APPENDIX

K

INLAND RAIL

Air Quality Technical Report

Part 2 of 2

HELIDON TO CALVERT ENVIRONMENTAL IMPACT STATEMENT

ARTC

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

IR_1381

APPENDIX K

Air Quality Technical Report

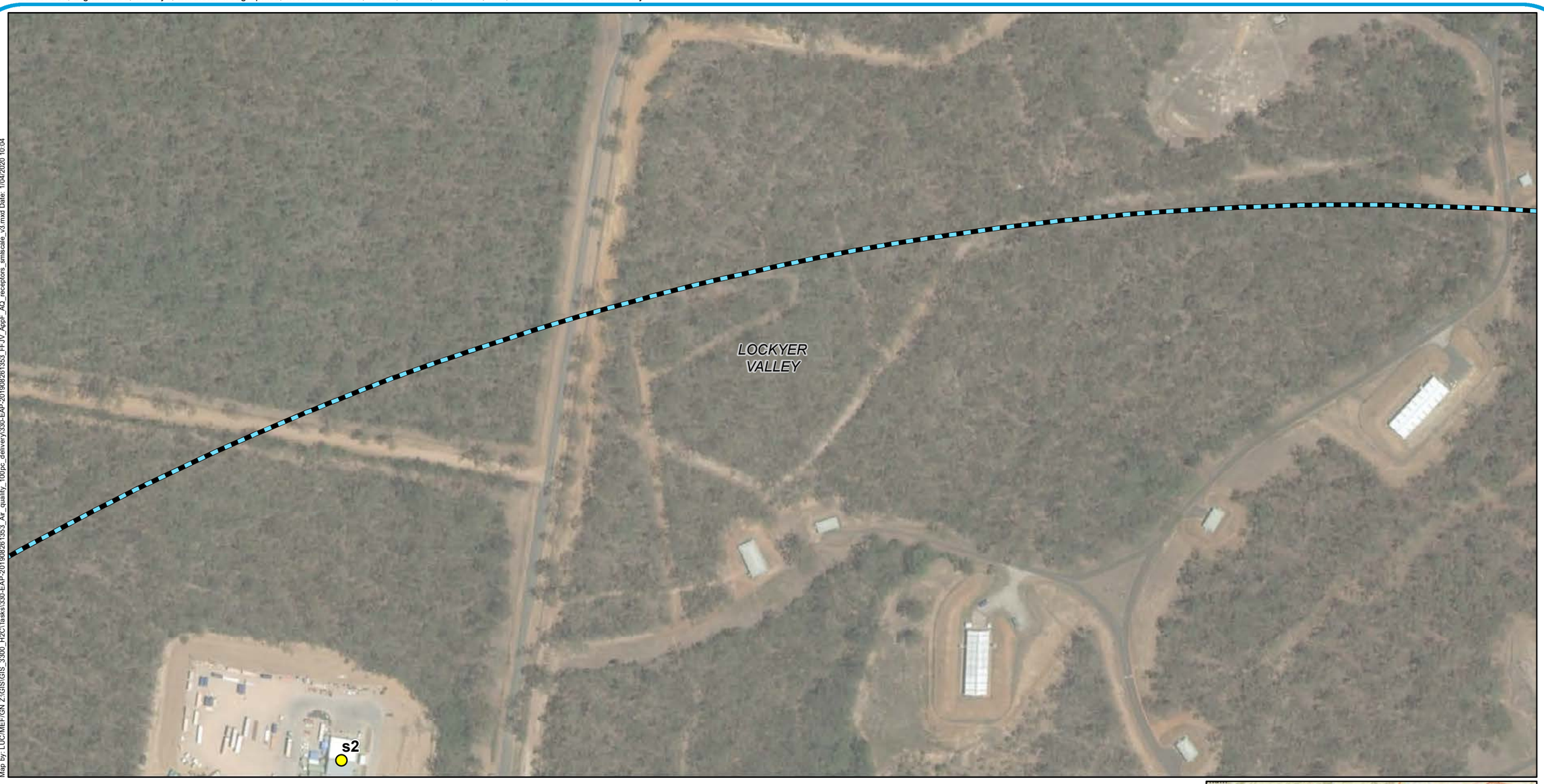
Appendix F Sensitive Receptor Maps

HELIDON TO CALVERT ENVIRONMENTAL IMPACT STATEMENT

IR_1381

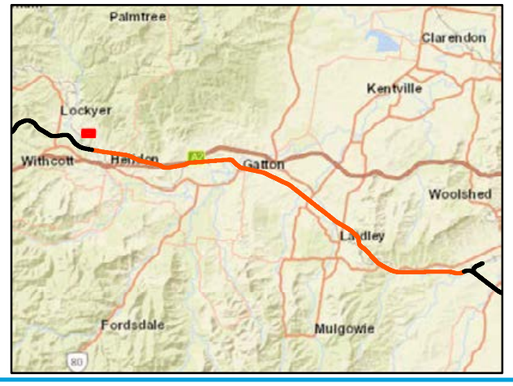
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

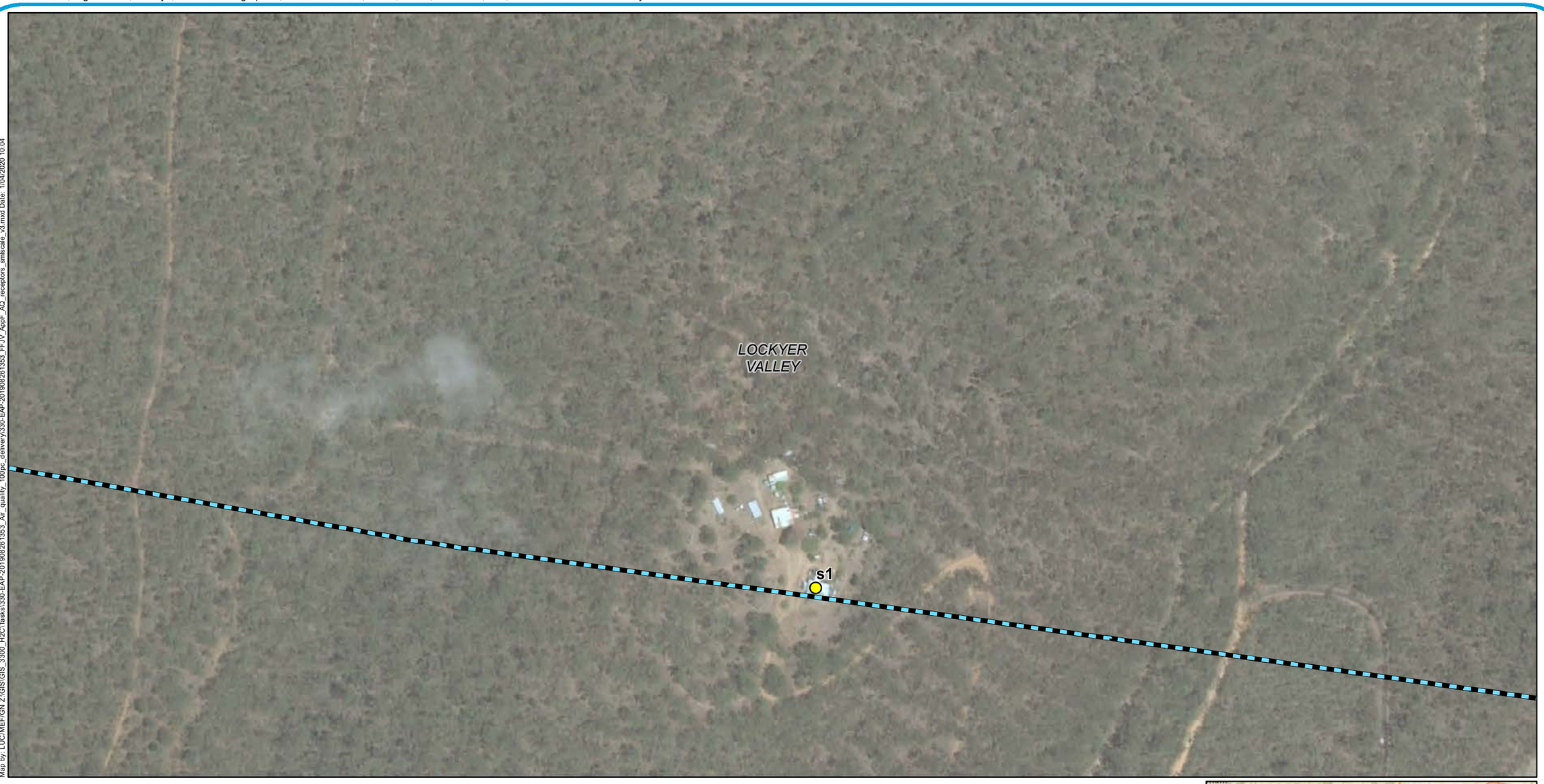
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F1: Sensitive receptor locations

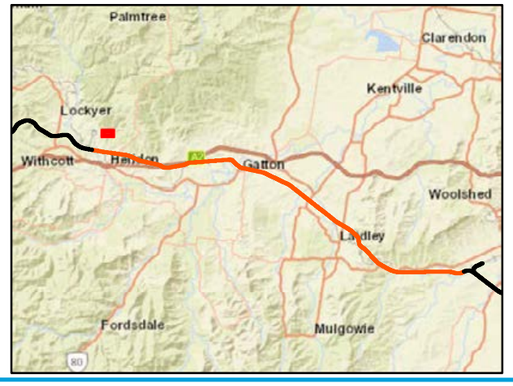
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_Air_quality_100pc_delivery\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

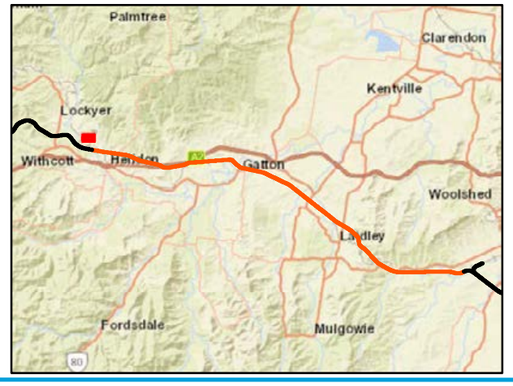
Appendix F2: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

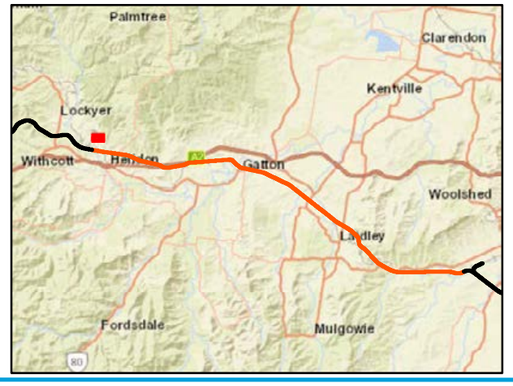
Appendix F3: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

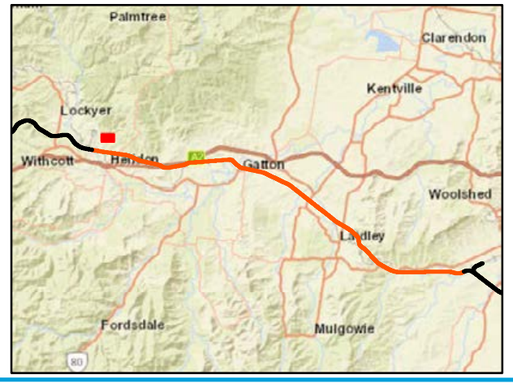
Appendix F4: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

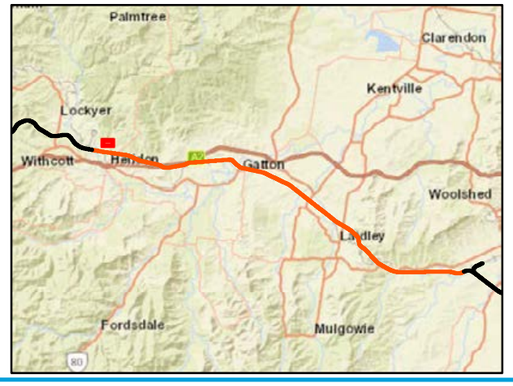
Appendix F5: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

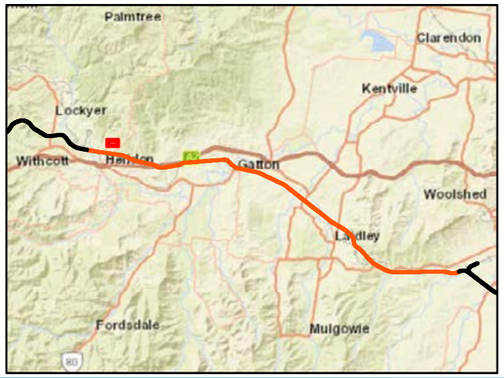
Appendix F6: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

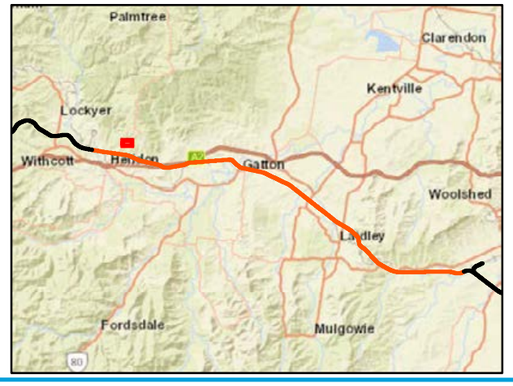
Appendix F7: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

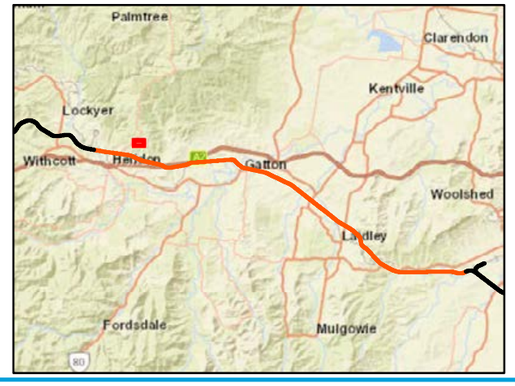
Appendix F8: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

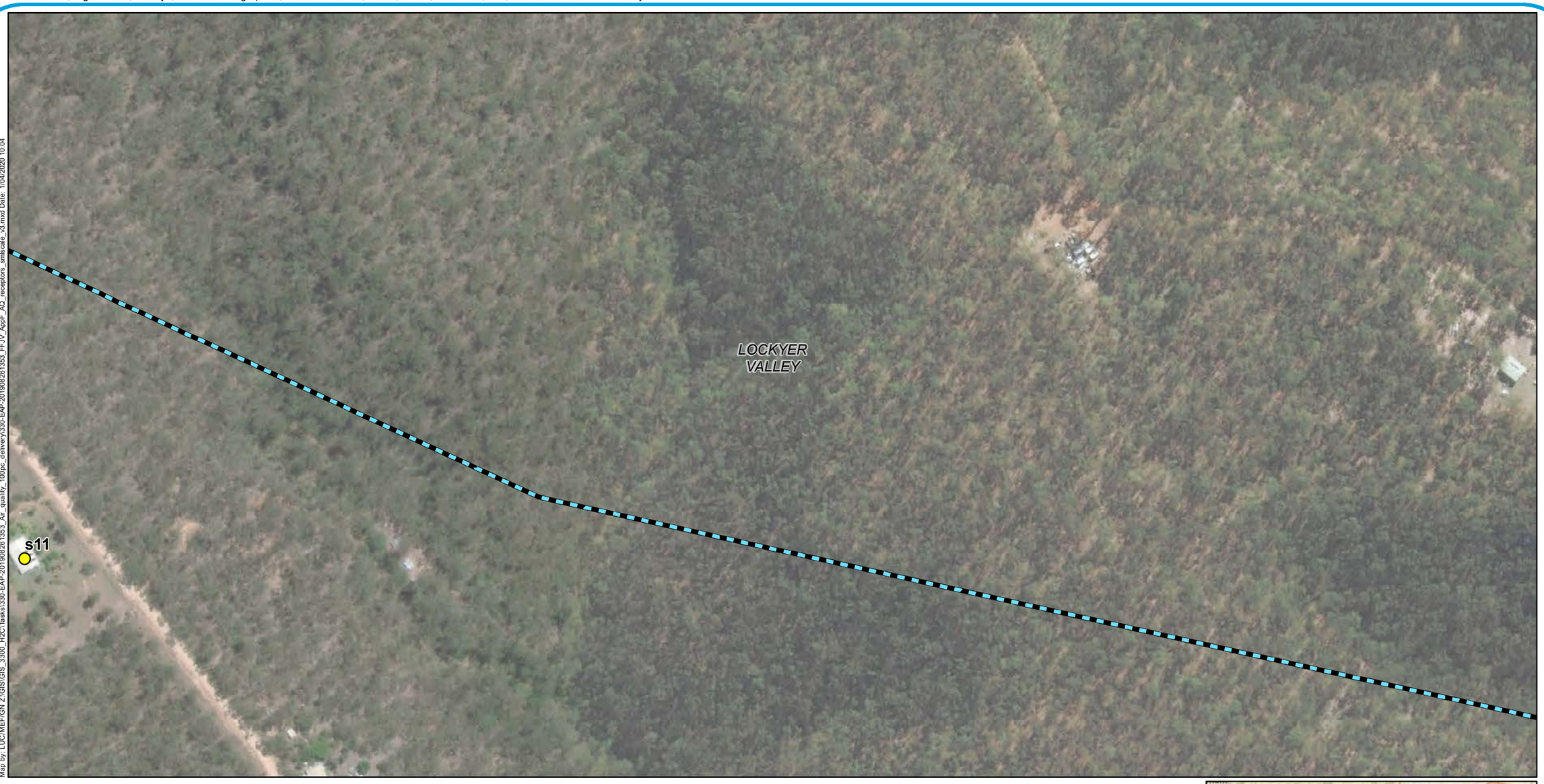
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F9: Sensitive receptor locations

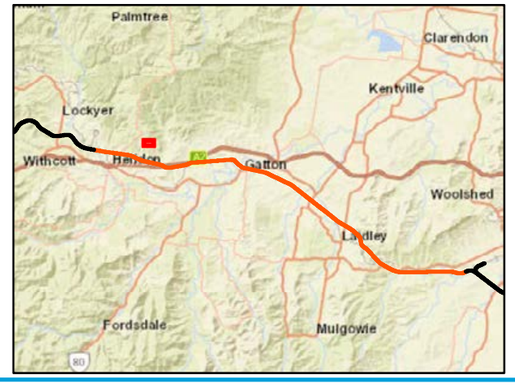
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

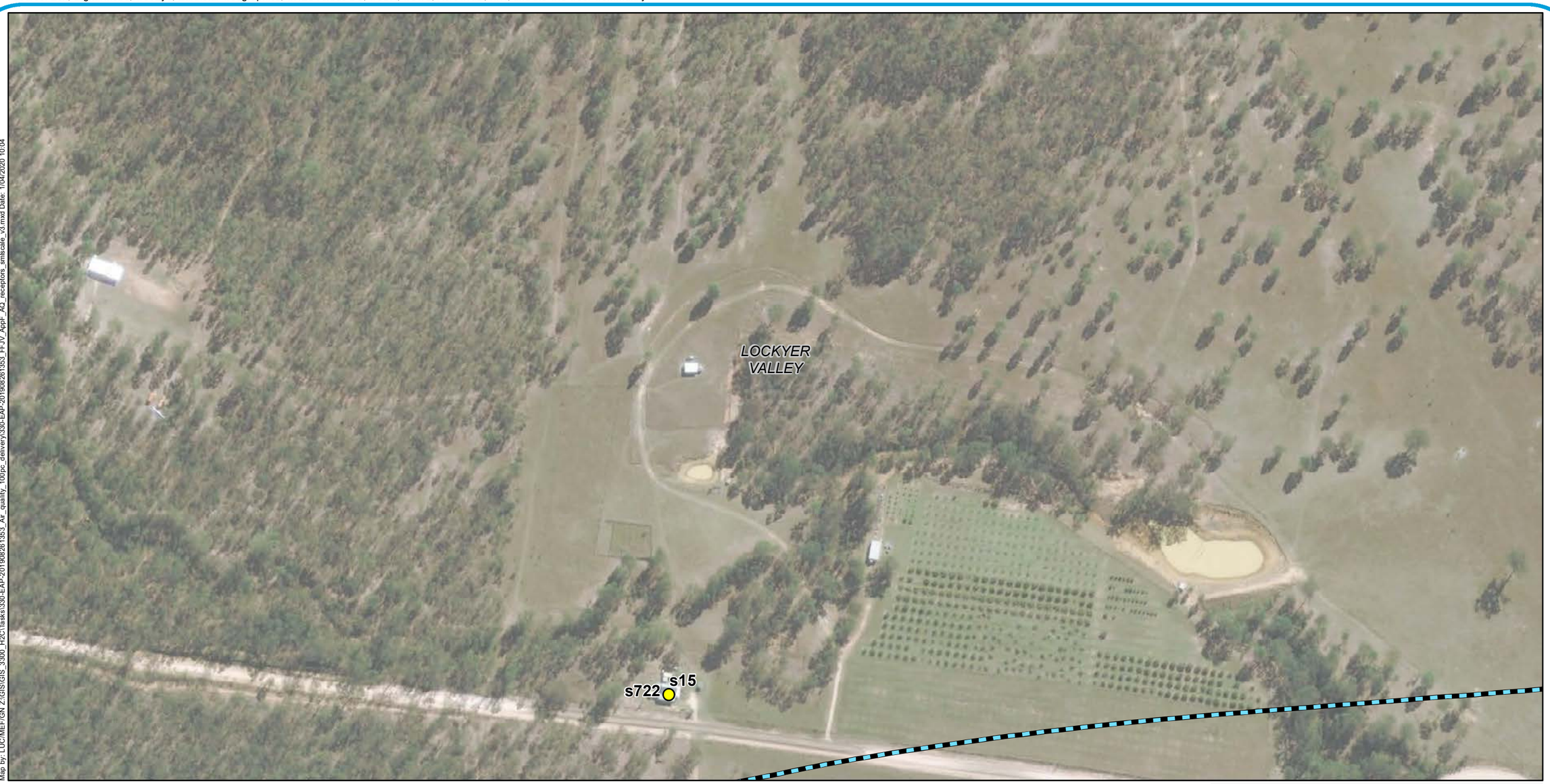
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F10: Sensitive receptor locations

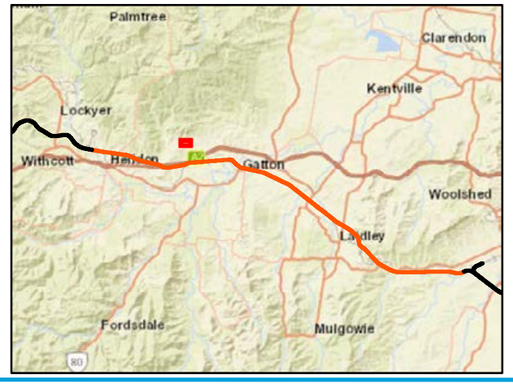
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_Air_quality_100pc_delivery\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

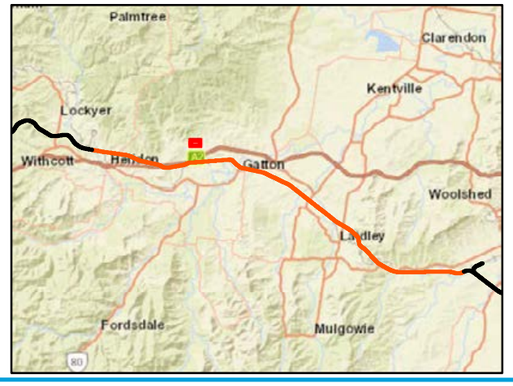
Appendix F11: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

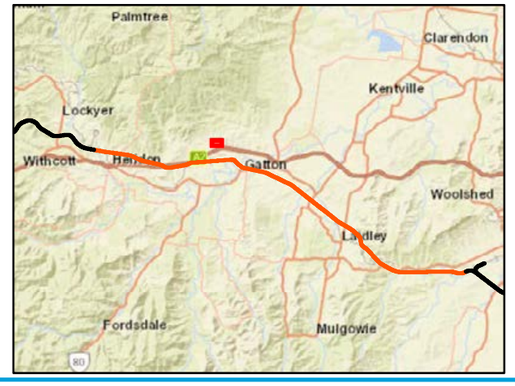
Appendix F12: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

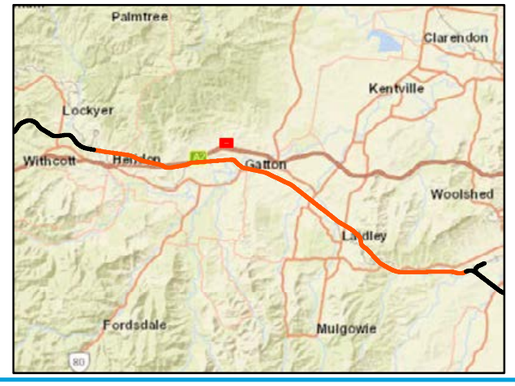
Appendix F13: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

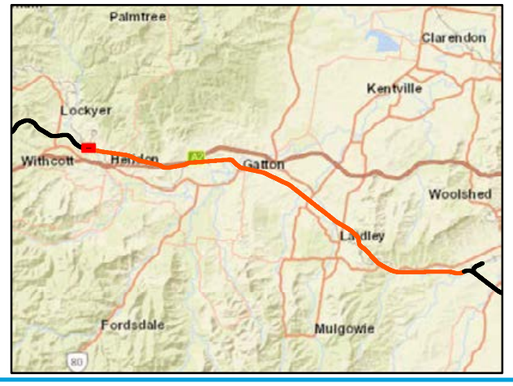
Appendix F14: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- G2H project alignment
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

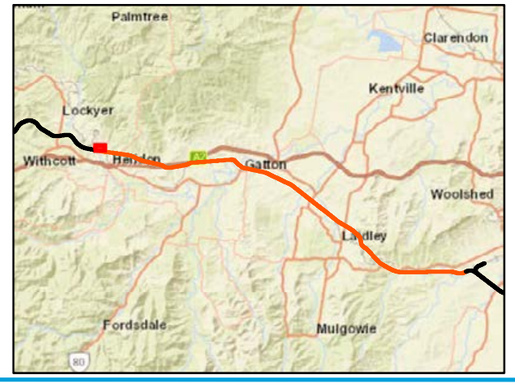
Appendix F15: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

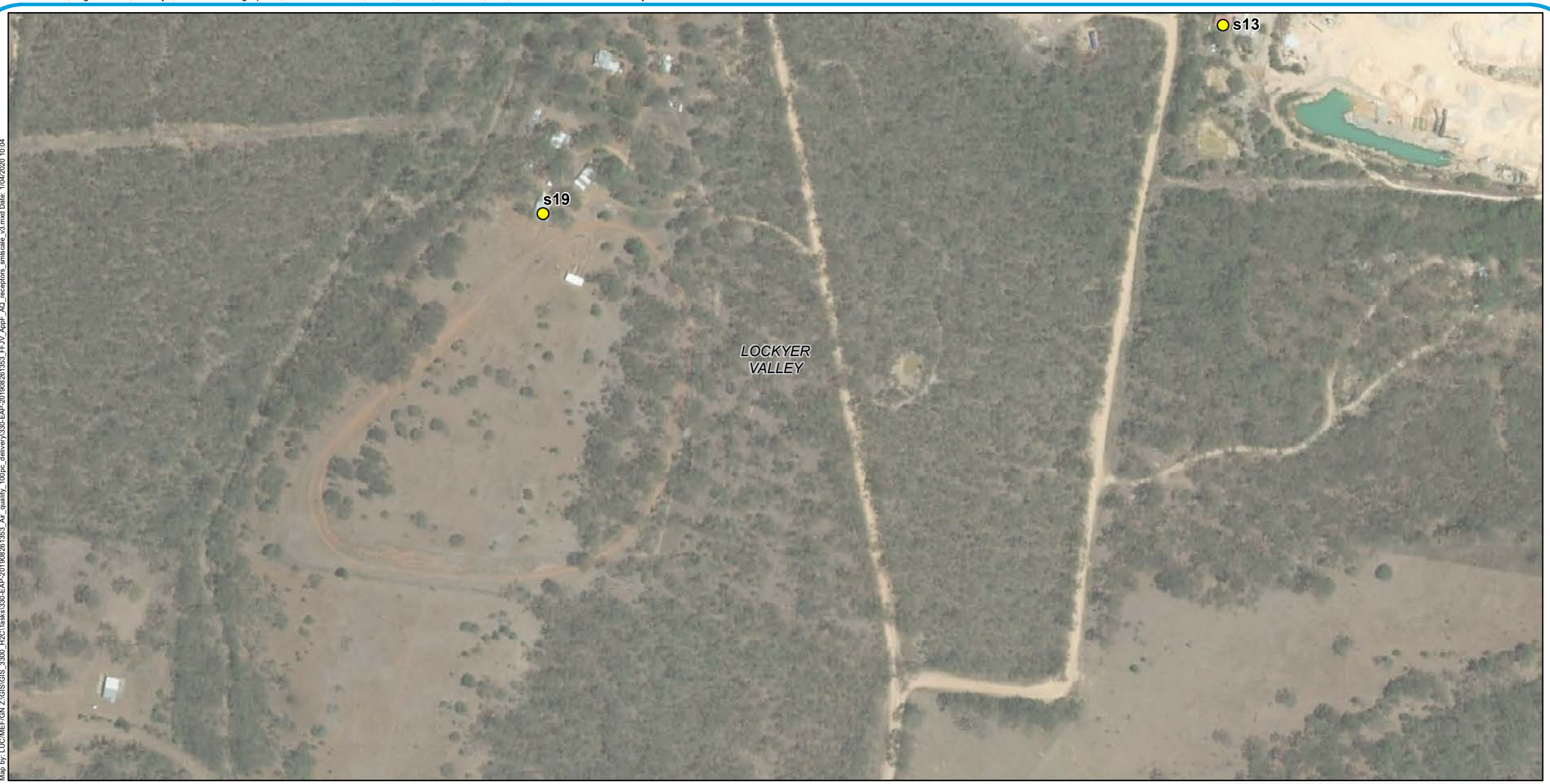
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F16: Sensitive receptor locations

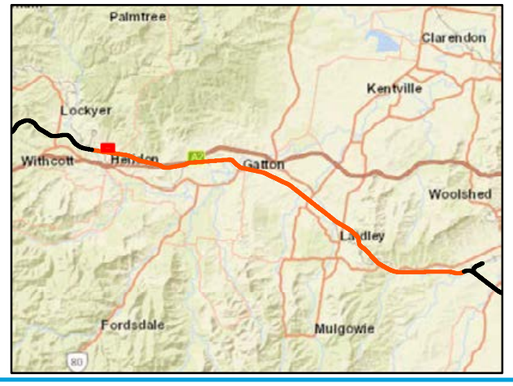
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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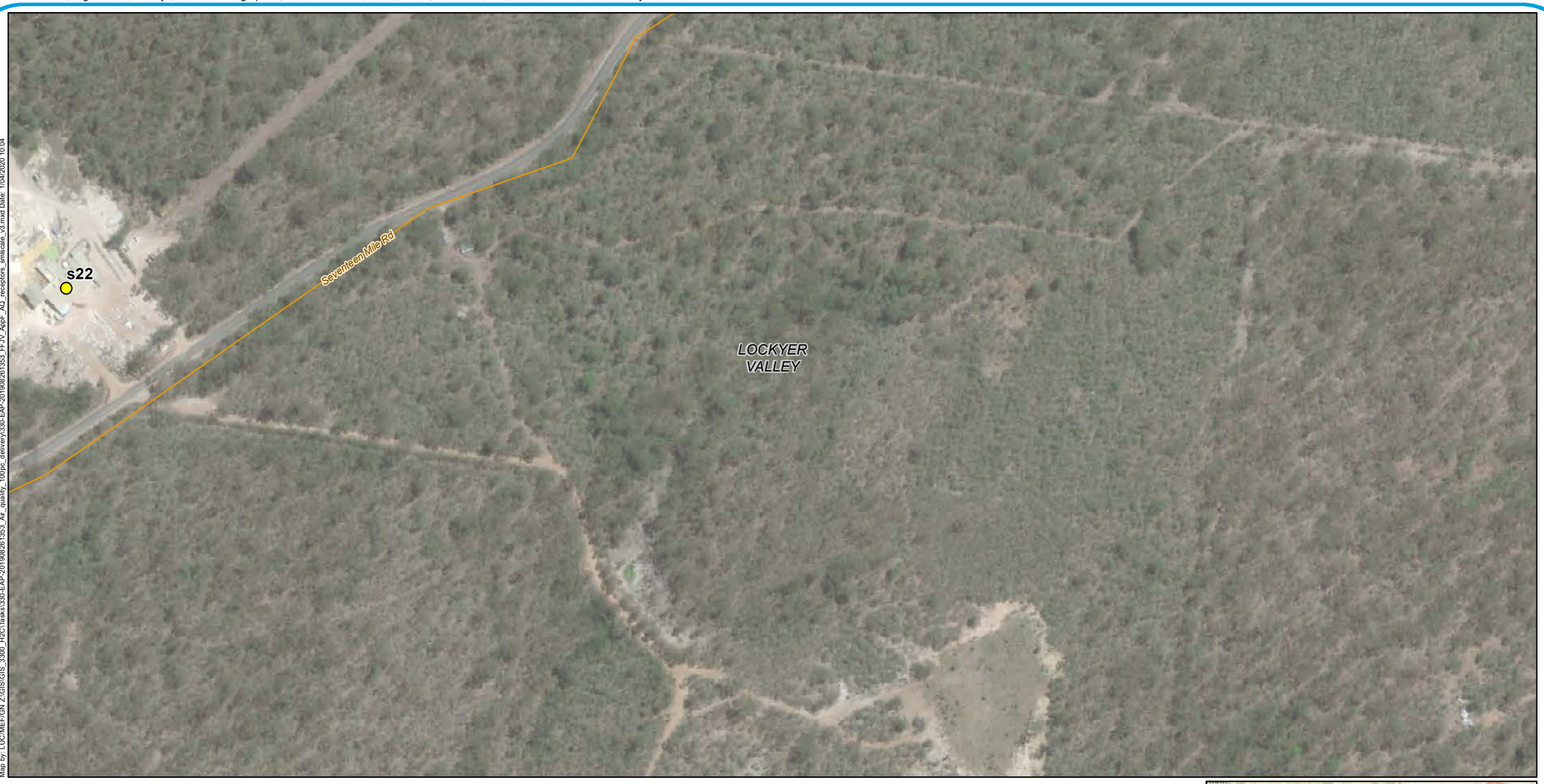
Helidon to Calvert

Appendix F17: Sensitive receptor locations

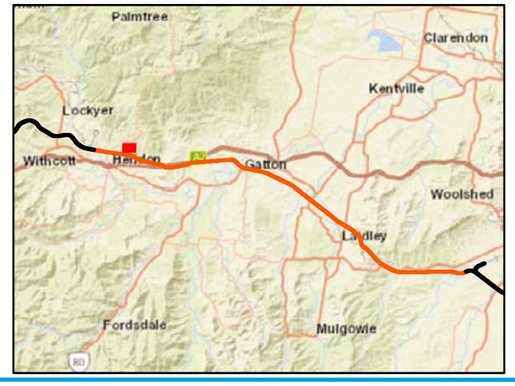
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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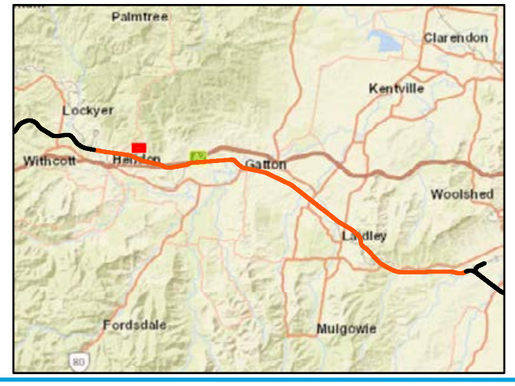
Appendix F18: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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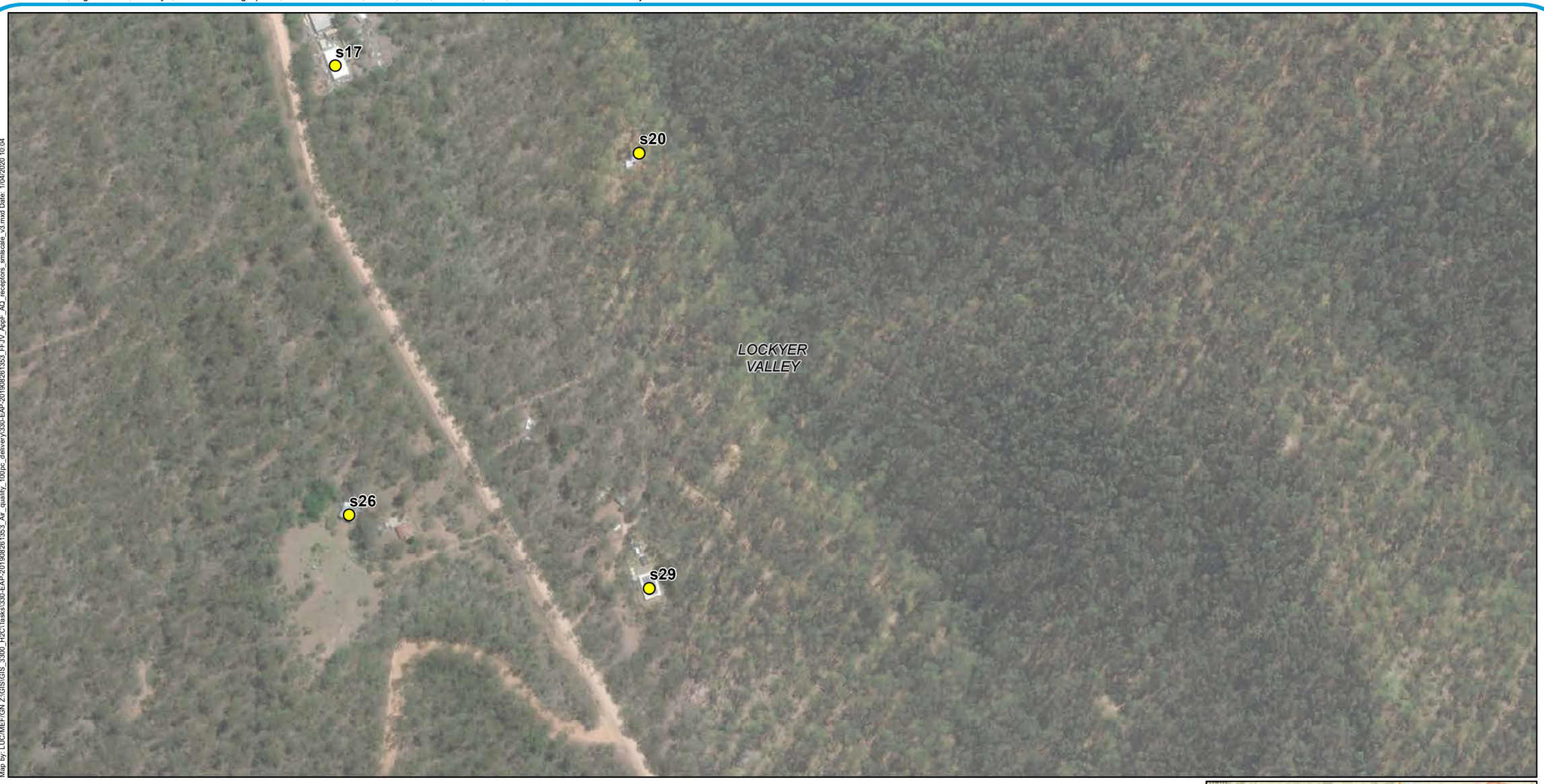
Appendix F19: Sensitive receptor locations

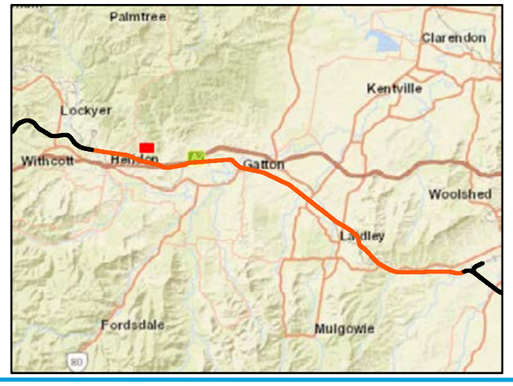
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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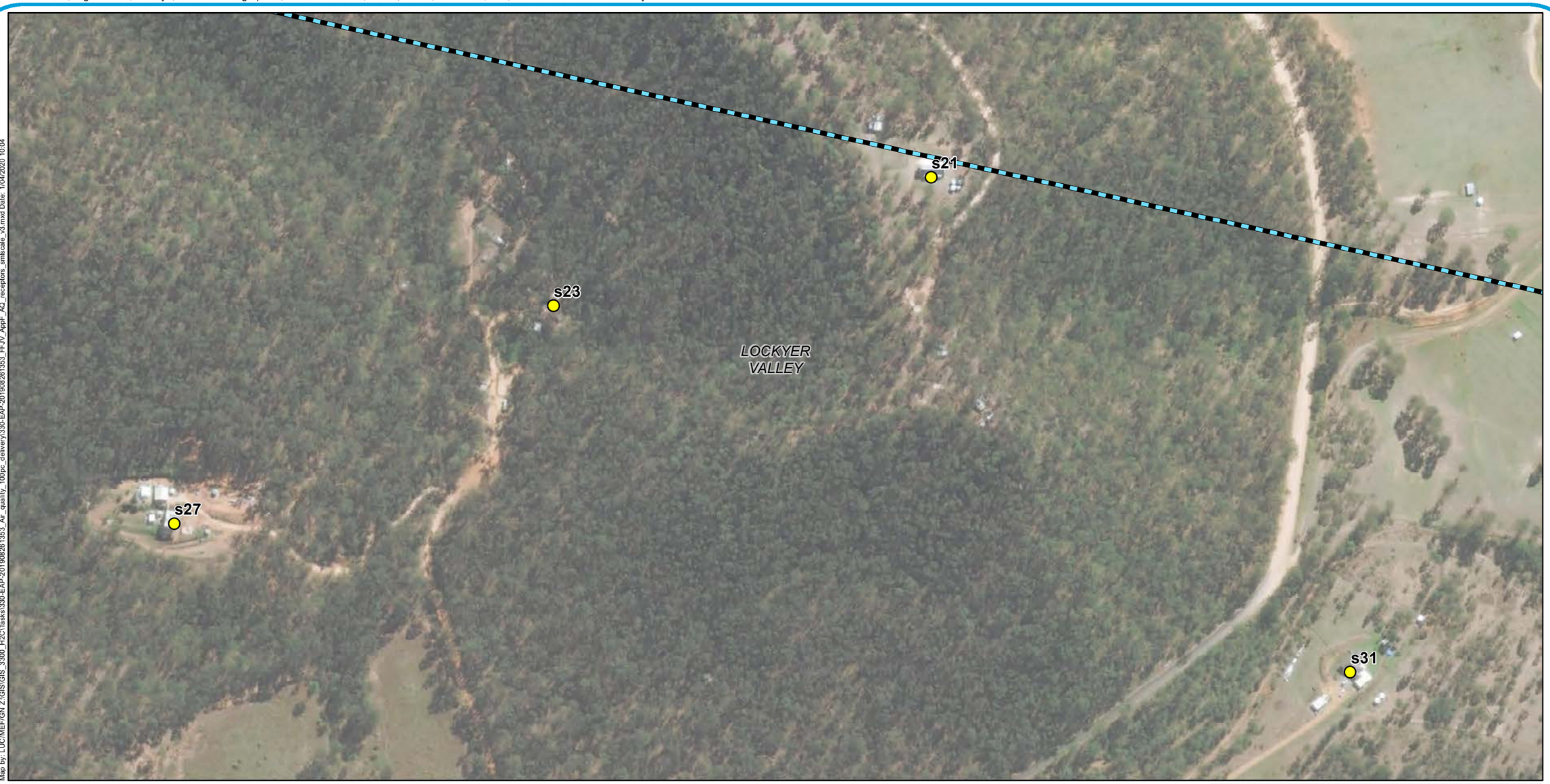
Appendix F20: Sensitive receptor locations

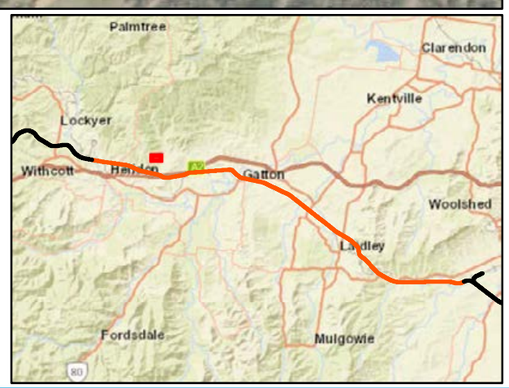
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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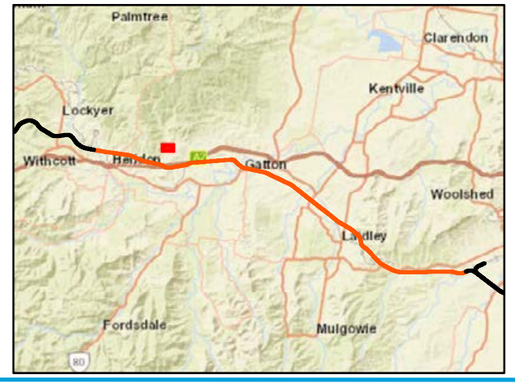
Appendix F21: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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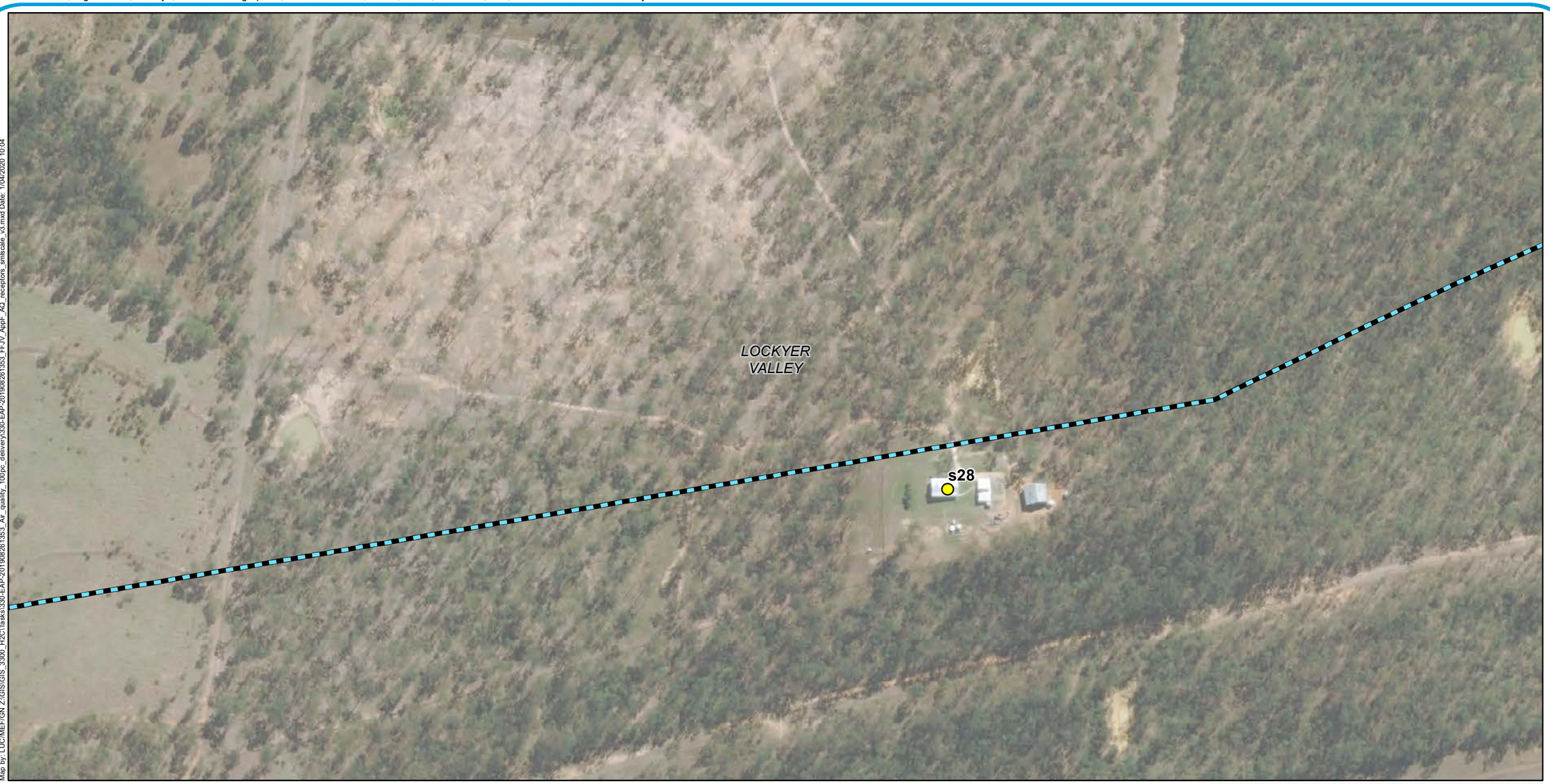
Appendix F22: Sensitive receptor locations

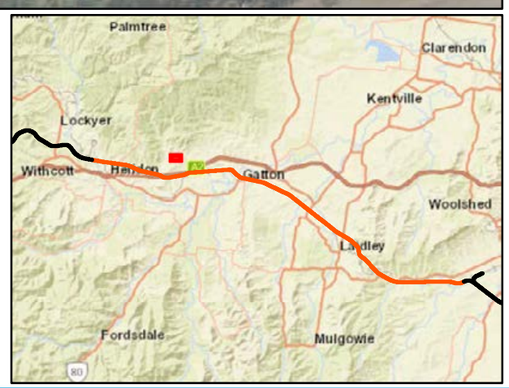
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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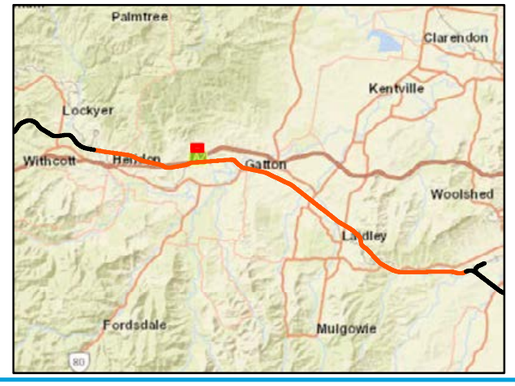
Appendix F23: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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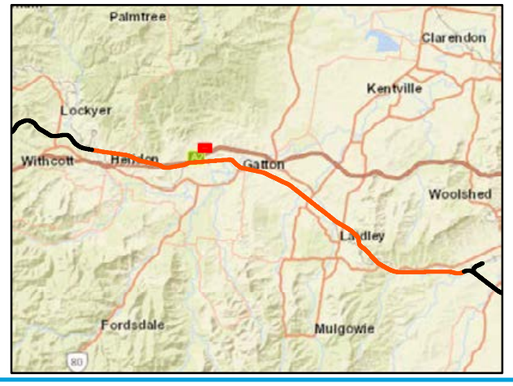
Appendix F24: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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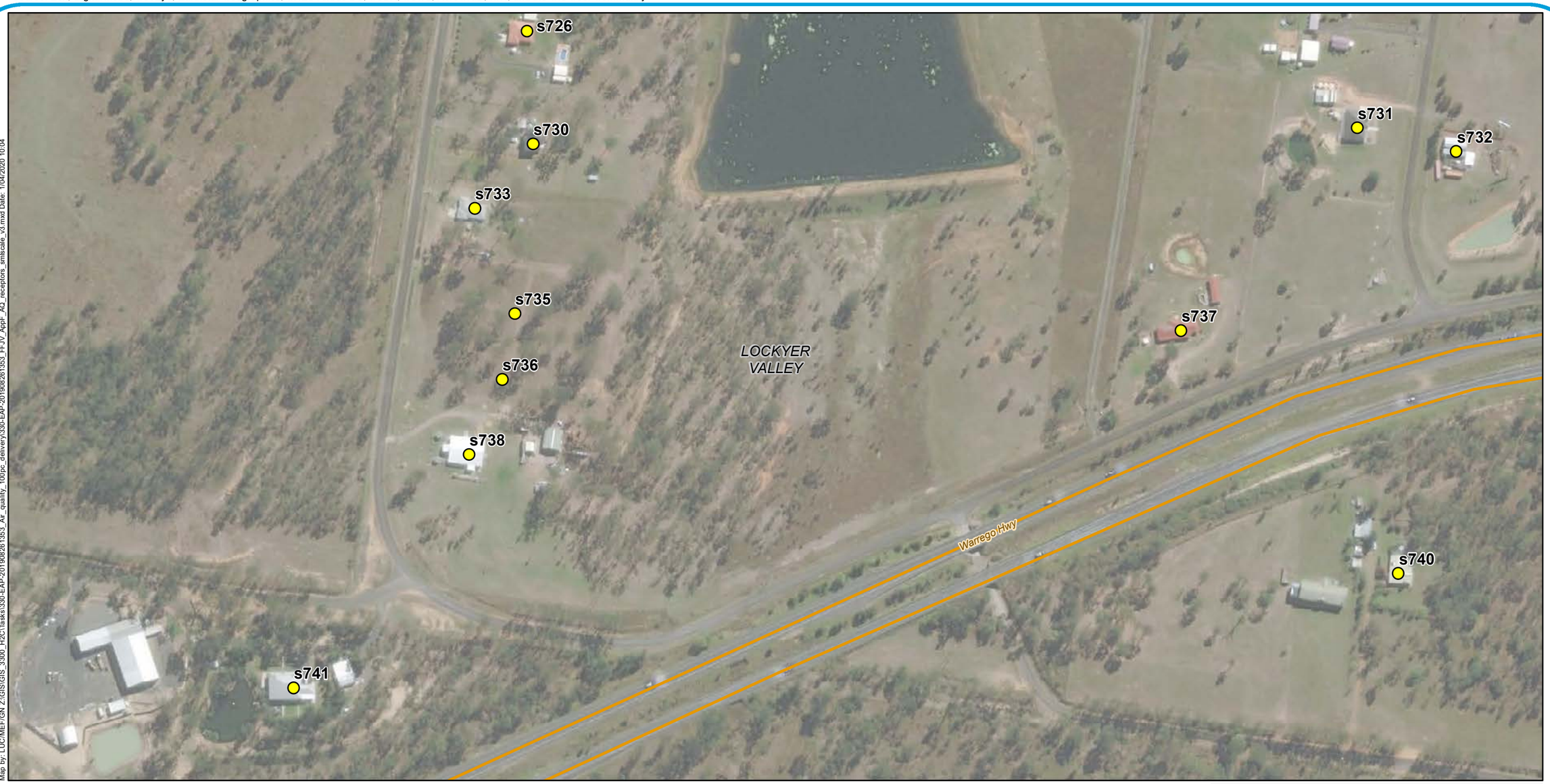
Appendix F25: Sensitive receptor locations

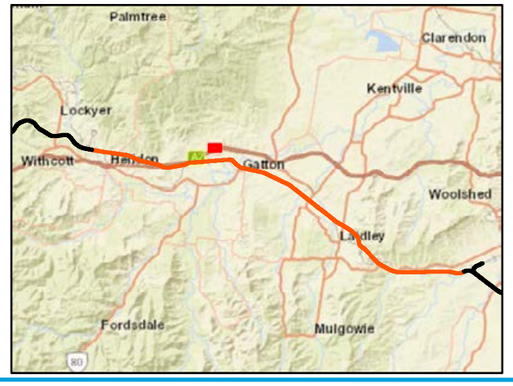
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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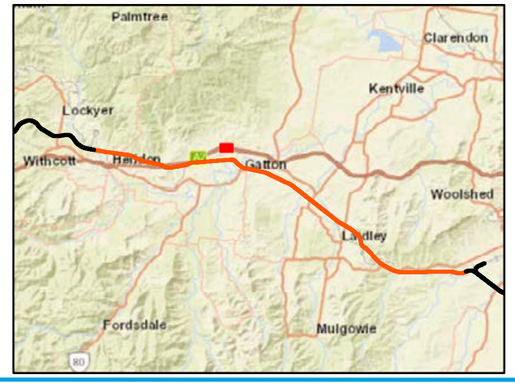
Appendix F26: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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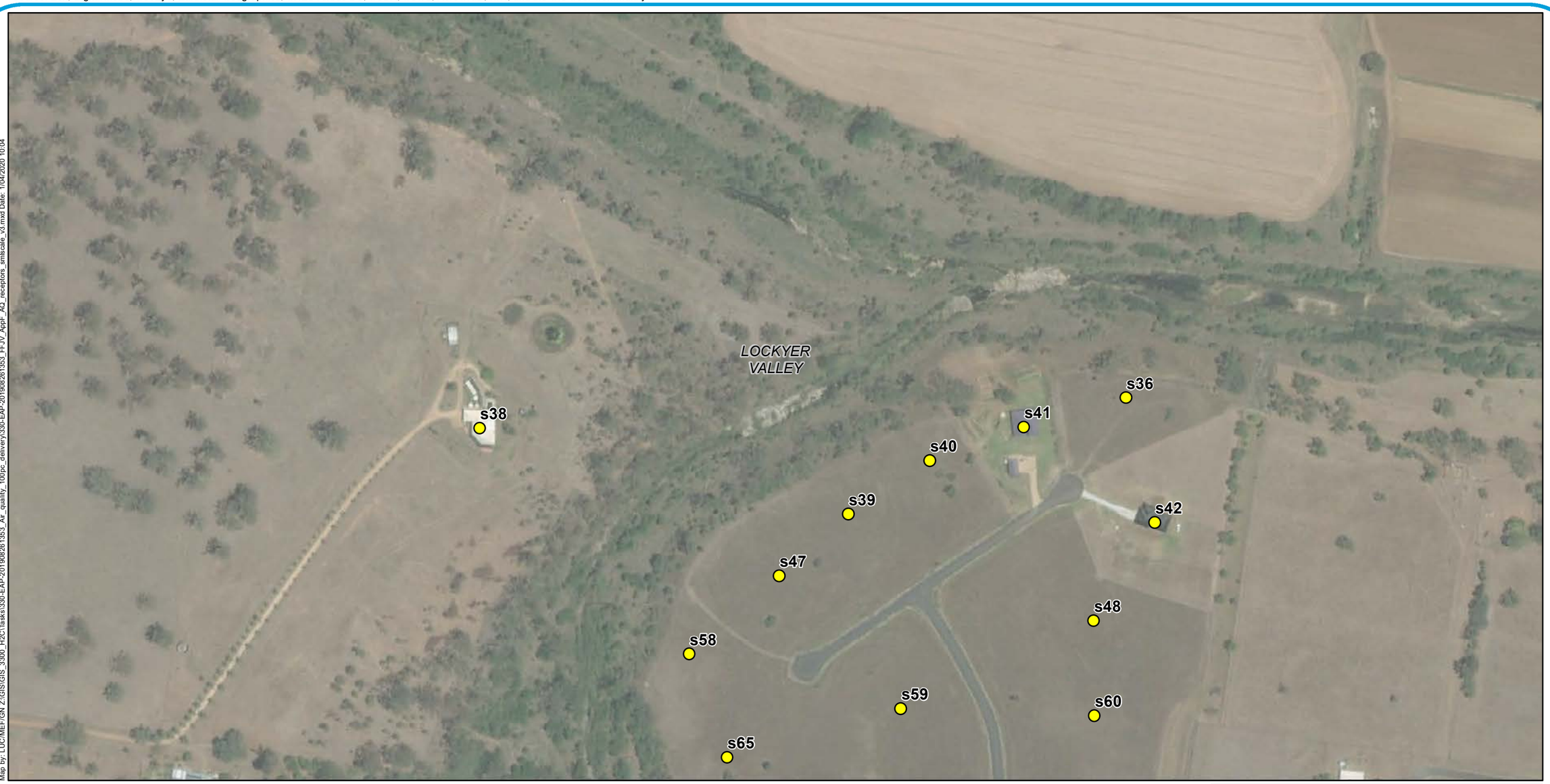
Appendix F27: Sensitive receptor locations

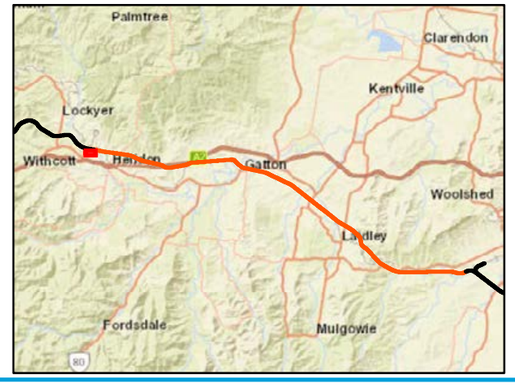
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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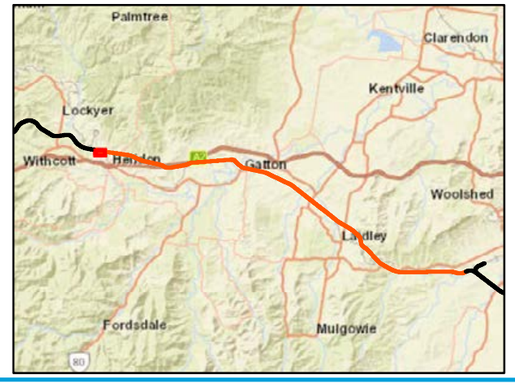
Appendix F28: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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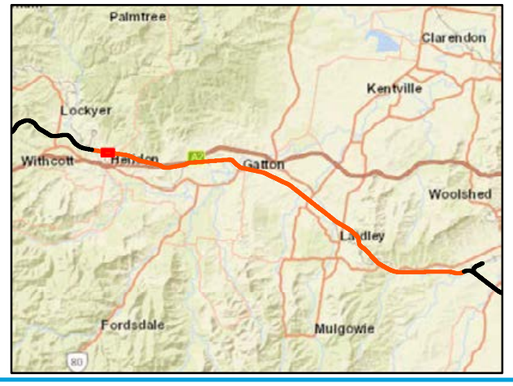
Appendix F29: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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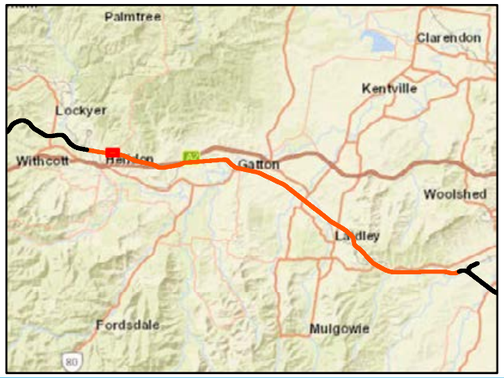
Appendix F30: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Crossing loops
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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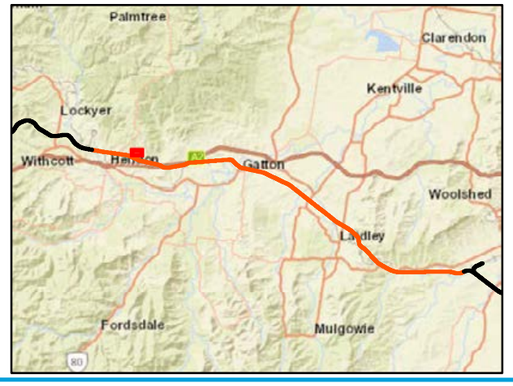
Appendix F31: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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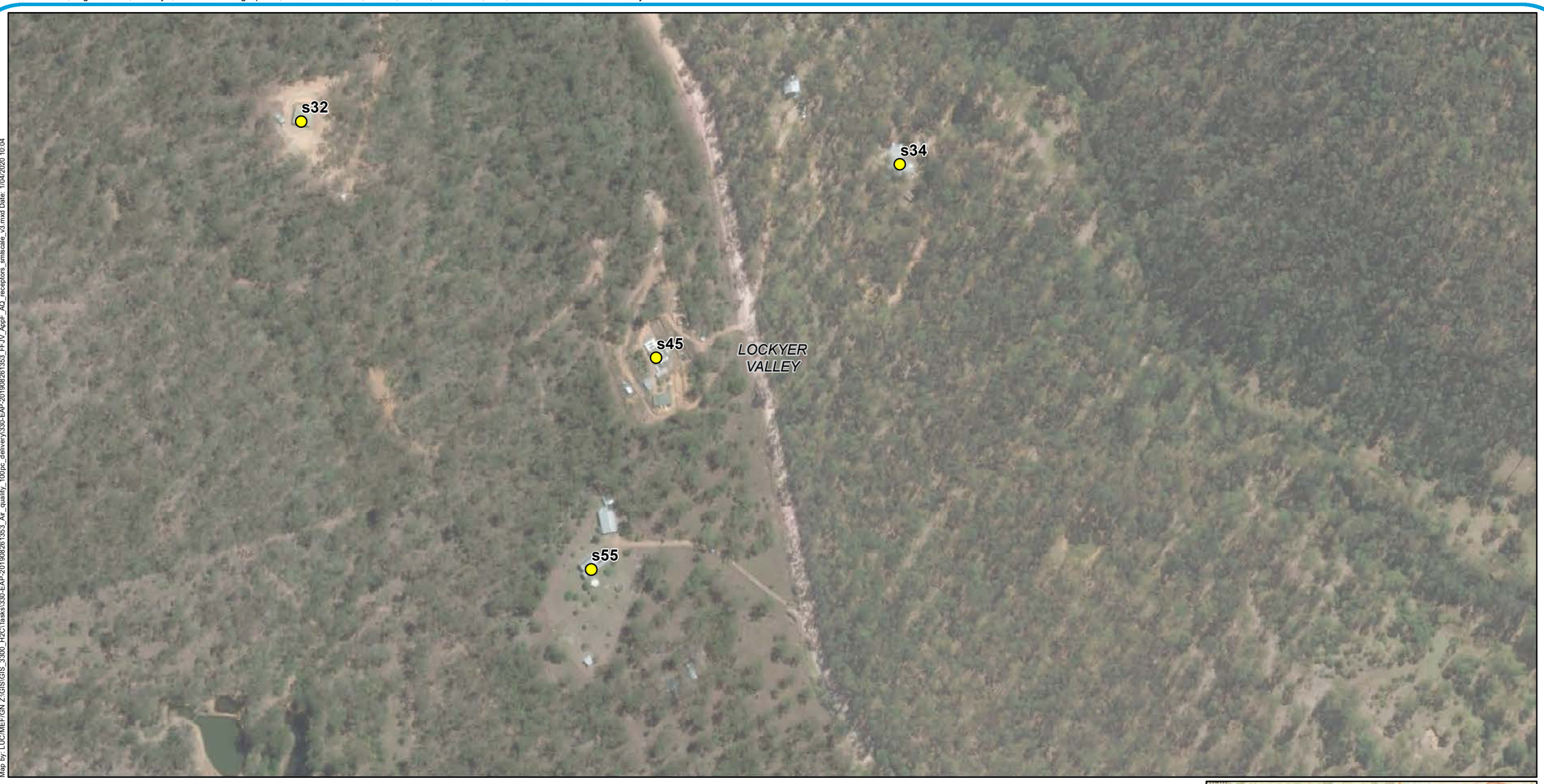
Appendix F32: Sensitive receptor locations

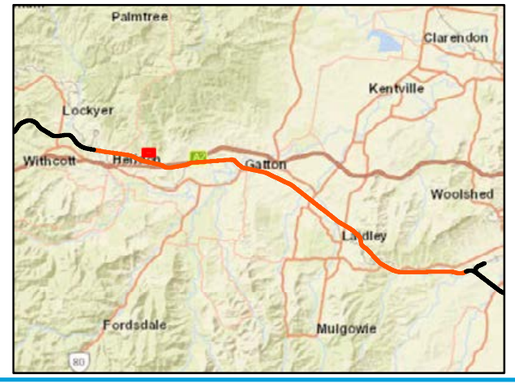
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

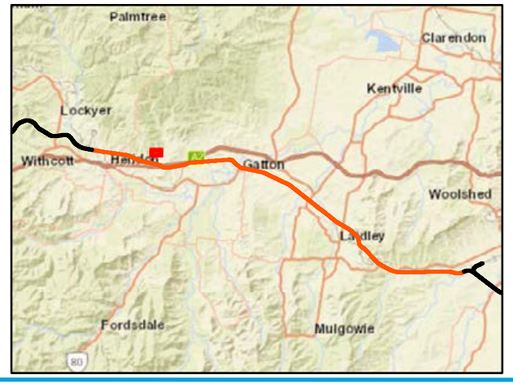
Appendix F33: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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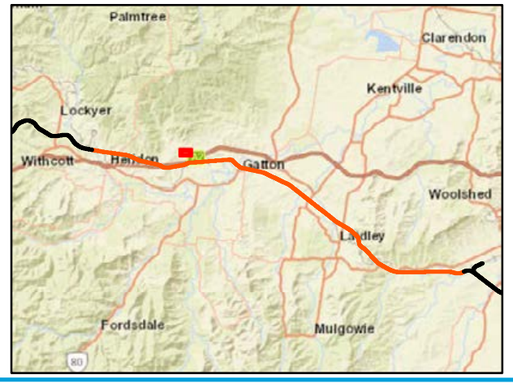
Appendix F34: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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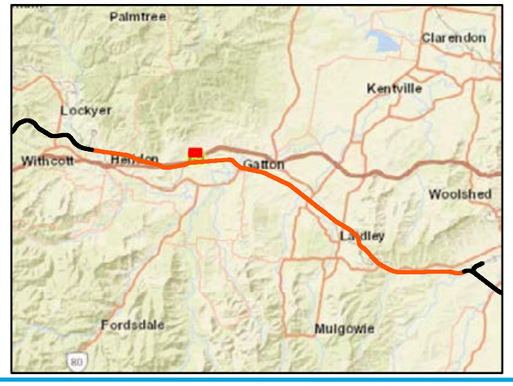
Appendix F35: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

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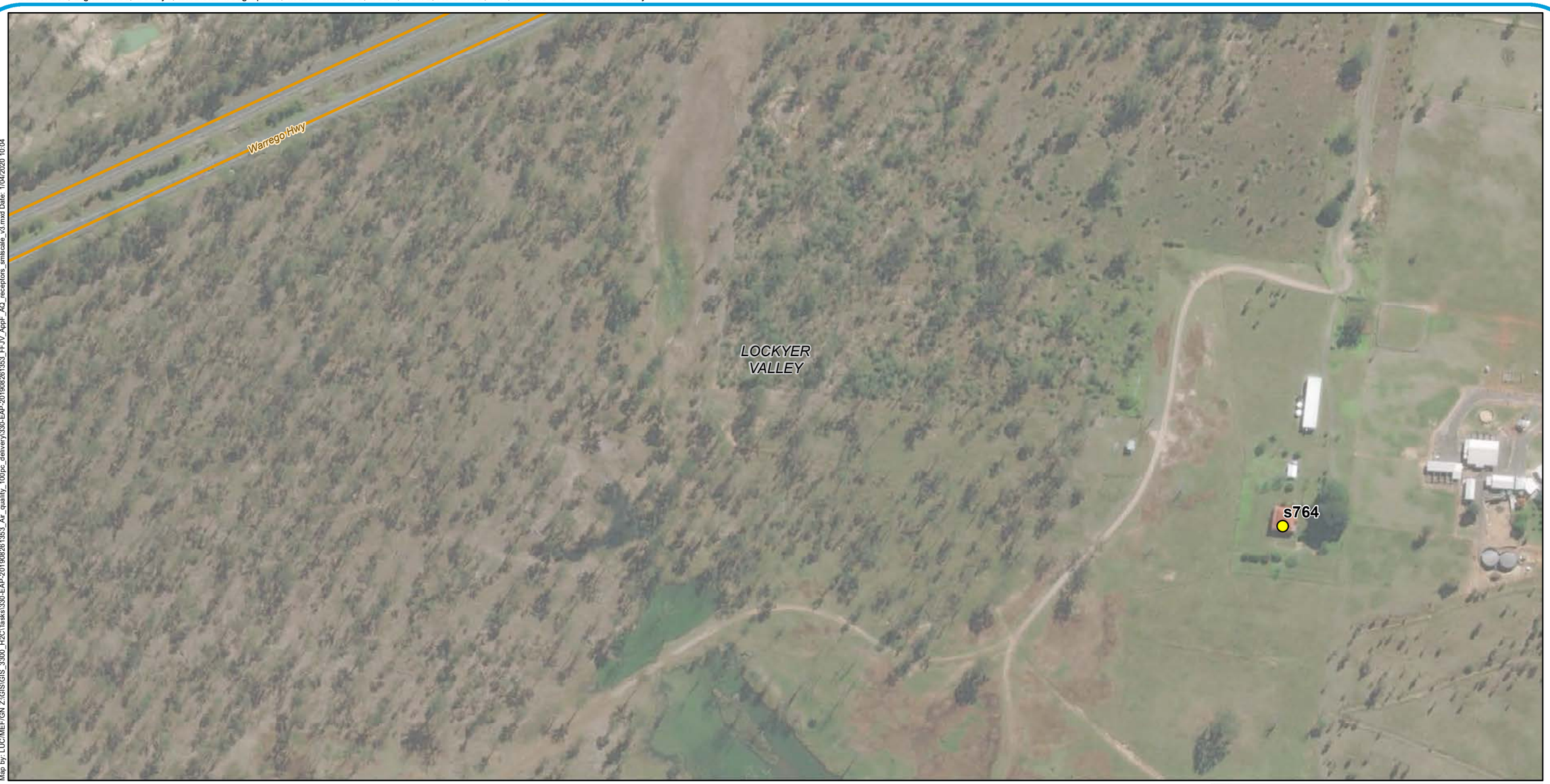
Appendix F36: Sensitive receptor locations

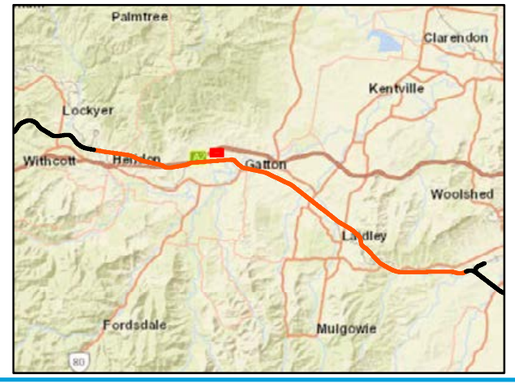
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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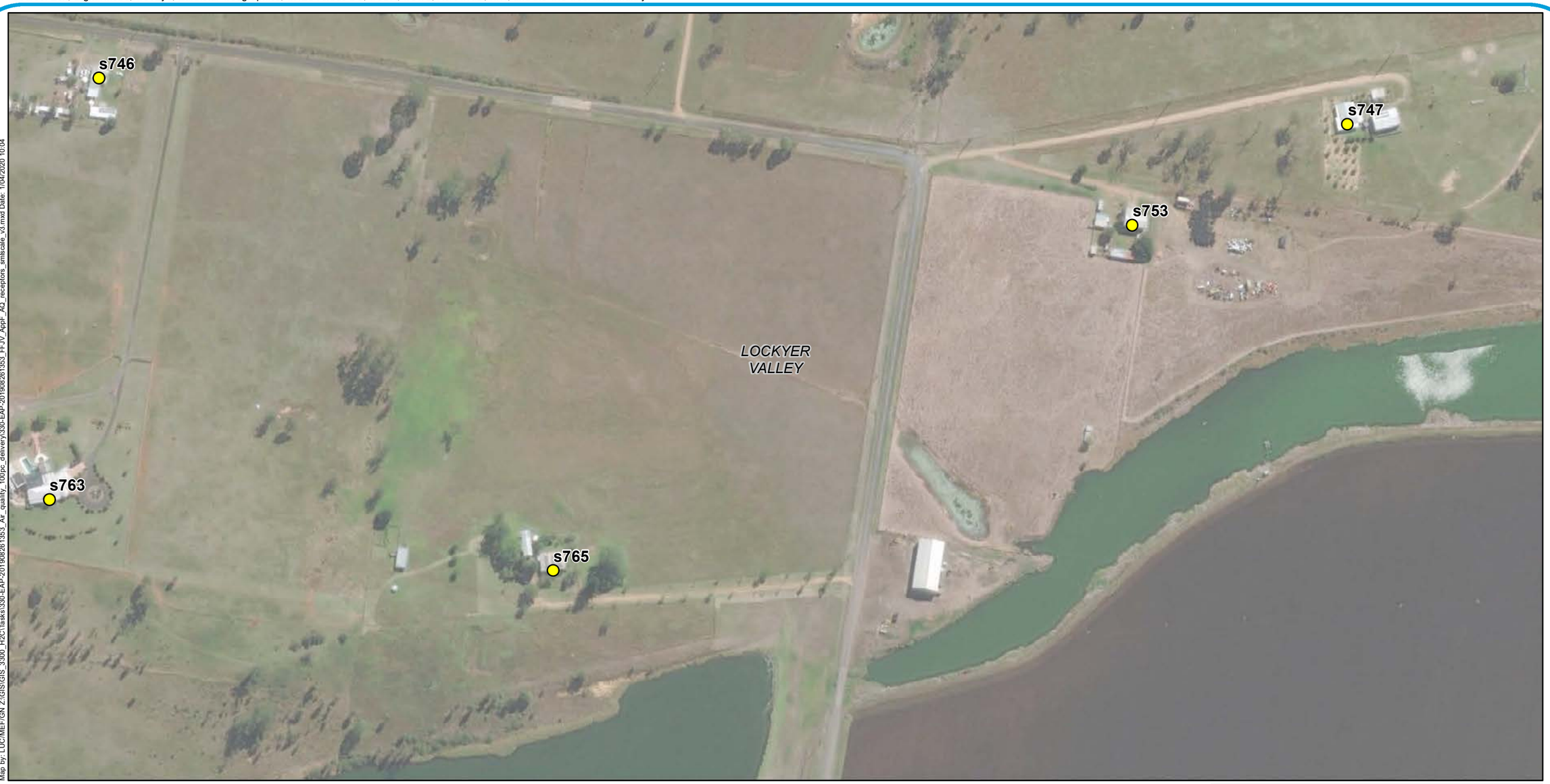
Appendix F37: Sensitive receptor locations

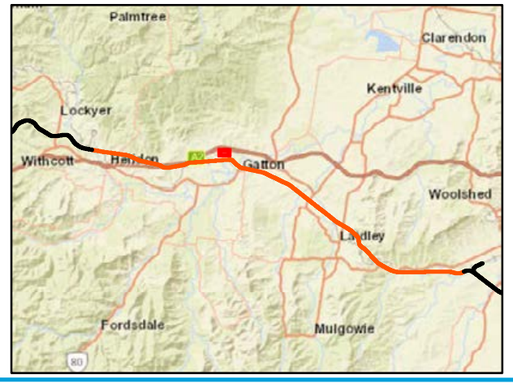
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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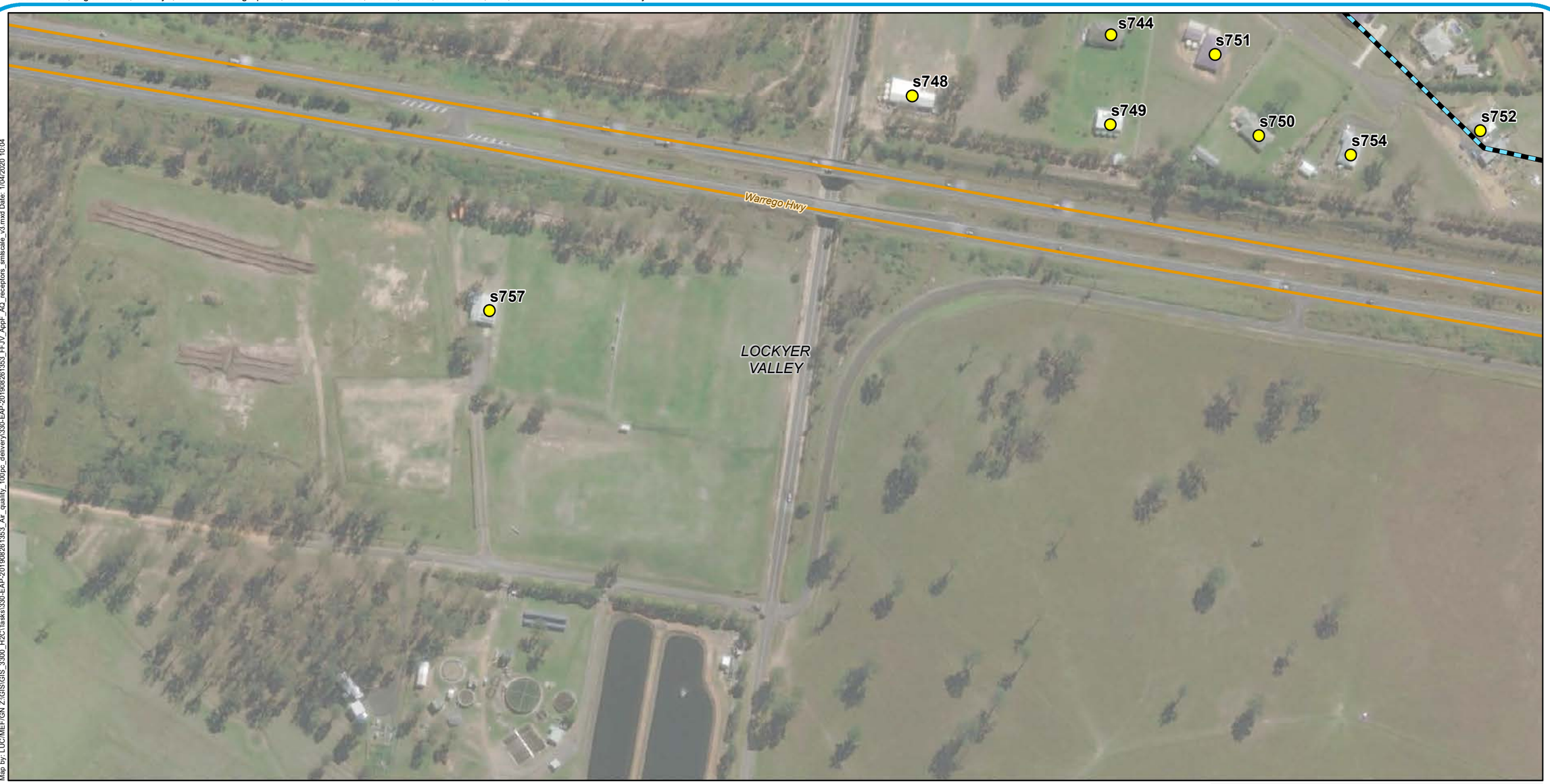
Appendix F38: Sensitive receptor locations

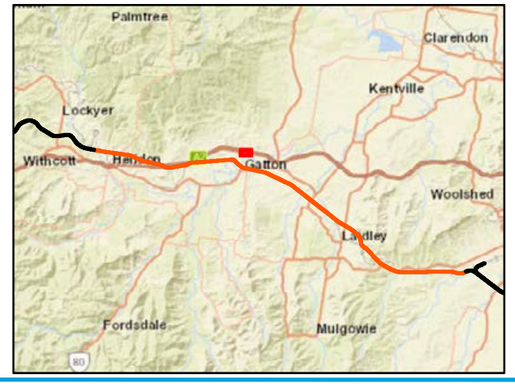
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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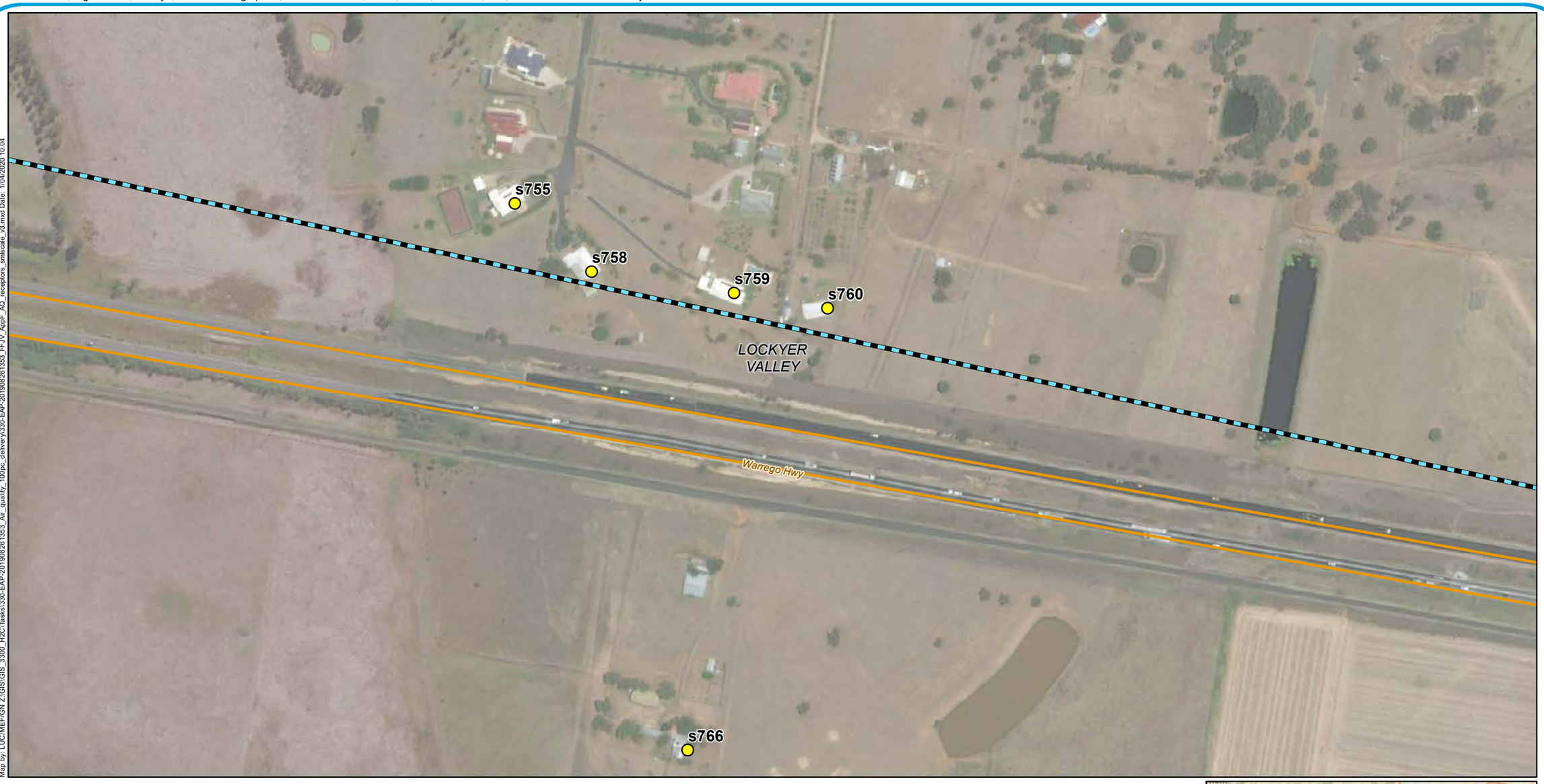
Appendix F39: Sensitive receptor locations

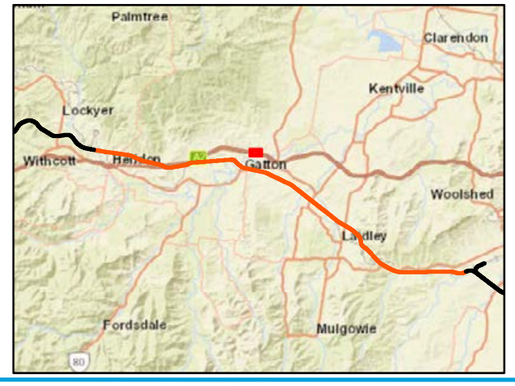
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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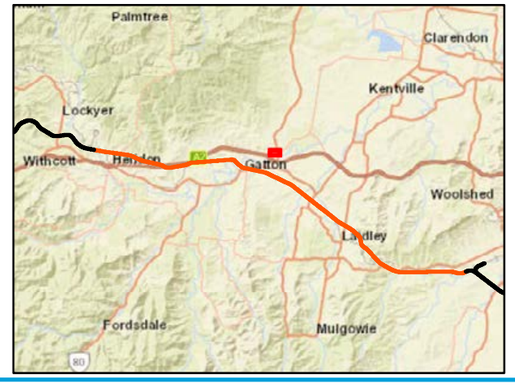
Appendix F40: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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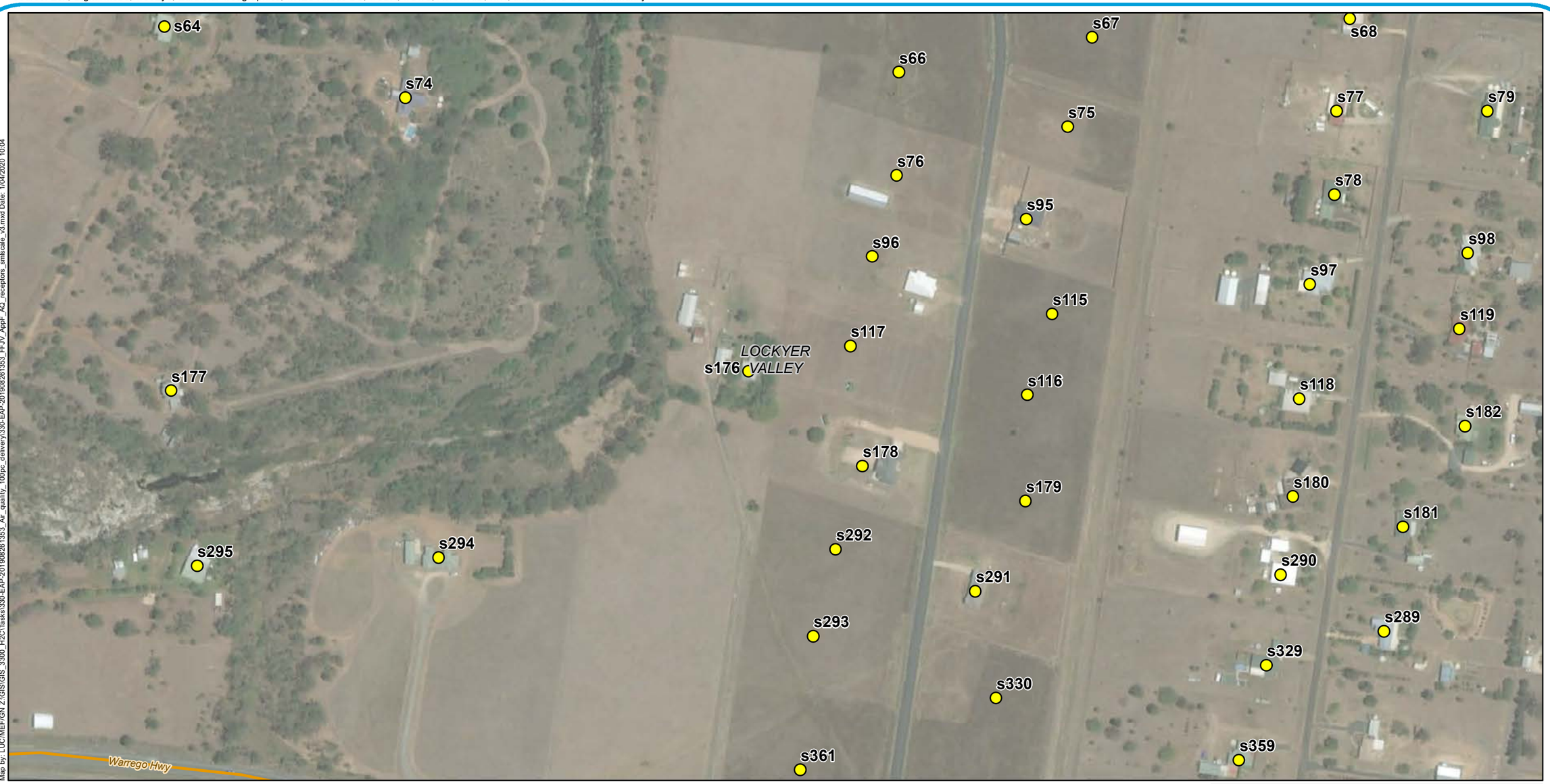
Appendix F41: Sensitive receptor locations

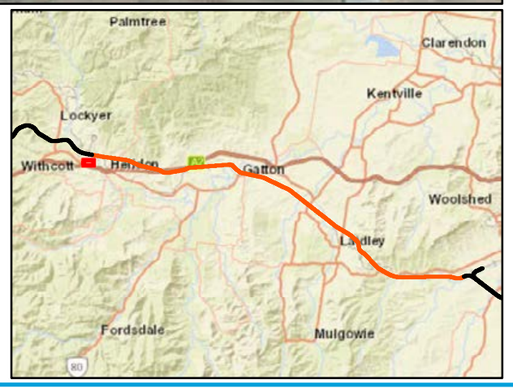
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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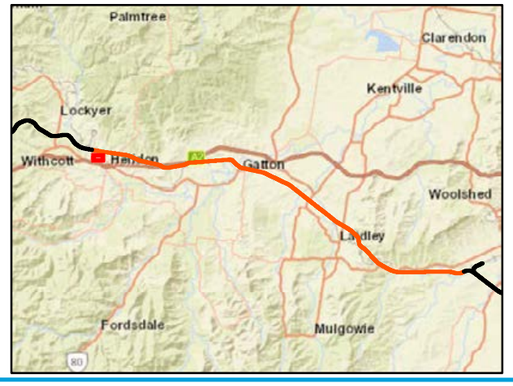
Appendix F42: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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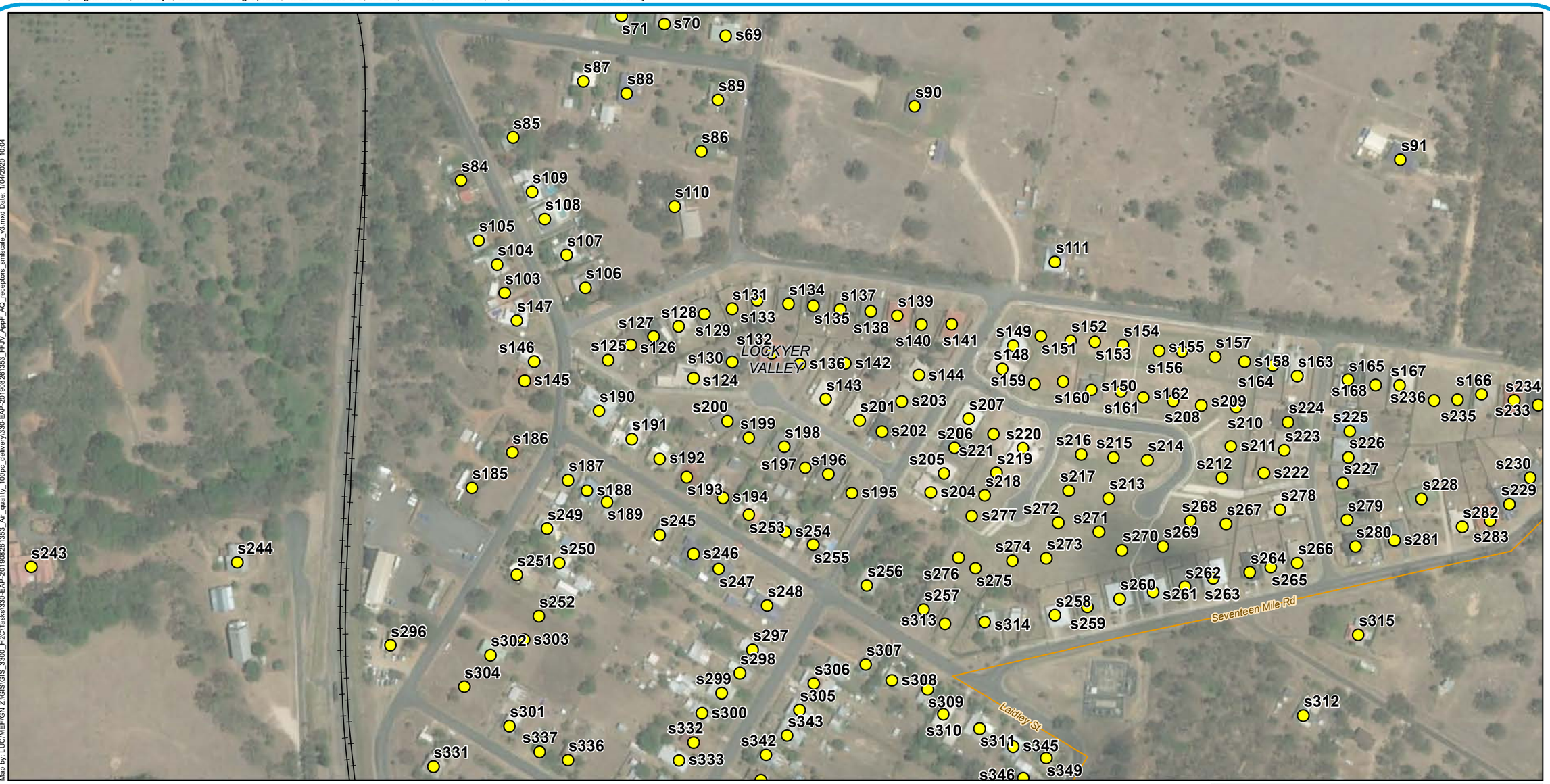
Appendix F43: Sensitive receptor locations

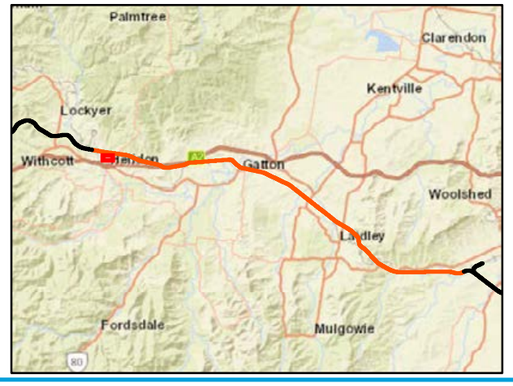
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Appendix F44: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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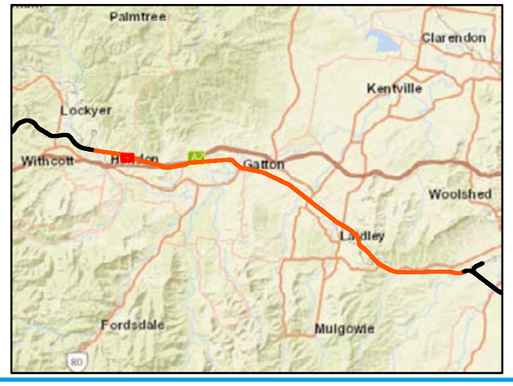
Appendix F45: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Crossing loops
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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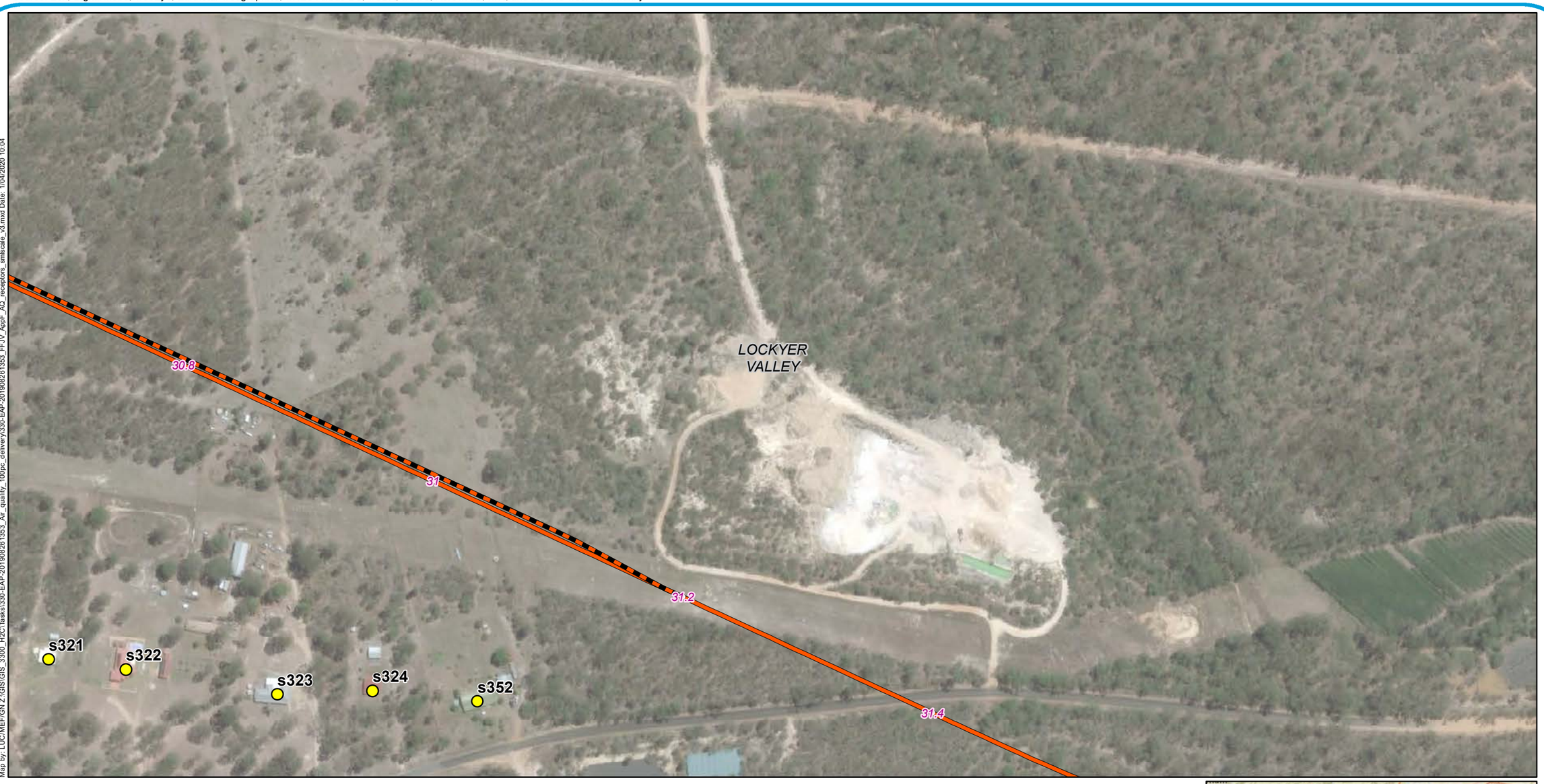
Appendix F46: Sensitive receptor locations

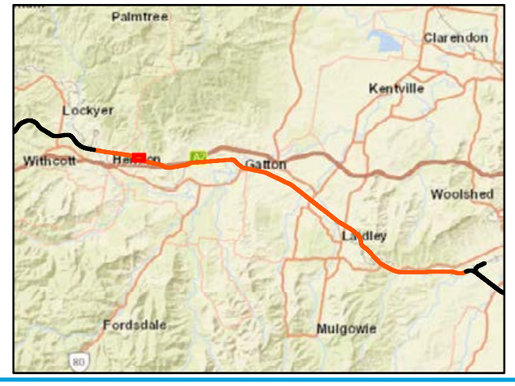
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Crossing loops
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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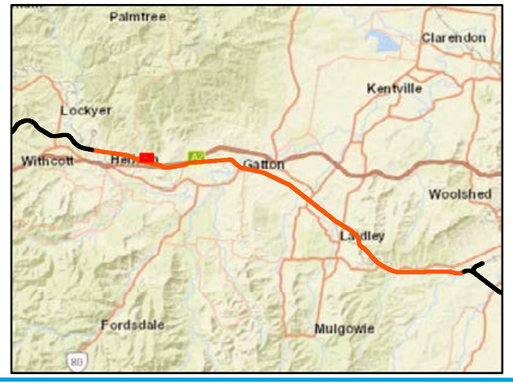
Appendix F47: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

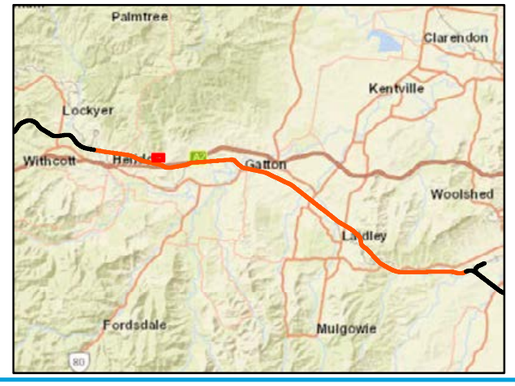
Appendix F48: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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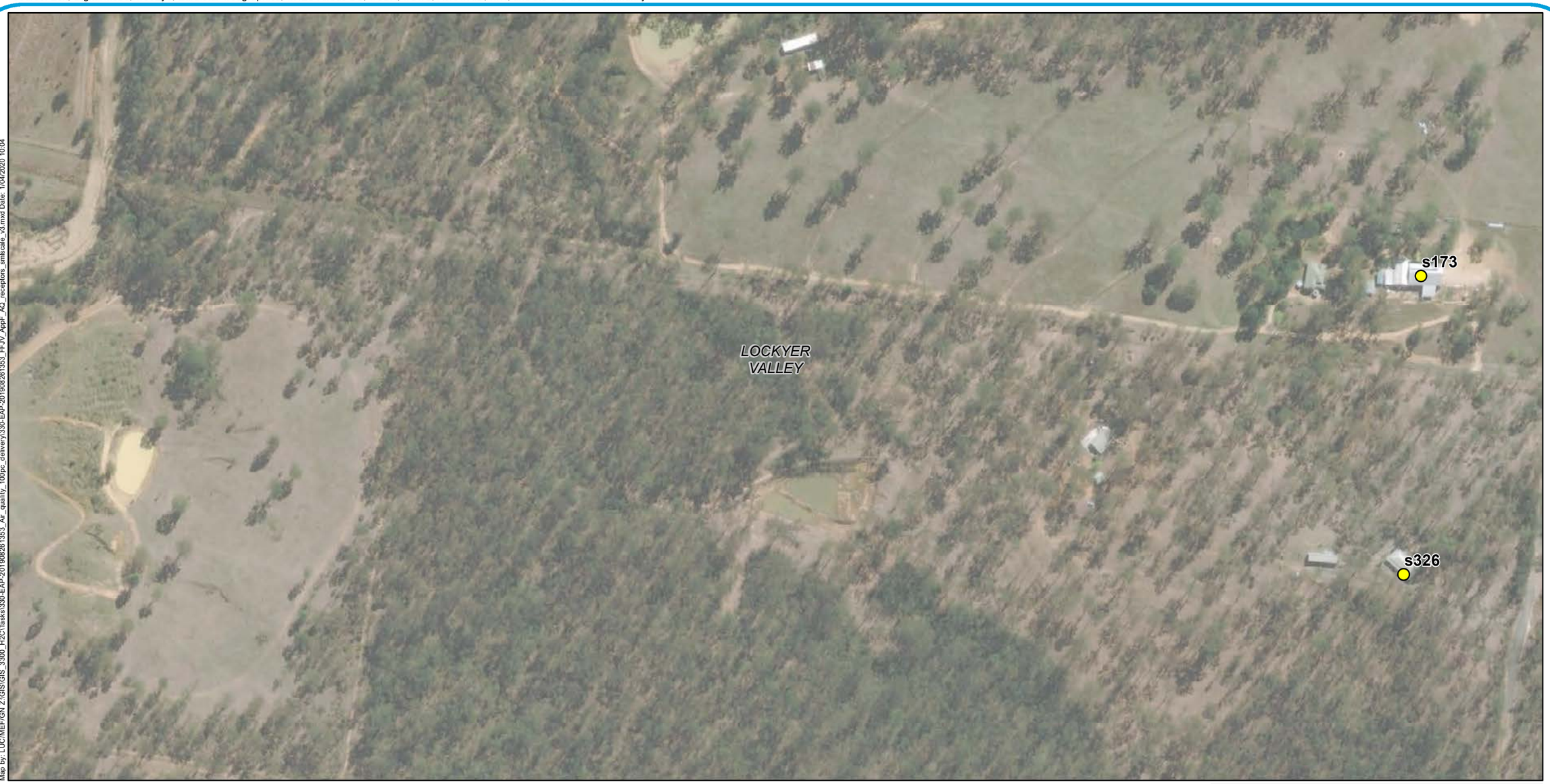
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F49: Sensitive receptor locations

