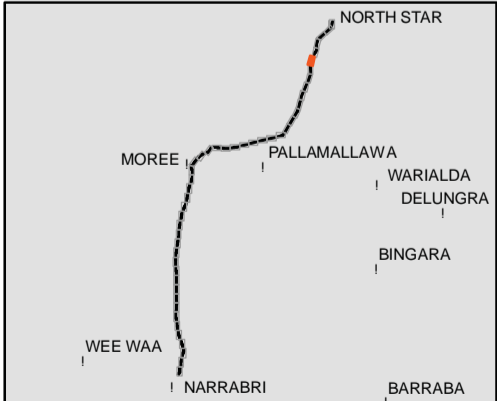
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 43 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV

Scale: 1:10,000



NARRABRI TO NORTH STAR

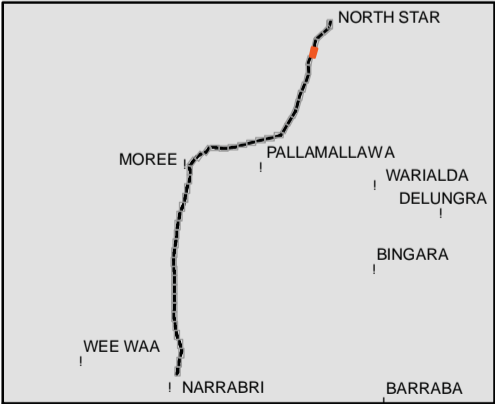
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 44 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV

Scale: 1:10,000



NARRABRI TO NORTH STAR

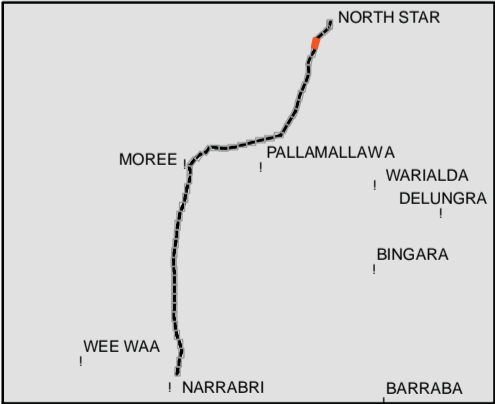
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 45 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

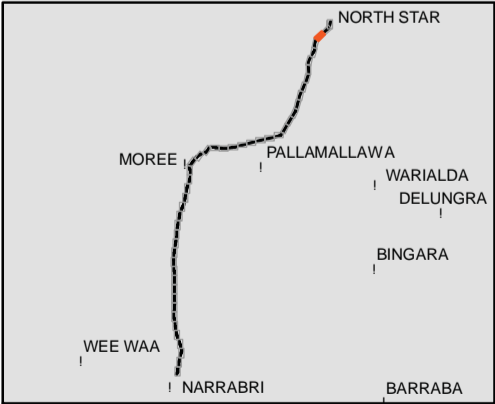
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 46 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000



INLAND RAIL

ARTC

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

NARRABRI TO NORTH STAR

Appendix F

Rail Vibration Modelling Contours 2040

Ground-borne Vibration Levels - RMS Vibration (mm/s)

Sheet 47 of 48

LEGEND

" Townships

— Highway

— Local Road

- - - Track

Existing Rail Network

— Watercourse

— Phase 3 Track Alignment

Cadastre

Building Footprints

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

NORTH STAR

MOREE

PALLAMALLAWA

WARRIALDA

DELUNGRA

BINGARA

WEE WAA

NARRABRI

BARRABA

0.75 Km

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000



NARRABRI TO NORTH STAR

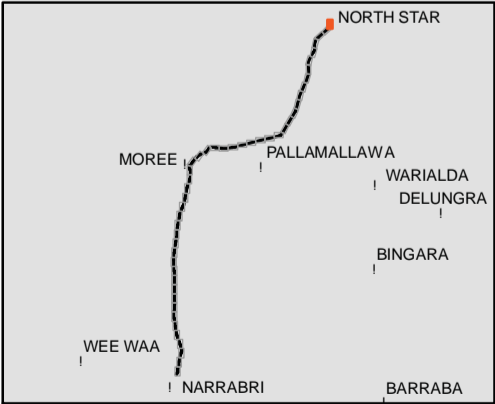
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels -  
RMS Vibration (mm/s)

Sheet 48 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints

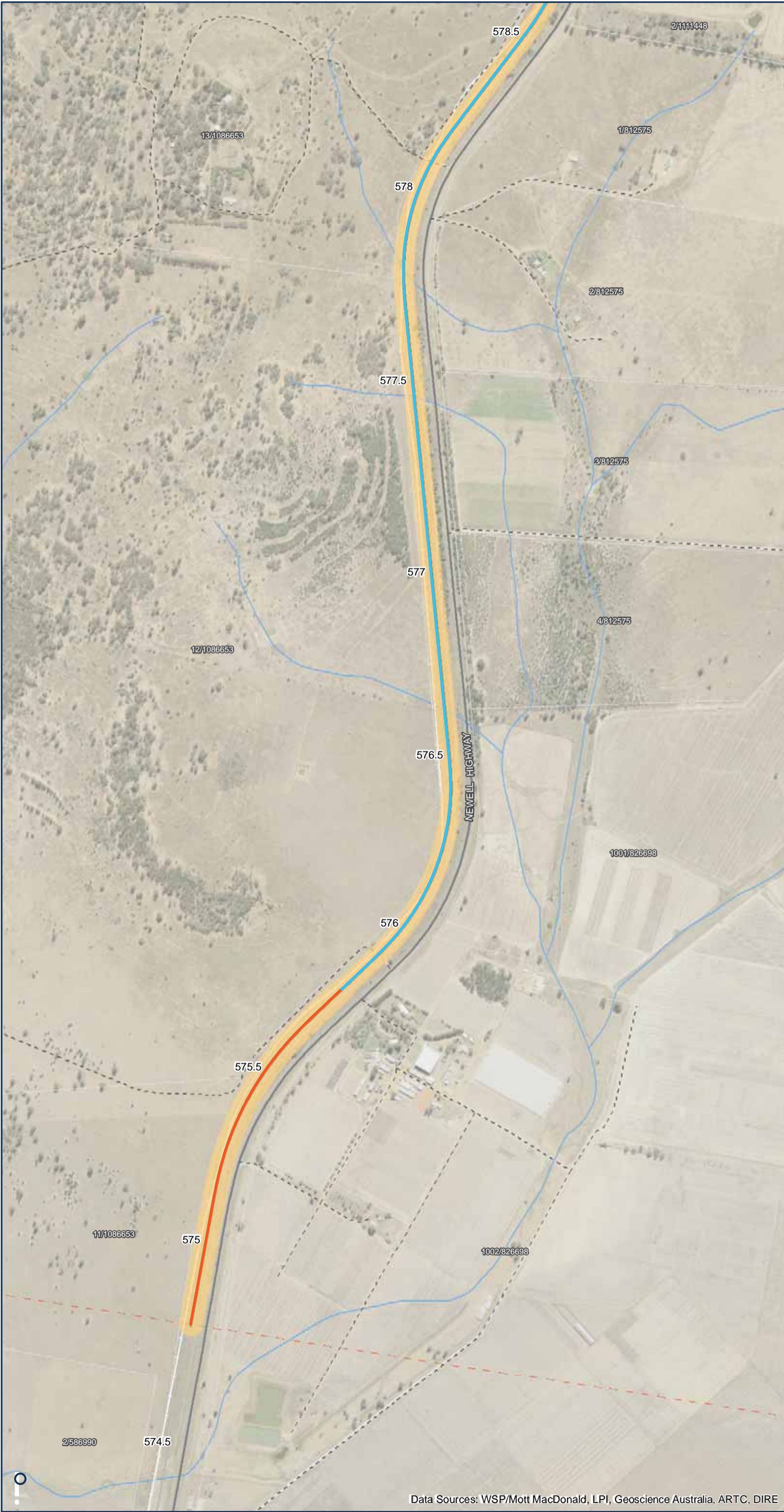
NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

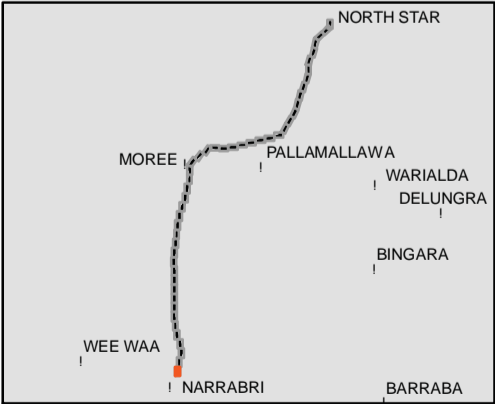
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 1 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
  - Existing Rail Network
  - Proposed Rail Separation
- Watercourse
- Phase 3 Track Alignment
- Cadastrate
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 105
  - 125

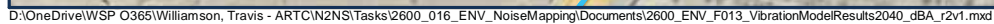
NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



## Appendix F

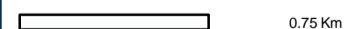
### Rail Vibration Modelling Contours 2040

#### Ground-borne Vibration Levels - dB(A)

Sheet 2 of 48

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)**
  - 105
  - 115
  - 145

**NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.**



Coordinate System: GDA 1994 MGA Zone 55

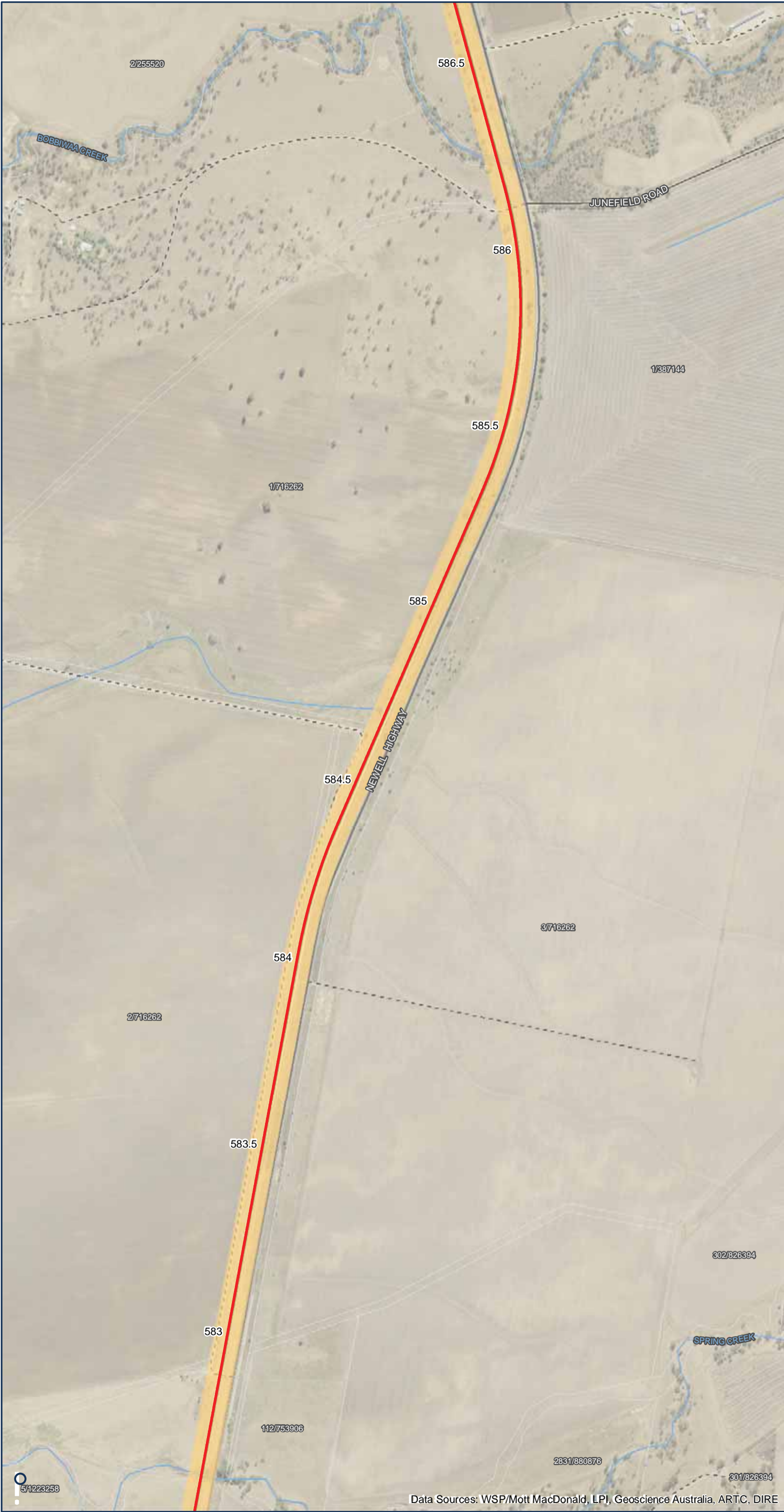
ARTC makes no representation or warranty and assumes no duty of care or other responsibility to any party as to the completeness, accuracy or suitability of the information contained in this GIS map. The GIS map has been prepared from material provided by ARTC by an external source and ARTC has not taken 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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10.000



