APPENDIX P

INLAND RAIL

Non-Operational Noise and Vibration Technical Report

PART 3 OF 3

Appendices C to F

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT

IR_1381

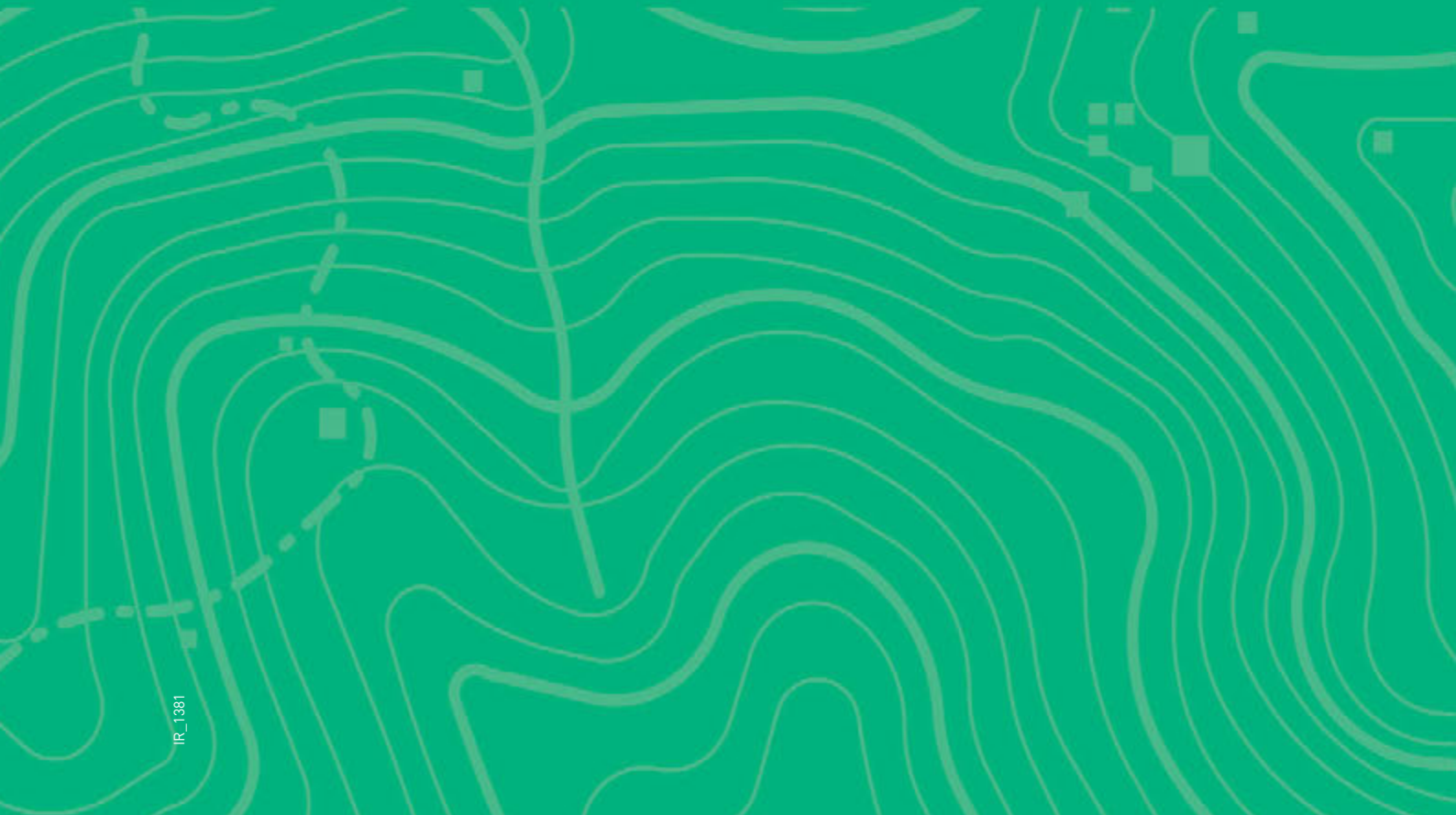
ARTC

APPENDIX P

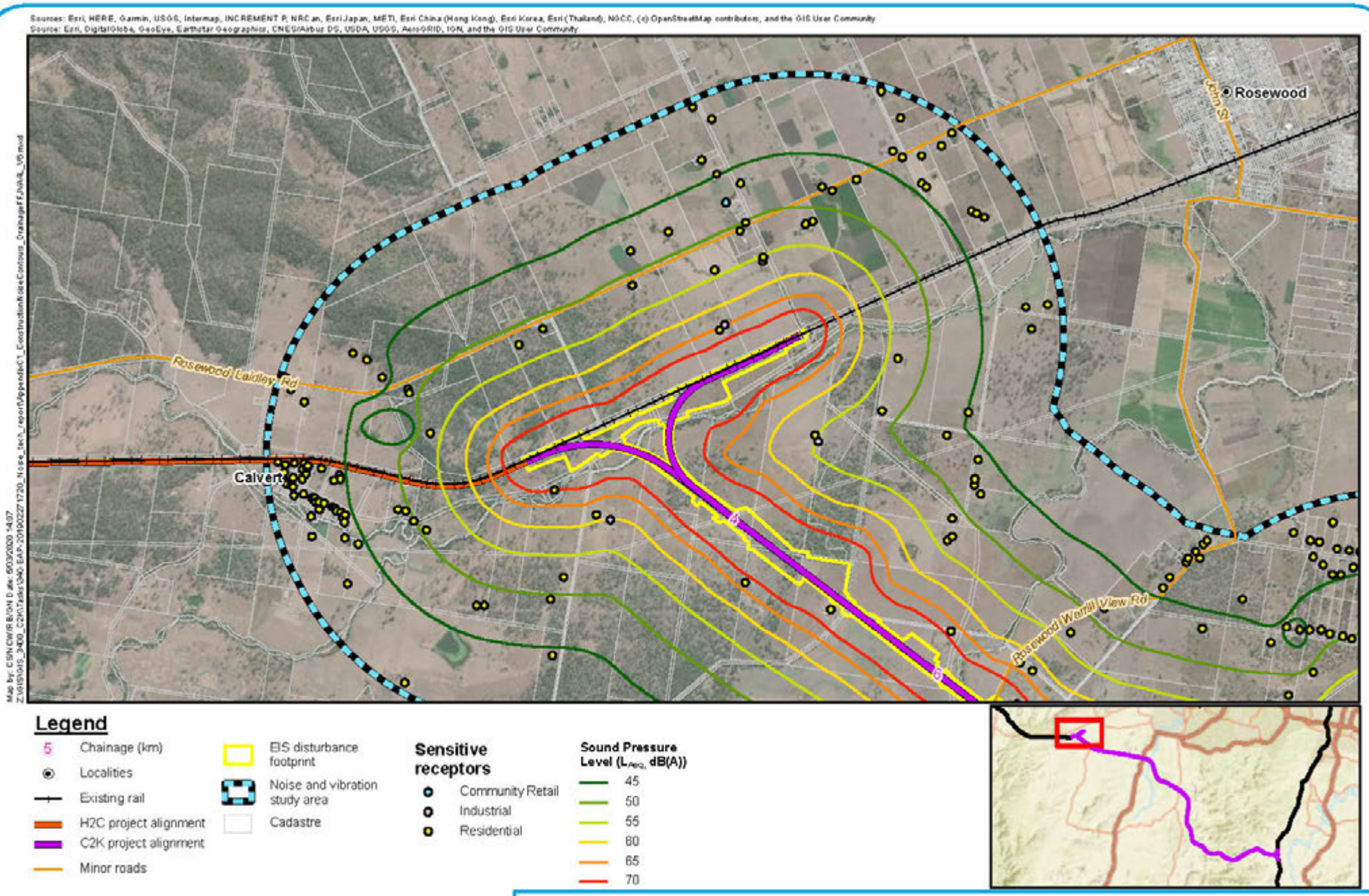
Non-operational Noise and Vibration Technical Report

Appendix C Construction noise contours

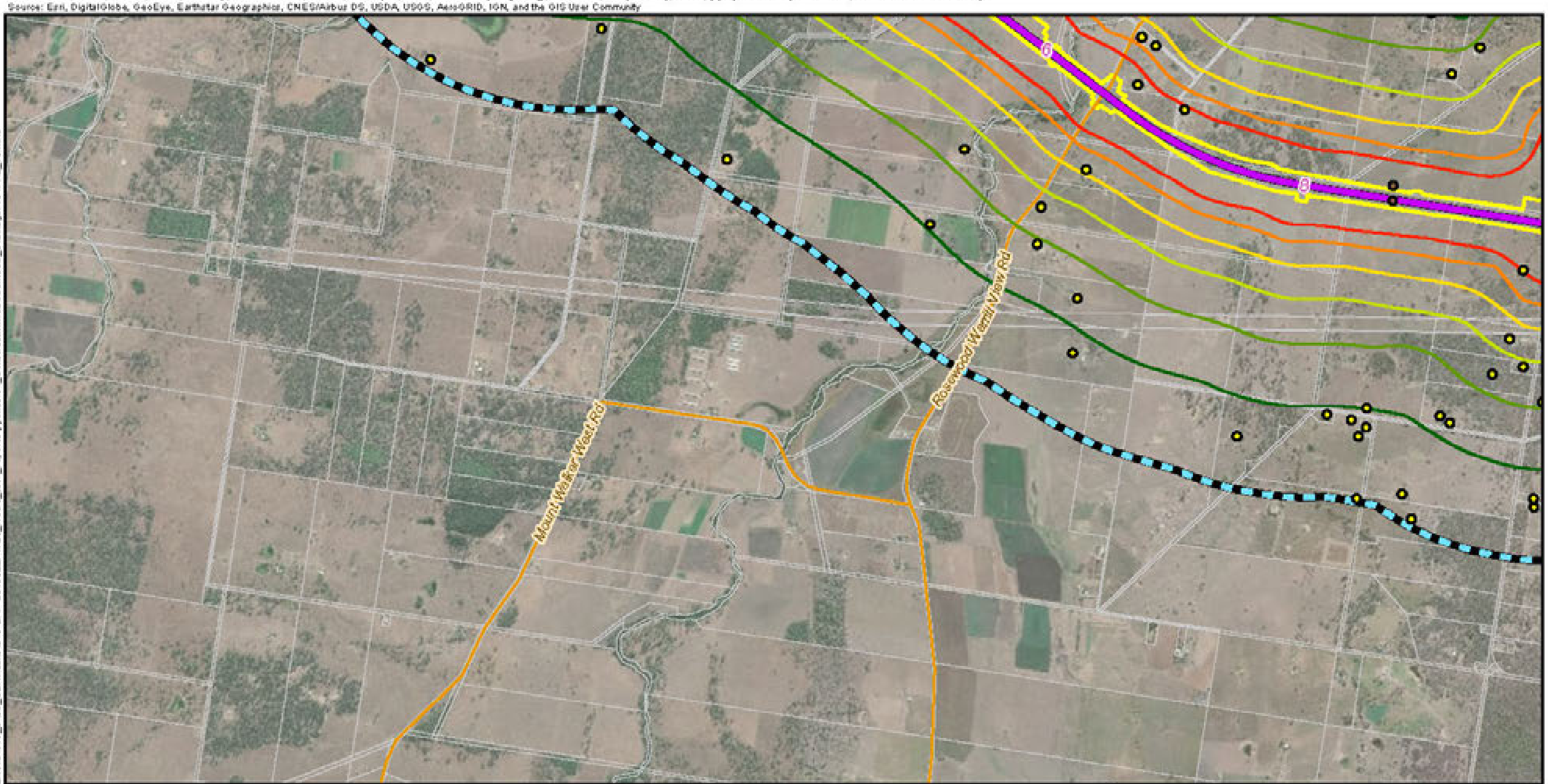
CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT



IR_1381


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood
John St
Rosewood-Laidley Rd
Calvert
Rosewood Warrill View Rd
4
5
6
Legend
5 Chainage (km)
Localities
Existing rail
H2C project alignment
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C1a: Construction Noise Contours: Drainage

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 14:07
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\AppendixC1_ConstructionNoiseContours_DrainageFFJV\AIL_V5.mxd

Legend

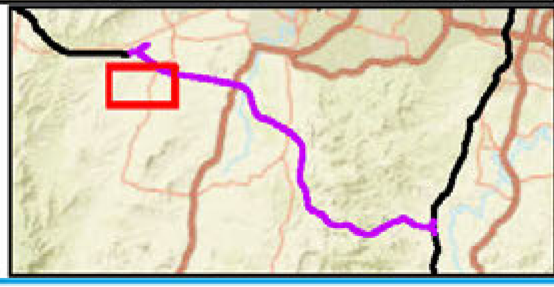
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

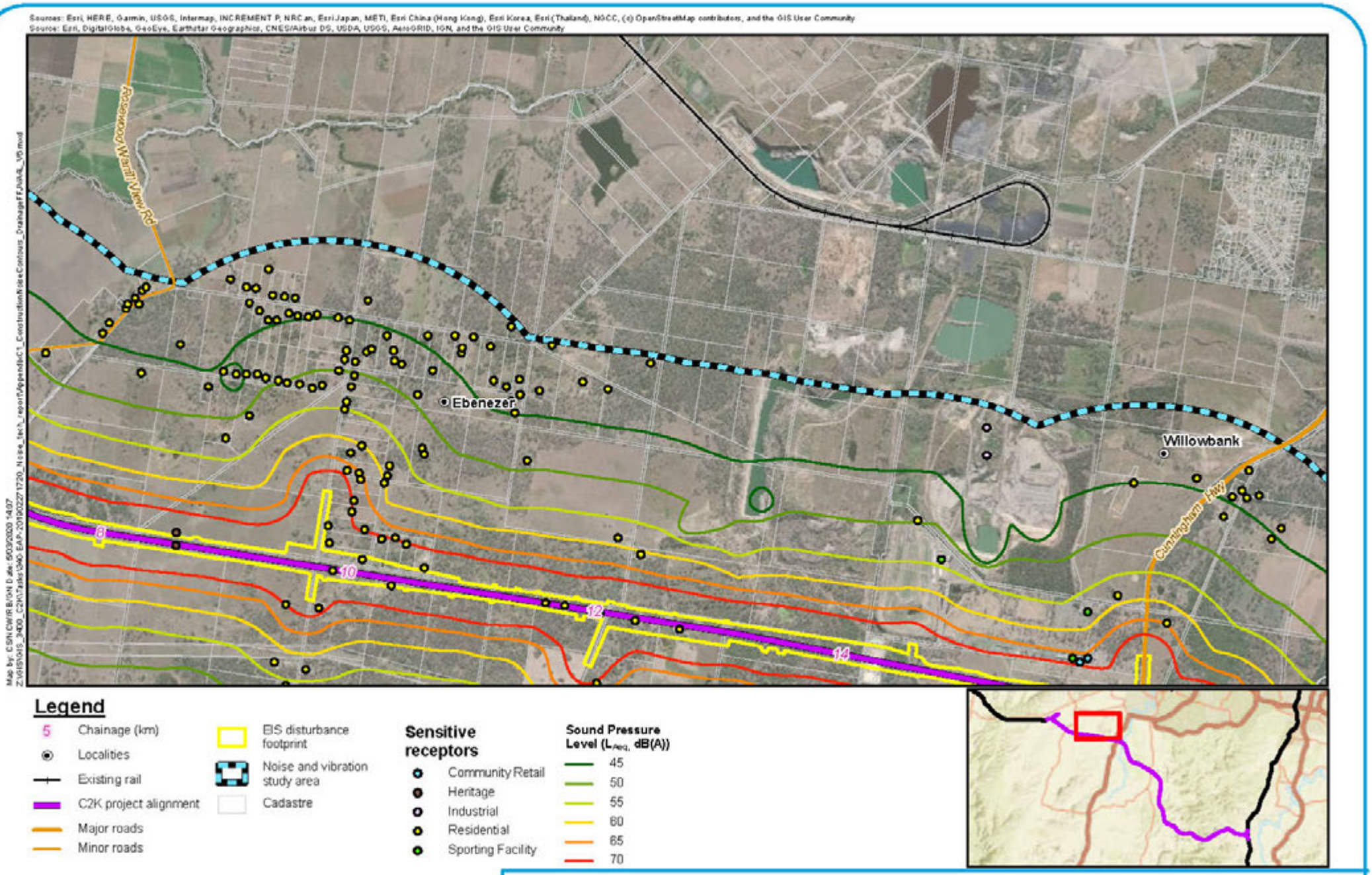
0 0.5 1 1.5 2 2.5 km

Future Freight
Integrating Community, Environment and Engineering

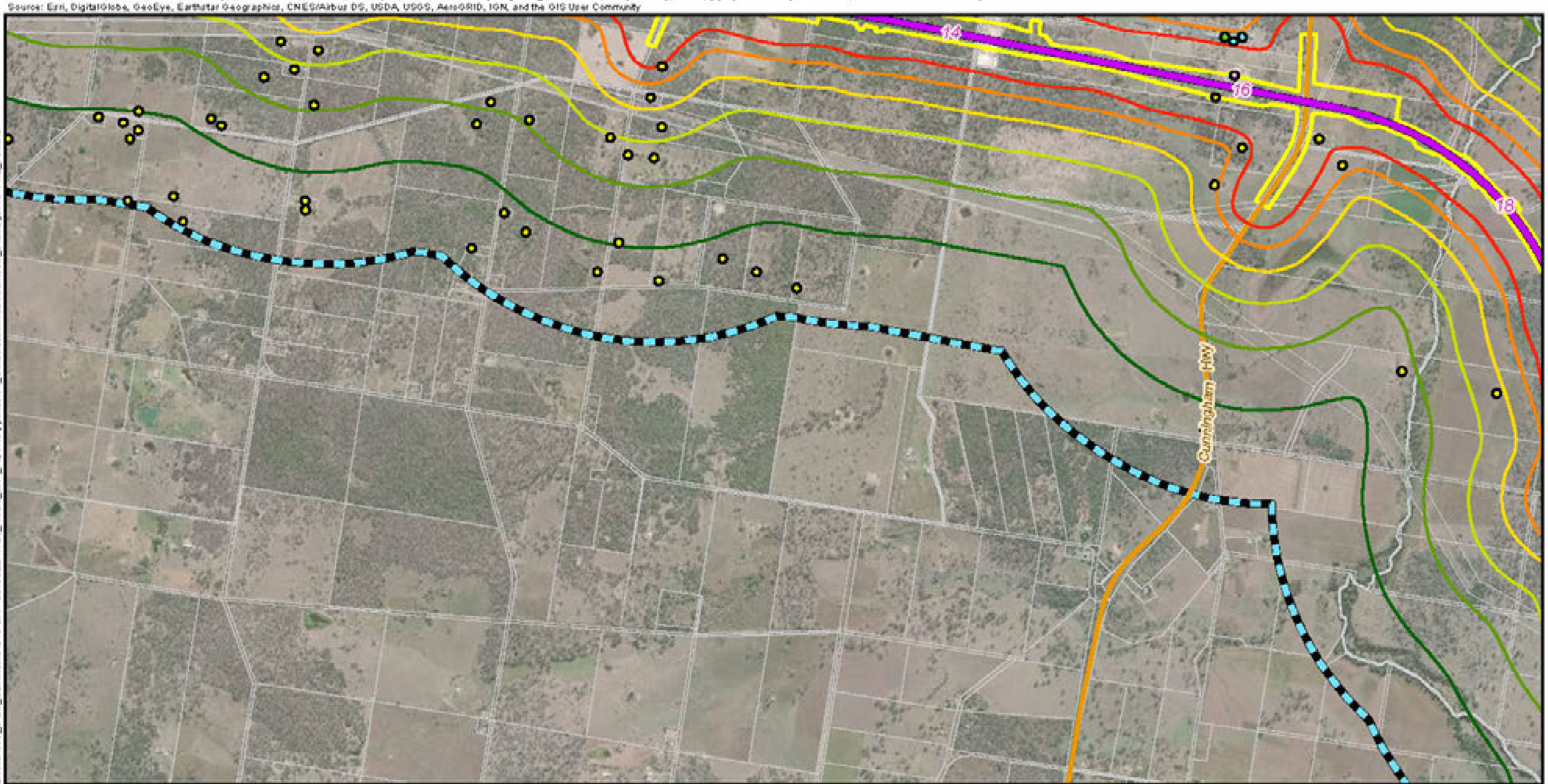
Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1b: Construction Noise Contours: Drainage


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood Warrill View Rd
Ebenezer
Willowbank
Cunningham Hwy
8
10
12
14
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Heritage
Industrial
Residential
Sporting Facility
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C1c: Construction Noise Contours: Drainage

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

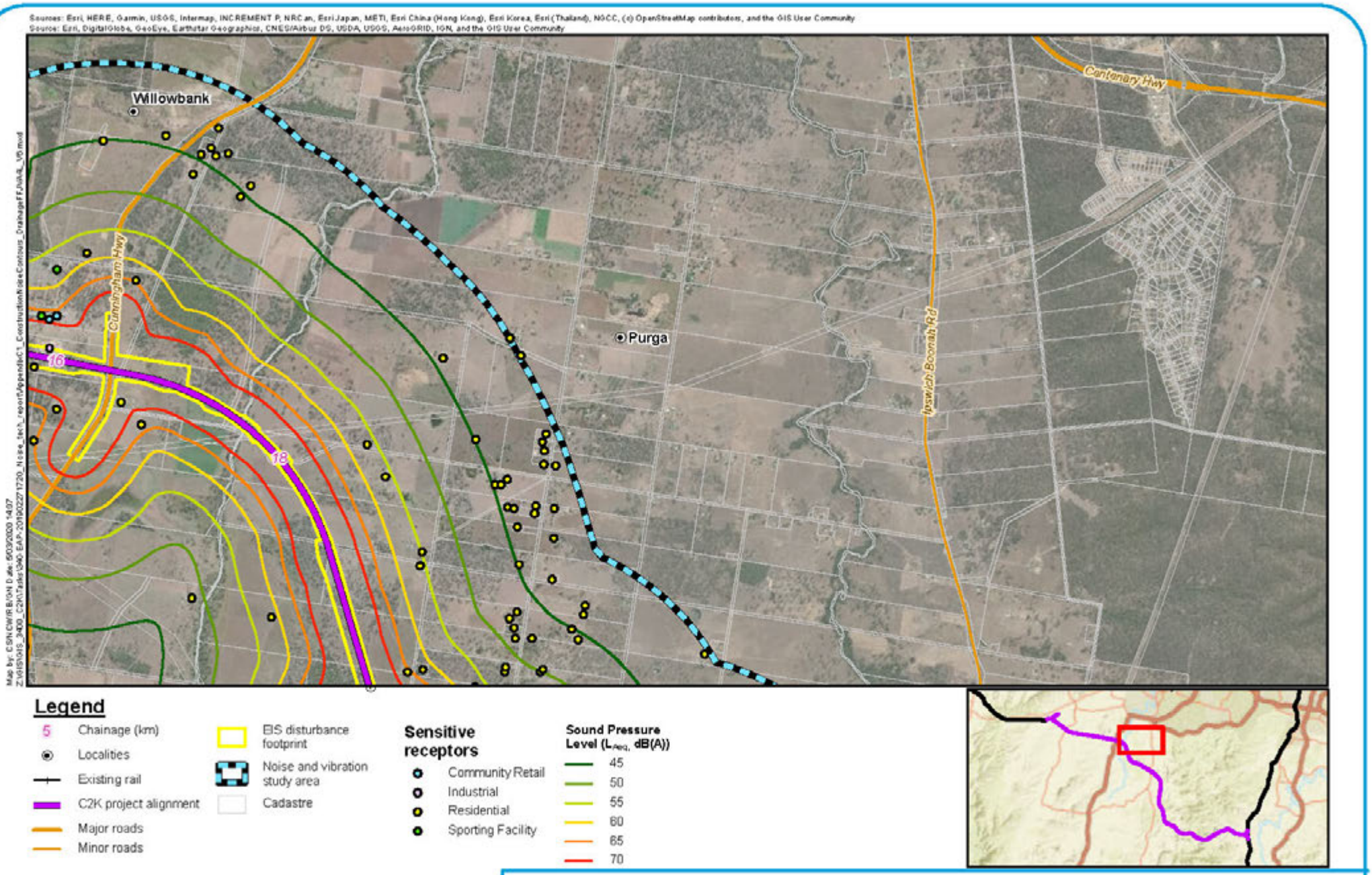
Future Freight

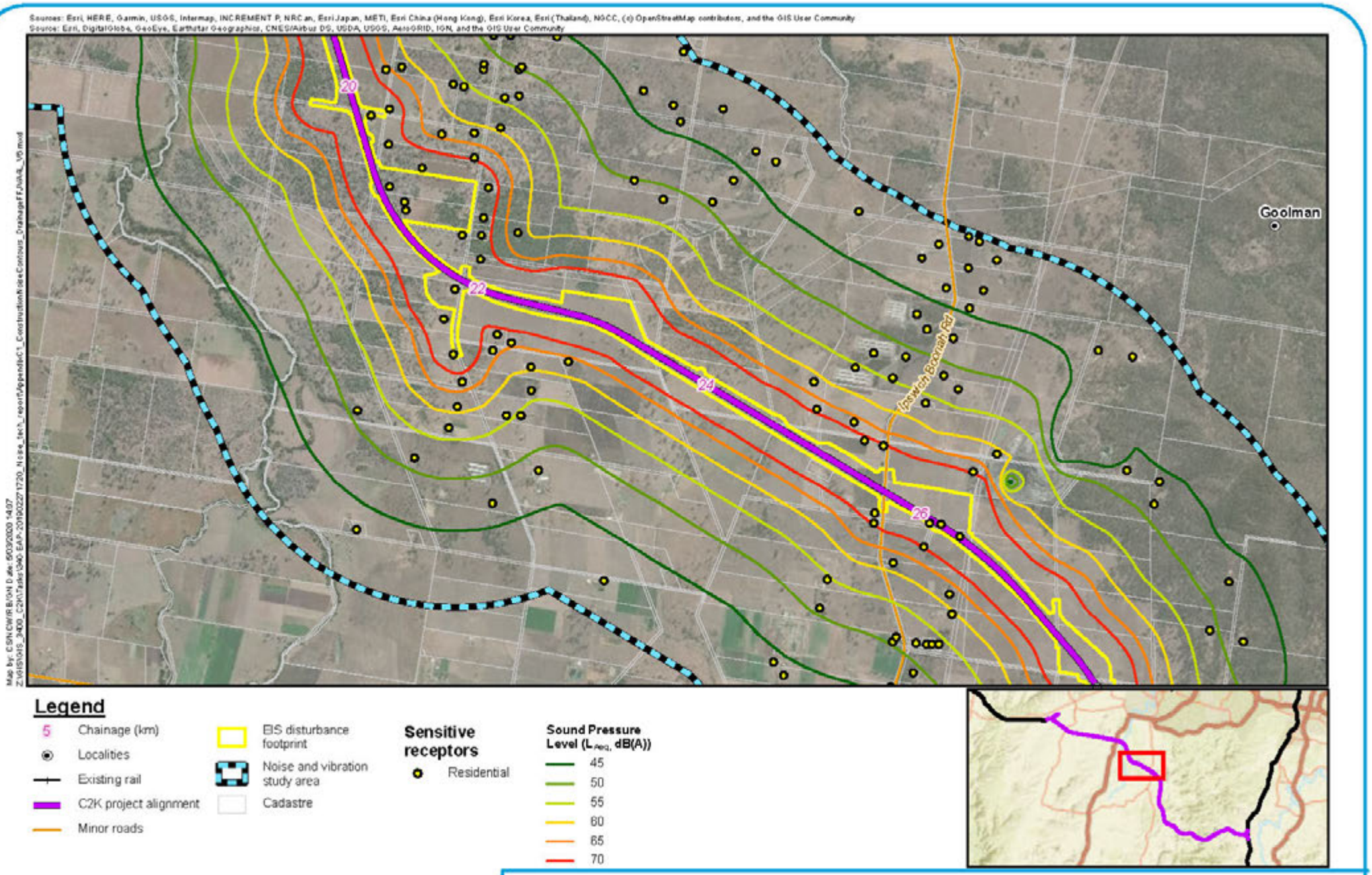
Date: 05/03/2020 Version: 0

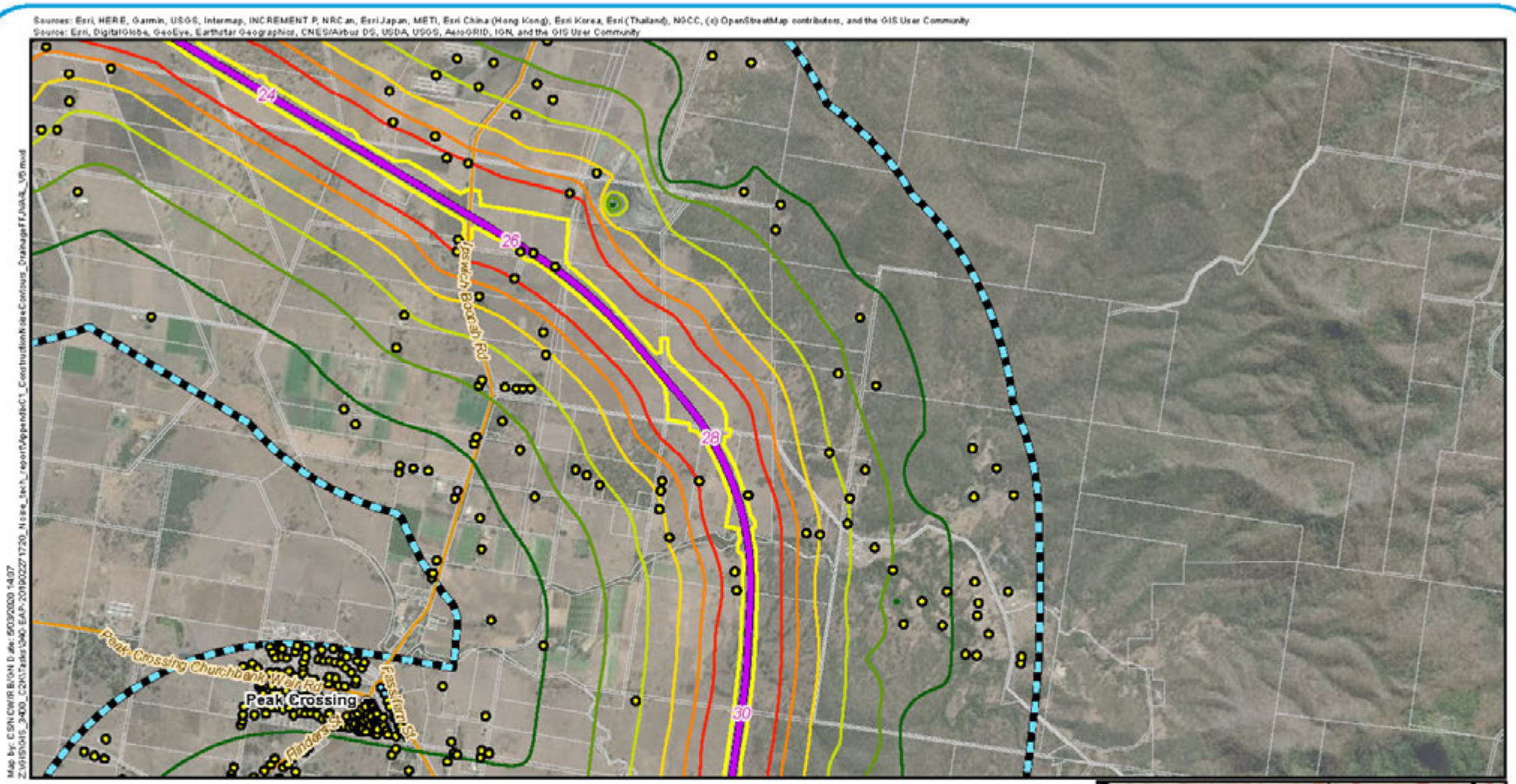
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1d: Construction Noise Contours: Drainage


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Willowbank
Purga
Centenary Hwy
Cunningham Hwy
Warrego Bicentennial Hwy
16
18
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Industrial
Residential
Sporting Facility
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C1e: Construction Noise Contours: Drainage


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Goolman
Ipswich Boonah Rd
20
22
24
26
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Residential
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C1f: Construction Noise Contours: Drainage



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

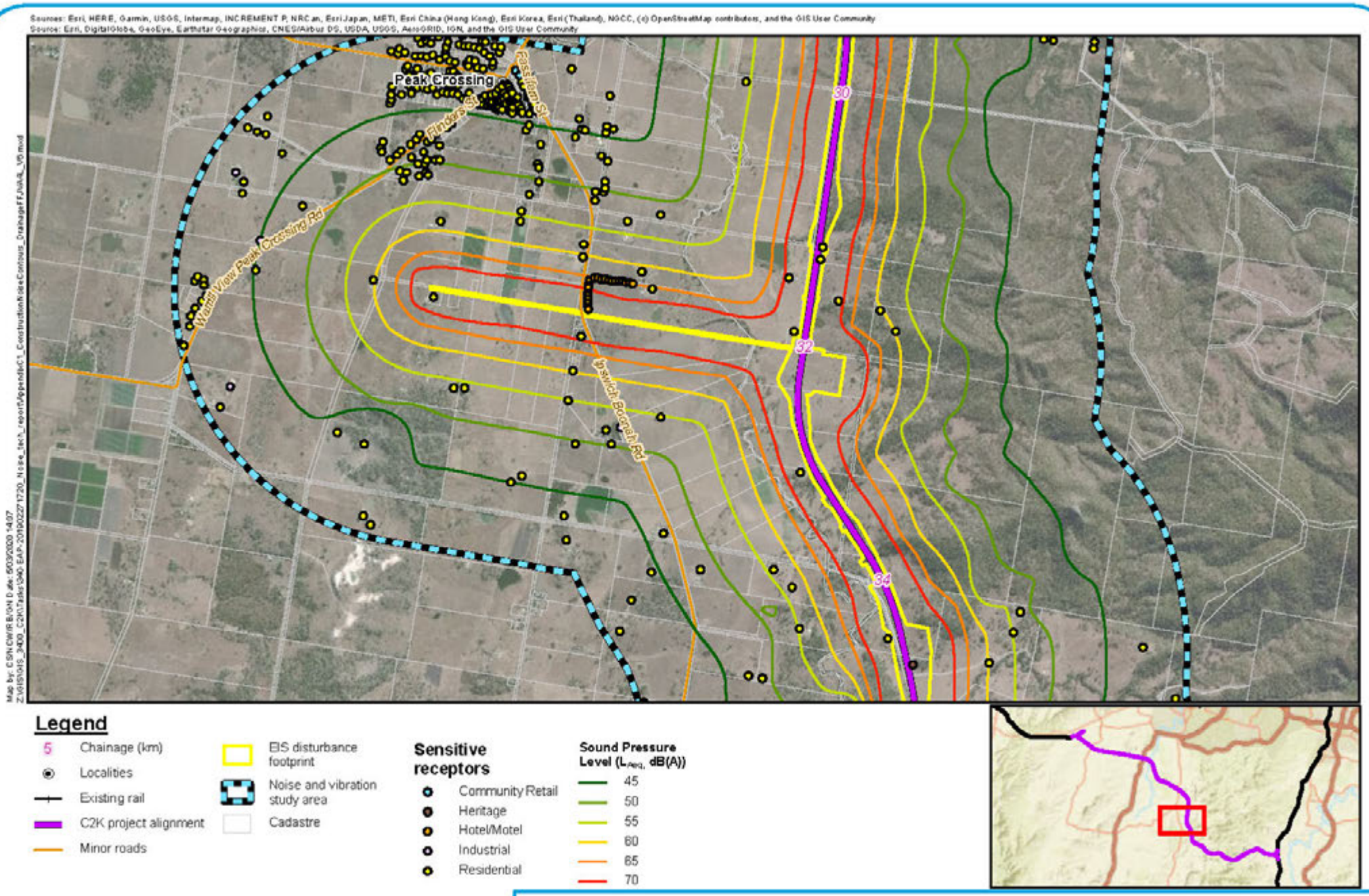
Future Freight

Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1g: Construction Noise Contours: Drainage



Legend

- 5 — Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Heritage
- Hotel/Motel
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

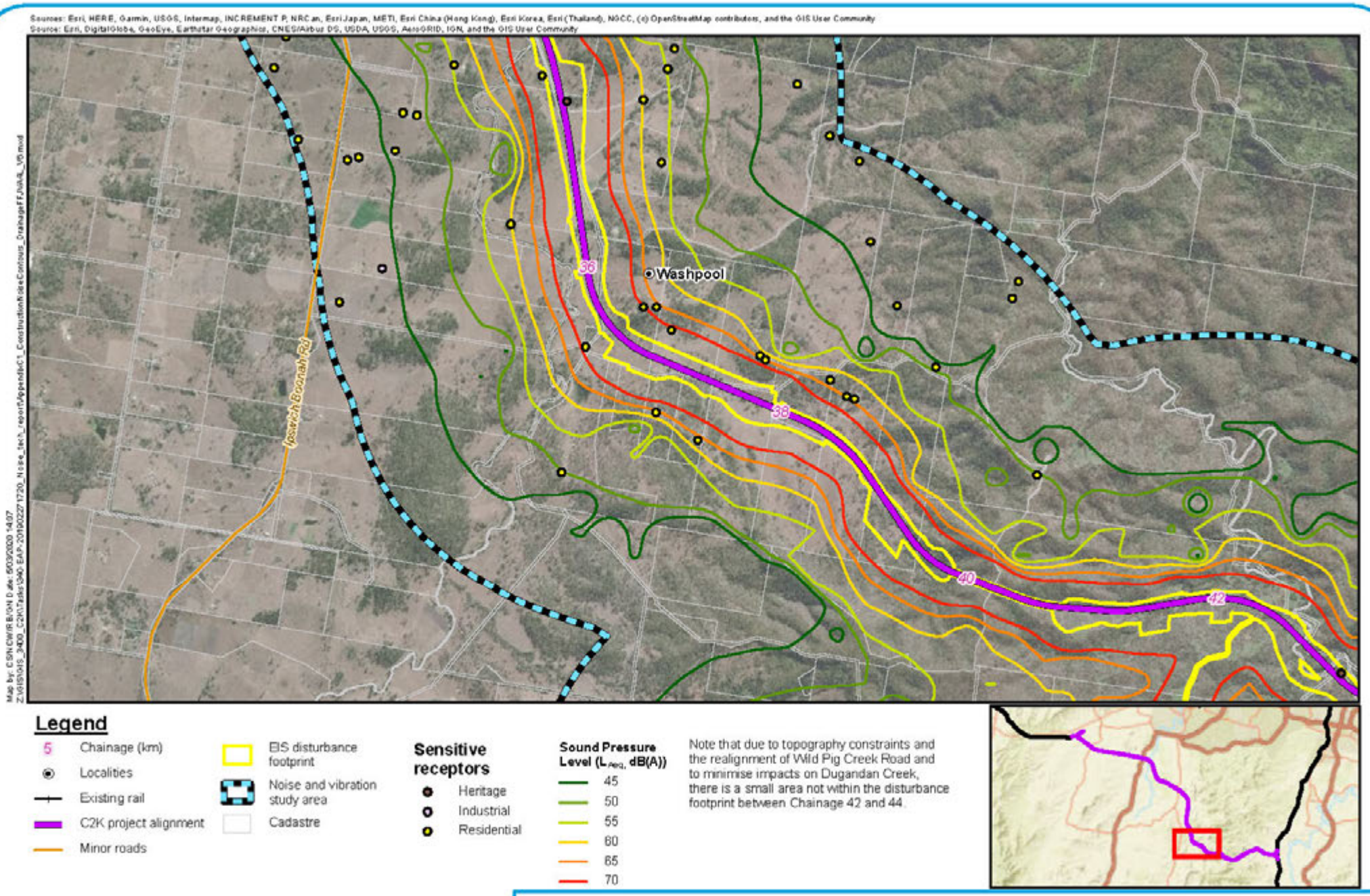
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1h: Construction Noise Contours: Drainage



Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

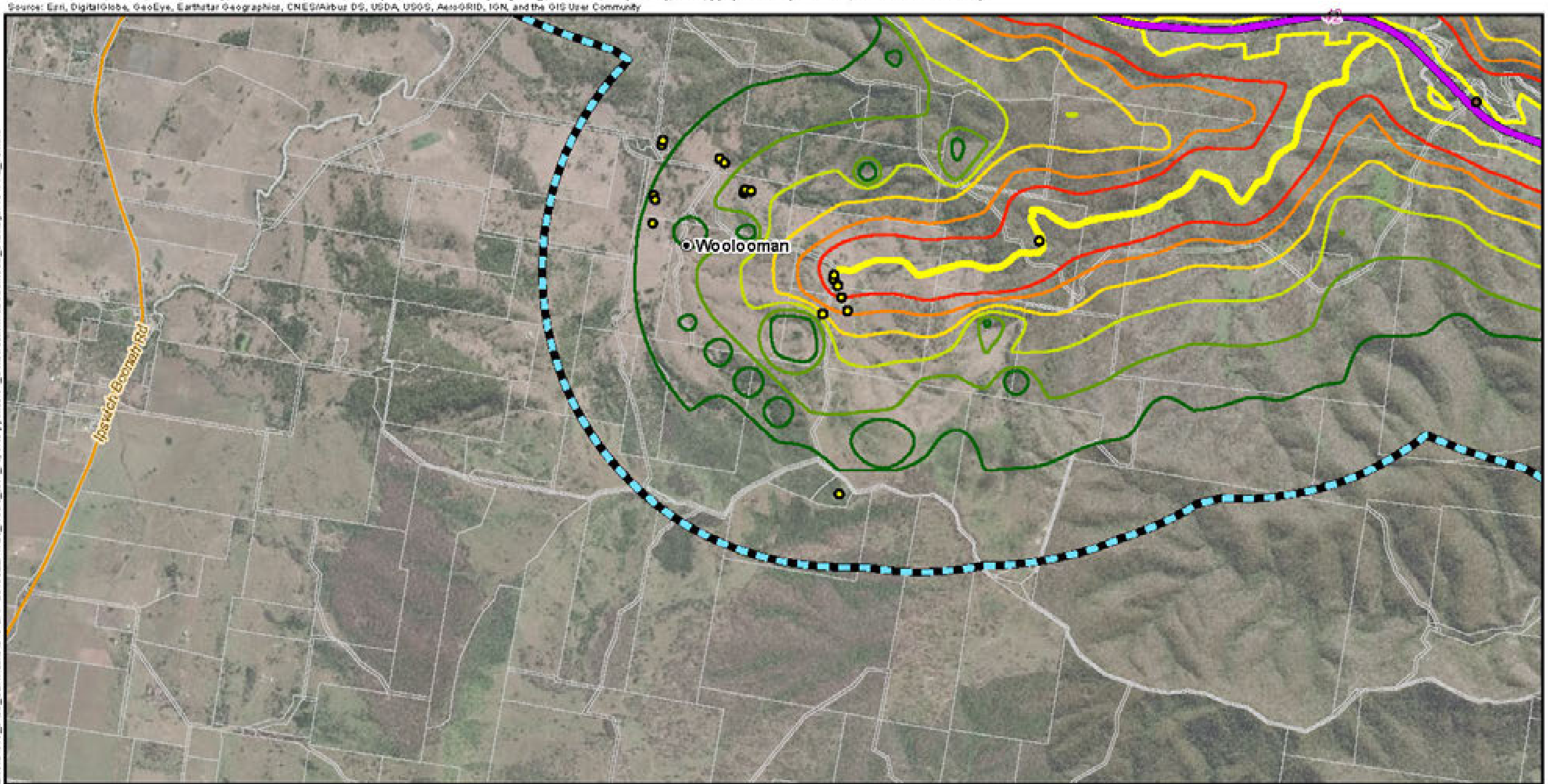
Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1i: Construction Noise Contours: Drainage

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 14:07

Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1j: Construction Noise Contours: Drainage

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map by: CSN/CW/RB/GN Date: 5/03/2020 14:07
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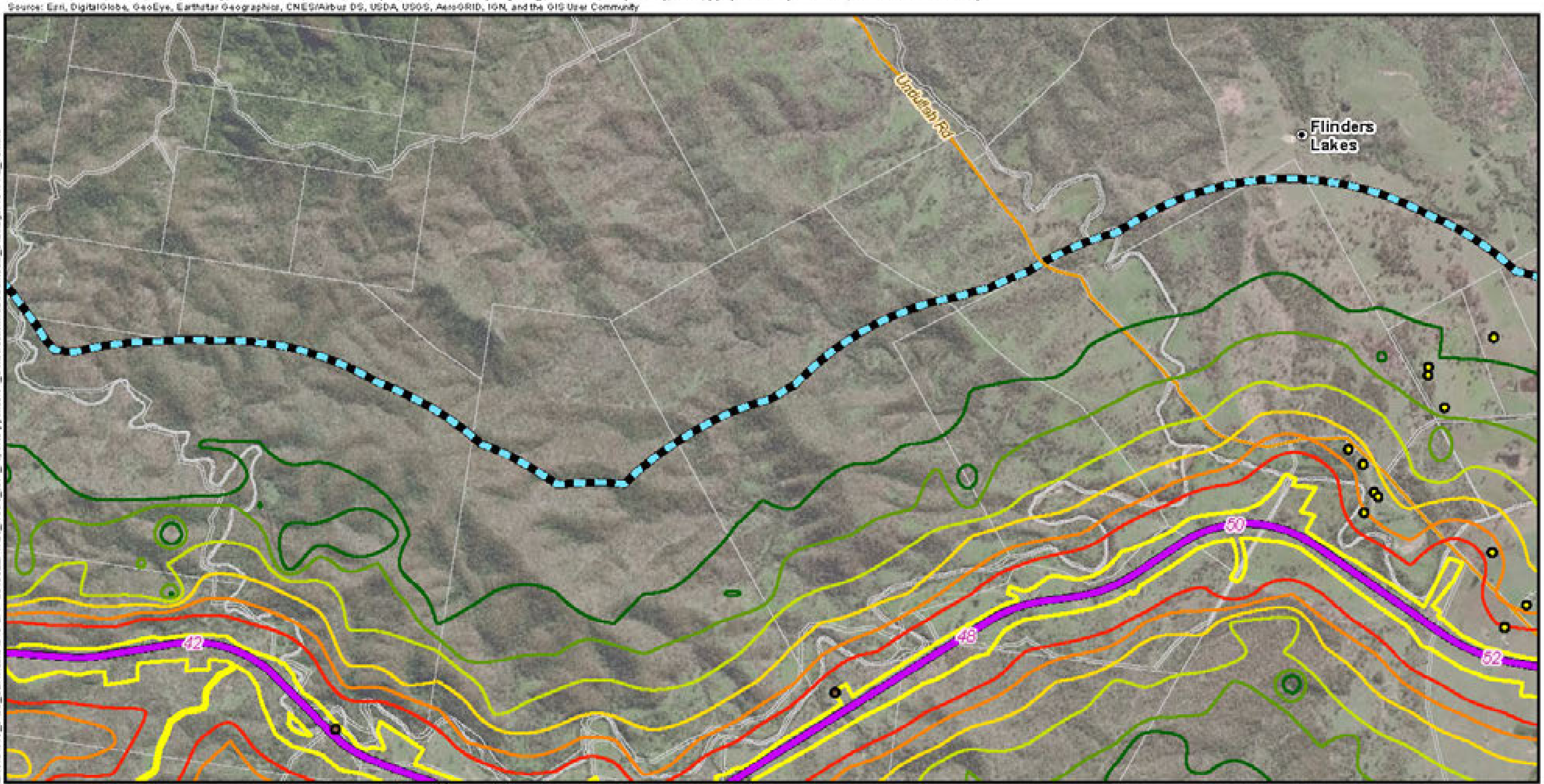


Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

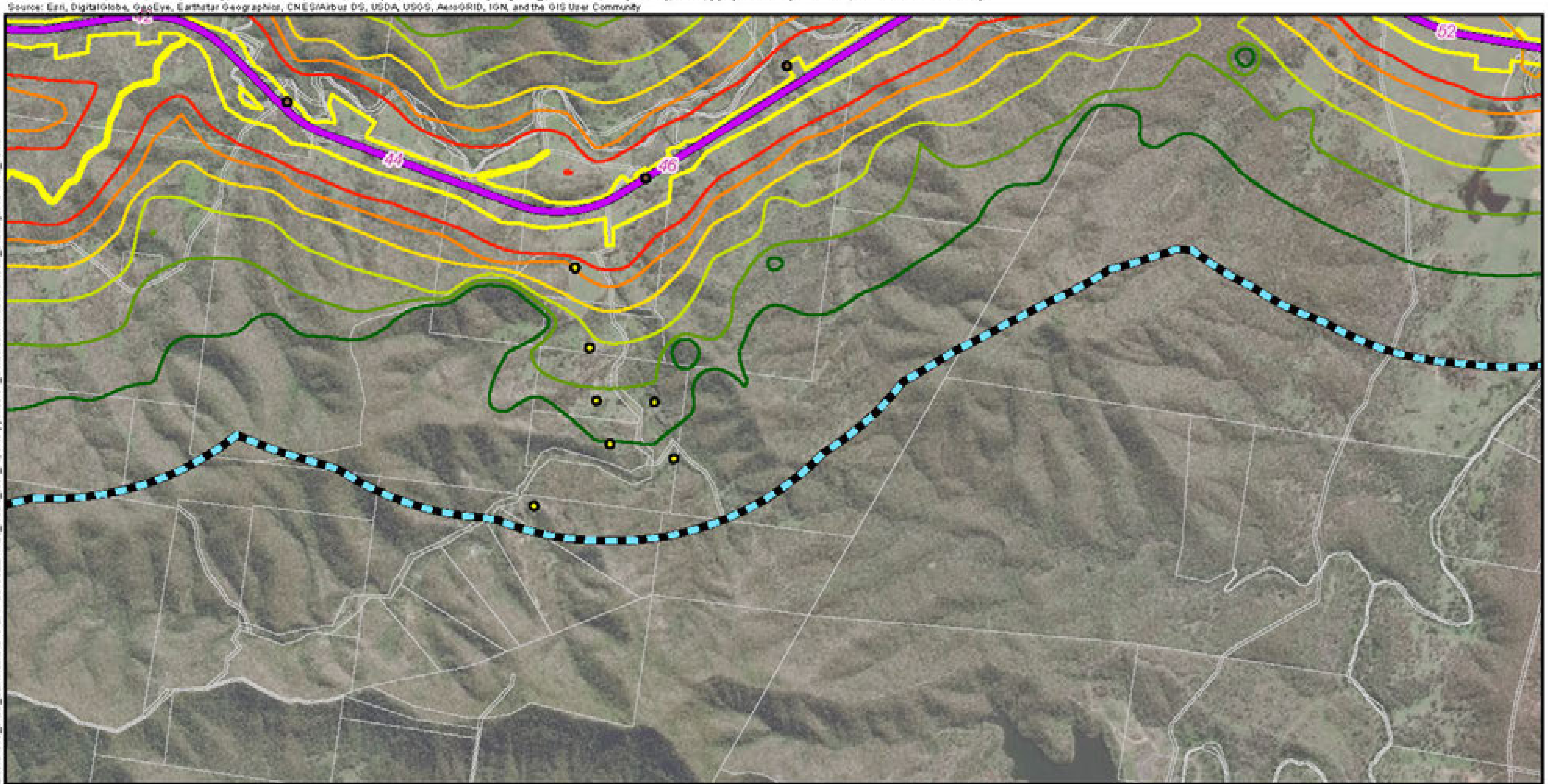
Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1k: Construction Noise Contours: Drainage

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 14:07
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Legend

5	Chainage (km)
⊙	Localities
	Existing rail
	C2K project alignment
	Minor roads
	EIS disturbance footprint
	Noise and vibration study area
	Cadastre

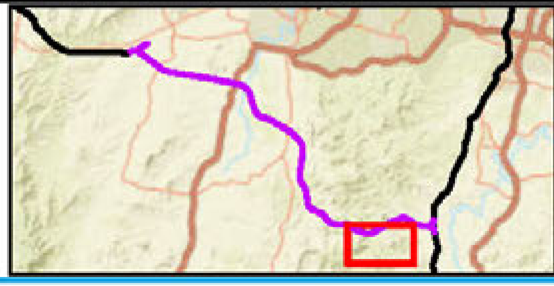
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

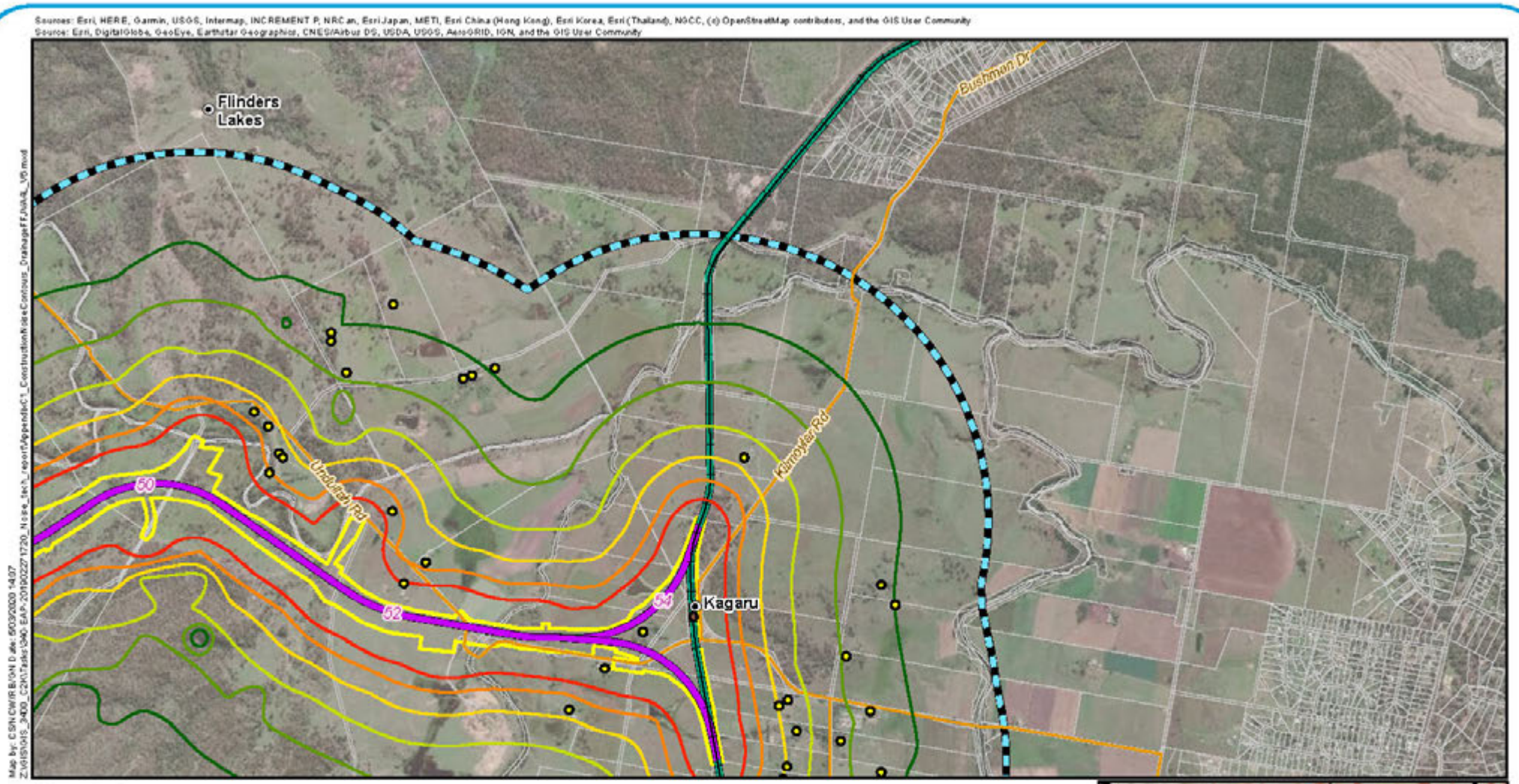
0 0.5 1 1.5 2 2.5 km

Future Freight
Integrating Community, Environment and Engineering

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1I: Construction Noise Contours: Drainage



Legend

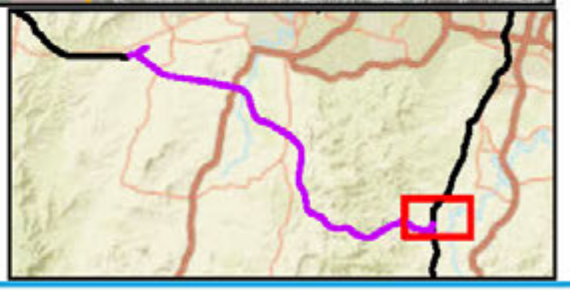
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

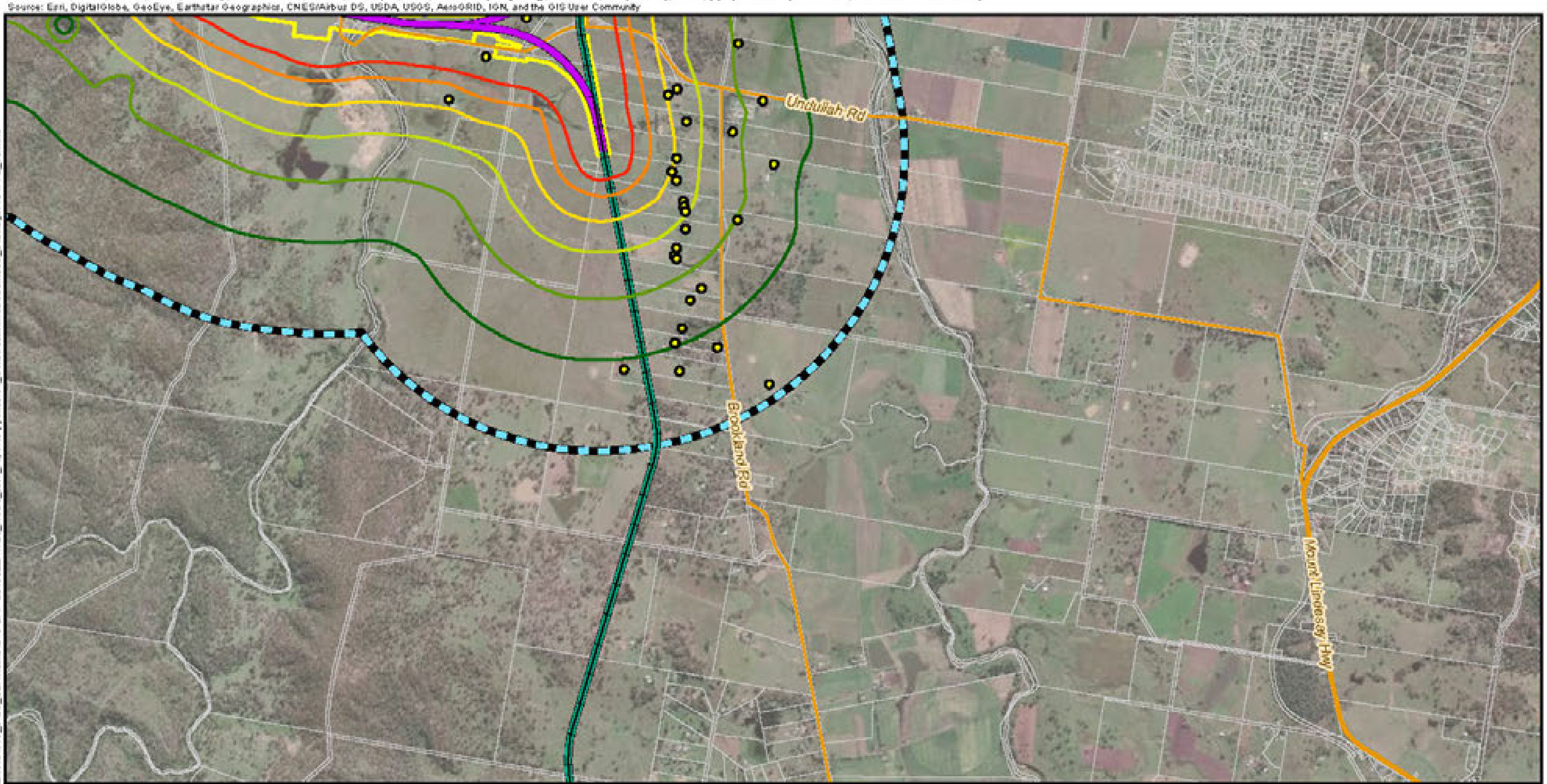
Future Freight

Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1m: Construction Noise Contours: Drainage



Map by: CSN/CW/RB/GN Date: 5/03/2020 14:07
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix C1_ConstructionNoiseContours_DrainageFF\JWAL_V5.mxd

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

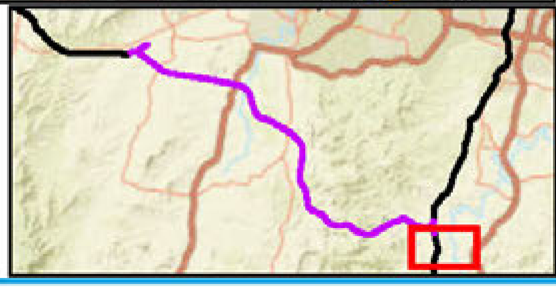
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

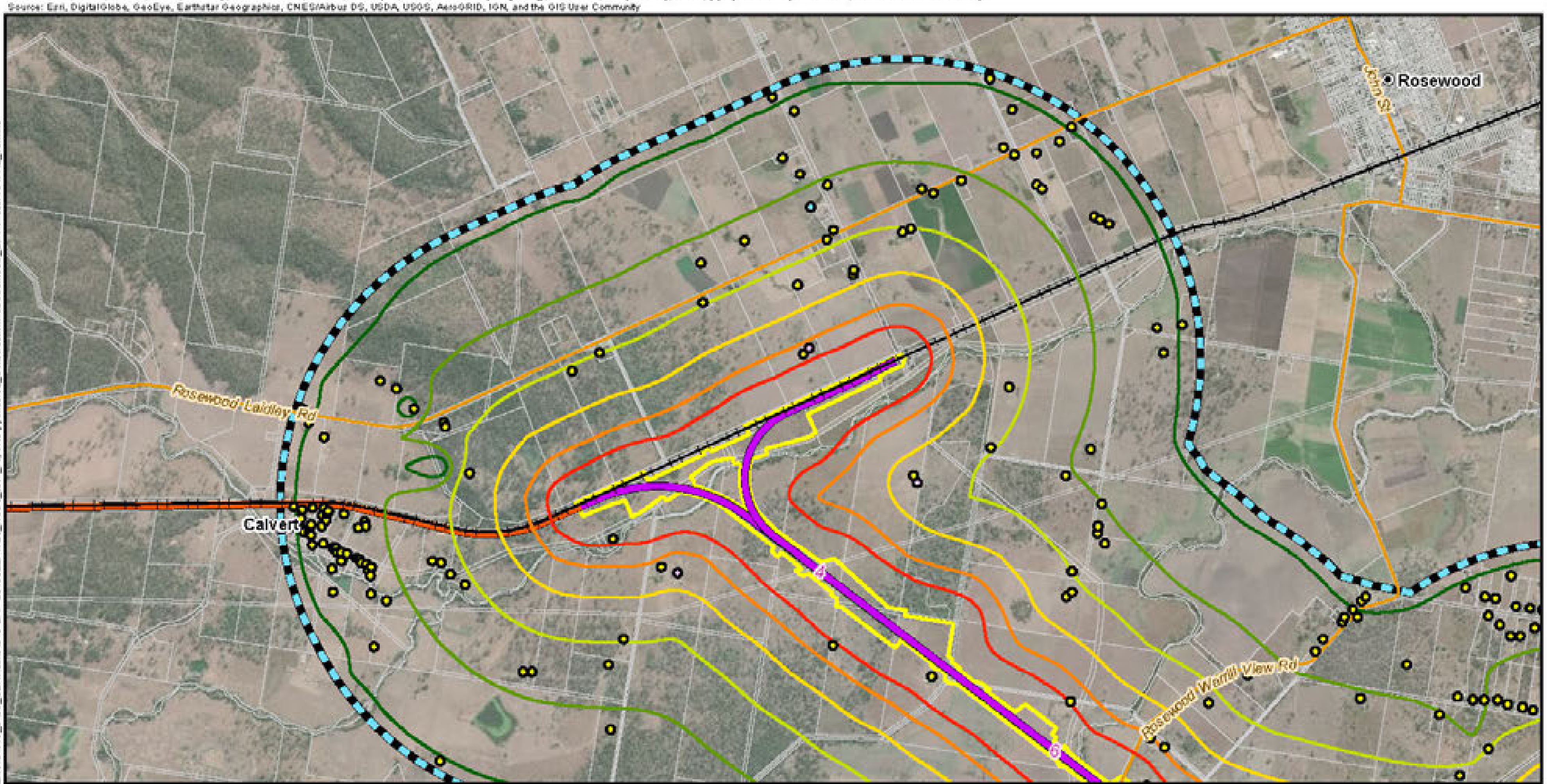


Future Freight
Integrating Community, Environment and Engineering

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C1n: Construction Noise Contours: Drainage



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- H2C project alignment
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

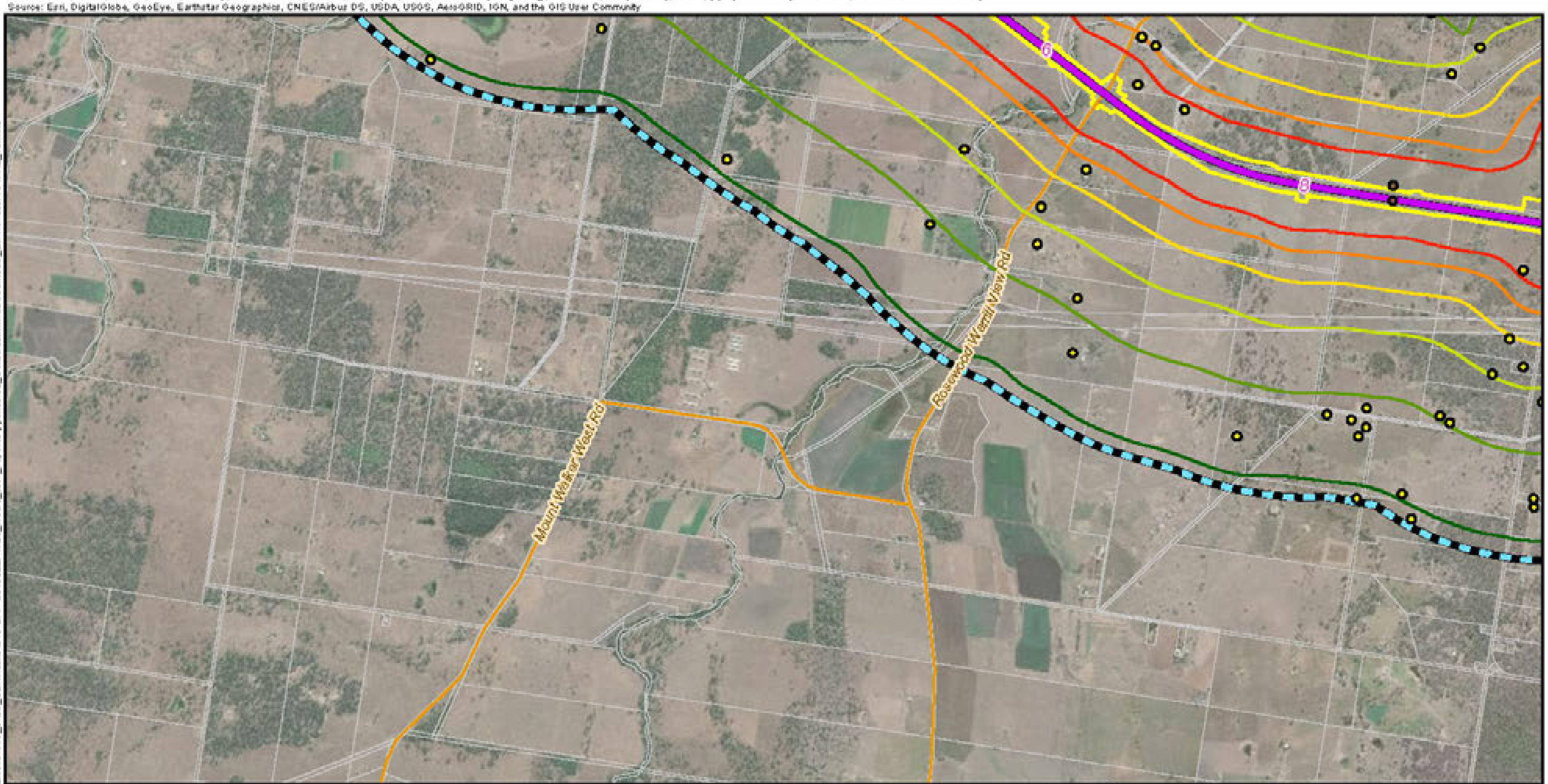
Date: 05/03/2020 Version: 6

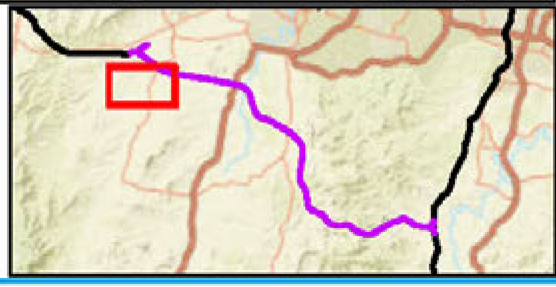
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2a: Construction Noise Contours: Earthworks (Non-standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

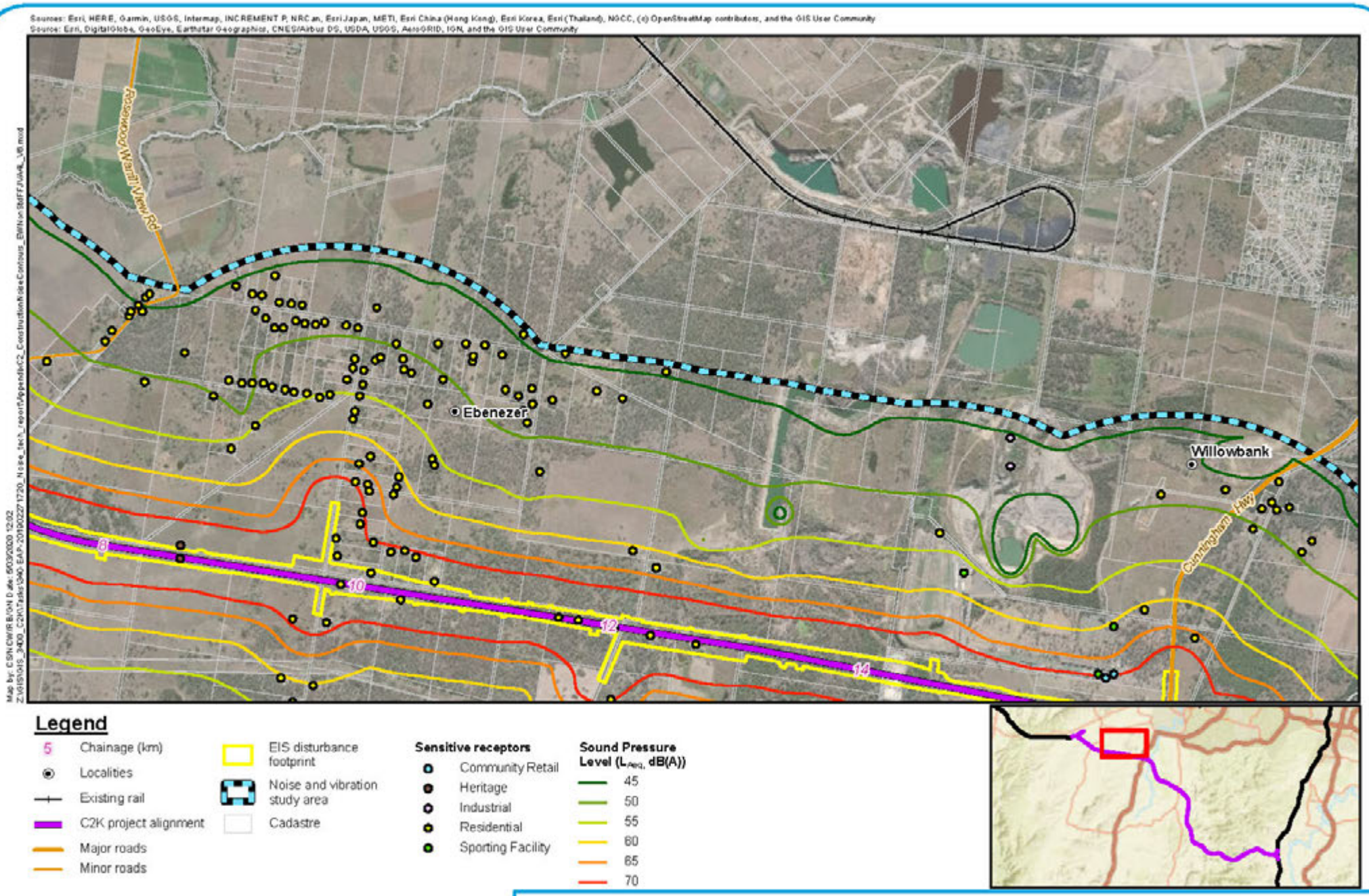
Future Freight

Date: 05/03/2020 Version: 6

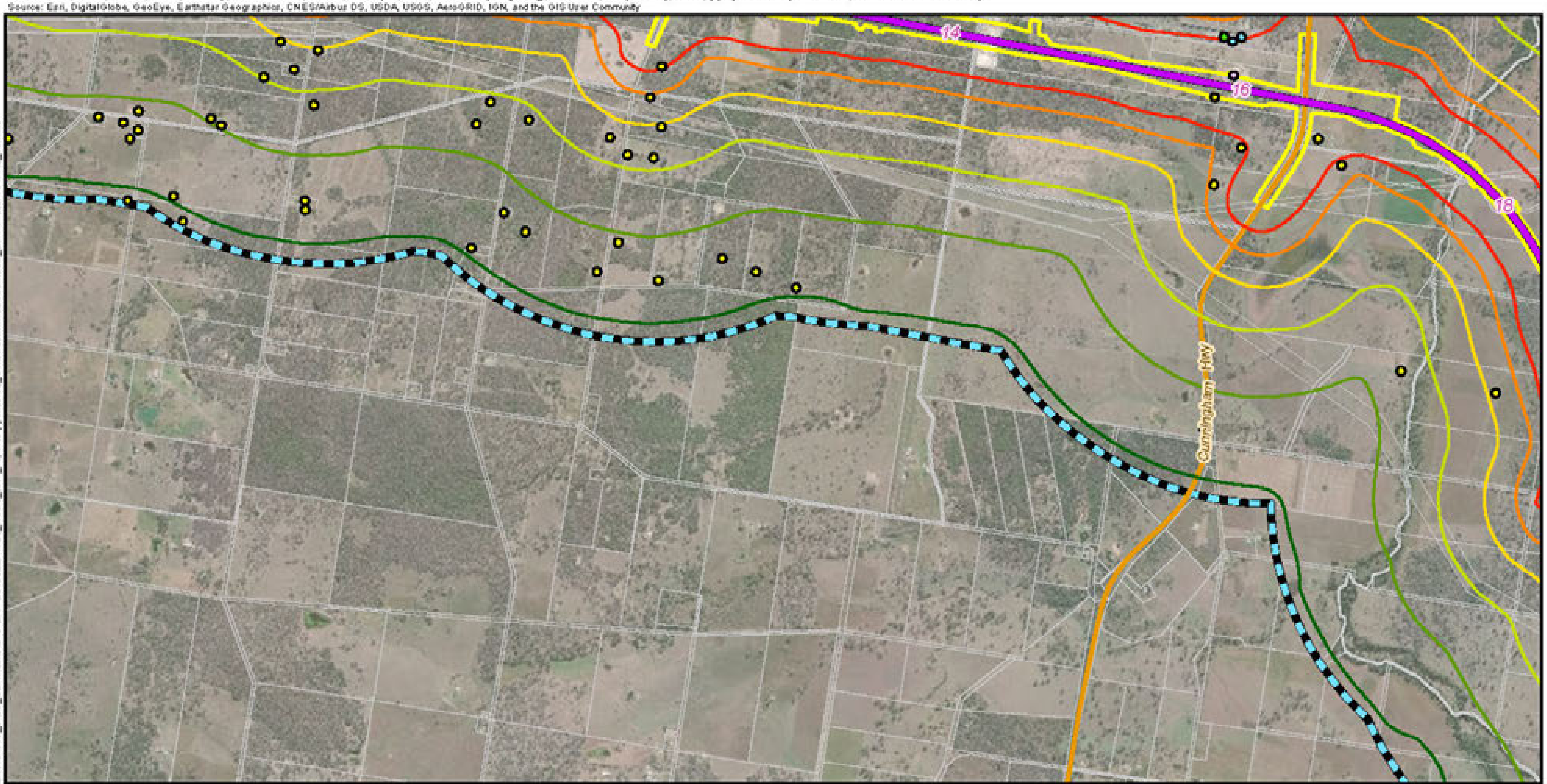
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2b: Construction Noise Contours: Earthworks (Non-standard hours)


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood Warrill View Rd
Ebenezer
Willowbank
Cunningham Hwy
8
10
12
14
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Heritage
Industrial
Residential
Sporting Facility
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0
0.5
1
1.5
2
2.5
km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C2c: Construction Noise Contours: Earthworks (Non-standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

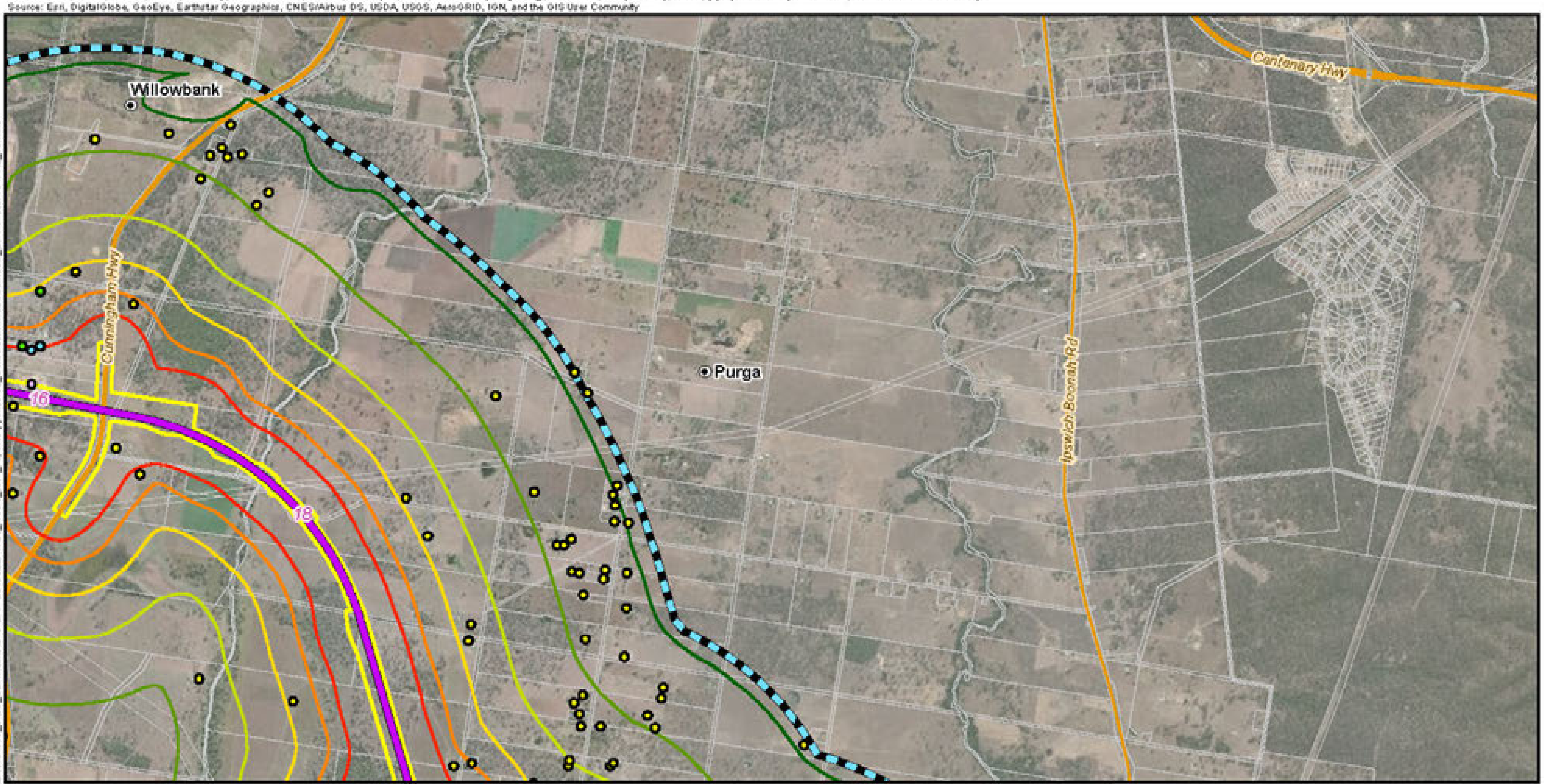
Date: 05/03/2020 Version: 6

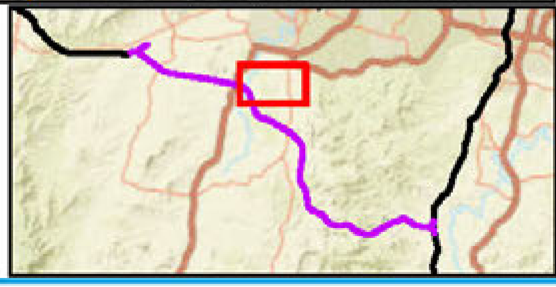
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2d: Construction Noise Contours: Earthworks (Non-standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

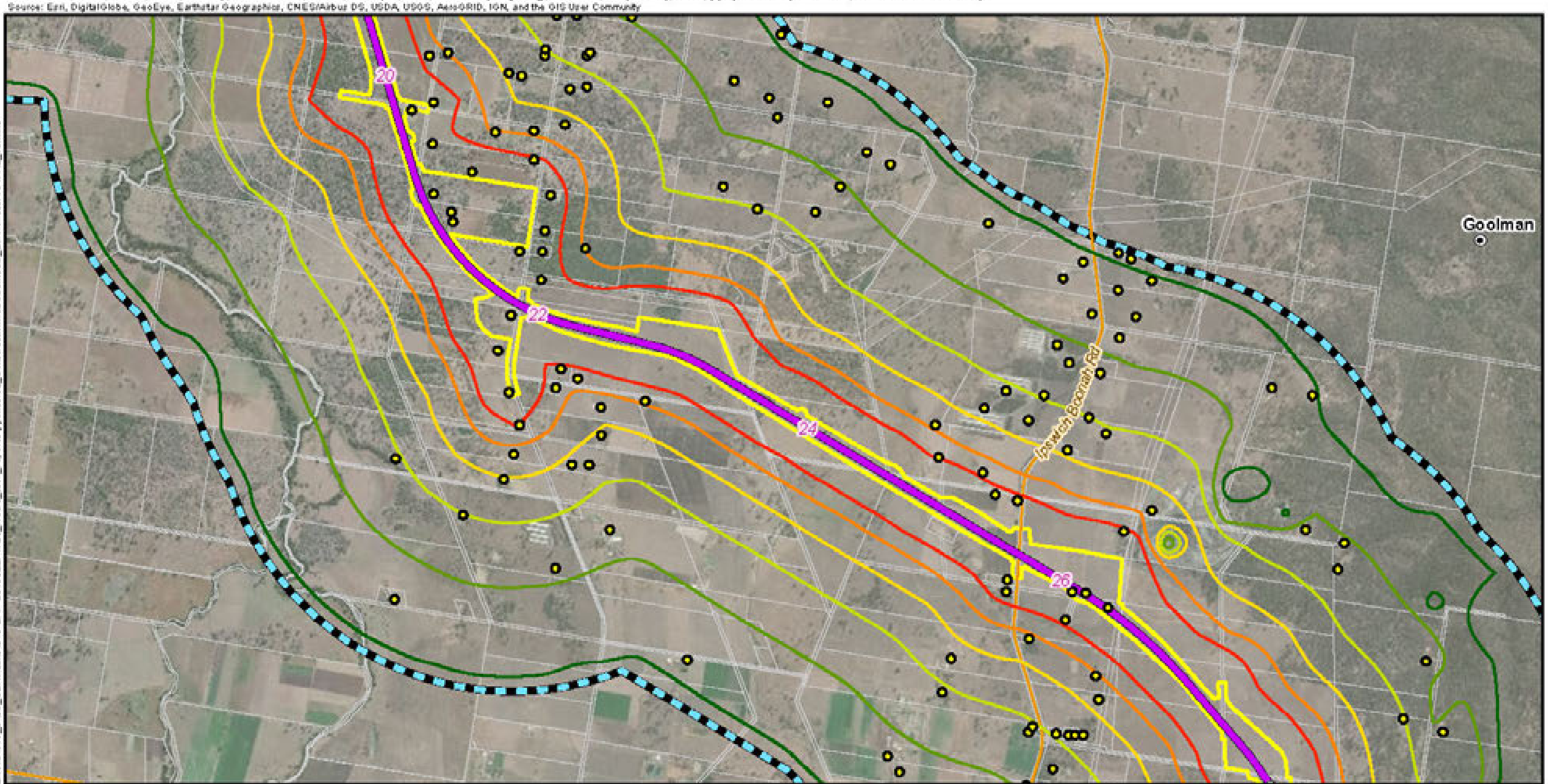
Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2e: Construction Noise Contours: Earthworks (Non-standard hours)



Map by: CSN/CW/RB/GN Date: 5/03/2020 12:02
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix C2_ConstructionNoiseContours_EWNonStdFF\NAML_V8.mxd

Legend

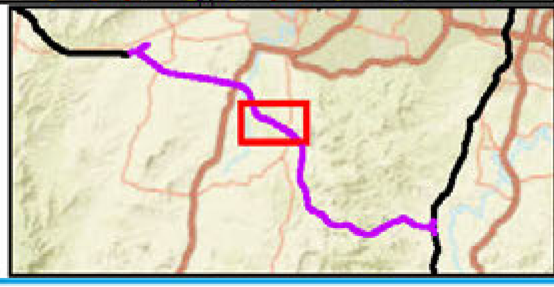
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