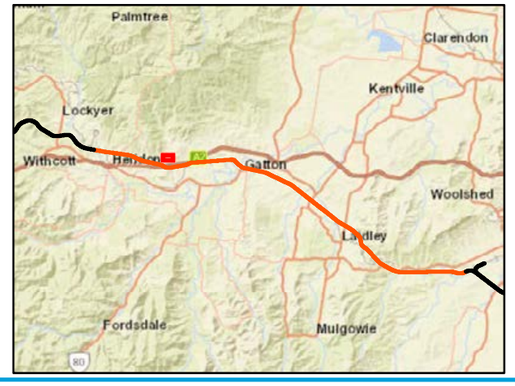
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F50: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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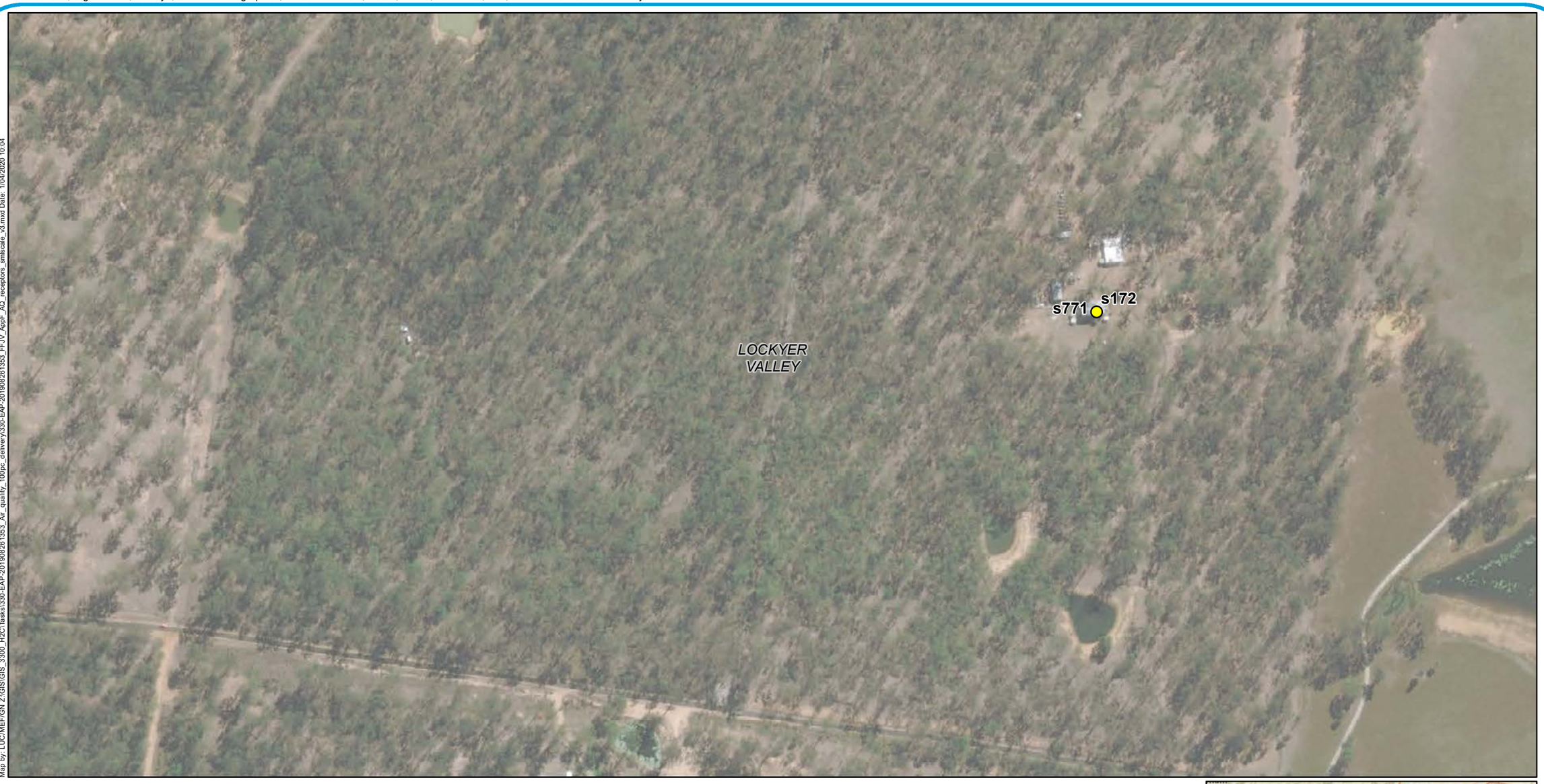
Appendix F51: Sensitive receptor locations

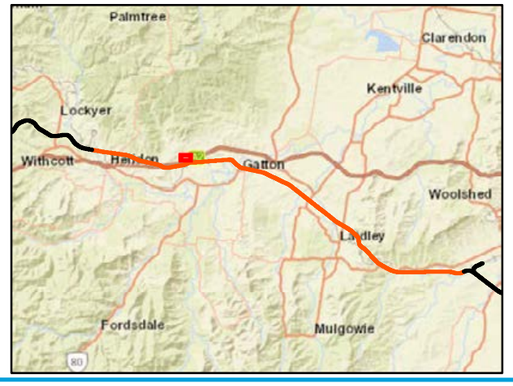
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

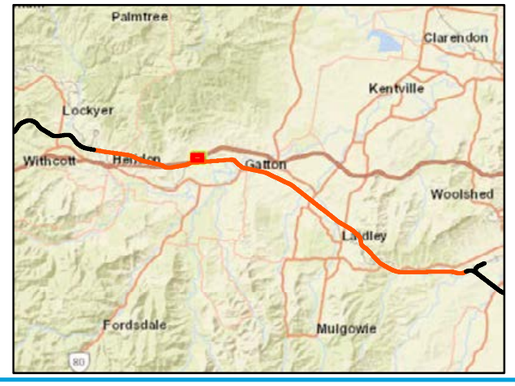
Appendix F52: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

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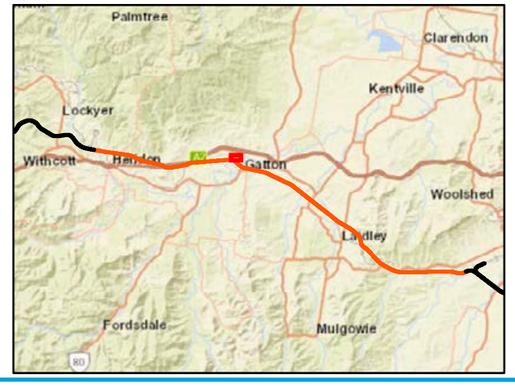
Appendix F53: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

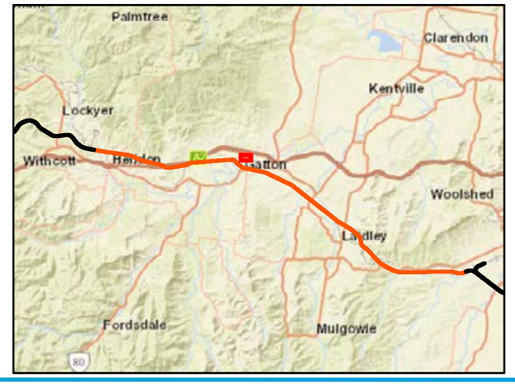
Appendix F54: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

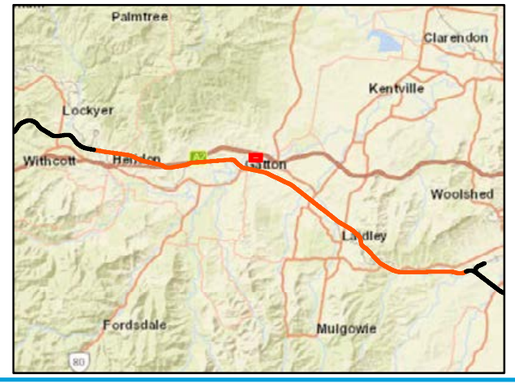
Appendix F55: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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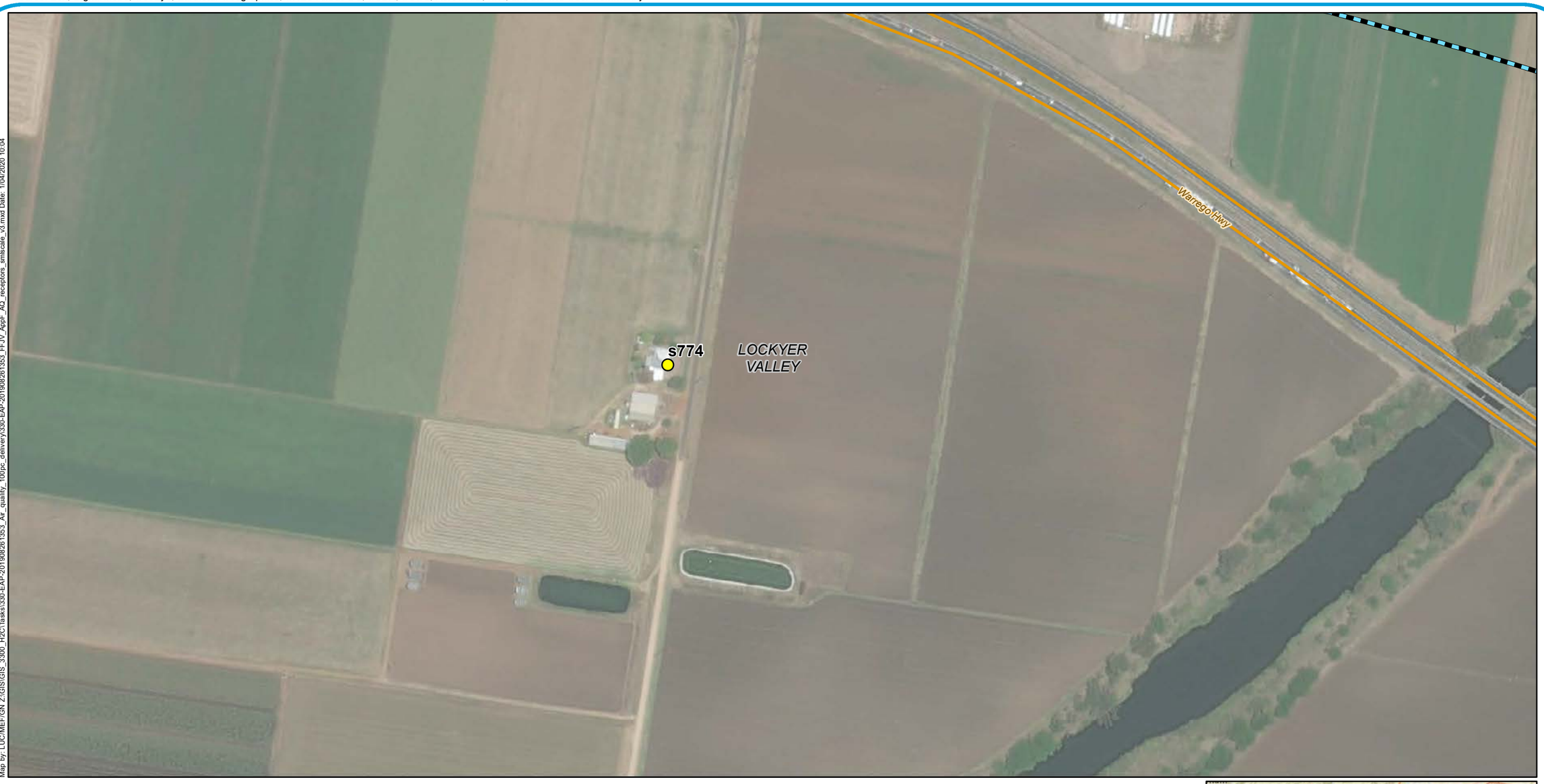
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F56: Sensitive receptor locations

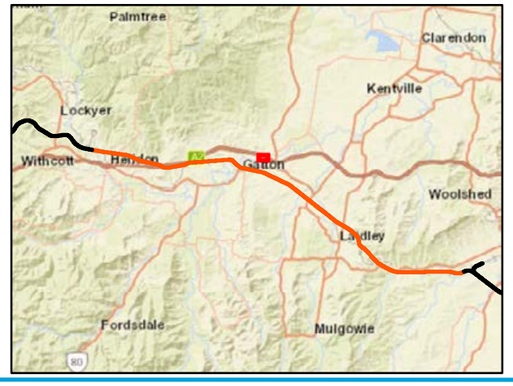
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

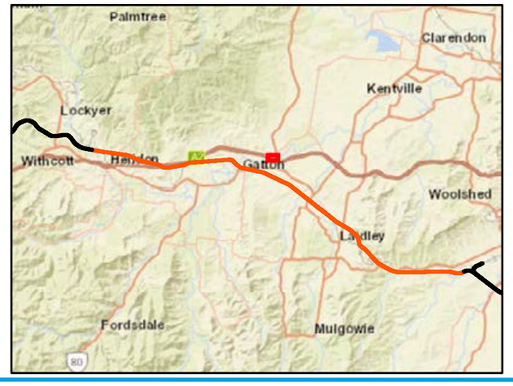
Appendix F57: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F58: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery\330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

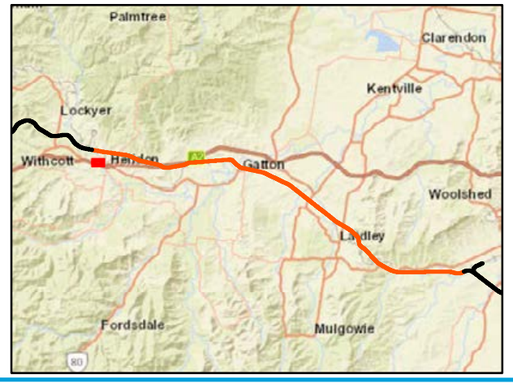
Appendix F59: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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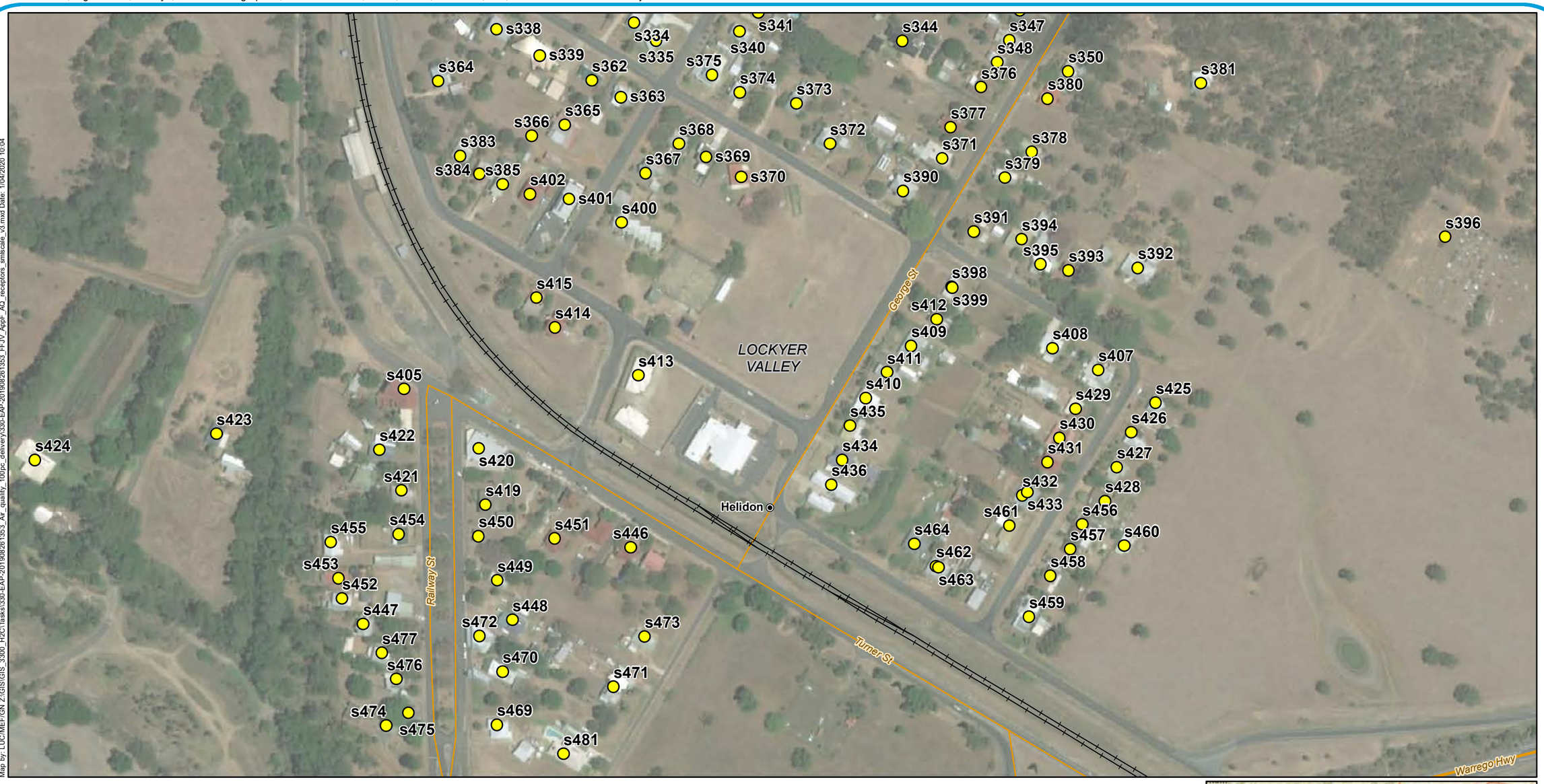
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F60: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Localities
- Existing rail
- Major roads
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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Appendix F61: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery\330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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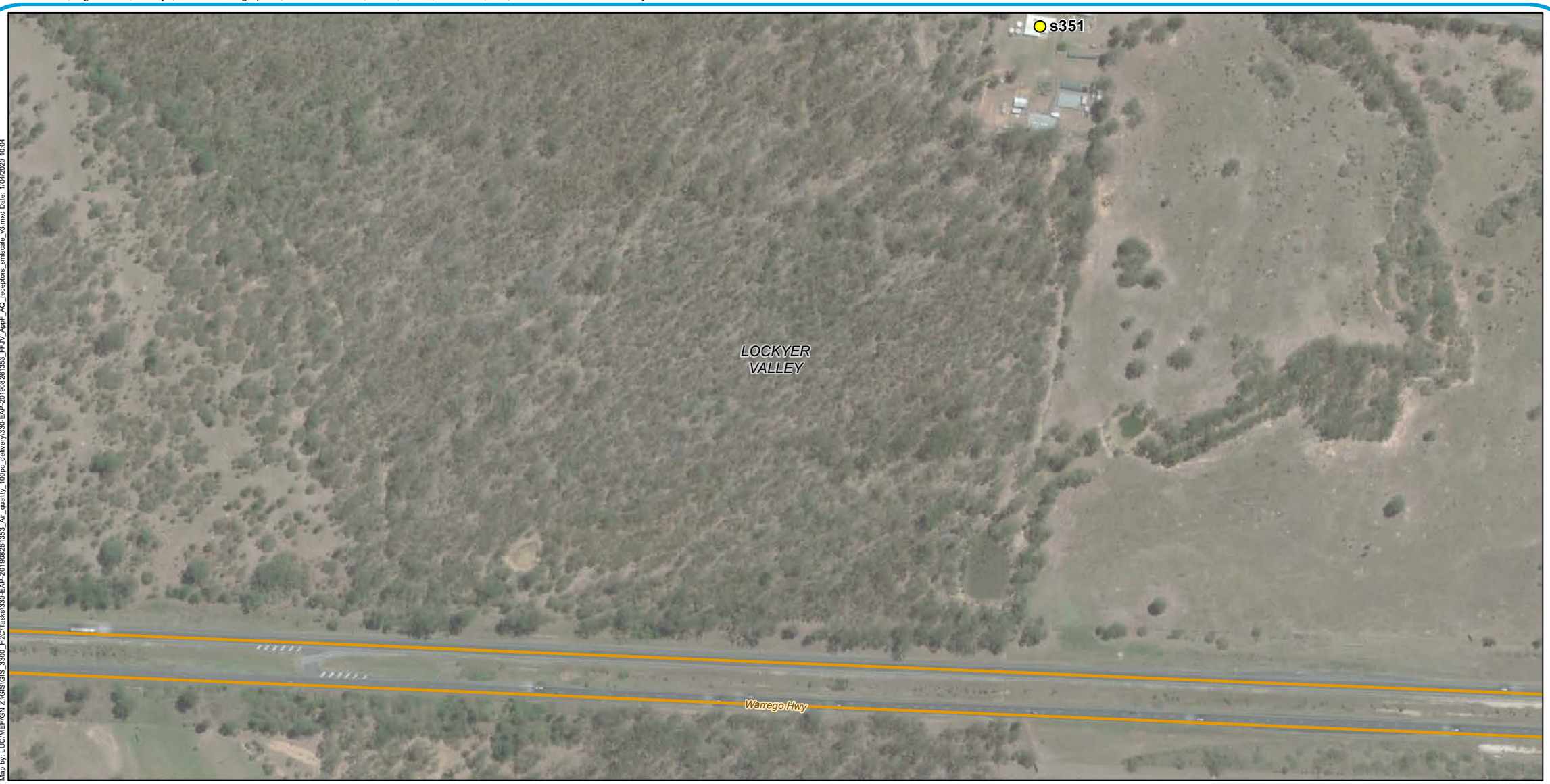
Appendix F62: Sensitive receptor locations

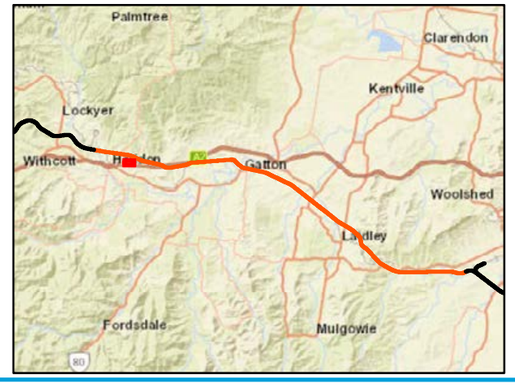
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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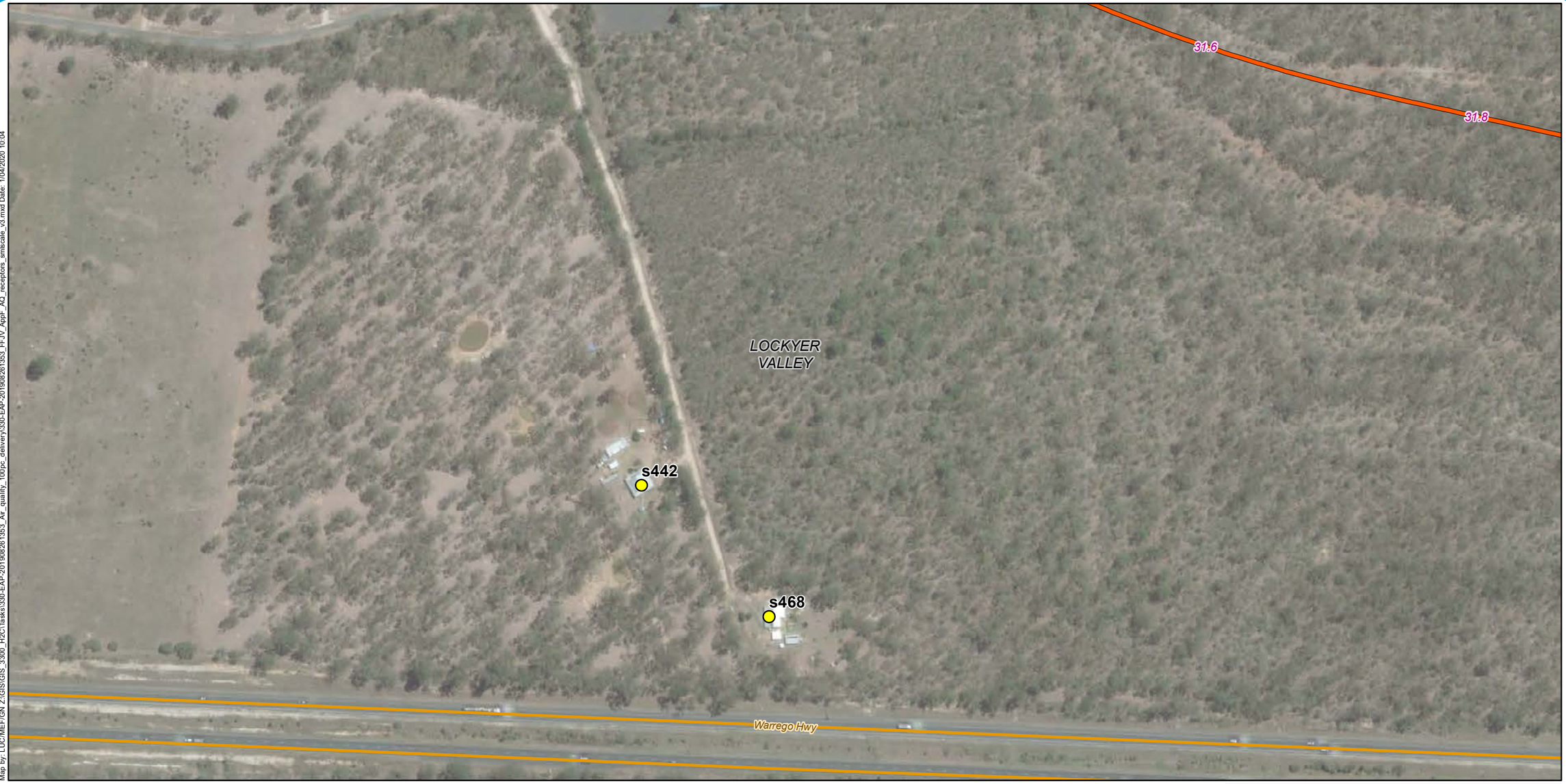
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F63: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- H2C project alignment
- Major roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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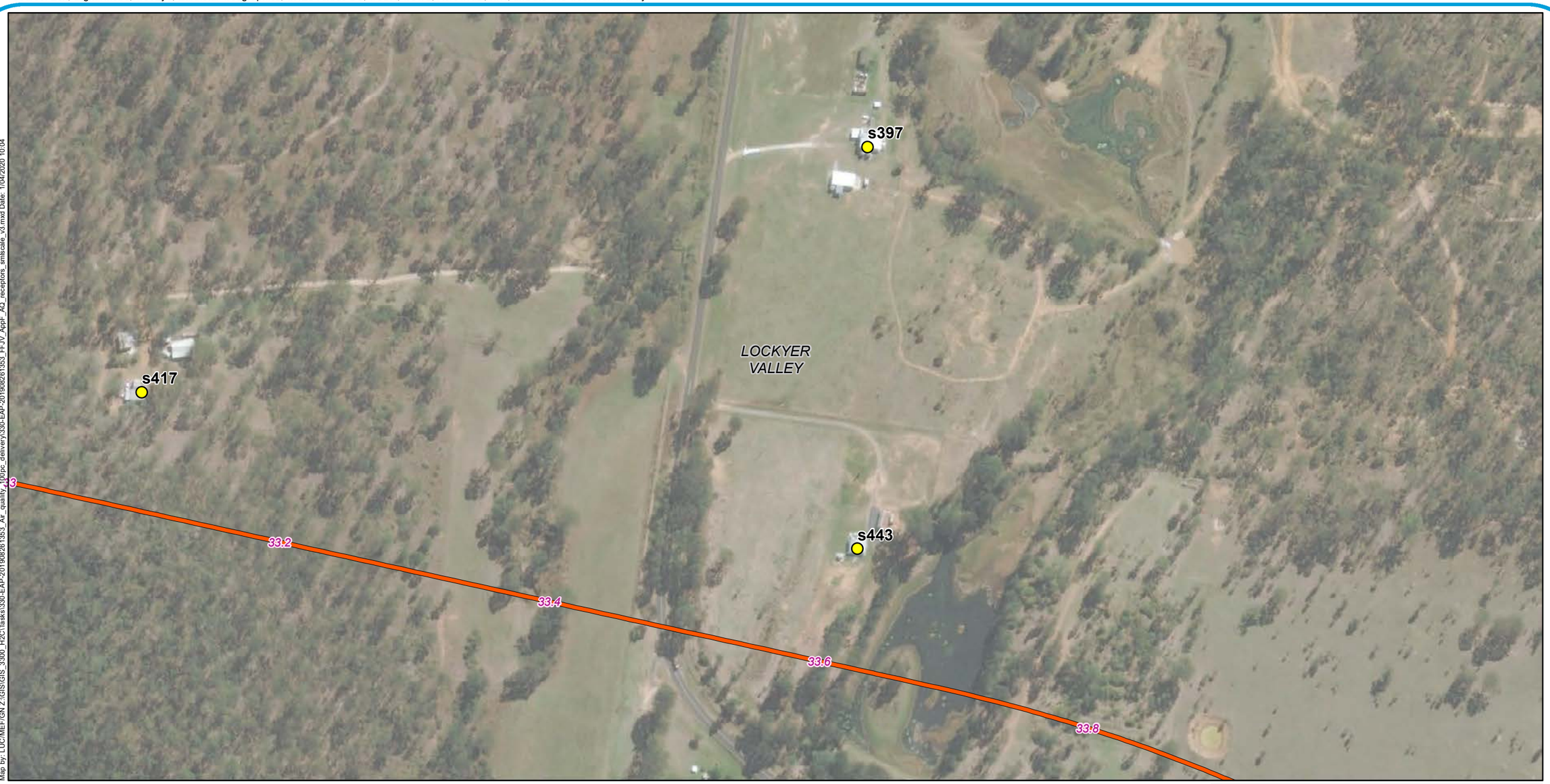
Appendix F64: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- H2C project alignment
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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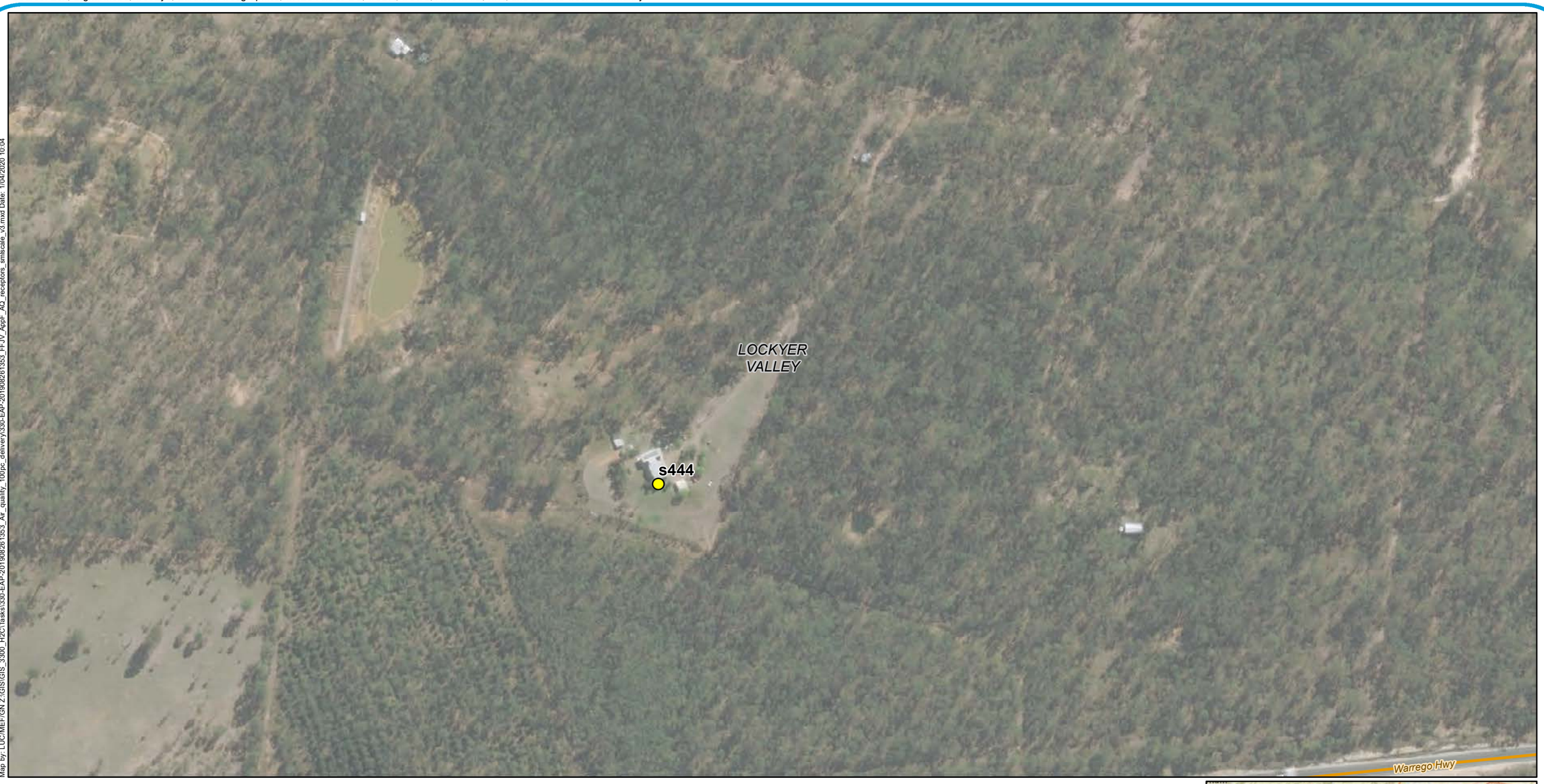
Appendix F65: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Helidon to Calvert

Appendix F66: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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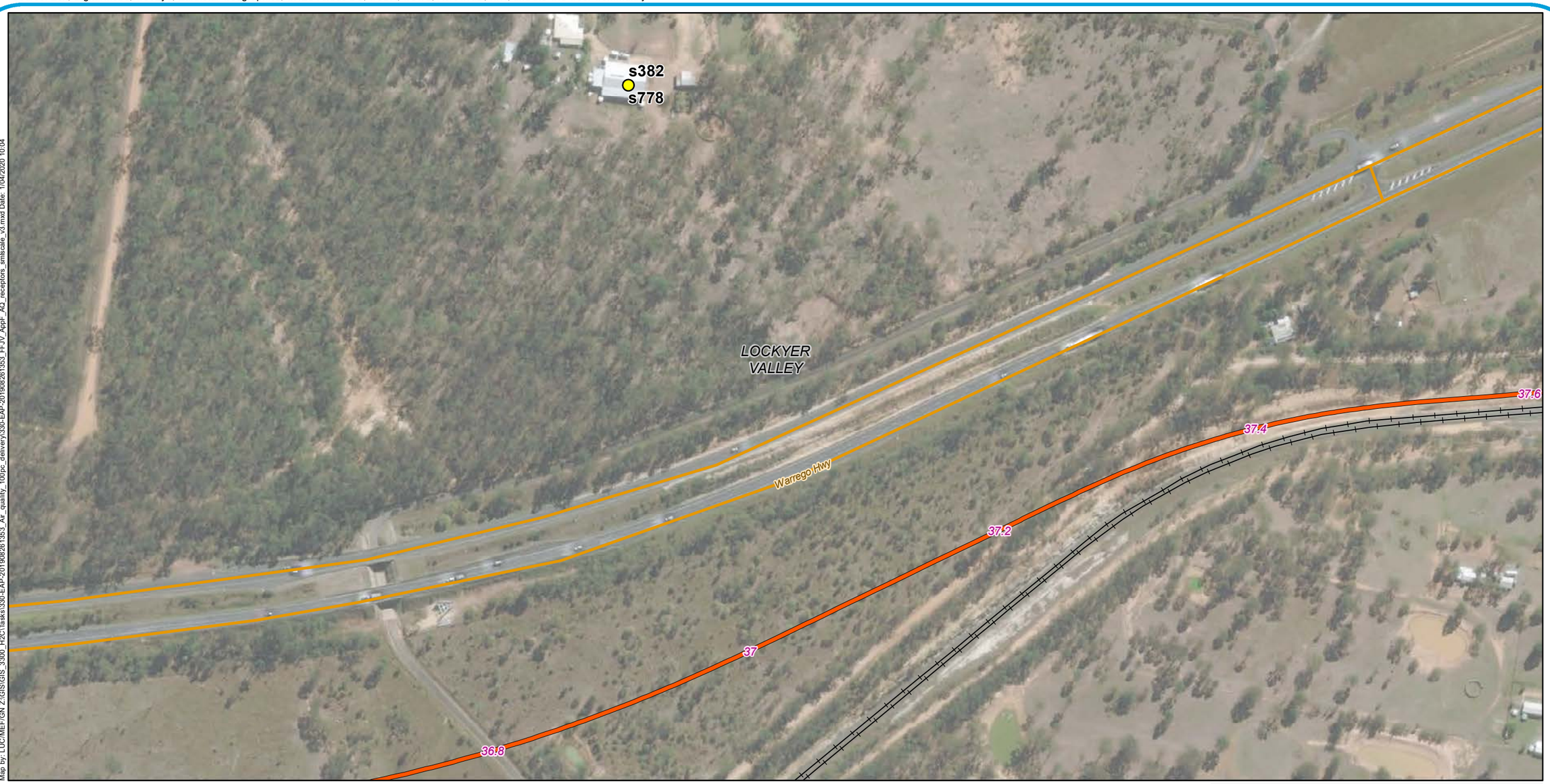
Appendix F67: Sensitive receptor locations

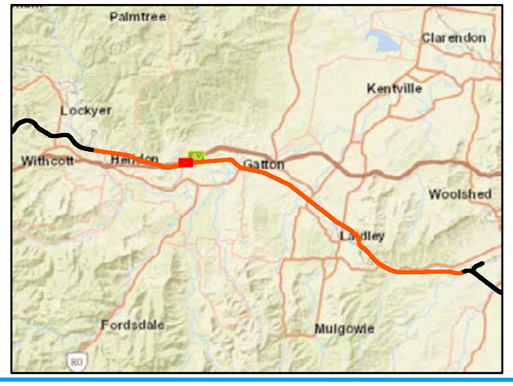
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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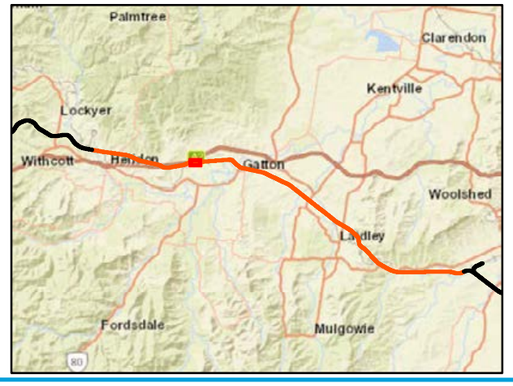
Appendix F68: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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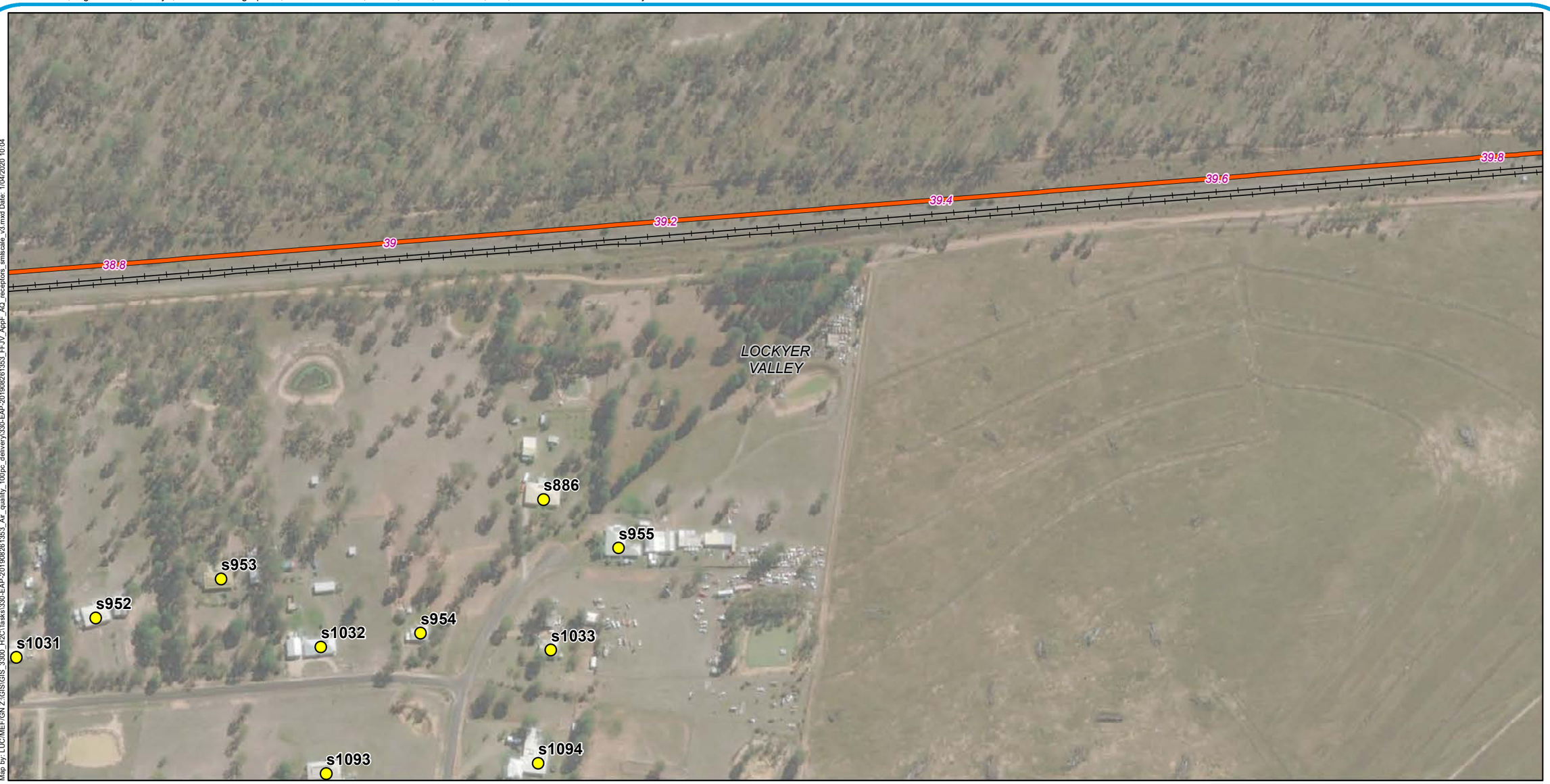
Appendix F69: Sensitive receptor locations

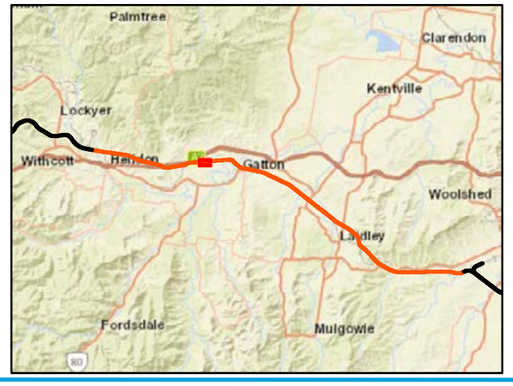
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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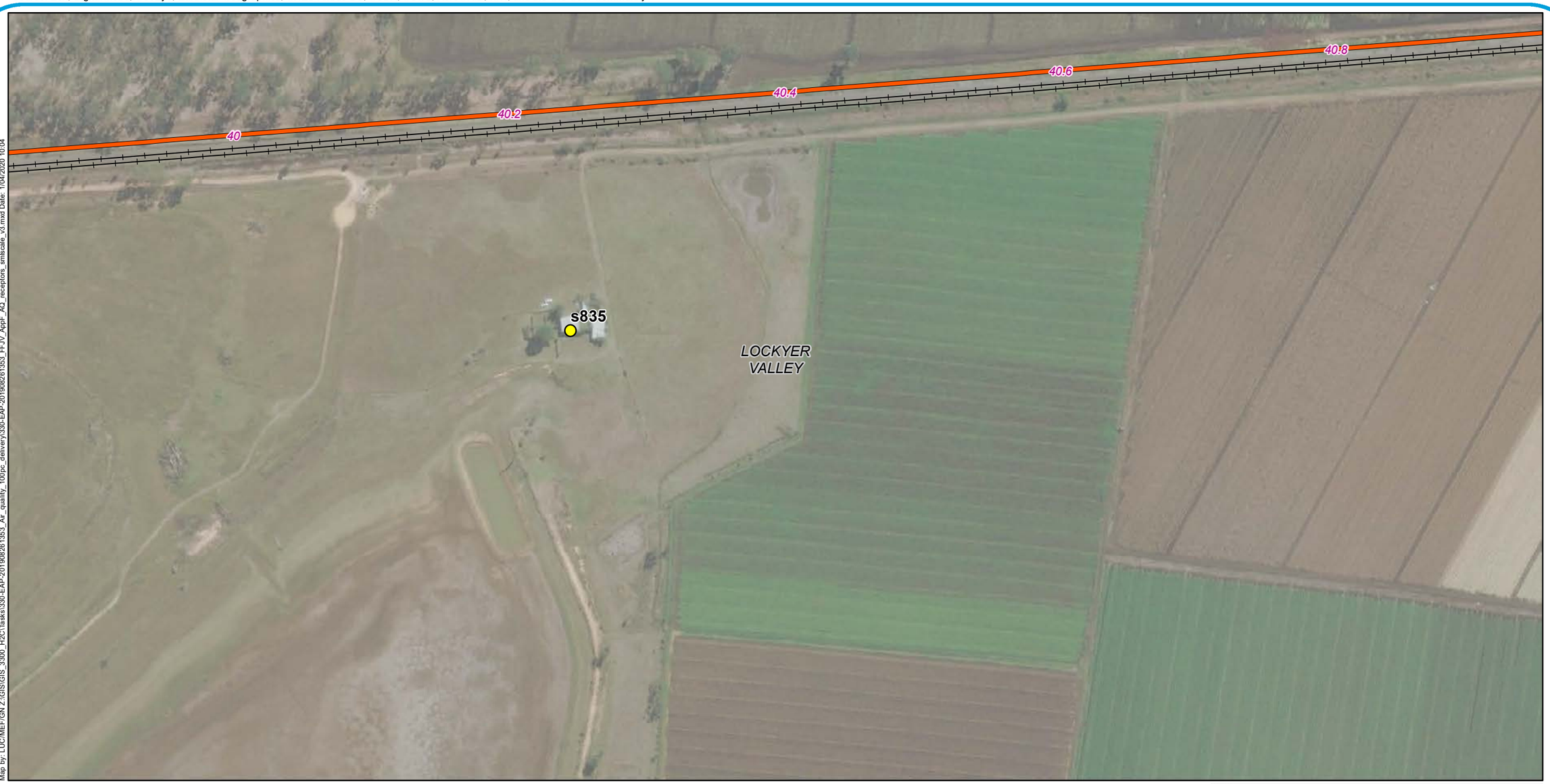
Appendix F70: Sensitive receptor locations

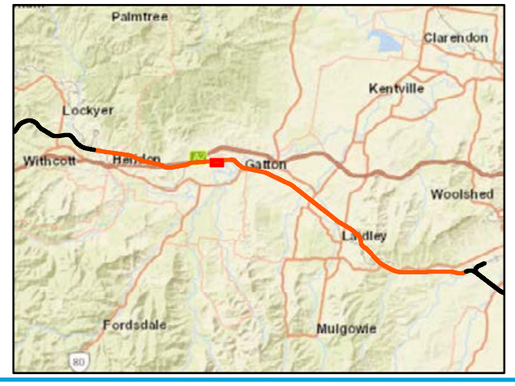
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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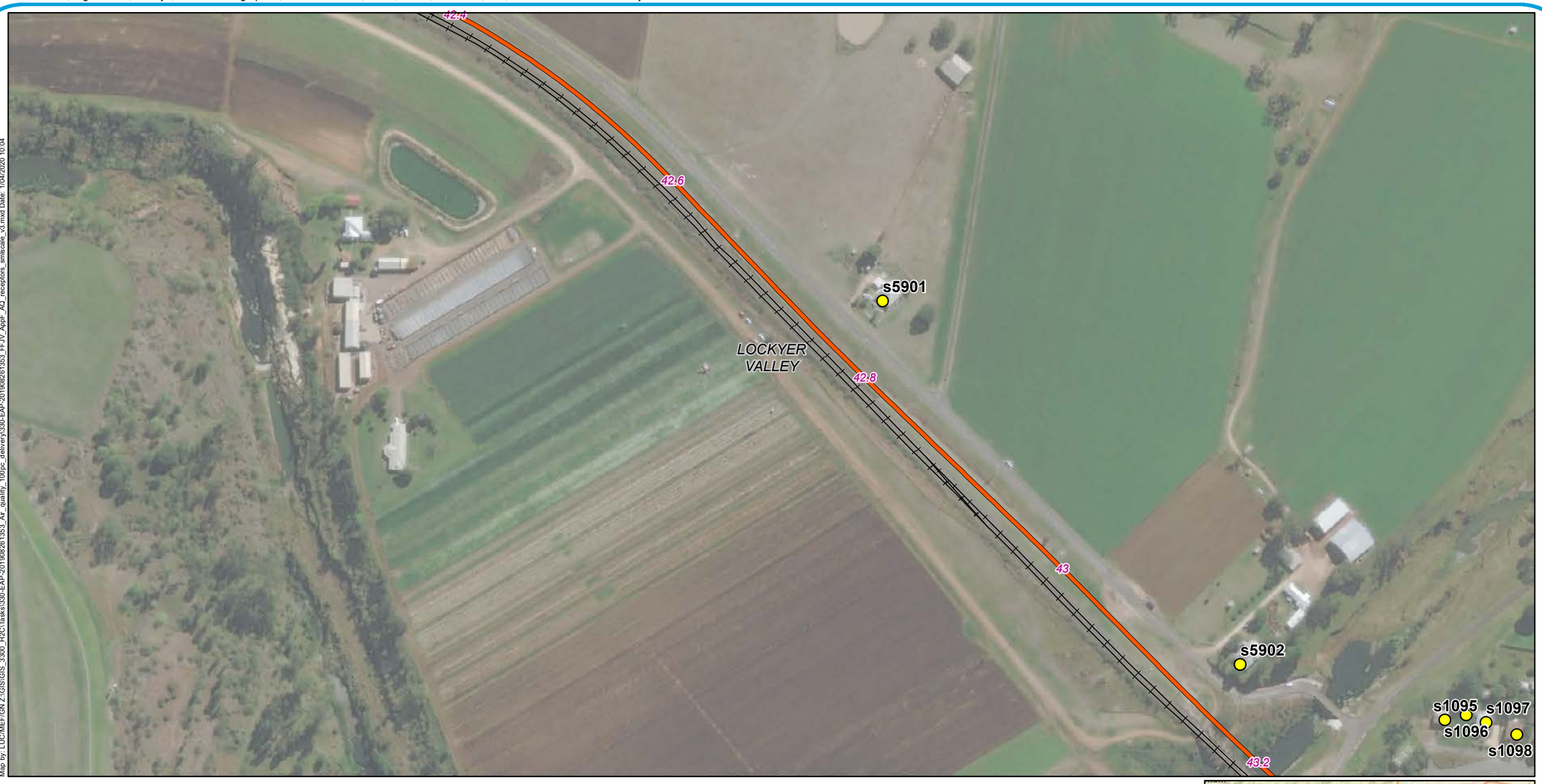
Appendix F71: Sensitive receptor locations

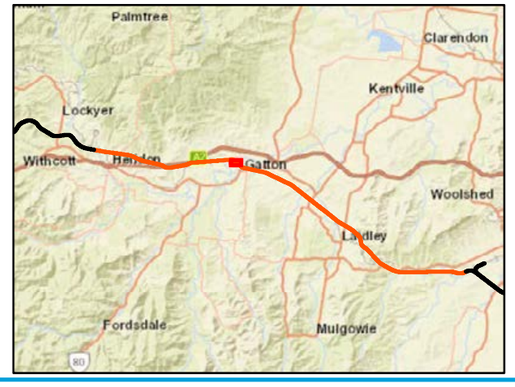
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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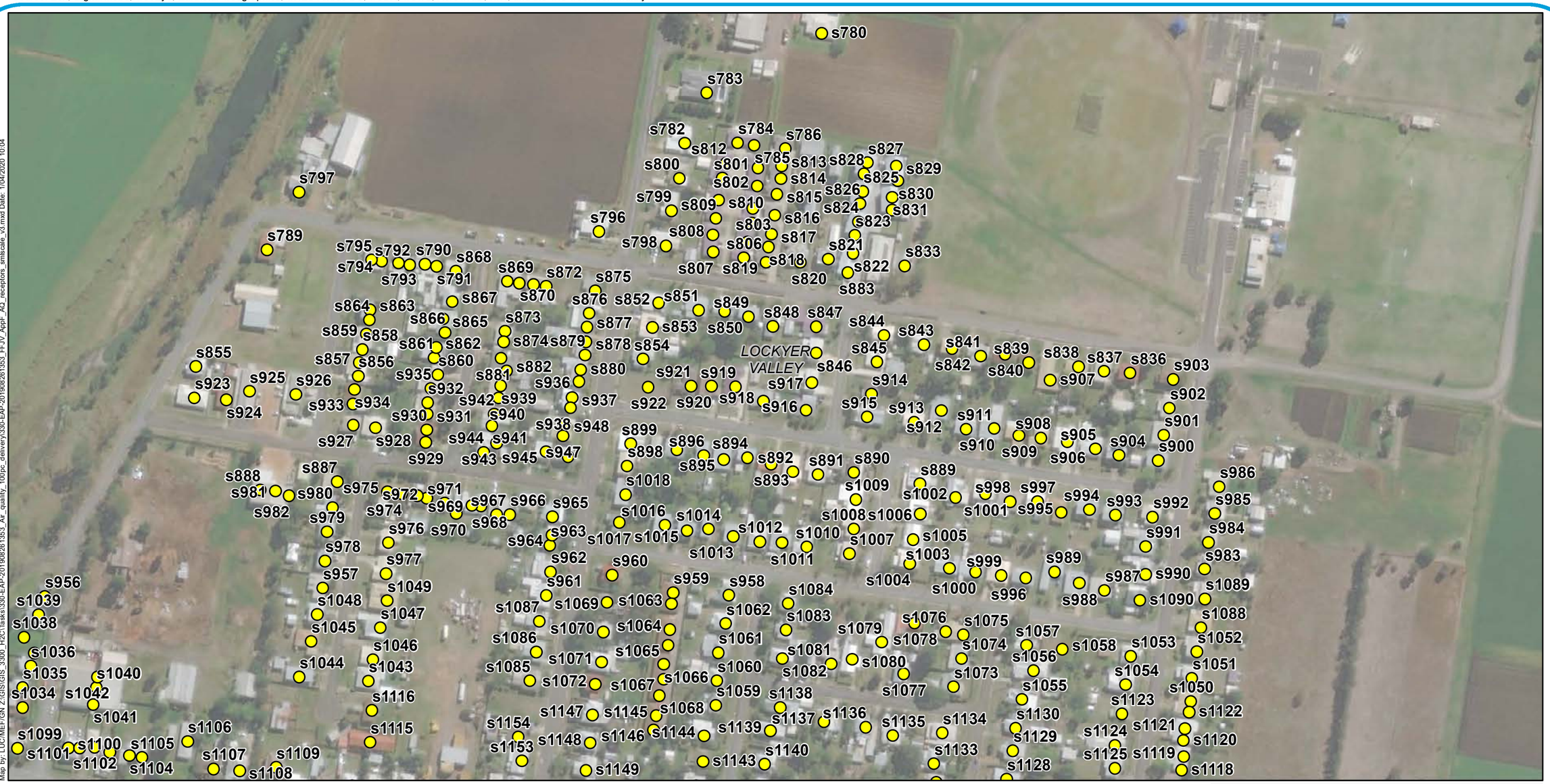
Appendix F72: Sensitive receptor locations

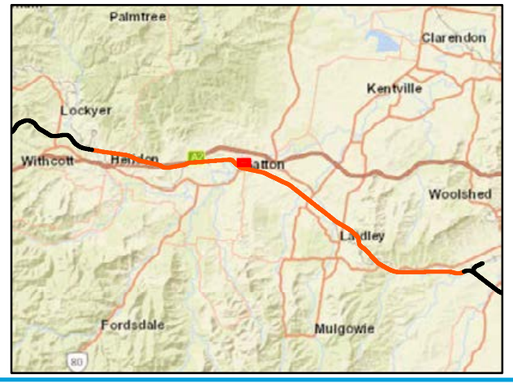
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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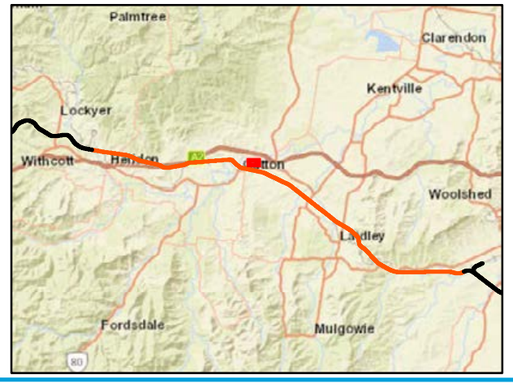
Appendix F73: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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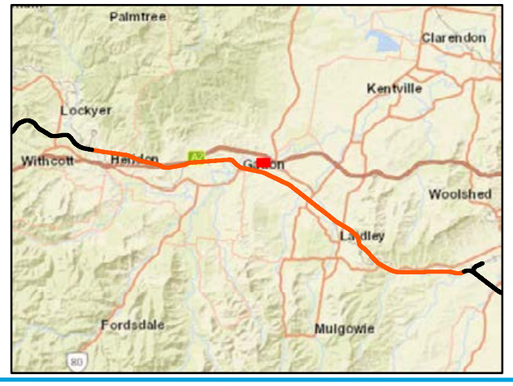
Appendix F74: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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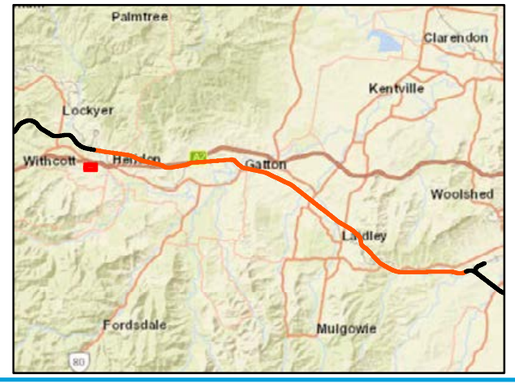
Appendix F75: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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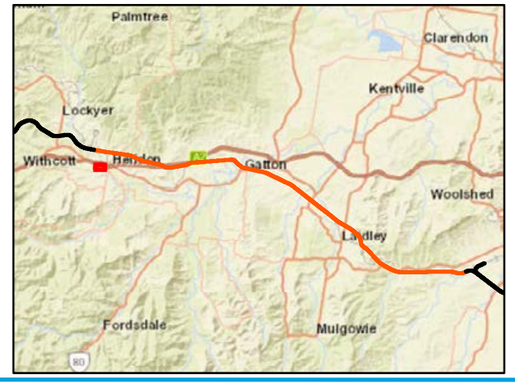
Appendix F76: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Major roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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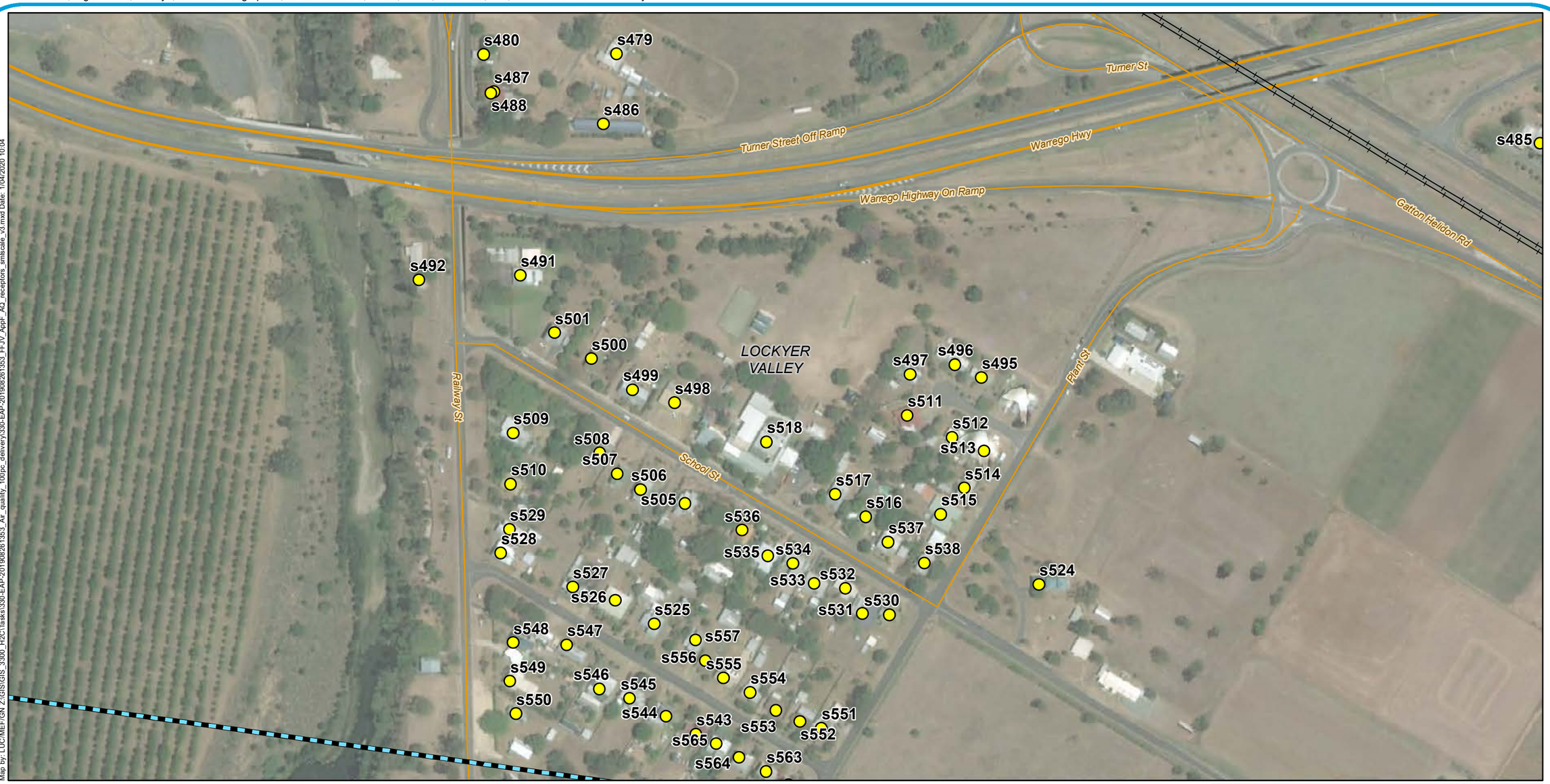
Appendix F77: Sensitive receptor locations

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



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Legend

- Sensitve Receptors
- Existing rail
- Major roads
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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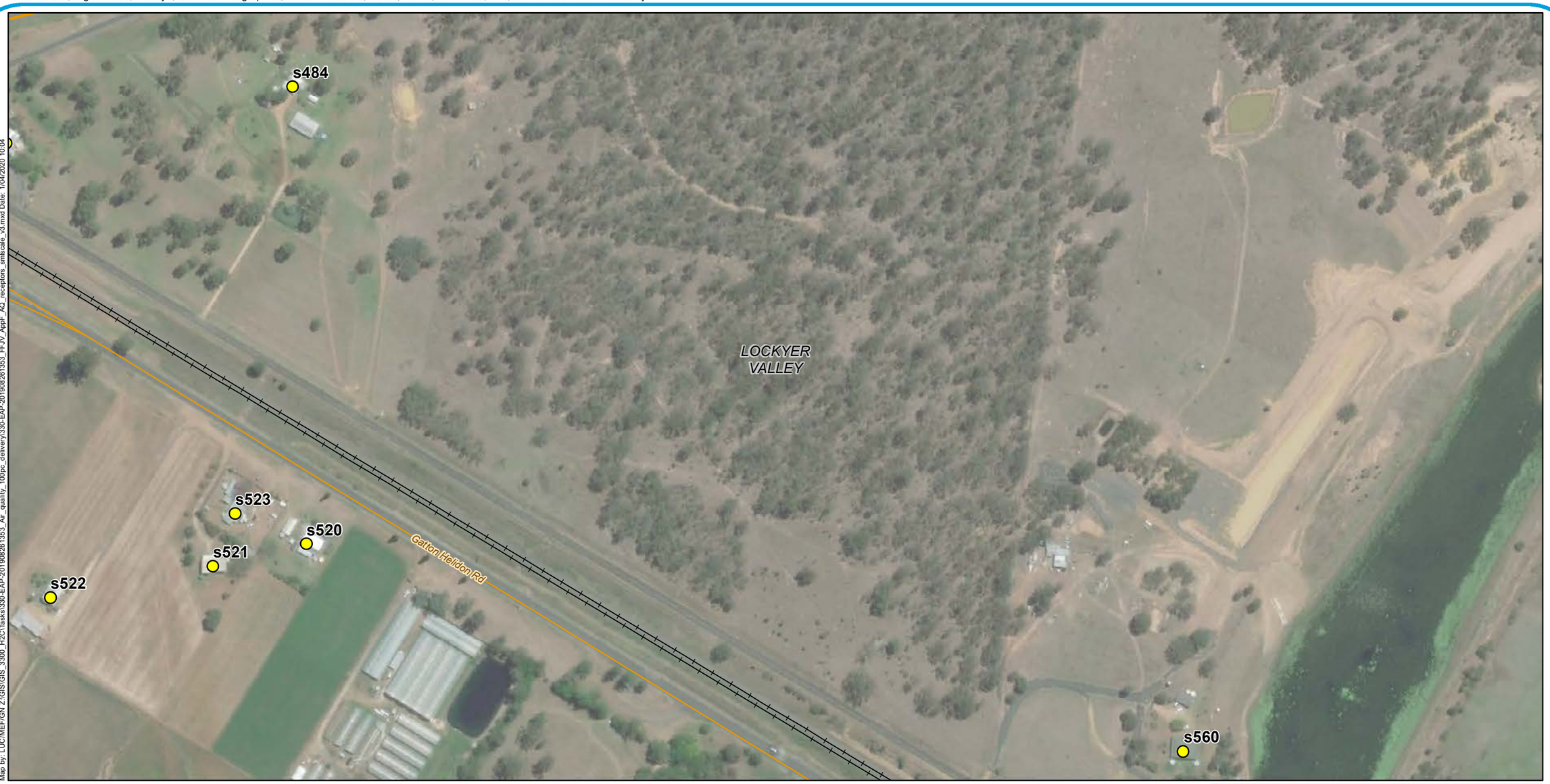
Appendix F78: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Major roads
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Appendix F79: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- H2C project alignment
- Major roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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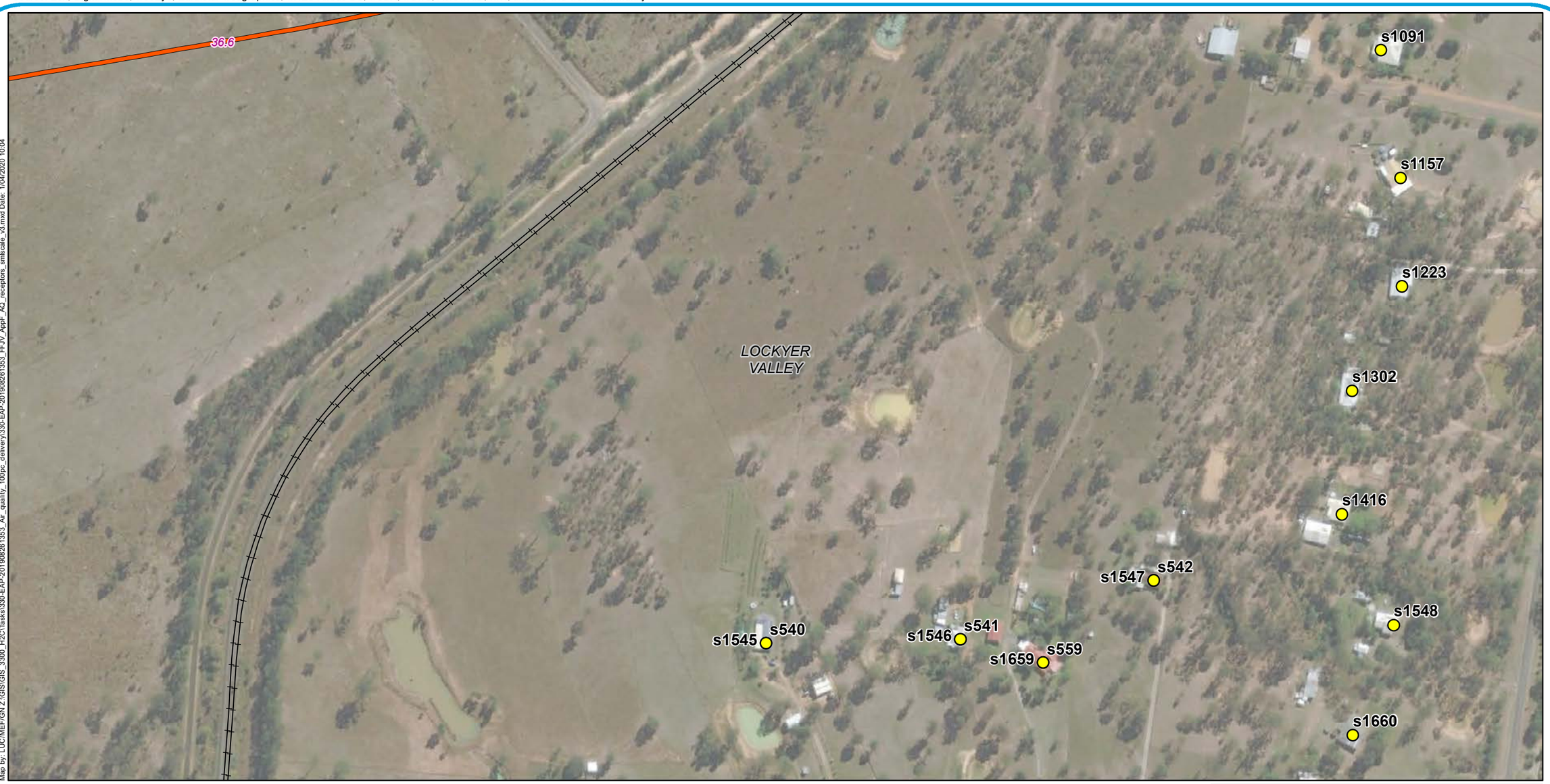
Appendix F80: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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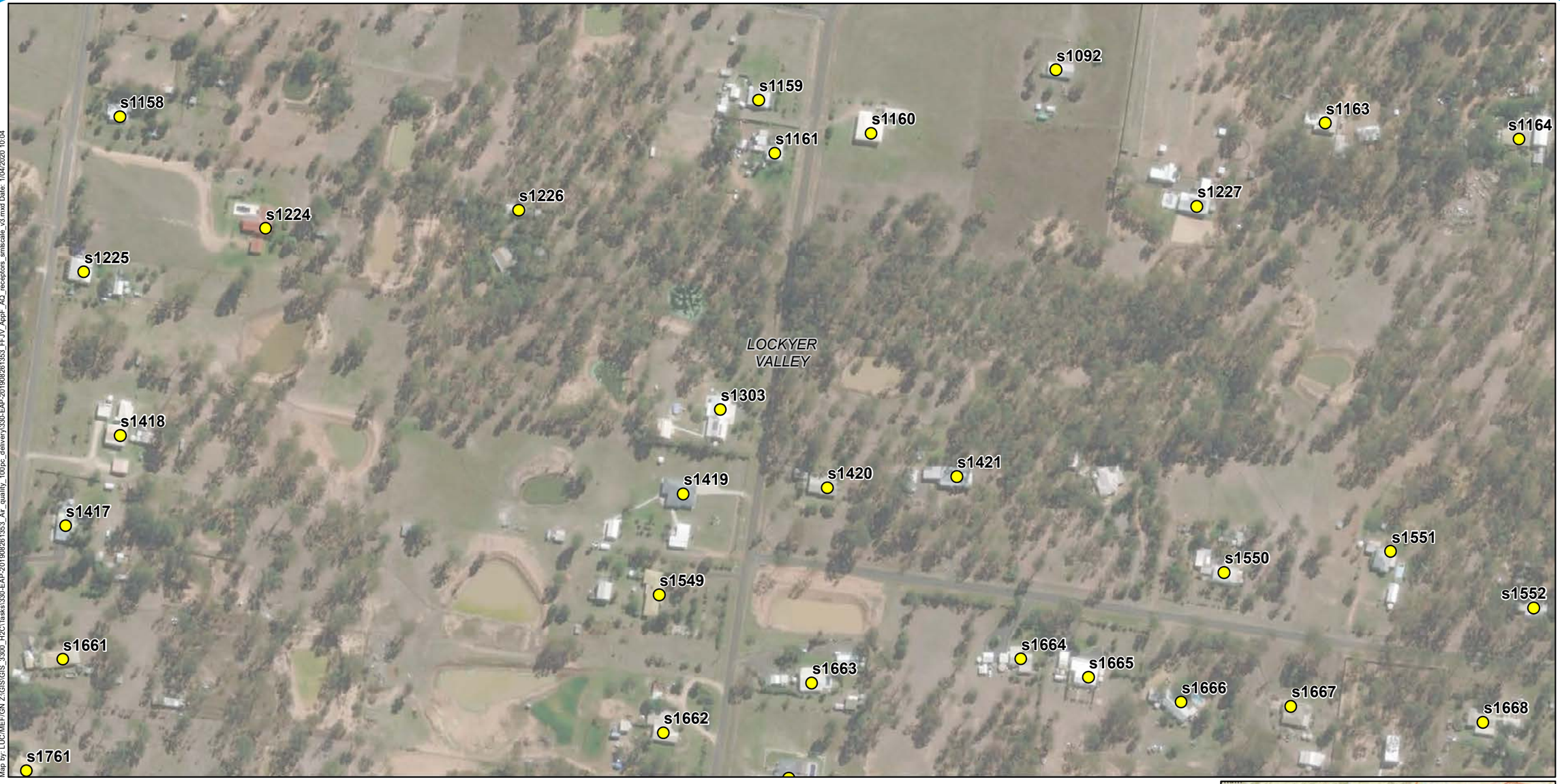
Appendix F81: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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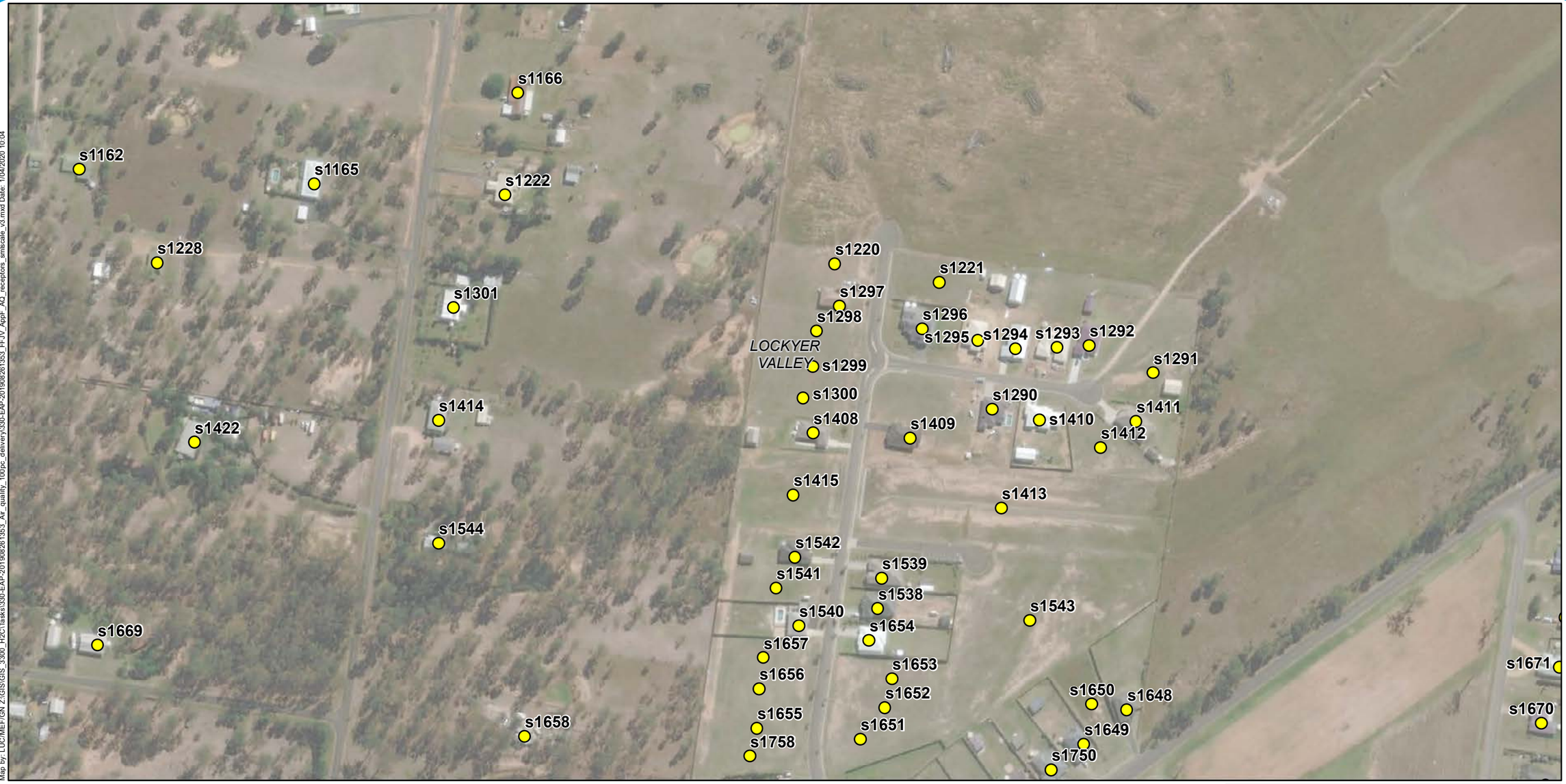
Appendix F82: Sensitive receptor locations

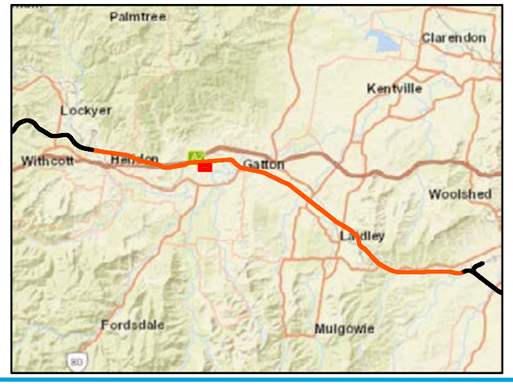
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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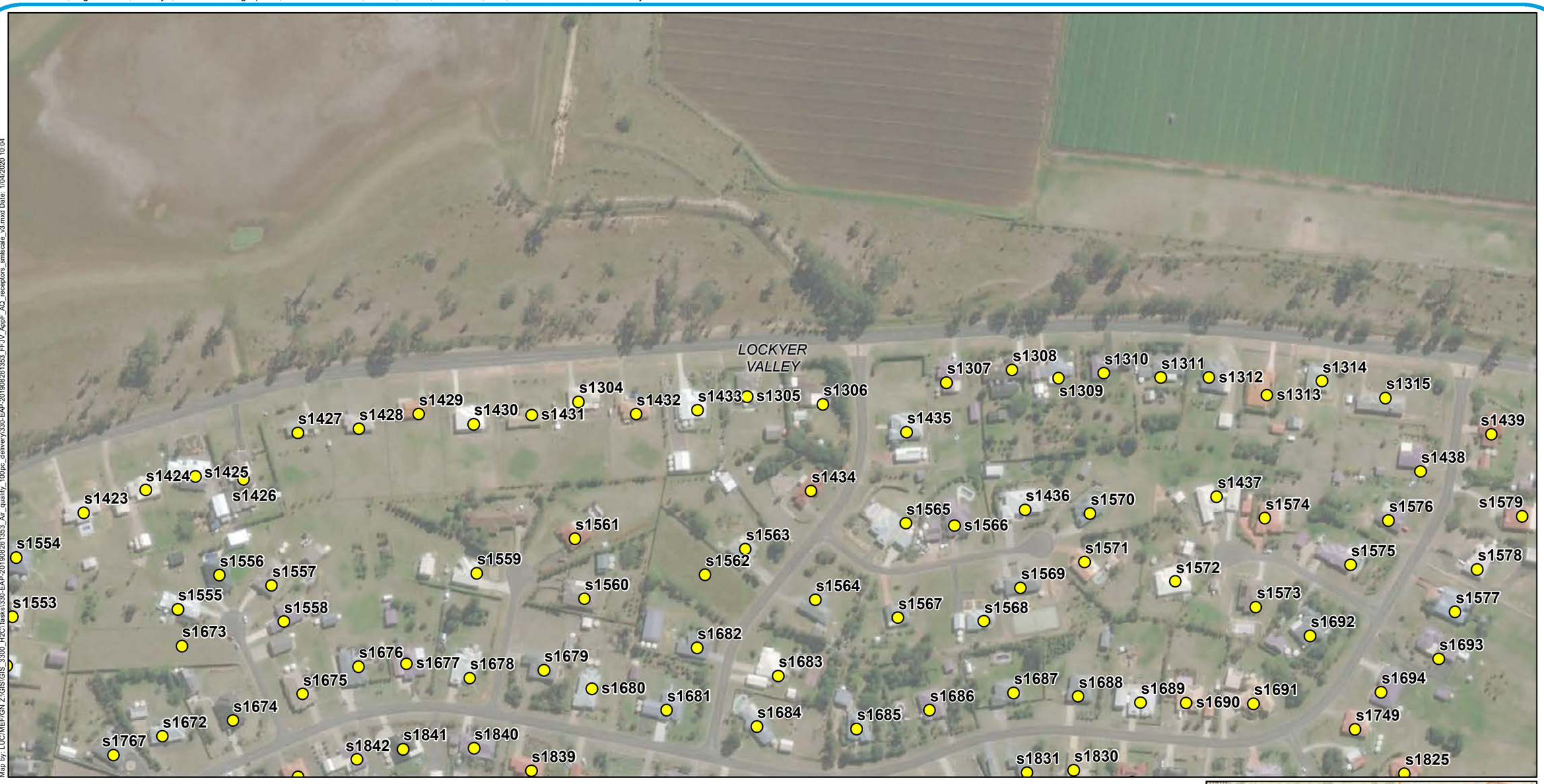
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F83: Sensitive receptor locations

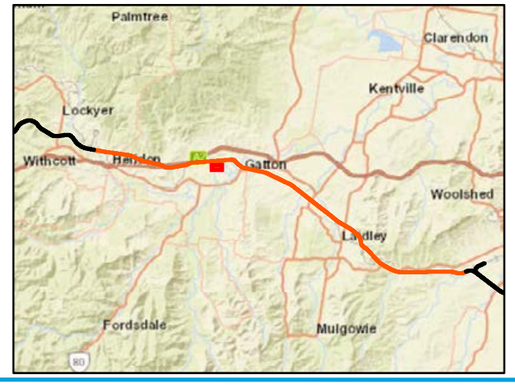
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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Appendix F84: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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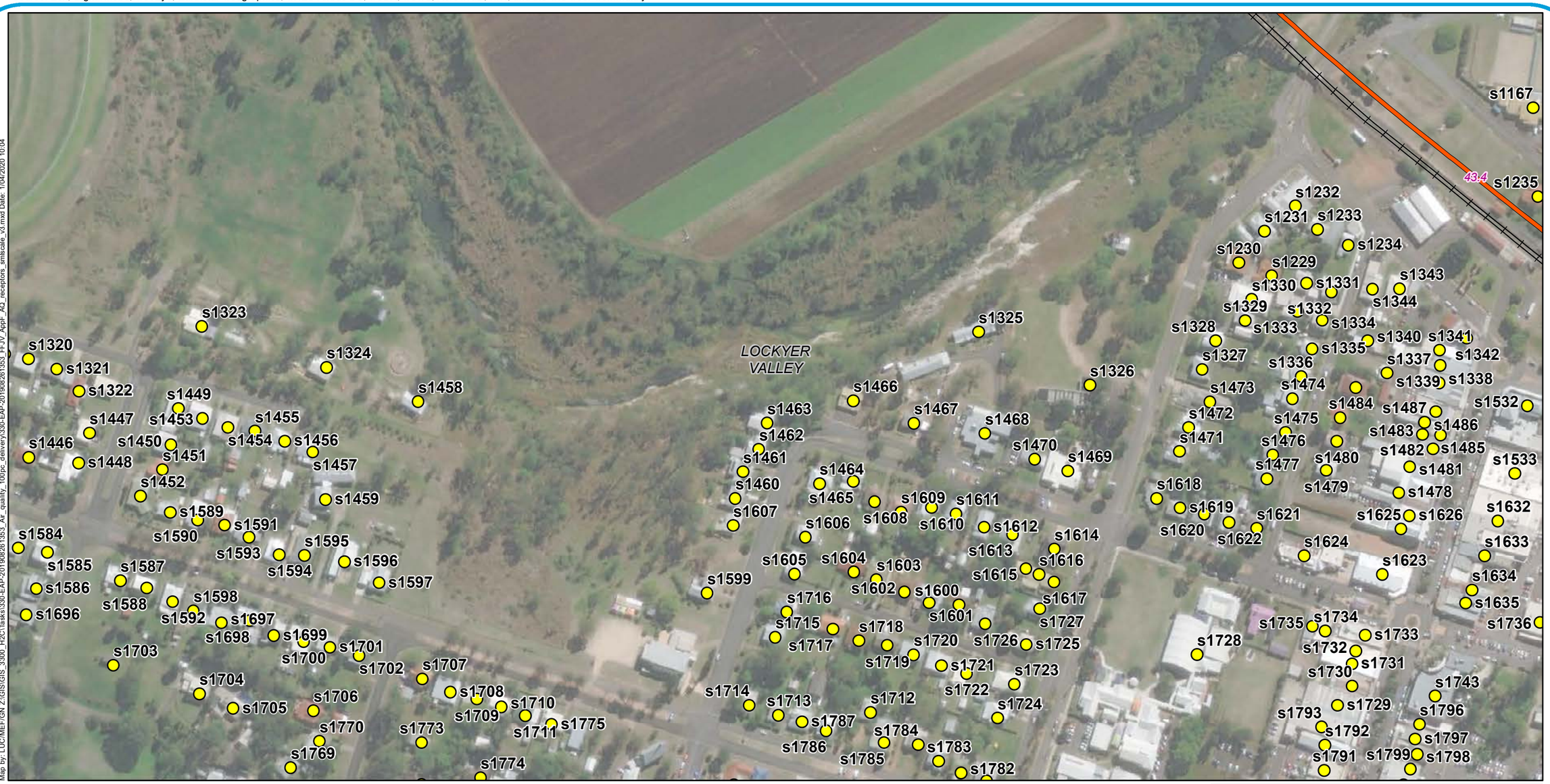
Appendix F85: Sensitive receptor locations

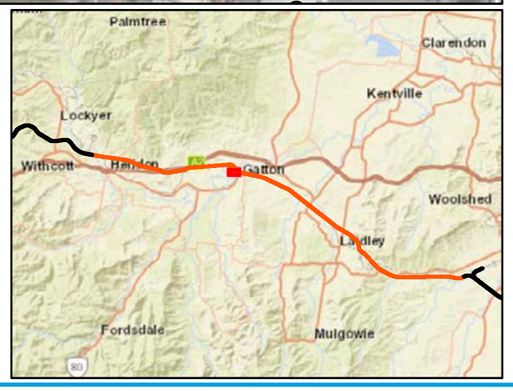
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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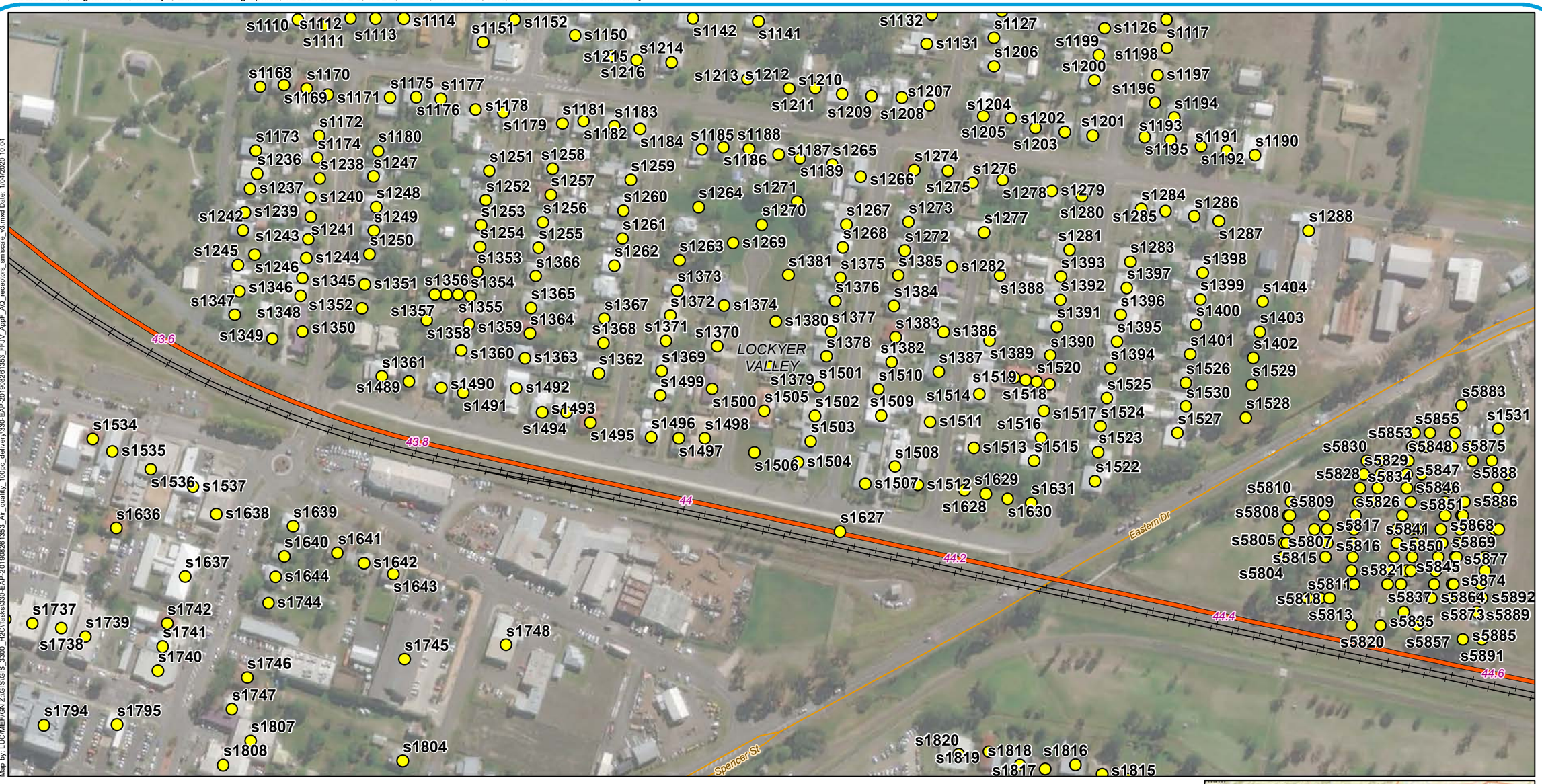
Appendix F86: Sensitive receptor locations

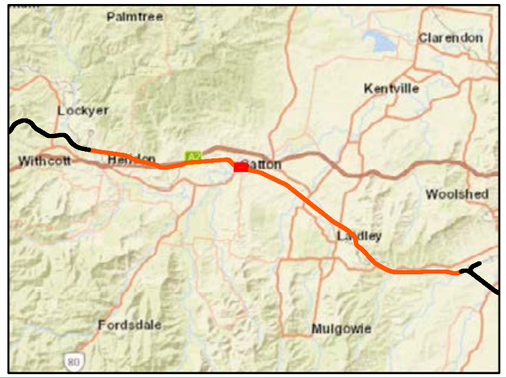
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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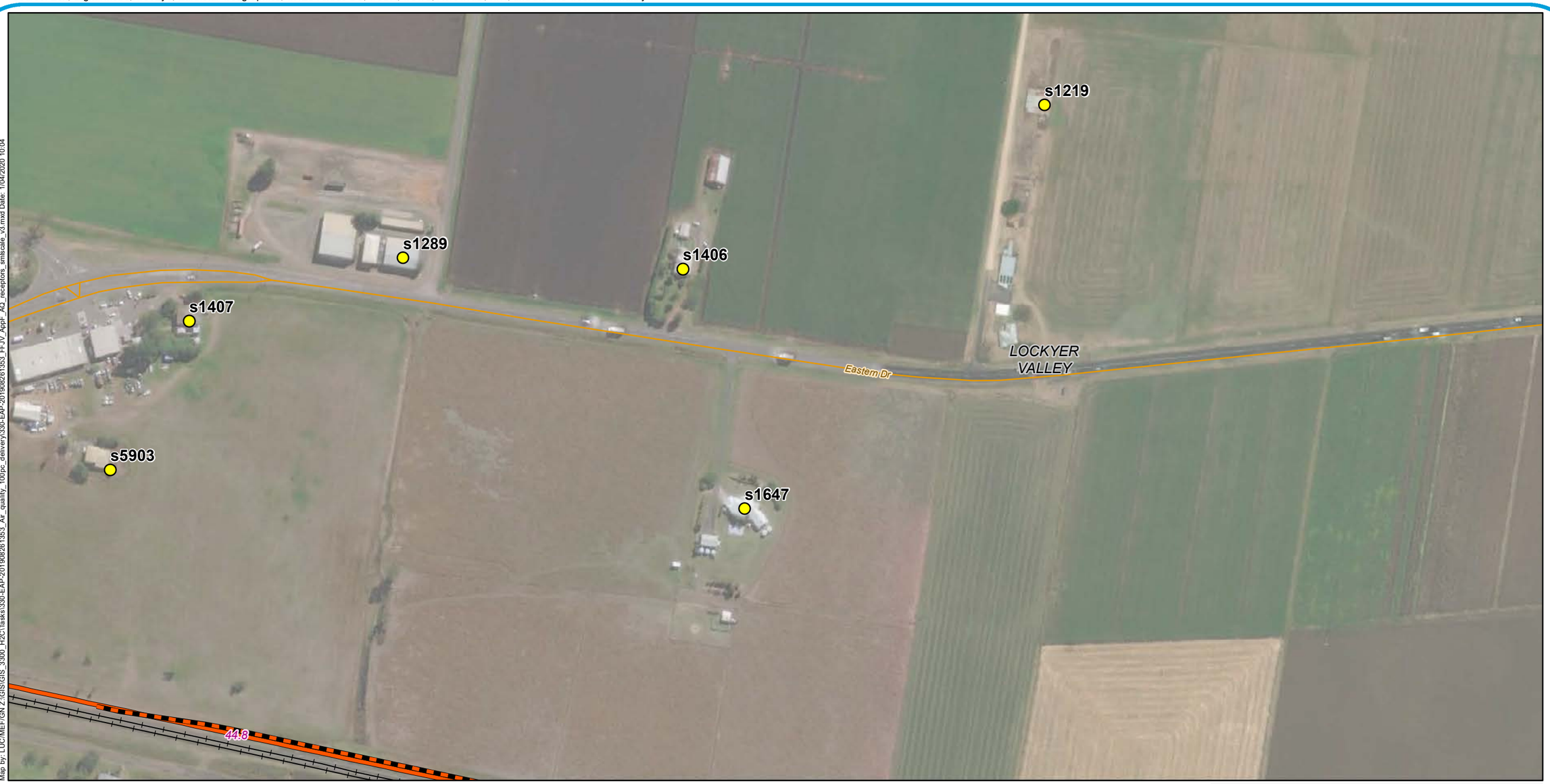
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F87: Sensitive receptor locations

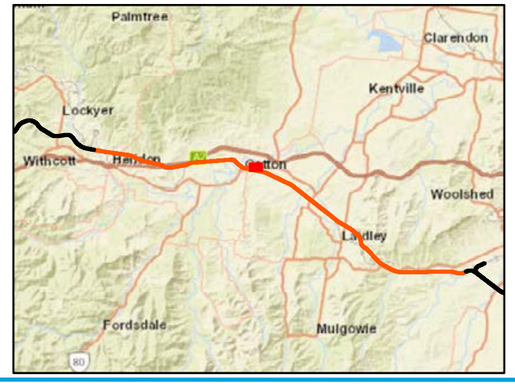
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- Crossing loops
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Appendix F88: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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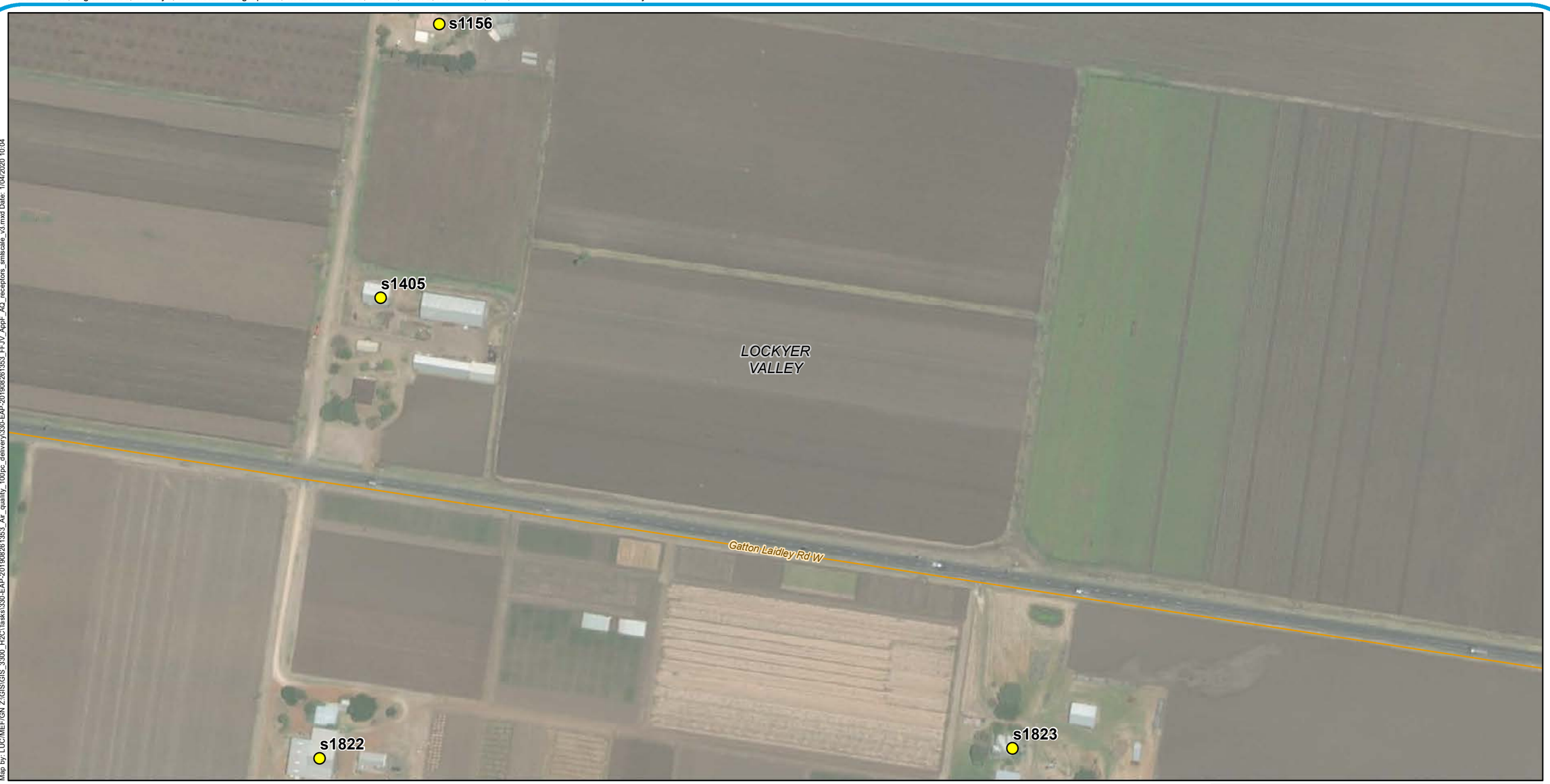
Appendix F89: Sensitive receptor locations

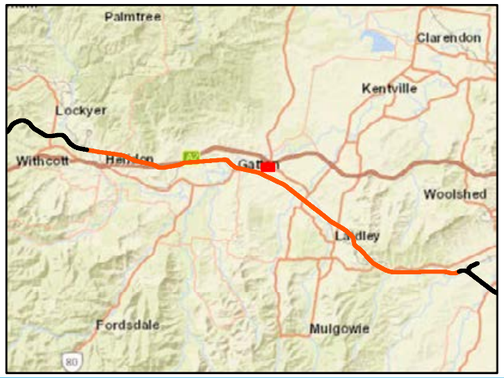
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

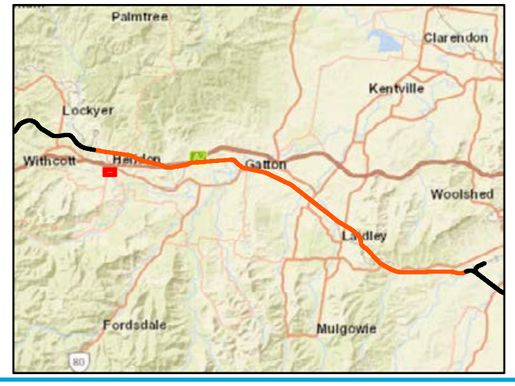
Appendix F90: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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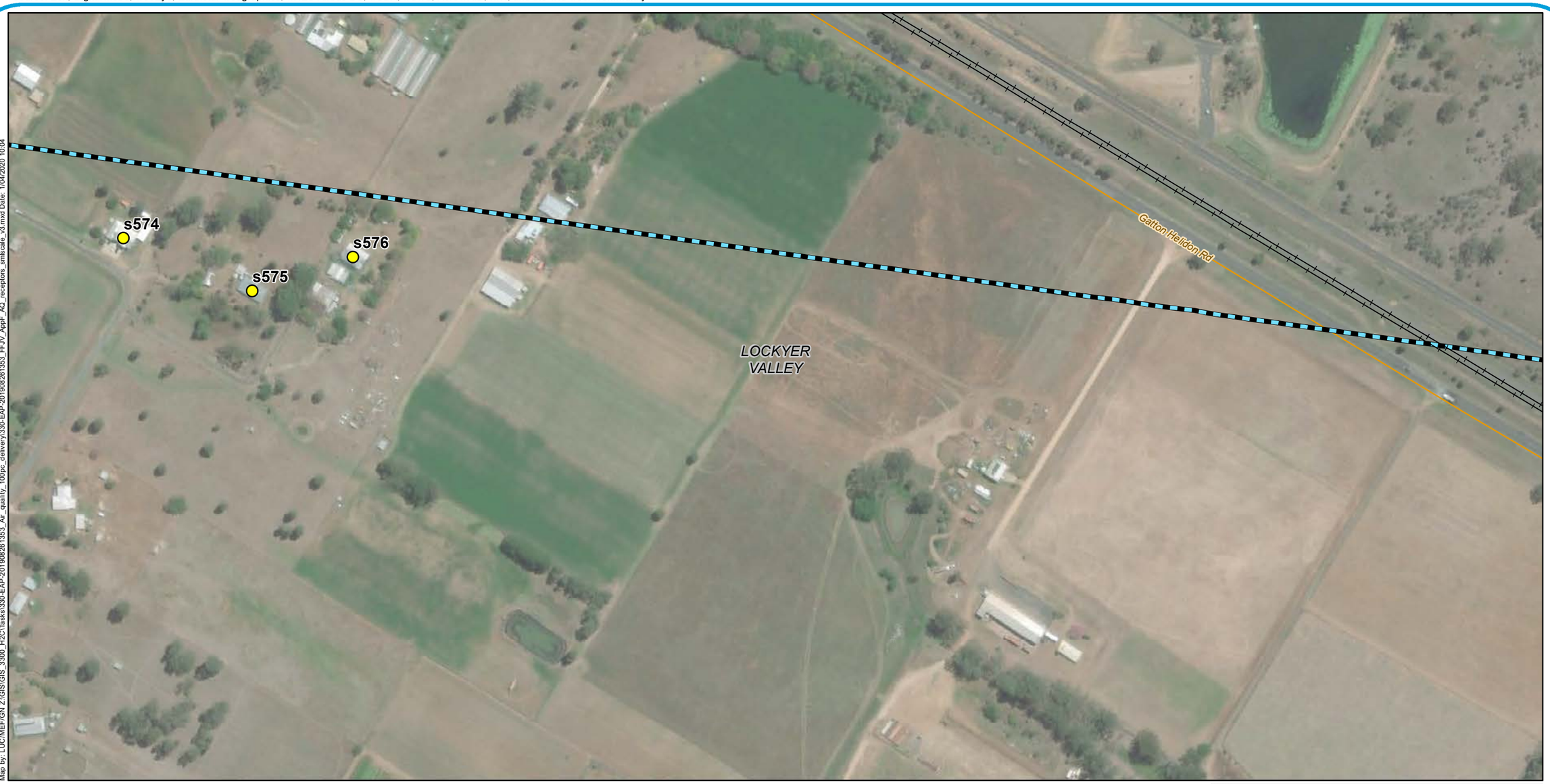
Appendix F91: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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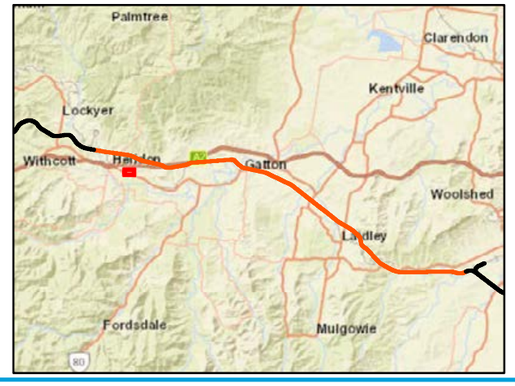
Appendix F92: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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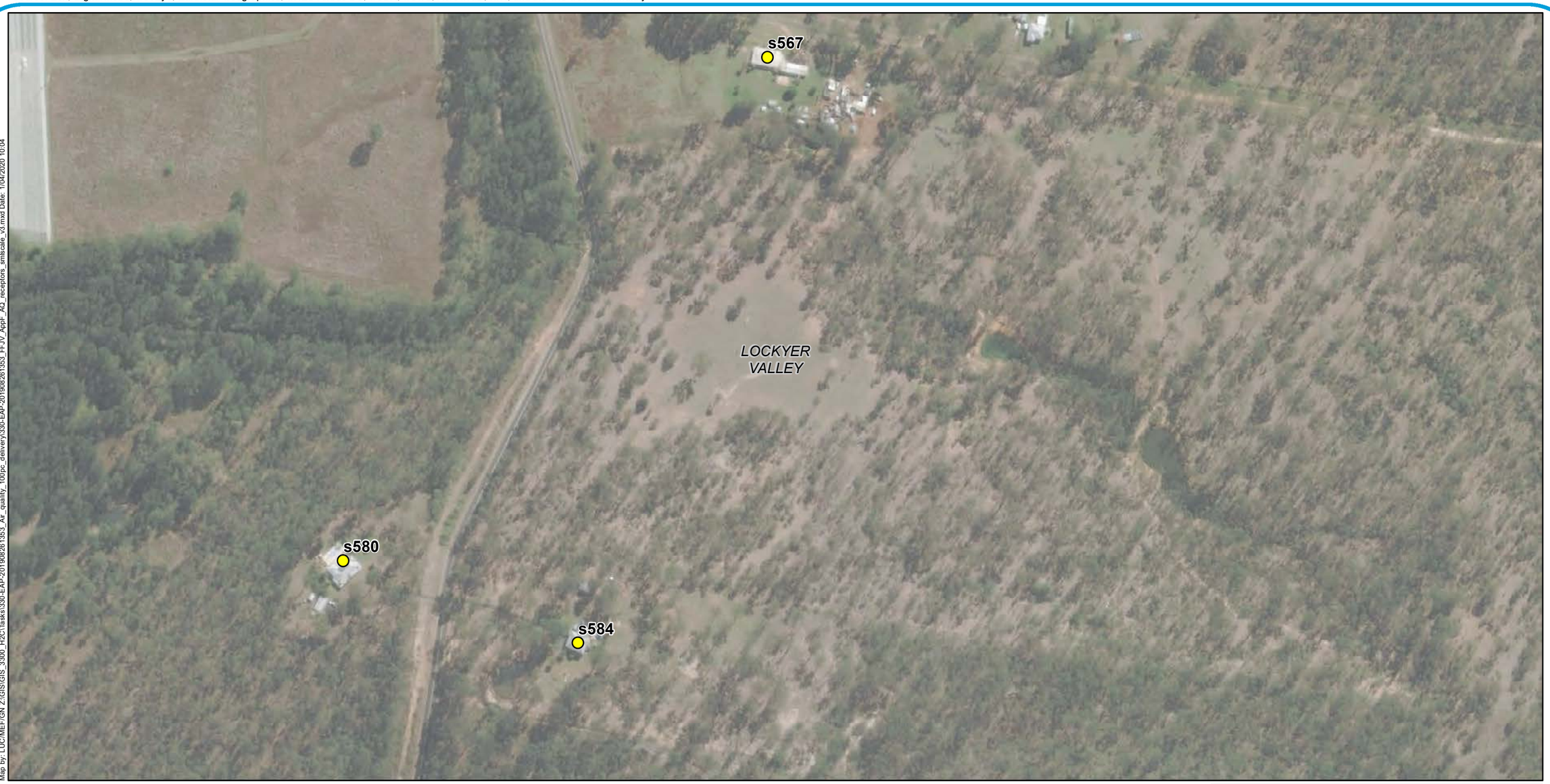
Appendix F93: Sensitive receptor locations