NARRABRI TO NORTH STAR

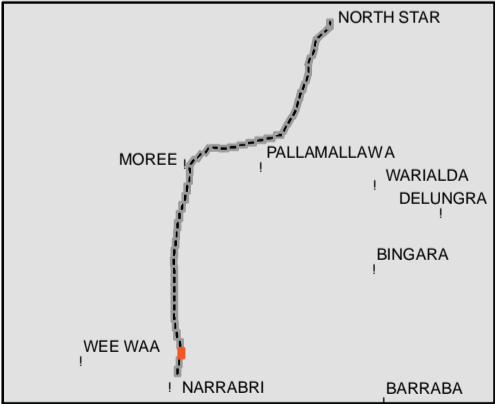
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 3 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

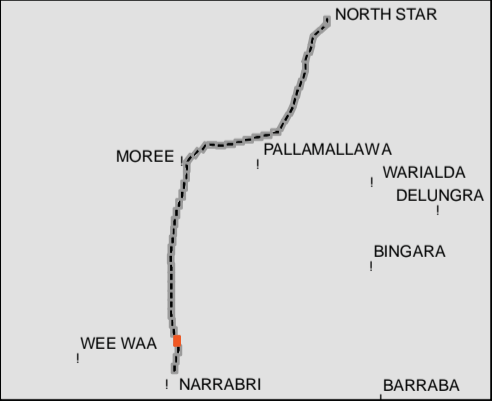
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 4 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

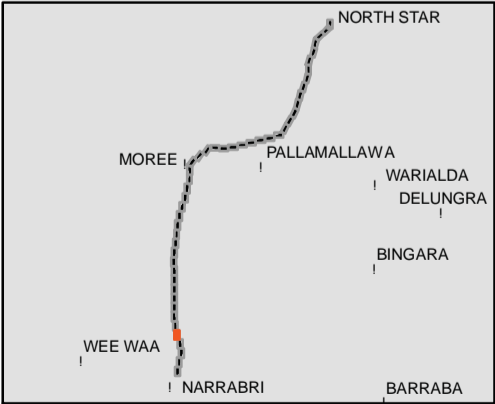
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 5 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

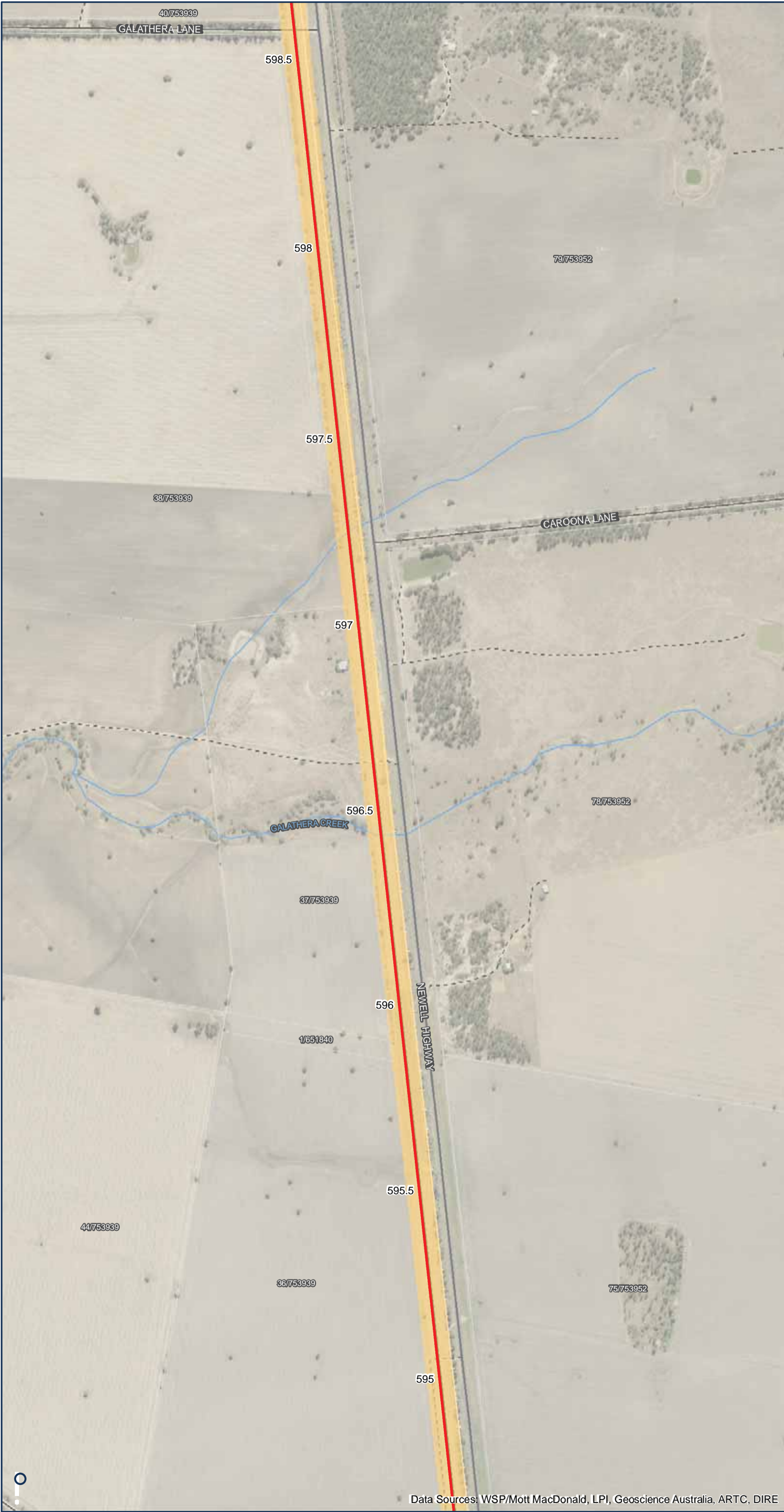


0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

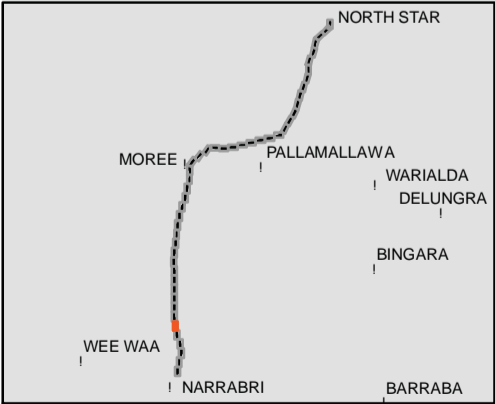
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 6 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.

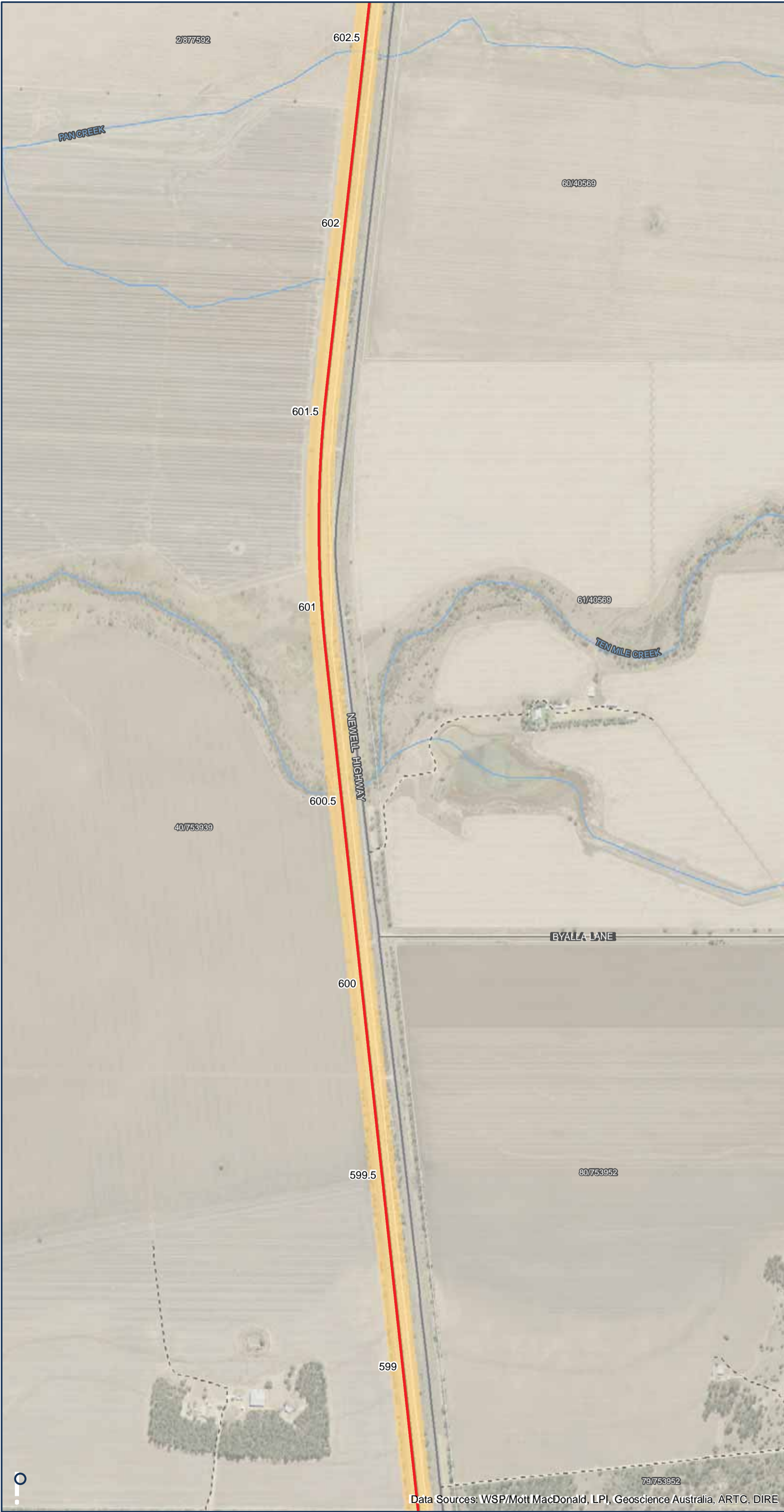


Coordinate System: GDA 1994 MGA Zone 55

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

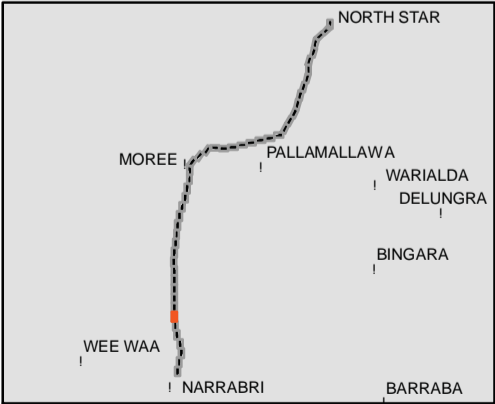
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 7 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