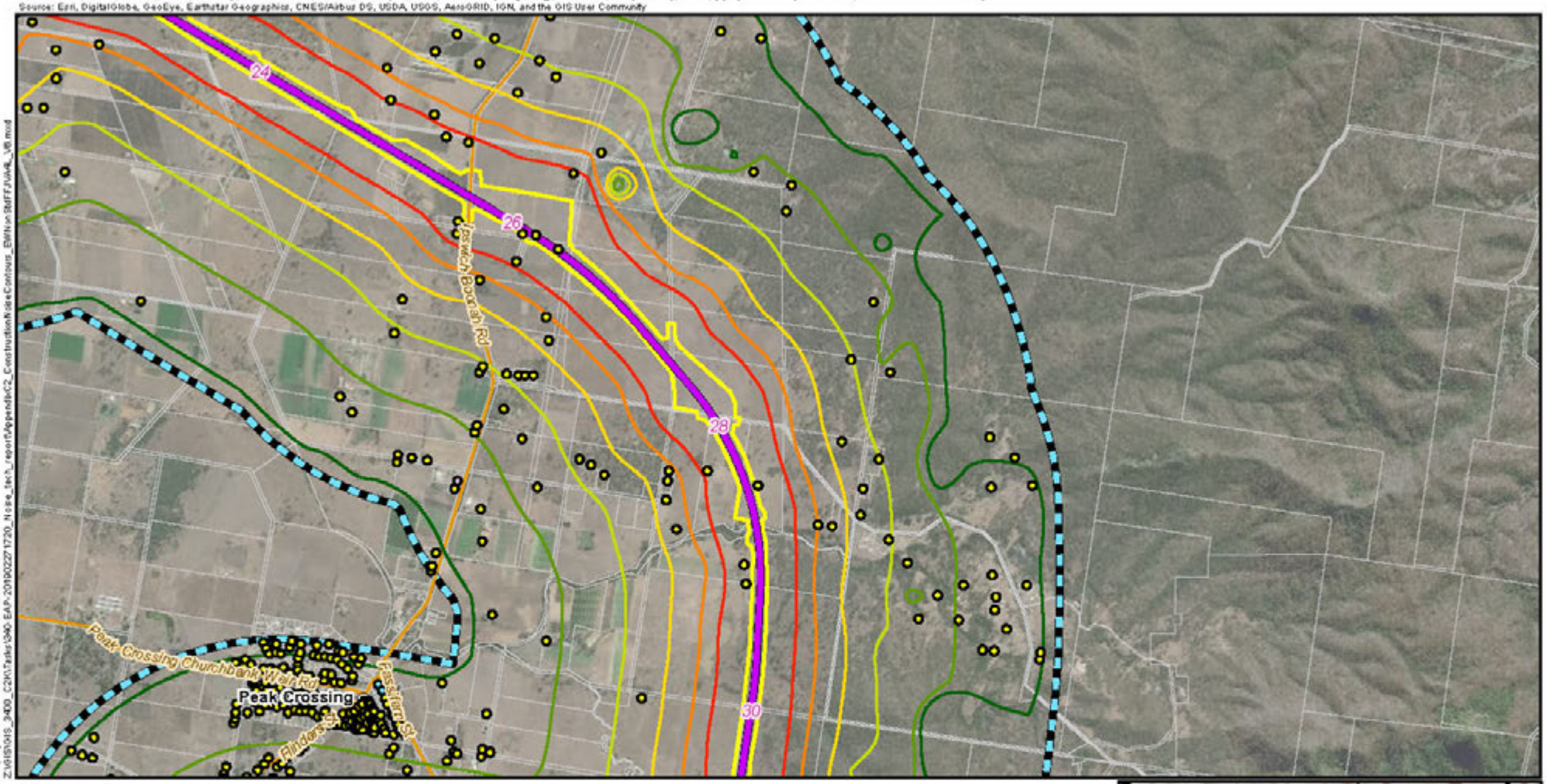
0 0.5 1 1.5 2 2.5 km

Future Freight
Integrating Community, Environment and Engineering

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2f: Construction Noise Contours: Earthworks (Non-standard hours)



Legend

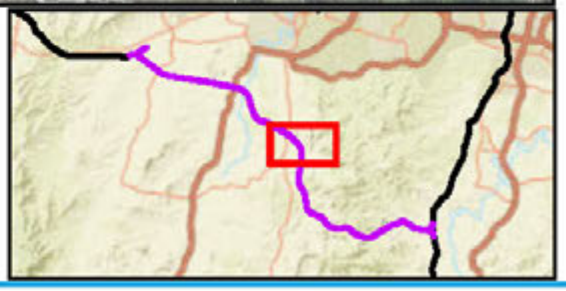
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

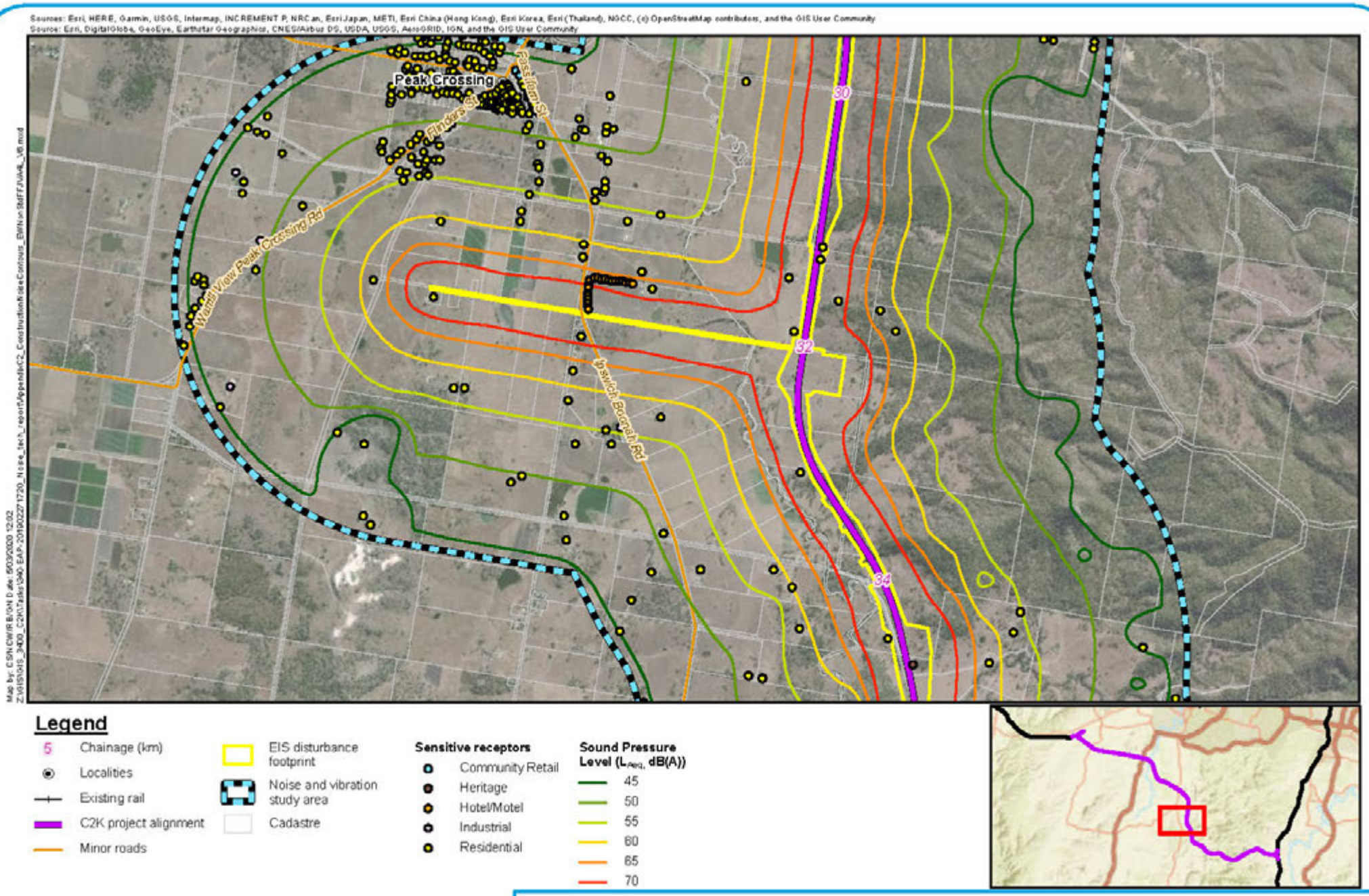
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2g: Construction Noise Contours: Earthworks (Non-standard hours)



Legend

- 5 — Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Heritage
- Hotel/Motel
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0

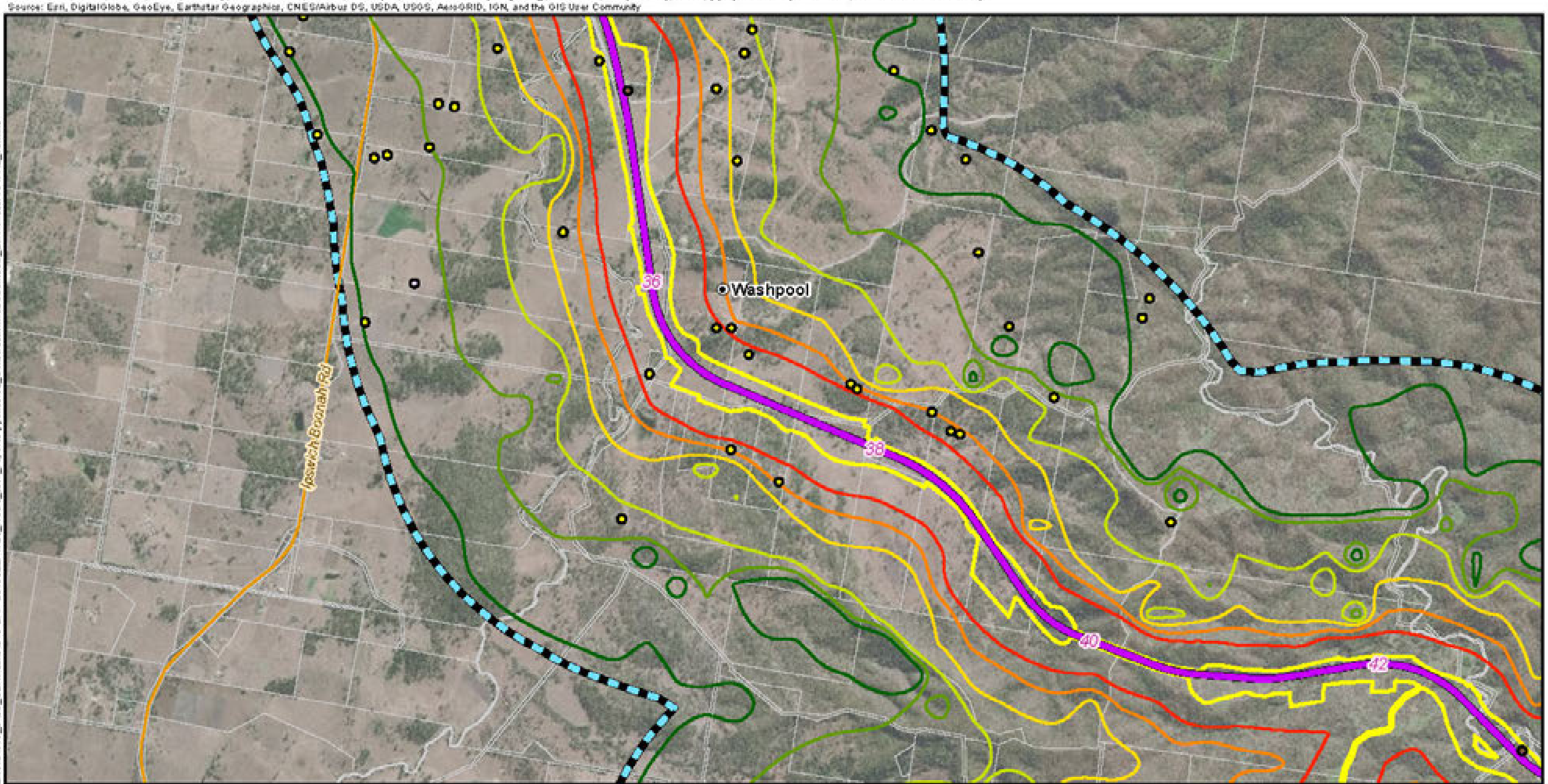
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2h: Construction Noise Contours: Earthworks (Non-standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map by: CSN CW/RB/GN Date: 5/03/2020 12:02
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix C2_ConstructionNoiseContours_EWNonStdHFF\NA4L_V6.mxd



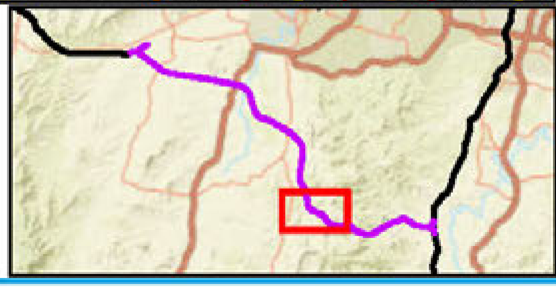
Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors
- Heritage
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

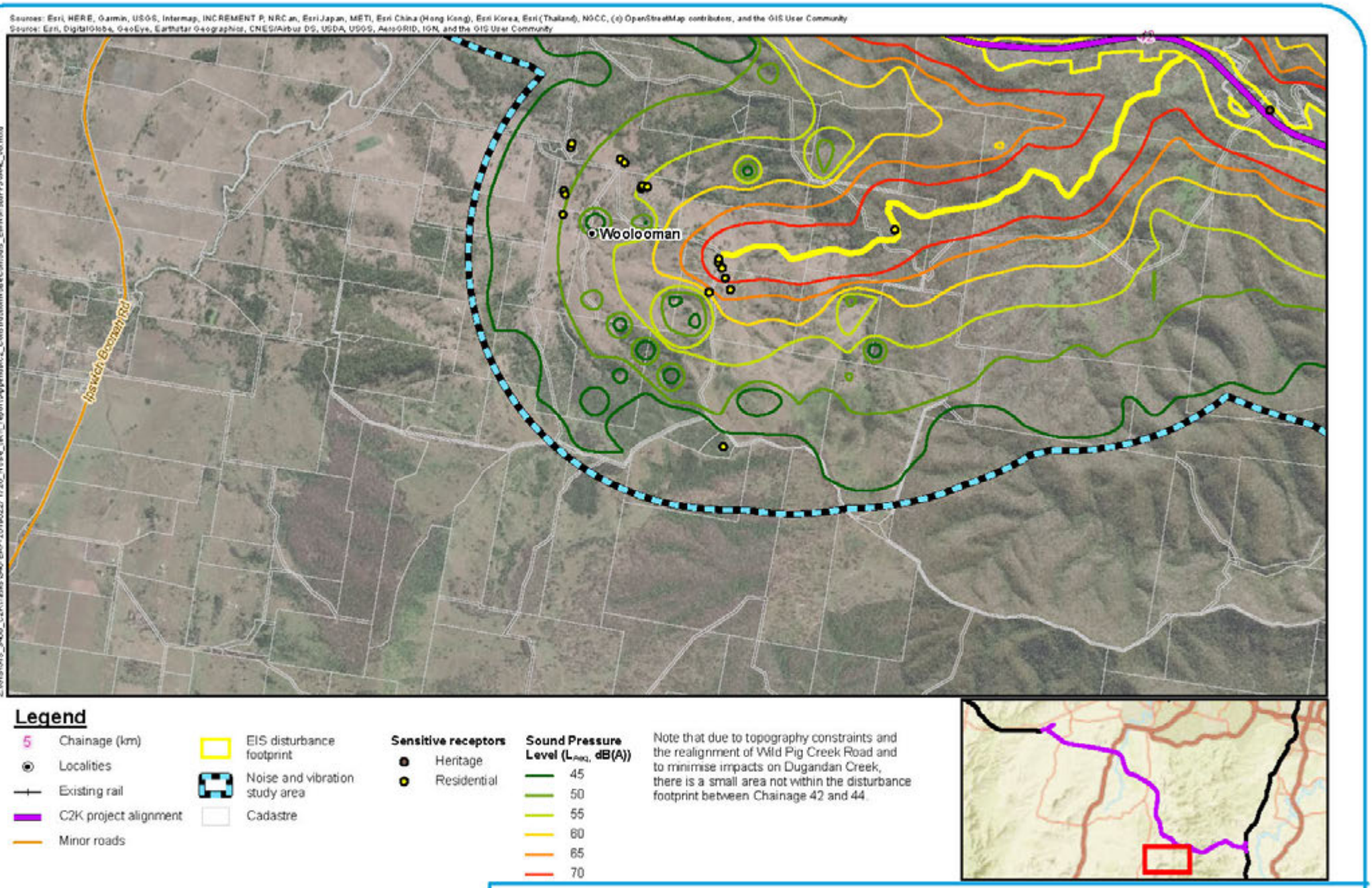
0 0.5 1 1.5 2 2.5 km

Future Freight
Integrating Community, Environment and Engineering

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2i: Construction Noise Contours: Earthworks (Non-standard hours)



Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

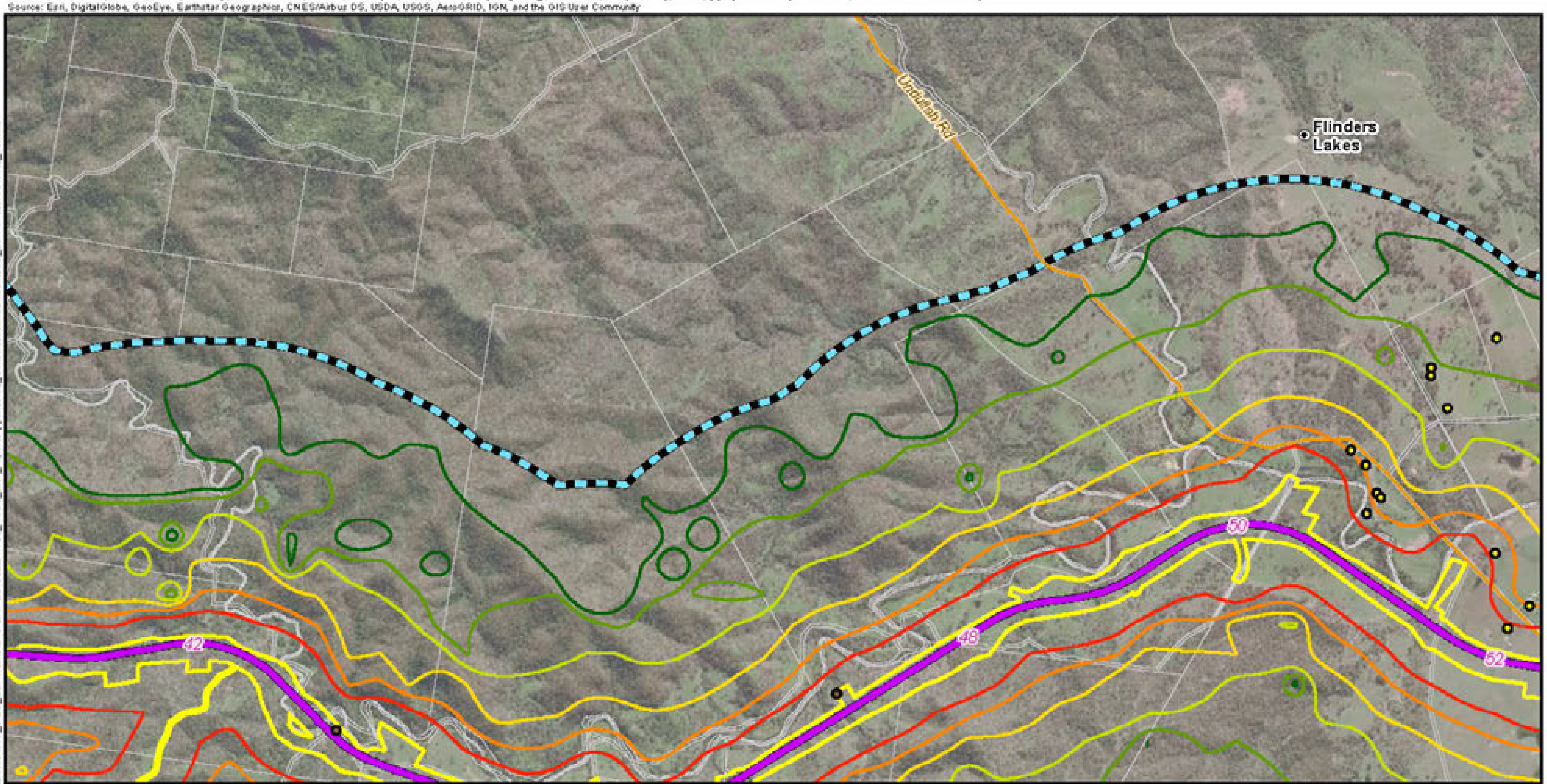
Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2j: Construction Noise Contours: Earthworks (Non-standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 12:02

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

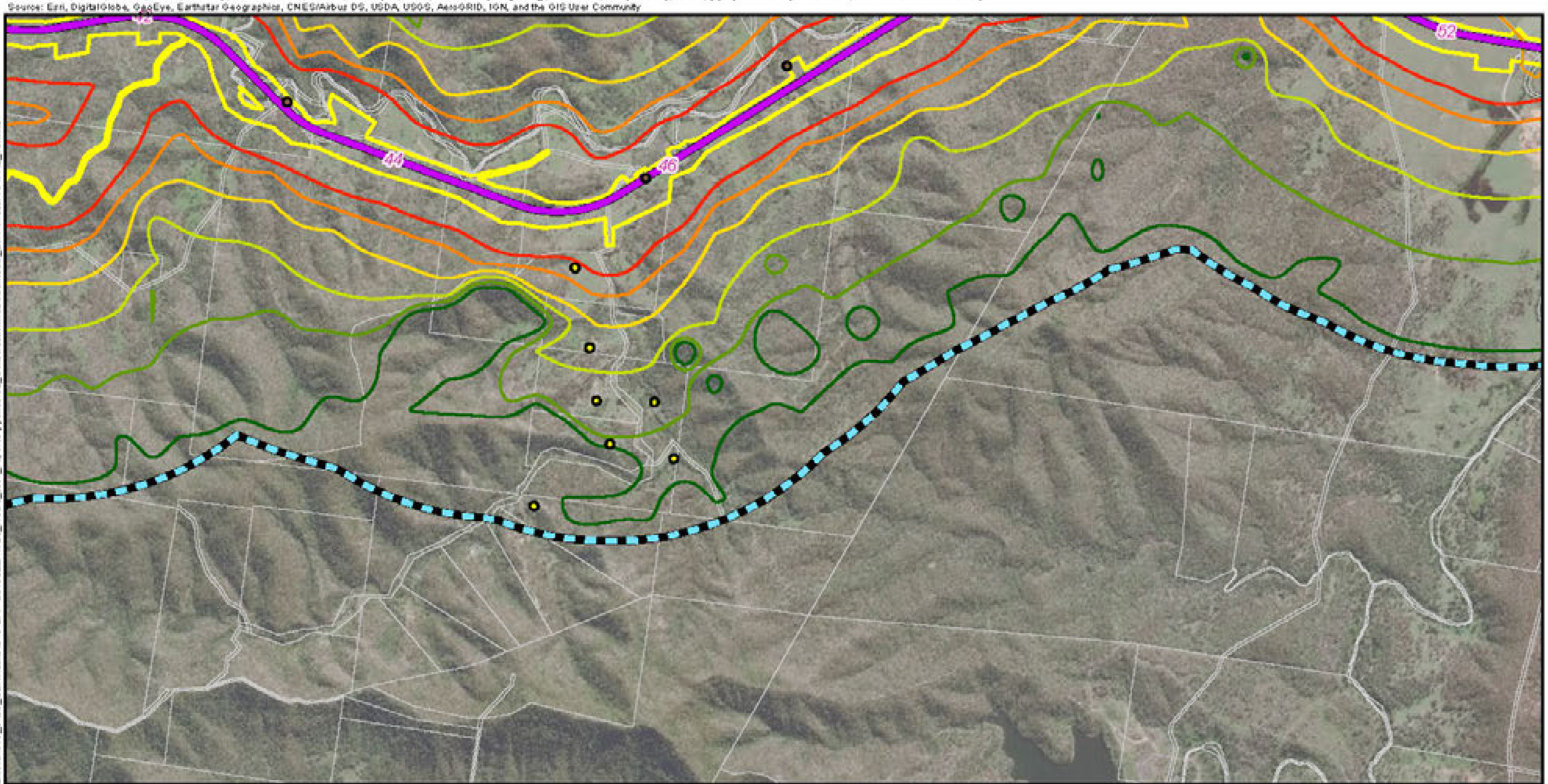
Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2k: Construction Noise Contours: Earthworks (Non-standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

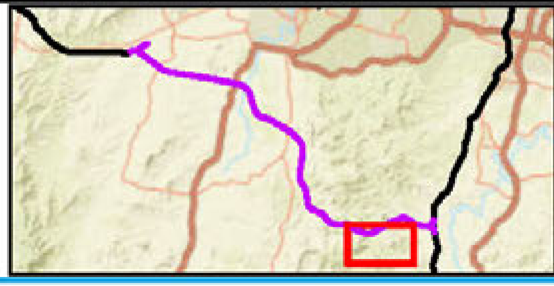
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

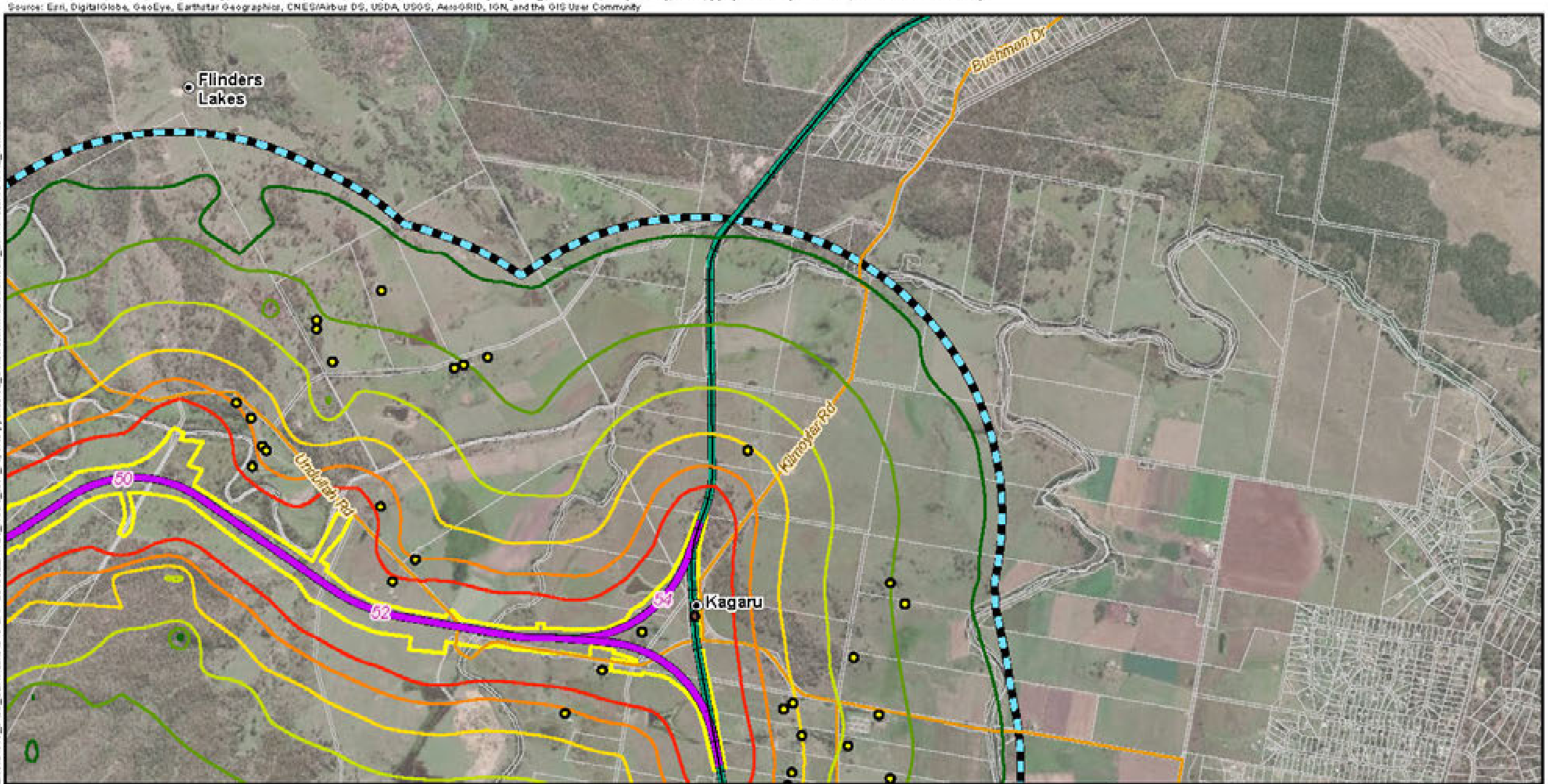
Date: 05/03/2020 Version: 6

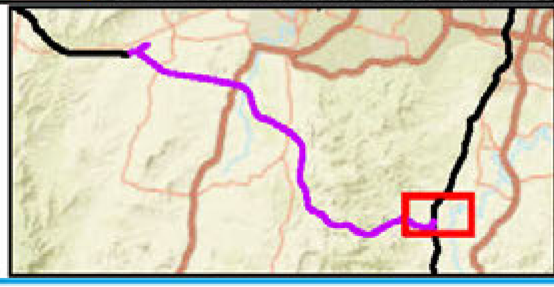
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C2I: Construction Noise Contours: Earthworks (Non-standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

5	Chainage (km)
⦿	Localities
	Existing rail
	C2K project alignment
	K2ARB project alignment
	Minor roads
	EIS disturbance footprint
	Noise and vibration study area
	Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

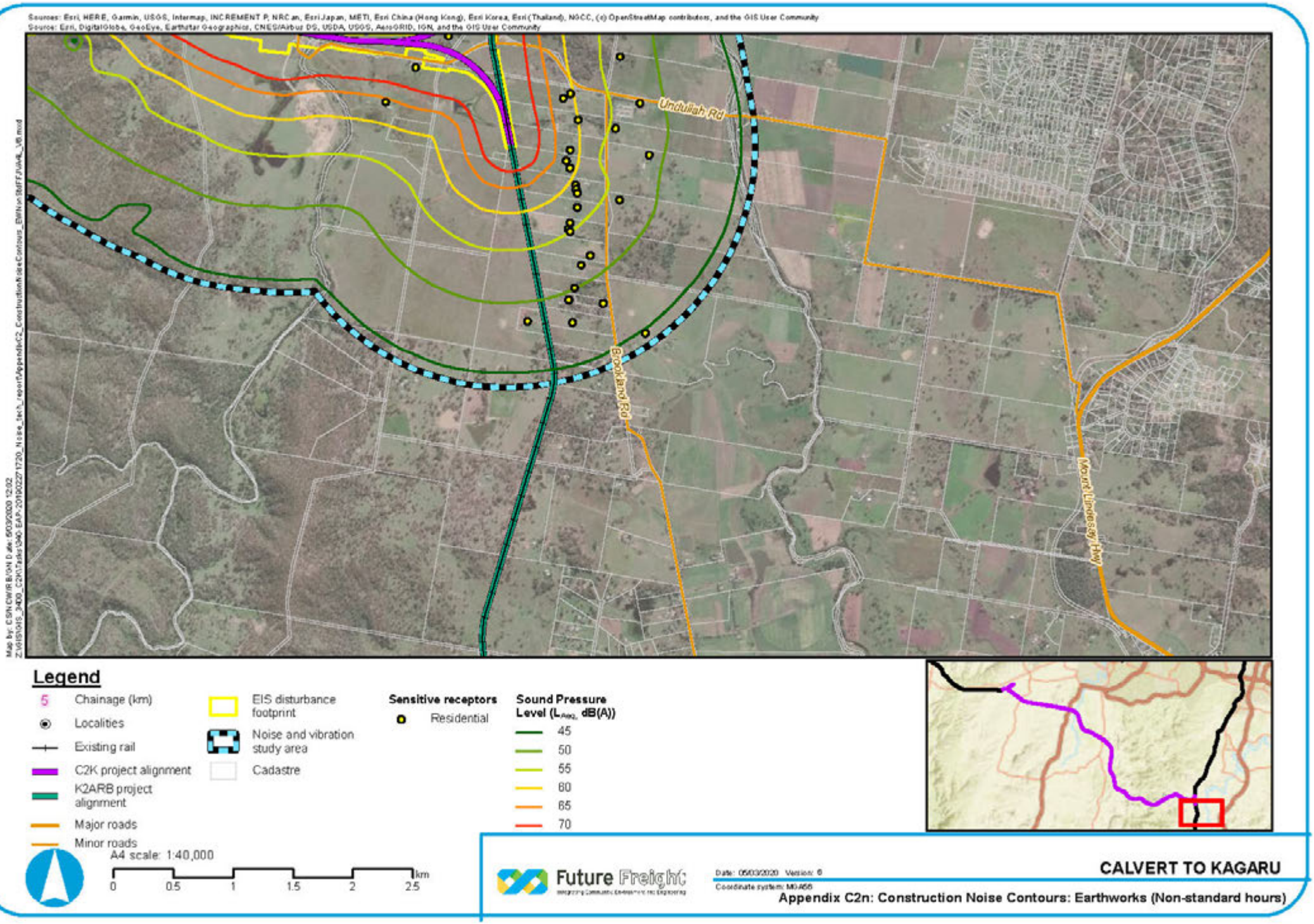
Future Freight

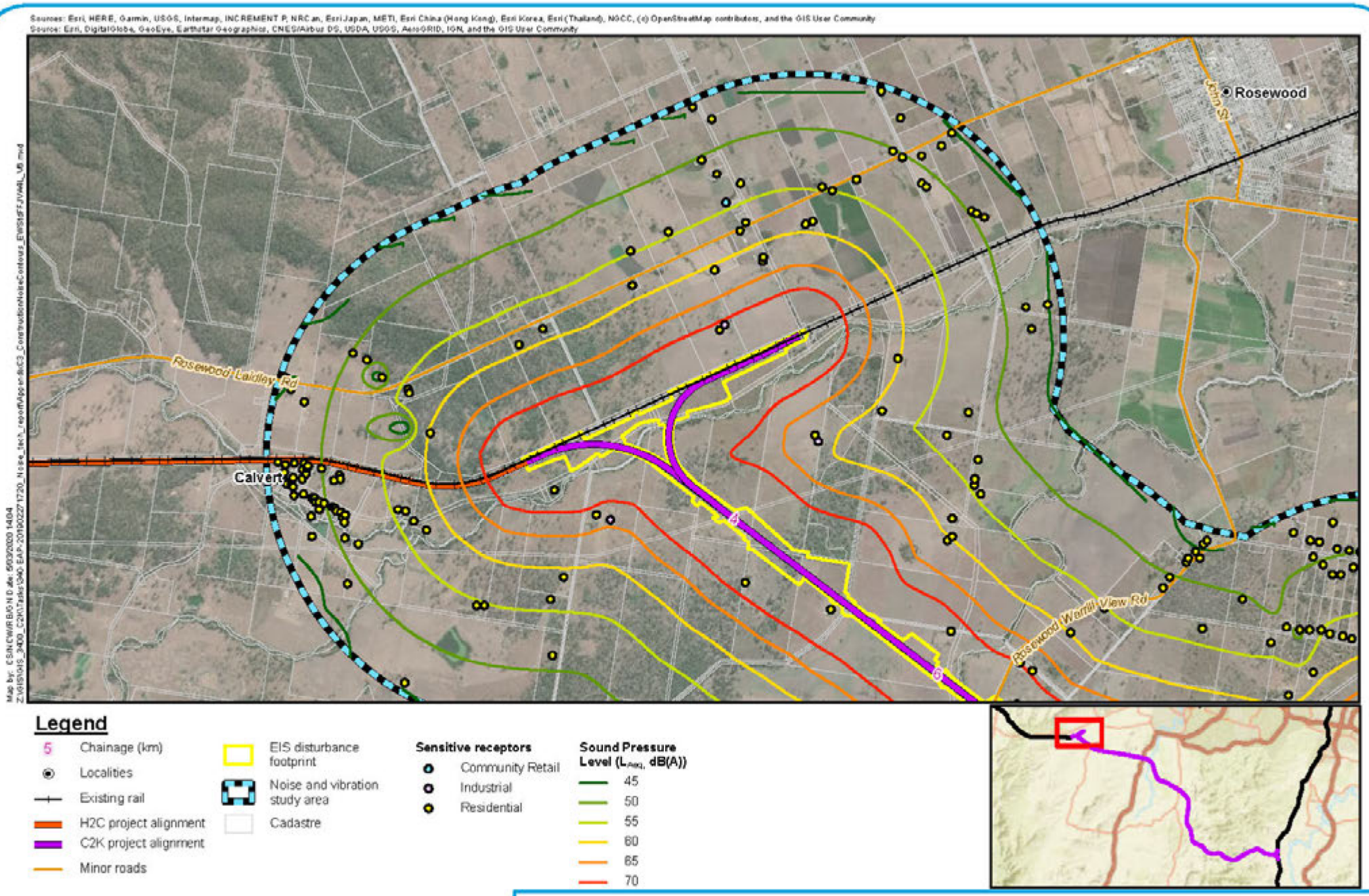
Date: 05/03/2020 Version: 6

Coordinate system: MGA56

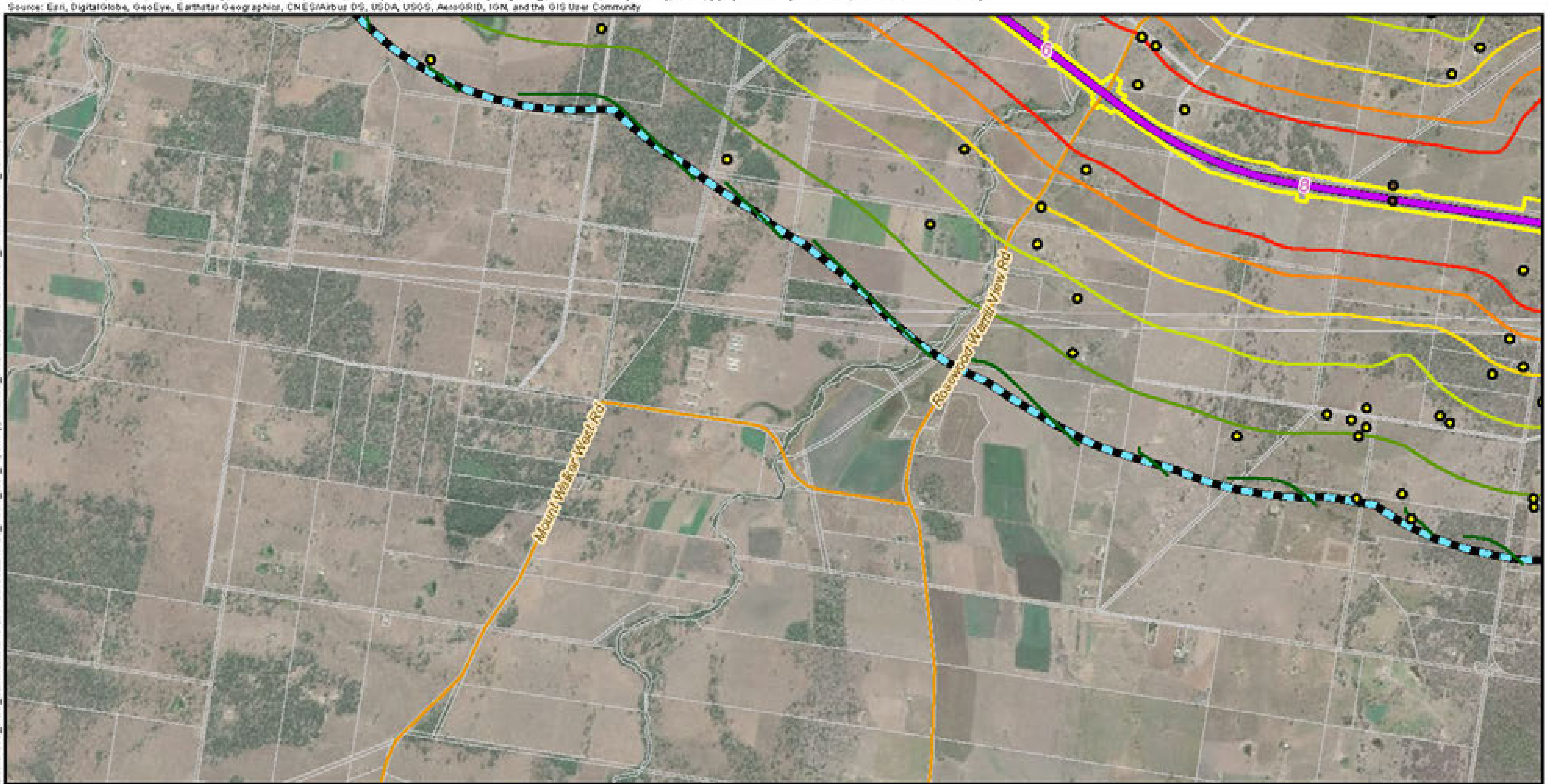
CALVERT TO KAGARU

Appendix C2m: Construction Noise Contours: Earthworks (Non-standard hours)


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Undullah Rd
Brooklands Rd
Mount Lindesay Hwy
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
K2ARB project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Residential
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C2n: Construction Noise Contours: Earthworks (Non-standard hours)


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood
John St
Rosewood-Laidley Rd
Calvert
Rosewood Warrill View Rd
4
5
6
Legend
5 Chainage (km)
Localities
Existing rail
H2C project alignment
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Industrial
Residential
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C3a: Construction Noise Contours: Earthworks (Standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

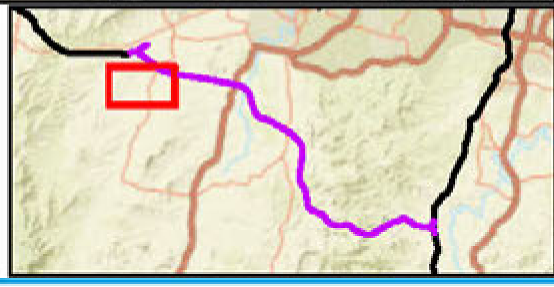
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

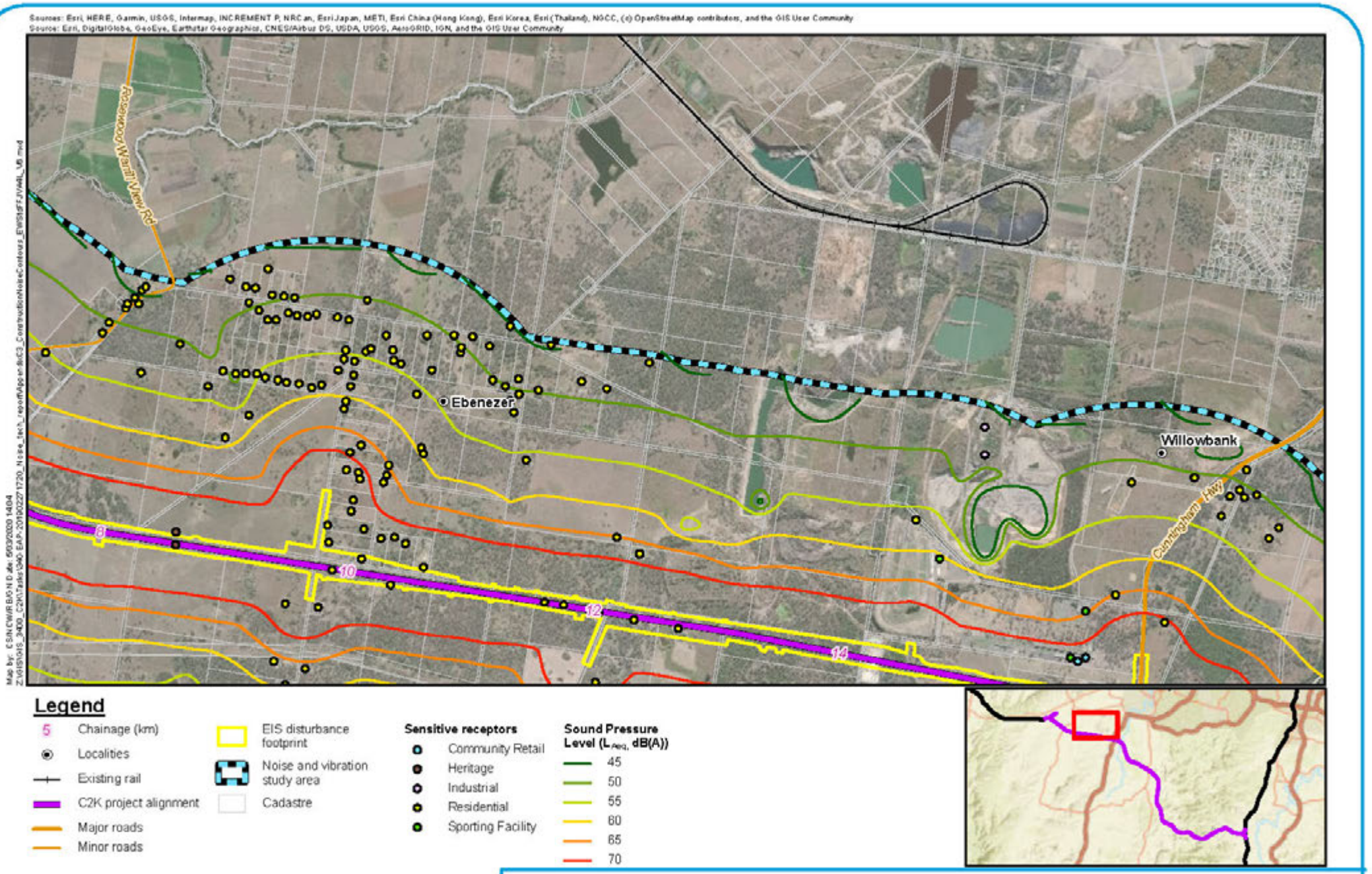
Future Freight

Date: 05/03/2020 Version: 6

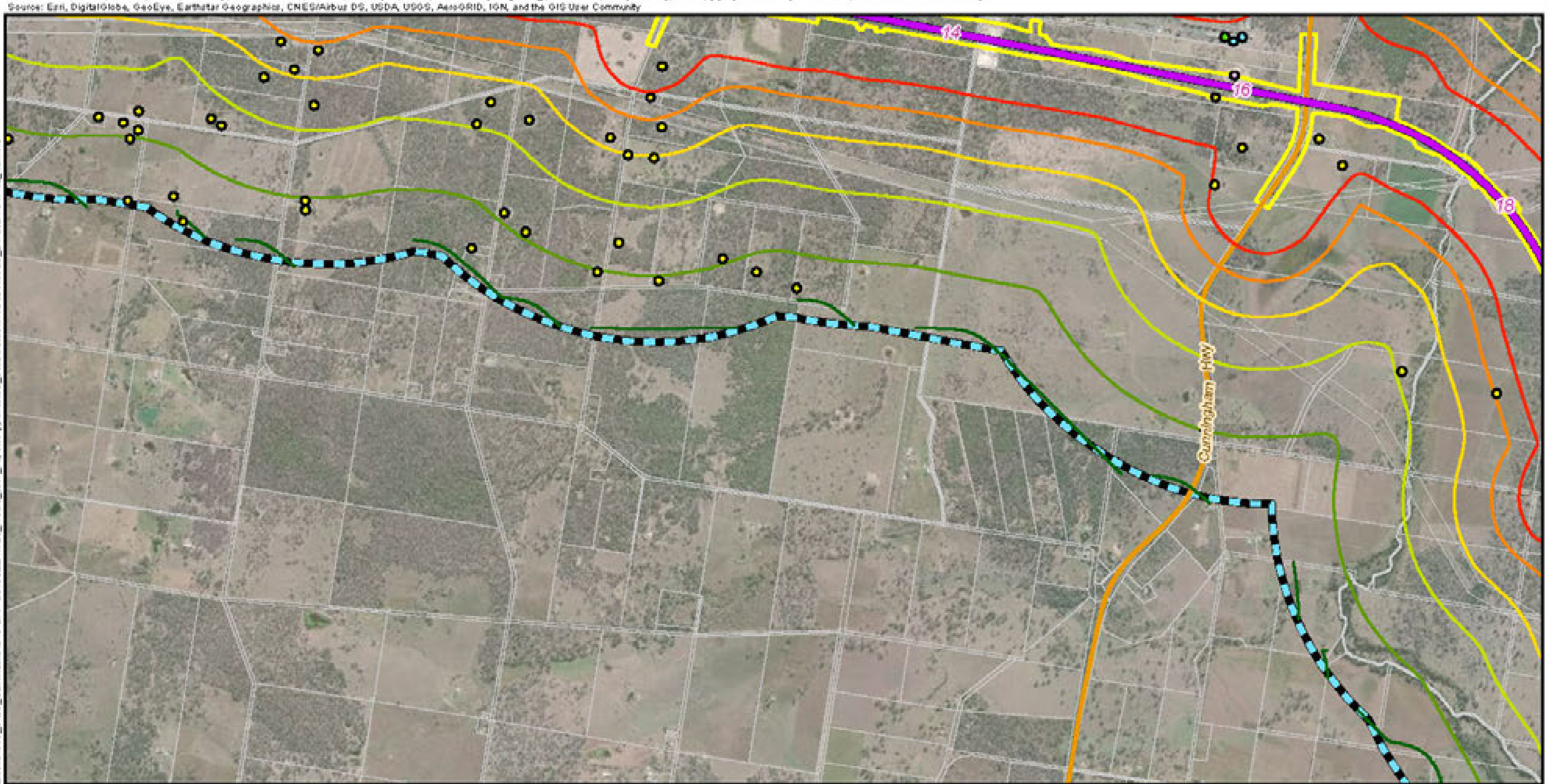
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3b: Construction Noise Contours: Earthworks (Standard hours)


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood Warrill View Rd
Ebenezer
Willowbank
Cunningham Hwy
8
10
12
14
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Heritage
Industrial
Residential
Sporting Facility
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C3c: Construction Noise Contours: Earthworks (Standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

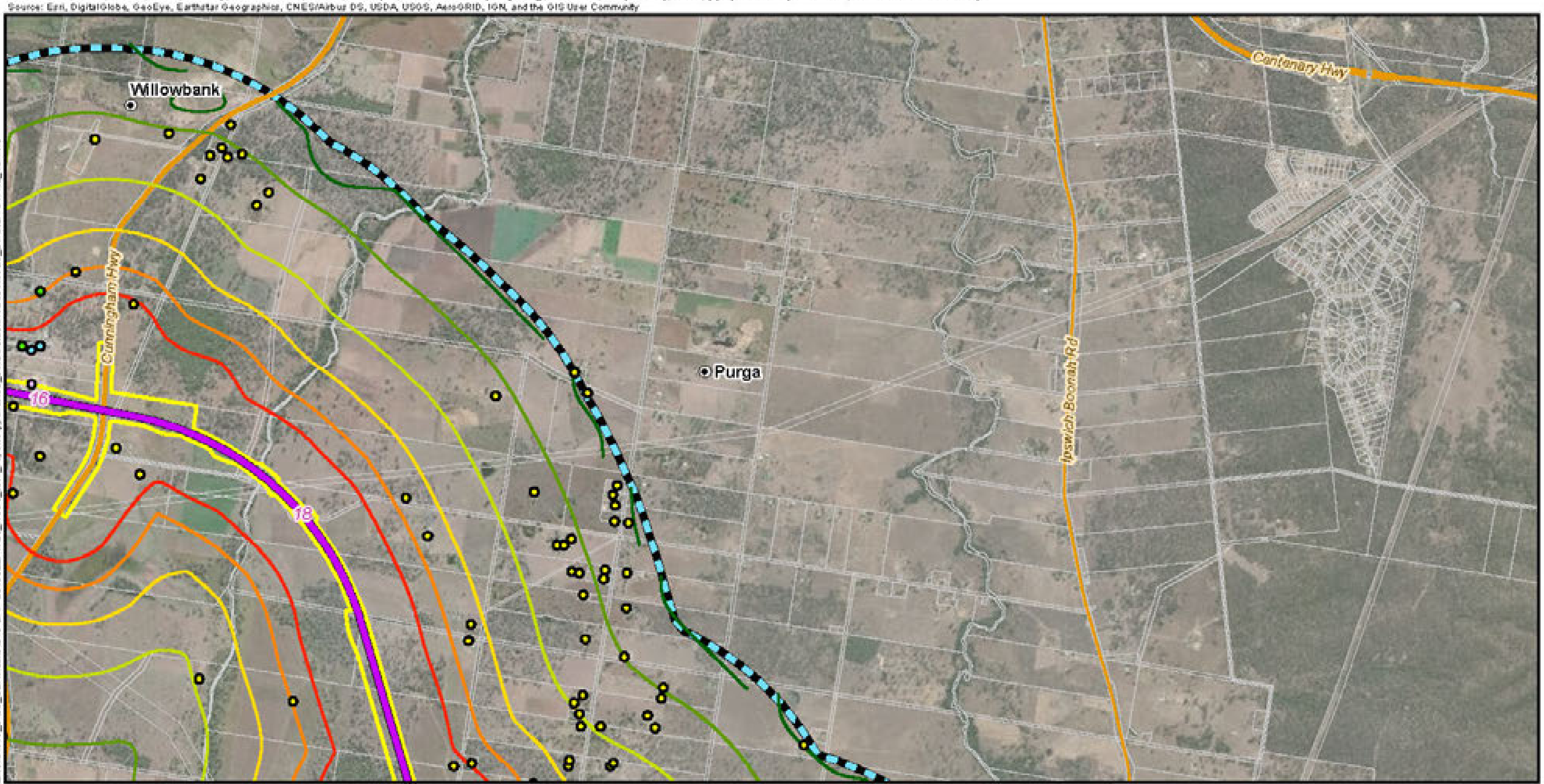
Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3d: Construction Noise Contours: Earthworks (Standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

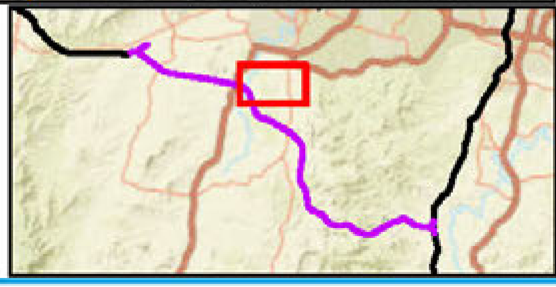
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

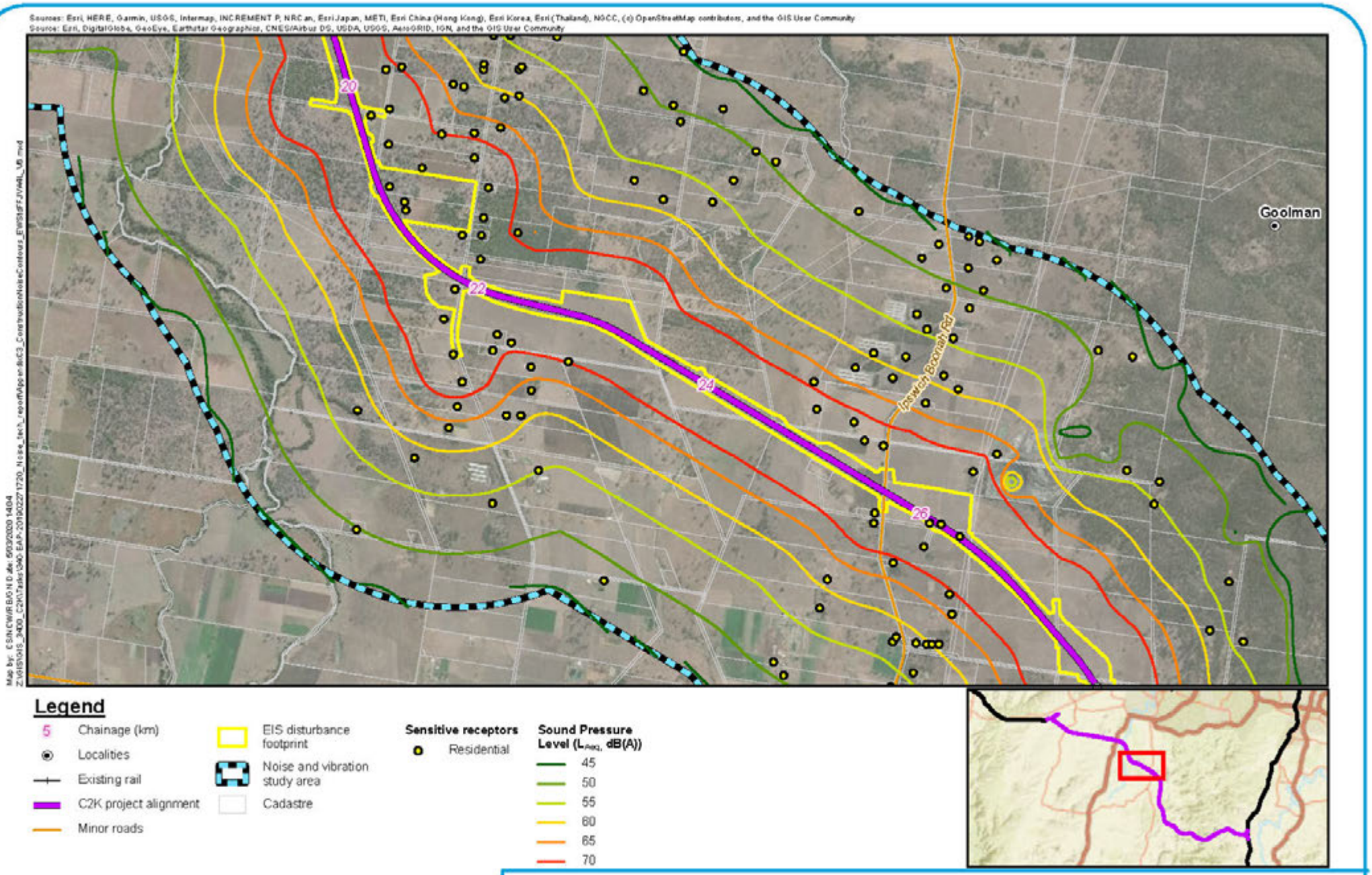
Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3e: Construction Noise Contours: Earthworks (Standard hours)



Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

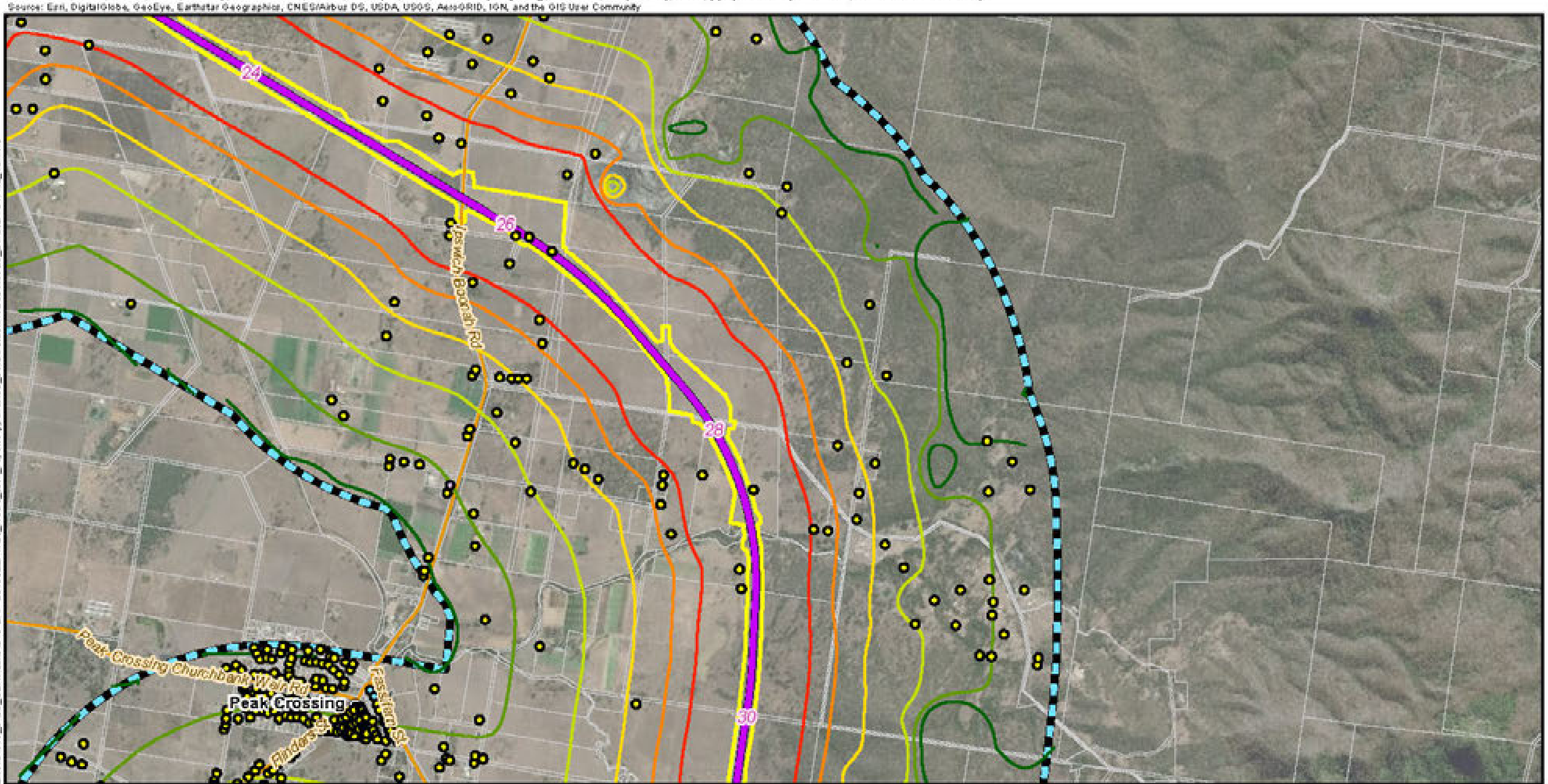
Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3f: Construction Noise Contours: Earthworks (Standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

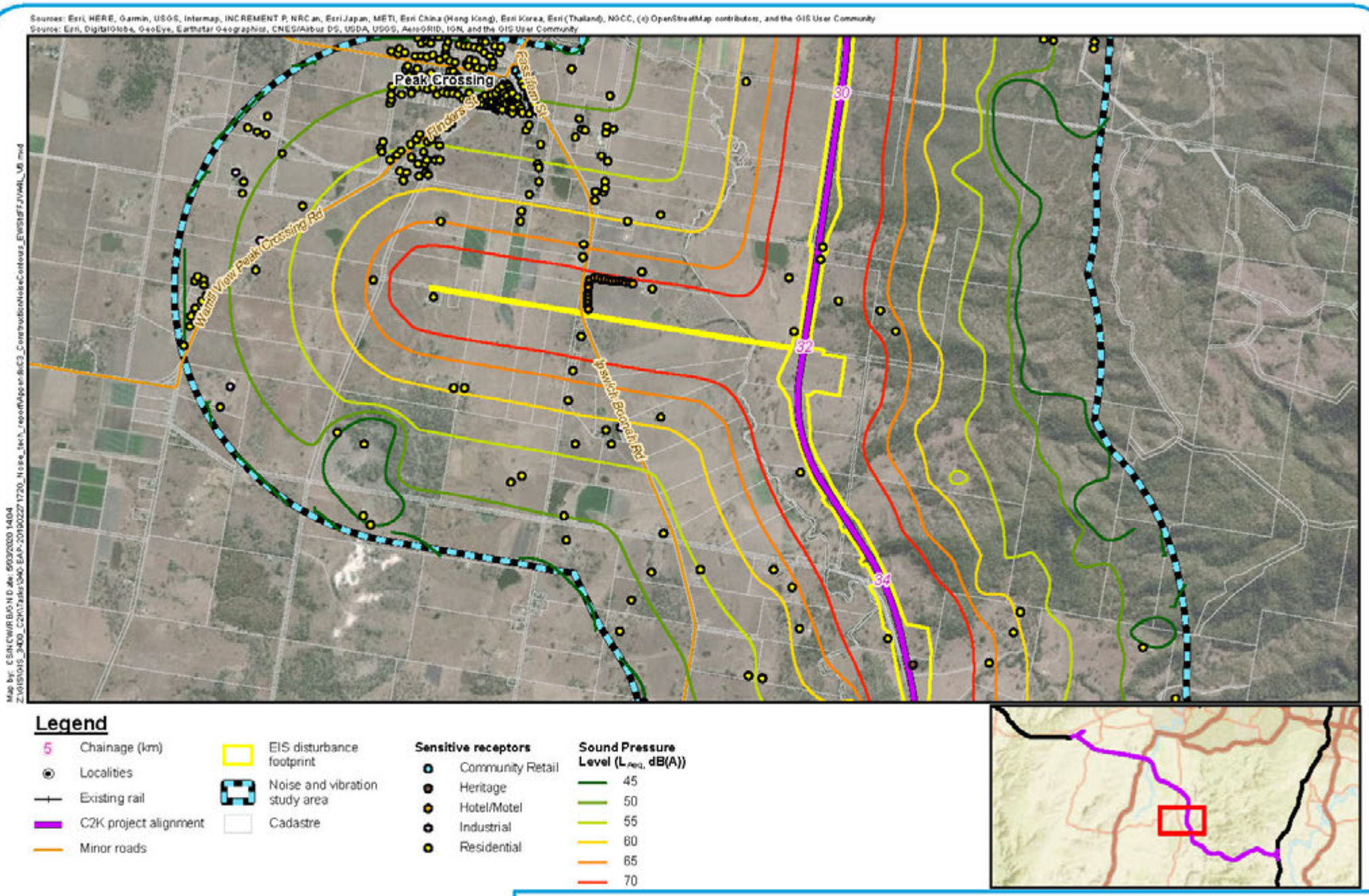
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3g: Construction Noise Contours: Earthworks (Standard hours)



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Heritage
- Hotel/Motel
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

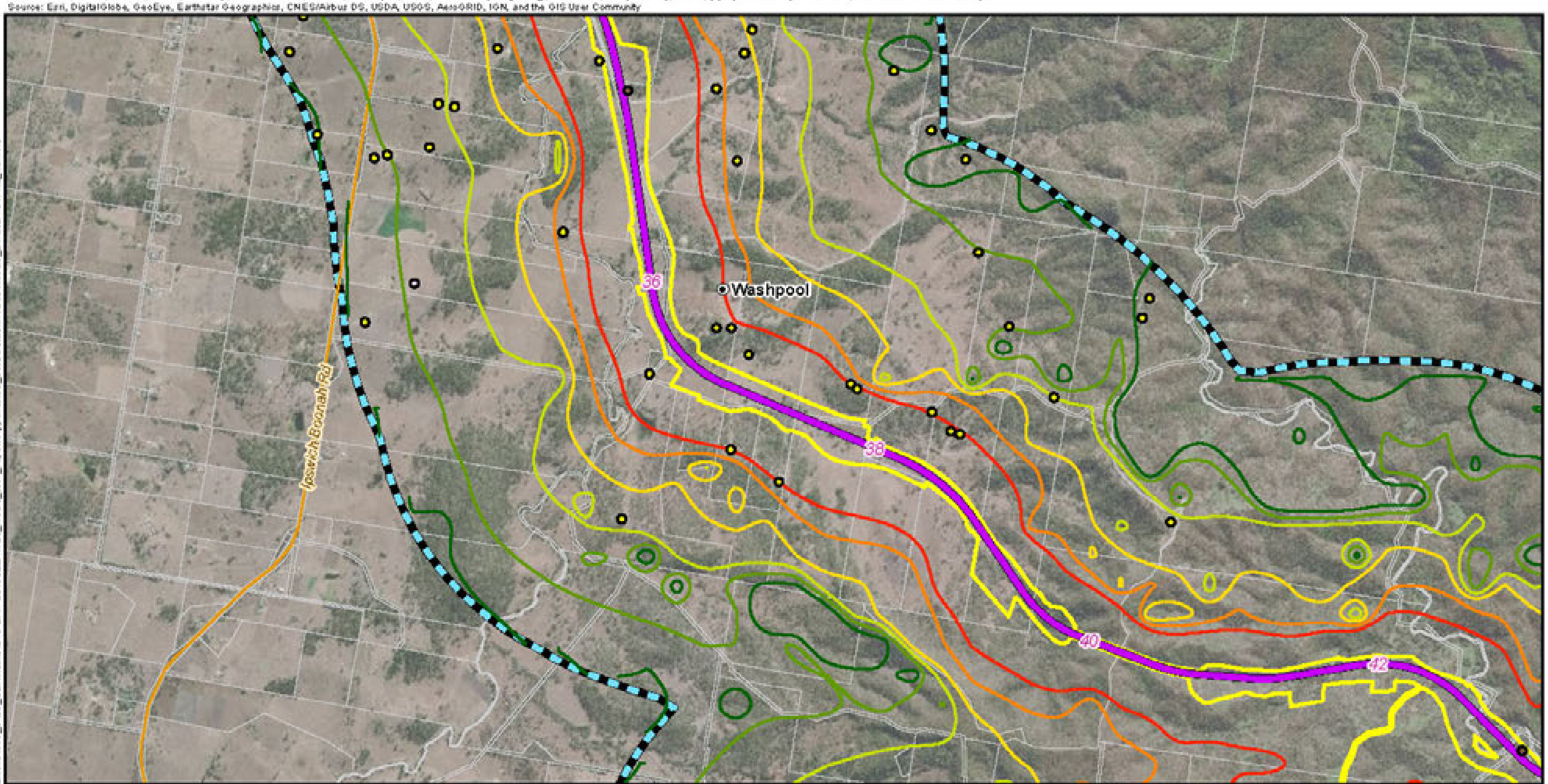
Date: 05/03/2020 Version: 0

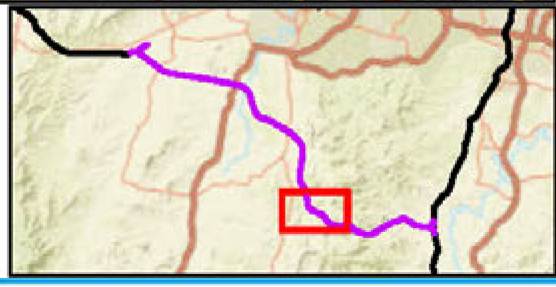
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3h: Construction Noise Contours: Earthworks (Standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

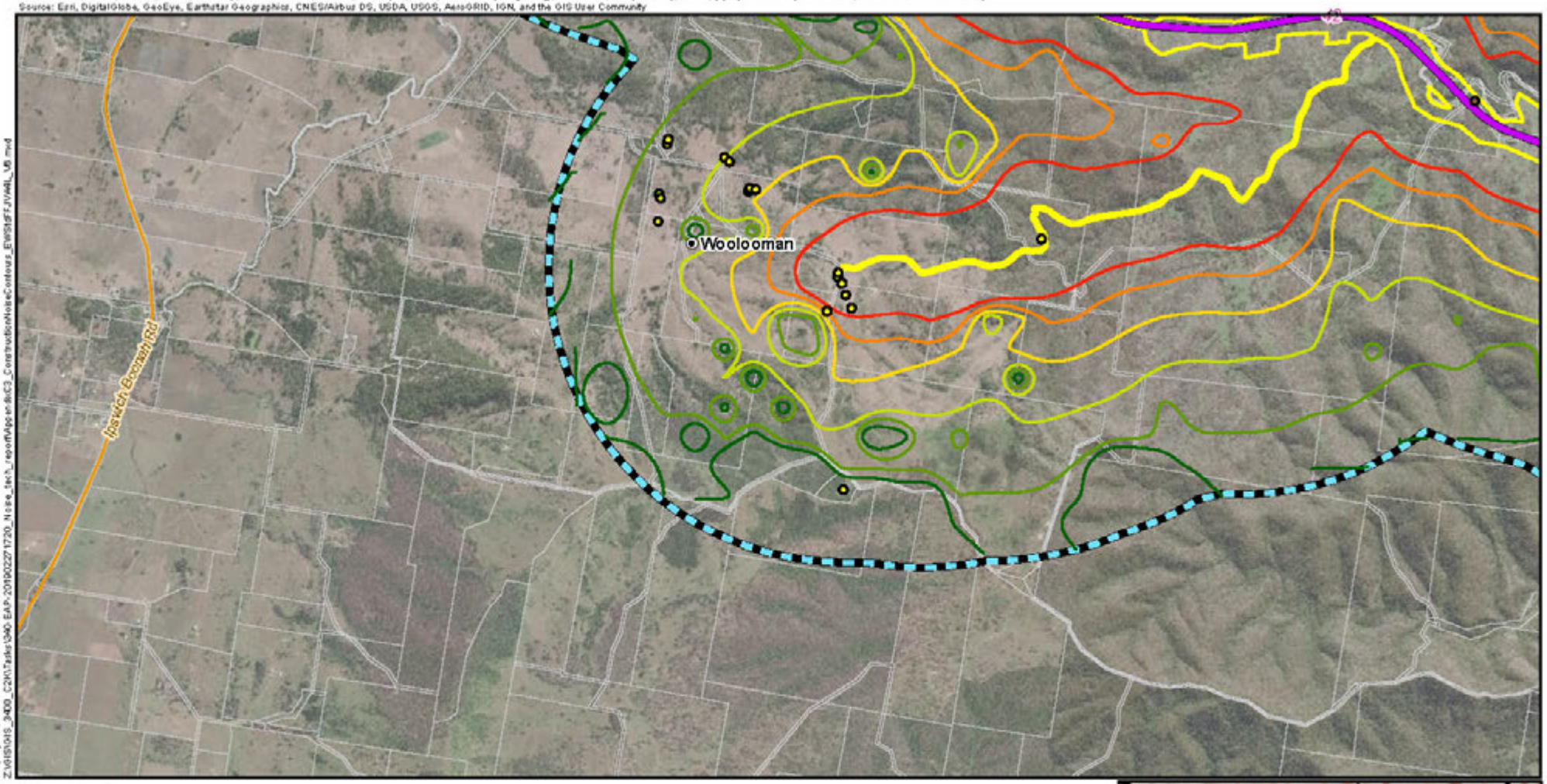
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3i: Construction Noise Contours: Earthworks (Standard hours)



Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

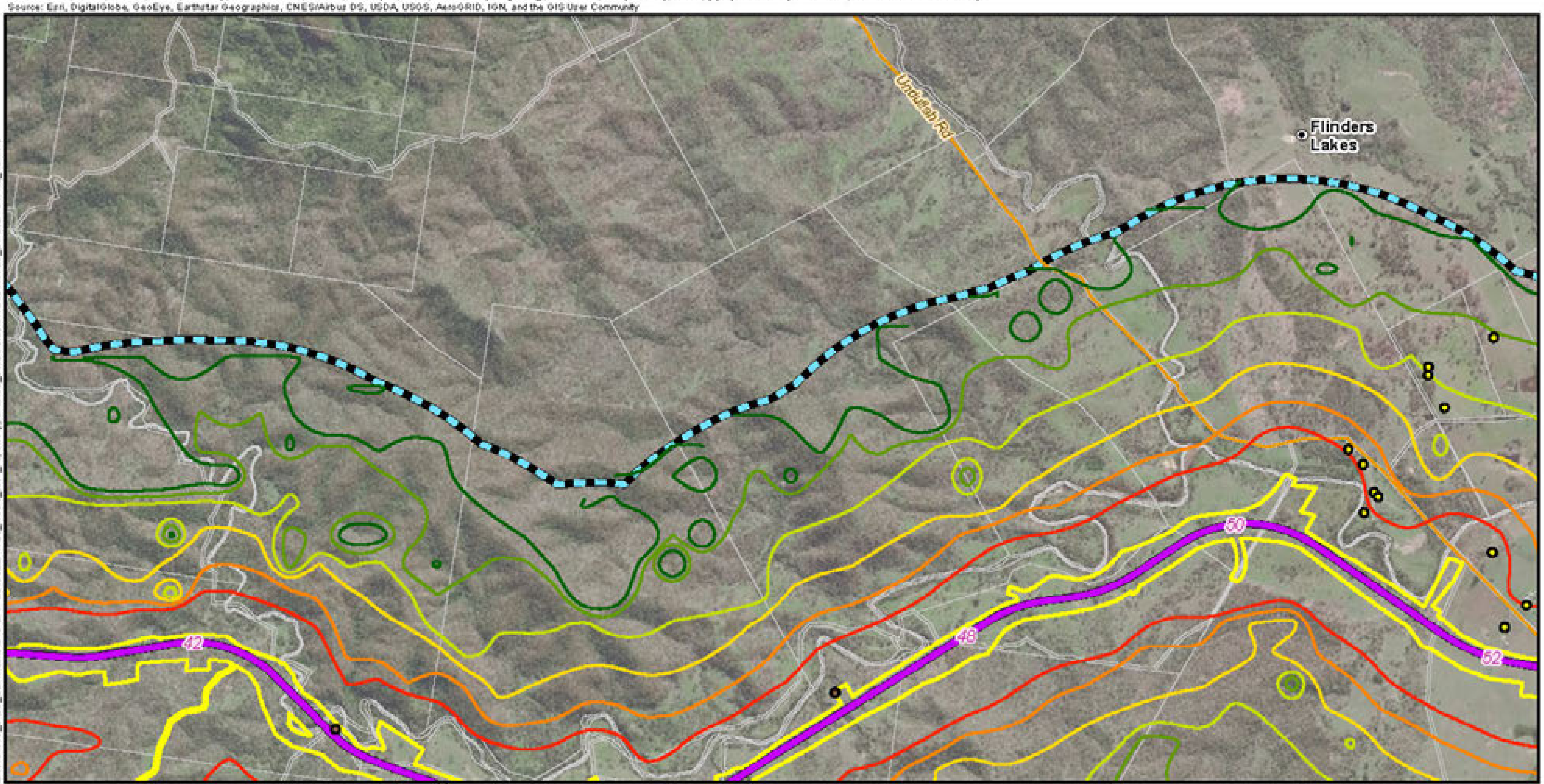
Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3j: Construction Noise Contours: Earthworks (Standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

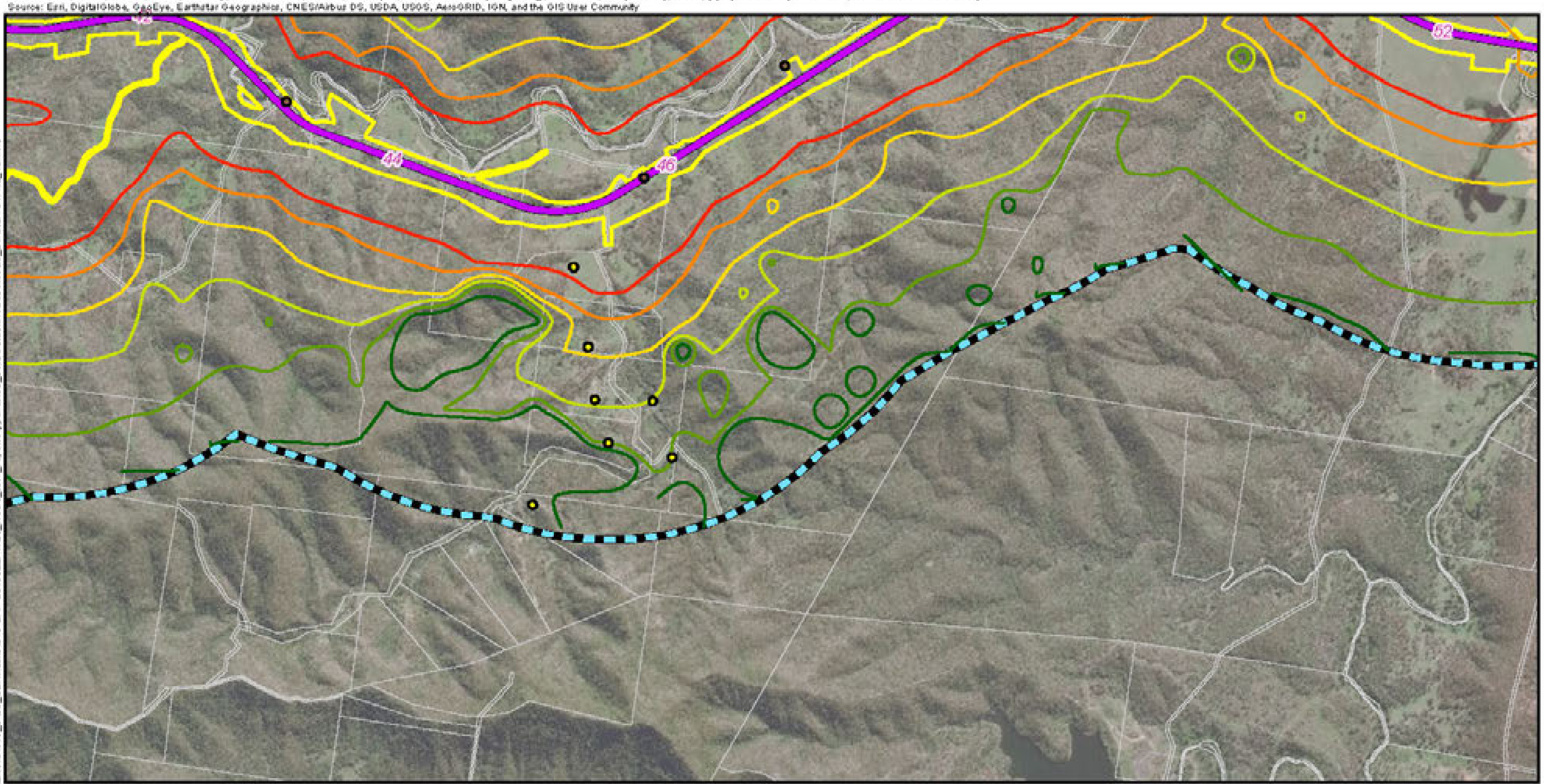
Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3k: Construction Noise Contours: Earthworks (Standard hours)

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

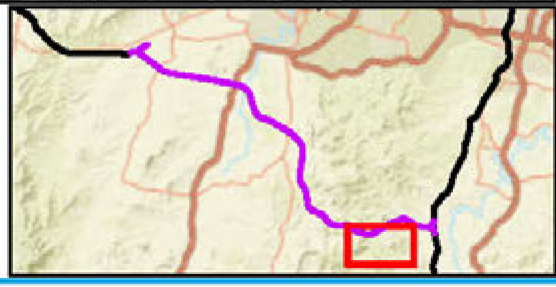
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

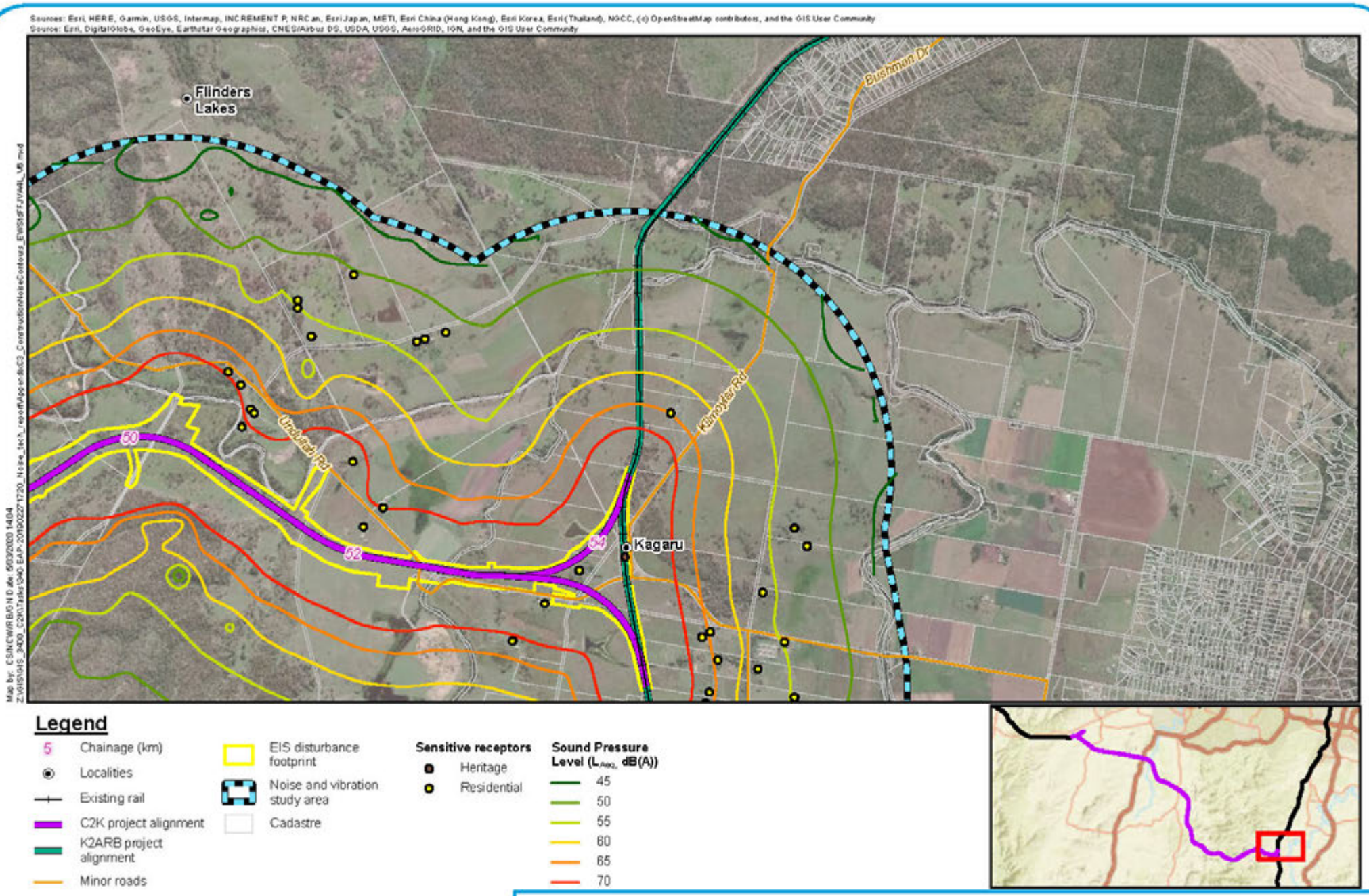
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C3I: Construction Noise Contours: Earthworks (Standard hours)