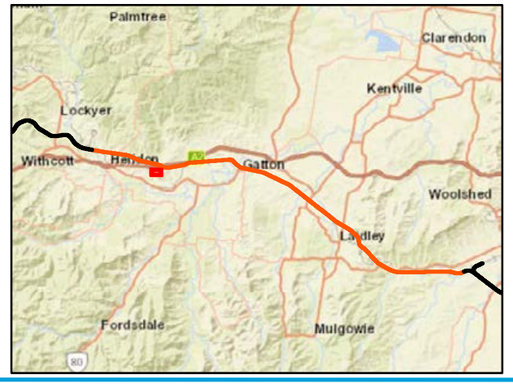
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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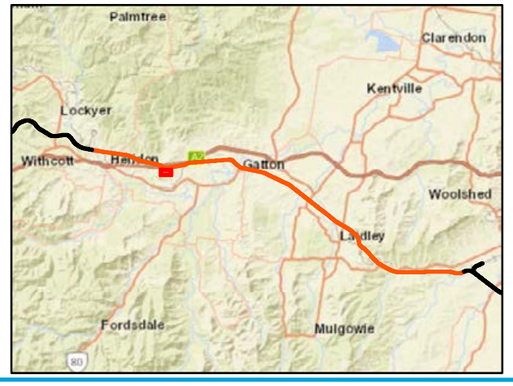
Appendix F94: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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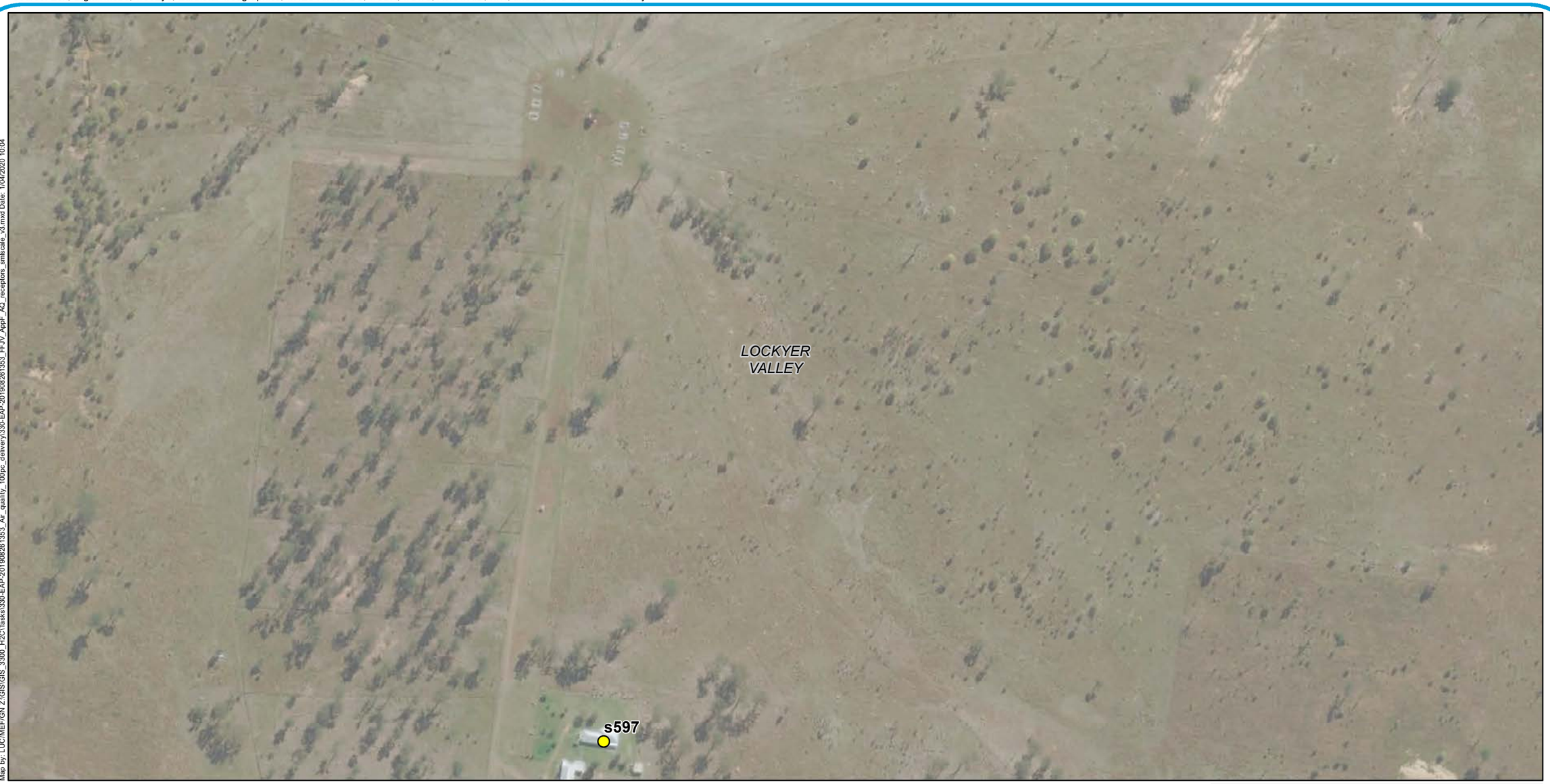
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F95: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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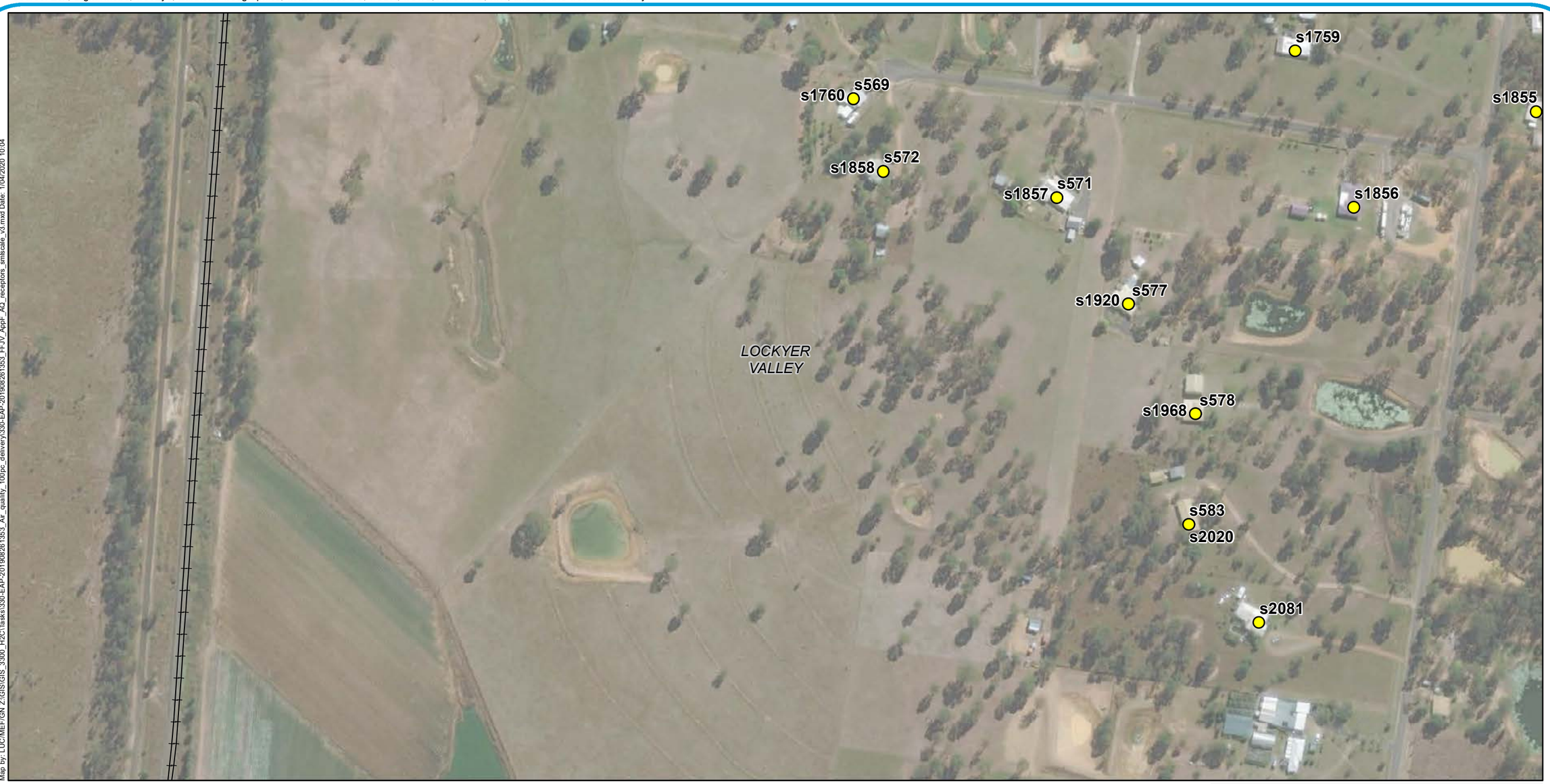
Appendix F96: Sensitive receptor locations

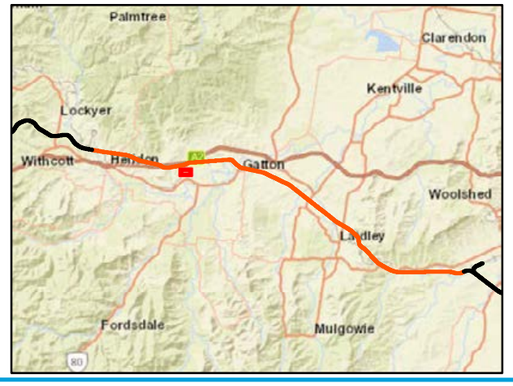
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

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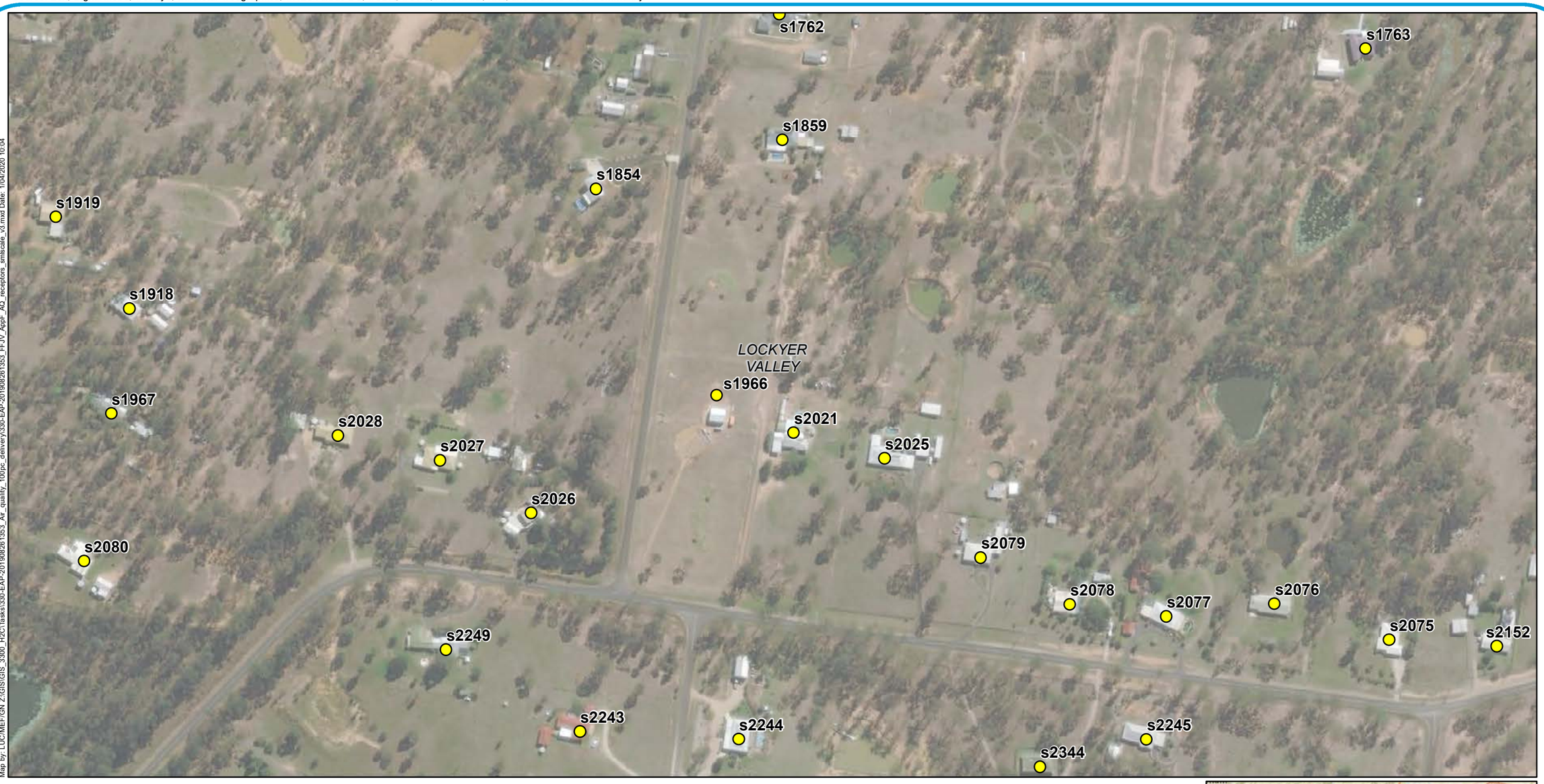
Appendix F97: Sensitive receptor locations

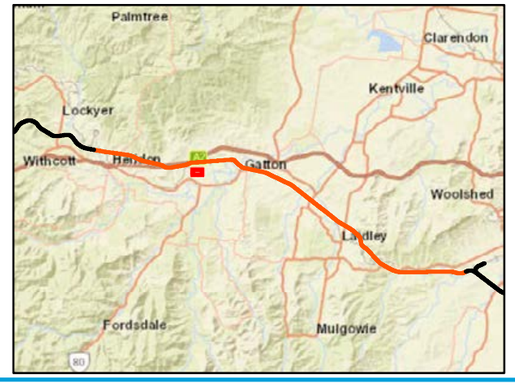
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_Air_quality_100pc_delivery\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Helidon to Calvert

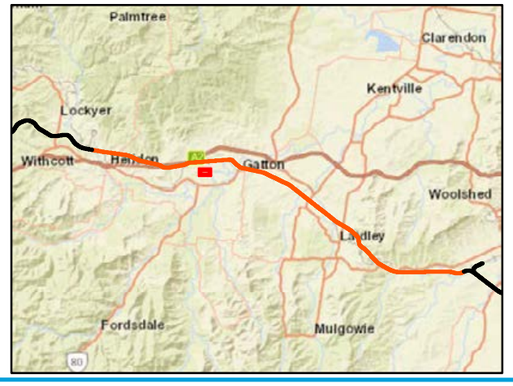
Appendix F98: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Helidon to Calvert

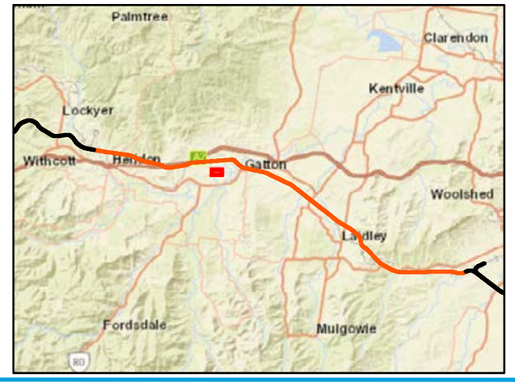
Appendix F99: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Helidon to Calvert

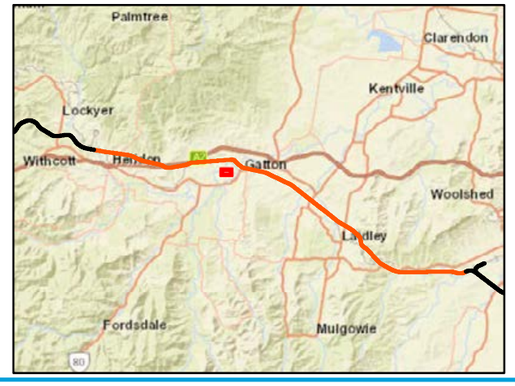
Appendix F100: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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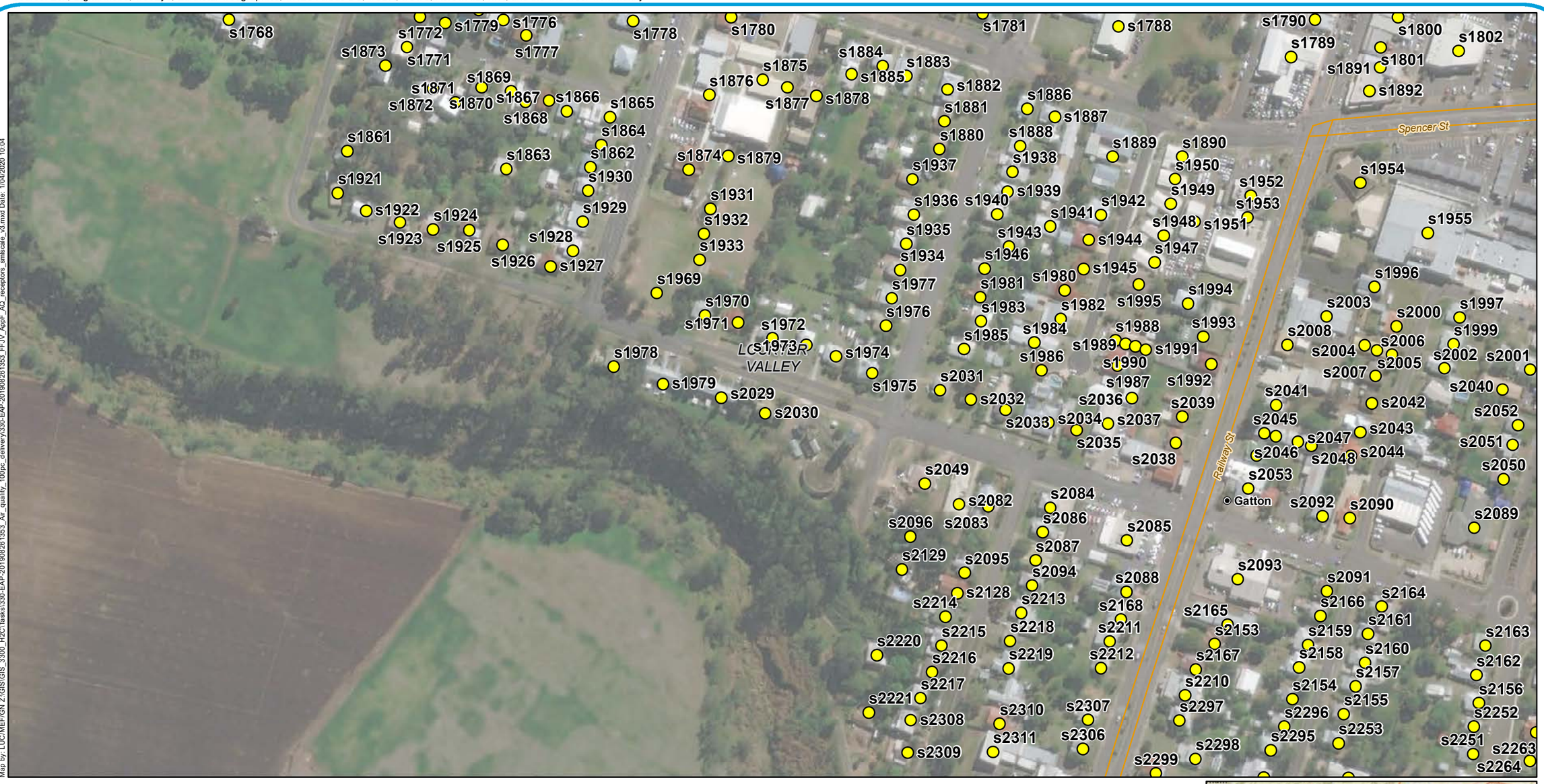
Appendix F101: Sensitive receptor locations

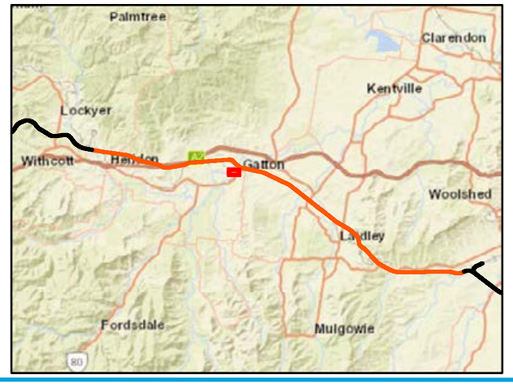
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Localities
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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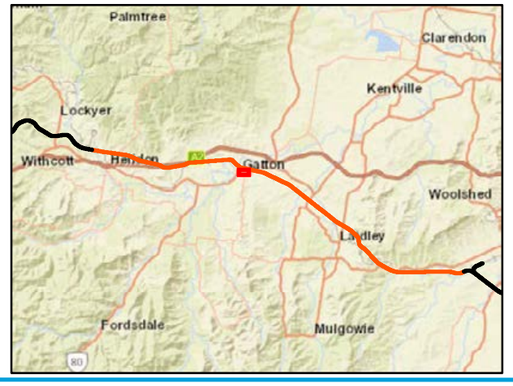
Appendix F102: Sensitive receptor locations

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

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Appendix F103: Sensitive receptor locations

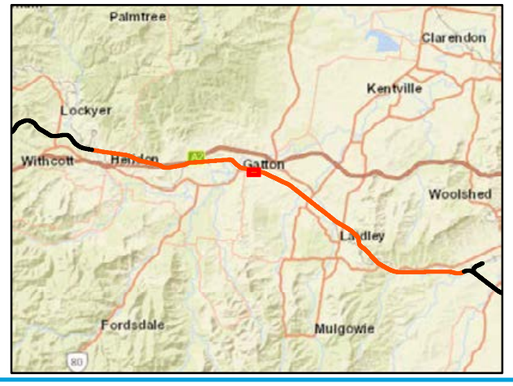
Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Crossing loops
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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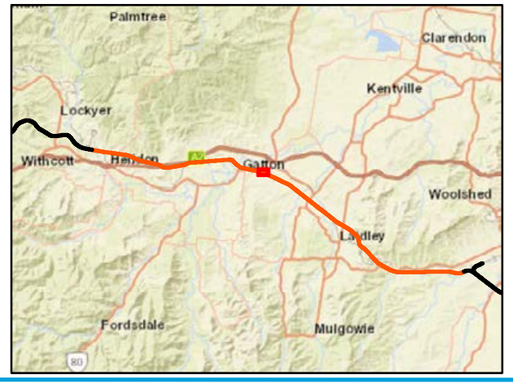
Appendix F104: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Crossing loops
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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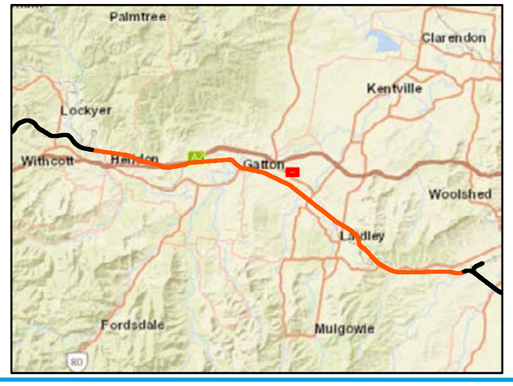
Appendix F105: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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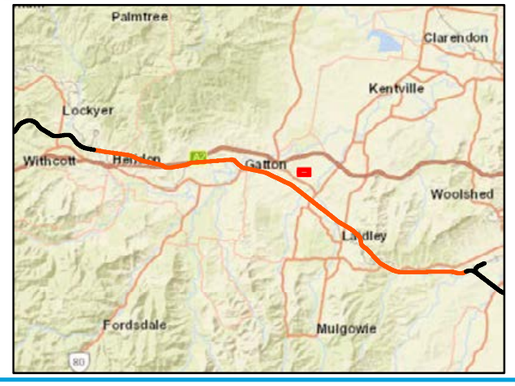
Appendix F106: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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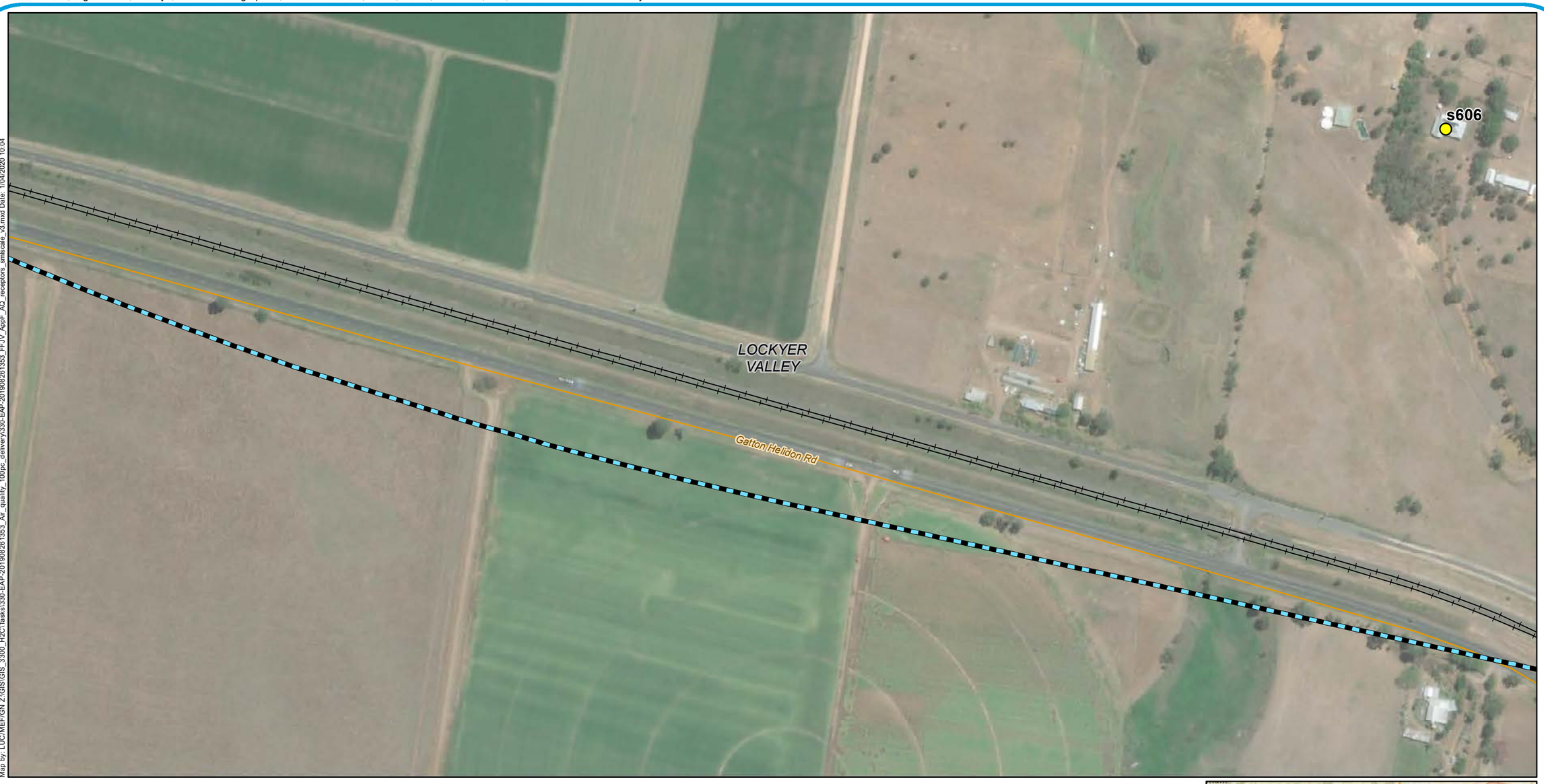
Appendix F107: Sensitive receptor locations

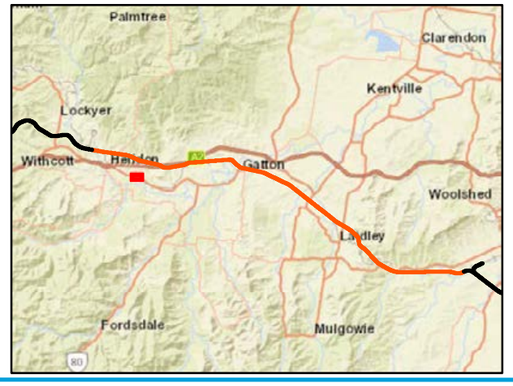
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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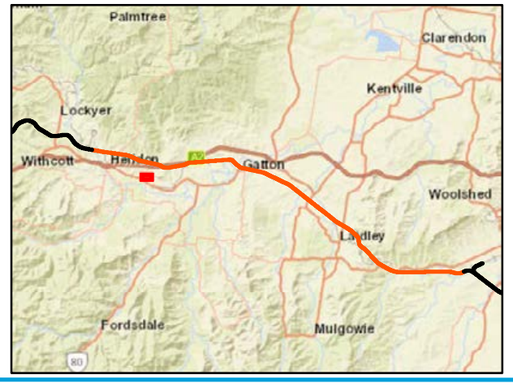
Appendix F108: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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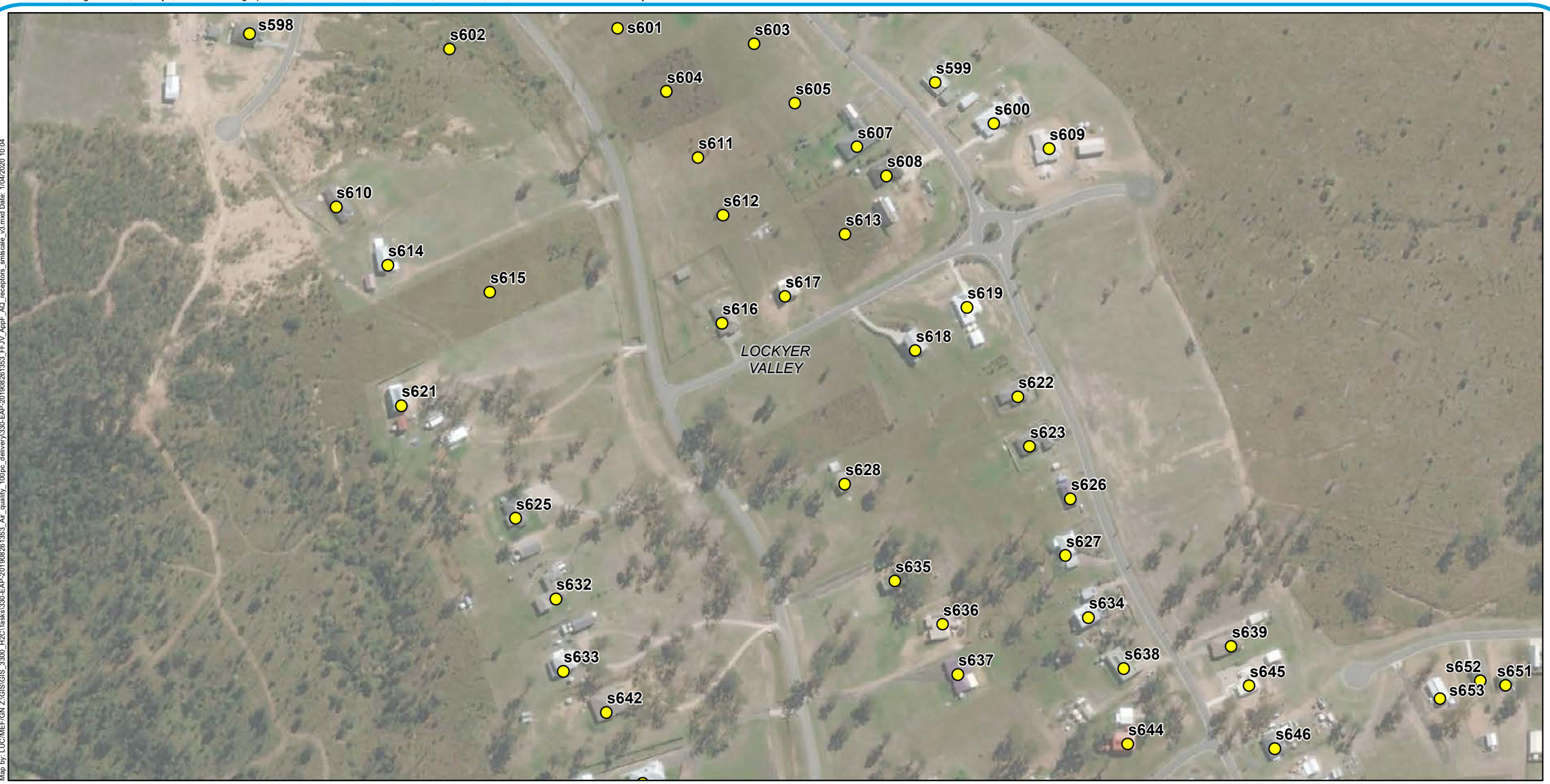
Appendix F109: Sensitive receptor locations

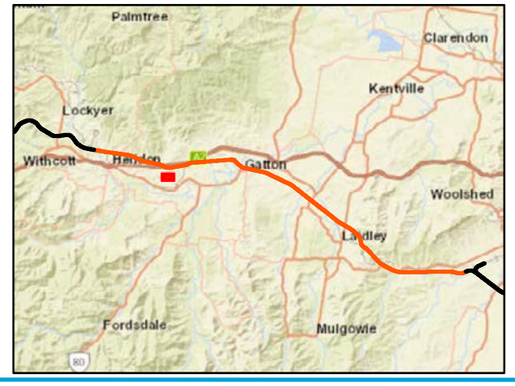
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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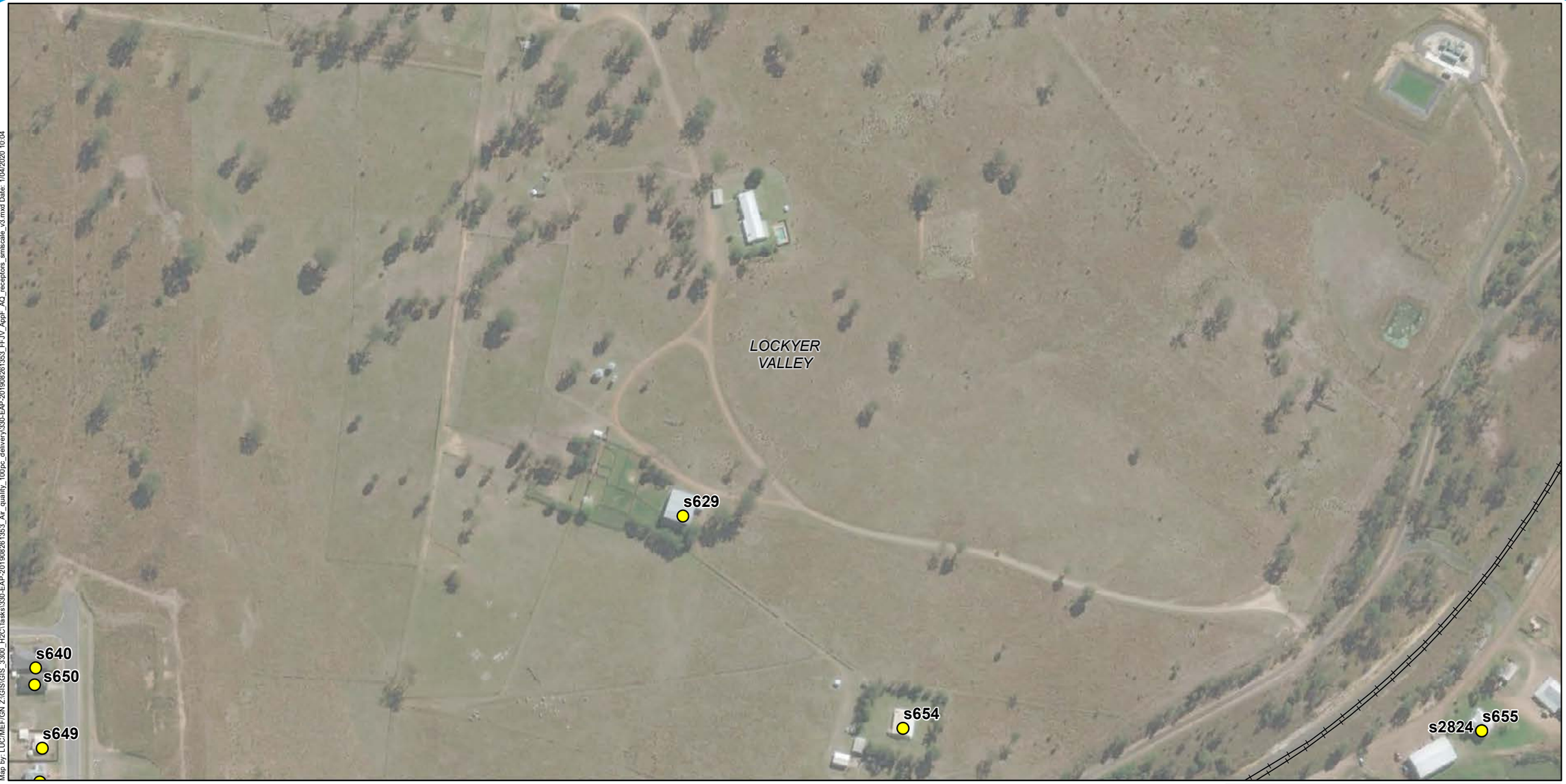
Appendix F110: Sensitive receptor locations

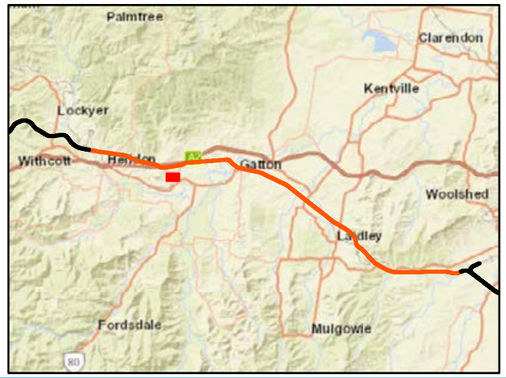
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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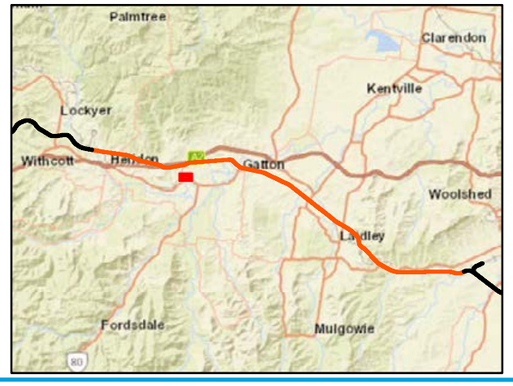
Appendix F111: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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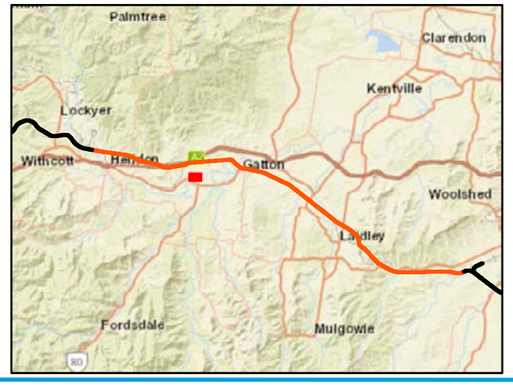
Appendix F112: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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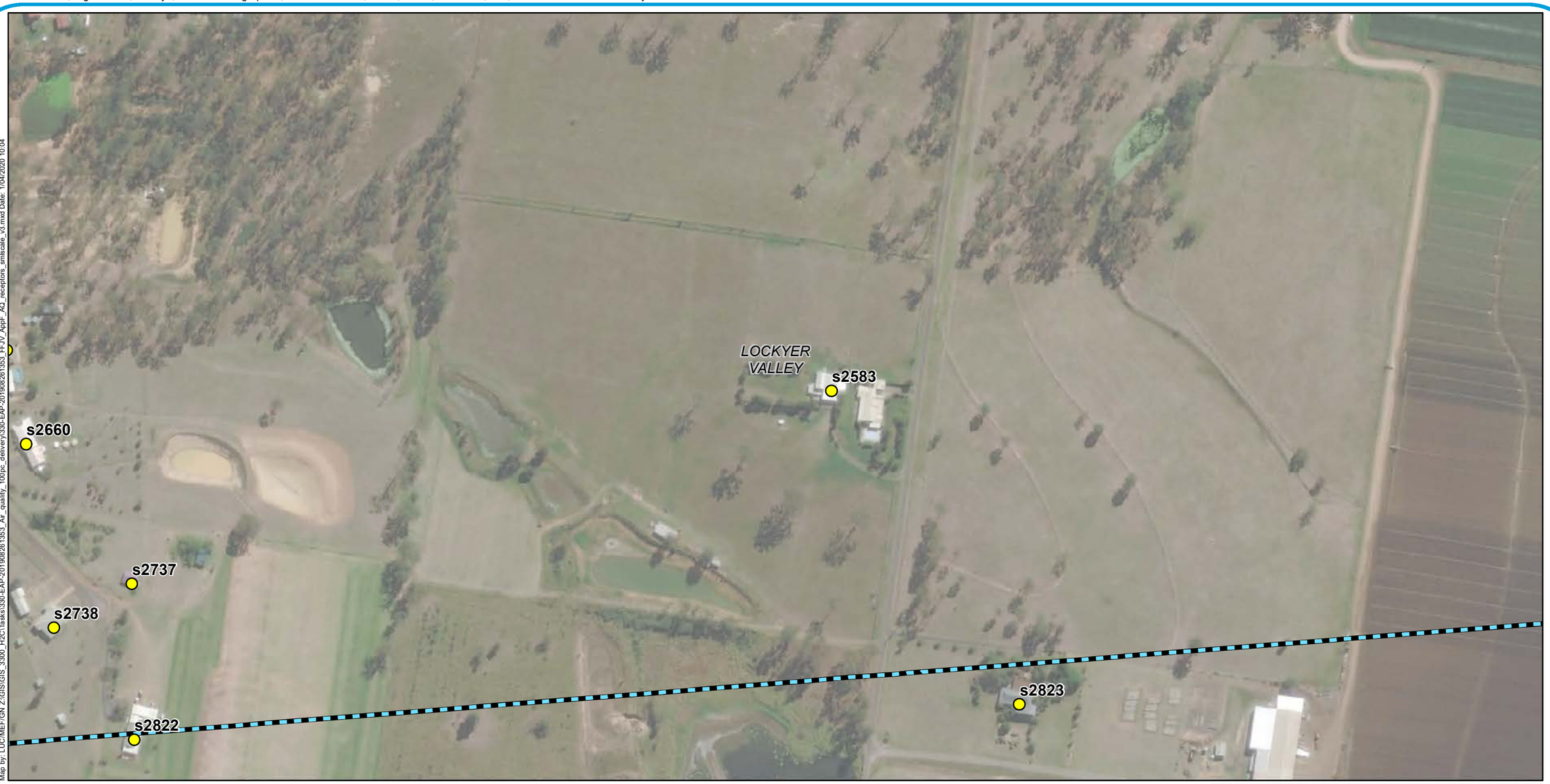
Appendix F113: Sensitive receptor locations

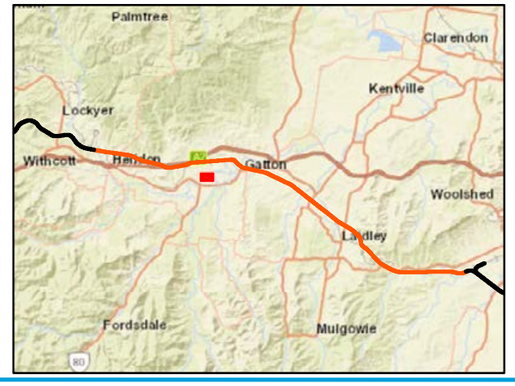
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

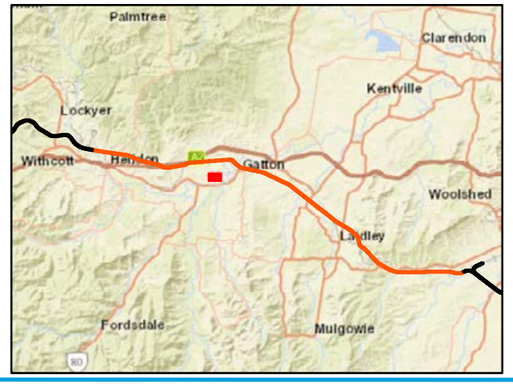
Appendix F114: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery\330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

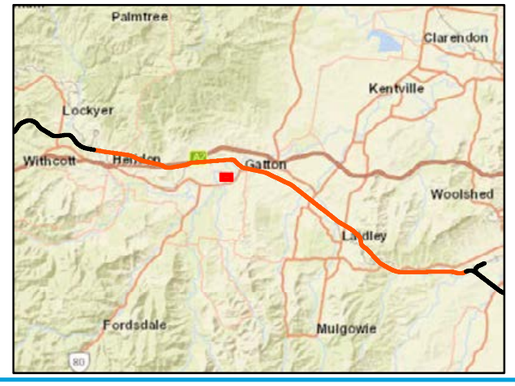
Appendix F115: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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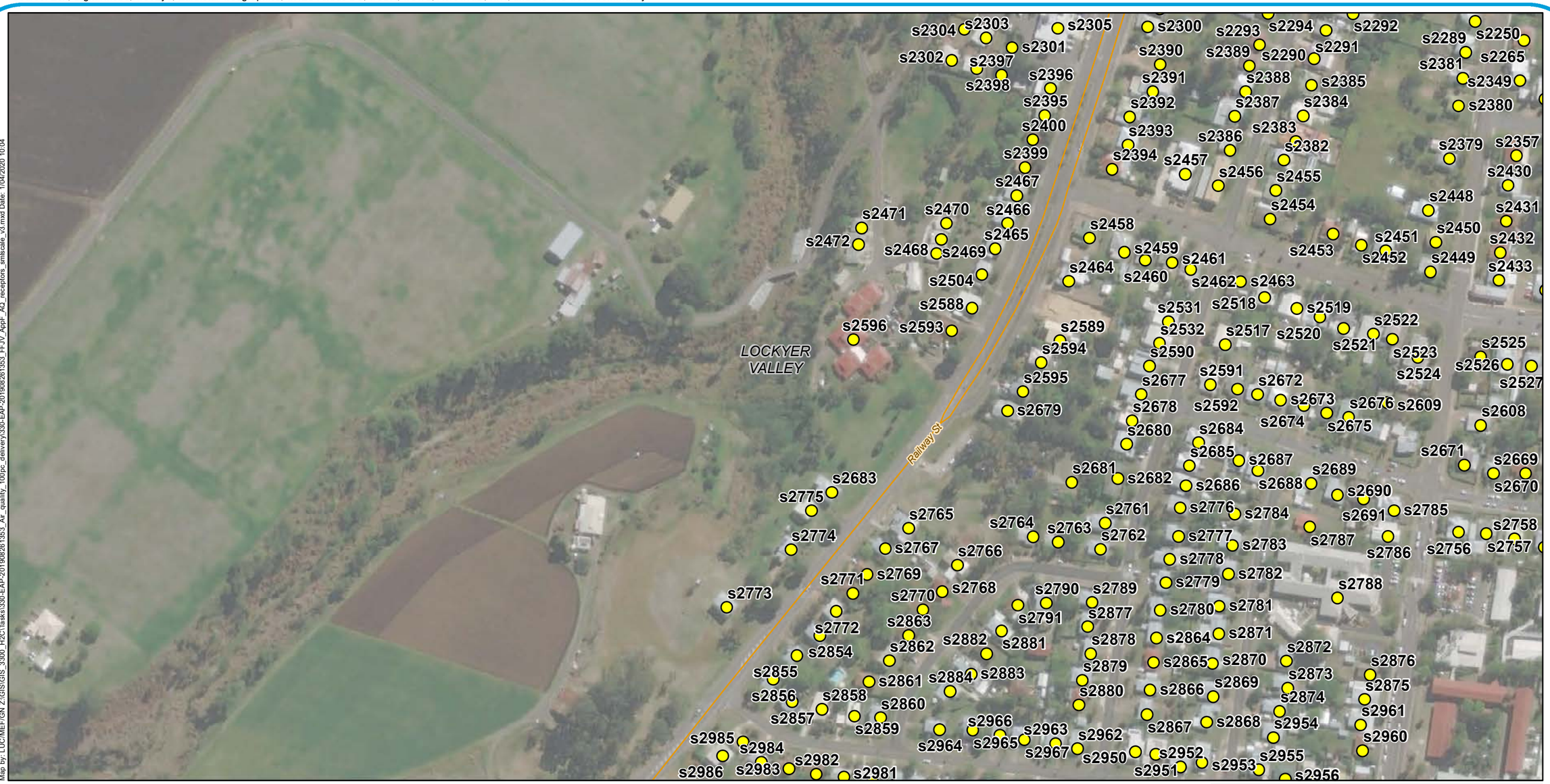
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F116: Sensitive receptor locations

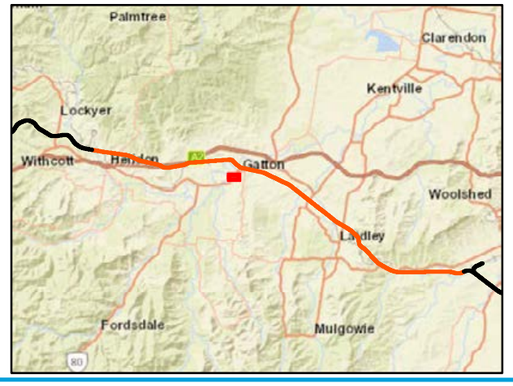
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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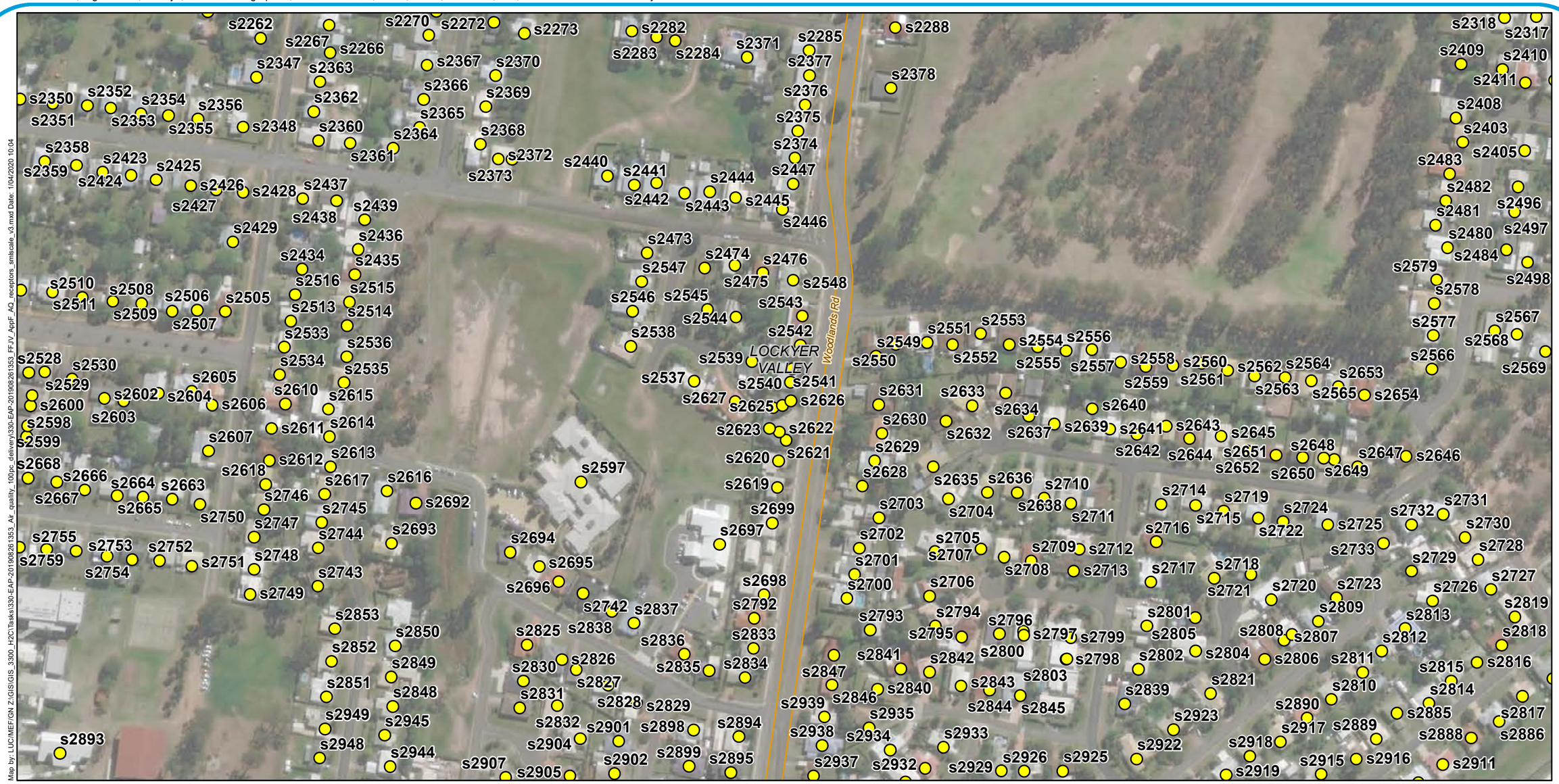
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F117: Sensitive receptor locations

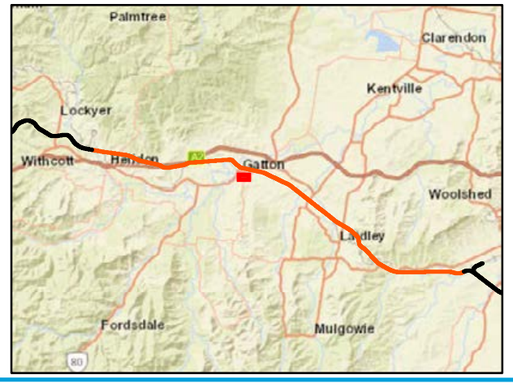
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery\330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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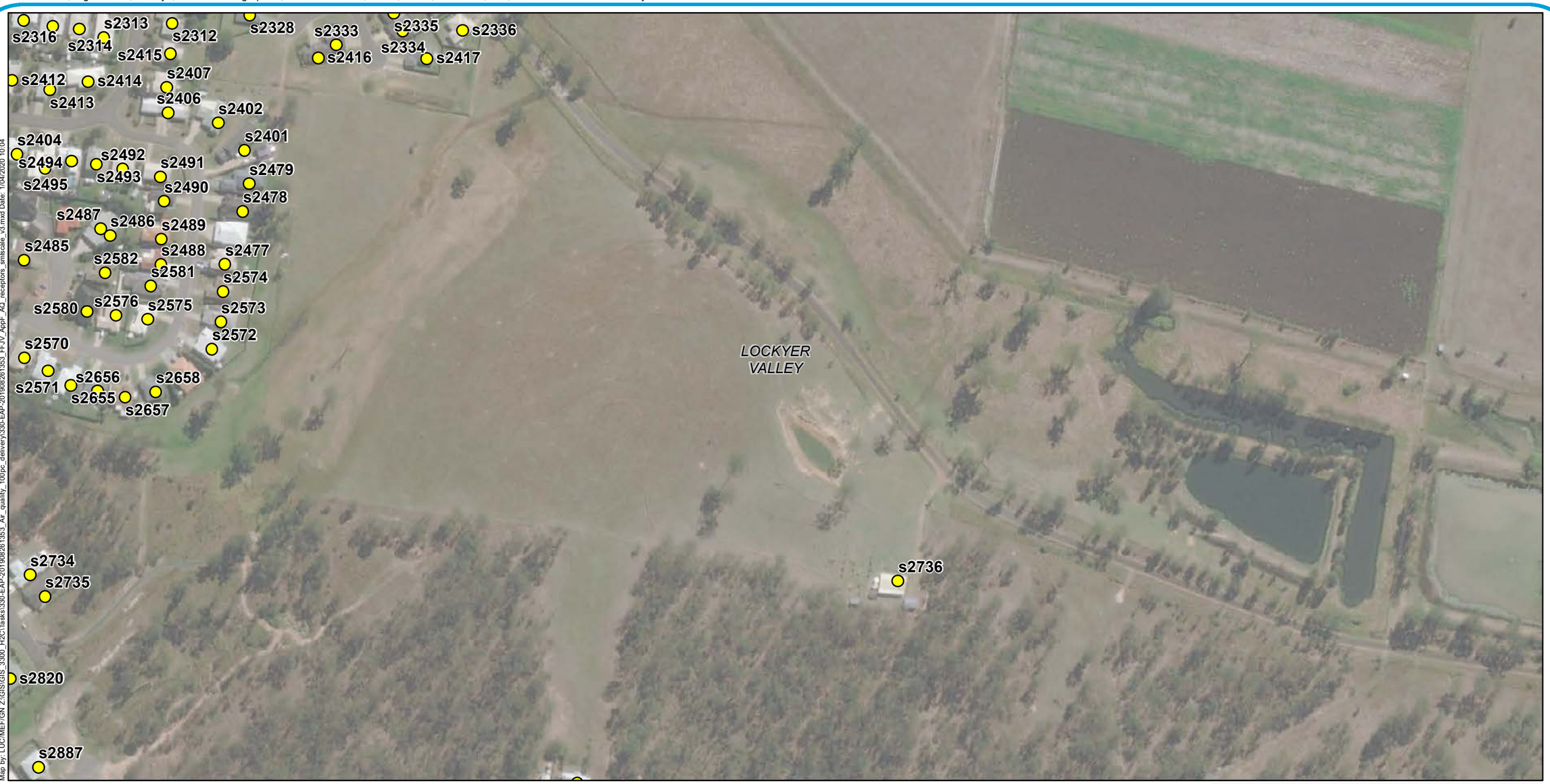
Helidon to Calvert

Appendix F118: Sensitive receptor locations

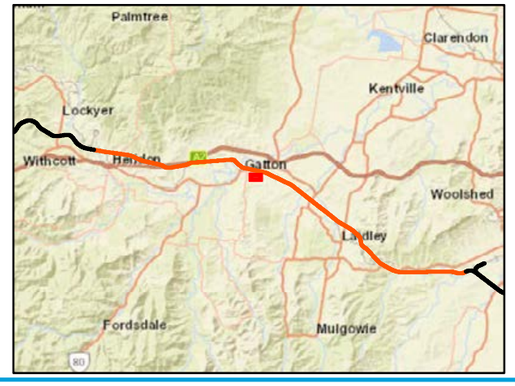
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

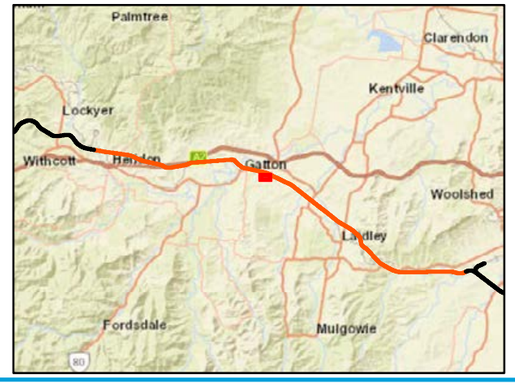
Appendix F119: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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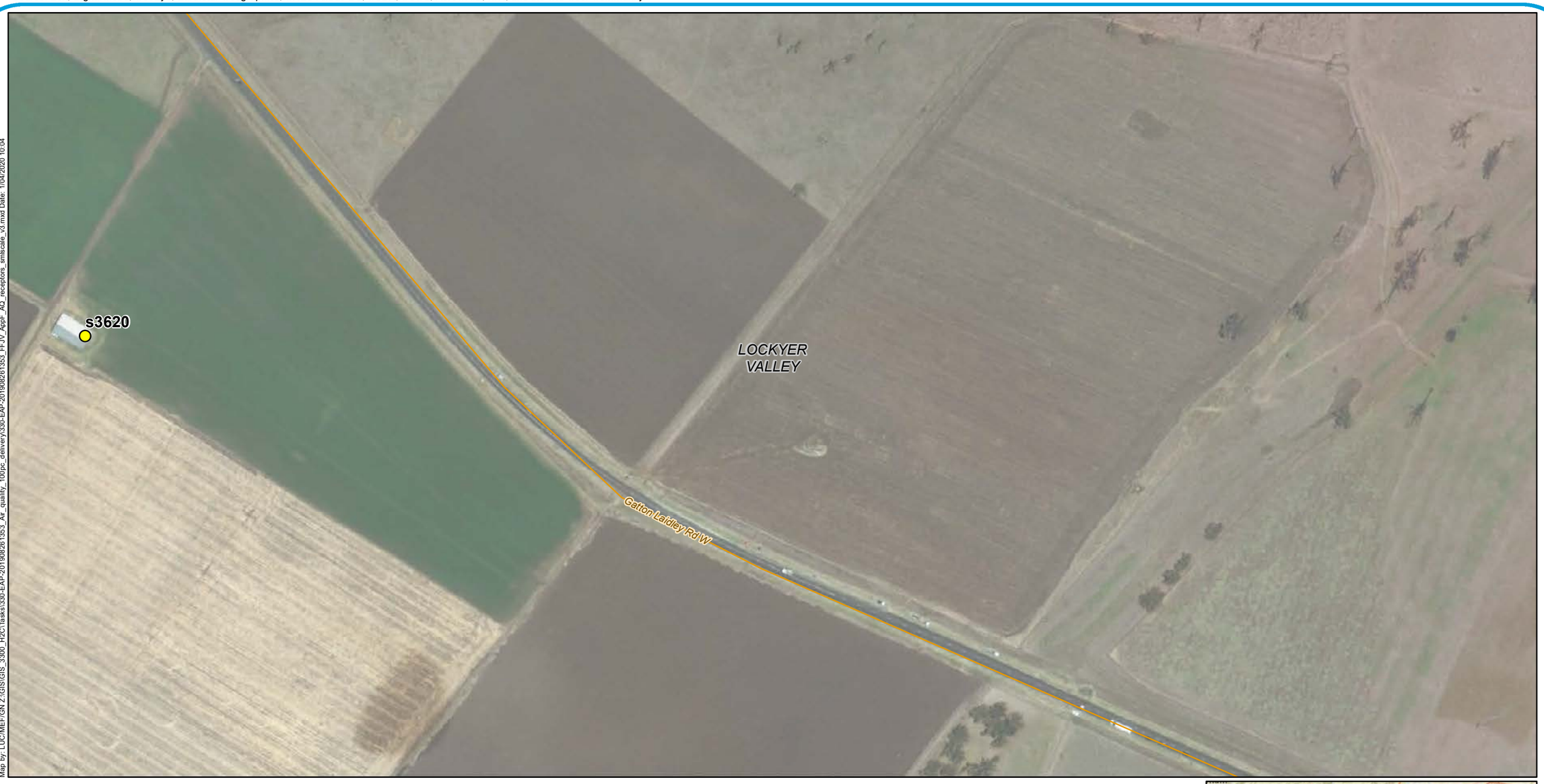
Helidon to Calvert

Appendix F120: Sensitive receptor locations

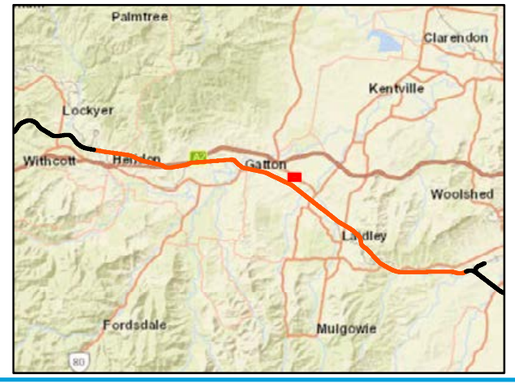
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

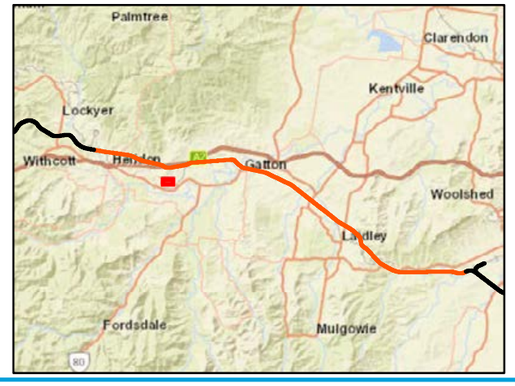
Appendix F121: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

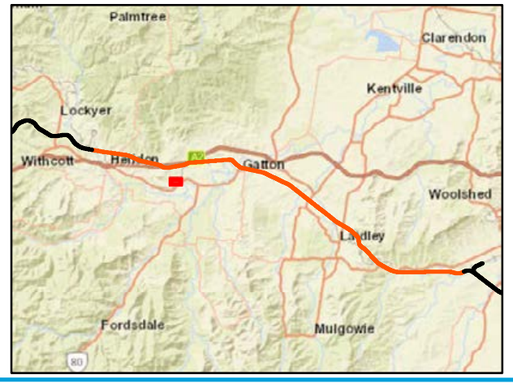
Appendix F122: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

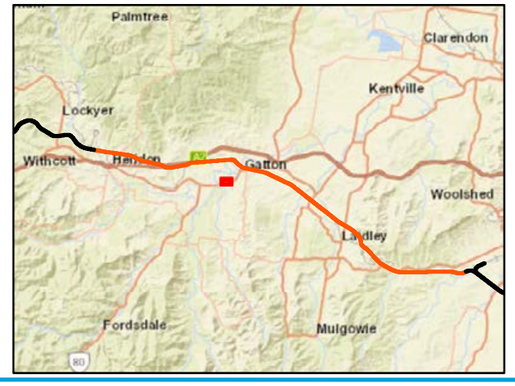
Appendix F123: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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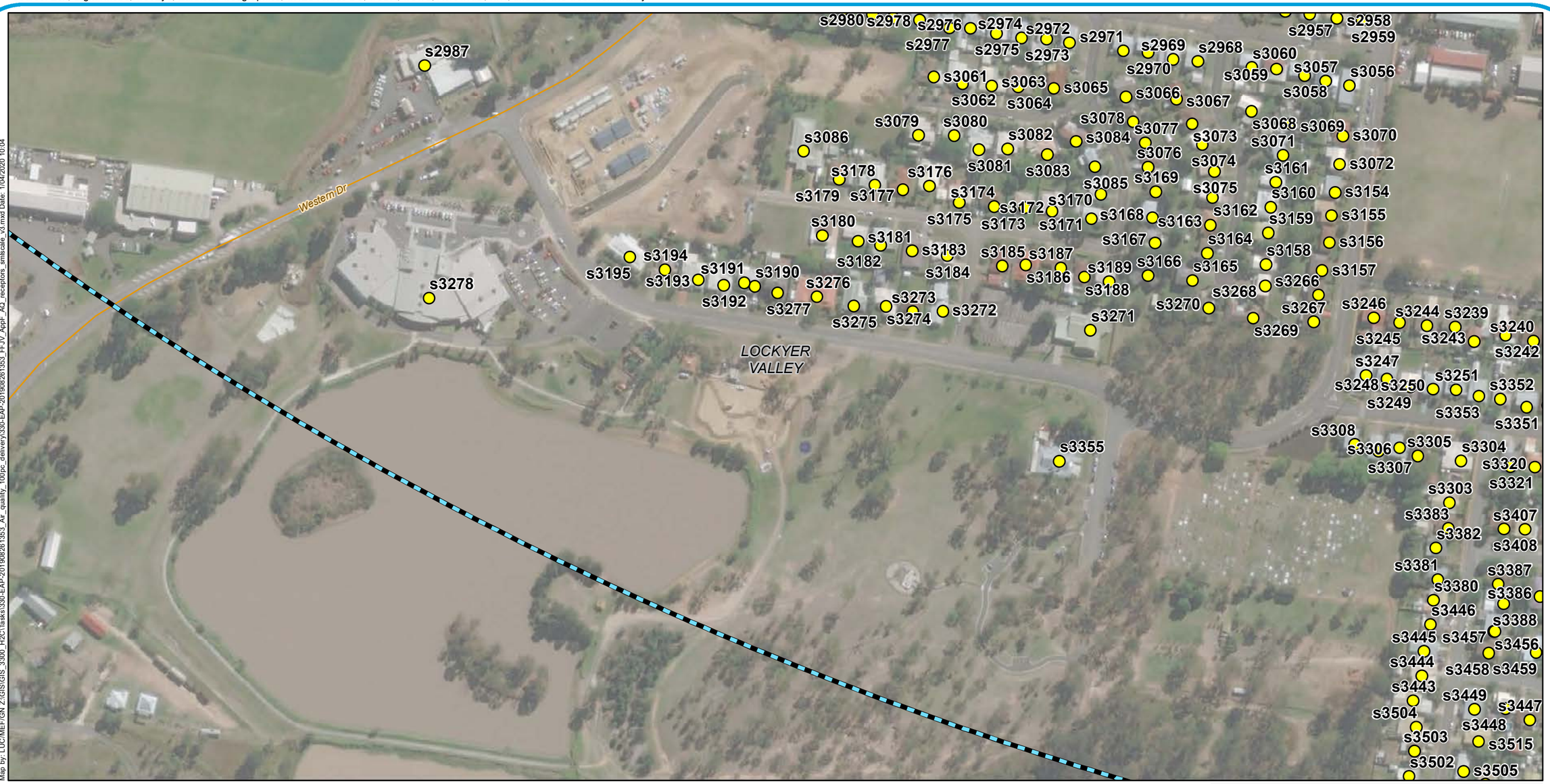
Coordinate System: GDA 1994 MGA Zone 56

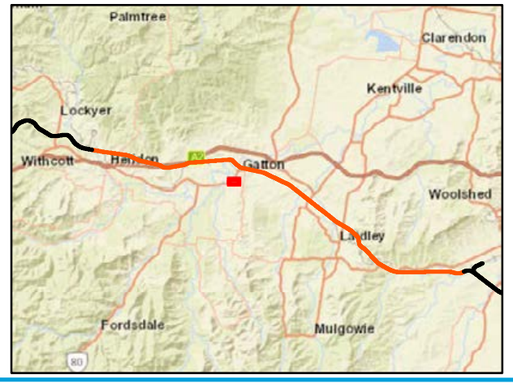
Helidon to Calvert

Appendix F124: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\3300-EAP-20190826135 3_Air_quality_100pc_delivery330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04





Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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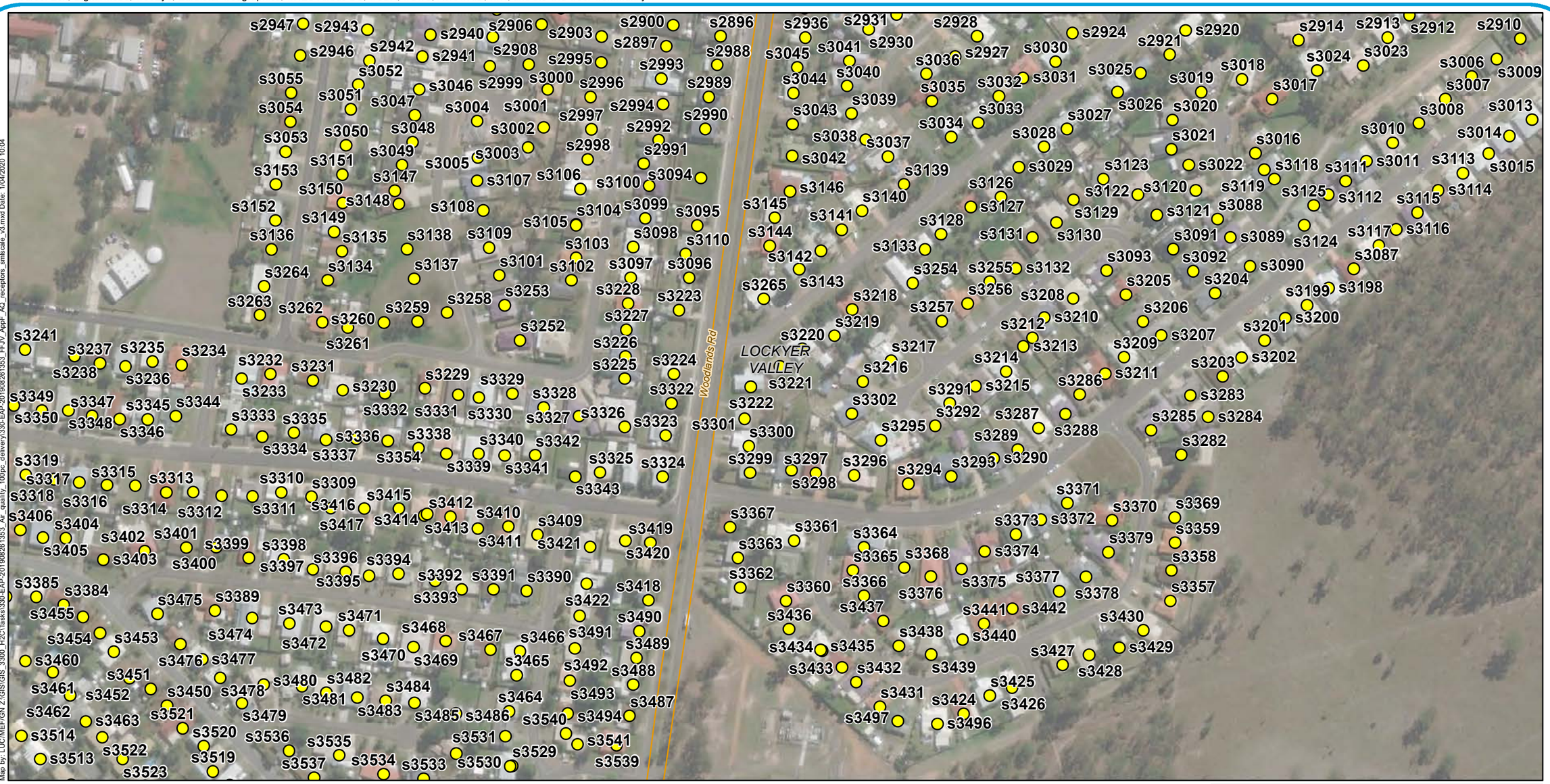
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F125: Sensitive receptor locations

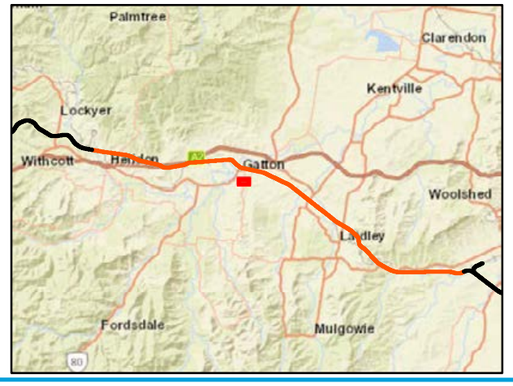
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2O\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

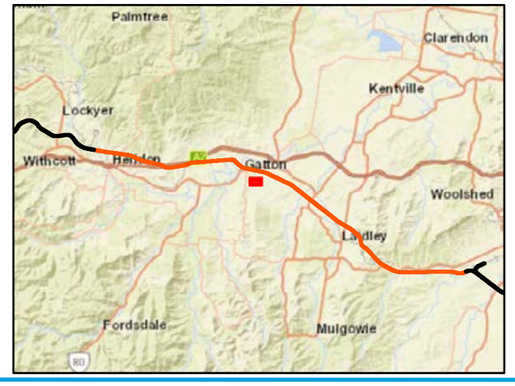
Appendix F126: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

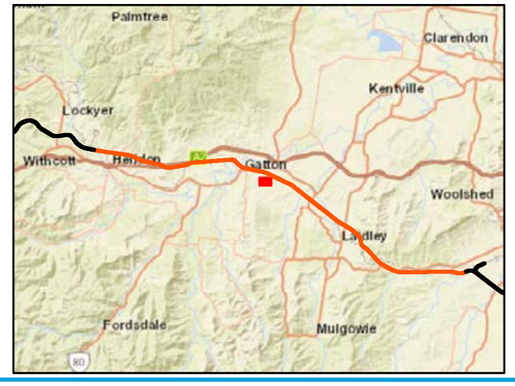
Appendix F127: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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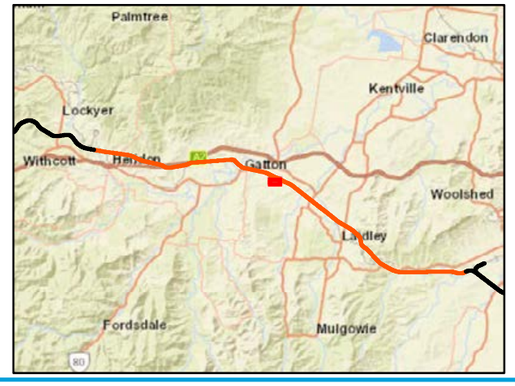
Appendix F128: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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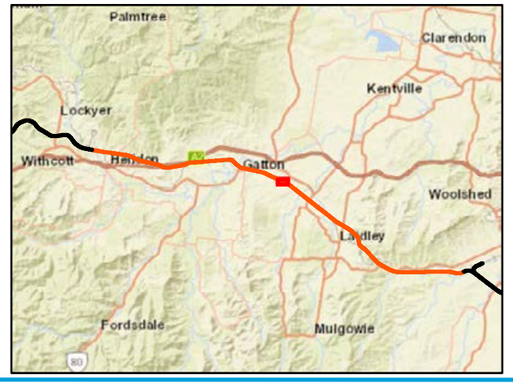
Appendix F129: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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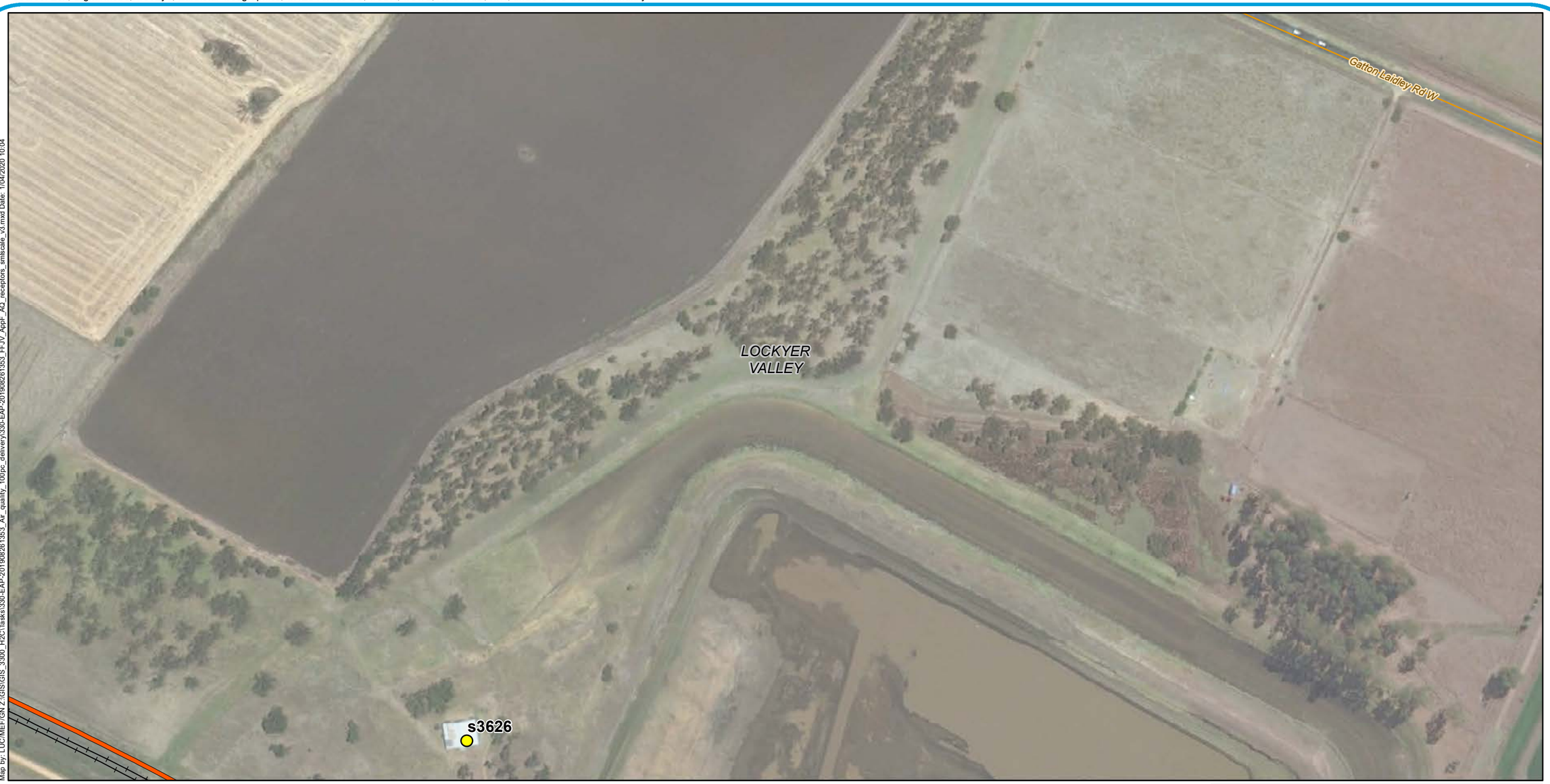
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F130: Sensitive receptor locations

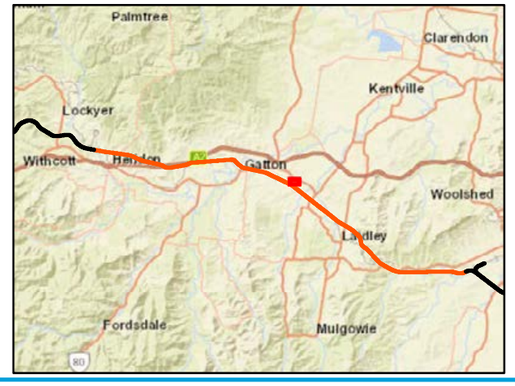
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

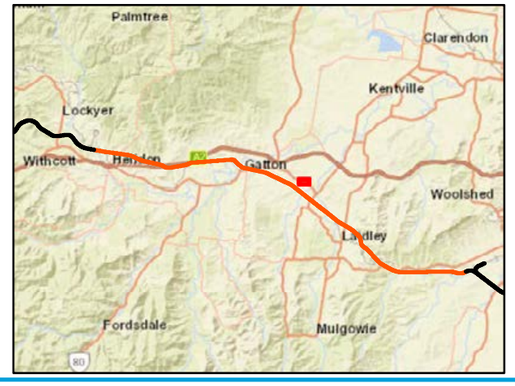
Appendix F131: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

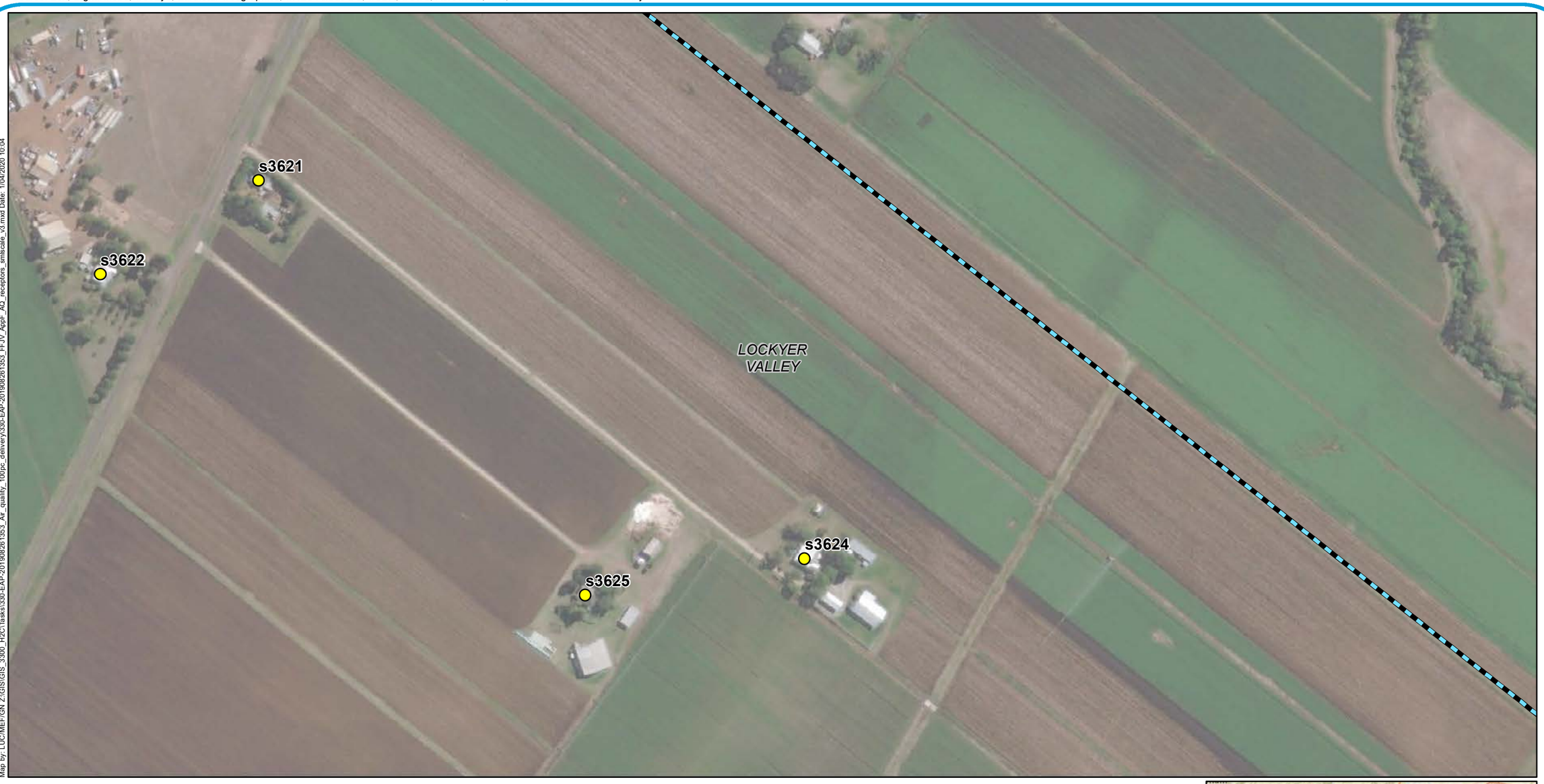
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F132: Sensitive receptor locations

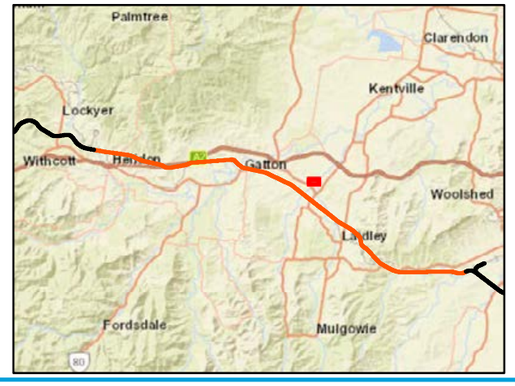
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_Air_quality_100pc_delivery\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

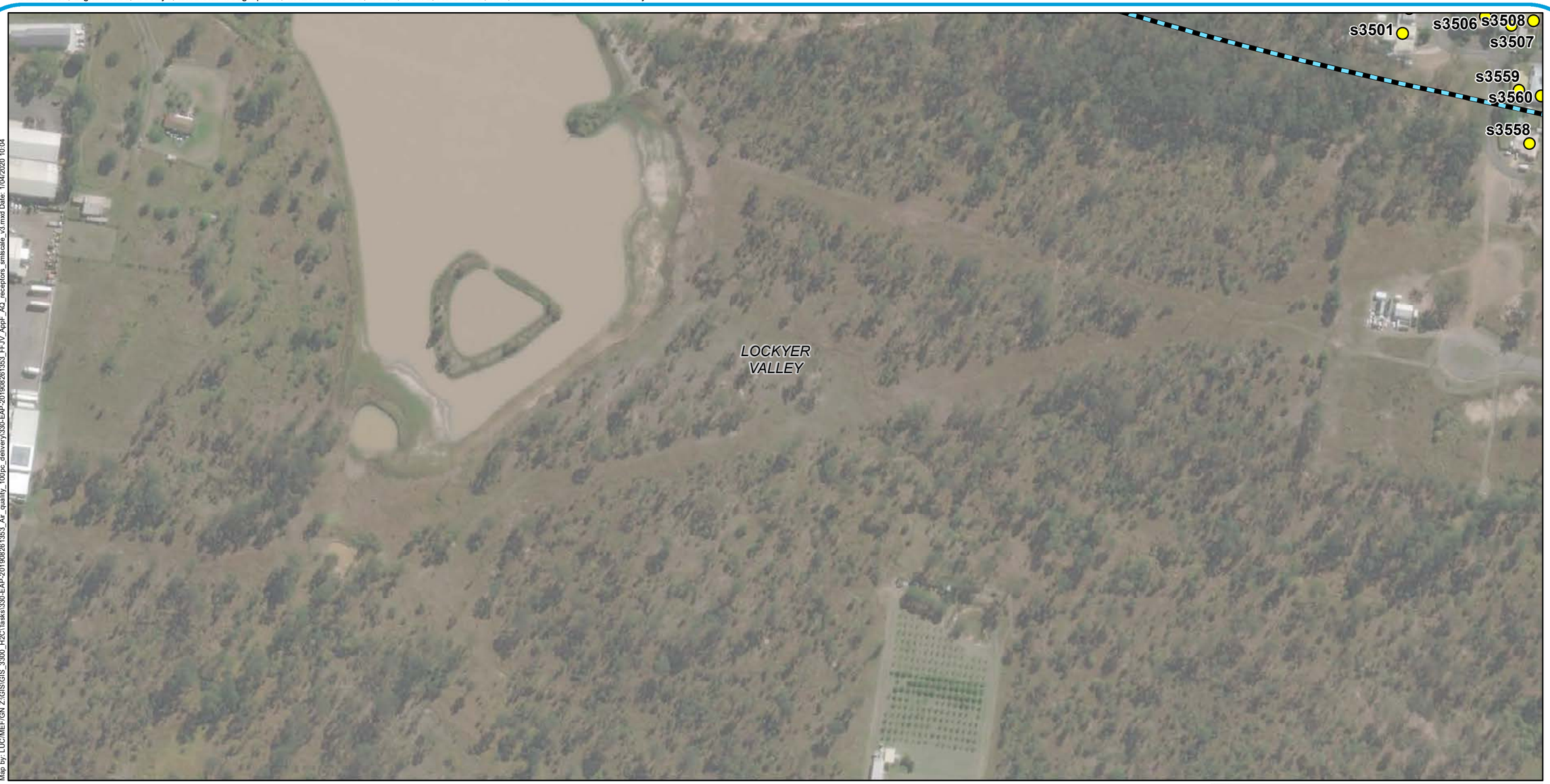
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F133: Sensitive receptor locations

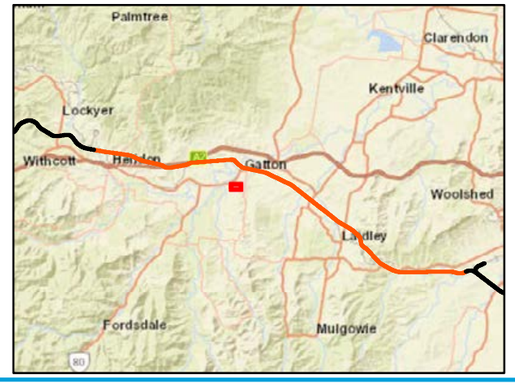
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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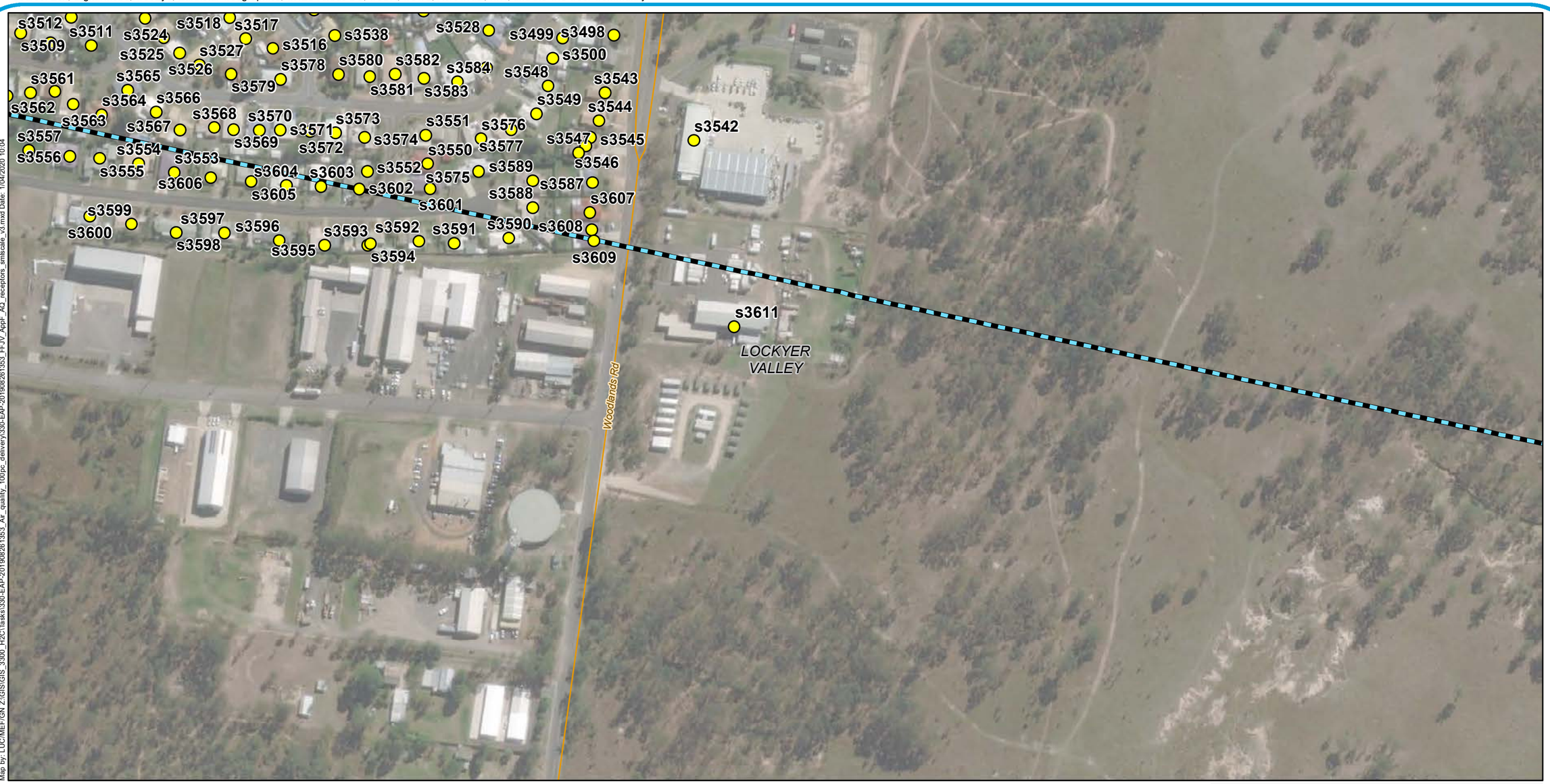
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F134: Sensitive receptor locations

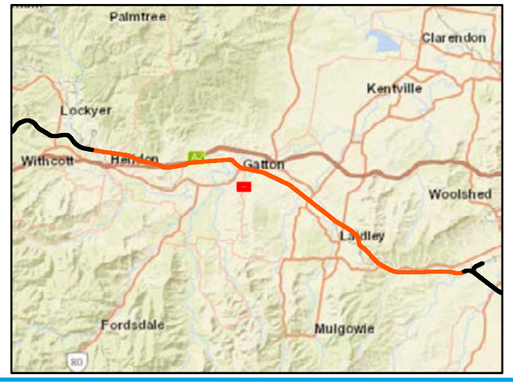
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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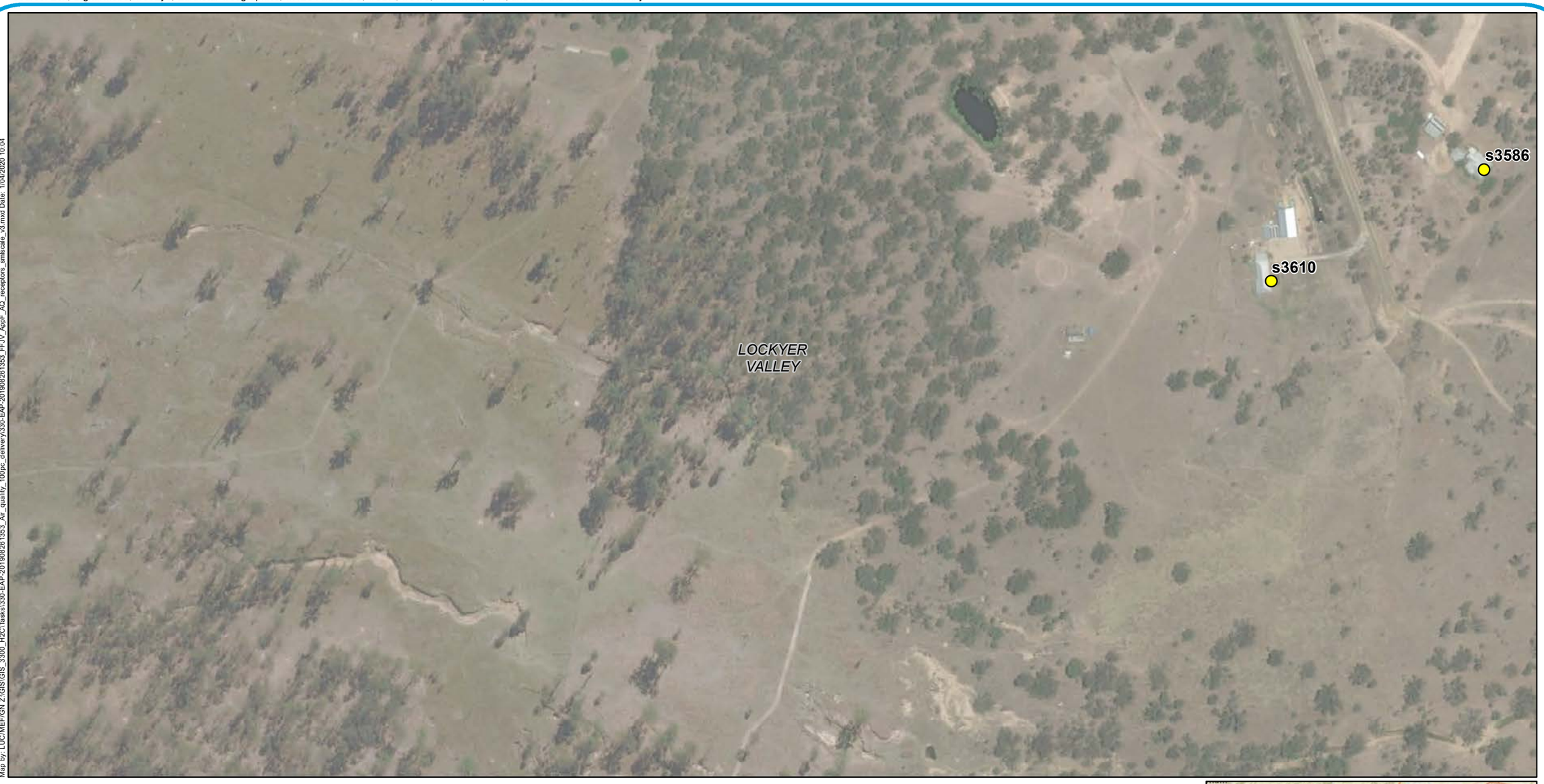
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F135: Sensitive receptor locations

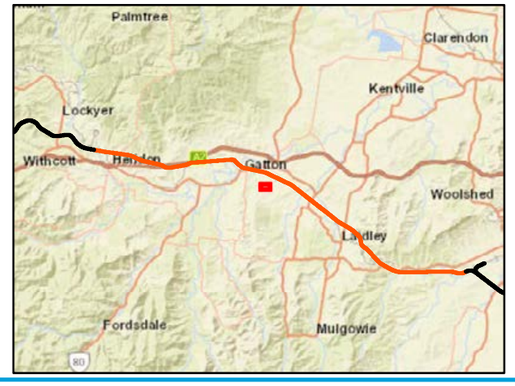
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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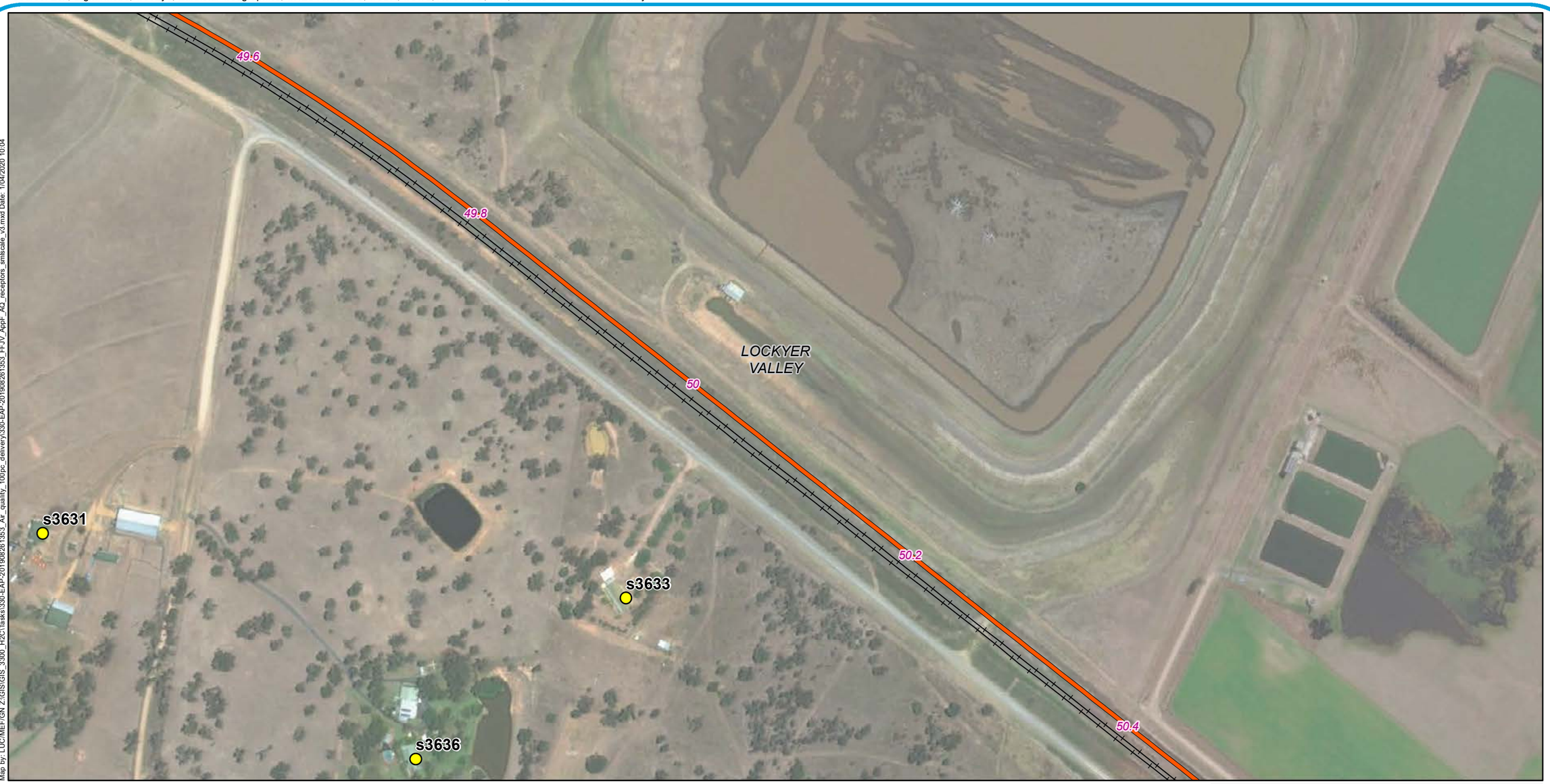
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F136: Sensitive receptor locations

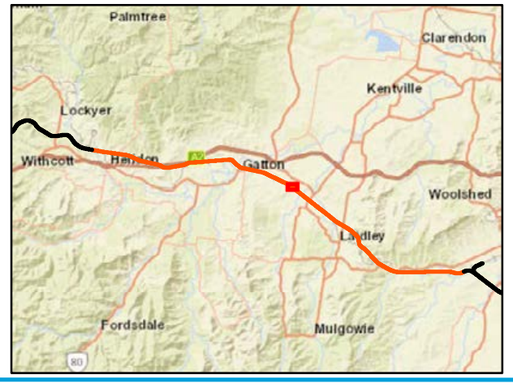
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