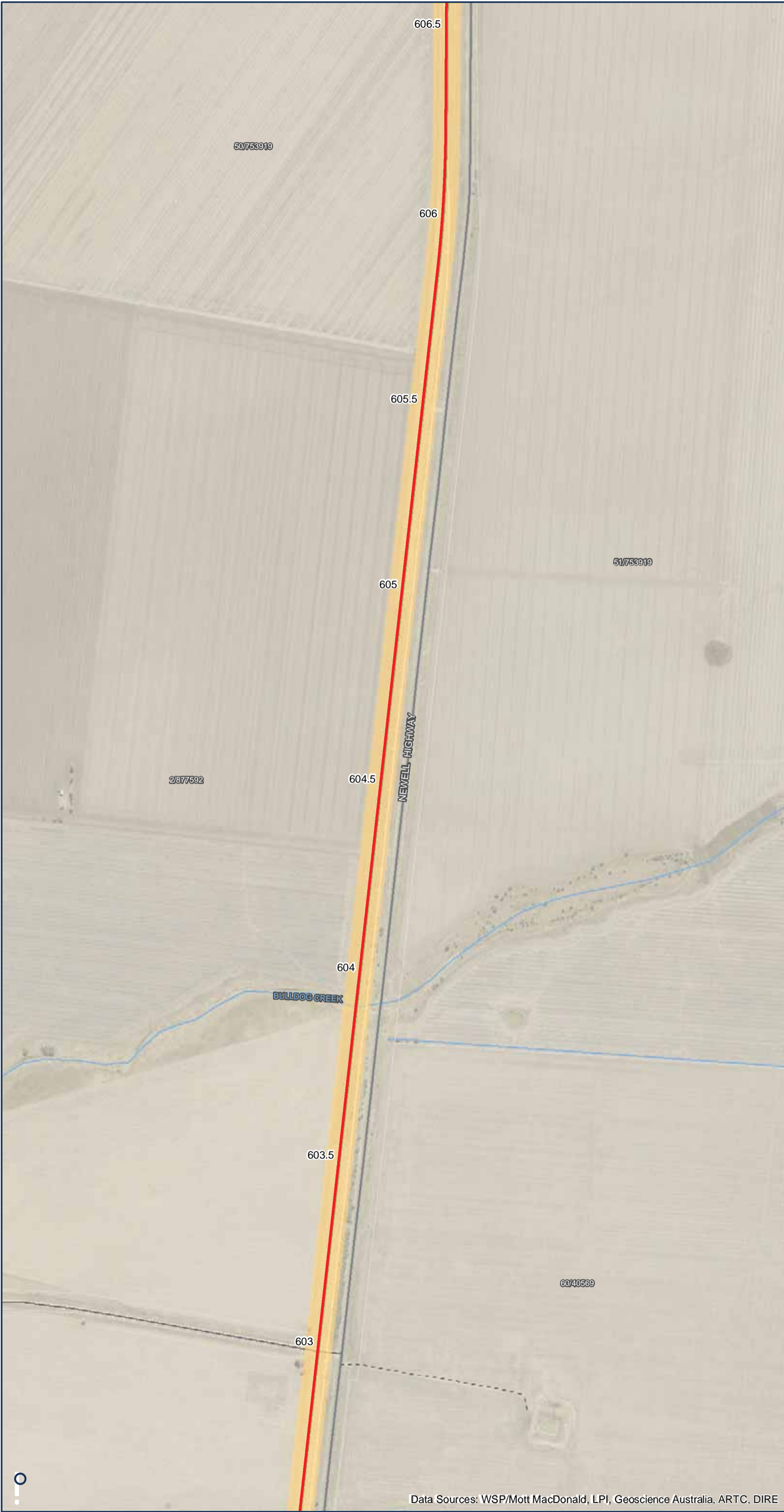
NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

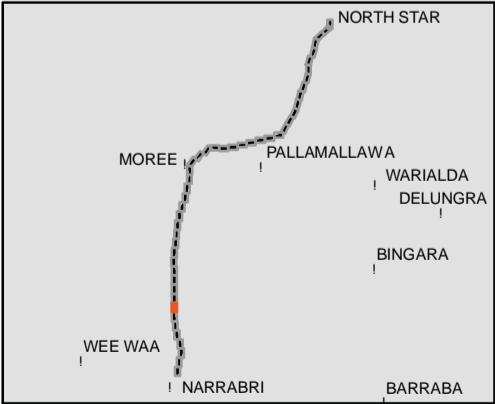
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 8 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

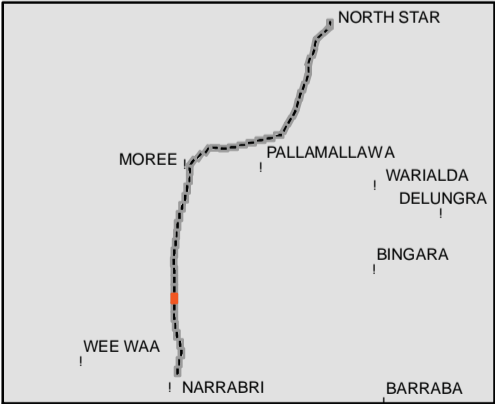
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 9 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

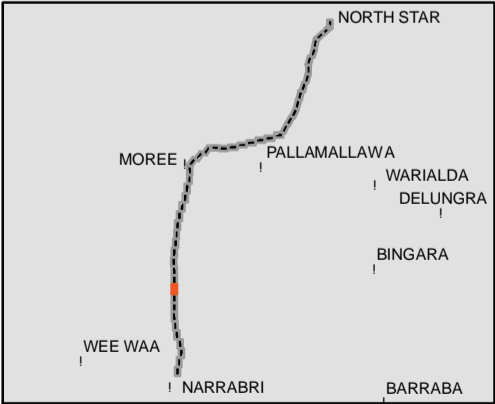
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 10 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



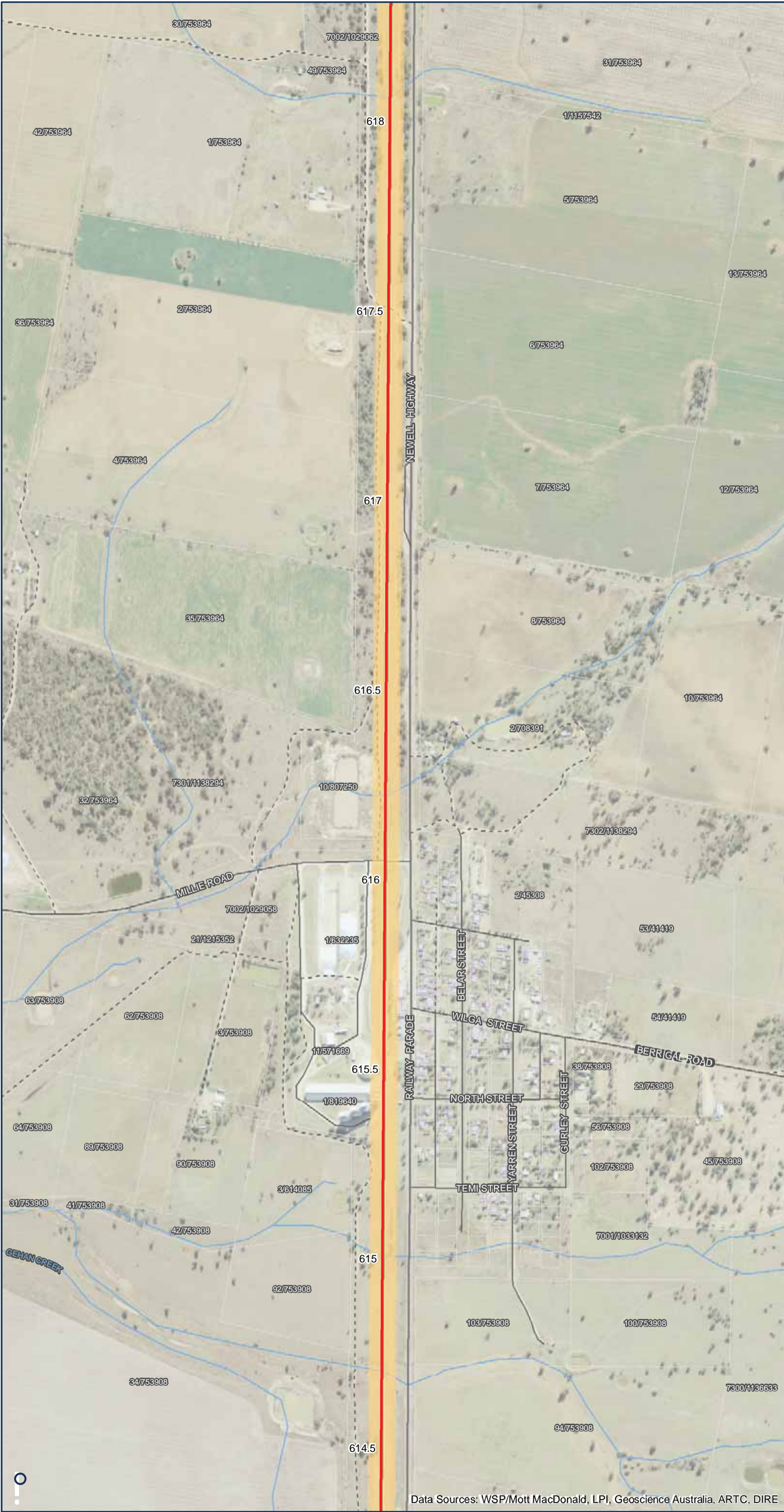
0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

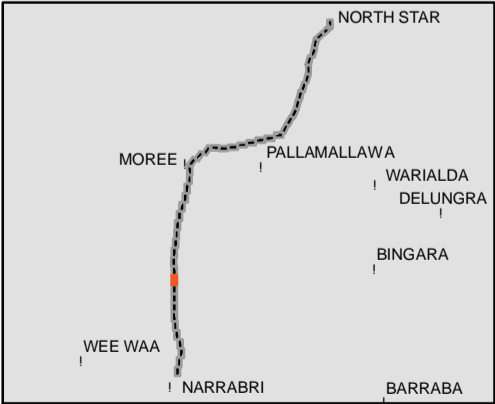
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 11 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
- 145

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

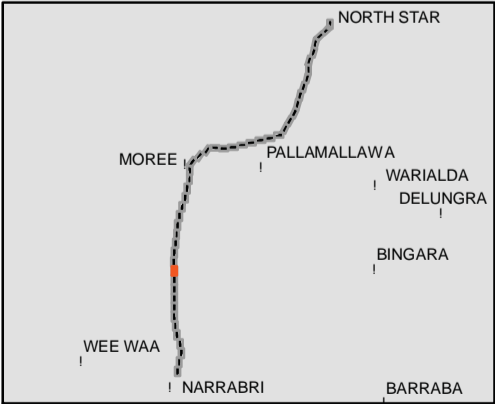
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 12 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