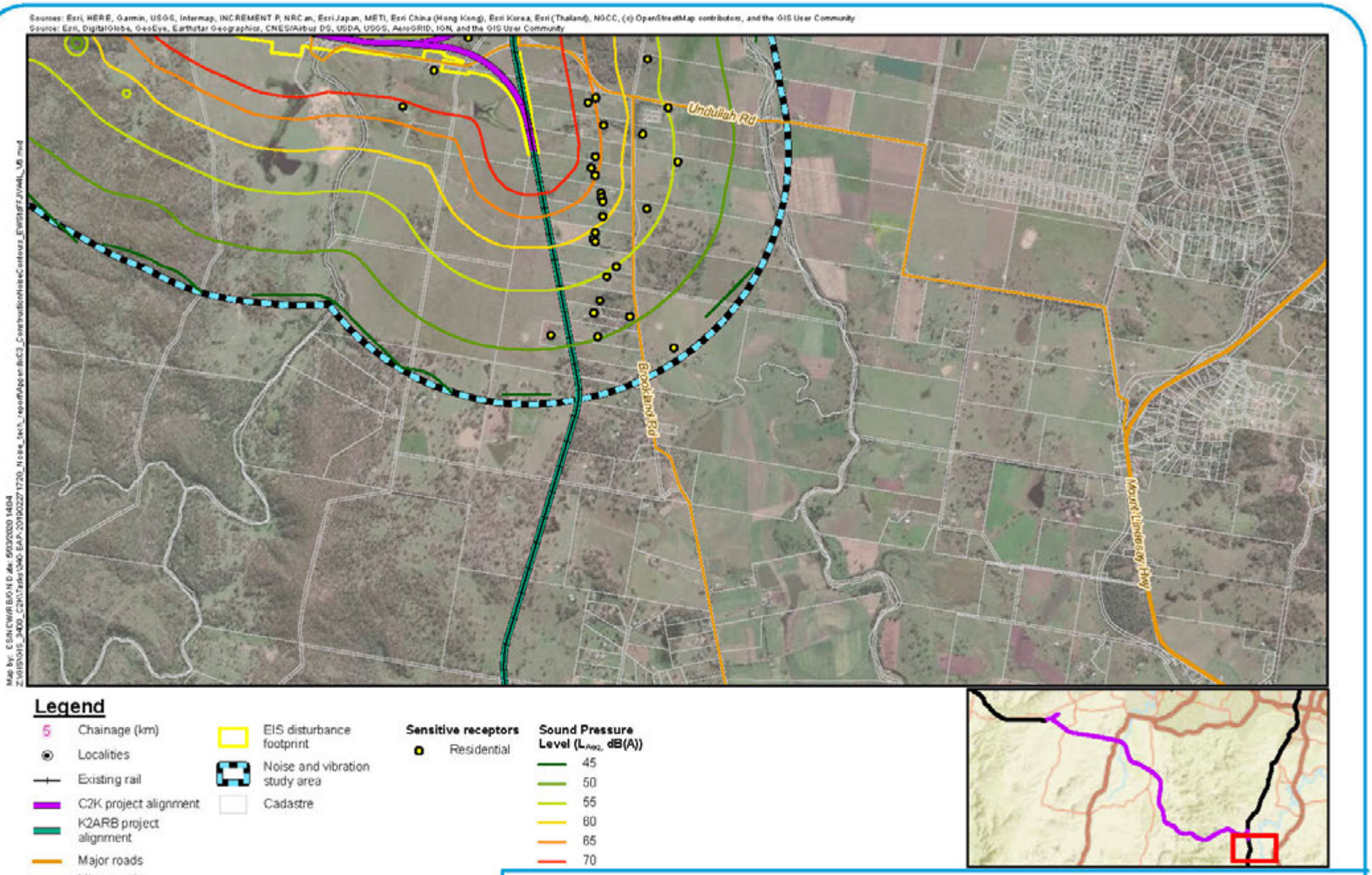
Future Freight

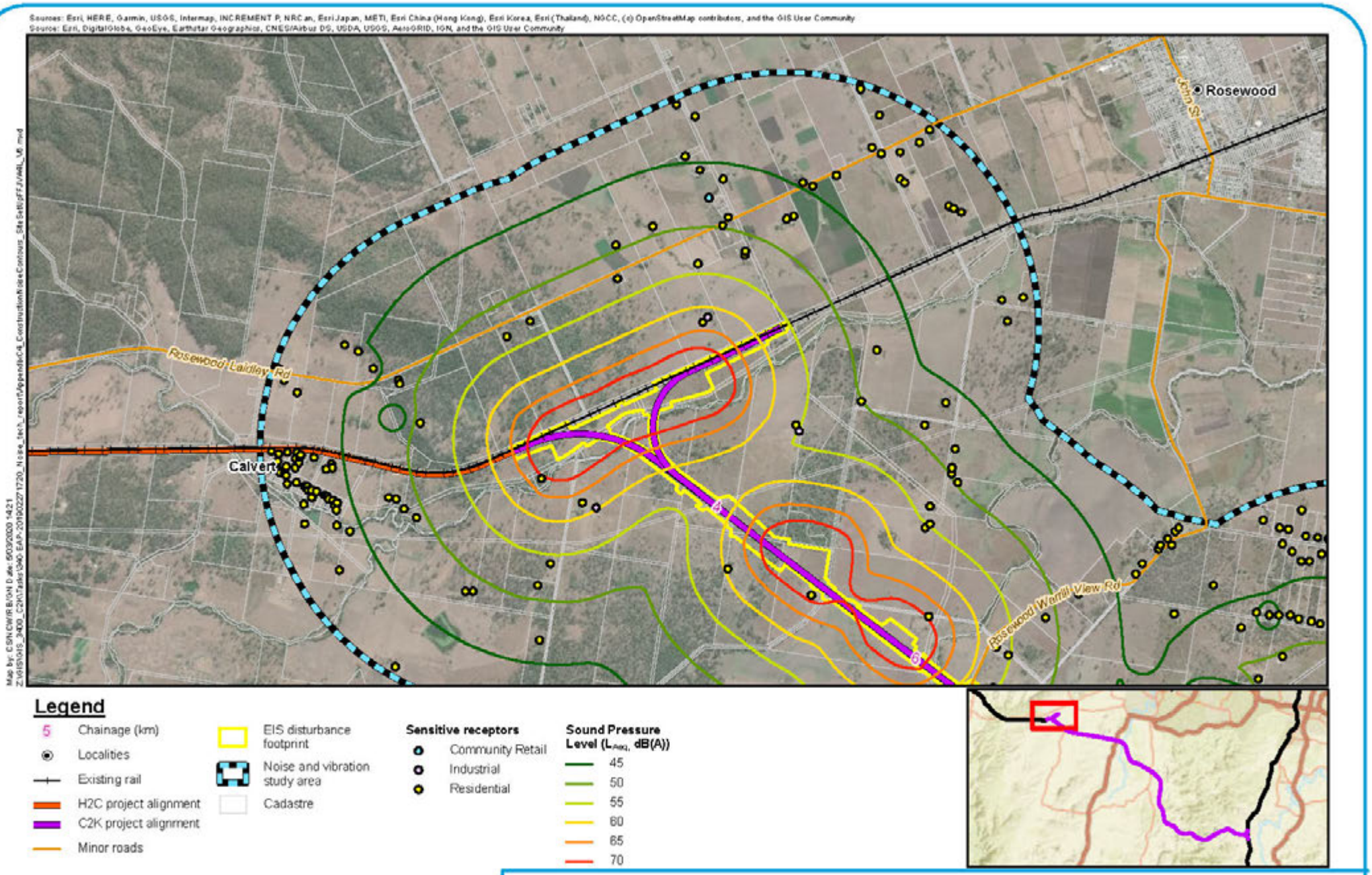
Date: 05/03/2020 Version: 0

Coordinate system: MGA55

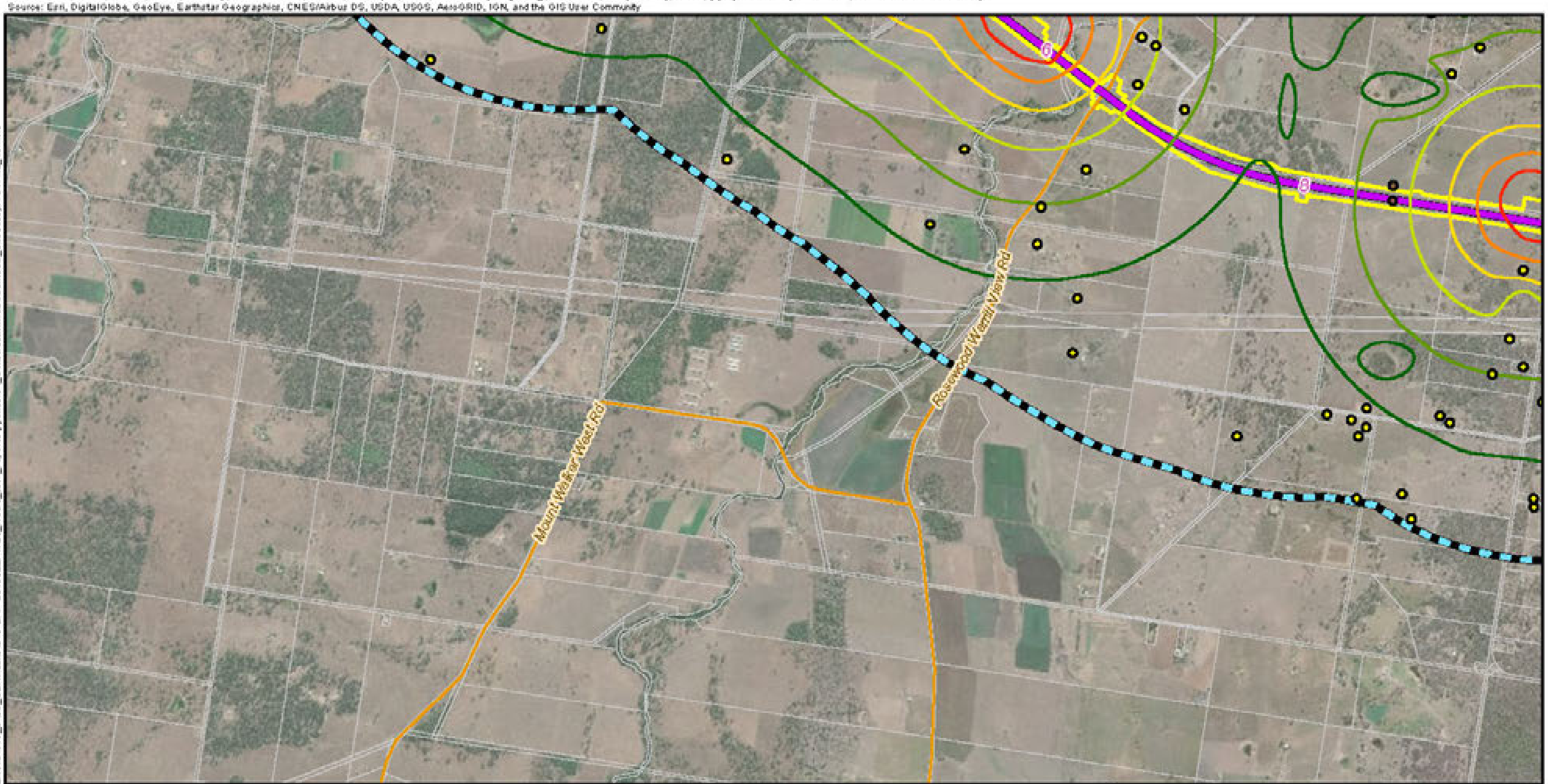
CALVERT TO KAGARU

Appendix C3m: Construction Noise Contours: Earthworks (Standard hours)


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Unchulah Rd
Brooklands Rd
Mount Lindesay Hwy
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
K2ARB project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Residential
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C3n: Construction Noise Contours: Earthworks (Standard hours)


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood
John St
Rosewood-Laidley Rd
Calvert
Rosewood Warrill View Rd
4
6
Legend
5 Chainage (km)
Localities
Existing rail
H2C project alignment
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C4a: Construction Noise Contours: Laydown

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSNCWRB/GN Date: 5/03/2020 14:21

Legend

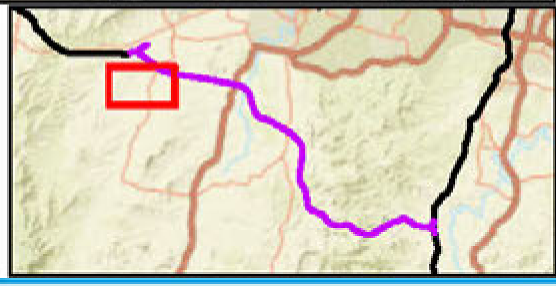
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

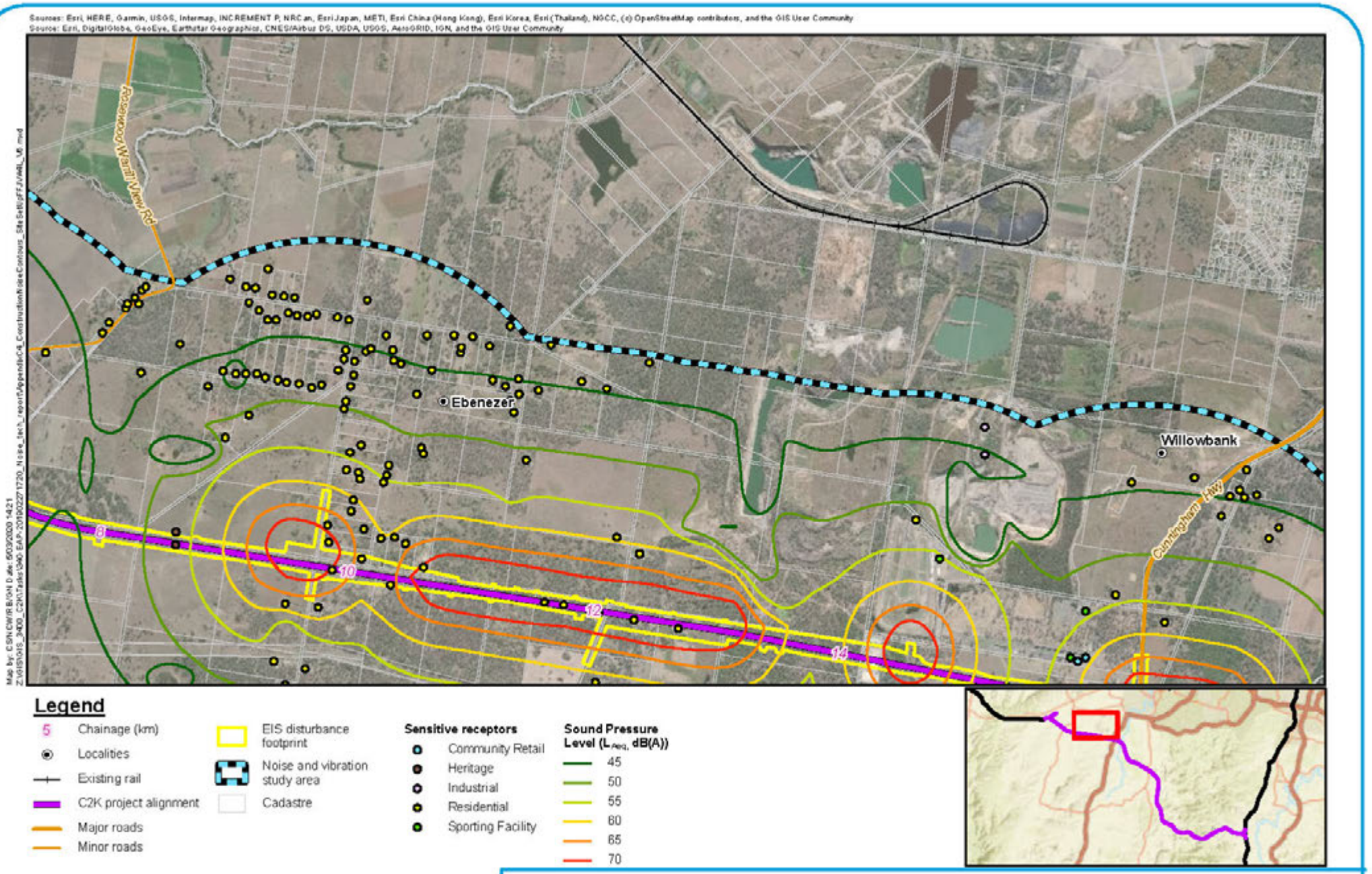
Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C4b: Construction Noise Contours: Laydown



Legend

- 5 — Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Heritage
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

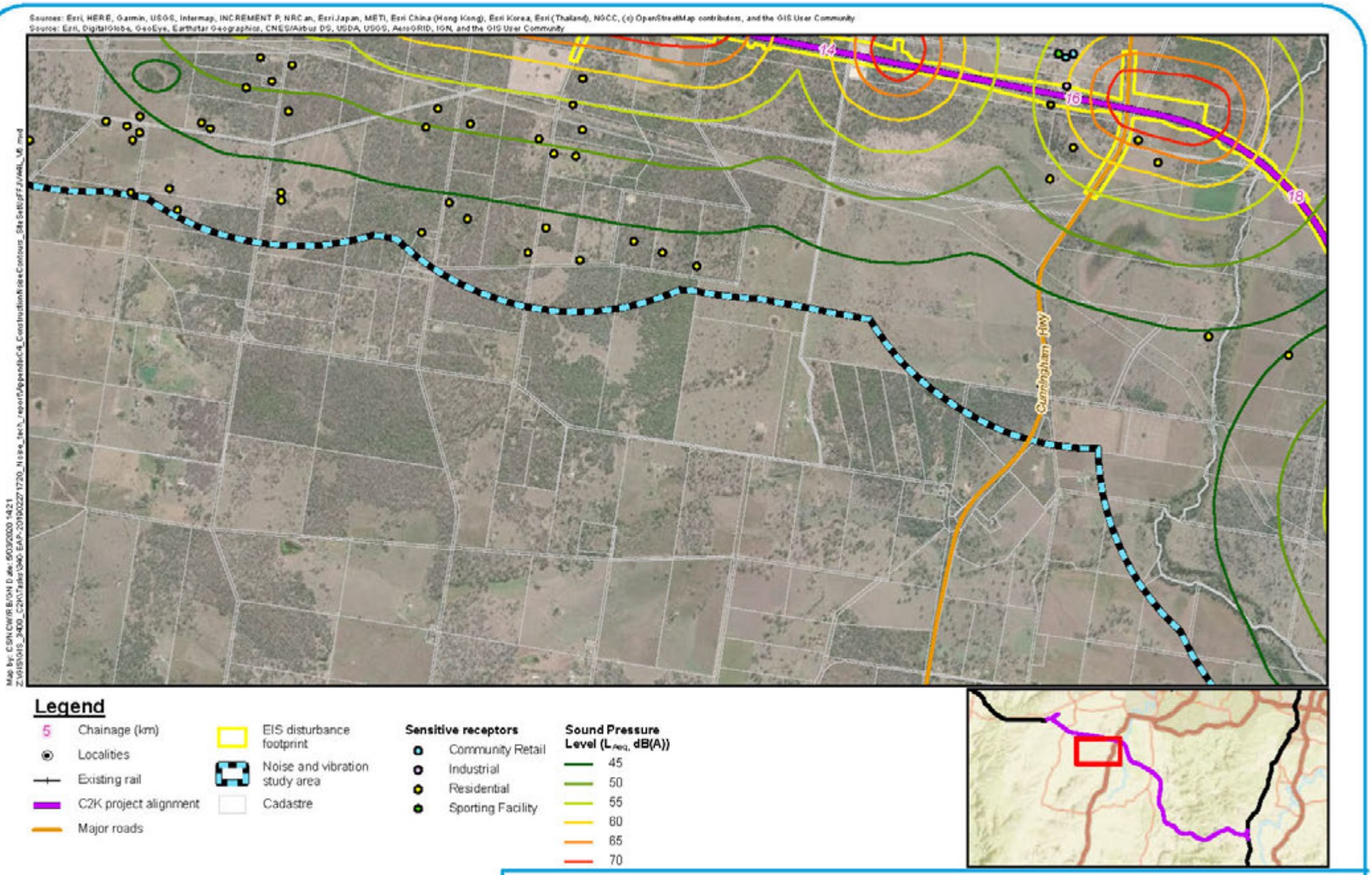
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C4c: Construction Noise Contours: Laydown



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

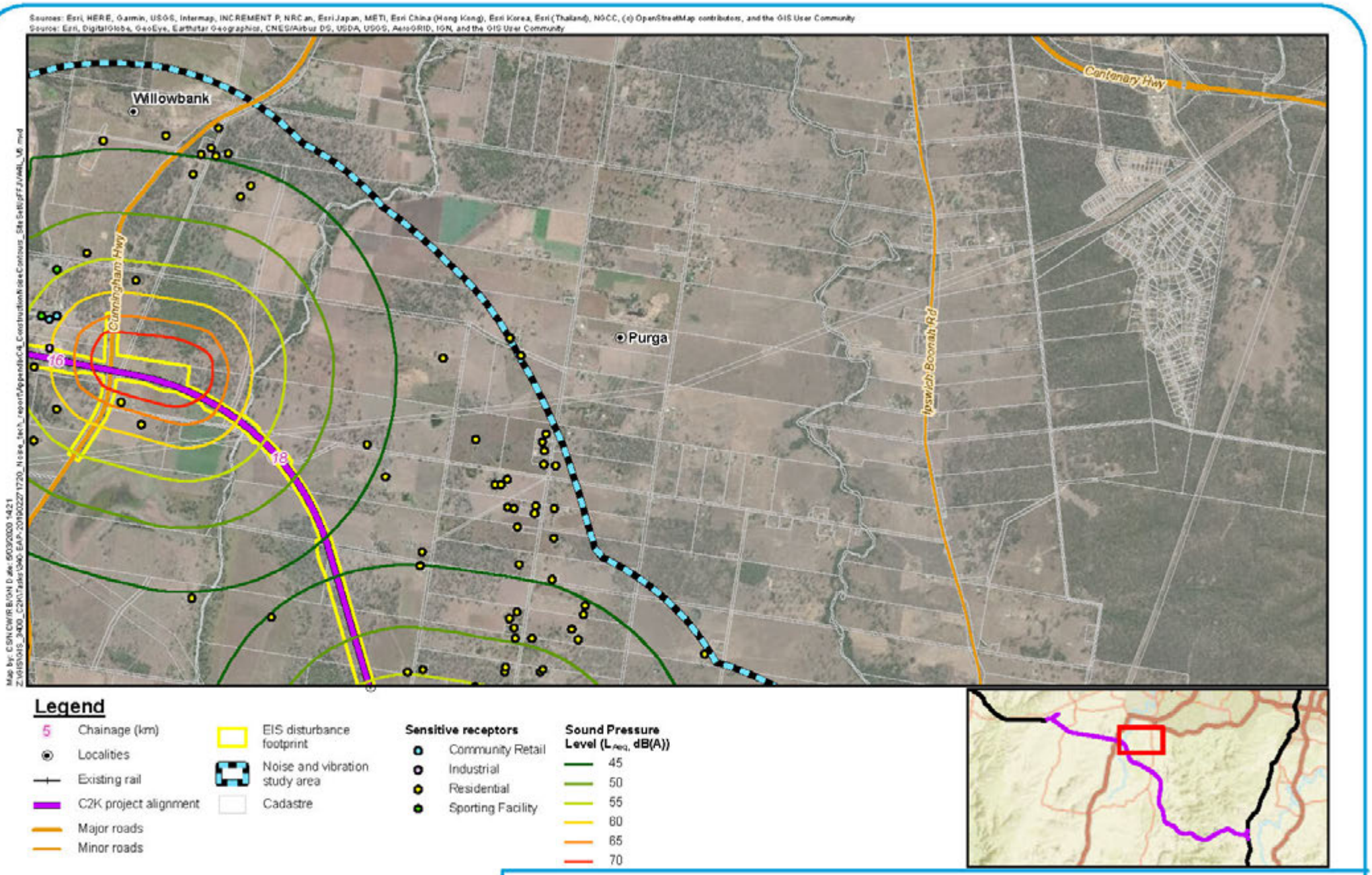
Future Freight

Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C4d: Construction Noise Contours: Laydown

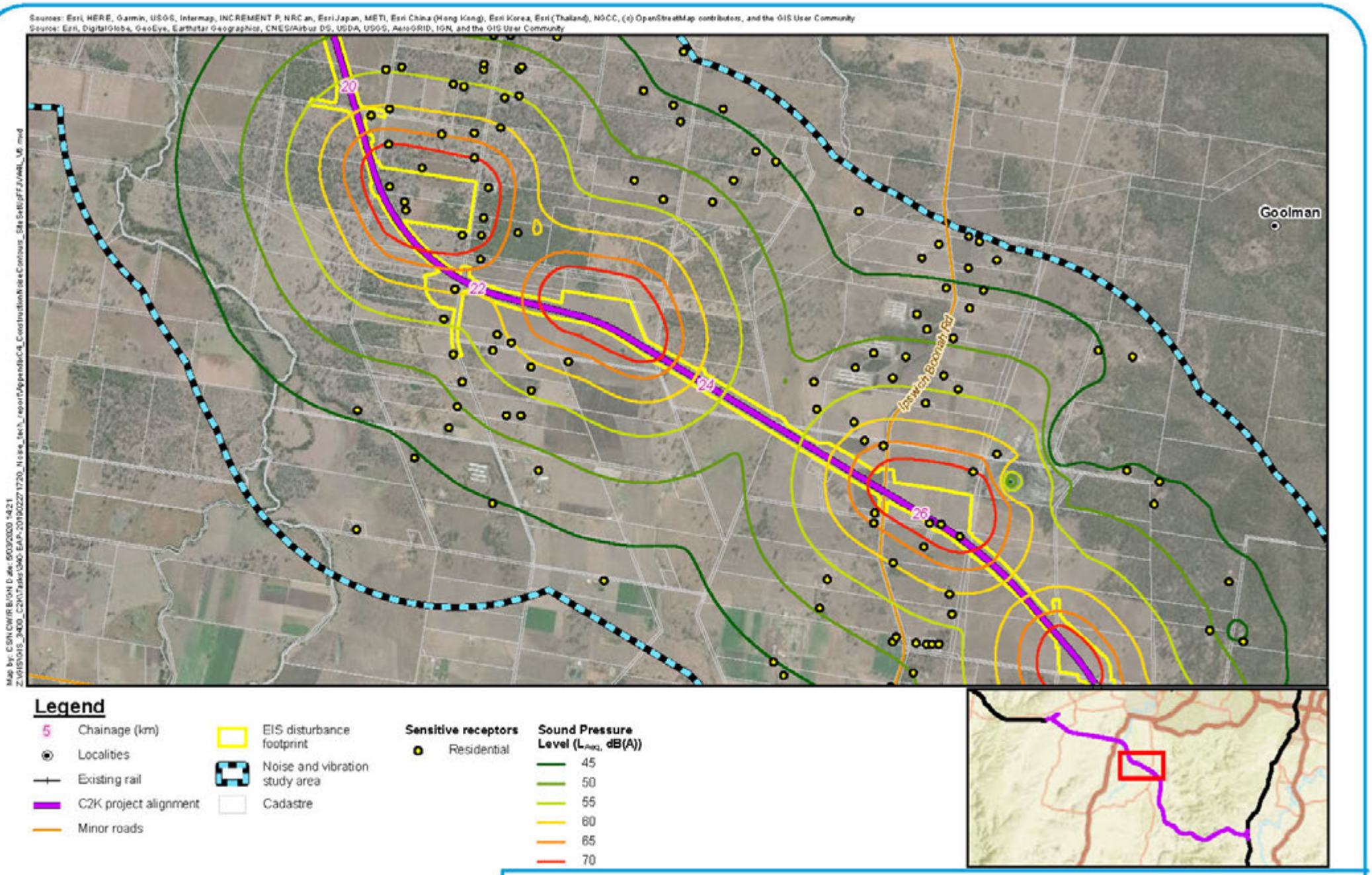


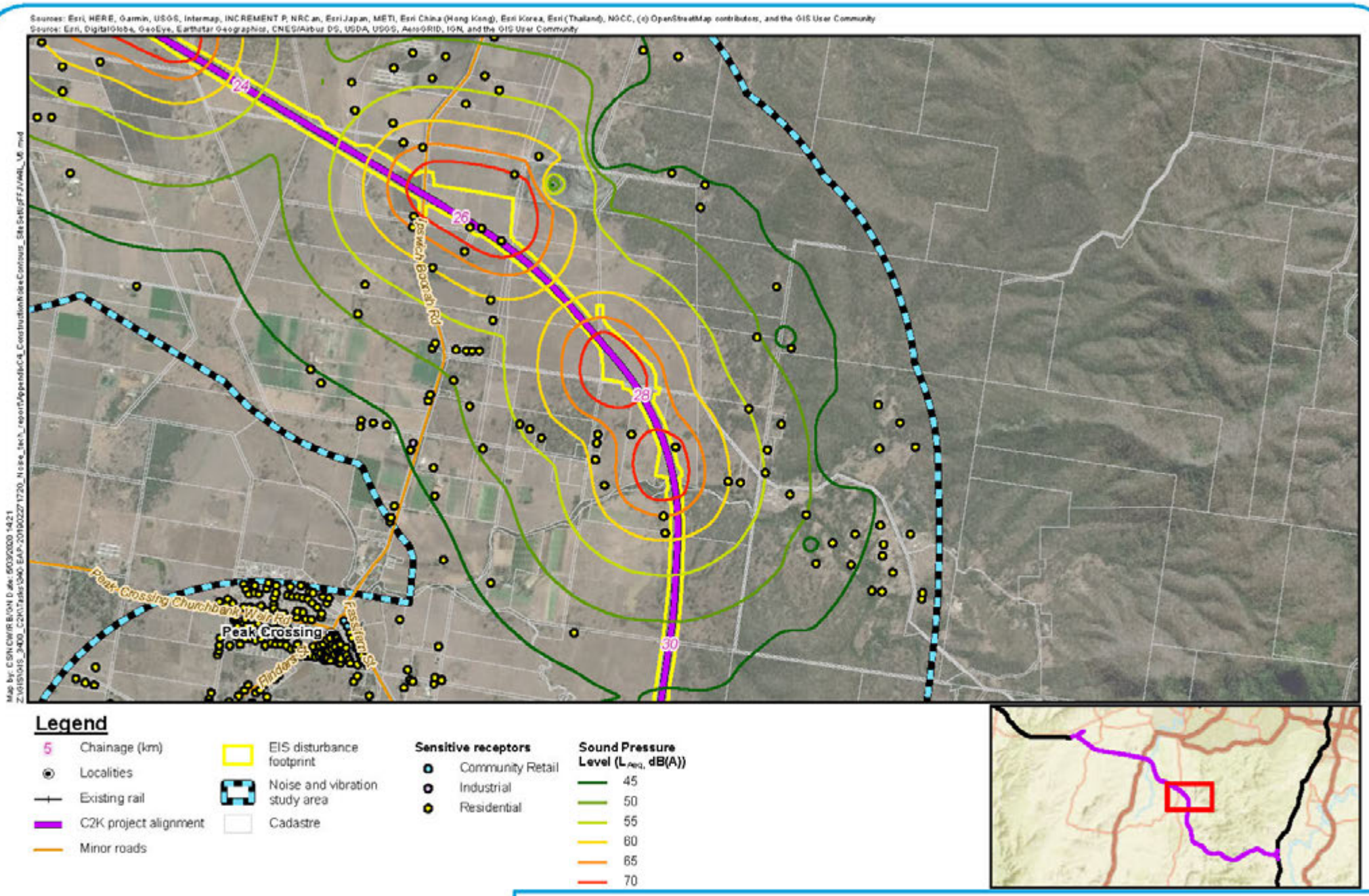
Future Freight

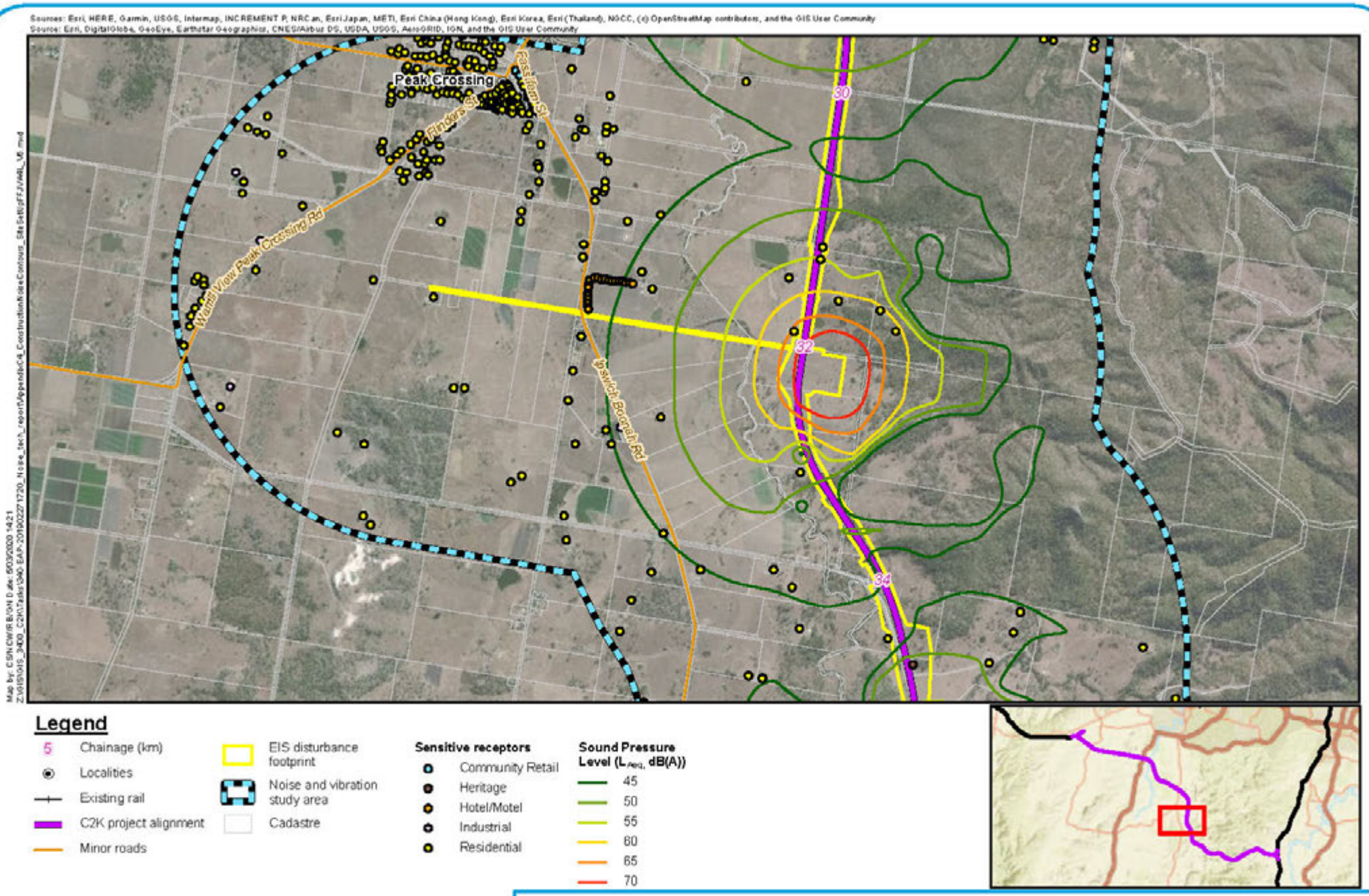
Date: 05/03/2020 Version: 0
Coordinate system: MGA56

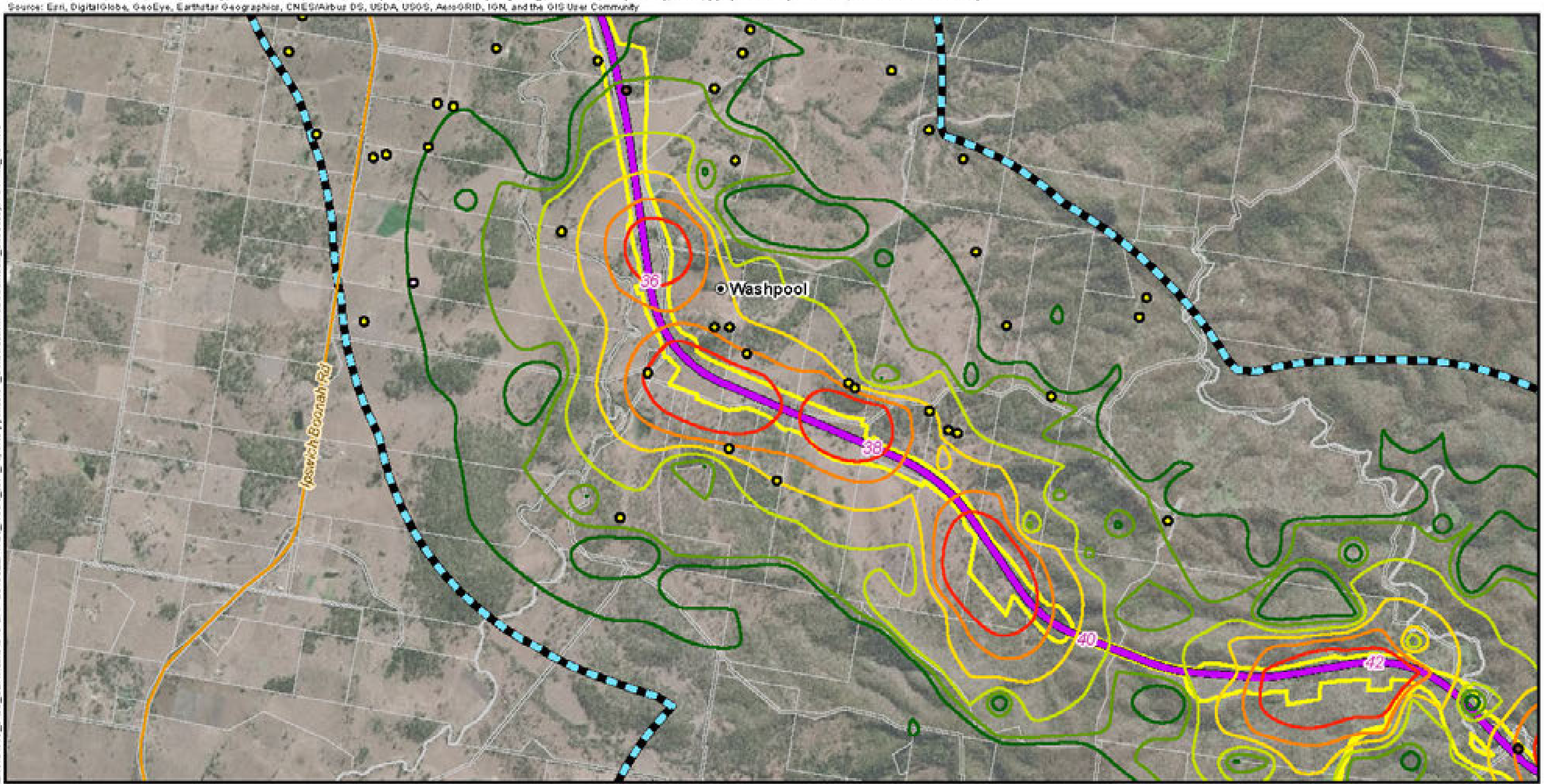
CALVERT TO KAGARU

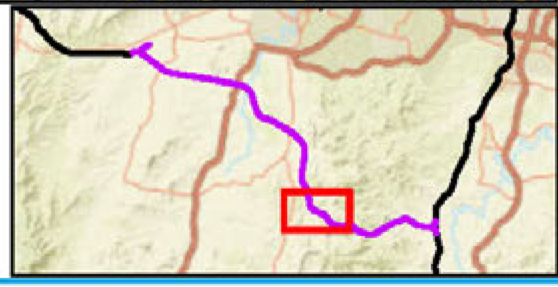
Appendix C4e: Construction Noise Contours: Laydown


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Goolman
Ipswich Boonah Rd
20
22
24
26
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Residential
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C4f: Construction Noise Contours: Laydown


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
24
26
28
30
Leswich Boorah Rd
Peak Crossing Church
Bank
Weir Rd
Peak Crossing
Fast Farm St
Flinders St
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C4g: Construction Noise Contours: Laydown


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Peak Crossing
Flinders St
Fassifern St
Walnut View Peak Crossing Rd
Ipswich Boonah Rd
30
32
34
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Heritage
Hotel/Motel
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C4h: Construction Noise Contours: Laydown





Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

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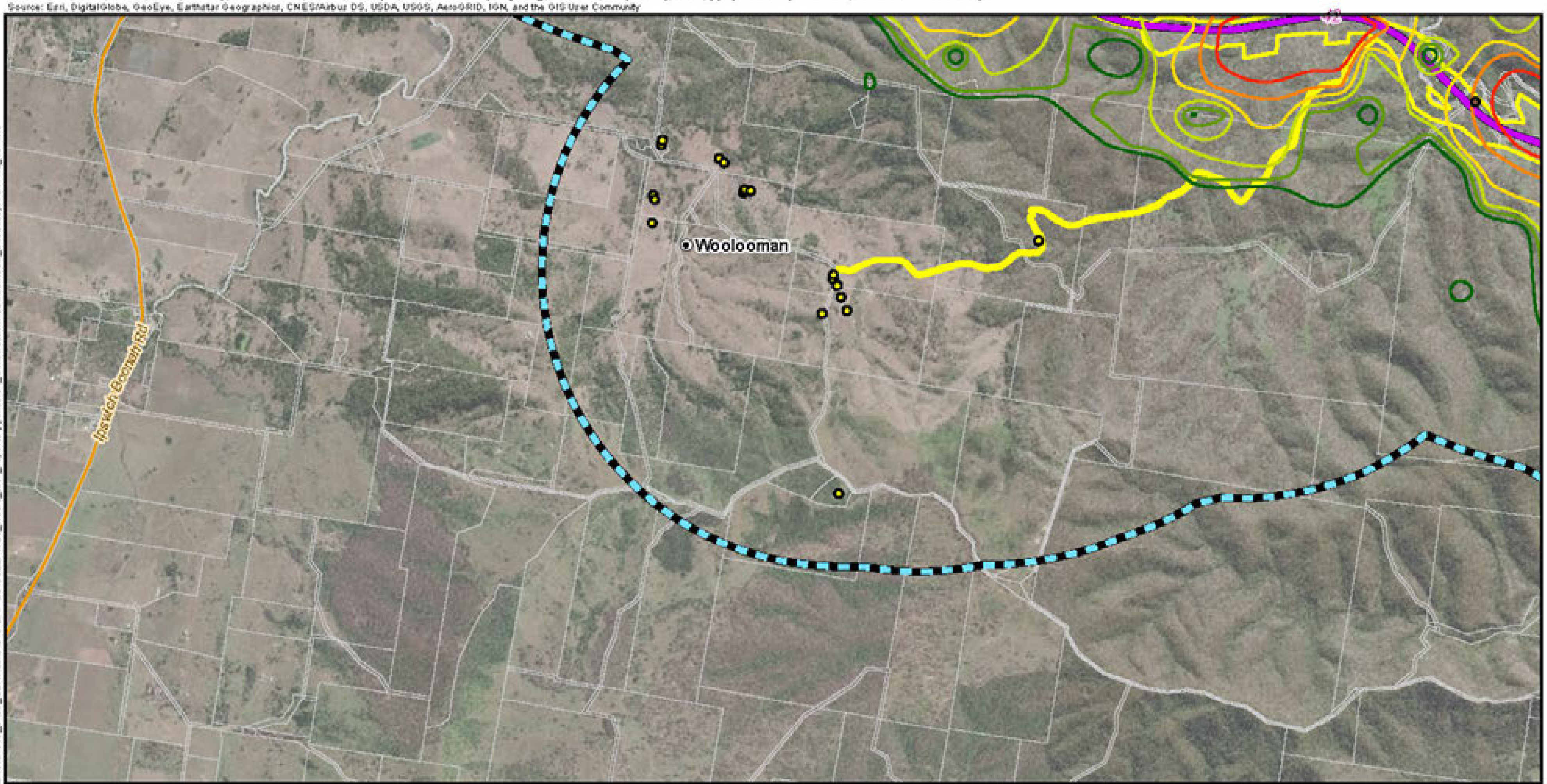
Appendix C4I: Construction Noise Contours: Laydown

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

5 Chainage (km)	EIS disturbance footprint	**Sensitive receptors**	**Sound Pressure Level (L_{Aeq}, dB(A))**
Localities	Noise and vibration study area	Heritage	45
Existing rail	Cadastre	Residential	50
C2K project alignment			55
Minor roads			60
			65
			70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

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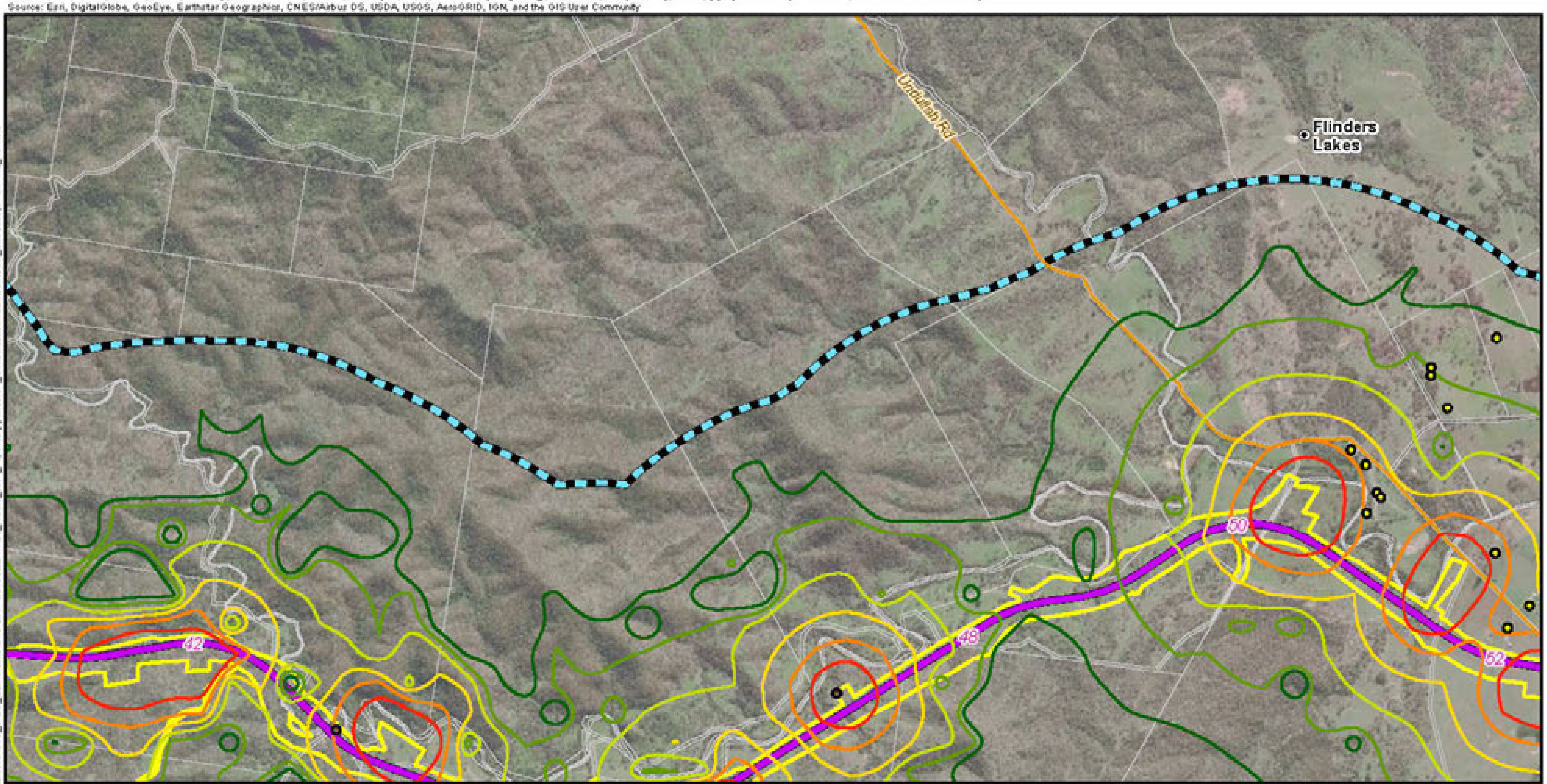
Appendix C4j: Construction Noise Contours: Laydown

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 14:21

Legend

5	Chainage (km)
⦿	Localities
	Existing rail
	C2K project alignment
	Minor roads
	EIS disturbance footprint
	Noise and vibration study area
	Cadastre

Sensitive receptors
- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

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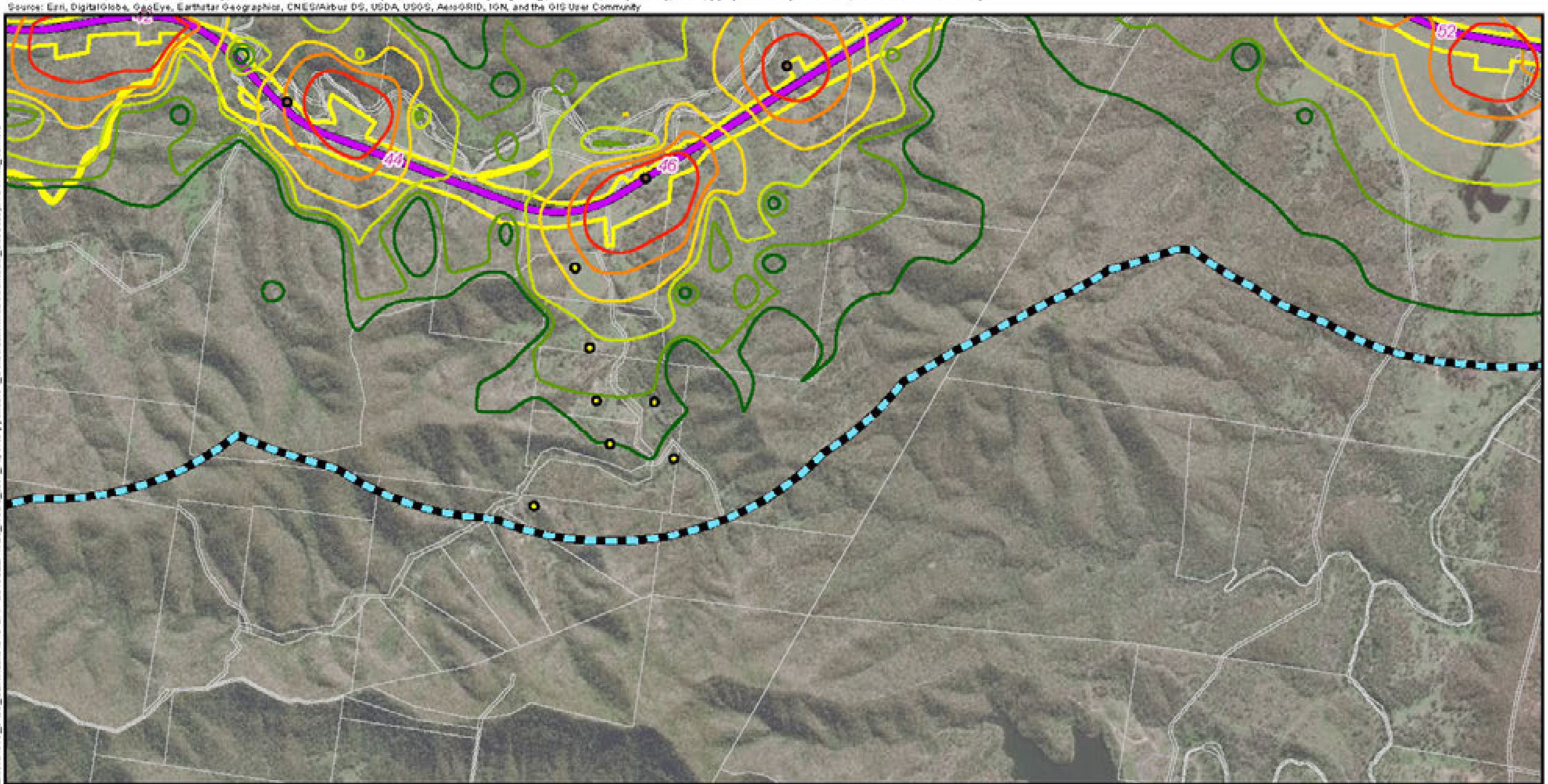
Appendix C4k: Construction Noise Contours: Laydown

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 14:21
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\AppendixC4_ConstructionNoiseContours_SiteSetUp\FFJV4#L_V6.mxd

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

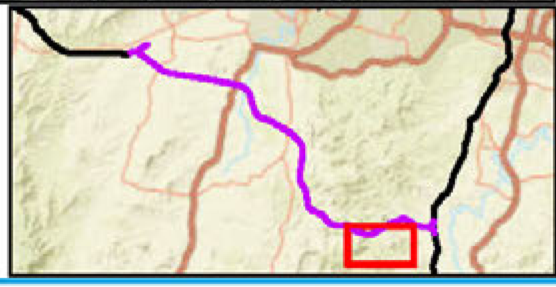
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

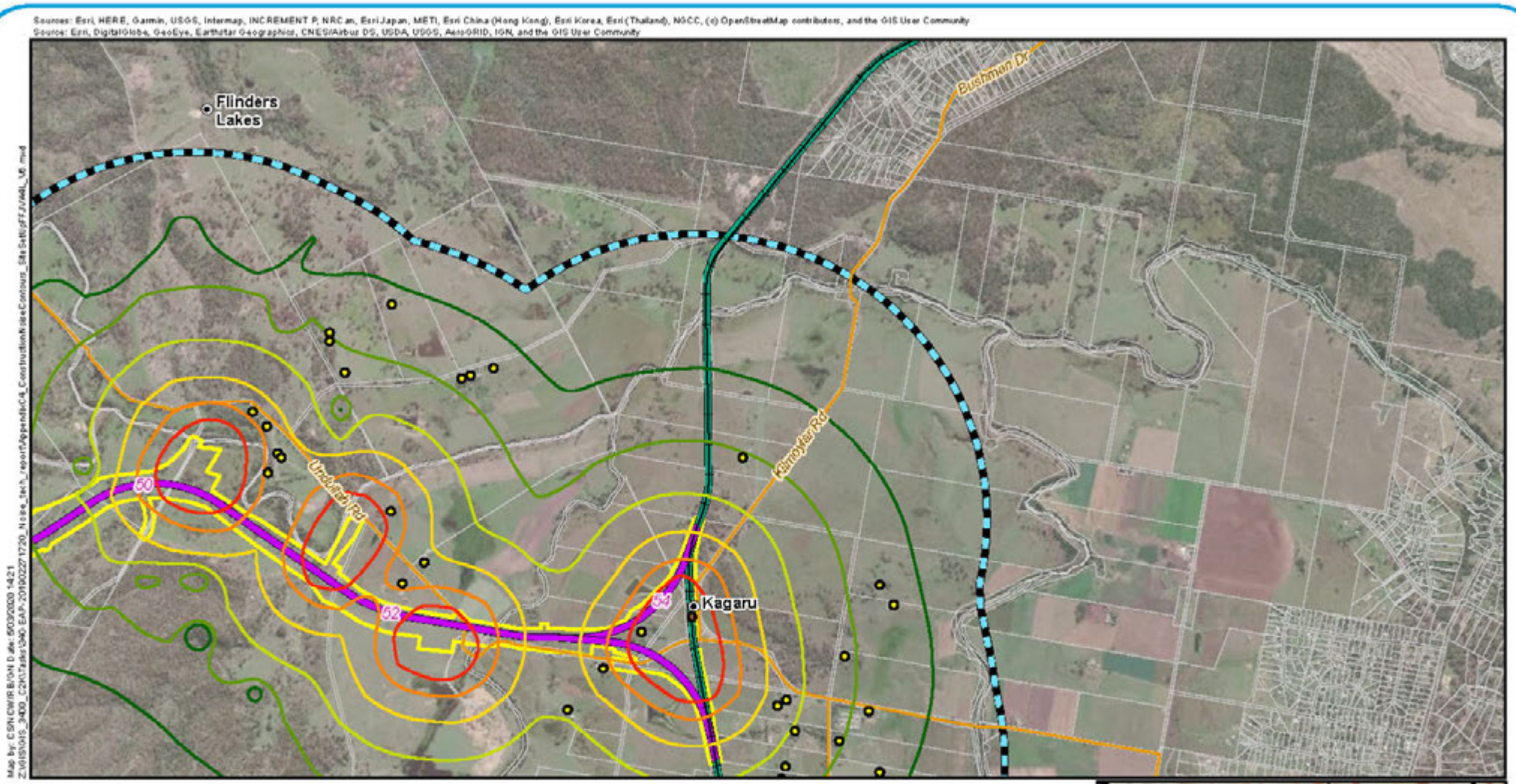
Future Freight — Integrating Community, Environment and Engineering

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C4l: Construction Noise Contours: Laydown



Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

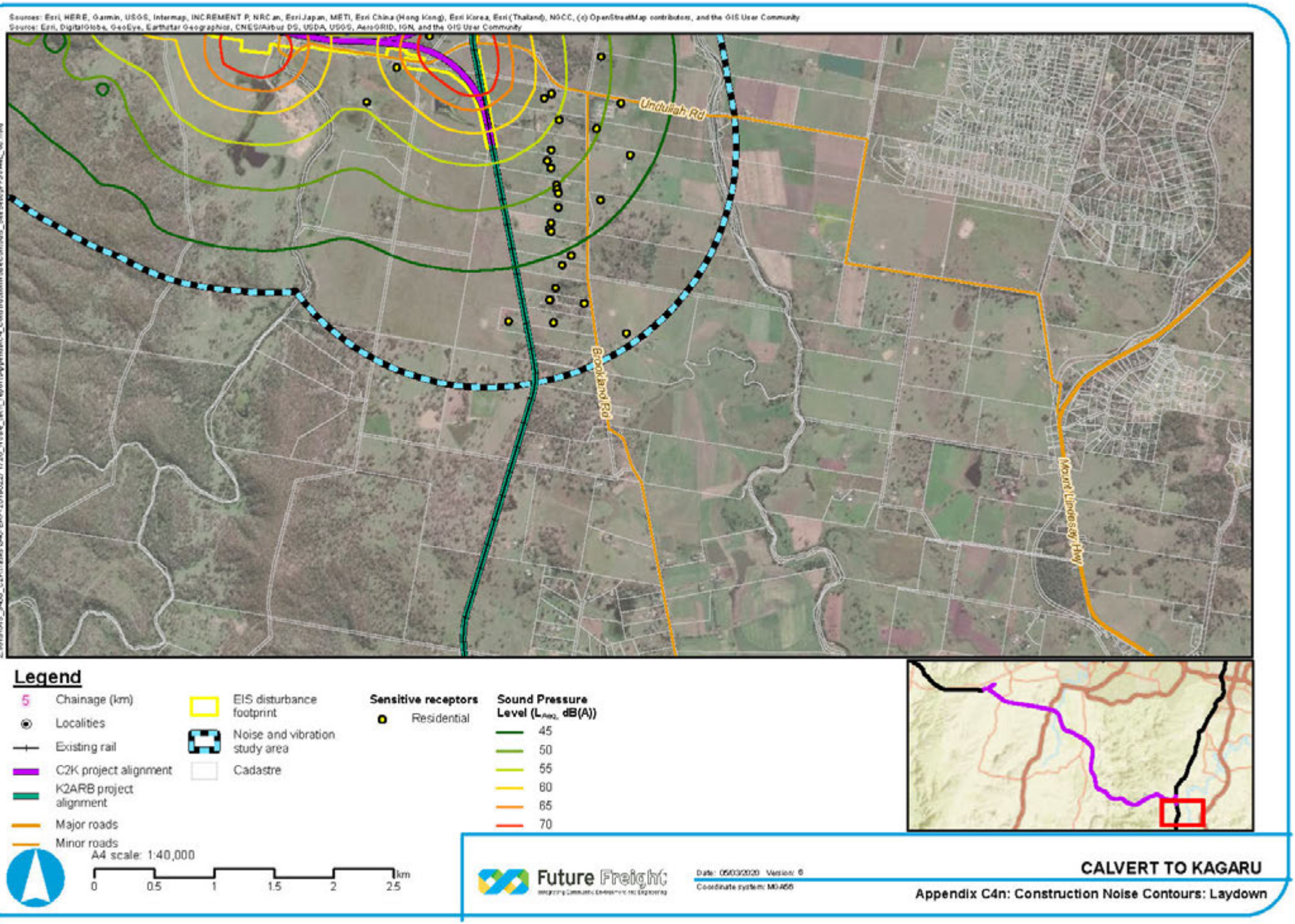
Future Freight

Date: 05/03/2020 Version: 0

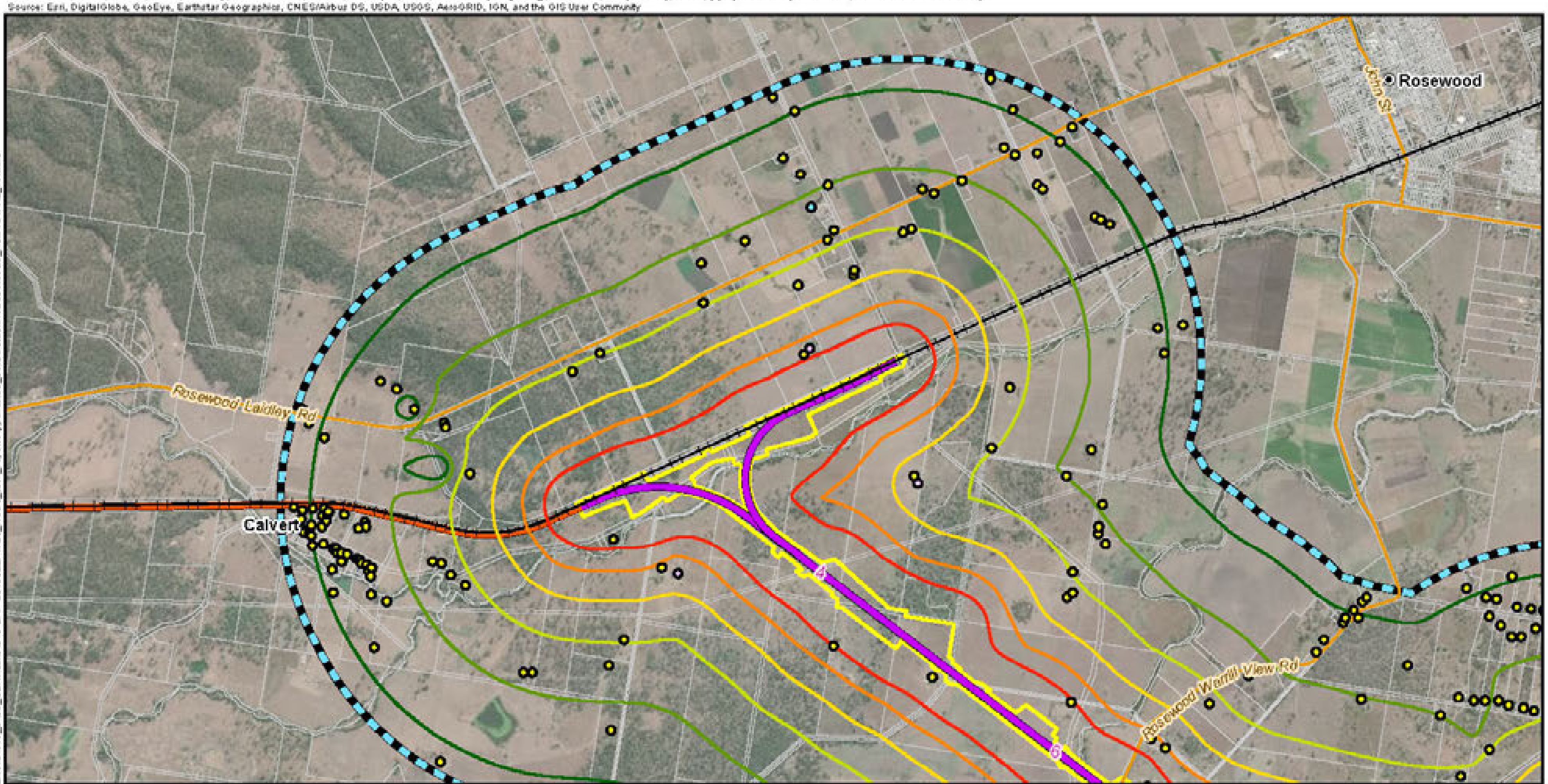
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C4m: Construction Noise Contours: Laydown


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Undullah Rd
Brooklands Rd
Mount Lindesay Hwy
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
K2ARB project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Residential
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C4n: Construction Noise Contours: Laydown

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- H2C project alignment
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 7

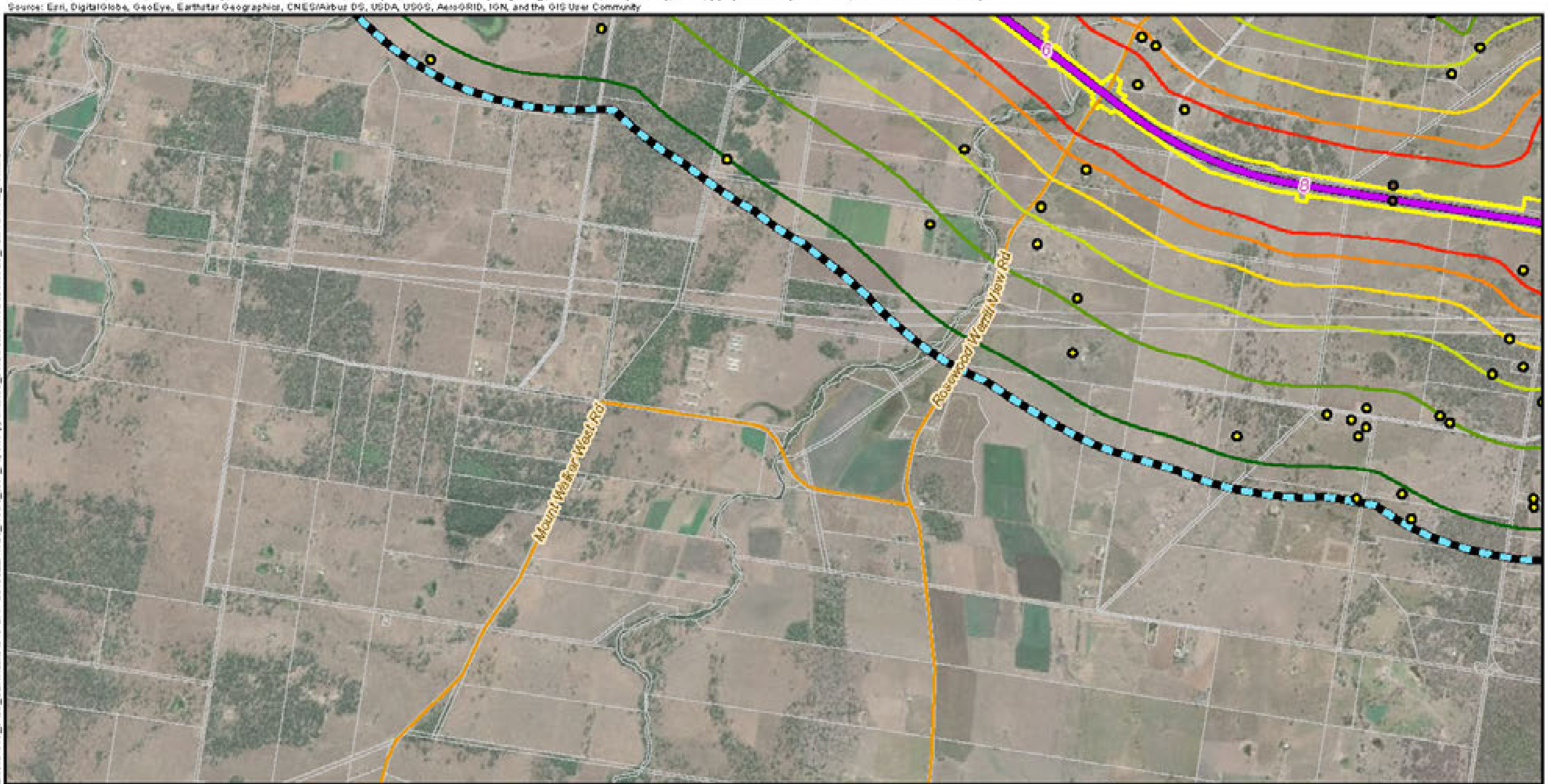
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5a: Construction Noise Contours: Rail civil works

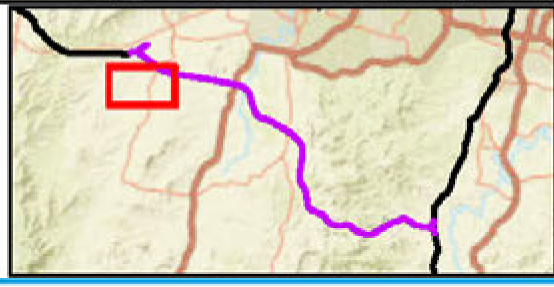
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map by: CSN/CW/RB/MEF/JSH Date: 5/03/2020 14:28
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix05_ConstructionNoiseContours_RailFF\VAIL_V7.mxd



Legend

5 Chainage (km)	EIS disturbance footprint	**Sensitive receptors**	**Sound Pressure Level (L_{Aeq}, dB(A))**
Localities	Noise and vibration study area	Heritage	45
Existing rail	Cadastre	Residential	50
C2K project alignment			55
Minor roads			60
			65
			70



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

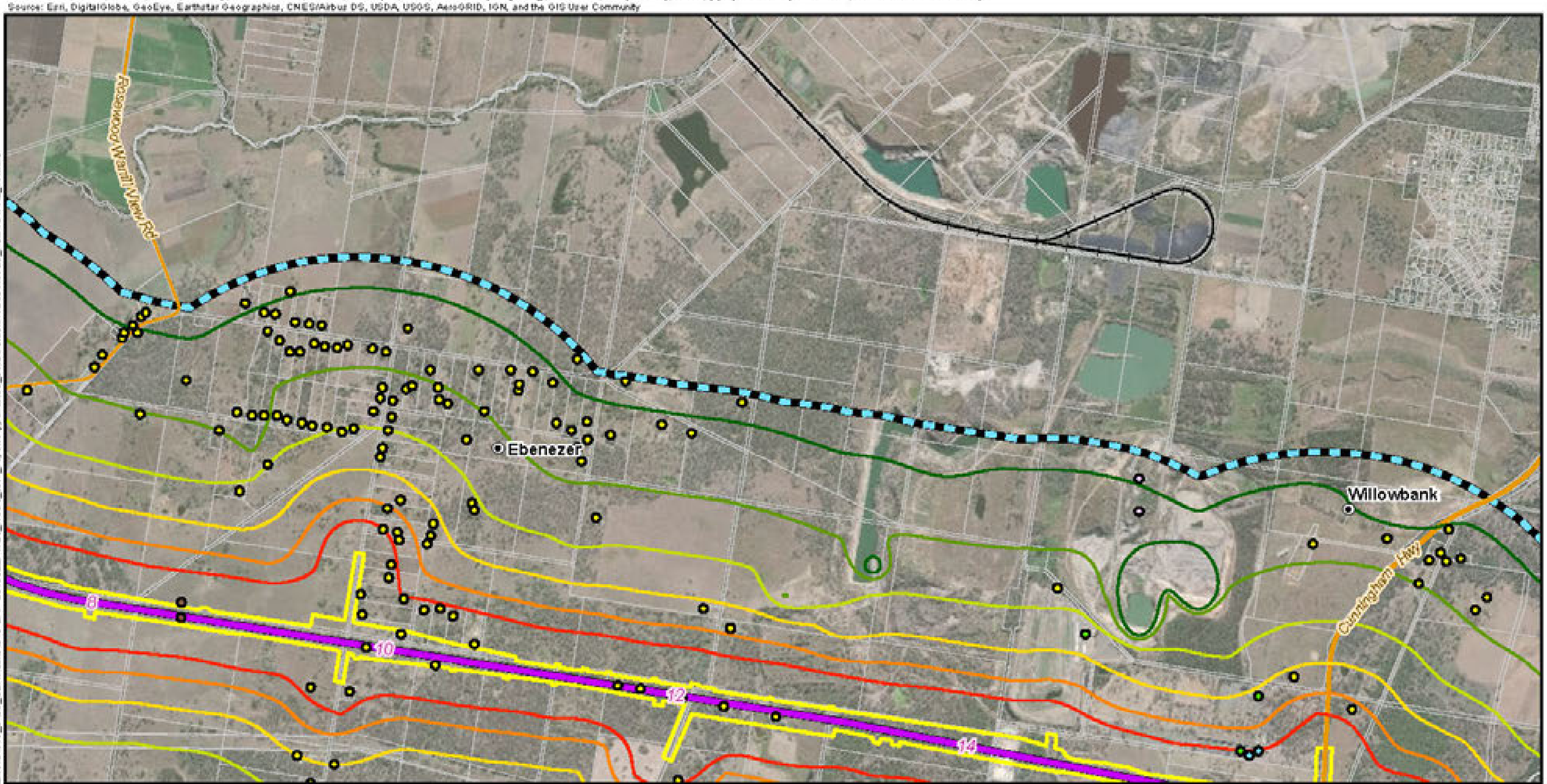
Date: 05/03/2020 Version: 7

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5b: Construction Noise Contours: Rail civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Heritage
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

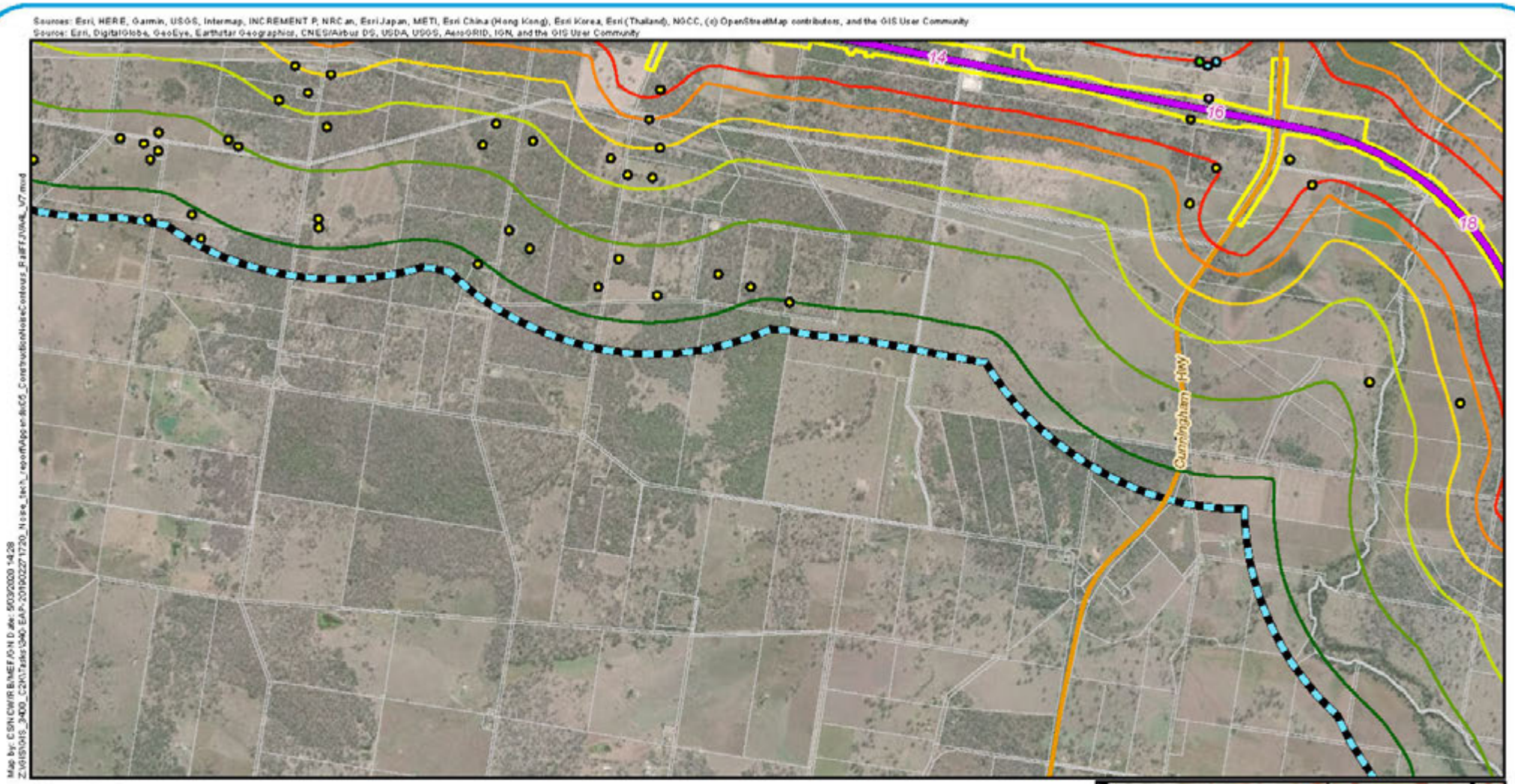
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 7
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5c: Construction Noise Contours: Rail civil works



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

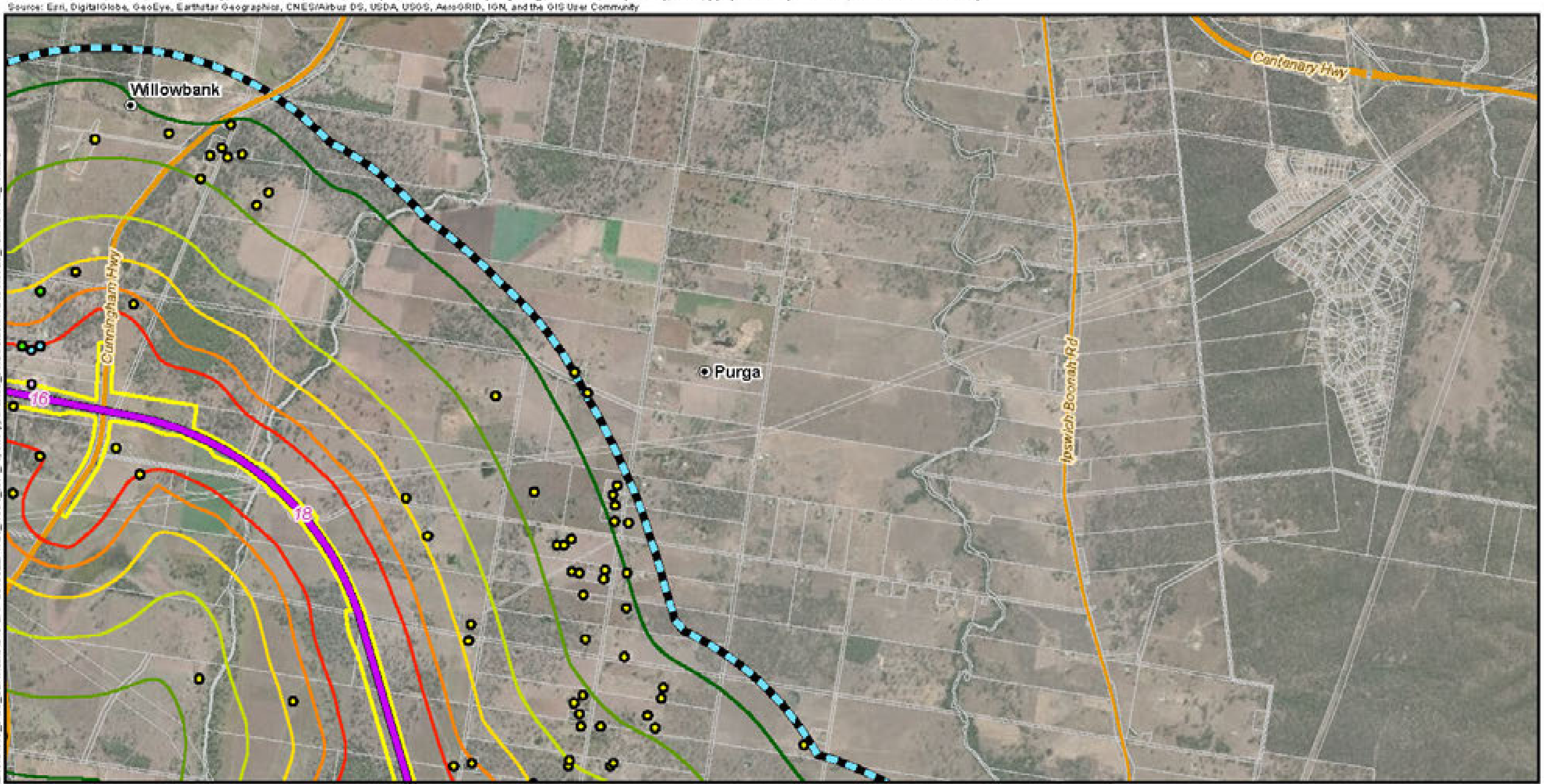
Date: 05/03/2020 Version: 7

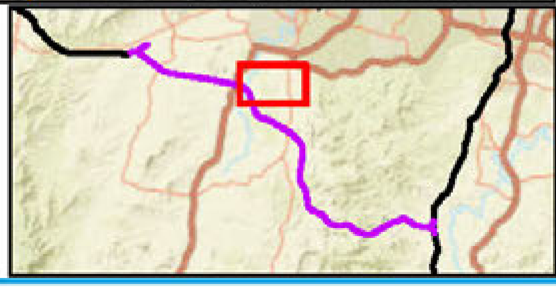
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5d: Construction Noise Contours: Rail civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

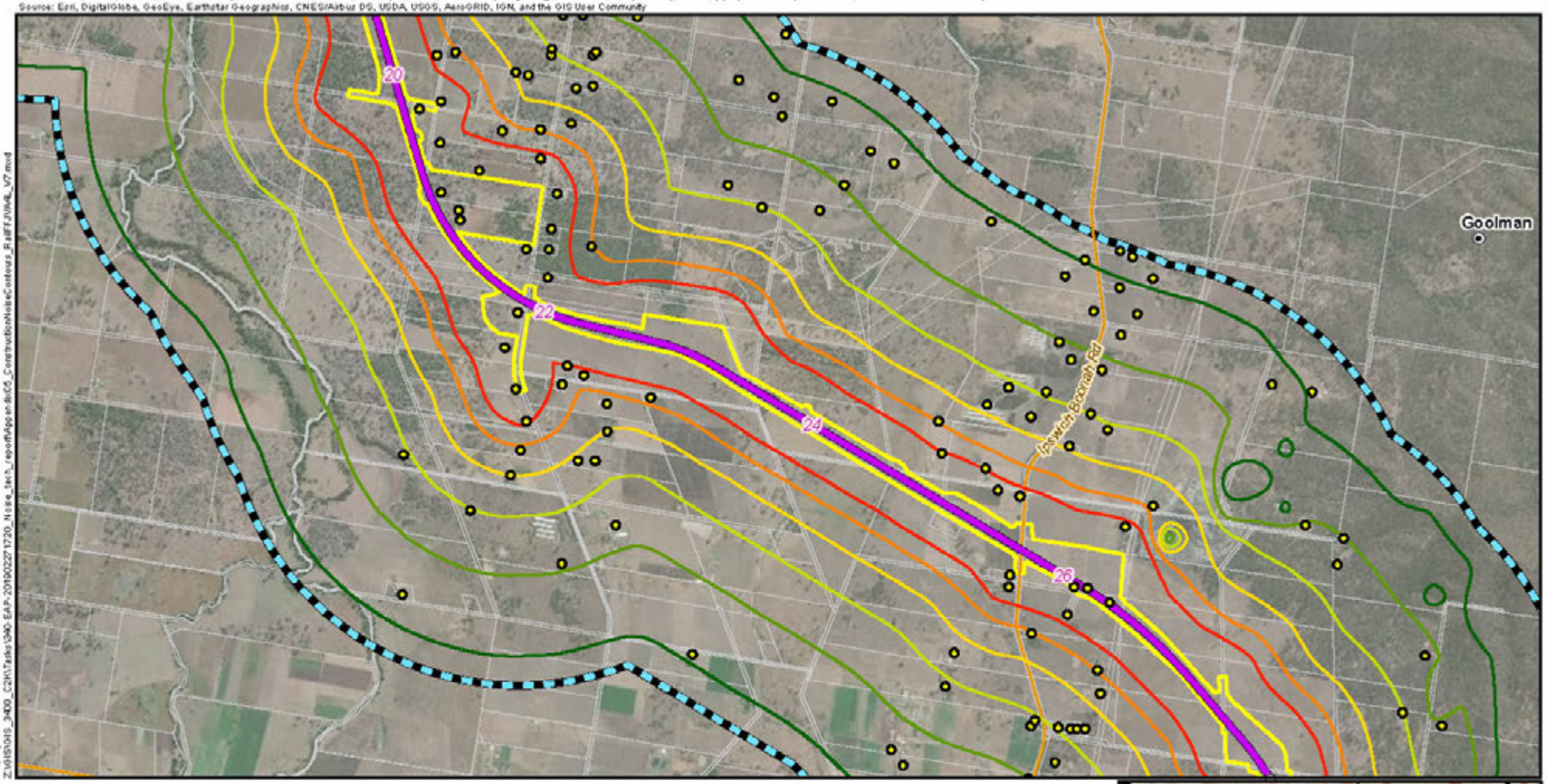
Future Freight

Date: 05/03/2020 Version: 7

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5e: Construction Noise Contours: Rail civil works



Map by: C:\SN\CWR\BMEF\SN D ate: 5/03/2020 14:28
Z:\GIS\SNS_3400_C2K\Tasks\3440_EAP-20190222\1720_Noise_tech_report\Appendix\C5_ConstructionNoiseContours_RailFF.JWML_V7.mxd