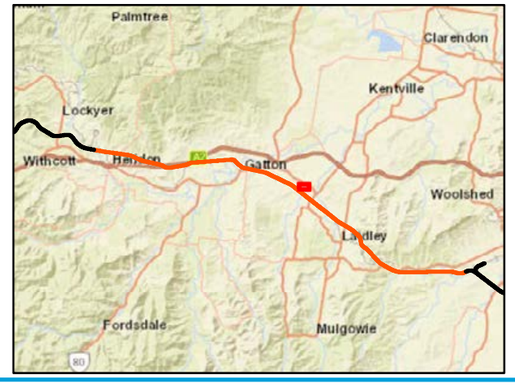
Appendix F137: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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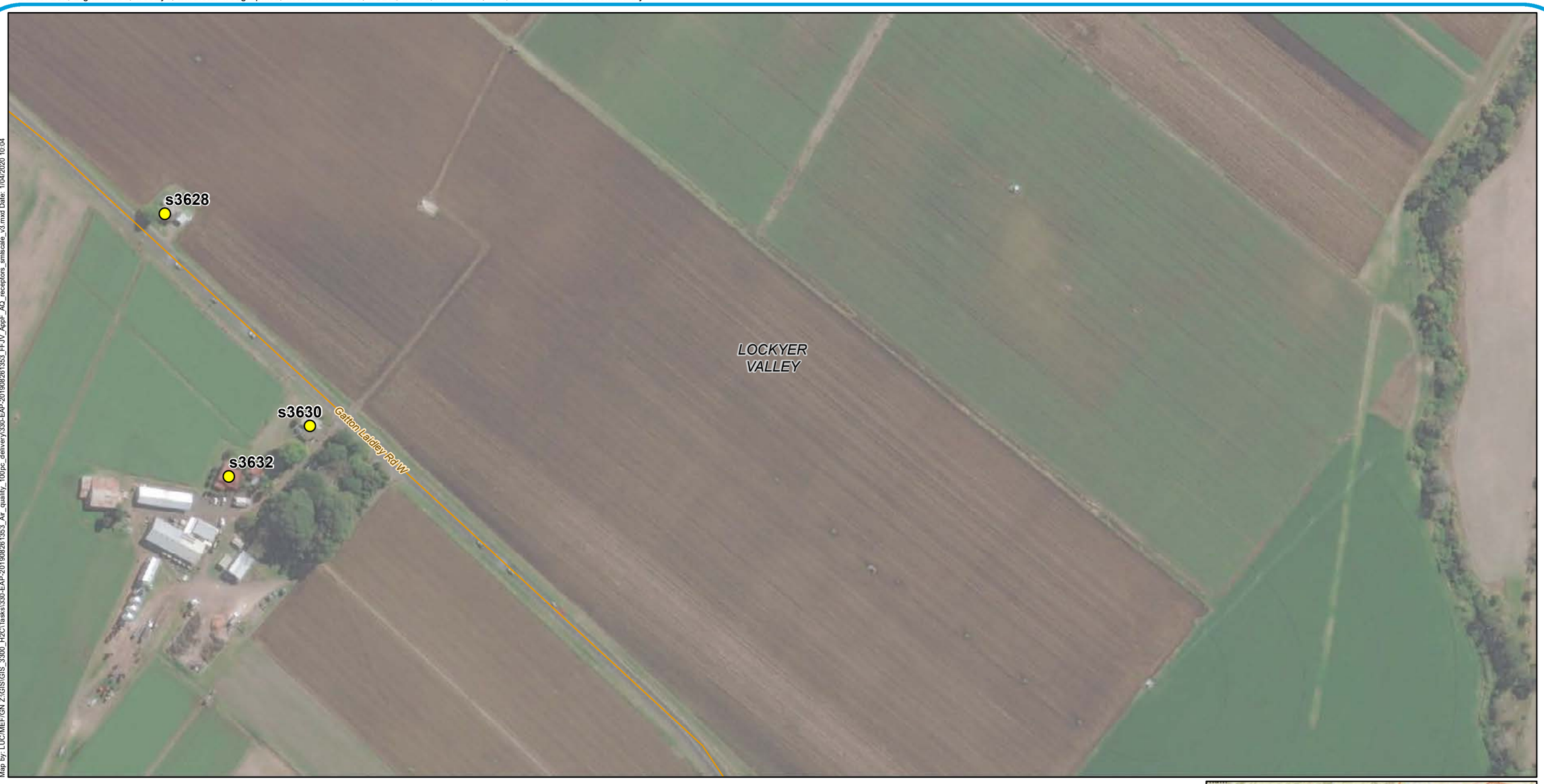
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F138: Sensitive receptor locations

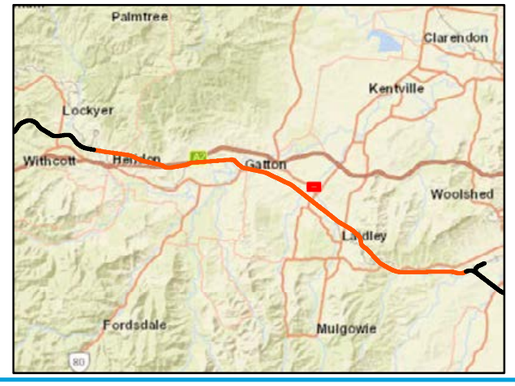
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

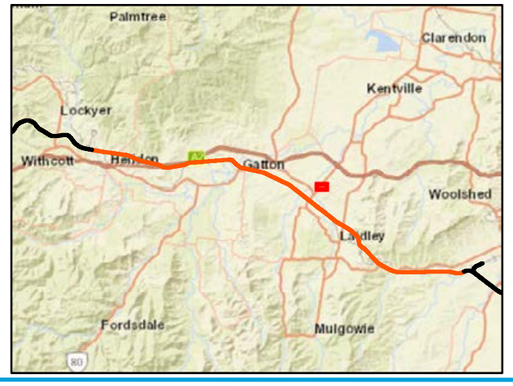
Appendix F139: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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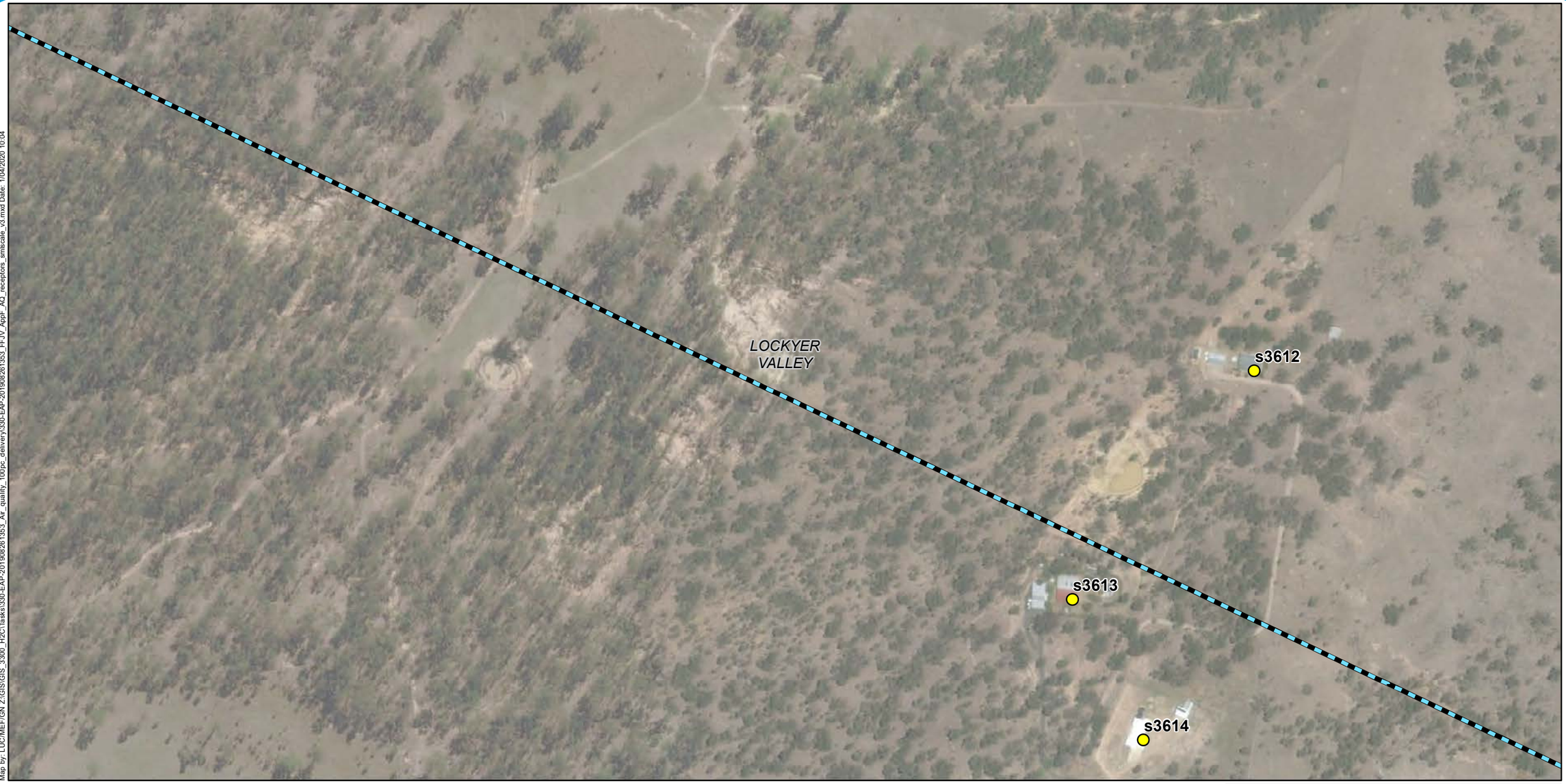
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F140: Sensitive receptor locations

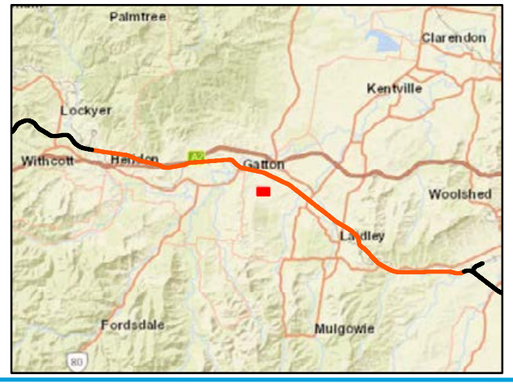
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

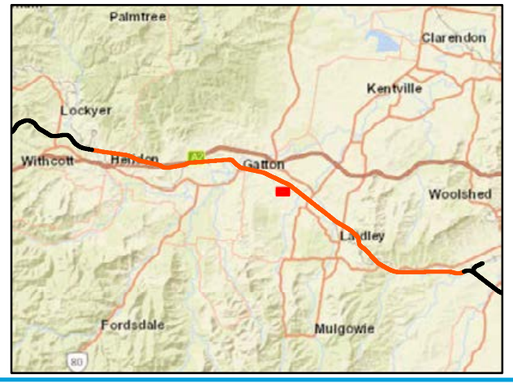
Appendix F141: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Localities
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

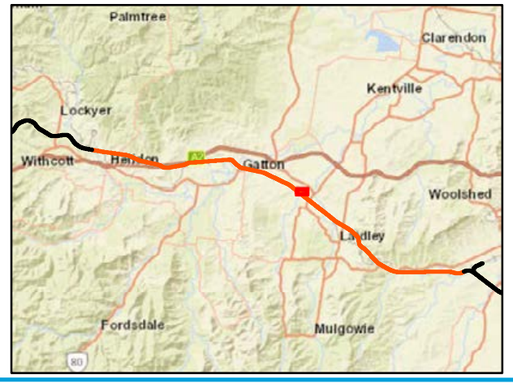
Appendix F142: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

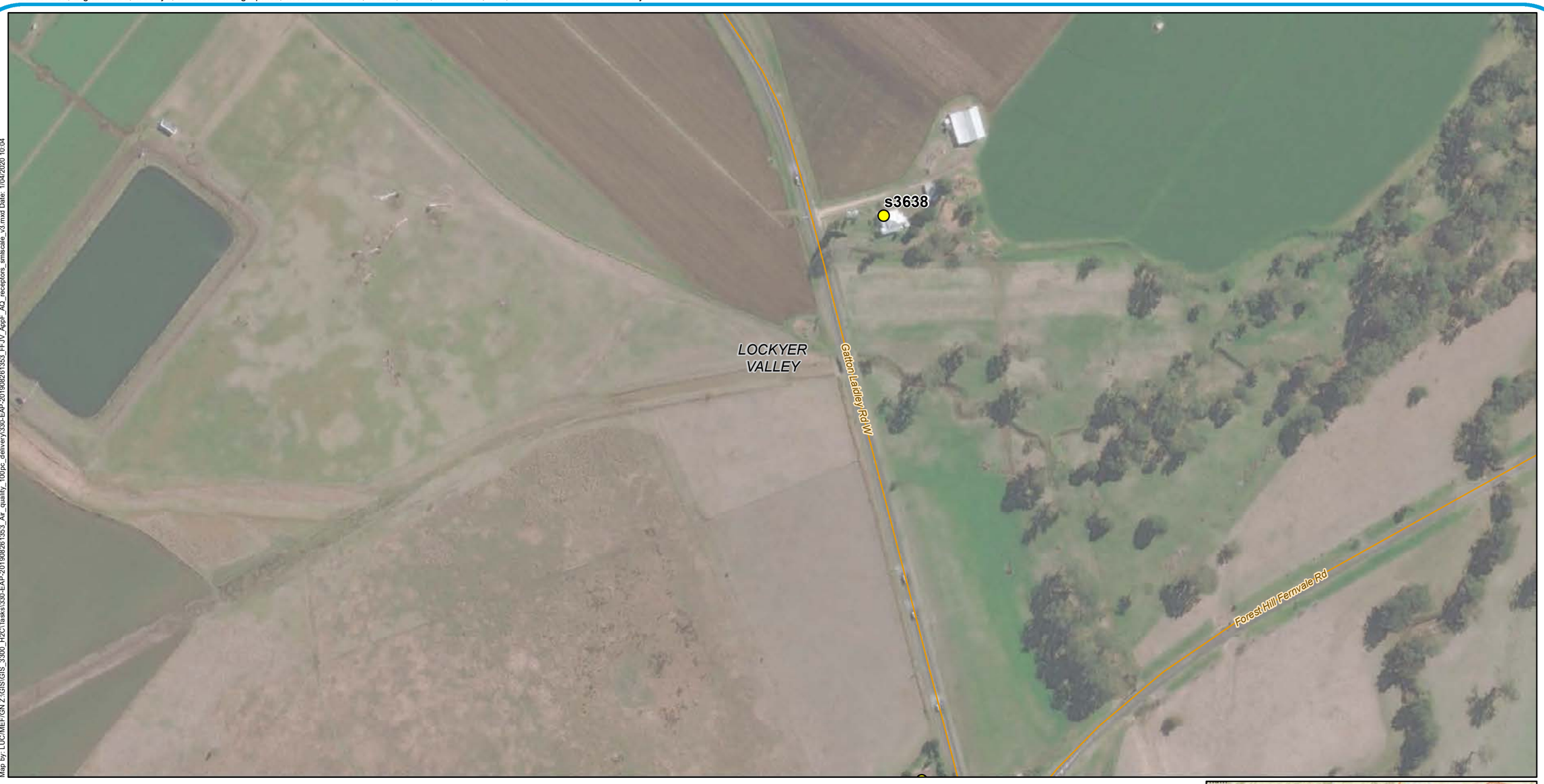
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F143: Sensitive receptor locations

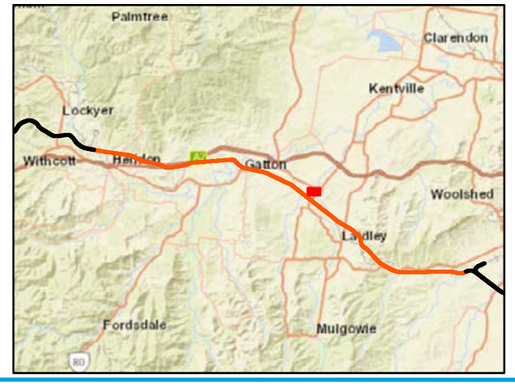
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

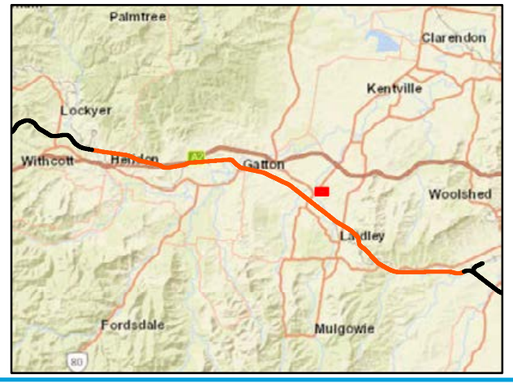
Appendix F144: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

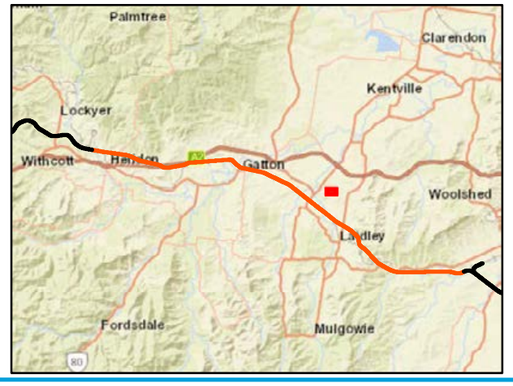
Appendix F145: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2\C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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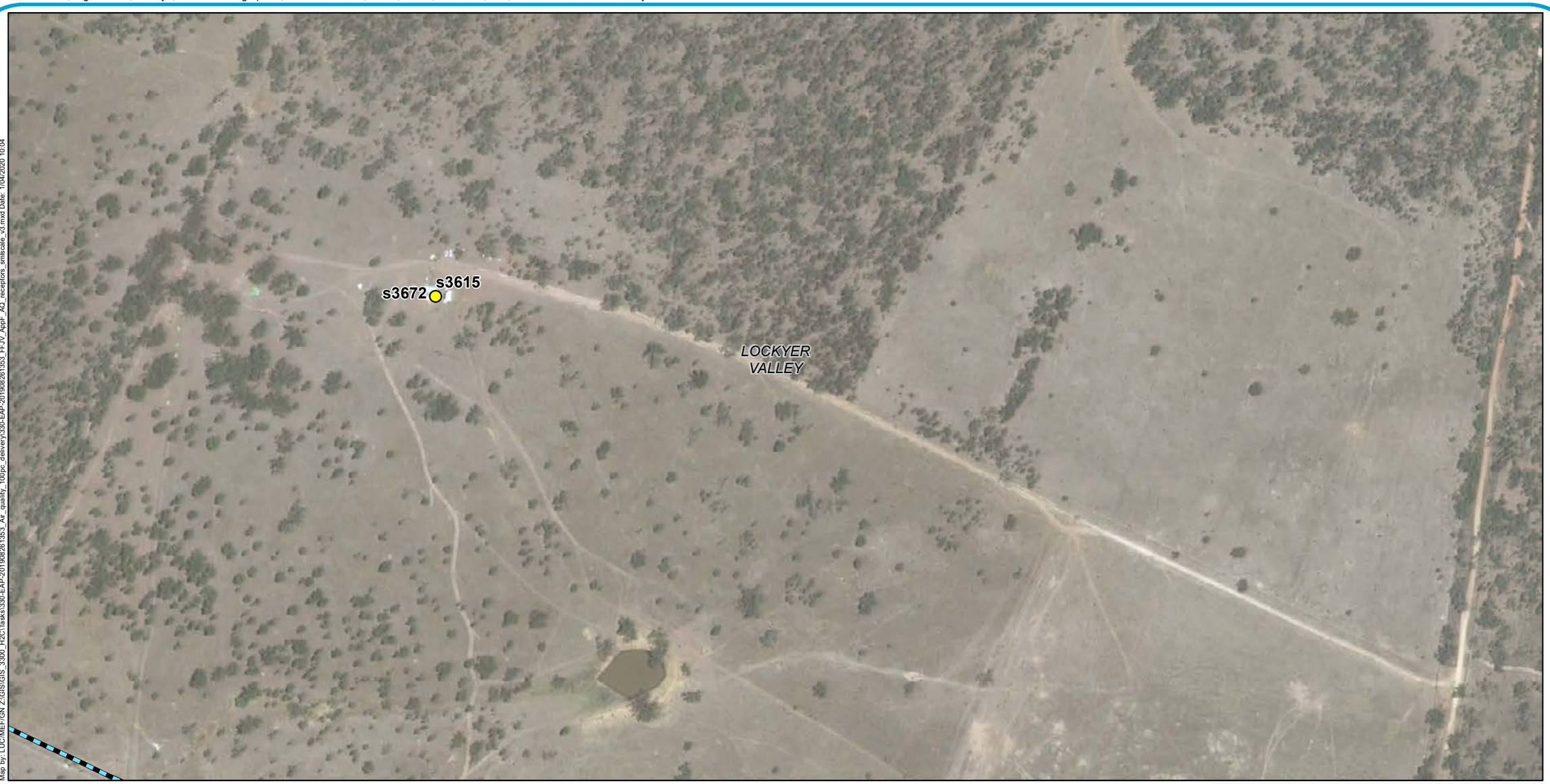
Helidon to Calvert

Appendix F146: Sensitive receptor locations

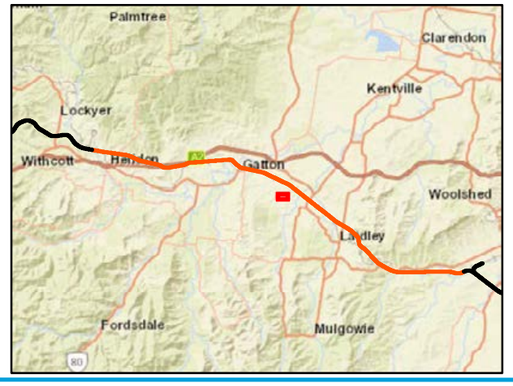
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

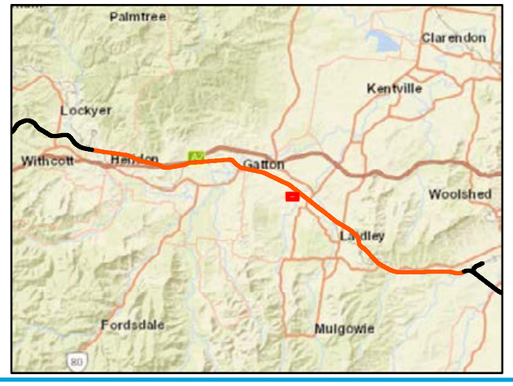
Appendix F147: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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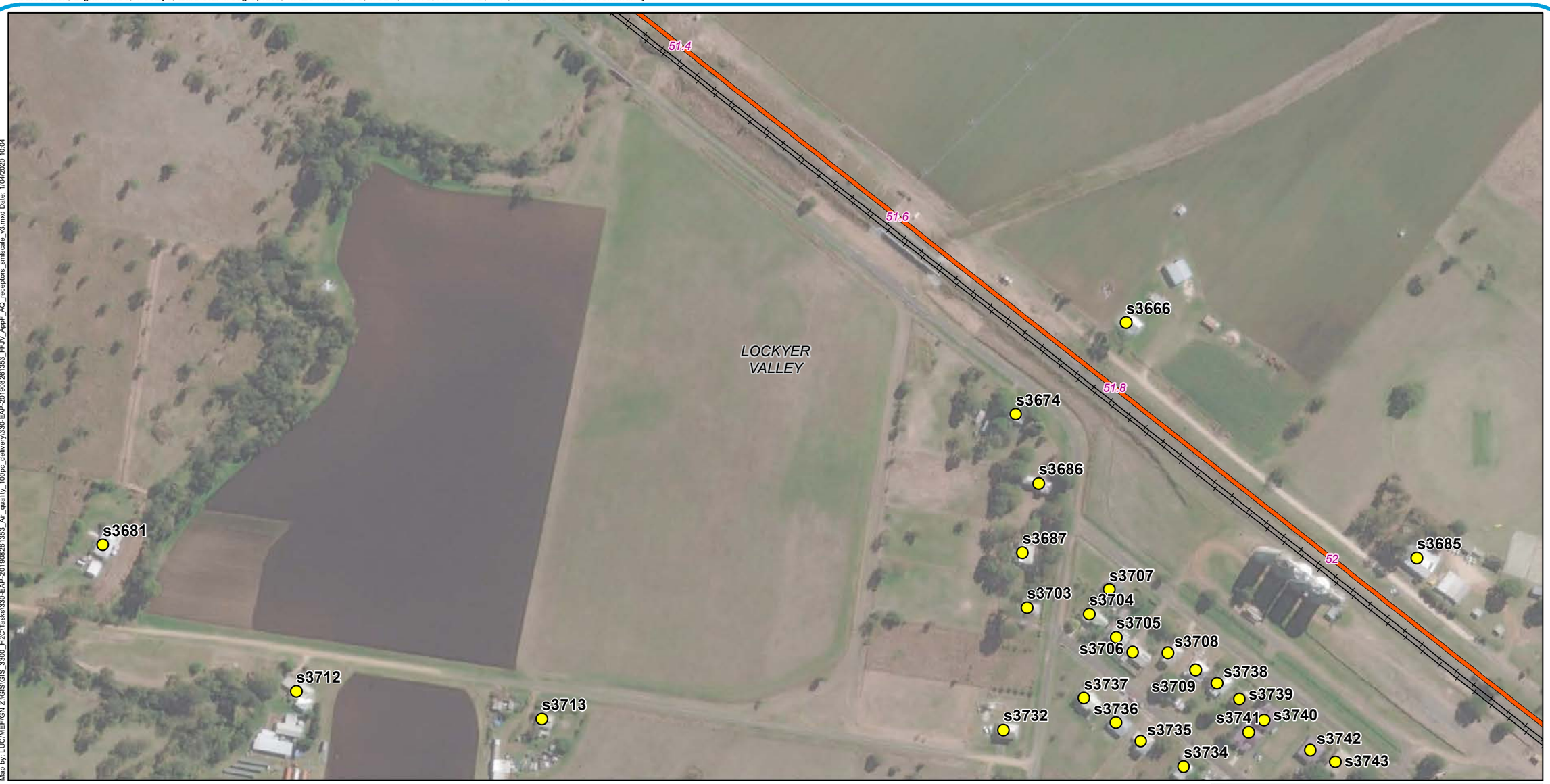
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F148: Sensitive receptor locations

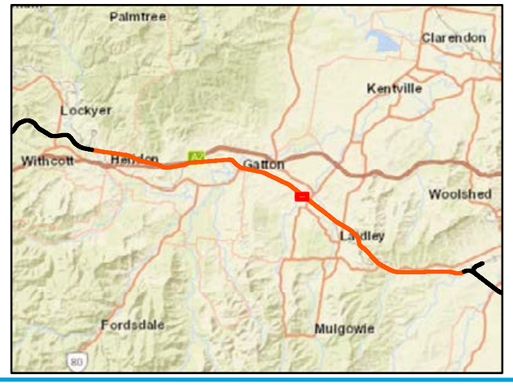
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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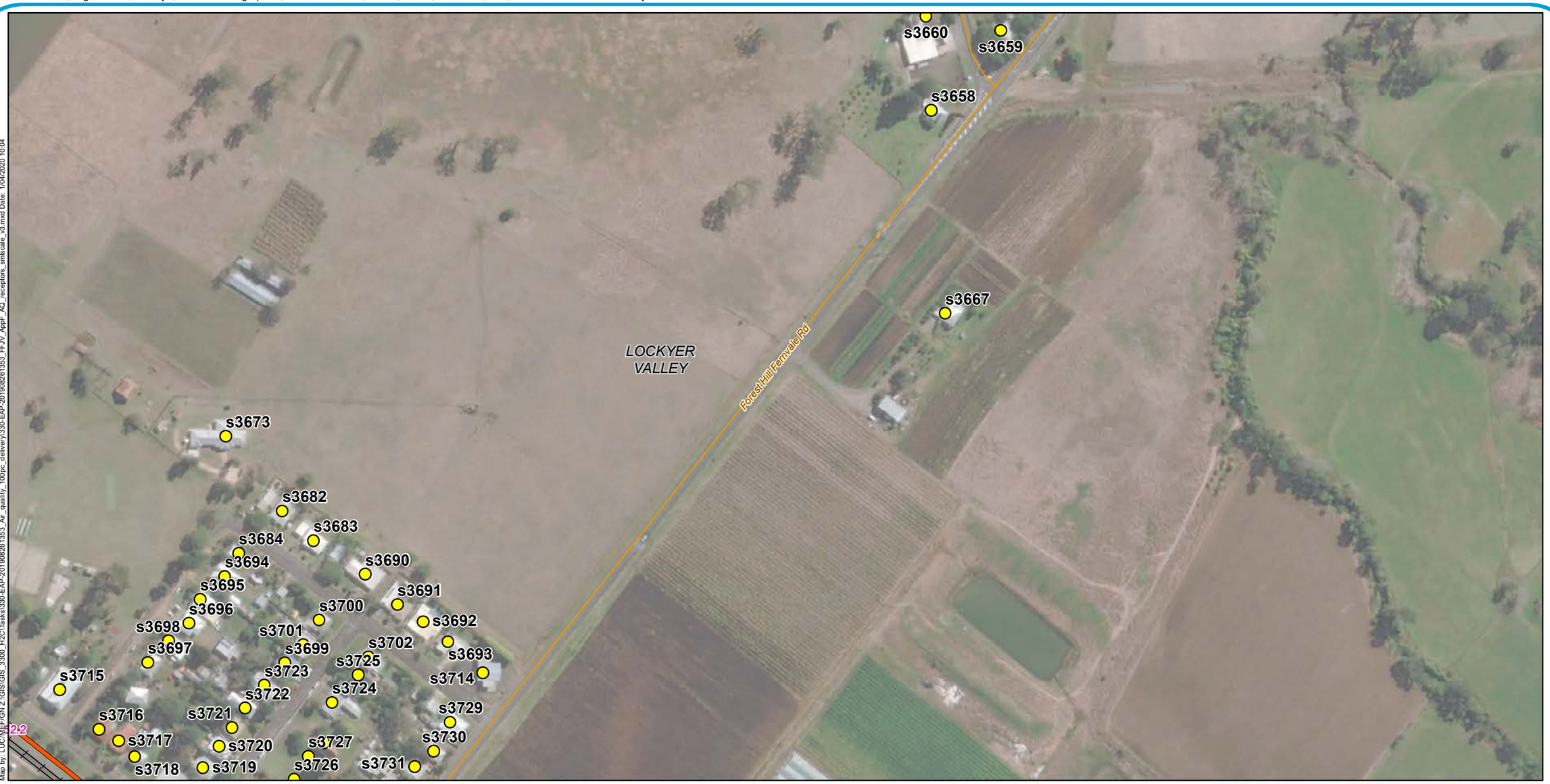
Appendix F149: Sensitive receptor locations

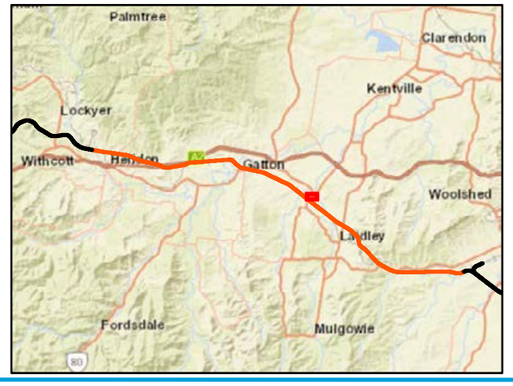
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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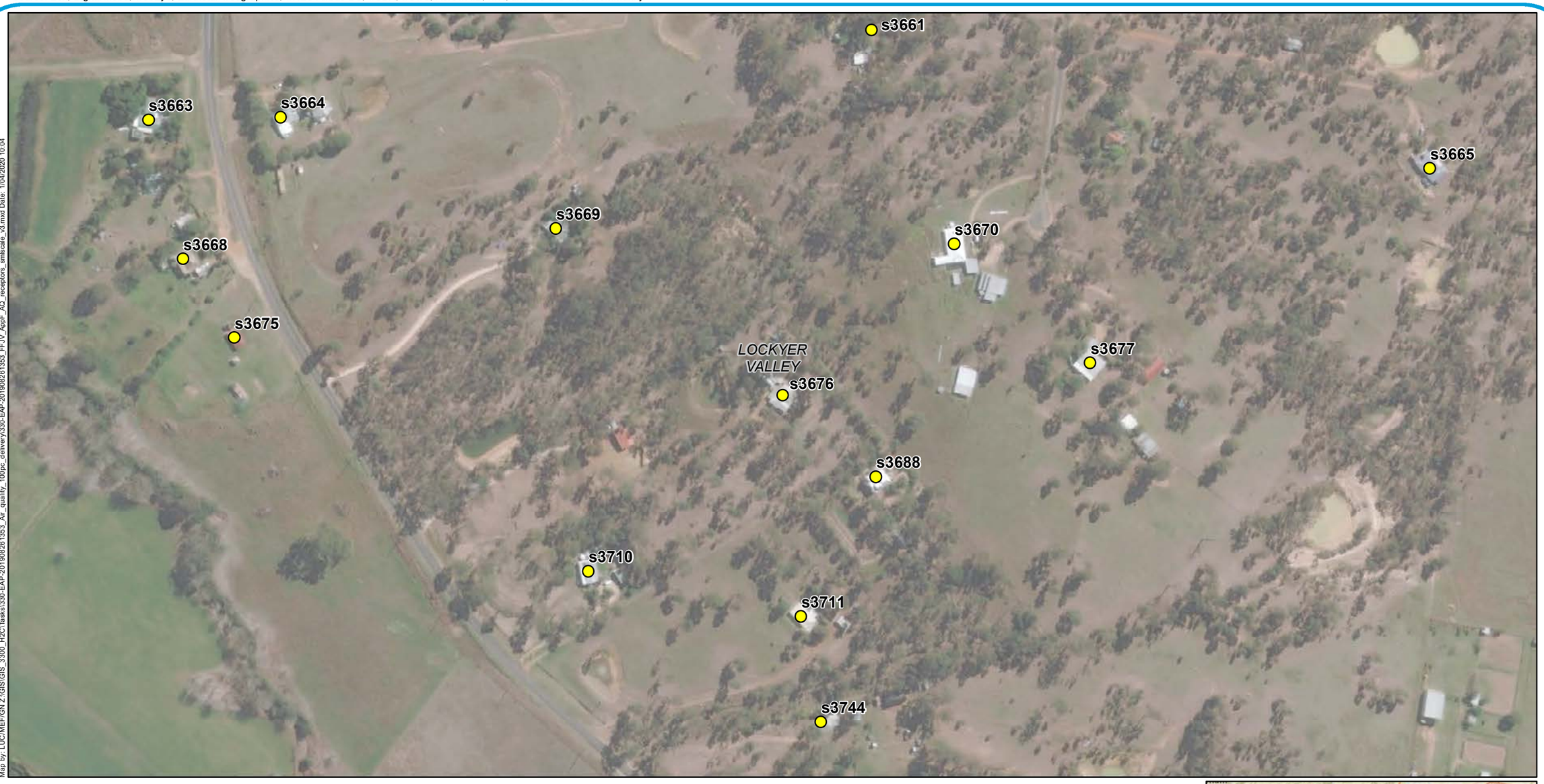
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F150: Sensitive receptor locations

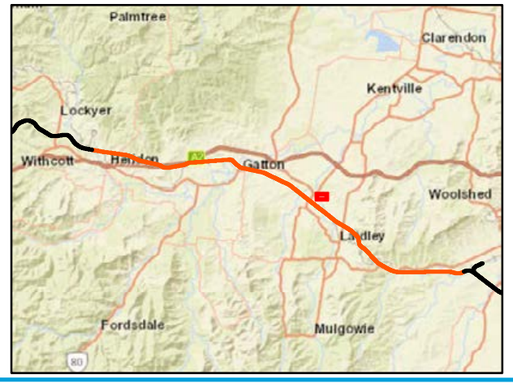
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

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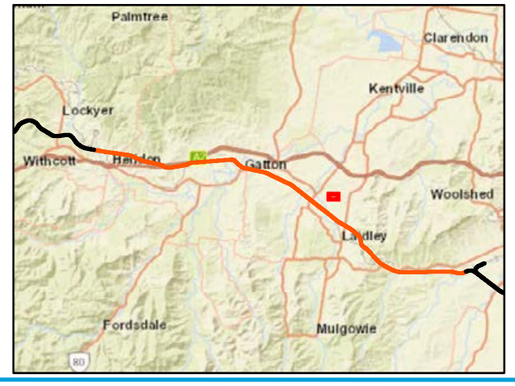
Appendix F151: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery\330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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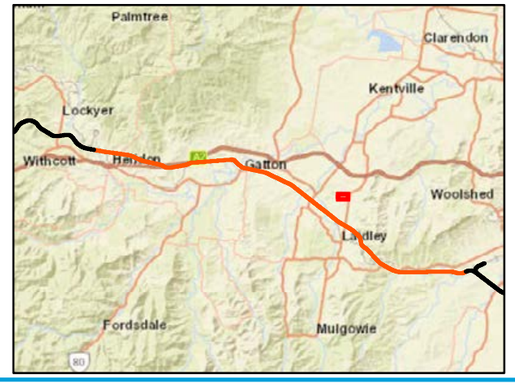
Appendix F152: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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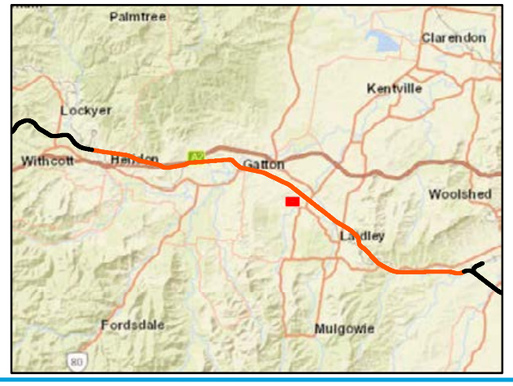
Appendix F153: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F154: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Localities
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Appendix F155: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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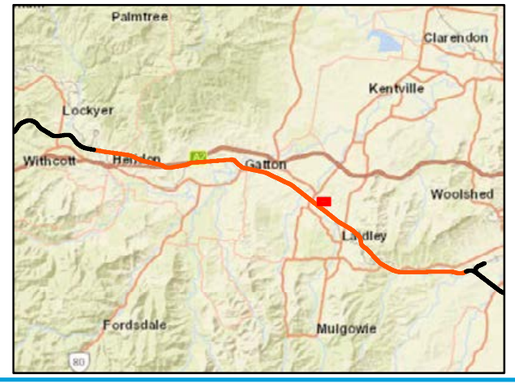
Appendix F156: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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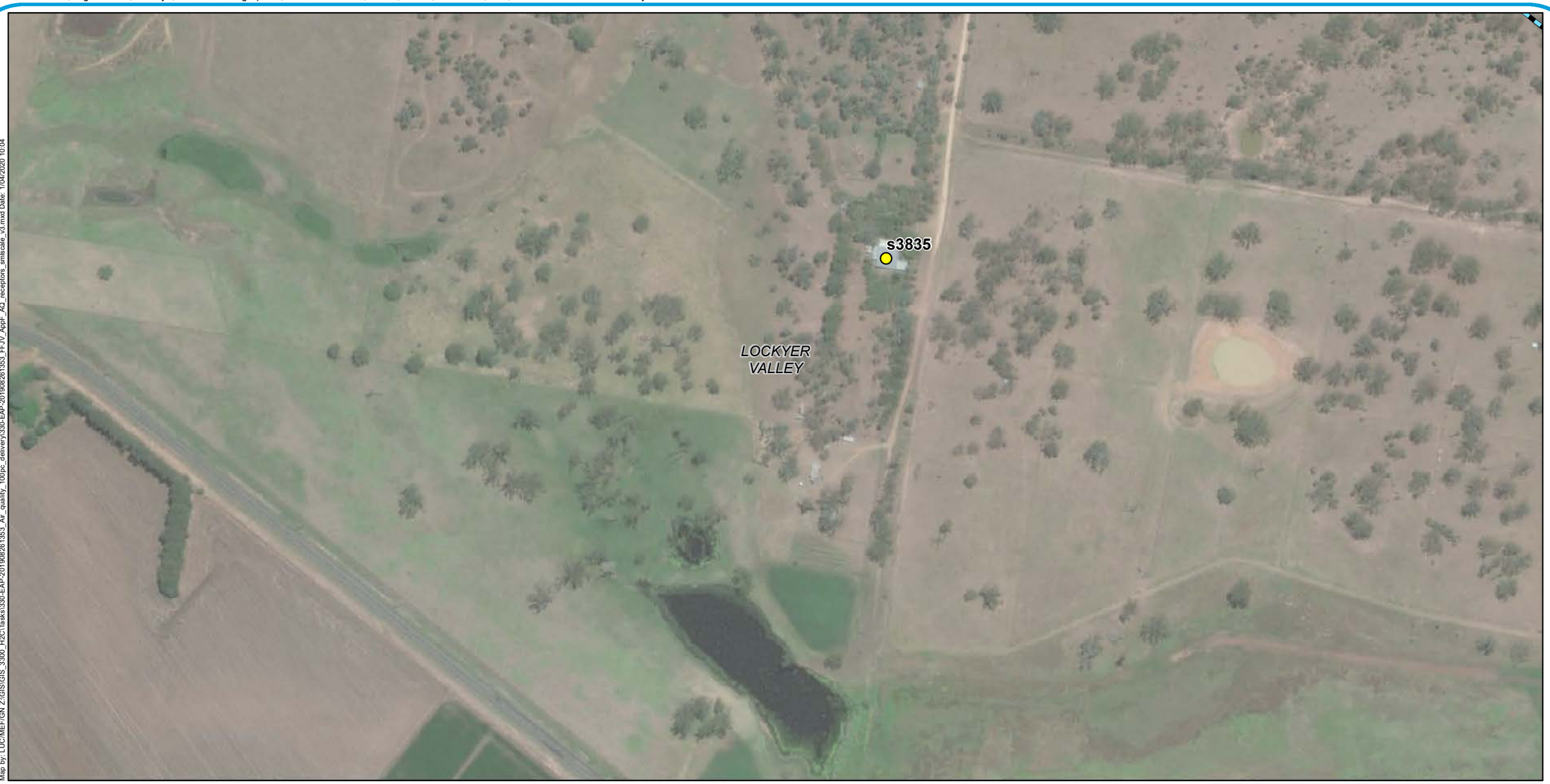
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F157: Sensitive receptor locations

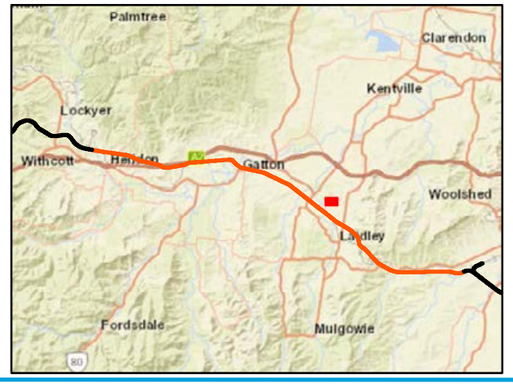
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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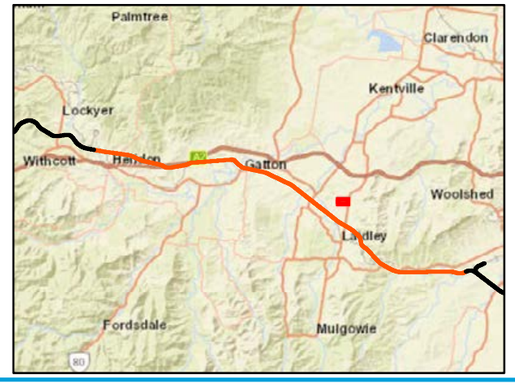
Appendix F158: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_Air_quality_100pc_delivery\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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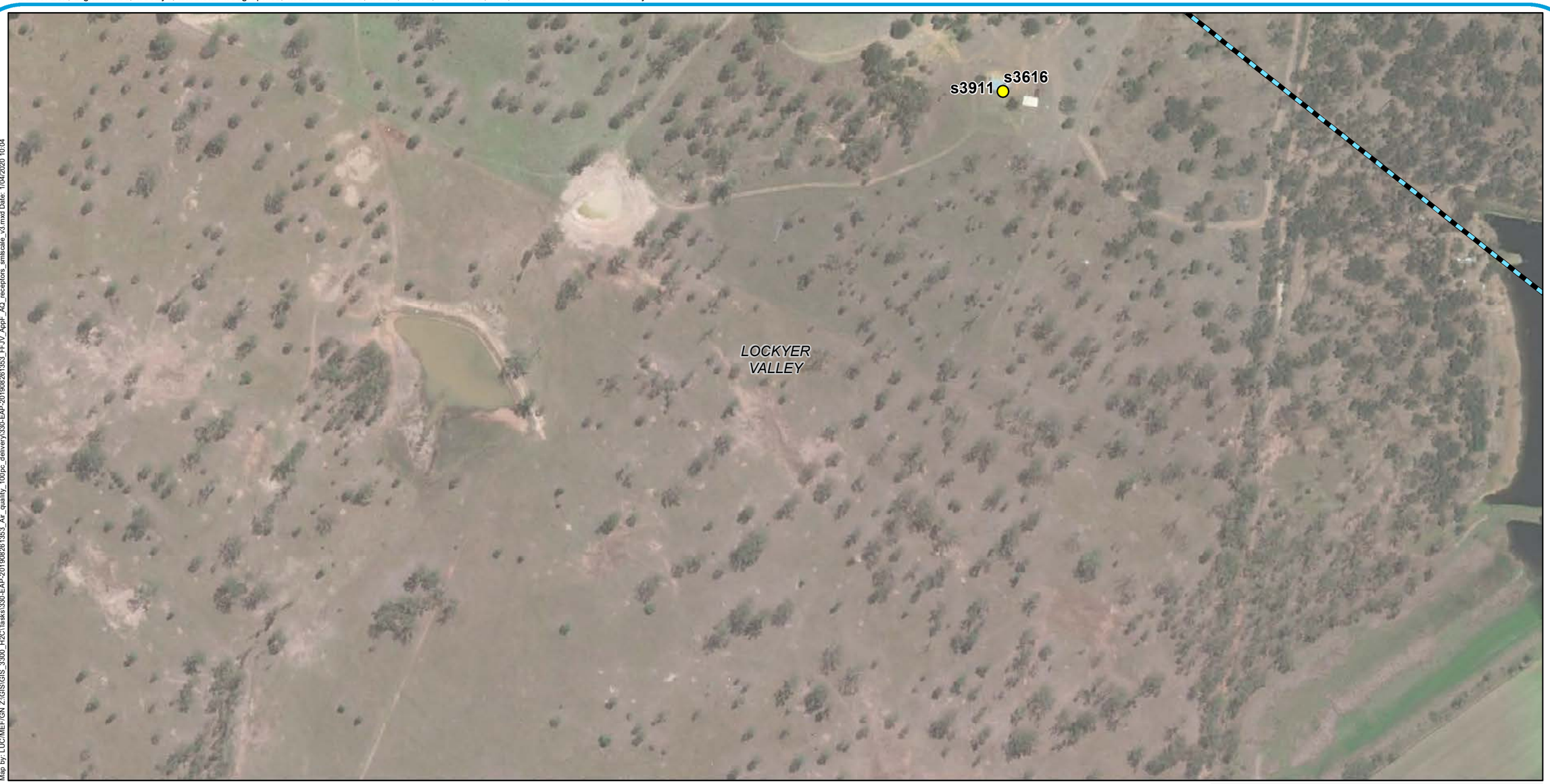
Appendix F159: Sensitive receptor locations

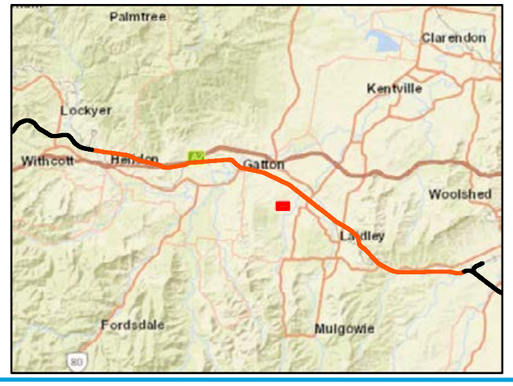
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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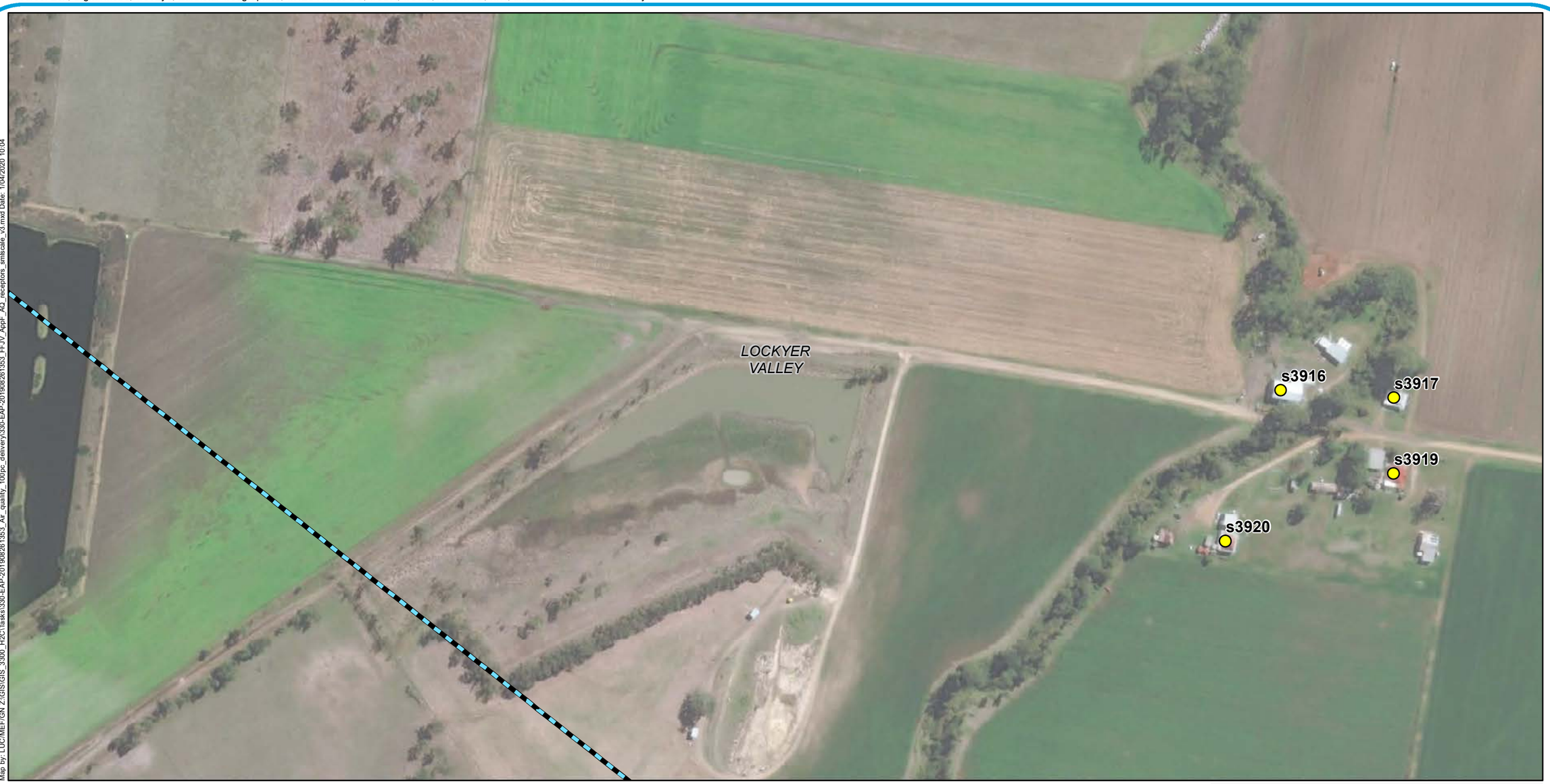
Appendix F160: Sensitive receptor locations

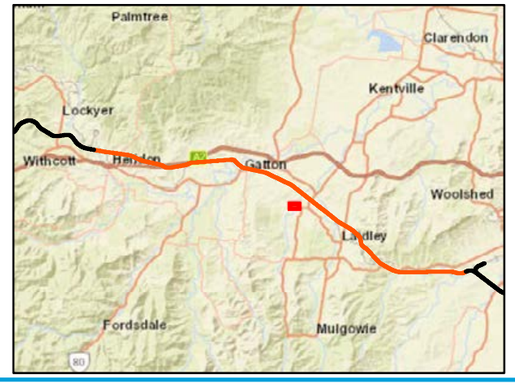
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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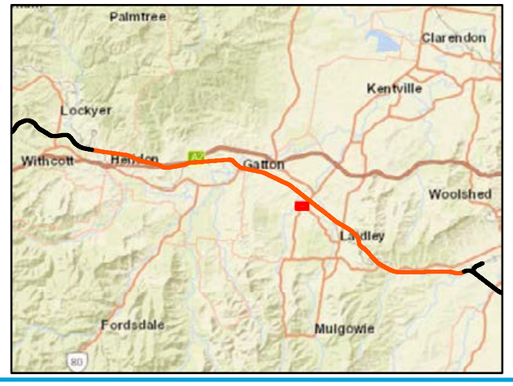
Appendix F161: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Helidon to Calvert

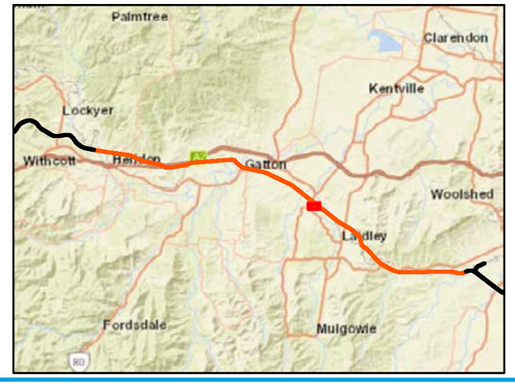
Appendix F162: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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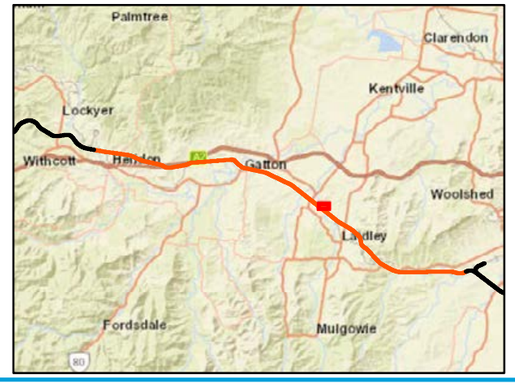
Appendix F163: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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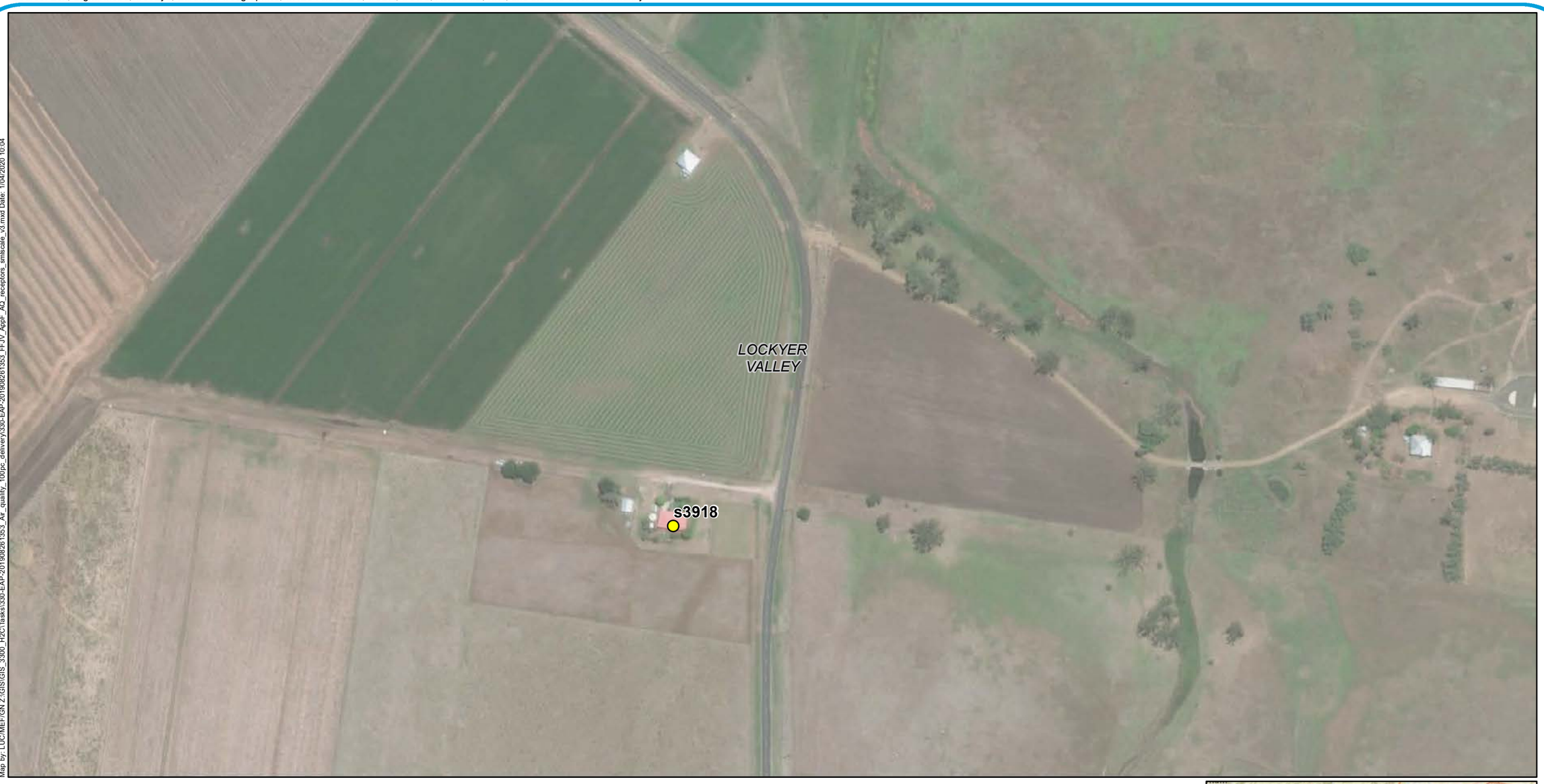
Appendix F164: Sensitive receptor locations

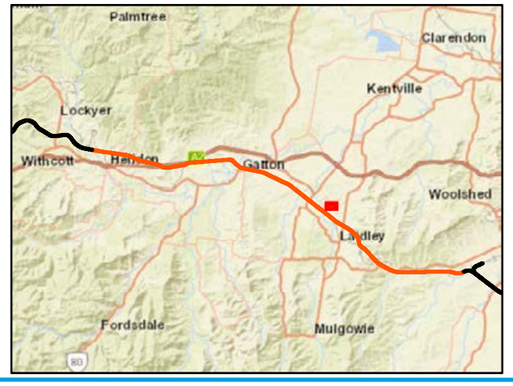
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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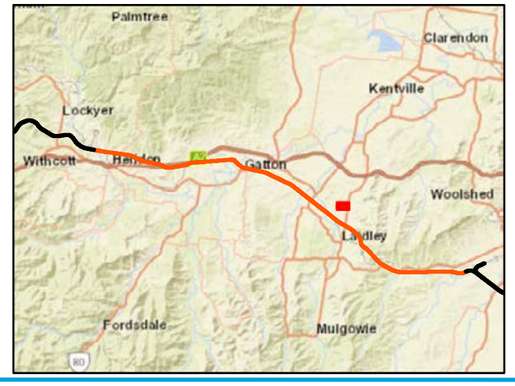
Appendix F165: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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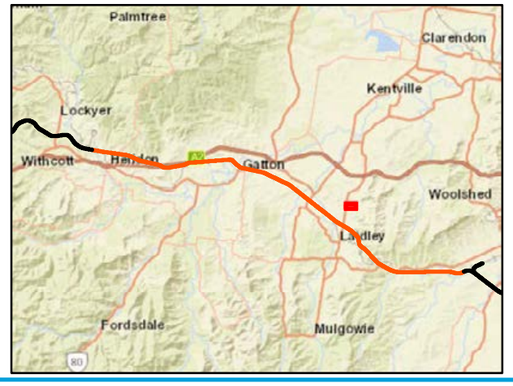
Appendix F166: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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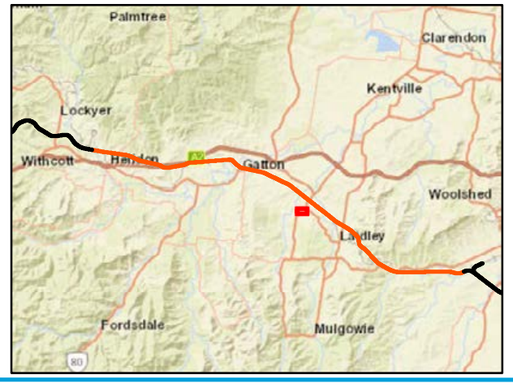
Appendix F167: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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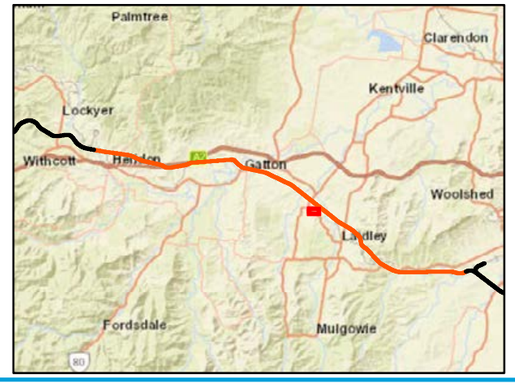
Appendix F168: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery\330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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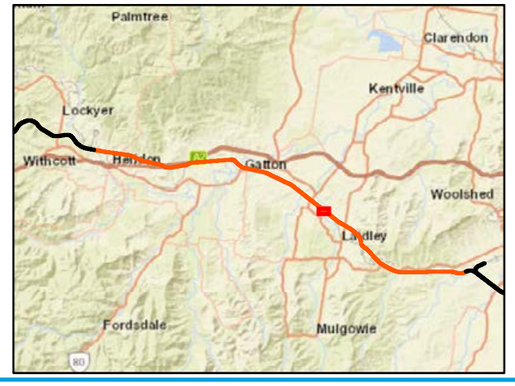
Appendix F169: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F170: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_Air_quality_100pc_delivery\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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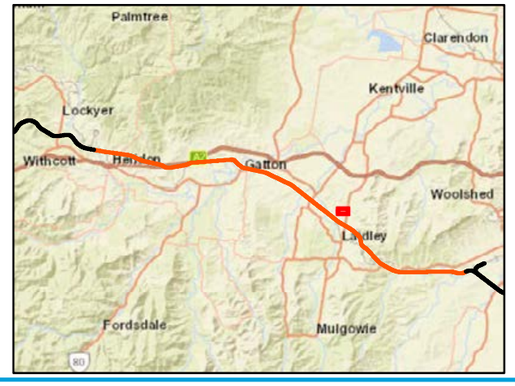
Appendix F171: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

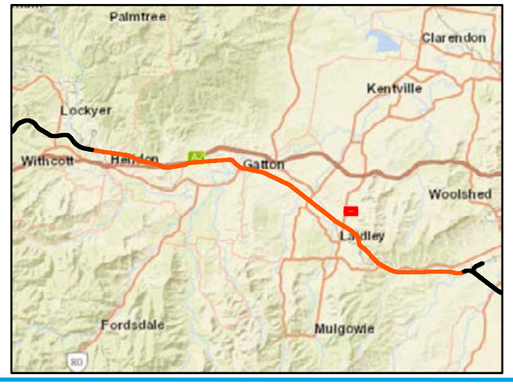
Appendix F172: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

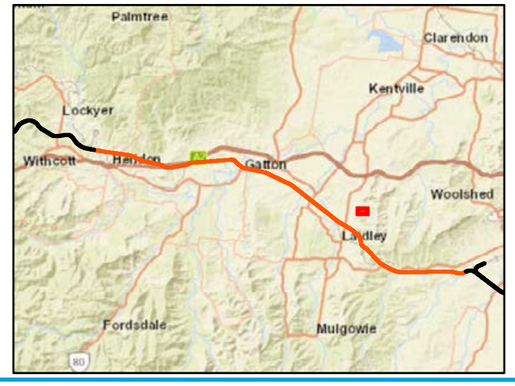
Appendix F173: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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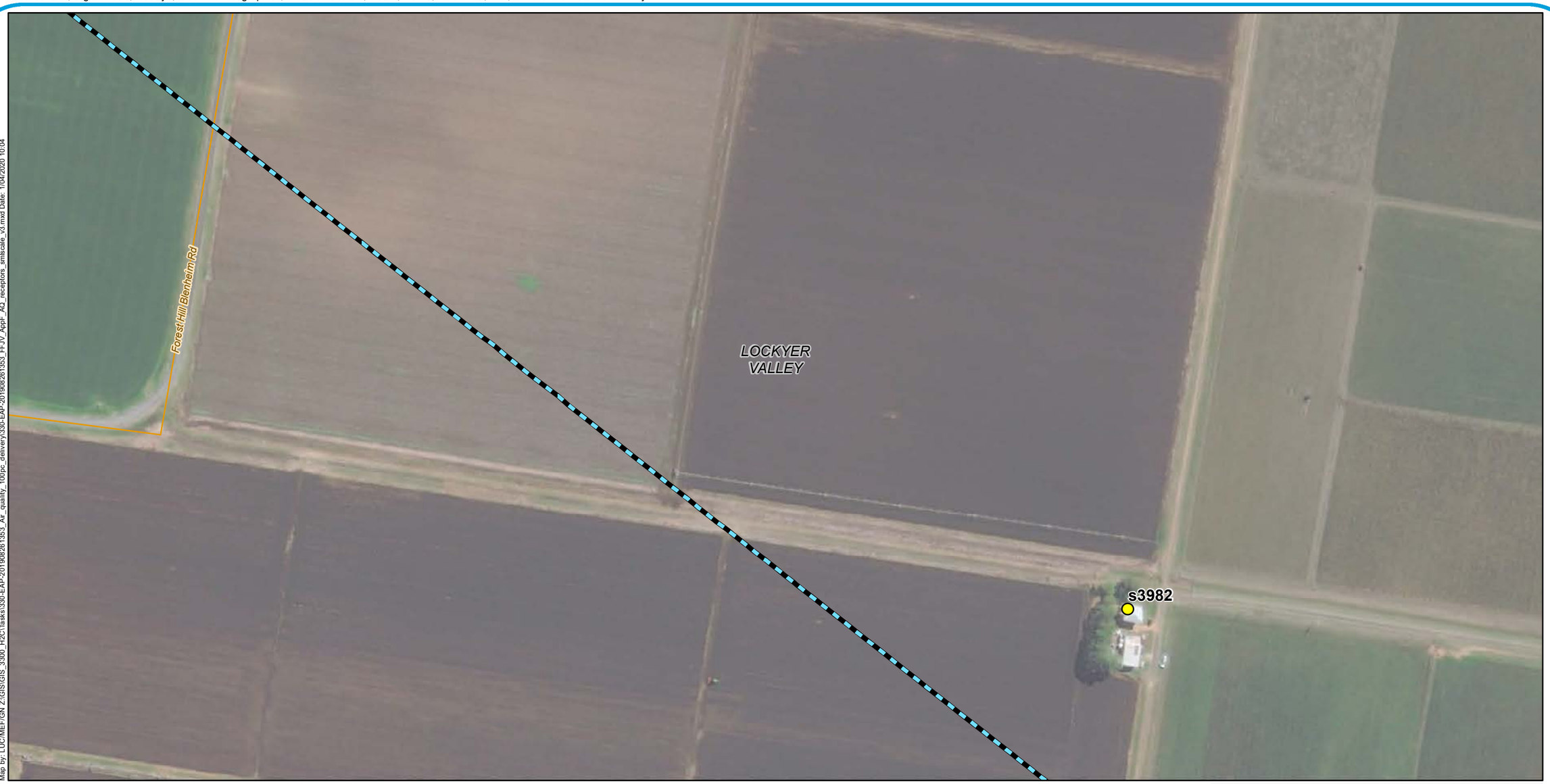
Appendix F174: Sensitive receptor locations

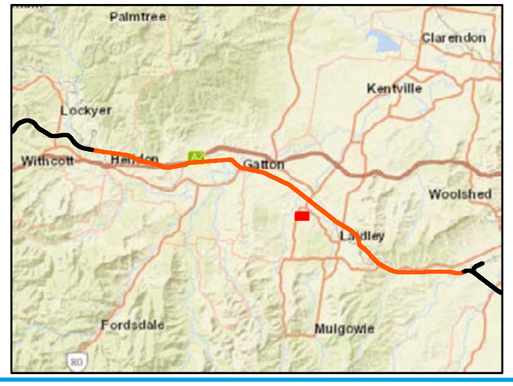
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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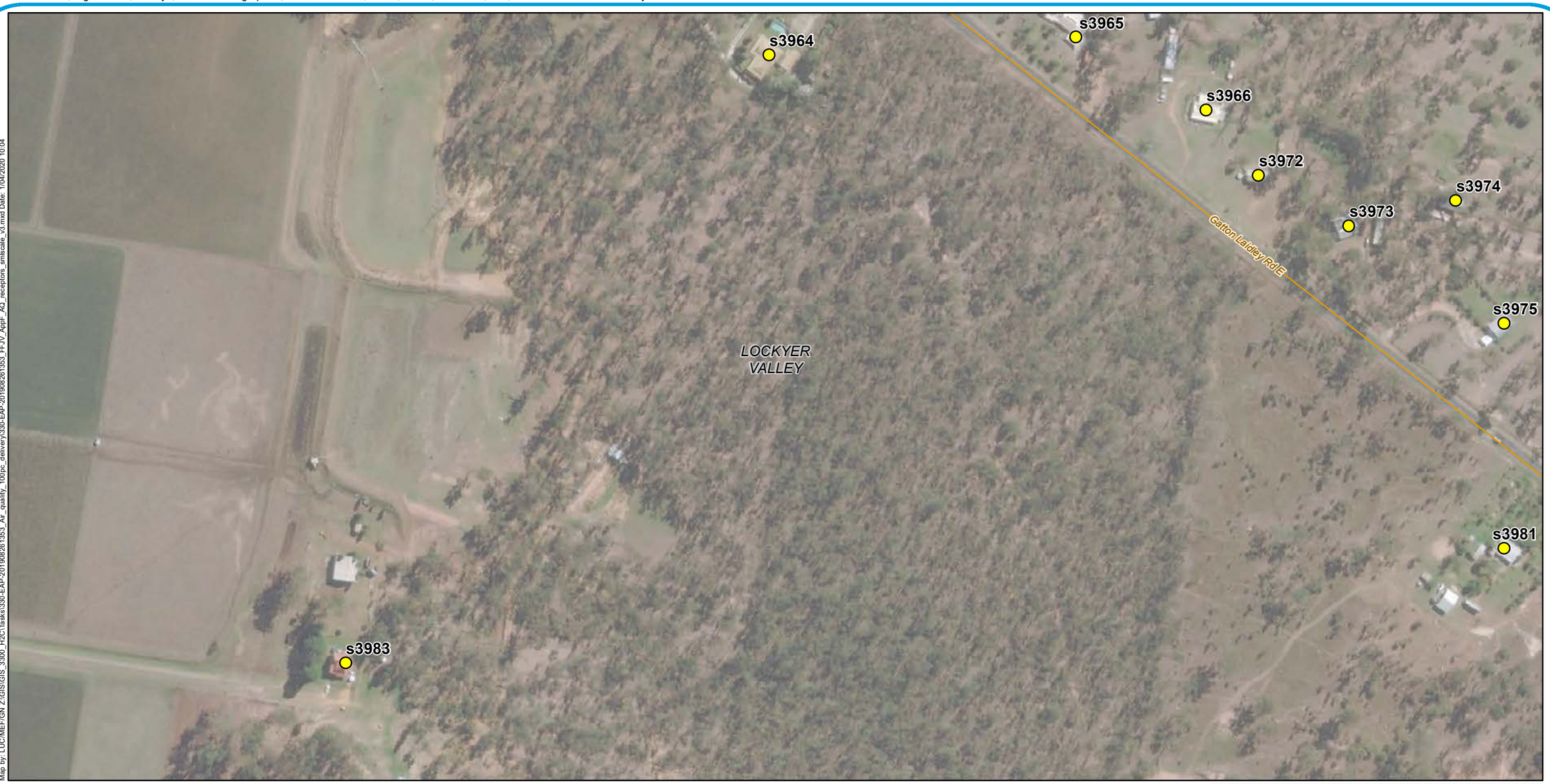
Appendix F175: Sensitive receptor locations

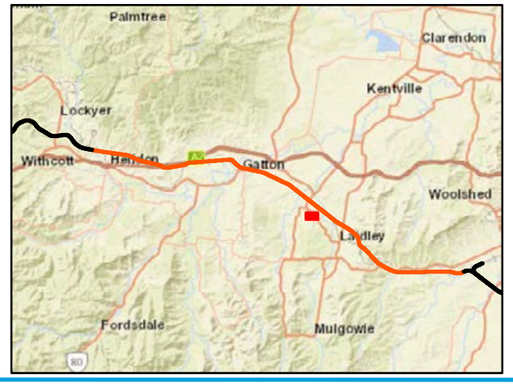
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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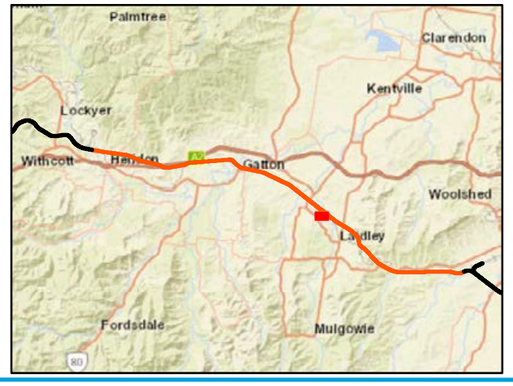
Appendix F176: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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Appendix F177: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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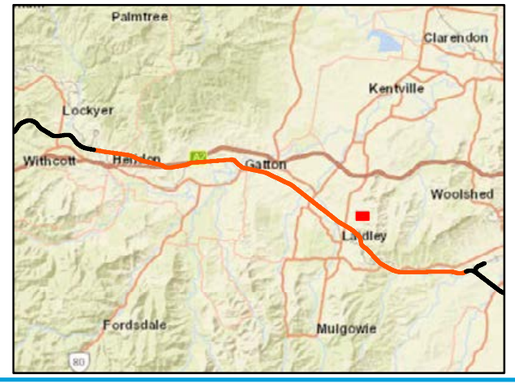
Appendix F178: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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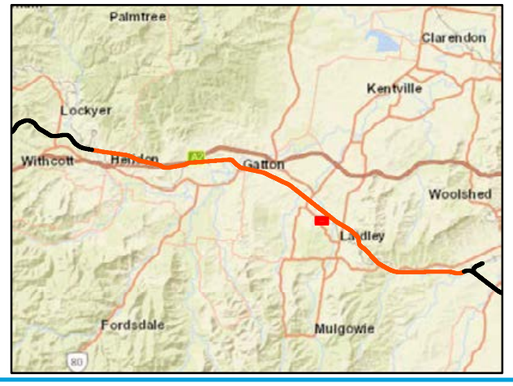
Appendix F179: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Helidon to Calvert

Appendix F180: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Crossing loops
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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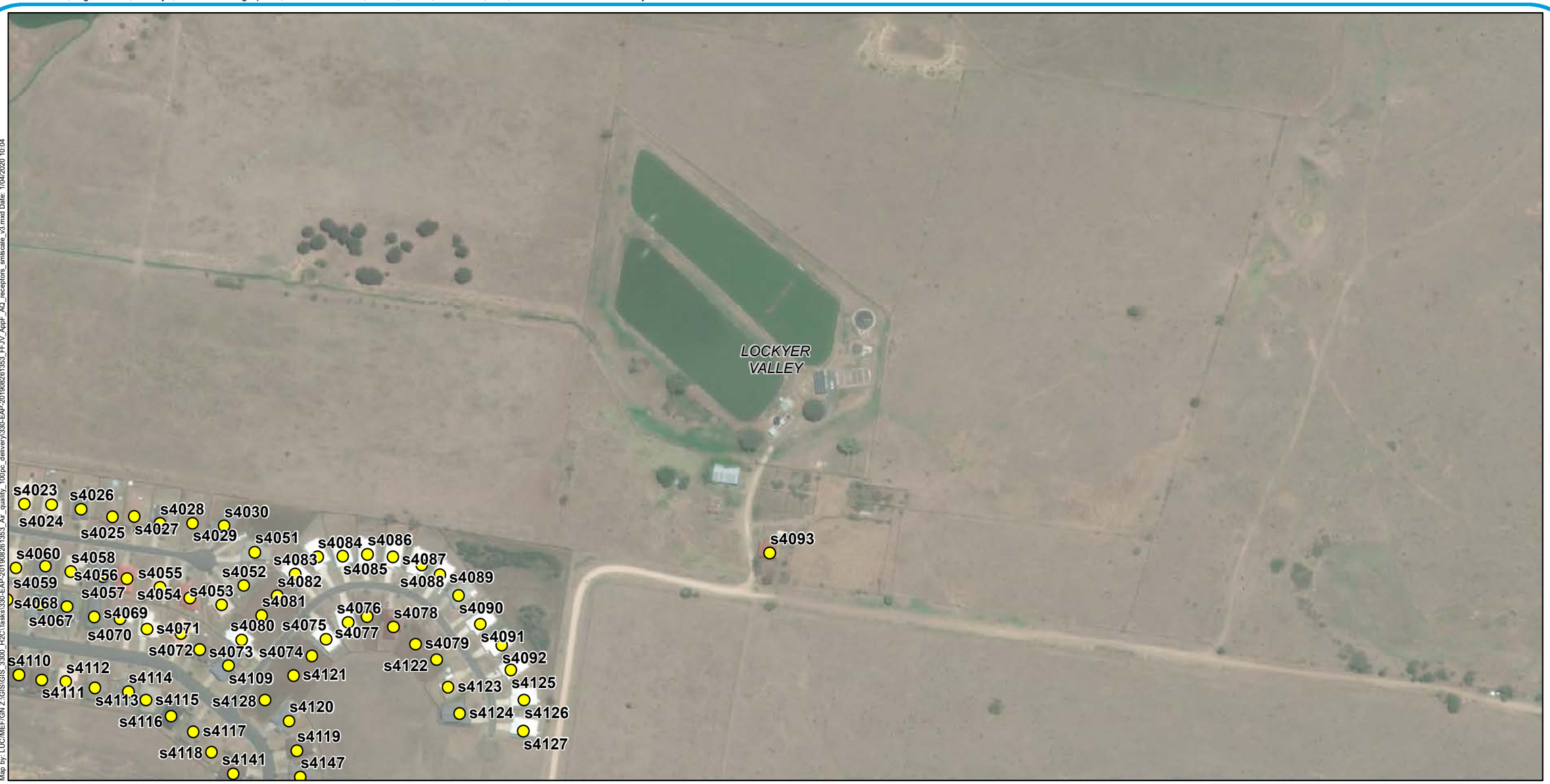
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F181: Sensitive receptor locations

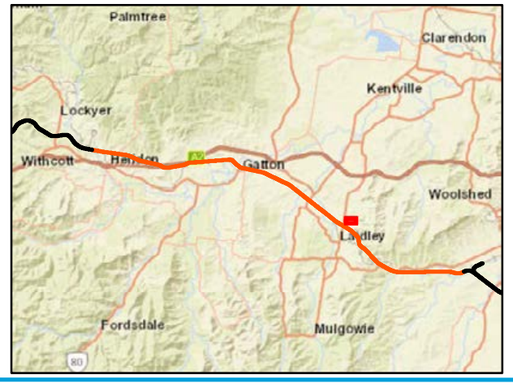
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

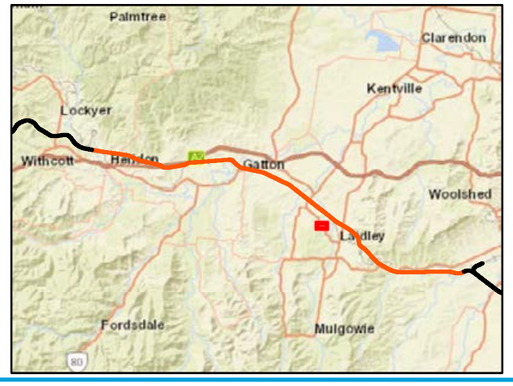
Appendix F182: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

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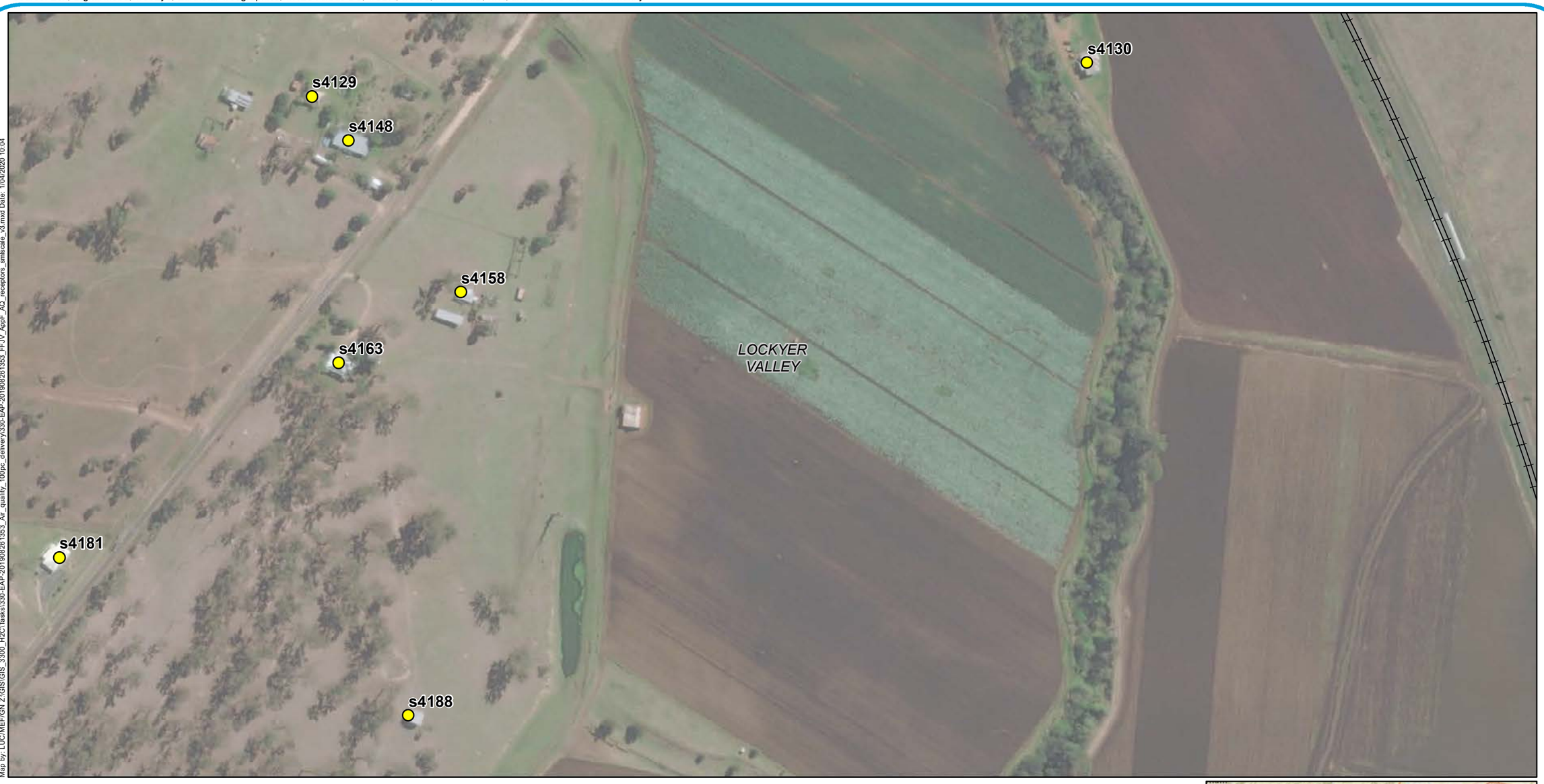
Appendix F183: Sensitive receptor locations

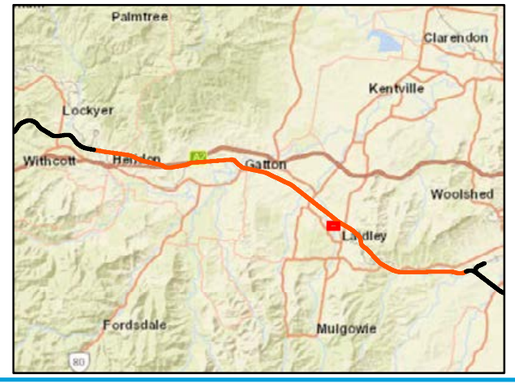
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

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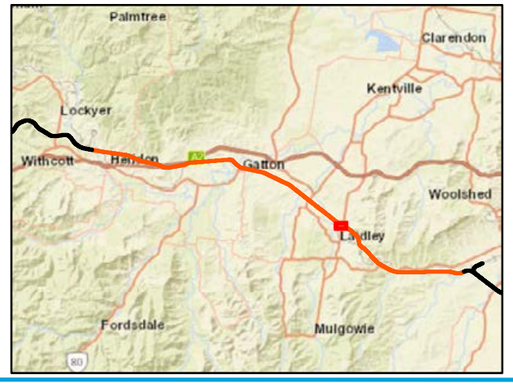
Appendix F184: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Crossing loops
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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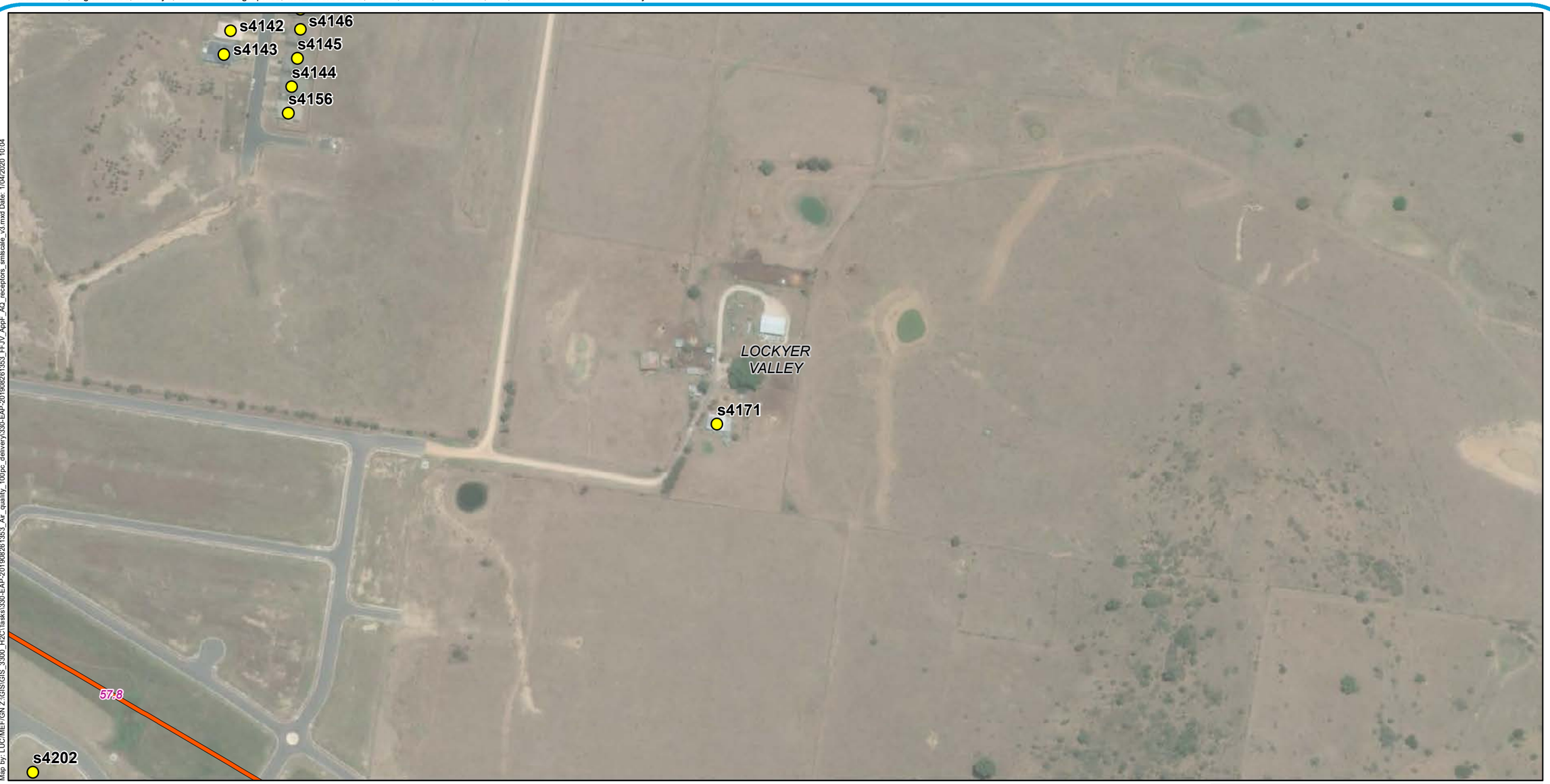
Appendix F185: Sensitive receptor locations

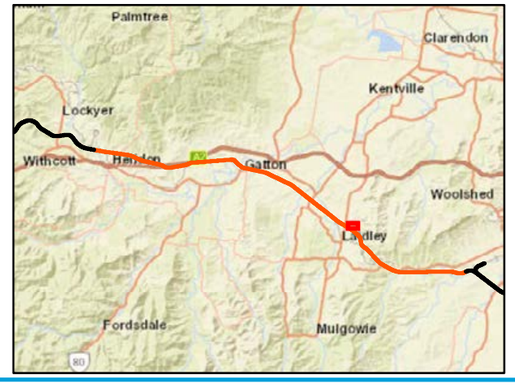
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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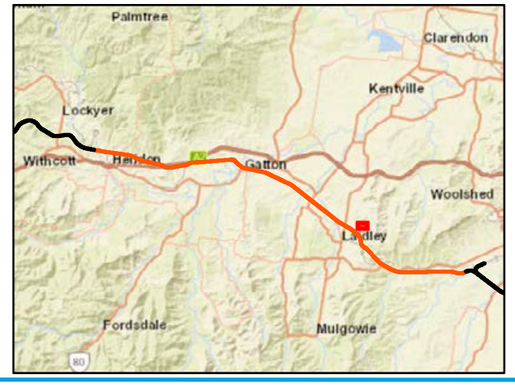
Appendix F186: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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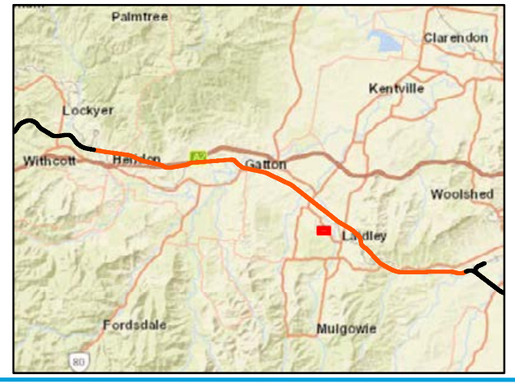
Appendix F187: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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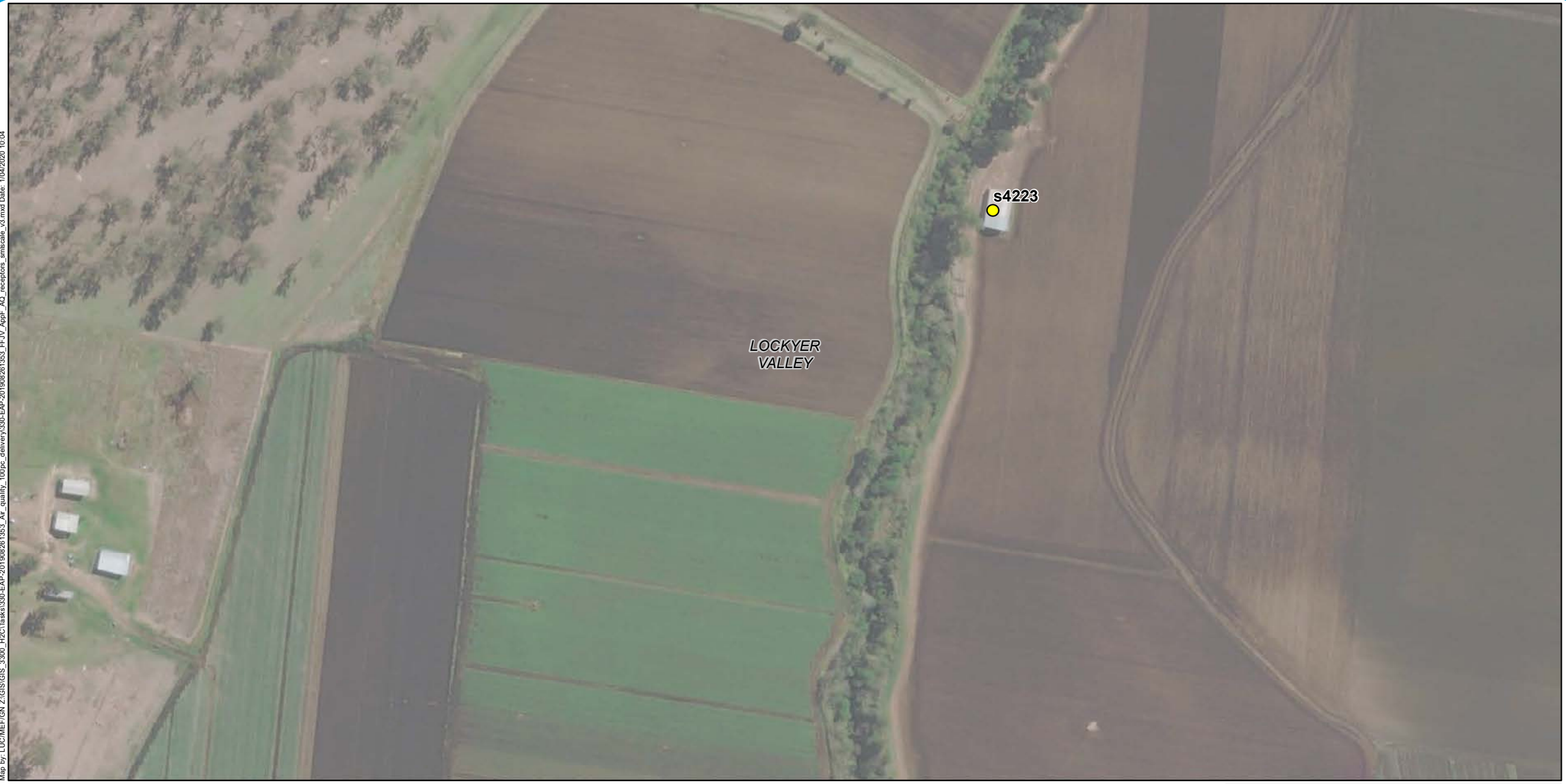
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F188: Sensitive receptor locations

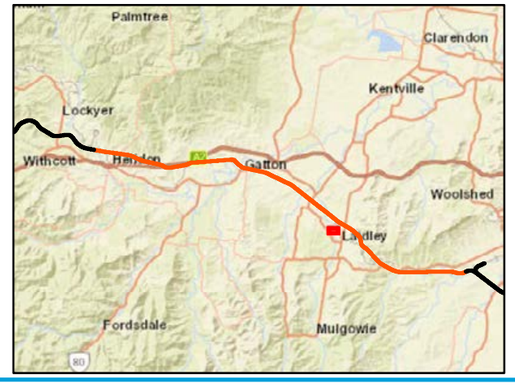
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery\330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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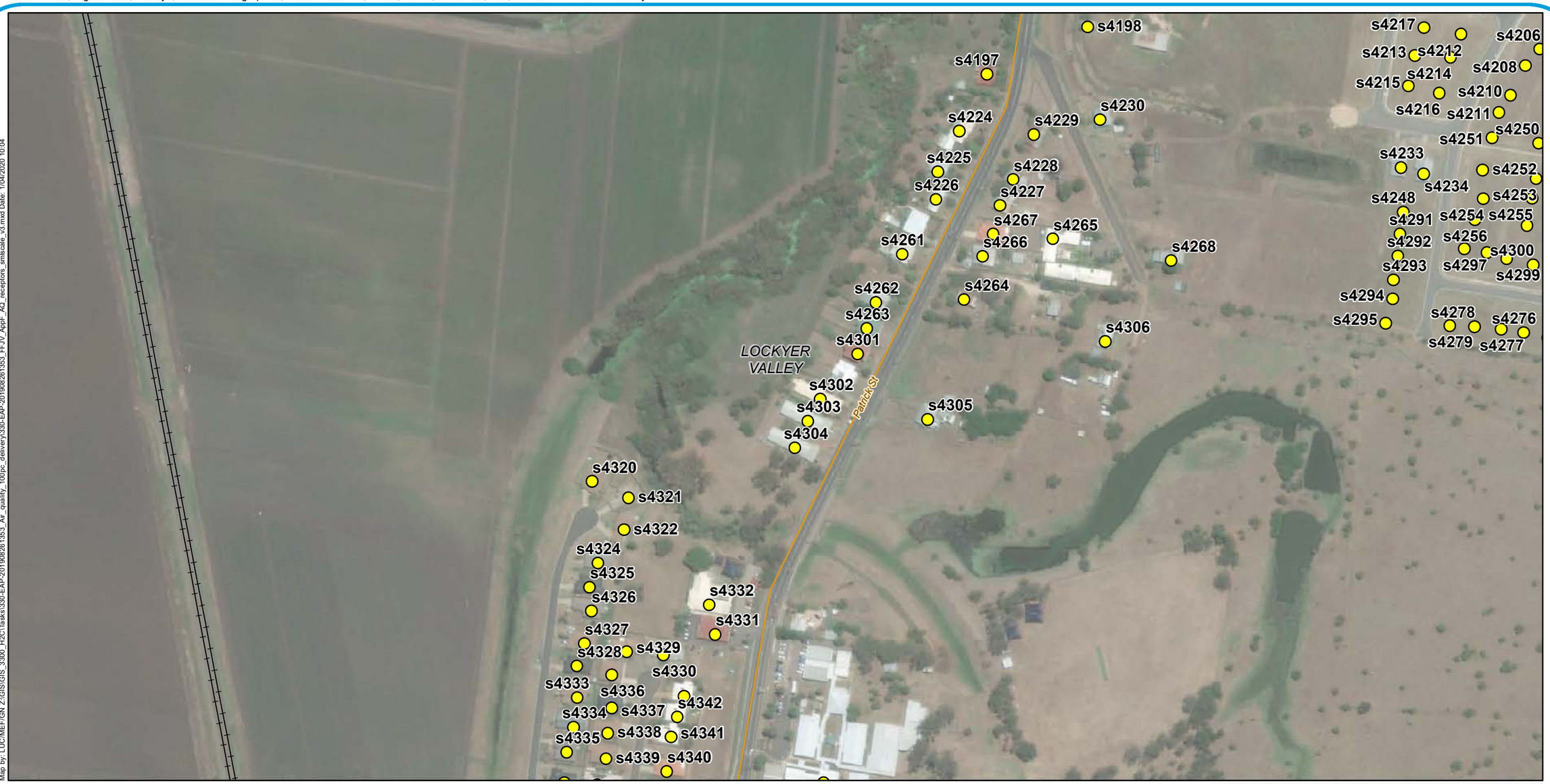
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F189: Sensitive receptor locations

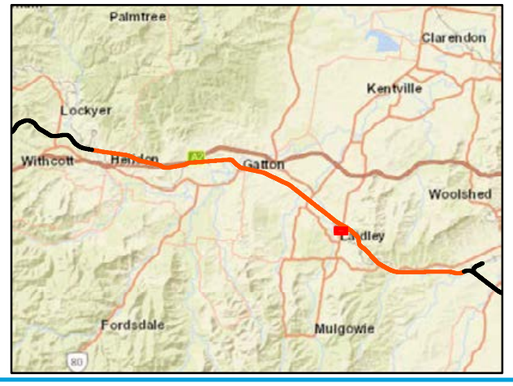
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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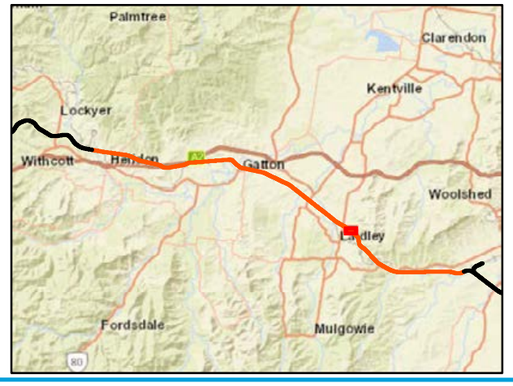
Appendix F190: Sensitive receptor locations

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

- Sensitve Receptors
- H2C project alignment
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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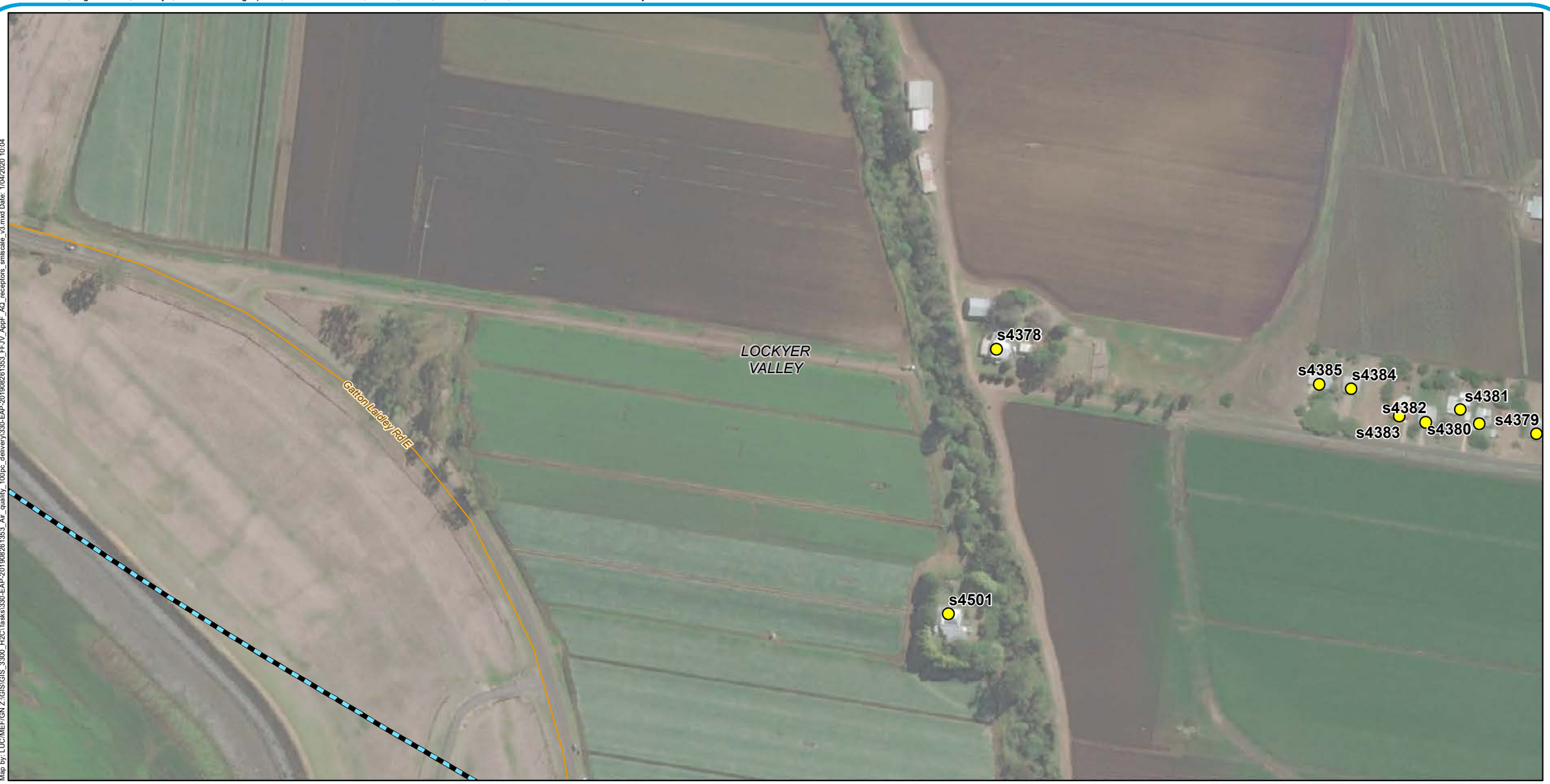
Appendix F191: Sensitive receptor locations

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

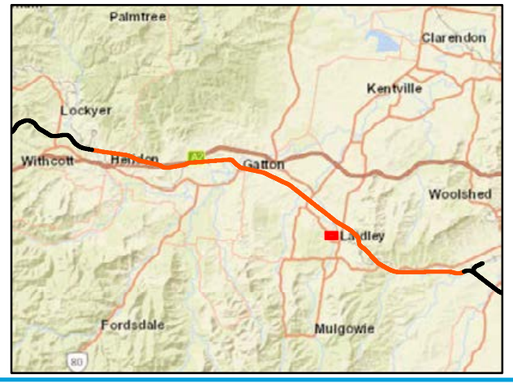
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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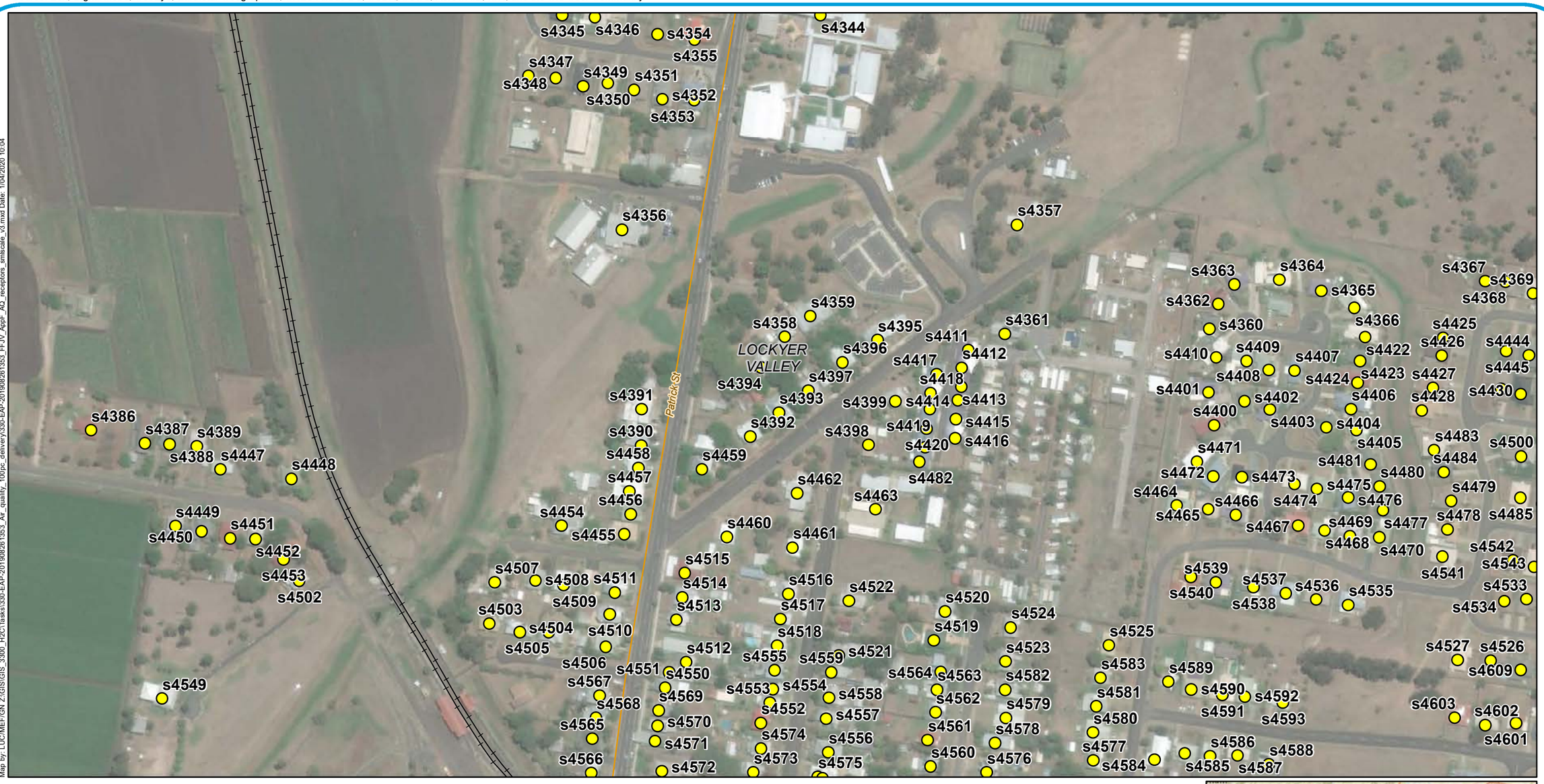
Appendix F192: Sensitive receptor locations

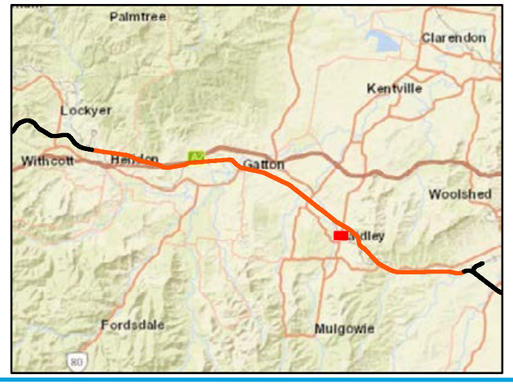
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