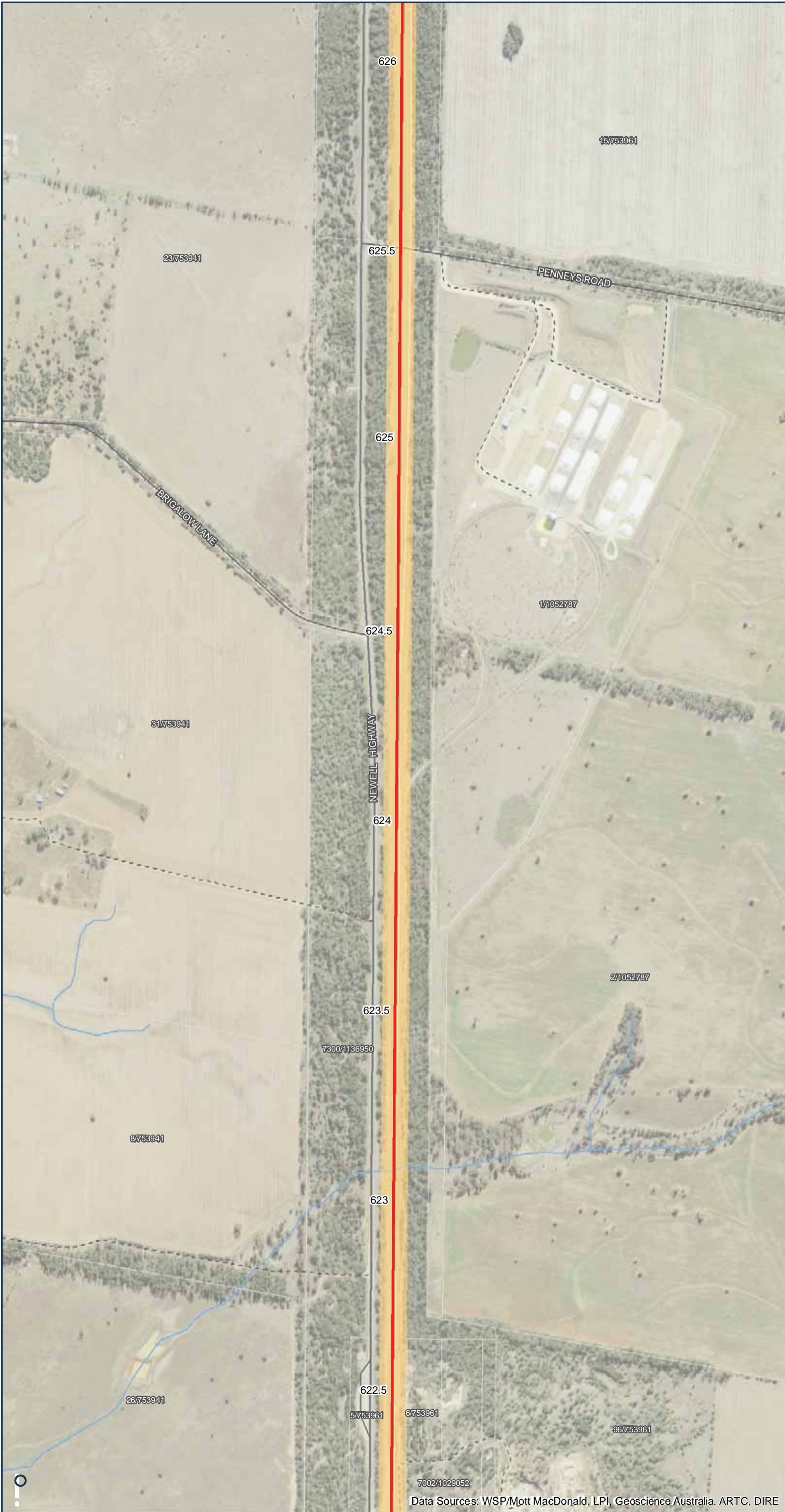
0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

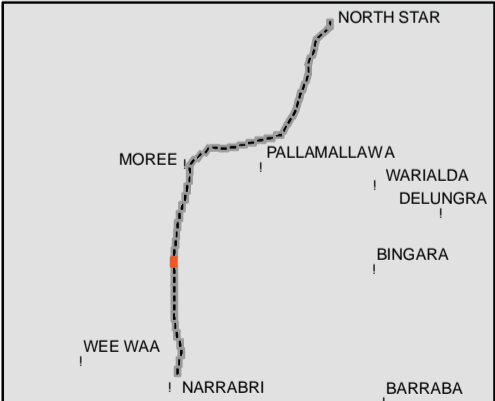
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 13 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

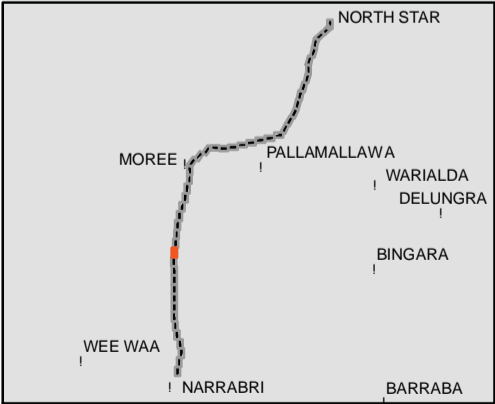
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 14 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

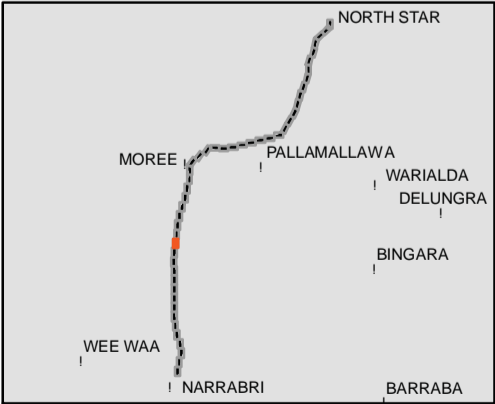
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 15 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

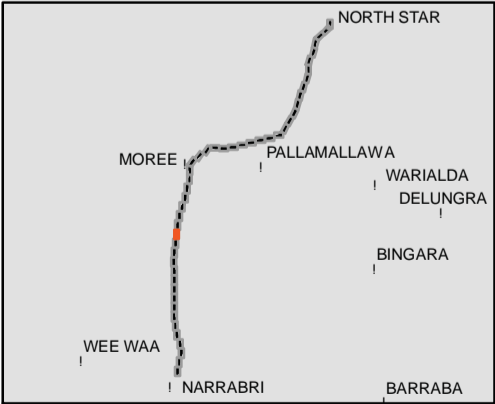
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 16 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

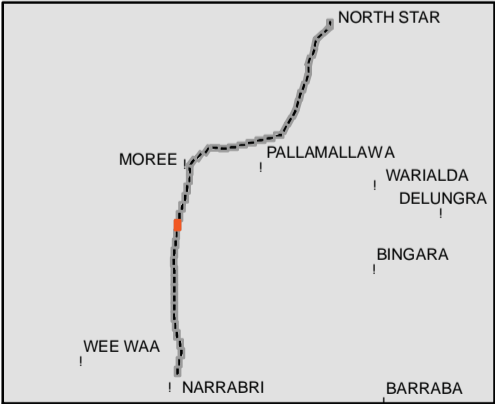
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 17 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115
  - 145

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

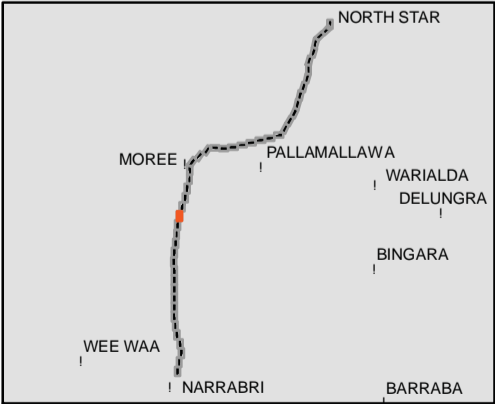
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 18 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

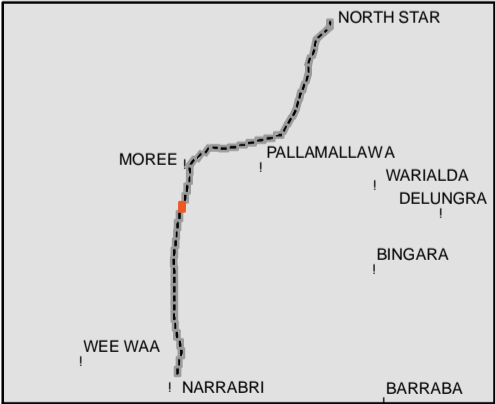
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 19 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
- 145

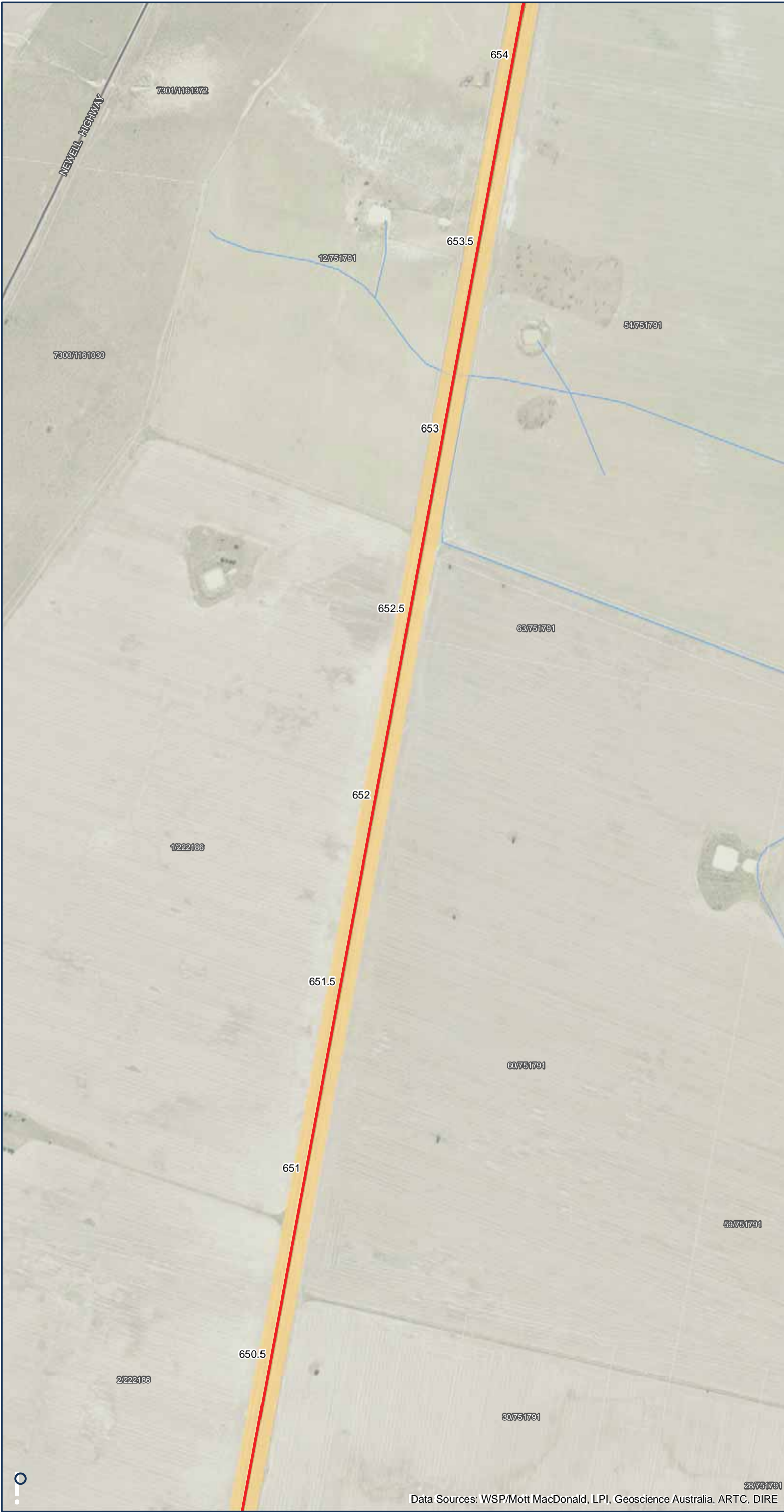
NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

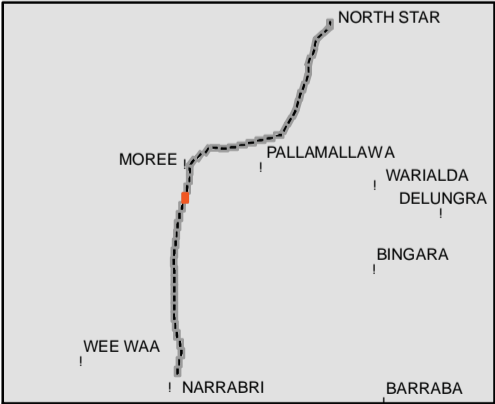
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 20 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