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

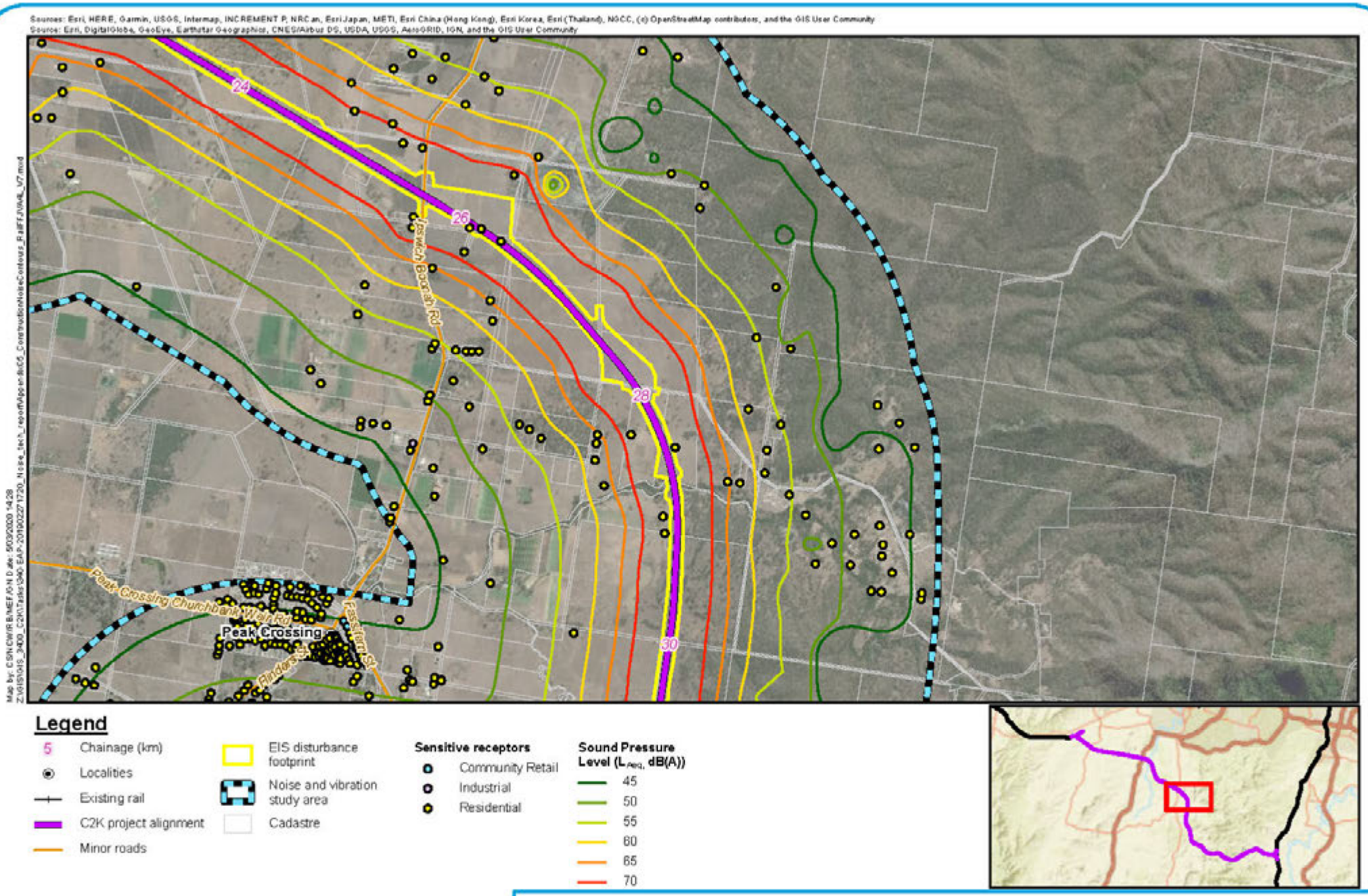
0 0.5 1 1.5 2 2.5 km

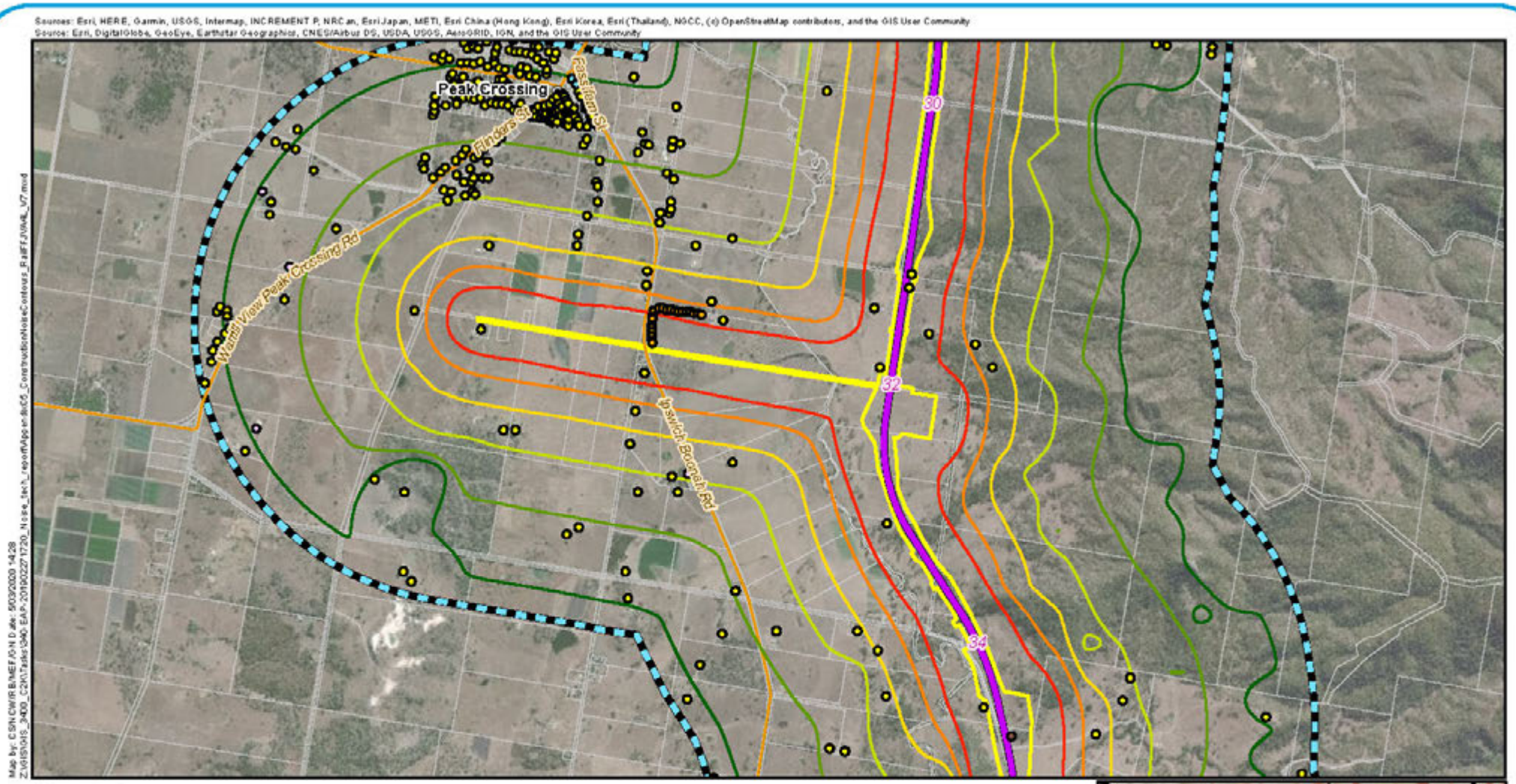
Future Freight

Date: 05/03/2020 Version: 7
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5f: Construction Noise Contours: Rail civil works


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
24
26
28
30
Ipswich Boonah Rd
Peak Crossing Churchbank
Weir Rd
Peak Crossing
Fassifern St
Flinders St
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0
0.5
1
1.5
2
2.5
km
Future Freight
Date: 05/03/2020 Version: 7
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C5g: Construction Noise Contours: Rail civil works



Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Heritage
- Hotel/Motel
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

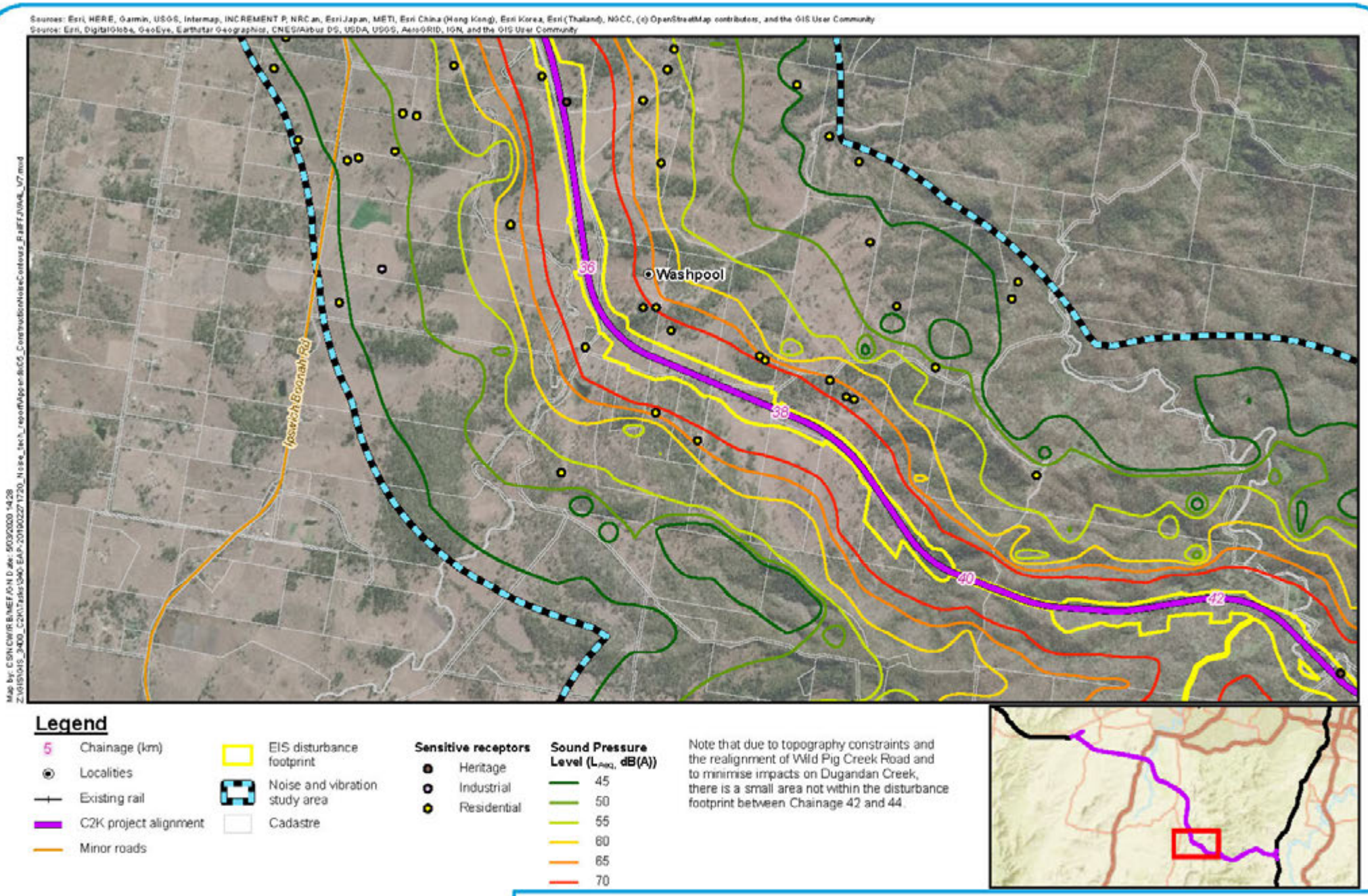
Future Freight

Date: 05/03/2020 Version: 7

Coordinate system: MGA56

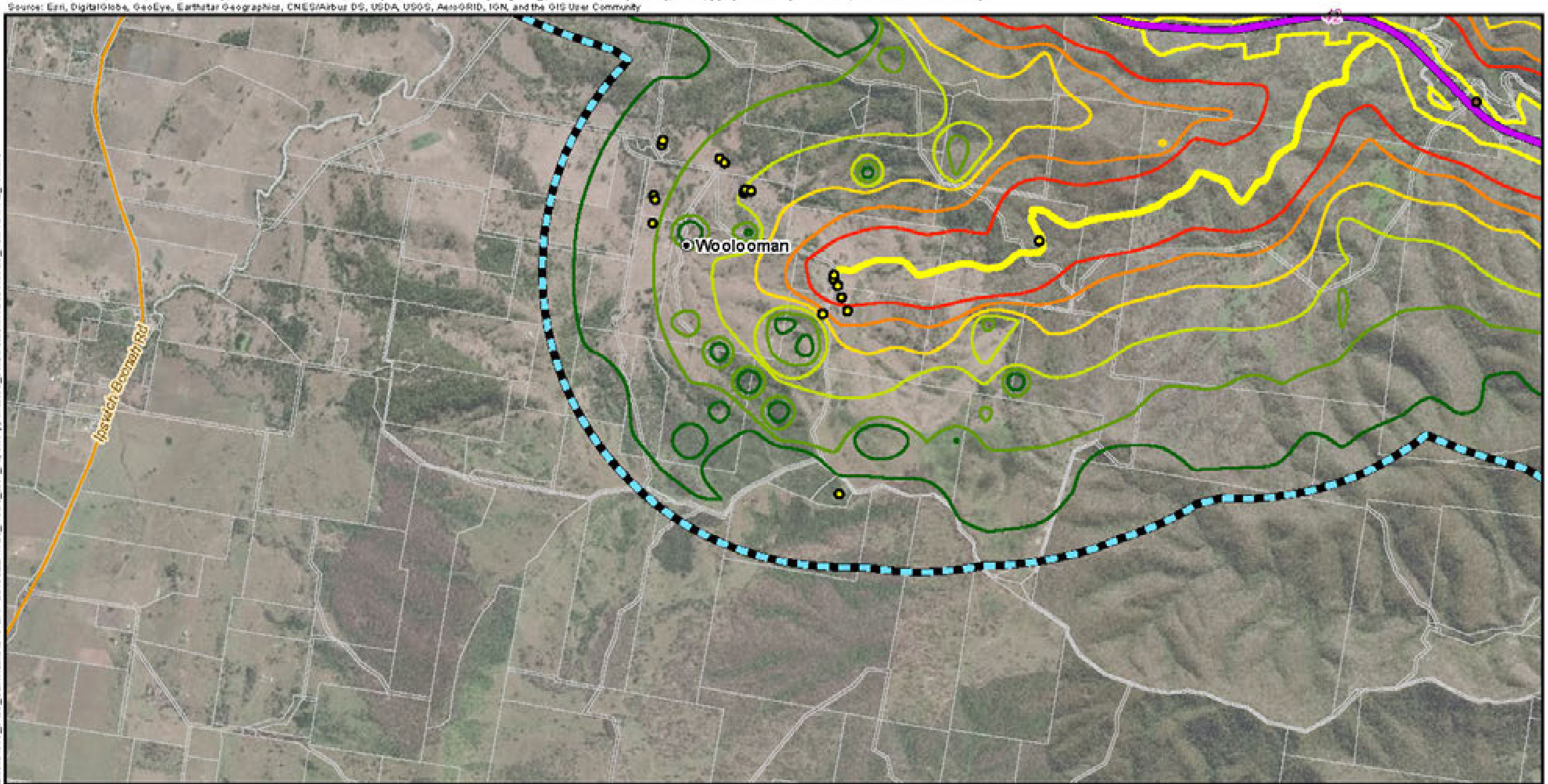
CALVERT TO KAGARU

Appendix C5h: Construction Noise Contours: Rail civil works


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Washpool
36
38
40
42
Ipswich Boonah Rd
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Heritage
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 7
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C5i: Construction Noise Contours: Rail civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map by: CSN/CW/RB/MEF/JSN Date: 5/03/2020 14:28
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix05_ConstructionNoiseContours_RailFF\VAIL_V7.mxd



Legend

5	Chainage (km)
	Localities
	Existing rail
	C2K project alignment
	Minor roads
	EIS disturbance footprint
	Noise and vibration study area
	Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

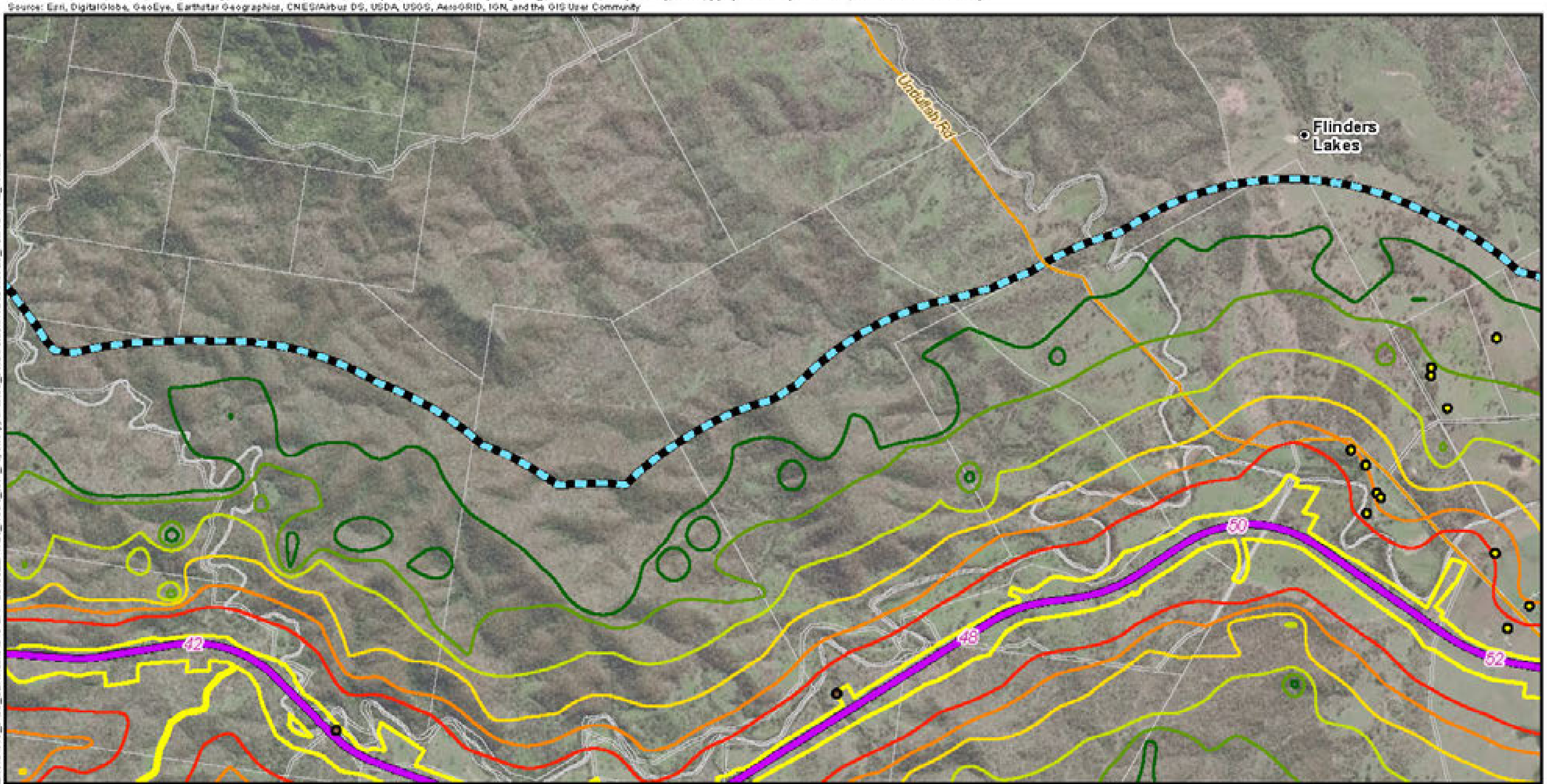
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 7
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5j: Construction Noise Contours: Rail civil works



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors
- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

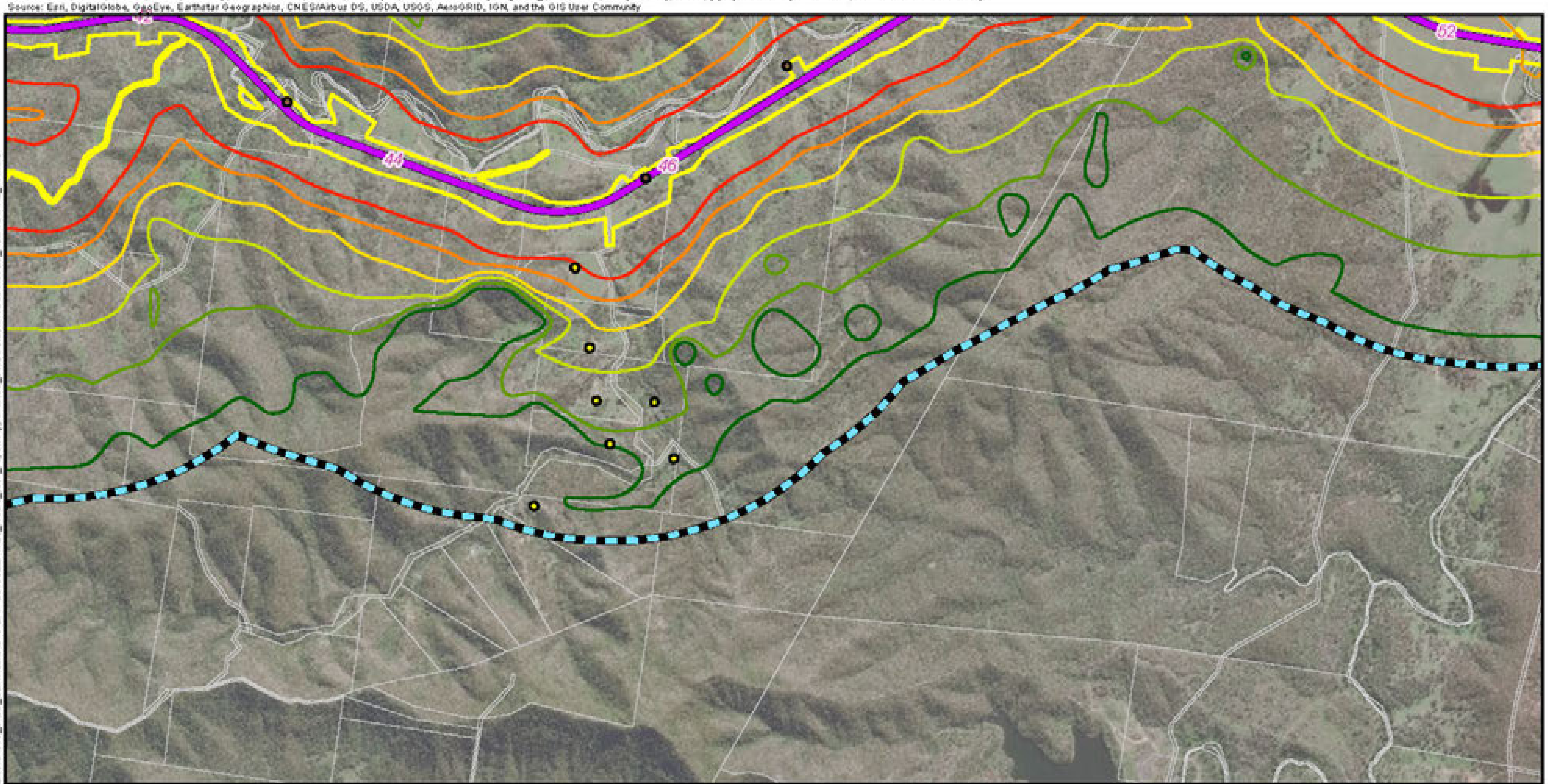
Future Freight

Date: 05/03/2020 Version: 7
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5k: Construction Noise Contours: Rail civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/MEF/JN Date: 5/03/2020 14:28
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix C5_ConstructionNoiseContours_RailFF\VA4L_V7.mxd

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

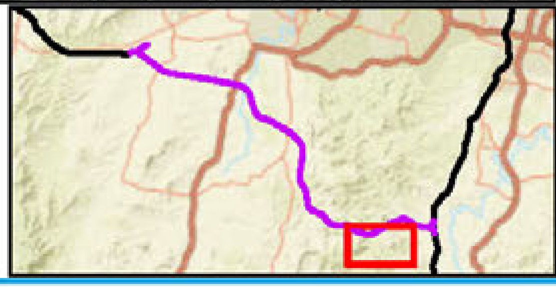
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

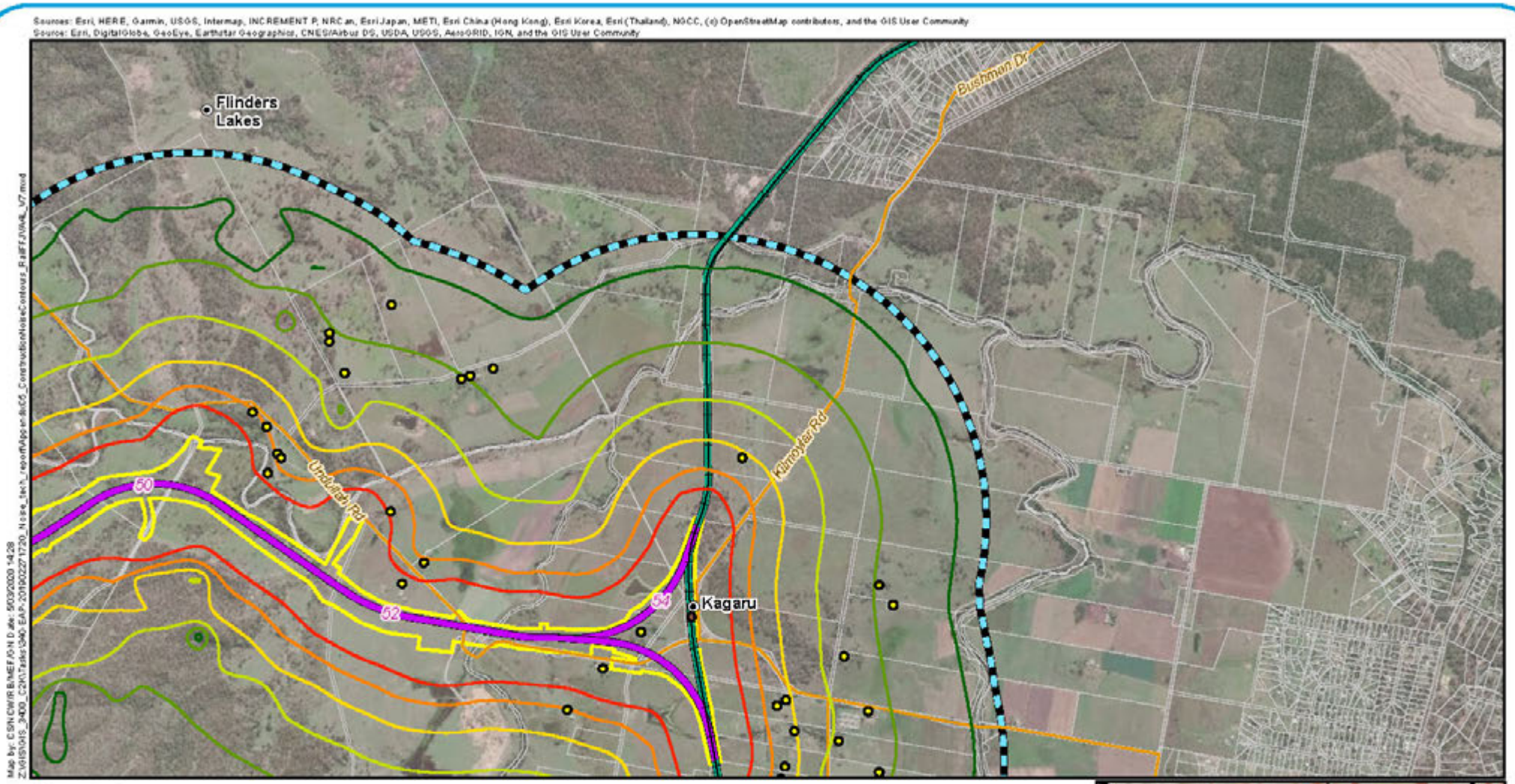
Future Freight

Date: 05/03/2020 Version: 7

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5I: Construction Noise Contours: Rail civil works



Legend

- Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

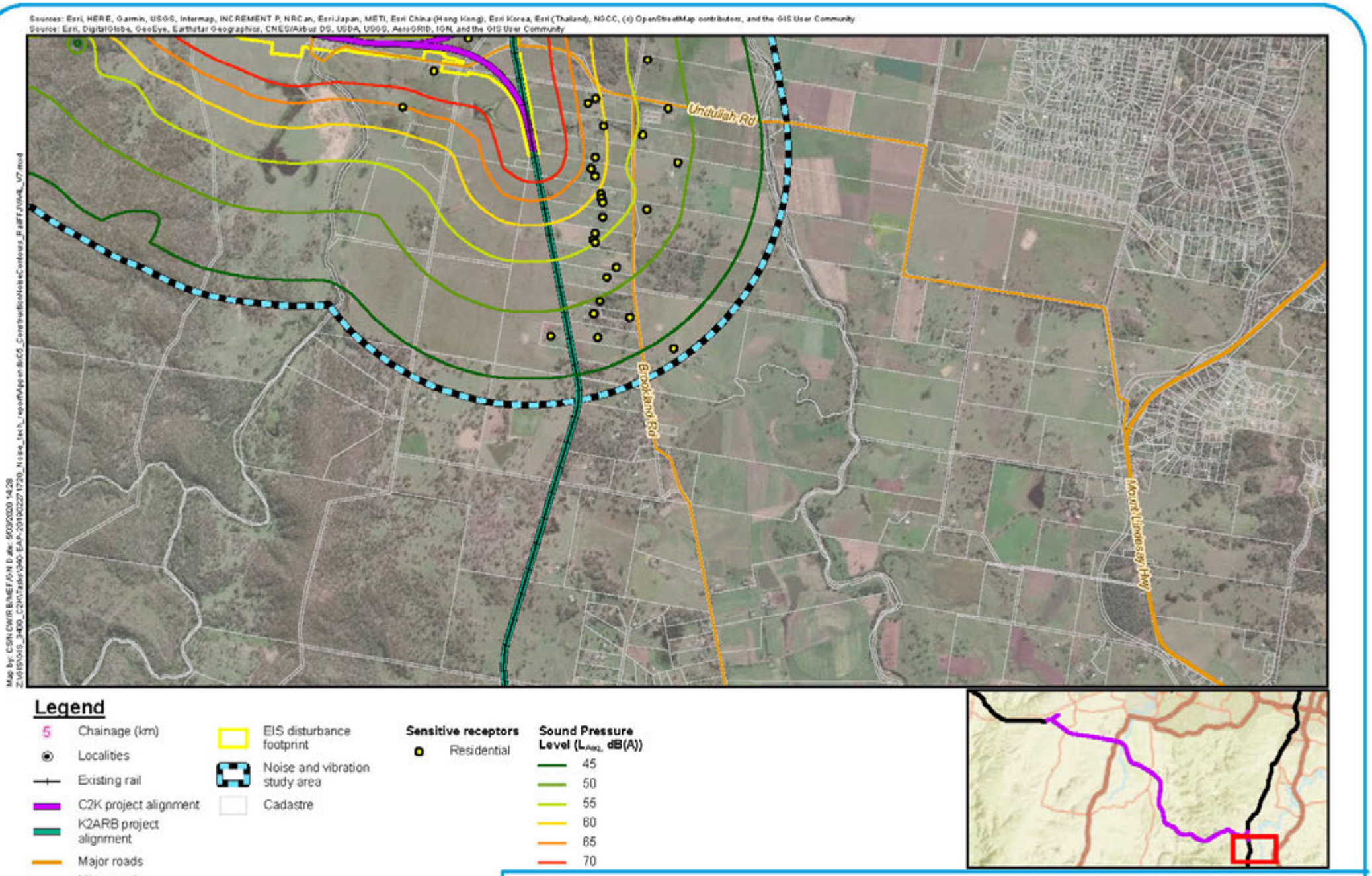
Future Freight

Date: 05/03/2020 Version: 7

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5m: Construction Noise Contours: Rail civil works



Legend

- 5 — Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

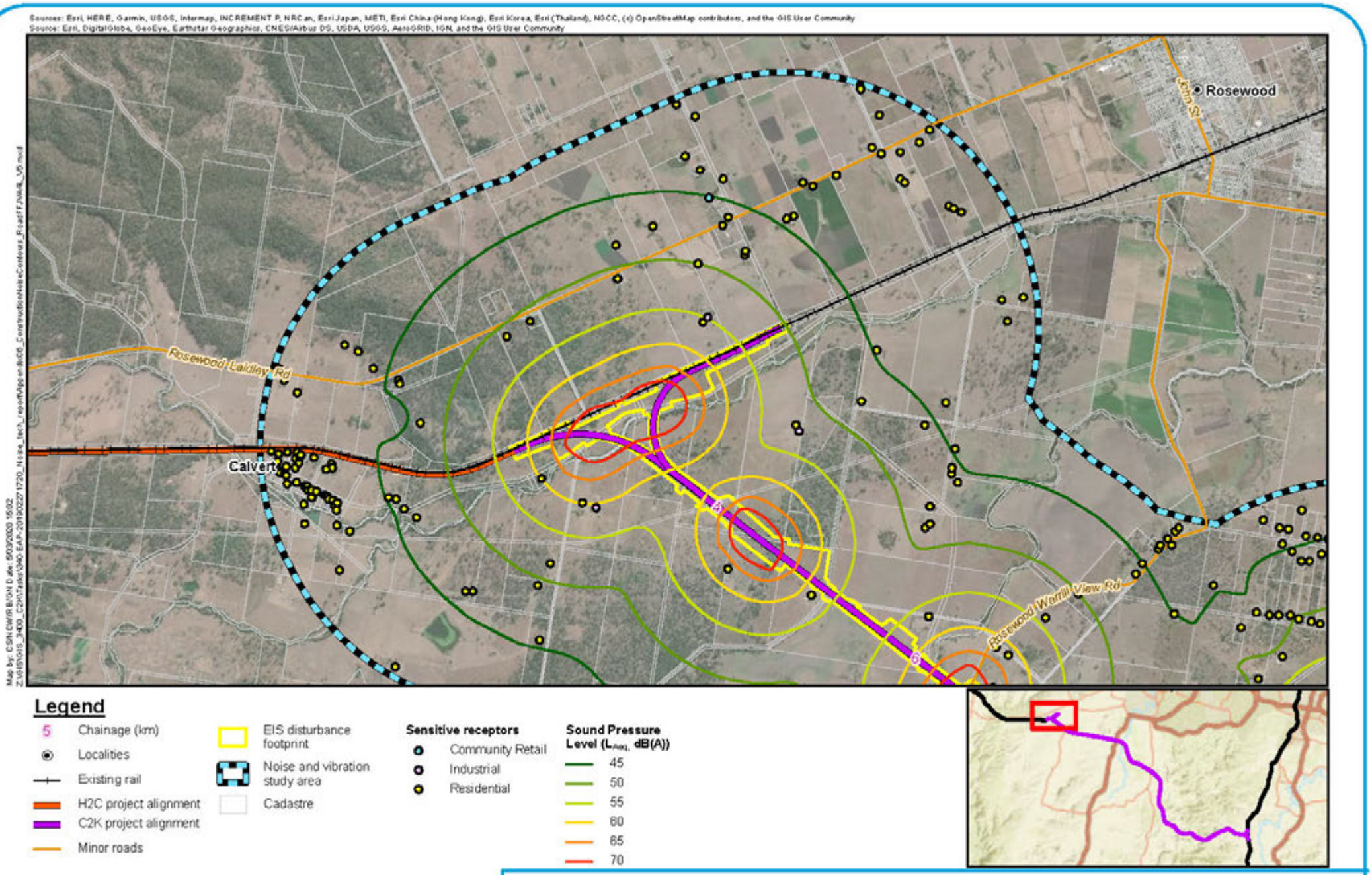
Future Freight

Date: 05/03/2020 Version: 7

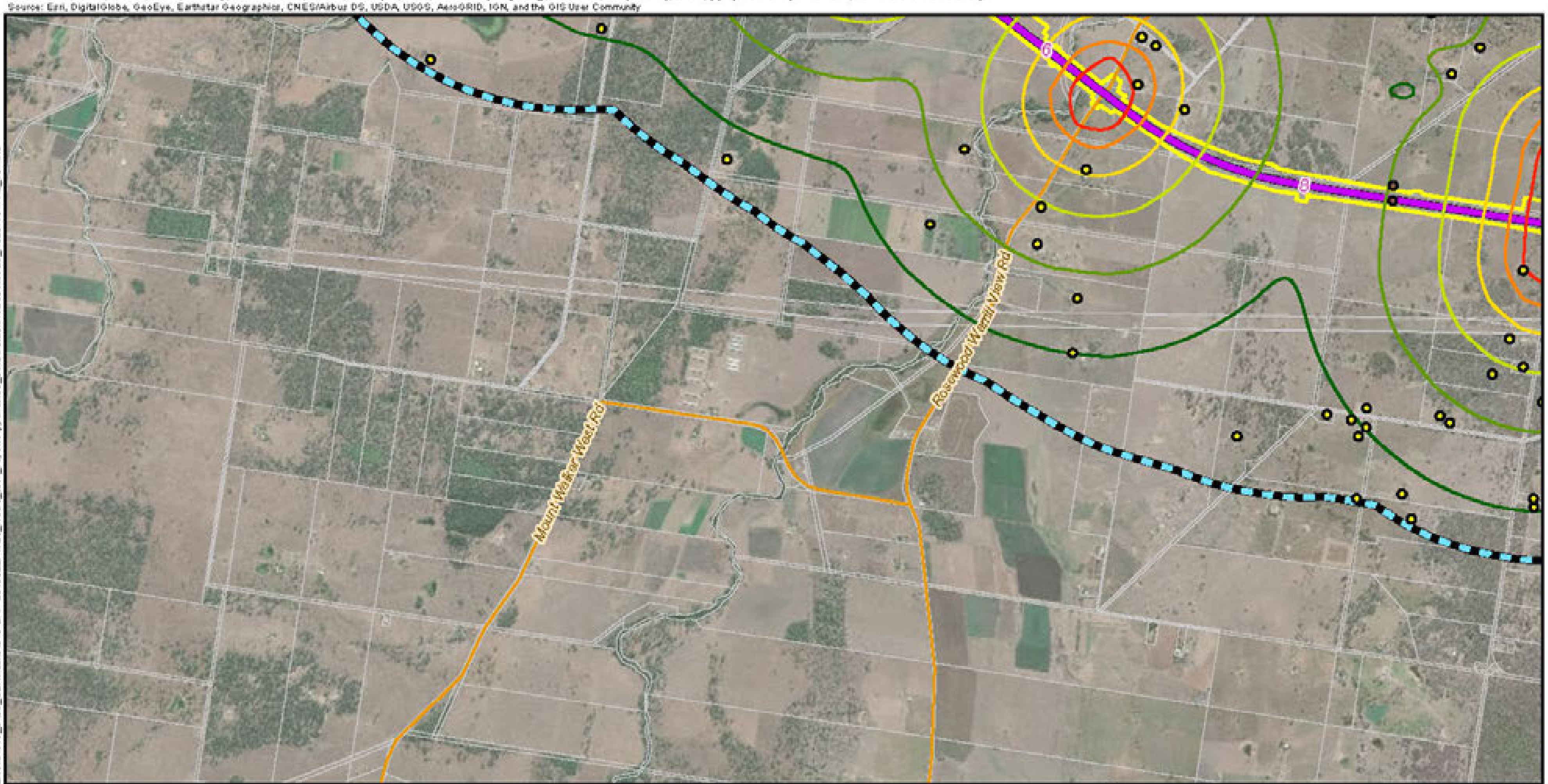
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C5n: Construction Noise Contours: Rail civil works


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood
John St
Rosewood-Laidley Rd
Calvert
Rosewood Warrill View Rd
Legend
5 Chainage (km)
Localities
Existing rail
H2C project alignment
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C6a: Construction Noise Contours: Road civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

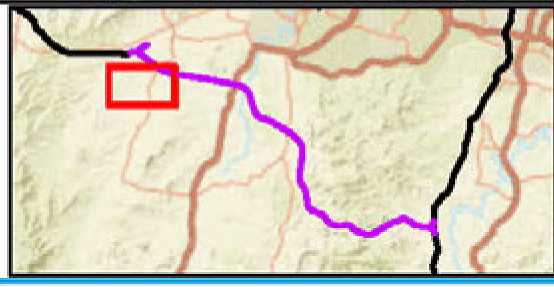
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

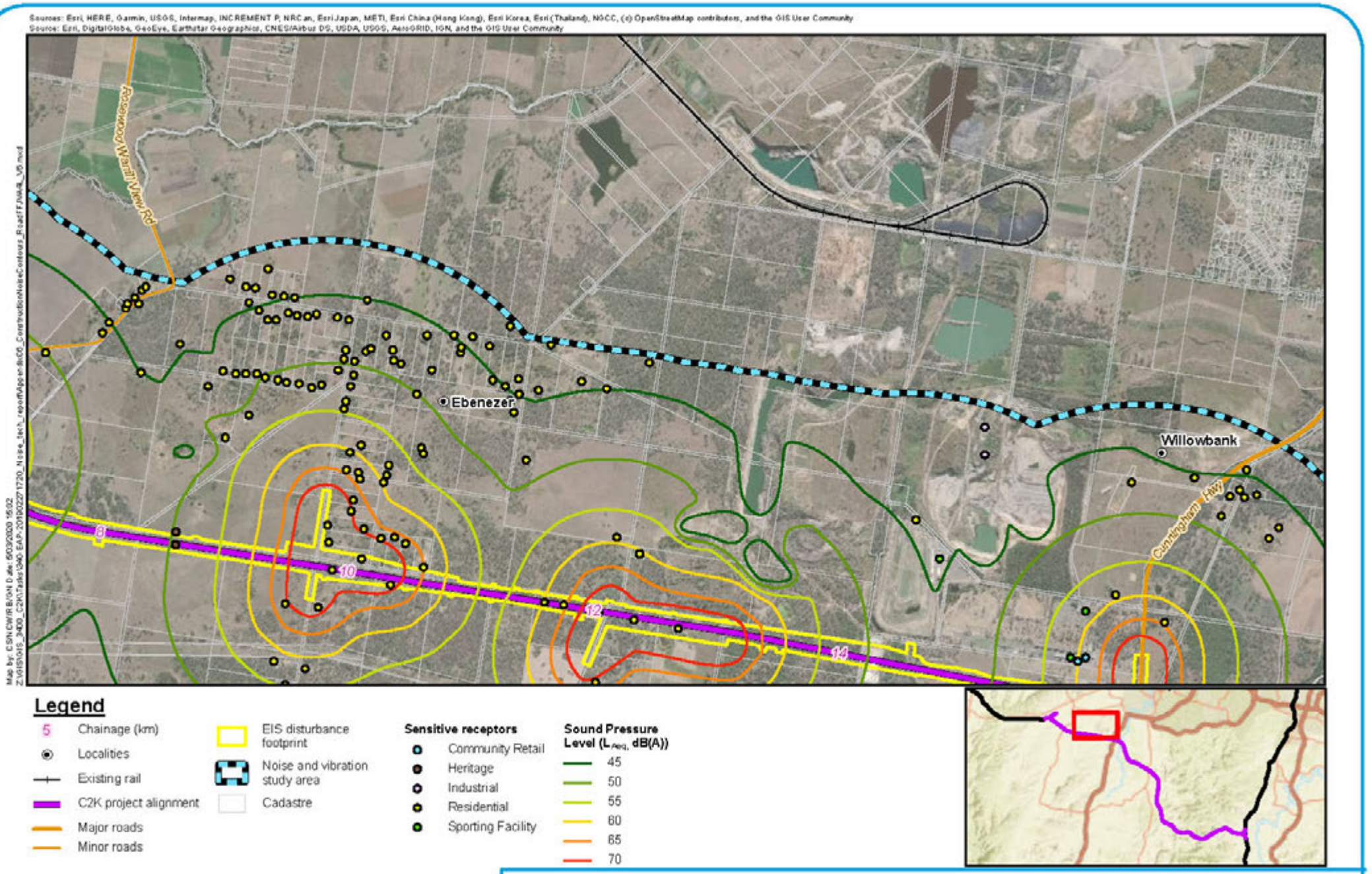
Future Freight

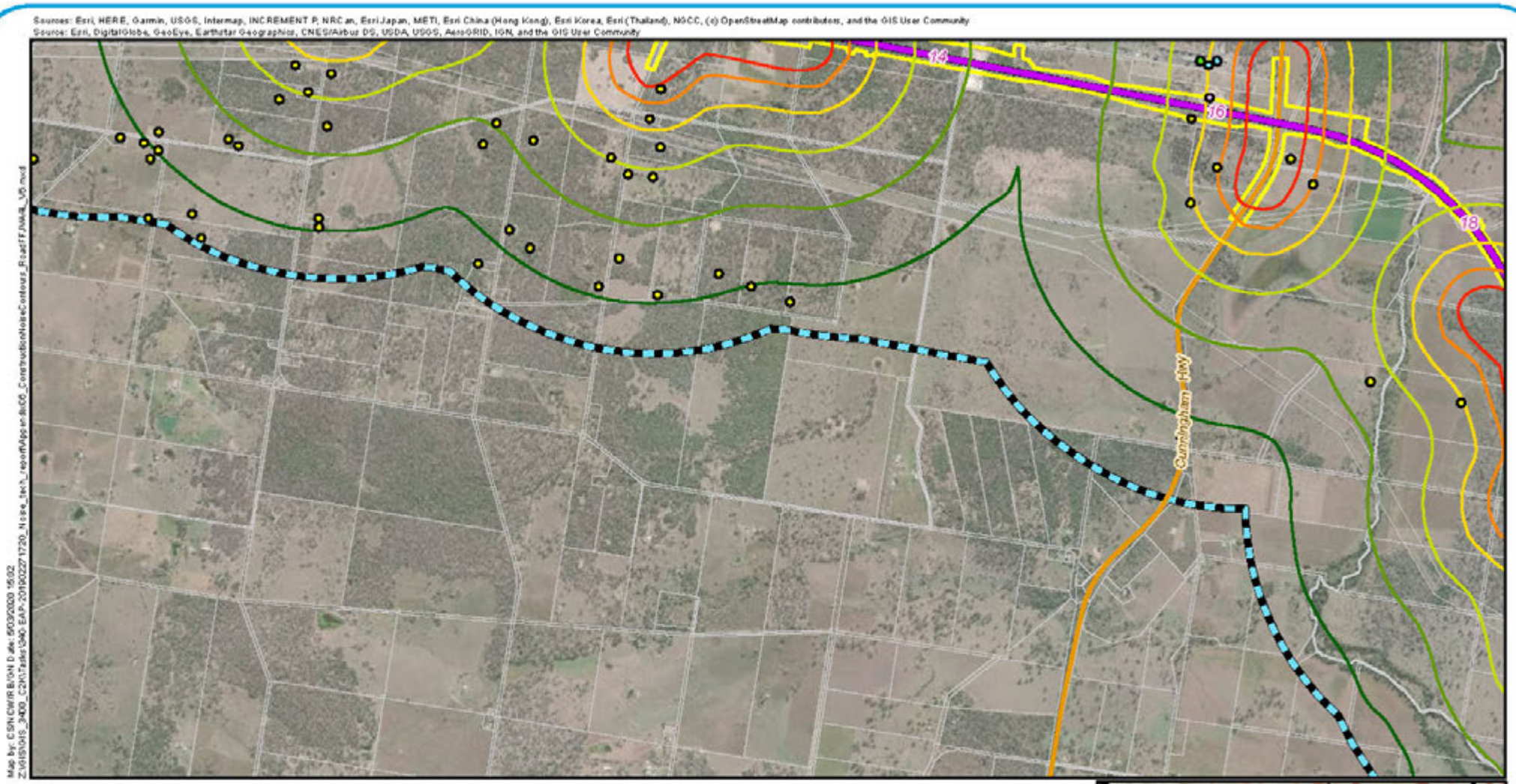
Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6b: Construction Noise Contours: Road civil works


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Rosewood Warrill View Rd
Ebenezer
Willowbank
Cunningham Hwy
8
10
12
14
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Heritage
Industrial
Residential
Sporting Facility
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0
0.5
1
1.5
2
2.5
km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C6c: Construction Noise Contours: Road civil works



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

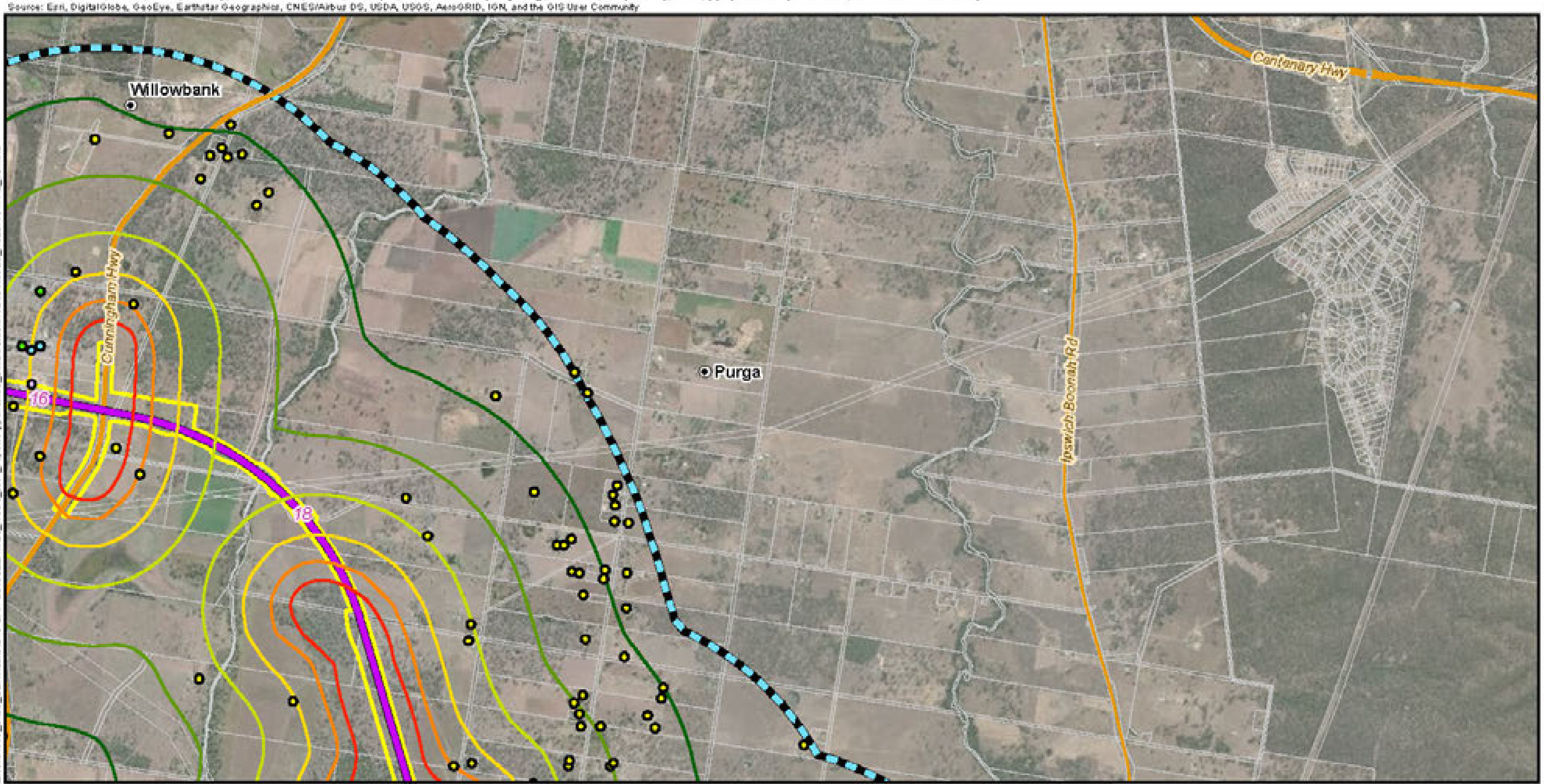
Date: 05/03/2020 Version: 0

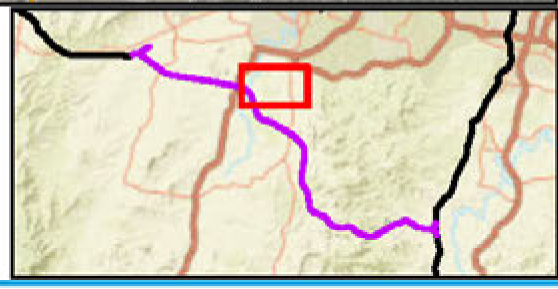
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6d: Construction Noise Contours: Road civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

Chainage (km)	EIS disturbance footprint	**Sensitive receptors**	**Sound Pressure Level (L_{Aeq}, dB(A))**
Localities	Noise and vibration study area	Community Retail	45
Existing rail	Cadastre	Industrial	50
C2K project alignment		Residential	55
Major roads		Sporting Facility	60
Minor roads			65
			70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

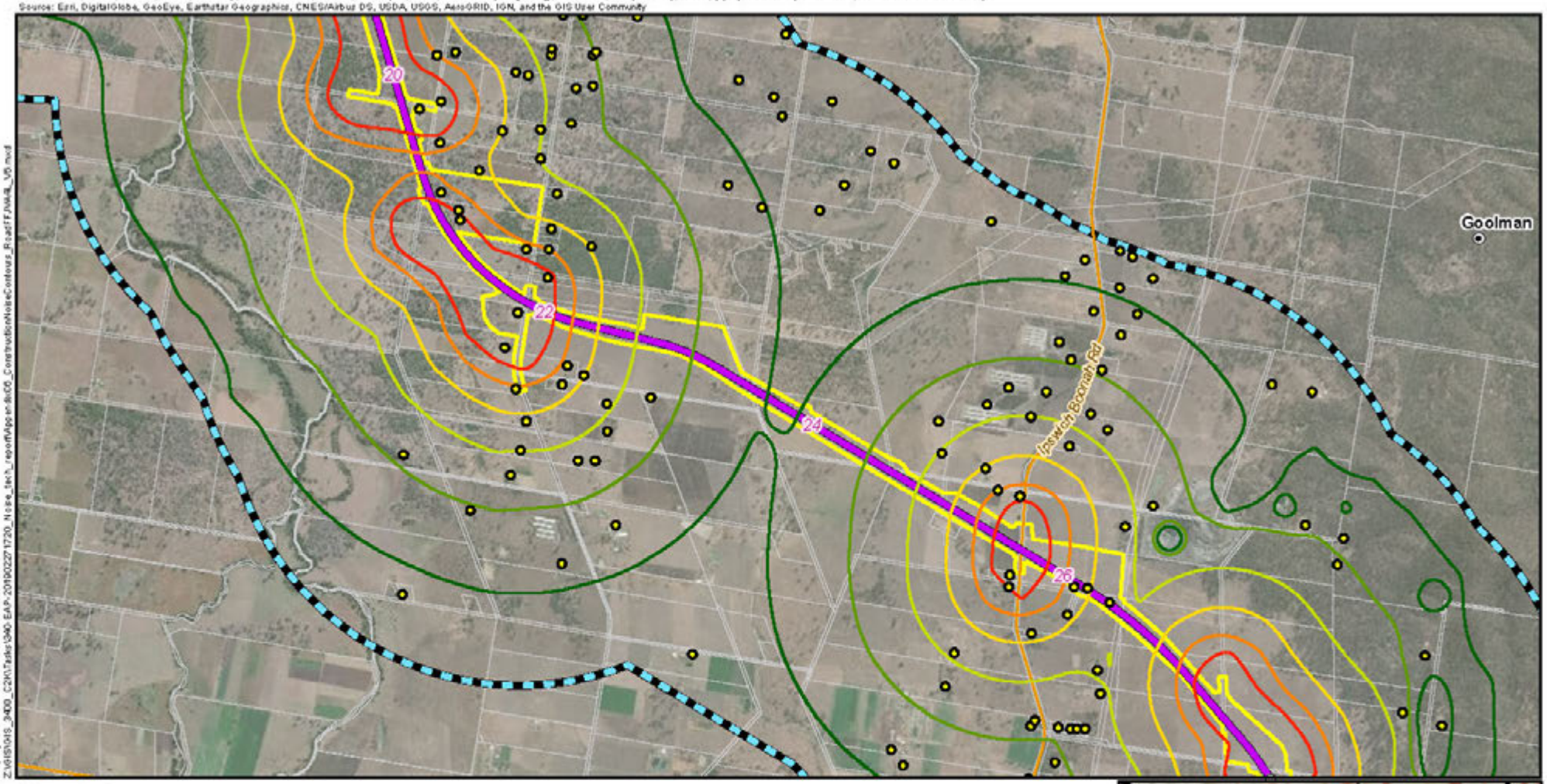
Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6e: Construction Noise Contours: Road civil works



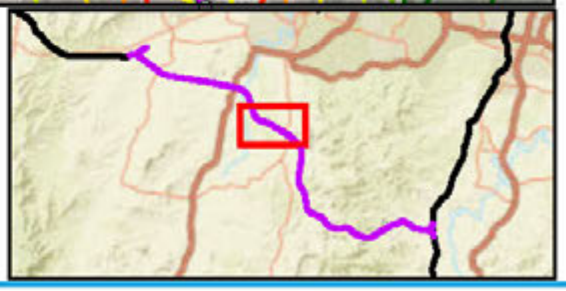
Map by: C:\SHCW\RB\GH Date: 05/03/2020 15:02
Z:\GIS\GIS_3400_C2K\Tasks\3440 EAP-20190222\720_Noise_tech_report\Appendix\06_ConstructionNoiseContours_RoadFFJWall_V5.mxd

Legend

- 5 — Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

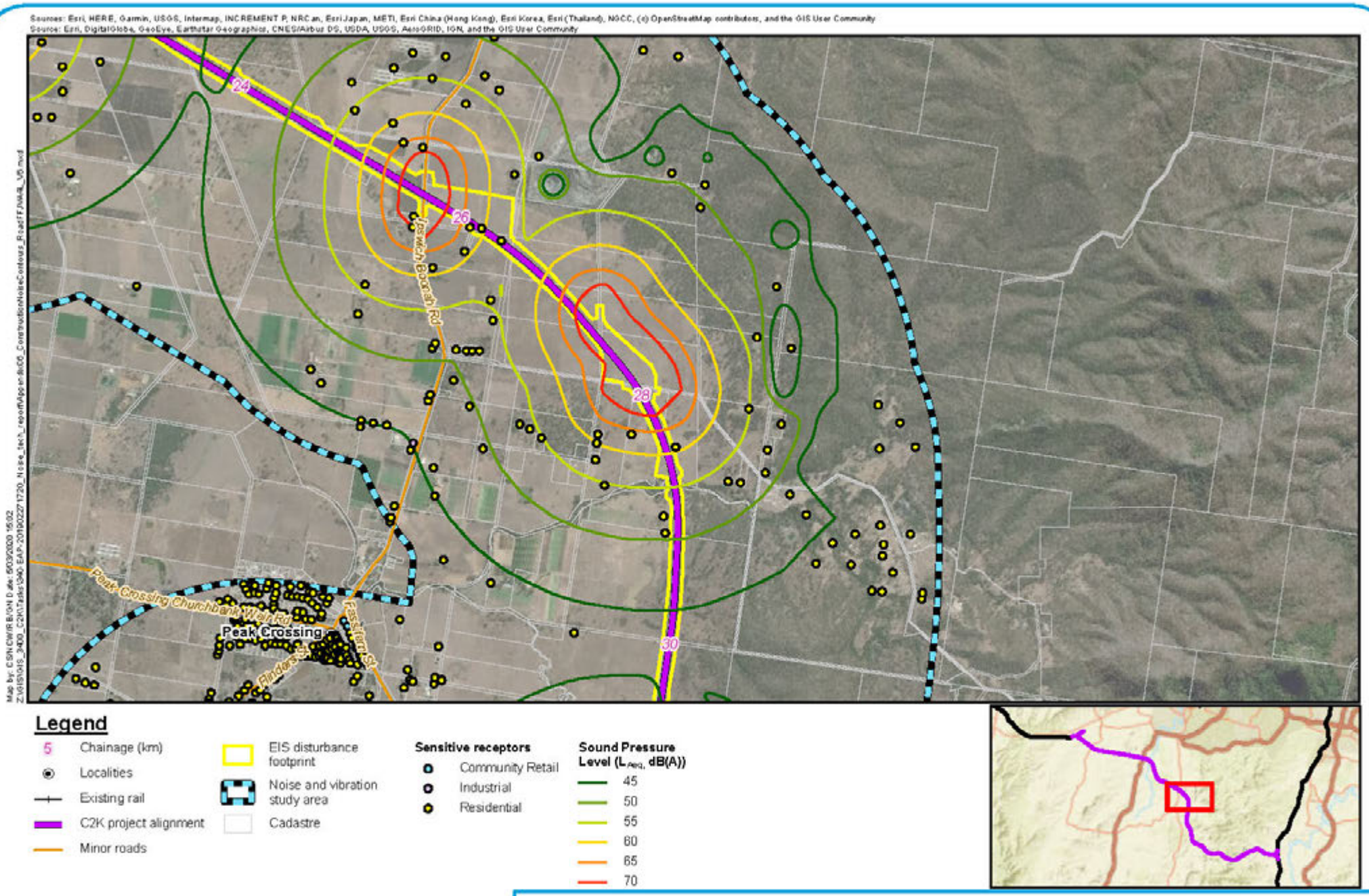
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6f: Construction Noise Contours: Road civil works

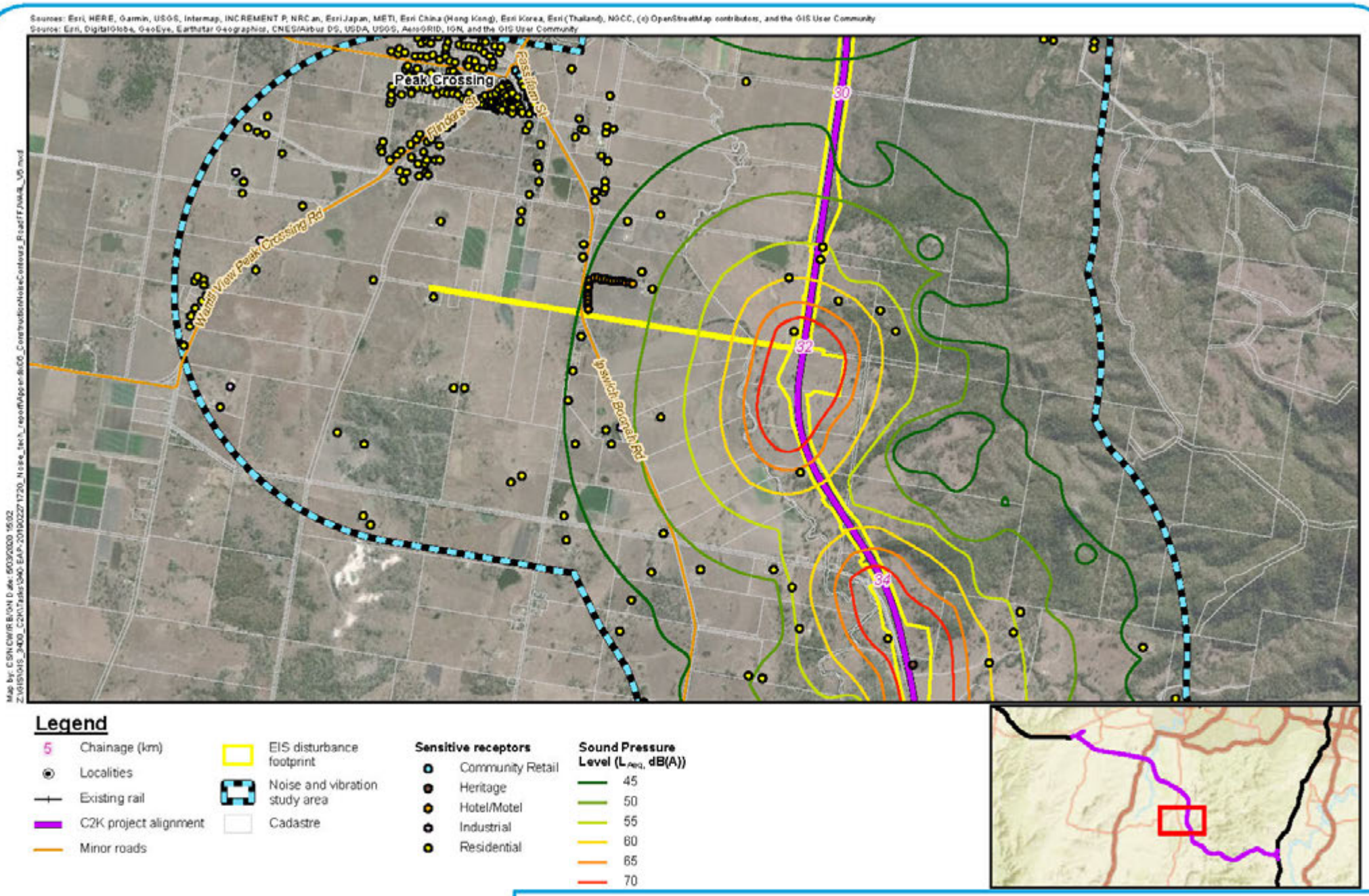


Future Freight

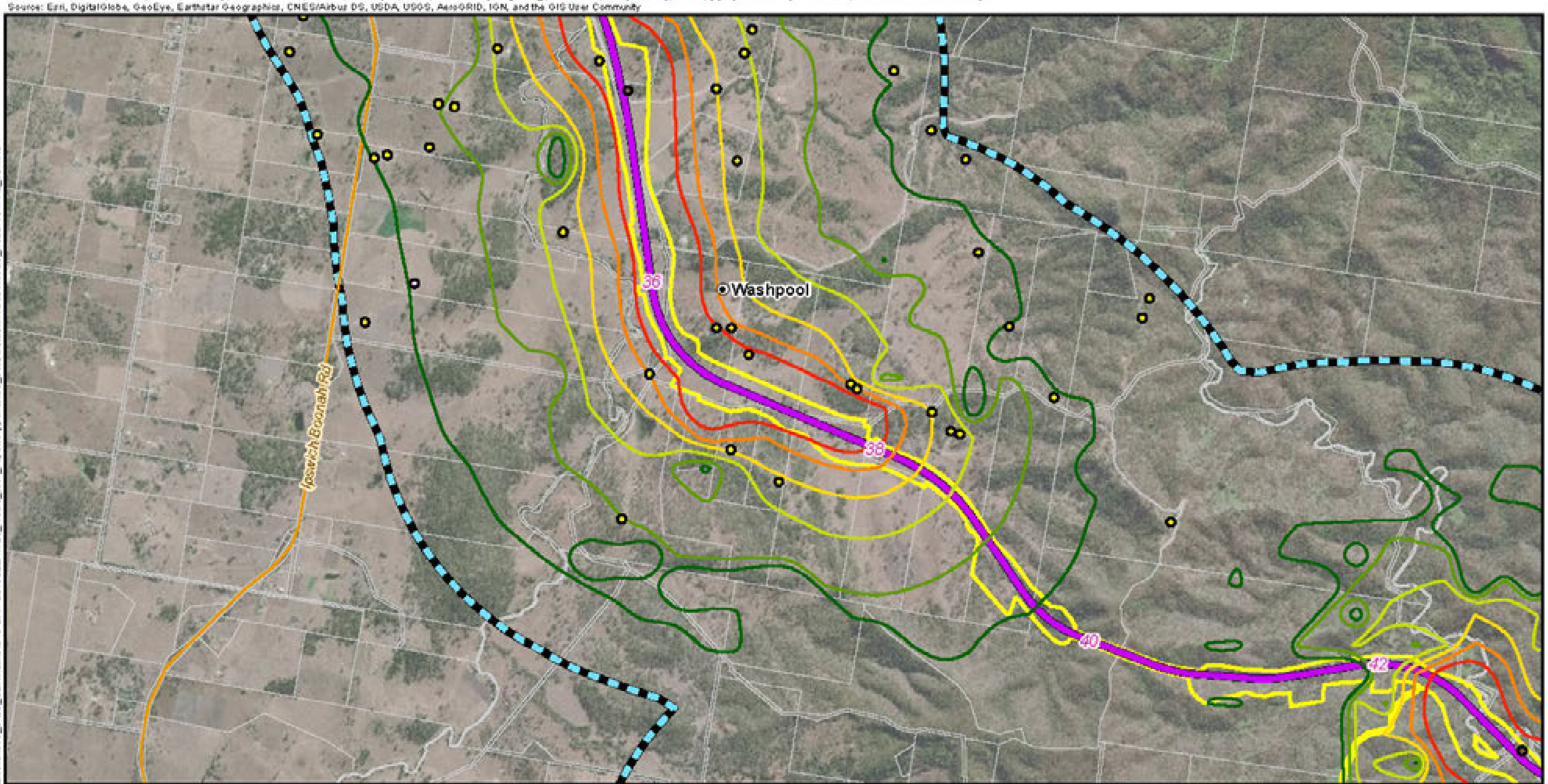
Date: 05/03/2020 Version: 0
Coordinate system: MGA56

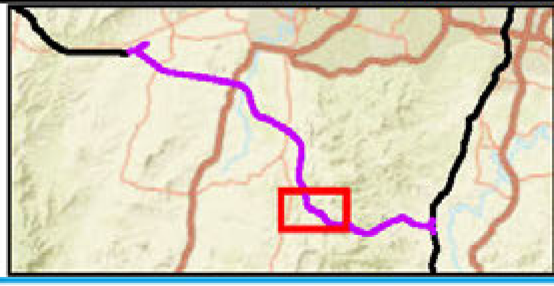
CALVERT TO KAGARU

Appendix C6g: Construction Noise Contours: Road civil works


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Peak Crossing
Flinders St
Fassifern St
Walnut View Peak Crossing Rd
Ipswich Boonah Rd
30
32
34
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Community Retail
Heritage
Hotel/Motel
Industrial
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C6h: Construction Noise Contours: Road civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

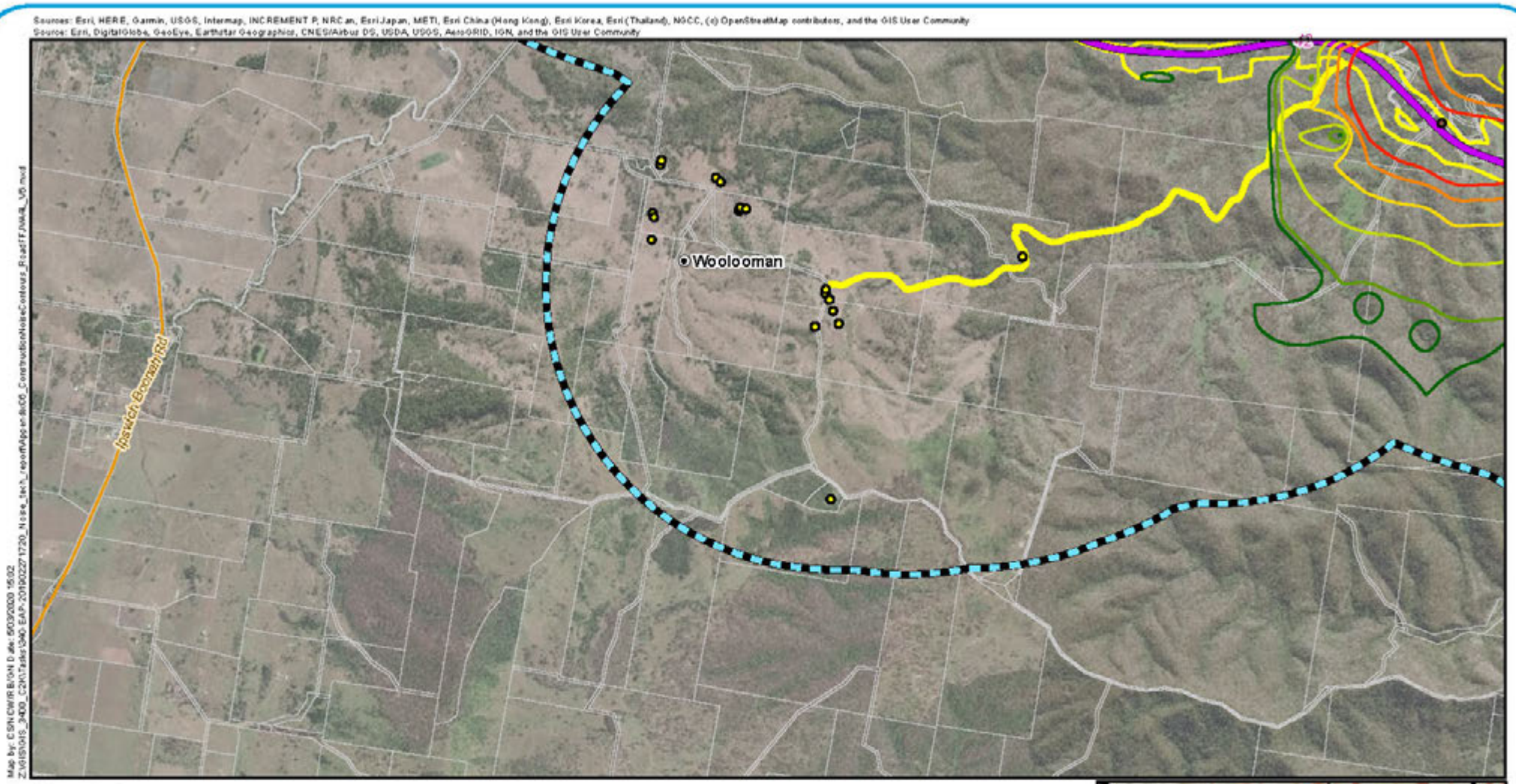
Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6i: Construction Noise Contours: Road civil works



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

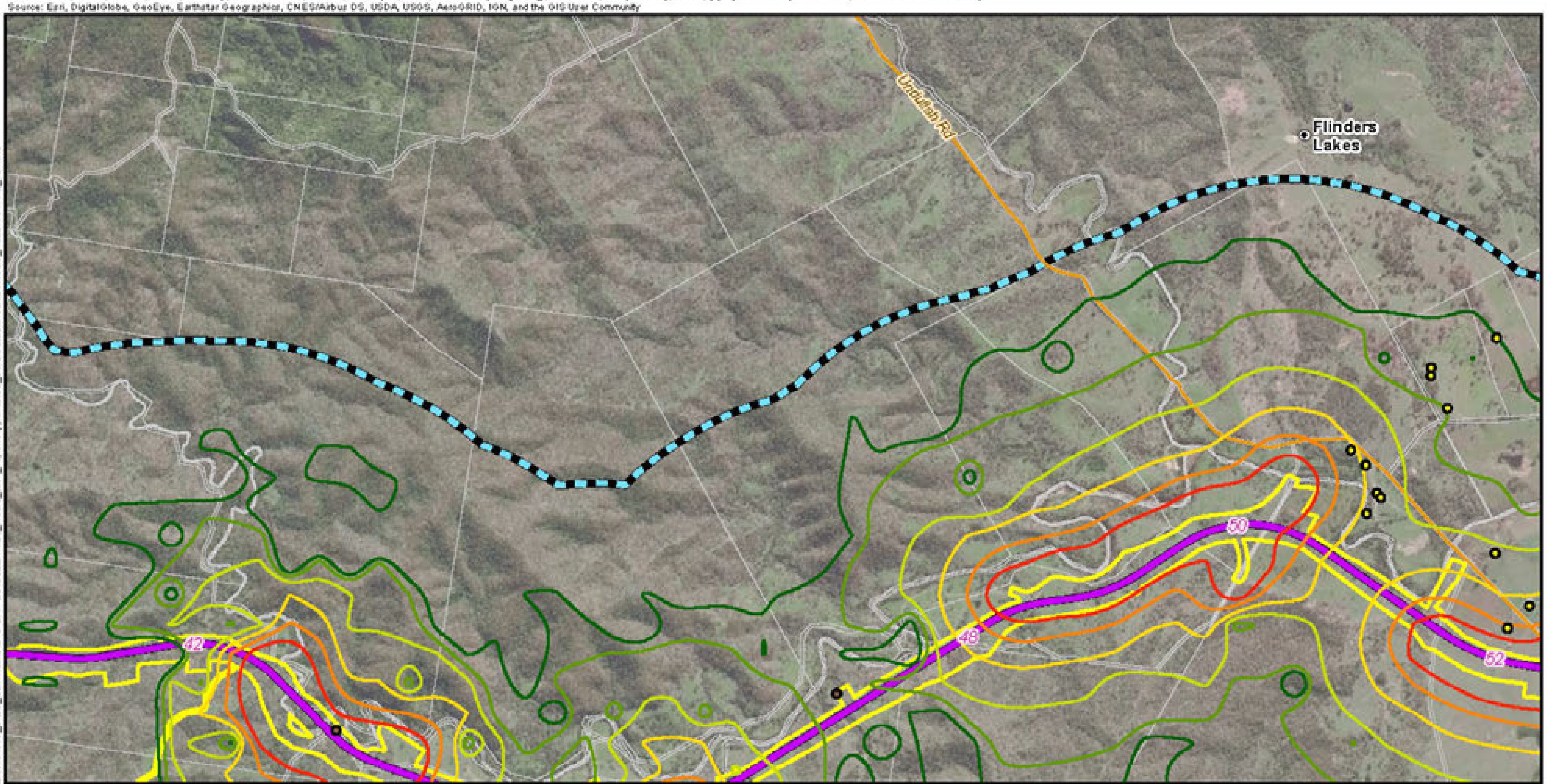
Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6j: Construction Noise Contours: Road civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors
- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

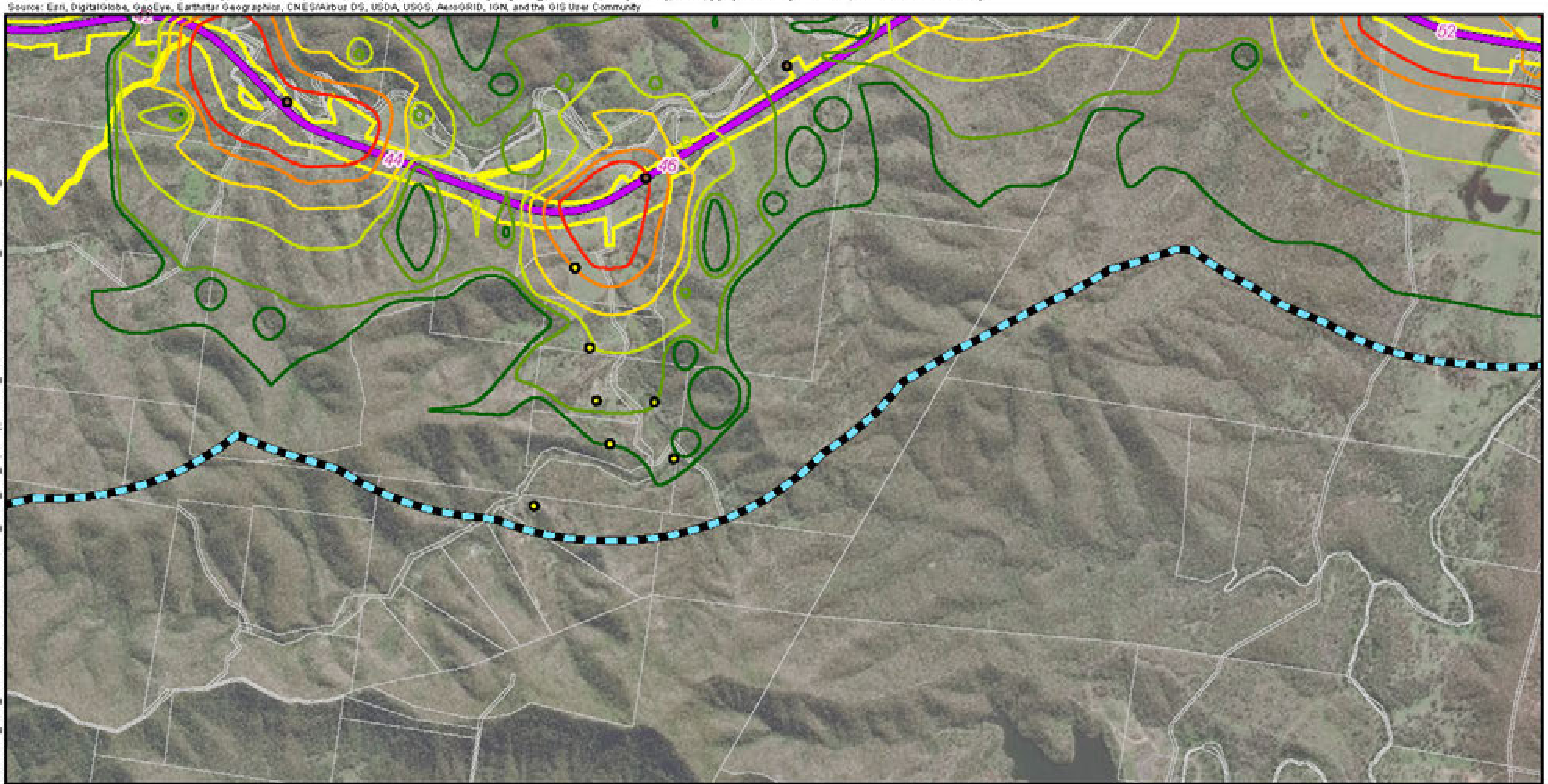
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6k: Construction Noise Contours: Road civil works



Map by: CSN/CW/RB/GN Date: 5/03/2020 15:02
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix06_ConstructionNoiseContours_RoadTFJWalls_V6.mxd

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

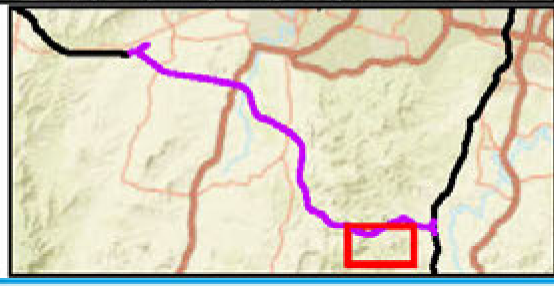
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

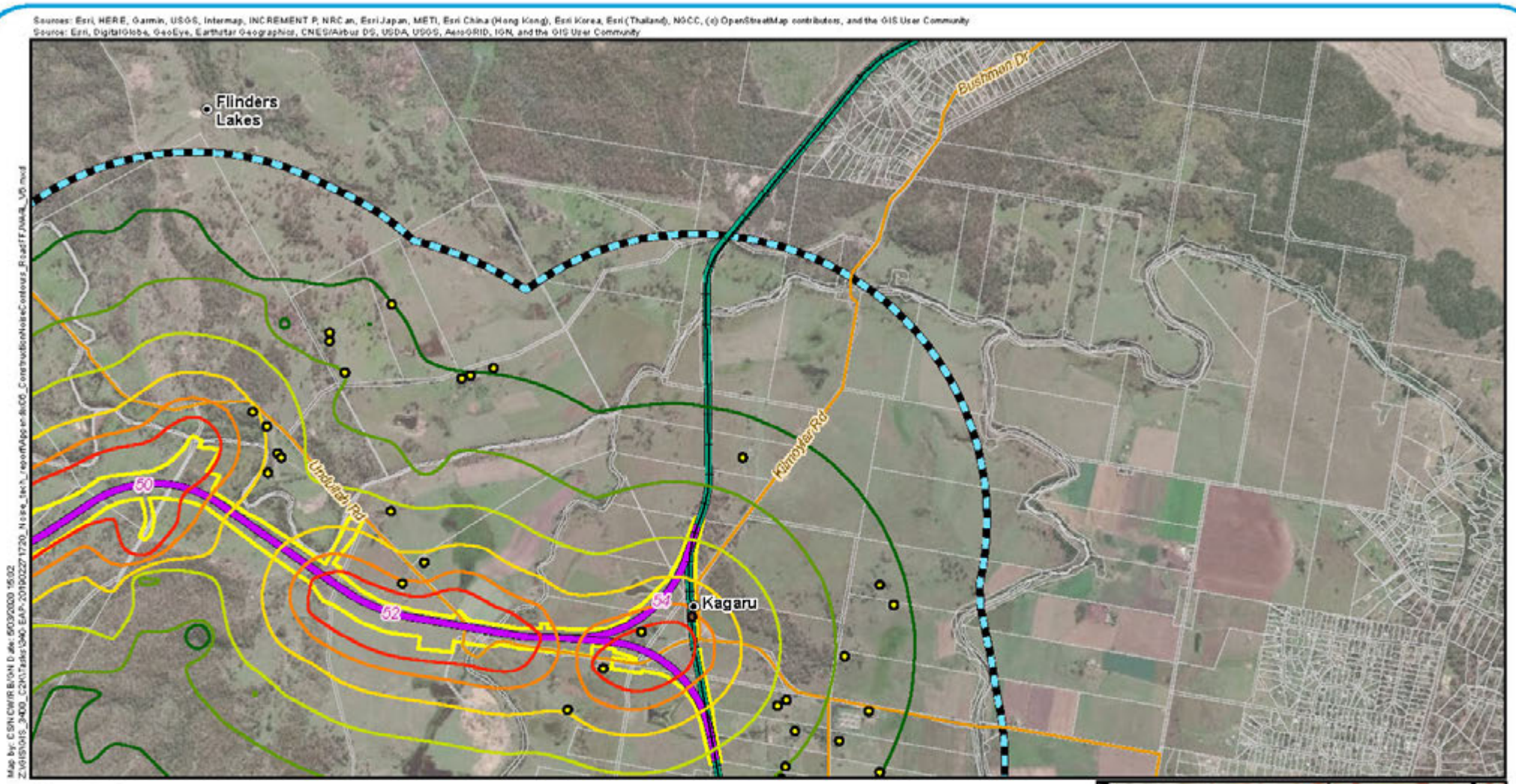
0 0.5 1 1.5 2 2.5 km

Future Freight
Integrating Community, Environment and Engineering

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6l: Construction Noise Contours: Road civil works



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

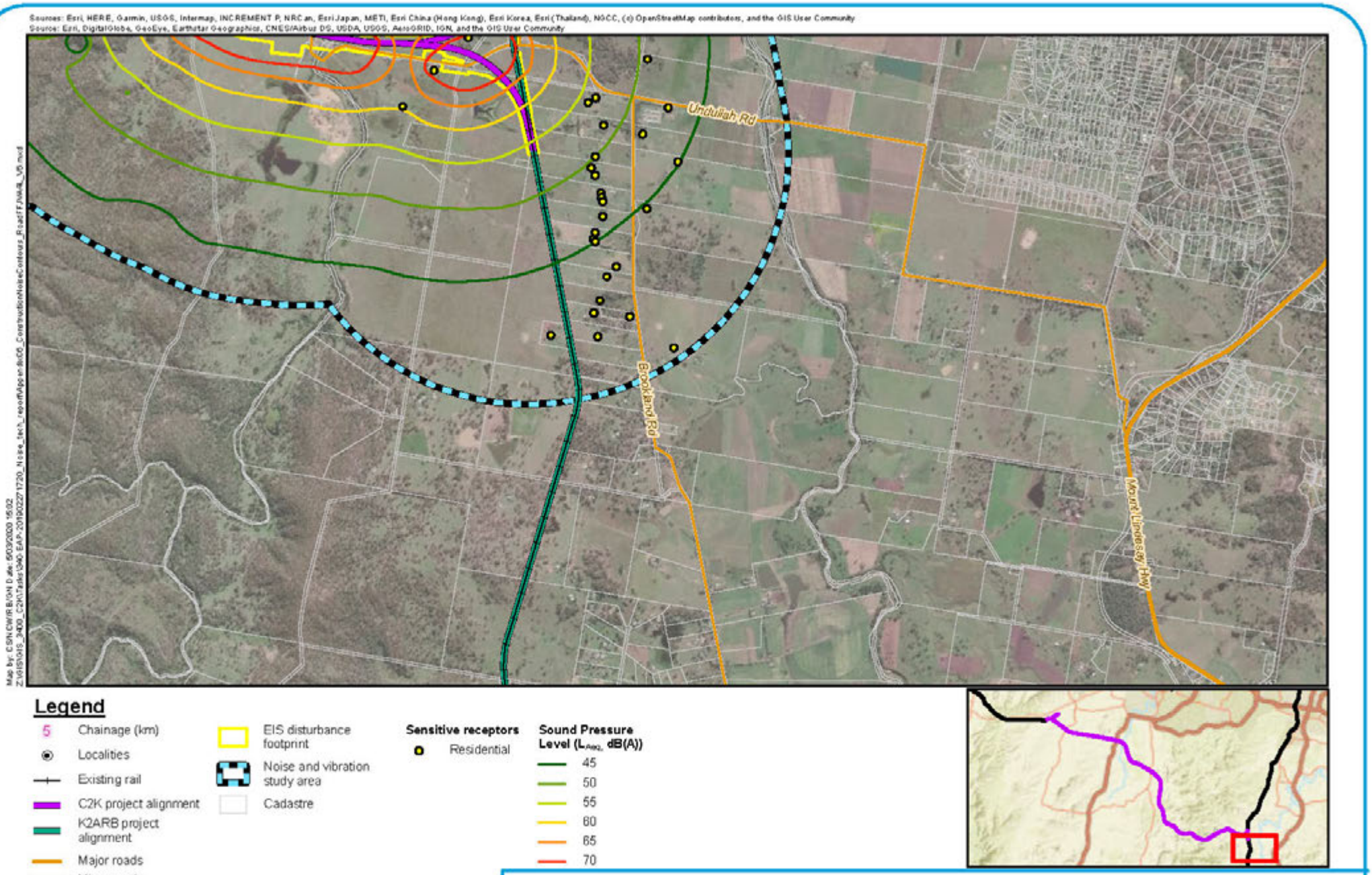
Future Freight

Date: 05/03/2020 Version: 0

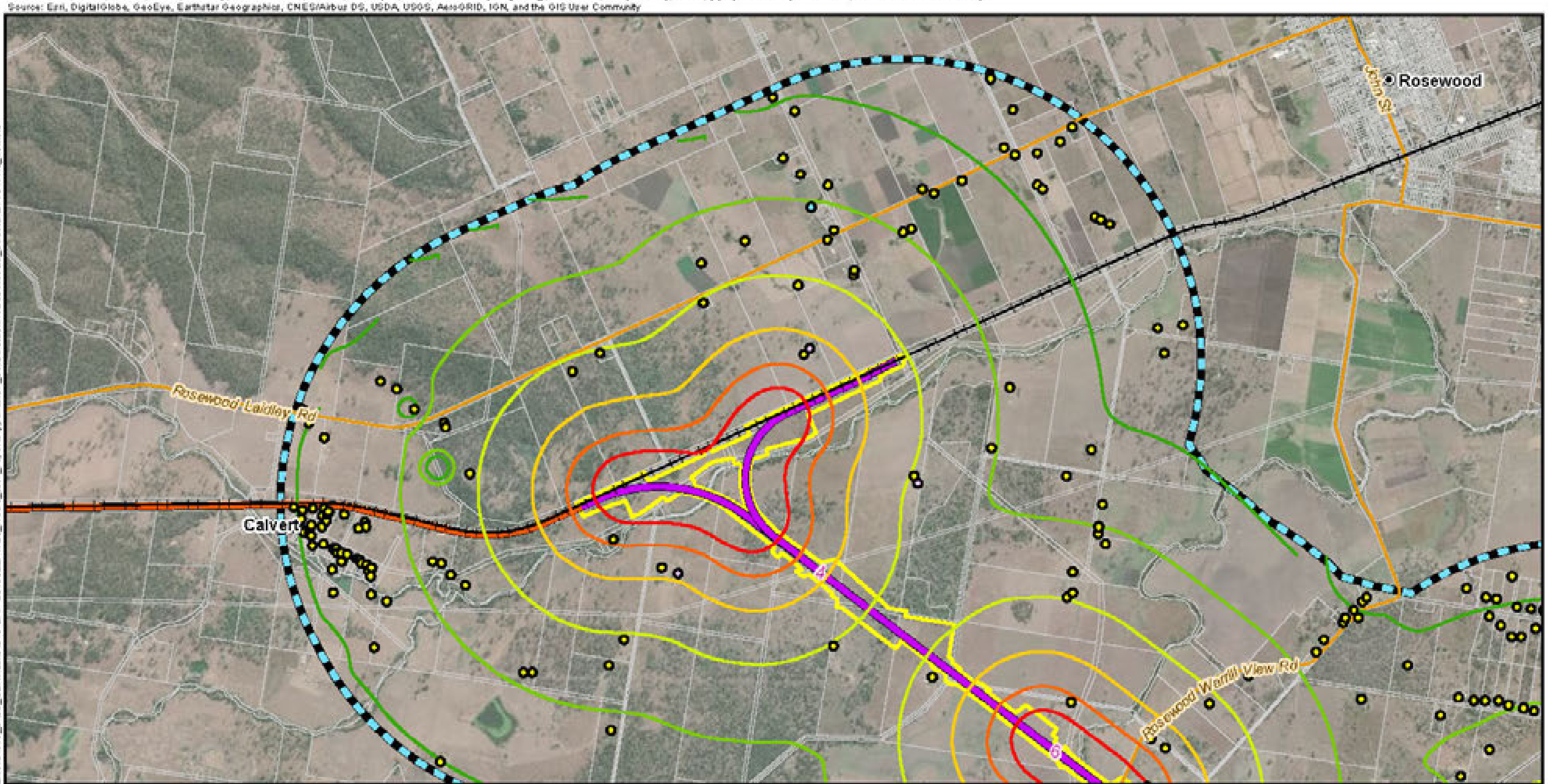
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C6m: Construction Noise Contours: Road civil works