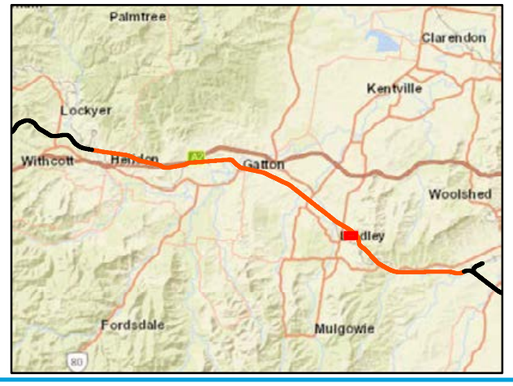
Appendix F193: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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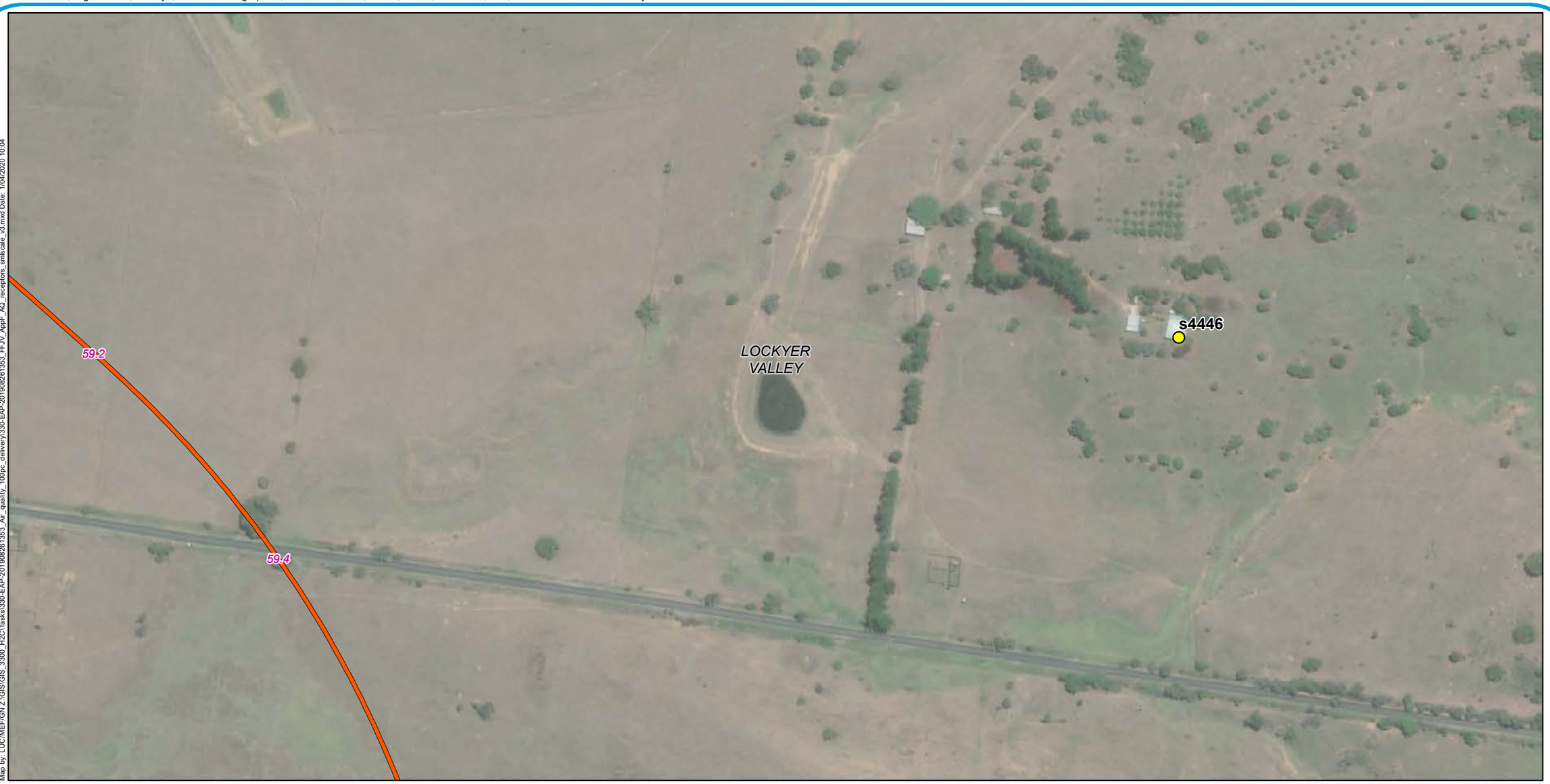
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F194: Sensitive receptor locations

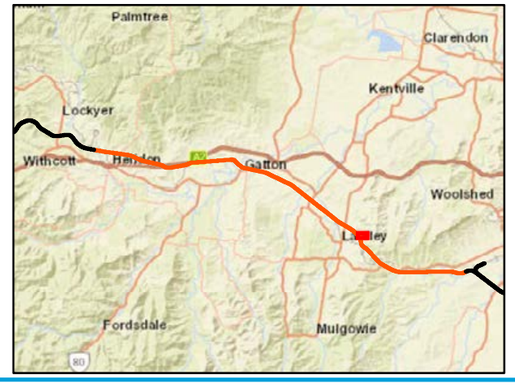
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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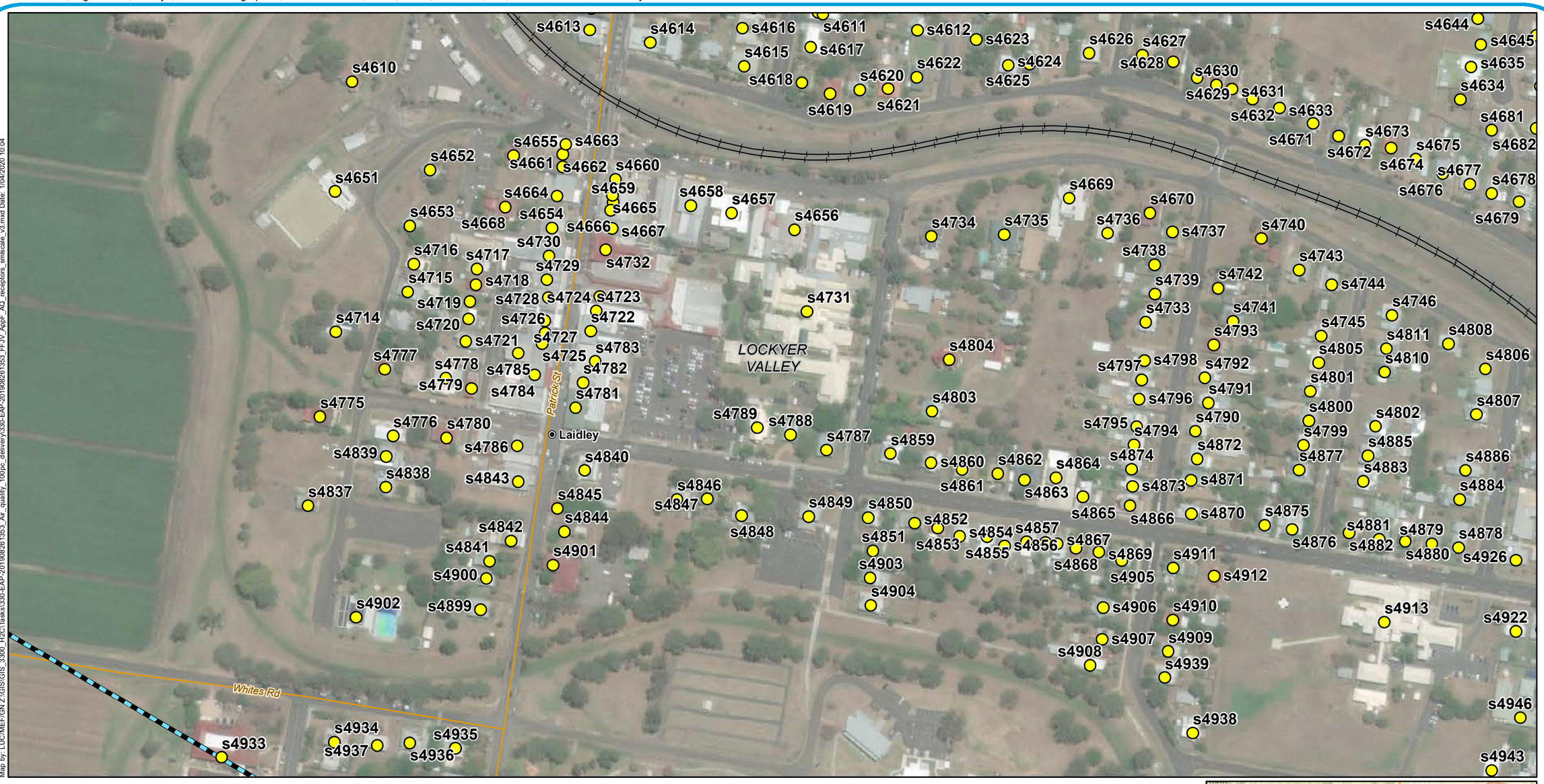
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F195: Sensitive receptor locations

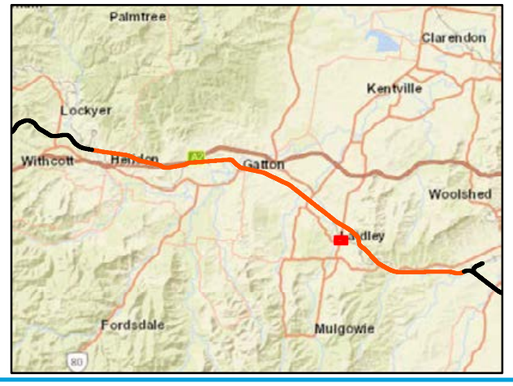
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Localities
- Existing rail
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

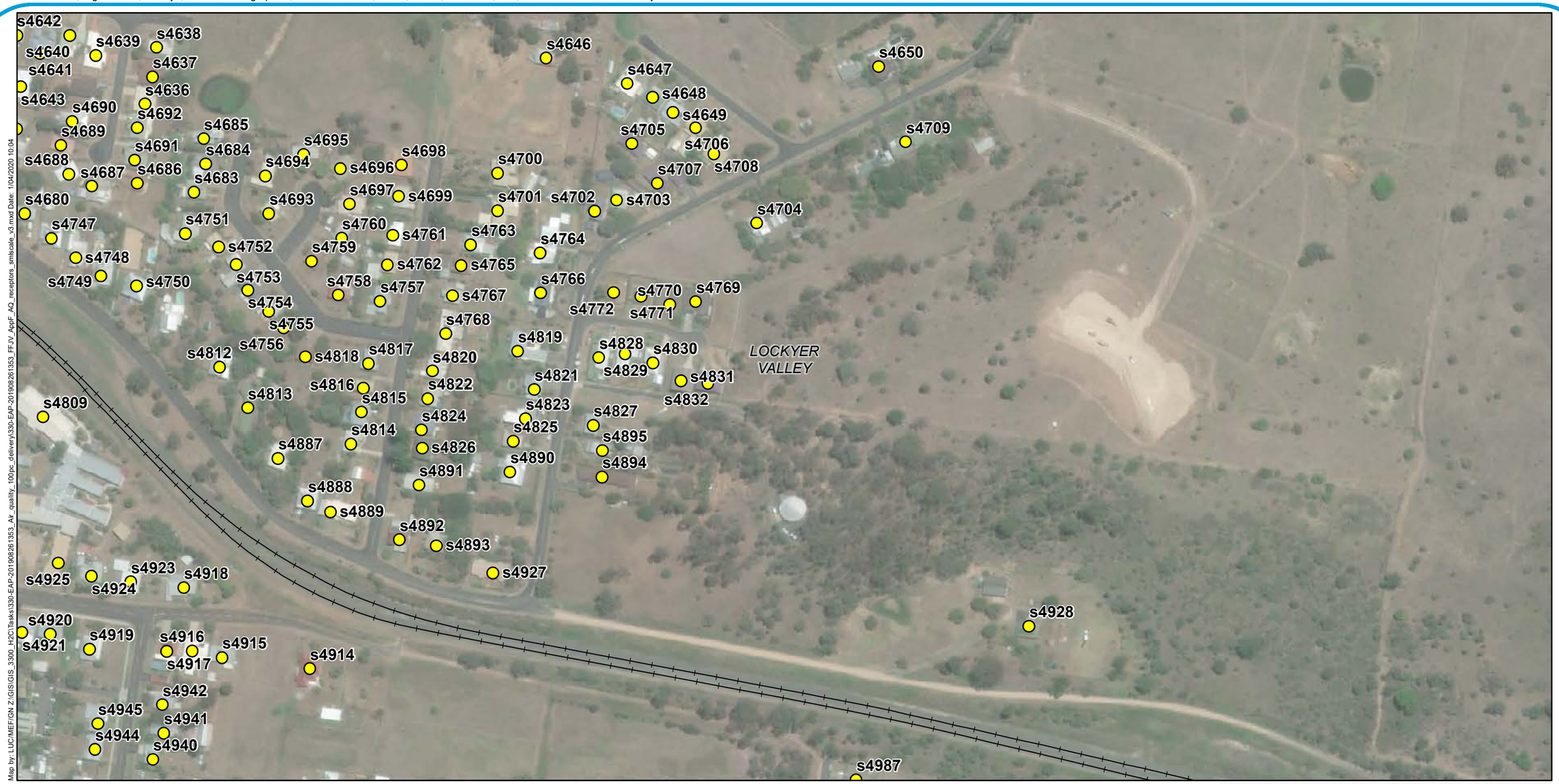
Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F196: Sensitive receptor locations

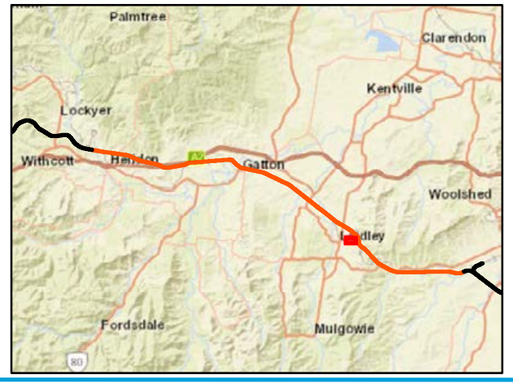
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

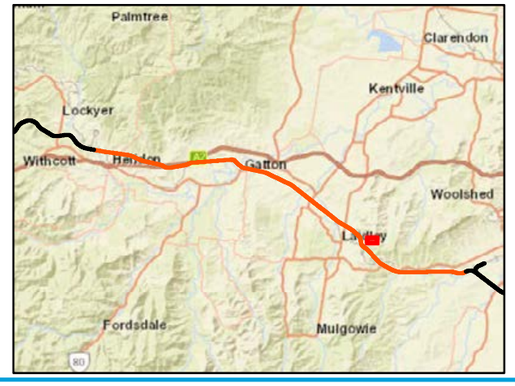
Appendix F197: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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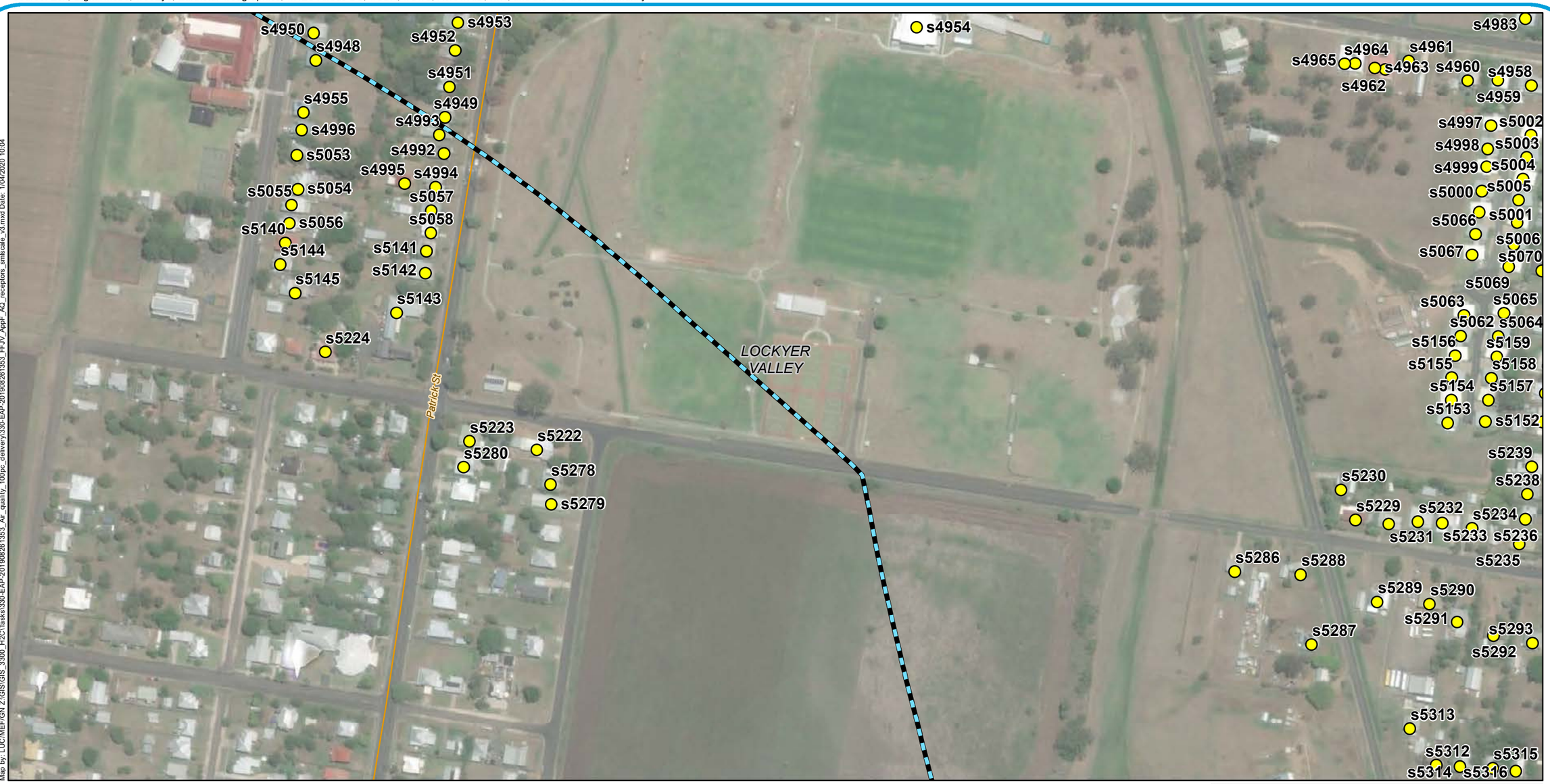
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F198: Sensitive receptor locations

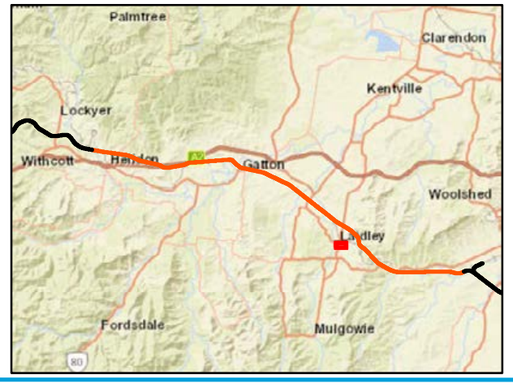
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

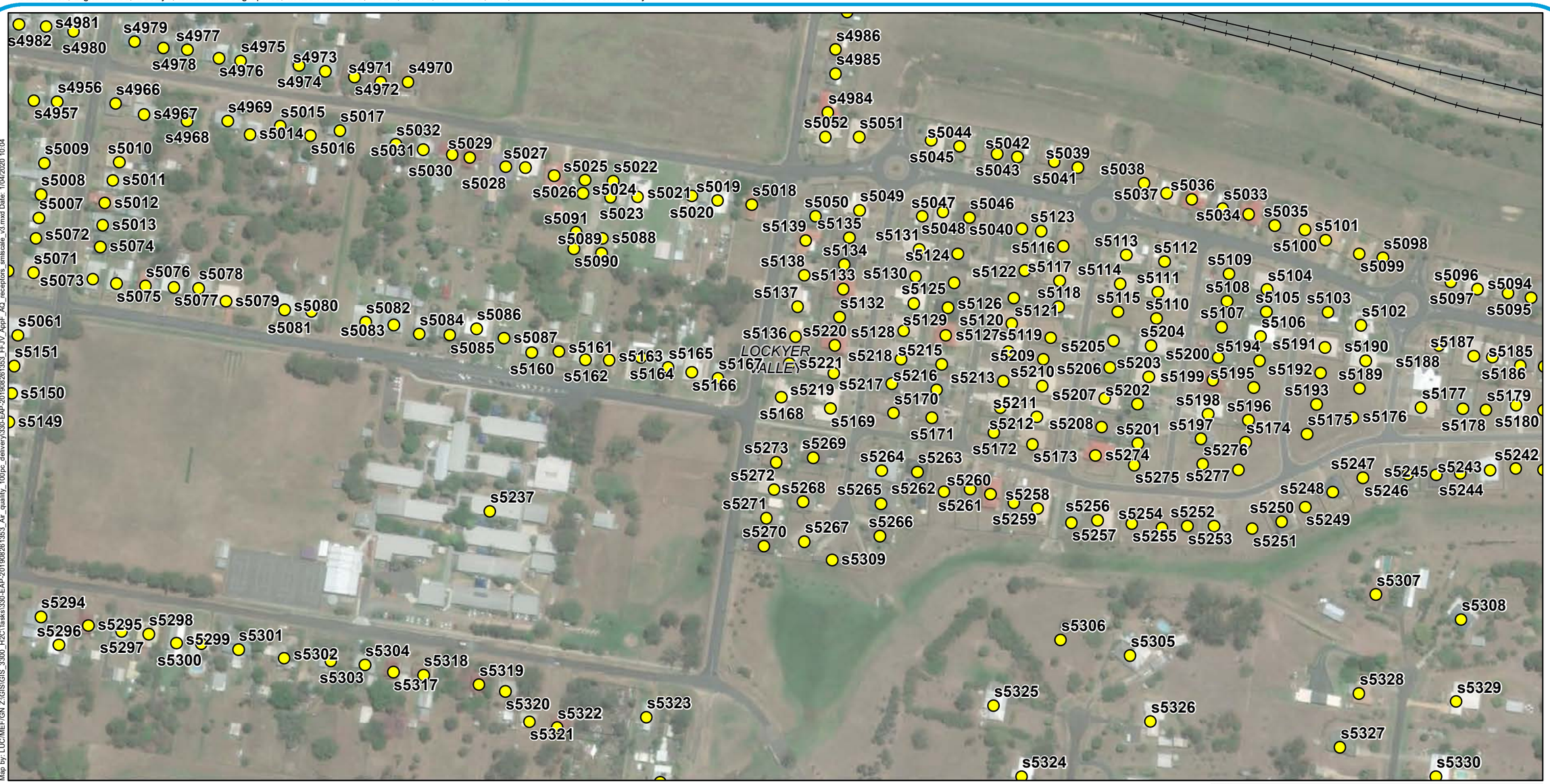
Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F199: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-201908261353_Air_quality_100pc_delivery330-EAP-201908261353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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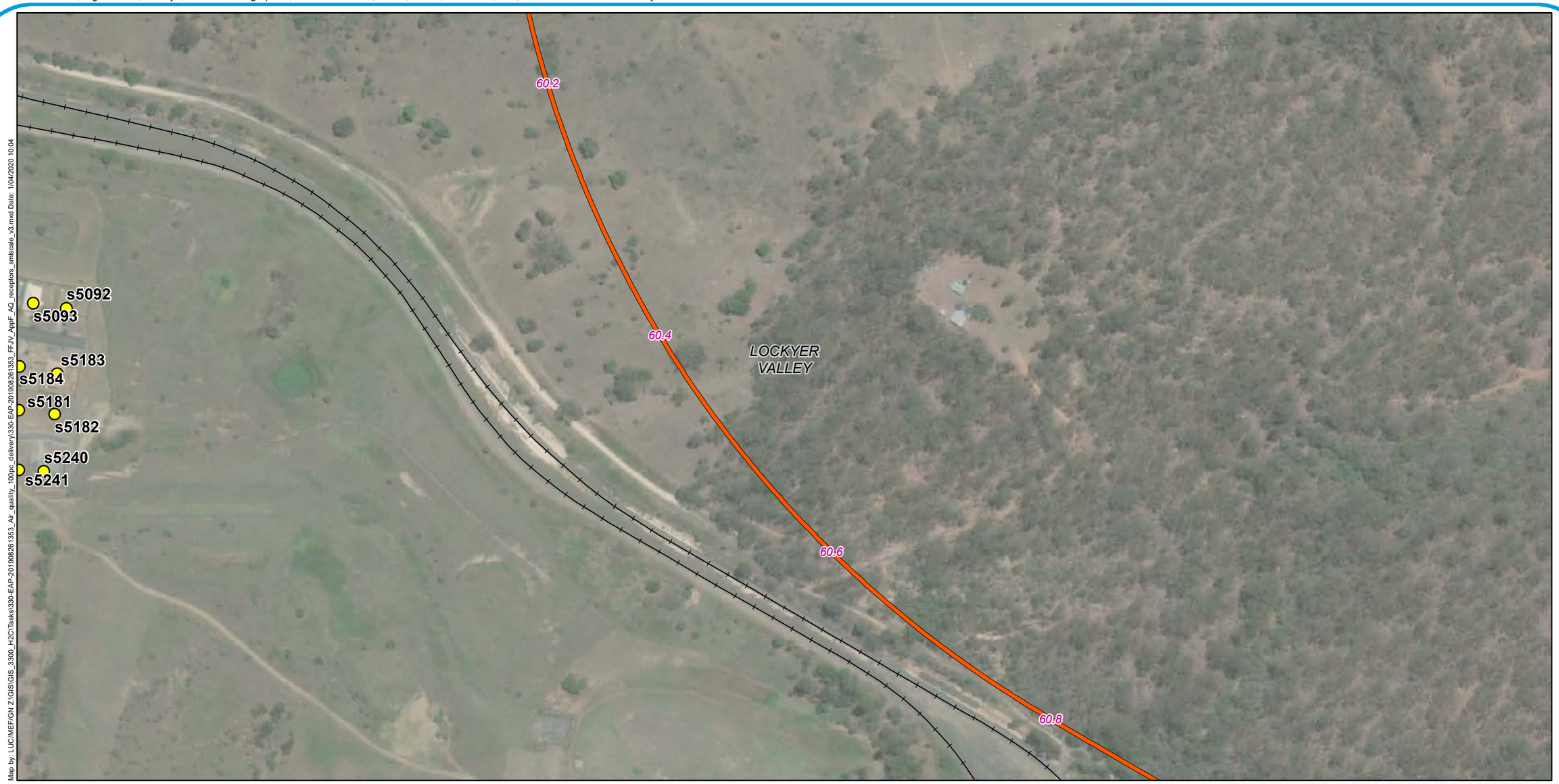
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F200: Sensitive receptor locations

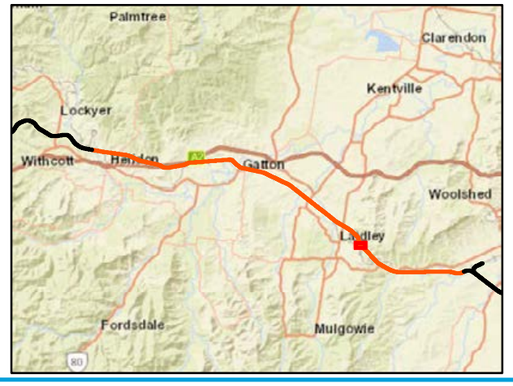
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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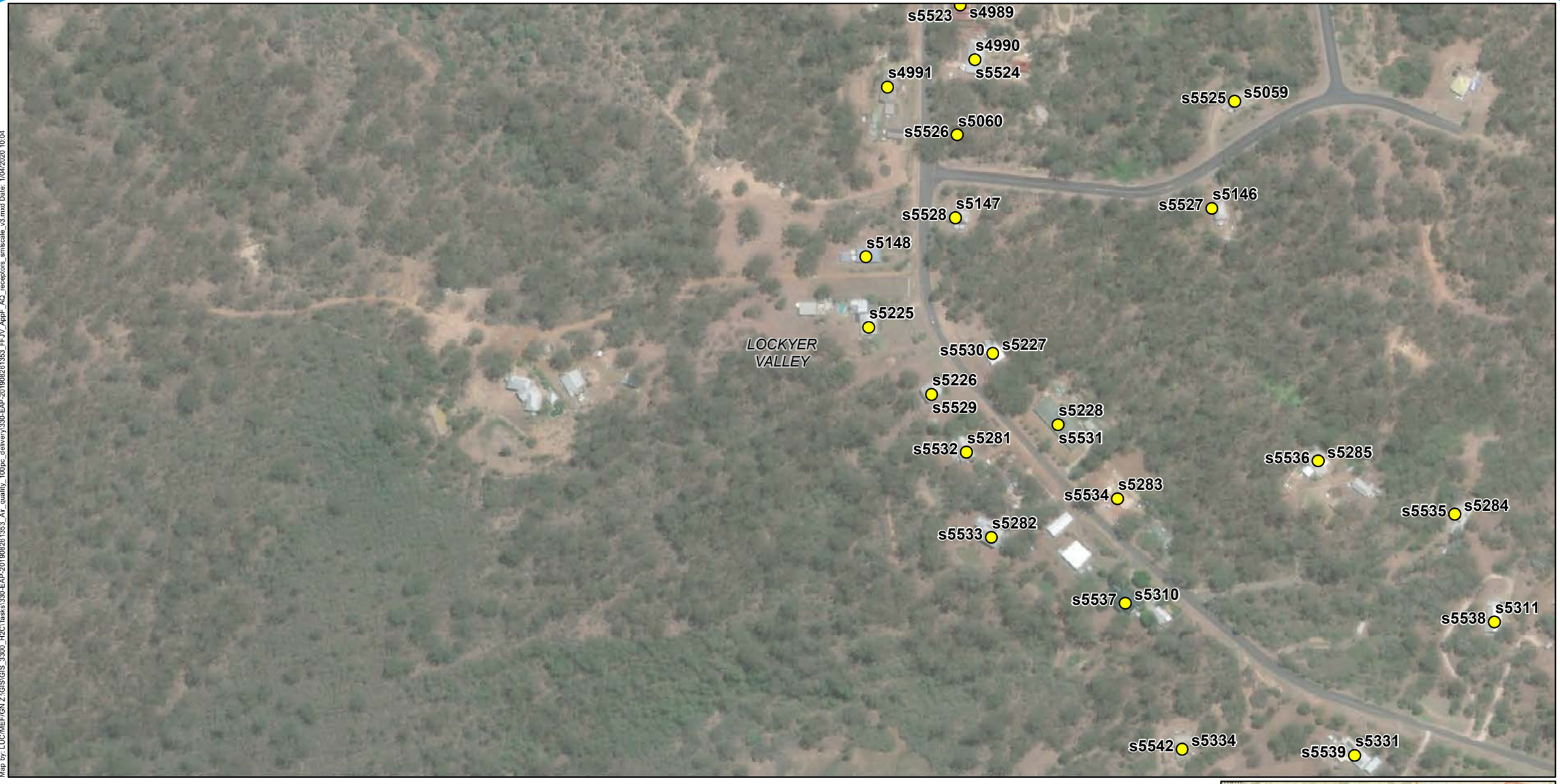
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F201: Sensitive receptor locations

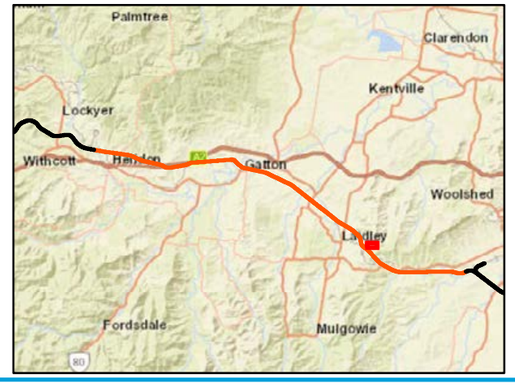
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

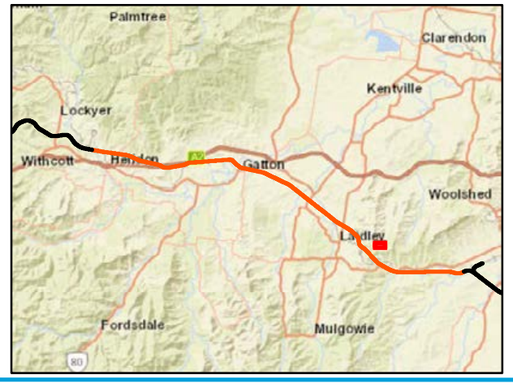
Appendix F202: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

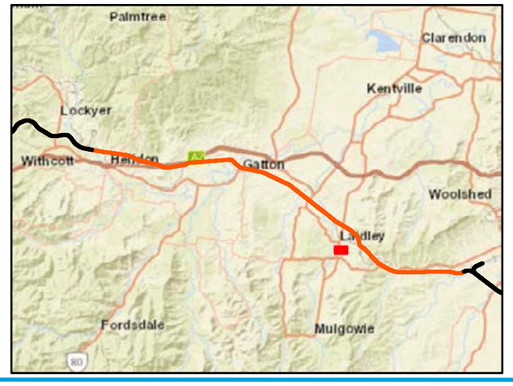
Appendix F203: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

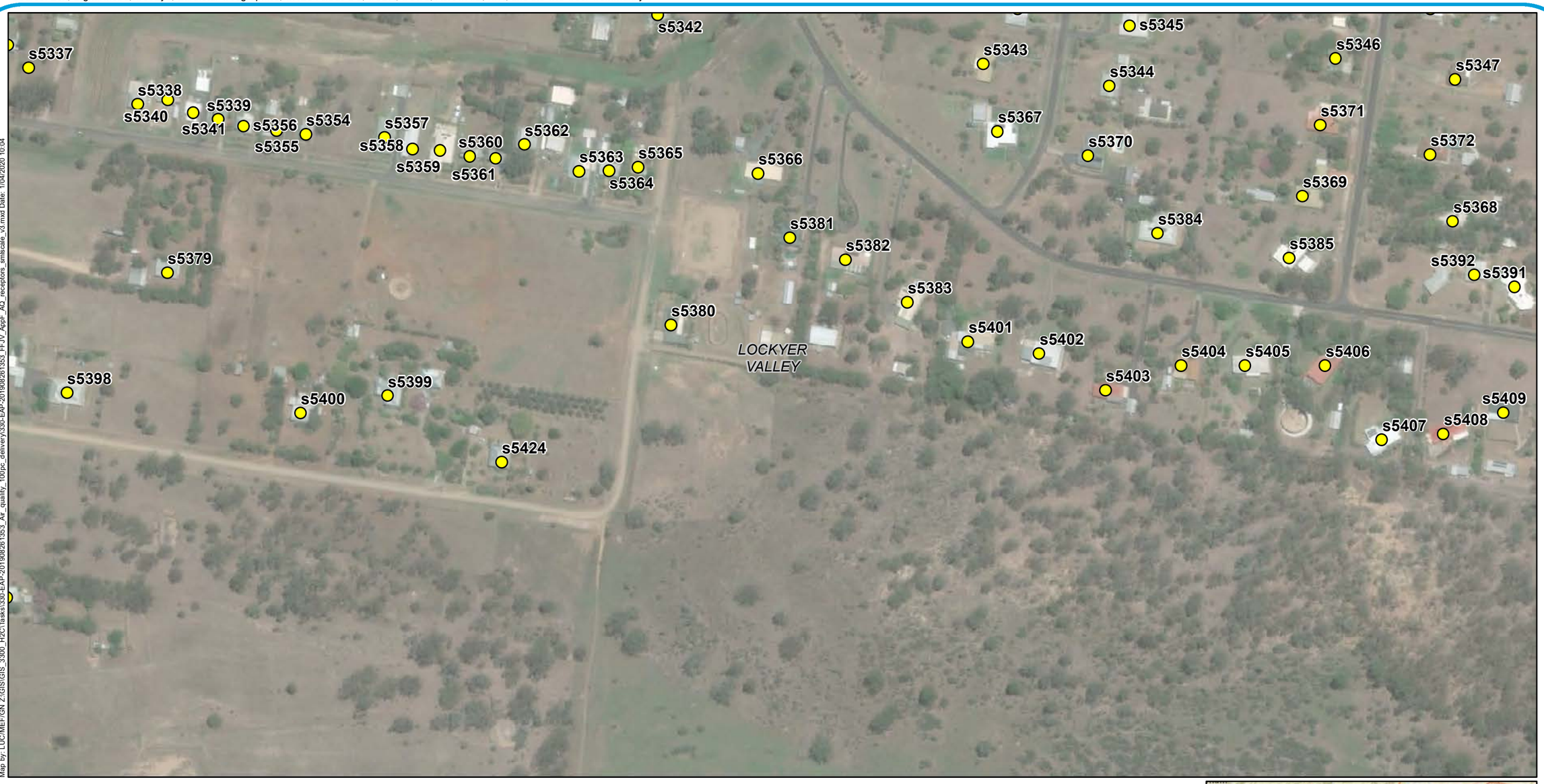
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F204: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

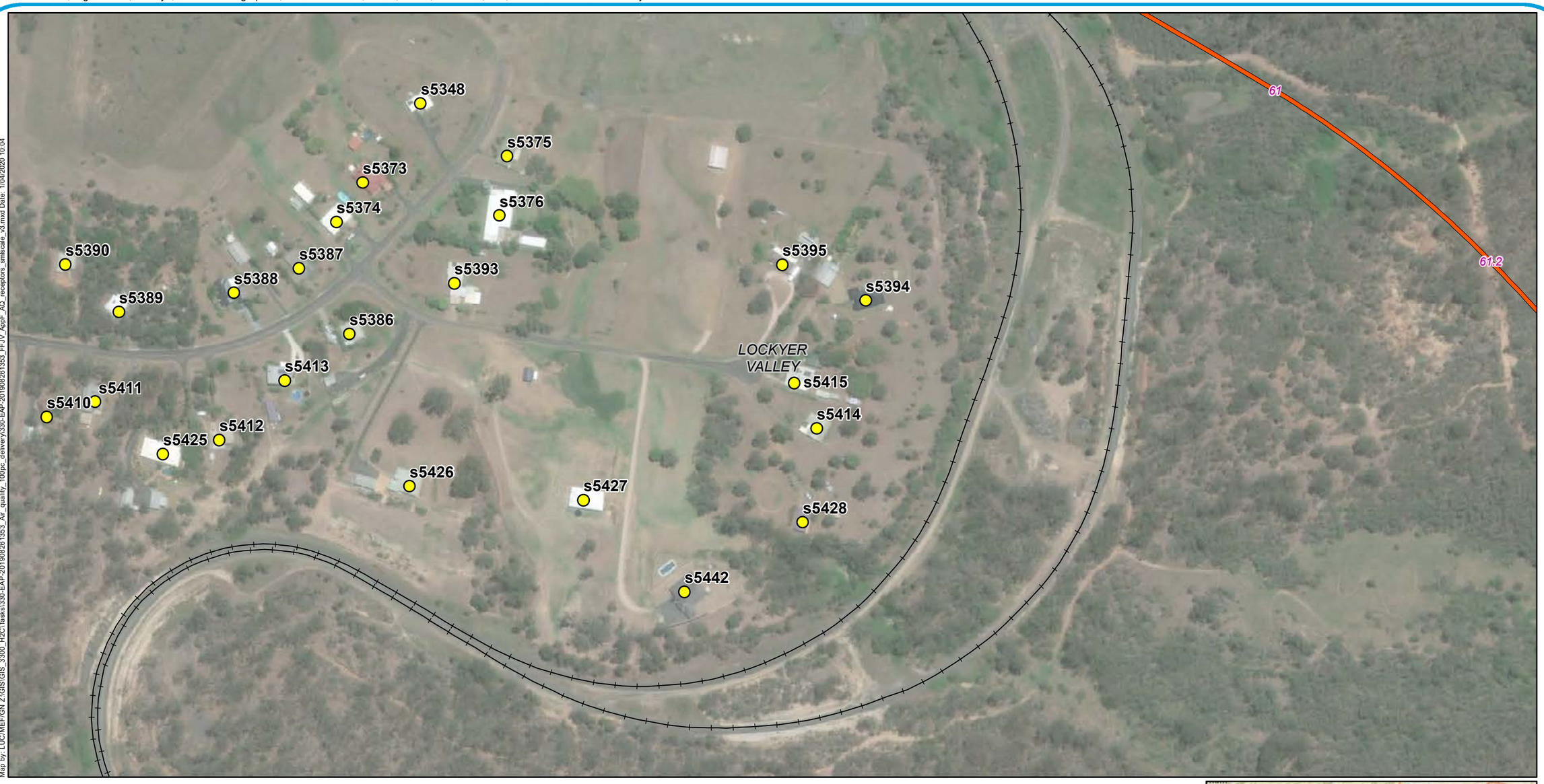
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F205: Sensitive receptor locations

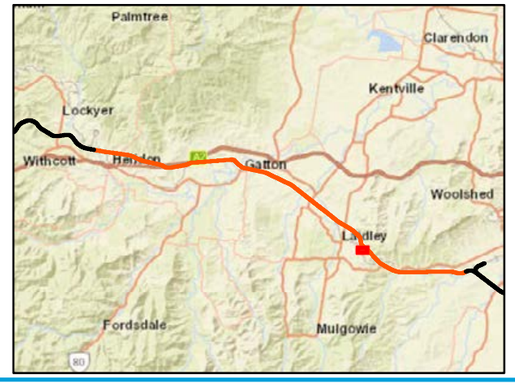
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

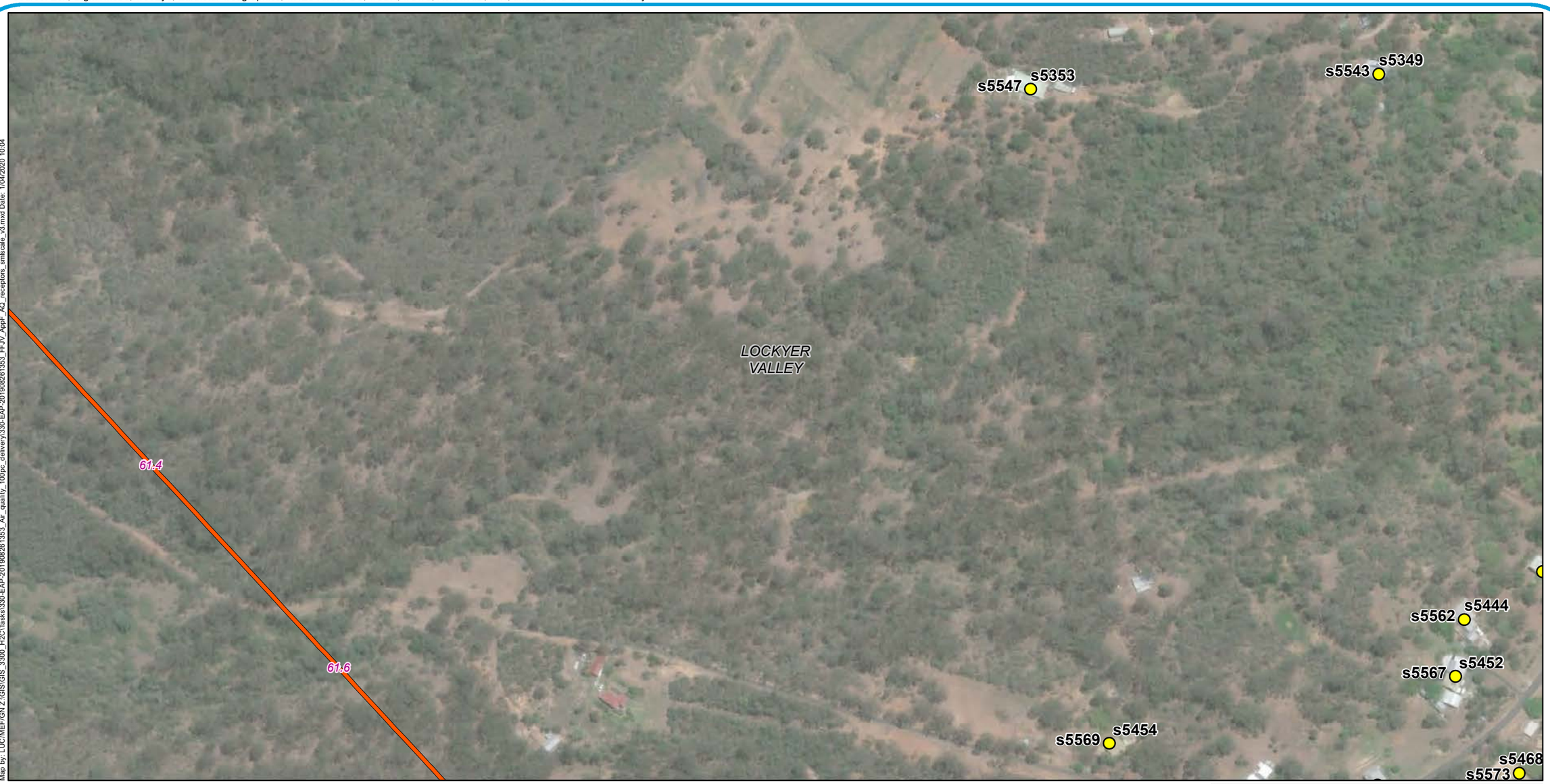
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F206: Sensitive receptor locations

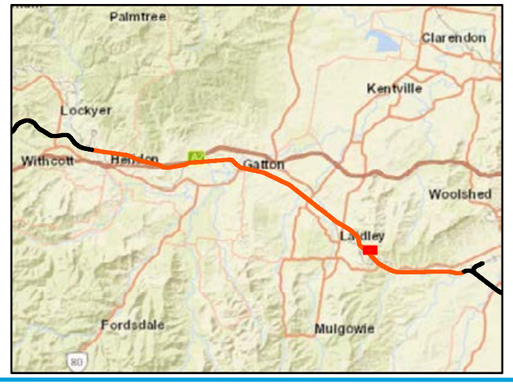
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

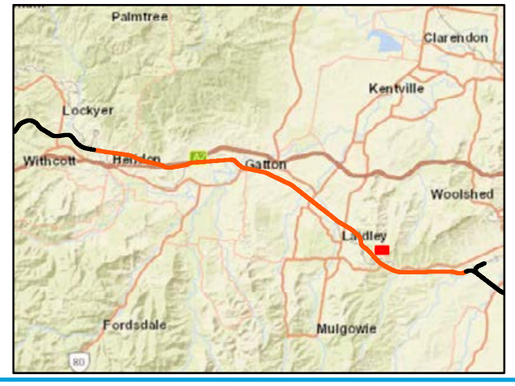
Appendix F207: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

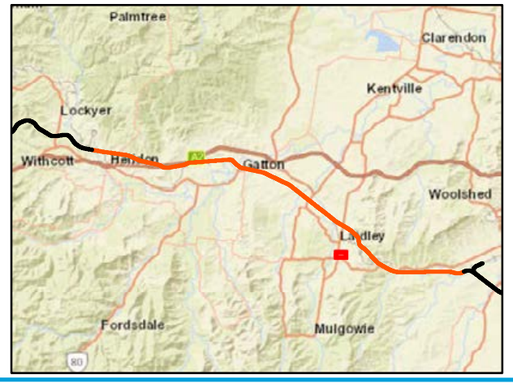
Appendix F208: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

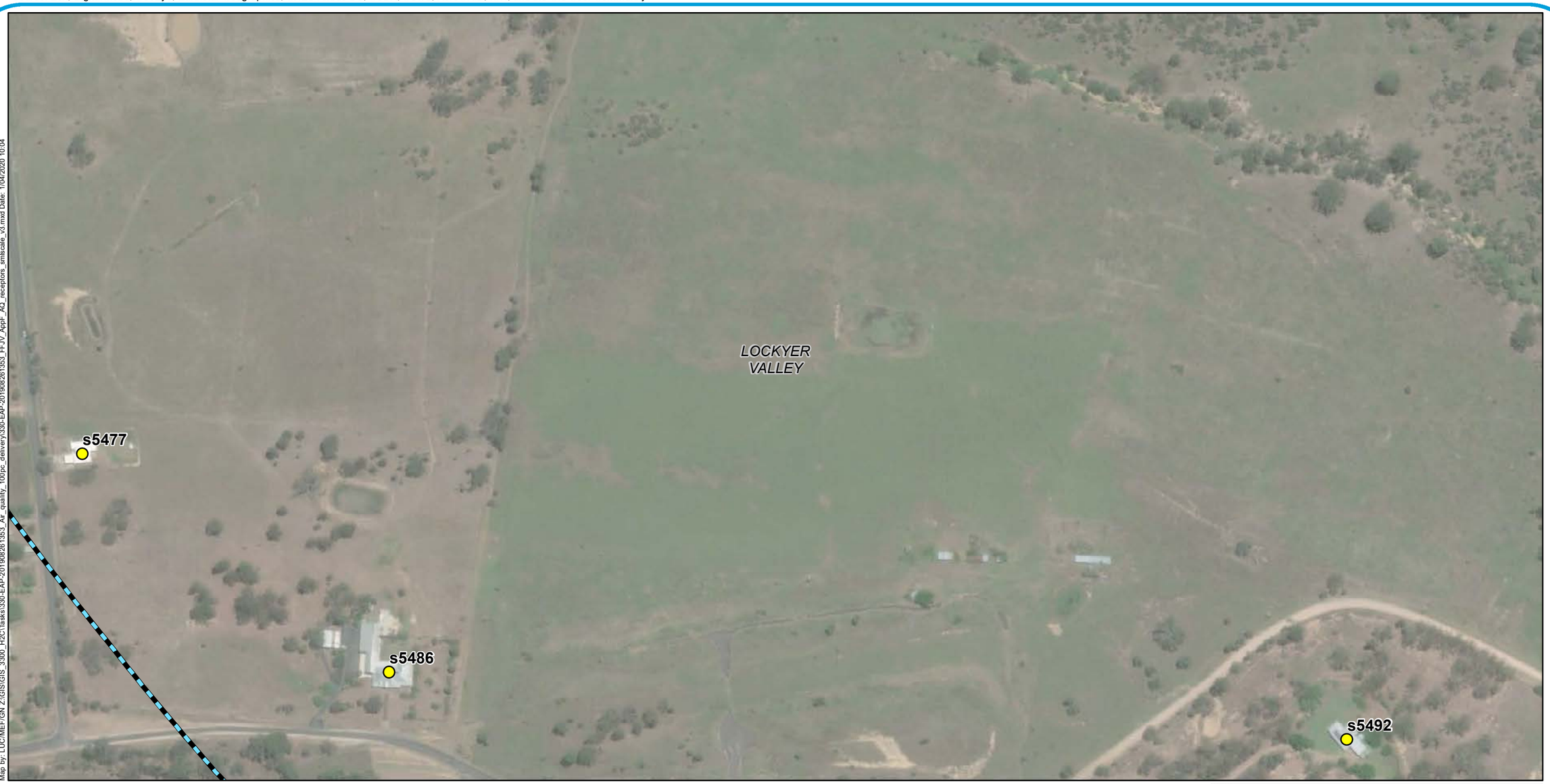
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F209: Sensitive receptor locations

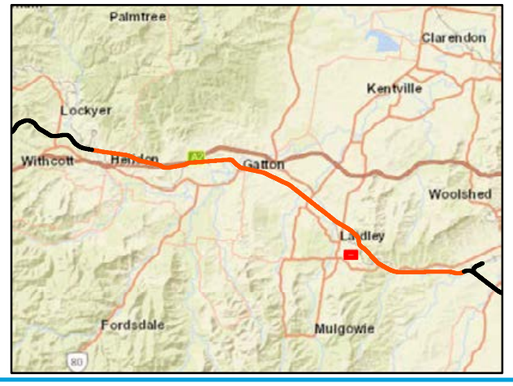
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

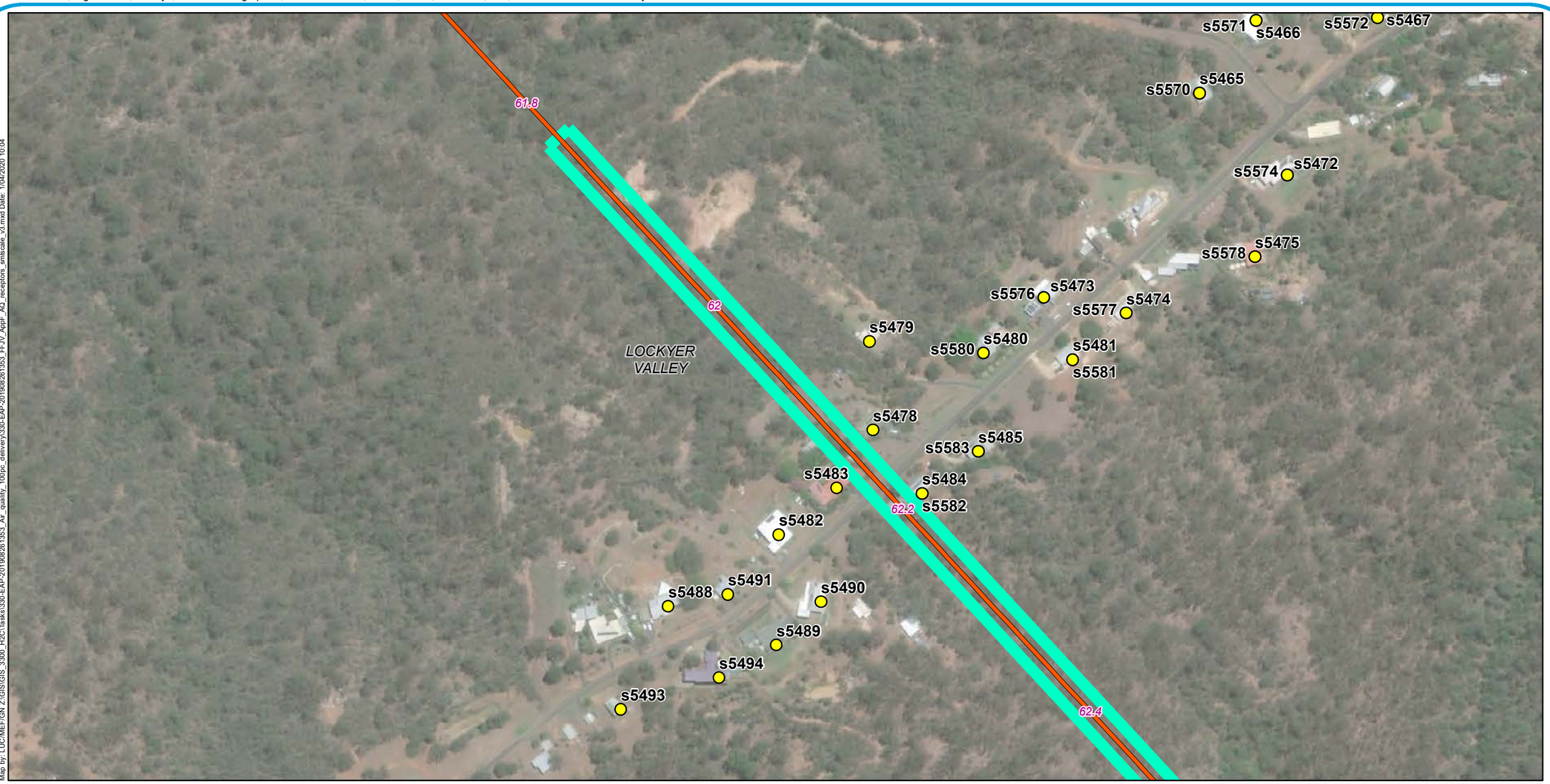
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F210: Sensitive receptor locations

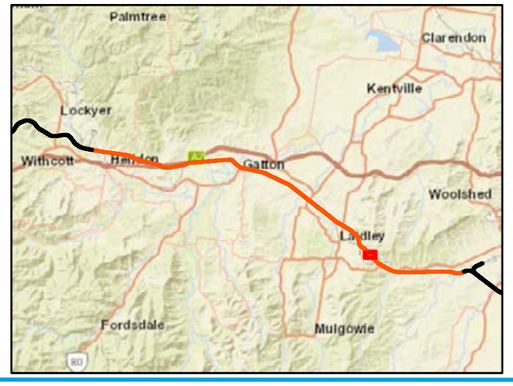
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- H2C project alignment
- Tunnel
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

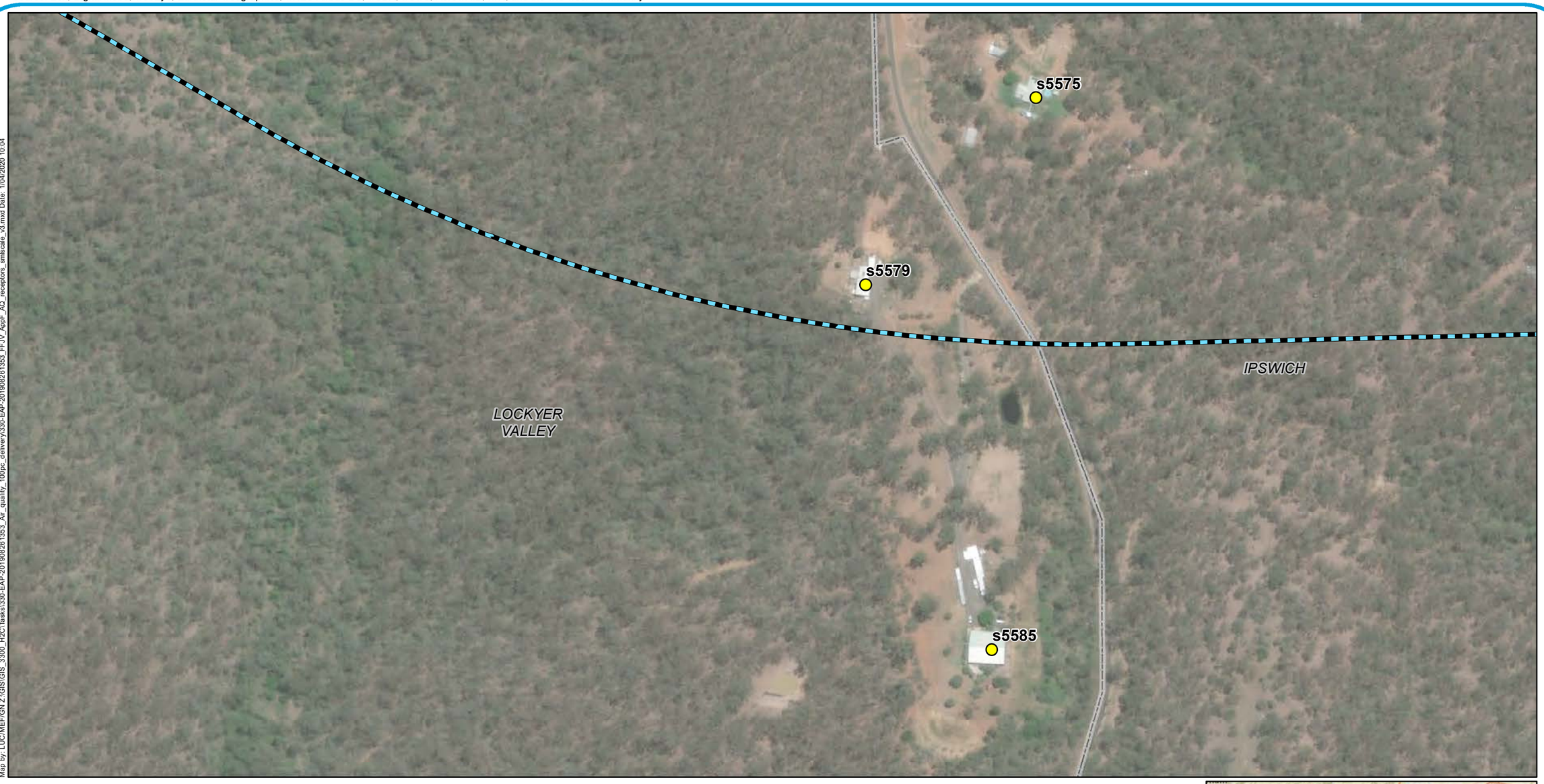
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F211: Sensitive receptor locations

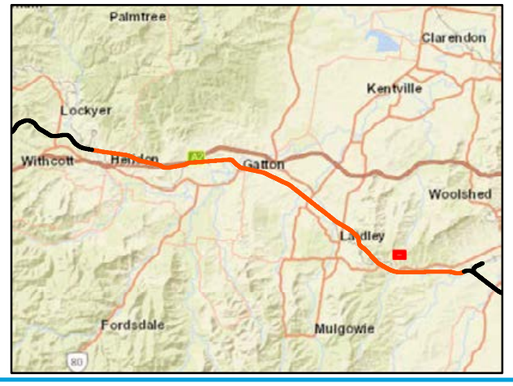
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

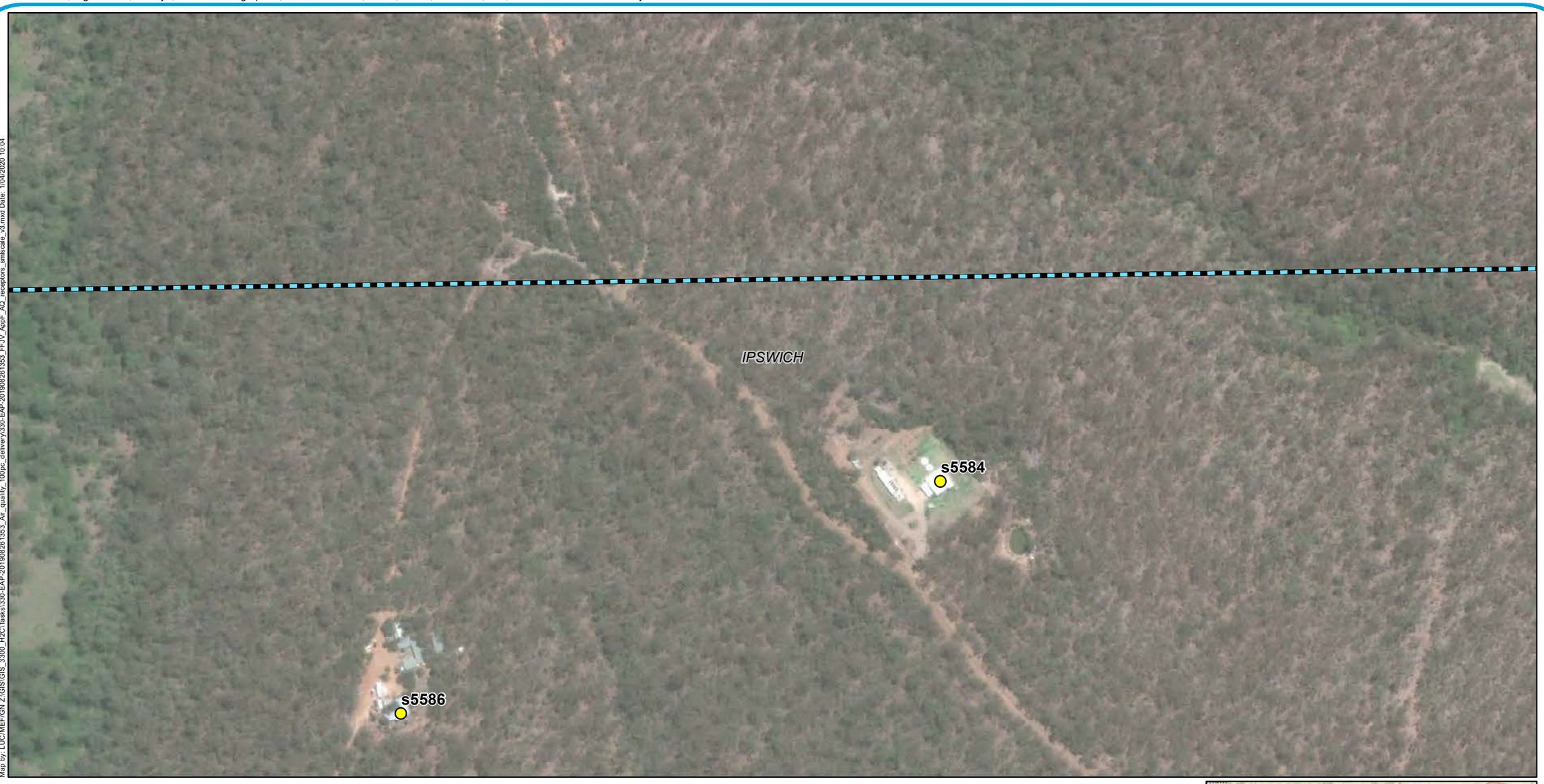
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F212: Sensitive receptor locations

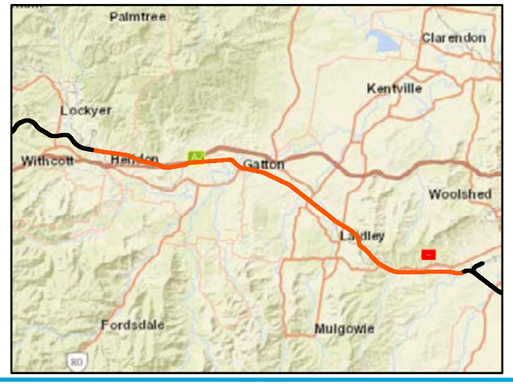
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

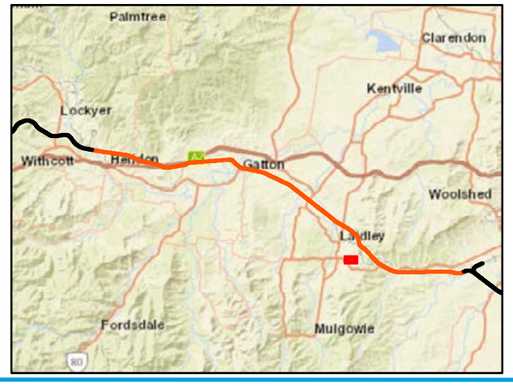
Appendix F213: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2O\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

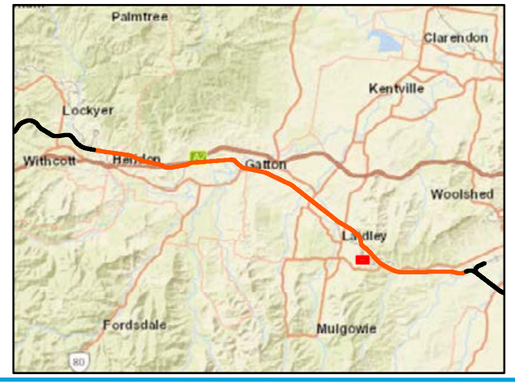
Appendix F214: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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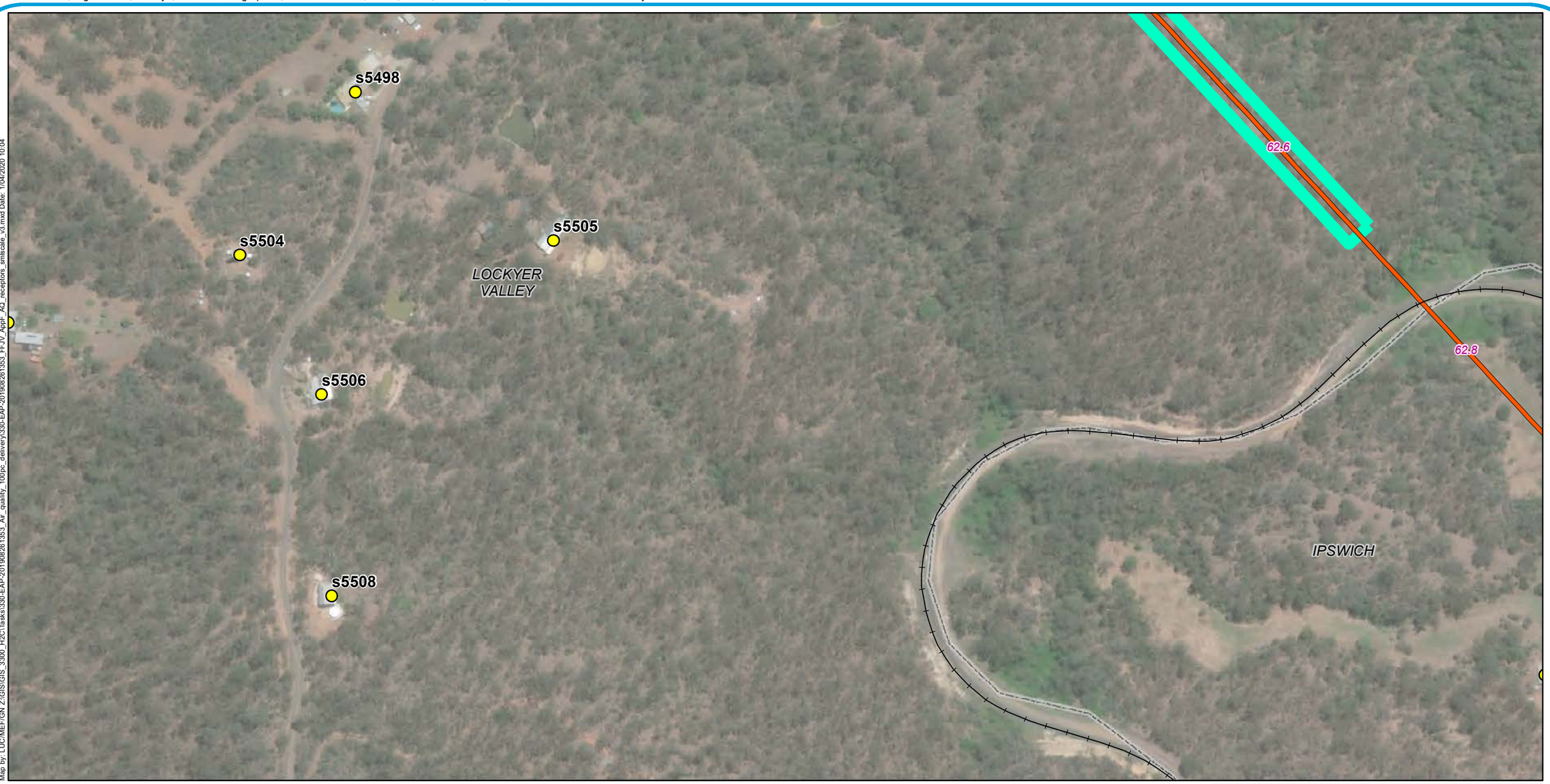
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F215: Sensitive receptor locations

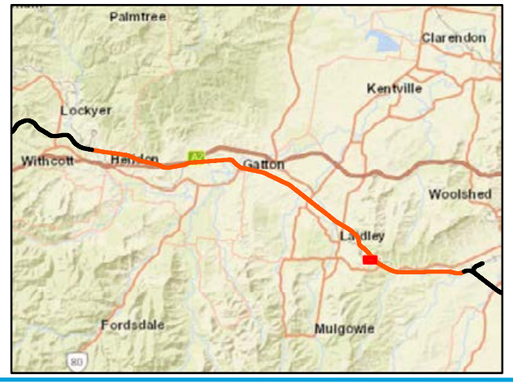
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Tunnel
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

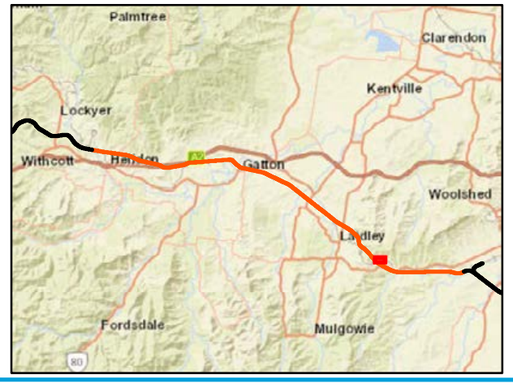
Appendix F216: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F217: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

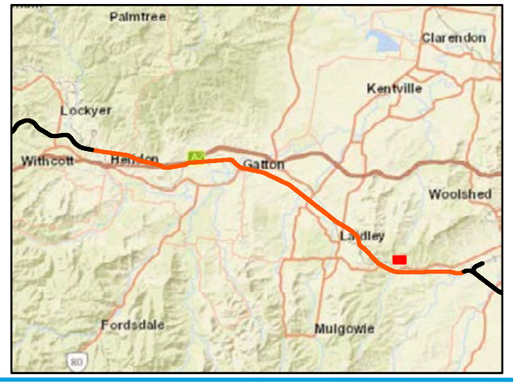
Appendix F218: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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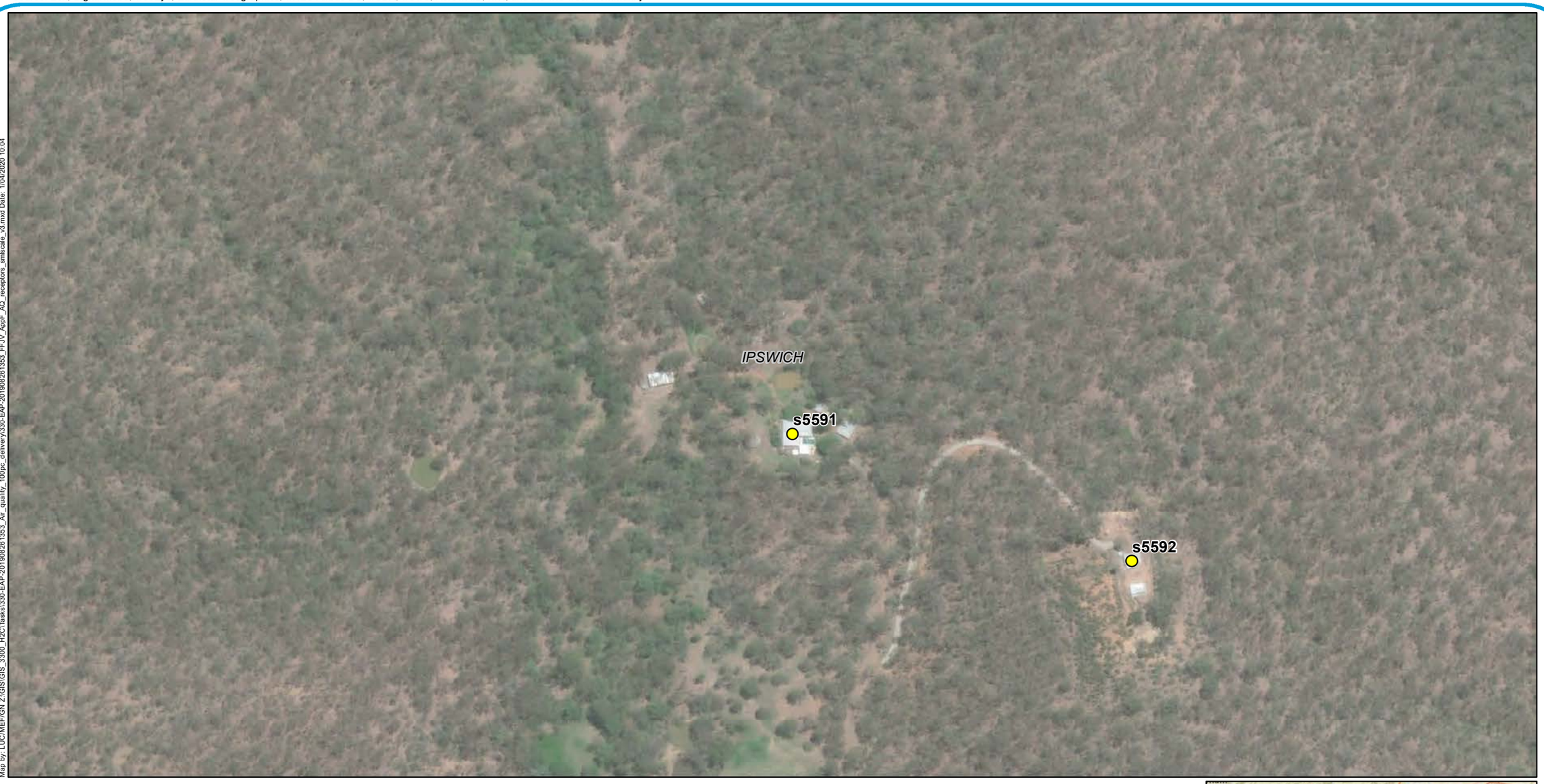
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F219: Sensitive receptor locations

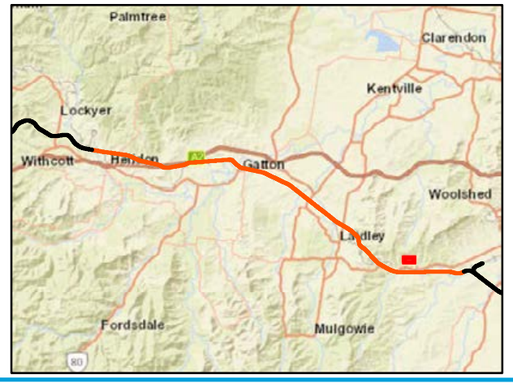
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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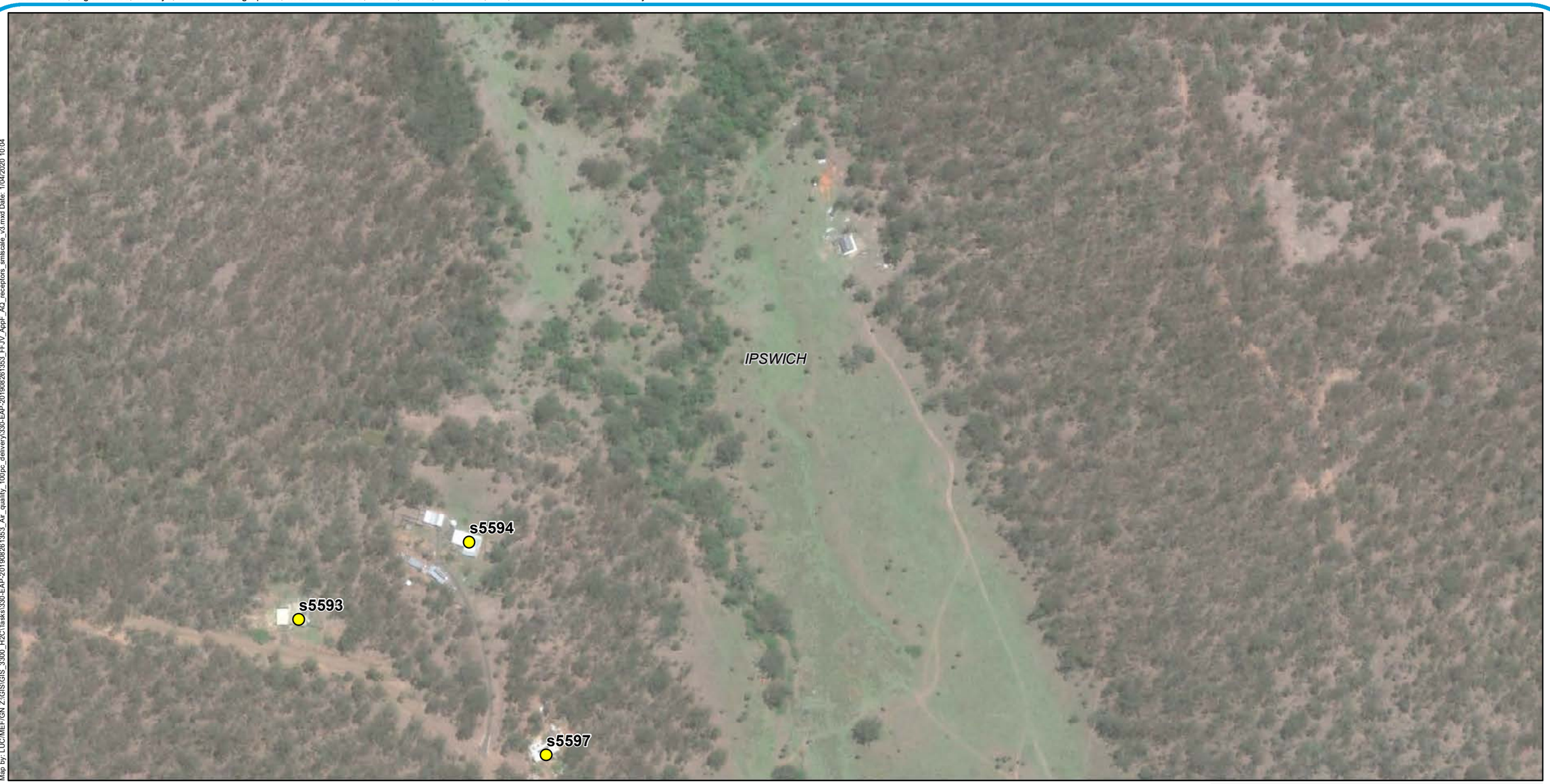
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F220: Sensitive receptor locations

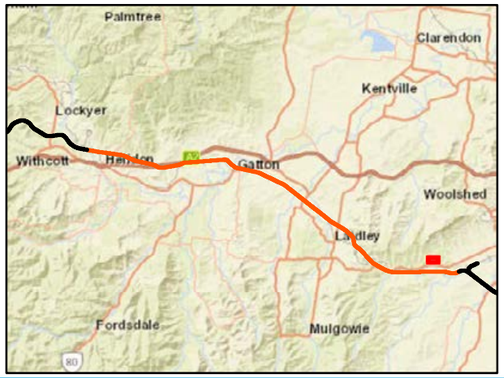
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

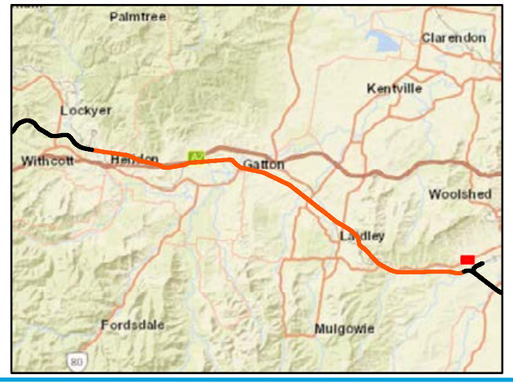
Appendix F221: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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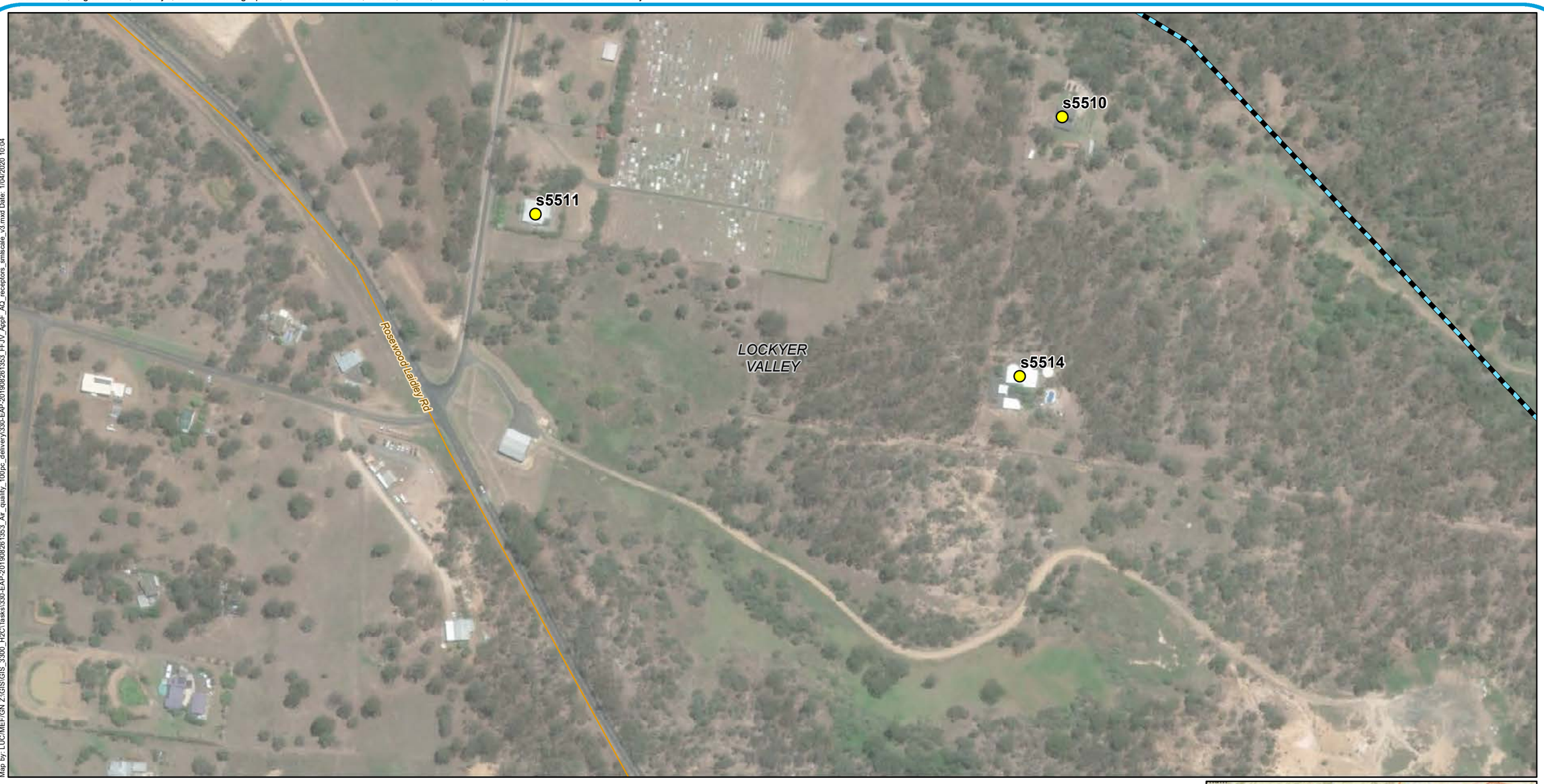
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F222: Sensitive receptor locations

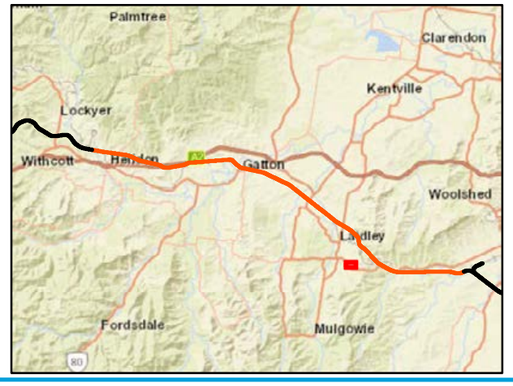
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

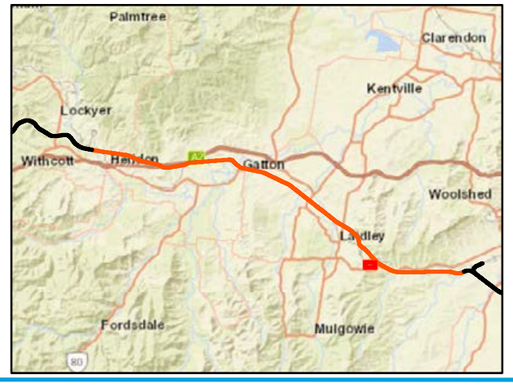
Appendix F223: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

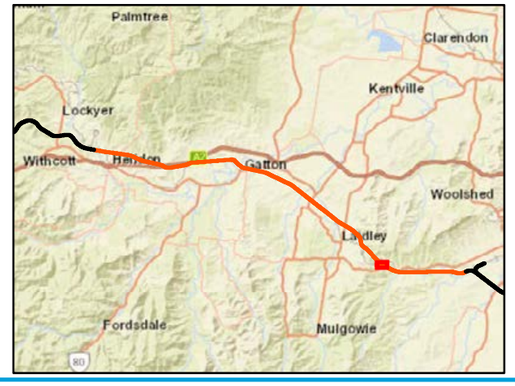
Appendix F224: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

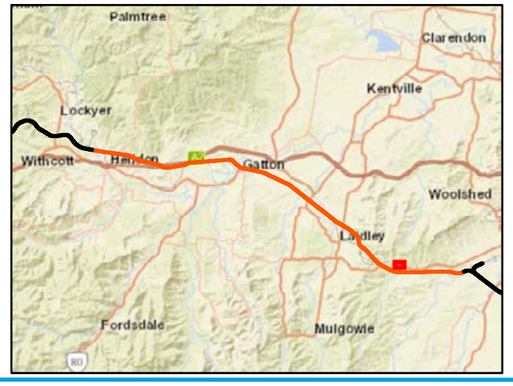
Appendix F225: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

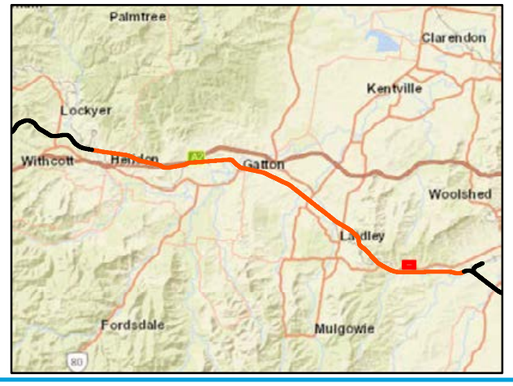
Appendix F226: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Helidon to Calvert

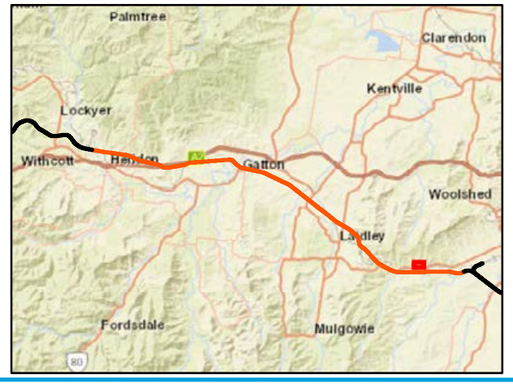
Appendix F227: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

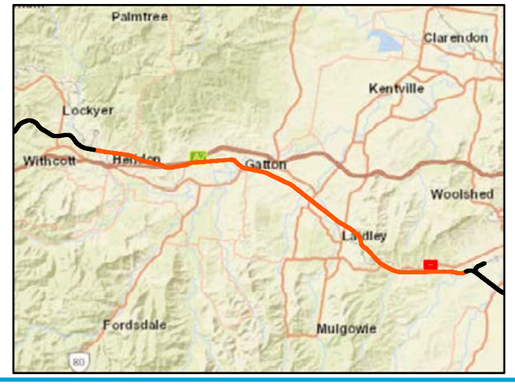
Appendix F228: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

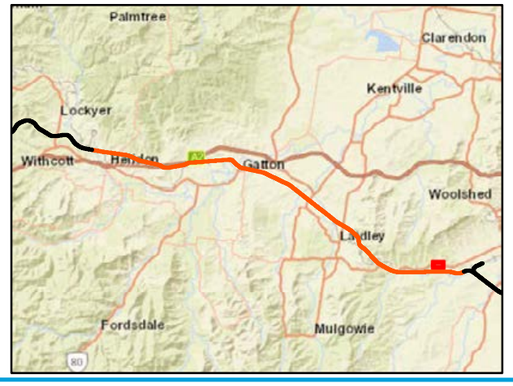
Appendix F229: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

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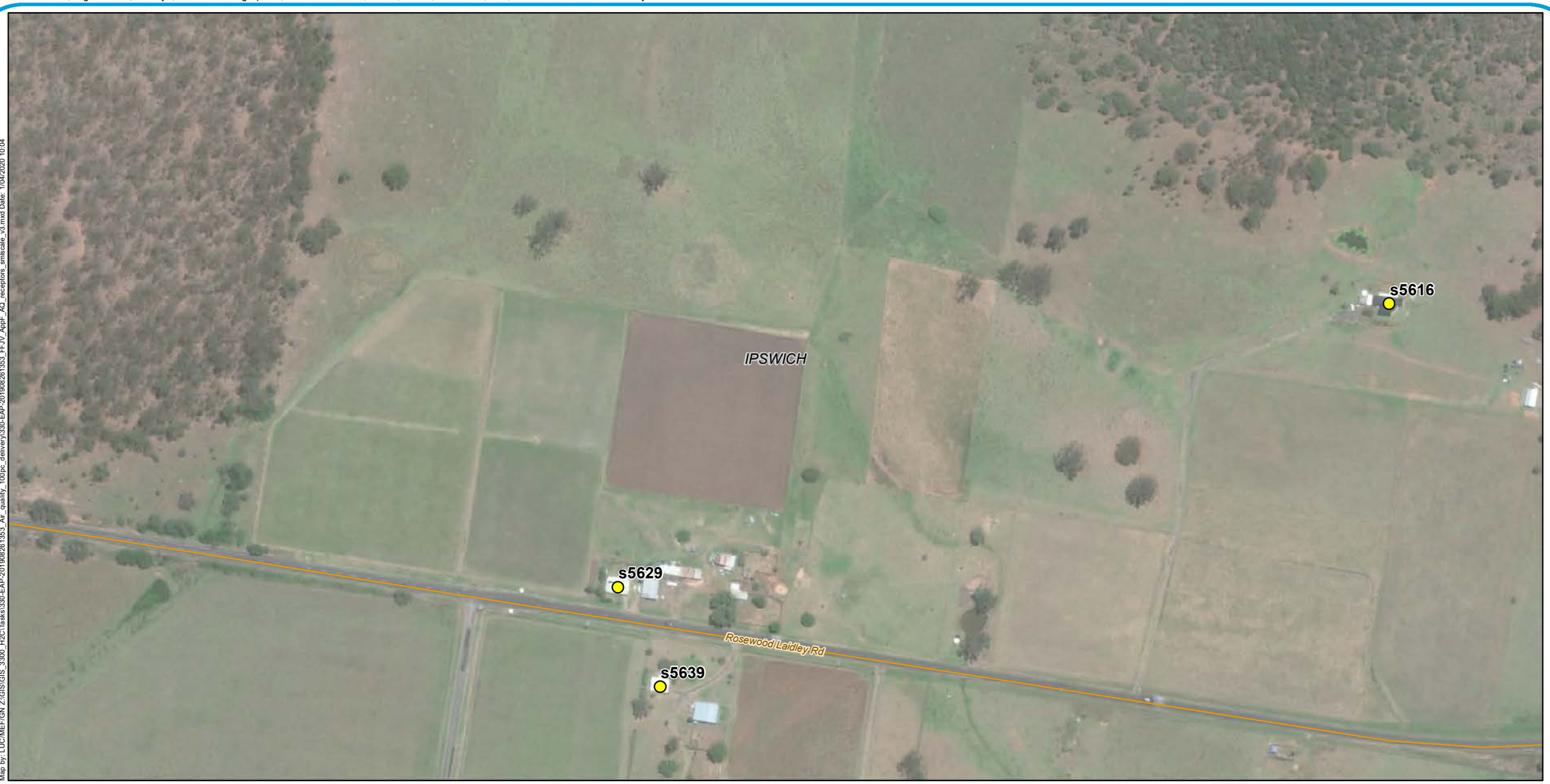
Appendix F230: Sensitive receptor locations

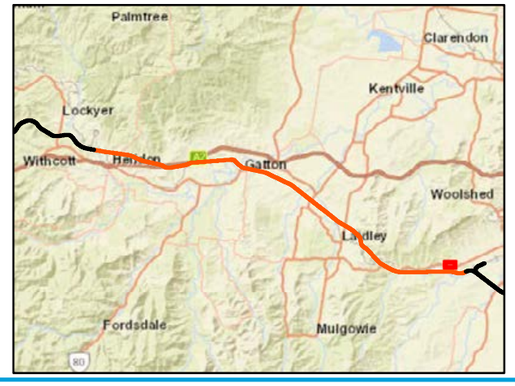
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

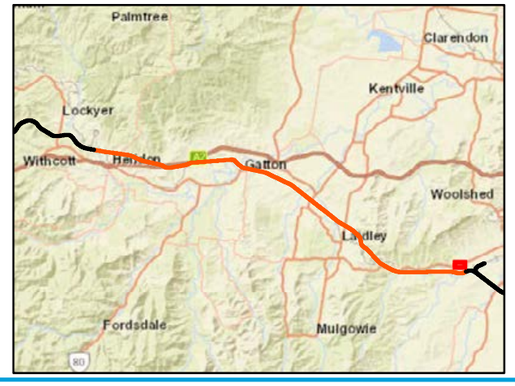
Appendix F231: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

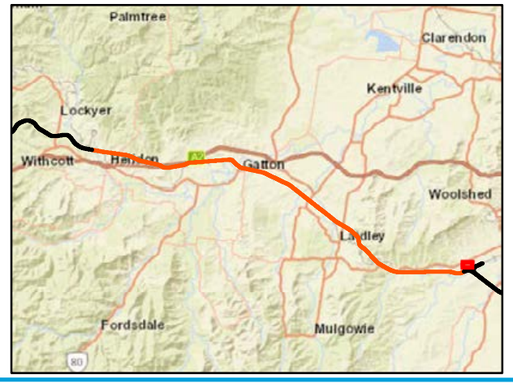
Appendix F232: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

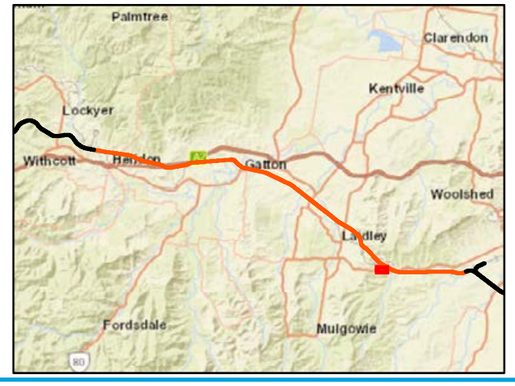
Appendix F233: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

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Appendix F234: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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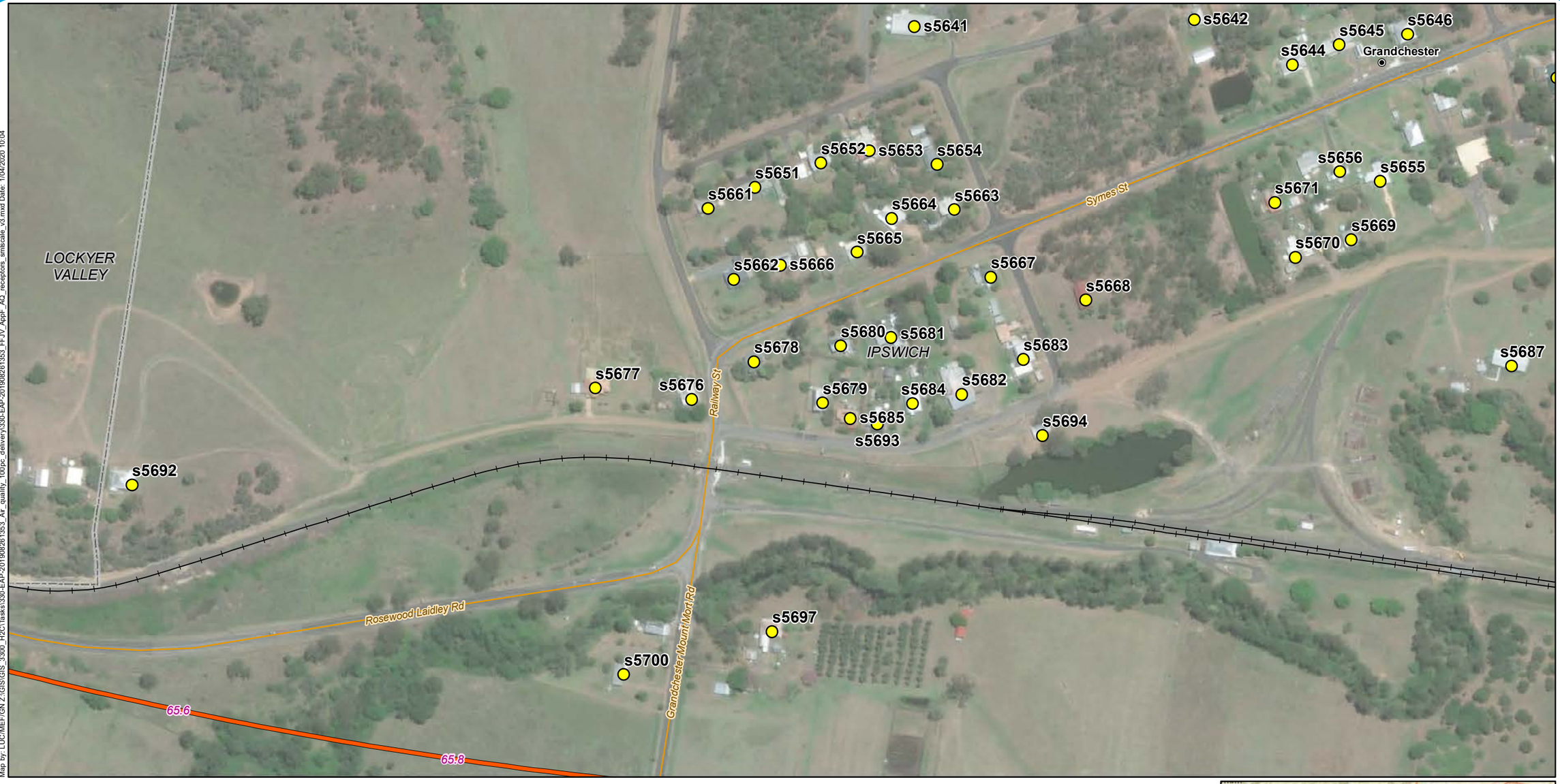
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F235: Sensitive receptor locations

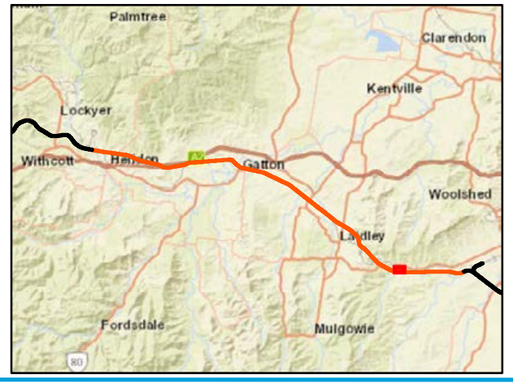
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Localities
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

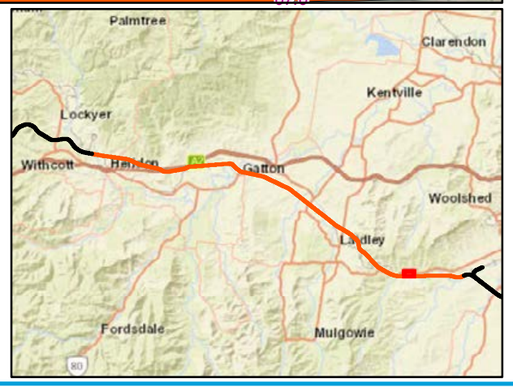
Appendix F236: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

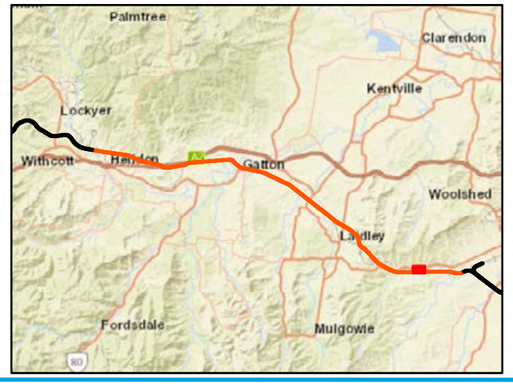
Appendix F237: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

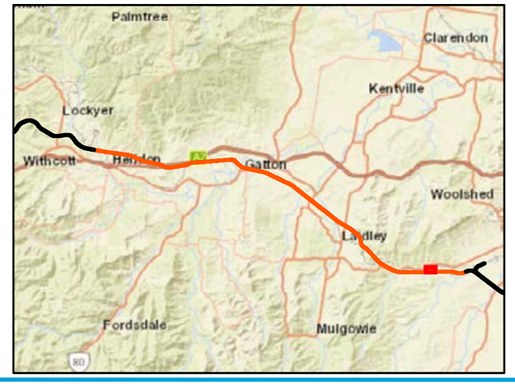
Appendix F238: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Crossing loops
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

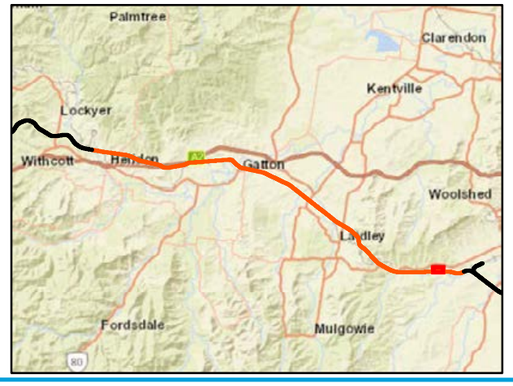
Appendix F239: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Crossing loops
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F240: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- Crossing loops
- H2C project alignment
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

