

APPENDIX B
Modelling results

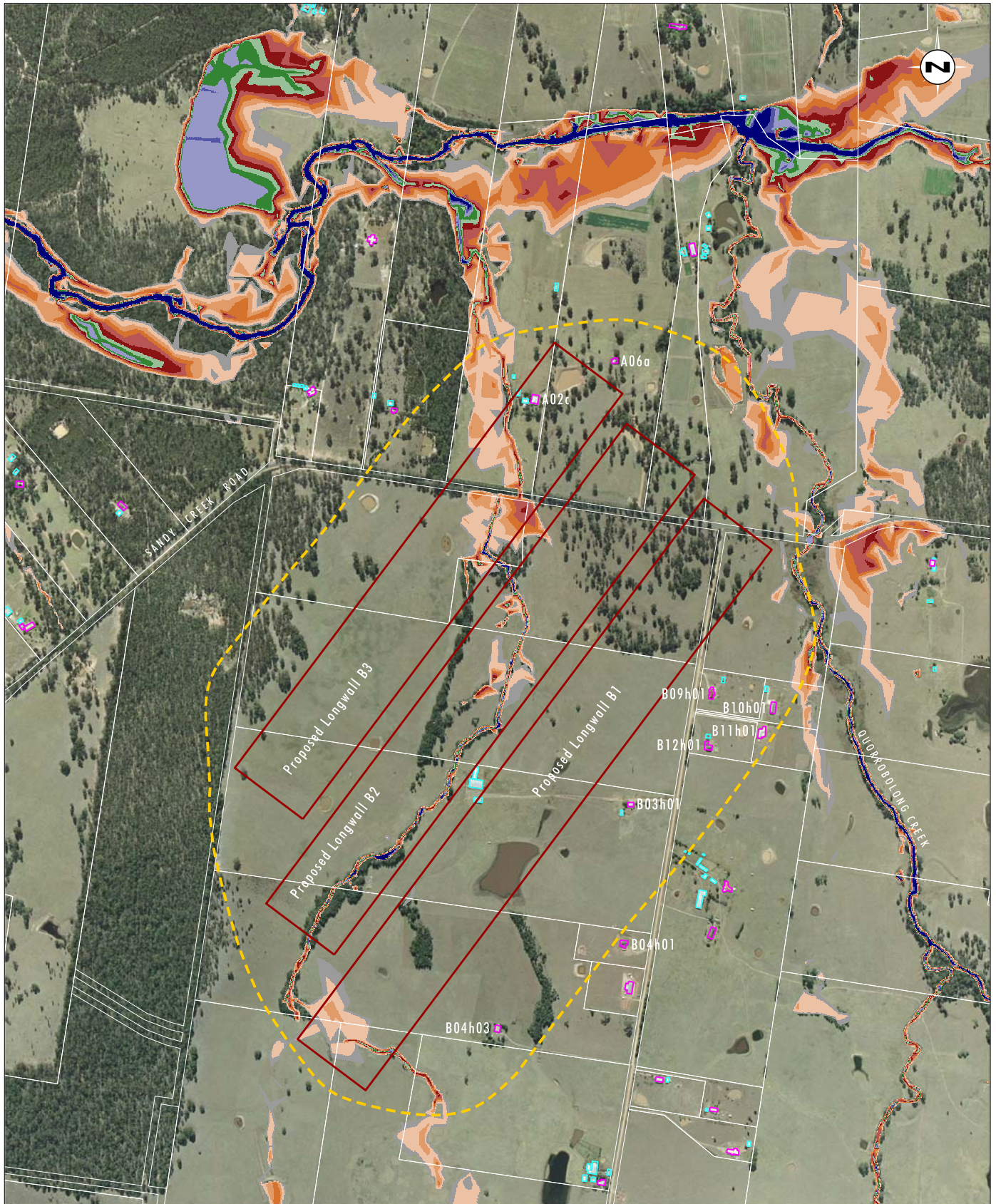


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Depth (m)

- | | |
|--|--|
| Range [0.001 : 0.100] | Range [1.500 : 1.700] |
| Range [0.100 : 0.300] | Range [1.700 : 1.900] |
| Range [0.300 : 0.500] | Range [1.900 : 8.000] |
| Range [0.500 : 0.700] | |
| Range [0.700 : 0.900] | |
| Range [0.900 : 1.100] | |
| Range [1.100 : 1.300] | |
| Range [1.300 : 1.500] | |

FIGURE B1

100% AEP Storm Event: Maximum Modelled Flood Depths, Predicted Subsidence - Approved LWA3-A8, Proposed LWB1-B3