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Unchulleh Rd
Brooklands Rd
Mount Lindesay Hwy
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
K2ARB project alignment
Major roads
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Residential
Sound Pressure Level (LAeq, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C6n: Construction Noise Contours: Road civil works

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- H2C project alignment
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

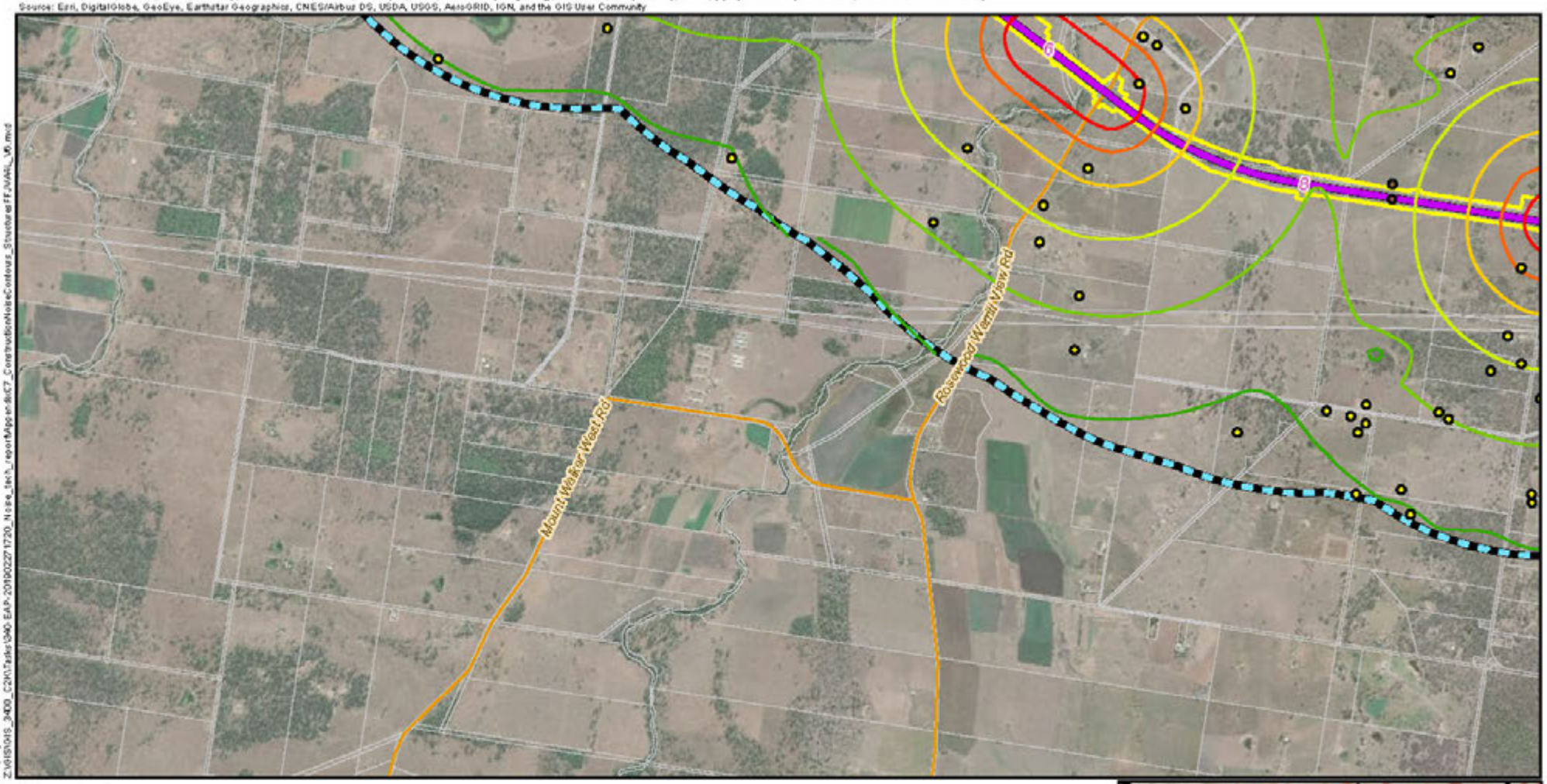
Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7a: Construction Noise Contours: Structures



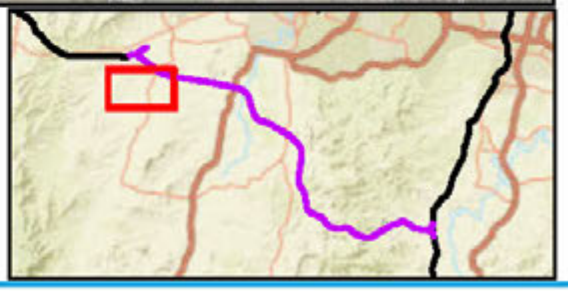
Map by: C:\SHCW\RB\GH Date: 5/03/2020 15:10
Z:\GIS\GIS_3400_C2K\Tasks\3440 EAP-20190227\20_Noise_tech_report\Appendix\C7_ConstructionNoiseContours_Structures\FF_A4ARL_V6.mxd

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors
- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

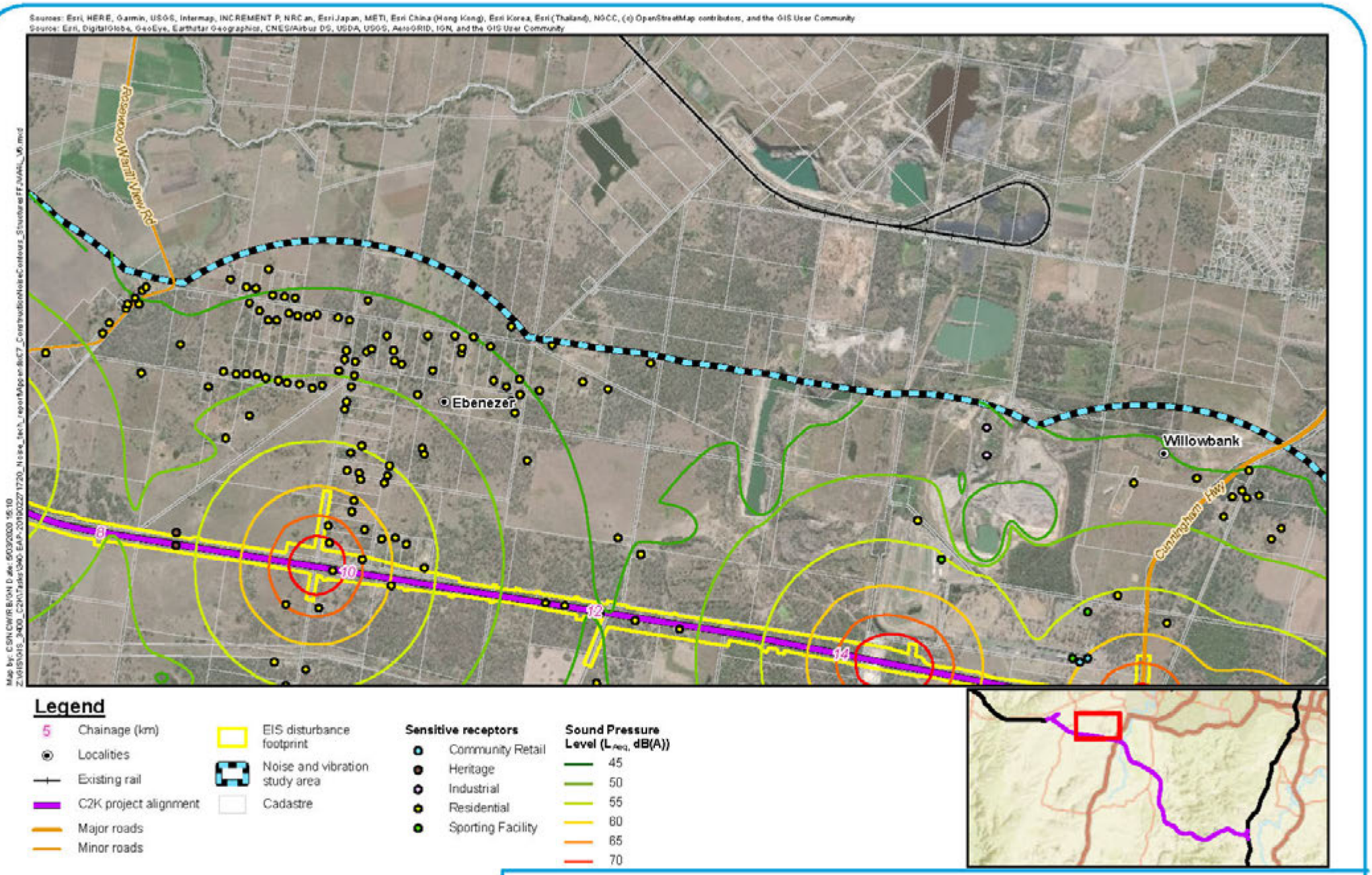
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7b: Construction Noise Contours: Structures



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Heritage
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0

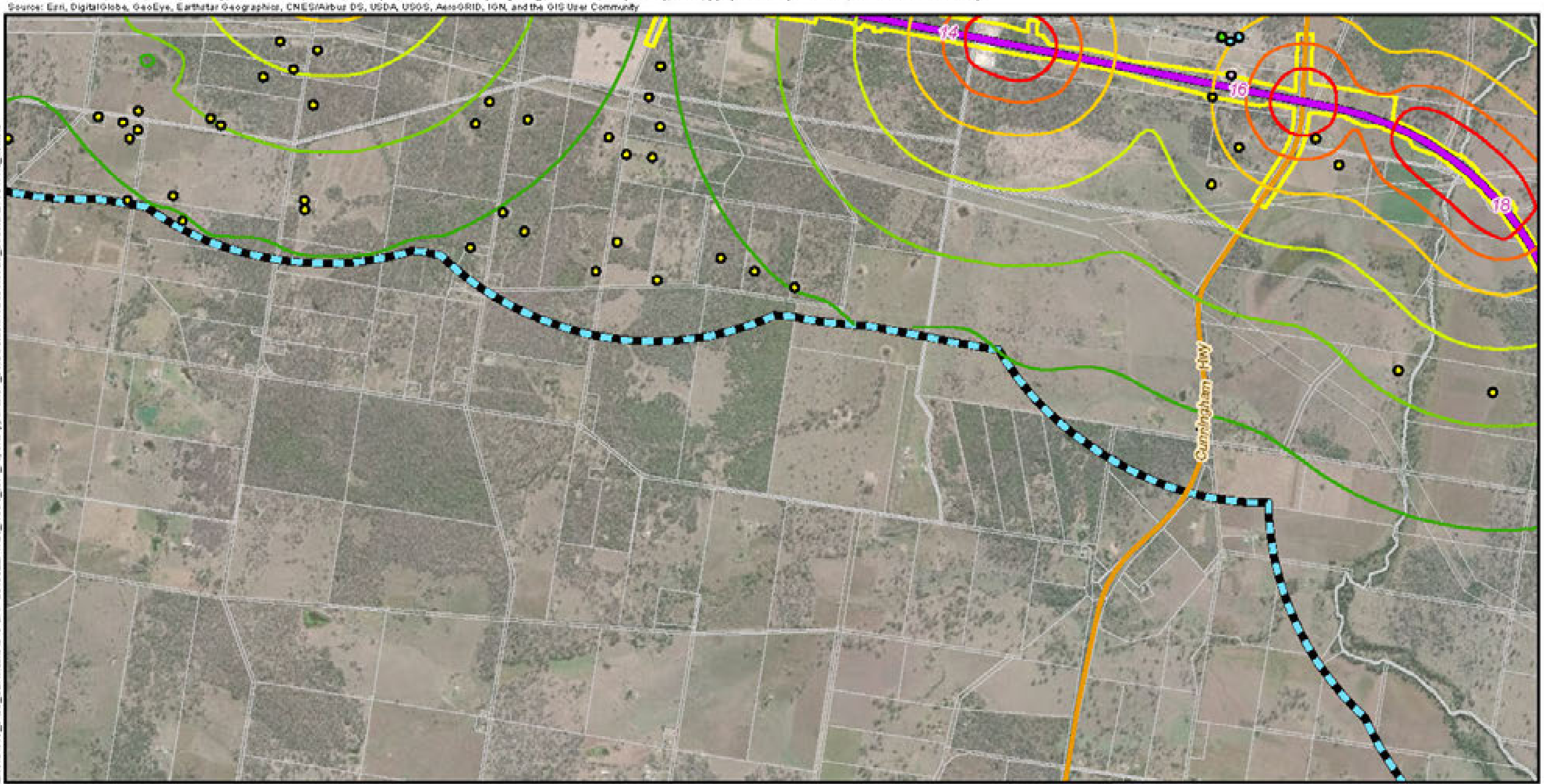
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7c: Construction Noise Contours: Structures

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map by: CSN/CW/RB/GN Date: 5/03/2020 15:10
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Maps\Appendix\C7_ConstructionNoiseContours_Structures\FF_JWAN_V5.mxd



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Major roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential
- Sporting Facility

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

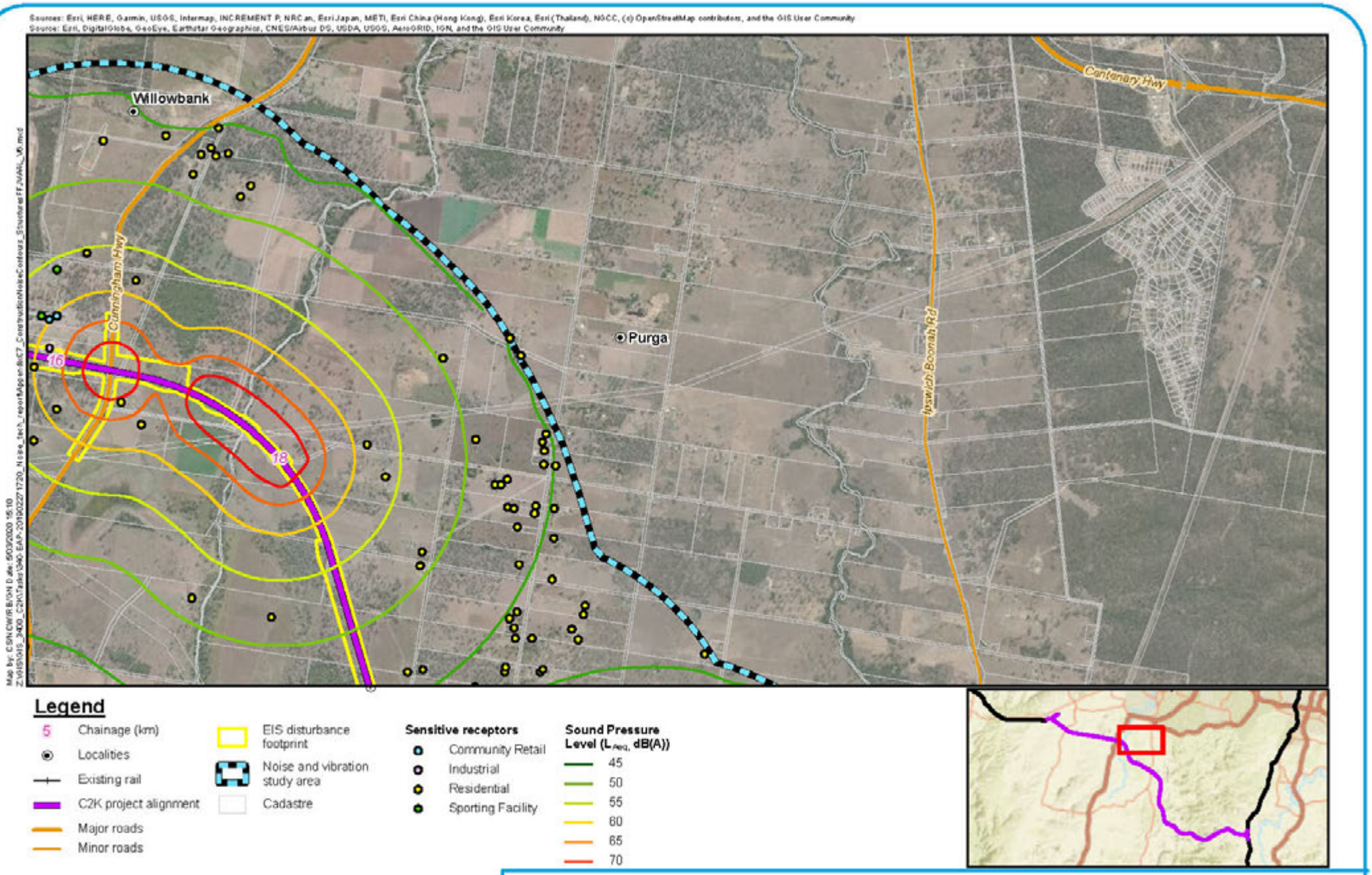
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7d: Construction Noise Contours: Structures

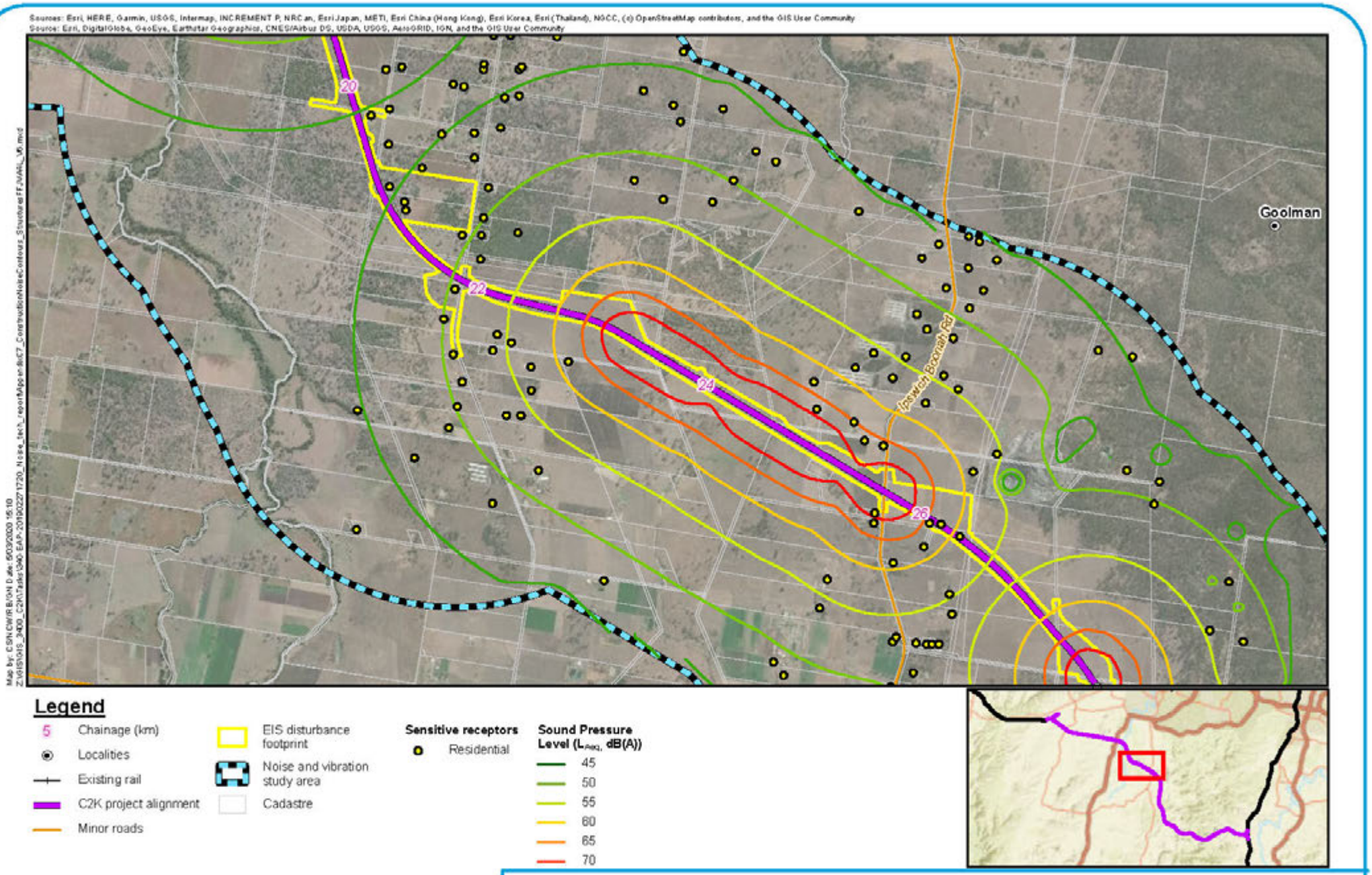


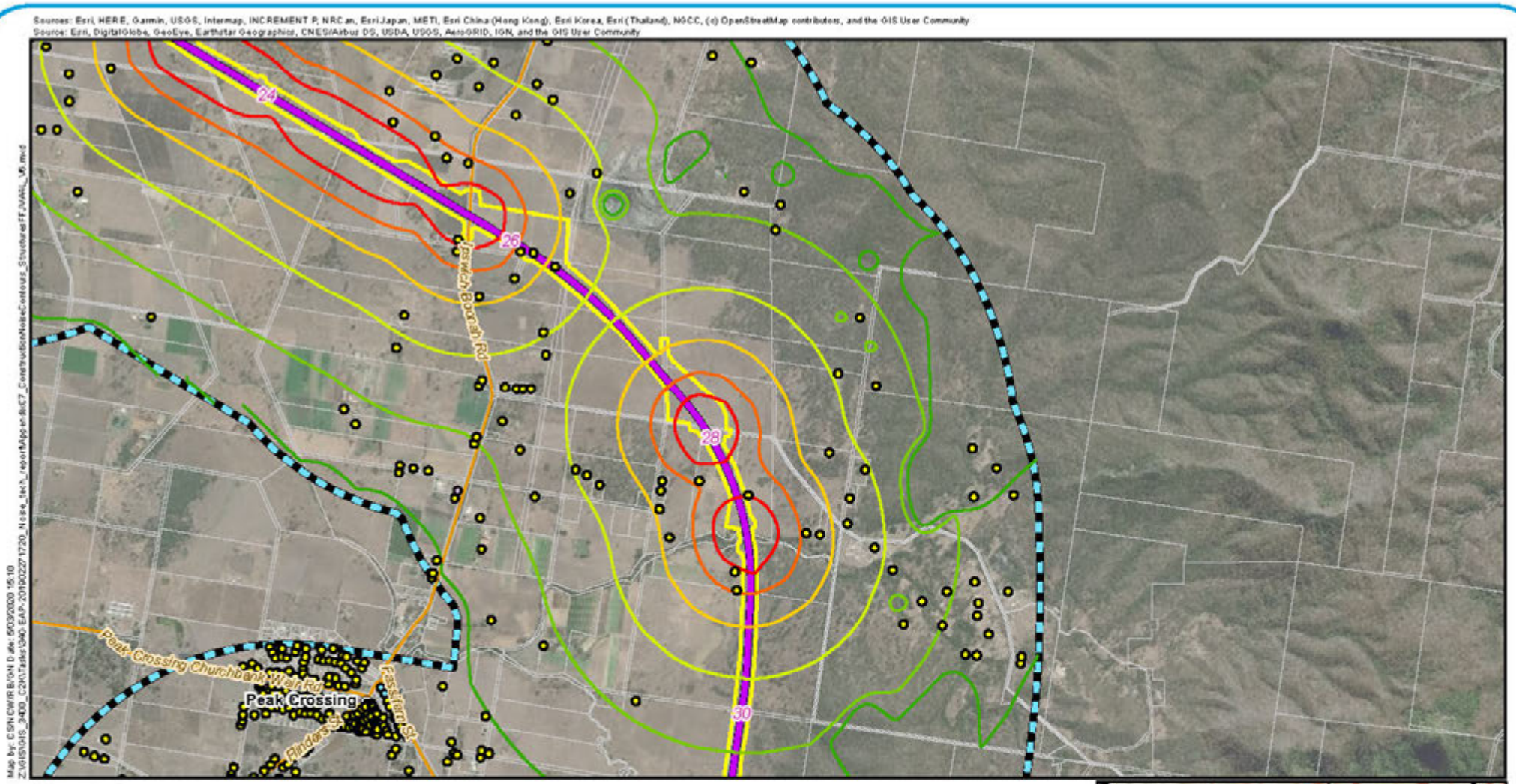
Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7e: Construction Noise Contours: Structures


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Goolman
Ipswich Boonah Rd
20
22
24
26
Legend
5 Chainage (km)
Localities
Existing rail
C2K project alignment
Minor roads
EIS disturbance footprint
Noise and vibration study area
Cadastre
Sensitive receptors
Residential
Sound Pressure Level (L_{Aeq}, dB(A))
45
50
55
60
65
70
A4 scale: 1:40,000
0 0.5 1 1.5 2 2.5 km
Future Freight
Date: 05/03/2020 Version: 0
Coordinate system: MGA56
CALVERT TO KAGARU
Appendix C7f: Construction Noise Contours: Structures



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Community Retail
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

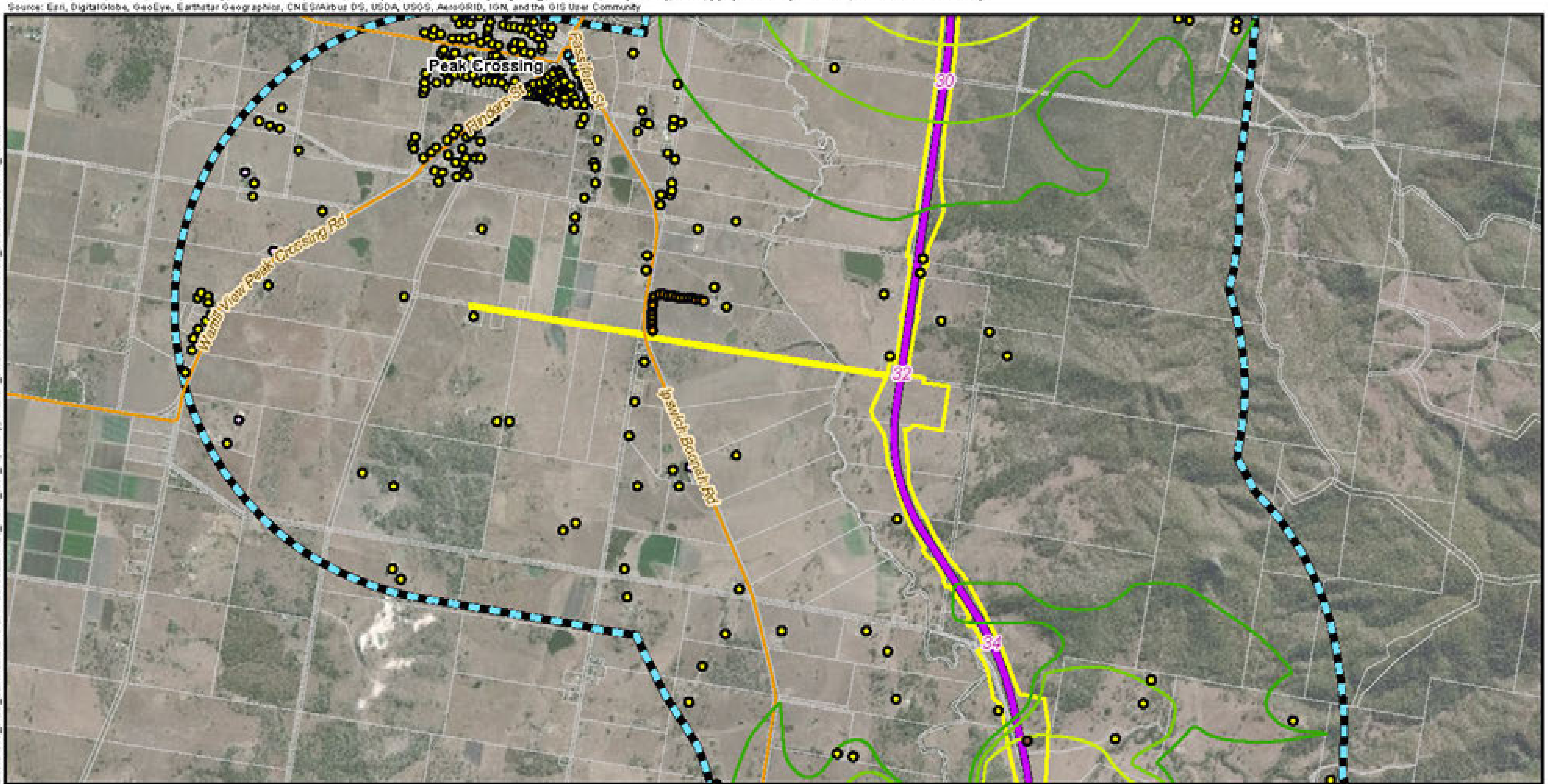
Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7g: Construction Noise Contours: Structures

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

5	Chainage (km)
	Localities
	Existing rail
	C2K project alignment
	Minor roads
	EIS disturbance footprint
	Noise and vibration study area
	Cadastre

Sensitive receptors
- Community Retail
- Heritage
- Hotel/Motel
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))
- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

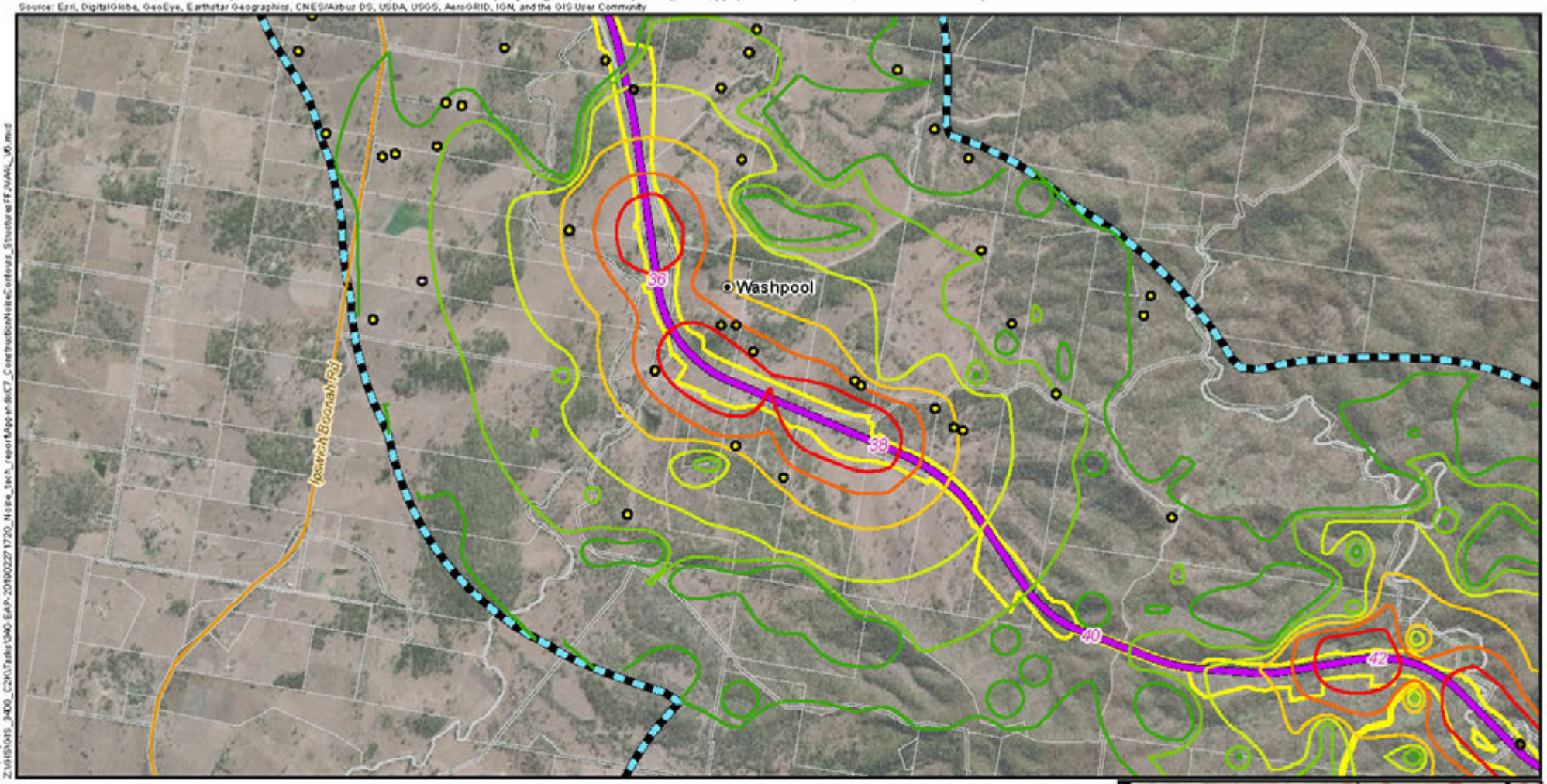
Map by: CSN/CW/RB/GN Date: 5/03/2020 15:10
Z:\GIS\GIS_3400_C2K\Tasks\340-EAP-201902271720_Noise_tech_report\Appendix C7_ConstructionNoiseContours_Structures\FF_JWAL_v5.mxd

Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7h: Construction Noise Contours: Structures



Map by: C:\SHCW\RB\OH Date: 5/03/2020 15:10
Z:\VISIONS\3400_C2K\Tasks\3440_EAP-20190227\720_Noise_tech_report\Appendix\C7_ConstructionNoiseContours_Structures\FFJWARL_V6.mxd

Legend

- 5 — Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

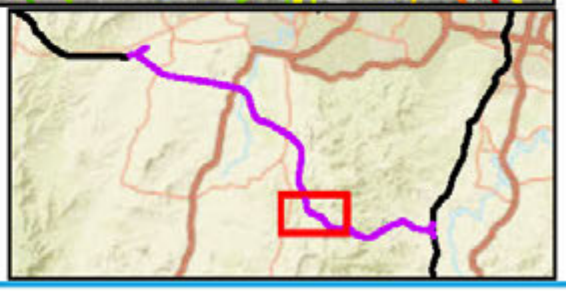
Sensitive receptors

- Heritage
- Industrial
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

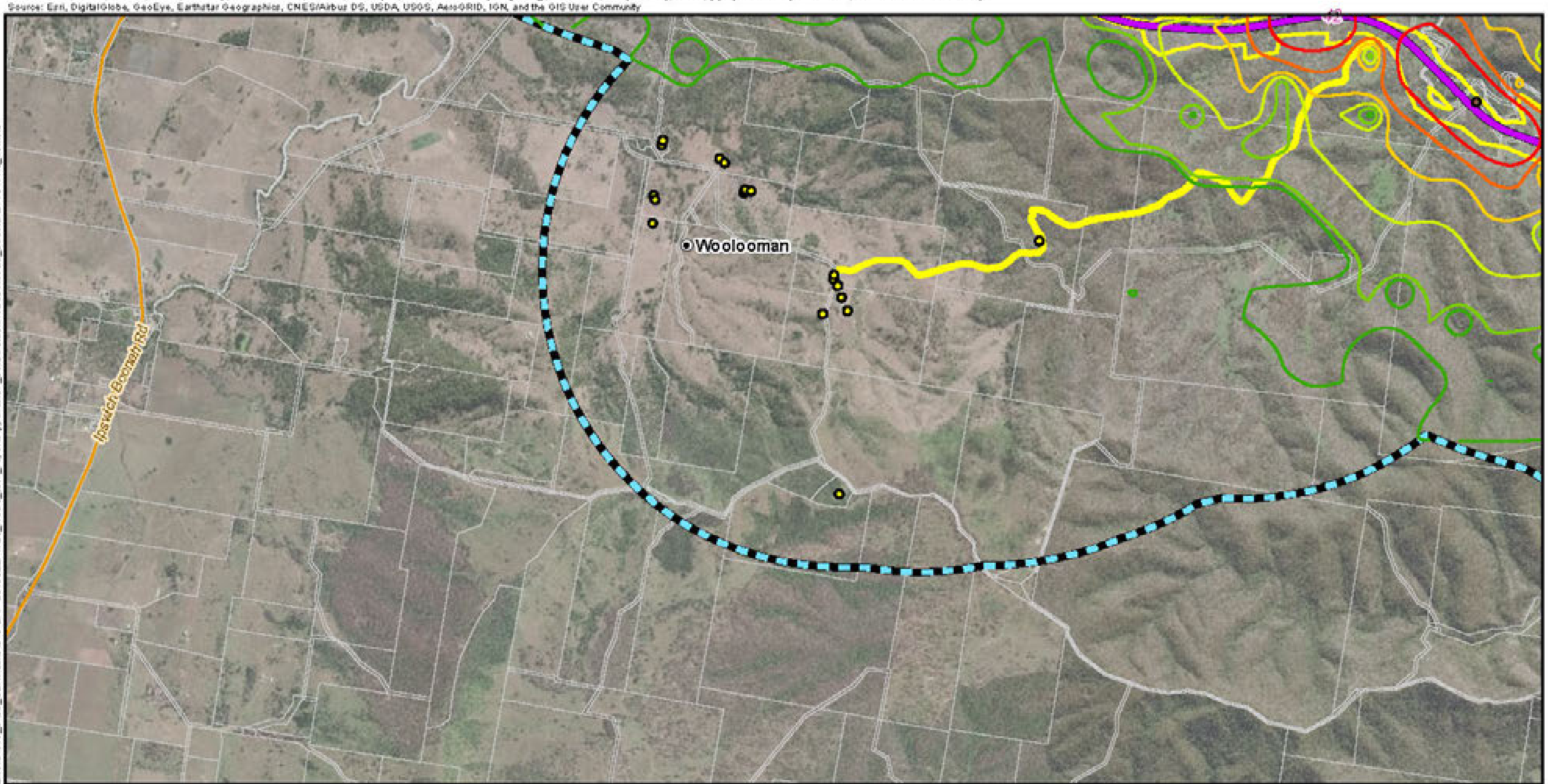
0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 0
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7i: Construction Noise Contours: Structures



Map by: CSN/CW/RB/GN Date: 5/03/2020 15:10

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

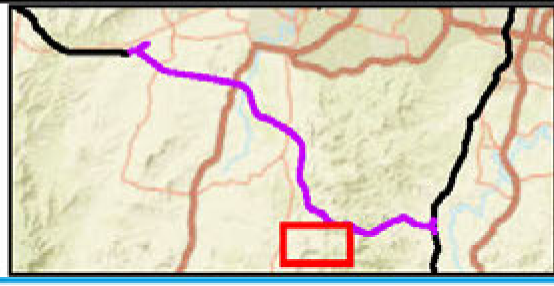
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

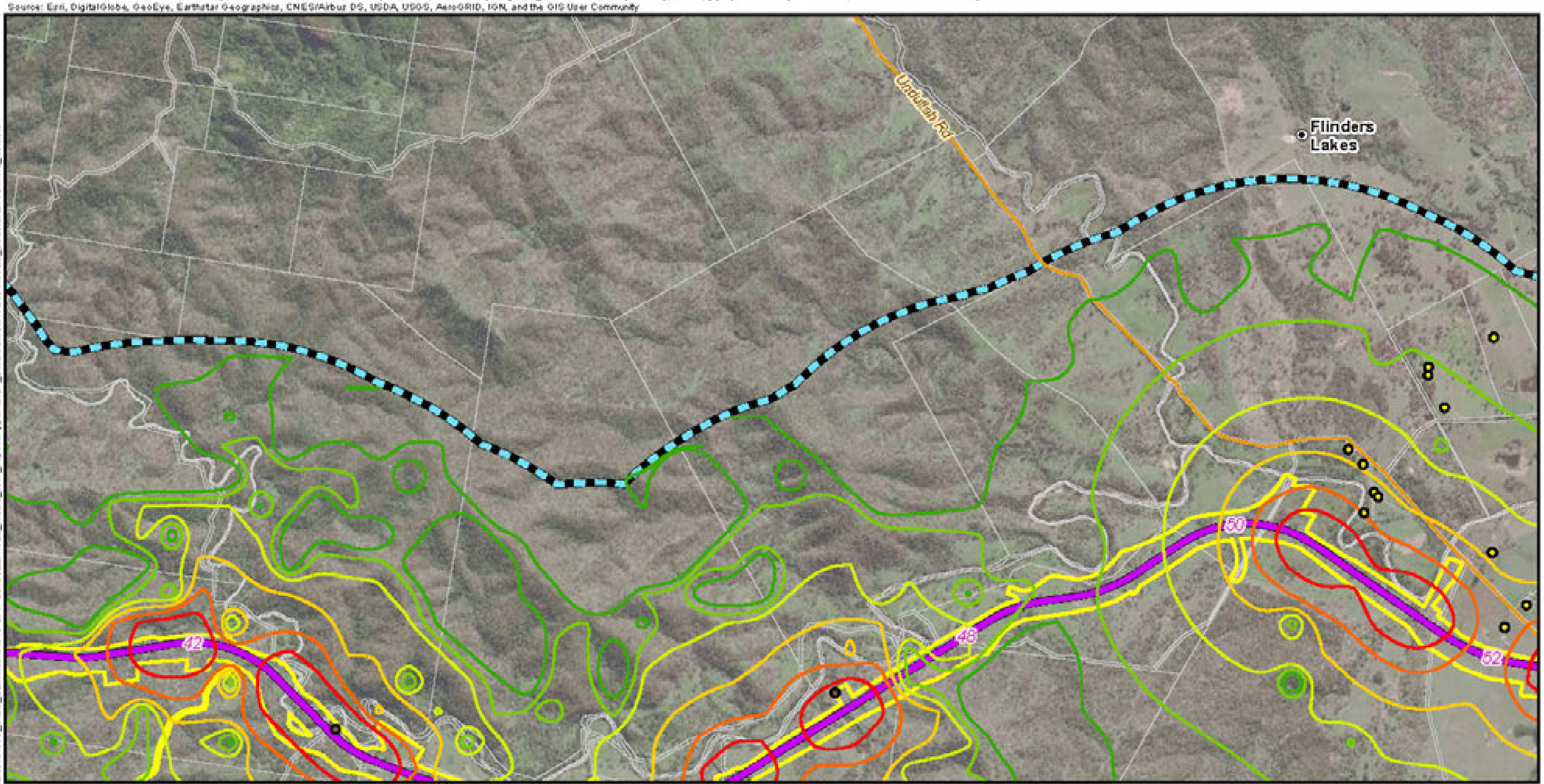
Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7j: Construction Noise Contours: Structures

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

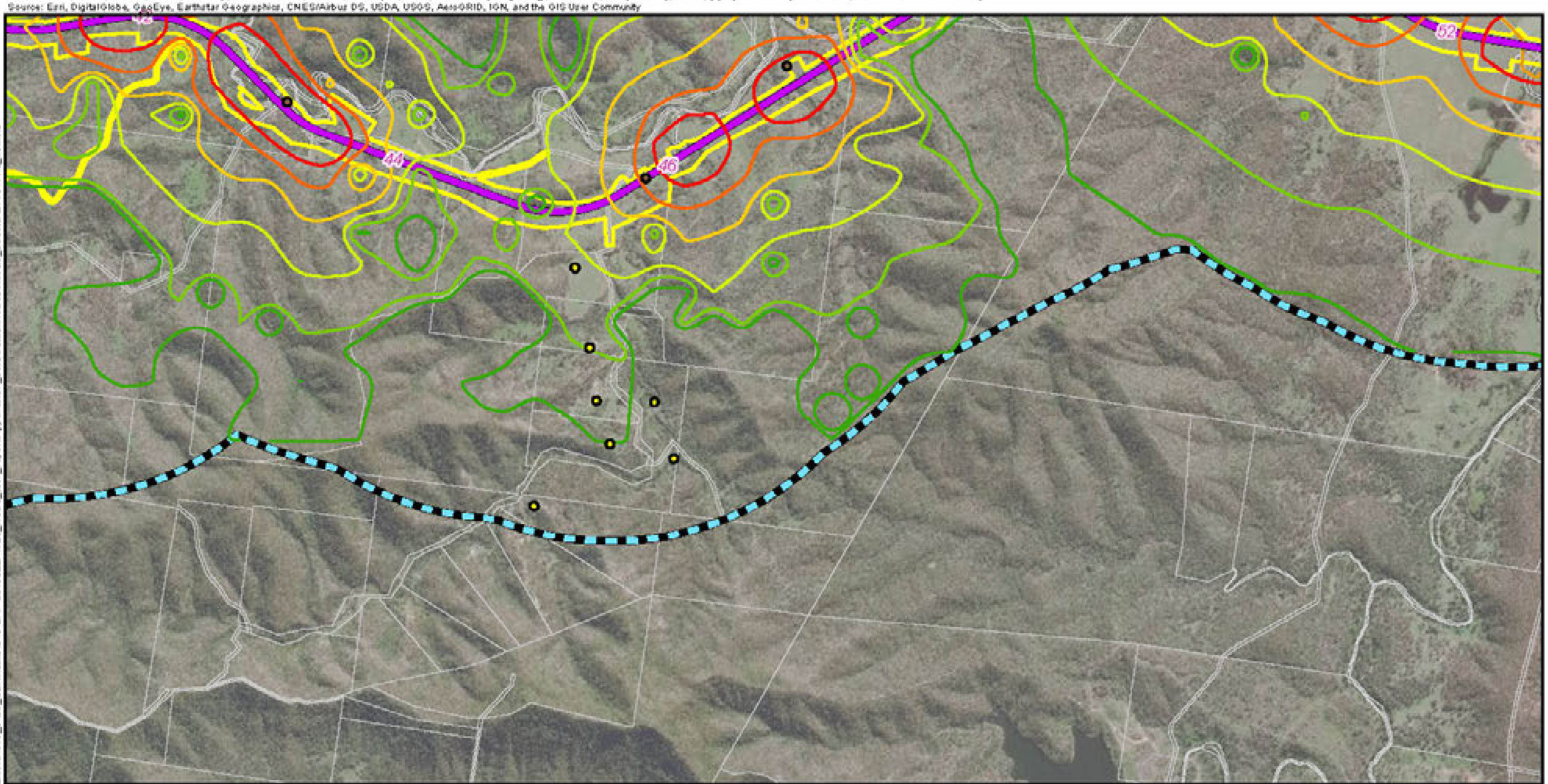
Future Freight

Date: 05/03/2020 Version: 6
Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7k: Construction Noise Contours: Structures

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 15:10

Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

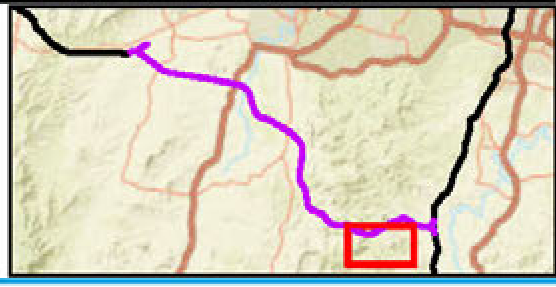
Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

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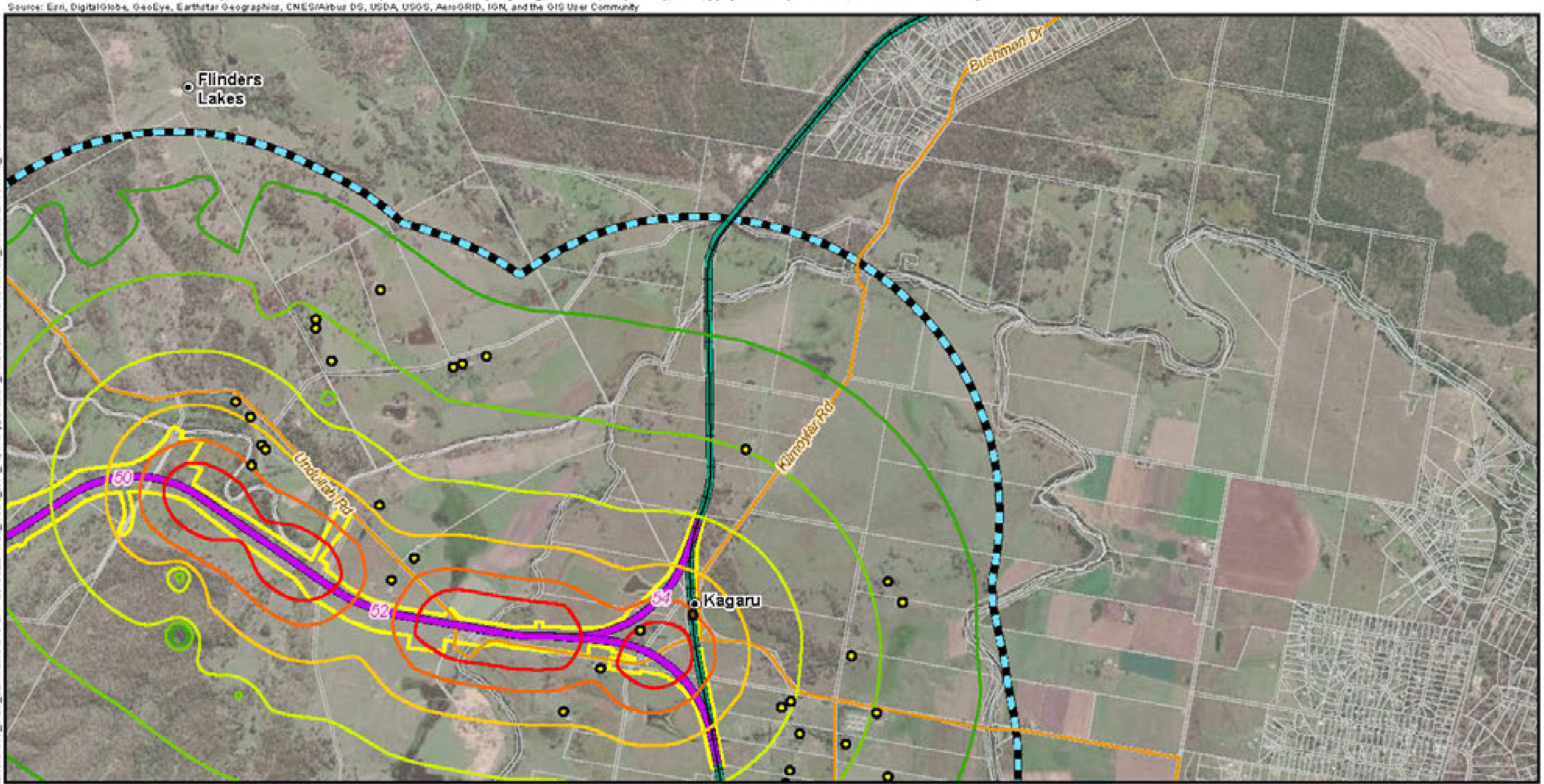
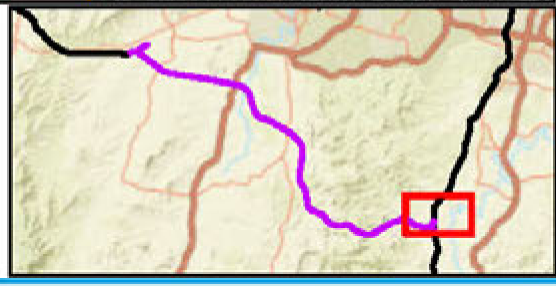
Appendix C7I: Construction Noise Contours: Structures

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Legend

- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Heritage
- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70

A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

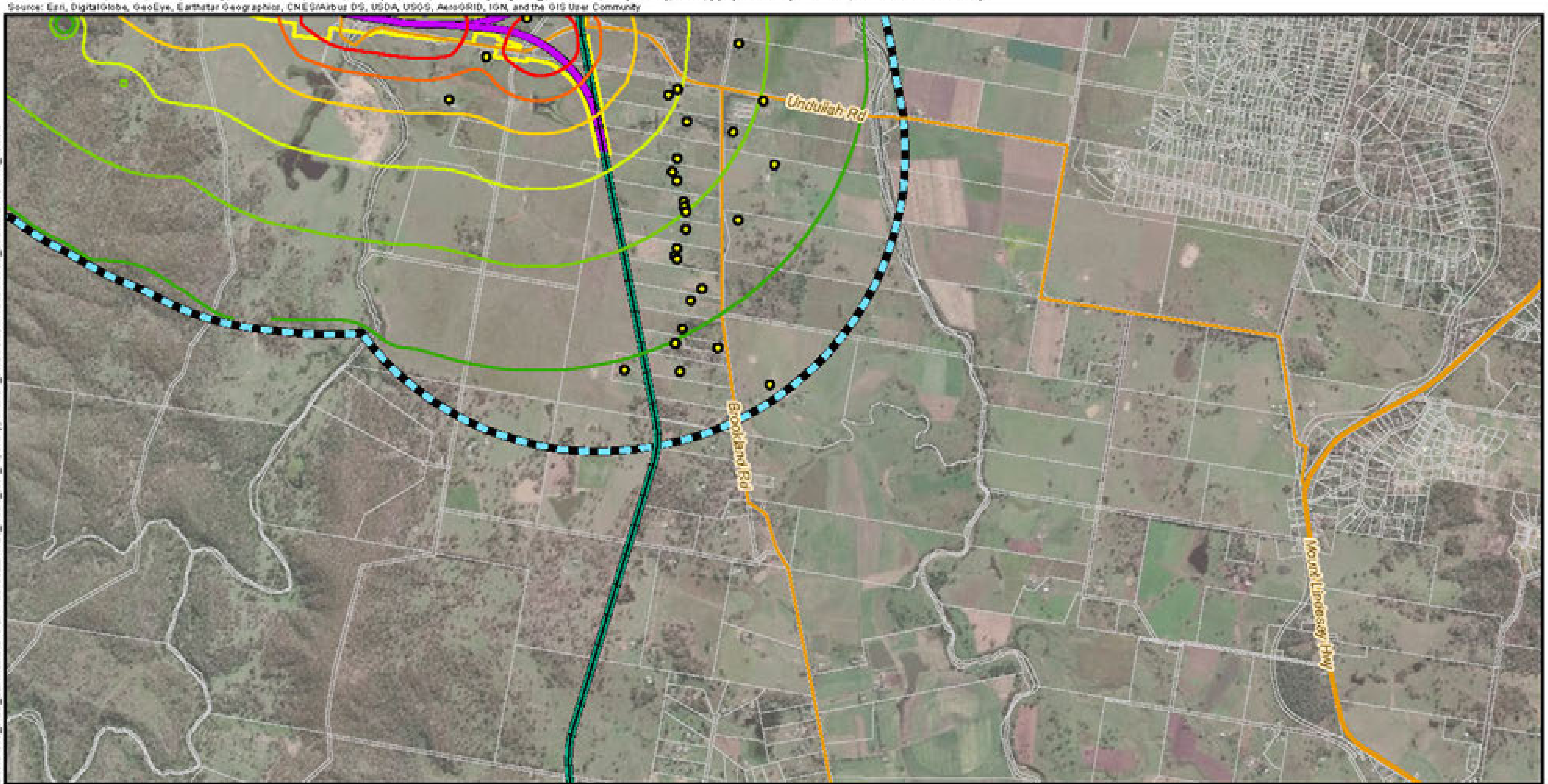
Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix C7m: Construction Noise Contours: Structures

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Map by: CSN/CW/RB/GN Date: 5/03/2020 15:10

Legend

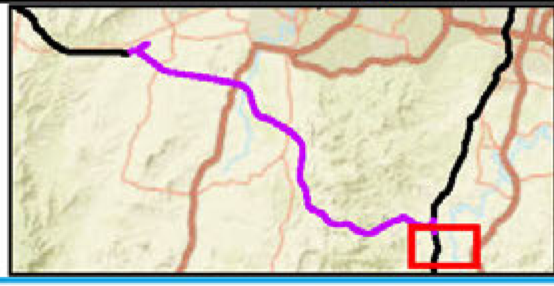
- 5 Chainage (km)
- Localities
- Existing rail
- C2K project alignment
- K2ARB project alignment
- Major roads
- Minor roads
- EIS disturbance footprint
- Noise and vibration study area
- Cadastre

Sensitive receptors

- Residential

Sound Pressure Level (L_{Aeq}, dB(A))

- 45
- 50
- 55
- 60
- 65
- 70



A4 scale: 1:40,000

0 0.5 1 1.5 2 2.5 km

Future Freight

Date: 05/03/2020 Version: 6

Coordinate system: MGA56

CALVERT TO KAGARU

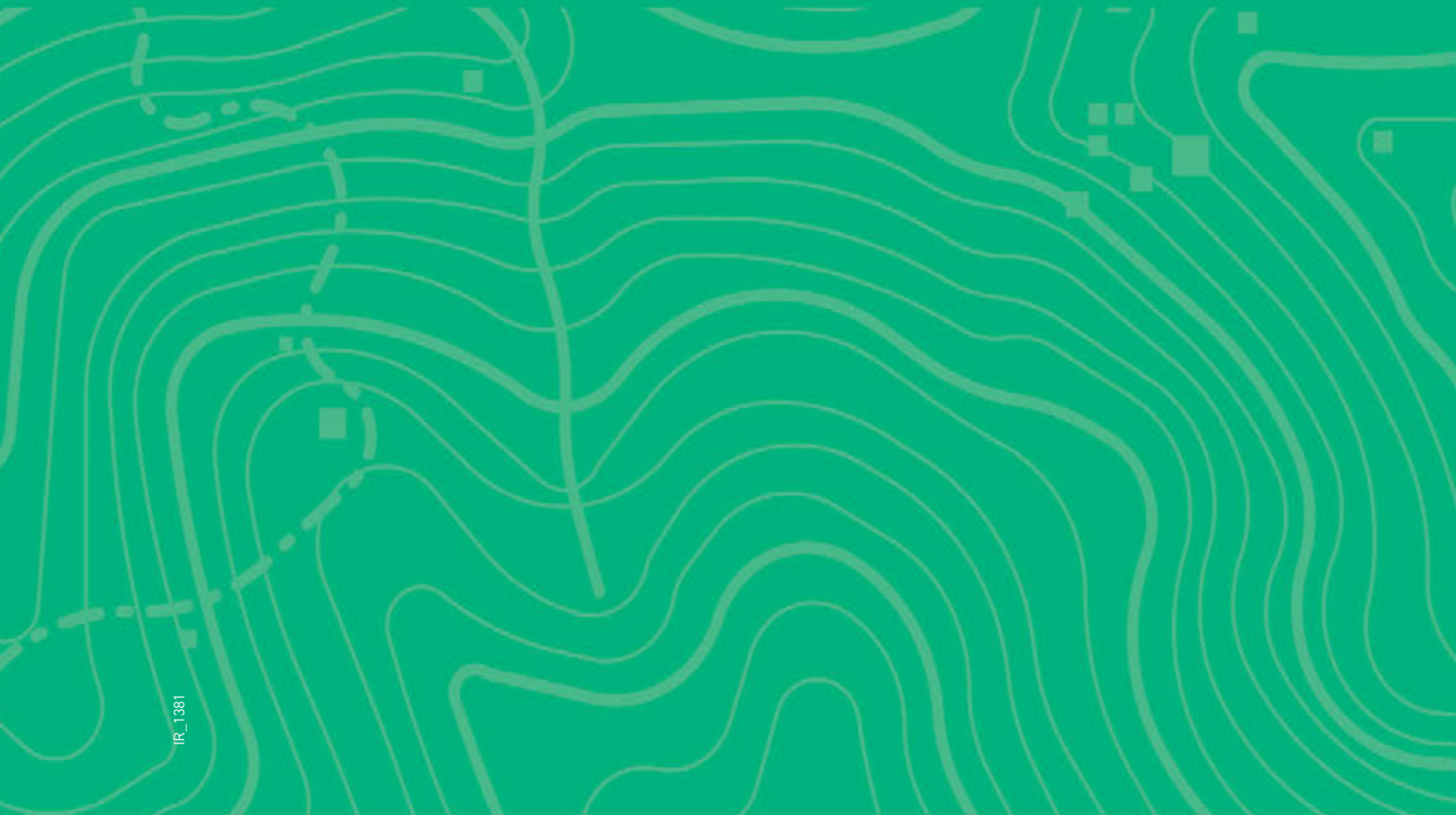
Appendix C7n: Construction Noise Contours: Structures

APPENDIX P

Non-operational Noise and Vibration Technical Report

Appendix D Construction noise and vibration impacts

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT



IR_1381

Appendix D

Construction noise and vibration impacts

Airborne construction noise

Impacts are coloured to match the highest criterion they exceed. Impacts marked with an asterisk indicate that the receptor is within the construction footprint for the activity.

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
HOT0001	50	65	66	72	42	68	45	40	45	66	67	43	68	45	41
HOT0002	50	65	66	72	42	69	45	40	45	66	68	43	69	45	41
HOT0003	50	65	67	74	43	70	45	40	45	67	69	43	70	45	40
HOT0004	50	65	68	74	43	71	45	39	45	68	70	43	71	45	40
HOT0005	50	65	70	76	43	73	45	39	45	70	71	43	73	45	40
HOT0006	50	65	71	77	43	74	45	39	45	71	73	43	74	45	40
HOT0007	50	65	73	79	43	75	45	39	45	73	74	43	76	46	40
HOT0008	50	65	75	82	43	78	45	39	45	75	77	43	78	46	40
HOT0009	50	65	78	85	43	81	45	39	45	78	80	43	81	46	40
HOT0010	50	65	82	88	43	84	45	39	45	82	83	43	84	46	40
HOT0011	50	65	65	71	43	67	45	40	45	65	67	43	68	46	41
HOT0012	50	65	65	71	43	67	45	40	45	65	67	43	68	46	41
HOT0013	50	65	65	71	43	68	46	40	45	65	67	44	68	46	41
HOT0014	50	65	65	71	43	67	46	41	45	65	67	44	68	46	41
HOT0015	50	65	65	71	44	68	46	41	45	65	67	44	68	46	41
HOT0016	50	65	65	71	44	68	46	40	45	65	67	44	68	47	41
HOT0017	50	65	65	71	44	67	47	41	45	65	66	45	67	47	41
HOT0018	50	65	64	71	44	67	47	41	45	65	66	45	67	47	41
HOT0019	50	65	64	71	44	67	47	41	45	64	66	45	67	47	41
HOT0020	50	65	65	71	45	67	47	41	45	65	67	45	67	48	41
HOT0021	50	65	65	71	45	67	48	41	45	65	67	45	67	48	41

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
HOT0022	50	65	65	71	45	68	48	41	45	65	67	46	68	48	41
RES0001	50	65	39	46	40	43	39	44	45	40	45	41	44	39	44
RES0002	50	65	40	47	40	44	39	44	45	41	45	41	44	40	45
RES0003	50	65	41	48	41	45	40	45	45	42	46	42	45	41	45
RES0004	50	65	43	50	43	47	42	47	45	43	48	44	47	42	47
RES0005	50	65	44	51	44	48	43	47	45	45	49	45	48	43	48
RES0006	50	65	34	42	35	38	34	39	45	35	40	35	39	34	39
RES0007	50	65	49	55	48	52	46	50	45	49	53	48	53	46	50
RES0008	50	65	49	56	48	52	46	50	45	49	53	49	53	46	51
RES0009	50	65	52	59	53	55	51	55	45	52	56	53	56	51	55
RES0010	50	65	51	58	53	55	51	55	45	52	55	53	55	51	56
RES0011	50	65	47	54	49	51	48	53	45	48	52	50	51	48	53
RES0012	50	65	51	58	52	54	51	55	45	51	55	53	55	51	56
RES0013	50	65	47	54	49	51	47	52	45	48	52	49	51	47	52
RES0014	50	65	39	46	41	43	40	45	45	40	45	41	44	40	46
RES0015	50	65	43	50	44	47	43	48	45	43	48	45	47	43	48
RES0016	50	65	41	47	41	44	40	46	45	41	46	42	45	41	46
RES0017	50	65	54	61	54	57	50	54	45	54	57	54	57	50	54
RES0018	50	65	44	51	45	48	43	48	45	45	49	46	49	44	49
RES0019	50	65	66	72	63	68	56	59	45	66	67	63	68	56	59
RES0020	50	65	50	57	49	54	46	51	45	51	54	50	54	47	51
RES0021	50	65	46	53	46	50	43	48	45	47	51	46	50	44	49
RES0022	50	65	50	57	49	53	46	50	45	50	54	49	54	46	51
RES0023	50	65	56	62	52	59	48	52	45	56	59	52	59	48	52
RES0024	50	65	55	62	51	58	47	52	45	55	58	52	59	48	52
RES0025	50	65	52	59	47	55	44	49	45	52	56	48	56	45	49
RES0026	50	65	52	58	47	55	44	49	45	52	55	47	55	44	49
RES0027	50	65	48	54	44	51	42	47	45	48	52	45	52	42	47
RES0028	50	65	48	55	44	51	42	47	45	48	52	45	52	42	47
RES0029	50	65	46	53	43	50	40	46	45	47	51	43	50	41	46
RES0030	50	65	39	46	38	43	37	42	45	40	45	38	44	37	43

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0031	50	65	52	58	49	55	47	51	45	52	55	50	55	48	52
RES0032	50	65	43	50	40	47	38	44	45	43	48	41	47	39	44
RES0033	50	65	53	60	47	56	44	50	45	54	57	48	57	45	50
RES0034	50	65	40	47	38	44	37	42	45	41	46	39	45	38	43
RES0035	50	65	43	50	40	47	38	44	45	43	48	41	47	39	44
RES0036	50	65	42	49	39	46	38	43	45	43	47	40	46	38	44
RES0037	50	65	44	51	40	47	39	44	45	44	49	41	48	39	45
RES0038	50	65	44	51	40	47	38	44	45	44	49	41	48	39	45
RES0039	50	65	41	48	38	45	37	42	45	41	46	39	45	37	43
RES0040	50	65	40	46	37	44	36	42	45	40	45	38	44	37	42
RES0041	50	65	44	51	46	48	43	48	45	45	49	46	48	44	49
RES0042	50	65	42	49	39	46	38	43	45	43	47	40	47	38	44
RES0043	50	65	42	49	39	46	37	43	45	43	47	40	47	38	44
RES0044	50	65	42	49	39	46	37	43	45	42	47	39	46	38	44
RES0045	50	65	41	48	39	45	38	44	45	42	46	39	46	38	45
RES0046	50	65	41	48	39	45	38	45	45	41	46	40	45	39	45
RES0047	50	65	40	47	38	44	37	44	45	40	45	38	44	37	44
RES0048	50	65	40	46	40	43	39	44	45	40	45	41	44	39	44
RES0049	50	65	40	47	40	44	39	44	45	40	45	41	44	39	44
RES0050	50	65	40	47	40	44	39	44	45	41	45	41	45	40	45
RES0051	50	65	40	47	40	44	39	44	45	41	45	41	45	40	45
RES0052	50	65	40	47	40	44	39	44	45	41	45	41	45	40	45
RES0053	50	65	40	47	40	44	39	44	45	41	45	41	45	40	45
RES0054	50	65	40	47	41	44	39	44	45	41	46	41	45	40	45
RES0055	50	65	41	48	41	45	40	44	45	41	46	41	45	40	45
RES0056	50	65	41	47	41	44	39	44	45	41	46	41	45	40	45
RES0057	50	65	41	47	41	44	39	44	45	41	46	41	45	40	45
RES0058	50	65	41	48	41	45	40	44	45	41	46	42	45	40	45
RES0059	50	65	41	48	41	45	40	45	45	42	46	42	46	40	45
RES0060	50	65	41	48	41	45	40	45	45	42	46	42	46	41	45
RES0061	50	65	41	48	41	45	40	45	45	42	46	42	46	40	45

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0062	50	65	41	48	42	45	40	45	45	42	47	42	46	41	45
RES0063	50	65	42	48	42	45	40	45	45	42	47	42	46	41	46
RES0064	50	65	42	48	42	45	40	45	45	42	47	42	46	41	46
RES0065	50	65	42	49	42	46	40	45	45	42	47	42	46	41	46
RES0066	50	65	41	48	42	45	40	45	45	42	47	42	46	41	45
RES0067	50	65	42	49	42	46	40	45	45	42	47	42	46	41	46
RES0068	50	65	41	48	41	45	40	45	45	42	46	42	45	40	45
RES0069	50	65	42	49	42	46	40	45	45	43	47	43	46	41	46
RES0070	50	65	42	49	42	46	40	45	45	43	47	43	46	41	46
RES0071	50	65	42	49	42	46	41	45	45	43	47	43	47	41	46
RES0072	50	65	42	49	42	46	41	45	45	43	47	43	46	41	46
RES0073	50	65	43	50	43	47	41	46	45	43	48	43	47	41	46
RES0074	50	65	43	49	42	46	41	46	45	43	48	43	47	41	46
RES0075	50	65	43	50	43	47	41	46	45	44	48	43	47	42	47
RES0076	50	65	44	50	43	47	42	46	45	44	48	44	48	42	47
RES0077	50	65	43	50	43	47	41	46	45	44	48	44	48	42	47
RES0078	50	65	43	50	43	47	41	46	45	44	48	44	48	42	47
RES0079	50	65	44	51	44	48	42	47	45	45	49	44	48	42	47
RES0080	50	65	44	51	44	48	42	47	45	45	49	44	48	42	47
RES0081	50	65	44	50	43	47	42	46	45	44	48	44	48	42	47
RES0082	50	65	44	50	43	47	42	46	45	44	48	44	48	42	47
RES0083	50	65	44	50	43	47	42	46	45	44	48	44	48	42	47
RES0084	50	65	43	50	43	47	41	46	45	44	48	44	47	42	47
RES0085	50	65	44	51	44	48	42	47	45	44	49	44	48	42	47
RES0086	50	65	42	49	42	46	41	46	45	42	47	43	46	41	46
RES0087	50	65	44	51	44	48	42	47	45	44	49	44	48	43	47
RES0088	50	65	49	55	47	52	45	49	45	49	53	48	52	45	50
RES0089	50	65	40	46	41	43	40	45	45	40	45	41	44	40	46
RES0090	50	65	49	56	48	53	45	50	45	50	53	48	53	46	50
RES0091	50	65	50	56	48	53	46	50	45	50	54	49	53	46	50
RES0092	50	65	50	57	49	54	46	50	45	51	54	49	54	47	51

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0093	50	65	53	60	51	57	48	52	45	54	57	51	57	48	52
RES0094	50	65	47	54	48	51	46	50	45	48	52	48	51	46	51
RES0095	50	65	48	54	48	51	46	51	45	48	52	49	52	47	51
RES0096	50	65	49	56	51	52	49	53	45	49	53	52	53	49	54
RES0097	50	65	44	51	46	48	45	50	45	44	49	47	48	46	51
RES0098	50	65	69	75	69	71	60	62	45	69	70	69	71	60	62
RES0099	50	65	52	58	54	55	51	55	45	52	55	54	55	52	55
RES0100	50	65	61	68	62	64	60	61	45	61	64	63	64	60	62
RES0101	50	65	67	73	61	69	63	55	45	67	69	61	70	63	55
RES0102	50	65	54	61	55	57	52	55	45	54	57	56	58	52	56
RES0103	50	65	80	86	72	83	58	55	45	80	82	72	83	58	55
RES0104	50	65	46	53	48	50	45	50	45	46	50	49	50	46	50
RES0105	50	65	53	60	55	56	48	54	45	53	56	55	56	48	54
RES0106	50	65	68	74	69	70	57	63	45	68	69	69	71	57	63
RES0107	50	65	51	58	53	54	47	52	45	51	55	53	55	48	53
RES0108	50	65	52	59	54	55	48	53	45	52	56	54	56	48	54
RES0109	50	65	47	54	49	51	45	51	45	48	52	50	51	46	51
RES0110	50	65	47	54	49	50	45	50	45	47	51	50	51	46	51
RES0111	50	65	46	52	48	49	44	50	45	46	50	48	50	45	50
RES0112	50	65	47	54	49	51	45	51	45	48	52	50	51	46	51
RES0113	50	65	74	80	55	76	70	65	45	74	75	56	76	70	65
RES0114	50	65	64	70	57	66	62	61	45	64	66	57	67	63	62
RES0115	50	65	63	69	55	66	62	60	45	63	65	55	66	62	61
RES0116	50	65	53	60	51	56	54	55	45	53	56	51	56	54	55
RES0117	50	65	48	55	47	52	50	52	45	48	52	48	52	50	52
RES0118	50	65	44	51	43	47	45	49	45	44	48	44	48	46	49
RES0119	50	65	43	50	42	47	45	48	45	43	48	43	47	45	49
RES0120	50	65	41	48	41	45	43	48	45	42	46	42	46	44	48
RES0121	50	65	41	48	41	45	43	47	45	42	46	42	45	44	48
RES0122	50	65	41	47	40	44	43	47	45	41	46	41	45	43	48
RES0123	50	65	41	48	40	45	43	47	45	42	46	41	45	43	48

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0124	50	65	46	53	43	50	44	49	45	47	51	44	50	45	49
RES0125	50	65	40	47	40	44	42	47	45	41	45	41	44	42	47
RES0126	50	65	40	46	40	43	42	47	45	40	45	40	44	42	47
RES0127	50	65	43	50	43	47	44	48	45	44	48	44	47	45	48
RES0128	50	65	46	53	47	50	48	49	45	47	51	47	50	48	50
RES0129	50	65	44	50	46	47	46	49	45	44	48	46	48	46	49
RES0130	50	65	52	59	52	55	52	52	45	52	56	52	56	53	53
RES0131	50	65	40	47	40	44	42	45	45	41	45	41	45	43	46
RES0132	50	65	42	49	40	46	45	49	45	43	47	40	46	45	50
RES0133	50	65	47	54	46	51	49	49	45	48	52	47	51	49	50
RES0134	50	65	41	48	41	45	43	45	45	42	46	42	45	44	46
RES0135	50	65	52	58	51	55	52	52	45	52	55	51	55	53	52
RES0136	50	65	42	49	42	46	44	46	45	43	47	43	47	45	47
RES0137	50	65	41	48	41	45	44	45	45	42	46	42	46	44	46
RES0138	50	65	48	55	47	52	49	49	45	49	52	48	52	50	50
RES0139	50	65	43	50	43	47	45	46	45	44	48	43	47	45	47
RES0140	50	65	49	56	48	53	50	50	45	49	53	48	53	50	50
RES0141	50	65	44	51	43	48	46	47	45	45	49	44	48	46	47
RES0142	50	65	40	47	40	44	43	45	45	41	46	41	45	43	45
RES0143	50	65	42	49	42	46	44	46	45	43	47	42	47	45	46
RES0144	50	65	44	51	43	48	46	47	45	45	49	44	48	47	47
RES0145	50	65	50	56	48	53	50	50	45	50	53	48	53	51	50
RES0146	50	65	43	49	42	46	45	46	45	43	47	43	47	45	46
RES0147	50	65	50	57	48	53	51	50	45	50	53	48	54	51	51
RES0148	50	65	44	51	43	48	46	46	45	44	49	44	48	46	47
RES0149	50	65	43	50	42	47	45	46	45	43	48	43	47	45	46
RES0150	50	65	44	51	43	48	46	46	45	45	49	44	48	46	47
RES0151	50	65	51	58	48	54	51	50	45	51	55	49	55	52	51
RES0152	50	65	44	51	43	48	46	47	45	45	49	44	49	47	47
RES0153	50	65	52	59	48	55	52	51	45	52	55	49	56	52	51
RES0154	50	65	44	51	43	48	46	46	45	45	49	44	48	46	47

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0155	50	65	52	58	48	55	52	50	45	52	55	48	55	52	51
RES0156	50	65	45	51	43	48	46	46	45	45	49	44	49	47	47
RES0157	50	65	50	57	47	53	50	49	45	50	54	47	54	51	50
RES0158	50	65	48	55	46	52	49	49	45	49	53	46	52	50	49
RES0159	50	65	55	62	50	58	54	52	45	55	58	50	58	55	52
RES0160	50	65	54	60	49	57	53	51	45	54	57	49	57	54	52
RES0161	50	65	47	54	45	51	49	48	45	48	52	46	51	49	48
RES0162	50	65	45	52	43	48	46	46	45	45	49	44	49	47	47
RES0163	50	65	51	58	48	55	52	50	45	52	55	48	55	52	51
RES0164	50	65	50	57	47	53	51	49	45	50	54	47	54	51	50
RES0165	50	65	48	55	46	52	49	49	45	49	53	46	52	50	49
RES0166	50	65	60	67	53	63	58	54	45	60	63	53	63	59	54
RES0167	50	65	47	54	45	51	48	48	45	48	52	45	51	49	48
RES0168	50	65	43	50	42	47	45	45	45	43	48	42	47	45	46
RES0169	50	65	47	54	45	50	48	48	45	47	51	45	51	48	48
RES0170	50	65	45	52	43	49	47	47	45	46	50	44	49	47	47
RES0171	50	65	46	53	44	50	48	47	45	47	51	45	50	48	48
RES0172	50	65	47	54	45	51	48	48	45	48	51	45	51	49	48
RES0173	50	65	47	54	45	51	48	48	45	48	51	45	51	49	48
RES0174	50	65	49	56	46	52	50	49	45	49	53	47	53	50	49
RES0175	50	65	52	59	51	56	53	52	45	53	56	51	56	53	52
RES0176	50	65	44	51	42	47	46	46	45	44	49	43	48	46	46
RES0177	50	65	46	53	44	50	48	47	45	46	50	45	50	48	48
RES0178	50	65	42	49	42	46	45	45	45	43	47	43	47	45	46
RES0179	50	65	43	50	43	47	45	46	45	44	48	44	47	46	46
RES0180	50	65	43	50	43	47	45	46	45	43	48	43	47	45	46
RES0181	50	65	42	49	42	45	44	45	45	42	47	43	46	44	45
RES0182	50	65	41	48	43	45	44	45	45	42	46	43	46	44	45
RES0183	50	65	43	50	45	46	45	46	45	43	48	45	47	45	47
RES0184	50	65	42	49	45	46	44	46	45	43	47	46	47	45	46
RES0185	50	65	44	50	46	47	45	46	45	44	48	47	48	45	47

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0186	50	65	39	46	41	43	42	44	45	40	45	42	44	42	44
RES0187	50	65	44	51	47	48	45	46	45	45	49	47	49	46	47
RES0188	50	65	42	49	44	46	44	45	45	42	47	45	46	44	46
RES0189	50	65	43	50	45	47	44	46	45	44	48	46	47	45	46
RES0190	50	65	42	49	45	46	44	45	45	43	47	45	47	44	45
RES0191	50	65	39	46	42	43	42	43	45	40	45	43	44	42	44
RES0192	50	65	41	48	44	45	44	43	45	42	46	45	46	45	44
RES0193	50	65	42	49	44	45	45	43	45	42	47	45	46	45	44
RES0194	50	65	40	46	42	43	43	42	45	40	45	43	44	43	43
RES0195	50	65	41	47	42	44	43	47	45	41	46	43	45	43	48
RES0196	50	65	45	52	46	49	47	51	45	45	50	47	49	48	51
RES0197	50	65	52	59	52	55	52	56	45	52	56	53	56	53	56
RES0198	50	65	49	56	47	53	51	52	45	50	53	47	53	51	53
RES0199	50	65	53	60	49	56	54	55	45	53	56	50	56	55	55
RES0200	50	65	47	53	43	50	48	50	45	47	51	44	51	48	50
RES0201	50	65	61	67	52	63	61	59	45	61	63	52	64	61	59
RES0202	50	65	71	77	50	73	59	58	45	71	72	51	73	59	58
RES0203	50	65	71	77	62	73	70	65	45	71	72	62	73	70	65
RES0204	50	65	73	79	62	75	76	66	45	73	74	63	75	76	66
RES0205	50	65	80	86	69	82	86	66	45	80	81	70	82	86	66
RES0206	50	65	79	86	75	82	80	71	45	79	81	75	82	80	71
RES0207	50	65	-*	-*	71	-*	74	74	45	-*	-*	71	-*	74	74
RES0208	50	65	68	75	57	71	64	57	45	68	70	57	71	64	57
RES0209	50	65	63	70	54	66	61	55	45	63	65	55	66	61	55
RES0210	50	65	69	75	62	71	69	61	45	69	70	63	71	69	62
RES0211	50	65	69	75	60	71	68	60	45	69	70	61	71	68	60
RES0212	50	65	66	72	56	68	63	57	45	66	68	56	69	63	57
RES0213	50	65	66	73	57	69	64	57	45	66	68	57	69	64	57
RES0214	50	65	-*	-*	63	-*	-*	65	45	-*	-*	63	-*	-*	65
RES0215	50	65	68	75	62	71	68	62	45	68	70	62	71	68	62
RES0216	50	65	70	77	59	73	68	60	45	71	72	60	73	68	61

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0217	50	65	60	67	55	63	60	56	45	60	63	55	63	60	56
RES0218	50	65	59	66	54	62	59	55	45	59	62	54	62	59	56
RES0219	50	65	58	65	53	61	58	55	45	58	61	53	61	58	55
RES0220	50	65	-*	-*	64	-*	74	59	45	-*	-*	64	-*	74	60
RES0221	50	65	69	75	61	71	67	59	45	69	70	61	71	67	59
RES0222	50	65	70	76	64	72	67	58	45	70	71	64	72	67	58
RES0223	50	65	88	95	74	91	65	56	45	88	90	74	91	65	56
RES0224	50	65	52	59	51	56	53	52	45	53	56	52	56	53	52
RES0225	50	65	49	56	51	52	48	47	45	49	53	51	53	48	48
RES0226	50	65	-*	-*	87	-*	60	48	45	-*	-*	87	-*	60	48
RES0227	50	65	-*	-*	90	-*	64	47	45	-*	-*	90	-*	64	48
RES0228	50	65	-*	-*	88	-*	83	47	45	-*	-*	88	-*	84	47
RES0229	50	65	58	65	59	61	59	46	45	59	61	59	61	59	47
RES0230	50	65	-*	-*	82	-*	85	47	45	-*	-*	82	-*	85	48
RES0231	50	65	61	67	61	64	61	47	45	61	63	62	64	61	47
RES0232	50	65	-*	-*	80	-*	89	49	45	-*	-*	80	-*	89	49
RES0233	50	65	49	56	52	53	44	53	45	50	53	52	53	44	54
RES0234	50	65	58	65	54	61	59	56	45	59	61	54	62	59	56
RES0235	50	65	45	51	44	48	47	49	45	45	49	45	49	48	50
RES0236	50	65	65	71	58	67	64	59	45	65	67	58	68	65	59
RES0237	50	65	44	51	43	47	46	49	45	44	48	44	48	47	49
RES0238	50	65	46	53	46	50	48	50	45	46	50	46	50	49	51
RES0239	50	65	44	51	44	48	47	49	45	45	49	45	48	47	50
RES0240	50	65	43	50	44	47	46	49	45	44	48	44	48	46	49
RES0241	50	65	44	50	44	47	46	49	45	44	48	45	48	47	50
RES0242	50	65	42	49	42	45	45	48	45	42	47	43	46	45	48
RES0243	50	65	43	50	44	47	46	49	45	43	48	44	47	46	49
RES0244	50	65	45	52	47	49	47	51	45	45	50	47	49	48	51
RES0245	50	65	44	51	46	47	46	50	45	44	49	46	48	47	50
RES0246	50	65	43	50	41	47	45	47	45	44	48	41	47	45	48
RES0247	50	65	42	49	38	46	39	45	45	42	47	39	46	40	45