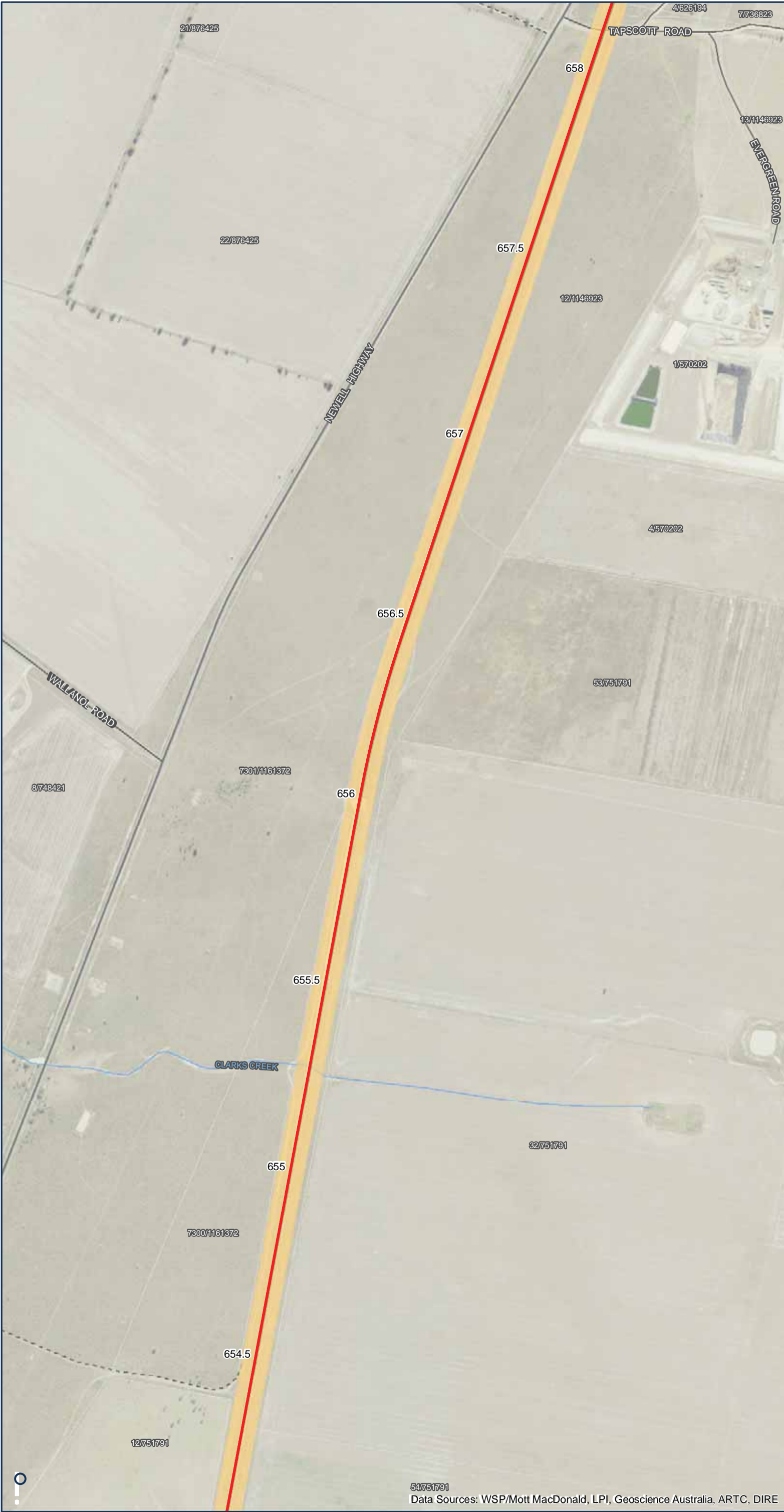
NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

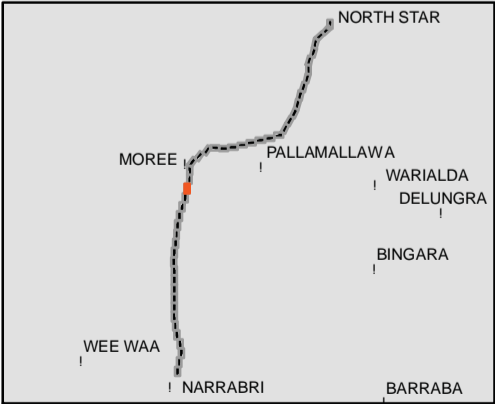
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 21 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

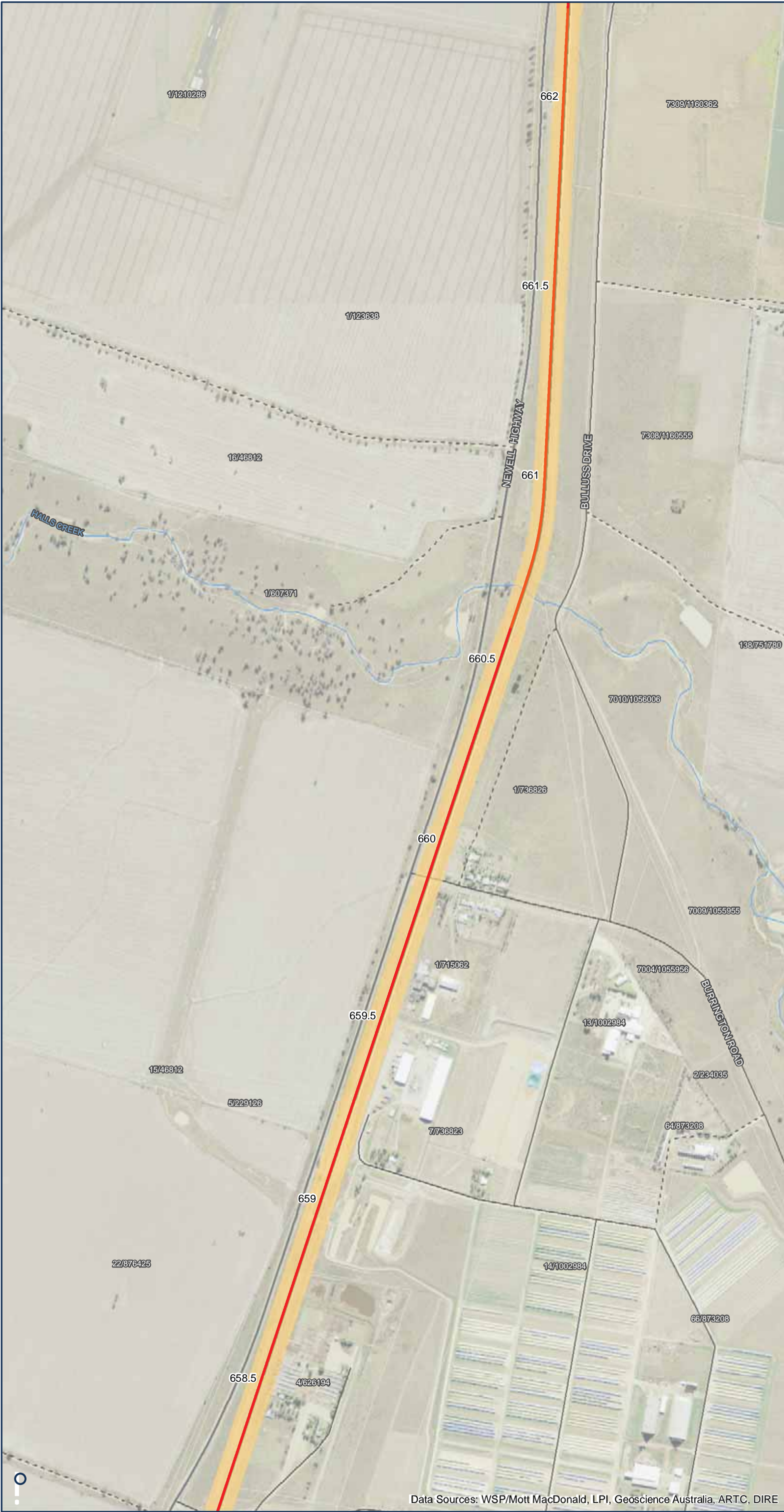


0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

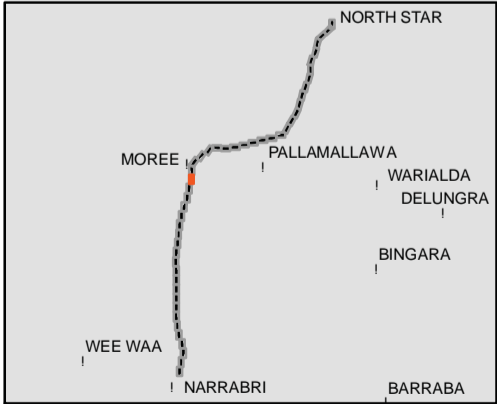
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 22 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 125
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

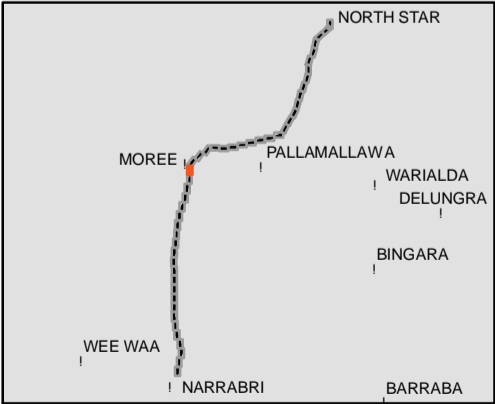
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 23 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 60
  - 105
  - 125
  - 145

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV

Scale: 1:10,000



NARRABRI TO NORTH STAR

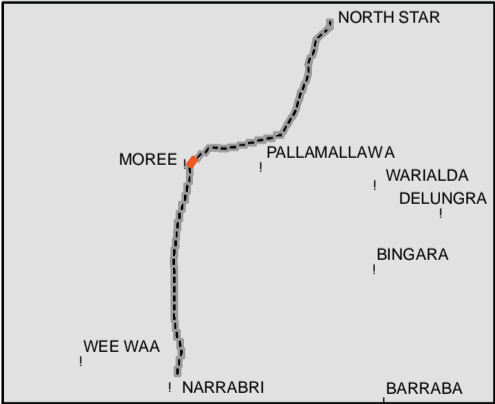
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 24 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track
- Cadastre
- Building Footprints
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
- 60

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

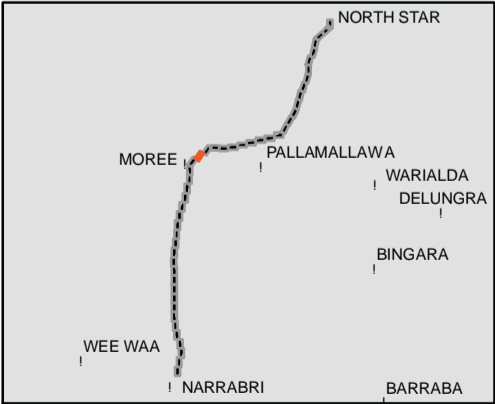
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 25 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 60
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

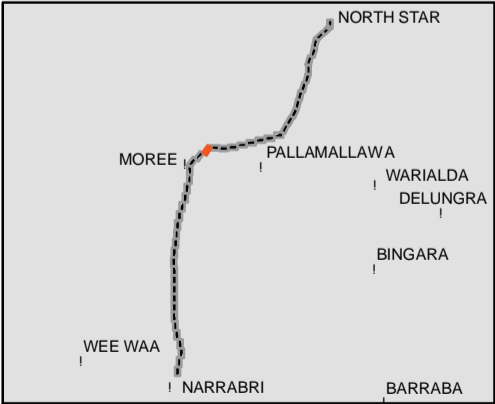
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 26 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 80
  - 110
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV