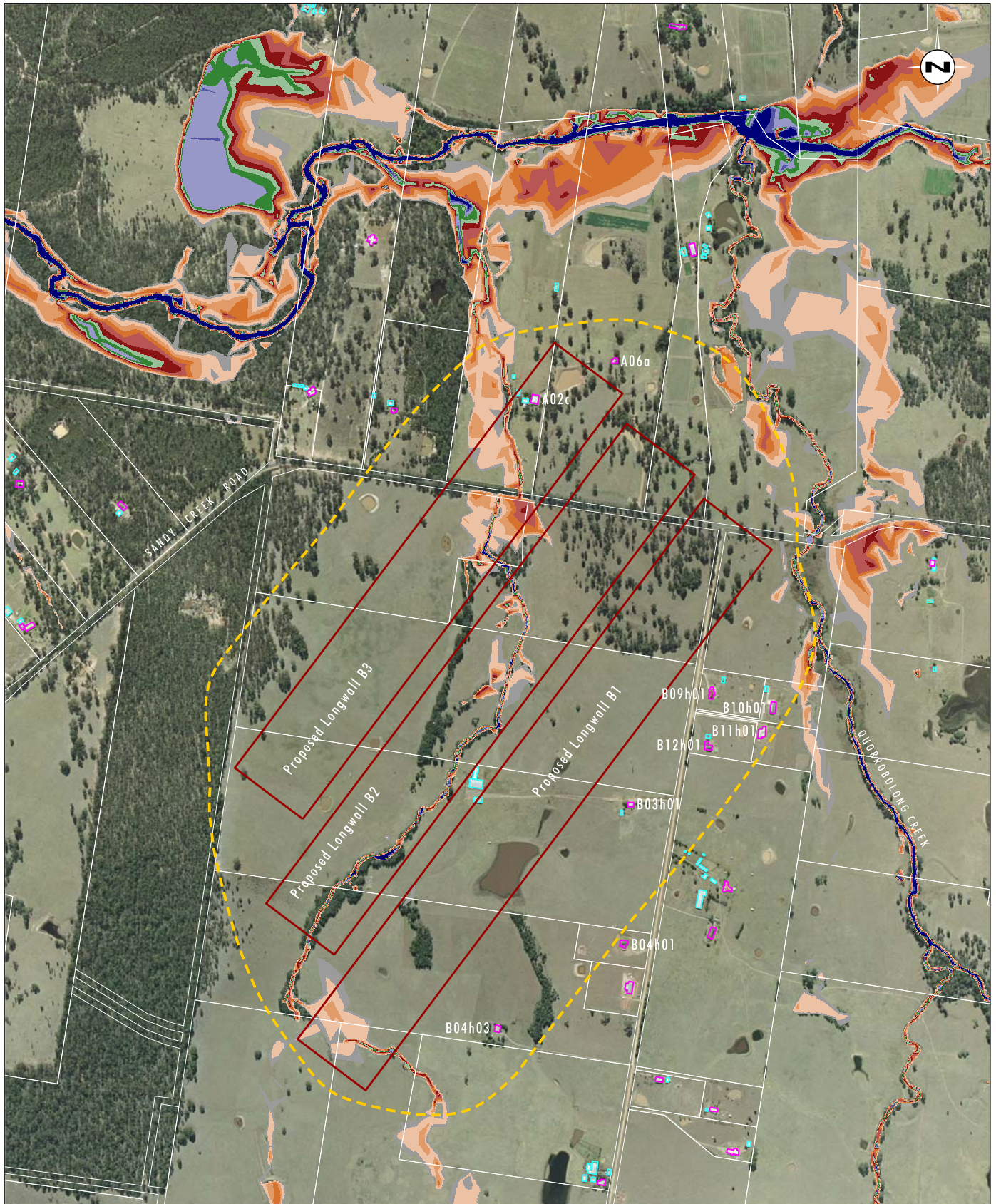


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Depth (m)

- Range [0.001 : 0.100]
- Range [0.100 : 0.300]
- Range [0.300 : 0.500]
- Range [0.500 : 0.700]
- Range [0.700 : 0.900]
- Range [0.900 : 1.100]
- Range [1.100 : 1.300]
- Range [1.300 : 1.500]

- Range [1.500 : 1.700]
- Range [1.700 : 1.900]
- Range [1.900 : 8.000]

FIGURE B2

100% AEP Storm Event: Maximum Modelled Flood Depths, Predicted Subsidence - Approved LWA3-A19, Proposed LWB1-B3