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Appendix F241: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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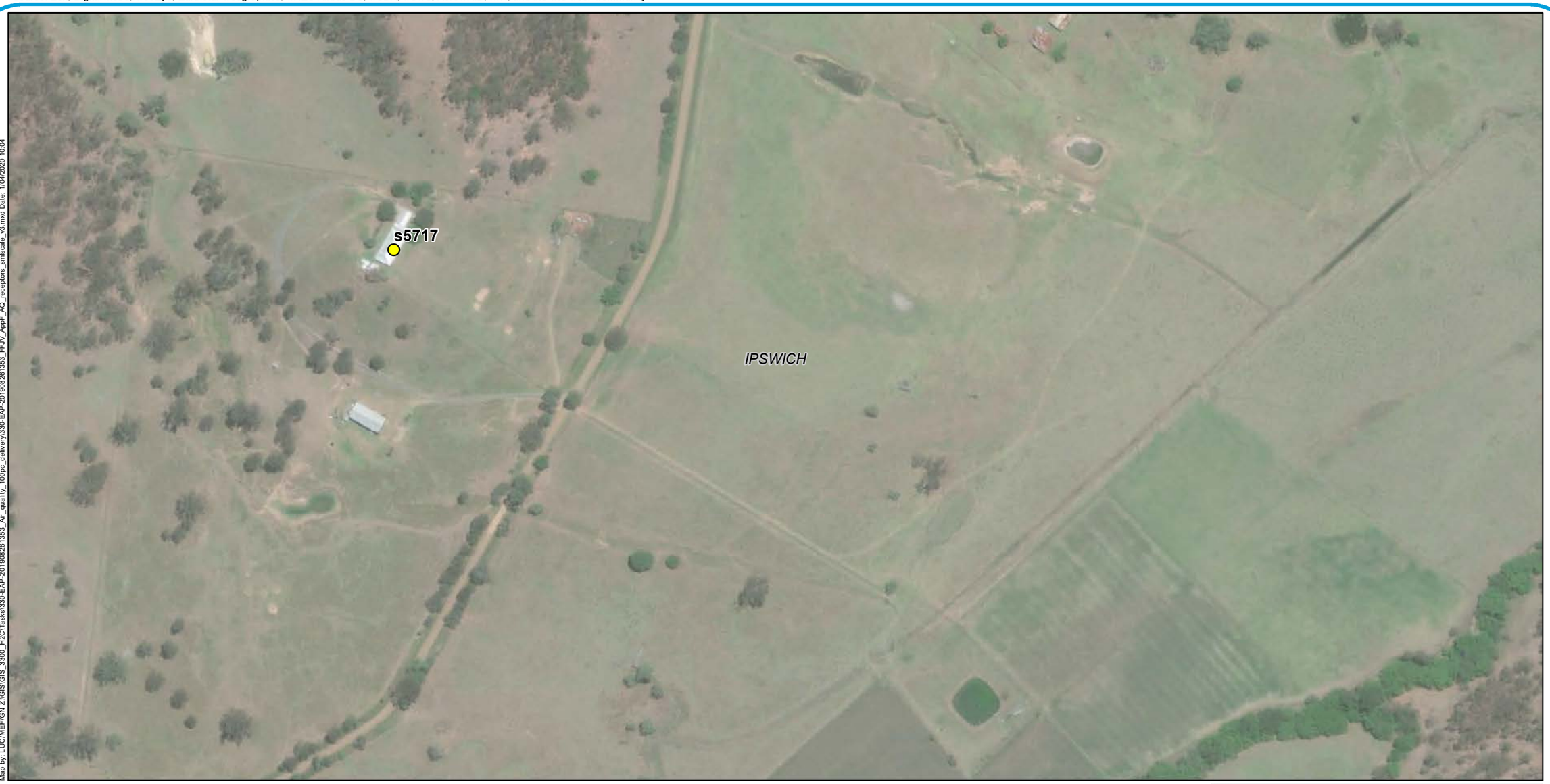
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F242: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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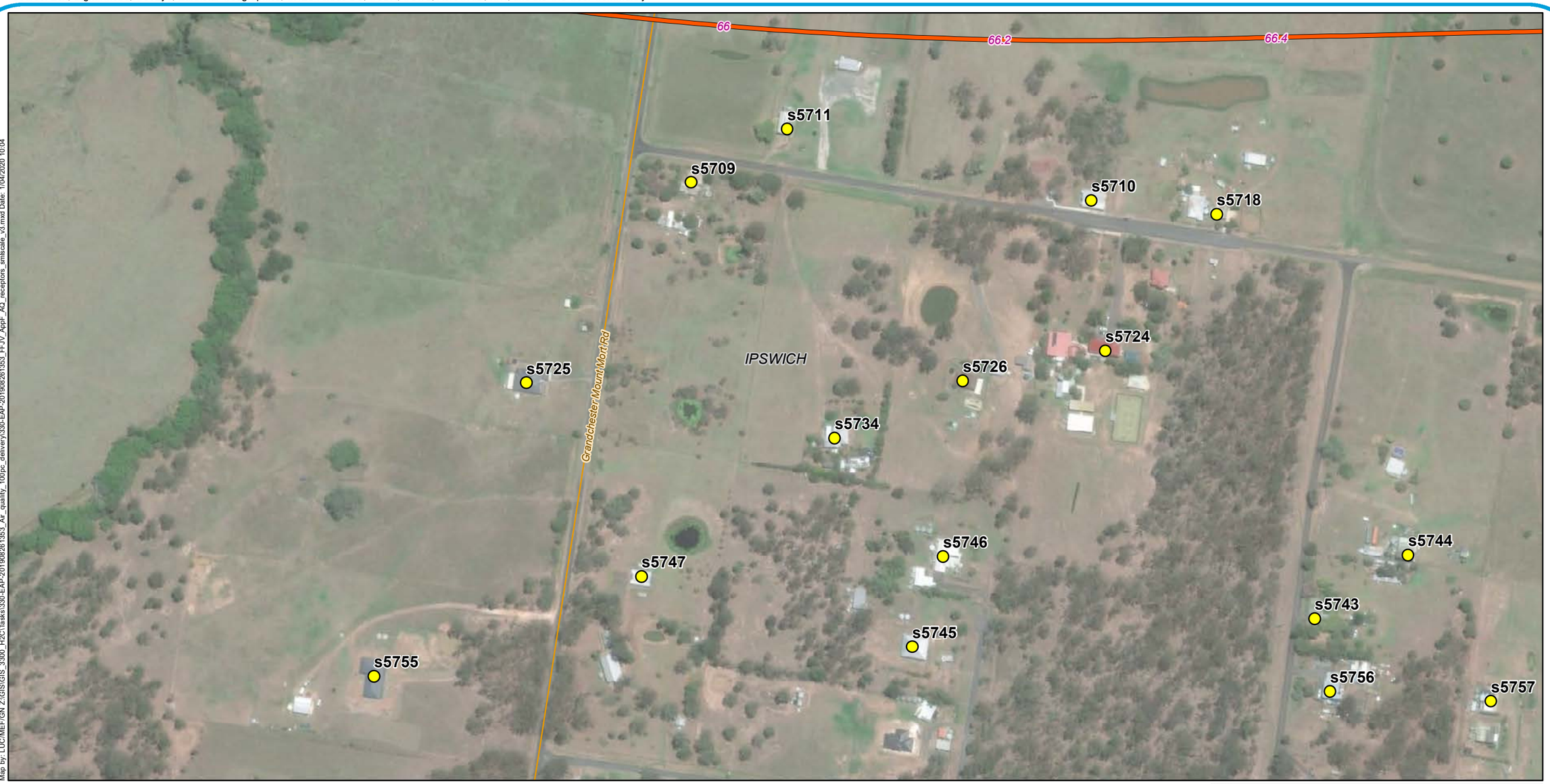
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F243: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- H2C project alignment
- Minor roads
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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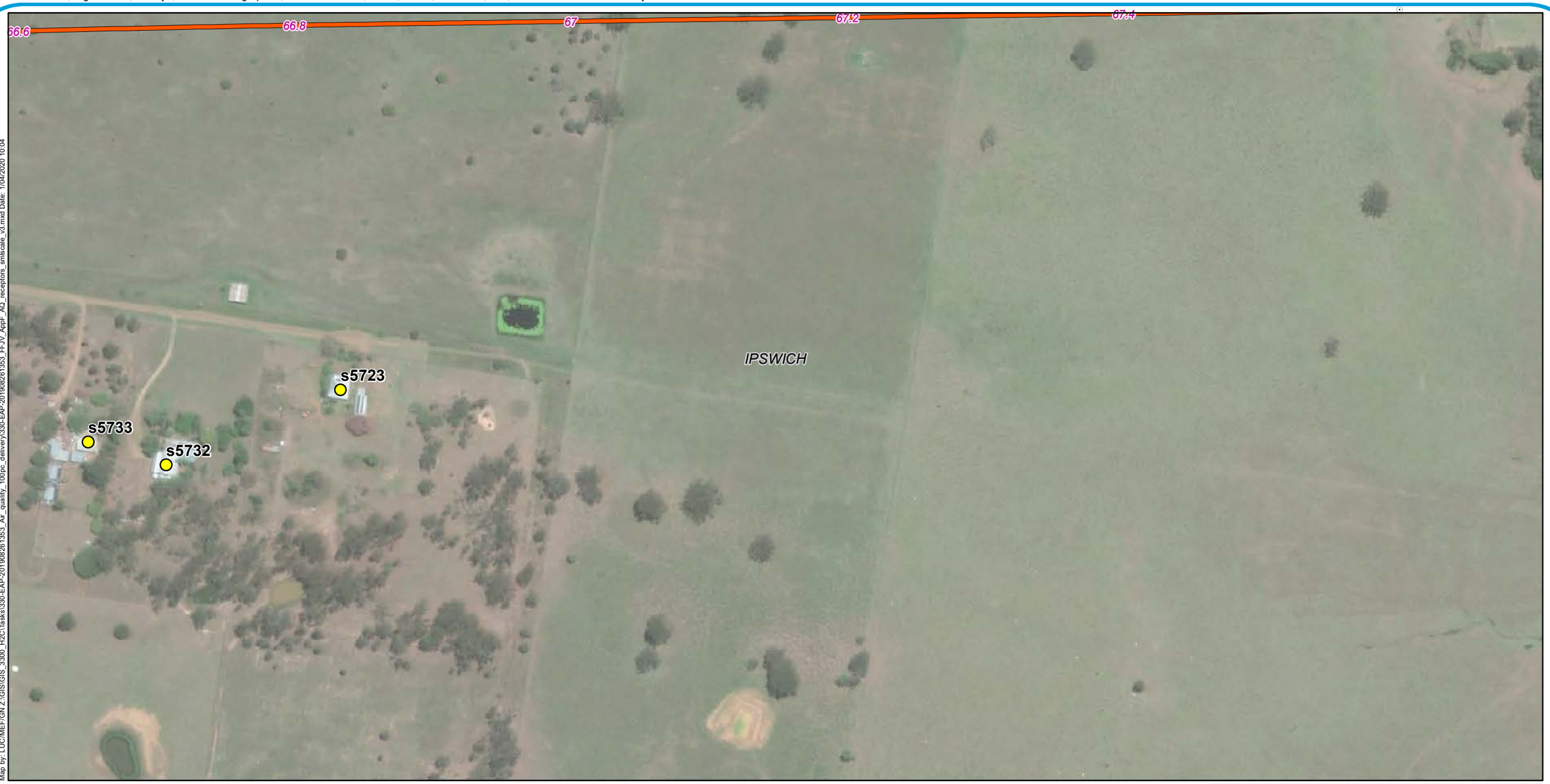
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F244: Sensitive receptor locations

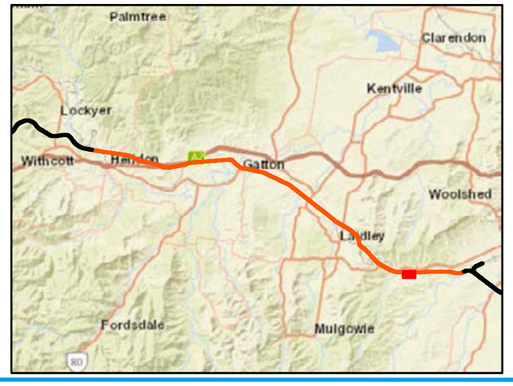
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

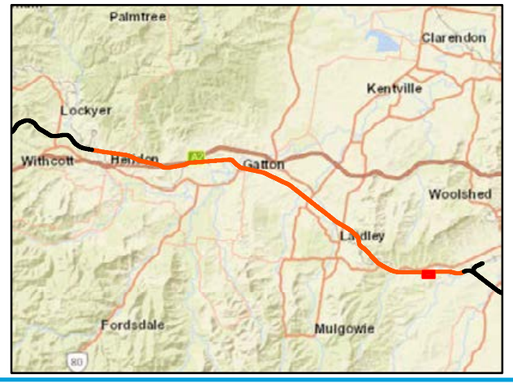
Appendix F245: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F246: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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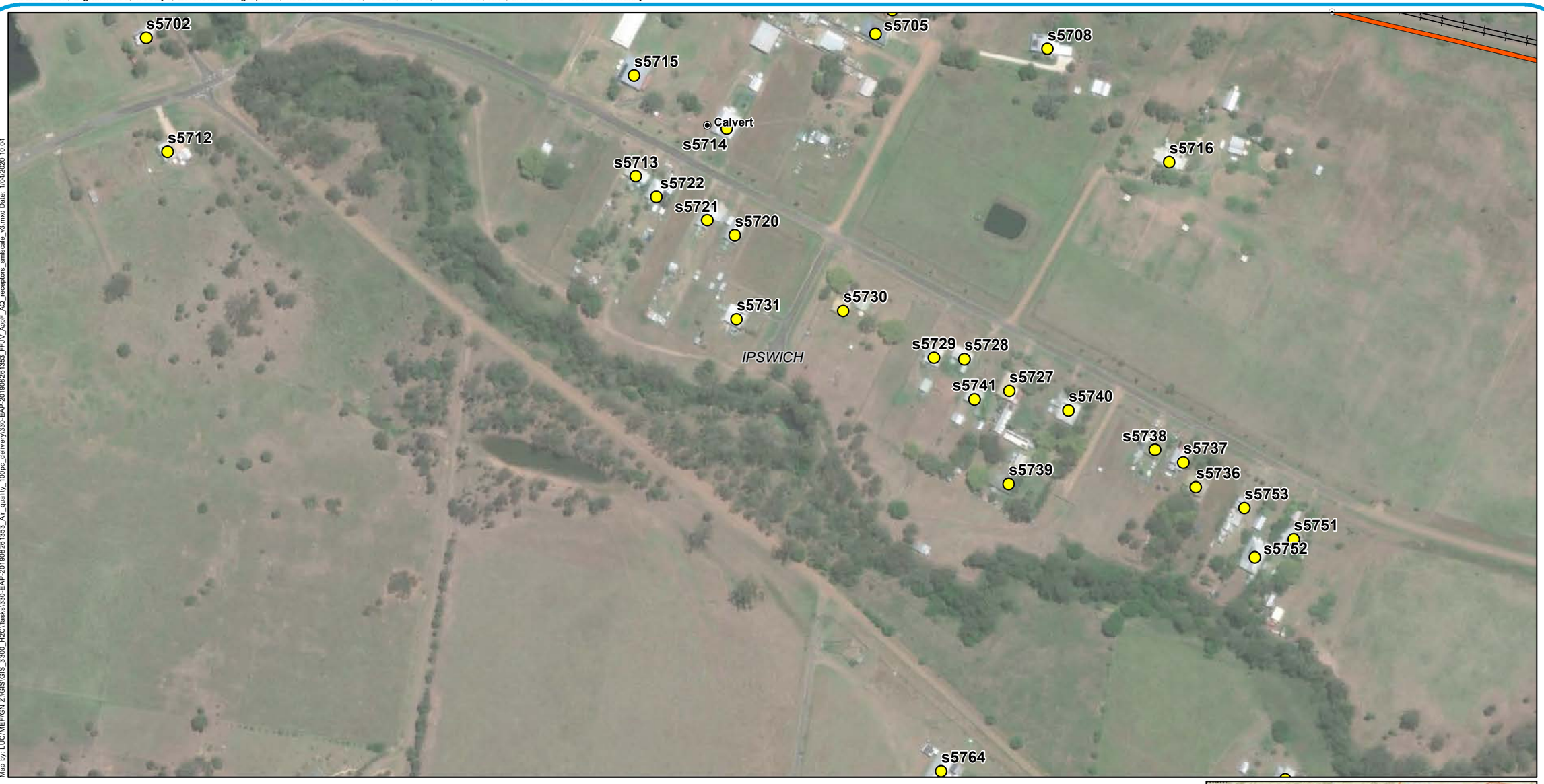
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F247: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Localities
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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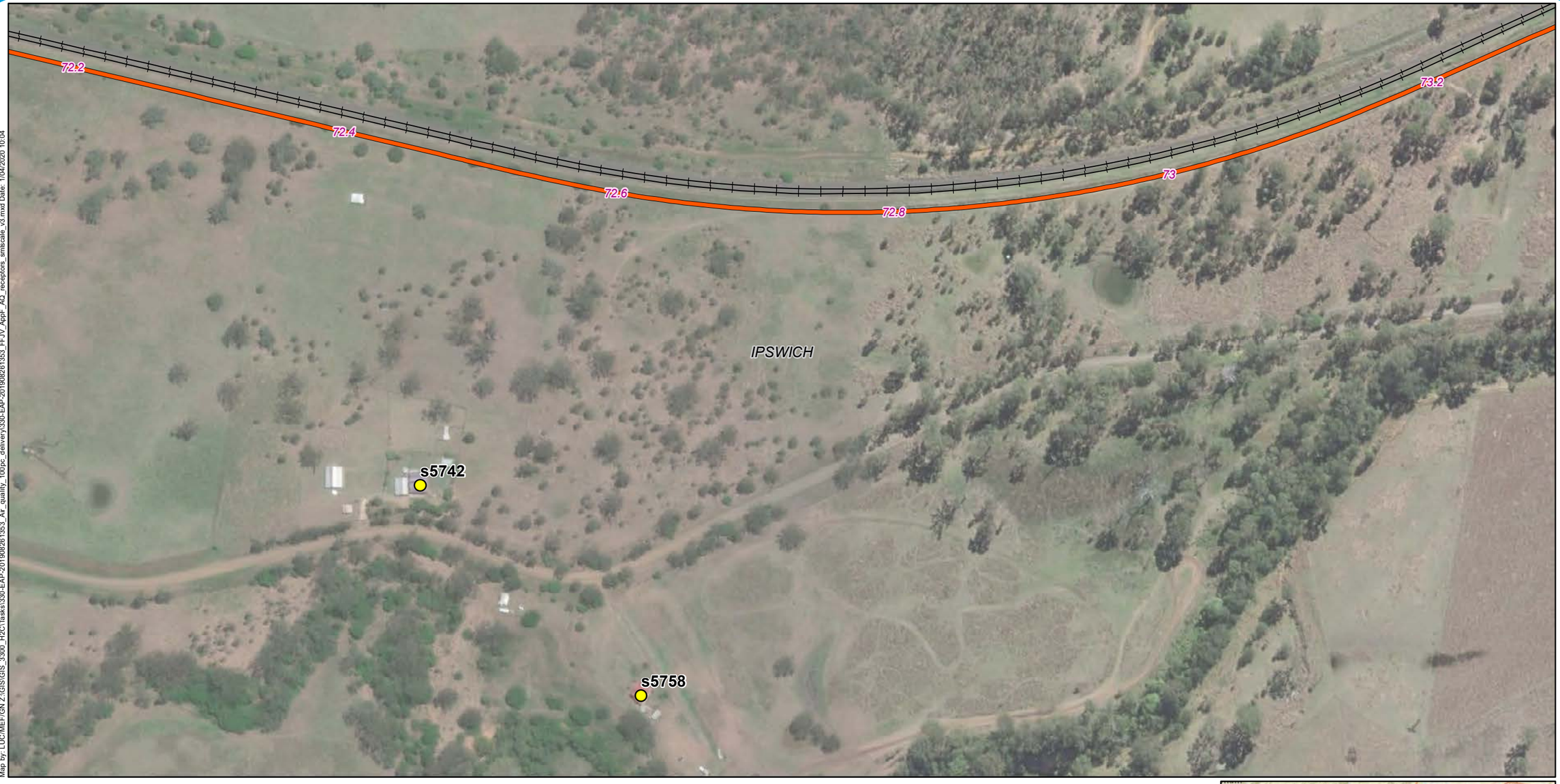
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F248: Sensitive receptor locations

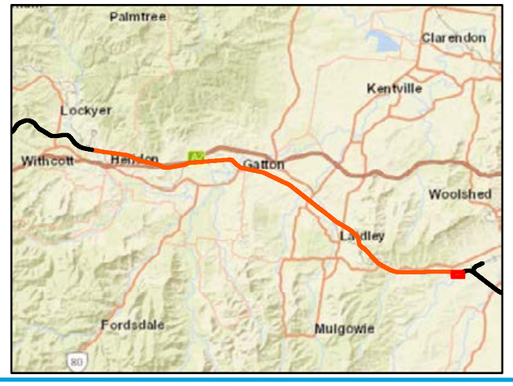
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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



Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F249: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Existing rail
- H2C project alignment
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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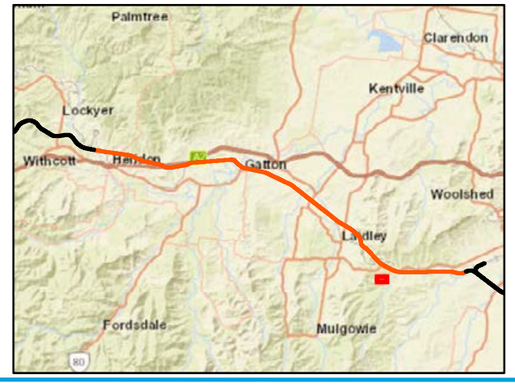
Appendix F250: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826135 3_Air_quality_100pc_delivery\330-EAP-20190826135 3_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

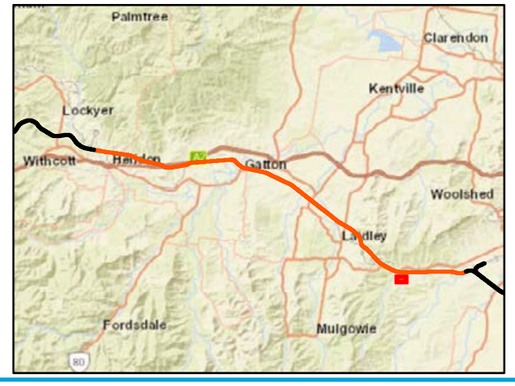
Appendix F251: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

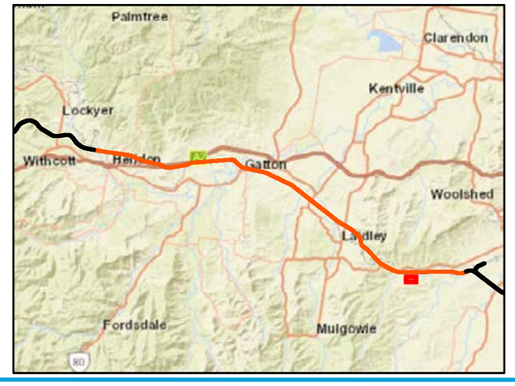
Appendix F252: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

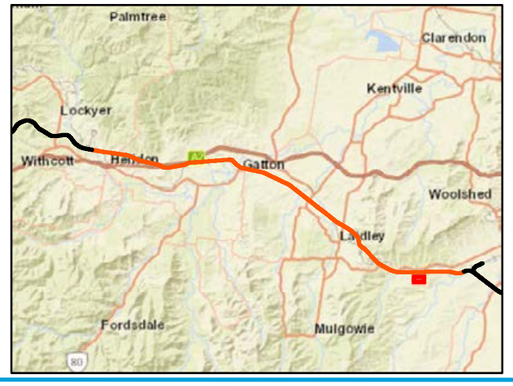
Appendix F253: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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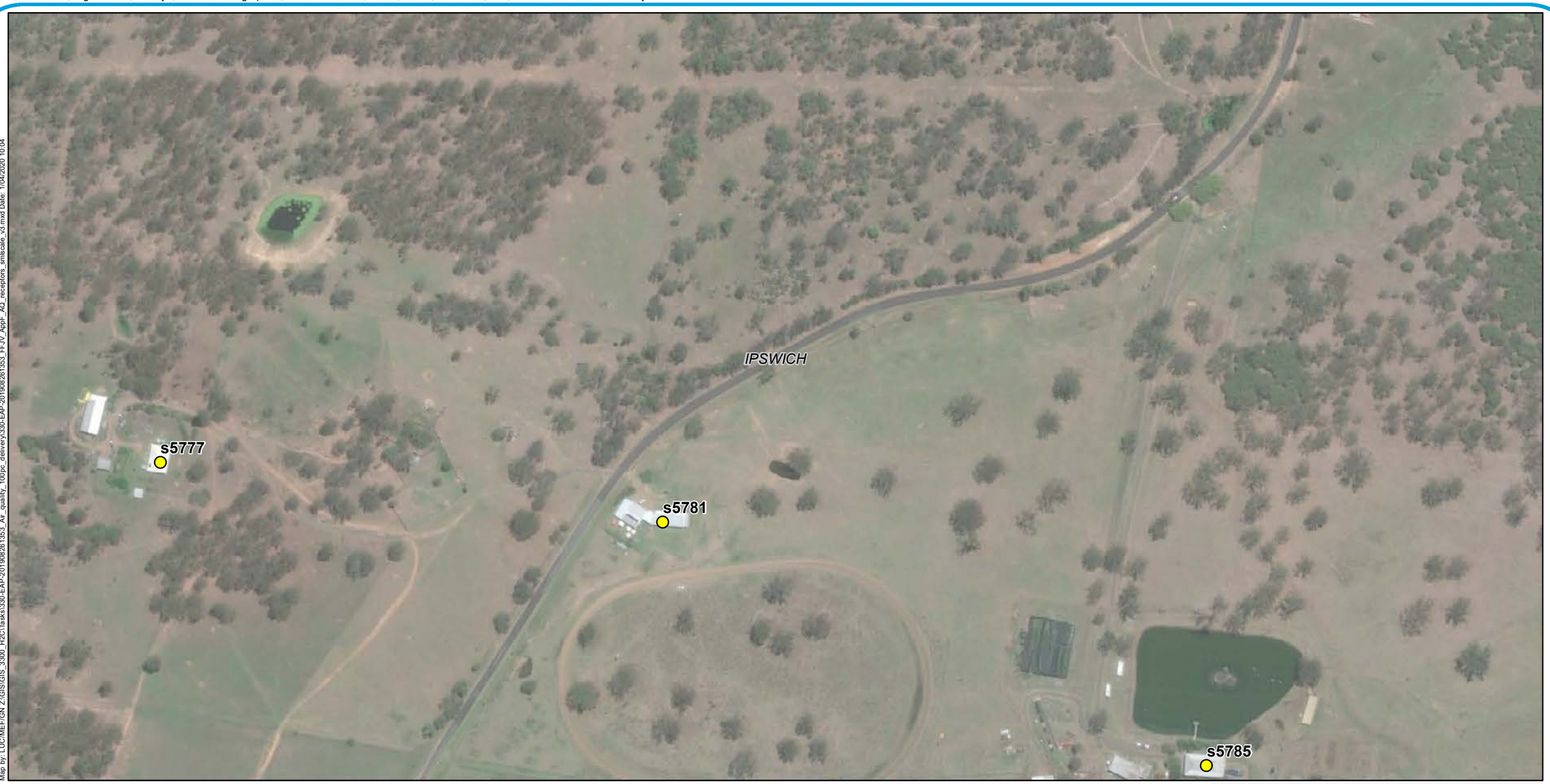
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F254: Sensitive receptor locations

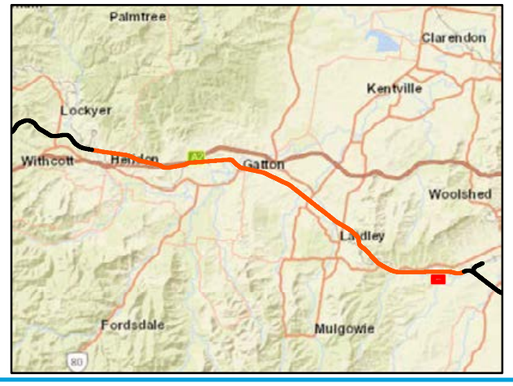
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F255: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas

A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

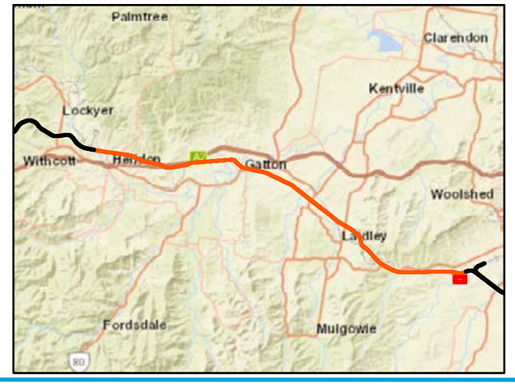
Appendix F256: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

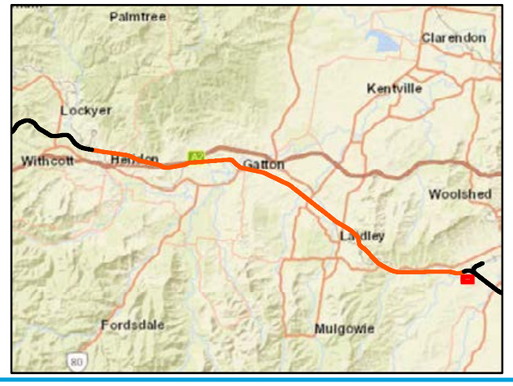
Appendix F257: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

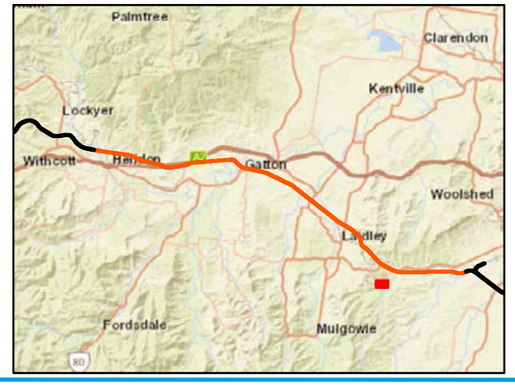
Appendix F258: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

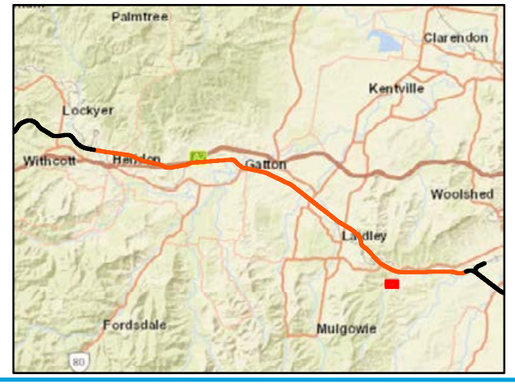
Appendix F259: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

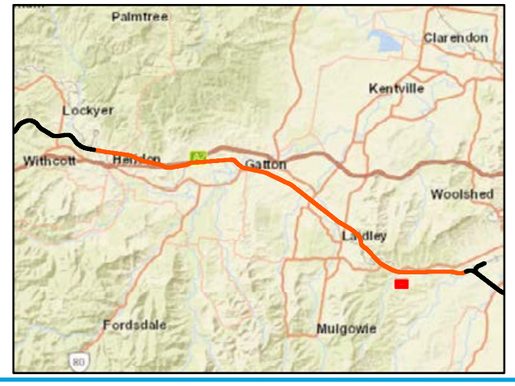
Appendix F260: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

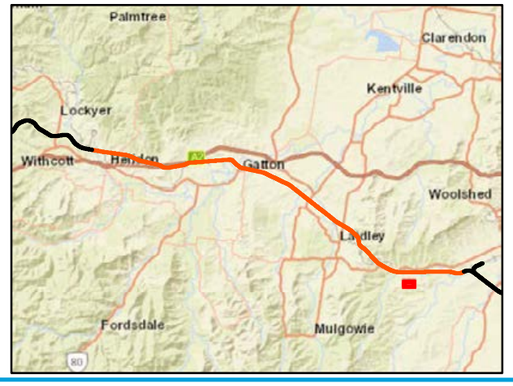
Appendix F261: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

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Issue date: 27/03/2020 Version: 3
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Helidon to Calvert

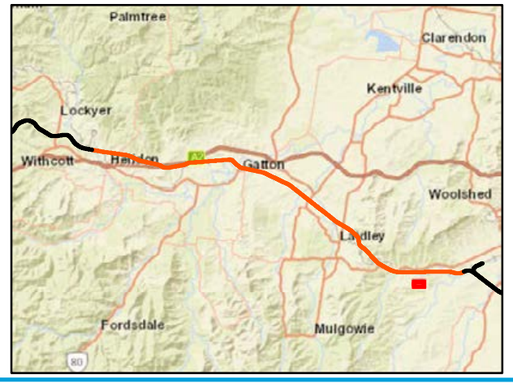
Appendix F262: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2O\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

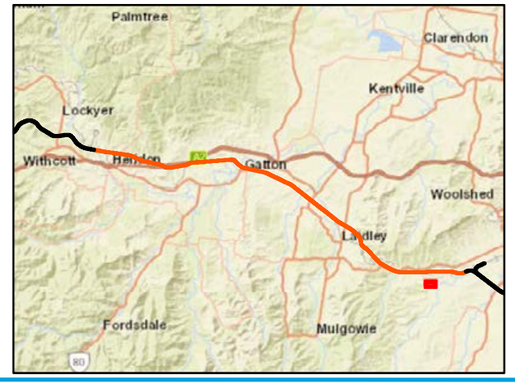
Appendix F263: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

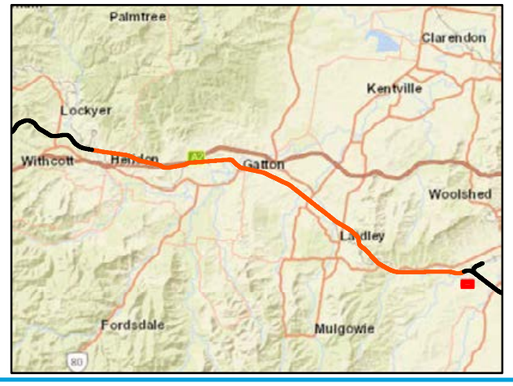
Appendix F264: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

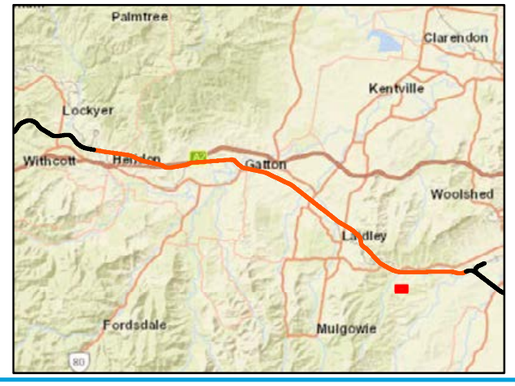
Appendix F265: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery\330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- Minor roads
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

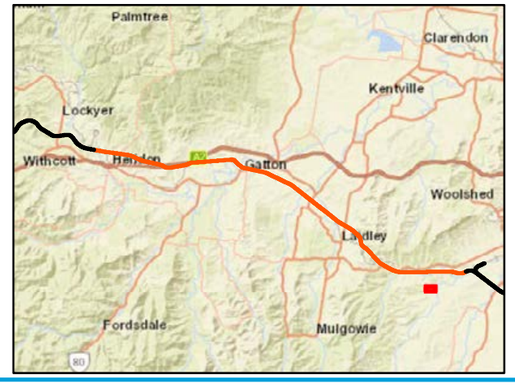
Appendix F266: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

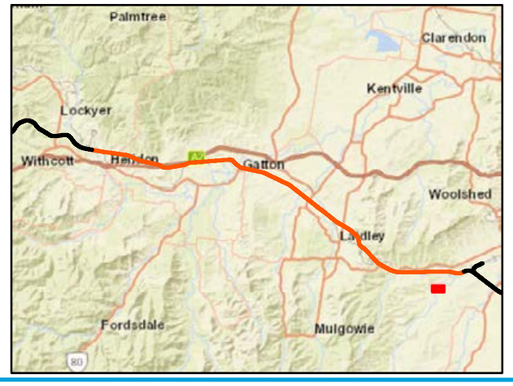
Appendix F267: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

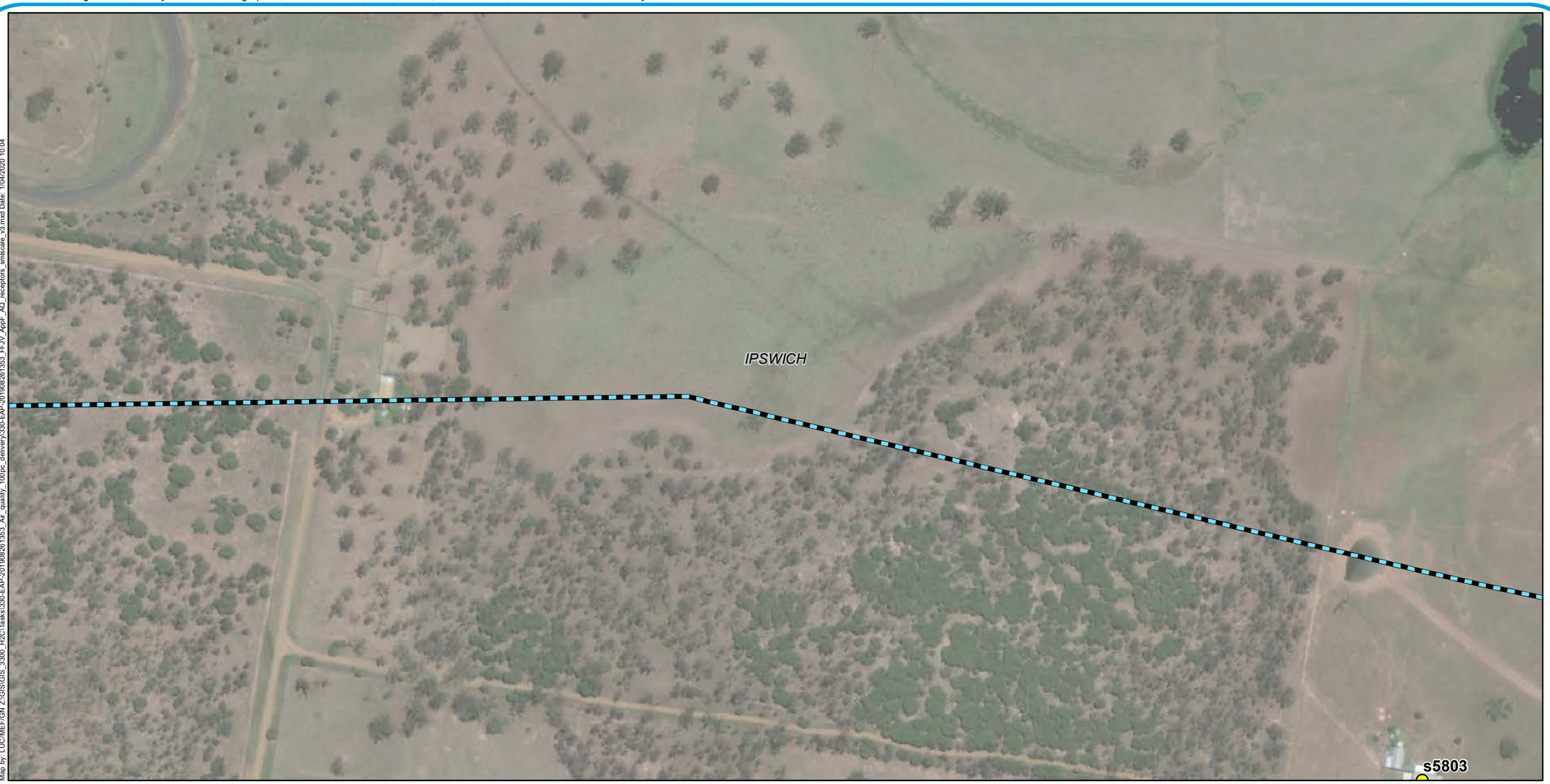
Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F268: Sensitive receptor locations

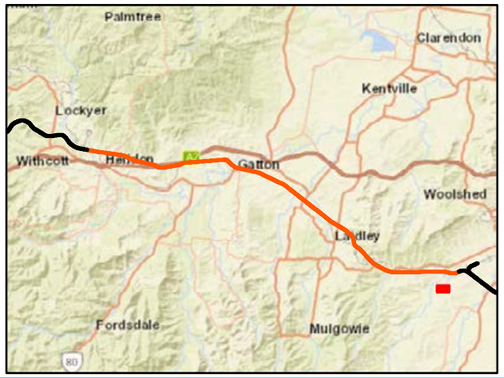
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN,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

Map by: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826\353_Air_quality_100pc_delivery\330-EAP-20190826\353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04



Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

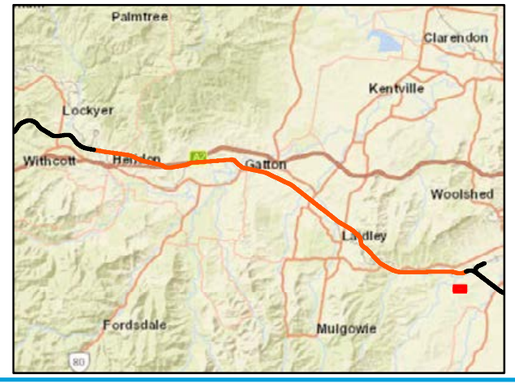
Appendix F269: Sensitive receptor locations

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: LUC/MEF/GN Z:\GIS\GIS_3300_H2C\Tasks\330-EAP-20190826 1353_Air_quality_100pc_delivery330-EAP-20190826 1353_FFJV_AppF_AQ_receptors_smlscale_v3.mxd Date: 1/04/2020 10:04

Legend

- Sensitve Receptors
- AQIA study area
- Local Government Areas



A3 scale: 1:3,000

0 50 100 150 200 Meters

Future Freight
Integrating Community, Environment and Engineering

Issue date: 27/03/2020 Version: 3
Coordinate System: GDA 1994 MGA Zone 56

Helidon to Calvert

Appendix F270: Sensitive receptor locations

APPENDIX K

Air Quality Technical Report

Appendix G Sample CALPUFF Input File

HELIDON TO CALVERT ENVIRONMENTAL IMPACT STATEMENT

IR_1381

CALPUFF.INP 7.0 Generated by CALPUFF View 8.4.0 - 12/02/2019

H2C_Setup

```
---------------- Run title (3 lines) ------------------------------------------

        CALPUFF MODEL CONTROL FILE
        --------------------------

-------------------------------------------------------------------------------

INPUT GROUP: 0 -- Input and Output File Names

--------------
Default Name Type     File Name
------------ ----     ---------
CALMET.DAT  input  * METDAT = *
  or
ISCMET.DAT  input  * ISCDAT = *
  or
PLMMET.DAT  input  * PLMDAT = *
  or
PROFILE.DAT  input  * PRFDAT = *
SURFACE.DAT  input  * SFCDAT = *
RESTARTB.DAT input  * RSTARTB = *
-------------------------------------------------------------------------------
CALPUFF.LST  output  ! PUFLST = CALPUFF.LST !
CONC.DAT   output  ! CONDAT = CONC.DAT !
DFLX.DAT   output  ! DFDAT = DFLX.DAT !
WFLX.DAT   output  ! WFDAT = WFLX.DAT !

VISB.DAT   output  * VISDAT = *
TK2D.DAT   output  * T2DDAT = *
RHO2D.DAT   output  * RHODAT = *
RESTARTE.DAT output  * RSTARTE = *
-------------------------------------------------------------------------------
Other Files
-----------
OZONE.DAT   input  * OZDAT = *
VD.DAT    input  * VDDAT = *
CHEM.DAT   input  * CHEMDAT = *
AUX      input  * AUXEXT = *
(Extension added to METDAT filename(s) for files
 with auxiliary 2D and 3D data)
H2O2.DAT   input  * H2O2DAT = *
NH3Z.DAT   input  * NH3ZDAT = *
HILL.DAT   input  * HILDAT = *
HILLRCT.DAT  input  * RCTDAT = *
COASTLN.DAT  input  * CSTDAT = *
FLUXBDY.DAT  input  * BDYDAT = *
BCON.DAT   input  * BCNDAT = *
DEBUG.DAT   output  * DEBUG = *
MASSFLX.DAT  output  * FLXDAT = *
MASSBAL.DAT  output  * BALDAT = *
FOG.DAT    output  * FOGDAT = *
RISE.DAT   output  * RISDAT = *
PFTRAK.DAT  output  * TRKDAT = *
-------------------------------------------------------------------------------
All file names will be converted to lower case if LCFILES = T
Otherwise, if LCFILES = F, file names will be converted to UPPER CASE
     T = lower case   ! LCFILES = F !
     F = UPPER CASE
NOTE: (1) file/path names can be up to 132 characters in length


Provision for multiple input files
----------------------------------
   Number of CALMET.DAT Domains (NMETDOM)
                Default: 1    ! NMETDOM = 1 !
```

```
  Number of CALMET.DAT files (NMETDAT)
  (Total for ALL Domains)
              Default: 1    ! NMETDAT = 8 !

  Number of PTEMARB.DAT files for run (NPTDAT)
              Default: 0    ! NPTDAT = 0 !

  Number of BAEMARB.DAT files for run (NARDAT)
              Default: 0    ! NARDAT = 0 !

  Number of VOLEMARB.DAT files for run (NVOLDAT)
              Default: 0    ! NVOLDAT = 0 !

  Number of FLARE source files (FLEMARB.DAT)
  with time-varying data (NFLDAT)
              Default: 0    ! NFLDAT = 0 !

  Number of ROAD source files (RDEMARB.DAT)
  with time-varying data (NRDDAT)
              Default: 0    ! NRDDAT = 0 !

  Number of BUOYANT LINE source files (LNEMARB.DAT)
  with time-varying data (NLNDAT)
              Default: 0    ! NLNDAT = 0 !
  Note: Only 1 BUOYANT LINE source file is allowed
  -----

!END!

--------------
Subgroup (0a)
--------------
 Provide a name for each CALMET domain if NMETDOM > 1
 Enter NMETDOM lines.
              a,b
Default Name       Domain Name
------------       ------------
* DOMAINLIST = *


 The following CALMET.DAT filenames are processed in sequence
 if NMETDAT > 1

 Enter NMETDAT lines, 1 line for each file name.

              a,c,d
Default Name Type     File Name
------------ ----     ---------
 none     input  ! METDAT=..\CALMET_2013-01-01-01-0000-2013-02-16-00-0000.DAT   ! !END!
 none     input  ! METDAT=..\CALMET_2013-02-16-00-0000-2013-04-03-00-0000.DAT   ! !END!
 none     input  ! METDAT=..\CALMET_2013-04-03-00-0000-2013-05-18-00-0000.DAT   ! !END!
 none     input  ! METDAT=..\CALMET_2013-05-18-00-0000-2013-07-03-00-0000.DAT   ! !END!
 none     input  ! METDAT=..\CALMET_2013-07-03-00-0000-2013-08-17-00-0000.DAT   ! !END!
 none     input  ! METDAT=..\CALMET_2013-08-17-00-0000-2013-10-02-00-0000.DAT   ! !END!
 none     input  ! METDAT=..\CALMET_2013-10-02-00-0000-2013-11-16-00-0000.DAT   ! !END!
 none     input  ! METDAT=..\CALMET_2013-11-16-00-0000-2013-12-31-23-0000.DAT   ! !END!

--------------
  a
   The name for each CALMET domain and each CALMET.DAT file is treated
   as a separate input subgroup and therefore must end with an input
   group terminator.
  b
   Use DOMAIN1= to assign the name for the outermost CALMET domain.
   Use DOMAIN2= to assign the name for the next inner CALMET domain.
   Use DOMAIN3= to assign the name for the next inner CALMET domain, etc.
   ------------------------------------------------------------------
   |  When inner domains with equal resolution (grid-cell size)   |
   |  overlap, the data from the FIRST such domain in the list will |
   |  be used if all other criteria for choosing the controlling   |
   |  grid domain are inconclusive.                |
```

```
  ---------------------------------------------------------------------
 c
  Use METDAT1= to assign the file names for the outermost CALMET domain.
  Use METDAT2= to assign the file names for the next inner CALMET domain.
  Use METDAT3= to assign the file names for the next inner CALMET domain, etc.
 d
  The filenames for each domain must be provided in sequential order


-------------
Subgroup (0b) – PTEMARB.DAT files
-------------

 POINT Source File Names
 The following PTEMARB.DAT filenames are processed if NPTDAT>0
 A total of NPTDAT lines is expected with one file name assigned per line
 Each line is treated as an input group and must terminate with END
 (surrounded by delimiters)
 (Each file contains emissions parameters for the entire period modeled
  for 1 or more sources)

Default Name Type     File Name
------------ ----     ---------
* PTDATLIST = *


-------------
Subgroup (0c) – BAEMARB.DAT files
-------------

 BUOYANT AREA Source File Names
 The following BAEMARB.DAT filenames are processed if NARDAT>0
 A total of NARDAT lines is expected with one file name assigned per line
 Each line is treated as an input group and must terminate with END
 (surrounded by delimiters)
 (Each file contains emissions parameters for the entire period modeled
  for 1 or more sources)

Default Name Type     File Name
------------ ----     ---------
* ARDATLIST = *


-------------
Subgroup (0d) – VOLEMARB.DAT files
-------------

 VOLUME Source File Names
 The following VOLEMARB.DAT filenames are processed if NVOLDAT>0
 A total of NVOLDAT lines is expected with one file name assigned per line
 Each line is treated as an input group and must terminate with END
 (surrounded by delimiters)
 (Each file contains emissions parameters for the entire period modeled
  for 1 or more sources)

Default Name Type     File Name
------------ ----     ---------
* VOLDATLIST = *

-------------
Subgroup (0e) – FLEMARB.DAT files
-------------

 FLARE Source File Names
 The following FLEMARB.DAT filenames are processed if NFLDAT>0
 A total of NFLDAT lines is expected with one file name assigned per line
 Each line is treated as an input group and must terminate with END
 (surrounded by delimiters)
 (Each file contains emissions parameters for the entire period modeled
  for 1 or more sources)
```

```
Default Name Type     File Name
------------ ----     ---------
* FLEMARBLIST = *


-------------
Subgroup (0f) – RDEMARB.DAT files
-------------

 ROAD Source File Names
 The following RDEMARB.DAT filenames are processed if NRDDAT>0
 A total of NRDDAT lines is expected with one file name assigned per line
 Each line is treated as an input group and must terminate with END
 (surrounded by delimiters)
 (Each file contains emissions parameters for the entire period modeled
  for 1 or more sources)

Default Name Type     File Name
------------ ----     ---------
* RDEMARBLIST = *


-------------
Subgroup (0g) – LNEMARB.DAT file
-------------

 BUOYANT LINE Source File Name (not more than 1)
 The following LNEMARB.DAT filename is processed if NLNDAT>0
 The assignment is treated as an input group and must terminate with END
 (surrounded by delimiters)

Default Name Type     File Name
------------ ----     ---------
* LNEMARBLIST = *

-------------------------------------------------------------------------------

INPUT GROUP: 1 -- General run control parameters
--------------

  Option to run all periods found
  in the met. file   (METRUN)  Default: 0    ! METRUN = 0 !

    METRUN = 0 - Run period explicitly defined below
    METRUN = 1 - Run all periods in met. file

   Starting date:  Year  (IBYR) --  No default  ! IBYR = 2013 !
          Month (IBMO) --  No default  ! IBMO = 10 !
          Day  (IBDY) --  No default  ! IBDY = 22 !
   Starting time:  Hour  (IBHR) --  No default  ! IBHR = 0 !
          Minute (IBMIN) --  No default  ! IBMIN = 0 !
          Second (IBSEC) --  No default  ! IBSEC = 0 !

   Ending date:   Year  (IEYR) --  No default  ! IEYR = 2013 !
          Month (IEMO) --  No default  ! IEMO = 11 !
          Day  (IEDY) --  No default  ! IEDY = 1 !
   Ending time:   Hour  (IEHR) --  No default  ! IEHR = 6 !
          Minute (IEMIN) --  No default  ! IEMIN = 0 !
          Second (IESEC) --  No default  ! IESEC = 0 !

   (These are only used if METRUN = 0)

   Base time zone:     (ABTZ) --  No default  ! ABTZ = UTC+1000 !
   (character*8)
   The Modeling domain may span multiple time zones. ABTZ defines the
   base time zone used for the entire simulation. This must match the
   base time zone of the meteorological data.
   Examples:
     Greenwich Mean Time (GMT) = UTC+0000
     EST          = UTC-0500
     CST          = UTC-0600
```

MST = UTC-0700
PST = UTC-0800
Los Angeles, USA = UTC-0800
New York, USA = UTC-0500
Santiago, Chile = UTC-0400
UK = UTC+0000
Western Europe = UTC+0100
Rome, Italy = UTC+0100
Cape Town, S.Africa = UTC+0200
Sydney, Australia = UTC+1000

Length of modelling time-step (seconds)
Equal to update period in the primary
meteorological data files, or an
integer fraction of it (1/2, 1/3 ...)
Must be no larger than 1 hour
(NSECDT) Default:3600 ! NSECDT = 3600 !
Units: seconds

Number of chemical species (NSPEC)
Default: 5 ! NSPEC = 6 !

Number of chemical species
to be emitted (NSE) Default: 3 ! NSE = 6 !

Flag to stop run after
SETUP phase (ITEST) Default: 2 ! ITEST = 2 !
(Used to allow checking
of the model inputs, files, etc.)
ITEST = 1 - STOPS program after SETUP phase
ITEST = 2 - Continues with execution of program
after SETUP

Restart Configuration:

Control flag (MRESTART) Default: 0 ! MRESTART = 0 !

0 = Do not read or write a restart file
1 = Read a restart file at the beginning of
the run
2 = Write a restart file during run
3 = Read a restart file at beginning of run
and write a restart file during run

Number of periods in Restart
output cycle (NRESPD) Default: 0 ! NRESPD = 0 !

0 = File written only at last period
>0 = File updated every NRESPD periods

Meteorological Data Format (METFM)
Default: 1 ! METFM = 1 !

METFM = 1 - CALMET binary file (CALMET.MET)
METFM = 2 - ISC ASCII file (ISCMET.MET)
METFM = 3 - AUSPLUME ASCII file (PLMMET.MET)
METFM = 4 - CTDM plus tower file (PROFILE.DAT) and
surface parameters file (SURFACE.DAT)
METFM = 5 - AERMET tower file (PROFILE.DAT) and
surface parameters file (SURFACE.DAT)

Meteorological Profile Data Format (MPRFFM)
(used only for METFM = 1, 2, 3)
Default: 1 ! MPRFFM = 1 !

MPRFFM = 1 - CTDM plus tower file (PROFILE.DAT)
MPRFFM = 2 - AERMET tower file (PROFILE.DAT)

Sigma-y is adjusted by the factor (AVET/PGTIME)**0.2 to either
decrease it if the averaging time selected is less than the base
averaging time or increase it if the averaging time is greater.

The base averaging time is denoted as PGTIME due to historical reasons as this adjustment was originally applied to the PG sigma option. It is now applied to all dispersion options.
The factor is applied to the ambient turbulence sigma-v (m/s) and does not alter buoyancy enhancement or far-field Heffter growth.

Averaging Time (minutes) (AVET)
Default: 60.0 ! AVET = 60 !
Base Averaging Time (minutes) (PGTIME)
Default: 60.0 ! PGTIME = 60 !

Output units for binary concentration and flux files
written in Dataset v2.2 or later formats
(IOUTU) Default: 1 ! IOUTU = 1 !
1 = mass - g/m3 (conc) or g/m2/s (dep)
2 = odour - odour_units (conc)
3 = radiation - Bq/m3 (conc) or Bq/m2/s (dep)

!END!

INPUT GROUP: 2 -- Technical options

Vertical distribution used in the
near field (MGAUSS) Default: 1 ! MGAUSS = 1 !
0 = uniform
1 = Gaussian

Terrain adjustment method
(MCTADJ) Default: 3 ! MCTADJ = 3 !
0 = no adjustment
1 = ISC-type of terrain adjustment
2 = simple, CALPUFF-type of terrain
adjustment
3 = partial plume path adjustment

Subgrid-scale complex terrain
flag (MCTSG) Default: 0 ! MCTSG = 0 !
0 = not modeled
1 = modeled

Near-field puffs modeled as
elongated slugs? (MSLUG) Default: 0 ! MSLUG = 0 !
0 = no
1 = yes (slug model used)

Transitional plume rise modeled?
(MTRANS) Default: 1 ! MTRANS = 1 !
0 = no (i.e., final rise only)
1 = yes (i.e., transitional rise computed)

Stack tip downwash? (MTIP) Default: 1 ! MTIP = 1 !
0 = no (i.e., no stack tip downwash)
1 = yes (i.e., use stack tip downwash)

Method used to compute plume rise for
point sources not subject to building
downwash? (MRISE) Default: 1 ! MRISE = 1 !
1 = Briggs plume rise
2 = Numerical plume rise

Apply stack-tip downwash to FLARE sources?
(MTIP_FL) Default: 0 ! MTIP_FL = 0 !
0 = no (no stack-tip downwash)
1 = yes (apply stack-tip downwash)

Plume rise module for FLARE sources

(MRISE_FL) Default: 2 ! MRISE_FL = 2 !
1 = Briggs module
2 = Numerical rise module

Method used to simulate building
downwash? (MBDW) Default: 1 ! MBDW = 1 !
1 = ISC method
2 = PRIME method

Vertical wind shear modeled above
stack top? (MSHEAR) Default: 0 ! MSHEAR = 0 !
0 = no (i.e., vertical wind shear not modeled)
1 = yes (i.e., vertical wind shear modeled)

Puff splitting allowed? (MSPLIT) Default: 0 ! MSPLIT = 0 !
0 = no (i.e., puffs not split)
1 = yes (i.e., puffs are split)

Chemical mechanism flag (MCHEM) Default: 1 ! MCHEM = 0 !
0 = chemical transformation not
modeled
1 = transformation rates computed
internally (MESOPUFF II scheme)
2 = user-specified transformation
rates used
3 = transformation rates computed
internally (RIVAD/ARM3 scheme)
4 = secondary organic aerosol formation
computed (MESOPUFF II scheme for OH)
5 = user-specified half-life with or
without transfer to child species
6 = transformation rates computed
internally (Updated RIVAD scheme with
ISORROPIA equilibrium)
7 = transformation rates computed
internally (Updated RIVAD scheme with
ISORROPIA equilibrium and CalTech SOA)

Aqueous phase transformation flag (MAQCHEM)
(Used only if MCHEM = 6, or 7) Default: 0 ! MAQCHEM = 0 !
0 = aqueous phase transformation
not modeled
1 = transformation rates and wet
scavenging coefficients adjusted
for in-cloud aqueous phase reactions
(adapted from RADM cloud model
implementation in CMAQ/SCICHEM)

Liquid Water Content flag (MLWC)
(Used only if MAQCHEM = 1) Default: 1 ! MLWC = 1 !
0 = water content estimated from cloud cover
and presence of precipitation
1 = gridded cloud water data read from CALMET
water content output files (filenames are
the CALMET.DAT names PLUS the extension
AUXEXT provided in Input Group 0)

Wet removal modeled ? (MWET) Default: 1 ! MWET = 1 !
0 = no
1 = yes

Dry deposition modeled ? (MDRY) Default: 1 ! MDRY = 1 !
0 = no
1 = yes
(dry deposition method specified
for each species in Input Group 3)

Gravitational settling (plume tilt)
modeled ? (MTILT) Default: 0 ! MTILT = 0 !
0 = no

1 = yes
(puff center falls at the gravitational
settling velocity for 1 particle species)

Restrictions:
- MDRY = 1
- NSPEC = 1 (must be particle species as well)
- sg = 0 GEOMETRIC STANDARD DEVIATION in Group 8 is
  set to zero for a single particle diameter

Method used to compute dispersion
coefficients (MDISP) Default: 3 ! MDISP = 2 !

1 = dispersion coefficients computed from measured values
of turbulence, sigma v, sigma w
2 = dispersion coefficients from internally calculated
sigma v, sigma w using micrometeorological variables
(u*, w*, L, etc.)
3 = PG dispersion coefficients for RURAL areas (computed using
the ISCST multi-segment approximation) and MP coefficients in
urban areas
4 = same as 3 except PG coefficients computed using
the MESOPUFF II eqns.
5 = CTDM sigmas used for stable and neutral conditions.
For unstable conditions, sigmas are computed as in
MDISP = 3, described above. MDISP = 5 assumes that
measured values are read

Sigma-v/sigma-theta, sigma-w measurements used? (MTURBVW)
(Used only if MDISP = 1 or 5) Default: 3 ! MTURBVW = 3 !
1 = use sigma-v or sigma-theta measurements
from PROFILE.DAT to compute sigma-y
(valid for METFM = 1, 2, 3, 4, 5)
2 = use sigma-w measurements
from PROFILE.DAT to compute sigma-z
(valid for METFM = 1, 2, 3, 4, 5)
3 = use both sigma-(v/theta) and sigma-w
from PROFILE.DAT to compute sigma-y and sigma-z
(valid for METFM = 1, 2, 3, 4, 5)
4 = use sigma-theta measurements
from PLMMET.DAT to compute sigma-y
(valid only if METFM = 3)

Back-up method used to compute dispersion
when measured turbulence data are
missing (MDISP2) Default: 3 ! MDISP2 = 3 !
(used only if MDISP = 1 or 5)
2 = dispersion coefficients from internally calculated
sigma v, sigma w using micrometeorological variables
(u*, w*, L, etc.)
3 = PG dispersion coefficients for RURAL areas (computed using
the ISCST multi-segment approximation) and MP coefficients in
urban areas
4 = same as 3 except PG coefficients computed using
the MESOPUFF II eqns.

[DIAGNOSTIC FEATURE]
Method used for Lagrangian timescale for Sigma-y
(used only if MDISP=1,2 or MDISP2=1,2)
(MTAULY) Default: 0 ! MTAULY = 0 !
0 = Draxler default 617.284 (s)
1 = Computed as Lag. Length / (.75 q) -- after SCIPUFF
10 <Direct user input (s) -- e.g., 306.9

[DIAGNOSTIC FEATURE]
Method used for Advective-Decay timescale for Turbulence
(used only if MDISP=2 or MDISP2=2)
(MTAUADV) Default: 0 ! MTAUADV = 0 !
0 = No turbulence advection
1 = Computed (OPTION NOT IMPLEMENTED)

10 <Direct user input (s) -- e.g., 800

Method used to compute turbulence sigma-v &
sigma-w using micrometeorological variables
(Used only if MDISP = 2 or MDISP2 = 2)
(MCTURB) Default: 1 ! MCTURB = 1 !
1 = Standard CALPUFF subroutines
2 = AERMOD subroutines

PG sigma-y,z adj. for roughness? Default: 0 ! MROUGH = 0 !
(MROUGH)
0 = no
1 = yes

Partial plume penetration of Default: 1 ! MPARTL = 1 !
elevated inversion modeled for
point sources?
(MPARTL)
0 = no
1 = yes

Partial plume penetration of Default: 1 ! MPARTLBA = 0 !
elevated inversion modeled for
buoyant area sources?
(MPARTLBA)
0 = no
1 = yes

Strength of temperature inversion Default: 0 ! MTINV = 0 !
provided in PROFILE.DAT extended records?
(MTINV)
0 = no (computed from measured/default gradients)
1 = yes

PDF used for dispersion under convective conditions?
Default: 0 ! MPDF = 1 !
(MPDF)
0 = no
1 = yes

Sub-Grid TIBL module used for shore line?
Default: 0 ! MSGTIBL = 0 !
(MSGTIBL)
0 = no
1 = yes

Boundary conditions (concentration) modeled?
Default: 0 ! MBCON = 0 !
(MBCON)
0 = no
1 = yes, using formatted BCON.DAT file
2 = yes, using unformatted CONC.DAT file

Note: MBCON > 0 requires that the last species modeled
be 'BCON'. Mass is placed in species BCON when
generating boundary condition puffs so that clean
air entering the modelling domain can be simulated
in the same way as polluted air. Specify zero
emission of species BCON for all regular sources.

Individual source contributions saved?
Default: 0 ! MSOURCE = 0 !
(MSOURCE)
0 = no
1 = yes

Analyses of fogging and icing impacts due to emissions from
arrays of mechanically-forced cooling towers can be performed
using CALPUFF in conjunction with a cooling tower emissions

processor (CTEMISS) and its associated postprocessors. Hourly emissions of water vapor and temperature from each cooling tower cell are computed for the current cell configuration and ambient conditions by CTEMISS. CALPUFF models the dispersion of these emissions and provides cloud information in a specialized format for further analysis. Output to FOG.DAT is provided in either 'plume mode' or 'receptor mode' format.

Configure for FOG Model output?
Default: 0 ! MFOG = 0 !
(MFOG)
0 = no
1 = yes - report results in PLUME Mode format
2 = yes - report results in RECEPTOR Mode format

Test options specified to see if
they conform to regulatory
values? (MREG) Default: 1 ! MREG = 0 !

0 = NO checks are made
1 = Technical options must conform to USEPA
Long Range Transport (LRT) guidance
METFM 1 or 2
AVET 60. (min)
PGTIME 60. (min)
MGAUSS 1
MCTADJ 3
MTRANS 1
MTIP 1
MRISE 1
MCHEM 1 or 3 (if modeling SOx, NOx)
MWET 1
MDRY 1
MDISP 2 or 3
MPDF 0 if MDISP=3
1 if MDISP=2
MROUGH 0
MPARTL 1
MPARTLBA 0
SYTDEP 550. (m)
MHFTSZ 0
SVMIN 0.5 (m/s)

!END!

INPUT GROUP: 3a, 3b -- Species list

Subgroup (3a)

The following species are modeled:

! CSPEC = TSP ! !END!
! CSPEC = NOX ! !END!
! CSPEC = PM10 ! !END!
! CSPEC = PM2.5 ! !END!
! CSPEC = CO ! !END!
! CSPEC = TVOC ! !END!

Dry OUTPUT GROUP
SPECIES MODELED EMITTED DEPOSITED NUMBER
NAME (0=NO, 1=YES) (0=NO, 1=YES) (0=NO, (0=NONE,
(Limit: 12 1=COMPUTED-GAS 1=1st CGRUP,

```
 Characters                  2=COMPUTED-PARTICLE  2=2nd CGRUP,
 in length)                 3=USER-SPECIFIED)   3= etc.)

!    TSP =     1,       1,      2,        0  !
!    NOX =     1,       1,      1,        0  !
!    PM10 =    1,       1,      2,        0  !
!   PM2.5 =    1,       1,      2,        0  !
!     CO =    1,       1,      1,        0  !
!    TVOC =    1,       1,      1,        0  !


!END!

 Note: The last species in (3a) must be 'BCON' when using the
    boundary condition option (MBCON > 0). Species BCON should
    typically be modeled as inert (no chem transformation or
    removal).


-------------
Subgroup (3b)
-------------
 The following names are used for Species-Groups in which results
 for certain species are combined (added) prior to output. The
 CGRUP name will be used as the species name in output files.
 Use this feature to model specific particle-size distributions
 by treating each size-range as a separate species.
 Order must be consistent with 3(a) above.



-------------------------------------------------------------------------------


INPUT GROUP: 4 -- Map Projection and Grid control parameters
--------------

   Projection for all (X,Y):
   -------------------------

   Map projection
   (PMAP)          Default: UTM  ! PMAP = UTM !

     UTM : Universal Transverse Mercator
     TTM : Tangential Transverse Mercator
     LCC : Lambert Conformal Conic
     PS : Polar Stereographic
     EM : Equatorial Mercator
    LAZA : Lambert Azimuthal Equal Area

   False Easting and Northing (km) at the projection origin
   (Used only if PMAP= TTM, LCC, or LAZA)
   (FEAST)         Default=0.0   ! FEAST = 0.0 !
   (FNORTH)         Default=0.0   ! FNORTH = 0.0 !

   UTM zone (1 to 60)
   (Used only if PMAP=UTM)
   (IUTMZN)         No Default   ! IUTMZN = 56 !

   Hemisphere for UTM projection?
   (Used only if PMAP=UTM)
   (UTMHEM)         Default: N   ! UTMHEM = S !
     N  : Northern hemisphere projection
     S  : Southern hemisphere projection

   Latitude and Longitude (decimal degrees) of projection origin
   (Used only if PMAP= TTM, LCC, PS, EM, or LAZA)
   (RLAT0)         No Default   ! RLAT0 = 0.00N !
   (RLON0)         No Default   ! RLON0 = 0.00E !

     TTM : RLON0 identifies central (true N/S) meridian of projection
```

```
      RLAT0 selected for convenience
    LCC : RLON0 identifies central (true N/S) meridian of projection
      RLAT0 selected for convenience
    PS : RLON0 identifies central (grid N/S) meridian of projection
      RLAT0 selected for convenience
    EM : RLON0 identifies central meridian of projection
      RLAT0 is REPLACED by 0.0N (Equator)
    LAZA: RLON0 identifies longitude of tangent-point of mapping plane
      RLAT0 identifies latitude of tangent-point of mapping plane

  Matching parallel(s) of latitude (decimal degrees) for projection
  (Used only if PMAP= LCC or PS)
  (XLAT1)         No Default   ! XLAT1 = 30S !
  (XLAT2)         No Default   ! XLAT2 = 60S !

    LCC : Projection cone slices through Earth's surface at XLAT1 and XLAT2
    PS : Projection plane slices through Earth at XLAT1
      (XLAT2 is not used)

  ----------
  Note: Latitudes and longitudes should be positive, and include a
     letter N,S,E, or W indicating north or south latitude, and
     east or west longitude. For example,
     35.9 N Latitude = 35.9N
     118.7 E Longitude = 118.7E


  Datum-region
  ------------

  The Datum-Region for the coordinates is identified by a character
  string. Many mapping products currently available use the model of the
  Earth known as the World Geodetic System 1984 (WGS-84). Other local
  models may be in use, and their selection in CALMET will make its output
  consistent with local mapping products. The list of Datum-Regions with
  official transformation parameters is provided by the National Imagery and
  Mapping Agency (NIMA).

  NIMA Datum - Regions(Examples)
  ------------------------------------------------------------------------------
  WGS-84  WGS-84 Reference Ellipsoid and Geoid, Global coverage (WGS84)
  NAS-C   NORTH AMERICAN 1927 Clarke 1866 Spheroid, MEAN FOR CONUS (NAD27)
  NAR-C   NORTH AMERICAN 1983 GRS 80 Spheroid, MEAN FOR CONUS (NAD83)
  NWS-84  NWS 6370KM Radius, Sphere
  ESR-S   ESRI REFERENCE 6371KM Radius, Sphere

  Datum-region for output coordinates
  (DATUM)         Default: WGS-84   ! DATUM = WGS-84 !


METEOROLOGICAL Grid (outermost if nested CALMET grids are used):

  Rectangular grid defined for projection PMAP,
  with X the Easting and Y the Northing coordinate

    No. X grid cells (NX)   No default   ! NX = 300 !
    No. Y grid cells (NY)   No default   ! NY = 200 !
   No. vertical layers (NZ)   No default   ! NZ = 10 !

    Grid spacing (DGRIDKM)   No default   ! DGRIDKM = 0.2 !
              Units: km

      Cell face heights
        (ZFACE(nz+1))   No defaults
              Units: m
 ! ZFACE = 0.0, 20.0, 40.0, 80.0, 160.0, 320.0, 640.0, 1200.0, 2000.0, 3000.0, 4000.0 !

    Reference Coordinates
    of SOUTHWEST corner of
      grid cell(1, 1):
```

```
    X coordinate (XORIGKM)   No default   ! XORIGKM = 402.1510 !
    Y coordinate (YORIGKM)   No default   ! YORIGKM = 6930.5310 !
              Units: km


COMPUTATIONAL Grid:

  The computational grid is identical to or a subset of the MET. grid.
  The lower left (LL) corner of the computational grid is at grid point
  (IBCOMP, JBCOMP) of the MET. grid. The upper right (UR) corner of the
  computational grid is at grid point (IECOMP, JECOMP) of the MET. grid.
  The grid spacing of the computational grid is the same as the MET. grid.

   X index of LL corner (IBCOMP)   No default   ! IBCOMP = 1 !
       (1 <= IBCOMP <= NX)

   Y index of LL corner (JBCOMP)   No default   ! JBCOMP = 1 !
       (1 <= JBCOMP <= NY)

   X index of UR corner (IECOMP)   No default   ! IECOMP = 300 !
       (1 <= IECOMP <= NX)

   Y index of UR corner (JECOMP)   No default   ! JECOMP = 200 !
       (1 <= JECOMP <= NY)

SAMPLING Grid (GRIDDED RECEPTORS):

  The lower left (LL) corner of the sampling grid is at grid point
  (IBSAMP, JBSAMP) of the MET. grid. The upper right (UR) corner of the
  sampling grid is at grid point (IESAMP, JESAMP) of the MET. grid.
  The sampling grid must be identical to or a subset of the computational
  grid. It may be a nested grid inside the computational grid.
  The grid spacing of the sampling grid is DGRIDKM/MESHDN.

   Logical flag indicating if gridded
   receptors are used (LSAMP)     Default: T   ! LSAMP = F !
   (T=yes, F=no)

   X index of LL corner (IBSAMP)   No default   ! IBSAMP = 1 !
    (IBCOMP <= IBSAMP <= IECOMP)

   Y index of LL corner (JBSAMP)   No default   ! JBSAMP = 1 !
    (JBCOMP <= JBSAMP <= JECOMP)


   X index of UR corner (IESAMP)   No default   ! IESAMP = 2 !
    (IBCOMP <= IESAMP <= IECOMP)

   Y index of UR corner (JESAMP)   No default   ! JESAMP = 2 !
    (JBCOMP <= JESAMP <= JECOMP)


   Nesting factor of the sampling
   grid (MESHDN)          Default: 1   ! MESHDN = 1 !
   (MESHDN is an integer >= 1)

!END!


-------------------------------------------------------------------------------


INPUT GROUP: 5 -- Output Options
--------------
                    *            *
  FILE           DEFAULT VALUE       VALUE THIS RUN
  ----           -------------       --------------

 Concentrations (ICON)       1          ! ICON = 1 !
 Dry Fluxes (IDRY)         1          ! IDRY = 1 !
 Wet Fluxes (IWET)         1          ! IWET = 1 !
```

2D Temperature (IT2D) 0 ! IT2D = 0 !
2D Density (IRHO) 0 ! IRHO = 0 !
Relative Humidity (IVIS) 1 ! IVIS = 0 !
(relative humidity file is
 required for visibility
 analysis)
Use data compression option in output file?
(LCOMPRS) Default: T ! LCOMPRS = T !

*
0 = Do not create file, 1 = create file

QA PLOT FILE OUTPUT OPTION:

Create a standard series of output files (e.g.
locations of sources, receptors, grids ...)
suitable for plotting?
(IQAPLOT) Default: 1 ! IQAPLOT = 1 !
 0 = no
 1 = yes

DIAGNOSTIC PUFF-TRACKING OUTPUT OPTION:

Puff locations and properties reported to
PFTRAK.DAT file for postprocessing?
(IPFTRAK) Default: 0 ! IPFTRAK = 0 !
 0 = no
 1 = yes, update puff output at end of each timestep
 2 = yes, update puff output at end of each sampling step

DIAGNOSTIC MASS FLUX OUTPUT OPTIONS:

Mass flux across specified boundaries
for selected species reported?
(IMFLX) Default: 0 ! IMFLX = 0 !
 0 = no
 1 = yes (FLUXBDY.DAT and MASSFLX.DAT filenames
    are specified in Input Group 0)

Mass balance for each species
reported?
(IMBAL) Default: 0 ! IMBAL = 0 !
 0 = no
 1 = yes (MASSBAL.DAT filename is
   specified in Input Group 0)

NUMERICAL RISE OUTPUT OPTION:

Create a file with plume properties for each rise
increment, for each model timestep?
This applies to sources modeled with numerical rise
and is limited to ONE source in the run.
(INRISE) Default: 0 ! INRISE = 0 !
 0 = no
 1 = yes (RISE.DAT filename is
    specified in Input Group 0)

LINE PRINTER OUTPUT OPTIONS:

Print concentrations (ICPRT) Default: 0 ! ICPRT = 0 !
Print dry fluxes (IDPRT) Default: 0 ! IDPRT = 0 !
Print wet fluxes (IWPRT) Default: 0 ! IWPRT = 0 !
(0 = Do not print, 1 = Print)

Concentration print interval
(ICFRQ) in timesteps Default: 1 ! ICFRQ = 1 !
Dry flux print interval
(IDFRQ) in timesteps Default: 1 ! IDFRQ = 1 !

```
   Wet flux print interval
   (IWFRQ) in timesteps      Default: 1     ! IWFRQ = 1 !

   Units for Line Printer Output
   (IPRTU)            Default: 1     ! IPRTU = 3 !
          for      for
        Concentration  Deposition
    1 =    g/m**3     g/m**2/s
    2 =   mg/m**3    mg/m**2/s
    3 =   ug/m**3    ug/m**2/s
    4 =   ng/m**3    ng/m**2/s
    5 =   Odour Units
    6 =   TBq/m**3    TBq/m**2/s  TBq=terabecquerel
    7 =   GBq/m**3    GBq/m**2/s  GBq=gigabecquerel
    8 =    Bq/m**3    Bq/m**2/s  Bq=becquerel (disintegrations/s)

   Messages tracking progress of run
   written to the screen ?
   (IMESG)            Default: 2     ! IMESG = 2 !
    0 = no
    1 = yes (advection step, puff ID)
    2 = yes (YYYYJJJHH, # old puffs, # emitted puffs)


   SPECIES (or GROUP for combined species) LIST FOR OUTPUT OPTIONS

        ---- CONCENTRATIONS ----  ------ DRY FLUXES ------  ------ WET FLUXES ------  -- MASS FLUX --
  SPECIES
  /GROUP    PRINTED? SAVED ON DISK?  PRINTED? SAVED ON DISK?  PRINTED? SAVED ON DISK?  SAVED ON
DISK?
  -------    ------------------------  ------------------------  ------------------------  ---------------
!    PM10 =   1,      1,      1,      1,      1,      1,      0  !
!   PM2.5 =   1,      1,      1,      1,      1,      1,      0  !
!    NOX =   1,      1,      1,      1,      1,      1,      0  !
!     CO =   1,      1,      1,      1,      1,      1,      0  !
!    TSP =   1,      1,      1,      1,      1,      1,      0  !
!    TVOC =   1,      1,      1,      1,      1,      1,      0  !


 Note: Species BCON (for MBCON > 0) does not need to be saved on disk.


   OPTIONS FOR PRINTING "DEBUG" QUANTITIES (much output)

   Logical for debug output
   (LDEBUG)                Default: F    ! LDEBUG = F !

   First puff to track
   (IPFDEB)                Default: 1    ! IPFDEB = 1 !

   Number of puffs to track
   (NPFDEB)                Default: 1    ! NPFDEB = 1000 !

   Met. period to start output
   (NN1)                   Default: 1    ! NN1 = 1 !

   Met. period to end output
   (NN2)                   Default: 10   ! NN2 = 10 !

!END!


-------------------------------------------------------------------------------


INPUT GROUP: 6a, 6b, & 6c -- Subgrid scale complex terrain inputs
-------------------------

---------------
Subgroup (6a)
---------------
```

```
   Number of terrain features (NHILL)    Default: 0   ! NHILL = 0 !

   Number of special complex terrain
   receptors (NCTREC)          Default: 0   ! NCTREC = 0 !

   Terrain and CTSG Receptor data for
   CTSG hills input in CTDM format ?
   (MHILL)                No Default   ! MHILL = 2 !
   1 = Hill and Receptor data created
     by CTDM processors & read from
     HILL.DAT and HILLRCT.DAT files
   2 = Hill data created by OPTHILL &
     input below in Subgroup (6b);
     Receptor data in Subgroup (6c)

   Factor to convert horizontal dimensions Default: 1.0  ! XHILL2M = 1.0 !
   to meters (MHILL=1)

   Factor to convert vertical dimensions  Default: 1.0  ! ZHILL2M = 1.0 !
   to meters (MHILL=1)

   X-origin of CTDM system relative to   No Default   ! XCTDMKM = 0.0 !
   CALPUFF coordinate system, in Kilometers (MHILL=1)

   Y-origin of CTDM system relative to   No Default   ! YCTDMKM = 0.0 !
   CALPUFF coordinate system, in Kilometers (MHILL=1)

! END !

----------------
Subgroup (6b)
----------------

         1 **
  HILL information


HILL      XC    YC    THETAH ZGRID RELIEF  EXPO 1  EXPO 2  SCALE 1  SCALE 2  AMAX1   AMAX2
 NO.     (km)  (km)  (deg.) (m)   (m)   (m)    (m)    (m)    (m)    (m)    (m)
----     ----  ----  ------ ----- ------ ------ ------ ------- ------- ----- -----


----------------
Subgroup (6c)
----------------

  COMPLEX TERRAIN RECEPTOR INFORMATION

         XRCT     YRCT    ZRCT     XHH
         (km)     (km)     (m)
         ------   -----   ------    ----


--------------------
1
  Description of Complex Terrain Variables:
    XC, YC = Coordinates of center of hill
    THETAH = Orientation of major axis of hill (clockwise from
        North)
    ZGRID  = Height of the 0 of the grid above mean sea
        level
    RELIEF = Height of the crest of the hill above the grid elevation
    EXPO 1 = Hill-shape exponent for the major axis
    EXPO 2 = Hill-shape exponent for the major axis
    SCALE 1 = Horizontal length scale along the major axis
    SCALE 2 = Horizontal length scale along the minor axis
    AMAX  = Maximum allowed axis length for the major axis
    BMAX  = Maximum allowed axis length for the major axis

    XRCT, YRCT = Coordinates of the complex terrain receptors
    ZRCT  = Height of the ground (MSL) at the complex terrain
```

```
        Receptor
    XHH   = Hill number associated with each complex terrain receptor
        (NOTE: MUST BE ENTERED AS A REAL NUMBER)

  **
  NOTE: DATA for each hill and CTSG receptor are treated as a separate
     input subgroup and therefore must end with an input group terminator.

-------------------------------------------------------------------------------


INPUT GROUP: 7 -- Chemical parameters for dry deposition of gases
--------------

   SPECIES   DIFFUSIVITY   ALPHA STAR   REACTIVITY  MESOPHYLL RESISTANCE   HENRY'S LAW
COEFFICIENT
    NAME    (cm**2/s)                    (s/cm)       (dimensionless)
   -------   -----------   ----------   ----------  --------------------   ------------------------
!      CO =   0.186,       1,       2,        61,          44 !
!     NOX =   0.1656,       1,       8,         5,          3.5 !
!     TVOC =   0.1509,       1,       8,         0,          0.04 !


!END!


-------------------------------------------------------------------------------


INPUT GROUP: 8 -- Size parameters for dry deposition of particles
--------------

   For SINGLE SPECIES, the mean and standard deviation are used to
   compute a deposition velocity for NINT (refer group 9) size-ranges,
   and these are then averaged to obtain a mean deposition velocity.

   For GROUPED SPECIES, the size distribution should be explicitly
   specified (by the 'species' in the group), and the standard deviation
   for each should be entered as 0. The model will then use the
   deposition velocity for the stated mean diameter.

   SPECIES   GEOMETRIC MASS MEAN    GEOMETRIC STANDARD
    NAME       DIAMETER          DEVIATION
           (microns)        (microns)
   -------   -------------------    -------------------
!     PM10 =     0.48,           2  !
!    PM2.5 =     0.48,           1.5  !
!     TSP =     0.48,           2  !

!END!


-------------------------------------------------------------------------------


INPUT GROUP: 9 -- Miscellaneous dry deposition parameters
--------------

   Reference cuticle resistance (s/cm)
   (RCUTR)             Default: 30  ! RCUTR = 30 !
   Reference ground resistance (s/cm)
   (RGR)               Default: 10  ! RGR = 10 !
   Reference pollutant reactivity
   (REACTR)            Default: 8   ! REACTR = 8 !

   Number of particle-size intervals used to
   evaluate effective particle deposition velocity
   (NINT)              Default: 9   ! NINT = 9 !

   Vegetation state in unirrigated areas
   (IVEG)              Default: 1   ! IVEG = 1 !
```

```
   IVEG=1 for active and unstressed vegetation
   IVEG=2 for active and stressed vegetation
   IVEG=3 for inactive vegetation

!END!


-----------------------------------------------------------------------------


INPUT GROUP: 10 -- Wet Deposition Parameters
---------------


          Scavenging Coefficient -- Units: (sec)**(-1)

   Pollutant   Liquid Precip.    Frozen Precip.
   ---------   --------------    --------------
!    NOX =     0.00E00,       0.00E00 !
!    PM10 =    1.00E-04,      3.00E-05 !
!   PM2.5 =    1.00E-04,      3.00E-05 !
!    TSP =    1.00E-04,      3.00E-05 !

!END!


-----------------------------------------------------------------------------


INPUT GROUP: 11a, 11b -- Chemistry Parameters
---------------------

---------------
Subgroup (11a)
---------------

  Several parameters are needed for one or more of the chemical transformation
  mechanisms. Those used for each mechanism are:
                          S
                M         B R O
                A B R R R   C H 4 B    N
              B   V C N N N M K - - C O   D
              C M G K I I I H H I I K F V E
            M K N N N T T T 2 2 S S P R C C
            O O H H H E E E O O R R M A N A
  Mechanism (MCHEM)    Z 3 3 3 3 1 2 3 2 2 P P F C X Y
  --------------------  ------------------------------------------------
  0 None          . . . . . . . . . . . . . . . .
  1 MESOPUFF II      X X . . X X X X . . . . . . . .
  2 User Rates       . . . . . . . . . . . . . . . .
  3 RIVAD         X X . . X . . . . . . . . . . .
  4 SOA          X X . . . . . . . . . . X X X .
  5 Radioactive Decay   . . . . . . . . . . . . . . . X
  6 RIVAD/ISORRPIA     X X X X X X . . X X X X . . . .
  7 RIVAD/ISORRPIA/SOA   X X X X X X . . X X X X X X . .


  Ozone data input option (MOZ)   Default: 1      ! MOZ = 1 !
  (Used only if MCHEM = 1,3,4,6 or 7)
   0 = use a monthly background ozone value
   1 = read hourly ozone concentrations from
     the OZONE.DAT data file

  Monthly ozone concentrations in ppb (BCKO3)
  (Used only if MCHEM = 1,3,4,6, or 7 and either
   MOZ = 0, or
   MOZ = 1 and all hourly O3 data missing)
                Default: 12*80.
  ! BCKO3 = 80.00, 80.00, 80.00, 80.00, 80.00, 80.00, 80.00, 80.00, 80.00, 80.00, 80.00, 80.00 !

  Ammonia data option (MNH3)    Default: 0      ! MNH3 = 0 !
```

```
  (Used only if MCHEM = 6 or 7)
   0 = use monthly background ammonia values (BCKNH3) - no vertical variation
   1 = read monthly background ammonia values for each layer from
     the NH3Z.DAT data file

  Ammonia vertical averaging option (MAVGNH3)
  (Used only if MCHEM = 6 or 7, and MNH3 = 1)
   0 = use NH3 at puff center height (no averaging is done)
   1 = average NH3 values over vertical extent of puff
                Default: 1      ! MAVGNH3 = 1 !

  Monthly ammonia concentrations in ppb (BCKNH3)
  (Used only if MCHEM = 1 or 3, or
      if MCHEM = 6 or 7, and MNH3 = 0)
                Default: 12*10.
  ! BCKNH3 = 10.00, 10.00, 10.00, 10.00, 10.00, 10.00, 10.00, 10.00, 10.00, 10.00, 10.00, 10.00 !

  Nighttime SO2 loss rate in %/hour (RNITE1)
  (Used only if MCHEM = 1, 6 or 7)
  This rate is used only at night for MCHEM=1
  and is added to the computed rate both day
  and night for MCHEM=6,7 (heterogeneous reactions)
                Default: 0.2     ! RNITE1 = 0.2 !

  Nighttime NOx loss rate in %/hour (RNITE2)
  (Used only if MCHEM = 1)
                Default: 2.0     ! RNITE2 = 2 !

  Nighttime HNO3 formation rate in %/hour (RNITE3)
  (Used only if MCHEM = 1)
                Default: 2.0     ! RNITE3 = 2 !

  H2O2 data input option (MH2O2)  Default: 1      ! MH2O2 = 1 !
  (Used only if MCHEM = 6 or 7, and MAQCHEM = 1)
   0 = use a monthly background H2O2 value
   1 = read hourly H2O2 concentrations from
     the H2O2.DAT data file

  Monthly H2O2 concentrations in ppb (BCKH2O2)
  (Used only if MQACHEM = 1 and either
   MH2O2 = 0 or
   MH2O2 = 1 and all hourly H2O2 data missing)
                Default: 12*1.
  ! BCKH2O2 = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !

--- Data for ISORROPIA Option
  (used only if MCHEM = 6 or 7)

  Minimum relative humidity used in ISORROPIA computations (RH_ISRP)
                Default: 50.     ! RH_ISRP = 50.0 !
                Units: %

  Minimum SO4 used in ISORROPIA computations (SO4_ISRP)
                Default: 0.4     ! SO4_ISRP = 0.4 !
                Units: ug/m3

--- Data for SECONDARY ORGANIC AEROSOL (SOA) Options
  (used only if MCHEM = 4 or 7)

  The MCHEM = 4 SOA module uses monthly values of:
    Fine particulate concentration in ug/m^3 (BCKPMF)
    Organic fraction of fine particulate   (OFRAC)
    VOC / NOX ratio (after reaction)     (VCNX)

  The MCHEM = 7 SOA module uses monthly values of:
    Fine particulate concentration in ug/m^3 (BCKPMF)
    Organic fraction of fine particulate   (OFRAC)

  These characterize the air mass when computing
  the formation of SOA from VOC emissions.
  Typical values for several distinct air mass types are:
```

```
  Month  1  2  3  4  5  6  7  8  9  10  11  12
     Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

 Clean Continental
  BCKPMF  1.  1.  1.  1.  1.  1.  1.  1.  1.  1.  1.  1.
  OFRAC .15 .15 .20 .20 .20 .20 .20 .20 .20 .20 .20 .15
  VCNX  50. 50. 50. 50. 50. 50. 50. 50. 50. 50. 50. 50.

 Clean Marine (surface)
  BCKPMF .5  .5  .5  .5  .5  .5  .5  .5  .5  .5  .5  .5
  OFRAC .25 .25 .30 .30 .30 .30 .30 .30 .30 .30 .30 .25
  VCNX  50. 50. 50. 50. 50. 50. 50. 50. 50. 50. 50. 50.

 Urban - low biogenic (controls present)
  BCKPMF 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30.
  OFRAC .20 .20 .25 .25 .25 .25 .25 .25 .20 .20 .20 .20
  VCNX   4.  4.  4.  4.  4.  4.  4.  4.  4.  4.  4.  4.

 Urban - high biogenic (controls present)
  BCKPMF 60. 60. 60. 60. 60. 60. 60. 60. 60. 60. 60. 60.
  OFRAC .25 .25 .30 .30 .30 .55 .55 .55 .35 .35 .35 .25
  VCNX  15. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15.

 Regional Plume
  BCKPMF 20. 20. 20. 20. 20. 20. 20. 20. 20. 20. 20. 20.
  OFRAC .20 .20 .25 .35 .25 .40 .40 .40 .30 .30 .30 .20
  VCNX  15. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15.

 Urban - no controls present
  BCKPMF 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100. 100.
  OFRAC .30 .30 .35 .35 .35 .55 .55 .55 .35 .35 .35 .30
  VCNX   2.  2.  2.  2.  2.  2.  2.  2.  2.  2.  2.  2.

 Default: Clean Continental
 ! BCKPMF = 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00 !
 ! OFRAC = 0.15, 0.15, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.20, 0.15 !
 ! VCNX = 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00, 50.00 !

--- End Data for SECONDARY ORGANIC AEROSOL (SOA) Options


 Number of half-life decay specification blocks provided in Subgroup 11b
 (Used only if MCHEM = 5)
 (NDECAY)                Default: 0   ! NDECAY = 0 !

!END!


--------------
Subgroup (11b)
--------------

 Each species modeled may be assigned a decay half-life (sec), and the associated
 mass lost may be assigned to one or more other modeled species using a mass yield
 factor. This information is used only for MCHEM=5.

 Provide NDECAY blocks assigning the half-life for a parent species and mass yield
 factors for each child species (if any) produced by the decay.
 Set HALF_LIFE=0.0 for NO decay (infinite half-life).

          a      b
  SPECIES   Half-Life  Mass Yield
   NAME     (sec)    Factor
  -------   ---------  ----------
* SPECHLLIST = *

--------
 a
 Specify a half life that is greater than or equal to zero for 1 parent species
 in each block, and set the yield factor for this species to -1
```

b
Specify a yield factor that is greater than or equal to zero for 1 or more child species in each block, and set the half-life for each of these species to -1

NOTE: Assignments in each block are treated as a separate input subgroup and therefore must end with an input group terminator.
If NDECAY=0, no assignments and input group terminators should appear.

INPUT GROUP: 12 -- Misc. Dispersion and Computational Parameters
---

Horizontal size of puff (m) beyond which
time-dependent dispersion equations (Heffter)
are used to determine sigma-y and
sigma-z (SYTDEP) Default: 550. ! SYTDEP = 550 !

Switch for using Heffter equation for sigma z
as above (0 = Not use Heffter; 1 = use Heffter
(MHFTSZ) Default: 0 ! MHFTSZ = 0 !

Stability class used to determine plume
growth rates for puffs above the boundary
layer (JSUP) Default: 5 ! JSUP = 5 !

Vertical dispersion constant for stable
conditions (k1 in Eqn. 2.7-3) (CONK1) Default: 0.01 ! CONK1 = 0.01 !

Vertical dispersion constant for neutral/
unstable conditions (k2 in Eqn. 2.7-4)
(CONK2) Default: 0.1 ! CONK2 = 0.1 !

Factor for determining Transition-point from
Schulman-Scire to Huber-Snyder Building Downwash
scheme (SS used for Hs <Hb + TBD * HL)
(TBD) Default: 0.5 ! TBD = 0.5 !
TBD <0 ==> always use Huber-Snyder
TBD = 1.5 ==> always use Schulman-Scire
TBD = 0.5 ==> ISC Transition-point

Range of land use categories for which
urban dispersion is assumed
(IURB1, IURB2) Default: 10 ! IURB1 = 10 !
19 ! IURB2 = 19 !

Site characterization parameters for single-point Met data files ---------
(needed for METFM = 2,3,4,5)

Land use category for modeling domain
(ILANDUIN) Default: 20 ! ILANDUIN = 20 !

Roughness length (m) for modeling domain
(Z0IN) Default: 0.25 ! Z0IN = .25 !

Leaf area index for modeling domain
(XLAIIN) Default: 3.0 ! XLAIIN = 3.0 !

Elevation above sea level (m)
(ELEVIN) Default: 0.0 ! ELEVIN = .0 !

Latitude (degrees) for met location
(XLATIN) Default: -999. ! XLATIN = -999.0 !

Longitude (degrees) for met location
(XLONIN) Default: -999. ! XLONIN = -999.0 !

Specialized information for interpreting single-point Met data files -----

Anemometer height (m) (Used only if METFM = 2,3)

(ANEMHT) Default: 10. ! ANEMHT = 10.0 !

Form of lateral turbulance data in PROFILE.DAT file
(Used only if METFM = 4,5 or MTURBVW = 1 or 3)
(ISIGMAV) Default: 1 ! ISIGMAV = 1 !
0 = read sigma-theta
1 = read sigma-v

Choice of mixing heights (Used only if METFM = 4)
(IMIXCTDM) Default: 0 ! IMIXCTDM = 0 !
0 = read PREDICTED mixing heights
1 = read OBSERVED mixing heights

Maximum length of a slug (met. grid units)
(XMXLEN) Default: 1.0 ! XMXLEN = 1 !

Maximum travel distance of a puff/slug (in
grid units) during one sampling step
(XSAMLEN) Default: 1.0 ! XSAMLEN = 1 !

Maximum Number of slugs/puffs release from
one source during one time step
(MXNEW) Default: 99 ! MXNEW = 99 !

Maximum Number of sampling steps for
one puff/slug during one time step
(MXSAM) Default: 99 ! MXSAM = 99 !

Number of iterations used when computing
the transport wind for a sampling step
that includes gradual rise (for CALMET
and PROFILE winds)
(NCOUNT) Default: 2 ! NCOUNT = 2 !

Minimum sigma y for a new puff/slug (m)
(SYMIN) Default: 1.0 ! SYMIN = 1 !

Minimum sigma z for a new puff/slug (m)
(SZMIN) Default: 1.0 ! SZMIN = 1 !

Maximum sigma z (m) allowed to avoid
numerical problem in calculating virtual
time or distance. Cap should be large
enough to have no influence on normal events.
Enter a negative cap to disable.
(SZCAP_M) Default: 5.0e06 ! SZCAP_M = 5000000 !

Default minimum turbulence velocities sigma-v and sigma-w
for each stability class over land and over water (m/s)
(SVMIN(12) and SWMIN(12))

```
        ---------- LAND ----------    --------- WATER ----------
 Stab Class : A  B  C  D  E  F     A  B  C  D  E  F
        --- --- --- --- --- ---    --- --- --- --- --- ---
Default SVMIN : .50, .50, .50, .50, .50, .50,   .37, .37, .37, .37, .37, .37
Default SWMIN : .20, .12, .08, .06, .03, .016,   .20, .12, .08, .06, .03, .016

   ! SVMIN = 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.37, 0.37, 0.37, 0.37, 0.37, 0.37 !
   ! SWMIN = 0.2, 0.12, 0.08, 0.06, 0.03, 0.016, 0.2, 0.12, 0.08, 0.06, 0.03, 0.016 !
```

Divergence criterion for dw/dz across puff
used to initiate adjustment for horizontal
convergence (1/s)
Partial adjustment starts at CDIV(1), and
full adjustment is reached at CDIV(2)
(CDIV(2)) Default: 0.0,0.0 ! CDIV = 0, 0 !

Search radius (number of cells) for nearest
land and water cells used in the subgrid
TIBL module
(NLUTIBL) Default: 4 ! NLUTIBL = 4 !

```
Minimum wind speed (m/s) allowed for
non-calm conditions. Also used as minimum
speed returned when using power-law
extrapolation toward surface
(WSCALM)                Default: 0.5  ! WSCALM = 0.5 !

Maximum mixing height (m)
(XMAXZI)                Default: 3000. ! XMAXZI = 3000 !

Minimum mixing height (m)
(XMINZI)                Default: 50.  ! XMINZI = 50 !


Temperatures (K) used for defining upper bound of
categories for emissions scale-factors
11 upper bounds (K) are entered; the 12th class has no upper limit
(TKCAT(11))
     Default  : 265., 270., 275., 280., 285., 290., 295., 300., 305., 310., 315. (315.+)
          <<   <<   <<   <<   <<   <Temperature Class : 1   2   3   4   5   6   7   8   9   10  11  (12)
          ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
     ! TKCAT = 265., 270., 275., 280., 285., 290., 295., 300., 305., 310., 315. !

Default wind speed profile power-law
exponents for stabilities 1-6
(PLX0(6))           Default  : ISC RURAL values
              ISC RURAL : .07, .07, .10, .15, .35, .55
              ISC URBAN : .15, .15, .20, .25, .30, .30

            Stability Class : A   B   C   D   E   F
                   ---  ---  ---  ---  ---  ---
              ! PLX0 = 0.07, 0.07, 0.1, 0.15, 0.35, 0.55 !

Default potential temperature gradient
for stable classes E, F (degK/m)
(PTG0(2))           Default: 0.020, 0.035
              ! PTG0 = 0.02, 0.035 !

Default plume path coefficients for
each stability class (used when option
for partial plume height terrain adjustment
is selected -- MCTADJ=3)
(PPC(6))        Stability Class : A   B   C   D   E   F
            Default PPC : .50, .50, .50, .50, .35, .35
                   ---  ---  ---  ---  ---  ---
              ! PPC = 0.5, 0.5, 0.5, 0.5, 0.35, 0.35 !

Slug-to-puff transition criterion factor
equal to sigma-y/length of slug
(SL2PF)                 Default: 10.    ! SL2PF = 10 !

Receptor-specific puff/slug properties (e.g., sigmas and height above
ground at the time when the trajectory is nearest the receptor) may be
extrapolated forward or backward in time along the current step using
the current dispersion, for receptors that lie upwind of the puff/slug
position at the start of a step, or downwind at the end of a step.
Specify the upwind/downwind extrapolation zone in sigma-y units.
Using FCLIP=1.0 clips the the upwind zone at one sigma-y at the start
of the step and the downwind zone at one sigma-y at the end of the step.
This is consistent with the sampling done in CALPUFF versions through
v6.42 prior to the introduction of the FCLIP option.
The default is No Extrapolation, FCLIP=0.0.
(FCLIP)                 Default: 0.0    ! FCLIP = 0 !

Puff-splitting control variables ------------------------

 VERTICAL SPLIT
 --------------

 Number of puffs that result every time a puff
 is split - nsplit=2 means that 1 puff splits
```

into 2
(NSPLIT) Default: 3 ! NSPLIT = 3 !

Time(s) of a day when split puffs are eligible to
be split once again; this is typically set once
per day, around sunset before nocturnal shear develops.
24 values: 0 is midnight (00:00) and 23 is 11 PM (23:00)
0=do not re-split 1=eligible for re-split
(IRESPLIT(24)) Default: Hour 17 = 1
! IRESPLIT = 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,0,0,0,0 !

Split is allowed only if last hour's mixing
height (m) exceeds a minimum value
(ZISPLIT) Default: 100. ! ZISPLIT = 100 !

Split is allowed only if ratio of last hour's
mixing ht to the maximum mixing ht experienced
by the puff is less than a maximum value (this
postpones a split until a nocturnal layer develops)
(ROLDMAX) Default: 0.25 ! ROLDMAX = 0.25 !

HORIZONTAL SPLIT

Number of puffs that result every time a puff
is split - nsplith=5 means that 1 puff splits
into 5
(NSPLITH) Default: 5 ! NSPLITH = 5 !

Minimum sigma-y (Grid Cells Units) of puff
before it may be split
(SYSPLITH) Default: 1.0 ! SYSPLITH = 1 !

Minimum puff elongation rate (SYSPLITH/hr) due to
wind shear, before it may be split
(SHSPLITH) Default: 2. ! SHSPLITH = 2 !

Minimum concentration (g/m^3) of each
species in puff before it may be split
Enter array of NSPEC values; if a single value is
entered, it will be used for ALL species
(CNSPLITH) Default: 1.0E-07 ! CNSPLITH = 0 !

Integration control variables ----------

Fractional convergence criterion for numerical SLUG
sampling integration
(EPSSLUG) Default: 1.0e-04 ! EPSSLUG = 0.0001 !

Fractional convergence criterion for numerical AREA
source integration
(EPSAREA) Default: 1.0e-06 ! EPSAREA = 1E-006 !

Trajectory step-length (m) used for numerical rise
integration
(DSRISE) Default: 1.0 ! DSRISE = 1.0 !

Boundary Condition (BC) Puff control variables ----------

Minimum height (m) to which BC puffs are mixed as they are emitted
(MBCON=2 ONLY). Actual height is reset to the current mixing height
at the release point if greater than this minimum.
(HTMINBC) Default: 500. ! HTMINBC = 500 !

Search radius (km) about a receptor for sampling nearest BC puff.
BC puffs are typically emitted with a spacing of one grid cell
length, so the search radius should be greater than DGRIDKM.
(RSAMPBC) Default: 10. ! RSAMPBC = 10 !

Near-Surface depletion adjustment to concentration profile used when

```
   sampling BC puffs?
   (MDEPBC)            Default:  1    ! MDEPBC = 1 !
    0 = Concentration is NOT adjusted for depletion
    1 = Adjust Concentration for depletion

!END!


--------------------------------------------------------------------------------


INPUT GROUPS: 13a, 13b, 13c, 13d -- Point source parameters
--------------------------------

---------------
Subgroup (13a)
---------------

  Number of point sources with
  parameters provided below   (NPT1) No default ! NPT1 = 0 !

  Units used for point source
  emissions below        (IPTU) Default: 1 ! IPTU = 1 !
    1 =    g/s
    2 =    kg/hr
    3 =    lb/hr
    4 =   tons/yr
    5 =   Odour Unit * m**3/s (vol. flux of odour compound)
    6 =   Odour Unit * m**3/min
    7 =   metric tons/yr
    8 =   Bq/s (Bq = becquerel = disintegrations/s)
    9 =   GBq/yr

  Number of source-species
  combinations with variable
  emissions scaling factors
  provided below in (13d)    (NSPT1) Default: 0 ! NSPT1 = 0 !

  Number of point sources with
  variable emission parameters
  provided in external file   (NPT2) No default ! NPT2 = 0 !

  (If NPT2 > 0, these point
  source emissions are read from
  the file: PTEMARB.DAT)

!END!

---------------
Subgroup (13b)
---------------
                a
    POINT SOURCE: CONSTANT DATA
    ----------------------------
                              b     c
 Source    X     Y    Stack  Base   Stack  Exit Exit  Bldg. Emission
  No.   Coordinate Coordinate Height Elevation Diameter Vel. Temp.  Dwash  Rates
      (km)   (km)    (m)   (m)    (m) (m/s) (deg. K)
 ------  ---------- ---------- ------ ------  -------- ----- -------- ----- --------

--------

 a
  Data for each source are treated as a separate input subgroup
  and therefore must end with an input group terminator.

  SRCNAM is a 12-character name for a source
     (No default)
  X    is an array holding the source data listed by the column headings
     (No default)
  SIGYZI is an array holding the initial sigma-y and sigma-z (m)
```

(Default: 0.,0.)
FMFAC is a vertical momentum flux factor (0. or 1.0) used to represent the effect of rain-caps or other physical configurations that reduce momentum rise associated with the actual exit velocity. (Default: 1.0 -- full momentum used)
ZPLTFM is the platform height (m) for sources influenced by an isolated structure that has a significant open area between the surface and the bulk of the structure, such as an offshore oil platform. The Base Elevation is that of the surface (ground or ocean), and the Stack Height is the release height above the Base (not above the platform). Building heights entered in Subgroup 13c must be those of the buildings on the platform, measured from the platform deck. ZPLTFM is used only with MBDW=1 (ISC downwash method) for sources with building downwash. (Default: 0.0)

b
0. = No building downwash modeled
1. = Downwash modeled for buildings resting on the surface
2. = Downwash modeled for buildings raised above the surface (ZPLTFM > 0.)
NOTE: must be entered as a REAL number (i.e., with decimal point)

c
An emission rate must be entered for every pollutant modeled. Enter emission rate of zero for secondary pollutants that are modeled, but not emitted. Units are specified by IPTU (e.g. 1 for g/s).

Subgroup (13c)

BUILDING DIMENSION DATA FOR SOURCES SUBJECT TO DOWNWASH

Source a
No. Effective building height, width, length and X/Y offset (in meters) every 10 degrees. LENGTH, XBADJ, and YBADJ are only needed for MBDW=2 (PRIME downwash option)
------ ---

---

a
Building height, width, length, and X/Y offset from the source are treated as a separate input subgroup for each source and therefore must end with an input group terminator. The X/Y offset is the position, relative to the stack, of the center of the upwind face of the projected building, with the x-axis pointing along the flow direction.

Subgroup (13d)
---
a
POINT SOURCE: EMISSION-RATE SCALING FACTORS

Use this subgroup to identify temporal variations in the emission rates given in 13b. Factors assigned multiply the rates in 13b. Skip sources here that have constant emissions. For more elaborate variation in source parameters, use PTEMARB.DAT and NPT2 > 0.

Sets of emission-rate scale factors are defined in Input Group 19, and are referenced by the FACTORNAME. Provide NSPT1 lines that identify the emission-rate scale factor table for each source-species combination that uses the scaling option. Note that a scale-factor table can be used with more than one source-species combination so a FACTORNAME can be repeated.

Source- Source Species Scale-factor table

```
 Species        Name  b  Name  c   Name    d
  No.         (SRCNAM)   (CSPEC)   (FACTORNAME)
 ------        ------------ ------------ ---------------------


--------
  a
   Assignment for each source-specie is treated as a separate input subgroup
   and therefore must end with an input group terminator.
  b
   Source name must match one of the SRCNAM names defined in Input Group 13b
  c
   Species name must match one of the CSPEC names of emitted species defined in Input Group 3
  d
   Scale-factor name must match one of the FACTORNAME names defined in Input Group 19


-------------------------------------------------------------------------------


INPUT GROUPS: 14a, 14b, 14c, 14d -- Area source parameters
--------------------------------

---------------
Subgroup (14a)
---------------

   Number of polygon area sources with
   parameters specified below (NAR1)    No default ! NAR1 = 0 !

   Units used for area source
   emissions below      (IARU)    Default: 1 ! IARU = 1 !
     1 =    g/m**2/s
     2 =    kg/m**2/hr
     3 =    lb/m**2/hr
     4 =   tons/m**2/yr
     5 =   Odour Unit * m/s (vol. flux/m**2 of odour compound)
     6 =   Odour Unit * m/min
     7 =   metric tons/m**2/yr
     8 =   Bq/m**2/s (Bq = becquerel = disintegrations/s)
     9 =   GBq/m**2/yr

   Number of source-species
   combinations with variable
   emissions scaling factors
   provided below in (14d)    (NSAR1) Default: 0 ! NSAR1 = 0 !

   Number of buoyant polygon area sources
   with variable location and emission
   parameters (NAR2)          No default ! NAR2 = 0 !
   (If NAR2 > 0, ALL parameter data for
   these sources are read from the file: BAEMARB.DAT)

!END!

---------------
Subgroup (14b)
---------------
                a
    AREA SOURCE: CONSTANT DATA
    ----------------------------
                         b
Source      Effect.  Base   Initial  Emission
 No.       Height  Elevation  Sigma z   Rates
         (m)    (m)    (m)
-------     ------  ------   --------  ---------


--------
  a
   Data for each source are treated as a separate input subgroup
```

and therefore must end with an input group terminator.
b
An emission rate must be entered for every pollutant modeled.
Enter emission rate of zero for secondary pollutants that are
modeled, but not emitted. Units are specified by IARU
(e.g. 1 for g/m**2/s).

Subgroup (14c)

COORDINATES (km) FOR EACH VERTEX(4) OF EACH POLYGON

Source a
No. Ordered list of X followed by list of Y, grouped by source
------ ---

---
a
Data for each source are treated as a separate input subgroup
and therefore must end with an input group terminator.

Subgroup (14d)
---
a
AREA SOURCE: EMISSION-RATE SCALING FACTORS

Use this subgroup to identify temporal variations in the emission
rates given in 14b. Factors assigned multiply the rates in 14b.
Skip sources here that have constant emissions. For more elaborate
variation in source parameters, use BAEMARB.DAT and NAR2 > 0.

Sets of emission-rate scale factors are defined in Input Group 19, and
are referenced by the FACTORNAME. Provide NSAR1 lines that identify the
emission-rate scale factor table for each source-species combination that
uses the scaling option. Note that a scale-factor table can be used with
more than one source-species combination so a FACTORNAME can be repeated.

Source-Species No.	Source Name b (SRCNAM)	Species Name c (CSPEC)	Scale-factor table Name d (FACTORNAME)

---
a
Data for each species are treated as a separate input subgroup
and therefore must end with an input group terminator.
b
Source name must match one of the SRCNAM names defined in Input Group 14b
c
Species name must match one of the CSPEC names of emitted species defined in Input Group 3
d
Scale-factor name must match one of the FACTORNAME names defined in Input Group 19

INPUT GROUPS: 15a, 15b, 15c -- Line source parameters

Subgroup (15a)

Number of buoyant line sources

with variable location and emission
parameters (NLN2) No default ! NLN2 = 0 !