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0248	50	65	44	51	42	48	44	47	45	44	49	43	48	44	47
RES0249	50	65	44	50	43	47	44	47	45	44	48	44	48	45	48
RES0250	50	65	39	46	40	43	42	45	45	40	44	40	43	42	45
RES0251	50	65	42	49	42	46	44	47	45	43	47	43	47	45	47
RES0252	50	65	43	50	43	47	45	47	45	44	48	44	47	45	48
RES0253	50	65	45	51	44	48	46	48	45	45	49	45	49	46	48
RES0254	50	65	40	47	41	44	43	46	45	41	45	42	45	44	46
RES0255	50	65	39	46	40	43	42	45	45	40	44	41	44	43	45
RES0256	50	65	46	53	46	50	48	50	45	46	50	46	50	49	50
RES0257	50	65	46	53	46	50	48	50	45	46	50	46	50	49	50
RES0258	50	65	52	59	50	55	53	53	45	52	55	50	55	54	54
RES0259	50	65	57	64	53	60	58	56	45	57	60	53	60	58	57
RES0260	50	65	54	61	51	57	55	55	45	54	57	51	57	55	55
RES0261	50	65	42	49	42	46	45	47	45	43	47	43	47	46	48
RES0262	50	65	42	49	42	46	45	47	45	43	47	42	46	45	47
RES0263	50	65	50	57	48	54	52	52	45	51	54	49	54	52	53
RES0264	50	65	57	64	53	60	58	56	45	57	60	53	60	58	57
RES0265	50	65	40	47	42	44	43	44	45	41	45	42	45	44	45
RES0266	50	65	48	55	49	52	48	49	45	48	52	50	52	48	49
RES0267	50	65	50	57	51	54	49	49	45	51	54	52	54	50	49
RES0268	50	65	43	50	44	47	46	45	45	44	48	44	48	46	45
RES0269	50	65	43	50	43	47	46	44	45	44	48	44	47	46	44
RES0270	50	65	50	57	50	53	51	47	45	50	54	51	54	52	48
RES0271	50	65	43	49	42	46	45	43	45	43	47	42	47	46	43
RES0272	50	65	54	61	50	58	55	46	45	55	58	50	58	55	46
RES0273	50	65	45	52	43	48	47	43	45	45	49	44	49	48	44
RES0274	50	65	53	60	49	56	54	45	45	53	56	49	56	54	46
RES0275	50	65	62	69	54	65	62	46	45	62	64	55	65	62	47
RES0276	50	65	53	60	49	56	54	45	45	53	56	49	56	54	46
RES0277	50	65	42	49	42	46	45	43	45	43	47	42	47	45	44
RES0278	50	65	57	63	52	60	57	46	45	57	60	52	60	58	46

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0279	50	65	70	76	58	72	69	46	45	70	71	58	72	69	47
RES0280	50	65	43	50	43	47	46	44	45	44	48	44	47	46	45
RES0281	50	65	41	48	43	45	44	45	45	42	46	44	46	45	46
RES0282	50	65	41	47	42	44	44	46	45	41	46	43	45	44	46
RES0283	50	65	65	71	53	67	60	58	45	65	67	53	68	60	58
RES0284	50	65	85	91	57	87	58	61	45	85	86	58	87	58	61
RES0285	50	65	66	72	58	68	65	62	45	66	67	59	68	65	62
RES0286	50	65	75	82	66	78	75	68	45	75	77	67	78	75	68
RES0287	50	65	65	72	62	68	65	63	45	65	67	62	68	65	63
RES0288	50	65	56	63	46	59	53	56	45	56	59	46	60	53	56
RES0289	50	65	56	63	44	59	54	54	45	56	59	44	59	55	54
RES0290	50	65	56	63	44	59	54	54	45	56	59	44	59	55	54
RES0291	50	65	56	63	44	59	54	54	45	56	59	44	59	55	54
RES0292	50	65	55	62	45	59	56	49	45	56	59	45	59	56	49
RES0293	50	65	55	61	44	58	55	49	45	55	58	44	58	55	50
RES0294	50	65	44	51	42	47	44	49	45	44	48	42	48	44	50
RES0295	50	65	44	51	39	48	46	48	45	45	49	40	49	47	49
RES0296	50	65	44	51	39	48	47	47	45	45	49	40	48	47	47
RES0297	50	65	44	51	39	48	46	47	45	44	49	40	48	47	47
RES0298	50	65	43	50	39	47	46	46	45	44	48	39	47	46	47
RES0299	50	65	44	51	40	48	46	46	45	44	49	41	48	47	47
RES0300	50	65	39	46	38	43	41	45	45	40	44	38	43	41	46
RES0301	50	65	43	50	40	47	46	46	45	44	48	41	48	46	46
RES0302	50	65	44	50	41	47	46	46	45	44	48	42	48	46	46
RES0303	50	65	44	51	44	48	47	45	45	45	49	44	48	47	46
RES0304	50	65	39	46	37	43	41	45	45	39	44	38	43	41	46
RES0305	50	65	42	49	40	46	45	45	45	43	47	41	46	45	46
RES0306	50	65	42	49	40	46	44	45	45	42	47	40	46	45	46
RES0307	50	65	40	47	36	44	43	45	45	41	45	37	44	43	45
RES0308	50	65	40	47	38	44	43	45	45	41	46	38	45	44	45
RES0309	50	65	40	47	37	44	43	45	45	41	45	38	44	43	45

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0310	50	65	40	46	36	43	42	45	45	40	45	37	44	43	45
RES0311	50	65	43	49	44	46	45	44	45	43	47	45	47	46	45
RES0312	50	65	41	48	42	45	44	44	45	42	46	42	46	44	45
RES0313	50	65	41	47	40	44	43	44	45	41	46	40	45	44	45
RES0314	50	65	40	46	38	44	43	44	45	40	45	38	44	43	45
RES0315	50	65	43	50	39	47	43	47	45	43	48	40	47	44	48
RES0316	50	65	48	55	44	52	53	52	45	49	53	45	52	53	52
RES0317	50	65	58	65	45	61	59	51	45	58	61	45	61	59	51
RES0318	50	65	85	91	62	88	94	45	45	85	86	62	88	94	46
RES0319	50	65	65	71	55	67	64	46	45	65	67	55	67	64	47
RES0320	50	65	72	79	70	75	68	45	45	72	74	70	75	68	46
RES0321	50	65	84	90	61	86	82	45	45	84	85	61	86	82	46
RES0322	50	65	-*	-*	107	-*	67	45	45	-*	-*	107	-*	67	46
RES0323	50	65	62	69	54	65	62	46	45	62	64	54	65	63	46
RES0324	50	65	-*	-*	104	-*	69	46	45	-*	-*	104	-*	69	46
RES0325	50	65	-*	-*	103	-*	72	46	45	-*	-*	103	-*	72	46
RES0326	50	65	83	89	83	85	60	46	45	83	84	83	85	60	46
RES0327	50	65	63	70	64	66	60	46	45	63	65	65	66	60	46
RES0328	50	65	78	84	55	81	76	49	45	78	80	56	81	76	49
RES0329	50	65	93	99	52	96	65	50	45	93	95	52	96	65	50
RES0330	50	65	56	63	55	60	58	46	45	57	59	55	60	58	46
RES0331	50	65	-*	-*	60	-*	87	49	45	-*	-*	61	-*	87	50
RES0332	50	65	80	86	83	83	67	48	45	80	82	83	83	67	49
RES0333	50	65	55	62	55	58	56	46	45	55	58	56	58	57	46
RES0334	50	65	62	68	63	65	55	46	45	62	64	63	65	55	47
RES0335	50	65	69	76	70	72	54	47	45	70	71	70	72	54	47
RES0336	50	65	74	81	67	77	72	50	45	74	76	67	77	73	50
RES0337	50	65	73	79	74	75	65	49	45	73	74	75	75	66	50
RES0338	50	65	72	79	75	75	61	49	45	73	74	75	75	62	49
RES0339	50	65	51	58	53	55	53	45	45	52	55	53	55	54	46
RES0340	50	65	51	58	52	54	53	45	45	51	55	53	55	53	46

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0341	50	65	48	54	48	51	50	45	45	48	52	48	52	50	46
RES0342	50	65	74	80	75	77	56	48	45	74	76	75	77	57	49
RES0343	50	65	65	71	57	67	62	52	45	65	67	57	67	62	52
RES0344	50	65	48	55	48	51	50	45	45	48	52	49	52	50	46
RES0345	50	65	48	55	49	52	51	45	45	49	53	50	52	51	46
RES0346	50	65	47	53	47	50	49	45	45	47	51	47	51	49	46
RES0347	50	65	66	73	58	69	64	52	45	67	68	59	69	64	53
RES0348	50	65	59	66	60	62	52	47	45	59	62	61	62	52	47
RES0349	50	65	54	61	56	57	52	46	45	54	57	56	57	52	47
RES0350	50	65	47	54	49	51	49	45	45	47	51	49	51	50	46
RES0351	50	65	65	71	60	68	60	53	45	65	67	60	68	60	54
RES0352	50	65	61	68	63	64	60	51	45	61	63	63	64	60	51
RES0353	50	65	53	60	55	56	50	46	45	53	56	55	56	51	47
RES0354	50	65	50	57	52	53	50	45	45	50	54	52	54	50	46
RES0355	50	65	49	56	51	53	50	45	45	50	53	52	53	50	46
RES0356	50	65	45	52	47	48	46	45	45	45	49	48	49	47	45
RES0357	50	65	45	52	48	49	46	45	45	46	50	48	49	47	46
RES0358	50	65	43	50	46	47	45	44	45	44	48	46	47	46	45
RES0359	50	65	42	49	45	46	45	44	45	43	47	46	47	45	45
RES0360	50	65	50	57	52	53	46	51	45	50	54	52	54	47	52
RES0361	50	65	43	50	46	47	42	47	45	44	48	46	47	43	47
RES0362	50	65	51	58	53	55	45	53	45	52	55	54	55	45	53
RES0363	50	65	42	49	45	46	41	48	45	43	47	46	47	42	48
RES0364	50	65	43	50	46	47	42	48	45	44	48	47	48	42	49
RES0365	50	65	39	46	42	43	39	45	45	40	45	42	44	40	46
RES0366	50	65	49	56	51	52	42	53	45	49	53	51	53	43	53
RES0367	50	65	41	48	44	45	40	48	45	42	47	45	46	40	48
RES0368	50	65	46	53	48	49	41	51	45	46	50	49	50	41	52
RES0369	50	65	43	50	45	47	39	50	45	43	48	46	47	40	50
RES0370	50	65	42	49	45	46	38	50	45	43	47	45	47	39	50
RES0371	50	65	42	49	45	46	38	50	45	43	47	45	47	39	50

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0372	50	65	41	48	42	45	42	51	45	42	46	43	45	42	51
RES0373	50	65	52	59	51	56	52	58	45	53	56	51	56	52	58
RES0374	50	65	51	58	51	54	52	57	45	51	55	52	54	53	57
RES0375	50	65	46	53	47	50	48	54	45	47	51	48	50	49	54
RES0376	50	65	42	49	43	46	44	51	45	42	47	44	46	45	52
RES0377	50	65	47	54	48	51	49	54	45	48	52	49	51	50	55
RES0378	50	65	40	47	42	44	43	50	45	41	46	43	45	44	50
RES0379	50	65	43	50	45	47	46	52	45	44	48	46	47	46	52
RES0380	50	65	47	54	49	51	49	54	45	48	51	49	51	50	54
RES0381	50	65	41	48	43	45	44	50	45	42	46	44	46	45	51
RES0382	50	65	39	46	41	43	42	49	45	40	45	42	44	43	49
RES0383	50	65	44	51	46	48	47	52	45	45	49	47	48	47	52
RES0384	50	65	39	46	42	43	42	49	45	40	45	42	44	43	49
RES0385	50	65	42	49	45	46	45	50	45	43	47	45	47	45	51
RES0386	50	65	40	47	43	44	43	49	45	41	45	43	44	43	49
RES0387	50	65	42	49	45	46	43	49	45	43	47	46	47	43	49
RES0388	50	65	41	47	44	44	42	48	45	41	46	44	45	43	49
RES0389	50	65	43	49	39	46	43	43	45	43	47	39	47	44	44
RES0390	50	65	51	58	45	54	51	45	45	51	55	46	55	51	45
RES0391	50	65	51	58	44	55	49	47	45	52	55	45	55	50	47
RES0392	50	65	57	64	48	60	53	49	45	57	60	48	60	53	49
RES0393	50	65	61	68	49	64	55	50	45	62	64	50	64	55	50
RES0394	50	65	69	75	51	71	59	50	45	69	70	52	71	59	50
RES0395	50	65	47	53	44	50	46	49	45	47	51	45	51	46	50
RES0396	50	65	56	63	52	59	53	52	45	56	59	52	59	53	53
RES0397	50	65	54	61	52	57	52	53	45	54	58	53	58	52	54
RES0398	50	65	60	67	59	63	56	55	45	60	63	59	63	56	55
RES0399	50	65	55	62	55	59	54	55	45	56	59	56	59	54	55
RES0400	50	65	48	54	48	51	47	53	45	48	52	48	52	48	53
RES0401	50	65	63	69	62	66	52	59	45	63	65	62	66	52	59
RES0402	50	65	41	48	42	45	40	51	45	42	46	43	46	41	51

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0403	50	65	62	68	51	65	53	63	45	62	64	52	65	53	63
RES0404	50	65	67	74	54	70	55	66	45	67	69	54	70	56	66
RES0405	50	65	50	57	50	54	52	56	45	51	54	50	54	53	56
RES0406	50	65	54	61	53	58	56	58	45	55	58	53	58	56	58
RES0407	50	65	67	73	59	69	61	64	45	67	68	59	69	61	64
RES0408	50	65	55	62	52	59	53	59	45	56	59	53	59	54	60
RES0409	50	65	71	77	63	73	66	65	45	71	72	63	73	66	65
RES0410	50	65	74	81	65	77	74	68	45	74	76	66	77	74	68
RES0411	50	65	84	90	68	87	81	71	45	84	85	68	87	81	72
RES0412	50	65	69	76	66	72	69	66	45	70	71	66	72	69	66
RES0413	50	65	54	61	54	57	55	59	45	54	57	54	58	55	59
RES0414	50	65	50	57	51	53	51	55	45	50	54	51	54	51	56
RES0415	50	65	61	68	60	64	61	61	45	61	63	60	64	61	61
RES0416	50	65	51	58	52	54	51	55	45	51	55	52	54	52	56
RES0417	50	65	52	58	52	55	50	55	45	52	55	52	55	51	56
RES0418	50	65	71	77	67	73	61	62	45	71	72	67	73	61	62
RES0419	50	65	56	63	57	59	57	59	45	57	59	57	60	57	59
RES0420	50	65	52	59	52	56	51	55	45	53	56	52	56	51	56
RES0421	50	65	-*	-*	78	-*	63	64	45	-*	-*	78	-*	63	64
RES0422	50	65	53	60	52	56	51	56	45	53	56	53	56	52	56
RES0423	50	65	54	60	52	57	52	56	45	54	57	53	57	52	56
RES0424	50	65	-*	-*	85	-*	60	62	45	-*	-*	85	-*	61	62
RES0425	50	65	51	58	53	55	53	56	45	52	55	53	55	53	57
RES0426	50	65	62	69	59	65	54	57	45	62	64	60	65	54	57
RES0427	50	65	59	66	56	62	54	57	45	59	62	57	62	54	57
RES0428	50	65	52	59	54	55	53	56	45	52	56	54	56	53	57
RES0429	50	65	-*	-*	81	-*	57	59	45	-*	-*	81	-*	57	60
RES0430	50	65	69	76	70	72	56	59	45	69	71	70	72	56	59
RES0431	50	65	62	68	63	64	53	56	45	62	64	63	65	53	56
RES0432	50	65	47	54	46	51	49	49	45	47	51	46	51	50	50
RES0433	50	65	48	55	47	52	50	51	45	49	52	48	52	51	51

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0434	50	65	46	53	45	50	49	50	45	47	51	46	50	49	51
RES0435	50	65	52	58	50	55	53	56	45	52	55	51	55	54	56
RES0436	50	65	47	54	47	51	50	53	45	48	52	47	51	50	53
RES0437	50	65	48	55	48	51	48	54	45	48	52	48	52	48	55
RES0438	50	65	44	50	44	47	46	52	45	44	48	45	48	47	53
RES0439	50	65	43	50	44	47	46	52	45	44	48	45	47	46	52
RES0440	50	65	41	48	43	45	44	51	45	42	46	43	46	45	51
RES0441	50	65	42	49	43	46	45	51	45	42	47	44	46	45	52
RES0442	50	65	42	49	44	46	45	51	45	42	47	44	46	45	52
RES0443	50	65	42	49	44	46	45	52	45	42	47	44	46	45	52
RES0444	50	65	42	49	45	46	44	52	45	43	47	46	46	45	52
RES0445	50	65	45	52	47	49	47	53	45	46	50	48	50	47	54
RES0446	50	65	46	53	47	50	47	54	45	47	51	48	50	47	54
RES0447	50	65	43	50	46	47	45	52	45	44	48	46	47	46	52
RES0448	50	65	49	56	49	52	49	54	45	49	53	50	53	49	55
RES0449	50	65	48	55	51	52	49	55	45	48	52	51	52	50	55
RES0450	50	65	48	55	50	51	49	54	45	48	52	51	52	50	55
RES0451	50	65	53	60	55	56	53	57	45	53	56	56	56	54	57
RES0452	50	65	54	60	56	57	54	58	45	54	57	56	57	54	58
RES0453	50	65	54	61	57	57	55	58	45	54	57	57	58	55	59
RES0454	50	65	59	65	60	62	57	62	45	59	61	61	62	58	62
RES0455	50	65	60	66	60	63	60	63	45	60	62	60	63	60	63
RES0456	50	65	61	68	62	64	62	64	45	61	63	62	64	62	64
RES0457	50	65	60	67	62	63	55	62	45	61	63	62	63	55	63
RES0458	50	65	70	76	67	73	63	67	45	70	71	67	73	64	67
RES0459	50	65	89	95	73	91	61	69	45	89	90	73	91	61	69
RES0460	50	65	62	69	60	65	53	64	45	62	64	60	65	53	64
RES0461	50	65	59	66	58	62	52	62	45	60	62	58	62	52	62
RES0462	50	65	55	62	55	58	55	59	45	55	58	55	58	56	59
RES0463	50	65	55	62	55	58	51	59	45	55	58	55	59	51	59
RES0464	50	65	54	61	54	58	52	59	45	55	58	54	58	52	59

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0465	50	65	51	58	52	55	51	57	45	52	55	52	55	52	57
RES0466	50	65	51	58	52	55	48	57	45	52	55	52	55	48	57
RES0467	50	65	27	34	24	31	25	31	45	27	33	25	31	25	31
RES0468	50	65	42	49	25	46	25	32	45	43	47	25	47	26	32
RES0469	50	65	40	47	29	44	30	30	45	41	45	30	44	31	31
RES0470	50	65	40	47	25	44	30	46	45	41	45	25	44	31	46
RES0471	50	65	39	46	26	43	29	< 20	45	40	45	27	44	30	< 20
RES0472	50	65	40	47	26	44	29	< 20	45	40	45	27	44	30	< 20
RES0473	50	65	40	47	26	44	29	< 20	45	41	45	27	44	30	< 20
RES0474	50	65	40	47	26	44	29	< 20	45	41	46	27	45	30	< 20
RES0475	50	65	40	47	26	44	29	< 20	45	41	46	27	45	30	< 20
RES0476	50	65	40	47	26	44	29	< 20	45	41	46	27	45	30	< 20
RES0477	50	65	41	48	26	45	29	< 20	45	41	46	27	45	30	< 20
RES0478	50	65	41	48	26	45	29	< 20	45	41	46	27	45	30	< 20
RES0479	50	65	41	48	26	45	29	< 20	45	41	46	27	45	30	< 20
RES0480	50	65	41	48	26	45	29	< 20	45	42	46	27	45	30	< 20
RES0481	50	65	40	47	27	44	29	< 20	45	41	45	28	44	30	< 20
RES0482	50	65	42	49	27	46	30	< 20	45	43	47	28	46	30	< 20
RES0483	50	65	42	49	27	46	30	< 20	45	42	47	28	46	30	< 20
RES0484	50	65	40	47	27	44	29	38	45	40	45	28	44	30	39
RES0485	50	65	45	52	28	48	31	< 20	45	45	49	29	49	31	< 20
RES0486	50	65	40	47	27	44	30	38	45	41	46	28	45	30	39
RES0487	50	65	41	48	27	45	30	38	45	42	46	28	45	31	39
RES0488	50	65	40	47	28	44	30	39	45	41	45	29	45	31	40
RES0489	50	65	43	50	28	47	31	37	45	43	48	29	47	31	38
RES0490	50	65	47	54	29	50	32	36	45	47	51	30	51	32	37
RES0491	50	65	44	51	13	48	17	< 20	45	45	49	14	48	17	< 20
RES0492	50	65	31	38	25	35	31	31	45	31	37	26	35	32	32
RES0493	50	65	27	35	14	31	17	< 20	45	28	33	15	31	18	< 20
RES0494	50	65	40	47	32	44	35	31	45	40	45	32	44	35	32
RES0495	50	65	60	67	28	63	29	35	45	60	62	29	63	29	35

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0496	50	65	47	54	31	51	34	40	45	48	52	32	51	34	41
RES0497	50	65	48	54	31	51	33	40	45	48	52	32	52	34	41
RES0498	50	65	47	54	31	50	33	40	45	47	51	32	51	34	41
RES0499	50	65	44	51	31	47	33	42	45	44	49	32	48	34	42
RES0500	50	65	49	56	31	52	34	40	45	49	53	32	53	34	41
RES0501	50	65	43	50	32	47	33	42	45	44	48	32	48	34	42
RES0502	50	65	43	50	32	47	33	42	45	44	48	33	47	34	43
RES0503	50	65	40	47	33	44	34	43	45	41	45	33	44	35	44
RES0504	50	65	42	49	32	46	33	42	45	43	47	33	47	33	43
RES0505	50	65	48	55	31	52	34	40	45	49	53	32	52	35	41
RES0506	50	65	40	47	33	44	34	43	45	41	46	34	45	35	44
RES0507	50	65	40	47	33	44	34	43	45	41	45	34	44	35	44
RES0508	50	65	50	57	32	54	34	40	45	51	54	33	54	35	40
RES0509	50	65	48	55	32	52	34	40	45	49	52	32	52	35	41
RES0510	50	65	43	50	32	47	33	42	45	44	48	33	47	34	43
RES0511	50	65	51	58	32	55	35	39	45	52	55	33	55	35	40
RES0512	50	65	40	47	33	44	34	43	45	41	45	34	45	35	44
RES0513	50	65	41	48	33	45	34	43	45	42	46	34	46	34	44
RES0514	50	65	51	57	32	54	35	40	45	51	54	33	54	35	41
RES0515	50	65	41	48	33	45	34	43	45	42	46	34	46	34	44
RES0516	50	65	43	49	33	46	33	42	45	43	48	33	47	34	43
RES0517	50	65	42	49	33	46	34	43	45	43	47	33	47	34	43
RES0518	50	65	42	49	33	46	34	43	45	42	47	34	46	34	43
RES0519	50	65	48	54	32	51	34	41	45	48	52	33	52	35	42
RES0520	50	65	49	56	32	52	34	40	45	49	53	33	53	35	41
RES0521	50	65	43	50	32	47	33	42	45	44	48	33	47	34	43
RES0522	50	65	41	47	33	44	34	43	45	41	46	34	45	35	44
RES0523	50	65	39	46	34	43	35	44	45	40	44	35	44	36	45
RES0524	50	65	42	49	33	46	34	43	45	42	47	34	46	35	44
RES0525	50	65	47	54	32	51	35	41	45	48	52	33	51	35	42
RES0526	50	65	41	48	33	45	34	43	45	42	47	34	46	35	44

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0527	50	65	43	50	33	47	34	43	45	43	48	34	47	34	43
RES0528	50	65	39	46	34	43	35	44	45	40	45	35	44	36	45
RES0529	50	65	50	57	32	53	35	40	45	50	54	33	54	36	41
RES0530	50	65	42	49	33	46	34	43	45	42	47	34	46	35	44
RES0531	50	65	51	58	33	55	35	40	45	52	55	33	55	36	41
RES0532	50	65	47	54	32	50	34	41	45	47	51	33	51	35	42
RES0533	50	65	40	47	34	44	35	44	45	40	45	35	44	35	44
RES0534	50	65	41	47	34	44	34	43	45	41	46	34	45	35	44
RES0535	50	65	43	50	33	47	34	43	45	43	48	34	47	34	43
RES0536	50	65	49	55	32	52	35	41	45	49	53	33	52	36	42
RES0537	50	65	50	57	33	53	35	40	45	50	54	34	54	36	41
RES0538	50	65	42	49	33	46	34	43	45	42	47	34	46	35	44
RES0539	50	65	51	58	33	54	35	40	45	51	55	34	55	36	41
RES0540	50	65	40	47	34	44	35	44	45	40	45	35	44	36	45
RES0541	50	65	41	48	34	45	35	44	45	41	46	35	45	35	44
RES0542	50	65	49	56	33	53	35	41	45	50	53	34	53	36	41
RES0543	50	65	39	46	34	43	35	44	45	40	45	35	44	36	45
RES0544	50	65	43	50	33	47	34	43	45	44	48	34	47	35	43
RES0545	50	65	47	54	32	51	35	41	45	48	52	33	51	36	42
RES0546	50	65	51	58	33	55	36	40	45	52	55	34	55	36	41
RES0547	50	65	42	49	34	46	34	43	45	42	47	34	46	35	44
RES0548	50	65	40	47	34	44	35	44	45	40	45	35	44	36	45
RES0549	50	65	47	54	32	51	35	41	45	48	52	33	51	36	42
RES0550	50	65	41	47	34	44	35	44	45	41	46	35	45	35	44
RES0551	50	65	43	50	33	47	34	43	45	43	48	34	47	35	44
RES0552	50	65	80	86	35	82	37	36	45	80	81	36	82	38	37
RES0553	50	65	42	49	34	46	34	43	45	43	47	34	46	35	44
RES0554	50	65	49	56	33	53	36	41	45	50	53	34	53	36	42
RES0555	50	65	47	54	33	50	35	42	45	47	51	33	51	36	42
RES0556	50	65	43	50	33	47	34	43	45	44	48	34	48	35	44
RES0557	50	65	39	46	35	43	35	44	45	40	45	35	44	36	45

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0558	50	65	41	48	34	45	35	44	45	41	46	35	45	36	44
RES0559	50	65	48	55	33	51	35	41	45	48	52	34	52	36	42
RES0560	50	65	49	56	33	53	36	41	45	50	53	34	53	36	42
RES0561	50	65	39	46	35	43	35	44	45	40	44	36	44	36	45
RES0562	50	65	42	49	34	46	35	43	45	43	47	35	46	35	44
RES0563	50	65	58	65	34	61	37	39	45	58	61	35	61	37	40
RES0564	50	65	43	50	34	47	34	43	45	44	48	34	47	35	44
RES0565	50	65	42	49	34	46	35	43	45	43	47	35	47	35	44
RES0566	50	65	40	47	35	44	35	44	45	41	46	35	45	36	45
RES0567	50	65	41	48	34	45	35	44	45	41	46	35	45	36	45
RES0568	50	65	40	47	35	44	35	44	45	41	45	35	44	36	45
RES0569	50	65	46	53	33	50	35	42	45	47	51	34	50	36	43
RES0570	50	65	42	49	34	46	35	43	45	43	47	35	46	35	44
RES0571	50	65	43	50	34	47	35	43	45	44	48	35	47	35	44
RES0572	50	65	40	47	35	44	36	44	45	40	45	36	44	36	45
RES0573	50	65	39	46	35	43	36	45	45	40	45	36	44	36	45
RES0574	50	65	43	49	34	46	35	43	45	43	47	35	47	35	44
RES0575	50	65	41	48	34	45	35	44	45	41	46	35	45	36	45
RES0576	50	65	42	48	34	45	35	44	45	42	47	35	46	36	44
RES0577	50	65	46	53	33	49	35	42	45	46	50	34	50	36	43
RES0578	50	65	43	50	34	47	35	43	45	44	48	35	47	35	44
RES0579	50	65	42	48	34	45	35	44	45	42	47	35	46	36	44
RES0580	50	65	53	60	36	57	39	32	45	54	57	37	57	39	33
RES0581	50	65	43	49	34	46	35	43	45	43	48	35	47	35	44
RES0582	50	65	41	48	35	45	35	44	45	42	46	35	45	36	45
RES0583	50	65	42	49	35	46	35	44	45	42	47	35	46	36	44
RES0584	50	65	43	49	34	46	35	43	45	43	48	35	47	36	44
RES0585	50	65	43	50	34	47	35	43	45	44	48	35	47	36	44
RES0586	50	65	40	47	35	44	36	45	45	40	45	36	44	36	45
RES0587	50	65	42	49	35	46	35	44	45	43	47	35	46	36	44
RES0588	50	65	39	46	36	43	36	45	45	40	45	36	44	37	46

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0589	50	65	43	50	34	47	35	43	45	44	48	35	48	36	44
RES0590	50	65	40	47	35	44	36	45	45	40	45	36	44	37	45
RES0591	50	65	54	61	37	57	39	33	45	54	57	37	57	40	33
RES0592	50	65	41	48	35	45	36	44	45	42	46	36	45	36	45
RES0593	50	65	43	50	35	47	35	43	45	44	48	35	48	36	44
RES0594	50	65	41	48	35	45	36	44	45	42	46	36	45	36	45
RES0595	50	65	40	47	36	44	36	45	45	40	45	36	44	37	45
RES0596	50	65	43	50	35	47	35	44	45	44	48	35	47	36	44
RES0597	50	65	41	48	35	45	36	44	45	41	46	36	45	36	45
RES0598	50	65	44	51	35	48	36	43	45	44	49	35	48	36	44
RES0599	50	65	39	46	36	43	37	45	45	40	44	37	43	37	46
RES0600	50	65	40	47	36	44	36	45	45	40	45	36	44	37	46
RES0601	50	65	41	48	35	45	36	45	45	41	46	36	45	37	45
RES0602	50	65	41	48	35	45	36	44	45	42	46	36	45	37	45
RES0603	50	65	44	51	35	47	36	43	45	44	49	36	48	36	44
RES0604	50	65	40	47	36	44	36	45	45	40	45	37	44	37	46
RES0605	50	65	44	50	35	47	36	43	45	44	48	36	48	36	44
RES0606	50	65	43	50	35	47	36	44	45	44	48	36	47	36	44
RES0607	50	65	39	46	36	43	37	45	45	40	45	37	44	37	46
RES0608	50	65	43	50	35	47	36	44	45	44	48	36	47	36	44
RES0609	50	65	44	50	35	47	36	44	45	44	48	36	48	37	44
RES0610	50	65	41	48	36	45	36	45	45	42	46	36	45	37	45
RES0611	50	65	40	47	36	44	37	45	45	41	45	37	44	37	46
RES0612	50	65	39	46	36	43	37	45	45	40	45	37	44	37	46
RES0613	50	65	43	50	35	47	36	44	45	43	48	36	47	36	45
RES0614	50	65	44	51	35	47	36	44	45	44	49	36	48	37	44
RES0615	50	65	40	47	36	44	37	45	45	41	45	37	45	37	46
RES0616	50	65	43	50	35	47	36	44	45	43	48	36	47	37	45
RES0617	50	65	44	50	35	47	36	44	45	44	48	36	48	37	44
RES0618	50	65	43	50	36	47	36	44	45	43	48	36	47	37	45
RES0619	50	65	41	48	36	45	36	45	45	41	46	37	45	37	45

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0620	50	65	43	50	35	47	36	44	45	44	48	36	48	37	45
RES0621	50	65	41	47	36	44	37	45	45	41	46	37	45	37	46
RES0622	50	65	39	46	37	43	37	45	45	40	45	37	44	38	46
RES0623	50	65	44	51	35	48	37	44	45	44	49	36	48	37	44
RES0624	50	65	43	49	36	46	36	44	45	43	48	36	47	37	45
RES0625	50	65	43	50	36	47	36	44	45	44	48	36	48	37	45
RES0626	50	65	44	51	35	48	37	44	45	44	49	36	48	37	44
RES0627	50	65	43	50	36	47	36	44	45	44	48	36	47	37	45
RES0628	50	65	42	49	36	46	36	44	45	43	47	37	47	37	45
RES0629	50	65	40	47	37	44	37	45	45	40	45	37	44	38	46
RES0630	50	65	44	50	36	47	37	44	45	44	48	36	48	37	45
RES0631	50	65	43	50	36	47	36	44	45	44	48	37	47	37	45
RES0632	50	65	39	46	37	43	37	46	45	40	45	38	44	38	46
RES0633	50	65	42	49	36	46	36	44	45	43	47	37	46	37	45
RES0634	50	65	44	51	36	48	37	44	45	44	49	36	48	37	45
RES0635	50	65	43	49	36	46	36	44	45	43	47	37	47	37	45
RES0636	50	65	43	50	36	47	37	44	45	43	48	37	47	37	45
RES0637	50	65	43	50	36	47	37	44	45	44	48	37	48	37	45
RES0638	50	65	43	50	36	46	37	44	45	43	48	37	47	37	45
RES0639	50	65	42	49	36	46	37	45	45	42	47	37	46	37	45
RES0640	50	65	42	49	36	46	36	45	45	43	47	37	46	37	45
RES0641	50	65	43	50	36	47	37	44	45	44	48	37	47	37	45
RES0642	50	65	44	51	36	48	37	44	45	44	49	37	48	38	45
RES0643	50	65	42	49	36	46	37	45	45	43	47	37	47	37	45
RES0644	50	65	43	50	36	47	37	44	45	44	48	37	47	37	45
RES0645	50	65	44	51	38	48	41	35	45	45	49	39	49	42	36
RES0646	50	65	43	50	36	47	37	44	45	44	48	37	48	38	45
RES0647	50	65	42	49	36	46	37	45	45	43	47	37	47	37	45
RES0648	50	65	44	51	36	48	37	44	45	44	49	37	48	38	45
RES0649	50	65	43	50	36	47	37	44	45	44	48	37	48	38	45
RES0650	50	65	43	49	37	46	37	45	45	43	48	37	47	38	45

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0651	50	65	43	50	36	47	37	44	45	44	48	37	47	38	45
RES0652	50	65	56	62	38	59	40	41	45	56	59	38	59	41	42
RES0653	50	65	43	50	36	47	37	44	45	44	48	37	48	38	45
RES0654	50	65	54	61	37	57	40	41	45	54	57	38	58	41	42
RES0655	50	65	45	52	39	49	42	35	45	46	50	39	49	42	36
RES0656	50	65	41	48	37	45	37	45	45	42	47	38	46	38	46
RES0657	50	65	44	51	36	47	38	44	45	44	49	37	48	38	45
RES0658	50	65	41	48	37	45	37	45	45	41	46	38	45	38	46
RES0659	50	65	41	48	37	45	37	45	45	41	46	38	45	38	46
RES0660	50	65	42	49	37	46	37	45	45	42	47	38	46	38	46
RES0661	50	65	45	52	36	49	38	44	45	46	50	37	49	39	44
RES0662	50	65	42	49	37	46	37	45	45	43	47	38	46	38	46
RES0663	50	65	42	49	37	46	37	45	45	43	47	38	47	38	46
RES0664	50	65	41	48	37	45	37	45	45	42	46	38	45	38	46
RES0665	50	65	45	52	36	48	38	44	45	45	49	37	49	39	45
RES0666	50	65	44	51	37	47	38	44	45	44	49	37	48	38	45
RES0667	50	65	52	58	37	55	40	42	45	52	55	38	55	40	43
RES0668	50	65	42	49	37	46	37	45	45	43	47	38	47	38	46
RES0669	50	65	43	49	37	46	37	45	45	43	48	38	47	38	46
RES0670	50	65	43	50	37	47	38	45	45	43	48	38	47	38	45
RES0671	50	65	43	49	37	46	37	45	45	43	48	38	47	38	46
RES0672	50	65	43	50	37	47	38	45	45	44	48	38	48	38	45
RES0673	50	65	43	50	37	47	38	45	45	44	48	38	47	38	45
RES0674	50	65	43	50	37	47	38	45	45	44	48	38	48	38	45
RES0675	50	65	43	50	37	47	38	45	45	44	48	38	48	39	45
RES0676	50	65	48	55	37	51	40	43	45	48	52	38	52	40	44
RES0677	50	65	50	57	38	53	40	43	45	50	54	38	54	41	43
RES0678	50	65	48	55	37	52	40	43	45	49	53	38	52	40	44
RES0679	50	65	44	50	37	47	38	45	45	44	48	38	48	39	45
RES0680	50	65	46	53	37	50	39	44	45	47	51	37	50	40	44
RES0681	50	65	39	46	42	43	42	49	45	39	44	42	43	42	50

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0682	50	65	39	46	42	43	42	49	45	39	44	42	43	42	50
RES0683	50	65	43	50	40	46	44	37	45	43	48	41	47	44	38
RES0684	50	65	39	46	42	43	42	50	45	40	45	43	44	43	50
RES0685	50	65	41	48	40	45	43	39	45	42	46	40	45	44	40
RES0686	50	65	55	61	42	58	45	36	45	55	58	43	58	45	37
RES0687	50	65	40	47	40	44	39	47	45	41	45	40	45	40	47
RES0688	50	65	60	67	42	63	45	37	45	60	63	43	63	45	37
RES0689	50	65	49	56	42	53	45	36	45	50	53	43	53	46	37
RES0690	50	65	45	52	38	49	40	45	45	45	50	38	49	40	45
RES0691	50	65	43	50	38	47	39	45	45	44	48	39	48	40	46
RES0692	50	65	70	77	43	73	45	38	45	71	72	43	73	46	39
RES0693	50	65	44	51	38	48	40	45	45	45	49	39	48	40	46
RES0694	50	65	60	67	41	63	44	41	45	61	63	42	63	44	42
RES0695	50	65	58	65	41	61	44	41	45	58	61	42	61	44	42
RES0696	50	65	44	51	38	48	40	45	45	45	49	39	48	40	46
RES0697	50	65	51	58	41	54	43	43	45	51	55	41	55	43	44
RES0698	50	65	50	57	40	53	43	43	45	50	54	41	54	43	44
RES0699	50	65	46	53	39	50	42	45	45	47	51	40	50	42	45
RES0700	50	65	50	57	41	53	43	44	45	50	54	41	54	44	44
RES0701	50	65	49	55	40	52	43	44	45	49	53	41	53	43	45
RES0702	50	65	49	56	41	53	43	44	45	50	53	41	53	44	44
RES0703	50	65	51	58	44	55	47	38	45	52	55	45	55	48	39
RES0704	50	65	44	51	39	48	41	46	45	45	49	40	48	42	46
RES0705	50	65	44	51	39	47	41	46	45	44	49	40	48	41	47
RES0706	50	65	42	49	45	46	45	51	45	43	47	46	46	45	52
RES0707	50	65	47	53	40	50	42	45	45	47	51	40	51	43	45
RES0708	50	65	41	48	40	45	40	47	45	42	47	41	46	40	48
RES0709	50	65	50	57	44	53	48	38	45	50	54	45	54	48	39
RES0710	50	65	44	51	39	48	41	46	45	44	49	40	48	42	47
RES0711	50	65	41	48	43	45	43	50	45	41	46	44	45	43	51
RES0712	50	65	61	68	45	64	48	41	45	61	64	46	64	48	42

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)						Criteria, dB(A)	Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures		Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0713	50	65	65	71	47	68	49	41	45	65	67	47	68	50	41
RES0714	50	65	53	60	43	56	45	43	45	53	56	43	56	46	44
RES0715	50	65	44	51	42	48	46	41	45	44	49	43	48	47	42
RES0716	50	65	51	58	44	55	47	44	45	52	55	45	55	47	45
RES0717	50	65	54	61	49	58	52	39	45	55	58	49	58	52	40
RES0718	50	65	44	51	46	48	44	51	45	45	49	46	49	44	52
RES0719	50	65	46	53	45	50	49	41	45	47	51	45	50	49	41
RES0720	50	65	48	55	44	51	49	42	45	48	52	45	52	49	43
RES0721	50	65	54	61	47	57	43	52	45	54	57	48	58	43	52
RES0722	50	65	56	63	46	59	54	31	45	56	59	46	59	54	32
RES0723	50	65	71	77	57	73	60	43	45	71	72	57	73	60	44
RES0724	50	65	80	87	66	83	80	42	45	80	82	66	83	80	43
RES0725	50	65	78	85	54	81	64	41	45	78	80	54	81	64	42
RES0726	50	65	-*	-*	55	-*	57	44	45	-*	-*	55	-*	57	45
RES0727	50	65	-*	-*	54	-*	55	37	45	-*	-*	54	-*	55	38
RES0728	50	65	75	82	65	78	52	68	45	75	77	65	78	52	68
RES0729	50	65	77	83	61	79	50	64	45	77	78	62	79	51	65
RES0730	50	65	71	77	62	73	62	43	45	71	72	62	73	62	44
RES0731	50	65	60	66	61	63	58	43	45	60	62	61	63	59	43
RES0732	50	65	60	66	61	63	57	42	45	60	62	61	63	58	43
RES0733	50	65	50	56	50	53	46	55	45	50	54	50	53	47	55
RES0734	50	65	48	55	47	52	44	53	45	49	52	48	52	44	53
RES0735	50	65	47	54	47	50	44	52	45	47	51	47	51	44	53
RES0736	50	65	45	52	45	49	42	51	45	46	50	45	49	43	51
RES0737	50	65	45	52	45	49	43	51	45	45	49	46	49	44	52
RES0738	50	65	43	50	43	47	40	49	45	44	48	43	48	41	49
RES0739	50	65	43	50	44	47	42	50	45	43	48	45	47	43	50
RES0740	50	65	43	50	42	47	40	48	45	43	48	43	47	40	49
RES0741	50	65	43	49	43	46	41	49	45	43	48	44	47	41	50
RES0742	50	65	42	49	43	46	41	49	45	43	47	44	47	42	50
RES0743	50	65	42	49	42	46	40	48	45	42	47	43	46	41	49

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0744	50	65	41	48	42	45	40	48	45	41	46	43	45	41	49
RES0745	50	65	40	47	40	44	38	46	45	41	45	41	44	39	47
RES0746	50	65	40	47	40	44	38	47	45	41	45	41	44	39	47
RES0747	50	65	40	47	39	44	42	44	45	40	45	39	44	43	45
RES0748	50	65	42	48	40	45	44	44	45	42	47	41	46	44	45
RES0749	50	65	39	46	39	43	43	47	45	40	45	40	44	43	47
RES0750	50	65	40	47	42	44	42	50	45	41	45	42	45	43	51
RES0751	50	65	42	49	42	46	45	49	45	42	47	43	46	45	50
RES0752	50	65	43	50	43	46	46	50	45	43	48	43	47	46	50
RES0753	50	65	45	52	45	49	48	51	45	46	50	45	50	48	52
RES0754	50	65	48	55	44	51	50	50	45	48	52	44	52	50	51
RES0755	50	65	49	56	45	52	51	50	45	49	53	45	53	51	51
RES0756	50	65	57	64	45	60	57	31	45	57	60	46	60	57	32
RES0757	50	65	55	62	43	59	57	45	45	56	59	44	59	57	46
RES0758	50	65	60	67	58	63	57	62	45	60	62	58	63	57	62
RES0759	50	65	83	90	42	86	77	47	45	83	85	43	86	77	47
RES0760	50	65	71	78	71	74	65	69	45	71	73	71	74	65	69
RES0761	50	65	71	77	64	73	70	70	45	71	72	64	73	70	70
RES0762	50	65	59	66	50	62	60	54	45	60	62	50	63	60	54
RES0763	50	65	66	72	62	68	66	67	45	66	67	62	68	66	67
RES0764	50	65	56	62	55	59	58	58	45	56	59	55	59	58	58
RES0765	50	65	55	62	47	58	56	52	45	55	58	47	58	56	53
RES0766	50	65	72	78	65	74	72	71	45	72	73	66	74	72	71
RES0767	50	65	53	60	45	56	54	51	45	54	57	46	57	55	52
RES0768	50	65	67	74	67	70	67	69	45	67	69	67	70	68	69
RES0769	50	65	68	75	68	71	68	69	45	68	70	68	71	68	69
RES0770	50	65	42	48	42	45	45	50	45	42	47	43	46	45	50
RES0771	50	65	40	46	25	43	43	41	45	40	45	25	44	43	41
RES0772	50	65	63	69	61	66	60	62	45	63	65	62	66	60	62
RES0773	50	65	38	44	21	41	41	34	45	38	43	21	42	42	34
RES0774	50	65	43	50	43	47	46	53	45	44	48	44	48	46	53

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0775	50	65	42	49	43	46	45	50	45	43	47	44	46	45	50
RES0776	50	65	50	57	50	54	48	54	45	51	54	51	54	48	54
RES0777	50	65	41	48	43	45	42	50	45	42	46	43	46	43	50
RES0778	50	65	40	47	42	44	41	48	45	41	45	42	45	41	49
RES0779	50	65	48	55	50	52	50	53	45	49	52	51	52	50	54
RES0780	50	65	48	54	50	51	49	53	45	48	52	50	52	49	53
RES0781	50	65	43	50	46	47	45	51	45	43	48	46	47	45	51
RES0782	50	65	50	57	52	53	50	57	45	50	54	52	54	50	57
RES0783	50	65	46	52	34	49	35	44	45	46	50	35	50	36	44
RES0784	50	65	45	52	35	49	36	44	45	45	50	36	49	37	44
RES0785	50	65	45	52	35	49	36	44	45	46	50	36	49	36	44
RES0786	50	65	44	51	32	47	36	43	45	44	49	33	48	37	43
RES0787	50	65	44	50	32	47	36	41	45	44	48	33	48	37	42
RES0788	50	65	66	73	66	69	64	66	45	66	68	66	69	64	66
RES0789	50	65	48	55	22	51	25	30	45	48	52	23	52	25	31
RES0790	50	65	48	55	25	52	25	32	45	49	53	25	52	26	32
RES0791	50	65	63	69	59	66	59	66	45	63	65	60	66	59	66
RES0792	50	65	52	59	35	55	36	42	45	52	55	36	55	37	43
RES0793	50	65	52	58	35	55	36	43	45	52	55	36	55	37	43
RES0794	50	65	52	59	35	56	36	42	45	53	56	36	56	37	42
RES0795	50	65	64	71	31	67	33	42	45	64	66	32	67	34	42
RES0796	50	65	79	85	32	81	34	42	45	79	80	33	81	34	43
RES0797	50	65	84	90	32	86	34	42	45	84	85	33	86	34	43
RES0798	50	65	84	90	32	86	34	42	45	84	85	33	86	34	43
RES0799	50	65	75	81	32	78	33	42	45	75	77	32	78	34	42
RES0800	50	65	42	49	26	46	28	33	45	43	47	27	46	29	34
RES0801	50	65	70	76	31	72	33	40	45	70	71	32	72	33	41
RES0802	50	65	66	72	31	69	32	39	45	66	68	31	69	33	40
RES0803	50	65	65	71	59	68	57	60	45	65	67	59	68	58	61
RES0804	50	65	65	71	57	67	56	60	45	65	66	58	67	56	60
RES0805	50	65	86	92	23	89	28	29	45	86	87	24	89	29	30

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0806	50	65	50	57	49	54	41	51	45	51	54	50	54	42	52
RES0807	50	65	37	44	33	41	29	42	45	38	42	33	42	29	42
RES0808	50	65	66	73	63	69	66	53	45	66	68	63	69	66	54
RES0809	50	65	54	61	54	57	55	50	45	54	57	54	58	56	50
RES0810	50	65	48	55	49	52	51	47	45	49	53	50	52	51	48
RES0811	50	65	45	52	46	49	48	45	45	45	50	47	49	48	46
RES0812	50	65	48	55	49	51	50	30	45	48	52	49	52	50	31
RES0813	50	65	43	50	45	47	46	27	45	44	48	45	48	47	28
RES0814	50	65	63	70	64	66	61	59	45	63	65	64	66	61	60
RES0815	50	65	62	69	63	65	60	60	45	63	65	64	65	60	61
RES0816	50	65	64	70	64	66	59	65	45	64	66	64	67	59	65
RES0817	50	65	61	68	62	64	58	62	45	61	64	62	64	58	63
RES0818	50	65	60	67	61	63	58	63	45	61	63	62	63	58	63
RES0819	50	65	49	56	51	52	50	55	45	49	53	52	53	50	55
RES0820	50	65	68	74	69	71	56	60	45	68	70	69	71	56	61
RES0821	50	65	70	76	64	73	66	61	45	70	71	64	73	66	61
RES0822	50	65	62	69	60	65	61	61	45	63	65	60	65	61	61
RES0823	50	65	46	53	49	50	45	53	45	47	51	49	50	45	53
RES0824	50	65	46	53	48	49	45	52	45	46	50	48	50	45	53
RES0825	50	65	44	51	47	48	44	52	45	45	49	47	48	45	52
RES0826	50	65	61	68	55	64	60	61	45	61	64	56	64	60	62
RES0827	50	65	81	88	63	84	75	66	45	82	83	64	84	75	66
RES0828	50	65	-*	-*	74	-*	70	71	45	-*	-*	75	-*	70	71
RES0829	50	65	44	51	41	47	41	46	45	44	48	42	48	41	46
RES0830	50	65	58	65	50	61	47	51	45	58	61	51	61	48	52
RES0831	50	65	59	66	58	62	54	56	45	60	62	58	62	54	56
RES0832	50	65	60	67	52	63	49	53	45	60	62	53	63	50	53
RES0833	50	65	52	59	47	55	45	49	45	52	55	47	56	45	50
RES0834	50	65	45	52	42	48	41	46	45	45	49	42	49	42	46
RES0835	50	65	59	65	51	62	49	52	45	59	61	52	62	49	53
RES0836	50	65	60	66	53	63	50	53	45	60	62	53	63	50	53

Receptor ID	Standard hours								Non-standard hours						
	Criteria, dB(A)		Façade Corrected $L_{A,eq}$, dB(A)							Façade Corrected $L_{A,eq}$, dB(A)					
	Lower	Upper	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures	Criteria, dB(A)	Drainage Works	Earthworks	Site setup/ laydown	Rail Civil Works	Road Civil Works	Structures
RES0837	50	65	51	58	46	55	45	49	45	52	55	47	55	45	50
RES0838	50	65	52	59	47	56	45	49	45	53	56	47	56	46	50
RES0839	50	65	58	64	57	61	53	55	45	58	60	57	61	53	56
RES0840	50	65	43	50	40	47	40	45	45	43	48	41	47	40	45
RES0841	50	65	46	52	42	49	42	46	45	46	50	43	50	42	47
RES0842	50	65	56	63	50	59	47	51	45	56	59	50	60	48	52
RES0843	50	65	56	62	49	59	47	51	45	56	59	50	59	47	51
RES0844	50	65	54	60	48	57	46	50	45	54	57	48	57	46	50
RES0845	50	65	55	62	49	58	47	51	45	55	58	49	59	47	51
RES0846	50	65	57	64	54	60	51	54	45	57	60	55	60	51	54
RES0847	50	65	47	54	44	51	42	47	45	48	52	44	51	43	48
RES0848	50	65	48	55	44	51	43	47	45	48	52	45	52	43	48
RES0849	50	65	43	50	41	47	40	45	45	44	48	41	48	41	45
RES0850	50	65	51	58	50	55	48	51	45	52	55	50	55	48	51
RES0851	50	65	49	56	46	53	44	48	45	50	53	47	53	45	49
RES0852	50	65	49	56	51	53	49	52	45	50	53	51	53	49	52
RES0853	50	65	48	55	49	51	47	50	45	48	52	49	52	47	51
RES0854	50	65	40	46	38	44	38	42	45	40	45	39	44	38	43
RES0855	50	65	48	54	46	51	45	48	45	48	52	47	51	45	49
RES0856	50	65	45	52	47	49	46	49	45	46	50	48	50	47	50
RES0857	50	65	44	51	46	48	46	49	45	45	49	47	49	46	49
RET0001	50	65	47	54	47	51	45	50	45	47	51	48	51	45	50
RET0002	50	65	66	73	59	69	61	60	45	67	68	59	69	61	61
RET0003	50	65	68	75	58	71	60	60	45	68	70	58	71	60	60
RET0004	50	65	41	48	37	45	37	45	45	41	46	38	45	38	46
RET0005	50	65	41	48	37	45	37	45	45	42	46	38	45	38	46
SPO0001	50	65	54	61	56	57	44	56	45	54	57	56	57	44	56
SPO0002	50	65	58	65	54	61	58	57	45	58	61	54	61	59	57
SPO0003	50	65	67	73	57	70	59	59	45	67	69	57	70	59	60

Construction Traffic Noise

Bold entries indicate exceedances of the 3 dB(A) criterion.

Road Name	Road Section	Increase in $L_{A10,\ 1\ hour}$ (dB(A)) in year:					
		2021	2022	2023	2024	2025	2026
Bent Street	Between Craig Street and Gwydir Highway	0	0	0	0	0	0
Charles Street	Between Bent Street and Pacific Highway	0	0	0	0	0	0
Clark Road	Full Extent	0	0	0	0	1	0
Craig Street	Between Villiers Street and Bent Street	0	0	0	0	0	0
Dobie Street	Between Villers Street and Summerland Way	0	0	0	0	0	0
Red Lane	Between Summerland Way and Trenayr Road	0	0	0	0	1	0
Trenayr Road	Between Summerland Way and Clark Road	0	0	0	0	0	0
Trenayr Road	Between Clark Road and Red Lane	0	0	0	0	0	0
Villers Street	Between Craig Street and Dobie Street	0	0	0	0	0	0
Briggs Road	Full Extent	0	0	0	0	0	0
Champions Way	Between Cunningham Highway and Paynes Road	0	1	0	0	0	0
Coopers Road	Between Cunningham Highway and Ebenezer Road	0	0	0	0	0	0
Coveney Road	Full Extent	0	0	0	0	0	0
Ebenezer Road	Between Coopers Road and Rosewood Warrill View Rd	0	1	1	0	0	0
Edwards Street	Between Ripley Road and Briggs Road	0	0	0	0	0	0
Fairbank Place	Full Extent	0	0	0	0	0	0
Hayes Road	Full Extent	1	5	3	3	3	1
Hillside Road	Full Extent	0	0	0	0	0	0
Lane Road	Btwn Rosewood Laidley Rd and Waters Rd	1	1	1	1	1	1
Macalister Street	Between Moffatt Street and Park Street	0	0	0	0	0	0
Middle Road	Between Cunningham Highway and Bill Morrow Road	0	0	4	1	0	0
Middle Road	Between Bill Morrow Road and ICC Council Boundary	0	0	1	0	0	0
Moffatt St	Between Karrabin Rosewood Road and Macalister Street	0	0	0	0	0	0
Moffatt St	Between Macalister Street and Warwick Road	0	0	0	0	0	0
Mount Flinders Road	Between Ipswich Boonah Road and Shepherd Road	0	0	0	1	1	0
Mount Forbes Road	Between Ebenezer Road and Paynes Road	0	0	0	0	0	0
Mount Marrow Quarry Road	Full Extent	0	0	0	1	0	0
Newhill Drive	Full Extent	0	0	0	0	0	0
Noblevale Way	Full Extent	0	0	0	0	0	0
Old Grandchester Road	Between Lane Road and Strongs Road	2	2	2	2	2	2

Road Name	Road Section	Increase in $L_{A10,\ 1\ hour}$ (dB(A)) in year:					
		2021	2022	2023	2024	2025	2026
Old Toowoomba Road	Between Toongarra Road and Moffatt Street	0	0	0	0	0	0
Park Street	Between Macalister Street and Warwick Road	1	1	1	1	1	1
Paynes Road	Between Champions Way and Mount Forbes Road	0	2	1	0	1	0
Redbank Plains Road	Between Cunningham Highway and Newhill Drive	0	0	0	0	0	0
Reillys Road	Between Strongs Rd and Rosewood Warrill View Rd	0	8	8	7	8	0
Ripley Road	Between Cunningham Highway and Edwards Street	0	0	0	0	0	0
Rob Roy Way	Full Extent	0	0	0	0	0	0
Strongs Road	Between Coveney Road and Rileys Road	0	7	7	7	8	0
Strongs Road	Between Old Grandchester Road and Coveney Road	2	2	2	2	2	2
T Morrows Road	Full Extent	0	0	0	0	0	0
Thagoona Haigslea Road	Between Mount Marrow Quarry Road and Karrabin Rosewood Road	0	0	0	1	1	0
Toongarra Road	Between Karrabin Rosewood Road and Old Toowoomba Road	0	0	0	0	0	0
Waters Road	Between Moffatt Road and Lobb Street	0	1	1	1	0	0
Kilmoylar Road	Between Lobb Street and Cunningham Highway	1	2	4	2	2	1
Undullah Road	Between Lane Road and Kuss Road	3	3	4	4	3	3
Undullah Road	Between LCC Council Boundary and Wyatt Road	3	5	7	4	4	2
Wyatt Road	Between Mount Lindesay Highway and LCC Council Boundary	3	5	7	4	4	2
Allan Creek Road	Between Kilmoylar Road and Undullah Road	0	2	5	4	2	0
Brabazon Road	Between Mount Lindesay Highway and Brookland Road	0	0	0	0	0	0
Bromelton House Road	Between Beaudesert Boonah Rd and Allan Creek Road	0	1	3	2	1	0
Brookland Road	Btwn Allan Creek Rd and Beaudesert Boonah Rd	0	2	6	5	2	0
Cryna Road	Full Extent	0	0	0	1	1	0
Dwyers Road	Btwn Undullah Rd and Allan Creek Rd	1	1	1	1	2	1
Eaglesfield Street	Full Extent	0	0	0	0	0	0
Enterprise Drive	Between Mount Lindsay Highway and Tina Street	0	0	0	0	0	0
Ilbogan Road	Full Extent	0	0	0	1	2	0
Kilmoylar Road	Btwn Beaudesert Boonah Rd and Thiedke Rd	1	2	3	1	1	1
Middle Road	Between Undullah Road and LCC Council Boundary	0	0	1	0	0	0
Mutdapilly Churchbank Weir Road	Between ICC Council Boundary and Peak Crossing Churchbank Weir Road	0	7	7	0	0	0

Road Name	Road Section	Increase in $L_{A10,\ 1\ hour}$ (dB(A)) in year:					
		2021	2022	2023	2024	2025	2026
Peak Crossing Churchbank Weir Road	Between Peak Crossing Churchbank Weir Rd and Cunningham Highway	0	5	5	0	0	0
Peak Crossing Churchbank Weir Road	Between Warrill View Peak Crossing Road and Mutdapilly Churchbank Weir Rd	0	1	1	0	0	0
Sandy Creek Road	Between Mutdapilly Churchbank Weir Rd and Ipswich Boonah Road	0	0	0	0	0	0
Thiedke Road	Between Beaudesert Boonah Road and Swan Gully Road	0	0	0	1	2	0
Tilley Road	Btwn Ilbogan Road and Mt Lindesay Highway	0	0	0	0	0	0
Undullah Road	Between Beaudesert Boonah Rd and Allan Creek Road	3	3	4	4	3	3
Undullah Road	Between LCC Council Boundary and Brookland Rd	3	6	12	7	5	3
Undullah Road	Between Brookland Road and Kilmoylar Road	1	2	2	1	2	1
Washpool Road	Between Kilmoylar Rd and S of Brennans Dip Road	1	7	10	2	2	1
Wild Pig Creek Road	Between Wyatt Road and Wild Pig Creek Road	3	6	8	5	5	3
Beaudesert Boonah Road	Between Ipswich Boonah Rd to 5.5k E of Ipswich Boonah Rd	0	0	1	1	0	0
Beaudesert Boonah Road	Full Extent	0	0	2	1	0	0
Beaudesert Boonah Road	Full Extent	0	0	2	1	0	0
Beaudesert Boonah Road	Between Ipswich Boonah Road and Wyaralong Dam Access	0	0	2	1	0	0
Beaudesert Boonah Road	Between Wyaralong Dam Access and Tilley Road	0	0	0	0	0	0
Cunningham Highway	Between Tilley Road and Sandy Creek Road	0	0	0	0	0	0
Cunningham Highway	Between Sandy Creek Road and Bromelton House Road	0	0	0	0	0	0
Cunningham Highway	Between Bromelton House Road and Ilbogan Road	0	0	0	0	0	0
Cunningham Highway	Between Ipswich Motorway and Redbank Plains Road	0	0	0	0	0	0
Cunningham Highway	Between Redbanks Plains Road and Ripley Road	0	0	0	0	0	0
Cunningham Highway	Between Ripley Road and Ipswich Boonah Road	0	0	0	0	0	0
Cunningham Highway	Between Ipswich Boonah Road and Middle Road	0	0	0	0	0	0
Haigslea Amberley Road	Between Middle Road and Ipswich Rosewood Road	0	0	0	0	0	0
Ipswich Boonah Road	Between Ipswich Rosewood Road and Champions Way	0	0	1	0	0	0
Ipswich Boonah Road	Between Champions Way and Mutdapilly Churchbank Weir Rd	0	0	1	0	0	0
Ipswich Boonah Road	Between Karrabin Rosewood Rd and Warrego Highway	0	1	2	1	0	0
Ipswich Boonah Road	Between Cunningham Highway and Mt Flinders Rd	0	1	2	1	0	0
Ipswich Boonah Road	Between Mt Flinders Rd and Warrill View Peak Crossing Rd	0	0	1	1	0	0

Road Name	Road Section	Increase in $L_{A10,\ 1\ hour}$ (dB(A)) in year:					
		2021	2022	2023	2024	2025	2026
Ipswich Motorway	Between Warrill View Peak Crossing Road and Dwyers Road	0	0	0	0	0	0
Ipswich Rosewood Road	Between Dwyers Road and Washpool Road	0	1	2	0	0	0
Ipswich Rosewood Road	Between Washpool Road and Beaudesert Boonah Road	0	0	0	0	0	0
Karrabin Rosewood Road	Between Cunningham Highway and Logan Motorway	0	0	0	0	0	0
Karrabin Rosewood Road	Between Cunningham Highway and Ipswich Rosewood Road	0	0	0	0	0	0
Logan Motorway	Between Ipswich Rosewood Road and Karrabin Rosewood Road	0	0	0	0	0	0
Logan Motorway	Between Rosewood Laidley Rd and Haigslea Amberley Road	0	0	0	0	0	0
Logan Motorway	Between Haigslea Amberley Road and Moffatt Street	0	0	0	0	0	0
Mount Lindesay Highway	Between Ipswich Motorway and Pacific Motorway	0	0	0	0	0	0
Mount Lindesay Highway	Between Ipswich Motorway and Centenary Highway	0	0	0	0	0	0
Mount Lindesay Highway	Between Centenary Highway and Mount Lindesay Highway	0	0	0	0	0	0
Mount Lindesay Highway	Btwn Thiedke Rd and NSW/QLD Border	0	0	0	0	0	0
Pacific Motorway	Between Logan Motorway and Undullah Road	0	0	0	0	0	0
Rosewood Laidley Road	Between Undullah Road and Allan Creek Road	0	0	0	0	0	0
Rosewood Laidley Road	Between Allan Creek Road and Eaglesfield Street	0	0	0	0	0	0
Rosewood Laidley Road	Between Logan Highway and NSW/QLD Border	0	0	0	0	0	0
Rosewood Warrill View Road	Between Karrabin Rosewood Road and Lane Road	0	0	0	0	0	0
Rosewood Warrill View Road	Between Lane Road and Grandchester Mount Mort Road	0	0	0	0	0	0
Warwick Road	Between Grandchester Mount Mort Road and Crown Street	0	0	0	0	0	0
Warwick Road	Between Ipswich Rosewood Road and Reillys Road	0	0	0	0	0	0
Warrego Highway	Between Reillys Rd and Ebenezer Road	0	0	0	0	0	0
Warrego Highway	Between Haigslea Amberley Road and Brisbane Valley Highway	0	0	0	0	0	0
Warrego Highway	Between Brisbane Valley Highway and Pine Mountain Road	0	0	0	0	0	0
Warrill View Peak Crossing Road	Between Pine Mountain Road and Cunningham Highway	0	5	4	0	0	0
Summerland Way	Between Peak Crossing Churchbank Weir Road and Ipswich Boonah Road	0	0	0	0	0	0
Pacific Motorway	Between Bruxner Highway and Red Lane	0	0	0	0	0	0
Summerland Way	Between QLD/ NSW border and Gwydir Highway	0	0	0	0	0	0

Road Name	Road Section	Increase in $L_{A10,\ 1\ hour}$ (dB(A)) in year:					
		2021	2022	2023	2024	2025	2026
Summerland Way	Between NSW/QLD Border and Bruxner Way	0	0	0	0	0	0

Construction Vibration Impacts – non-heritage receptors

Impacts are coloured to match the highest criterion they exceed. Asterisks indicate that the receptor is within the construction activity footprint.

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
HOT	HOT0001	0.3	1	1	2	5	0.016	0.038	0.212	0.413	0.011	0.031	0.013	0.037
HOT	HOT0002	0.3	1	1	2	5	0.016	0.038	0.226	0.436	0.011	0.031	0.013	0.037
HOT	HOT0003	0.3	1	1	2	5	0.016	0.038	0.275	0.518	0.011	0.031	0.013	0.037
HOT	HOT0004	0.3	1	1	2	5	0.015	0.038	0.317	0.584	0.011	0.031	0.013	0.037
HOT	HOT0005	0.3	1	1	2	5	0.015	0.037	0.442	0.780	0.011	0.031	0.013	0.037
HOT	HOT0006	0.3	1	1	2	5	0.015	0.037	0.540	0.928	0.011	0.031	0.013	0.037
HOT	HOT0007	0.3	1	1	2	5	0.015	0.036	0.761	1.250	0.011	0.032	0.013	0.037
HOT	HOT0008	0.3	1	1	2	5	0.015	0.036	1.210	1.869	0.011	0.032	0.013	0.037
HOT	HOT0009	0.3	1	1	2	5	0.015	0.036	2.409	3.393	0.011	0.032	0.013	0.037
HOT	HOT0010	0.3	1	1	2	5	0.015	0.036	4.932	6.314	0.011	0.032	0.013	0.038
HOT	HOT0011	0.3	1	1	2	5	0.016	0.039	0.182	0.362	0.011	0.032	0.013	0.037
HOT	HOT0012	0.3	1	1	2	5	0.016	0.039	0.178	0.354	0.011	0.032	0.014	0.038
HOT	HOT0013	0.3	1	1	2	5	0.016	0.039	0.183	0.363	0.011	0.033	0.014	0.039
HOT	HOT0014	0.3	1	1	2	5	0.016	0.039	0.179	0.356	0.012	0.033	0.014	0.040
HOT	HOT0015	0.3	1	1	2	5	0.016	0.040	0.184	0.365	0.012	0.034	0.015	0.041
HOT	HOT0016	0.3	1	1	2	5	0.016	0.040	0.189	0.374	0.012	0.035	0.015	0.042
HOT	HOT0017	0.3	1	1	2	5	0.016	0.040	0.185	0.367	0.013	0.036	0.016	0.043
HOT	HOT0018	0.3	1	1	2	5	0.016	0.040	0.180	0.359	0.013	0.036	0.016	0.044
HOT	HOT0019	0.3	1	1	2	5	0.017	0.040	0.176	0.352	0.013	0.037	0.016	0.045

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
HOT	HOT0020	0.3	1	1	2	5	0.017	0.041	0.182	0.361	0.013	0.038	0.017	0.046
HOT	HOT0021	0.3	1	1	2	5	0.017	0.041	0.177	0.354	0.014	0.039	0.017	0.047
HOT	HOT0022	0.3	1	1	2	5	0.017	0.041	0.183	0.363	0.014	0.040	0.018	0.049
IND	IND0001	-	-	1	2	20	0.134	0.388	0.082	0.181	0.000	0.001	0.076	0.169
IND	IND0002	-	-	1	2	20	0.151	0.443	0.177	0.353	0.000	0.001	0.042	0.102
IND	IND0003	-	-	1	2	20	0.064	0.175	0.044	0.105	0.000	0.001	0.042	0.101
IND	IND0004	-	-	1	2	20	0.029	0.074	0.011	0.033	0.001	0.003	0.009	0.025
IND	IND0005	-	-	1	2	20	0.033	0.086	0.014	0.038	0.001	0.003	0.010	0.028
IND	IND0006	-	-	1	2	20	0.160	0.470	-*	-*	0.001	0.003	0.087	0.191
IND	IND0007	-	-	1	2	20	0.033	0.087	0.014	0.040	0.014	0.040	0.013	0.036
IND	IND0008	-	-	1	2	20	0.008	0.018	0.012	0.035	0.003	0.010	0.003	0.011
IND	IND0009	-	-	1	2	20	0.010	0.023	0.012	0.034	0.003	0.009	0.003	0.010
IND	IND0010	-	-	1	2	20	0.009	0.022	0.017	0.047	0.003	0.010	0.003	0.011
IND	IND0011	-	-	1	2	20	0.014	0.034	0.038	0.092	0.014	0.040	0.020	0.052
IND	IND0012	-	-	1	2	20	0.039	0.102	0.015	0.042	0.013	0.038	0.013	0.036
RES	RES0001	0.3	1	1	2	5	0.026	0.065	0.010	0.030	0.000	0.001	0.007	0.021
RES	RES0002	0.3	1	1	2	5	0.027	0.068	0.011	0.031	0.000	0.001	0.007	0.022
RES	RES0003	0.3	1	1	2	5	0.029	0.073	0.012	0.034	0.000	0.001	0.008	0.024
RES	RES0004	0.3	1	1	2	5	0.033	0.087	0.014	0.040	0.000	0.001	0.009	0.027
RES	RES0005	0.3	1	1	2	5	0.036	0.095	0.016	0.044	0.000	0.001	0.010	0.030
RES	RES0006	0.3	1	1	2	5	0.041	0.109	0.020	0.052	0.000	0.001	0.012	0.033
RES	RES0007	0.3	1	1	2	5	0.050	0.134	0.026	0.067	0.000	0.001	0.014	0.039
RES	RES0008	0.3	1	1	2	5	0.051	0.137	0.027	0.069	0.000	0.001	0.014	0.040
RES	RES0009	0.3	1	1	2	5	0.080	0.223	0.037	0.092	0.000	0.001	0.026	0.067

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0010	0.3	1	1	2	5	0.073	0.203	0.035	0.087	0.000	0.001	0.027	0.068
RES	RES0011	0.3	1	1	2	5	0.056	0.151	0.023	0.061	0.000	0.001	0.018	0.049
RES	RES0012	0.3	1	1	2	5	0.074	0.205	0.034	0.085	0.000	0.001	0.026	0.066
RES	RES0013	0.3	1	1	2	5	0.053	0.143	0.023	0.060	0.000	0.001	0.017	0.045
RES	RES0014	0.3	1	1	2	5	0.027	0.067	0.010	0.030	0.000	0.001	0.008	0.023
RES	RES0015	0.3	1	1	2	5	0.034	0.089	0.015	0.041	0.000	0.001	0.010	0.029
RES	RES0016	0.3	1	1	2	5	0.028	0.071	0.012	0.033	0.000	0.001	0.008	0.024
RES	RES0017	0.3	1	1	2	5	0.076	0.210	0.046	0.110	0.000	0.001	0.023	0.060
RES	RES0018	0.3	1	1	2	5	0.037	0.096	0.017	0.046	0.000	0.001	0.011	0.031
RES	RES0019	0.3	1	1	2	5	0.172	0.510	0.197	0.388	0.000	0.001	0.047	0.112
RES	RES0020	0.3	1	1	2	5	0.051	0.138	0.032	0.080	0.000	0.001	0.015	0.042
RES	RES0021	0.3	1	1	2	5	0.038	0.099	0.020	0.053	0.000	0.001	0.011	0.032
RES	RES0022	0.3	1	1	2	5	0.048	0.128	0.030	0.076	0.000	0.001	0.014	0.040
RES	RES0023	0.3	1	1	2	5	0.060	0.164	0.057	0.131	0.000	0.001	0.018	0.049
RES	RES0024	0.3	1	1	2	5	0.059	0.159	0.053	0.125	0.000	0.001	0.017	0.047
RES	RES0025	0.3	1	1	2	5	0.041	0.108	0.037	0.091	0.000	0.001	0.012	0.034
RES	RES0026	0.3	1	1	2	5	0.039	0.103	0.036	0.088	0.000	0.001	0.011	0.033
RES	RES0027	0.3	1	1	2	5	0.033	0.084	0.023	0.061	0.000	0.001	0.009	0.028
RES	RES0028	0.3	1	1	2	5	0.032	0.083	0.024	0.062	0.000	0.001	0.009	0.027
RES	RES0029	0.3	1	1	2	5	0.029	0.073	0.020	0.053	0.000	0.001	0.008	0.024
RES	RES0030	0.3	1	1	2	5	0.020	0.050	0.010	0.030	0.000	0.001	0.005	0.017
RES	RES0031	0.3	1	1	2	5	0.043	0.113	0.037	0.091	0.000	0.001	0.020	0.053
RES	RES0032	0.3	1	1	2	5	0.024	0.060	0.014	0.040	0.000	0.001	0.007	0.020
RES	RES0033	0.3	1	1	2	5	0.039	0.102	0.044	0.106	0.000	0.001	0.013	0.037

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0034	0.3	1	1	2	5	0.021	0.053	0.011	0.033	0.000	0.001	0.006	0.018
RES	RES0035	0.3	1	1	2	5	0.024	0.059	0.014	0.040	0.000	0.001	0.007	0.020
RES	RES0036	0.3	1	1	2	5	0.022	0.056	0.013	0.037	0.000	0.001	0.006	0.019
RES	RES0037	0.3	1	1	2	5	0.024	0.060	0.016	0.043	0.000	0.001	0.007	0.021
RES	RES0038	0.3	1	1	2	5	0.024	0.060	0.016	0.043	0.000	0.001	0.007	0.021
RES	RES0039	0.3	1	1	2	5	0.021	0.051	0.012	0.033	0.000	0.001	0.006	0.018
RES	RES0040	0.3	1	1	2	5	0.019	0.048	0.010	0.030	0.000	0.001	0.005	0.017
RES	RES0041	0.3	1	1	2	5	0.029	0.075	0.017	0.046	0.000	0.001	0.013	0.036
RES	RES0042	0.3	1	1	2	5	0.022	0.055	0.014	0.039	0.000	0.001	0.006	0.019
RES	RES0043	0.3	1	1	2	5	0.022	0.054	0.014	0.038	0.000	0.001	0.006	0.019
RES	RES0044	0.3	1	1	2	5	0.021	0.053	0.013	0.037	0.000	0.001	0.006	0.019
RES	RES0045	0.3	1	1	2	5	0.021	0.052	0.012	0.035	0.000	0.001	0.007	0.021
RES	RES0046	0.3	1	1	2	5	0.021	0.052	0.012	0.034	0.000	0.001	0.007	0.022
RES	RES0047	0.3	1	1	2	5	0.019	0.048	0.011	0.031	0.000	0.001	0.006	0.020
RES	RES0048	0.3	1	1	2	5	0.026	0.065	0.010	0.030	0.000	0.001	0.007	0.021
RES	RES0049	0.3	1	1	2	5	0.026	0.066	0.011	0.031	0.000	0.001	0.007	0.021
RES	RES0050	0.3	1	1	2	5	0.026	0.067	0.011	0.032	0.000	0.001	0.007	0.022
RES	RES0051	0.3	1	1	2	5	0.026	0.067	0.011	0.032	0.000	0.001	0.007	0.022
RES	RES0052	0.3	1	1	2	5	0.027	0.068	0.011	0.032	0.000	0.001	0.007	0.022
RES	RES0053	0.3	1	1	2	5	0.027	0.068	0.011	0.032	0.000	0.001	0.007	0.022
RES	RES0054	0.3	1	1	2	5	0.027	0.069	0.011	0.033	0.000	0.001	0.007	0.022
RES	RES0055	0.3	1	1	2	5	0.027	0.070	0.012	0.033	0.000	0.001	0.007	0.023
RES	RES0056	0.3	1	1	2	5	0.027	0.070	0.012	0.033	0.000	0.001	0.007	0.023
RES	RES0057	0.3	1	1	2	5	0.027	0.069	0.011	0.033	0.000	0.001	0.007	0.023

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0058	0.3	1	1	2	5	0.028	0.071	0.012	0.034	0.000	0.001	0.008	0.023
RES	RES0059	0.3	1	1	2	5	0.029	0.073	0.012	0.035	0.000	0.001	0.008	0.024
RES	RES0060	0.3	1	1	2	5	0.029	0.074	0.012	0.035	0.000	0.001	0.008	0.024
RES	RES0061	0.3	1	1	2	5	0.028	0.073	0.012	0.035	0.000	0.001	0.008	0.023
RES	RES0062	0.3	1	1	2	5	0.029	0.074	0.013	0.036	0.000	0.001	0.008	0.024
RES	RES0063	0.3	1	1	2	5	0.029	0.075	0.013	0.036	0.000	0.001	0.008	0.024
RES	RES0064	0.3	1	1	2	5	0.029	0.075	0.013	0.036	0.000	0.001	0.008	0.024
RES	RES0065	0.3	1	1	2	5	0.030	0.076	0.013	0.036	0.000	0.001	0.008	0.024
RES	RES0066	0.3	1	1	2	5	0.029	0.074	0.012	0.035	0.000	0.001	0.008	0.024
RES	RES0067	0.3	1	1	2	5	0.029	0.076	0.013	0.036	0.000	0.001	0.008	0.024
RES	RES0068	0.3	1	1	2	5	0.028	0.072	0.012	0.034	0.000	0.001	0.008	0.023
RES	RES0069	0.3	1	1	2	5	0.030	0.077	0.013	0.037	0.000	0.001	0.008	0.025
RES	RES0070	0.3	1	1	2	5	0.030	0.077	0.013	0.037	0.000	0.001	0.008	0.025
RES	RES0071	0.3	1	1	2	5	0.030	0.078	0.013	0.038	0.000	0.001	0.008	0.025
RES	RES0072	0.3	1	1	2	5	0.030	0.077	0.013	0.038	0.000	0.001	0.008	0.025
RES	RES0073	0.3	1	1	2	5	0.032	0.081	0.014	0.040	0.000	0.001	0.009	0.026
RES	RES0074	0.3	1	1	2	5	0.031	0.080	0.014	0.039	0.000	0.001	0.009	0.026
RES	RES0075	0.3	1	1	2	5	0.032	0.083	0.015	0.041	0.000	0.001	0.009	0.026
RES	RES0076	0.3	1	1	2	5	0.033	0.086	0.015	0.043	0.000	0.001	0.009	0.027
RES	RES0077	0.3	1	1	2	5	0.033	0.084	0.015	0.042	0.000	0.001	0.009	0.027
RES	RES0078	0.3	1	1	2	5	0.033	0.085	0.015	0.042	0.000	0.001	0.009	0.027
RES	RES0079	0.3	1	1	2	5	0.035	0.090	0.016	0.045	0.000	0.001	0.010	0.028
RES	RES0080	0.3	1	1	2	5	0.035	0.090	0.016	0.045	0.000	0.001	0.010	0.028
RES	RES0081	0.3	1	1	2	5	0.033	0.086	0.016	0.043	0.000	0.001	0.009	0.027

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0082	0.3	1	1	2	5	0.033	0.086	0.016	0.043	0.000	0.001	0.009	0.027
RES	RES0083	0.3	1	1	2	5	0.033	0.086	0.016	0.043	0.000	0.001	0.009	0.027
RES	RES0084	0.3	1	1	2	5	0.032	0.084	0.015	0.041	0.000	0.001	0.009	0.027
RES	RES0085	0.3	1	1	2	5	0.034	0.088	0.016	0.044	0.000	0.001	0.009	0.028
RES	RES0086	0.3	1	1	2	5	0.030	0.076	0.013	0.037	0.000	0.001	0.008	0.025
RES	RES0087	0.3	1	1	2	5	0.034	0.089	0.016	0.044	0.000	0.001	0.010	0.028
RES	RES0088	0.3	1	1	2	5	0.046	0.123	0.026	0.067	0.000	0.001	0.013	0.037
RES	RES0089	0.3	1	1	2	5	0.026	0.066	0.010	0.030	0.000	0.001	0.008	0.023
RES	RES0090	0.3	1	1	2	5	0.049	0.130	0.028	0.071	0.000	0.001	0.014	0.039
RES	RES0091	0.3	1	1	2	5	0.050	0.133	0.029	0.073	0.000	0.001	0.014	0.040
RES	RES0092	0.3	1	1	2	5	0.052	0.141	0.031	0.079	0.000	0.001	0.015	0.042
RES	RES0093	0.3	1	1	2	5	0.065	0.178	0.043	0.104	0.000	0.001	0.018	0.049
RES	RES0094	0.3	1	1	2	5	0.045	0.119	0.023	0.060	0.000	0.001	0.015	0.041
RES	RES0095	0.3	1	1	2	5	0.046	0.122	0.024	0.062	0.000	0.001	0.015	0.042
RES	RES0096	0.3	1	1	2	5	0.055	0.148	0.027	0.069	0.000	0.001	0.021	0.056
RES	RES0097	0.3	1	1	2	5	0.038	0.098	0.016	0.044	0.000	0.001	0.014	0.038
RES	RES0098	0.3	1	1	2	5	0.253	0.773	0.307	0.569	0.000	0.001	0.086	0.188
RES	RES0099	0.3	1	1	2	5	0.066	0.182	0.036	0.089	0.000	0.001	0.027	0.070
RES	RES0100	0.3	1	1	2	5	0.139	0.404	0.110	0.234	0.000	0.001	0.086	0.188
RES	RES0101	0.3	1	1	2	5	0.068	0.186	0.234	0.450	0.000	0.001	0.227	0.438
RES	RES0102	0.3	1	1	2	5	0.067	0.184	0.049	0.116	0.000	0.001	0.040	0.097
RES	RES0103	0.3	1	1	2	5	0.081	0.227	2.122	3.040	0.000	0.001	0.152	0.310
RES	RES0104	0.3	1	1	2	5	0.033	0.086	0.020	0.053	0.000	0.001	0.016	0.045
RES	RES0105	0.3	1	1	2	5	0.069	0.189	0.041	0.099	0.000	0.001	0.024	0.063

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort				Structural Damage	Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper		Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0106	0.3	1	1	2	5	0.263	0.806	0.309	0.572	0.000	0.001	0.054	0.126
RES	RES0107	0.3	1	1	2	5	0.056	0.153	0.034	0.084	0.000	0.001	0.022	0.058
RES	RES0108	0.3	1	1	2	5	0.066	0.180	0.038	0.092	0.000	0.001	0.023	0.060
RES	RES0109	0.3	1	1	2	5	0.043	0.114	0.022	0.059	0.000	0.001	0.017	0.046
RES	RES0110	0.3	1	1	2	5	0.041	0.109	0.022	0.057	0.000	0.001	0.016	0.045
RES	RES0111	0.3	1	1	2	5	0.037	0.096	0.019	0.051	0.000	0.001	0.015	0.041
RES	RES0112	0.3	1	1	2	5	0.045	0.120	0.022	0.059	0.000	0.001	0.016	0.045
RES	RES0113	0.3	1	1	2	5	0.468	1.493	0.731	1.207	0.000	0.001	0.402	0.720
RES	RES0114	0.3	1	1	2	5	0.176	0.521	0.152	0.309	0.000	0.001	0.117	0.246
RES	RES0115	0.3	1	1	2	5	0.170	0.505	0.142	0.291	0.000	0.001	0.110	0.235
RES	RES0116	0.3	1	1	2	5	0.078	0.216	0.042	0.101	0.000	0.002	0.037	0.092
RES	RES0117	0.3	1	1	2	5	0.054	0.145	0.025	0.064	0.000	0.002	0.023	0.060
RES	RES0118	0.3	1	1	2	5	0.037	0.095	0.016	0.043	0.000	0.002	0.014	0.039
RES	RES0119	0.3	1	1	2	5	0.034	0.089	0.014	0.040	0.000	0.002	0.013	0.036
RES	RES0120	0.3	1	1	2	5	0.031	0.079	0.013	0.036	0.000	0.002	0.011	0.032
RES	RES0121	0.3	1	1	2	5	0.030	0.077	0.012	0.035	0.000	0.002	0.011	0.031
RES	RES0122	0.3	1	1	2	5	0.029	0.073	0.012	0.033	0.000	0.002	0.010	0.029
RES	RES0123	0.3	1	1	2	5	0.029	0.073	0.012	0.034	0.000	0.002	0.010	0.029
RES	RES0124	0.3	1	1	2	5	0.034	0.088	0.020	0.054	0.000	0.002	0.012	0.035
RES	RES0125	0.3	1	1	2	5	0.027	0.069	0.011	0.031	0.000	0.002	0.009	0.028
RES	RES0126	0.3	1	1	2	5	0.027	0.068	0.011	0.031	0.000	0.002	0.009	0.027
RES	RES0127	0.3	1	1	2	5	0.028	0.073	0.015	0.041	0.000	0.002	0.012	0.035
RES	RES0128	0.3	1	1	2	5	0.037	0.097	0.021	0.056	0.000	0.002	0.018	0.050
RES	RES0129	0.3	1	1	2	5	0.036	0.093	0.020	0.054	0.000	0.002	0.018	0.049

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0130	0.3	1	1	2	5	0.053	0.143	0.037	0.091	0.000	0.002	0.030	0.077
RES	RES0131	0.3	1	1	2	5	0.024	0.060	0.011	0.032	0.000	0.002	0.010	0.030
RES	RES0132	0.3	1	1	2	5	0.037	0.098	0.022	0.059	0.000	0.002	0.020	0.053
RES	RES0133	0.3	1	1	2	5	0.038	0.100	0.024	0.062	0.000	0.002	0.021	0.055
RES	RES0134	0.3	1	1	2	5	0.025	0.064	0.012	0.035	0.000	0.002	0.011	0.032
RES	RES0135	0.3	1	1	2	5	0.050	0.134	0.036	0.089	0.000	0.002	0.031	0.079
RES	RES0136	0.3	1	1	2	5	0.027	0.069	0.014	0.038	0.000	0.002	0.012	0.035
RES	RES0137	0.3	1	1	2	5	0.025	0.065	0.013	0.036	0.000	0.002	0.011	0.033
RES	RES0138	0.3	1	1	2	5	0.039	0.103	0.025	0.065	0.000	0.002	0.022	0.058
RES	RES0139	0.3	1	1	2	5	0.028	0.072	0.015	0.041	0.000	0.002	0.013	0.038
RES	RES0140	0.3	1	1	2	5	0.041	0.107	0.027	0.070	0.000	0.002	0.024	0.062
RES	RES0141	0.3	1	1	2	5	0.030	0.077	0.016	0.045	0.000	0.002	0.015	0.041
RES	RES0142	0.3	1	1	2	5	0.024	0.060	0.011	0.033	0.000	0.002	0.010	0.030
RES	RES0143	0.3	1	1	2	5	0.027	0.068	0.014	0.038	0.000	0.002	0.012	0.035
RES	RES0144	0.3	1	1	2	5	0.030	0.077	0.017	0.046	0.000	0.002	0.015	0.041
RES	RES0145	0.3	1	1	2	5	0.042	0.111	0.030	0.076	0.000	0.002	0.026	0.066
RES	RES0146	0.3	1	1	2	5	0.027	0.069	0.014	0.039	0.000	0.002	0.013	0.036
RES	RES0147	0.3	1	1	2	5	0.043	0.114	0.032	0.081	0.000	0.002	0.027	0.070
RES	RES0148	0.3	1	1	2	5	0.029	0.075	0.016	0.044	0.000	0.002	0.014	0.040
RES	RES0149	0.3	1	1	2	5	0.027	0.070	0.014	0.040	0.000	0.002	0.013	0.037
RES	RES0150	0.3	1	1	2	5	0.030	0.076	0.017	0.045	0.000	0.002	0.015	0.041
RES	RES0151	0.3	1	1	2	5	0.044	0.116	0.034	0.085	0.000	0.002	0.029	0.073
RES	RES0152	0.3	1	1	2	5	0.030	0.077	0.017	0.046	0.000	0.002	0.015	0.042
RES	RES0153	0.3	1	1	2	5	0.045	0.120	0.037	0.092	0.000	0.002	0.031	0.077