Scale: 1:10,000



NARRABRI TO NORTH STAR

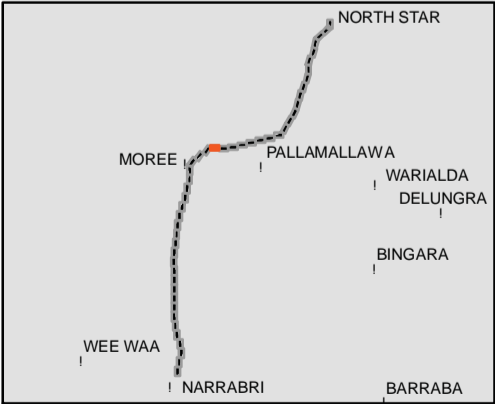
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 27 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 80
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV

Scale: 1:10,000



NARRABRI TO NORTH STAR

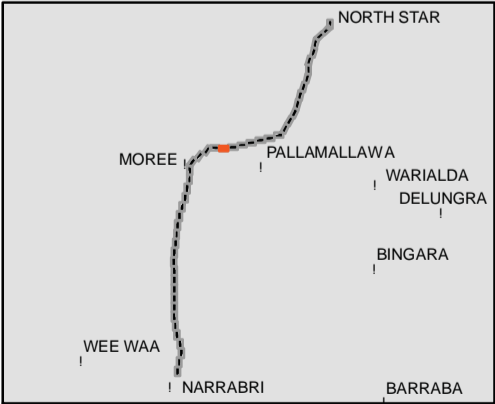
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 28 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

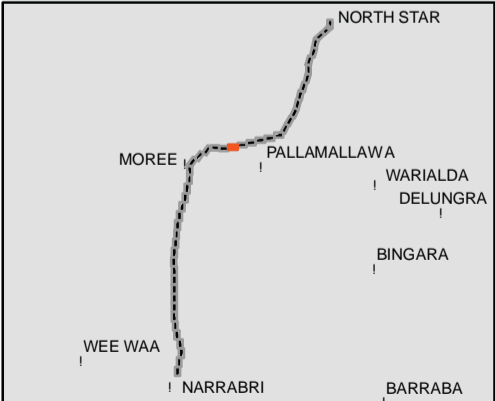
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 29 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

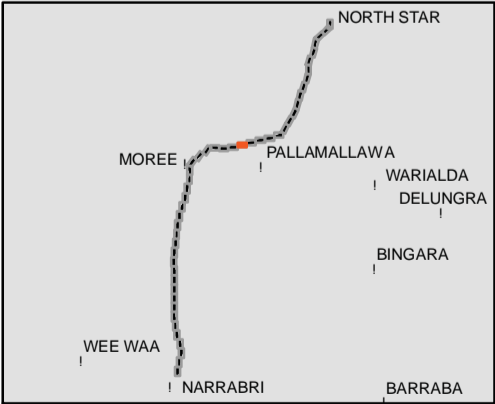
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 30 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

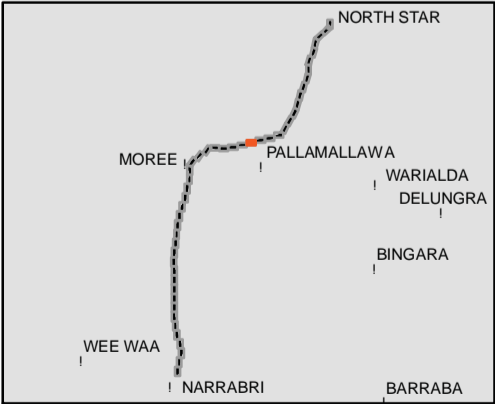
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 31 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

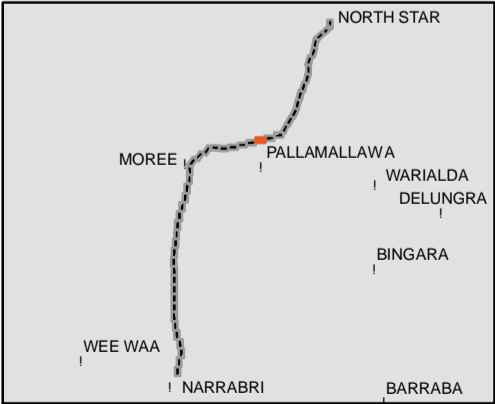
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 32 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

22/751773

704

18/751773

32/751773

703.5

703

702.5

20/751773

702

1/717285

RIMBANDA ROAD

701.5

STANESTER ROAD

1/361619

701

11/1042024

GOOLLEEARLIE WATERCOURSE

700.5

12/1042024

2/33226

1/33226



Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE

NARRABRI TO NORTH STAR

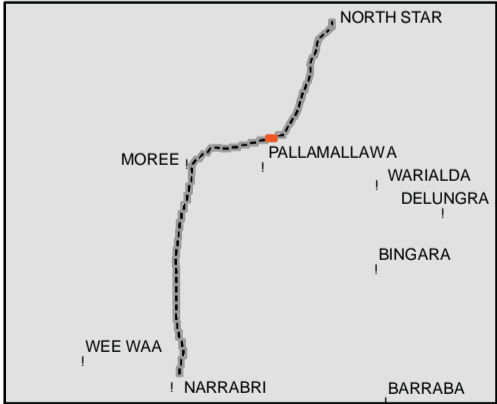
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 33 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

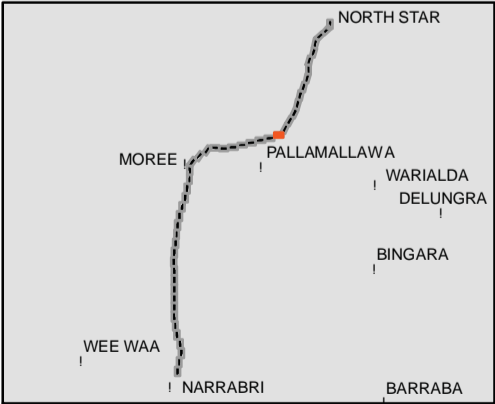
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 34 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 110
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

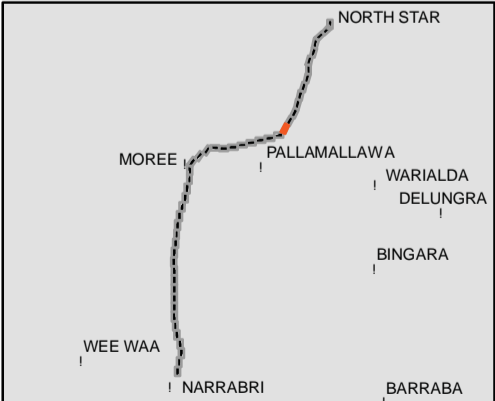
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 35 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.

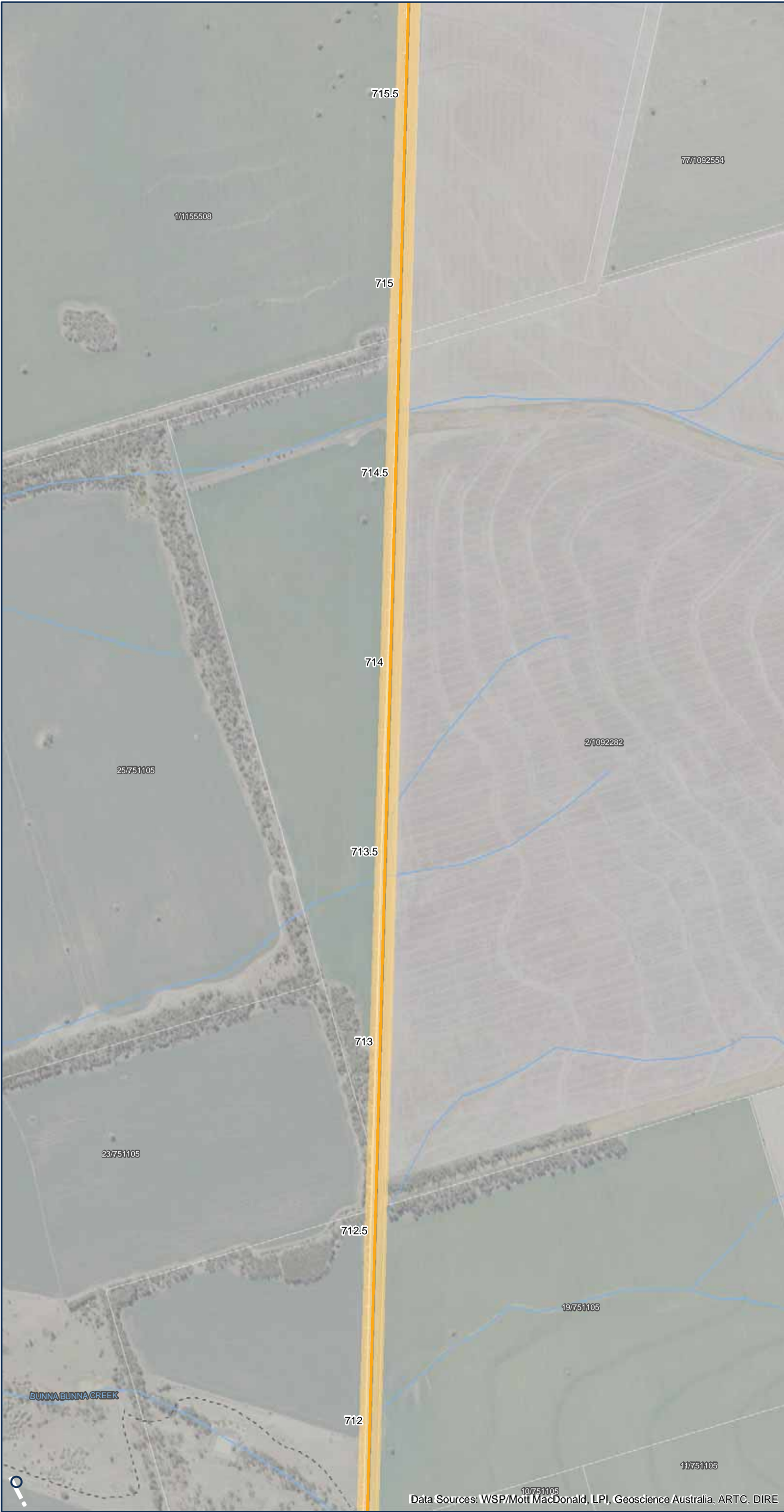


Coordinate System: GDA 1994 MGA Zone 55

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

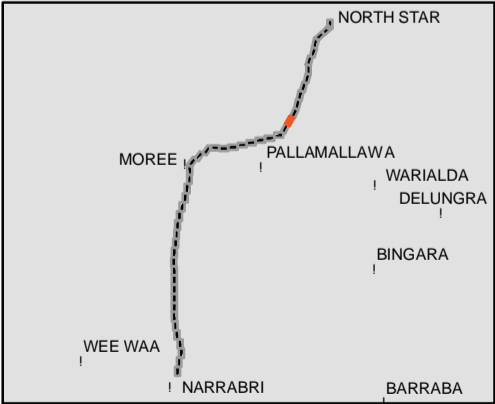
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 36 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

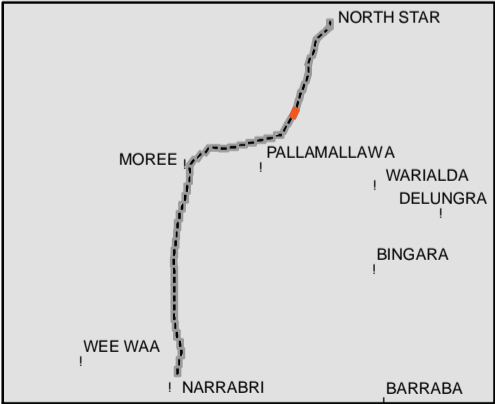
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 37 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