(If NLN2 > 0, ALL parameter data for
these sources are read from the file: LNEMARB.DAT)

Number of buoyant line sources (NLINES) No default ! NLINES = 0 !

Units used for line source
emissions below (ILNU) Default: 1 ! ILNU = 1 !
1 = g/s
2 = kg/hr
3 = lb/hr
4 = tons/yr
5 = Odour Unit * m**3/s (vol. flux of odour compound)
6 = Odour Unit * m**3/min
7 = metric tons/yr
8 = Bq/s (Bq = becquerel = disintegrations/s)
9 = GBq/yr

Number of source-species
combinations with variable
emissions scaling factors
provided below in (15c) (NSLN1) Default: 0 ! NSLN1 = 0 !

Maximum number of segments used to model
each line (MXNSEG) Default: 7 ! MXNSEG = 7 !

The following variables are required only if NLINES > 0. They are
used in the buoyant line source plume rise calculations.

Number of distances at which Default: 6 ! NLRISE = 6 !
transitional rise is computed

Average building length (XL) No default * XL = *
(in meters)

Average building height (HBL) No default * HBL = *
(in meters)

Average building width (WBL) No default * WBL = *
(in meters)

Average line source width (WML) No default * WML = *
(in meters)

Average separation between buildings (DXL) No default * DXL = *
(in meters)

Average buoyancy parameter (FPRIMEL) No default * FPRIMEL = *
(in m**4/s**3)

!END!

Subgroup (15b)

BUOYANT LINE SOURCE: CONSTANT DATA

Source No.	Beg. X Coordinate (km)	Beg. Y Coordinate (km)	End. X Coordinate (km)	End. Y Coordinate (km)	Release Height (m)	Base Elevation (m)	Emission Rates[a]
---	---	---	---	---	---	---	---

---

[a] Data for each source are treated as a separate input subgroup
and therefore must end with an input group terminator.

b
An emission rate must be entered for every pollutant modeled.
Enter emission rate of zero for secondary pollutants that are
modeled, but not emitted. Units are specified by ILNTU
(e.g. 1 for g/s).

Subgroup (15c)
---
a
BUOYANT LINE SOURCE: EMISSION-RATE SCALING FACTORS

Use this subgroup to identify temporal variations in the emission
rates given in 15b. Factors assigned multiply the rates in 15b.
Skip sources here that have constant emissions. For more elaborate
variation in source parameters, use LNEMARB.DAT and NLN2 > 0.

Sets of emission-rate scale factors are defined in Input Group 19, and
are referenced by the FACTORNAME. Provide NSLN1 lines that identify the
emission-rate scale factor table for each source-species combination that
uses the scaling option. Note that a scale-factor table can be used with
more than one source-species combination so a FACTORNAME can be repeated.

Source-Species No.	Source Name b (SRCNAM)	Species Name c (CSPEC)	Scale-factor table Name d (FACTORNAME)

---
a
Data for each species are treated as a separate input subgroup
and therefore must end with an input group terminator.
b
Source name must match one of the SRCNAM names defined in Input Group 15b
c
Species name must match one of the CSPEC names of emitted species defined in Input Group 3
d
Scale-factor name must match one of the FACTORNAME names defined in Input Group 19

INPUT GROUPS: 16a, 16b, 16c -- Volume source parameters

Subgroup (16a)

Number of volume sources with
parameters provided in 16b,c (NVL1) No default ! NVL1 = 761 !

Units used for volume source
emissions below in 16b (IVLU) Default: 1 ! IVLU = 1 !
1 = g/s
2 = kg/hr
3 = lb/hr
4 = tons/yr
5 = Odour Unit * m**3/s (vol. flux of odour compound)
6 = Odour Unit * m**3/min
7 = metric tons/yr
8 = Bq/s (Bq = becquerel = disintegrations/s)
9 = GBq/yr

Number of source-species
combinations with variable

```
   emissions scaling factors
   provided below in (16c)   (NSVL1)  Default: 0 ! NSVL1 = 0 !

   Number of volume sources with
   variable location and emission
   parameters          (NVL2)   No default ! NVL2 = 0 !

   (If NVL2 > 0, ALL parameter data for
   these sources are read from the VOLEMARB.DAT file(s) )

!END!

---------------
Subgroup (16b)
---------------
                    a
     VOLUME SOURCE: CONSTANT DATA
     ------------------------------
                                  b
Source     X      Y    Effect.  Base   Initial  Initial  Emission
 No.    Coordinate Coordinate  Height  Elevation Sigma y  Sigma z   Rates
       (km)    (km)     (m)    (m)    (m)    (m)
------   ---------- ----------  ------  ------  --------  --------  --------

  1 ! SRCNAM = SRC_1_1 !
  1 ! X = 410.670, 6954.134,  3.31,  166.79,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  2 ! SRCNAM = SRC_1_2 !
  2 ! X = 410.686, 6954.127,  3.31,  166.51,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  3 ! SRCNAM = SRC_1_3 !
  3 ! X = 410.703, 6954.121,  3.31,  166.23,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  4 ! SRCNAM = SRC_1_4 !
  4 ! X = 410.720, 6954.114,  3.31,  165.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  5 ! SRCNAM = SRC_1_5 !
  5 ! X = 410.737, 6954.107,  3.31,  165.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  6 ! SRCNAM = SRC_1_6 !
  6 ! X = 410.753, 6954.101,  3.31,  165.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  7 ! SRCNAM = SRC_1_7 !
  7 ! X = 410.770, 6954.094,  3.31,  165.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  8 ! SRCNAM = SRC_1_8 !
  8 ! X = 410.787, 6954.088,  3.31,  164.84,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
  9 ! SRCNAM = SRC_1_9 !
  9 ! X = 410.804, 6954.082,  3.31,  164.56,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 10 ! SRCNAM = SRC_1_10 !
 10 ! X = 410.821, 6954.077,  3.31,  164.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 11 ! SRCNAM = SRC_1_11 !
 11 ! X = 410.838, 6954.071,  3.31,  164.0,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 12 ! SRCNAM = SRC_1_12 !
 12 ! X = 410.855, 6954.066,  3.31,  163.72,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
```

```
!END!
 13 ! SRCNAM = SRC_1_13 !
 13 ! X = 410.873, 6954.060,  3.31,  163.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 14 ! SRCNAM = SRC_1_14 !
 14 ! X = 410.890, 6954.055,  3.31,  163.16,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 15 ! SRCNAM = SRC_1_15 !
 15 ! X = 410.907, 6954.049,  3.31,  162.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 16 ! SRCNAM = SRC_1_16 !
 16 ! X = 410.924, 6954.043,  3.31,  162.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 17 ! SRCNAM = SRC_1_17 !
 17 ! X = 410.941, 6954.039,  3.31,  162.32,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 18 ! SRCNAM = SRC_1_18 !
 18 ! X = 410.959, 6954.034,  3.31,  162.04,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 19 ! SRCNAM = SRC_1_19 !
 19 ! X = 410.976, 6954.030,  3.31,  161.77,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 20 ! SRCNAM = SRC_1_20 !
 20 ! X = 410.993, 6954.025,  3.31,  161.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 21 ! SRCNAM = SRC_1_21 !
 21 ! X = 411.011, 6954.021,  3.31,  161.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 22 ! SRCNAM = SRC_1_22 !
 22 ! X = 411.028, 6954.016,  3.31,  160.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 23 ! SRCNAM = SRC_1_23 !
 23 ! X = 411.046, 6954.012,  3.31,  160.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 24 ! SRCNAM = SRC_1_24 !
 24 ! X = 411.064, 6954.009,  3.31,  160.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 25 ! SRCNAM = SRC_1_25 !
 25 ! X = 411.081, 6954.005,  3.31,  160.1,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 26 ! SRCNAM = SRC_1_26 !
 26 ! X = 411.099, 6954.002,  3.31,  159.82,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 27 ! SRCNAM = SRC_1_27 !
 27 ! X = 411.117, 6953.999,  3.31,  159.54,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 28 ! SRCNAM = SRC_1_28 !
 28 ! X = 411.134, 6953.995,  3.31,  159.26,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 29 ! SRCNAM = SRC_1_29 !
 29 ! X = 411.152, 6953.992,  3.31,  158.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 30 ! SRCNAM = SRC_1_30 !
 30 ! X = 411.169, 6953.988,  3.31,  158.7,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
```

```
 0.0001648, 0.001772, 0.0005089 !
!END!
 31 ! SRCNAM = SRC_1_31 !
 31 ! X = 411.187, 6953.985,  3.31,  158.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 32 ! SRCNAM = SRC_1_32 !
 32 ! X = 411.205, 6953.981,  3.31,  158.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 33 ! SRCNAM = SRC_1_33 !
 33 ! X = 411.222, 6953.978,  3.31,  157.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 34 ! SRCNAM = SRC_1_34 !
 34 ! X = 411.240, 6953.975,  3.31,  157.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 35 ! SRCNAM = SRC_1_35 !
 35 ! X = 411.258, 6953.971,  3.31,  157.3,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 36 ! SRCNAM = SRC_1_36 !
 36 ! X = 411.276, 6953.968,  3.31,  157.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 37 ! SRCNAM = SRC_1_37 !
 37 ! X = 411.293, 6953.965,  3.31,  156.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 38 ! SRCNAM = SRC_1_38 !
 38 ! X = 411.311, 6953.962,  3.31,  156.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 39 ! SRCNAM = SRC_1_39 !
 39 ! X = 411.329, 6953.959,  3.31,  156.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 40 ! SRCNAM = SRC_1_40 !
 40 ! X = 411.346, 6953.955,  3.31,  155.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 41 ! SRCNAM = SRC_1_41 !
 41 ! X = 411.364, 6953.952,  3.31,  155.63,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 42 ! SRCNAM = SRC_1_42 !
 42 ! X = 411.382, 6953.949,  3.31,  155.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 43 ! SRCNAM = SRC_1_43 !
 43 ! X = 411.400, 6953.946,  3.31,  155.07,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 44 ! SRCNAM = SRC_1_44 !
 44 ! X = 411.417, 6953.943,  3.31,  154.79,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 45 ! SRCNAM = SRC_1_45 !
 45 ! X = 411.435, 6953.940,  3.31,  154.52,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 46 ! SRCNAM = SRC_1_46 !
 46 ! X = 411.453, 6953.936,  3.31,  154.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 47 ! SRCNAM = SRC_1_47 !
 47 ! X = 411.470, 6953.933,  3.31,  153.96,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 48 ! SRCNAM = SRC_1_48 !
```

```
 48 ! X = 411.488, 6953.930,  3.31,  153.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 49 ! SRCNAM = SRC_1_49 !
 49 ! X = 411.506, 6953.927,  3.31,  153.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 50 ! SRCNAM = SRC_1_50 !
 50 ! X = 411.523, 6953.924,  3.31,  153.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 51 ! SRCNAM = SRC_1_51 !
 51 ! X = 411.541, 6953.920,  3.31,  152.84,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 52 ! SRCNAM = SRC_1_52 !
 52 ! X = 411.559, 6953.917,  3.31,  152.56,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 53 ! SRCNAM = SRC_1_53 !
 53 ! X = 411.577, 6953.914,  3.31,  152.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 54 ! SRCNAM = SRC_1_54 !
 54 ! X = 411.594, 6953.911,  3.31,  152.0,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 55 ! SRCNAM = SRC_1_55 !
 55 ! X = 411.612, 6953.908,  3.31,  151.72,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 56 ! SRCNAM = SRC_1_56 !
 56 ! X = 411.630, 6953.905,  3.31,  151.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 57 ! SRCNAM = SRC_1_57 !
 57 ! X = 411.647, 6953.901,  3.31,  151.16,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 58 ! SRCNAM = SRC_1_58 !
 58 ! X = 411.665, 6953.898,  3.31,  150.92,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 59 ! SRCNAM = SRC_1_59 !
 59 ! X = 411.683, 6953.895,  3.31,  150.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 60 ! SRCNAM = SRC_1_60 !
 60 ! X = 411.701, 6953.892,  3.31,  150.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 61 ! SRCNAM = SRC_1_61 !
 61 ! X = 411.718, 6953.889,  3.31,  150.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 62 ! SRCNAM = SRC_1_62 !
 62 ! X = 411.736, 6953.885,  3.31,  150.03,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 63 ! SRCNAM = SRC_1_63 !
 63 ! X = 411.754, 6953.882,  3.31,  149.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 64 ! SRCNAM = SRC_1_64 !
 64 ! X = 411.771, 6953.879,  3.31,  149.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 65 ! SRCNAM = SRC_1_65 !
 65 ! X = 411.789, 6953.876,  3.31,  149.36,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
```

```
 66 ! SRCNAM = SRC_1_66 !
 66 ! X = 411.807, 6953.873,  3.31,  149.14,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 67 ! SRCNAM = SRC_1_67 !
 67 ! X = 411.825, 6953.870,  3.31,  148.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 68 ! SRCNAM = SRC_1_68 !
 68 ! X = 411.842, 6953.866,  3.31,  148.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 69 ! SRCNAM = SRC_1_69 !
 69 ! X = 411.860, 6953.863,  3.31,  148.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 70 ! SRCNAM = SRC_1_70 !
 70 ! X = 411.878, 6953.860,  3.31,  148.57,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 71 ! SRCNAM = SRC_1_71 !
 71 ! X = 411.895, 6953.857,  3.31,  148.45,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 72 ! SRCNAM = SRC_1_72 !
 72 ! X = 411.913, 6953.854,  3.31,  148.34,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 73 ! SRCNAM = SRC_1_73 !
 73 ! X = 411.931, 6953.851,  3.31,  148.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 74 ! SRCNAM = SRC_1_74 !
 74 ! X = 411.948, 6953.847,  3.31,  148.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 75 ! SRCNAM = SRC_1_75 !
 75 ! X = 411.966, 6953.844,  3.31,  148.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 76 ! SRCNAM = SRC_1_76 !
 76 ! X = 411.984, 6953.841,  3.31,  148.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 77 ! SRCNAM = SRC_1_77 !
 77 ! X = 412.002, 6953.838,  3.31,  148.01,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 78 ! SRCNAM = SRC_1_78 !
 78 ! X = 412.019, 6953.835,  3.31,  147.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 79 ! SRCNAM = SRC_1_79 !
 79 ! X = 412.037, 6953.831,  3.31,  147.89,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 80 ! SRCNAM = SRC_1_80 !
 80 ! X = 412.055, 6953.828,  3.31,  147.84,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 81 ! SRCNAM = SRC_1_81 !
 81 ! X = 412.072, 6953.825,  3.31,  147.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 82 ! SRCNAM = SRC_1_82 !
 82 ! X = 412.090, 6953.822,  3.31,  147.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 83 ! SRCNAM = SRC_1_83 !
 83 ! X = 412.108, 6953.819,  3.31,  147.67,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 84 ! SRCNAM = SRC_1_84 !
 84 ! X = 412.126, 6953.816,  3.31,  147.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 85 ! SRCNAM = SRC_1_85 !
 85 ! X = 412.143, 6953.812,  3.31,  147.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 86 ! SRCNAM = SRC_1_86 !
 86 ! X = 412.161, 6953.809,  3.31,  147.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 87 ! SRCNAM = SRC_1_87 !
 87 ! X = 412.179, 6953.806,  3.31,  147.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 88 ! SRCNAM = SRC_1_88 !
 88 ! X = 412.196, 6953.803,  3.31,  147.39,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 89 ! SRCNAM = SRC_1_89 !
 89 ! X = 412.214, 6953.800,  3.31,  147.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 90 ! SRCNAM = SRC_1_90 !
 90 ! X = 412.232, 6953.796,  3.31,  147.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 91 ! SRCNAM = SRC_1_91 !
 91 ! X = 412.249, 6953.793,  3.31,  147.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 92 ! SRCNAM = SRC_1_92 !
 92 ! X = 412.267, 6953.790,  3.31,  147.16,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 93 ! SRCNAM = SRC_1_93 !
 93 ! X = 412.285, 6953.787,  3.31,  147.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 94 ! SRCNAM = SRC_1_94 !
 94 ! X = 412.303, 6953.784,  3.31,  147.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 95 ! SRCNAM = SRC_1_95 !
 95 ! X = 412.320, 6953.781,  3.31,  147.04,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 96 ! SRCNAM = SRC_1_96 !
 96 ! X = 412.338, 6953.777,  3.31,  147.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 97 ! SRCNAM = SRC_1_97 !
 97 ! X = 412.356, 6953.774,  3.31,  146.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 98 ! SRCNAM = SRC_1_98 !
 98 ! X = 412.373, 6953.771,  3.31,  146.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 99 ! SRCNAM = SRC_1_99 !
 99 ! X = 412.391, 6953.768,  3.31,  146.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 100 ! SRCNAM = SRC_1_100 !
 100 ! X = 412.409, 6953.765,  3.31,  146.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 101 ! SRCNAM = SRC_1_101 !
 101 ! X = 412.427, 6953.761,  3.31,  146.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 102 ! SRCNAM = SRC_1_102 !
 102 ! X = 412.444, 6953.758,  3.31,  146.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 103 ! SRCNAM = SRC_1_103 !
 103 ! X = 412.462, 6953.755,  3.31,  146.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 104 ! SRCNAM = SRC_1_104 !
 104 ! X = 412.480, 6953.752,  3.31,  146.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 105 ! SRCNAM = SRC_1_105 !
 105 ! X = 412.497, 6953.749,  3.31,  146.87,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 106 ! SRCNAM = SRC_1_106 !
 106 ! X = 412.515, 6953.746,  3.31,  146.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 107 ! SRCNAM = SRC_1_107 !
 107 ! X = 412.533, 6953.742,  3.31,  146.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 108 ! SRCNAM = SRC_1_108 !
 108 ! X = 412.551, 6953.739,  3.31,  146.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 109 ! SRCNAM = SRC_1_109 !
 109 ! X = 412.568, 6953.736,  3.31,  146.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 110 ! SRCNAM = SRC_1_110 !
 110 ! X = 412.586, 6953.733,  3.31,  146.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 111 ! SRCNAM = SRC_1_111 !
 111 ! X = 412.604, 6953.730,  3.31,  146.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 112 ! SRCNAM = SRC_1_112 !
 112 ! X = 412.621, 6953.727,  3.31,  146.79,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 113 ! SRCNAM = SRC_1_113 !
 113 ! X = 412.639, 6953.723,  3.31,  146.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 114 ! SRCNAM = SRC_1_114 !
 114 ! X = 412.657, 6953.720,  3.31,  146.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 115 ! SRCNAM = SRC_1_115 !
 115 ! X = 412.674, 6953.717,  3.31,  146.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 116 ! SRCNAM = SRC_1_116 !
 116 ! X = 412.692, 6953.714,  3.31,  146.82,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 117 ! SRCNAM = SRC_1_117 !
 117 ! X = 412.710, 6953.711,  3.31,  146.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 118 ! SRCNAM = SRC_1_118 !
 118 ! X = 412.728, 6953.707,  3.31,  146.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 119 ! SRCNAM = SRC_1_119 !
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 119 ! X = 412.745, 6953.704,  3.31,  146.87,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 120 ! SRCNAM = SRC_1_120 !
 120 ! X = 412.763, 6953.701,  3.31,  146.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 121 ! SRCNAM = SRC_1_121 !
 121 ! X = 412.781, 6953.698,  3.31,  146.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 122 ! SRCNAM = SRC_1_122 !
 122 ! X = 412.798, 6953.695,  3.31,  146.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 123 ! SRCNAM = SRC_1_123 !
 123 ! X = 412.816, 6953.692,  3.31,  146.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 124 ! SRCNAM = SRC_1_124 !
 124 ! X = 412.834, 6953.688,  3.31,  146.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 125 ! SRCNAM = SRC_1_125 !
 125 ! X = 412.852, 6953.685,  3.31,  146.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 126 ! SRCNAM = SRC_1_126 !
 126 ! X = 412.869, 6953.682,  3.31,  147.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 127 ! SRCNAM = SRC_1_127 !
 127 ! X = 412.887, 6953.679,  3.31,  147.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 128 ! SRCNAM = SRC_1_128 !
 128 ! X = 412.905, 6953.676,  3.31,  147.15,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 129 ! SRCNAM = SRC_1_129 !
 129 ! X = 412.922, 6953.672,  3.31,  147.23,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 130 ! SRCNAM = SRC_1_130 !
 130 ! X = 412.940, 6953.669,  3.31,  147.33,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 131 ! SRCNAM = SRC_1_131 !
 131 ! X = 412.958, 6953.666,  3.31,  147.39,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 132 ! SRCNAM = SRC_1_132 !
 132 ! X = 412.975, 6953.663,  3.31,  147.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 133 ! SRCNAM = SRC_1_133 !
 133 ! X = 412.993, 6953.660,  3.31,  147.64,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 134 ! SRCNAM = SRC_1_134 !
 134 ! X = 413.011, 6953.657,  3.31,  147.77,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 135 ! SRCNAM = SRC_1_135 !
 135 ! X = 413.029, 6953.653,  3.31,  147.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 136 ! SRCNAM = SRC_1_136 !
 136 ! X = 413.046, 6953.650,  3.31,  148.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 137 ! SRCNAM = SRC_1_137 !
 137 ! X = 413.064, 6953.647,  3.31,  148.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 138 ! SRCNAM = SRC_1_138 !
 138 ! X = 413.082, 6953.644,  3.31,  148.39,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 139 ! SRCNAM = SRC_1_139 !
 139 ! X = 413.099, 6953.641,  3.31,  148.53,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 140 ! SRCNAM = SRC_1_140 !
 140 ! X = 413.117, 6953.638,  3.31,  148.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 141 ! SRCNAM = SRC_1_141 !
 141 ! X = 413.135, 6953.635,  3.31,  148.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 142 ! SRCNAM = SRC_1_142 !
 142 ! X = 413.153, 6953.632,  3.31,  148.99,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 143 ! SRCNAM = SRC_1_143 !
 143 ! X = 413.170, 6953.629,  3.31,  149.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 144 ! SRCNAM = SRC_1_144 !
 144 ! X = 413.188, 6953.626,  3.31,  149.3,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 145 ! SRCNAM = SRC_1_145 !
 145 ! X = 413.206, 6953.624,  3.31,  149.45,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 146 ! SRCNAM = SRC_1_146 !
 146 ! X = 413.224, 6953.621,  3.31,  149.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 147 ! SRCNAM = SRC_1_147 !
 147 ! X = 413.242, 6953.619,  3.31,  149.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 148 ! SRCNAM = SRC_1_148 !
 148 ! X = 413.260, 6953.616,  3.31,  149.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 149 ! SRCNAM = SRC_1_149 !
 149 ! X = 413.277, 6953.614,  3.31,  150.07,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 150 ! SRCNAM = SRC_1_150 !
 150 ! X = 413.295, 6953.611,  3.31,  150.2,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 151 ! SRCNAM = SRC_1_151 !
 151 ! X = 413.313, 6953.609,  3.31,  150.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 152 ! SRCNAM = SRC_1_152 !
 152 ! X = 413.331, 6953.606,  3.31,  150.53,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 153 ! SRCNAM = SRC_1_153 !
 153 ! X = 413.349, 6953.604,  3.31,  150.67,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 154 ! SRCNAM = SRC_1_154 !
 154 ! X = 413.366, 6953.601,  3.31,  150.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 155 ! SRCNAM = SRC_1_155 !
 155 ! X = 413.384, 6953.599,  3.31,  150.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 156 ! SRCNAM = SRC_1_156 !
 156 ! X = 413.402, 6953.596,  3.31,  151.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 157 ! SRCNAM = SRC_1_157 !
 157 ! X = 413.420, 6953.594,  3.31,  151.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 158 ! SRCNAM = SRC_1_158 !
 158 ! X = 413.438, 6953.591,  3.31,  151.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 159 ! SRCNAM = SRC_1_159 !
 159 ! X = 413.455, 6953.589,  3.31,  151.59,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 160 ! SRCNAM = SRC_1_160 !
 160 ! X = 413.473, 6953.586,  3.31,  151.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 161 ! SRCNAM = SRC_1_161 !
 161 ! X = 413.491, 6953.584,  3.31,  151.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 162 ! SRCNAM = SRC_1_162 !
 162 ! X = 413.509, 6953.581,  3.31,  152.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 163 ! SRCNAM = SRC_1_163 !
 163 ! X = 413.527, 6953.579,  3.31,  152.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 164 ! SRCNAM = SRC_1_164 !
 164 ! X = 413.545, 6953.576,  3.31,  152.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 165 ! SRCNAM = SRC_1_165 !
 165 ! X = 413.562, 6953.574,  3.31,  152.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 166 ! SRCNAM = SRC_1_166 !
 166 ! X = 413.580, 6953.571,  3.31,  152.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 167 ! SRCNAM = SRC_1_167 !
 167 ! X = 413.598, 6953.569,  3.31,  152.79,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 168 ! SRCNAM = SRC_1_168 !
 168 ! X = 413.616, 6953.566,  3.31,  152.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 169 ! SRCNAM = SRC_1_169 !
 169 ! X = 413.634, 6953.564,  3.31,  153.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 170 ! SRCNAM = SRC_1_170 !
 170 ! X = 413.651, 6953.561,  3.31,  153.26,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 171 ! SRCNAM = SRC_1_171 !
 171 ! X = 413.669, 6953.559,  3.31,  153.43,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 172 ! SRCNAM = SRC_1_172 !
 172 ! X = 413.687, 6953.556,  3.31,  153.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 173 ! SRCNAM = SRC_1_173 !
 173 ! X = 413.705, 6953.554,  3.31,  153.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 174 ! SRCNAM = SRC_1_174 !
 174 ! X = 413.723, 6953.551,  3.31,  153.87,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 175 ! SRCNAM = SRC_1_175 !
 175 ! X = 413.741, 6953.549,  3.31,  154.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 176 ! SRCNAM = SRC_1_176 !
 176 ! X = 413.758, 6953.546,  3.31,  154.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 177 ! SRCNAM = SRC_1_177 !
 177 ! X = 413.776, 6953.544,  3.31,  154.33,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 178 ! SRCNAM = SRC_1_178 !
 178 ! X = 413.794, 6953.541,  3.31,  154.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 179 ! SRCNAM = SRC_1_179 !
 179 ! X = 413.812, 6953.539,  3.31,  154.63,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 180 ! SRCNAM = SRC_1_180 !
 180 ! X = 413.830, 6953.536,  3.31,  154.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 181 ! SRCNAM = SRC_1_181 !
 181 ! X = 413.847, 6953.534,  3.31,  154.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 182 ! SRCNAM = SRC_1_182 !
 182 ! X = 413.865, 6953.531,  3.31,  155.1,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 183 ! SRCNAM = SRC_1_183 !
 183 ! X = 413.883, 6953.529,  3.31,  155.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 184 ! SRCNAM = SRC_1_184 !
 184 ! X = 413.901, 6953.526,  3.31,  155.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 185 ! SRCNAM = SRC_1_185 !
 185 ! X = 413.919, 6953.524,  3.31,  155.54,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 186 ! SRCNAM = SRC_1_186 !
 186 ! X = 413.937, 6953.521,  3.31,  155.7,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 187 ! SRCNAM = SRC_1_187 !
 187 ! X = 413.954, 6953.519,  3.31,  155.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 188 ! SRCNAM = SRC_1_188 !
 188 ! X = 413.972, 6953.516,  3.31,  156.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 189 ! SRCNAM = SRC_1_189 !
 189 ! X = 413.990, 6953.514,  3.31,  156.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 190 ! SRCNAM = SRC_1_190 !
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 190 ! X = 414.008, 6953.511,  3.31,  156.3,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 191 ! SRCNAM = SRC_1_191 !
 191 ! X = 414.026, 6953.509,  3.31,  156.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 192 ! SRCNAM = SRC_1_192 !
 192 ! X = 414.043, 6953.507,  3.31,  156.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 193 ! SRCNAM = SRC_1_193 !
 193 ! X = 414.061, 6953.504,  3.31,  156.76,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 194 ! SRCNAM = SRC_1_194 !
 194 ! X = 414.079, 6953.502,  3.31,  156.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 195 ! SRCNAM = SRC_1_195 !
 195 ! X = 414.097, 6953.499,  3.31,  157.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 196 ! SRCNAM = SRC_1_196 !
 196 ! X = 414.115, 6953.497,  3.31,  157.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 197 ! SRCNAM = SRC_1_197 !
 197 ! X = 414.133, 6953.494,  3.31,  157.37,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 198 ! SRCNAM = SRC_1_198 !
 198 ! X = 414.150, 6953.492,  3.31,  157.54,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 199 ! SRCNAM = SRC_1_199 !
 199 ! X = 414.168, 6953.489,  3.31,  157.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 200 ! SRCNAM = SRC_1_200 !
 200 ! X = 414.186, 6953.487,  3.31,  157.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 201 ! SRCNAM = SRC_1_201 !
 201 ! X = 414.204, 6953.484,  3.31,  158.0,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 202 ! SRCNAM = SRC_1_202 !
 202 ! X = 414.222, 6953.482,  3.31,  158.14,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 203 ! SRCNAM = SRC_1_203 !
 203 ! X = 414.239, 6953.479,  3.31,  158.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 204 ! SRCNAM = SRC_1_204 !
 204 ! X = 414.257, 6953.477,  3.31,  158.45,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 205 ! SRCNAM = SRC_1_205 !
 205 ! X = 414.275, 6953.474,  3.31,  158.61,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 206 ! SRCNAM = SRC_1_206 !
 206 ! X = 414.293, 6953.472,  3.31,  158.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 207 ! SRCNAM = SRC_1_207 !
 207 ! X = 414.311, 6953.469,  3.31,  158.89,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 208 ! SRCNAM = SRC_1_208 !
 208 ! X = 414.329, 6953.467,  3.31,  159.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 209 ! SRCNAM = SRC_1_209 !
 209 ! X = 414.346, 6953.464,  3.31,  159.2,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 210 ! SRCNAM = SRC_1_210 !
 210 ! X = 414.364, 6953.462,  3.31,  159.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 211 ! SRCNAM = SRC_1_211 !
 211 ! X = 414.382, 6953.459,  3.31,  159.53,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 212 ! SRCNAM = SRC_1_212 !
 212 ! X = 414.400, 6953.457,  3.31,  159.67,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 213 ! SRCNAM = SRC_1_213 !
 213 ! X = 414.418, 6953.454,  3.31,  159.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 214 ! SRCNAM = SRC_1_214 !
 214 ! X = 414.435, 6953.452,  3.31,  159.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 215 ! SRCNAM = SRC_1_215 !
 215 ! X = 414.453, 6953.449,  3.31,  160.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 216 ! SRCNAM = SRC_1_216 !
 216 ! X = 414.471, 6953.447,  3.31,  160.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 217 ! SRCNAM = SRC_1_217 !
 217 ! X = 414.489, 6953.444,  3.31,  160.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 218 ! SRCNAM = SRC_1_218 !
 218 ! X = 414.507, 6953.442,  3.31,  160.59,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 219 ! SRCNAM = SRC_1_219 !
 219 ! X = 414.524, 6953.439,  3.31,  160.72,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 220 ! SRCNAM = SRC_1_220 !
 220 ! X = 414.542, 6953.437,  3.31,  160.87,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 221 ! SRCNAM = SRC_1_221 !
 221 ! X = 414.560, 6953.434,  3.31,  161.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 222 ! SRCNAM = SRC_1_222 !
 222 ! X = 414.578, 6953.432,  3.31,  161.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 223 ! SRCNAM = SRC_1_223 !
 223 ! X = 414.596, 6953.429,  3.31,  161.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 224 ! SRCNAM = SRC_1_224 !
 224 ! X = 414.614, 6953.427,  3.31,  161.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 225 ! SRCNAM = SRC_1_225 !
 225 ! X = 414.631, 6953.424,  3.31,  161.65,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 226 ! SRCNAM = SRC_1_226 !
 226 ! X = 414.649, 6953.422,  3.31,  161.79,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 227 ! SRCNAM = SRC_1_227 !
 227 ! X = 414.667, 6953.419,  3.31,  161.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 228 ! SRCNAM = SRC_1_228 !
 228 ! X = 414.685, 6953.417,  3.31,  162.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 229 ! SRCNAM = SRC_1_229 !
 229 ! X = 414.703, 6953.414,  3.31,  162.26,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 230 ! SRCNAM = SRC_1_230 !
 230 ! X = 414.720, 6953.412,  3.31,  162.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 231 ! SRCNAM = SRC_1_231 !
 231 ! X = 414.738, 6953.409,  3.31,  162.57,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 232 ! SRCNAM = SRC_1_232 !
 232 ! X = 414.756, 6953.407,  3.31,  162.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 233 ! SRCNAM = SRC_1_233 !
 233 ! X = 414.774, 6953.404,  3.31,  162.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 234 ! SRCNAM = SRC_1_234 !
 234 ! X = 414.792, 6953.402,  3.31,  163.01,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 235 ! SRCNAM = SRC_1_235 !
 235 ! X = 414.810, 6953.399,  3.31,  163.15,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 236 ! SRCNAM = SRC_1_236 !
 236 ! X = 414.827, 6953.397,  3.31,  163.26,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 237 ! SRCNAM = SRC_1_237 !
 237 ! X = 414.845, 6953.394,  3.31,  163.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 238 ! SRCNAM = SRC_1_238 !
 238 ! X = 414.863, 6953.392,  3.31,  163.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 239 ! SRCNAM = SRC_1_239 !
 239 ! X = 414.881, 6953.389,  3.31,  163.59,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 240 ! SRCNAM = SRC_1_240 !
 240 ! X = 414.899, 6953.387,  3.31,  163.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 241 ! SRCNAM = SRC_1_241 !
 241 ! X = 414.916, 6953.384,  3.31,  163.79,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 242 ! SRCNAM = SRC_1_242 !
 242 ! X = 414.934, 6953.382,  3.31,  163.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 243 ! SRCNAM = SRC_1_243 !
 243 ! X = 414.952, 6953.379,  3.31,  163.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 244 ! SRCNAM = SRC_1_244 !
 244 ! X = 414.970, 6953.377,  3.31,  164.04,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 245 ! SRCNAM = SRC_1_245 !
 245 ! X = 414.988, 6953.374,  3.31,  164.14,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 246 ! SRCNAM = SRC_1_246 !
 246 ! X = 415.006, 6953.372,  3.31,  164.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 247 ! SRCNAM = SRC_1_247 !
 247 ! X = 415.023, 6953.369,  3.31,  164.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 248 ! SRCNAM = SRC_1_248 !
 248 ! X = 415.041, 6953.367,  3.31,  164.41,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 249 ! SRCNAM = SRC_1_249 !
 249 ! X = 415.059, 6953.364,  3.31,  164.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 250 ! SRCNAM = SRC_1_250 !
 250 ! X = 415.077, 6953.362,  3.31,  164.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 251 ! SRCNAM = SRC_1_251 !
 251 ! X = 415.095, 6953.359,  3.31,  164.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 252 ! SRCNAM = SRC_1_252 !
 252 ! X = 415.112, 6953.357,  3.31,  164.77,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 253 ! SRCNAM = SRC_1_253 !
 253 ! X = 415.130, 6953.354,  3.31,  164.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 254 ! SRCNAM = SRC_1_254 !
 254 ! X = 415.148, 6953.352,  3.31,  164.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 255 ! SRCNAM = SRC_1_255 !
 255 ! X = 415.166, 6953.349,  3.31,  165.03,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 256 ! SRCNAM = SRC_1_256 !
 256 ! X = 415.184, 6953.347,  3.31,  165.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 257 ! SRCNAM = SRC_1_257 !
 257 ! X = 415.202, 6953.344,  3.31,  165.2,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 258 ! SRCNAM = SRC_1_258 !
 258 ! X = 415.219, 6953.342,  3.31,  165.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 259 ! SRCNAM = SRC_1_259 !
 259 ! X = 415.237, 6953.339,  3.31,  165.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 260 ! SRCNAM = SRC_1_260 !
 260 ! X = 415.255, 6953.337,  3.31,  165.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 261 ! SRCNAM = SRC_1_261 !
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 261 ! X = 415.273, 6953.334,  3.31,  165.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 262 ! SRCNAM = SRC_1_262 !
 262 ! X = 415.291, 6953.332,  3.31,  165.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 263 ! SRCNAM = SRC_1_263 !
 263 ! X = 415.308, 6953.329,  3.31,  165.76,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 264 ! SRCNAM = SRC_1_264 !
 264 ! X = 415.326, 6953.327,  3.31,  165.84,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 265 ! SRCNAM = SRC_1_265 !
 265 ! X = 415.344, 6953.324,  3.31,  165.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 266 ! SRCNAM = SRC_1_266 !
 266 ! X = 415.362, 6953.322,  3.31,  166.01,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 267 ! SRCNAM = SRC_1_267 !
 267 ! X = 415.380, 6953.319,  3.31,  166.1,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 268 ! SRCNAM = SRC_1_268 !
 268 ! X = 415.397, 6953.317,  3.31,  166.21,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 269 ! SRCNAM = SRC_1_269 !
 269 ! X = 415.415, 6953.314,  3.31,  166.29,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 270 ! SRCNAM = SRC_1_270 !
 270 ! X = 415.433, 6953.312,  3.31,  166.39,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 271 ! SRCNAM = SRC_1_271 !
 271 ! X = 415.451, 6953.309,  3.31,  166.48,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 272 ! SRCNAM = SRC_1_272 !
 272 ! X = 415.469, 6953.307,  3.31,  166.56,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 273 ! SRCNAM = SRC_1_273 !
 273 ! X = 415.487, 6953.304,  3.31,  166.65,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 274 ! SRCNAM = SRC_1_274 !
 274 ! X = 415.504, 6953.302,  3.31,  166.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 275 ! SRCNAM = SRC_1_275 !
 275 ! X = 415.522, 6953.299,  3.31,  166.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 276 ! SRCNAM = SRC_1_276 !
 276 ! X = 415.540, 6953.297,  3.31,  166.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 277 ! SRCNAM = SRC_1_277 !
 277 ! X = 415.558, 6953.294,  3.31,  167.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 278 ! SRCNAM = SRC_1_278 !
 278 ! X = 415.576, 6953.292,  3.31,  167.1,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 279 ! SRCNAM = SRC_1_279 !
 279 ! X = 415.593, 6953.289,  3.31,  167.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 280 ! SRCNAM = SRC_1_280 !
 280 ! X = 415.611, 6953.287,  3.31,  167.29,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 281 ! SRCNAM = SRC_1_281 !
 281 ! X = 415.629, 6953.284,  3.31,  167.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 282 ! SRCNAM = SRC_1_282 !
 282 ! X = 415.647, 6953.282,  3.31,  167.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 283 ! SRCNAM = SRC_1_283 !
 283 ! X = 415.665, 6953.279,  3.31,  167.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 284 ! SRCNAM = SRC_1_284 !
 284 ! X = 415.683, 6953.277,  3.31,  167.64,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 285 ! SRCNAM = SRC_1_285 !
 285 ! X = 415.700, 6953.274,  3.31,  167.73,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 286 ! SRCNAM = SRC_1_286 !
 286 ! X = 415.718, 6953.271,  3.31,  167.82,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 287 ! SRCNAM = SRC_1_287 !
 287 ! X = 415.736, 6953.269,  3.31,  167.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 288 ! SRCNAM = SRC_1_288 !
 288 ! X = 415.754, 6953.266,  3.31,  167.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 289 ! SRCNAM = SRC_1_289 !
 289 ! X = 415.771, 6953.263,  3.31,  168.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 290 ! SRCNAM = SRC_1_290 !
 290 ! X = 415.789, 6953.259,  3.31,  168.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 291 ! SRCNAM = SRC_1_291 !
 291 ! X = 415.807, 6953.256,  3.31,  168.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 292 ! SRCNAM = SRC_1_292 !
 292 ! X = 415.824, 6953.253,  3.31,  168.37,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 293 ! SRCNAM = SRC_1_293 !
 293 ! X = 415.842, 6953.249,  3.31,  168.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 294 ! SRCNAM = SRC_1_294 !
 294 ! X = 415.860, 6953.245,  3.31,  168.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 295 ! SRCNAM = SRC_1_295 !
 295 ! X = 415.877, 6953.242,  3.31,  168.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 296 ! SRCNAM = SRC_1_296 !
 296 ! X = 415.895, 6953.238,  3.31,  168.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 297 ! SRCNAM = SRC_1_297 !
 297 ! X = 415.912, 6953.233,  3.31,  168.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 298 ! SRCNAM = SRC_1_298 !
 298 ! X = 415.930, 6953.229,  3.31,  168.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 299 ! SRCNAM = SRC_1_299 !
 299 ! X = 415.947, 6953.225,  3.31,  168.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 300 ! SRCNAM = SRC_1_300 !
 300 ! X = 415.965, 6953.220,  3.31,  169.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 301 ! SRCNAM = SRC_1_301 !
 301 ! X = 415.982, 6953.216,  3.31,  169.16,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 302 ! SRCNAM = SRC_1_302 !
 302 ! X = 415.999, 6953.211,  3.31,  169.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 303 ! SRCNAM = SRC_1_303 !
 303 ! X = 416.017, 6953.206,  3.31,  169.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 304 ! SRCNAM = SRC_1_304 !
 304 ! X = 416.034, 6953.201,  3.31,  169.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 305 ! SRCNAM = SRC_1_305 !
 305 ! X = 416.051, 6953.196,  3.31,  169.52,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 306 ! SRCNAM = SRC_1_306 !
 306 ! X = 416.069, 6953.191,  3.31,  169.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 307 ! SRCNAM = SRC_1_307 !
 307 ! X = 416.086, 6953.186,  3.31,  169.72,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 308 ! SRCNAM = SRC_1_308 !
 308 ! X = 416.103, 6953.180,  3.31,  169.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 309 ! SRCNAM = SRC_1_309 !
 309 ! X = 416.120, 6953.175,  3.31,  169.87,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 310 ! SRCNAM = SRC_1_310 !
 310 ! X = 416.137, 6953.169,  3.31,  169.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 311 ! SRCNAM = SRC_1_311 !
 311 ! X = 416.154, 6953.163,  3.31,  170.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 312 ! SRCNAM = SRC_1_312 !
 312 ! X = 416.171, 6953.157,  3.31,  170.16,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 313 ! SRCNAM = SRC_1_313 !
 313 ! X = 416.188, 6953.151,  3.31,  170.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 314 ! SRCNAM = SRC_1_314 !
 314 ! X = 416.205, 6953.145,  3.31,  170.34,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 315 ! SRCNAM = SRC_1_315 !
 315 ! X = 416.222, 6953.139,  3.31,  170.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 316 ! SRCNAM = SRC_1_316 !
 316 ! X = 416.238, 6953.132,  3.31,  170.52,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 317 ! SRCNAM = SRC_1_317 !
 317 ! X = 416.255, 6953.126,  3.31,  170.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 318 ! SRCNAM = SRC_1_318 !
 318 ! X = 416.272, 6953.119,  3.31,  170.7,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 319 ! SRCNAM = SRC_1_319 !
 319 ! X = 416.289, 6953.112,  3.31,  170.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 320 ! SRCNAM = SRC_1_320 !
 320 ! X = 416.305, 6953.105,  3.31,  170.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 321 ! SRCNAM = SRC_1_321 !
 321 ! X = 416.322, 6953.098,  3.31,  170.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 322 ! SRCNAM = SRC_1_322 !
 322 ! X = 416.338, 6953.091,  3.31,  171.07,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 323 ! SRCNAM = SRC_1_323 !
 323 ! X = 416.355, 6953.084,  3.31,  171.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 324 ! SRCNAM = SRC_1_324 !
 324 ! X = 416.371, 6953.076,  3.31,  171.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 325 ! SRCNAM = SRC_1_325 !
 325 ! X = 416.387, 6953.069,  3.31,  171.33,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 326 ! SRCNAM = SRC_1_326 !
 326 ! X = 416.404, 6953.061,  3.31,  171.43,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 327 ! SRCNAM = SRC_1_327 !
 327 ! X = 416.420, 6953.054,  3.31,  171.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 328 ! SRCNAM = SRC_1_328 !
 328 ! X = 416.436, 6953.046,  3.31,  171.59,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 329 ! SRCNAM = SRC_1_329 !
 329 ! X = 416.453, 6953.039,  3.31,  171.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 330 ! SRCNAM = SRC_1_330 !
 330 ! X = 416.469, 6953.031,  3.31,  171.76,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 331 ! SRCNAM = SRC_1_331 !
 331 ! X = 416.485, 6953.023,  3.31,  171.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 332 ! SRCNAM = SRC_1_332 !
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 332 ! X = 416.502, 6953.016,  3.31,  171.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 333 ! SRCNAM = SRC_1_333 !
 333 ! X = 416.518, 6953.008,  3.31,  172.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 334 ! SRCNAM = SRC_1_334 !
 334 ! X = 416.534, 6953.001,  3.31,  172.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 335 ! SRCNAM = SRC_1_335 !
 335 ! X = 416.551, 6952.993,  3.31,  172.2,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 336 ! SRCNAM = SRC_1_336 !
 336 ! X = 416.567, 6952.986,  3.31,  172.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 337 ! SRCNAM = SRC_1_337 !
 337 ! X = 416.583, 6952.978,  3.31,  172.32,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 338 ! SRCNAM = SRC_1_338 !
 338 ! X = 416.600, 6952.970,  3.31,  172.36,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 339 ! SRCNAM = SRC_1_339 !
 339 ! X = 416.616, 6952.963,  3.31,  172.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 340 ! SRCNAM = SRC_1_340 !
 340 ! X = 416.632, 6952.955,  3.31,  172.39,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 341 ! SRCNAM = SRC_1_341 !
 341 ! X = 416.649, 6952.948,  3.31,  172.41,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 342 ! SRCNAM = SRC_1_342 !
 342 ! X = 416.665, 6952.940,  3.31,  172.41,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 343 ! SRCNAM = SRC_1_343 !
 343 ! X = 416.681, 6952.933,  3.31,  172.36,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 344 ! SRCNAM = SRC_1_344 !
 344 ! X = 416.698, 6952.925,  3.31,  172.33,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 345 ! SRCNAM = SRC_1_345 !
 345 ! X = 416.714, 6952.917,  3.31,  172.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 346 ! SRCNAM = SRC_1_346 !
 346 ! X = 416.730, 6952.910,  3.31,  172.2,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 347 ! SRCNAM = SRC_1_347 !
 347 ! X = 416.746, 6952.902,  3.31,  172.16,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 348 ! SRCNAM = SRC_1_348 !
 348 ! X = 416.763, 6952.895,  3.31,  172.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 349 ! SRCNAM = SRC_1_349 !
 349 ! X = 416.779, 6952.887,  3.31,  172.04,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 350 ! SRCNAM = SRC_1_350 !
 350 ! X = 416.795, 6952.879,  3.31,  171.99,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 351 ! SRCNAM = SRC_1_351 !
 351 ! X = 416.812, 6952.872,  3.31,  171.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 352 ! SRCNAM = SRC_1_352 !
 352 ! X = 416.828, 6952.864,  3.31,  171.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 353 ! SRCNAM = SRC_1_353 !
 353 ! X = 416.844, 6952.857,  3.31,  171.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 354 ! SRCNAM = SRC_1_354 !
 354 ! X = 416.861, 6952.849,  3.31,  171.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 355 ! SRCNAM = SRC_1_355 !
 355 ! X = 416.877, 6952.842,  3.31,  171.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 356 ! SRCNAM = SRC_1_356 !
 356 ! X = 416.893, 6952.834,  3.31,  171.61,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 357 ! SRCNAM = SRC_1_357 !
 357 ! X = 416.910, 6952.826,  3.31,  171.57,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 358 ! SRCNAM = SRC_1_358 !
 358 ! X = 416.926, 6952.819,  3.31,  171.51,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 359 ! SRCNAM = SRC_1_359 !
 359 ! X = 416.942, 6952.811,  3.31,  171.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 360 ! SRCNAM = SRC_1_360 !
 360 ! X = 416.959, 6952.804,  3.31,  171.4,     8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 361 ! SRCNAM = SRC_1_361 !
 361 ! X = 416.975, 6952.796,  3.31,  171.32,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 362 ! SRCNAM = SRC_1_362 !
 362 ! X = 416.991, 6952.789,  3.31,  171.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 363 ! SRCNAM = SRC_1_363 !
 363 ! X = 417.008, 6952.781,  3.31,  171.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 364 ! SRCNAM = SRC_1_364 !
 364 ! X = 417.024, 6952.773,  3.31,  171.2,     8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 365 ! SRCNAM = SRC_1_365 !
 365 ! X = 417.040, 6952.766,  3.31,  171.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 366 ! SRCNAM = SRC_1_366 !
 366 ! X = 417.057, 6952.758,  3.31,  171.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 367 ! SRCNAM = SRC_1_367 !
 367 ! X = 417.073, 6952.751,  3.31,  171.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 368 ! SRCNAM = SRC_1_368 !
 368 ! X = 417.089, 6952.743,  3.31,  170.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 369 ! SRCNAM = SRC_1_369 !
 369 ! X = 417.105, 6952.735,  3.31,  170.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 370 ! SRCNAM = SRC_1_370 !
 370 ! X = 417.122, 6952.728,  3.31,  170.76,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 371 ! SRCNAM = SRC_1_371 !
 371 ! X = 417.138, 6952.720,  3.31,  170.63,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 372 ! SRCNAM = SRC_1_372 !
 372 ! X = 417.154, 6952.713,  3.31,  170.43,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 373 ! SRCNAM = SRC_1_373 !
 373 ! X = 417.171, 6952.705,  3.31,  170.23,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 374 ! SRCNAM = SRC_1_374 !
 374 ! X = 417.187, 6952.698,  3.31,  170.01,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 375 ! SRCNAM = SRC_1_375 !
 375 ! X = 417.203, 6952.690,  3.31,  169.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 376 ! SRCNAM = SRC_1_376 !
 376 ! X = 417.220, 6952.683,  3.31,  169.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 377 ! SRCNAM = SRC_1_377 !
 377 ! X = 417.236, 6952.675,  3.31,  169.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 378 ! SRCNAM = SRC_1_378 !
 378 ! X = 417.253, 6952.668,  3.31,  169.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 379 ! SRCNAM = SRC_1_379 !
 379 ! X = 417.269, 6952.661,  3.31,  168.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 380 ! SRCNAM = SRC_1_380 !
 380 ! X = 417.286, 6952.654,  3.31,  168.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 381 ! SRCNAM = SRC_1_381 !
 381 ! X = 417.303, 6952.647,  3.31,  168.43,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 382 ! SRCNAM = SRC_1_382 !
 382 ! X = 417.319, 6952.641,  3.31,  168.21,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 383 ! SRCNAM = SRC_1_383 !
 383 ! X = 417.336, 6952.635,  3.31,  167.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 384 ! SRCNAM = SRC_1_384 !
 384 ! X = 417.353, 6952.629,  3.31,  167.76,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 385 ! SRCNAM = SRC_1_385 !
 385 ! X = 417.370, 6952.624,  3.31,  167.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 386 ! SRCNAM = SRC_1_386 !
 386 ! X = 417.388, 6952.618,  3.31,  167.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 387 ! SRCNAM = SRC_1_387 !
 387 ! X = 417.405, 6952.613,  3.31,  167.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 388 ! SRCNAM = SRC_1_388 !
 388 ! X = 417.422, 6952.608,  3.31,  166.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 389 ! SRCNAM = SRC_1_389 !
 389 ! X = 417.440, 6952.604,  3.31,  166.65,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 390 ! SRCNAM = SRC_1_390 !
 390 ! X = 417.457, 6952.600,  3.31,  166.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 391 ! SRCNAM = SRC_1_391 !
 391 ! X = 417.475, 6952.595,  3.31,  166.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 392 ! SRCNAM = SRC_1_392 !
 392 ! X = 417.492, 6952.591,  3.31,  165.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 393 ! SRCNAM = SRC_1_393 !
 393 ! X = 417.510, 6952.588,  3.31,  165.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 394 ! SRCNAM = SRC_1_394 !
 394 ! X = 417.527, 6952.584,  3.31,  165.51,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 395 ! SRCNAM = SRC_1_395 !
 395 ! X = 417.545, 6952.580,  3.31,  165.32,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 396 ! SRCNAM = SRC_1_396 !
 396 ! X = 417.562, 6952.576,  3.31,  165.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 397 ! SRCNAM = SRC_1_397 !
 397 ! X = 417.580, 6952.572,  3.31,  164.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 398 ! SRCNAM = SRC_1_398 !
 398 ! X = 417.598, 6952.568,  3.31,  164.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 399 ! SRCNAM = SRC_1_399 !
 399 ! X = 417.615, 6952.564,  3.31,  164.41,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 400 ! SRCNAM = SRC_1_400 !
 400 ! X = 417.633, 6952.560,  3.31,  164.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 401 ! SRCNAM = SRC_1_401 !
 401 ! X = 417.650, 6952.557,  3.31,  163.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 402 ! SRCNAM = SRC_1_402 !
 402 ! X = 417.668, 6952.553,  3.31,  163.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 403 ! SRCNAM = SRC_1_403 !
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 403 ! X = 417.685, 6952.549,  3.31,  163.52,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 404 ! SRCNAM = SRC_1_404 !
 404 ! X = 417.703, 6952.545,  3.31,  163.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 405 ! SRCNAM = SRC_1_405 !
 405 ! X = 417.721, 6952.541,  3.31,  163.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 406 ! SRCNAM = SRC_1_406 !
 406 ! X = 417.738, 6952.537,  3.31,  162.84,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 407 ! SRCNAM = SRC_1_407 !
 407 ! X = 417.756, 6952.533,  3.31,  162.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 408 ! SRCNAM = SRC_1_408 !
 408 ! X = 417.773, 6952.529,  3.31,  162.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 409 ! SRCNAM = SRC_1_409 !
 409 ! X = 417.791, 6952.525,  3.31,  162.15,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 410 ! SRCNAM = SRC_1_410 !
 410 ! X = 417.808, 6952.522,  3.31,  161.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 411 ! SRCNAM = SRC_1_411 !
 411 ! X = 417.826, 6952.518,  3.31,  161.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 412 ! SRCNAM = SRC_1_412 !
 412 ! X = 417.843, 6952.514,  3.31,  161.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 413 ! SRCNAM = SRC_1_413 !
 413 ! X = 417.861, 6952.510,  3.31,  161.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 414 ! SRCNAM = SRC_1_414 !
 414 ! X = 417.879, 6952.506,  3.31,  161.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 415 ! SRCNAM = SRC_1_415 !
 415 ! X = 417.896, 6952.502,  3.31,  160.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 416 ! SRCNAM = SRC_1_416 !
 416 ! X = 417.914, 6952.498,  3.31,  160.59,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 417 ! SRCNAM = SRC_1_417 !
 417 ! X = 417.931, 6952.494,  3.31,  160.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 418 ! SRCNAM = SRC_1_418 !
 418 ! X = 417.949, 6952.491,  3.31,  160.14,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 419 ! SRCNAM = SRC_1_419 !
 419 ! X = 417.966, 6952.487,  3.31,  159.92,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 420 ! SRCNAM = SRC_1_420 !
 420 ! X = 417.984, 6952.483,  3.31,  159.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 421 ! SRCNAM = SRC_1_421 !
 421 ! X = 418.002, 6952.479,  3.31,  159.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 422 ! SRCNAM = SRC_1_422 !
 422 ! X = 418.019, 6952.475,  3.31,  159.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 423 ! SRCNAM = SRC_1_423 !
 423 ! X = 418.037, 6952.471,  3.31,  159.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 424 ! SRCNAM = SRC_1_424 !
 424 ! X = 418.054, 6952.467,  3.31,  158.82,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 425 ! SRCNAM = SRC_1_425 !
 425 ! X = 418.072, 6952.463,  3.31,  158.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 426 ! SRCNAM = SRC_1_426 !
 426 ! X = 418.089, 6952.460,  3.31,  158.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 427 ! SRCNAM = SRC_1_427 !
 427 ! X = 418.107, 6952.456,  3.31,  157.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 428 ! SRCNAM = SRC_1_428 !
 428 ! X = 418.125, 6952.452,  3.31,  157.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 429 ! SRCNAM = SRC_1_429 !
 429 ! X = 418.142, 6952.448,  3.31,  157.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 430 ! SRCNAM = SRC_1_430 !
 430 ! X = 418.160, 6952.444,  3.31,  157.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 431 ! SRCNAM = SRC_1_431 !
 431 ! X = 418.177, 6952.440,  3.31,  157.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 432 ! SRCNAM = SRC_1_432 !
 432 ! X = 418.195, 6952.436,  3.31,  156.99,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 433 ! SRCNAM = SRC_1_433 !
 433 ! X = 418.212, 6952.432,  3.31,  156.77,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 434 ! SRCNAM = SRC_1_434 !
 434 ! X = 418.230, 6952.429,  3.31,  156.54,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 435 ! SRCNAM = SRC_1_435 !
 435 ! X = 418.248, 6952.425,  3.31,  156.32,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 436 ! SRCNAM = SRC_1_436 !
 436 ! X = 418.265, 6952.421,  3.31,  156.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 437 ! SRCNAM = SRC_1_437 !
 437 ! X = 418.283, 6952.417,  3.31,  155.87,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 438 ! SRCNAM = SRC_1_438 !
 438 ! X = 418.300, 6952.413,  3.31,  155.65,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 439 ! SRCNAM = SRC_1_439 !
 439 ! X = 418.318, 6952.409,  3.31,  155.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 440 ! SRCNAM = SRC_1_440 !
 440 ! X = 418.335, 6952.405,  3.31,  155.2,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 441 ! SRCNAM = SRC_1_441 !
 441 ! X = 418.353, 6952.401,  3.31,  154.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 442 ! SRCNAM = SRC_1_442 !
 442 ! X = 418.370, 6952.397,  3.31,  154.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 443 ! SRCNAM = SRC_1_443 !
 443 ! X = 418.388, 6952.394,  3.31,  154.53,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 444 ! SRCNAM = SRC_1_444 !
 444 ! X = 418.406, 6952.390,  3.31,  154.3,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 445 ! SRCNAM = SRC_1_445 !
 445 ! X = 418.423, 6952.386,  3.31,  154.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 446 ! SRCNAM = SRC_1_446 !
 446 ! X = 418.441, 6952.382,  3.31,  153.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 447 ! SRCNAM = SRC_1_447 !
 447 ! X = 418.458, 6952.378,  3.31,  153.63,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 448 ! SRCNAM = SRC_1_448 !
 448 ! X = 418.476, 6952.374,  3.31,  153.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 449 ! SRCNAM = SRC_1_449 !
 449 ! X = 418.493, 6952.370,  3.31,  152.52,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 450 ! SRCNAM = SRC_1_450 !
 450 ! X = 418.511, 6952.366,  3.31,  149.51,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 451 ! SRCNAM = SRC_1_451 !
 451 ! X = 418.529, 6952.363,  3.31,  152.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 452 ! SRCNAM = SRC_1_452 !
 452 ! X = 418.546, 6952.359,  3.31,  152.54,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 453 ! SRCNAM = SRC_1_453 !
 453 ! X = 418.564, 6952.355,  3.31,  152.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 454 ! SRCNAM = SRC_1_454 !
 454 ! X = 418.581, 6952.351,  3.31,  152.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 455 ! SRCNAM = SRC_1_455 !
 455 ! X = 418.599, 6952.347,  3.31,  151.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 456 ! SRCNAM = SRC_1_456 !
 456 ! X = 418.616, 6952.343,  3.31,  151.63,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 457 ! SRCNAM = SRC_1_457 !
 457 ! X = 418.634, 6952.339,  3.31,  151.41,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 458 ! SRCNAM = SRC_1_458 !
 458 ! X = 418.652, 6952.335,  3.31,  151.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 459 ! SRCNAM = SRC_1_459 !
 459 ! X = 418.669, 6952.332,  3.31,  150.96,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 460 ! SRCNAM = SRC_1_460 !
 460 ! X = 418.687, 6952.328,  3.31,  150.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 461 ! SRCNAM = SRC_1_461 !
 461 ! X = 418.704, 6952.324,  3.31,  150.52,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 462 ! SRCNAM = SRC_1_462 !
 462 ! X = 418.722, 6952.320,  3.31,  150.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 463 ! SRCNAM = SRC_1_463 !
 463 ! X = 418.739, 6952.316,  3.31,  150.1,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 464 ! SRCNAM = SRC_1_464 !
 464 ! X = 418.757, 6952.312,  3.31,  149.92,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 465 ! SRCNAM = SRC_1_465 !
 465 ! X = 418.775, 6952.308,  3.31,  149.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 466 ! SRCNAM = SRC_1_466 !
 466 ! X = 418.792, 6952.304,  3.31,  149.65,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 467 ! SRCNAM = SRC_1_467 !
 467 ! X = 418.810, 6952.300,  3.31,  149.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 468 ! SRCNAM = SRC_1_468 !
 468 ! X = 418.827, 6952.297,  3.31,  149.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 469 ! SRCNAM = SRC_1_469 !
 469 ! X = 418.845, 6952.293,  3.31,  149.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 470 ! SRCNAM = SRC_1_470 !
 470 ! X = 418.862, 6952.289,  3.31,  149.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 471 ! SRCNAM = SRC_1_471 !
 471 ! X = 418.880, 6952.285,  3.31,  149.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 472 ! SRCNAM = SRC_1_472 !
 472 ! X = 418.898, 6952.281,  3.31,  149.45,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 473 ! SRCNAM = SRC_1_473 !
 473 ! X = 418.915, 6952.277,  3.31,  149.51,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 474 ! SRCNAM = SRC_1_474 !
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 474 ! X = 418.933, 6952.273,  3.31,  149.59,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 475 ! SRCNAM = SRC_1_475 !
 475 ! X = 418.950, 6952.269,  3.31,  149.64,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 476 ! SRCNAM = SRC_1_476 !
 476 ! X = 418.968, 6952.266,  3.31,  149.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 477 ! SRCNAM = SRC_1_477 !
 477 ! X = 418.985, 6952.262,  3.31,  149.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 478 ! SRCNAM = SRC_1_478 !
 478 ! X = 419.003, 6952.258,  3.31,  149.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 479 ! SRCNAM = SRC_1_479 !
 479 ! X = 419.020, 6952.254,  3.31,  149.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 480 ! SRCNAM = SRC_1_480 !
 480 ! X = 419.038, 6952.250,  3.31,  149.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 481 ! SRCNAM = SRC_1_481 !
 481 ! X = 419.056, 6952.246,  3.31,  150.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 482 ! SRCNAM = SRC_1_482 !
 482 ! X = 419.073, 6952.242,  3.31,  148.01,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 483 ! SRCNAM = SRC_1_483 !
 483 ! X = 419.091, 6952.238,  3.31,  149.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 484 ! SRCNAM = SRC_1_484 !
 484 ! X = 419.108, 6952.235,  3.31,  150.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 485 ! SRCNAM = SRC_1_485 !
 485 ! X = 419.126, 6952.231,  3.31,  150.3,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 486 ! SRCNAM = SRC_1_486 !
 486 ! X = 419.143, 6952.227,  3.31,  150.37,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 487 ! SRCNAM = SRC_1_487 !
 487 ! X = 419.161, 6952.223,  3.31,  150.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 488 ! SRCNAM = SRC_1_488 !
 488 ! X = 419.179, 6952.219,  3.31,  150.51,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 489 ! SRCNAM = SRC_1_489 !
 489 ! X = 419.196, 6952.215,  3.31,  150.57,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 490 ! SRCNAM = SRC_1_490 !
 490 ! X = 419.214, 6952.211,  3.31,  150.64,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 491 ! SRCNAM = SRC_1_491 !
 491 ! X = 419.231, 6952.207,  3.31,  150.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 492 ! SRCNAM = SRC_1_492 !
 492 ! X = 419.249, 6952.204,  3.31,  150.77,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 493 ! SRCNAM = SRC_1_493 !
 493 ! X = 419.266, 6952.200,  3.31,  150.84,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 494 ! SRCNAM = SRC_1_494 !
 494 ! X = 419.284, 6952.196,  3.31,  150.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 495 ! SRCNAM = SRC_1_495 !
 495 ! X = 419.302, 6952.192,  3.31,  150.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 496 ! SRCNAM = SRC_1_496 !
 496 ! X = 419.319, 6952.188,  3.31,  151.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 497 ! SRCNAM = SRC_1_497 !
 497 ! X = 419.337, 6952.184,  3.31,  151.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 498 ! SRCNAM = SRC_1_498 !
 498 ! X = 419.354, 6952.180,  3.31,  151.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 499 ! SRCNAM = SRC_1_499 !
 499 ! X = 419.372, 6952.176,  3.31,  151.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 500 ! SRCNAM = SRC_1_500 !
 500 ! X = 419.389, 6952.172,  3.31,  151.32,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 501 ! SRCNAM = SRC_1_501 !
 501 ! X = 419.407, 6952.168,  3.31,  151.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 502 ! SRCNAM = SRC_1_502 !
 502 ! X = 419.424, 6952.164,  3.31,  151.45,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 503 ! SRCNAM = SRC_1_503 !
 503 ! X = 419.442, 6952.159,  3.31,  144.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 504 ! SRCNAM = SRC_1_504 !
 504 ! X = 419.459, 6952.155,  3.31,  151.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 505 ! SRCNAM = SRC_1_505 !
 505 ! X = 419.476, 6952.150,  3.31,  151.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 506 ! SRCNAM = SRC_1_506 !
 506 ! X = 419.494, 6952.144,  3.31,  151.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 507 ! SRCNAM = SRC_1_507 !
 507 ! X = 419.511, 6952.139,  3.31,  151.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 508 ! SRCNAM = SRC_1_508 !
 508 ! X = 419.528, 6952.133,  3.31,  151.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 509 ! SRCNAM = SRC_1_509 !
 509 ! X = 419.545, 6952.127,  3.31,  151.96,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 510 ! SRCNAM = SRC_1_510 !
 510 ! X = 419.562, 6952.121,  3.31,  152.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 511 ! SRCNAM = SRC_1_511 !
 511 ! X = 419.578, 6952.114,  3.31,  152.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 512 ! SRCNAM = SRC_1_512 !
 512 ! X = 419.595, 6952.107,  3.31,  152.16,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 513 ! SRCNAM = SRC_1_513 !
 513 ! X = 419.612, 6952.100,  3.31,  152.23,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 514 ! SRCNAM = SRC_1_514 !
 514 ! X = 419.628, 6952.093,  3.31,  152.3,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 515 ! SRCNAM = SRC_1_515 !
 515 ! X = 419.644, 6952.086,  3.31,  152.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 516 ! SRCNAM = SRC_1_516 !
 516 ! X = 419.661, 6952.078,  3.31,  152.43,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 517 ! SRCNAM = SRC_1_517 !
 517 ! X = 419.677, 6952.070,  3.31,  152.48,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 518 ! SRCNAM = SRC_1_518 !
 518 ! X = 419.693, 6952.061,  3.31,  152.56,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 519 ! SRCNAM = SRC_1_519 !
 519 ! X = 419.708, 6952.053,  3.31,  152.63,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 520 ! SRCNAM = SRC_1_520 !
 520 ! X = 419.724, 6952.044,  3.31,  152.67,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 521 ! SRCNAM = SRC_1_521 !
 521 ! X = 419.740, 6952.035,  3.31,  150.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 522 ! SRCNAM = SRC_1_522 !
 522 ! X = 419.755, 6952.026,  3.31,  152.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 523 ! SRCNAM = SRC_1_523 !
 523 ! X = 419.771, 6952.017,  3.31,  152.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 524 ! SRCNAM = SRC_1_524 !
 524 ! X = 419.786, 6952.007,  3.31,  152.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 525 ! SRCNAM = SRC_1_525 !
 525 ! X = 419.801, 6951.998,  3.31,  152.73,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 526 ! SRCNAM = SRC_1_526 !
 526 ! X = 419.817, 6951.989,  3.31,  152.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 527 ! SRCNAM = SRC_1_527 !
 527 ! X = 419.832, 6951.979,  3.31,  152.63,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 528 ! SRCNAM = SRC_1_528 !
 528 ! X = 419.847, 6951.970,  3.31,  152.56,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 529 ! SRCNAM = SRC_1_529 !
 529 ! X = 419.863, 6951.961,  3.31,  152.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 530 ! SRCNAM = SRC_1_530 !
 530 ! X = 419.879, 6951.952,  3.31,  152.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 531 ! SRCNAM = SRC_1_531 !
 531 ! X = 419.894, 6951.943,  3.31,  152.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 532 ! SRCNAM = SRC_1_532 !
 532 ! X = 419.910, 6951.935,  3.31,  152.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 533 ! SRCNAM = SRC_1_533 !
 533 ! X = 419.926, 6951.927,  3.31,  152.0,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 534 ! SRCNAM = SRC_1_534 !
 534 ! X = 419.943, 6951.919,  3.31,  151.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 535 ! SRCNAM = SRC_1_535 !
 535 ! X = 419.959, 6951.912,  3.31,  151.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 536 ! SRCNAM = SRC_1_536 !
 536 ! X = 419.975, 6951.904,  3.31,  151.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 537 ! SRCNAM = SRC_1_537 !
 537 ! X = 419.992, 6951.897,  3.31,  151.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 538 ! SRCNAM = SRC_1_538 !
 538 ! X = 420.008, 6951.890,  3.31,  151.37,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 539 ! SRCNAM = SRC_1_539 !
 539 ! X = 420.025, 6951.884,  3.31,  151.23,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 540 ! SRCNAM = SRC_1_540 !
 540 ! X = 420.042, 6951.877,  3.31,  151.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 541 ! SRCNAM = SRC_1_541 !
 541 ! X = 420.059, 6951.871,  3.31,  150.99,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 542 ! SRCNAM = SRC_1_542 !
 542 ! X = 420.076, 6951.865,  3.31,  150.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 543 ! SRCNAM = SRC_1_543 !
 543 ! X = 420.093, 6951.860,  3.31,  150.73,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 544 ! SRCNAM = SRC_1_544 !
 544 ! X = 420.110, 6951.854,  3.31,  150.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 545 ! SRCNAM = SRC_1_545 !
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 545 ! X = 420.128, 6951.849,  3.31,  150.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 546 ! SRCNAM = SRC_1_546 !
 546 ! X = 420.145, 6951.844,  3.31,  150.36,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 547 ! SRCNAM = SRC_1_547 !
 547 ! X = 420.162, 6951.840,  3.31,  150.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 548 ! SRCNAM = SRC_1_548 !
 548 ! X = 420.180, 6951.835,  3.31,  150.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 549 ! SRCNAM = SRC_1_549 !
 549 ! X = 420.197, 6951.831,  3.31,  149.99,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 550 ! SRCNAM = SRC_1_550 !
 550 ! X = 420.215, 6951.828,  3.31,  149.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 551 ! SRCNAM = SRC_1_551 !
 551 ! X = 420.232, 6951.824,  3.31,  149.73,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 552 ! SRCNAM = SRC_1_552 !
 552 ! X = 420.250, 6951.821,  3.31,  149.61,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 553 ! SRCNAM = SRC_1_553 !
 553 ! X = 420.268, 6951.818,  3.31,  149.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 554 ! SRCNAM = SRC_1_554 !
 554 ! X = 420.286, 6951.815,  3.31,  149.34,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 555 ! SRCNAM = SRC_1_555 !
 555 ! X = 420.303, 6951.813,  3.31,  149.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 556 ! SRCNAM = SRC_1_556 !
 556 ! X = 420.321, 6951.810,  3.31,  149.1,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 557 ! SRCNAM = SRC_1_557 !
 557 ! X = 420.339, 6951.808,  3.31,  148.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 558 ! SRCNAM = SRC_1_558 !
 558 ! X = 420.357, 6951.807,  3.31,  148.84,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 559 ! SRCNAM = SRC_1_559 !
 559 ! X = 420.375, 6951.805,  3.31,  148.72,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 560 ! SRCNAM = SRC_1_560 !
 560 ! X = 420.393, 6951.804,  3.31,  148.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 561 ! SRCNAM = SRC_1_561 !
 561 ! X = 420.411, 6951.803,  3.31,  148.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 562 ! SRCNAM = SRC_1_562 !
 562 ! X = 420.429, 6951.803,  3.31,  148.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 563 ! SRCNAM = SRC_1_563 !
 563 ! X = 420.447, 6951.803,  3.31,  148.21,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 564 ! SRCNAM = SRC_1_564 !
 564 ! X = 420.465, 6951.803,  3.31,  148.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 565 ! SRCNAM = SRC_1_565 !
 565 ! X = 420.483, 6951.803,  3.31,  147.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 566 ! SRCNAM = SRC_1_566 !
 566 ! X = 420.501, 6951.803,  3.31,  147.82,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 567 ! SRCNAM = SRC_1_567 !
 567 ! X = 420.519, 6951.804,  3.31,  147.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 568 ! SRCNAM = SRC_1_568 !
 568 ! X = 420.537, 6951.805,  3.31,  147.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 569 ! SRCNAM = SRC_1_569 !
 569 ! X = 420.555, 6951.806,  3.31,  147.45,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 570 ! SRCNAM = SRC_1_570 !
 570 ! X = 420.573, 6951.808,  3.31,  147.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 571 ! SRCNAM = SRC_1_571 !
 571 ! X = 420.591, 6951.810,  3.31,  147.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 572 ! SRCNAM = SRC_1_572 !
 572 ! X = 420.609, 6951.812,  3.31,  147.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 573 ! SRCNAM = SRC_1_573 !
 573 ! X = 420.626, 6951.814,  3.31,  146.95,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 574 ! SRCNAM = SRC_1_574 !
 574 ! X = 420.644, 6951.817,  3.31,  146.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 575 ! SRCNAM = SRC_1_575 !
 575 ! X = 420.662, 6951.820,  3.31,  146.7,     8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 576 ! SRCNAM = SRC_1_576 !
 576 ! X = 420.680, 6951.823,  3.31,  146.56,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 577 ! SRCNAM = SRC_1_577 !
 577 ! X = 420.697, 6951.826,  3.31,  146.44,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 578 ! SRCNAM = SRC_1_578 !
 578 ! X = 420.715, 6951.829,  3.31,  146.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 579 ! SRCNAM = SRC_1_579 !
 579 ! X = 420.733, 6951.832,  3.31,  146.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 580 ! SRCNAM = SRC_1_580 !
 580 ! X = 420.751, 6951.835,  3.31,  146.07,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 581 ! SRCNAM = SRC_1_581 !
 581 ! X = 420.768, 6951.838,  3.31,  145.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 582 ! SRCNAM = SRC_1_582 !
 582 ! X = 420.786, 6951.841,  3.31,  145.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 583 ! SRCNAM = SRC_1_583 !
 583 ! X = 420.804, 6951.844,  3.31,  145.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 584 ! SRCNAM = SRC_1_584 !
 584 ! X = 420.821, 6951.847,  3.31,  145.57,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 585 ! SRCNAM = SRC_1_585 !
 585 ! X = 420.839, 6951.850,  3.31,  145.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 586 ! SRCNAM = SRC_1_586 !
 586 ! X = 420.857, 6951.853,  3.31,  145.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 587 ! SRCNAM = SRC_1_587 !
 587 ! X = 420.875, 6951.856,  3.31,  145.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 588 ! SRCNAM = SRC_1_588 !
 588 ! X = 420.892, 6951.859,  3.31,  145.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 589 ! SRCNAM = SRC_1_589 !
 589 ! X = 420.910, 6951.862,  3.31,  144.92,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 590 ! SRCNAM = SRC_1_590 !
 590 ! X = 420.928, 6951.865,  3.31,  144.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 591 ! SRCNAM = SRC_1_591 !
 591 ! X = 420.946, 6951.868,  3.31,  144.68,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 592 ! SRCNAM = SRC_1_592 !
 592 ! X = 420.963, 6951.871,  3.31,  144.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 593 ! SRCNAM = SRC_1_593 !
 593 ! X = 420.981, 6951.875,  3.31,  144.41,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 594 ! SRCNAM = SRC_1_594 !
 594 ! X = 420.999, 6951.878,  3.31,  144.29,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 595 ! SRCNAM = SRC_1_595 !
 595 ! X = 421.017, 6951.881,  3.31,  144.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 596 ! SRCNAM = SRC_1_596 !
 596 ! X = 421.034, 6951.884,  3.31,  144.03,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 597 ! SRCNAM = SRC_1_597 !
 597 ! X = 421.052, 6951.887,  3.31,  143.92,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 598 ! SRCNAM = SRC_1_598 !
 598 ! X = 421.070, 6951.890,  3.31,  143.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 599 ! SRCNAM = SRC_1_599 !
 599 ! X = 421.087, 6951.893,  3.31,  143.64,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 600 ! SRCNAM = SRC_1_600 !
 600 ! X = 421.105, 6951.896,  3.31,  143.48,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 601 ! SRCNAM = SRC_1_601 !
 601 ! X = 421.123, 6951.899,  3.31,  143.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 602 ! SRCNAM = SRC_1_602 !
 602 ! X = 421.141, 6951.902,  3.31,  143.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 603 ! SRCNAM = SRC_1_603 !
 603 ! X = 421.158, 6951.905,  3.31,  143.03,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 604 ! SRCNAM = SRC_1_604 !
 604 ! X = 421.176, 6951.908,  3.31,  142.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 605 ! SRCNAM = SRC_1_605 !
 605 ! X = 421.194, 6951.911,  3.31,  142.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 606 ! SRCNAM = SRC_1_606 !
 606 ! X = 421.212, 6951.914,  3.31,  142.53,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 607 ! SRCNAM = SRC_1_607 !
 607 ! X = 421.229, 6951.917,  3.31,  142.34,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 608 ! SRCNAM = SRC_1_608 !
 608 ! X = 421.247, 6951.920,  3.31,  142.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 609 ! SRCNAM = SRC_1_609 !
 609 ! X = 421.265, 6951.923,  3.31,  141.99,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 610 ! SRCNAM = SRC_1_610 !
 610 ! X = 421.282, 6951.926,  3.31,  141.82,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 611 ! SRCNAM = SRC_1_611 !
 611 ! X = 421.300, 6951.930,  3.31,  141.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 612 ! SRCNAM = SRC_1_612 !
 612 ! X = 421.318, 6951.933,  3.31,  141.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 613 ! SRCNAM = SRC_1_613 !
 613 ! X = 421.336, 6951.936,  3.31,  141.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 614 ! SRCNAM = SRC_1_614 !
 614 ! X = 421.353, 6951.939,  3.31,  141.1,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 615 ! SRCNAM = SRC_1_615 !
 615 ! X = 421.371, 6951.942,  3.31,  140.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 616 ! SRCNAM = SRC_1_616 !
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 616 ! X = 421.389, 6951.945,  3.31,  140.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 617 ! SRCNAM = SRC_1_617 !
 617 ! X = 421.407, 6951.948,  3.31,  140.56,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 618 ! SRCNAM = SRC_1_618 !
 618 ! X = 421.424, 6951.951,  3.31,  140.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 619 ! SRCNAM = SRC_1_619 !
 619 ! X = 421.442, 6951.954,  3.31,  140.21,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 620 ! SRCNAM = SRC_1_620 !
 620 ! X = 421.460, 6951.957,  3.31,  140.02,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 621 ! SRCNAM = SRC_1_621 !
 621 ! X = 421.477, 6951.960,  3.31,  139.86,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 622 ! SRCNAM = SRC_1_622 !
 622 ! X = 421.495, 6951.963,  3.31,  139.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 623 ! SRCNAM = SRC_1_623 !
 623 ! X = 421.513, 6951.966,  3.31,  139.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 624 ! SRCNAM = SRC_1_624 !
 624 ! X = 421.531, 6951.969,  3.31,  139.3,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 625 ! SRCNAM = SRC_1_625 !
 625 ! X = 421.548, 6951.972,  3.31,  139.14,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 626 ! SRCNAM = SRC_1_626 !
 626 ! X = 421.566, 6951.975,  3.31,  138.96,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 627 ! SRCNAM = SRC_1_627 !
 627 ! X = 421.584, 6951.978,  3.31,  138.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 628 ! SRCNAM = SRC_1_628 !
 628 ! X = 421.602, 6951.982,  3.31,  138.59,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 629 ! SRCNAM = SRC_1_629 !
 629 ! X = 421.619, 6951.985,  3.31,  138.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 630 ! SRCNAM = SRC_1_630 !
 630 ! X = 421.637, 6951.988,  3.31,  138.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 631 ! SRCNAM = SRC_1_631 !
 631 ! X = 421.655, 6951.991,  3.31,  138.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 632 ! SRCNAM = SRC_1_632 !
 632 ! X = 421.672, 6951.994,  3.31,  137.9,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 633 ! SRCNAM = SRC_1_633 !
 633 ! X = 421.690, 6951.997,  3.31,  137.7,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 634 ! SRCNAM = SRC_1_634 !
 634 ! X = 421.708, 6952.000,  3.31,  137.53,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 635 ! SRCNAM = SRC_1_635 !
 635 ! X = 421.726, 6952.003,  3.31,  137.34,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 636 ! SRCNAM = SRC_1_636 !
 636 ! X = 421.743, 6952.006,  3.31,  137.18,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 637 ! SRCNAM = SRC_1_637 !
 637 ! X = 421.761, 6952.009,  3.31,  136.99,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 638 ! SRCNAM = SRC_1_638 !
 638 ! X = 421.779, 6952.012,  3.31,  136.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 639 ! SRCNAM = SRC_1_639 !
 639 ! X = 421.797, 6952.015,  3.31,  136.62,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 640 ! SRCNAM = SRC_1_640 !
 640 ! X = 421.814, 6952.018,  3.31,  136.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 641 ! SRCNAM = SRC_1_641 !
 641 ! X = 421.832, 6952.021,  3.31,  136.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 642 ! SRCNAM = SRC_1_642 !
 642 ! X = 421.850, 6952.024,  3.31,  136.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 643 ! SRCNAM = SRC_1_643 !
 643 ! X = 421.868, 6952.027,  3.31,  135.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 644 ! SRCNAM = SRC_1_644 !
 644 ! X = 421.885, 6952.030,  3.31,  135.74,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 645 ! SRCNAM = SRC_1_645 !
 645 ! X = 421.903, 6952.033,  3.31,  135.57,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 646 ! SRCNAM = SRC_1_646 !
 646 ! X = 421.921, 6952.037,  3.31,  135.37,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 647 ! SRCNAM = SRC_1_647 !
 647 ! X = 421.938, 6952.040,  3.31,  135.21,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 648 ! SRCNAM = SRC_1_648 !
 648 ! X = 421.956, 6952.043,  3.31,  135.03,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 649 ! SRCNAM = SRC_1_649 !
 649 ! X = 421.974, 6952.046,  3.31,  134.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 650 ! SRCNAM = SRC_1_650 !
 650 ! X = 421.992, 6952.049,  3.31,  134.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 651 ! SRCNAM = SRC_1_651 !
 651 ! X = 422.009, 6952.052,  3.31,  134.5,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
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!END!
 652 ! SRCNAM = SRC_1_652 !
 652 ! X = 422.027, 6952.055,  3.31,  134.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 653 ! SRCNAM = SRC_1_653 !
 653 ! X = 422.045, 6952.058,  3.31,  134.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 654 ! SRCNAM = SRC_1_654 !
 654 ! X = 422.063, 6952.061,  3.31,  133.97,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 655 ! SRCNAM = SRC_1_655 !
 655 ! X = 422.080, 6952.064,  3.31,  133.78,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 656 ! SRCNAM = SRC_1_656 !
 656 ! X = 422.098, 6952.067,  3.31,  133.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 657 ! SRCNAM = SRC_1_657 !
 657 ! X = 422.116, 6952.070,  3.31,  133.41,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 658 ! SRCNAM = SRC_1_658 !
 658 ! X = 422.133, 6952.073,  3.31,  133.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 659 ! SRCNAM = SRC_1_659 !
 659 ! X = 422.151, 6952.076,  3.31,  133.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 660 ! SRCNAM = SRC_1_660 !
 660 ! X = 422.169, 6952.079,  3.31,  132.89,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 661 ! SRCNAM = SRC_1_661 !
 661 ! X = 422.187, 6952.082,  3.31,  132.72,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 662 ! SRCNAM = SRC_1_662 !
 662 ! X = 422.204, 6952.085,  3.31,  132.53,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 663 ! SRCNAM = SRC_1_663 !
 663 ! X = 422.222, 6952.089,  3.31,  132.34,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 664 ! SRCNAM = SRC_1_664 !
 664 ! X = 422.240, 6952.092,  3.31,  132.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 665 ! SRCNAM = SRC_1_665 !
 665 ! X = 422.258, 6952.095,  3.31,  131.98,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 666 ! SRCNAM = SRC_1_666 !
 666 ! X = 422.275, 6952.098,  3.31,  131.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 667 ! SRCNAM = SRC_1_667 !
 667 ! X = 422.293, 6952.102,  3.31,  131.64,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 668 ! SRCNAM = SRC_1_668 !
 668 ! X = 422.310, 6952.105,  3.31,  131.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 669 ! SRCNAM = SRC_1_669 !
 669 ! X = 422.328, 6952.109,  3.31,  131.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
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 0.0001648, 0.001772, 0.0005089 !
!END!
 670 ! SRCNAM = SRC_1_670 !
 670 ! X = 422.345, 6952.113,  3.31,  131.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 671 ! SRCNAM = SRC_1_671 !
 671 ! X = 422.363, 6952.118,  3.31,  130.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 672 ! SRCNAM = SRC_1_672 !
 672 ! X = 422.380, 6952.123,  3.31,  127.65,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 673 ! SRCNAM = SRC_1_673 !
 673 ! X = 422.398, 6952.128,  3.31,  130.55,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 674 ! SRCNAM = SRC_1_674 !
 674 ! X = 422.415, 6952.133,  3.31,  128.75,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 675 ! SRCNAM = SRC_1_675 !
 675 ! X = 422.432, 6952.139,  3.31,  130.21,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 676 ! SRCNAM = SRC_1_676 !
 676 ! X = 422.449, 6952.144,  3.31,  130.04,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 677 ! SRCNAM = SRC_1_677 !
 677 ! X = 422.466, 6952.150,  3.31,  129.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 678 ! SRCNAM = SRC_1_678 !
 678 ! X = 422.483, 6952.157,  3.31,  129.67,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 679 ! SRCNAM = SRC_1_679 !
 679 ! X = 422.499, 6952.163,  3.31,  129.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 680 ! SRCNAM = SRC_1_680 !
 680 ! X = 422.516, 6952.170,  3.31,  129.29,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 681 ! SRCNAM = SRC_1_681 !
 681 ! X = 422.533, 6952.177,  3.31,  129.09,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 682 ! SRCNAM = SRC_1_682 !
 682 ! X = 422.549, 6952.184,  3.31,  128.89,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 683 ! SRCNAM = SRC_1_683 !
 683 ! X = 422.565, 6952.192,  3.31,  128.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 684 ! SRCNAM = SRC_1_684 !
 684 ! X = 422.582, 6952.199,  3.31,  128.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 685 ! SRCNAM = SRC_1_685 !
 685 ! X = 422.598, 6952.207,  3.31,  128.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 686 ! SRCNAM = SRC_1_686 !
 686 ! X = 422.614, 6952.215,  3.31,  128.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 687 ! SRCNAM = SRC_1_687 !
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 687 ! X = 422.630, 6952.223,  3.31,  127.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 688 ! SRCNAM = SRC_1_688 !
 688 ! X = 422.647, 6952.231,  3.31,  127.61,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 689 ! SRCNAM = SRC_1_689 !
 689 ! X = 422.663, 6952.238,  3.31,  127.38,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 690 ! SRCNAM = SRC_1_690 !
 690 ! X = 422.679, 6952.246,  3.31,  127.15,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 691 ! SRCNAM = SRC_1_691 !
 691 ! X = 422.695, 6952.254,  3.31,  126.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 692 ! SRCNAM = SRC_1_692 !
 692 ! X = 422.711, 6952.262,  3.31,  126.7,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 693 ! SRCNAM = SRC_1_693 !
 693 ! X = 422.728, 6952.270,  3.31,  126.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 694 ! SRCNAM = SRC_1_694 !
 694 ! X = 422.744, 6952.278,  3.31,  126.27,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 695 ! SRCNAM = SRC_1_695 !
 695 ! X = 422.760, 6952.285,  3.31,  126.03,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 696 ! SRCNAM = SRC_1_696 !
 696 ! X = 422.776, 6952.293,  3.31,  125.82,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 697 ! SRCNAM = SRC_1_697 !
 697 ! X = 422.793, 6952.301,  3.31,  125.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 698 ! SRCNAM = SRC_1_698 !
 698 ! X = 422.809, 6952.308,  3.31,  125.36,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 699 ! SRCNAM = SRC_1_699 !
 699 ! X = 422.826, 6952.315,  3.31,  125.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 700 ! SRCNAM = SRC_1_700 !
 700 ! X = 422.842, 6952.322,  3.31,  124.93,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 701 ! SRCNAM = SRC_1_701 !
 701 ! X = 422.859, 6952.328,  3.31,  124.71,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 702 ! SRCNAM = SRC_1_702 !
 702 ! X = 422.876, 6952.334,  3.31,  124.48,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 703 ! SRCNAM = SRC_1_703 !
 703 ! X = 422.893, 6952.340,  3.31,  124.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 704 ! SRCNAM = SRC_1_704 !
 704 ! X = 422.910, 6952.345,  3.31,  124.03,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
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 705 ! SRCNAM = SRC_1_705 !
 705 ! X = 422.927, 6952.351,  3.31,  123.8,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 706 ! SRCNAM = SRC_1_706 !
 706 ! X = 422.945, 6952.355,  3.31,  123.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 707 ! SRCNAM = SRC_1_707 !
 707 ! X = 422.962, 6952.360,  3.31,  123.37,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 708 ! SRCNAM = SRC_1_708 !
 708 ! X = 422.980, 6952.364,  3.31,  123.13,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 709 ! SRCNAM = SRC_1_709 !
 709 ! X = 422.997, 6952.367,  3.31,  122.91,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 710 ! SRCNAM = SRC_1_710 !
 710 ! X = 423.015, 6952.371,  3.31,  122.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 711 ! SRCNAM = SRC_1_711 !
 711 ! X = 423.033, 6952.374,  3.31,  122.47,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 712 ! SRCNAM = SRC_1_712 !
 712 ! X = 423.051, 6952.376,  3.31,  122.25,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 713 ! SRCNAM = SRC_1_713 !
 713 ! X = 423.069, 6952.378,  3.31,  122.05,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 714 ! SRCNAM = SRC_1_714 !
 714 ! X = 423.086, 6952.380,  3.31,  121.85,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 715 ! SRCNAM = SRC_1_715 !
 715 ! X = 423.104, 6952.382,  3.31,  121.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 716 ! SRCNAM = SRC_1_716 !
 716 ! X = 423.122, 6952.384,  3.31,  121.49,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 717 ! SRCNAM = SRC_1_717 !
 717 ! X = 423.140, 6952.385,  3.31,  121.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 718 ! SRCNAM = SRC_1_718 !
 718 ! X = 423.158, 6952.386,  3.31,  121.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 719 ! SRCNAM = SRC_1_719 !
 719 ! X = 423.176, 6952.388,  3.31,  120.96,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 720 ! SRCNAM = SRC_1_720 !
 720 ! X = 423.194, 6952.389,  3.31,  120.77,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 721 ! SRCNAM = SRC_1_721 !
 721 ! X = 423.212, 6952.391,  3.31,  120.6,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 722 ! SRCNAM = SRC_1_722 !
 722 ! X = 423.230, 6952.392,  3.31,  120.43,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
```

```
!END!
 723 ! SRCNAM = SRC_1_723 !
 723 ! X = 423.248, 6952.393,  3.31,  120.24,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 724 ! SRCNAM = SRC_1_724 !
 724 ! X = 423.266, 6952.395,  3.31,  120.08,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 725 ! SRCNAM = SRC_1_725 !
 725 ! X = 423.284, 6952.396,  3.31,  119.89,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 726 ! SRCNAM = SRC_1_726 !
 726 ! X = 423.302, 6952.398,  3.31,  119.72,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 727 ! SRCNAM = SRC_1_727 !
 727 ! X = 423.320, 6952.399,  3.31,  119.54,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 728 ! SRCNAM = SRC_1_728 !
 728 ! X = 423.337, 6952.400,  3.31,  119.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 729 ! SRCNAM = SRC_1_729 !
 729 ! X = 423.355, 6952.402,  3.31,  119.19,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 730 ! SRCNAM = SRC_1_730 !
 730 ! X = 423.373, 6952.403,  3.31,  119.0,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 731 ! SRCNAM = SRC_1_731 !
 731 ! X = 423.391, 6952.405,  3.31,  118.83,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 732 ! SRCNAM = SRC_1_732 !
 732 ! X = 423.409, 6952.406,  3.31,  118.66,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 733 ! SRCNAM = SRC_1_733 !
 733 ! X = 423.427, 6952.407,  3.31,  118.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 734 ! SRCNAM = SRC_1_734 !
 734 ! X = 423.445, 6952.409,  3.31,  118.31,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 735 ! SRCNAM = SRC_1_735 !
 735 ! X = 423.463, 6952.410,  3.31,  118.12,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 736 ! SRCNAM = SRC_1_736 !
 736 ! X = 423.481, 6952.412,  3.31,  117.94,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 737 ! SRCNAM = SRC_1_737 !
 737 ! X = 423.499, 6952.413,  3.31,  117.77,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 738 ! SRCNAM = SRC_1_738 !
 738 ! X = 423.517, 6952.414,  3.31,  117.58,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 739 ! SRCNAM = SRC_1_739 !
 739 ! X = 423.535, 6952.416,  3.31,  117.42,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 740 ! SRCNAM = SRC_1_740 !
 740 ! X = 423.553, 6952.417,  3.31,  117.23,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
```

```
 0.0001648, 0.001772, 0.0005089 !
!END!
 741 ! SRCNAM = SRC_1_741 !
 741 ! X = 423.571, 6952.419,  3.31,  117.06,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 742 ! SRCNAM = SRC_1_742 !
 742 ! X = 423.589, 6952.420,  3.31,  116.89,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 743 ! SRCNAM = SRC_1_743 !
 743 ! X = 423.607, 6952.421,  3.31,  116.7,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 744 ! SRCNAM = SRC_1_744 !
 744 ! X = 423.624, 6952.423,  3.31,  116.54,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 745 ! SRCNAM = SRC_1_745 !
 745 ! X = 423.642, 6952.424,  3.31,  116.35,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 746 ! SRCNAM = SRC_1_746 !
 746 ! X = 423.660, 6952.426,  3.31,  116.17,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 747 ! SRCNAM = SRC_1_747 !
 747 ! X = 423.678, 6952.427,  3.31,  116.0,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 748 ! SRCNAM = SRC_1_748 !
 748 ! X = 423.696, 6952.428,  3.31,  115.81,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 749 ! SRCNAM = SRC_1_749 !
 749 ! X = 423.714, 6952.430,  3.31,  115.65,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 750 ! SRCNAM = SRC_1_750 !
 750 ! X = 423.732, 6952.431,  3.31,  115.46,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 751 ! SRCNAM = SRC_1_751 !
 751 ! X = 423.750, 6952.433,  3.31,  115.28,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 752 ! SRCNAM = SRC_1_752 !
 752 ! X = 423.768, 6952.434,  3.31,  115.11,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 753 ! SRCNAM = SRC_1_753 !
 753 ! X = 423.786, 6952.435,  3.31,  114.92,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 754 ! SRCNAM = SRC_1_754 !
 754 ! X = 423.804, 6952.437,  3.31,  114.76,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 755 ! SRCNAM = SRC_1_755 !
 755 ! X = 423.822, 6952.438,  3.31,  114.57,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 756 ! SRCNAM = SRC_1_756 !
 756 ! X = 423.840, 6952.440,  3.31,  114.4,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 757 ! SRCNAM = SRC_1_757 !
 757 ! X = 423.858, 6952.441,  3.31,  114.22,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 758 ! SRCNAM = SRC_1_758 !
```

```
 758 ! X = 423.876, 6952.442,  3.31,  114.04,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 759 ! SRCNAM = SRC_1_759 !
 759 ! X = 423.893, 6952.444,  3.31,  113.88,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 760 ! SRCNAM = SRC_1_760 !
 760 ! X = 423.911, 6952.445,  3.31,  113.69,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!
 761 ! SRCNAM = SRC_1_761 !
 761 ! X = 423.929, 6952.446,  3.31,  113.52,    8.37,   3.08, 0.0001758, 0.003381, 0.0001716,
 0.0001648, 0.001772, 0.0005089 !
!END!

--------
  a
   Data for each source are treated as a separate input subgroup
   and therefore must end with an input group terminator.

  b
   An emission rate must be entered for every pollutant modeled.
   Enter emission rate of zero for secondary pollutants that are
   modeled, but not emitted. Units are specified by IVLU
   (e.g. 1 for g/s).

---------------
Subgroup (16c)
---------------
                    a
     VOLUME SOURCE: EMISSION-RATE SCALING FACTORS
     --------------------------------------------

   Use this subgroup to identify temporal variations in the emission
   rates given in 16b. Factors assigned multiply the rates in 16b.
   Skip sources here that have constant emissions. For more elaborate
   variation in source parameters, use VOLEMARB.DAT and NVL2 > 0.

   Sets of emission-rate scale factors are defined in Input Group 19, and
   are referenced by the FACTORNAME. Provide NSVL1 lines that identify the
   emission-rate scale factor table for each source-species combination that
   uses the scaling option. Note that a scale-factor table can be used with
   more than one source-species combination so a FACTORNAME can be repeated.


 Source-       Source   Species   Scale-factor table
 Species       Name  b  Name  c   Name    d
  No.        (SRCNAM)   (CSPEC)   (FACTORNAME)
 ------       ------------ ------------ ---------------------



--------
  a
   Data for each species are treated as a separate input subgroup
   and therefore must end with an input group terminator.
  b
   Source name must match one of the SRCNAM names defined in Input Group 16b
  c
   Species name must match one of the CSPEC names of emitted species defined in Input Group 3
  d
   Scale-factor name must match one of the FACTORNAME names defined in Input Group 19


--------------------------------------------------------------------------------

INPUT GROUP: 17 -- FLARE source control parameters (variable emissions file)
---------------

   Number of flare sources defined in FLEMARB.DAT file(s)
```

(NFL2) Default: 0 ! NFL2 = 0 !

(At least 1 FLEMARB.DAT file is needed if NFL2 > 0)

!END!

INPUT GROUPS: 18a, 18b, 18c -- Road Emissions parameters

Subgroup (18a)

Emissions from roads are generated from individual line segments defined by a sequence of coordinates provided for each road-link. Each link is entered as a discrete source and is defined as a section of the road for which emissions are uniform.

A long, winding isolated road might be characterized by a single link made up of many coordinate triples (x,y,z) that describe its pathway. These points should be sufficient to resolve curves, but need not have uniform spacing. For example, a straight flat segment can be defined by 2 points, regardless of the distance covered. Long line segments are automatically divided further within the model into segments that are limited by the grid-cell boundaries (no segment may extend across multiple cells). One emission rate (g/m/s) for each species is used for the entire road.

Near a congested intersection, many short links may be required to resolve the spatial and temporal distribution of emissions. Each is entered and modeled as a discrete source.

Number of road-links with emission parameters provided in Subgroup 18b (NRD1) No default ! NRD1 = 0 !

Number of road-links with arbitrarily time-varying emission parameters (NRD2) No default ! NRD2 = 0 !
(If NRD2 > 0, ALL variable road data are read from the file: RDEMARB.DAT)

Emissions from one or more of the roads presented in Subgroup 18b may vary over time-based cycles or by meteorology. This variability is modeled by applying an emission-rate scale factor specified for particular road links and species in Subgroup 18c.

Number of road links and species combinations with variable emission-rate scale-factors
(NSFRDS) Default: 0 ! NSFRDS = 0 !

!END!

Subgroup (18b)
---

a
DATA FOR ROADS WITH CONSTANT OR SCALED EMISSION PARAMETERS
---
b

Road No.	Effect. Height (mAGL)	Initial Sigma z (m)	Initial Sigma y (m)	Emission Rates (g/s/m)
c				

---
a

Data for each of the NRD1 roads are treated as a separate input subgroup
and therefore must end with an input group terminator.
b
NSPEC Emission rates must be entered (one for every pollutant modeled).
Enter emission rate of zero for secondary pollutants.
c
Road-source names are entered without spaces, and may be 16 characters long.

Subgroup (18c)
---
a
EMISSION-RATE SCALING FACTORS

Use this subgroup to identify temporal variations in the emission
rates given in 18b. Factors assigned multiply the rates in 18b.
Skip sources here that have constant emissions. For more elaborate
variation in source parameters, use RDEMARB.DAT and NRD2 > 0.

Sets of emission-rate scale factors are defined in Input Group 19, and
are referenced by the FACTORNAME. Provide NSFRDS lines that identify the
emission-rate scale factor table for each source-species combination that
uses the scaling option. Note that a scale-factor table can be used with
more than one source-species combination so a FACTORNAME can be repeated.

Source-Species No.	Source Name b (SRCNAM)	Species Name c (CSPEC)	Scale-factor table Name d (FACTORNAME)

---
a
Assignment for each source-specie is treated as a separate input subgroup
and therefore must end with an input group terminator.
b
Source name must match one of the SRCNAM names defined in Input Group 18b
c
Species name must match one of the CSPEC names of emitted species defined in Input Group 3
d
Scale-factor name must match one of the FACTORNAME names defined in Input Group 19

Subgroup (18d)
---
a
COORDINATES FOR EACH NAMED ROAD

Coordinate No.	X Coordinate (km)	Y Coordinate (km)	Ground Elevation (m)

---
a
Each line of coordinates is treated as a separate input subgroup
and therefore must end with an input group terminator.

INPUT GROUPS: 19a, 19b -- Emission rate scale-factor tables

Use this group to enter variation factors applied to emission rates for any

source-specie combinations that use this feature. The tables of emission-rate scale factors are referenced by the name assigned to FACTORNAME. These names do not need to include specific source or species names used in the simulation, particularly if one factor table is used for many types of sources and species, but should be descriptive. But if a factor table applies to just one source, the reference name for it should generally contain that source-name. FACTORNAME must NOT include spaces.

The FACTORTYPE for each table must be one of the following:

```
CONSTANT1     1  scaling factor
MONTH12      12 scaling factors: months 1-12
DAY7        7  scaling factors: days 1-7
        [SUNDAY,MONDAY, ... FRIDAY,SATURDAY]
HOUR24       24 scaling factors: hours 1-24
HOUR24_DAY7    168 scaling factors: hours 1-24,
         repeated 7 times: SUNDAY, MONDAY, ... SATURDAY
HOUR24_MONTH12   288 scaling factors: hours 1-24,
         repeated 12 times: months 1-12
WSP6        6  scaling factors: wind speed classes 1-6
        [speed classes (WSCAT) defined in Group 12]
WSP6_PGCLASS6   36 scaling factors: wind speed classes 1-6
         repeated 6 times: PG classes A,B,C,D,E,F
        [speed classes (WSCAT) defined in Group 12]
TEMPERATURE12   12 scaling factors: temperature classes 1-12
        [temperature classes (TKCAT) defined in Group 12]
```

The number of tables defined may exceed the number of tables referenced in the input groups for each source type above (for convenience), but tables for all FACTORNAME names referenced must be present here.

Subgroup (19a)

```
Number of Emission Scale-Factor
tables          (NSFTAB) Default: 0 ! NSFTAB = 0 !

!END!
```

Subgroup (19b)

```
                        a,b,c
Enter factors for NSFTAB Emission Scale-Factor tables
```

---

a
Assignments for each table are treated as a separate input subgroup and therefore must end with an input group terminator.

b
FACTORNAME must be no longer than 40 characters

c
Spaces are NOT allowed in any FACTORNAME or FACTORTYPE assignment, and the names are NOT case-sensitive

---

INPUT GROUPS: 20a, 20b, 20c -- Non-gridded (discrete) receptor information
---

Subgroup (20a)

Number of non-gridded receptors (NREC) No default ! NREC = 1325 !

Group names can be used to assign receptor locations in
Subgroup 17c and thereby provide an identification that
can be referenced when postprocessing receptors. The
default assignment name X is used when NRGRP = 0.

Number of receptor group names (NRGRP) Default: 0 ! NRGRP = 0 !

!END!

Subgroup (20b)

Provide a name for each receptor group if NRGRP>0.
Enter NRGRP lines.
a,b
Group Name
---
* RGRPNAMLIST = *

---
a
Each group name provided is treated as a separate input subgroup
and therefore must end with an input group terminator.
b
Receptor group names must not include blanks.