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0154	0.3	1	1	2	5	0.030	0.076	0.017	0.046	0.000	0.002	0.015	0.041
RES	RES0155	0.3	1	1	2	5	0.045	0.118	0.036	0.090	0.000	0.002	0.030	0.076
RES	RES0156	0.3	1	1	2	5	0.030	0.077	0.017	0.047	0.000	0.002	0.015	0.042
RES	RES0157	0.3	1	1	2	5	0.040	0.105	0.029	0.075	0.000	0.002	0.025	0.064
RES	RES0158	0.3	1	1	2	5	0.037	0.097	0.026	0.066	0.000	0.002	0.022	0.058
RES	RES0159	0.3	1	1	2	5	0.052	0.140	0.051	0.121	0.000	0.002	0.040	0.098
RES	RES0160	0.3	1	1	2	5	0.049	0.131	0.045	0.108	0.000	0.002	0.036	0.089
RES	RES0161	0.3	1	1	2	5	0.035	0.092	0.023	0.061	0.000	0.002	0.020	0.053
RES	RES0162	0.3	1	1	2	5	0.030	0.077	0.017	0.047	0.000	0.002	0.015	0.042
RES	RES0163	0.3	1	1	2	5	0.044	0.116	0.035	0.088	0.000	0.002	0.029	0.074
RES	RES0164	0.3	1	1	2	5	0.041	0.107	0.030	0.076	0.000	0.002	0.026	0.066
RES	RES0165	0.3	1	1	2	5	0.037	0.098	0.026	0.066	0.000	0.002	0.022	0.058
RES	RES0166	0.3	1	1	2	5	0.068	0.186	0.095	0.205	0.000	0.002	0.068	0.155
RES	RES0167	0.3	1	1	2	5	0.035	0.091	0.023	0.059	0.000	0.002	0.020	0.052
RES	RES0168	0.3	1	1	2	5	0.027	0.069	0.014	0.040	0.000	0.002	0.013	0.037
RES	RES0169	0.3	1	1	2	5	0.034	0.089	0.022	0.057	0.000	0.002	0.019	0.051
RES	RES0170	0.3	1	1	2	5	0.031	0.080	0.018	0.049	0.000	0.002	0.016	0.044
RES	RES0171	0.3	1	1	2	5	0.033	0.086	0.020	0.054	0.000	0.002	0.018	0.048
RES	RES0172	0.3	1	1	2	5	0.035	0.091	0.022	0.058	0.000	0.002	0.019	0.052
RES	RES0173	0.3	1	1	2	5	0.035	0.091	0.022	0.058	0.000	0.002	0.019	0.052
RES	RES0174	0.3	1	1	2	5	0.039	0.103	0.026	0.067	0.000	0.002	0.023	0.060
RES	RES0175	0.3	1	1	2	5	0.052	0.140	0.038	0.094	0.000	0.002	0.034	0.084
RES	RES0176	0.3	1	1	2	5	0.029	0.074	0.016	0.043	0.000	0.002	0.014	0.039
RES	RES0177	0.3	1	1	2	5	0.033	0.087	0.020	0.052	0.000	0.002	0.017	0.047

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0178	0.3	1	1	2	5	0.027	0.069	0.014	0.039	0.000	0.002	0.013	0.036
RES	RES0179	0.3	1	1	2	5	0.029	0.073	0.015	0.041	0.000	0.002	0.013	0.038
RES	RES0180	0.3	1	1	2	5	0.028	0.072	0.014	0.040	0.000	0.002	0.013	0.037
RES	RES0181	0.3	1	1	2	5	0.026	0.066	0.013	0.036	0.000	0.002	0.012	0.034
RES	RES0182	0.3	1	1	2	5	0.026	0.066	0.012	0.035	0.000	0.002	0.011	0.033
RES	RES0183	0.3	1	1	2	5	0.029	0.074	0.014	0.039	0.000	0.002	0.013	0.037
RES	RES0184	0.3	1	1	2	5	0.028	0.072	0.014	0.039	0.000	0.002	0.012	0.035
RES	RES0185	0.3	1	1	2	5	0.029	0.074	0.016	0.043	0.000	0.002	0.013	0.037
RES	RES0186	0.3	1	1	2	5	0.023	0.058	0.010	0.030	0.000	0.002	0.010	0.028
RES	RES0187	0.3	1	1	2	5	0.030	0.076	0.017	0.047	0.000	0.002	0.014	0.039
RES	RES0188	0.3	1	1	2	5	0.026	0.067	0.013	0.037	0.000	0.002	0.011	0.032
RES	RES0189	0.3	1	1	2	5	0.027	0.070	0.015	0.041	0.000	0.002	0.012	0.035
RES	RES0190	0.3	1	1	2	5	0.025	0.064	0.014	0.039	0.000	0.002	0.012	0.033
RES	RES0191	0.3	1	1	2	5	0.022	0.054	0.010	0.030	0.000	0.002	0.009	0.027
RES	RES0192	0.3	1	1	2	5	0.022	0.054	0.012	0.035	0.000	0.002	0.012	0.034
RES	RES0193	0.3	1	1	2	5	0.020	0.051	0.013	0.036	0.000	0.002	0.013	0.036
RES	RES0194	0.3	1	1	2	5	0.018	0.044	0.010	0.030	0.000	0.002	0.010	0.030
RES	RES0195	0.3	1	1	2	5	0.026	0.065	0.011	0.033	0.000	0.001	0.011	0.033
RES	RES0196	0.3	1	1	2	5	0.044	0.117	0.018	0.048	0.000	0.001	0.017	0.047
RES	RES0197	0.3	1	1	2	5	0.079	0.221	0.038	0.092	0.000	0.001	0.032	0.079
RES	RES0198	0.3	1	1	2	5	0.060	0.163	0.027	0.070	0.000	0.001	0.027	0.070
RES	RES0199	0.3	1	1	2	5	0.079	0.221	0.041	0.099	0.000	0.001	0.040	0.098
RES	RES0200	0.3	1	1	2	5	0.046	0.122	0.021	0.057	0.000	0.002	0.019	0.050
RES	RES0201	0.3	1	1	2	5	0.151	0.444	0.101	0.217	0.000	0.001	0.096	0.208

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0202	0.3	1	1	2	5	0.152	0.447	0.417	0.743	0.000	0.002	0.076	0.169
RES	RES0203	0.3	1	1	2	5	0.235	0.714	0.415	0.739	0.000	0.002	0.362	0.657
RES	RES0204	0.3	1	1	2	5	0.283	0.871	1.267	1.944	0.000	0.002	1.113	1.738
RES	RES0205	0.3	1	1	2	5	0.286	0.881	7.219	8.784	0.000	0.002	5.469	6.906
RES	RES0206	0.3	1	1	2	5	0.548	1.765	2.162	3.089	0.000	0.002	1.897	2.759
RES	RES0207	0.3	1	1	2	5	0.788	2.585	-*	-*	0.000	0.002	0.784	1.283
RES	RES0208	0.3	1	1	2	5	0.093	0.261	0.290	0.542	0.000	0.002	0.156	0.317
RES	RES0209	0.3	1	1	2	5	0.075	0.209	0.137	0.284	0.000	0.002	0.090	0.197
RES	RES0210	0.3	1	1	2	5	0.161	0.474	0.330	0.605	0.000	0.002	0.317	0.585
RES	RES0211	0.3	1	1	2	5	0.132	0.383	0.319	0.588	0.000	0.002	0.281	0.528
RES	RES0212	0.3	1	1	2	5	0.090	0.253	0.199	0.392	0.000	0.002	0.130	0.269
RES	RES0213	0.3	1	1	2	5	0.096	0.272	0.218	0.422	0.000	0.002	0.146	0.298
RES	RES0214	0.3	1	1	2	5	0.234	0.709	-*	-*	0.000	0.002	-*	-*
RES	RES0215	0.3	1	1	2	5	0.174	0.515	0.280	0.526	0.000	0.002	0.261	0.495
RES	RES0216	0.3	1	1	2	5	0.140	0.410	0.412	0.735	0.000	0.002	0.279	0.525
RES	RES0217	0.3	1	1	2	5	0.085	0.237	0.098	0.211	0.000	0.002	0.083	0.182
RES	RES0218	0.3	1	1	2	5	0.077	0.215	0.086	0.189	0.000	0.002	0.071	0.161
RES	RES0219	0.3	1	1	2	5	0.070	0.194	0.076	0.169	0.000	0.002	0.062	0.142
RES	RES0220	0.3	1	1	2	5	0.121	0.350	-*	-*	0.000	0.002	0.740	1.220
RES	RES0221	0.3	1	1	2	5	0.114	0.326	0.304	0.564	0.000	0.002	0.233	0.448
RES	RES0222	0.3	1	1	2	5	0.100	0.282	0.369	0.667	0.000	0.002	0.241	0.461
RES	RES0223	0.3	1	1	2	5	0.081	0.227	8.083	9.689	0.000	0.002	0.177	0.353
RES	RES0224	0.3	1	1	2	5	0.053	0.144	0.039	0.094	0.000	0.002	0.034	0.085
RES	RES0225	0.3	1	1	2	5	0.032	0.082	0.027	0.069	0.000	0.002	0.019	0.050

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0226	0.3	1	1	2	5	0.032	0.083	-*	-*	0.000	0.002	0.085	0.187
RES	RES0227	0.3	1	1	2	5	0.029	0.074	-*	-*	0.000	0.002	0.151	0.308
RES	RES0228	0.3	1	1	2	5	0.025	0.063	-*	-*	0.001	0.002	3.651	4.866
RES	RES0229	0.3	1	1	2	5	0.024	0.061	0.077	0.171	0.000	0.002	0.075	0.167
RES	RES0230	0.3	1	1	2	5	0.029	0.075	-*	-*	0.001	0.002	4.539	5.875
RES	RES0231	0.3	1	1	2	5	0.027	0.070	0.102	0.219	0.001	0.002	0.092	0.200
RES	RES0232	0.3	1	1	2	5	0.037	0.097	-*	-*	0.001	0.002	9.404	11.047
RES	RES0233	0.3	1	1	2	5	0.056	0.153	0.029	0.073	0.001	0.003	0.012	0.033
RES	RES0234	0.3	1	1	2	5	0.074	0.205	0.079	0.175	0.001	0.003	0.075	0.168
RES	RES0235	0.3	1	1	2	5	0.033	0.085	0.017	0.047	0.001	0.003	0.017	0.047
RES	RES0236	0.3	1	1	2	5	0.100	0.284	0.173	0.347	0.001	0.003	0.159	0.321
RES	RES0237	0.3	1	1	2	5	0.031	0.080	0.016	0.043	0.001	0.003	0.015	0.043
RES	RES0238	0.3	1	1	2	5	0.036	0.094	0.020	0.053	0.001	0.003	0.019	0.052
RES	RES0239	0.3	1	1	2	5	0.032	0.083	0.016	0.045	0.001	0.003	0.016	0.044
RES	RES0240	0.3	1	1	2	5	0.031	0.079	0.015	0.041	0.001	0.003	0.015	0.041
RES	RES0241	0.3	1	1	2	5	0.031	0.081	0.015	0.043	0.001	0.003	0.015	0.042
RES	RES0242	0.3	1	1	2	5	0.028	0.070	0.013	0.036	0.001	0.003	0.013	0.036
RES	RES0243	0.3	1	1	2	5	0.030	0.077	0.014	0.040	0.001	0.003	0.014	0.039
RES	RES0244	0.3	1	1	2	5	0.037	0.095	0.018	0.048	0.001	0.003	0.017	0.047
RES	RES0245	0.3	1	1	2	5	0.034	0.088	0.016	0.043	0.001	0.003	0.015	0.042
RES	RES0246	0.3	1	1	2	5	0.034	0.089	0.015	0.041	0.000	0.002	0.013	0.036
RES	RES0247	0.3	1	1	2	5	0.023	0.058	0.013	0.037	0.000	0.002	0.007	0.023
RES	RES0248	0.3	1	1	2	5	0.029	0.075	0.016	0.044	0.000	0.002	0.011	0.033
RES	RES0249	0.3	1	1	2	5	0.031	0.080	0.016	0.043	0.000	0.002	0.013	0.036

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0250	0.3	1	1	2	5	0.025	0.064	0.010	0.029	0.000	0.002	0.009	0.028
RES	RES0251	0.3	1	1	2	5	0.030	0.078	0.014	0.040	0.000	0.002	0.012	0.035
RES	RES0252	0.3	1	1	2	5	0.032	0.083	0.015	0.042	0.000	0.002	0.013	0.037
RES	RES0253	0.3	1	1	2	5	0.034	0.088	0.017	0.047	0.000	0.002	0.014	0.040
RES	RES0254	0.3	1	1	2	5	0.028	0.072	0.011	0.032	0.000	0.002	0.011	0.032
RES	RES0255	0.3	1	1	2	5	0.026	0.066	0.010	0.030	0.000	0.002	0.010	0.030
RES	RES0256	0.3	1	1	2	5	0.042	0.111	0.020	0.053	0.000	0.002	0.020	0.053
RES	RES0257	0.3	1	1	2	5	0.042	0.110	0.020	0.053	0.000	0.002	0.020	0.052
RES	RES0258	0.3	1	1	2	5	0.062	0.170	0.037	0.091	0.000	0.002	0.036	0.090
RES	RES0259	0.3	1	1	2	5	0.088	0.246	0.066	0.150	0.000	0.002	0.064	0.147
RES	RES0260	0.3	1	1	2	5	0.071	0.197	0.046	0.111	0.000	0.002	0.046	0.109
RES	RES0261	0.3	1	1	2	5	0.033	0.084	0.014	0.039	0.000	0.002	0.014	0.039
RES	RES0262	0.3	1	1	2	5	0.031	0.081	0.013	0.037	0.000	0.002	0.013	0.037
RES	RES0263	0.3	1	1	2	5	0.056	0.151	0.031	0.078	0.000	0.002	0.031	0.078
RES	RES0264	0.3	1	1	2	5	0.088	0.248	0.067	0.152	0.000	0.002	0.066	0.150
RES	RES0265	0.3	1	1	2	5	0.024	0.061	0.011	0.033	0.000	0.002	0.011	0.031
RES	RES0266	0.3	1	1	2	5	0.037	0.098	0.025	0.064	0.000	0.002	0.018	0.050
RES	RES0267	0.3	1	1	2	5	0.039	0.102	0.031	0.078	0.000	0.002	0.022	0.058
RES	RES0268	0.3	1	1	2	5	0.026	0.065	0.015	0.042	0.000	0.002	0.014	0.040
RES	RES0269	0.3	1	1	2	5	0.023	0.058	0.015	0.041	0.001	0.002	0.014	0.040
RES	RES0270	0.3	1	1	2	5	0.032	0.083	0.030	0.076	0.000	0.002	0.028	0.072
RES	RES0271	0.3	1	1	2	5	0.019	0.046	0.014	0.039	0.001	0.002	0.013	0.038
RES	RES0272	0.3	1	1	2	5	0.024	0.061	0.049	0.116	0.001	0.002	0.044	0.106
RES	RES0273	0.3	1	1	2	5	0.019	0.047	0.018	0.048	0.001	0.002	0.017	0.046

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0274	0.3	1	1	2	5	0.022	0.056	0.042	0.102	0.001	0.002	0.038	0.093
RES	RES0275	0.3	1	1	2	5	0.024	0.059	0.136	0.280	0.001	0.002	0.110	0.234
RES	RES0276	0.3	1	1	2	5	0.023	0.057	0.042	0.102	0.001	0.002	0.038	0.094
RES	RES0277	0.3	1	1	2	5	0.019	0.048	0.014	0.039	0.001	0.002	0.013	0.037
RES	RES0278	0.3	1	1	2	5	0.024	0.060	0.068	0.155	0.001	0.002	0.060	0.138
RES	RES0279	0.3	1	1	2	5	0.025	0.063	0.499	0.866	0.001	0.002	0.331	0.607
RES	RES0280	0.3	1	1	2	5	0.024	0.060	0.015	0.042	0.001	0.002	0.014	0.040
RES	RES0281	0.3	1	1	2	5	0.025	0.064	0.013	0.036	0.001	0.003	0.012	0.035
RES	RES0282	0.3	1	1	2	5	0.027	0.068	0.011	0.033	0.001	0.003	0.011	0.033
RES	RES0283	0.3	1	1	2	5	0.087	0.245	0.176	0.352	0.001	0.003	0.082	0.181
RES	RES0284	0.3	1	1	2	5	0.127	0.366	43.554	41.705	0.001	0.003	0.063	0.145
RES	RES0285	0.3	1	1	2	5	0.153	0.450	0.198	0.388	0.001	0.003	0.163	0.330
RES	RES0286	0.3	1	1	2	5	0.378	1.189	1.424	2.152	0.001	0.003	0.865	1.397
RES	RES0287	0.3	1	1	2	5	0.167	0.494	0.188	0.371	0.001	0.004	0.162	0.327
RES	RES0288	0.3	1	1	2	5	0.102	0.289	0.060	0.138	0.001	0.004	0.033	0.082
RES	RES0289	0.3	1	1	2	5	0.081	0.225	0.060	0.138	0.001	0.005	0.041	0.099
RES	RES0290	0.3	1	1	2	5	0.081	0.225	0.060	0.138	0.001	0.005	0.041	0.099
RES	RES0291	0.3	1	1	2	5	0.081	0.225	0.060	0.138	0.001	0.005	0.041	0.099
RES	RES0292	0.3	1	1	2	5	0.044	0.117	0.057	0.132	0.001	0.005	0.047	0.112
RES	RES0293	0.3	1	1	2	5	0.046	0.123	0.051	0.120	0.001	0.005	0.043	0.103
RES	RES0294	0.3	1	1	2	5	0.040	0.106	0.016	0.043	0.001	0.004	0.011	0.033
RES	RES0295	0.3	1	1	2	5	0.039	0.102	0.017	0.047	0.001	0.005	0.015	0.041
RES	RES0296	0.3	1	1	2	5	0.035	0.090	0.017	0.046	0.001	0.005	0.015	0.043
RES	RES0297	0.3	1	1	2	5	0.033	0.087	0.016	0.045	0.001	0.005	0.015	0.041

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0298	0.3	1	1	2	5	0.032	0.084	0.015	0.042	0.001	0.005	0.014	0.039
RES	RES0299	0.3	1	1	2	5	0.032	0.082	0.016	0.045	0.001	0.005	0.015	0.042
RES	RES0300	0.3	1	1	2	5	0.028	0.071	0.010	0.029	0.001	0.004	0.008	0.025
RES	RES0301	0.3	1	1	2	5	0.031	0.079	0.016	0.043	0.001	0.005	0.014	0.040
RES	RES0302	0.3	1	1	2	5	0.030	0.076	0.016	0.044	0.001	0.005	0.015	0.041
RES	RES0303	0.3	1	1	2	5	0.028	0.070	0.017	0.046	0.001	0.006	0.016	0.043
RES	RES0304	0.3	1	1	2	5	0.028	0.070	0.010	0.029	0.001	0.004	0.008	0.025
RES	RES0305	0.3	1	1	2	5	0.028	0.071	0.014	0.038	0.001	0.005	0.013	0.036
RES	RES0306	0.3	1	1	2	5	0.028	0.071	0.013	0.037	0.001	0.005	0.012	0.035
RES	RES0307	0.3	1	1	2	5	0.027	0.070	0.011	0.032	0.001	0.005	0.010	0.030
RES	RES0308	0.3	1	1	2	5	0.027	0.069	0.011	0.033	0.001	0.005	0.011	0.031
RES	RES0309	0.3	1	1	2	5	0.027	0.069	0.011	0.032	0.001	0.005	0.010	0.030
RES	RES0310	0.3	1	1	2	5	0.027	0.068	0.011	0.031	0.001	0.005	0.010	0.029
RES	RES0311	0.3	1	1	2	5	0.024	0.059	0.014	0.039	0.002	0.006	0.014	0.039
RES	RES0312	0.3	1	1	2	5	0.025	0.063	0.012	0.035	0.001	0.006	0.012	0.033
RES	RES0313	0.3	1	1	2	5	0.026	0.065	0.012	0.034	0.001	0.005	0.011	0.032
RES	RES0314	0.3	1	1	2	5	0.026	0.066	0.011	0.031	0.001	0.005	0.010	0.029
RES	RES0315	0.3	1	1	2	5	0.025	0.063	0.014	0.040	0.001	0.004	0.011	0.032
RES	RES0316	0.3	1	1	2	5	0.048	0.129	0.025	0.066	0.001	0.004	0.032	0.081
RES	RES0317	0.3	1	1	2	5	0.051	0.135	0.077	0.172	0.001	0.005	0.076	0.170
RES	RES0318	0.3	1	1	2	5	0.025	0.064	45.538	43.346	0.002	0.006	20.652	21.844
RES	RES0319	0.3	1	1	2	5	0.029	0.075	0.183	0.364	0.001	0.006	0.144	0.296
RES	RES0320	0.3	1	1	2	5	0.023	0.057	0.617	1.042	0.002	0.006	0.255	0.484
RES	RES0321	0.3	1	1	2	5	0.025	0.063	3.885	5.134	0.002	0.006	3.018	4.125

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0322	0.3	1	1	2	5	0.025	0.064	-*	-*	0.002	0.006	0.234	0.450
RES	RES0323	0.3	1	1	2	5	0.028	0.073	0.121	0.254	0.001	0.006	0.118	0.249
RES	RES0324	0.3	1	1	2	5	0.028	0.070	-*	-*	0.002	0.006	0.336	0.615
RES	RES0325	0.3	1	1	2	5	0.028	0.073	-*	-*	0.002	0.007	0.493	0.858
RES	RES0326	0.3	1	1	2	5	0.027	0.069	3.167	4.301	0.002	0.006	0.081	0.179
RES	RES0327	0.3	1	1	2	5	0.026	0.066	0.145	0.296	0.002	0.006	0.082	0.182
RES	RES0328	0.3	1	1	2	5	0.042	0.111	1.515	2.270	0.002	0.008	1.056	1.660
RES	RES0329	0.3	1	1	2	5	0.045	0.118	17.758	19.165	0.002	0.008	0.159	0.322
RES	RES0330	0.3	1	1	2	5	0.023	0.059	0.063	0.143	0.002	0.006	0.061	0.141
RES	RES0331	0.3	1	1	2	5	0.043	0.115	-*	-*	0.002	0.008	6.848	8.391
RES	RES0332	0.3	1	1	2	5	0.039	0.104	3.010	4.116	0.002	0.007	0.222	0.429
RES	RES0333	0.3	1	1	2	5	0.023	0.059	0.053	0.123	0.002	0.006	0.052	0.122
RES	RES0334	0.3	1	1	2	5	0.028	0.073	0.118	0.248	0.002	0.007	0.044	0.106
RES	RES0335	0.3	1	1	2	5	0.031	0.080	0.350	0.637	0.002	0.007	0.039	0.096
RES	RES0336	0.3	1	1	2	5	0.047	0.127	0.787	1.287	0.002	0.008	0.581	0.989
RES	RES0337	0.3	1	1	2	5	0.044	0.116	0.743	1.224	0.002	0.007	0.184	0.366
RES	RES0338	0.3	1	1	2	5	0.041	0.109	0.835	1.355	0.002	0.007	0.103	0.220
RES	RES0339	0.3	1	1	2	5	0.023	0.058	0.035	0.087	0.002	0.006	0.035	0.087
RES	RES0340	0.3	1	1	2	5	0.023	0.057	0.034	0.085	0.002	0.006	0.034	0.084
RES	RES0341	0.3	1	1	2	5	0.025	0.064	0.023	0.061	0.002	0.006	0.023	0.061
RES	RES0342	0.3	1	1	2	5	0.037	0.097	0.816	1.328	0.002	0.007	0.052	0.122
RES	RES0343	0.3	1	1	2	5	0.061	0.166	0.220	0.426	0.002	0.009	0.114	0.242
RES	RES0344	0.3	1	1	2	5	0.024	0.062	0.024	0.063	0.002	0.006	0.024	0.062
RES	RES0345	0.3	1	1	2	5	0.024	0.060	0.026	0.066	0.002	0.006	0.025	0.066

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0346	0.3	1	1	2	5	0.025	0.064	0.021	0.056	0.002	0.006	0.021	0.056
RES	RES0347	0.3	1	1	2	5	0.064	0.174	0.231	0.444	0.002	0.008	0.140	0.288
RES	RES0348	0.3	1	1	2	5	0.030	0.077	0.086	0.188	0.002	0.007	0.031	0.077
RES	RES0349	0.3	1	1	2	5	0.027	0.068	0.047	0.111	0.002	0.007	0.029	0.074
RES	RES0350	0.3	1	1	2	5	0.023	0.057	0.022	0.058	0.002	0.006	0.022	0.058
RES	RES0351	0.3	1	1	2	5	0.073	0.202	0.187	0.371	0.002	0.009	0.085	0.188
RES	RES0352	0.3	1	1	2	5	0.053	0.143	0.113	0.240	0.002	0.008	0.080	0.178
RES	RES0353	0.3	1	1	2	5	0.027	0.069	0.041	0.100	0.002	0.007	0.025	0.064
RES	RES0354	0.3	1	1	2	5	0.024	0.062	0.029	0.075	0.002	0.006	0.023	0.061
RES	RES0355	0.3	1	1	2	5	0.024	0.061	0.028	0.072	0.002	0.006	0.023	0.059
RES	RES0356	0.3	1	1	2	5	0.022	0.054	0.017	0.047	0.002	0.006	0.015	0.042
RES	RES0357	0.3	1	1	2	5	0.023	0.057	0.018	0.049	0.002	0.006	0.015	0.042
RES	RES0358	0.3	1	1	2	5	0.021	0.052	0.015	0.041	0.002	0.006	0.013	0.038
RES	RES0359	0.3	1	1	2	5	0.020	0.050	0.014	0.039	0.002	0.006	0.013	0.036
RES	RES0360	0.3	1	1	2	5	0.051	0.137	0.030	0.075	0.002	0.009	0.015	0.042
RES	RES0361	0.3	1	1	2	5	0.030	0.076	0.015	0.041	0.002	0.008	0.010	0.029
RES	RES0362	0.3	1	1	2	5	0.057	0.156	0.035	0.087	0.003	0.009	0.013	0.037
RES	RES0363	0.3	1	1	2	5	0.031	0.081	0.014	0.039	0.002	0.008	0.009	0.027
RES	RES0364	0.3	1	1	2	5	0.034	0.087	0.015	0.042	0.002	0.008	0.009	0.028
RES	RES0365	0.3	1	1	2	5	0.024	0.061	0.010	0.030	0.002	0.008	0.007	0.022
RES	RES0366	0.3	1	1	2	5	0.050	0.134	0.026	0.068	0.003	0.010	0.010	0.028
RES	RES0367	0.3	1	1	2	5	0.030	0.076	0.012	0.035	0.002	0.009	0.007	0.023
RES	RES0368	0.3	1	1	2	5	0.041	0.108	0.019	0.052	0.003	0.010	0.008	0.025
RES	RES0369	0.3	1	1	2	5	0.033	0.086	0.014	0.040	0.003	0.010	0.007	0.022

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0370	0.3	1	1	2	5	0.033	0.085	0.014	0.038	0.003	0.010	0.007	0.020
RES	RES0371	0.3	1	1	2	5	0.033	0.085	0.014	0.038	0.003	0.010	0.007	0.020
RES	RES0372	0.3	1	1	2	5	0.033	0.085	0.012	0.035	0.004	0.012	0.009	0.027
RES	RES0373	0.3	1	1	2	5	0.076	0.212	0.039	0.094	0.006	0.019	0.030	0.077
RES	RES0374	0.3	1	1	2	5	0.066	0.180	0.033	0.081	0.007	0.020	0.031	0.079
RES	RES0375	0.3	1	1	2	5	0.047	0.125	0.020	0.054	0.006	0.018	0.019	0.052
RES	RES0376	0.3	1	1	2	5	0.034	0.089	0.013	0.037	0.005	0.015	0.012	0.035
RES	RES0377	0.3	1	1	2	5	0.049	0.131	0.022	0.059	0.006	0.019	0.022	0.058
RES	RES0378	0.3	1	1	2	5	0.031	0.079	0.011	0.033	0.005	0.015	0.011	0.032
RES	RES0379	0.3	1	1	2	5	0.037	0.096	0.015	0.042	0.005	0.017	0.015	0.041
RES	RES0380	0.3	1	1	2	5	0.047	0.127	0.022	0.059	0.007	0.020	0.022	0.057
RES	RES0381	0.3	1	1	2	5	0.031	0.081	0.012	0.035	0.005	0.016	0.012	0.034
RES	RES0382	0.3	1	1	2	5	0.028	0.071	0.010	0.030	0.005	0.015	0.010	0.029
RES	RES0383	0.3	1	1	2	5	0.038	0.099	0.016	0.045	0.006	0.019	0.016	0.044
RES	RES0384	0.3	1	1	2	5	0.027	0.070	0.010	0.030	0.005	0.015	0.010	0.029
RES	RES0385	0.3	1	1	2	5	0.034	0.087	0.014	0.038	0.006	0.018	0.013	0.038
RES	RES0386	0.3	1	1	2	5	0.028	0.073	0.011	0.032	0.005	0.016	0.011	0.031
RES	RES0387	0.3	1	1	2	5	0.029	0.073	0.015	0.041	0.007	0.023	0.010	0.030
RES	RES0388	0.3	1	1	2	5	0.026	0.065	0.013	0.036	0.007	0.023	0.010	0.028
RES	RES0389	0.3	1	1	2	5	0.021	0.052	0.014	0.039	0.002	0.007	0.011	0.031
RES	RES0390	0.3	1	1	2	5	0.025	0.064	0.033	0.082	0.002	0.007	0.025	0.066
RES	RES0391	0.3	1	1	2	5	0.030	0.077	0.034	0.085	0.002	0.008	0.021	0.057
RES	RES0392	0.3	1	1	2	5	0.038	0.100	0.065	0.148	0.002	0.008	0.032	0.081
RES	RES0393	0.3	1	1	2	5	0.042	0.112	0.111	0.236	0.002	0.008	0.045	0.107

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0394	0.3	1	1	2	5	0.046	0.122	0.304	0.564	0.002	0.008	0.072	0.162
RES	RES0395	0.3	1	1	2	5	0.035	0.092	0.021	0.056	0.003	0.010	0.015	0.041
RES	RES0396	0.3	1	1	2	5	0.057	0.153	0.059	0.137	0.003	0.009	0.033	0.083
RES	RES0397	0.3	1	1	2	5	0.063	0.172	0.050	0.118	0.003	0.010	0.031	0.077
RES	RES0398	0.3	1	1	2	5	0.087	0.243	0.100	0.216	0.003	0.009	0.047	0.111
RES	RES0399	0.3	1	1	2	5	0.079	0.218	0.058	0.135	0.003	0.010	0.037	0.090
RES	RES0400	0.3	1	1	2	5	0.050	0.134	0.024	0.062	0.003	0.010	0.017	0.046
RES	RES0401	0.3	1	1	2	5	0.151	0.442	0.148	0.303	0.003	0.010	0.030	0.076
RES	RES0402	0.3	1	1	2	5	0.034	0.087	0.012	0.035	0.004	0.013	0.008	0.024
RES	RES0403	0.3	1	1	2	5	0.173	0.513	0.117	0.247	0.006	0.018	0.033	0.082
RES	RES0404	0.3	1	1	2	5	0.312	0.967	0.252	0.480	0.006	0.019	0.046	0.109
RES	RES0405	0.3	1	1	2	5	0.062	0.170	0.032	0.080	0.010	0.030	0.032	0.079
RES	RES0406	0.3	1	1	2	5	0.083	0.233	0.049	0.116	0.010	0.030	0.048	0.114
RES	RES0407	0.3	1	1	2	5	0.233	0.707	0.228	0.440	0.007	0.022	0.091	0.199
RES	RES0408	0.3	1	1	2	5	0.100	0.283	0.055	0.128	0.006	0.019	0.036	0.088
RES	RES0409	0.3	1	1	2	5	0.240	0.731	0.434	0.768	0.008	0.024	0.187	0.370
RES	RES0410	0.3	1	1	2	5	0.344	1.075	0.814	1.325	0.012	0.034	0.710	1.177
RES	RES0411	0.3	1	1	2	5	0.515	1.653	4.003	5.270	0.011	0.033	2.338	3.306
RES	RES0412	0.3	1	1	2	5	0.246	0.752	0.349	0.635	0.009	0.026	0.314	0.581
RES	RES0413	0.3	1	1	2	5	0.085	0.237	0.047	0.113	0.007	0.021	0.044	0.105
RES	RES0414	0.3	1	1	2	5	0.055	0.148	0.031	0.077	0.018	0.049	0.026	0.067
RES	RES0415	0.3	1	1	2	5	0.137	0.399	0.107	0.229	0.015	0.043	0.101	0.217
RES	RES0416	0.3	1	1	2	5	0.057	0.155	0.033	0.083	0.019	0.050	0.027	0.070
RES	RES0417	0.3	1	1	2	5	0.053	0.143	0.037	0.091	0.023	0.060	0.025	0.064

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0418	0.3	1	1	2	5	0.152	0.445	0.448	0.790	0.018	0.048	0.101	0.217
RES	RES0419	0.3	1	1	2	5	0.092	0.260	0.061	0.141	0.008	0.025	0.057	0.133
RES	RES0420	0.3	1	1	2	5	0.052	0.139	0.041	0.099	0.026	0.066	0.026	0.067
RES	RES0421	0.3	1	1	2	5	0.202	0.606	-*	-*	0.016	0.044	0.125	0.262
RES	RES0422	0.3	1	1	2	5	0.051	0.138	0.043	0.104	0.027	0.070	0.027	0.070
RES	RES0423	0.3	1	1	2	5	0.052	0.140	0.047	0.111	0.030	0.075	0.030	0.076
RES	RES0424	0.3	1	1	2	5	0.161	0.475	-*	-*	0.018	0.048	0.090	0.197
RES	RES0425	0.3	1	1	2	5	0.065	0.177	0.035	0.087	0.008	0.023	0.034	0.084
RES	RES0426	0.3	1	1	2	5	0.072	0.200	0.130	0.271	0.029	0.074	0.037	0.090
RES	RES0427	0.3	1	1	2	5	0.061	0.165	0.088	0.194	0.033	0.082	0.038	0.093
RES	RES0428	0.3	1	1	2	5	0.067	0.185	0.038	0.093	0.008	0.025	0.035	0.087
RES	RES0429	0.3	1	1	2	5	0.109	0.313	-*	-*	0.022	0.057	0.055	0.129
RES	RES0430	0.3	1	1	2	5	0.104	0.297	0.346	0.632	0.014	0.040	0.050	0.118
RES	RES0431	0.3	1	1	2	5	0.074	0.206	0.116	0.245	0.013	0.038	0.034	0.084
RES	RES0432	0.3	1	1	2	5	0.036	0.095	0.022	0.058	0.015	0.041	0.022	0.058
RES	RES0433	0.3	1	1	2	5	0.042	0.112	0.025	0.065	0.017	0.047	0.025	0.064
RES	RES0434	0.3	1	1	2	5	0.037	0.096	0.020	0.054	0.014	0.040	0.020	0.054
RES	RES0435	0.3	1	1	2	5	0.067	0.183	0.036	0.088	0.025	0.064	0.035	0.087
RES	RES0436	0.3	1	1	2	5	0.047	0.126	0.022	0.059	0.017	0.046	0.022	0.058
RES	RES0437	0.3	1	1	2	5	0.052	0.141	0.025	0.065	0.019	0.050	0.025	0.064
RES	RES0438	0.3	1	1	2	5	0.037	0.098	0.016	0.043	0.008	0.024	0.015	0.043
RES	RES0439	0.3	1	1	2	5	0.036	0.094	0.015	0.041	0.009	0.026	0.015	0.041
RES	RES0440	0.3	1	1	2	5	0.032	0.082	0.012	0.035	0.010	0.030	0.012	0.035
RES	RES0441	0.3	1	1	2	5	0.033	0.085	0.013	0.037	0.011	0.031	0.013	0.036

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0442	0.3	1	1	2	5	0.033	0.085	0.013	0.037	0.011	0.033	0.013	0.036
RES	RES0443	0.3	1	1	2	5	0.033	0.085	0.013	0.038	0.012	0.035	0.013	0.036
RES	RES0444	0.3	1	1	2	5	0.033	0.085	0.014	0.039	0.014	0.039	0.012	0.035
RES	RES0445	0.3	1	1	2	5	0.038	0.101	0.019	0.052	0.017	0.047	0.016	0.043
RES	RES0446	0.3	1	1	2	5	0.040	0.105	0.021	0.055	0.018	0.048	0.017	0.045
RES	RES0447	0.3	1	1	2	5	0.036	0.093	0.015	0.042	0.015	0.042	0.014	0.038
RES	RES0448	0.3	1	1	2	5	0.044	0.118	0.027	0.069	0.022	0.058	0.021	0.055
RES	RES0449	0.3	1	1	2	5	0.049	0.132	0.025	0.066	0.025	0.066	0.021	0.056
RES	RES0450	0.3	1	1	2	5	0.050	0.134	0.025	0.064	0.025	0.064	0.021	0.056
RES	RES0451	0.3	1	1	2	5	0.072	0.199	0.044	0.106	0.044	0.106	0.035	0.086
RES	RES0452	0.3	1	1	2	5	0.078	0.216	0.048	0.115	0.048	0.115	0.039	0.095
RES	RES0453	0.3	1	1	2	5	0.083	0.233	0.051	0.121	0.051	0.121	0.043	0.103
RES	RES0454	0.3	1	1	2	5	0.122	0.352	0.083	0.183	0.083	0.183	0.059	0.136
RES	RES0455	0.3	1	1	2	5	0.147	0.432	0.096	0.208	0.081	0.179	0.083	0.183
RES	RES0456	0.3	1	1	2	5	0.170	0.504	0.110	0.235	0.097	0.210	0.104	0.222
RES	RES0457	0.3	1	1	2	5	0.144	0.421	0.109	0.231	0.109	0.231	0.041	0.099
RES	RES0458	0.3	1	1	2	5	0.246	0.750	0.422	0.750	0.219	0.425	0.135	0.279
RES	RES0459	0.3	1	1	2	5	0.439	1.395	8.606	10.230	0.603	1.022	0.094	0.205
RES	RES0460	0.3	1	1	2	5	0.194	0.582	0.126	0.263	0.083	0.182	0.034	0.084
RES	RES0461	0.3	1	1	2	5	0.151	0.443	0.088	0.193	0.063	0.143	0.030	0.076
RES	RES0462	0.3	1	1	2	5	0.090	0.253	0.052	0.121	0.041	0.099	0.045	0.108
RES	RES0463	0.3	1	1	2	5	0.101	0.287	0.053	0.124	0.041	0.099	0.026	0.067
RES	RES0464	0.3	1	1	2	5	0.093	0.263	0.049	0.115	0.038	0.092	0.029	0.075
RES	RES0465	0.3	1	1	2	5	0.073	0.202	0.035	0.087	0.029	0.074	0.028	0.072

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0466	0.3	1	1	2	5	0.077	0.213	0.036	0.089	0.029	0.074	0.019	0.051
RES	RES0467	0.3	1	1	2	5	0.036	0.093	0.014	0.038	0.012	0.035	0.012	0.035
RES	RES0468	0.3	1	1	2	5	0.037	0.098	0.014	0.040	0.013	0.036	0.012	0.033
RES	RES0469	0.3	1	1	2	5	0.033	0.084	0.012	0.034	0.011	0.031	0.011	0.031
RES	RES0470	0.3	1	1	2	5	0.031	0.080	0.011	0.032	0.010	0.030	0.009	0.028
RES	RES0471	0.3	1	1	2	5	0.008	0.018	0.010	0.029	0.003	0.009	0.003	0.010
RES	RES0472	0.3	1	1	2	5	0.008	0.018	0.011	0.031	0.003	0.009	0.003	0.010
RES	RES0473	0.3	1	1	2	5	0.008	0.018	0.011	0.031	0.003	0.009	0.003	0.010
RES	RES0474	0.3	1	1	2	5	0.008	0.019	0.011	0.032	0.003	0.009	0.003	0.010
RES	RES0475	0.3	1	1	2	5	0.008	0.018	0.011	0.032	0.003	0.009	0.003	0.010
RES	RES0476	0.3	1	1	2	5	0.008	0.019	0.011	0.033	0.003	0.009	0.003	0.010
RES	RES0477	0.3	1	1	2	5	0.008	0.019	0.012	0.034	0.003	0.009	0.003	0.010
RES	RES0478	0.3	1	1	2	5	0.008	0.019	0.012	0.034	0.003	0.009	0.003	0.010
RES	RES0479	0.3	1	1	2	5	0.008	0.019	0.012	0.034	0.003	0.009	0.003	0.010
RES	RES0480	0.3	1	1	2	5	0.008	0.019	0.012	0.034	0.003	0.009	0.003	0.010
RES	RES0481	0.3	1	1	2	5	0.008	0.017	0.011	0.031	0.003	0.010	0.003	0.010
RES	RES0482	0.3	1	1	2	5	0.009	0.022	0.013	0.037	0.003	0.010	0.003	0.010
RES	RES0483	0.3	1	1	2	5	0.010	0.023	0.013	0.036	0.003	0.009	0.003	0.010
RES	RES0484	0.3	1	1	2	5	0.011	0.025	0.011	0.031	0.003	0.009	0.003	0.010
RES	RES0485	0.3	1	1	2	5	0.009	0.021	0.017	0.047	0.003	0.010	0.003	0.011
RES	RES0486	0.3	1	1	2	5	0.011	0.025	0.011	0.033	0.003	0.010	0.003	0.010
RES	RES0487	0.3	1	1	2	5	0.011	0.025	0.012	0.034	0.003	0.010	0.003	0.010
RES	RES0488	0.3	1	1	2	5	0.011	0.026	0.011	0.032	0.003	0.010	0.003	0.011
RES	RES0489	0.3	1	1	2	5	0.011	0.025	0.014	0.040	0.003	0.010	0.003	0.011

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0490	0.3	1	1	2	5	0.010	0.024	0.022	0.057	0.003	0.011	0.004	0.012
RES	RES0491	0.3	1	1	2	5	0.009	0.021	0.018	0.049	0.004	0.013	0.004	0.014
RES	RES0492	0.3	1	1	2	5	0.010	0.024	0.011	0.032	0.004	0.013	0.005	0.015
RES	RES0493	0.3	1	1	2	5	0.009	0.022	0.018	0.050	0.004	0.014	0.005	0.015
RES	RES0494	0.3	1	1	2	5	0.010	0.024	0.011	0.031	0.004	0.013	0.005	0.015
RES	RES0495	0.3	1	1	2	5	0.011	0.026	0.093	0.203	0.004	0.014	0.005	0.015
RES	RES0496	0.3	1	1	2	5	0.013	0.030	0.023	0.060	0.004	0.013	0.004	0.014
RES	RES0497	0.3	1	1	2	5	0.013	0.030	0.024	0.062	0.004	0.013	0.004	0.014
RES	RES0498	0.3	1	1	2	5	0.013	0.031	0.022	0.057	0.004	0.013	0.004	0.014
RES	RES0499	0.3	1	1	2	5	0.014	0.032	0.016	0.043	0.004	0.013	0.004	0.013
RES	RES0500	0.3	1	1	2	5	0.013	0.031	0.026	0.068	0.004	0.013	0.004	0.014
RES	RES0501	0.3	1	1	2	5	0.014	0.033	0.015	0.042	0.004	0.013	0.004	0.013
RES	RES0502	0.3	1	1	2	5	0.014	0.033	0.015	0.041	0.004	0.013	0.004	0.013
RES	RES0503	0.3	1	1	2	5	0.015	0.035	0.011	0.032	0.004	0.014	0.004	0.014
RES	RES0504	0.3	1	1	2	5	0.014	0.033	0.014	0.039	0.004	0.013	0.004	0.013
RES	RES0505	0.3	1	1	2	5	0.013	0.031	0.026	0.066	0.004	0.013	0.004	0.014
RES	RES0506	0.3	1	1	2	5	0.015	0.035	0.011	0.032	0.004	0.014	0.004	0.014
RES	RES0507	0.3	1	1	2	5	0.015	0.036	0.011	0.031	0.004	0.014	0.005	0.015
RES	RES0508	0.3	1	1	2	5	0.013	0.031	0.031	0.078	0.004	0.014	0.005	0.015
RES	RES0509	0.3	1	1	2	5	0.013	0.032	0.025	0.064	0.004	0.013	0.004	0.014
RES	RES0510	0.3	1	1	2	5	0.014	0.034	0.015	0.041	0.004	0.014	0.004	0.013
RES	RES0511	0.3	1	1	2	5	0.013	0.031	0.035	0.087	0.004	0.014	0.005	0.015
RES	RES0512	0.3	1	1	2	5	0.015	0.036	0.011	0.032	0.004	0.015	0.004	0.015
RES	RES0513	0.3	1	1	2	5	0.014	0.035	0.012	0.035	0.004	0.014	0.004	0.014

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0514	0.3	1	1	2	5	0.013	0.031	0.032	0.081	0.004	0.014	0.005	0.015
RES	RES0515	0.3	1	1	2	5	0.015	0.035	0.012	0.035	0.004	0.014	0.004	0.014
RES	RES0516	0.3	1	1	2	5	0.014	0.035	0.014	0.039	0.004	0.014	0.004	0.013
RES	RES0517	0.3	1	1	2	5	0.014	0.035	0.014	0.038	0.004	0.014	0.004	0.014
RES	RES0518	0.3	1	1	2	5	0.015	0.035	0.013	0.037	0.004	0.014	0.004	0.014
RES	RES0519	0.3	1	1	2	5	0.014	0.033	0.024	0.061	0.004	0.013	0.005	0.015
RES	RES0520	0.3	1	1	2	5	0.013	0.032	0.027	0.069	0.004	0.014	0.005	0.015
RES	RES0521	0.3	1	1	2	5	0.014	0.035	0.015	0.041	0.004	0.014	0.004	0.014
RES	RES0522	0.3	1	1	2	5	0.015	0.036	0.012	0.033	0.005	0.015	0.005	0.015
RES	RES0523	0.3	1	1	2	5	0.016	0.038	0.010	0.029	0.005	0.015	0.005	0.016
RES	RES0524	0.3	1	1	2	5	0.015	0.036	0.013	0.036	0.004	0.015	0.004	0.014
RES	RES0525	0.3	1	1	2	5	0.014	0.033	0.023	0.059	0.004	0.014	0.005	0.015
RES	RES0526	0.3	1	1	2	5	0.015	0.036	0.013	0.036	0.005	0.015	0.004	0.014
RES	RES0527	0.3	1	1	2	5	0.015	0.035	0.014	0.040	0.004	0.014	0.004	0.014
RES	RES0528	0.3	1	1	2	5	0.016	0.038	0.010	0.030	0.005	0.015	0.005	0.015
RES	RES0529	0.3	1	1	2	5	0.014	0.033	0.030	0.075	0.004	0.014	0.005	0.015
RES	RES0530	0.3	1	1	2	5	0.015	0.036	0.013	0.037	0.004	0.015	0.004	0.014
RES	RES0531	0.3	1	1	2	5	0.013	0.032	0.035	0.086	0.004	0.014	0.005	0.016
RES	RES0532	0.3	1	1	2	5	0.014	0.034	0.021	0.057	0.004	0.014	0.005	0.015
RES	RES0533	0.3	1	1	2	5	0.015	0.037	0.011	0.031	0.005	0.015	0.005	0.015
RES	RES0534	0.3	1	1	2	5	0.015	0.037	0.012	0.033	0.005	0.015	0.005	0.015
RES	RES0535	0.3	1	1	2	5	0.015	0.036	0.014	0.040	0.004	0.014	0.004	0.014
RES	RES0536	0.3	1	1	2	5	0.014	0.034	0.026	0.067	0.004	0.014	0.005	0.015
RES	RES0537	0.3	1	1	2	5	0.014	0.033	0.030	0.075	0.004	0.014	0.005	0.016

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0538	0.3	1	1	2	5	0.015	0.037	0.013	0.037	0.005	0.015	0.004	0.014
RES	RES0539	0.3	1	1	2	5	0.014	0.033	0.033	0.083	0.004	0.014	0.005	0.016
RES	RES0540	0.3	1	1	2	5	0.016	0.038	0.011	0.031	0.005	0.016	0.005	0.015
RES	RES0541	0.3	1	1	2	5	0.015	0.037	0.012	0.033	0.005	0.015	0.005	0.015
RES	RES0542	0.3	1	1	2	5	0.014	0.033	0.028	0.072	0.004	0.014	0.005	0.016
RES	RES0543	0.3	1	1	2	5	0.016	0.039	0.010	0.029	0.005	0.016	0.005	0.016
RES	RES0544	0.3	1	1	2	5	0.015	0.036	0.015	0.041	0.004	0.015	0.004	0.014
RES	RES0545	0.3	1	1	2	5	0.014	0.034	0.023	0.061	0.004	0.014	0.005	0.015
RES	RES0546	0.3	1	1	2	5	0.014	0.033	0.034	0.086	0.004	0.015	0.005	0.016
RES	RES0547	0.3	1	1	2	5	0.015	0.037	0.013	0.037	0.005	0.015	0.004	0.015
RES	RES0548	0.3	1	1	2	5	0.016	0.038	0.011	0.031	0.005	0.016	0.005	0.016
RES	RES0549	0.3	1	1	2	5	0.014	0.035	0.023	0.059	0.004	0.014	0.005	0.015
RES	RES0550	0.3	1	1	2	5	0.016	0.038	0.011	0.033	0.005	0.016	0.005	0.015
RES	RES0551	0.3	1	1	2	5	0.015	0.037	0.014	0.040	0.005	0.015	0.004	0.014
RES	RES0552	0.3	1	1	2	5	0.012	0.028	1.925	2.793	0.005	0.017	0.006	0.018
RES	RES0553	0.3	1	1	2	5	0.015	0.038	0.013	0.038	0.005	0.015	0.004	0.015
RES	RES0554	0.3	1	1	2	5	0.014	0.034	0.028	0.072	0.004	0.015	0.005	0.016
RES	RES0555	0.3	1	1	2	5	0.015	0.035	0.022	0.057	0.004	0.014	0.005	0.015
RES	RES0556	0.3	1	1	2	5	0.015	0.037	0.015	0.042	0.005	0.015	0.004	0.015
RES	RES0557	0.3	1	1	2	5	0.016	0.039	0.010	0.030	0.005	0.016	0.005	0.016
RES	RES0558	0.3	1	1	2	5	0.016	0.039	0.012	0.034	0.005	0.016	0.005	0.015
RES	RES0559	0.3	1	1	2	5	0.015	0.035	0.024	0.063	0.004	0.014	0.005	0.016
RES	RES0560	0.3	1	1	2	5	0.014	0.035	0.028	0.072	0.005	0.015	0.005	0.016
RES	RES0561	0.3	1	1	2	5	0.016	0.040	0.010	0.029	0.005	0.017	0.005	0.016

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0562	0.3	1	1	2	5	0.016	0.038	0.013	0.038	0.005	0.015	0.005	0.015
RES	RES0563	0.3	1	1	2	5	0.013	0.032	0.076	0.169	0.005	0.016	0.006	0.018
RES	RES0564	0.3	1	1	2	5	0.016	0.038	0.015	0.041	0.005	0.015	0.005	0.015
RES	RES0565	0.3	1	1	2	5	0.016	0.038	0.014	0.039	0.005	0.015	0.005	0.015
RES	RES0566	0.3	1	1	2	5	0.016	0.040	0.011	0.033	0.005	0.016	0.005	0.016
RES	RES0567	0.3	1	1	2	5	0.016	0.039	0.012	0.033	0.005	0.016	0.005	0.015
RES	RES0568	0.3	1	1	2	5	0.016	0.040	0.011	0.031	0.005	0.016	0.005	0.016
RES	RES0569	0.3	1	1	2	5	0.015	0.037	0.020	0.054	0.005	0.015	0.005	0.016
RES	RES0570	0.3	1	1	2	5	0.016	0.039	0.013	0.038	0.005	0.016	0.005	0.015
RES	RES0571	0.3	1	1	2	5	0.016	0.038	0.015	0.041	0.005	0.015	0.005	0.015
RES	RES0572	0.3	1	1	2	5	0.016	0.040	0.011	0.031	0.005	0.017	0.005	0.016
RES	RES0573	0.3	1	1	2	5	0.017	0.041	0.010	0.029	0.005	0.017	0.005	0.016
RES	RES0574	0.3	1	1	2	5	0.016	0.039	0.014	0.039	0.005	0.016	0.005	0.015
RES	RES0575	0.3	1	1	2	5	0.016	0.040	0.012	0.034	0.005	0.016	0.005	0.016
RES	RES0576	0.3	1	1	2	5	0.016	0.039	0.013	0.036	0.005	0.016	0.005	0.015
RES	RES0577	0.3	1	1	2	5	0.015	0.037	0.019	0.052	0.005	0.015	0.005	0.016
RES	RES0578	0.3	1	1	2	5	0.016	0.039	0.015	0.041	0.005	0.016	0.005	0.015
RES	RES0579	0.3	1	1	2	5	0.016	0.040	0.013	0.036	0.005	0.016	0.005	0.015
RES	RES0580	0.3	1	1	2	5	0.011	0.025	0.044	0.106	0.006	0.018	0.007	0.021
RES	RES0581	0.3	1	1	2	5	0.016	0.039	0.014	0.039	0.005	0.016	0.005	0.015
RES	RES0582	0.3	1	1	2	5	0.017	0.040	0.012	0.034	0.005	0.016	0.005	0.016
RES	RES0583	0.3	1	1	2	5	0.016	0.040	0.013	0.037	0.005	0.016	0.005	0.015
RES	RES0584	0.3	1	1	2	5	0.016	0.040	0.014	0.039	0.005	0.016	0.005	0.015
RES	RES0585	0.3	1	1	2	5	0.016	0.039	0.015	0.042	0.005	0.016	0.005	0.015

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0586	0.3	1	1	2	5	0.017	0.042	0.011	0.031	0.005	0.017	0.005	0.016
RES	RES0587	0.3	1	1	2	5	0.016	0.040	0.013	0.037	0.005	0.016	0.005	0.015
RES	RES0588	0.3	1	1	2	5	0.017	0.042	0.010	0.029	0.006	0.018	0.005	0.017
RES	RES0589	0.3	1	1	2	5	0.016	0.040	0.015	0.042	0.005	0.016	0.005	0.016
RES	RES0590	0.3	1	1	2	5	0.017	0.042	0.011	0.031	0.005	0.017	0.005	0.017
RES	RES0591	0.3	1	1	2	5	0.011	0.025	0.046	0.109	0.006	0.019	0.007	0.022
RES	RES0592	0.3	1	1	2	5	0.017	0.042	0.012	0.034	0.005	0.017	0.005	0.016
RES	RES0593	0.3	1	1	2	5	0.016	0.040	0.015	0.042	0.005	0.016	0.005	0.016
RES	RES0594	0.3	1	1	2	5	0.017	0.042	0.012	0.035	0.005	0.017	0.005	0.016
RES	RES0595	0.3	1	1	2	5	0.017	0.043	0.011	0.031	0.006	0.018	0.005	0.017
RES	RES0596	0.3	1	1	2	5	0.017	0.041	0.015	0.041	0.005	0.016	0.005	0.016
RES	RES0597	0.3	1	1	2	5	0.017	0.042	0.012	0.033	0.005	0.017	0.005	0.016
RES	RES0598	0.3	1	1	2	5	0.017	0.041	0.016	0.044	0.005	0.016	0.005	0.016
RES	RES0599	0.3	1	1	2	5	0.018	0.044	0.010	0.029	0.006	0.018	0.005	0.017
RES	RES0600	0.3	1	1	2	5	0.018	0.044	0.011	0.031	0.006	0.018	0.005	0.017
RES	RES0601	0.3	1	1	2	5	0.018	0.043	0.012	0.033	0.005	0.017	0.005	0.017
RES	RES0602	0.3	1	1	2	5	0.018	0.043	0.012	0.034	0.005	0.017	0.005	0.017
RES	RES0603	0.3	1	1	2	5	0.017	0.041	0.016	0.044	0.005	0.017	0.005	0.016
RES	RES0604	0.3	1	1	2	5	0.018	0.044	0.011	0.031	0.006	0.018	0.005	0.017
RES	RES0605	0.3	1	1	2	5	0.017	0.042	0.016	0.043	0.005	0.017	0.005	0.017
RES	RES0606	0.3	1	1	2	5	0.017	0.042	0.015	0.042	0.005	0.017	0.005	0.016
RES	RES0607	0.3	1	1	2	5	0.018	0.045	0.010	0.030	0.006	0.018	0.006	0.018
RES	RES0608	0.3	1	1	2	5	0.017	0.042	0.015	0.041	0.005	0.017	0.005	0.016
RES	RES0609	0.3	1	1	2	5	0.017	0.042	0.016	0.043	0.005	0.017	0.005	0.017

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0610	0.3	1	1	2	5	0.018	0.044	0.012	0.035	0.006	0.018	0.005	0.017
RES	RES0611	0.3	1	1	2	5	0.018	0.045	0.011	0.031	0.006	0.018	0.005	0.017
RES	RES0612	0.3	1	1	2	5	0.018	0.045	0.010	0.030	0.006	0.019	0.006	0.018
RES	RES0613	0.3	1	1	2	5	0.017	0.043	0.015	0.041	0.005	0.017	0.005	0.017
RES	RES0614	0.3	1	1	2	5	0.017	0.042	0.016	0.043	0.005	0.017	0.005	0.017
RES	RES0615	0.3	1	1	2	5	0.018	0.045	0.011	0.032	0.006	0.018	0.006	0.017
RES	RES0616	0.3	1	1	2	5	0.018	0.043	0.015	0.040	0.005	0.017	0.005	0.017
RES	RES0617	0.3	1	1	2	5	0.017	0.043	0.016	0.043	0.005	0.017	0.005	0.017
RES	RES0618	0.3	1	1	2	5	0.018	0.044	0.014	0.040	0.006	0.018	0.005	0.017
RES	RES0619	0.3	1	1	2	5	0.018	0.045	0.012	0.034	0.006	0.018	0.005	0.017
RES	RES0620	0.3	1	1	2	5	0.018	0.043	0.015	0.042	0.005	0.017	0.005	0.017
RES	RES0621	0.3	1	1	2	5	0.018	0.046	0.011	0.033	0.006	0.018	0.006	0.017
RES	RES0622	0.3	1	1	2	5	0.019	0.047	0.010	0.030	0.006	0.019	0.006	0.018
RES	RES0623	0.3	1	1	2	5	0.018	0.043	0.016	0.044	0.005	0.017	0.005	0.017
RES	RES0624	0.3	1	1	2	5	0.018	0.044	0.014	0.040	0.006	0.018	0.005	0.017
RES	RES0625	0.3	1	1	2	5	0.018	0.044	0.015	0.042	0.006	0.018	0.005	0.017
RES	RES0626	0.3	1	1	2	5	0.018	0.043	0.016	0.044	0.005	0.017	0.006	0.018
RES	RES0627	0.3	1	1	2	5	0.018	0.044	0.015	0.041	0.006	0.018	0.005	0.017
RES	RES0628	0.3	1	1	2	5	0.018	0.045	0.014	0.038	0.006	0.018	0.005	0.017
RES	RES0629	0.3	1	1	2	5	0.019	0.047	0.011	0.031	0.006	0.019	0.006	0.018
RES	RES0630	0.3	1	1	2	5	0.018	0.044	0.016	0.043	0.006	0.018	0.006	0.018
RES	RES0631	0.3	1	1	2	5	0.018	0.044	0.015	0.041	0.006	0.018	0.005	0.017
RES	RES0632	0.3	1	1	2	5	0.019	0.048	0.010	0.030	0.006	0.019	0.006	0.018
RES	RES0633	0.3	1	1	2	5	0.018	0.045	0.013	0.038	0.006	0.018	0.005	0.017

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0634	0.3	1	1	2	5	0.018	0.044	0.016	0.044	0.006	0.018	0.006	0.018
RES	RES0635	0.3	1	1	2	5	0.018	0.045	0.014	0.039	0.006	0.018	0.005	0.017
RES	RES0636	0.3	1	1	2	5	0.018	0.045	0.015	0.040	0.006	0.018	0.005	0.017
RES	RES0637	0.3	1	1	2	5	0.018	0.045	0.015	0.042	0.006	0.018	0.006	0.018
RES	RES0638	0.3	1	1	2	5	0.018	0.046	0.014	0.040	0.006	0.018	0.006	0.017
RES	RES0639	0.3	1	1	2	5	0.019	0.046	0.013	0.037	0.006	0.019	0.005	0.017
RES	RES0640	0.3	1	1	2	5	0.019	0.046	0.013	0.037	0.006	0.019	0.005	0.017
RES	RES0641	0.3	1	1	2	5	0.018	0.046	0.015	0.041	0.006	0.018	0.006	0.018
RES	RES0642	0.3	1	1	2	5	0.018	0.045	0.016	0.044	0.006	0.018	0.006	0.018
RES	RES0643	0.3	1	1	2	5	0.019	0.046	0.014	0.038	0.006	0.019	0.006	0.017
RES	RES0644	0.3	1	1	2	5	0.018	0.046	0.015	0.042	0.006	0.018	0.006	0.018
RES	RES0645	0.3	1	1	2	5	0.013	0.030	0.017	0.046	0.007	0.022	0.009	0.026
RES	RES0646	0.3	1	1	2	5	0.018	0.046	0.015	0.042	0.006	0.018	0.006	0.018
RES	RES0647	0.3	1	1	2	5	0.019	0.047	0.014	0.039	0.006	0.019	0.006	0.018
RES	RES0648	0.3	1	1	2	5	0.018	0.045	0.016	0.044	0.006	0.018	0.006	0.018
RES	RES0649	0.3	1	1	2	5	0.018	0.046	0.015	0.043	0.006	0.018	0.006	0.018
RES	RES0650	0.3	1	1	2	5	0.019	0.047	0.014	0.040	0.006	0.019	0.006	0.018
RES	RES0651	0.3	1	1	2	5	0.019	0.047	0.015	0.042	0.006	0.019	0.006	0.018
RES	RES0652	0.3	1	1	2	5	0.016	0.038	0.057	0.133	0.007	0.021	0.008	0.024
RES	RES0653	0.3	1	1	2	5	0.019	0.047	0.015	0.042	0.006	0.019	0.006	0.019
RES	RES0654	0.3	1	1	2	5	0.016	0.039	0.048	0.113	0.007	0.021	0.008	0.023
RES	RES0655	0.3	1	1	2	5	0.013	0.031	0.018	0.049	0.007	0.023	0.009	0.027
RES	RES0656	0.3	1	1	2	5	0.020	0.049	0.013	0.036	0.006	0.020	0.006	0.018
RES	RES0657	0.3	1	1	2	5	0.019	0.047	0.016	0.044	0.006	0.019	0.006	0.019

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0658	0.3	1	1	2	5	0.020	0.050	0.012	0.034	0.007	0.020	0.006	0.019
RES	RES0659	0.3	1	1	2	5	0.020	0.050	0.012	0.034	0.006	0.020	0.006	0.019
RES	RES0660	0.3	1	1	2	5	0.020	0.049	0.013	0.037	0.006	0.020	0.006	0.018
RES	RES0661	0.3	1	1	2	5	0.019	0.046	0.018	0.049	0.006	0.018	0.006	0.020
RES	RES0662	0.3	1	1	2	5	0.020	0.049	0.013	0.038	0.006	0.020	0.006	0.018
RES	RES0663	0.3	1	1	2	5	0.020	0.049	0.014	0.039	0.006	0.020	0.006	0.019
RES	RES0664	0.3	1	1	2	5	0.020	0.050	0.012	0.034	0.007	0.020	0.006	0.019
RES	RES0665	0.3	1	1	2	5	0.019	0.047	0.017	0.047	0.006	0.019	0.006	0.020
RES	RES0666	0.3	1	1	2	5	0.019	0.048	0.016	0.044	0.006	0.019	0.006	0.019
RES	RES0667	0.3	1	1	2	5	0.017	0.041	0.036	0.090	0.007	0.021	0.008	0.023
RES	RES0668	0.3	1	1	2	5	0.020	0.049	0.014	0.038	0.006	0.020	0.006	0.019
RES	RES0669	0.3	1	1	2	5	0.020	0.049	0.014	0.039	0.006	0.020	0.006	0.019
RES	RES0670	0.3	1	1	2	5	0.020	0.049	0.015	0.041	0.006	0.020	0.006	0.019
RES	RES0671	0.3	1	1	2	5	0.020	0.049	0.014	0.040	0.006	0.020	0.006	0.019
RES	RES0672	0.3	1	1	2	5	0.020	0.049	0.015	0.042	0.006	0.019	0.006	0.019
RES	RES0673	0.3	1	1	2	5	0.020	0.049	0.015	0.041	0.006	0.020	0.006	0.019
RES	RES0674	0.3	1	1	2	5	0.020	0.049	0.015	0.042	0.006	0.020	0.006	0.020
RES	RES0675	0.3	1	1	2	5	0.020	0.049	0.015	0.042	0.006	0.020	0.006	0.020
RES	RES0676	0.3	1	1	2	5	0.018	0.044	0.025	0.064	0.006	0.020	0.007	0.022
RES	RES0677	0.3	1	1	2	5	0.017	0.043	0.030	0.076	0.007	0.021	0.008	0.023
RES	RES0678	0.3	1	1	2	5	0.018	0.044	0.026	0.066	0.006	0.020	0.007	0.023
RES	RES0679	0.3	1	1	2	5	0.020	0.049	0.016	0.043	0.006	0.020	0.006	0.020
RES	RES0680	0.3	1	1	2	5	0.019	0.046	0.020	0.054	0.006	0.019	0.007	0.022
RES	RES0681	0.3	1	1	2	5	0.026	0.067	0.010	0.029	0.010	0.029	0.009	0.027

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0682	0.3	1	1	2	5	0.026	0.067	0.010	0.029	0.010	0.029	0.009	0.027
RES	RES0683	0.3	1	1	2	5	0.015	0.036	0.014	0.040	0.009	0.025	0.011	0.032
RES	RES0684	0.3	1	1	2	5	0.027	0.070	0.011	0.031	0.011	0.031	0.010	0.029
RES	RES0685	0.3	1	1	2	5	0.015	0.038	0.012	0.034	0.008	0.024	0.011	0.031
RES	RES0686	0.3	1	1	2	5	0.012	0.029	0.050	0.118	0.010	0.030	0.013	0.037
RES	RES0687	0.3	1	1	2	5	0.024	0.060	0.011	0.032	0.008	0.024	0.007	0.021
RES	RES0688	0.3	1	1	2	5	0.013	0.030	0.094	0.204	0.010	0.030	0.013	0.037
RES	RES0689	0.3	1	1	2	5	0.013	0.032	0.028	0.071	0.010	0.030	0.013	0.038
RES	RES0690	0.3	1	1	2	5	0.021	0.052	0.018	0.049	0.007	0.021	0.008	0.024
RES	RES0691	0.3	1	1	2	5	0.022	0.055	0.015	0.043	0.007	0.022	0.007	0.023
RES	RES0692	0.3	1	1	2	5	0.014	0.033	0.410	0.731	0.011	0.031	0.013	0.037
RES	RES0693	0.3	1	1	2	5	0.022	0.054	0.017	0.046	0.007	0.022	0.008	0.024
RES	RES0694	0.3	1	1	2	5	0.016	0.040	0.102	0.219	0.010	0.029	0.012	0.034
RES	RES0695	0.3	1	1	2	5	0.017	0.041	0.074	0.166	0.010	0.028	0.011	0.033
RES	RES0696	0.3	1	1	2	5	0.022	0.055	0.017	0.046	0.007	0.022	0.008	0.024
RES	RES0697	0.3	1	1	2	5	0.019	0.047	0.034	0.085	0.009	0.027	0.011	0.031
RES	RES0698	0.3	1	1	2	5	0.020	0.048	0.031	0.077	0.009	0.026	0.010	0.030
RES	RES0699	0.3	1	1	2	5	0.022	0.054	0.021	0.055	0.008	0.024	0.009	0.027
RES	RES0700	0.3	1	1	2	5	0.020	0.050	0.030	0.076	0.009	0.027	0.011	0.031
RES	RES0701	0.3	1	1	2	5	0.021	0.051	0.027	0.068	0.009	0.026	0.010	0.030
RES	RES0702	0.3	1	1	2	5	0.020	0.050	0.029	0.073	0.009	0.027	0.011	0.031
RES	RES0703	0.3	1	1	2	5	0.014	0.033	0.035	0.087	0.013	0.036	0.017	0.047
RES	RES0704	0.3	1	1	2	5	0.023	0.058	0.017	0.046	0.008	0.023	0.009	0.026
RES	RES0705	0.3	1	1	2	5	0.024	0.060	0.016	0.044	0.008	0.024	0.008	0.025

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0706	0.3	1	1	2	5	0.034	0.087	0.014	0.039	0.014	0.039	0.013	0.036
RES	RES0707	0.3	1	1	2	5	0.022	0.054	0.021	0.056	0.008	0.025	0.010	0.029
RES	RES0708	0.3	1	1	2	5	0.026	0.065	0.013	0.036	0.009	0.026	0.008	0.023
RES	RES0709	0.3	1	1	2	5	0.014	0.035	0.030	0.075	0.013	0.037	0.018	0.048
RES	RES0710	0.3	1	1	2	5	0.024	0.060	0.016	0.044	0.008	0.024	0.009	0.026
RES	RES0711	0.3	1	1	2	5	0.031	0.081	0.012	0.034	0.012	0.034	0.010	0.030
RES	RES0712	0.3	1	1	2	5	0.017	0.043	0.113	0.240	0.015	0.040	0.019	0.050
RES	RES0713	0.3	1	1	2	5	0.017	0.042	0.196	0.386	0.017	0.045	0.022	0.057
RES	RES0714	0.3	1	1	2	5	0.019	0.048	0.042	0.101	0.011	0.032	0.014	0.039
RES	RES0715	0.3	1	1	2	5	0.020	0.051	0.016	0.044	0.010	0.030	0.015	0.042
RES	RES0716	0.3	1	1	2	5	0.021	0.053	0.035	0.087	0.013	0.037	0.016	0.045
RES	RES0717	0.3	1	1	2	5	0.015	0.036	0.049	0.116	0.020	0.054	0.030	0.077
RES	RES0718	0.3	1	1	2	5	0.038	0.099	0.017	0.047	0.015	0.041	0.011	0.032
RES	RES0719	0.3	1	1	2	5	0.019	0.048	0.020	0.054	0.013	0.037	0.020	0.054
RES	RES0720	0.3	1	1	2	5	0.023	0.058	0.024	0.063	0.013	0.037	0.020	0.053
RES	RES0721	0.3	1	1	2	5	0.046	0.122	0.048	0.115	0.017	0.047	0.010	0.030
RES	RES0722	0.3	1	1	2	5	0.028	0.072	0.058	0.133	0.016	0.044	0.041	0.100
RES	RES0723	0.3	1	1	2	5	0.020	0.051	0.496	0.862	0.053	0.125	0.085	0.187
RES	RES0724	0.3	1	1	2	5	0.017	0.042	3.544	4.742	0.190	0.376	2.214	3.154
RES	RES0725	0.3	1	1	2	5	0.021	0.053	1.549	2.315	0.053	0.125	0.152	0.309
RES	RES0726	0.3	1	1	2	5	0.022	0.055	-*	-*	0.044	0.106	0.055	0.127
RES	RES0727	0.3	1	1	2	5	0.023	0.058	-*	-*	0.036	0.090	0.044	0.105
RES	RES0728	0.3	1	1	2	5	0.395	1.247	1.970	2.850	0.164	0.331	0.030	0.075
RES	RES0729	0.3	1	1	2	5	0.238	0.723	3.262	4.413	0.097	0.210	0.024	0.063

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0730	0.3	1	1	2	5	0.019	0.047	0.436	0.771	0.098	0.212	0.107	0.227
RES	RES0731	0.3	1	1	2	5	0.018	0.046	0.090	0.197	0.090	0.197	0.068	0.155
RES	RES0732	0.3	1	1	2	5	0.017	0.042	0.093	0.202	0.093	0.202	0.061	0.139
RES	RES0733	0.3	1	1	2	5	0.064	0.175	0.030	0.075	0.023	0.061	0.015	0.042
RES	RES0734	0.3	1	1	2	5	0.052	0.139	0.026	0.067	0.018	0.048	0.011	0.033
RES	RES0735	0.3	1	1	2	5	0.049	0.131	0.022	0.058	0.017	0.046	0.012	0.033
RES	RES0736	0.3	1	1	2	5	0.041	0.109	0.018	0.050	0.014	0.039	0.010	0.029
RES	RES0737	0.3	1	1	2	5	0.043	0.114	0.018	0.048	0.015	0.041	0.011	0.031
RES	RES0738	0.3	1	1	2	5	0.035	0.090	0.015	0.042	0.011	0.032	0.008	0.024
RES	RES0739	0.3	1	1	2	5	0.037	0.098	0.015	0.040	0.012	0.035	0.010	0.028
RES	RES0740	0.3	1	1	2	5	0.033	0.086	0.014	0.040	0.011	0.031	0.008	0.024
RES	RES0741	0.3	1	1	2	5	0.035	0.092	0.014	0.040	0.012	0.033	0.009	0.026
RES	RES0742	0.3	1	1	2	5	0.036	0.094	0.014	0.040	0.012	0.034	0.009	0.027
RES	RES0743	0.3	1	1	2	5	0.033	0.084	0.013	0.037	0.010	0.030	0.008	0.024
RES	RES0744	0.3	1	1	2	5	0.032	0.082	0.012	0.034	0.010	0.030	0.008	0.025
RES	RES0745	0.3	1	1	2	5	0.027	0.070	0.011	0.031	0.008	0.025	0.007	0.020
RES	RES0746	0.3	1	1	2	5	0.028	0.070	0.011	0.031	0.009	0.026	0.007	0.021
RES	RES0747	0.3	1	1	2	5	0.021	0.051	0.011	0.031	0.007	0.022	0.010	0.029
RES	RES0748	0.3	1	1	2	5	0.020	0.050	0.013	0.036	0.009	0.026	0.012	0.034
RES	RES0749	0.3	1	1	2	5	0.025	0.063	0.010	0.030	0.008	0.023	0.010	0.029
RES	RES0750	0.3	1	1	2	5	0.030	0.077	0.011	0.032	0.010	0.029	0.010	0.029
RES	RES0751	0.3	1	1	2	5	0.032	0.081	0.013	0.037	0.010	0.030	0.013	0.036
RES	RES0752	0.3	1	1	2	5	0.033	0.086	0.014	0.040	0.011	0.031	0.014	0.039
RES	RES0753	0.3	1	1	2	5	0.040	0.105	0.020	0.052	0.013	0.037	0.018	0.049

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0754	0.3	1	1	2	5	0.038	0.099	0.024	0.062	0.012	0.035	0.023	0.060
RES	RES0755	0.3	1	1	2	5	0.041	0.107	0.027	0.069	0.013	0.038	0.026	0.067
RES	RES0756	0.3	1	1	2	5	0.032	0.083	0.065	0.149	0.015	0.040	0.058	0.135
RES	RES0757	0.3	1	1	2	5	0.039	0.103	0.055	0.128	0.013	0.036	0.054	0.127
RES	RES0758	0.3	1	1	2	5	0.142	0.415	0.093	0.202	0.059	0.136	0.058	0.135
RES	RES0759	0.3	1	1	2	5	0.056	0.151	7.470	9.048	0.019	0.051	1.334	2.033
RES	RES0760	0.3	1	1	2	5	0.361	1.134	0.470	0.823	0.435	0.770	0.174	0.348
RES	RES0761	0.3	1	1	2	5	0.306	0.949	0.449	0.792	0.135	0.279	0.421	0.748
RES	RES0762	0.3	1	1	2	5	0.063	0.171	0.089	0.195	0.023	0.060	0.084	0.185
RES	RES0763	0.3	1	1	2	5	0.238	0.723	0.229	0.441	0.104	0.223	0.216	0.420
RES	RES0764	0.3	1	1	2	5	0.091	0.256	0.058	0.134	0.041	0.099	0.061	0.141
RES	RES0765	0.3	1	1	2	5	0.046	0.123	0.052	0.122	0.016	0.045	0.050	0.118
RES	RES0766	0.3	1	1	2	5	0.373	1.173	0.554	0.950	0.168	0.338	0.525	0.906
RES	RES0767	0.3	1	1	2	5	0.040	0.106	0.044	0.106	0.014	0.039	0.042	0.102
RES	RES0768	0.3	1	1	2	5	0.259	0.793	0.267	0.504	0.220	0.426	0.257	0.488
RES	RES0769	0.3	1	1	2	5	0.269	0.825	0.303	0.562	0.239	0.458	0.292	0.545
RES	RES0770	0.3	1	1	2	5	0.029	0.075	0.013	0.037	0.010	0.029	0.013	0.036
RES	RES0771	0.3	1	1	2	5	0.028	0.072	0.010	0.030	0.010	0.029	0.010	0.031
RES	RES0772	0.3	1	1	2	5	0.158	0.466	0.145	0.297	0.097	0.210	0.088	0.193
RES	RES0773	0.3	1	1	2	5	0.029	0.073	0.011	0.031	0.010	0.030	0.011	0.031
RES	RES0774	0.3	1	1	2	5	0.041	0.109	0.017	0.047	0.017	0.046	0.017	0.047
RES	RES0775	0.3	1	1	2	5	0.051	0.138	0.025	0.064	0.022	0.058	0.022	0.058
RES	RES0776	0.3	1	1	2	5	0.049	0.130	0.033	0.081	0.025	0.065	0.019	0.051
RES	RES0777	0.3	1	1	2	5	0.028	0.072	0.013	0.036	0.011	0.032	0.010	0.029

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0778	0.3	1	1	2	5	0.027	0.068	0.011	0.032	0.010	0.029	0.009	0.027
RES	RES0779	0.3	1	1	2	5	0.046	0.121	0.025	0.064	0.025	0.064	0.022	0.059
RES	RES0780	0.3	1	1	2	5	0.044	0.116	0.023	0.061	0.023	0.061	0.021	0.056
RES	RES0781	0.3	1	1	2	5	0.032	0.083	0.015	0.041	0.015	0.041	0.013	0.037
RES	RES0782	0.3	1	1	2	5	0.058	0.156	0.030	0.075	0.029	0.074	0.029	0.074
RES	RES0783	0.3	1	1	2	5	0.017	0.042	0.019	0.051	0.006	0.019	0.005	0.016
RES	RES0784	0.3	1	1	2	5	0.018	0.046	0.018	0.049	0.007	0.021	0.005	0.017
RES	RES0785	0.3	1	1	2	5	0.018	0.045	0.018	0.050	0.007	0.021	0.005	0.017
RES	RES0786	0.3	1	1	2	5	0.021	0.053	0.016	0.044	0.008	0.024	0.007	0.020
RES	RES0787	0.3	1	1	2	5	0.022	0.054	0.016	0.043	0.008	0.024	0.007	0.021
RES	RES0788	0.3	1	1	2	5	0.196	0.587	0.210	0.409	0.178	0.354	0.147	0.301
RES	RES0789	0.3	1	1	2	5	0.022	0.055	0.024	0.063	0.009	0.027	0.006	0.020
RES	RES0790	0.3	1	1	2	5	0.022	0.054	0.026	0.067	0.009	0.027	0.006	0.020
RES	RES0791	0.3	1	1	2	5	0.171	0.508	0.137	0.283	0.075	0.168	0.072	0.162
RES	RES0792	0.3	1	1	2	5	0.020	0.050	0.038	0.092	0.009	0.027	0.006	0.018
RES	RES0793	0.3	1	1	2	5	0.020	0.050	0.037	0.092	0.009	0.027	0.006	0.018
RES	RES0794	0.3	1	1	2	5	0.020	0.050	0.040	0.098	0.009	0.027	0.006	0.018
RES	RES0795	0.3	1	1	2	5	0.015	0.036	0.164	0.331	0.007	0.021	0.004	0.013
RES	RES0796	0.3	1	1	2	5	0.016	0.039	1.695	2.502	0.008	0.024	0.004	0.015
RES	RES0797	0.3	1	1	2	5	0.016	0.040	3.876	5.124	0.008	0.025	0.005	0.015
RES	RES0798	0.3	1	1	2	5	0.016	0.040	3.876	5.124	0.008	0.025	0.005	0.015
RES	RES0799	0.3	1	1	2	5	0.016	0.039	0.894	1.438	0.008	0.024	0.004	0.014
RES	RES0800	0.3	1	1	2	5	0.011	0.026	0.015	0.042	0.004	0.013	0.003	0.009
RES	RES0801	0.3	1	1	2	5	0.015	0.038	0.371	0.671	0.008	0.023	0.004	0.014

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0802	0.3	1	1	2	5	0.015	0.036	0.203	0.397	0.007	0.022	0.004	0.013
RES	RES0803	0.3	1	1	2	5	0.130	0.376	0.189	0.374	0.067	0.153	0.061	0.140
RES	RES0804	0.3	1	1	2	5	0.116	0.333	0.174	0.347	0.058	0.134	0.052	0.123
RES	RES0805	0.3	1	1	2	5	0.024	0.062	31.399	31.407	0.011	0.032	0.006	0.019
RES	RES0806	0.3	1	1	2	5	0.040	0.105	0.032	0.079	0.022	0.058	0.009	0.026
RES	RES0807	0.3	1	1	2	5	0.021	0.053	0.011	0.032	0.010	0.030	0.011	0.032
RES	RES0808	0.3	1	1	2	5	0.062	0.168	0.208	0.406	0.122	0.255	0.200	0.393
RES	RES0809	0.3	1	1	2	5	0.042	0.112	0.047	0.112	0.037	0.091	0.046	0.111
RES	RES0810	0.3	1	1	2	5	0.034	0.087	0.026	0.066	0.022	0.058	0.025	0.066
RES	RES0811	0.3	1	1	2	5	0.029	0.073	0.018	0.048	0.016	0.043	0.018	0.048
RES	RES0812	0.3	1	1	2	5	0.036	0.093	0.024	0.063	0.021	0.055	0.024	0.062
RES	RES0813	0.3	1	1	2	5	0.028	0.072	0.015	0.042	0.014	0.038	0.015	0.042
RES	RES0814	0.3	1	1	2	5	0.109	0.310	0.138	0.285	0.138	0.285	0.098	0.212
RES	RES0815	0.3	1	1	2	5	0.116	0.333	0.127	0.266	0.127	0.266	0.080	0.178
RES	RES0816	0.3	1	1	2	5	0.224	0.678	0.154	0.312	0.138	0.285	0.072	0.163
RES	RES0817	0.3	1	1	2	5	0.147	0.431	0.109	0.231	0.109	0.231	0.067	0.151
RES	RES0818	0.3	1	1	2	5	0.150	0.441	0.098	0.211	0.098	0.211	0.062	0.142
RES	RES0819	0.3	1	1	2	5	0.051	0.136	0.027	0.069	0.027	0.069	0.023	0.060
RES	RES0820	0.3	1	1	2	5	0.113	0.322	0.278	0.523	0.278	0.523	0.048	0.114
RES	RES0821	0.3	1	1	2	5	0.168	0.498	0.429	0.761	0.130	0.271	0.192	0.378
RES	RES0822	0.3	1	1	2	5	0.160	0.471	0.138	0.284	0.082	0.182	0.100	0.216
RES	RES0823	0.3	1	1	2	5	0.035	0.092	0.020	0.054	0.020	0.054	0.013	0.037
RES	RES0824	0.3	1	1	2	5	0.034	0.089	0.019	0.051	0.019	0.051	0.013	0.037
RES	RES0825	0.3	1	1	2	5	0.033	0.084	0.016	0.045	0.016	0.045	0.012	0.035

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0826	0.3	1	1	2	5	0.150	0.440	0.109	0.232	0.045	0.108	0.086	0.189
RES	RES0827	0.3	1	1	2	5	0.243	0.740	2.678	3.719	0.128	0.267	0.889	1.431
RES	RES0828	0.3	1	1	2	5	0.502	1.611	-*	-*	0.779	1.275	0.367	0.665
RES	RES0829	0.3	1	1	2	5	0.025	0.064	0.016	0.043	0.009	0.027	0.008	0.025
RES	RES0830	0.3	1	1	2	5	0.041	0.109	0.075	0.167	0.024	0.063	0.017	0.045
RES	RES0831	0.3	1	1	2	5	0.077	0.213	0.088	0.193	0.059	0.137	0.036	0.089
RES	RES0832	0.3	1	1	2	5	0.053	0.142	0.094	0.205	0.031	0.077	0.021	0.056
RES	RES0833	0.3	1	1	2	5	0.036	0.093	0.037	0.091	0.016	0.045	0.013	0.036
RES	RES0834	0.3	1	1	2	5	0.026	0.066	0.018	0.048	0.010	0.029	0.009	0.026
RES	RES0835	0.3	1	1	2	5	0.050	0.133	0.081	0.179	0.028	0.071	0.020	0.053
RES	RES0836	0.3	1	1	2	5	0.055	0.148	0.089	0.195	0.033	0.082	0.023	0.059
RES	RES0837	0.3	1	1	2	5	0.035	0.091	0.036	0.088	0.016	0.044	0.013	0.036
RES	RES0838	0.3	1	1	2	5	0.037	0.096	0.039	0.096	0.017	0.046	0.013	0.037
RES	RES0839	0.3	1	1	2	5	0.072	0.200	0.072	0.162	0.053	0.124	0.034	0.084
RES	RES0840	0.3	1	1	2	5	0.023	0.059	0.014	0.040	0.009	0.026	0.008	0.023
RES	RES0841	0.3	1	1	2	5	0.027	0.068	0.019	0.051	0.011	0.031	0.009	0.027
RES	RES0842	0.3	1	1	2	5	0.044	0.117	0.060	0.139	0.023	0.060	0.017	0.046
RES	RES0843	0.3	1	1	2	5	0.043	0.113	0.056	0.131	0.022	0.057	0.016	0.044
RES	RES0844	0.3	1	1	2	5	0.039	0.102	0.045	0.107	0.019	0.050	0.014	0.040
RES	RES0845	0.3	1	1	2	5	0.042	0.110	0.053	0.124	0.021	0.056	0.016	0.043
RES	RES0846	0.3	1	1	2	5	0.061	0.165	0.067	0.152	0.039	0.096	0.026	0.068
RES	RES0847	0.3	1	1	2	5	0.029	0.075	0.023	0.060	0.012	0.034	0.010	0.029
RES	RES0848	0.3	1	1	2	5	0.030	0.076	0.024	0.062	0.012	0.035	0.010	0.030
RES	RES0849	0.3	1	1	2	5	0.024	0.060	0.015	0.042	0.009	0.027	0.008	0.023

Type	Receptor ID	Criteria					Peak Particle Velocity (mm/s)							
		Human Comfort					Piling		Earthworks		Site setup/laydown		Road Civil Works	
		Non-standard Hours		Standard Hours										
		Lower	Upper	Lower	Upper	Structural Damage	Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
RES	RES0850	0.3	1	1	2	5	0.045	0.119	0.036	0.088	0.024	0.063	0.018	0.049
RES	RES0851	0.3	1	1	2	5	0.034	0.088	0.029	0.073	0.015	0.043	0.012	0.035
RES	RES0852	0.3	1	1	2	5	0.049	0.132	0.028	0.071	0.026	0.067	0.021	0.055
RES	RES0853	0.3	1	1	2	5	0.041	0.107	0.024	0.063	0.020	0.054	0.016	0.044
RES	RES0854	0.3	1	1	2	5	0.020	0.049	0.011	0.031	0.007	0.022	0.006	0.019
RES	RES0855	0.3	1	1	2	5	0.034	0.089	0.023	0.061	0.016	0.044	0.013	0.036
RES	RES0856	0.3	1	1	2	5	0.038	0.098	0.019	0.051	0.017	0.046	0.015	0.041
RES	RES0857	0.3	1	1	2	5	0.036	0.094	0.017	0.046	0.016	0.044	0.014	0.039
RET	RET0001	-	-	1	2	5	0.043	0.115	0.022	0.058	0.000	0.001	0.013	0.036
RET	RET0002	-	-	1	2	5	0.130	0.378	0.220	0.427	0.001	0.003	0.101	0.216
RET	RET0003	-	-	1	2	5	0.123	0.357	0.289	0.540	0.001	0.003	0.082	0.182
RET	RET0004	-	-	1	2	5	0.020	0.049	0.012	0.034	0.006	0.020	0.006	0.018
RET	RET0005	-	-	1	2	5	0.020	0.049	0.012	0.035	0.006	0.020	0.006	0.018
SPO	SPO0001	-	-	1	2	5	0.077	0.213	0.046	0.111	0.001	0.003	0.012	0.034
SPO	SPO0002	-	-	1	2	5	0.079	0.219	0.073	0.164	0.001	0.003	0.068	0.154
SPO	SPO0003	-	-	1	2	5	0.109	0.312	0.239	0.458	0.001	0.003	0.069	0.157

Construction vibration impacts – heritage receptors

Exceedances are highlighted in bold.