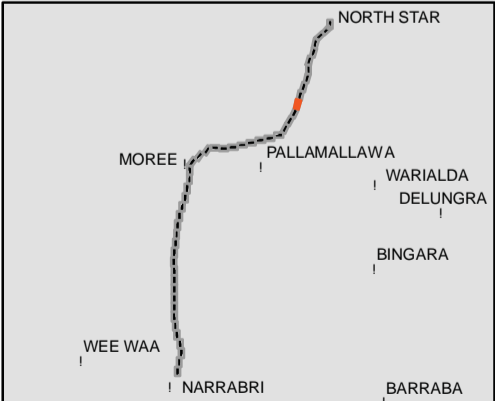
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 38 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



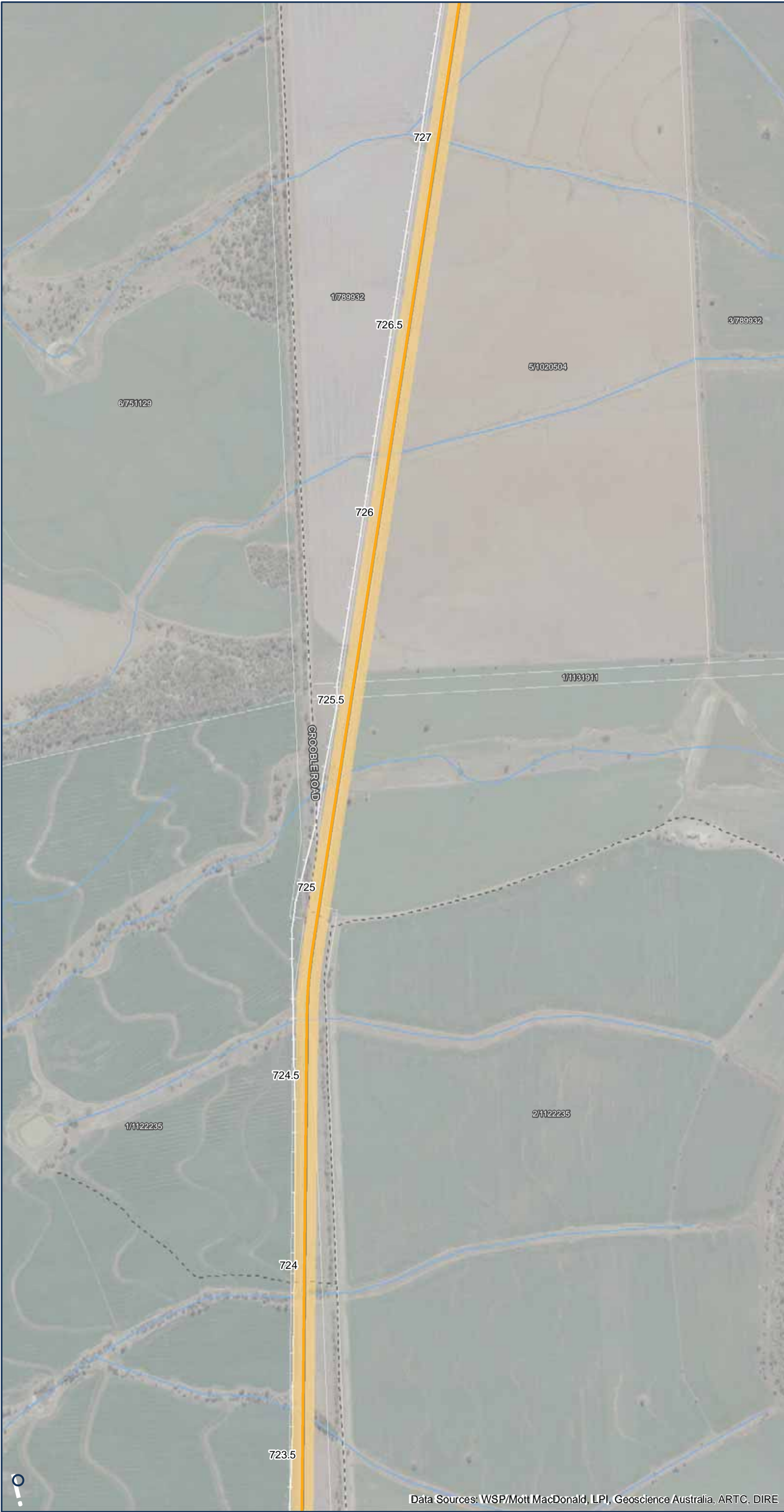
0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

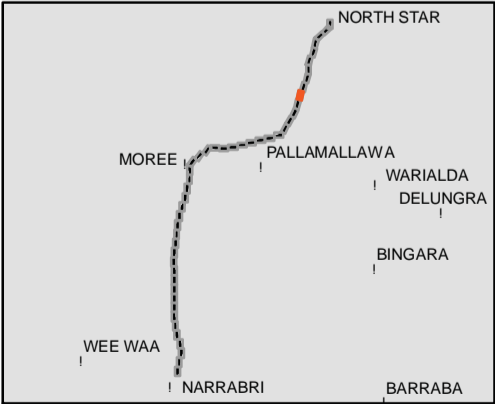
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 39 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

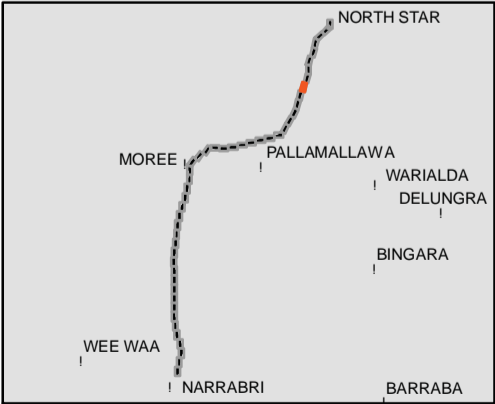
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 40 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

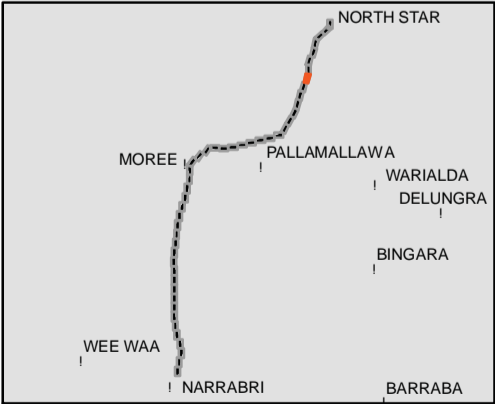
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 41 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

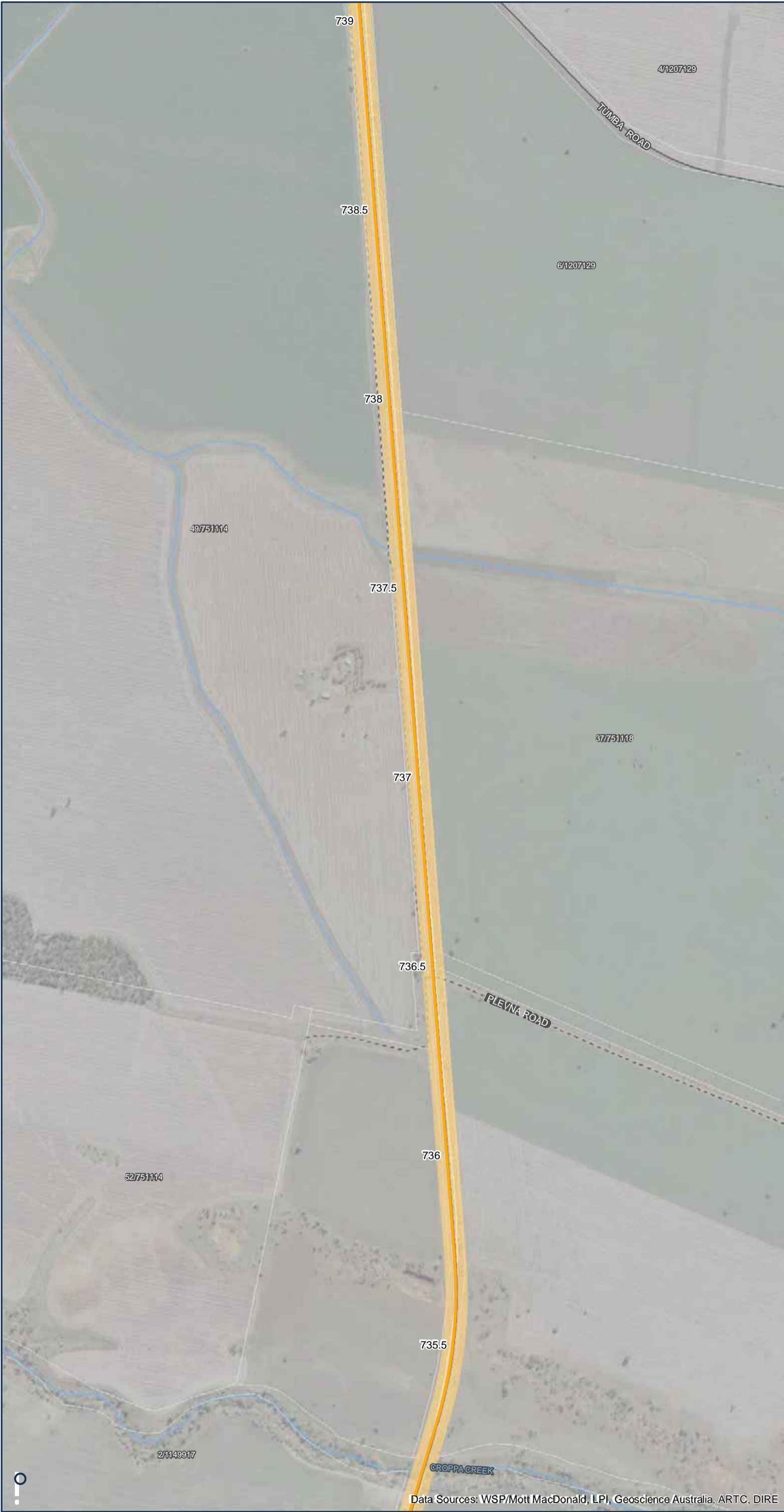
NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

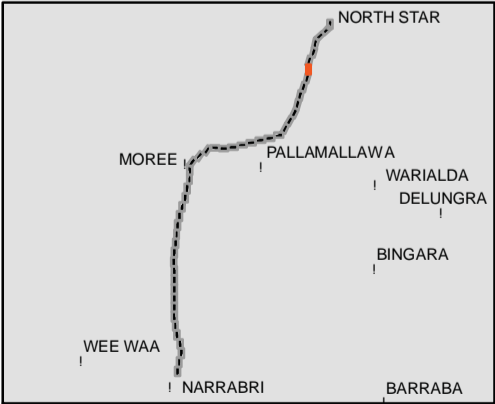
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 42 of 48

LEGEND

- " Townships
- Highway
- Local Road
- - - Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