Subgroup (20c)
---

a
NON-GRIDDED (DISCRETE) RECEPTOR DATA
---
c X Y Ground Height b
Receptor Group Coordinate Coordinate Elevation Above Ground
No. Name (km) (km) (m) (m)
--- --- --- --- --- ---
1 ! X = 413.75178, 6955.57277, 225.5, 0.0 ! !END!
2 ! X = 411.18738, 6955.44757, 178.9, 0.0 ! !END!
3 ! X = 414.14279, 6955.24169, 214.9, 0.0 ! !END!
4 ! X = 411.06815, 6955.02105, 159.9, 0.0 ! !END!
5 ! X = 412.47711, 6954.95185, 164.4, 0.0 ! !END!
6 ! X = 413.52071, 6954.85613, 192.9, 0.0 ! !END!
7 ! X = 417.37830, 6954.82829, 253.2, 0.0 ! !END!
8 ! X = 416.08902, 6954.77408, 238.5, 0.0 ! !END!
9 ! X = 414.53176, 6954.68661, 214.3, 0.0 ! !END!
10 ! X = 417.17040, 6954.63471, 245.0, 0.0 ! !END!
11 ! X = 417.61710, 6954.48412, 247.0, 0.0 ! !END!
12 ! X = 413.95196, 6954.34566, 189.7, 0.0 ! !END!
13 ! X = 414.04430, 6954.31646, 199.7, 0.0 ! !END!
14 ! X = 417.34137, 6954.36875, 232.7, 0.0 ! !END!
15 ! X = 422.52332, 6954.38760, 146.0, 0.0 ! !END!
16 ! X = 417.15840, 6954.26443, 231.2, 0.0 ! !END!
17 ! X = 417.84275, 6954.28692, 242.9, 0.0 ! !END!
18 ! X = 411.73714, 6954.17612, 157.6, 0.0 ! !END!
19 ! X = 413.55200, 6954.18037, 151.7, 0.0 ! !END!
20 ! X = 418.06339, 6954.22361, 217.1, 0.0 ! !END!
21 ! X = 419.38312, 6954.20655, 268.3, 0.0 ! !END!
22 ! X = 415.42742, 6954.12540, 205.1, 0.0 ! !END!
23 ! X = 419.10969, 6954.11368, 192.3, 0.0 ! !END!
24 ! X = 419.90168, 6954.14965, 171.0, 0.0 ! !END!
25 ! X = 411.10936, 6953.93573, 150.3, 0.0 ! !END!
26 ! X = 417.85300, 6953.96074, 224.2, 0.0 ! !END!
27 ! X = 418.83529, 6953.95611, 189.1, 0.0 ! !END!
28 ! X = 421.61493, 6953.98090, 190.8, 0.0 ! !END!

```
29 ! X =  418.07079,  6953.90764,  221.8,    0.0 !  !END!
30 ! X =  413.11868,  6953.80475,  153.9,    0.0 !  !END!
31 ! X =  419.68639,  6953.84875,  165.0,    0.0 !  !END!
32 ! X =  417.81800,  6953.69142,  197.3,    0.0 !  !END!
33 ! X =  412.63524,  6953.57601,  143.8,    0.0 !  !END!
34 ! X =  418.25295,  6953.66034,  194.9,    0.0 !  !END!
35 ! X =  422.81963,  6953.69182,  135.1,    0.0 !  !END!
36 ! X =  411.75408,  6953.49211,  145.1,    0.0 !  !END!
37 ! X =  413.79098,  6953.56449,  151.7,    0.0 !  !END!
38 ! X =  411.28647,  6953.47016,  158.9,    0.0 !  !END!
39 ! X =  411.55304,  6953.40807,  146.2,    0.0 !  !END!
40 ! X =  411.61206,  6953.44684,  146.5,    0.0 !  !END!
41 ! X =  411.68010,  6953.47093,  147.1,    0.0 !  !END!
42 ! X =  411.77474,  6953.40200,  146.7,    0.0 !  !END!
43 ! X =  412.07698,  6953.41427,  142.4,    0.0 !  !END!
44 ! X =  412.70537,  6953.42457,  144.3,    0.0 !  !END!
45 ! X =  418.07581,  6953.51985,  214.3,    0.0 !  !END!
46 ! X =  419.52659,  6953.51541,  155.4,    0.0 !  !END!
47 ! X =  411.50295,  6953.36346,  146.4,    0.0 !  !END!
48 ! X =  411.73061,  6953.33104,  146.0,    0.0 !  !END!
49 ! X =  412.52317,  6953.32431,  144.1,    0.0 !  !END!
50 ! X =  413.48476,  6953.34275,  145.0,    0.0 !  !END!
51 ! X =  413.38153,  6953.38422,  143.6,    0.0 !  !END!
52 ! X =  414.41744,  6953.40970,  170.1,    0.0 !  !END!
53 ! X =  416.63196,  6953.41369,  196.7,    0.0 !  !END!
54 ! X =  422.42898,  6953.39721,  137.1,    0.0 !  !END!
55 ! X =  418.02877,  6953.36627,  199.8,    0.0 !  !END!
56 ! X =  418.98665,  6953.44451,  164.4,    0.0 !  !END!
57 ! X =  419.32080,  6953.40540,  151.3,    0.0 !  !END!
58 ! X =  411.43811,  6953.30694,  146.1,    0.0 !  !END!
59 ! X =  411.59106,  6953.26746,  147.5,    0.0 !  !END!
60 ! X =  411.73110,  6953.26242,  145.2,    0.0 !  !END!
61 ! X =  413.69838,  6953.27373,  151.8,    0.0 !  !END!
62 ! X =  413.70390,  6953.32567,  150.0,    0.0 !  !END!
63 ! X =  414.81700,  6953.26423,  183.0,    0.0 !  !END!
64 ! X =  411.05830,  6953.20535,  164.5,    0.0 !  !END!
65 ! X =  411.46552,  6953.23224,  147.1,    0.0 !  !END!
66 ! X =  411.58972,  6953.17259,  146.6,    0.0 !  !END!
67 ! X =  411.72954,  6953.19782,  145.3,    0.0 !  !END!
68 ! X =  411.91612,  6953.21127,  145.1,    0.0 !  !END!
69 ! X =  413.68450,  6953.19895,  151.7,    0.0 !  !END!
70 ! X =  413.63989,  6953.20726,  149.6,    0.0 !  !END!
71 ! X =  413.60893,  6953.21328,  148.1,    0.0 !  !END!
72 ! X =  413.50488,  6953.24145,  146.7,    0.0 !  !END!
73 ! X =  418.92985,  6953.23873,  156.4,    0.0 !  !END!
74 ! X =  411.23251,  6953.15410,  151.4,    0.0 !  !END!
75 ! X =  411.71175,  6953.13310,  145.9,    0.0 !  !END!
76 ! X =  411.58823,  6953.09790,  145.9,    0.0 !  !END!
77 ! X =  411.90645,  6953.14460,  144.5,    0.0 !  !END!
78 ! X =  411.90486,  6953.08404,  144.9,    0.0 !  !END!
79 ! X =  412.01574,  6953.14457,  144.9,    0.0 !  !END!
80 ! X =  412.10367,  6953.15435,  145.0,    0.0 !  !END!
81 ! X =  412.19161,  6953.14665,  143.7,    0.0 !  !END!
82 ! X =  412.30952,  6953.14056,  143.5,    0.0 !  !END!
83 ! X =  412.29109,  6953.08423,  143.6,    0.0 !  !END!
84 ! X =  413.49304,  6953.09418,  145.0,    0.0 !  !END!
85 ! X =  413.53044,  6953.12535,  145.8,    0.0 !  !END!
86 ! X =  413.66678,  6953.11539,  152.7,    0.0 !  !END!
87 ! X =  413.58121,  6953.16594,  147.7,    0.0 !  !END!
88 ! X =  413.61271,  6953.15728,  148.6,    0.0 !  !END!
89 ! X =  413.67879,  6953.15244,  152.3,    0.0 !  !END!
90 ! X =  413.82119,  6953.14784,  156.4,    0.0 !  !END!
91 ! X =  414.17265,  6953.10922,  158.1,    0.0 !  !END!
92 ! X =  414.28552,  6953.16583,  161.5,    0.0 !  !END!
93 ! X =  418.22413,  6953.14960,  208.4,    0.0 !  !END!
94 ! X =  421.32720,  6953.16495,  185.7,    0.0 !  !END!
95 ! X =  411.68179,  6953.06628,  145.8,    0.0 !  !END!
96 ! X =  411.57039,  6953.03924,  146.1,    0.0 !  !END!
97 ! X =  411.88706,  6953.01932,  145.3,    0.0 !  !END!
98 ! X =  412.00139,  6953.04189,  145.0,    0.0 !  !END!
99 ! X =  412.18006,  6953.01575,  144.7,    0.0 !  !END!
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100 ! X =  412.84940,  6953.07685,   142.8,     0.0 !  !END!
101 ! X =  412.93147,  6953.04274,   143.1,     0.0 !  !END!
102 ! X =  412.87555,  6953.00802,   141.1,     0.0 !  !END!
103 ! X =  413.52439,  6953.01301,   144.7,     0.0 !  !END!
104 ! X =  413.51899,  6953.03361,   144.7,     0.0 !  !END!
105 ! X =  413.50553,  6953.05079,   144.7,     0.0 !  !END!
106 ! X =  413.58289,  6953.01673,   148.1,     0.0 !  !END!
107 ! X =  413.56944,  6953.04036,   147.8,     0.0 !  !END!
108 ! X =  413.55349,  6953.06628,   146.1,     0.0 !  !END!
109 ! X =  413.54431,  6953.08598,   145.0,     0.0 !  !END!
110 ! X =  413.64734,  6953.07540,   153.0,     0.0 !  !END!
111 ! X =  413.92266,  6953.03533,   158.5,     0.0 !  !END!
112 ! X =  414.34936,  6953.01969,   163.6,     0.0 !  !END!
113 ! X =  414.77488,  6953.02247,   175.7,     0.0 !  !END!
114 ! X =  421.37688,  6953.08299,   190.4,     0.0 !  !END!
115 ! X =  411.70055,  6952.99779,   146.3,     0.0 !  !END!
116 ! X =  411.68271,  6952.93913,   146.3,     0.0 !  !END!
117 ! X =  411.55463,  6952.97454,   146.8,     0.0 !  !END!
118 ! X =  411.87954,  6952.93652,   145.6,     0.0 !  !END!
119 ! X =  411.99529,  6952.98693,   145.3,     0.0 !  !END!
120 ! X =  412.17771,  6952.94478,   145.2,     0.0 !  !END!
121 ! X =  412.27356,  6953.00016,   144.2,     0.0 !  !END!
122 ! X =  412.26768,  6952.94462,   144.2,     0.0 !  !END!
123 ! X =  412.89395,  6952.95315,   139.9,     0.0 !  !END!
124 ! X =  413.66098,  6952.95127,   151.1,     0.0 !  !END!
125 ! X =  413.59937,  6952.96435,   149.7,     0.0 !  !END!
126 ! X =  413.61565,  6952.97529,   149.7,     0.0 !  !END!
127 ! X =  413.63209,  6952.98130,   150.6,     0.0 !  !END!
128 ! X =  413.65037,  6952.98870,   151.6,     0.0 !  !END!
129 ! X =  413.66886,  6952.99771,   151.6,     0.0 !  !END!
130 ! X =  413.68891,  6952.96312,   151.5,     0.0 !  !END!
131 ! X =  413.68913,  6953.00157,   153.0,     0.0 !  !END!
132 ! X =  413.71770,  6952.96913,   152.2,     0.0 !  !END!
133 ! X =  413.70719,  6953.00736,   153.6,     0.0 !  !END!
134 ! X =  413.72994,  6953.00516,   154.4,     0.0 !  !END!
135 ! X =  413.74784,  6953.00361,   154.4,     0.0 !  !END!
136 ! X =  413.73808,  6952.96151,   153.4,     0.0 !  !END!
137 ! X =  413.76724,  6953.00103,   155.0,     0.0 !  !END!
138 ! X =  413.78929,  6952.99975,   155.3,     0.0 !  !END!
139 ! X =  413.80859,  6952.99637,   155.7,     0.0 !  !END!
140 ! X =  413.82584,  6952.98999,   155.5,     0.0 !  !END!
141 ! X =  413.84811,  6952.99031,   155.9,     0.0 !  !END!
142 ! X =  413.77107,  6952.96205,   154.4,     0.0 !  !END!
143 ! X =  413.75689,  6952.93609,   153.4,     0.0 !  !END!
144 ! X =  413.82422,  6952.95336,   155.0,     0.0 !  !END!
145 ! X =  413.53893,  6952.94944,   145.6,     0.0 !  !END!
146 ! X =  413.54573,  6952.96328,   145.6,     0.0 !  !END!
147 ! X =  413.53322,  6952.99279,   145.1,     0.0 !  !END!
148 ! X =  413.88469,  6952.95802,   156.4,     0.0 !  !END!
149 ! X =  413.89259,  6952.97490,   156.8,     0.0 !  !END!
150 ! X =  413.94910,  6952.94275,   159.2,     0.0 !  !END!
151 ! X =  413.91266,  6952.98176,   158.1,     0.0 !  !END!
152 ! X =  413.93416,  6952.97835,   159.0,     0.0 !  !END!
153 ! X =  413.95153,  6952.97772,   159.3,     0.0 !  !END!
154 ! X =  413.97201,  6952.97501,   159.3,     0.0 !  !END!
155 ! X =  413.99794,  6952.97101,   159.3,     0.0 !  !END!
156 ! X =  414.01476,  6952.97046,   159.4,     0.0 !  !END!
157 ! X =  414.03848,  6952.96675,   159.6,     0.0 !  !END!
158 ! X =  414.05998,  6952.96334,   159.6,     0.0 !  !END!
159 ! X =  413.90801,  6952.94708,   157.9,     0.0 !  !END!
160 ! X =  413.92851,  6952.94885,   158.8,     0.0 !  !END!
161 ! X =  413.97034,  6952.94162,   159.2,     0.0 !  !END!
162 ! X =  413.98665,  6952.93721,   159.2,     0.0 !  !END!
163 ! X =  414.09797,  6952.95270,   160.6,     0.0 !  !END!
164 ! X =  414.08045,  6952.96062,   160.2,     0.0 !  !END!
165 ! X =  414.13479,  6952.95005,   160.9,     0.0 !  !END!
166 ! X =  414.23136,  6952.93949,   162.7,     0.0 !  !END!
167 ! X =  414.17201,  6952.94624,   161.6,     0.0 !  !END!
168 ! X =  414.15456,  6952.94631,   161.3,     0.0 !  !END!
169 ! X =  415.00534,  6952.95745,   167.0,     0.0 !  !END!
170 ! X =  418.48121,  6952.98368,   172.3,     0.0 !  !END!
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171 ! X =  418.73899,  6953.02216,   164.0,     0.0 !  !END!
172 ! X =  422.83603,  6952.99817,   131.6,     0.0 !  !END!
173 ! X =  420.84756,  6953.02514,   186.8,     0.0 !  !END!
174 ! X =  421.08721,  6953.05996,   183.5,     0.0 !  !END!
175 ! X =  421.38451,  6953.04208,   187.6,     0.0 !  !END!
176 ! X =  411.48089,  6952.95625,   146.2,     0.0 !  !END!
177 ! X =  411.06313,  6952.94222,   148.1,     0.0 !  !END!
178 ! X =  411.56337,  6952.88781,   146.8,     0.0 !  !END!
179 ! X =  411.68124,  6952.86243,   146.6,     0.0 !  !END!
180 ! X =  411.87479,  6952.86573,   145.5,     0.0 !  !END!
181 ! X =  411.95451,  6952.84369,   145.9,     0.0 !  !END!
182 ! X =  411.99945,  6952.91670,   145.4,     0.0 !  !END!
183 ! X =  412.16141,  6952.88826,   145.6,     0.0 !  !END!
184 ! X =  412.26755,  6952.86622,   144.4,     0.0 !  !END!
185 ! X =  413.50067,  6952.87200,   146.1,     0.0 !  !END!
186 ! X =  413.53012,  6952.89750,   146.6,     0.0 !  !END!
187 ! X =  413.57035,  6952.87746,   148.8,     0.0 !  !END!
188 ! X =  413.58413,  6952.87004,   149.2,     0.0 !  !END!
189 ! X =  413.59851,  6952.86183,   149.2,     0.0 !  !END!
190 ! X =  413.59279,  6952.92756,   149.5,     0.0 !  !END!
191 ! X =  413.61640,  6952.90724,   149.5,     0.0 !  !END!
192 ! X =  413.63672,  6952.89308,   149.9,     0.0 !  !END!
193 ! X =  413.65634,  6952.87984,   150.2,     0.0 !  !END!
194 ! X =  413.68233,  6952.86493,   150.4,     0.0 !  !END!
195 ! X =  413.77575,  6952.86810,   153.1,     0.0 !  !END!
196 ! X =  413.75866,  6952.88182,   152.1,     0.0 !  !END!
197 ! X =  413.74201,  6952.88649,   152.1,     0.0 !  !END!
198 ! X =  413.72675,  6952.90161,   151.1,     0.0 !  !END!
199 ! X =  413.70131,  6952.90826,   150.5,     0.0 !  !END!
200 ! X =  413.68562,  6952.92017,   150.4,     0.0 !  !END!
201 ! X =  413.78115,  6952.92060,   153.6,     0.0 !  !END!
202 ! X =  413.79737,  6952.91271,   153.6,     0.0 !  !END!
203 ! X =  413.81182,  6952.93454,   154.5,     0.0 !  !END!
204 ! X =  413.83271,  6952.86856,   153.9,     0.0 !  !END!
205 ! X =  413.84245,  6952.88240,   154.0,     0.0 !  !END!
206 ! X =  413.85002,  6952.90100,   154.6,     0.0 !  !END!
207 ! X =  413.86016,  6952.92206,   155.0,     0.0 !  !END!
208 ! X =  414.00830,  6952.93490,   159.4,     0.0 !  !END!
209 ! X =  414.02870,  6952.93164,   159.4,     0.0 !  !END!
210 ! X =  414.05389,  6952.93054,   160.1,     0.0 !  !END!
211 ! X =  414.05005,  6952.90192,   160.3,     0.0 !  !END!
212 ! X =  414.04363,  6952.87924,   160.3,     0.0 !  !END!
213 ! X =  413.96167,  6952.86434,   158.0,     0.0 !  !END!
214 ! X =  413.98959,  6952.89201,   158.9,     0.0 !  !END!
215 ! X =  413.96510,  6952.89414,   158.6,     0.0 !  !END!
216 ! X =  413.94172,  6952.89612,   158.1,     0.0 !  !END!
217 ! X =  413.93257,  6952.86988,   157.6,     0.0 !  !END!
218 ! X =  413.87189,  6952.86673,   155.3,     0.0 !  !END!
219 ! X =  413.88026,  6952.88298,   155.7,     0.0 !  !END!
220 ! X =  413.89952,  6952.90060,   155.7,     0.0 !  !END!
221 ! X =  413.87835,  6952.91069,   155.7,     0.0 !  !END!
222 ! X =  414.07392,  6952.88250,   161.3,     0.0 !  !END!
223 ! X =  414.08853,  6952.89905,   162.1,     0.0 !  !END!
224 ! X =  414.09126,  6952.91942,   161.5,     0.0 !  !END!
225 ! X =  414.13600,  6952.91292,   162.1,     0.0 !  !END!
226 ! X =  414.13515,  6952.89399,   162.1,     0.0 !  !END!
227 ! X =  414.13098,  6952.87550,   162.1,     0.0 !  !END!
228 ! X =  414.18801,  6952.86401,   163.1,     0.0 !  !END!
229 ! X =  414.25167,  6952.86005,   164.5,     0.0 !  !END!
230 ! X =  414.26665,  6952.87935,   163.6,     0.0 !  !END!
231 ! X =  414.32007,  6952.92492,   164.2,     0.0 !  !END!
232 ! X =  414.29281,  6952.92741,   163.8,     0.0 !  !END!
233 ! X =  414.27256,  6952.93178,   163.4,     0.0 !  !END!
234 ! X =  414.25500,  6952.93523,   163.1,     0.0 !  !END!
235 ! X =  414.21394,  6952.93563,   162.0,     0.0 !  !END!
236 ! X =  414.19698,  6952.93508,   161.6,     0.0 !  !END!
237 ! X =  415.34985,  6952.92657,   158.3,     0.0 !  !END!
238 ! X =  419.51061,  6952.89755,   137.7,     0.0 !  !END!
239 ! X =  412.14368,  6952.81346,   147.6,     0.0 !  !END!
240 ! X =  412.24645,  6952.79253,   145.0,     0.0 !  !END!
241 ! X =  412.95082,  6952.82360,   137.4,     0.0 !  !END!
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242 ! X =  412.80463,  6952.81428,   136.7,     0.0 !  !END!
243 ! X =  413.18180,  6952.81468,   138.6,     0.0 !  !END!
244 ! X =  413.33093,  6952.81822,   141.7,     0.0 !  !END!
245 ! X =  413.63681,  6952.83786,   151.2,     0.0 !  !END!
246 ! X =  413.66100,  6952.82415,   151.3,     0.0 !  !END!
247 ! X =  413.67925,  6952.81333,   151.3,     0.0 !  !END!
248 ! X =  413.71442,  6952.78697,   152.5,     0.0 !  !END!
249 ! X =  413.55510,  6952.84239,   148.8,     0.0 !  !END!
250 ! X =  413.56404,  6952.81770,   148.8,     0.0 !  !END!
251 ! X =  413.53326,  6952.80909,   148.1,     0.0 !  !END!
252 ! X =  413.54940,  6952.77912,   150.0,     0.0 !  !END!
253 ! X =  413.70125,  6952.85260,   151.5,     0.0 !  !END!
254 ! X =  413.72756,  6952.84010,   152.5,     0.0 !  !END!
255 ! X =  413.74772,  6952.83088,   152.5,     0.0 !  !END!
256 ! X =  413.78653,  6952.80130,   152.7,     0.0 !  !END!
257 ! X =  413.82758,  6952.78410,   153.7,     0.0 !  !END!
258 ! X =  413.92275,  6952.77988,   154.4,     0.0 !  !END!
259 ! X =  413.94606,  6952.78575,   155.0,     0.0 !  !END!
260 ! X =  413.96937,  6952.79162,   155.0,     0.0 !  !END!
261 ! X =  413.99372,  6952.79679,   156.8,     0.0 !  !END!
262 ! X =  414.01674,  6952.80046,   157.4,     0.0 !  !END!
263 ! X =  414.03728,  6952.80670,   158.2,     0.0 !  !END!
264 ! X =  414.06377,  6952.81103,   158.2,     0.0 !  !END!
265 ! X =  414.07889,  6952.81462,   159.5,     0.0 !  !END!
266 ! X =  414.09789,  6952.81771,   161.6,     0.0 !  !END!
267 ! X =  414.04647,  6952.84581,   159.1,     0.0 !  !END!
268 ! X =  414.02087,  6952.84809,   158.1,     0.0 !  !END!
269 ! X =  414.00091,  6952.82945,   157.6,     0.0 !  !END!
270 ! X =  413.97126,  6952.82666,   157.2,     0.0 !  !END!
271 ! X =  413.95447,  6952.84009,   157.2,     0.0 !  !END!
272 ! X =  413.92497,  6952.84680,   156.7,     0.0 !  !END!
273 ! X =  413.91644,  6952.82105,   155.9,     0.0 !  !END!
274 ! X =  413.89199,  6952.81925,   154.9,     0.0 !  !END!
275 ! X =  413.86535,  6952.81382,   154.7,     0.0 !  !END!
276 ! X =  413.85289,  6952.82163,   154.3,     0.0 !  !END!
277 ! X =  413.86255,  6952.85172,   154.3,     0.0 !  !END!
278 ! X =  414.08561,  6952.85631,   162.0,     0.0 !  !END!
279 ! X =  414.13415,  6952.84875,   162.3,     0.0 !  !END!
280 ! X =  414.14001,  6952.82948,   162.3,     0.0 !  !END!
281 ! X =  414.16823,  6952.83414,   163.7,     0.0 !  !END!
282 ! X =  414.21740,  6952.84386,   164.3,     0.0 !  !END!
283 ! X =  414.23773,  6952.84845,   164.8,     0.0 !  !END!
284 ! X =  414.30833,  6952.82060,   164.1,     0.0 !  !END!
285 ! X =  414.62982,  6952.85742,   162.5,     0.0 !  !END!
286 ! X =  416.20515,  6952.81849,   159.2,     0.0 !  !END!
287 ! X =  416.35798,  6952.80654,   158.3,     0.0 !  !END!
288 ! X =  418.19149,  6952.86346,   164.1,     0.0 !  !END!
289 ! X =  411.94071,  6952.76837,   147.1,     0.0 !  !END!
290 ! X =  411.86604,  6952.80931,   145.3,     0.0 !  !END!
291 ! X =  411.64508,  6952.79738,   146.3,     0.0 !  !END!
292 ! X =  411.54398,  6952.82760,   147.3,     0.0 !  !END!
293 ! X =  411.52773,  6952.76480,   147.8,     0.0 !  !END!
294 ! X =  411.25673,  6952.82173,   147.2,     0.0 !  !END!
295 ! X =  411.08185,  6952.81555,   147.2,     0.0 !  !END!
296 ! X =  413.44177,  6952.75804,   144.6,     0.0 !  !END!
297 ! X =  413.70377,  6952.75479,   152.2,     0.0 !  !END!
298 ! X =  413.69452,  6952.73818,   153.0,     0.0 !  !END!
299 ! X =  413.68145,  6952.72354,   153.8,     0.0 !  !END!
300 ! X =  413.66716,  6952.70906,   153.8,     0.0 !  !END!
301 ! X =  413.52805,  6952.69967,   149.6,     0.0 !  !END!
302 ! X =  413.51436,  6952.75101,   149.5,     0.0 !  !END!
303 ! X =  413.53849,  6952.76214,   148.6,     0.0 !  !END!
304 ! X =  413.49525,  6952.72817,   147.7,     0.0 !  !END!
305 ! X =  413.73780,  6952.71142,   150.9,     0.0 !  !END!
306 ! X =  413.74807,  6952.73035,   150.9,     0.0 !  !END!
307 ! X =  413.78582,  6952.74424,   152.1,     0.0 !  !END!
308 ! X =  413.80467,  6952.73264,   152.1,     0.0 !  !END!
309 ! X =  413.83057,  6952.72641,   152.8,     0.0 !  !END!
310 ! X =  413.84187,  6952.70841,   152.8,     0.0 !  !END!
311 ! X =  413.86815,  6952.69798,   153.3,     0.0 !  !END!
312 ! X =  414.10223,  6952.70734,   156.5,     0.0 !  !END!
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313 ! X =	413.84307,	6952.77364,	153.7,	0.0 !	!END!
314 ! X =	413.87195,	6952.77485,	154.5,	0.0 !	!END!
315 ! X =	414.14218,	6952.76590,	160.5,	0.0 !	!END!
316 ! X =	414.80172,	6952.74955,	163.4,	0.0 !	!END!
317 ! X =	415.18494,	6952.78049,	160.2,	0.0 !	!END!
318 ! X =	416.12488,	6952.77072,	160.6,	0.0 !	!END!
319 ! X =	416.26198,	6952.75418,	157.8,	0.0 !	!END!
320 ! X =	416.44736,	6952.78465,	158.4,	0.0 !	!END!
321 ! X =	416.52442,	6952.74603,	158.4,	0.0 !	!END!
322 ! X =	416.58049,	6952.73858,	160.1,	0.0 !	!END!
323 ! X =	416.69054,	6952.72062,	164.1,	0.0 !	!END!
324 ! X =	416.75970,	6952.72312,	166.6,	0.0 !	!END!
325 ! X =	421.01081,	6952.74490,	178.9,	0.0 !	!END!
326 ! X =	420.83489,	6952.80936,	199.4,	0.0 !	!END!
327 ! X =	412.23554,	6952.73854,	147.1,	0.0 !	!END!
328 ! X =	412.12897,	6952.75608,	149.0,	0.0 !	!END!
329 ! X =	411.85557,	6952.74374,	146.0,	0.0 !	!END!
330 ! X =	411.65995,	6952.71998,	146.0,	0.0 !	!END!
331 ! X =	413.47297,	6952.67061,	145.7,	0.0 !	!END!
332 ! X =	413.66102,	6952.68777,	152.7,	0.0 !	!END!
333 ! X =	413.65064,	6952.67482,	152.7,	0.0 !	!END!
334 ! X =	413.61975,	6952.65313,	152.8,	0.0 !	!END!
335 ! X =	413.63573,	6952.64036,	152.3,	0.0 !	!END!
336 ! X =	413.57045,	6952.67522,	153.8,	0.0 !	!END!
337 ! X =	413.54986,	6952.68122,	150.9,	0.0 !	!END!
338 ! X =	413.51994,	6952.64835,	147.7,	0.0 !	!END!
339 ! X =	413.55115,	6952.62948,	148.3,	0.0 !	!END!
340 ! X =	413.69609,	6952.64696,	149.6,	0.0 !	!END!
341 ! X =	413.70987,	6952.66053,	150.6,	0.0 !	!END!
342 ! X =	413.71374,	6952.67891,	150.6,	0.0 !	!END!
343 ! X =	413.72899,	6952.69299,	149.5,	0.0 !	!END!
344 ! X =	413.81441,	6952.63999,	146.8,	0.0 !	!END!
345 ! X =	413.89241,	6952.68506,	151.0,	0.0 !	!END!
346 ! X =	413.89992,	6952.66204,	147.8,	0.0 !	!END!
347 ! X =	413.89222,	6952.64056,	147.8,	0.0 !	!END!
348 ! X =	413.88333,	6952.62450,	145.7,	0.0 !	!END!
349 ! X =	413.91631,	6952.67663,	147.4,	0.0 !	!END!
350 ! X =	413.93483,	6952.61807,	145.9,	0.0 !	!END!
351 ! X =	416.13180,	6952.65053,	153.8,	0.0 !	!END!
352 ! X =	416.83591,	6952.71542,	165.8,	0.0 !	!END!
353 ! X =	418.10614,	6952.71604,	147.2,	0.0 !	!END!
354 ! X =	421.75103,	6952.71464,	152.1,	0.0 !	!END!
355 ! X =	412.22439,	6952.67871,	148.7,	0.0 !	!END!
356 ! X =	412.12219,	6952.67407,	151.2,	0.0 !	!END!
357 ! X =	411.92980,	6952.60692,	152.2,	0.0 !	!END!
358 ! X =	411.84022,	6952.61145,	151.7,	0.0 !	!END!
359 ! X =	411.83568,	6952.67518,	146.6,	0.0 !	!END!
360 ! X =	411.65045,	6952.62915,	147.6,	0.0 !	!END!
361 ! X =	411.51822,	6952.66812,	148.7,	0.0 !	!END!
362 ! X =	413.58904,	6952.61135,	150.1,	0.0 !	!END!
363 ! X =	413.61004,	6952.59915,	151.0,	0.0 !	!END!
364 ! X =	413.47736,	6952.61088,	144.6,	0.0 !	!END!
365 ! X =	413.56948,	6952.57906,	148.7,	0.0 !	!END!
366 ! X =	413.54520,	6952.57109,	145.3,	0.0 !	!END!
367 ! X =	413.62810,	6952.54400,	146.9,	0.0 !	!END!
368 ! X =	413.65207,	6952.56531,	146.1,	0.0 !	!END!
369 ! X =	413.67189,	6952.55569,	146.1,	0.0 !	!END!
370 ! X =	413.69737,	6952.54111,	145.5,	0.0 !	!END!
371 ! X =	413.84342,	6952.55464,	143.9,	0.0 !	!END!
372 ! X =	413.76184,	6952.56545,	144.3,	0.0 !	!END!
373 ! X =	413.73761,	6952.59456,	146.0,	0.0 !	!END!
374 ! X =	413.69650,	6952.60281,	148.3,	0.0 !	!END!
375 ! X =	413.67636,	6952.61528,	149.5,	0.0 !	!END!
376 ! X =	413.87176,	6952.60640,	145.7,	0.0 !	!END!
377 ! X =	413.84956,	6952.57727,	144.5,	0.0 !	!END!
378 ! X =	413.90838,	6952.55940,	142.6,	0.0 !	!END!
379 ! X =	413.88898,	6952.54068,	143.3,	0.0 !	!END!
380 ! X =	413.91978,	6952.59822,	145.3,	0.0 !	!END!
381 ! X =	414.03107,	6952.60922,	149.3,	0.0 !	!END!
382 ! X =	422.49370,	6952.60807,	140.7,	0.0 !	!END!
383 ! X =	413.49345,	6952.55648,	144.6,	0.0 !	!END!

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384 ! X =  413.50743,  6952.54364,   144.6,     0.0 !  !END!
385 ! X =  413.52427,  6952.53600,   145.3,     0.0 !  !END!
386 ! X =  412.13033,  6952.54113,   153.0,     0.0 !  !END!
387 ! X =  412.19580,  6952.53796,   150.8,     0.0 !  !END!
388 ! X =  411.93674,  6952.53453,   154.3,     0.0 !  !END!
389 ! X =  411.83672,  6952.56801,   152.2,     0.0 !  !END!
390 ! X =  413.81493,  6952.53112,   143.6,     0.0 !  !END!
391 ! X =  413.86629,  6952.50168,   141.6,     0.0 !  !END!
392 ! X =  413.98550,  6952.47523,   140.7,     0.0 !  !END!
393 ! X =  413.93515,  6952.47350,   140.7,     0.0 !  !END!
394 ! X =  413.90100,  6952.49596,   140.9,     0.0 !  !END!
395 ! X =  413.91490,  6952.47787,   140.9,     0.0 !  !END!
396 ! X =  414.20870,  6952.49771,   146.0,     0.0 !  !END!
397 ! X =  419.33684,  6952.56325,   136.1,     0.0 !  !END!
398 ! X =  413.85034,  6952.46158,   140.8,     0.0 !  !END!
399 ! X =  413.85084,  6952.46091,   140.8,     0.0 !  !END!
400 ! X =  413.61052,  6952.50820,   144.2,     0.0 !  !END!
401 ! X =  413.57249,  6952.52517,   145.5,     0.0 !  !END!
402 ! X =  413.54390,  6952.52879,   144.4,     0.0 !  !END!
403 ! X =  412.18994,  6952.47221,   150.3,     0.0 !  !END!
404 ! X =  410.94500,  6952.46555,   151.1,     0.0 !  !END!
405 ! X =  413.45265,  6952.38719,   137.2,     0.0 !  !END!
406 ! X =  413.11244,  6952.38876,   130.8,     0.0 !  !END!
407 ! X =  413.95673,  6952.40104,   139.6,     0.0 !  !END!
408 ! X =  413.92343,  6952.41688,   140.0,     0.0 !  !END!
409 ! X =  413.82079,  6952.41847,   140.6,     0.0 !  !END!
410 ! X =  413.78781,  6952.38068,   139.9,     0.0 !  !END!
411 ! X =  413.80337,  6952.39941,   140.1,     0.0 !  !END!
412 ! X =  413.83948,  6952.43793,   140.3,     0.0 !  !END!
413 ! X =  413.62265,  6952.39725,   141.2,     0.0 !  !END!
414 ! X =  413.56225,  6952.43211,   141.8,     0.0 !  !END!
415 ! X =  413.54875,  6952.45357,   142.3,     0.0 !  !END!
416 ! X =  411.83101,  6952.36621,   158.2,     0.0 !  !END!
417 ! X =  418.81170,  6952.38601,   166.9,     0.0 !  !END!
418 ! X =  414.85851,  6952.32948,   162.4,     0.0 !  !END!
419 ! X =  413.51160,  6952.30315,   137.8,     0.0 !  !END!
420 ! X =  413.50694,  6952.34418,   138.3,     0.0 !  !END!
421 ! X =  413.45083,  6952.31356,   136.9,     0.0 !  !END!
422 ! X =  413.43484,  6952.34305,   136.9,     0.0 !  !END!
423 ! X =  413.31644,  6952.35485,   132.8,     0.0 !  !END!
424 ! X =  413.18462,  6952.33565,   131.7,     0.0 !  !END!
425 ! X =  413.99851,  6952.37730,   139.5,     0.0 !  !END!
426 ! X =  413.98073,  6952.35589,   139.4,     0.0 !  !END!
427 ! X =  413.97020,  6952.33039,   139.2,     0.0 !  !END!
428 ! X =  413.96162,  6952.30579,   139.1,     0.0 !  !END!
429 ! X =  413.94033,  6952.37280,   139.5,     0.0 !  !END!
430 ! X =  413.92865,  6952.35168,   139.3,     0.0 !  !END!
431 ! X =  413.91996,  6952.33433,   139.4,     0.0 !  !END!
432 ! X =  413.90174,  6952.30998,   139.3,     0.0 !  !END!
433 ! X =  413.90514,  6952.31247,   139.2,     0.0 !  !END!
434 ! X =  413.77069,  6952.33570,   139.5,     0.0 !  !END!
435 ! X =  413.77631,  6952.36074,   139.7,     0.0 !  !END!
436 ! X =  413.76304,  6952.31774,   139.3,     0.0 !  !END!
437 ! X =  411.65418,  6952.31319,   162.5,     0.0 !  !END!
438 ! X =  412.06161,  6952.35188,   157.8,     0.0 !  !END!
439 ! X =  411.93380,  6952.35908,   158.3,     0.0 !  !END!
440 ! X =  411.93902,  6952.30387,   158.5,     0.0 !  !END!
441 ! X =  411.81149,  6952.31431,   160.0,     0.0 !  !END!
442 ! X =  416.94773,  6952.31611,   150.3,     0.0 !  !END!
443 ! X =  419.32943,  6952.27291,   134.2,     0.0 !  !END!
444 ! X =  420.29746,  6952.31834,   187.3,     0.0 !  !END!
445 ! X =  421.99064,  6952.35061,   136.4,     0.0 !  !END!
446 ! X =  413.61705,  6952.27225,   139.2,     0.0 !  !END!
447 ! X =  413.42279,  6952.21656,   135.6,     0.0 !  !END!
448 ! X =  413.53117,  6952.21954,   137.4,     0.0 !  !END!
449 ! X =  413.52039,  6952.24825,   137.2,     0.0 !  !END!
450 ! X =  413.50653,  6952.28043,   137.4,     0.0 !  !END!
451 ! X =  413.56195,  6952.27872,   138.3,     0.0 !  !END!
452 ! X =  413.40766,  6952.23509,   135.1,     0.0 !  !END!
453 ! X =  413.40507,  6952.24993,   135.4,     0.0 !  !END!
454 ! X =  413.44866,  6952.28191,   136.5,     0.0 !  !END!
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455 ! X =  413.39936,  6952.27607,   135.5,     0.0 !  !END!
456 ! X =  413.94515,  6952.28900,   139.1,     0.0 !  !END!
457 ! X =  413.93637,  6952.27106,   139.2,     0.0 !  !END!
458 ! X =  413.92190,  6952.25156,   139.2,     0.0 !  !END!
459 ! X =  413.90651,  6952.22197,   139.3,     0.0 !  !END!
460 ! X =  413.97549,  6952.27360,   139.1,     0.0 !  !END!
461 ! X =  413.89233,  6952.28791,   139.3,     0.0 !  !END!
462 ! X =  413.83886,  6952.25863,   139.4,     0.0 !  !END!
463 ! X =  413.84054,  6952.25777,   139.4,     0.0 !  !END!
464 ! X =  413.82316,  6952.27483,   139.3,     0.0 !  !END!
465 ! X =  412.05260,  6952.22261,   156.4,     0.0 !  !END!
466 ! X =  411.91491,  6952.22856,   158.1,     0.0 !  !END!
467 ! X =  411.88268,  6952.21649,   159.2,     0.0 !  !END!
468 ! X =  417.03871,  6952.22238,   147.5,     0.0 !  !END!
469 ! X =  413.52003,  6952.14356,   136.4,     0.0 !  !END!
470 ! X =  413.52407,  6952.18208,   136.6,     0.0 !  !END!
471 ! X =  413.60471,  6952.17116,   137.8,     0.0 !  !END!
472 ! X =  413.50744,  6952.20806,   137.0,     0.0 !  !END!
473 ! X =  413.62718,  6952.20752,   138.7,     0.0 !  !END!
474 ! X =  413.43946,  6952.14302,   134.9,     0.0 !  !END!
475 ! X =  413.45595,  6952.15198,   135.3,     0.0 !  !END!
476 ! X =  413.44701,  6952.17680,   135.6,     0.0 !  !END!
477 ! X =  413.43659,  6952.19583,   135.2,     0.0 !  !END!
478 ! X =  412.89767,  6952.15503,   140.7,     0.0 !  !END!
479 ! X =  413.60537,  6952.07595,   137.8,     0.0 !  !END!
480 ! X =  413.50906,  6952.07537,   136.0,     0.0 !  !END!
481 ! X =  413.56826,  6952.12246,   137.6,     0.0 !  !END!
482 ! X =  411.03834,  6952.04291,   168.2,     0.0 !  !END!
483 ! X =  419.20715,  6952.08634,   134.7,     0.0 !  !END!
484 ! X =  414.48106,  6952.05214,   138.4,     0.0 !  !END!
485 ! X =  414.27384,  6952.01122,   138.2,     0.0 !  !END!
486 ! X =  413.59581,  6952.02501,   137.1,     0.0 !  !END!
487 ! X =  413.51645,  6952.04838,   135.6,     0.0 !  !END!
488 ! X =  413.51450,  6952.04747,   135.6,     0.0 !  !END!
489 ! X =  412.17521,  6952.03934,   152.4,     0.0 !  !END!
490 ! X =  411.06113,  6952.03826,   168.1,     0.0 !  !END!
491 ! X =  413.53589,  6951.91563,   135.6,     0.0 !  !END!
492 ! X =  413.46255,  6951.91224,   134.6,     0.0 !  !END!
493 ! X =  411.87186,  6951.95402,   160.6,     0.0 !  !END!
494 ! X =  412.07767,  6951.94583,   156.8,     0.0 !  !END!
495 ! X =  413.86931,  6951.84172,   138.9,     0.0 !  !END!
496 ! X =  413.85022,  6951.85120,   139.0,     0.0 !  !END!
497 ! X =  413.81774,  6951.84407,   138.7,     0.0 !  !END!
498 ! X =  413.64725,  6951.82357,   136.8,     0.0 !  !END!
499 ! X =  413.61677,  6951.83283,   136.5,     0.0 !  !END!
500 ! X =  413.58722,  6951.85530,   135.7,     0.0 !  !END!
501 ! X =  413.56037,  6951.87411,   135.7,     0.0 !  !END!
502 ! X =  412.02447,  6951.81178,   160.9,     0.0 !  !END!
503 ! X =  412.04310,  6951.86864,   159.4,     0.0 !  !END!
504 ! X =  419.06117,  6951.84548,   135.9,     0.0 !  !END!
505 ! X =  413.65495,  6951.75077,   136.8,     0.0 !  !END!
506 ! X =  413.62261,  6951.76079,   136.5,     0.0 !  !END!
507 ! X =  413.60608,  6951.77214,   136.5,     0.0 !  !END!
508 ! X =  413.59337,  6951.78724,   136.2,     0.0 !  !END!
509 ! X =  413.53057,  6951.80166,   135.4,     0.0 !  !END!
510 ! X =  413.52865,  6951.76475,   135.4,     0.0 !  !END!
511 ! X =  413.81564,  6951.81435,   138.6,     0.0 !  !END!
512 ! X =  413.84827,  6951.79863,   138.8,     0.0 !  !END!
513 ! X =  413.87149,  6951.78854,   138.8,     0.0 !  !END!
514 ! X =  413.85717,  6951.76186,   139.1,     0.0 !  !END!
515 ! X =  413.83979,  6951.74285,   138.9,     0.0 !  !END!
516 ! X =  413.78579,  6951.74112,   138.8,     0.0 !  !END!
517 ! X =  413.76363,  6951.75742,   138.4,     0.0 !  !END!
518 ! X =  413.71394,  6951.79516,   137.9,     0.0 !  !END!
519 ! X =  412.08976,  6951.79772,   159.2,     0.0 !  !END!
520 ! X =  414.49083,  6951.72145,   136.1,     0.0 !  !END!
521 ! X =  414.42327,  6951.70533,   136.5,     0.0 !  !END!
522 ! X =  414.30564,  6951.68265,   136.0,     0.0 !  !END!
523 ! X =  414.43941,  6951.74335,   137.0,     0.0 !  !END!
524 ! X =  413.91096,  6951.69222,   139.7,     0.0 !  !END!
525 ! X =  413.63274,  6951.66373,   136.6,     0.0 !  !END!
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526 ! X =  413.60451,  6951.68059,   136.1,     0.0 !  !END!
527 ! X =  413.57374,  6951.69026,   135.7,     0.0 !  !END!
528 ! X =  413.52171,  6951.71502,   134.7,     0.0 !  !END!
529 ! X =  413.52793,  6951.73210,   135.3,     0.0 !  !END!
530 ! X =  413.80292,  6951.67022,   139.2,     0.0 !  !END!
531 ! X =  413.78317,  6951.67139,   139.1,     0.0 !  !END!
532 ! X =  413.77106,  6951.68943,   139.1,     0.0 !  !END!
533 ! X =  413.74839,  6951.69283,   138.4,     0.0 !  !END!
534 ! X =  413.73285,  6951.70742,   137.6,     0.0 !  !END!
535 ! X =  413.71501,  6951.71291,   137.6,     0.0 !  !END!
536 ! X =  413.69608,  6951.73137,   137.1,     0.0 !  !END!
537 ! X =  413.80171,  6951.72275,   139.3,     0.0 !  !END!
538 ! X =  413.82817,  6951.70772,   139.9,     0.0 !  !END!
539 ! X =  419.04787,  6951.68882,   131.9,     0.0 !  !END!
540 ! X =  422.59346,  6951.64963,   125.4,     0.0 !  !END!
541 ! X =  422.73399,  6951.65254,   137.1,     0.0 !  !END!
542 ! X =  422.87383,  6951.69509,   147.8,     0.0 !  !END!
543 ! X =  413.66288,  6951.58392,   137.2,     0.0 !  !END!
544 ! X =  413.64128,  6951.59678,   136.9,     0.0 !  !END!
545 ! X =  413.61488,  6951.60976,   136.6,     0.0 !  !END!
546 ! X =  413.59298,  6951.61665,   136.1,     0.0 !  !END!
547 ! X =  413.56943,  6951.64842,   135.6,     0.0 !  !END!
548 ! X =  413.53043,  6951.65008,   135.2,     0.0 !  !END!
549 ! X =  413.52824,  6951.62214,   135.2,     0.0 !  !END!
550 ! X =  413.53266,  6951.59877,   135.2,     0.0 !  !END!
551 ! X =  413.75351,  6951.58828,   137.2,     0.0 !  !END!
552 ! X =  413.73794,  6951.59314,   137.5,     0.0 !  !END!
553 ! X =  413.72068,  6951.60114,   137.3,     0.0 !  !END!
554 ! X =  413.70199,  6951.61404,   137.0,     0.0 !  !END!
555 ! X =  413.68257,  6951.62453,   137.0,     0.0 !  !END!
556 ! X =  413.66961,  6951.63693,   137.0,     0.0 !  !END!
557 ! X =  413.66249,  6951.65205,   136.6,     0.0 !  !END!
558 ! X =  419.45032,  6951.56251,   132.2,     0.0 !  !END!
559 ! X =  422.79377,  6951.63573,   144.1,     0.0 !  !END!
560 ! X =  415.12541,  6951.57138,   139.4,     0.0 !  !END!
561 ! X =  414.15763,  6951.51700,   136.1,     0.0 !  !END!
562 ! X =  413.72979,  6951.54743,   137.7,     0.0 !  !END!
563 ! X =  413.71374,  6951.55705,   137.5,     0.0 !  !END!
564 ! X =  413.69415,  6951.56721,   137.7,     0.0 !  !END!
565 ! X =  413.67751,  6951.57692,   137.5,     0.0 !  !END!
566 ! X =  413.54555,  6951.52151,   135.6,     0.0 !  !END!
567 ! X =  419.26464,  6951.51831,   131.0,     0.0 !  !END!
568 ! X =  420.00940,  6951.47698,   164.6,     0.0 !  !END!
569 ! X =  422.65680,  6951.48831,   129.4,     0.0 !  !END!
570 ! X =  414.26672,  6951.48395,   135.1,     0.0 !  !END!
571 ! X =  422.80400,  6951.41676,   137.5,     0.0 !  !END!
572 ! X =  422.67841,  6951.43590,   131.5,     0.0 !  !END!
573 ! X =  415.67711,  6951.41348,   140.1,     0.0 !  !END!
574 ! X =  414.35866,  6951.38743,   134.9,     0.0 !  !END!
575 ! X =  414.45168,  6951.34944,   134.9,     0.0 !  !END!
576 ! X =  414.52471,  6951.37391,   134.9,     0.0 !  !END!
577 ! X =  422.85566,  6951.34013,   136.0,     0.0 !  !END!
578 ! X =  422.90430,  6951.26049,   134.3,     0.0 !  !END!
579 ! X =  415.98363,  6951.20069,   130.3,     0.0 !  !END!
580 ! X =  418.95768,  6951.15433,   139.7,     0.0 !  !END!
581 ! X =  420.03644,  6951.20555,   168.3,     0.0 !  !END!
582 ! X =  420.03443,  6951.15571,   166.0,     0.0 !  !END!
583 ! X =  422.89944,  6951.18066,   132.4,     0.0 !  !END!
584 ! X =  419.12749,  6951.09481,   146.4,     0.0 !  !END!
585 ! X =  420.36227,  6951.14614,   161.5,     0.0 !  !END!
586 ! X =  420.36980,  6951.08233,   158.7,     0.0 !  !END!
587 ! X =  420.46732,  6951.07584,   150.7,     0.0 !  !END!
588 ! X =  420.30063,  6951.06998,   159.6,     0.0 !  !END!
589 ! X =  420.08207,  6951.07302,   162.6,     0.0 !  !END!
590 ! X =  420.02783,  6951.07423,   165.5,     0.0 !  !END!
591 ! X =  420.19692,  6951.08145,   160.7,     0.0 !  !END!
592 ! X =  420.26664,  6951.10341,   161.5,     0.0 !  !END!
593 ! X =  420.40348,  6951.05684,   154.3,     0.0 !  !END!
594 ! X =  420.45733,  6951.00167,   153.3,     0.0 !  !END!
595 ! X =  420.34476,  6951.00865,   156.7,     0.0 !  !END!
596 ! X =  420.22334,  6951.01479,   157.1,     0.0 !  !END!
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597 ! X =  421.36606,  6951.02353,   138.7,     0.0 !  !END!
598 ! X =  419.99975,  6950.98042,   165.3,     0.0 !  !END!
599 ! X =  420.49606,  6950.94507,   150.1,     0.0 !  !END!
600 ! X =  420.53840,  6950.91538,   148.4,     0.0 !  !END!
601 ! X =  420.26631,  6950.98431,   153.4,     0.0 !  !END!
602 ! X =  420.14451,  6950.96928,   157.6,     0.0 !  !END!
603 ! X =  420.36494,  6950.97313,   154.5,     0.0 !  !END!
604 ! X =  420.30139,  6950.93862,   151.0,     0.0 !  !END!
605 ! X =  420.39450,  6950.93013,   151.6,     0.0 !  !END!
606 ! X =  417.53949,  6950.91095,   130.8,     0.0 !  !END!
607 ! X =  420.43941,  6950.89849,   150.2,     0.0 !  !END!
608 ! X =  420.46078,  6950.87761,   149.1,     0.0 !  !END!
609 ! X =  420.57829,  6950.89737,   144.7,     0.0 !  !END!
610 ! X =  420.06239,  6950.85521,   162.1,     0.0 !  !END!
611 ! X =  420.32438,  6950.89064,   148.6,     0.0 !  !END!
612 ! X =  420.34236,  6950.84918,   143.6,     0.0 !  !END!
613 ! X =  420.43084,  6950.83544,   146.2,     0.0 !  !END!
614 ! X =  420.09992,  6950.81310,   160.0,     0.0 !  !END!
615 ! X =  420.17386,  6950.79349,   150.8,     0.0 !  !END!
616 ! X =  420.34167,  6950.77114,   137.4,     0.0 !  !END!
617 ! X =  420.38747,  6950.79044,   140.0,     0.0 !  !END!
618 ! X =  420.48157,  6950.75135,   140.8,     0.0 !  !END!
619 ! X =  420.51895,  6950.78262,   144.1,     0.0 !  !END!
620 ! X =  422.85723,  6950.71346,   130.3,     0.0 !  !END!
621 ! X =  420.10982,  6950.71140,   151.6,     0.0 !  !END!
622 ! X =  420.55565,  6950.71767,   141.7,     0.0 !  !END!
623 ! X =  420.56417,  6950.68188,   141.2,     0.0 !  !END!
624 ! X =  417.74429,  6950.72092,   128.3,     0.0 !  !END!
625 ! X =  420.19234,  6950.63001,   144.8,     0.0 !  !END!
626 ! X =  420.59388,  6950.64404,   142.0,     0.0 !  !END!
627 ! X =  420.59031,  6950.60308,   141.2,     0.0 !  !END!
628 ! X =  420.43049,  6950.65479,   133.5,     0.0 !  !END!
629 ! X =  421.41753,  6950.62943,   131.8,     0.0 !  !END!
630 ! X =  422.87382,  6950.58604,   125.5,     0.0 !  !END!
631 ! X =  422.71560,  6950.60378,   122.9,     0.0 !  !END!
632 ! X =  420.22157,  6950.57161,   143.8,     0.0 !  !END!
633 ! X =  420.22689,  6950.51929,   140.1,     0.0 !  !END!
634 ! X =  420.60683,  6950.55828,   141.9,     0.0 !  !END!
635 ! X =  420.46682,  6950.58457,   131.2,     0.0 !  !END!
636 ! X =  420.50153,  6950.55336,   129.9,     0.0 !  !END!
637 ! X =  420.51242,  6950.51708,   130.9,     0.0 !  !END!
638 ! X =  420.63239,  6950.52144,   140.8,     0.0 !  !END!
639 ! X =  420.71026,  6950.53748,   142.5,     0.0 !  !END!
640 ! X =  420.95478,  6950.52093,   125.8,     0.0 !  !END!
641 ! X =  417.71756,  6950.56115,   127.3,     0.0 !  !END!
642 ! X =  420.25802,  6950.48967,   134.0,     0.0 !  !END!
643 ! X =  420.28419,  6950.43828,   130.7,     0.0 !  !END!
644 ! X =  420.63525,  6950.46675,   138.1,     0.0 !  !END!
645 ! X =  420.72318,  6950.50886,   141.4,     0.0 !  !END!
646 ! X =  420.74163,  6950.46344,   137.5,     0.0 !  !END!
647 ! X =  420.75794,  6950.43508,   136.8,     0.0 !  !END!
648 ! X =  420.95758,  6950.43943,   121.7,     0.0 !  !END!
649 ! X =  420.95951,  6950.46341,   121.7,     0.0 !  !END!
650 ! X =  420.95411,  6950.50866,   125.8,     0.0 !  !END!
651 ! X =  420.90896,  6950.50913,   128.2,     0.0 !  !END!
652 ! X =  420.89066,  6950.51246,   130.7,     0.0 !  !END!
653 ! X =  420.86130,  6950.49959,   132.6,     0.0 !  !END!
654 ! X =  421.57472,  6950.47779,   127.7,     0.0 !  !END!
655 ! X =  421.98870,  6950.47597,   112.9,     0.0 !  !END!
656 ! X =  420.49836,  6950.43254,   126.8,     0.0 !  !END!
657 ! X =  420.57944,  6950.42772,   129.2,     0.0 !  !END!
658 ! X =  420.61982,  6950.36351,   124.6,     0.0 !  !END!
659 ! X =  420.74118,  6950.35782,   130.3,     0.0 !  !END!
660 ! X =  420.73233,  6950.37421,   130.3,     0.0 !  !END!
661 ! X =  420.68333,  6950.42781,   135.0,     0.0 !  !END!
662 ! X =  420.76859,  6950.40719,   134.7,     0.0 !  !END!
663 ! X =  420.79734,  6950.38389,   133.0,     0.0 !  !END!
664 ! X =  420.90486,  6950.39461,   128.4,     0.0 !  !END!
665 ! X =  420.95819,  6950.36832,   125.7,     0.0 !  !END!
666 ! X =  420.95769,  6950.39454,   122.6,     0.0 !  !END!
667 ! X =  420.94902,  6950.41983,   122.6,     0.0 !  !END!
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668 ! X =  420.84563,  6950.34740,   130.4,     0.0 !  !END!
669 ! X =  420.77615,  6950.30990,   133.2,     0.0 !  !END!
670 ! X =  420.86025,  6950.32561,   131.0,     0.0 !  !END!
671 ! X =  420.79295,  6950.28646,   133.2,     0.0 !  !END!
672 ! X =  420.93936,  6950.34189,   127.3,     0.0 !  !END!
673 ! X =  420.80184,  6950.26723,   133.5,     0.0 !  !END!
674 ! X =  420.86659,  6950.20694,   131.5,     0.0 !  !END!
675 ! X =  420.72875,  6950.24249,   126.6,     0.0 !  !END!
676 ! X =  420.77791,  6950.18505,   128.5,     0.0 !  !END!
677 ! X =  420.82905,  6950.16443,   130.2,     0.0 !  !END!
678 ! X =  420.86861,  6950.14332,   128.6,     0.0 !  !END!
679 ! X =  420.85861,  6950.13031,   125.6,     0.0 !  !END!
680 ! X =  421.03412,  6950.02223,   122.7,     0.0 !  !END!
681 ! X =  421.07266,  6950.01157,   121.4,     0.0 !  !END!
682 ! X =  421.08748,  6950.00752,   121.4,     0.0 !  !END!
683 ! X =  421.18382,  6949.98817,   118.5,     0.0 !  !END!
684 ! X =  421.16858,  6949.97413,   118.5,     0.0 !  !END!
685 ! X =  421.15614,  6949.96313,   119.9,     0.0 !  !END!
686 ! X =  421.26951,  6949.98529,   114.5,     0.0 !  !END!
687 ! X =  421.32284,  6949.97116,   114.4,     0.0 !  !END!
688 ! X =  421.23289,  6949.97667,   115.9,     0.0 !  !END!
689 ! X =  421.10866,  6949.98374,   121.1,     0.0 !  !END!
690 ! X =  421.31894,  6949.95234,   116.3,     0.0 !  !END!
691 ! X =  421.31044,  6949.93101,   116.3,     0.0 !  !END!
692 ! X =  421.21233,  6949.95087,   117.6,     0.0 !  !END!
693 ! X =  421.25815,  6949.95167,   117.0,     0.0 !  !END!
694 ! X =  421.15584,  6949.94280,   119.9,     0.0 !  !END!
695 ! X =  421.14692,  6949.92947,   119.5,     0.0 !  !END!
696 ! X =  421.30687,  6949.91674,   116.3,     0.0 !  !END!
697 ! X =  421.29909,  6949.90440,   117.1,     0.0 !  !END!
698 ! X =  421.29147,  6949.88830,   117.1,     0.0 !  !END!
699 ! X =  421.20127,  6949.92134,   117.9,     0.0 !  !END!
700 ! X =  421.21253,  6949.93524,   117.6,     0.0 !  !END!
701 ! X =  421.16084,  6949.89658,   119.2,     0.0 !  !END!
702 ! X =  421.19091,  6949.90450,   118.7,     0.0 !  !END!
703 ! X =  421.11212,  6949.90047,   119.2,     0.0 !  !END!
704 ! X =  421.09527,  6949.90684,   118.6,     0.0 !  !END!
705 ! X =  421.06107,  6949.92232,   118.6,     0.0 !  !END!
706 ! X =  420.98170,  6949.92258,   117.4,     0.0 !  !END!
707 ! X =  420.09128,  6950.85930,   160.1,     0.0 !  !END!
708 ! X =  420.29128,  6950.85930,   147.4,     0.0 !  !END!
709 ! X =  420.49128,  6950.85930,   148.6,     0.0 !  !END!
710 ! X =  420.69128,  6950.85930,   140.7,     0.0 !  !END!
711 ! X =  420.89128,  6950.85930,   129.8,     0.0 !  !END!
712 ! X =  419.49128,  6951.05930,   166.1,     0.0 !  !END!
713 ! X =  419.69128,  6951.05930,   158.2,     0.0 !  !END!
714 ! X =  419.89128,  6951.05930,   164.6,     0.0 !  !END!
715 ! X =  420.09128,  6951.05930,   160.4,     0.0 !  !END!
716 ! X =  420.29128,  6951.05930,   159.6,     0.0 !  !END!
717 ! X =  420.49128,  6951.05930,   149.5,     0.0 !  !END!
718 ! X =  420.69128,  6951.05930,   135.3,     0.0 !  !END!
719 ! X =  420.89128,  6951.05930,   125.1,     0.0 !  !END!
720 ! X =  421.09128,  6951.05930,   125.1,     0.0 !  !END!
721 ! X =  421.29128,  6951.05930,   137.4,     0.0 !  !END!
722 ! X =  421.49128,  6951.05930,   132.1,     0.0 !  !END!
723 ! X =  421.69128,  6951.05930,   123.7,     0.0 !  !END!
724 ! X =  421.89128,  6951.05930,   124.1,     0.0 !  !END!
725 ! X =  422.09128,  6951.05930,   119.3,     0.0 !  !END!
726 ! X =  418.89128,  6951.25930,   125.7,     0.0 !  !END!
727 ! X =  419.09128,  6951.25930,   137.5,     0.0 !  !END!
728 ! X =  419.29128,  6951.25930,   140.9,     0.0 !  !END!
729 ! X =  419.49128,  6951.25930,   142.7,     0.0 !  !END!
730 ! X =  419.69128,  6951.25930,   151.9,     0.0 !  !END!
731 ! X =  419.89128,  6951.25930,   166.9,     0.0 !  !END!
732 ! X =  420.09128,  6951.25930,   169.9,     0.0 !  !END!
733 ! X =  420.29128,  6951.25930,   166.3,     0.0 !  !END!
734 ! X =  420.49128,  6951.25930,   154.1,     0.0 !  !END!
735 ! X =  420.69128,  6951.25930,   139.5,     0.0 !  !END!
736 ! X =  420.89128,  6951.25930,   127.6,     0.0 !  !END!
737 ! X =  421.09128,  6951.25930,   128.7,     0.0 !  !END!
738 ! X =  421.29128,  6951.25930,   141.7,     0.0 !  !END!
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739 ! X =  421.49128,  6951.25930,   132.1,     0.0 !  !END!
740 ! X =  421.69128,  6951.25930,   129.7,     0.0 !  !END!
741 ! X =  421.89128,  6951.25930,   127.6,     0.0 !  !END!
742 ! X =  422.09128,  6951.25930,   118.7,     0.0 !  !END!
743 ! X =  422.29128,  6951.25930,   112.9,     0.0 !  !END!
744 ! X =  422.49128,  6951.25930,   118.2,     0.0 !  !END!
745 ! X =  422.69128,  6951.25930,   126.7,     0.0 !  !END!
746 ! X =  422.89128,  6951.25930,   134.3,     0.0 !  !END!
747 ! X =  418.09128,  6951.45930,   138.1,     0.0 !  !END!
748 ! X =  418.29128,  6951.45930,   132.1,     0.0 !  !END!
749 ! X =  418.49128,  6951.45930,   130.6,     0.0 !  !END!
750 ! X =  418.69128,  6951.45930,   131.6,     0.0 !  !END!
751 ! X =  418.89128,  6951.45930,   130.1,     0.0 !  !END!
752 ! X =  419.09128,  6951.45930,   127.2,     0.0 !  !END!
753 ! X =  419.29128,  6951.45930,   132.1,     0.0 !  !END!
754 ! X =  419.49128,  6951.45930,   136.6,     0.0 !  !END!
755 ! X =  419.69128,  6951.45930,   148.7,     0.0 !  !END!
756 ! X =  419.89128,  6951.45930,   159.4,     0.0 !  !END!
757 ! X =  420.09128,  6951.45930,   167.8,     0.0 !  !END!
758 ! X =  420.29128,  6951.45930,   172.1,     0.0 !  !END!
759 ! X =  420.49128,  6951.45930,   158.5,     0.0 !  !END!
760 ! X =  420.69128,  6951.45930,   147.8,     0.0 !  !END!
761 ! X =  420.89128,  6951.45930,   132.4,     0.0 !  !END!
762 ! X =  421.09128,  6951.45930,   132.3,     0.0 !  !END!
763 ! X =  421.29128,  6951.45930,   144.0,     0.0 !  !END!
764 ! X =  421.49128,  6951.45930,   139.0,     0.0 !  !END!
765 ! X =  421.69128,  6951.45930,   133.8,     0.0 !  !END!
766 ! X =  421.89128,  6951.45930,   125.5,     0.0 !  !END!
767 ! X =  422.09128,  6951.45930,   118.7,     0.0 !  !END!
768 ! X =  422.29128,  6951.45930,   114.7,     0.0 !  !END!
769 ! X =  422.49128,  6951.45930,   119.4,     0.0 !  !END!
770 ! X =  422.69128,  6951.45930,   134.7,     0.0 !  !END!
771 ! X =  422.89128,  6951.45930,   140.2,     0.0 !  !END!
772 ! X =  417.29128,  6951.65930,   146.1,     0.0 !  !END!
773 ! X =  417.49128,  6951.65930,   135.6,     0.0 !  !END!
774 ! X =  417.69128,  6951.65930,   138.1,     0.0 !  !END!
775 ! X =  417.89128,  6951.65930,   146.4,     0.0 !  !END!
776 ! X =  418.09128,  6951.65930,   147.4,     0.0 !  !END!
777 ! X =  418.29128,  6951.65930,   141.6,     0.0 !  !END!
778 ! X =  418.49128,  6951.65930,   131.8,     0.0 !  !END!
779 ! X =  418.69128,  6951.65930,   136.0,     0.0 !  !END!
780 ! X =  418.89128,  6951.65930,   133.2,     0.0 !  !END!
781 ! X =  419.09128,  6951.65930,   128.7,     0.0 !  !END!
782 ! X =  419.29128,  6951.65930,   130.3,     0.0 !  !END!
783 ! X =  419.49128,  6951.65930,   132.0,     0.0 !  !END!
784 ! X =  419.69128,  6951.65930,   140.9,     0.0 !  !END!
785 ! X =  419.89128,  6951.65930,   147.6,     0.0 !  !END!
786 ! X =  420.09128,  6951.65930,   158.9,     0.0 !  !END!
787 ! X =  420.29128,  6951.65930,   163.8,     0.0 !  !END!
788 ! X =  420.49128,  6951.65930,   166.3,     0.0 !  !END!
789 ! X =  420.69128,  6951.65930,   151.5,     0.0 !  !END!
790 ! X =  420.89128,  6951.65930,   136.6,     0.0 !  !END!
791 ! X =  421.09128,  6951.65930,   136.5,     0.0 !  !END!
792 ! X =  421.29128,  6951.65930,   142.5,     0.0 !  !END!
793 ! X =  421.49128,  6951.65930,   135.5,     0.0 !  !END!
794 ! X =  421.69128,  6951.65930,   125.7,     0.0 !  !END!
795 ! X =  421.89128,  6951.65930,   120.2,     0.0 !  !END!
796 ! X =  422.09128,  6951.65930,   118.0,     0.0 !  !END!
797 ! X =  422.29128,  6951.65930,   118.0,     0.0 !  !END!
798 ! X =  422.49128,  6951.65930,   123.4,     0.0 !  !END!
799 ! X =  422.69128,  6951.65930,   133.6,     0.0 !  !END!
800 ! X =  422.89128,  6951.65930,   148.4,     0.0 !  !END!
801 ! X =  416.69128,  6951.85930,   145.7,     0.0 !  !END!
802 ! X =  416.89128,  6951.85930,   149.5,     0.0 !  !END!
803 ! X =  417.09128,  6951.85930,   146.1,     0.0 !  !END!
804 ! X =  417.29128,  6951.85930,   142.2,     0.0 !  !END!
805 ! X =  417.49128,  6951.85930,   137.7,     0.0 !  !END!
806 ! X =  417.69128,  6951.85930,   146.4,     0.0 !  !END!
807 ! X =  417.89128,  6951.85930,   156.5,     0.0 !  !END!
808 ! X =  418.09128,  6951.85930,   161.5,     0.0 !  !END!
809 ! X =  418.29128,  6951.85930,   161.4,     0.0 !  !END!
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810 ! X =  418.49128,  6951.85930,   136.8,     0.0 !  !END!
811 ! X =  418.69128,  6951.85930,   134.6,     0.0 !  !END!
812 ! X =  418.89128,  6951.85930,   132.4,     0.0 !  !END!
813 ! X =  419.09128,  6951.85930,   134.5,     0.0 !  !END!
814 ! X =  419.29128,  6951.85930,   131.5,     0.0 !  !END!
815 ! X =  419.49128,  6951.85930,   131.7,     0.0 !  !END!
816 ! X =  419.69128,  6951.85930,   137.8,     0.0 !  !END!
817 ! X =  419.89128,  6951.85930,   142.3,     0.0 !  !END!
818 ! X =  420.09128,  6951.85930,   150.8,     0.0 !  !END!
819 ! X =  420.29128,  6951.85930,   150.2,     0.0 !  !END!
820 ! X =  420.49128,  6951.85930,   156.3,     0.0 !  !END!
821 ! X =  420.69128,  6951.85930,   148.6,     0.0 !  !END!
822 ! X =  420.89128,  6951.85930,   145.0,     0.0 !  !END!
823 ! X =  421.09128,  6951.85930,   142.7,     0.0 !  !END!
824 ! X =  421.29128,  6951.85930,   140.4,     0.0 !  !END!
825 ! X =  421.49128,  6951.85930,   128.5,     0.0 !  !END!
826 ! X =  421.69128,  6951.85930,   123.5,     0.0 !  !END!
827 ! X =  421.89128,  6951.85930,   121.7,     0.0 !  !END!
828 ! X =  422.09128,  6951.85930,   124.7,     0.0 !  !END!
829 ! X =  422.29128,  6951.85930,   121.5,     0.0 !  !END!
830 ! X =  422.49128,  6951.85930,   123.2,     0.0 !  !END!
831 ! X =  422.69128,  6951.85930,   131.2,     0.0 !  !END!
832 ! X =  422.89128,  6951.85930,   142.2,     0.0 !  !END!
833 ! X =  416.29128,  6952.05930,   151.0,     0.0 !  !END!
834 ! X =  416.49128,  6952.05930,   154.2,     0.0 !  !END!
835 ! X =  416.69128,  6952.05930,   152.1,     0.0 !  !END!
836 ! X =  416.89128,  6952.05930,   150.3,     0.0 !  !END!
837 ! X =  417.09128,  6952.05930,   141.8,     0.0 !  !END!
838 ! X =  417.29128,  6952.05930,   144.3,     0.0 !  !END!
839 ! X =  417.49128,  6952.05930,   147.4,     0.0 !  !END!
840 ! X =  417.69128,  6952.05930,   155.8,     0.0 !  !END!
841 ! X =  417.89128,  6952.05930,   162.7,     0.0 !  !END!
842 ! X =  418.09128,  6952.05930,   162.7,     0.0 !  !END!
843 ! X =  418.29128,  6952.05930,   147.7,     0.0 !  !END!
844 ! X =  418.49128,  6952.05930,   135.8,     0.0 !  !END!
845 ! X =  418.69128,  6952.05930,   148.9,     0.0 !  !END!
846 ! X =  418.89128,  6952.05930,   178.0,     0.0 !  !END!
847 ! X =  419.09128,  6952.05930,   135.6,     0.0 !  !END!
848 ! X =  419.29128,  6952.05930,   134.1,     0.0 !  !END!
849 ! X =  419.49128,  6952.05930,   134.3,     0.0 !  !END!
850 ! X =  419.69128,  6952.05930,   152.0,     0.0 !  !END!
851 ! X =  419.89128,  6952.05930,   148.6,     0.0 !  !END!
852 ! X =  420.09128,  6952.05930,   154.2,     0.0 !  !END!
853 ! X =  420.29128,  6952.05930,   156.5,     0.0 !  !END!
854 ! X =  420.49128,  6952.05930,   160.6,     0.0 !  !END!
855 ! X =  420.69128,  6952.05930,   163.7,     0.0 !  !END!
856 ! X =  420.89128,  6952.05930,   159.1,     0.0 !  !END!
857 ! X =  421.09128,  6952.05930,   151.9,     0.0 !  !END!
858 ! X =  421.29128,  6952.05930,   143.4,     0.0 !  !END!
859 ! X =  421.49128,  6952.05930,   133.6,     0.0 !  !END!
860 ! X =  421.69128,  6952.05930,   130.1,     0.0 !  !END!
861 ! X =  421.89128,  6952.05930,   127.6,     0.0 !  !END!
862 ! X =  422.09128,  6952.05930,   133.2,     0.0 !  !END!
863 ! X =  422.29128,  6952.05930,   121.9,     0.0 !  !END!
864 ! X =  422.49128,  6952.05930,   121.5,     0.0 !  !END!
865 ! X =  422.69128,  6952.05930,   128.9,     0.0 !  !END!
866 ! X =  422.89128,  6952.05930,   136.4,     0.0 !  !END!
867 ! X =  415.69128,  6952.25930,   141.3,     0.0 !  !END!
868 ! X =  415.89128,  6952.25930,   141.0,     0.0 !  !END!
869 ! X =  416.09128,  6952.25930,   143.1,     0.0 !  !END!
870 ! X =  416.29128,  6952.25930,   147.3,     0.0 !  !END!
871 ! X =  416.49128,  6952.25930,   151.3,     0.0 !  !END!
872 ! X =  416.69128,  6952.25930,   157.8,     0.0 !  !END!
873 ! X =  416.89128,  6952.25930,   151.6,     0.0 !  !END!
874 ! X =  417.09128,  6952.25930,   148.4,     0.0 !  !END!
875 ! X =  417.29128,  6952.25930,   157.2,     0.0 !  !END!
876 ! X =  417.49128,  6952.25930,   162.2,     0.0 !  !END!
877 ! X =  417.69128,  6952.25930,   162.3,     0.0 !  !END!
878 ! X =  417.89128,  6952.25930,   168.8,     0.0 !  !END!
879 ! X =  418.09128,  6952.25930,   156.2,     0.0 !  !END!
880 ! X =  418.29128,  6952.25930,   141.3,     0.0 !  !END!
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881 ! X =  418.49128,  6952.25930,   137.7,     0.0 !  !END!
882 ! X =  418.69128,  6952.25930,   152.5,     0.0 !  !END!
883 ! X =  418.89128,  6952.25930,   156.9,     0.0 !  !END!
884 ! X =  419.09128,  6952.25930,   136.4,     0.0 !  !END!
885 ! X =  419.29128,  6952.25930,   134.3,     0.0 !  !END!
886 ! X =  419.49128,  6952.25930,   133.2,     0.0 !  !END!
887 ! X =  419.69128,  6952.25930,   144.7,     0.0 !  !END!
888 ! X =  419.89128,  6952.25930,   155.2,     0.0 !  !END!
889 ! X =  420.09128,  6952.25930,   166.3,     0.0 !  !END!
890 ! X =  420.29128,  6952.25930,   173.1,     0.0 !  !END!
891 ! X =  420.49128,  6952.25930,   174.6,     0.0 !  !END!
892 ! X =  420.69128,  6952.25930,   173.3,     0.0 !  !END!
893 ! X =  420.89128,  6952.25930,   170.7,     0.0 !  !END!
894 ! X =  421.09128,  6952.25930,   154.4,     0.0 !  !END!
895 ! X =  421.29128,  6952.25930,   144.1,     0.0 !  !END!
896 ! X =  421.49128,  6952.25930,   141.3,     0.0 !  !END!
897 ! X =  421.69128,  6952.25930,   136.0,     0.0 !  !END!
898 ! X =  421.89128,  6952.25930,   134.7,     0.0 !  !END!
899 ! X =  422.09128,  6952.25930,   133.5,     0.0 !  !END!
900 ! X =  422.29128,  6952.25930,   130.2,     0.0 !  !END!
901 ! X =  422.49128,  6952.25930,   130.8,     0.0 !  !END!
902 ! X =  422.69128,  6952.25930,   129.4,     0.0 !  !END!
903 ! X =  422.89128,  6952.25930,   127.7,     0.0 !  !END!
904 ! X =  414.49128,  6952.45930,   140.8,     0.0 !  !END!
905 ! X =  414.69128,  6952.45930,   155.3,     0.0 !  !END!
906 ! X =  414.89128,  6952.45930,   161.0,     0.0 !  !END!
907 ! X =  415.09128,  6952.45930,   153.9,     0.0 !  !END!
908 ! X =  415.29128,  6952.45930,   149.5,     0.0 !  !END!
909 ! X =  415.49128,  6952.45930,   144.8,     0.0 !  !END!
910 ! X =  415.69128,  6952.45930,   145.4,     0.0 !  !END!
911 ! X =  415.89128,  6952.45930,   149.4,     0.0 !  !END!
912 ! X =  416.09128,  6952.45930,   145.6,     0.0 !  !END!
913 ! X =  416.29128,  6952.45930,   147.1,     0.0 !  !END!
914 ! X =  416.49128,  6952.45930,   150.1,     0.0 !  !END!
915 ! X =  416.69128,  6952.45930,   155.4,     0.0 !  !END!
916 ! X =  416.89128,  6952.45930,   157.3,     0.0 !  !END!
917 ! X =  417.09128,  6952.45930,   157.7,     0.0 !  !END!
918 ! X =  417.29128,  6952.45930,   162.8,     0.0 !  !END!
919 ! X =  417.49128,  6952.45930,   170.4,     0.0 !  !END!
920 ! X =  417.69128,  6952.45930,   171.7,     0.0 !  !END!
921 ! X =  417.89128,  6952.45930,   161.6,     0.0 !  !END!
922 ! X =  418.09128,  6952.45930,   158.3,     0.0 !  !END!
923 ! X =  418.29128,  6952.45930,   140.8,     0.0 !  !END!
924 ! X =  418.49128,  6952.45930,   146.6,     0.0 !  !END!
925 ! X =  418.69128,  6952.45930,   158.1,     0.0 !  !END!
926 ! X =  418.89128,  6952.45930,   156.0,     0.0 !  !END!
927 ! X =  419.09128,  6952.45930,   141.7,     0.0 !  !END!
928 ! X =  419.29128,  6952.45930,   136.7,     0.0 !  !END!
929 ! X =  419.49128,  6952.45930,   135.5,     0.0 !  !END!
930 ! X =  419.69128,  6952.45930,   140.7,     0.0 !  !END!
931 ! X =  419.89128,  6952.45930,   148.6,     0.0 !  !END!
932 ! X =  420.09128,  6952.45930,   159.8,     0.0 !  !END!
933 ! X =  420.29128,  6952.45930,   180.4,     0.0 !  !END!
934 ! X =  420.49128,  6952.45930,   192.9,     0.0 !  !END!
935 ! X =  420.69128,  6952.45930,   185.7,     0.0 !  !END!
936 ! X =  420.89128,  6952.45930,   170.4,     0.0 !  !END!
937 ! X =  421.09128,  6952.45930,   157.6,     0.0 !  !END!
938 ! X =  421.29128,  6952.45930,   152.7,     0.0 !  !END!
939 ! X =  421.49128,  6952.45930,   141.2,     0.0 !  !END!
940 ! X =  421.69128,  6952.45930,   138.7,     0.0 !  !END!
941 ! X =  421.89128,  6952.45930,   139.6,     0.0 !  !END!
942 ! X =  422.09128,  6952.45930,   137.6,     0.0 !  !END!
943 ! X =  422.29128,  6952.45930,   133.8,     0.0 !  !END!
944 ! X =  422.49128,  6952.45930,   138.4,     0.0 !  !END!
945 ! X =  422.69128,  6952.45930,   133.9,     0.0 !  !END!
946 ! X =  422.89128,  6952.45930,   129.0,     0.0 !  !END!
947 ! X =  413.09128,  6952.65930,   134.8,     0.0 !  !END!
948 ! X =  413.29128,  6952.65930,   136.5,     0.0 !  !END!
949 ! X =  413.49128,  6952.65930,   147.4,     0.0 !  !END!
950 ! X =  413.69128,  6952.65930,   151.5,     0.0 !  !END!
951 ! X =  413.89128,  6952.65930,   147.8,     0.0 !  !END!
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952 ! X =  414.09128,  6952.65930,   152.6,     0.0 !  !END!
953 ! X =  414.29128,  6952.65930,   156.0,     0.0 !  !END!
954 ! X =  414.49128,  6952.65930,   149.1,     0.0 !  !END!
955 ! X =  414.69128,  6952.65930,   158.0,     0.0 !  !END!
956 ! X =  414.89128,  6952.65930,   160.3,     0.0 !  !END!
957 ! X =  415.09128,  6952.65930,   156.5,     0.0 !  !END!
958 ! X =  415.29128,  6952.65930,   152.5,     0.0 !  !END!
959 ! X =  415.49128,  6952.65930,   149.8,     0.0 !  !END!
960 ! X =  415.69128,  6952.65930,   150.3,     0.0 !  !END!
961 ! X =  415.89128,  6952.65930,   152.3,     0.0 !  !END!
962 ! X =  416.09128,  6952.65930,   155.6,     0.0 !  !END!
963 ! X =  416.29128,  6952.65930,   155.8,     0.0 !  !END!
964 ! X =  416.49128,  6952.65930,   156.1,     0.0 !  !END!
965 ! X =  416.69128,  6952.65930,   162.2,     0.0 !  !END!
966 ! X =  416.89128,  6952.65930,   164.5,     0.0 !  !END!
967 ! X =  417.09128,  6952.65930,   164.6,     0.0 !  !END!
968 ! X =  417.29128,  6952.65930,   164.1,     0.0 !  !END!
969 ! X =  417.49128,  6952.65930,   168.3,     0.0 !  !END!
970 ! X =  417.69128,  6952.65930,   160.8,     0.0 !  !END!
971 ! X =  417.89128,  6952.65930,   150.7,     0.0 !  !END!
972 ! X =  418.09128,  6952.65930,   145.1,     0.0 !  !END!
973 ! X =  418.29128,  6952.65930,   148.1,     0.0 !  !END!
974 ! X =  418.49128,  6952.65930,   155.5,     0.0 !  !END!
975 ! X =  418.69128,  6952.65930,   171.4,     0.0 !  !END!
976 ! X =  418.89128,  6952.65930,   162.4,     0.0 !  !END!
977 ! X =  419.09128,  6952.65930,   143.5,     0.0 !  !END!
978 ! X =  419.29128,  6952.65930,   138.2,     0.0 !  !END!
979 ! X =  419.49128,  6952.65930,   132.0,     0.0 !  !END!
980 ! X =  419.69128,  6952.65930,   139.1,     0.0 !  !END!
981 ! X =  419.89128,  6952.65930,   147.9,     0.0 !  !END!
982 ! X =  420.09128,  6952.65930,   166.9,     0.0 !  !END!
983 ! X =  420.29128,  6952.65930,   184.0,     0.0 !  !END!
984 ! X =  420.49128,  6952.65930,   186.5,     0.0 !  !END!
985 ! X =  420.69128,  6952.65930,   188.0,     0.0 !  !END!
986 ! X =  420.89128,  6952.65930,   182.0,     0.0 !  !END!
987 ! X =  421.09128,  6952.65930,   172.2,     0.0 !  !END!
988 ! X =  421.29128,  6952.65930,   155.2,     0.0 !  !END!
989 ! X =  421.49128,  6952.65930,   149.2,     0.0 !  !END!
990 ! X =  421.69128,  6952.65930,   150.6,     0.0 !  !END!
991 ! X =  421.89128,  6952.65930,   149.3,     0.0 !  !END!
992 ! X =  422.09128,  6952.65930,   142.5,     0.0 !  !END!
993 ! X =  422.29128,  6952.65930,   140.4,     0.0 !  !END!
994 ! X =  422.49128,  6952.65930,   138.2,     0.0 !  !END!
995 ! X =  422.69128,  6952.65930,   131.5,     0.0 !  !END!
996 ! X =  422.89128,  6952.65930,   128.3,     0.0 !  !END!
997 ! X =  411.89128,  6952.85930,   145.6,     0.0 !  !END!
998 ! X =  412.09128,  6952.85930,   146.1,     0.0 !  !END!
999 ! X =  412.29128,  6952.85930,   143.9,     0.0 !  !END!
1000 ! X =  412.49128,  6952.85930,   142.8,     0.0 !  !END!
1001 ! X =  412.69128,  6952.85930,   135.2,     0.0 !  !END!
1002 ! X =  412.89128,  6952.85930,   137.6,     0.0 !  !END!
1003 ! X =  413.09128,  6952.85930,   138.7,     0.0 !  !END!
1004 ! X =  413.29128,  6952.85930,   141.4,     0.0 !  !END!
1005 ! X =  413.49128,  6952.85930,   146.1,     0.0 !  !END!
1006 ! X =  413.69128,  6952.85930,   150.8,     0.0 !  !END!
1007 ! X =  413.89128,  6952.85930,   155.3,     0.0 !  !END!
1008 ! X =  414.09128,  6952.85930,   162.0,     0.0 !  !END!
1009 ! X =  414.29128,  6952.85930,   164.5,     0.0 !  !END!
1010 ! X =  414.49128,  6952.85930,   158.7,     0.0 !  !END!
1011 ! X =  414.69128,  6952.85930,   165.5,     0.0 !  !END!
1012 ! X =  414.89128,  6952.85930,   166.1,     0.0 !  !END!
1013 ! X =  415.09128,  6952.85930,   163.4,     0.0 !  !END!
1014 ! X =  415.29128,  6952.85930,   160.0,     0.0 !  !END!
1015 ! X =  415.49128,  6952.85930,   157.1,     0.0 !  !END!
1016 ! X =  415.69128,  6952.85930,   156.9,     0.0 !  !END!
1017 ! X =  415.89128,  6952.85930,   158.5,     0.0 !  !END!
1018 ! X =  416.09128,  6952.85930,   161.5,     0.0 !  !END!
1019 ! X =  416.29128,  6952.85930,   158.9,     0.0 !  !END!
1020 ! X =  416.49128,  6952.85930,   161.3,     0.0 !  !END!
1021 ! X =  416.69128,  6952.85930,   167.5,     0.0 !  !END!
1022 ! X =  416.89128,  6952.85930,   173.4,     0.0 !  !END!
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1023 ! X =  417.09128,  6952.85930,   175.4,     0.0 !  !END!
1024 ! X =  417.29128,  6952.85930,   167.6,     0.0 !  !END!
1025 ! X =  417.49128,  6952.85930,   167.8,     0.0 !  !END!
1026 ! X =  417.69128,  6952.85930,   162.8,     0.0 !  !END!
1027 ! X =  417.89128,  6952.85930,   152.8,     0.0 !  !END!
1028 ! X =  418.09128,  6952.85930,   160.2,     0.0 !  !END!
1029 ! X =  418.29128,  6952.85930,   166.7,     0.0 !  !END!
1030 ! X =  418.49128,  6952.85930,   170.9,     0.0 !  !END!
1031 ! X =  418.69128,  6952.85930,   169.6,     0.0 !  !END!
1032 ! X =  418.89128,  6952.85930,   165.7,     0.0 !  !END!
1033 ! X =  419.09128,  6952.85930,   150.5,     0.0 !  !END!
1034 ! X =  419.29128,  6952.85930,   141.8,     0.0 !  !END!
1035 ! X =  419.49128,  6952.85930,   136.3,     0.0 !  !END!
1036 ! X =  419.69128,  6952.85930,   136.9,     0.0 !  !END!
1037 ! X =  419.89128,  6952.85930,   141.5,     0.0 !  !END!
1038 ! X =  420.09128,  6952.85930,   157.9,     0.0 !  !END!
1039 ! X =  420.29128,  6952.85930,   166.3,     0.0 !  !END!
1040 ! X =  420.89128,  6952.85930,   193.9,     0.0 !  !END!
1041 ! X =  421.09128,  6952.85930,   172.5,     0.0 !  !END!
1042 ! X =  421.29128,  6952.85930,   157.8,     0.0 !  !END!
1043 ! X =  421.49128,  6952.85930,   159.6,     0.0 !  !END!
1044 ! X =  421.69128,  6952.85930,   155.9,     0.0 !  !END!
1045 ! X =  421.89128,  6952.85930,   157.8,     0.0 !  !END!
1046 ! X =  422.09128,  6952.85930,   151.3,     0.0 !  !END!
1047 ! X =  422.29128,  6952.85930,   138.4,     0.0 !  !END!
1048 ! X =  422.49128,  6952.85930,   138.1,     0.0 !  !END!
1049 ! X =  422.69128,  6952.85930,   133.8,     0.0 !  !END!
1050 ! X =  422.89128,  6952.85930,   128.5,     0.0 !  !END!
1051 ! X =  411.09128,  6953.05930,   153.5,     0.0 !  !END!
1052 ! X =  411.29128,  6953.05930,   144.8,     0.0 !  !END!
1053 ! X =  411.49128,  6953.05930,   145.0,     0.0 !  !END!
1054 ! X =  411.69128,  6953.05930,   145.8,     0.0 !  !END!
1055 ! X =  411.89128,  6953.05930,   145.1,     0.0 !  !END!
1056 ! X =  412.09128,  6953.05930,   145.0,     0.0 !  !END!
1057 ! X =  412.29128,  6953.05930,   143.8,     0.0 !  !END!
1058 ! X =  412.49128,  6953.05930,   143.2,     0.0 !  !END!
1059 ! X =  412.69128,  6953.05930,   141.9,     0.0 !  !END!
1060 ! X =  412.89128,  6953.05930,   143.4,     0.0 !  !END!
1061 ! X =  413.09128,  6953.05930,   143.4,     0.0 !  !END!
1062 ! X =  413.29128,  6953.05930,   142.2,     0.0 !  !END!
1063 ! X =  413.49128,  6953.05930,   144.8,     0.0 !  !END!
1064 ! X =  413.69128,  6953.05930,   154.2,     0.0 !  !END!
1065 ! X =  413.89128,  6953.05930,   157.2,     0.0 !  !END!
1066 ! X =  414.09128,  6953.05930,   158.6,     0.0 !  !END!
1067 ! X =  414.29128,  6953.05930,   161.9,     0.0 !  !END!
1068 ! X =  414.49128,  6953.05930,   172.0,     0.0 !  !END!
1069 ! X =  414.69128,  6953.05930,   176.6,     0.0 !  !END!
1070 ! X =  414.89128,  6953.05930,   173.6,     0.0 !  !END!
1071 ! X =  415.09128,  6953.05930,   169.1,     0.0 !  !END!
1072 ! X =  415.29128,  6953.05930,   158.5,     0.0 !  !END!
1073 ! X =  415.49128,  6953.05930,   159.7,     0.0 !  !END!
1074 ! X =  415.69128,  6953.05930,   165.4,     0.0 !  !END!
1075 ! X =  415.89128,  6953.05930,   167.3,     0.0 !  !END!
1076 ! X =  416.09128,  6953.05930,   163.9,     0.0 !  !END!
1077 ! X =  416.29128,  6953.05930,   164.9,     0.0 !  !END!
1078 ! X =  416.49128,  6953.05930,   174.6,     0.0 !  !END!
1079 ! X =  416.69128,  6953.05930,   182.4,     0.0 !  !END!
1080 ! X =  416.89128,  6953.05930,   186.1,     0.0 !  !END!
1081 ! X =  417.09128,  6953.05930,   179.4,     0.0 !  !END!
1082 ! X =  417.29128,  6953.05930,   172.6,     0.0 !  !END!
1083 ! X =  417.49128,  6953.05930,   190.8,     0.0 !  !END!
1084 ! X =  417.69128,  6953.05930,   187.6,     0.0 !  !END!
1085 ! X =  417.89128,  6953.05930,   165.8,     0.0 !  !END!
1086 ! X =  418.09128,  6953.05930,   195.3,     0.0 !  !END!
1087 ! X =  418.29128,  6953.05930,   196.6,     0.0 !  !END!
1088 ! X =  418.49128,  6953.05930,   172.5,     0.0 !  !END!
1089 ! X =  418.69128,  6953.05930,   164.6,     0.0 !  !END!
1090 ! X =  418.89128,  6953.05930,   158.1,     0.0 !  !END!
1091 ! X =  419.09128,  6953.05930,   152.1,     0.0 !  !END!
1092 ! X =  419.29128,  6953.05930,   145.1,     0.0 !  !END!
1093 ! X =  419.49128,  6953.05930,   140.1,     0.0 !  !END!
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1094 ! X =  419.69128,  6953.05930,   137.3,     0.0 !  !END!
1095 ! X =  419.89128,  6953.05930,   138.8,     0.0 !  !END!
1096 ! X =  422.09128,  6953.05930,   150.3,     0.0 !  !END!
1097 ! X =  422.29128,  6953.05930,   138.6,     0.0 !  !END!
1098 ! X =  422.49128,  6953.05930,   134.9,     0.0 !  !END!
1099 ! X =  422.69128,  6953.05930,   133.0,     0.0 !  !END!
1100 ! X =  422.89128,  6953.05930,   129.9,     0.0 !  !END!
1101 ! X =  411.09128,  6953.25930,   165.8,     0.0 !  !END!
1102 ! X =  411.29128,  6953.25930,   147.6,     0.0 !  !END!
1103 ! X =  411.49128,  6953.25930,   147.3,     0.0 !  !END!
1104 ! X =  411.69128,  6953.25930,   146.1,     0.0 !  !END!
1105 ! X =  411.89128,  6953.25930,   145.4,     0.0 !  !END!
1106 ! X =  412.09128,  6953.25930,   144.6,     0.0 !  !END!
1107 ! X =  412.29128,  6953.25930,   144.8,     0.0 !  !END!
1108 ! X =  412.49128,  6953.25930,   143.4,     0.0 !  !END!
1109 ! X =  412.69128,  6953.25930,   142.8,     0.0 !  !END!
1110 ! X =  412.89128,  6953.25930,   145.0,     0.0 !  !END!
1111 ! X =  413.09128,  6953.25930,   142.7,     0.0 !  !END!
1112 ! X =  413.29128,  6953.25930,   141.7,     0.0 !  !END!
1113 ! X =  413.49128,  6953.25930,   145.8,     0.0 !  !END!
1114 ! X =  413.69128,  6953.25930,   151.8,     0.0 !  !END!
1115 ! X =  413.89128,  6953.25930,   152.0,     0.0 !  !END!
1116 ! X =  414.09128,  6953.25930,   155.9,     0.0 !  !END!
1117 ! X =  414.29128,  6953.25930,   163.1,     0.0 !  !END!
1118 ! X =  414.49128,  6953.25930,   174.6,     0.0 !  !END!
1119 ! X =  414.69128,  6953.25930,   181.7,     0.0 !  !END!
1120 ! X =  414.89128,  6953.25930,   182.7,     0.0 !  !END!
1121 ! X =  415.09128,  6953.25930,   179.6,     0.0 !  !END!
1122 ! X =  415.29128,  6953.25930,   170.0,     0.0 !  !END!
1123 ! X =  415.49128,  6953.25930,   168.0,     0.0 !  !END!
1124 ! X =  415.69128,  6953.25930,   171.7,     0.0 !  !END!
1125 ! X =  415.89128,  6953.25930,   170.8,     0.0 !  !END!
1126 ! X =  416.09128,  6953.25930,   171.6,     0.0 !  !END!
1127 ! X =  416.29128,  6953.25930,   175.2,     0.0 !  !END!
1128 ! X =  416.49128,  6953.25930,   181.2,     0.0 !  !END!
1129 ! X =  416.69128,  6953.25930,   190.8,     0.0 !  !END!
1130 ! X =  416.89128,  6953.25930,   191.3,     0.0 !  !END!
1131 ! X =  417.09128,  6953.25930,   178.3,     0.0 !  !END!
1132 ! X =  417.29128,  6953.25930,   188.4,     0.0 !  !END!
1133 ! X =  417.49128,  6953.25930,   192.8,     0.0 !  !END!
1134 ! X =  417.69128,  6953.25930,   180.3,     0.0 !  !END!
1135 ! X =  417.89128,  6953.25930,   175.9,     0.0 !  !END!
1136 ! X =  418.09128,  6953.25930,   205.3,     0.0 !  !END!
1137 ! X =  418.29128,  6953.25930,   204.5,     0.0 !  !END!
1138 ! X =  418.49128,  6953.25930,   175.9,     0.0 !  !END!
1139 ! X =  418.69128,  6953.25930,   155.2,     0.0 !  !END!
1140 ! X =  418.89128,  6953.25930,   159.0,     0.0 !  !END!
1141 ! X =  419.09128,  6953.25930,   152.0,     0.0 !  !END!
1142 ! X =  422.69128,  6953.25930,   132.2,     0.0 !  !END!
1143 ! X =  422.89128,  6953.25930,   126.9,     0.0 !  !END!
1144 ! X =  411.09128,  6953.45930,   165.1,     0.0 !  !END!
1145 ! X =  411.29128,  6953.45930,   157.4,     0.0 !  !END!
1146 ! X =  411.49128,  6953.45930,   144.7,     0.0 !  !END!
1147 ! X =  411.69128,  6953.45930,   147.1,     0.0 !  !END!
1148 ! X =  411.89128,  6953.45930,   143.5,     0.0 !  !END!
1149 ! X =  412.09128,  6953.45930,   140.3,     0.0 !  !END!
1150 ! X =  412.29128,  6953.45930,   138.4,     0.0 !  !END!
1151 ! X =  412.49128,  6953.45930,   136.2,     0.0 !  !END!
1152 ! X =  412.69128,  6953.45930,   143.9,     0.0 !  !END!
1153 ! X =  412.89128,  6953.45930,   144.9,     0.0 !  !END!
1154 ! X =  413.09128,  6953.45930,   144.8,     0.0 !  !END!
1155 ! X =  413.29128,  6953.45930,   143.7,     0.0 !  !END!
1156 ! X =  413.49128,  6953.45930,   146.3,     0.0 !  !END!
1157 ! X =  413.69128,  6953.45930,   148.5,     0.0 !  !END!
1158 ! X =  413.89128,  6953.45930,   153.1,     0.0 !  !END!
1159 ! X =  414.09128,  6953.45930,   156.8,     0.0 !  !END!
1160 ! X =  414.29128,  6953.45930,   161.4,     0.0 !  !END!
1161 ! X =  414.49128,  6953.45930,   161.3,     0.0 !  !END!
1162 ! X =  414.69128,  6953.45930,   176.5,     0.0 !  !END!
1163 ! X =  414.89128,  6953.45930,   188.8,     0.0 !  !END!
1164 ! X =  415.09128,  6953.45930,   185.4,     0.0 !  !END!
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1165 ! X =  415.29128,  6953.45930,   178.6,     0.0 !  !END!
1166 ! X =  415.49128,  6953.45930,   175.1,     0.0 !  !END!
1167 ! X =  415.69128,  6953.45930,   180.5,     0.0 !  !END!
1168 ! X =  415.89128,  6953.45930,   183.9,     0.0 !  !END!
1169 ! X =  416.09128,  6953.45930,   182.4,     0.0 !  !END!
1170 ! X =  416.29128,  6953.45930,   190.7,     0.0 !  !END!
1171 ! X =  416.49128,  6953.45930,   186.9,     0.0 !  !END!
1172 ! X =  416.69128,  6953.45930,   198.7,     0.0 !  !END!
1173 ! X =  416.89128,  6953.45930,   197.1,     0.0 !  !END!
1174 ! X =  417.09128,  6953.45930,   179.2,     0.0 !  !END!
1175 ! X =  417.29128,  6953.45930,   200.9,     0.0 !  !END!
1176 ! X =  417.49128,  6953.45930,   197.4,     0.0 !  !END!
1177 ! X =  417.69128,  6953.45930,   191.3,     0.0 !  !END!
1178 ! X =  417.89128,  6953.45930,   177.2,     0.0 !  !END!
1179 ! X =  418.09128,  6953.45930,   215.7,     0.0 !  !END!
1180 ! X =  411.09128,  6953.65930,   157.1,     0.0 !  !END!
1181 ! X =  411.29128,  6953.65930,   143.0,     0.0 !  !END!
1182 ! X =  411.49128,  6953.65930,   141.5,     0.0 !  !END!
1183 ! X =  411.69128,  6953.65930,   144.8,     0.0 !  !END!
1184 ! X =  411.89128,  6953.65930,   144.6,     0.0 !  !END!
1185 ! X =  412.09128,  6953.65930,   143.4,     0.0 !  !END!
1186 ! X =  412.29128,  6953.65930,   141.5,     0.0 !  !END!
1187 ! X =  412.49128,  6953.65930,   141.9,     0.0 !  !END!
1188 ! X =  412.69128,  6953.65930,   144.0,     0.0 !  !END!
1189 ! X =  412.89128,  6953.65930,   143.7,     0.0 !  !END!
1190 ! X =  413.09128,  6953.65930,   145.5,     0.0 !  !END!
1191 ! X =  413.29128,  6953.65930,   144.4,     0.0 !  !END!
1192 ! X =  413.49128,  6953.65930,   149.8,     0.0 !  !END!
1193 ! X =  413.69128,  6953.65930,   155.4,     0.0 !  !END!
1194 ! X =  413.89128,  6953.65930,   155.2,     0.0 !  !END!
1195 ! X =  414.09128,  6953.65930,   157.2,     0.0 !  !END!
1196 ! X =  414.29128,  6953.65930,   165.9,     0.0 !  !END!
1197 ! X =  414.49128,  6953.65930,   177.7,     0.0 !  !END!
1198 ! X =  414.69128,  6953.65930,   183.2,     0.0 !  !END!
1199 ! X =  414.89128,  6953.65930,   188.3,     0.0 !  !END!
1200 ! X =  415.09128,  6953.65930,   190.7,     0.0 !  !END!
1201 ! X =  415.29128,  6953.65930,   189.6,     0.0 !  !END!
1202 ! X =  415.49128,  6953.65930,   182.9,     0.0 !  !END!
1203 ! X =  415.69128,  6953.65930,   185.2,     0.0 !  !END!
1204 ! X =  415.89128,  6953.65930,   195.7,     0.0 !  !END!
1205 ! X =  416.09128,  6953.65930,   196.7,     0.0 !  !END!
1206 ! X =  416.29128,  6953.65930,   199.7,     0.0 !  !END!
1207 ! X =  416.49128,  6953.65930,   196.7,     0.0 !  !END!
1208 ! X =  416.69128,  6953.65930,   206.2,     0.0 !  !END!
1209 ! X =  416.89128,  6953.65930,   198.8,     0.0 !  !END!
1210 ! X =  417.09128,  6953.65930,   181.9,     0.0 !  !END!
1211 ! X =  417.29128,  6953.65930,   213.5,     0.0 !  !END!
1212 ! X =  411.09128,  6953.85930,   145.0,     0.0 !  !END!
1213 ! X =  411.29128,  6953.85930,   146.4,     0.0 !  !END!
1214 ! X =  411.49128,  6953.85930,   148.1,     0.0 !  !END!
1215 ! X =  411.69128,  6953.85930,   149.3,     0.0 !  !END!
1216 ! X =  411.89128,  6953.85930,   147.3,     0.0 !  !END!
1217 ! X =  412.09128,  6953.85930,   146.3,     0.0 !  !END!
1218 ! X =  412.29128,  6953.85930,   148.9,     0.0 !  !END!
1219 ! X =  412.49128,  6953.85930,   142.8,     0.0 !  !END!
1220 ! X =  412.69128,  6953.85930,   143.8,     0.0 !  !END!
1221 ! X =  412.89128,  6953.85930,   148.7,     0.0 !  !END!
1222 ! X =  413.09128,  6953.85930,   155.6,     0.0 !  !END!
1223 ! X =  413.29128,  6953.85930,   147.9,     0.0 !  !END!
1224 ! X =  413.49128,  6953.85930,   149.2,     0.0 !  !END!
1225 ! X =  413.69128,  6953.85930,   158.1,     0.0 !  !END!
1226 ! X =  413.89128,  6953.85930,   164.5,     0.0 !  !END!
1227 ! X =  414.09128,  6953.85930,   162.0,     0.0 !  !END!
1228 ! X =  414.29128,  6953.85930,   168.7,     0.0 !  !END!
1229 ! X =  414.49128,  6953.85930,   182.6,     0.0 !  !END!
1230 ! X =  414.69128,  6953.85930,   187.0,     0.0 !  !END!
1231 ! X =  414.89128,  6953.85930,   192.5,     0.0 !  !END!
1232 ! X =  415.09128,  6953.85930,   197.4,     0.0 !  !END!
1233 ! X =  415.29128,  6953.85930,   195.7,     0.0 !  !END!
1234 ! X =  415.49128,  6953.85930,   192.1,     0.0 !  !END!
1235 ! X =  415.69128,  6953.85930,   193.0,     0.0 !  !END!
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1236 ! X =  415.89128,  6953.85930,   196.4,     0.0 !  !END!
1237 ! X =  416.09128,  6953.85930,   206.9,     0.0 !  !END!
1238 ! X =  416.29128,  6953.85930,   212.3,     0.0 !  !END!
1239 ! X =  416.49128,  6953.85930,   209.5,     0.0 !  !END!
1240 ! X =  416.69128,  6953.85930,   212.3,     0.0 !  !END!
1241 ! X =  416.89128,  6953.85930,   195.8,     0.0 !  !END!
1242 ! X =  411.09128,  6954.05930,   160.9,     0.0 !  !END!
1243 ! X =  411.29128,  6954.05930,   155.3,     0.0 !  !END!
1244 ! X =  411.49128,  6954.05930,   153.0,     0.0 !  !END!
1245 ! X =  411.69128,  6954.05930,   158.0,     0.0 !  !END!
1246 ! X =  411.89128,  6954.05930,   152.5,     0.0 !  !END!
1247 ! X =  412.09128,  6954.05930,   151.5,     0.0 !  !END!
1248 ! X =  412.29128,  6954.05930,   158.3,     0.0 !  !END!
1249 ! X =  412.49128,  6954.05930,   144.4,     0.0 !  !END!
1250 ! X =  412.69128,  6954.05930,   148.9,     0.0 !  !END!
1251 ! X =  412.89128,  6954.05930,   155.1,     0.0 !  !END!
1252 ! X =  413.09128,  6954.05930,   161.6,     0.0 !  !END!
1253 ! X =  413.29128,  6954.05930,   152.3,     0.0 !  !END!
1254 ! X =  413.49128,  6954.05930,   151.0,     0.0 !  !END!
1255 ! X =  413.69128,  6954.05930,   160.8,     0.0 !  !END!
1256 ! X =  413.89128,  6954.05930,   171.9,     0.0 !  !END!
1257 ! X =  414.09128,  6954.05930,   187.9,     0.0 !  !END!
1258 ! X =  414.29128,  6954.05930,   194.7,     0.0 !  !END!
1259 ! X =  414.49128,  6954.05930,   180.3,     0.0 !  !END!
1260 ! X =  414.69128,  6954.05930,   177.0,     0.0 !  !END!
1261 ! X =  414.89128,  6954.05930,   185.6,     0.0 !  !END!
1262 ! X =  415.09128,  6954.05930,   200.9,     0.0 !  !END!
1263 ! X =  415.29128,  6954.05930,   204.8,     0.0 !  !END!
1264 ! X =  415.49128,  6954.05930,   205.1,     0.0 !  !END!
1265 ! X =  415.69128,  6954.05930,   206.2,     0.0 !  !END!
1266 ! X =  415.89128,  6954.05930,   208.1,     0.0 !  !END!
1267 ! X =  416.09128,  6954.05930,   213.8,     0.0 !  !END!
1268 ! X =  416.29128,  6954.05930,   223.2,     0.0 !  !END!
1269 ! X =  416.49128,  6954.05930,   219.7,     0.0 !  !END!
1270 ! X =  411.09128,  6954.25930,   165.1,     0.0 !  !END!
1271 ! X =  411.29128,  6954.25930,   156.1,     0.0 !  !END!
1272 ! X =  411.49128,  6954.25930,   155.4,     0.0 !  !END!
1273 ! X =  411.69128,  6954.25930,   156.8,     0.0 !  !END!
1274 ! X =  411.89128,  6954.25930,   156.1,     0.0 !  !END!
1275 ! X =  412.09128,  6954.25930,   158.5,     0.0 !  !END!
1276 ! X =  412.29128,  6954.25930,   150.6,     0.0 !  !END!
1277 ! X =  412.49128,  6954.25930,   145.9,     0.0 !  !END!
1278 ! X =  412.69128,  6954.25930,   147.7,     0.0 !  !END!
1279 ! X =  412.89128,  6954.25930,   157.2,     0.0 !  !END!
1280 ! X =  413.09128,  6954.25930,   163.7,     0.0 !  !END!
1281 ! X =  413.29128,  6954.25930,   162.7,     0.0 !  !END!
1282 ! X =  413.49128,  6954.25930,   154.0,     0.0 !  !END!
1283 ! X =  413.69128,  6954.25930,   153.3,     0.0 !  !END!
1284 ! X =  413.89128,  6954.25930,   180.6,     0.0 !  !END!
1285 ! X =  414.09128,  6954.25930,   198.9,     0.0 !  !END!
1286 ! X =  414.29128,  6954.25930,   203.7,     0.0 !  !END!
1287 ! X =  414.49128,  6954.25930,   205.4,     0.0 !  !END!
1288 ! X =  414.69128,  6954.25930,   199.4,     0.0 !  !END!
1289 ! X =  414.89128,  6954.25930,   198.0,     0.0 !  !END!
1290 ! X =  415.09128,  6954.25930,   192.5,     0.0 !  !END!
1291 ! X =  415.29128,  6954.25930,   196.6,     0.0 !  !END!
1292 ! X =  415.49128,  6954.25930,   212.4,     0.0 !  !END!
1293 ! X =  415.69128,  6954.25930,   220.1,     0.0 !  !END!
1294 ! X =  411.09128,  6954.45930,   162.6,     0.0 !  !END!
1295 ! X =  411.29128,  6954.45930,   159.6,     0.0 !  !END!
1296 ! X =  411.49128,  6954.45930,   159.0,     0.0 !  !END!
1297 ! X =  411.69128,  6954.45930,   158.8,     0.0 !  !END!
1298 ! X =  411.89128,  6954.45930,   159.5,     0.0 !  !END!
1299 ! X =  412.09128,  6954.45930,   161.1,     0.0 !  !END!
1300 ! X =  412.29128,  6954.45930,   146.0,     0.0 !  !END!
1301 ! X =  412.49128,  6954.45930,   148.5,     0.0 !  !END!
1302 ! X =  412.69128,  6954.45930,   151.2,     0.0 !  !END!
1303 ! X =  412.89128,  6954.45930,   159.9,     0.0 !  !END!
1304 ! X =  413.09128,  6954.45930,   169.0,     0.0 !  !END!
1305 ! X =  413.29128,  6954.45930,   164.4,     0.0 !  !END!
1306 ! X =  413.49128,  6954.45930,   157.6,     0.0 !  !END!
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1307 ! X =   413.69128,  6954.45930,   157.4,     0.0 !  !END!
1308 ! X =   413.89128,  6954.45930,   177.1,     0.0 !  !END!
1309 ! X =   414.09128,  6954.45930,   199.9,     0.0 !  !END!
1310 ! X =   414.29128,  6954.45930,   208.8,     0.0 !  !END!
1311 ! X =   411.09128,  6954.65930,   164.5,     0.0 !  !END!
1312 ! X =   411.29128,  6954.65930,   168.9,     0.0 !  !END!
1313 ! X =   411.49128,  6954.65930,   167.6,     0.0 !  !END!
1314 ! X =   411.69128,  6954.65930,   169.5,     0.0 !  !END!
1315 ! X =   411.89128,  6954.65930,   165.9,     0.0 !  !END!
1316 ! X =   412.09128,  6954.65930,   160.3,     0.0 !  !END!
1317 ! X =   412.29128,  6954.65930,   151.6,     0.0 !  !END!
1318 ! X =   412.49128,  6954.65930,   159.5,     0.0 !  !END!
1319 ! X =   412.69128,  6954.65930,   161.6,     0.0 !  !END!
1320 ! X =   412.89128,  6954.65930,   166.3,     0.0 !  !END!
1321 ! X =   411.09128,  6954.85930,   164.9,     0.0 !  !END!
1322 ! X =   411.29128,  6954.85930,   170.5,     0.0 !  !END!
1323 ! X =   411.49128,  6954.85930,   176.2,     0.0 !  !END!
1324 ! X =   411.69128,  6954.85930,   172.1,     0.0 !  !END!
1325 ! X =   411.89128,  6954.85930,   172.5,     0.0 !  !END!
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a

Data for each receptor are treated as a separate input subgroup and therefore must end with an input group terminator.

b

Receptor height above ground is optional. If no value is entered, the receptor is placed on the ground.

c

Receptors can be assigned using group names provided in 17b. If no group names are used (NRGRP=0) then the default assignment name X must be used.