Type	Receptor ID	Heritage Inspection ID (Appendix T)[2]	Criteria (mm/s)	Peak Particle Velocity (mm/s)							
			Structural Damage	Piling		Earthworks		Site setup/laydown		Road Civil Works	
				Vibratory, start up	Percussive	Steady state	start up	Steady state	start up	Steady state	start up
HER	HER0001	C2K-19-H13	3	0.058	0.158	-[1]	-[1]	0.000	0.002	0.024	0.062
HER	HER0002		3	0.057	0.155	**5.773**	**7.237**	0.000	0.002	0.023	0.061
HER	HER0003	C2K-19-H6	3	0.073	0.203	-[1]	-[1]	0.026	0.066	1.774	2.603
HER	HER0004	C2K-19-H5	3	**3.138**	**9.347**	-[1]	-[1]	0.187	0.371	1.606	2.388
HER	HER0005	C2K-19-H4	3	0.268	0.824	-[1]	-[1]	**3.001**	**4.105**	0.601	1.019
HER	HER0006	C2K-19-H3	3	0.763	2.499	-[1]	-[1]	-[1]	-[1]	0.018	0.049
HER	HER0007	C2K-19-H2	3	0.246	0.750	-[1]	-[1]	2.535	**3.547**	0.231	0.445
HER	RES0207	C2K-19-H12	3	0.721	2.354	-[1]	-[1]	0.000	0.002	0.722	1.195
HER	RES0421	C2K-19-H11	3	0.202	0.608	-[1]	-[1]	0.016	0.044	0.126	0.263
HER	RES0722	C2K-19-H9	3	0.020	0.051	0.499	0.867	0.054	0.126	0.086	0.189
HER	RES0726	C2K-19-H8	3	0.023	0.058	-[1]	-[1]	0.037	0.090	0.044	0.106
HER	RES0728	C2K-19-H10	3	0.234	0.710	**3.281**	**4.435**	0.095	0.207	0.024	0.063
HER	RES0827	C2K-19-H1	3	0.500	1.603	0.488	0.851	0.823	1.337	0.387	0.696

Table notes:

1 This receptor is within the construction footprint for this activity
2 No evidence of historical structures was identified at C2K-19-H7

Blasting impacts

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
HOT	HOT0001	7942	71189.0	281069.9	3380.0	246357.8
HOT	HOT0002	7936	71083.6	280653.8	3372.5	245810.9
HOT	HOT0003	7917	70746.0	279320.8	3348.5	244061.6
HOT	HOT0004	7901	70469.2	278228.1	3328.9	242631.0
HOT	HOT0005	7872	69952.5	276188.2	3292.3	239967.4
HOT	HOT0006	7858	69701.3	275196.2	3274.6	238675.8
HOT	HOT0007	7834	69269.5	273491.3	3244.2	236461.2
HOT	HOT0008	7811	68862.3	271883.5	3215.7	234379.2
HOT	HOT0009	7789	68468.6	270329.2	3188.1	232372.1
HOT	HOT0010	7772	68177.0	269178.1	3167.8	230889.5
HOT	HOT0011	7935	71075.4	280621.3	3371.9	245768.2
HOT	HOT0012	7917	70751.9	279344.0	3348.9	244092.1
HOT	HOT0013	7893	70312.5	277609.4	3317.8	241822.1
HOT	HOT0014	7875	70003.7	276390.3	3296.0	240230.9
HOT	HOT0015	7850	69557.0	274626.4	3264.5	237934.9
HOT	HOT0016	7826	69134.1	272956.7	3234.7	235768.2
HOT	HOT0017	7810	68852.0	271843.2	3215.0	234327.0
HOT	HOT0018	7792	68528.6	270565.9	3192.3	232677.5
HOT	HOT0019	7775	68239.2	269423.3	3172.1	231205.1
HOT	HOT0020	7752	67822.7	267779.3	3143.1	229092.1
HOT	HOT0021	7735	67526.1	266608.1	3122.5	227590.8
HOT	HOT0022	7711	67113.1	264977.5	3093.9	225506.0
IND	IND0001	31508	8378121.6	19926643.6	2288708.7	15385027.3
IND	IND0002	31868	8570664.1	20384589.5	2368057.5	15918421.4
IND	IND0003	30712	7960102.3	18932420.7	2119573.6	14248077.2
IND	IND0004	22947	4443672.1	10568893.0	884063.7	5942802.5
IND	IND0005	22763	4372732.8	10400170.0	862978.4	5801064.6
IND	IND0006	20784	3645564.5	8670662.4	656927.9	4415963.3
IND	IND0007	10489	928386.8	2208088.4	84423.6	567507.7
IND	IND0008	9456	754651.7	1794874.3	61871.5	415908.8
IND	IND0009	10461	923524.9	2196524.8	83761.3	563055.5
IND	IND0010	9964	837904.5	1992883.9	72387.3	486597.7
IND	IND0011	6917	403714.4	960200.1	24209.3	162738.3
IND	IND0012	4336	158668.4	377379.2	5964.9	40097.2
RES	RES0001	34169	1317773.9	5202864.1	269191.2	19620425.1
RES	RES0002	34077	1310710.4	5174975.6	267029.7	19462882.0
RES	RES0003	33931	1299495.4	5130696.5	263609.9	19213619.3
RES	RES0004	33884	1295867.4	5116372.3	262506.7	19133212.8
RES	RES0005	33767	1286979.2	5081279.6	259810.6	18936701.1
RES	RES0006	33586	1273204.0	5026892.3	255650.4	18633483.5
RES	RES0007	33374	1257204.1	4963721.0	250846.6	18283348.2

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0008	33345	1254997.6	4955009.1	250186.5	18235235.2
RES	RES0009	32946	1225172.8	4837254.1	241321.2	17589076.7
RES	RES0010	32888	1220811.0	4820032.8	240033.7	17495230.9
RES	RES0011	32801	1214405.1	4794740.9	238146.9	17357709.0
RES	RES0012	32605	1199905.9	4737495.0	233894.7	17047780.2
RES	RES0013	32692	1206303.1	4762752.3	235767.6	17184293.7
RES	RES0014	33241	1247173.7	4924118.7	247850.6	18064979.1
RES	RES0015	32901	1221783.8	4823873.9	240320.6	17516148.1
RES	RES0016	33073	1234606.7	4874501.3	244113.9	17792623.0
RES	RES0017	32222	1171910.7	4626963.8	225757.0	16454657.4
RES	RES0018	32739	1209781.6	4776486.4	236788.2	17258677.1
RES	RES0019	31869	1146352.8	4526055.6	218412.2	15919320.0
RES	RES0020	32297	1177350.6	4648441.6	227330.8	16569360.8
RES	RES0021	32558	1196463.7	4723904.5	232888.9	16974474.8
RES	RES0022	32310	1178262.1	4652040.5	227594.8	16588606.9
RES	RES0023	32003	1156013.3	4564197.1	221178.9	16120974.0
RES	RES0024	32022	1157386.3	4569618.2	221573.1	16149703.8
RES	RES0025	31974	1153890.3	4555814.9	220569.9	16076584.9
RES	RES0026	31946	1151891.9	4547924.8	219997.2	16034839.0
RES	RES0027	32092	1162466.4	4589675.4	223033.5	16256147.9
RES	RES0028	32015	1156894.8	4567677.4	221432.0	16139416.5
RES	RES0029	31949	1152115.4	4548807.4	220061.2	16039506.8
RES	RES0030	32323	1179239.7	4655900.1	227878.1	16609255.8
RES	RES0031	30519	1051309.5	4150803.4	191820.7	13981151.5
RES	RES0032	31916	1149758.3	4539500.9	219386.2	15990308.8
RES	RES0033	30720	1065182.1	4205575.5	195629.9	14258795.4
RES	RES0034	32064	1160424.4	4581613.1	222446.1	16213333.0
RES	RES0035	31829	1143448.2	4514587.5	217582.7	15858853.8
RES	RES0036	31732	1136525.2	4487253.7	215609.6	15715045.0
RES	RES0037	31578	1125506.3	4443748.9	212481.6	15487059.1
RES	RES0038	31532	1122243.8	4430867.8	211558.4	15419769.2
RES	RES0039	31688	1133354.2	4474733.8	214707.9	15649321.0
RES	RES0040	31707	1134713.7	4480101.5	215094.3	15677487.9
RES	RES0041	30032	1018032.2	4019417.3	182785.5	13322610.7
RES	RES0042	31153	1095421.3	4324966.6	204019.3	14870269.1
RES	RES0043	31113	1092575.0	4313728.7	203224.7	14812348.9
RES	RES0044	31048	1088035.7	4295806.4	201959.5	14720132.9
RES	RES0045	30315	1037260.8	4095336.0	187988.6	13701843.2
RES	RES0046	30159	1026640.0	4053402.7	185108.7	13491937.4
RES	RES0047	30213	1030312.9	4067904.1	186102.9	13564405.2
RES	RES0048	33729	1284053.9	5069729.8	258925.2	18872172.8
RES	RES0049	33800	1289472.9	5091125.5	260566.1	18991767.7
RES	RES0050	33711	1282698.9	5064380.0	258515.5	18842308.5
RES	RES0051	33666	1279291.8	5050928.1	257486.2	18767285.9

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0052	33741	1284998.1	5073457.6	259210.9	18892992.2
RES	RES0053	33642	1277453.4	5043669.5	256931.3	18726845.3
RES	RES0054	33607	1274773.9	5033090.4	256123.4	18667956.5
RES	RES0055	33633	1276762.2	5040940.8	256722.9	18711650.2
RES	RES0056	33588	1273355.7	5027491.0	255696.1	18636812.5
RES	RES0057	33541	1269779.5	5013371.2	254619.7	18558355.3
RES	RES0058	33691	1281177.3	5058372.6	258055.7	18808792.2
RES	RES0059	33571	1272067.0	5022403.1	255308.1	18608528.7
RES	RES0060	33611	1275062.2	5034228.9	256210.3	18674291.0
RES	RES0061	33488	1265784.8	4997599.3	253419.1	18470848.1
RES	RES0062	33634	1276830.8	5041211.3	256743.5	18713156.3
RES	RES0063	33572	1272104.9	5022552.7	255319.5	18609360.2
RES	RES0064	33593	1273757.6	5029077.9	255817.2	18645637.6
RES	RES0065	33598	1274106.3	5030454.6	255922.2	18653294.3
RES	RES0066	33338	1254485.7	4952988.1	250033.4	18224080.1
RES	RES0067	33418	1260528.6	4976846.8	251842.2	18355917.7
RES	RES0068	33233	1246566.1	4921719.9	247669.5	18051780.1
RES	RES0069	33401	1259224.1	4971696.3	251451.4	18327430.2
RES	RES0070	33377	1257407.5	4964523.9	250907.5	18287784.7
RES	RES0071	33357	1255931.0	4958694.5	250465.7	18255583.6
RES	RES0072	33317	1252905.8	4946750.2	249561.2	18189663.3
RES	RES0073	33502	1266828.3	5001719.3	253732.5	18493693.6
RES	RES0074	33320	1253101.5	4947522.8	249619.7	18193924.6
RES	RES0075	33251	1247931.8	4927112.0	248076.6	18081453.4
RES	RES0076	33371	1256985.5	4962857.7	250781.2	18278578.7
RES	RES0077	33228	1246168.5	4920150.0	247551.0	18043143.5
RES	RES0078	33206	1244533.8	4913695.8	247064.1	18007652.1
RES	RES0079	33360	1256096.9	4959349.5	250515.3	18259200.9
RES	RES0080	33337	1254395.5	4952631.8	250006.5	18222113.5
RES	RES0081	33173	1242069.0	4903964.2	246330.4	17954182.1
RES	RES0082	33139	1239509.3	4893858.0	245569.4	17898710.2
RES	RES0083	33102	1236780.3	4883083.4	244758.8	17839632.5
RES	RES0084	33026	1231070.5	4860539.6	243065.8	17716234.3
RES	RES0085	33133	1239090.3	4892203.7	245444.9	17889635.2
RES	RES0086	32787	1213316.9	4790444.5	237826.9	17334384.0
RES	RES0087	32911	1222563.8	4826953.4	240550.8	17532923.8
RES	RES0088	32837	1217020.4	4805066.7	238916.6	17413810.5
RES	RES0089	31967	1153392.3	4553848.7	220427.1	16066178.5
RES	RES0090	32784	1213094.9	4789567.9	237761.6	17329626.1
RES	RES0091	32684	1205757.1	4760596.9	235607.6	17172629.4
RES	RES0092	32563	1196846.0	4725413.9	233000.5	16982611.1
RES	RES0093	33023	1230884.1	4859803.7	243010.6	17712211.3
RES	RES0094	31889	1147770.5	4531652.7	218817.5	15948858.9
RES	RES0095	31842	1144389.6	4518304.3	217851.4	15878442.8

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0096	31467	1117643.2	4412703.4	210258.8	15325046.5
RES	RES0097	31182	1097447.7	4332967.1	204585.7	14911549.7
RES	RES0098	31989	1155023.8	4560290.5	220895.0	16100280.6
RES	RES0099	31498	1119817.9	4421289.6	210872.8	15369797.3
RES	RES0100	31619	1128416.5	4455239.0	213306.3	15547164.8
RES	RES0101	30392	1042530.0	4116139.9	189422.8	13806381.8
RES	RES0102	30762	1068089.8	4217055.7	196431.5	14317219.6
RES	RES0103	29753	999164.9	3944924.7	177727.7	12953966.4
RES	RES0104	30025	1017530.6	4017436.7	182650.4	13312764.6
RES	RES0105	29449	978871.0	3864800.2	172340.7	12561319.6
RES	RES0106	28943	945528.3	3733155.5	163610.5	11925011.5
RES	RES0107	29540	984930.0	3888722.2	173943.2	12678126.2
RES	RES0108	29443	978472.2	3863225.6	172235.3	12553643.4
RES	RES0109	29599	988834.9	3904139.6	174978.7	12753597.1
RES	RES0110	29632	991034.4	3912823.7	175562.8	12796173.3
RES	RES0111	29717	996781.9	3935516.4	177092.3	12907653.0
RES	RES0112	29515	983223.6	3881985.2	173491.4	12645193.9
RES	RES0113	28180	896346.2	3538973.6	151012.6	11006790.0
RES	RES0114	28378	908973.3	3588828.3	154214.8	11240191.3
RES	RES0115	28267	901870.0	3560783.0	152410.7	11108692.6
RES	RES0116	28258	901283.1	3558465.7	152261.9	11097850.6
RES	RES0117	28202	897708.1	3544350.7	151356.9	11031885.0
RES	RES0118	27992	884426.5	3491912.0	148010.4	10787967.5
RES	RES0119	28012	885659.1	3496778.8	148319.9	10810528.4
RES	RES0120	28008	885387.2	3495705.1	148251.6	10805549.8
RES	RES0121	28020	886139.7	3498676.4	148440.6	10819329.5
RES	RES0122	28014	885798.2	3497327.9	148354.8	10813074.8
RES	RES0123	27957	882165.6	3482985.8	147443.2	10746628.7
RES	RES0124	27549	856629.7	3382164.2	141087.7	10283399.8
RES	RES0125	28018	886063.9	3498376.9	148421.6	10817940.4
RES	RES0126	28018	886044.8	3498301.8	148416.8	10817592.0
RES	RES0127	27495	853280.9	3368942.5	140261.2	10223158.5
RES	RES0128	27096	828689.4	3271849.9	134241.6	9784412.5
RES	RES0129	27100	828934.1	3272816.0	134301.1	9788746.4
RES	RES0130	26705	804921.6	3178009.2	128507.9	9366501.7
RES	RES0131	27604	860053.5	3395682.3	141934.4	10345113.5
RES	RES0132	27013	823602.0	3251763.7	133007.3	9694449.5
RES	RES0133	26961	820428.1	3239232.4	132239.2	9638464.3
RES	RES0134	27472	851860.1	3363333.0	139911.0	10197635.5
RES	RES0135	26702	804746.8	3177318.9	128466.1	9363450.1
RES	RES0136	27359	844866.7	3335721.4	138191.7	10072316.1
RES	RES0137	27416	848366.1	3349537.8	139051.1	10134959.3
RES	RES0138	26899	816683.4	3224447.3	131334.9	9572549.2
RES	RES0139	27262	838892.8	3312134.9	136728.5	9965675.0

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0140	26831	812577.7	3208237.2	130345.7	9500454.6
RES	RES0141	27155	832320.7	3286186.8	135124.9	9848794.0
RES	RES0142	27458	850967.4	3359808.4	139691.2	10181609.9
RES	RES0143	27279	839908.5	3316145.4	136977.0	9983780.5
RES	RES0144	27112	829643.9	3275618.3	134473.6	9801321.4
RES	RES0145	26748	807534.0	3188323.7	129134.0	9412138.2
RES	RES0146	27208	835548.2	3298929.8	135911.7	9906136.1
RES	RES0147	26685	803734.5	3173322.3	128223.7	9345788.8
RES	RES0148	27090	828304.1	3270328.5	134148.0	9777588.4
RES	RES0149	27144	831652.6	3283549.1	134962.3	9836938.6
RES	RES0150	27026	824419.4	3254990.7	133205.4	9708884.2
RES	RES0151	26612	799337.1	3155960.3	127172.9	9269194.5
RES	RES0152	26963	820592.5	3239881.5	132279.0	9641361.6
RES	RES0153	26520	793831.8	3134224.1	125861.3	9173599.2
RES	RES0154	26930	818585.1	3231955.8	131793.9	9606005.1
RES	RES0155	26480	791438.9	3124776.6	125292.7	9132152.3
RES	RES0156	26798	810549.9	3200230.9	129858.1	9464913.9
RES	RES0157	26481	791492.7	3124989.1	125305.4	9133083.9
RES	RES0158	26517	793622.3	3133396.9	125811.5	9169967.6
RES	RES0159	26218	775872.8	3063318.1	121614.5	8864062.9
RES	RES0160	26255	778022.6	3071806.2	122120.3	8900930.3
RES	RES0161	26558	796114.3	3143236.1	126404.5	9213193.4
RES	RES0162	26722	805970.9	3182152.1	128759.3	9384822.9
RES	RES0163	26318	781790.7	3086683.2	123008.5	8965670.7
RES	RES0164	26367	784698.6	3098164.3	123695.5	9015739.6
RES	RES0165	26445	789348.1	3116521.7	124796.5	9095988.8
RES	RES0166	25913	757885.2	2992298.9	117409.9	8557603.4
RES	RES0167	26445	789318.3	3116403.8	124789.4	9095472.9
RES	RES0168	26747	807461.5	3188037.3	129116.7	9410870.2
RES	RES0169	26434	788673.6	3113858.7	124636.6	9084332.8
RES	RES0170	26435	788745.3	3114141.7	124653.6	9085571.2
RES	RES0171	26312	781404.6	3085158.7	122917.4	8959029.3
RES	RES0172	26247	777554.5	3069957.7	122010.1	8892897.5
RES	RES0173	26183	773802.7	3055144.8	121128.1	8828611.1
RES	RES0174	25919	758259.6	2993777.3	117496.9	8563946.2
RES	RES0175	25575	738242.6	2914745.9	112875.1	8227080.2
RES	RES0176	26222	776068.1	3064089.0	121660.4	8867409.2
RES	RES0177	25984	762085.2	3008881.5	118387.2	8628837.8
RES	RES0178	26081	767791.4	3031411.0	119719.4	8725934.0
RES	RES0179	25940	759465.4	2998537.9	117777.3	8584381.5
RES	RES0180	25969	761176.3	3005292.9	118175.5	8613405.4
RES	RES0181	25980	761832.9	3007885.5	118328.4	8624554.0
RES	RES0182	25832	753148.6	2973598.0	116310.9	8477505.5
RES	RES0183	25607	740114.4	2922135.9	113304.7	8258388.5

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0184	25504	734160.9	2898630.3	111940.3	8158943.5
RES	RES0185	25388	727514.8	2872389.9	110423.7	8048404.3
RES	RES0186	25848	754122.7	2977443.9	116536.7	8493957.4
RES	RES0187	25299	722434.5	2852331.8	109269.1	7964247.7
RES	RES0188	25483	732940.8	2893813.0	111661.3	8138612.9
RES	RES0189	25388	727497.7	2872322.3	110419.8	8048120.1
RES	RES0190	25312	723154.3	2855173.6	109432.4	7976152.7
RES	RES0191	25526	735422.2	2903610.1	112228.9	8179978.2
RES	RES0192	25147	713785.4	2818183.1	107312.7	7821652.1
RES	RES0193	24972	703885.5	2779096.3	105087.9	7659493.8
RES	RES0194	24930	701514.2	2769733.9	104557.3	7620820.9
RES	RES0195	29966	1013528.8	4001636.8	181574.0	13234306.8
RES	RES0196	28617	924316.1	3649405.2	158135.8	11525978.9
RES	RES0197	28767	934031.5	3687763.6	160635.6	11708177.6
RES	RES0198	27977	883459.9	3488095.7	147767.8	10770286.9
RES	RES0199	28119	892469.8	3523669.1	150034.1	10935467.9
RES	RES0200	27530	855467.2	3377574.4	140800.6	10262474.0
RES	RES0201	28051	888152.3	3506622.5	148946.6	10856209.6
RES	RES0202	27830	874187.8	3451487.6	145447.6	10601178.8
RES	RES0203	25422	729459.0	2880066.0	110866.6	8080688.1
RES	RES0204	25214	717559.8	2833085.3	108165.0	7883773.8
RES	RES0205	25631	741479.2	2927524.5	113618.2	8281242.5
RES	RES0206	25525	735353.1	2903337.3	112213.1	8178825.3
RES	RES0207	25347	725155.5	2863075.0	109887.0	8009285.5
RES	RES0208	25848	754087.7	2977305.8	116528.5	8493366.3
RES	RES0209	25929	758839.0	2996064.8	117631.6	8573763.5
RES	RES0210	25580	738554.5	2915977.0	112946.6	8232293.1
RES	RES0211	25632	741577.6	2927913.2	113640.8	8282891.5
RES	RES0212	25766	749339.8	2958559.9	115429.7	8413278.1
RES	RES0213	25723	746858.3	2948762.3	114856.8	8371520.3
RES	RES0214	25248	719513.3	2840798.3	108607.0	7915990.9
RES	RES0215	25409	728707.4	2877098.6	110695.3	8068203.0
RES	RES0216	25256	719958.0	2842554.0	108707.7	7923330.5
RES	RES0217	25571	738017.5	2913856.9	112823.5	8223316.7
RES	RES0218	25597	739507.5	2919740.0	113165.3	8248233.7
RES	RES0219	25645	742289.4	2930723.6	113804.5	8294820.1
RES	RES0220	24935	701789.9	2770822.4	104618.9	7625314.0
RES	RES0221	25190	716222.8	2827806.7	107862.8	7861750.6
RES	RES0222	25092	710660.9	2805847.0	106608.8	7770351.4
RES	RES0223	24856	697333.4	2753226.9	103624.0	7552795.1
RES	RES0224	25525	735405.0	2903542.2	112224.9	8179690.9
RES	RES0225	24946	702375.5	2773134.3	104749.9	7634859.4
RES	RES0226	23993	649772.7	2565446.8	93205.5	6793431.5
RES	RES0227	23874	643337.8	2540040.5	91824.4	6692766.0

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0228	23641	630852.5	2490745.8	89164.4	6498884.2
RES	RES0229	24004	650363.1	2567777.9	93332.6	6802693.0
RES	RES0230	23413	618732.5	2442893.5	86607.2	6312501.4
RES	RES0231	23787	638641.5	2521498.5	90820.8	6619615.5
RES	RES0232	23127	603714.1	2383597.4	83473.1	6084067.9
RES	RES0233	22645	578791.7	2285198.0	78357.9	5711240.5
RES	RES0234	21253	509801.9	2012811.3	64774.2	4721166.1
RES	RES0235	21948	543705.2	2146668.7	71341.9	5199867.0
RES	RES0236	20857	490980.6	1938500.3	61220.4	4462143.1
RES	RES0237	21727	532835.3	2103752.1	69213.2	5044713.8
RES	RES0238	21350	514485.5	2031303.0	65668.8	4786375.5
RES	RES0239	21456	519592.4	2051466.0	66649.0	4857817.2
RES	RES0240	21461	519829.7	2052403.2	66694.7	4861146.5
RES	RES0241	21389	516352.3	2038673.7	66026.6	4812450.3
RES	RES0242	21571	525196.7	2073593.2	67730.2	4936623.9
RES	RES0243	21358	514871.1	2032825.6	65742.7	4791758.0
RES	RES0244	21004	497963.9	1966072.2	62531.1	4557680.6
RES	RES0245	21044	499852.8	1973529.9	62887.3	4583637.3
RES	RES0246	27323	842626.4	3326875.9	137642.3	10032279.0
RES	RES0247	26110	769470.3	3038039.7	120112.3	8754570.6
RES	RES0248	25741	747869.0	2952753.0	115090.1	8388520.4
RES	RES0249	25590	739126.3	2918234.6	113077.8	8241855.4
RES	RES0250	25218	717781.7	2833961.4	108215.1	7887431.2
RES	RES0251	25482	732923.6	2893745.2	111657.4	8138326.6
RES	RES0252	25479	732716.5	2892927.3	111610.1	8134876.4
RES	RES0253	25563	737561.6	2912057.1	112719.0	8215698.8
RES	RES0254	25003	705634.2	2786000.3	105479.7	7688054.1
RES	RES0255	24844	696677.0	2750635.3	103477.7	7542133.4
RES	RES0256	25160	714483.7	2820940.3	107470.2	7833133.7
RES	RES0257	25076	709760.5	2802292.1	106406.3	7755589.1
RES	RES0258	25086	710315.3	2804482.6	106531.1	7764684.3
RES	RES0259	25168	714943.9	2822757.3	107574.0	7840703.0
RES	RES0260	24970	703767.1	2778629.0	105061.4	7657562.0
RES	RES0261	24316	667368.5	2634919.1	97017.1	7071240.5
RES	RES0262	24272	664966.4	2625435.0	96493.7	7033096.7
RES	RES0263	24710	689193.2	2721087.9	101814.8	7420933.7
RES	RES0264	24946	702420.6	2773312.4	104760.0	7635594.7
RES	RES0265	23269	611150.4	2412957.5	85020.1	6196824.6
RES	RES0266	23828	640845.0	2530198.3	91291.2	6653904.0
RES	RES0267	23867	642939.1	2538466.4	91739.1	6686545.9
RES	RES0268	23275	611455.1	2414160.3	85083.7	6201458.6
RES	RES0269	23081	601273.2	2373960.2	82967.4	6047207.1
RES	RES0270	23598	628538.4	2481609.3	88674.2	6463158.3
RES	RES0271	22545	573716.5	2265160.2	77329.6	5636286.5

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0272	23131	603896.9	2384318.9	83511.0	6086830.5
RES	RES0273	22586	575789.7	2273345.7	77749.1	5666865.7
RES	RES0274	22961	595068.3	2349461.7	81686.4	5953841.3
RES	RES0275	23141	604445.3	2386484.1	83624.8	6095123.4
RES	RES0276	22827	588112.1	2321997.0	80258.2	5849748.3
RES	RES0277	22209	556733.4	2198106.9	73921.4	5387879.9
RES	RES0278	22945	594208.2	2346065.9	81509.4	5940937.7
RES	RES0279	23242	609738.2	2407381.8	84725.6	6175358.0
RES	RES0280	22013	546935.3	2159422.1	71978.6	5246274.5
RES	RES0281	21791	535964.2	2116105.6	69823.7	5089213.7
RES	RES0282	21523	522852.3	2064336.9	67277.2	4903605.9
RES	RES0283	20255	463087.6	1828372.5	56078.2	4087348.8
RES	RES0284	20733	485187.8	1915629.3	60140.1	4383408.1
RES	RES0285	20352	467515.1	1845853.4	56884.4	4146106.8
RES	RES0286	20107	456326.8	1801679.6	54854.7	3998168.0
RES	RES0287	19869	445583.5	1759262.6	52928.9	3857808.8
RES	RES0288	18784	398247.4	1572369.3	44722.8	3259691.7
RES	RES0289	18486	385724.0	1522924.1	42629.9	3107149.1
RES	RES0290	18486	385724.0	1522924.1	42629.9	3107149.1
RES	RES0291	18486	385724.0	1522924.1	42629.9	3107149.1
RES	RES0292	17731	354860.5	1401068.0	37617.2	2741785.9
RES	RES0293	17818	358355.4	1414866.9	38174.3	2782390.4
RES	RES0294	19101	411806.9	1625905.2	47026.2	3427579.3
RES	RES0295	18404	382288.9	1509361.5	42061.7	3065734.8
RES	RES0296	18012	366180.9	1445763.6	39431.5	2874025.4
RES	RES0297	17991	365339.7	1442442.2	39295.7	2864127.4
RES	RES0298	18002	365798.8	1444254.9	39369.8	2869527.9
RES	RES0299	17807	357880.9	1412993.4	38098.5	2776865.8
RES	RES0300	19007	407780.9	1610009.6	46338.3	3377437.9
RES	RES0301	17774	356579.7	1407856.0	37890.9	2761735.2
RES	RES0302	17629	350761.7	1384885.1	36967.3	2694419.9
RES	RES0303	17355	339977.9	1342308.3	35275.7	2571124.5
RES	RES0304	18843	400744.6	1582228.6	45144.1	3290398.9
RES	RES0305	17664	352187.8	1390515.7	37193.0	2710869.2
RES	RES0306	17712	354108.4	1398098.8	37497.6	2733074.5
RES	RES0307	18147	371690.6	1467517.0	40324.8	2939134.2
RES	RES0308	17979	364860.7	1440550.9	39218.4	2858496.1
RES	RES0309	18077	368849.0	1456297.7	39863.2	2905493.8
RES	RES0310	18188	373384.3	1474204.2	40600.7	2959246.7
RES	RES0311	17128	331134.8	1307393.8	33908.4	2471464.2
RES	RES0312	17415	342332.7	1351605.5	35642.8	2597883.0
RES	RES0313	17629	350785.6	1384979.3	36971.1	2694694.9
RES	RES0314	17930	362862.4	1432661.5	38896.7	2835045.8
RES	RES0315	18992	407107.5	1607350.7	46223.5	3369075.0

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0316	18494	386066.4	1524275.7	42686.7	3111286.3
RES	RES0317	18010	366087.4	1445394.2	39416.4	2872924.2
RES	RES0318	16803	318691.6	1258265.3	32015.1	2333474.2
RES	RES0319	17053	328237.4	1295954.2	33464.3	2439097.7
RES	RES0320	16533	308524.7	1218124.2	30495.4	2222706.1
RES	RES0321	16765	317232.9	1252506.0	31795.6	2317471.5
RES	RES0322	16243	297785.3	1175722.4	28917.1	2107666.4
RES	RES0323	17004	326350.0	1288502.3	33176.1	2418090.2
RES	RES0324	16078	291784.1	1152028.6	28047.4	2044276.2
RES	RES0325	16013	289422.5	1142704.2	27707.5	2019507.3
RES	RES0326	16230	297301.5	1173812.2	28846.6	2102532.0
RES	RES0327	16376	302700.4	1195128.4	29636.0	2160063.6
RES	RES0328	15121	258069.5	1018915.8	23329.5	1700404.2
RES	RES0329	14848	248851.8	982522.1	22090.8	1610119.9
RES	RES0330	16673	313779.5	1238871.3	31277.8	2279732.9
RES	RES0331	15271	263228.8	1039285.9	24032.5	1751649.5
RES	RES0332	15602	274738.6	1084729.0	25625.9	1867783.7
RES	RES0333	16615	311581.5	1230193.1	30949.7	2255820.9
RES	RES0334	16252	298133.7	1177098.1	28967.8	2111366.8
RES	RES0335	16080	291849.5	1152286.5	28056.8	2044962.8
RES	RES0336	15361	266344.1	1051585.6	24460.4	1782837.0
RES	RES0337	15520	271854.7	1073342.8	25223.5	1838452.4
RES	RES0338	15631	275771.5	1088807.2	25770.5	1878326.9
RES	RES0339	16657	313166.3	1236450.1	31186.2	2273053.0
RES	RES0340	16689	314382.0	1241250.1	31367.9	2286302.2
RES	RES0341	17014	326730.2	1290003.2	33234.1	2422316.4
RES	RES0342	15816	282345.1	1114761.1	26697.5	1945885.9
RES	RES0343	14695	243749.8	962378.4	21414.9	1560858.3
RES	RES0344	16926	323359.0	1276693.3	32721.0	2384924.0
RES	RES0345	16852	320541.6	1265569.2	32294.3	2353821.7
RES	RES0346	17030	327345.0	1292430.6	33327.9	2429156.7
RES	RES0347	14786	246754.6	974241.9	21812.1	1589808.8
RES	RES0348	16181	295516.3	1166763.9	28587.2	2083623.1
RES	RES0349	16373	302563.6	1194588.4	29615.9	2158599.8
RES	RES0350	16789	318134.2	1256064.5	31931.2	2327354.9
RES	RES0351	14665	242745.7	958413.8	21282.7	1551223.1
RES	RES0352	15387	267215.2	1055024.9	24580.5	1791590.4
RES	RES0353	16335	301182.9	1189137.1	29413.4	2143841.1
RES	RES0354	16519	307983.8	1215988.5	30415.2	2216863.1
RES	RES0355	16526	308259.8	1217078.3	30456.1	2219844.0
RES	RES0356	16700	314796.6	1242886.9	31430.0	2290825.9
RES	RES0357	16606	311244.1	1228860.7	30899.5	2252157.1
RES	RES0358	16764	317187.5	1252326.5	31788.8	2316973.4
RES	RES0359	16820	319317.8	1260737.6	32109.6	2340355.0

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0360	15300	264233.0	1043250.5	24170.2	1761682.3
RES	RES0361	15911	285729.1	1128122.1	27178.9	1980974.3
RES	RES0362	15061	256039.1	1010899.3	23054.7	1680376.4
RES	RES0363	15700	278211.6	1098441.2	26113.3	1903311.6
RES	RES0364	15557	273177.1	1078563.9	25407.7	1851882.9
RES	RES0365	16056	290964.5	1148792.3	27929.3	2035668.0
RES	RES0366	14869	249536.0	985223.7	22181.9	1616765.2
RES	RES0367	15506	271385.5	1071490.1	25158.2	1833694.2
RES	RES0368	14952	252339.8	996293.7	22556.8	1644090.6
RES	RES0369	15090	257002.2	1014701.8	23184.9	1689866.3
RES	RES0370	14952	252343.2	996307.1	22557.3	1644123.8
RES	RES0371	14952	252343.2	996307.1	22557.3	1644123.8
RES	RES0372	14330	231782.1	915127.1	19857.3	1447327.6
RES	RES0373	13238	197811.9	781005.4	15655.9	1141105.3
RES	RES0374	13113	194094.0	766326.2	15216.6	1109085.9
RES	RES0375	13398	202610.2	799950.2	16229.0	1182875.7
RES	RES0376	13806	215150.5	849462.0	17758.8	1294376.4
RES	RES0377	13258	198392.1	783296.0	15724.8	1146129.2
RES	RES0378	13865	216968.2	856638.7	17984.3	1310814.4
RES	RES0379	13513	206109.4	813765.8	16651.2	1213651.0
RES	RES0380	13119	194256.8	766969.1	15235.8	1110482.0
RES	RES0381	13607	208974.6	825078.0	16999.6	1239045.3
RES	RES0382	13844	216311.4	854045.6	17902.7	1304867.1
RES	RES0383	13301	199699.1	788456.5	15880.5	1157474.2
RES	RES0384	13779	214300.5	846105.8	17653.6	1286713.1
RES	RES0385	13398	202619.3	799986.0	16230.1	1182955.1
RES	RES0386	13594	208572.4	823490.1	16950.6	1235470.2
RES	RES0387	12673	181278.9	715729.2	13734.7	1001077.6
RES	RES0388	12556	177930.1	702507.6	13355.9	973467.0
RES	RES0389	14200	227602.2	898624.0	19322.5	1408353.7
RES	RES0390	14935	251776.5	994069.5	22481.3	1638588.2
RES	RES0391	14356	232627.2	918463.8	19966.0	1455250.4
RES	RES0392	14384	233522.5	921998.6	20081.3	1463659.6
RES	RES0393	14483	236757.9	934772.8	20500.1	1494182.9
RES	RES0394	14626	241446.4	953283.9	21112.1	1538785.5
RES	RES0395	13695	211692.5	835809.1	17332.4	1263296.6
RES	RES0396	14203	227672.7	898902.5	19331.5	1409008.4
RES	RES0397	14138	225619.1	890794.2	19070.6	1389987.1
RES	RES0398	14420	234712.4	926696.8	20235.0	1474861.2
RES	RES0399	14259	229491.0	906081.4	19563.6	1425921.2
RES	RES0400	13694	211646.2	835626.0	17326.7	1262881.5
RES	RES0401	14296	230667.4	910726.1	19714.2	1436899.3
RES	RES0402	12674	181293.2	715785.6	13736.4	1001196.1
RES	RES0403	13221	197301.2	778989.0	15595.3	1136689.0

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0404	13012	191092.1	754474.2	14865.0	1083456.0
RES	RES0405	11584	151449.7	597957.2	10488.2	764451.3
RES	RES0406	11758	156044.5	616098.2	10969.1	799502.0
RES	RES0407	12796	184817.7	729701.2	14138.9	1030533.9
RES	RES0408	13186	196252.0	774846.6	15471.1	1127634.3
RES	RES0409	12625	179914.0	710340.2	13579.9	989792.8
RES	RES0410	11995	162393.1	641163.8	11645.3	848786.0
RES	RES0411	12064	164280.4	648615.4	11848.9	863625.7
RES	RES0412	12528	177145.9	699411.3	13267.7	967038.2
RES	RES0413	12995	190604.9	752550.4	14808.1	1079314.6
RES	RES0414	11074	138412.3	546482.6	9163.5	667896.6
RES	RES0415	11639	152909.7	603721.6	10640.3	775532.1
RES	RES0416	11099	139040.5	548962.8	9226.0	672448.6
RES	RES0417	10983	136146.8	537538.0	8939.5	651566.0
RES	RES0418	11655	153325.2	605361.8	10683.6	778694.6
RES	RES0419	12712	182381.9	720084.4	13860.3	1010229.0
RES	RES0420	10938	135048.3	533200.6	8831.5	643695.8
RES	RES0421	11812	157475.7	621749.1	11120.4	810526.9
RES	RES0422	10920	134584.4	531369.3	8786.0	640382.3
RES	RES0423	10896	133991.0	529026.4	8728.0	636151.7
RES	RES0424	11767	156280.8	617031.3	10994.1	801319.0
RES	RES0425	12864	186769.7	737408.3	14363.5	1046903.7
RES	RES0426	11226	142243.2	561607.7	9546.6	695815.8
RES	RES0427	11071	138344.8	546216.1	9156.8	667408.1
RES	RES0428	12721	182640.3	721104.5	13889.7	1012376.3
RES	RES0429	11616	152292.9	601286.2	10575.9	770844.1
RES	RES0430	12061	164193.2	648271.3	11839.5	862938.6
RES	RES0431	12125	165945.9	655191.1	12029.5	876792.2
RES	RES0432	11687	154176.2	608721.8	10772.7	785186.8
RES	RES0433	11370	145910.7	576087.8	9918.1	722899.1
RES	RES0434	11534	150160.7	592868.0	10354.6	754712.7
RES	RES0435	10282	119326.4	471127.2	7335.1	534628.4
RES	RES0436	10627	127478.1	503311.8	8099.4	590337.4
RES	RES0437	10134	115925.1	457698.1	7023.7	511933.3
RES	RES0438	11393	146499.0	578410.7	9978.2	727275.9
RES	RES0439	11256	142996.9	564583.3	9622.5	701353.2
RES	RES0440	10808	131835.4	520515.3	8518.2	620861.8
RES	RES0441	10847	132805.7	524346.4	8612.4	627729.0
RES	RES0442	10783	131226.1	518110.0	8459.2	616563.2
RES	RES0443	10713	129544.8	511471.5	8297.2	604751.4
RES	RES0444	10455	123380.4	487133.2	7712.0	562103.5
RES	RES0445	10724	129808.5	512512.8	8322.5	606599.0
RES	RES0446	10761	130691.2	515997.9	8407.5	612796.9
RES	RES0447	10246	118499.2	467861.3	7258.9	529078.8

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0448	10777	131089.9	517572.0	8446.0	615603.1
RES	RES0449	10542	125432.8	495236.4	7905.3	576187.1
RES	RES0450	10199	117410.0	463560.8	7159.1	521800.8
RES	RES0451	10247	118510.8	467907.0	7260.0	529156.3
RES	RES0452	10178	116924.7	461644.8	7114.7	518569.0
RES	RES0453	10076	114592.9	452438.3	6903.0	503134.0
RES	RES0454	9756	107419.7	424117.0	6265.1	456639.2
RES	RES0455	9872	109998.2	434297.3	6492.0	473178.9
RES	RES0456	9934	111376.8	439740.3	6614.4	482102.2
RES	RES0457	9543	102785.6	405820.3	5864.1	427410.6
RES	RES0458	9840	109293.8	431516.1	6429.7	468640.9
RES	RES0459	9631	104703.5	413392.7	6028.9	439429.1
RES	RES0460	9250	96565.0	381260.1	5339.9	389203.5
RES	RES0461	9212	95790.3	378201.2	5275.7	384529.0
RES	RES0462	9754	107390.9	424003.1	6262.5	456455.3
RES	RES0463	9238	96332.6	380342.3	5320.6	387799.0
RES	RES0464	9408	99908.4	394460.5	5619.6	409590.6
RES	RES0465	9576	103510.0	408680.6	5926.2	431937.2
RES	RES0466	9026	91956.8	363065.7	4962.2	361678.4
RES	RES0467	9577	103523.0	408731.7	5927.3	432018.4
RES	RES0468	9239	96354.2	380428.0	5322.4	387930.0
RES	RES0469	9413	100011.4	394867.2	5628.3	410224.3
RES	RES0470	9209	95724.8	377942.7	5270.3	384134.7
RES	RES0471	9936	111432.9	439961.7	6619.4	482466.3
RES	RES0472	9987	112568.7	444446.2	6720.9	489861.7
RES	RES0473	10025	113442.6	447896.6	6799.3	495577.2
RES	RES0474	10162	116552.8	460176.3	7080.8	516096.7
RES	RES0475	10033	113607.9	448549.1	6814.2	496660.5
RES	RES0476	10167	116674.4	460656.5	7091.9	516904.6
RES	RES0477	10026	113456.2	447950.2	6800.5	495666.3
RES	RES0478	10113	115440.6	455785.2	6979.7	508727.3
RES	RES0479	10087	114847.8	453444.7	6926.0	504813.7
RES	RES0480	10025	113440.3	447887.7	6799.1	495562.4
RES	RES0481	9430	100375.5	396304.9	5659.0	412466.6
RES	RES0482	10314	120070.3	474064.3	7403.8	539635.6
RES	RES0483	10367	121298.1	478911.9	7517.6	547933.9
RES	RES0484	10630	127547.7	503586.4	8106.0	590820.8
RES	RES0485	9842	109341.5	431704.7	6433.9	468948.2
RES	RES0486	10556	125775.7	496590.3	7937.7	578551.5
RES	RES0487	10493	124267.0	490633.9	7795.3	568173.5
RES	RES0488	10582	126398.4	499048.9	7996.7	582853.5
RES	RES0489	10296	119660.9	472447.8	7365.9	536877.8
RES	RES0490	9898	110576.4	436580.0	6543.2	476914.4
RES	RES0491	8564	82772.1	326802.7	4237.7	308868.1

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0492	8032	72818.3	287502.9	3496.7	254863.8
RES	RES0493	8342	78548.2	310125.8	3917.5	285529.9
RES	RES0494	7948	71302.7	281518.8	3388.1	246948.2
RES	RES0495	9099	93440.6	368924.0	5082.8	370467.5
RES	RES0496	9788	108144.6	426978.9	6328.6	461269.1
RES	RES0497	9762	107567.8	424701.4	6278.0	457583.4
RES	RES0498	9814	108707.0	429199.5	6378.0	464872.1
RES	RES0499	10004	112949.8	445950.8	6755.0	492351.3
RES	RES0500	9674	105633.5	417064.5	6109.4	445296.8
RES	RES0501	10019	113300.1	447333.9	6786.5	494643.5
RES	RES0502	10049	113972.8	449989.9	6847.0	499055.5
RES	RES0503	10309	119942.3	473558.9	7391.9	538772.8
RES	RES0504	10089	114891.1	453615.4	6929.9	505098.9
RES	RES0505	9664	105424.0	416237.2	6091.3	443972.5
RES	RES0506	10260	118804.8	469067.6	7287.0	531126.3
RES	RES0507	10284	119361.2	471264.7	7338.3	534862.4
RES	RES0508	9556	103064.5	406921.6	5887.9	429151.7
RES	RES0509	9667	105485.3	416479.3	6096.6	444359.8
RES	RES0510	9996	112769.6	445239.6	6738.9	491173.9
RES	RES0511	9485	101536.5	400888.7	5757.5	419643.4
RES	RES0512	10234	118224.2	466775.2	7233.7	527237.6
RES	RES0513	10127	115762.7	457057.0	7008.9	510858.0
RES	RES0514	9515	102177.9	403421.1	5812.1	423626.0
RES	RES0515	10135	115943.4	457770.4	7025.4	512054.5
RES	RES0516	10014	113182.5	446869.6	6775.9	493873.7
RES	RES0517	10042	113820.9	449390.0	6833.3	498057.9
RES	RES0518	10072	114492.8	452043.2	6893.9	502475.1
RES	RES0519	9655	105225.5	415453.7	6074.1	442719.5
RES	RES0520	9576	103502.2	408649.8	5925.5	431888.5
RES	RES0521	9953	111811.1	441455.2	6653.1	484925.1
RES	RES0522	10158	116461.1	459814.1	7072.5	515487.5
RES	RES0523	10298	119702.7	472613.0	7369.8	537159.4
RES	RES0524	10056	114138.5	450643.9	6861.9	500143.9
RES	RES0525	9655	105219.4	415429.7	6073.6	442681.0
RES	RES0526	10072	114495.1	452052.2	6894.1	502490.2
RES	RES0527	9956	111870.7	441690.3	6658.5	485312.5
RES	RES0528	10255	118700.6	468656.2	7277.4	530427.7
RES	RES0529	9503	101938.8	402477.0	5791.7	422139.8
RES	RES0530	10027	113485.6	448066.4	6803.2	495859.1
RES	RES0531	9426	100293.0	395978.8	5652.0	411957.7
RES	RES0532	9668	105506.7	416563.7	6098.4	444495.0
RES	RES0533	10210	117661.1	464552.2	7182.1	523475.6
RES	RES0534	10128	115787.9	457156.3	7011.2	511024.6
RES	RES0535	9927	111229.1	439157.1	6601.3	481143.4

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0536	9542	102775.2	405779.4	5863.2	427346.1
RES	RES0537	9469	101198.5	399554.2	5728.8	417549.7
RES	RES0538	9994	112746.4	445147.9	6736.8	491022.2
RES	RES0539	9411	99970.8	394707.0	5624.8	409974.6
RES	RES0540	10191	117230.5	462852.0	7142.7	520604.5
RES	RES0541	10096	115057.4	454272.2	6945.0	506196.2
RES	RES0542	9482	101481.3	400670.6	5752.8	419301.0
RES	RES0543	10236	118268.0	466948.5	7237.7	527531.3
RES	RES0544	9898	110574.4	436572.1	6543.1	476901.5
RES	RES0545	9583	103653.6	409247.5	5938.5	432836.3
RES	RES0546	9384	99399.9	392453.0	5576.7	406467.8
RES	RES0547	9984	112504.9	444194.4	6715.2	489445.4
RES	RES0548	10163	116584.9	460303.2	7083.7	516310.1
RES	RES0549	9578	103544.8	408817.9	5929.1	432155.0
RES	RES0550	10082	114738.5	453013.2	6916.1	504093.4
RES	RES0551	9878	110142.0	434865.0	6504.7	474107.0
RES	RES0552	8670	84836.3	334952.4	4397.2	320493.6
RES	RES0553	9930	111297.2	439426.1	6607.3	481585.6
RES	RES0554	9438	100538.7	396949.0	5672.8	413472.6
RES	RES0555	9588	103755.1	409648.2	5947.2	433472.2
RES	RES0556	9819	108816.3	429630.8	6387.6	465573.0
RES	RES0557	10166	116653.8	460575.0	7090.0	516767.5
RES	RES0558	10020	113324.9	447432.0	6788.7	494806.4
RES	RES0559	9501	101886.9	402272.1	5787.3	421817.4
RES	RES0560	9415	100050.3	395020.8	5631.5	410463.6
RES	RES0561	10190	117189.1	462688.6	7138.9	520328.8
RES	RES0562	9904	110711.6	437113.9	6555.2	477789.5
RES	RES0563	9053	92501.4	365216.0	5006.4	364896.2
RES	RES0564	9807	108549.1	428576.1	6364.1	463859.7
RES	RES0565	9862	109785.0	433455.7	6473.1	471804.2
RES	RES0566	10030	113553.5	448334.6	6809.3	496304.3
RES	RES0567	10005	112988.2	446102.4	6758.5	492602.4
RES	RES0568	10066	114370.1	451558.6	6882.9	501667.4
RES	RES0569	9570	103361.8	408095.2	5913.4	431009.6
RES	RES0570	9870	109964.1	434162.7	6489.0	472959.0
RES	RES0571	9775	107851.6	425822.0	6302.9	459395.6
RES	RES0572	10090	114913.8	453705.4	6932.0	505249.1
RES	RES0573	10136	115966.3	457860.7	7027.4	512206.1
RES	RES0574	9824	108926.2	430065.0	6397.3	466278.9
RES	RES0575	9963	112025.8	442302.8	6672.3	486322.3
RES	RES0576	9899	110594.9	436653.2	6544.9	477034.4
RES	RES0577	9571	103394.2	408223.2	5916.2	431212.3
RES	RES0578	9751	107329.9	423762.3	6257.2	456066.5
RES	RES0579	9881	110211.1	435138.0	6510.9	474553.6

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0580	8072	73539.4	290349.9	3548.8	258658.7
RES	RES0581	9792	108217.8	427267.7	6335.0	461737.2
RES	RES0582	9927	111218.1	439113.7	6600.3	481072.1
RES	RES0583	9837	109219.8	431224.2	6423.2	468165.4
RES	RES0584	9773	107809.0	425653.9	6299.2	459123.6
RES	RES0585	9718	106584.7	420820.2	6192.2	451325.1
RES	RES0586	10021	113336.3	447476.7	6789.7	494880.5
RES	RES0587	9813	108679.1	429089.2	6375.6	464693.0
RES	RES0588	10062	114281.5	451208.8	6874.9	501084.5
RES	RES0589	9668	105500.1	416537.9	6097.9	444453.7
RES	RES0590	9989	112613.3	444622.4	6724.9	490153.1
RES	RES0591	8009	72399.0	285847.4	3466.6	252665.5
RES	RES0592	9865	109849.4	433709.8	6478.8	472219.0
RES	RES0593	9658	105281.3	415674.1	6078.9	443071.8
RES	RES0594	9841	109320.0	431619.6	6432.0	468809.6
RES	RES0595	9967	112129.5	442712.3	6681.6	486997.8
RES	RES0596	9671	105556.0	416758.5	6102.7	444806.8
RES	RES0597	9877	110101.4	434704.7	6501.1	473845.0
RES	RES0598	9584	103679.6	409350.0	5940.7	432998.9
RES	RES0599	10021	113338.5	447485.7	6789.9	494895.4
RES	RES0600	9934	111374.8	439732.4	6614.2	482089.2
RES	RES0601	9843	109362.9	431788.9	6435.8	469085.4
RES	RES0602	9791	108196.8	427184.8	6333.2	461602.7
RES	RES0603	9559	103134.6	407198.5	5893.9	429589.8
RES	RES0604	9901	110637.8	436822.6	6548.7	477312.1
RES	RES0605	9547	102870.2	406154.6	5871.3	427938.9
RES	RES0606	9584	103685.4	409373.0	5941.2	433035.5
RES	RES0607	9940	111525.8	440328.5	6627.7	483069.8
RES	RES0608	9575	103474.6	408540.5	5923.1	431715.3
RES	RES0609	9533	102580.4	405010.1	5846.5	426131.3
RES	RES0610	9756	107426.1	424142.2	6265.6	456679.9
RES	RES0611	9856	109637.0	432871.3	6460.0	470850.4
RES	RES0612	9916	110989.4	438210.9	6579.9	479589.2
RES	RES0613	9579	103568.4	408911.0	5931.2	432302.6
RES	RES0614	9506	101990.5	402681.1	5796.1	422460.9
RES	RES0615	9808	108575.9	428681.9	6366.5	464031.4
RES	RES0616	9554	103032.8	406796.4	5885.2	428953.6
RES	RES0617	9499	101834.6	402065.4	5782.9	421492.4
RES	RES0618	9557	103100.8	407064.7	5891.0	429378.1
RES	RES0619	9729	106826.2	421773.4	6213.2	452859.5
RES	RES0620	9504	101941.8	402488.8	5792.0	422158.4
RES	RES0621	9750	107306.8	423671.0	6255.2	455919.2
RES	RES0622	9849	109482.0	432259.3	6446.3	469852.2
RES	RES0623	9451	100818.6	398054.2	5696.5	415200.6

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0624	9546	102858.2	406107.0	5870.3	427863.6
RES	RES0625	9485	101553.4	400955.5	5758.9	419748.2
RES	RES0626	9432	100403.6	396415.9	5661.4	412639.9
RES	RES0627	9483	101505.3	400765.3	5754.8	419449.6
RES	RES0628	9555	103041.0	406828.7	5885.9	429004.8
RES	RES0629	9788	108142.2	426969.3	6328.4	461253.5
RES	RES0630	9440	100588.5	397145.8	5677.0	413780.2
RES	RES0631	9482	101483.6	400679.9	5753.0	419315.6
RES	RES0632	9812	108669.8	429052.5	6374.7	464633.3
RES	RES0633	9556	103066.5	406929.3	5888.1	429163.8
RES	RES0634	9411	99966.8	394691.1	5624.5	409949.8
RES	RES0635	9507	102022.5	402807.4	5798.9	422659.6
RES	RES0636	9475	101334.7	400091.9	5740.3	418393.0
RES	RES0637	9433	100433.4	396533.5	5663.9	412823.6
RES	RES0638	9477	101371.9	400238.9	5743.5	418623.5
RES	RES0639	9548	102903.2	406284.8	5874.1	428144.7
RES	RES0640	9526	102415.8	404360.4	5832.4	425106.4
RES	RES0641	9433	100432.0	396527.7	5663.8	412814.5
RES	RES0642	9368	99058.1	391103.4	5548.0	404373.0
RES	RES0643	9493	101718.8	401608.4	5773.0	420773.9
RES	RES0644	9412	99988.9	394778.4	5626.4	410085.8
RES	RES0645	7252	59357.0	234354.6	2573.4	187566.3
RES	RES0646	9392	99572.3	393133.4	5591.2	407525.3
RES	RES0647	9469	101196.4	399545.8	5728.6	417536.5
RES	RES0648	9348	98623.2	389386.1	5511.5	401712.6
RES	RES0649	9378	99263.1	391912.9	5565.2	405629.0
RES	RES0650	9418	100113.9	395271.8	5636.9	410854.8
RES	RES0651	9367	99037.4	391021.6	5546.2	404246.0
RES	RES0652	8642	84306.0	332858.6	4356.0	317493.2
RES	RES0653	9332	98289.8	388070.0	5483.6	399677.6
RES	RES0654	8700	85424.4	337274.6	4443.0	323832.2
RES	RES0655	7219	58823.2	232247.1	2538.8	185041.9
RES	RES0656	9498	101828.3	402040.9	5782.3	421453.8
RES	RES0657	9302	97669.6	385621.2	5431.7	395900.4
RES	RES0658	9556	103069.1	406939.5	5888.3	429180.0
RES	RES0659	9547	102868.1	406146.1	5871.1	427925.5
RES	RES0660	9456	100920.6	398457.0	5705.2	415831.0
RES	RES0661	9172	94952.6	374893.8	5206.7	379495.9
RES	RES0662	9406	99856.4	394255.1	5615.2	409270.6
RES	RES0663	9373	99155.4	391487.6	5556.2	404968.9
RES	RES0664	9511	102095.0	403093.8	5805.1	423110.6
RES	RES0665	9189	95296.4	376251.2	5235.0	381558.8
RES	RES0666	9260	96794.0	382164.2	5358.9	390588.8
RES	RES0667	8759	86595.9	341899.9	4534.7	330516.6

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0668	9377	99252.5	391871.1	5564.3	405564.1
RES	RES0669	9351	98700.0	389689.4	5517.9	402182.0
RES	RES0670	9313	97905.1	386551.2	5451.4	397333.5
RES	RES0671	9337	98405.7	388527.6	5493.3	400384.7
RES	RES0672	9275	97089.6	383331.4	5383.4	392379.4
RES	RES0673	9298	97575.1	385248.2	5423.9	395326.1
RES	RES0674	9254	96650.9	381599.0	5347.0	389722.6
RES	RES0675	9241	96383.9	380544.9	5324.8	388108.8
RES	RES0676	8908	89573.8	353657.2	4770.6	347711.0
RES	RES0677	8793	87258.8	344517.1	4586.8	334318.8
RES	RES0678	8879	88985.3	351333.8	4723.6	344290.1
RES	RES0679	9215	95851.0	378441.0	5280.7	384894.7
RES	RES0680	9014	91719.3	362128.3	4943.0	360278.5
RES	RES0681	10053	114077.2	450402.0	6856.4	499741.1
RES	RES0682	10075	114579.3	452384.4	6901.7	503044.2
RES	RES0683	6764	51640.3	203887.3	2088.2	152205.4
RES	RES0684	10139	116035.0	458131.8	7033.7	512661.0
RES	RES0685	6631	49633.6	195964.6	1967.7	143420.5
RES	RES0686	7352	61015.4	240902.5	2682.0	195481.9
RES	RES0687	9361	98904.2	390495.8	5535.1	403431.0
RES	RES0688	7494	63387.9	250269.6	2839.9	206993.5
RES	RES0689	7074	56489.1	223031.4	2389.2	174138.0
RES	RES0690	8904	89486.9	353314.2	4763.6	347205.3
RES	RES0691	9003	91482.2	361192.1	4923.8	358882.3
RES	RES0692	7651	66066.4	260844.7	3021.8	220250.9
RES	RES0693	8927	89952.0	355150.6	4800.8	349915.8
RES	RES0694	8117	74370.1	293629.6	3609.1	263053.7
RES	RES0695	8191	75736.7	299025.2	3709.0	270337.5
RES	RES0696	8904	89489.9	353326.2	4763.9	347222.9
RES	RES0697	8409	79808.2	315100.4	4012.1	292427.5
RES	RES0698	8465	80876.6	319318.9	4092.9	298319.5
RES	RES0699	8666	84771.9	334698.3	4392.2	320128.9
RES	RES0700	8426	80133.1	316383.3	4036.6	294215.1
RES	RES0701	8487	81292.4	320960.5	4124.5	300622.9
RES	RES0702	8446	80511.1	317875.8	4065.2	296299.5
RES	RES0703	6984	55050.7	217352.2	2298.5	167529.3
RES	RES0704	8796	87326.7	344785.1	4592.2	334709.1
RES	RES0705	8833	88068.7	347714.7	4650.8	338984.1
RES	RES0706	10048	113963.7	449954.1	6846.2	498995.9
RES	RES0707	8607	83610.9	330114.4	4302.2	313574.9
RES	RES0708	9020	91835.2	362585.6	4952.4	360961.2
RES	RES0709	6874	53339.6	210596.6	2192.2	159779.7
RES	RES0710	8789	87179.6	344204.5	4580.6	333863.9
RES	RES0711	9581	103615.1	409095.4	5935.2	432595.1

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0712	7748	67765.4	267552.7	3139.1	228801.4
RES	RES0713	7590	65026.3	256738.3	2950.8	215070.4
RES	RES0714	8132	74637.7	294686.1	3628.6	264474.7
RES	RES0715	5961	40105.1	158343.7	1429.2	104170.8
RES	RES0716	8025	72698.2	287028.5	3488.1	254233.2
RES	RES0717	6764	51645.0	203906.0	2088.5	152226.3
RES	RES0718	9242	96406.8	380635.5	5326.7	388247.5
RES	RES0719	6093	41908.6	165464.7	1526.7	111276.3
RES	RES0720	5693	36575.3	144407.3	1244.7	90725.3
RES	RES0721	8593	83345.5	329066.6	4281.8	312083.2
RES	RES0722	5291	31594.9	124743.8	999.4	72840.6
RES	RES0723	7086	56669.0	223741.9	2400.6	174970.8
RES	RES0724	6703	50706.4	200200.2	2031.9	148095.3
RES	RES0725	5752	37346.1	147450.6	1284.3	93608.3
RES	RES0726	7090	56744.6	224040.1	2405.4	175320.7
RES	RES0727	7172	58051.2	229199.0	2489.0	181411.1
RES	RES0728	9153	94559.4	373341.4	5174.4	377141.1
RES	RES0729	9026	91950.4	363040.7	4961.7	361641.0
RES	RES0730	6742	51304.0	202559.6	2067.9	150721.0
RES	RES0731	6525	48057.0	189739.9	1874.7	136641.5
RES	RES0732	6328	45202.5	178469.5	1710.2	124649.5
RES	RES0733	8841	88227.3	348340.9	4663.4	339900.2
RES	RES0734	8453	80649.6	318422.5	4075.7	297064.2
RES	RES0735	8580	83100.1	328097.7	4262.9	310705.8
RES	RES0736	8384	79335.9	313235.6	3976.5	289835.3
RES	RES0737	8613	83736.8	330611.6	4312.0	314283.7
RES	RES0738	8156	75089.4	296469.5	3661.6	266879.2
RES	RES0739	8646	84381.7	333157.6	4361.9	317921.0
RES	RES0740	8132	74643.5	294709.2	3629.0	264505.9
RES	RES0741	8407	79783.5	315003.0	4010.2	292291.9
RES	RES0742	8494	81442.9	321554.5	4136.0	301457.8
RES	RES0743	8265	77109.2	304444.1	3810.3	277719.3
RES	RES0744	8540	82326.2	325042.0	4203.5	306375.4
RES	RES0745	8023	72659.6	286876.2	3485.3	254030.8
RES	RES0746	8072	73538.3	290345.6	3548.7	258653.0
RES	RES0747	5871	38902.6	153596.2	1365.4	99521.2
RES	RES0748	5942	39850.8	157339.6	1415.6	103181.5
RES	RES0749	5402	32941.9	130061.9	1064.0	77547.8
RES	RES0750	4540	23259.4	91833.5	631.2	46009.3
RES	RES0751	4990	28106.1	110969.0	838.5	61114.9
RES	RES0752	4928	27406.4	108206.6	807.4	58847.2
RES	RES0753	4723	25182.3	99425.1	711.1	51830.9
RES	RES0754	4859	26650.3	105221.3	774.2	56428.7
RES	RES0755	4764	25618.0	101145.5	729.7	53182.0

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0756	5090	29238.8	115441.1	889.7	64846.4
RES	RES0757	4816	26183.0	103376.3	753.9	54951.0
RES	RES0758	3658	15102.9	59629.5	330.3	24073.3
RES	RES0759	4301	20879.8	82438.1	536.9	39132.4
RES	RES0760	2641	7872.0	31080.4	124.3	9058.9
RES	RES0761	2442	6733.6	26585.7	98.3	7166.7
RES	RES0762	3696	15422.3	60890.6	340.8	24841.1
RES	RES0763	2367	6322.0	24960.6	89.4	6519.7
RES	RES0764	3205	11594.4	45777.3	222.2	16192.7
RES	RES0765	3814	16421.3	64834.8	374.5	27293.4
RES	RES0766	2159	5261.3	20772.9	67.9	4949.8
RES	RES0767	3933	17460.2	68936.7	410.6	29924.1
RES	RES0768	1528	2636.2	10408.1	24.1	1755.5
RES	RES0769	1477	2461.3	9717.7	21.7	1583.8
RES	RES0770	3348	12651.3	49950.0	253.2	18456.5
RES	RES0771	2905	9526.5	37612.7	165.5	12060.0
RES	RES0772	1072	1298.1	5125.2	8.3	606.6
RES	RES0773	2675	8078.0	31893.7	129.2	9416.8
RES	RES0774	2040	4697.6	18547.0	57.3	4175.9
RES	RES0775	1533	2651.5	10468.5	24.3	1770.8
RES	RES0776	1104	1375.9	5432.4	9.1	662.0
RES	RES0777	1843	3833.9	15137.3	42.2	3079.0
RES	RES0778	1981	4427.9	17482.3	52.4	3821.6
RES	RES0779	1623	2972.9	11737.7	28.8	2102.4
RES	RES0780	1683	3196.6	12621.0	32.2	2344.2
RES	RES0781	1925	4181.7	16510.4	48.1	3507.4
RES	RES0782	2530	7223.4	28519.5	109.2	7962.6
RES	RES0783	2847	9148.0	36118.3	155.7	11348.4
RES	RES0784	2721	8357.5	32997.3	136.0	9909.7
RES	RES0785	2734	8433.8	33298.5	137.8	10045.7
RES	RES0786	2480	6940.1	27401.1	102.9	7498.9
RES	RES0787	2458	6817.4	26916.6	100.2	7300.9
RES	RES0788	1927	4192.2	16551.8	48.3	3520.6
RES	RES0789	2219	5555.5	21934.4	73.7	5370.7
RES	RES0790	2210	5510.7	21757.6	72.8	5305.9
RES	RES0791	1541	2678.6	10575.6	24.7	1798.1
RES	RES0792	2236	5645.2	22288.6	75.5	5501.3
RES	RES0793	2215	5537.8	21864.6	73.3	5345.1
RES	RES0794	2190	5415.6	21381.9	70.9	5169.1
RES	RES0795	2493	7016.4	27702.2	104.6	7622.8
RES	RES0796	2262	5773.1	22793.3	78.1	5689.3
RES	RES0797	2235	5639.4	22265.4	75.4	5492.8
RES	RES0798	2235	5639.4	22265.4	75.4	5492.8
RES	RES0799	2278	5859.5	23134.6	79.8	5817.5

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0800	3503	13853.3	54695.9	290.2	21148.4
RES	RES0801	2329	6121.0	24167.1	85.2	6211.3
RES	RES0802	2380	6396.0	25252.9	91.0	6634.6
RES	RES0803	899	912.1	3601.2	4.9	357.3
RES	RES0804	858	831.0	3281.0	4.3	310.7
RES	RES0805	1439	2337.8	9230.2	20.1	1466.1
RES	RES0806	839	794.1	3135.4	4.0	290.3
RES	RES0807	1836	3806.0	15026.9	41.8	3045.4
RES	RES0808	268	81.0	320.0	0.1	9.5
RES	RES0809	709	566.8	2237.9	2.4	175.0
RES	RES0810	1061	1271.1	5018.4	8.1	587.8
RES	RES0811	1349	2054.5	8111.7	16.6	1207.8
RES	RES0812	1108	1385.1	5468.7	9.2	668.6
RES	RES0813	1508	2567.8	10138.3	23.2	1687.7
RES	RES0814	1264	1803.6	7121.0	13.6	993.5
RES	RES0815	1130	1441.5	5691.5	9.7	709.9
RES	RES0816	838	793.1	3131.3	4.0	289.7
RES	RES0817	926	967.7	3820.6	5.4	390.4
RES	RES0818	888	889.3	3511.1	4.7	344.0
RES	RES0819	1404	2225.5	8786.6	18.7	1361.7
RES	RES0820	573	370.9	1464.2	1.3	92.6
RES	RES0821	170	32.5	128.2	0.0	2.4
RES	RES0822	376	159.4	629.5	0.4	26.1
RES	RES0823	1629	2994.4	11822.8	29.2	2125.3
RES	RES0824	1680	3185.7	12577.7	32.0	2332.1
RES	RES0825	1817	3726.1	14711.4	40.5	2950.0
RES	RES0826	1405	2228.1	8797.1	18.7	1364.1
RES	RES0827	1549	2706.5	10685.8	25.1	1826.2
RES	RES0828	1767	3523.0	13909.6	37.2	2712.2
RES	RES0829	3439	13347.5	52698.9	274.4	20000.8
RES	RES0830	2681	8110.4	32021.7	130.0	9473.5
RES	RES0831	2804	8875.7	35043.2	148.8	10845.5
RES	RES0832	2985	10060.0	39719.1	179.6	13087.1
RES	RES0833	3246	11889.2	46941.2	230.7	16814.2
RES	RES0834	3577	14443.4	57025.9	308.9	22514.0
RES	RES0835	3035	10396.4	41047.2	188.6	13748.9
RES	RES0836	2986	10065.7	39741.7	179.7	13098.3
RES	RES0837	3269	12064.6	47633.6	235.8	17187.6
RES	RES0838	3236	11817.7	46658.7	228.6	16662.7
RES	RES0839	2856	9204.2	36340.2	157.1	11453.2
RES	RES0840	3726	15667.8	61860.1	349.0	25436.7
RES	RES0841	3559	14296.2	56444.5	304.2	22170.6
RES	RES0842	3132	11070.9	43710.4	207.3	15108.5
RES	RES0843	3153	11224.4	44316.3	211.6	15423.7

Receptor Type	Receptor ID	Distance to Blasting Footprint (m)	Maximum instantaneous charge (kg)			
			Ground Vibration		Airblast Pressure	
			Human Comfort Criterion	Structural Damage Criterion	Human Comfort Criterion	Structural Damage Criterion
RES	RES0844	3225	11738.0	46344.1	226.3	16494.4
RES	RES0845	3174	11371.2	44896.0	215.8	15727.4
RES	RES0846	2974	9982.5	39413.2	177.5	12936.2
RES	RES0847	3495	13785.6	54428.7	288.0	20993.6
RES	RES0848	3514	13940.7	55040.9	292.9	21348.8
RES	RES0849	3826	16524.3	65241.7	378.0	27550.7
RES	RES0850	3293	12237.4	48315.9	240.9	17558.2
RES	RES0851	3522	14002.6	55285.5	294.9	21491.2
RES	RES0852	3209	11620.9	45881.9	222.9	16248.2
RES	RES0853	3437	13332.0	52637.7	273.9	19965.9
RES	RES0854	4259	20471.6	80826.4	521.2	37990.5
RES	RES0855	3629	14862.8	58681.6	322.4	23501.6
RES	RES0856	3439	13348.3	52702.0	274.4	20002.6
RES	RES0857	3533	14087.8	55621.9	297.6	21687.7
RET	RET0001	32533	1194619.7	4716623.8	232350.7	16935247.3
RET	RET0002	20968	496220.5	1959188.9	62203.0	4533766.6
RET	RET0003	20978	496694.0	1961058.1	62292.1	4540256.5
RET	RET0004	9598	103983.1	410548.4	5966.8	434901.9
RET	RET0005	9549	102928.0	406382.7	5876.2	428299.4
SPO	SPO0001	22283	560449.6	2212779.3	74662.8	5441916.0
SPO	SPO0002	21274	510838.7	2016904.7	64971.9	4735575.5
SPO	SPO0003	21035	499415.9	1971804.8	62804.8	4577628.9

Type	Receptor ID	Heritage Inspection ID (Appendix T)[2]	Distance (m)	Maximum Instantaneous Charge (kg)
				Structural Damage Criterion (3 mm/s PPV)
HER	HER0001	C2K-19-H13	26382	>2000
HER	HER0002		26452	>2000
HER	HER0003	C2K-19-H6	4020	>2000
HER	HER0004	C2K-19-H5	0	-[1]
HER	HER0005	C2K-19-H4	0	-[1]
HER	HER0006	C2K-19-H3	87	<5
HER	HER0007	C2K-19-H2	2111	1601
HER	RES0207	C2K-19-H12	25343	>2000
HER	RES0421	C2K-19-H11	11812	>2000
HER	RES0722	C2K-19-H9	7082	>2000
HER	RES0726	C2K-19-H8	7168	>2000
HER	RES0728	C2K-19-H10	9021	>2000
HER	RES0827	C2K-19-H1	1767	1121

Table notes:

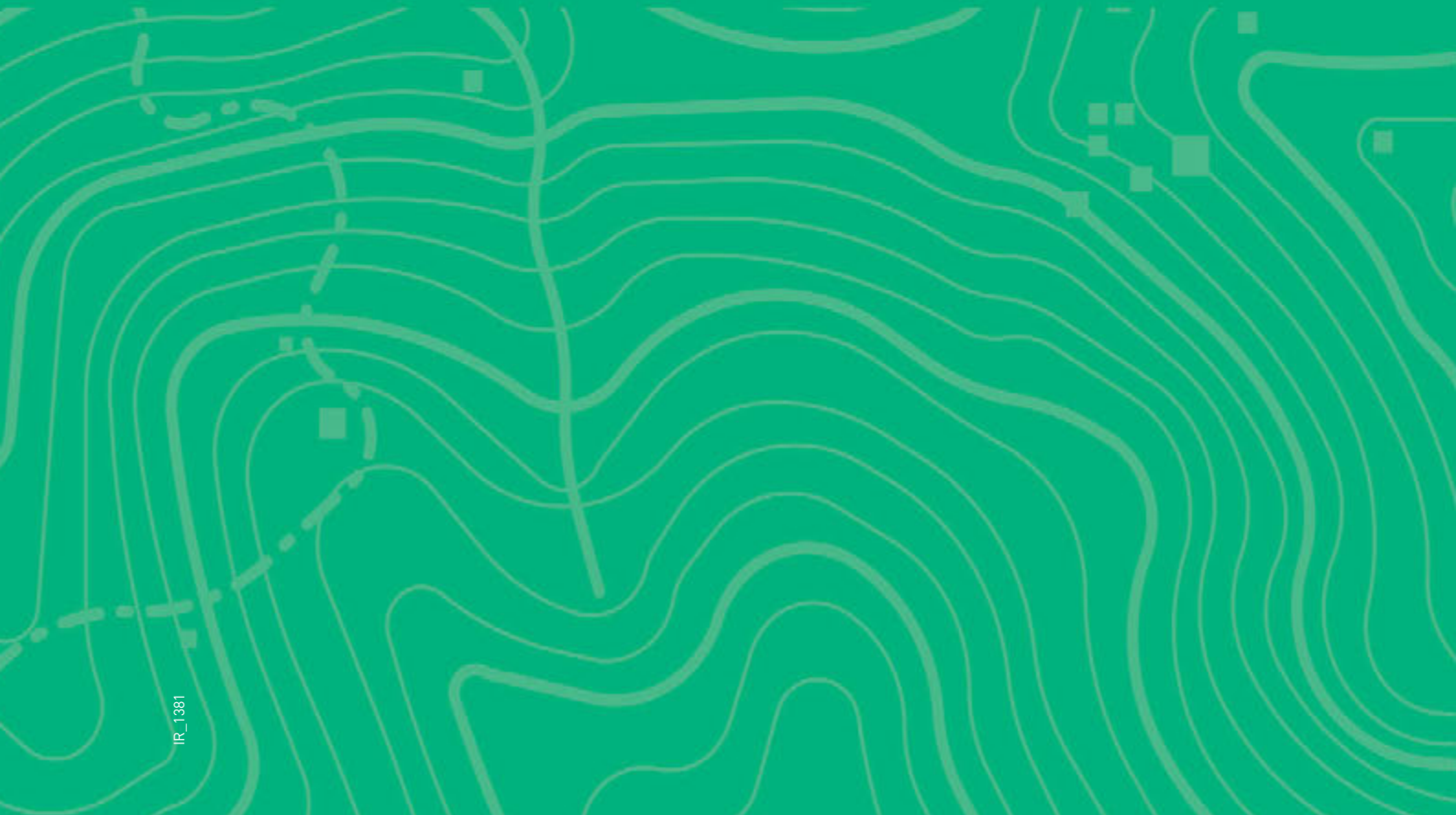
1 This receptor is within the construction footprint for this activity
2 No evidence of historical structures was identified at C2K-19-H7

APPENDIX P

Non-operational Noise and Vibration Technical Report

Appendix E Predicted roadheader vibration and ground-borne noise impacts

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT



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Appendix E

Predicted roadheader vibration and ground-borne noise impacts

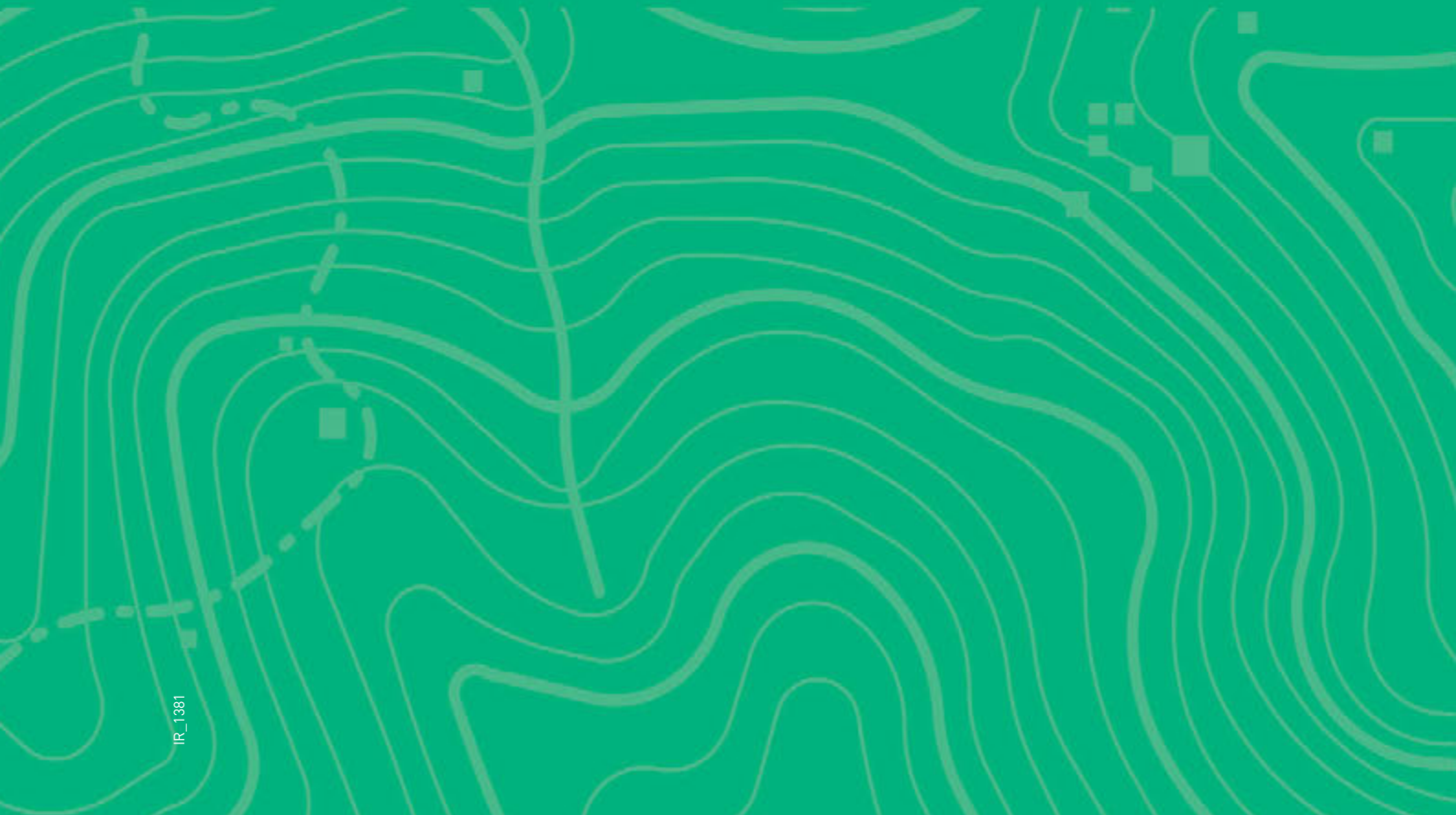
Receptor	Predicted peak particle velocity at building foundation (mm/s)	Predicted peak particle velocity on building floor (mm/s)	Predicted ground-borne L_{ASmax} (dB(A))
RES0804	< 0.1	< 0.1	20
RES0776	< 0.1	< 0.1	20
RES0806	< 0.1	< 0.1	28

APPENDIX P

Non-operational Noise and Vibration Technical Report

Appendix F Operational fixed infrastructure noise impacts

CALVERT TO KAGARU ENVIRONMENTAL IMPACT STATEMENT



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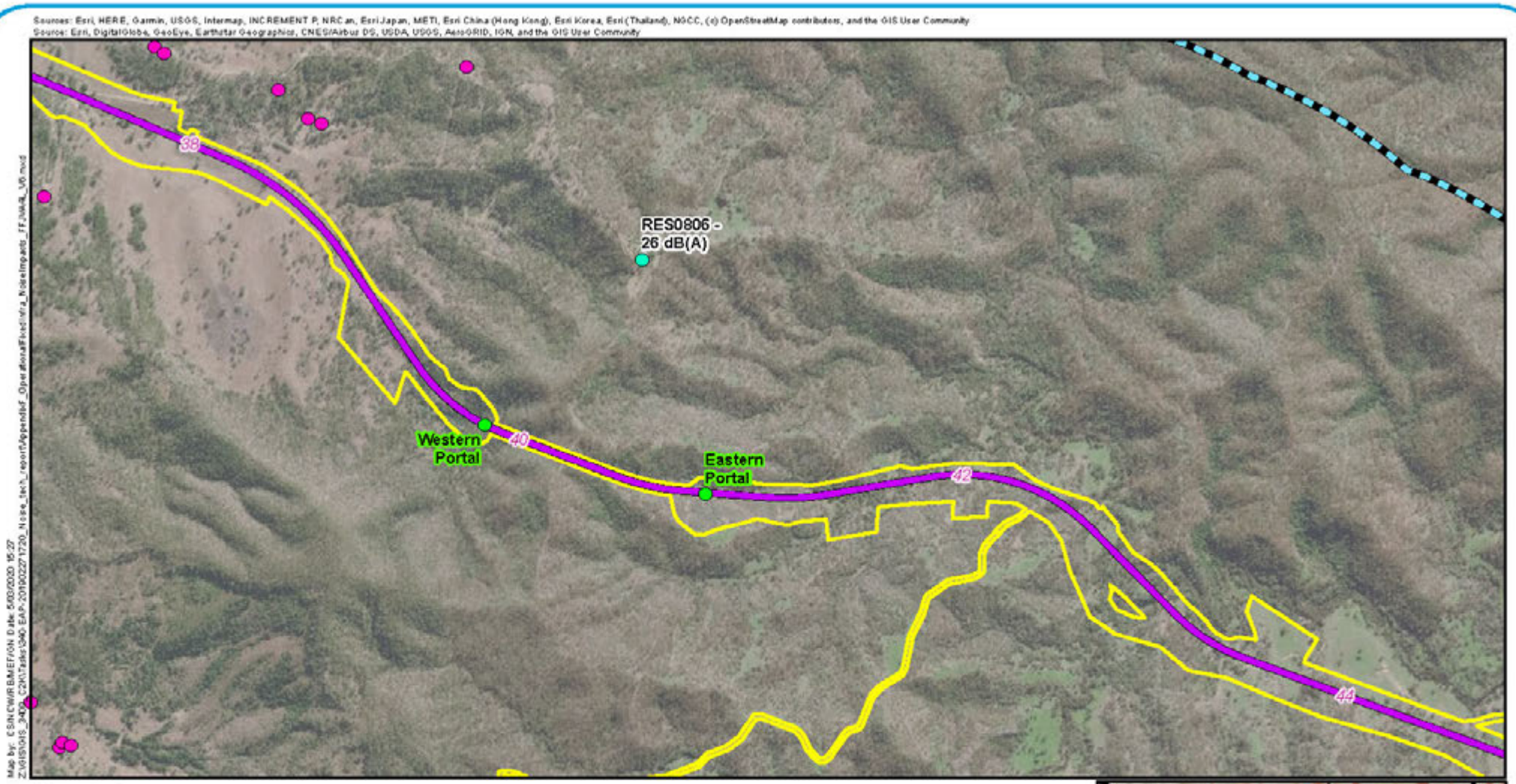
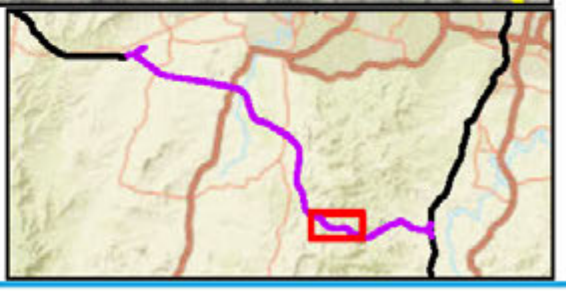


Legend

- 5 Chainage (km)
- Tunnel portals
- Other receptors
- Nearest receptor - internal noise level
- Existing rail
- C2K project alignment
- EIS disturbance footprint
- Noise and vibration study area

Note that due to topography constraints and the realignment of Wild Pig Creek Road and to minimise impacts on Dugandan Creek, there is a small area not within the disturbance footprint between Chainage 42 and 44.



A4 scale: 1:25,000

0 0.25 0.5 0.75 1 1.25 km

Future Freight

Date: 05/03/2020 Version: 0

Coordinate system: MGA56

CALVERT TO KAGARU

Appendix F: Operational Fixed Operation: Noise Impacts