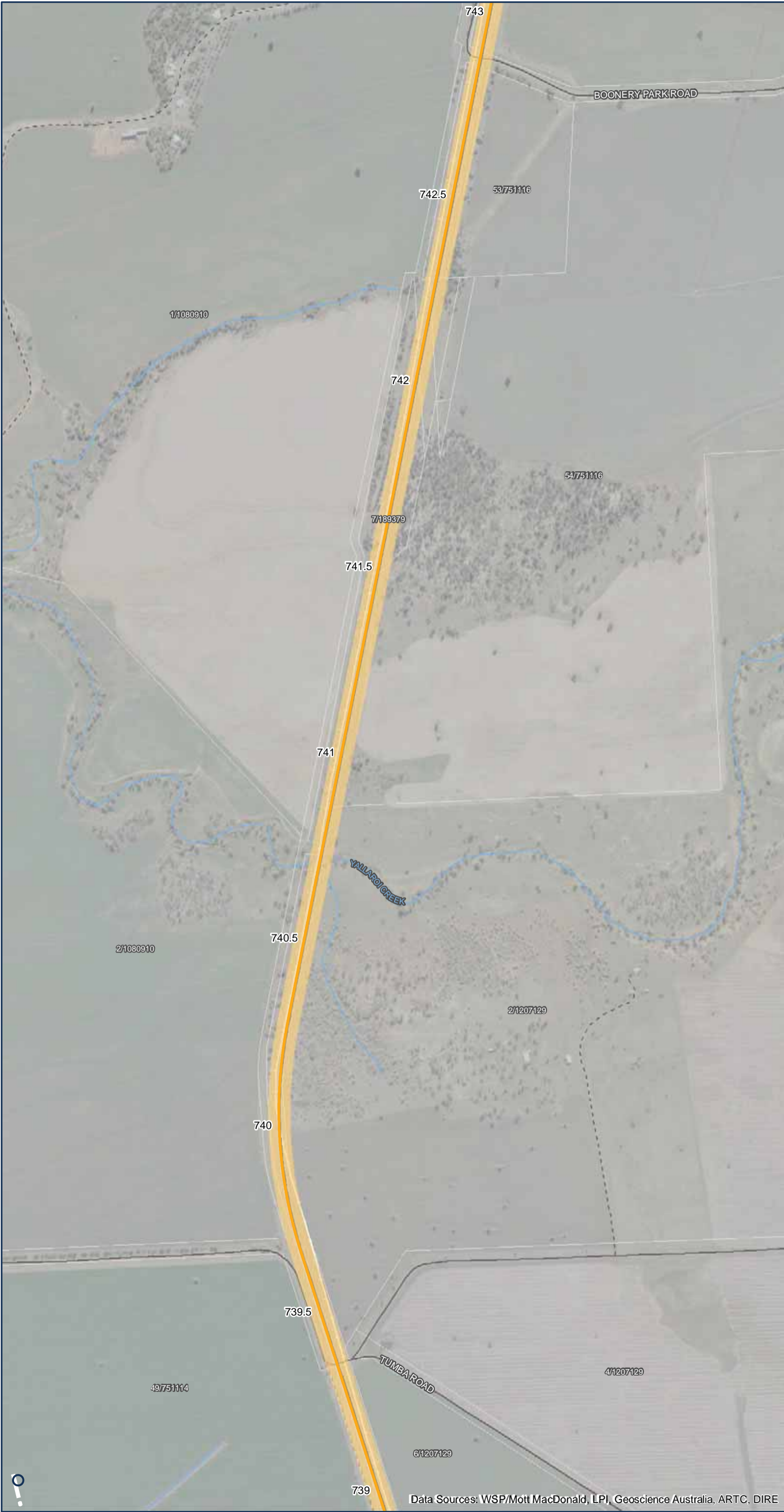
0.75 Km

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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

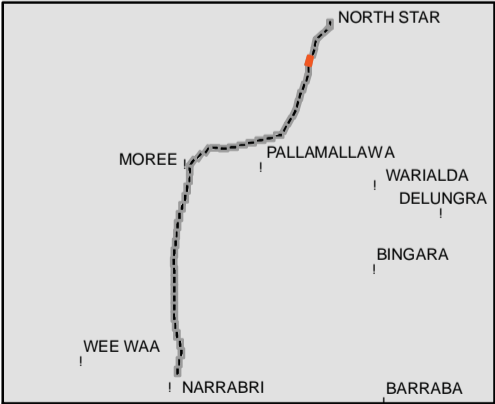
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 43 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE



NARRABRI TO NORTH STAR

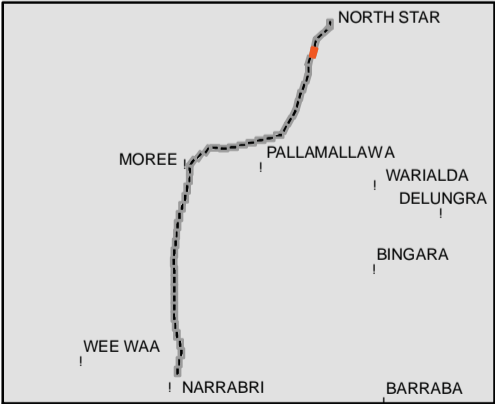
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 44 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 100
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

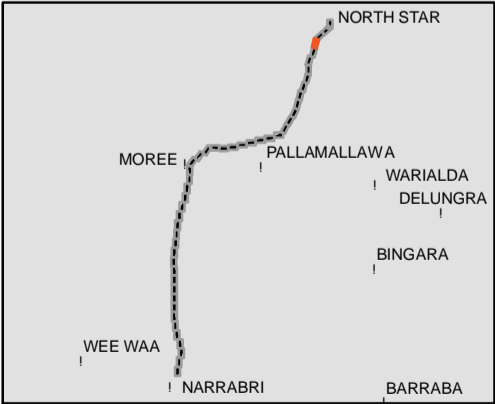
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 45 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

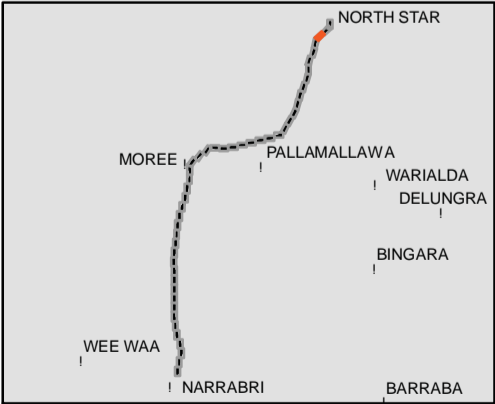
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 46 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

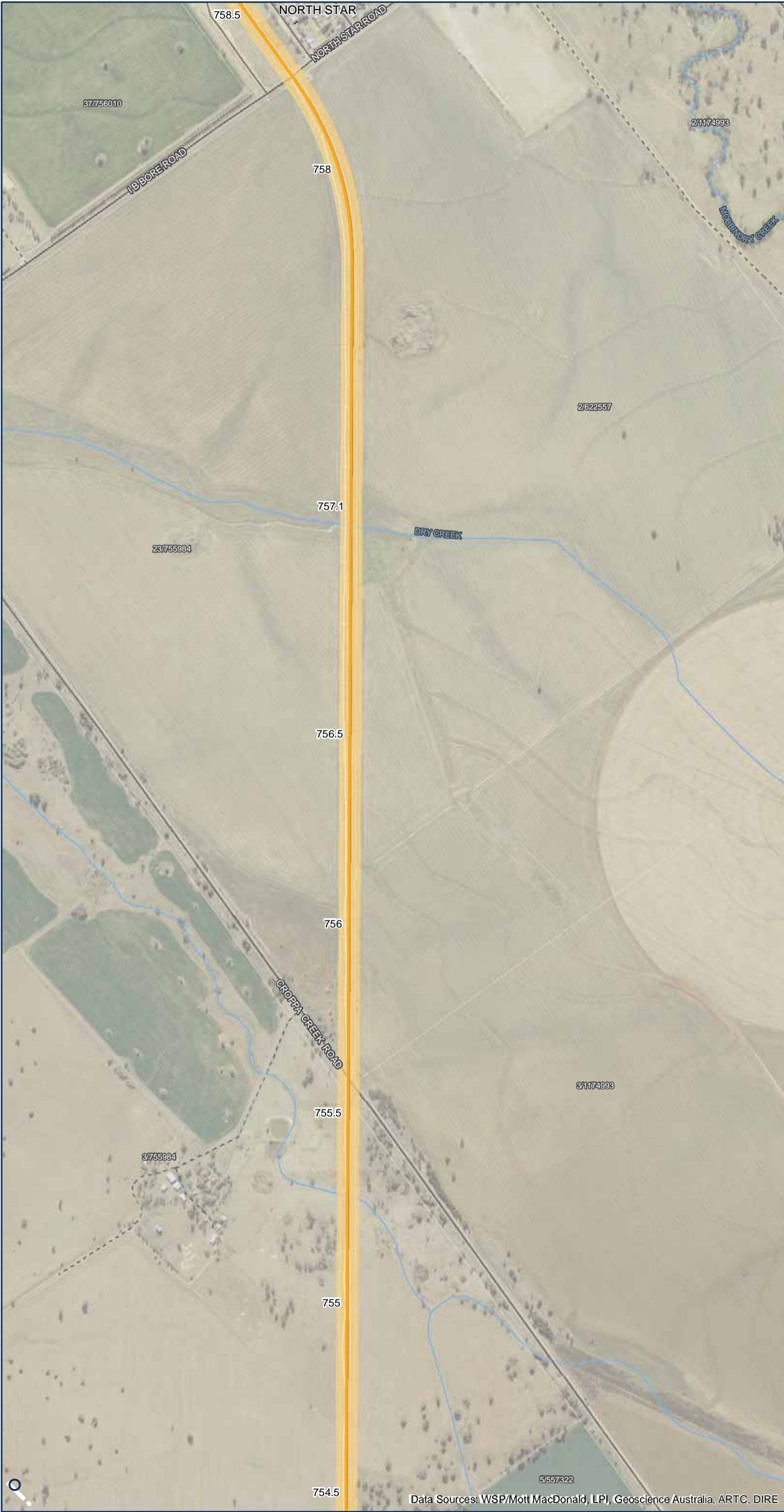
NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000



NARRABRI TO NORTH STAR

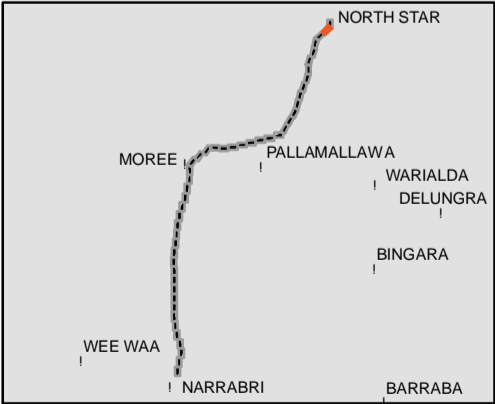
Appendix F  
Rail Vibration Modelling Contours 2040  
Ground-borne Vibration Levels - dB(A)

Sheet 47 of 48

LEGEND

- Townships
- Highway
- Local Road
- Track
- Existing Rail Network
- Watercourse
- Phase 3 Track Alignment
- Cadastre
- Building Footprints
- 35 dB(A) Vibration Contour
- Rail Speeds (km/h)
  - 115

NOT FOR PUBLICATION. FOR CONSULTATION PURPOSES ONLY.



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.

Paper: A3  
Date: 18/08/2019  
Author: IRDJV  
Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE

## Appendix F

## Rail Vibration Modelling Contours 2040 Ground-borne Vibration Levels - dB(A)

Sheet 48 of 48

" Townships

— Highway

— Local Road

--- Track

### Existing Rail Network

— Watercourse

—Phase 3 Track Alignment

☐ Cadastre

## Building Footprints


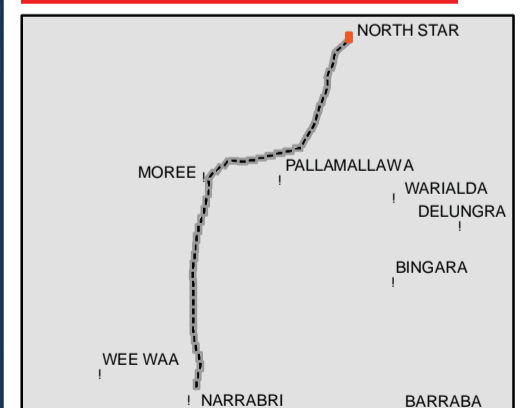
35 dB(A) Vibration Contour

**Rail Speeds (km/h)**

— 115



**NOT FOR PUBLICATION. FOR  
CONSULTATION PURPOSES ONLY.**



0.75 Km

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.

Paper: A3

Date: 18/08/2019

Author: IRDJV

Scale: 1:10,000

Data Sources: WSP/Mott MacDonald, LPI, Geoscience Australia, ARTC, DIRE