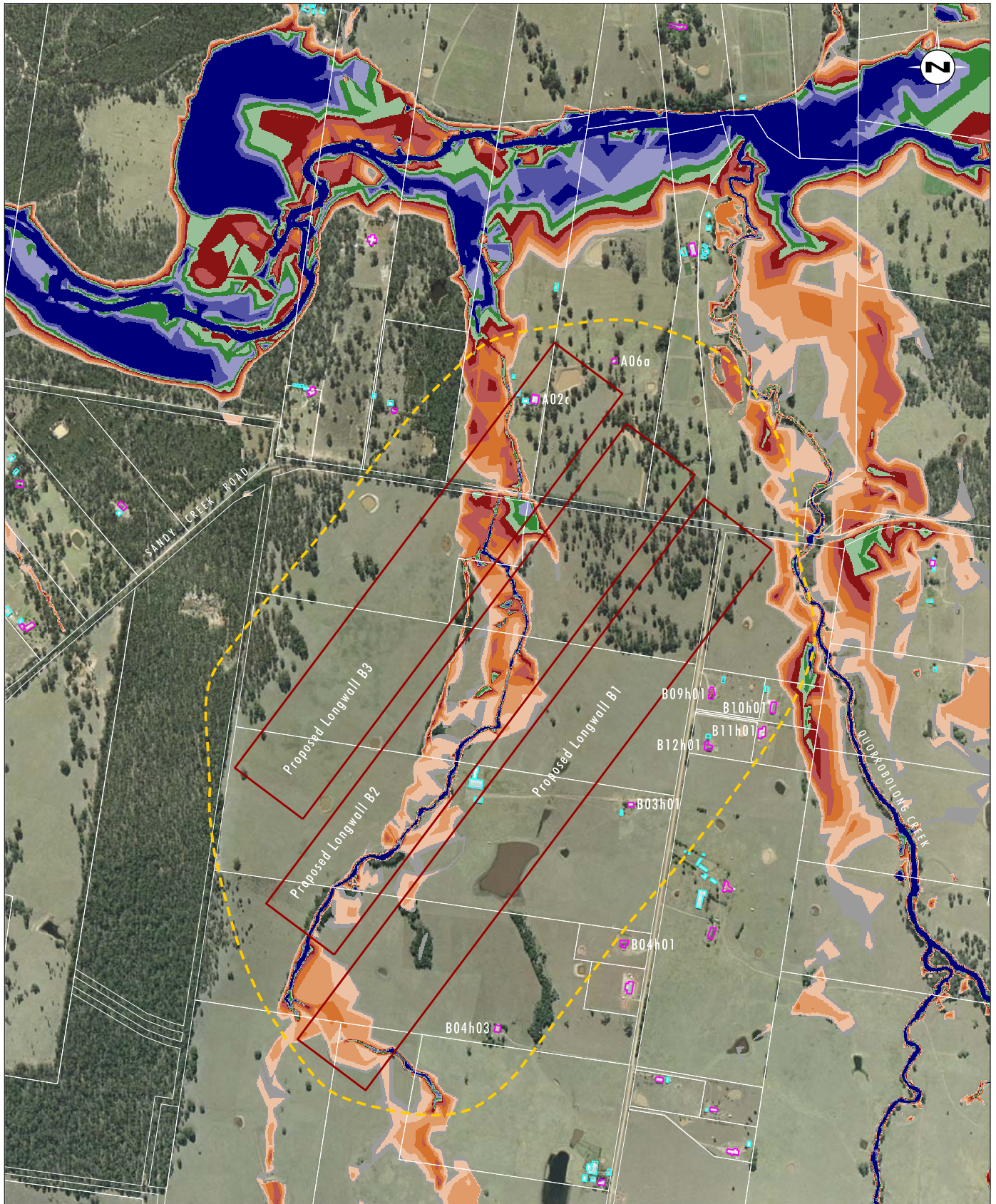


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Depth (m)

- | | |
|--|--|
| Range [0.001 : 0.100] | Range [1.500 : 1.700] |
| Range [0.100 : 0.300] | Range [1.700 : 1.900] |
| Range [0.300 : 0.500] | Range [1.900 : 8.000] |
| Range [0.500 : 0.700] | |
| Range [0.700 : 0.900] | |
| Range [0.900 : 1.100] | |
| Range [1.100 : 1.300] | |
| Range [1.300 : 1.500] | |

FIGURE B3

1% AEP Storm Event: Maximum Modelled Flood
 Depths, Predicted Subsidence - Approved
 LWA3-A8, Proposed LWB1-B3

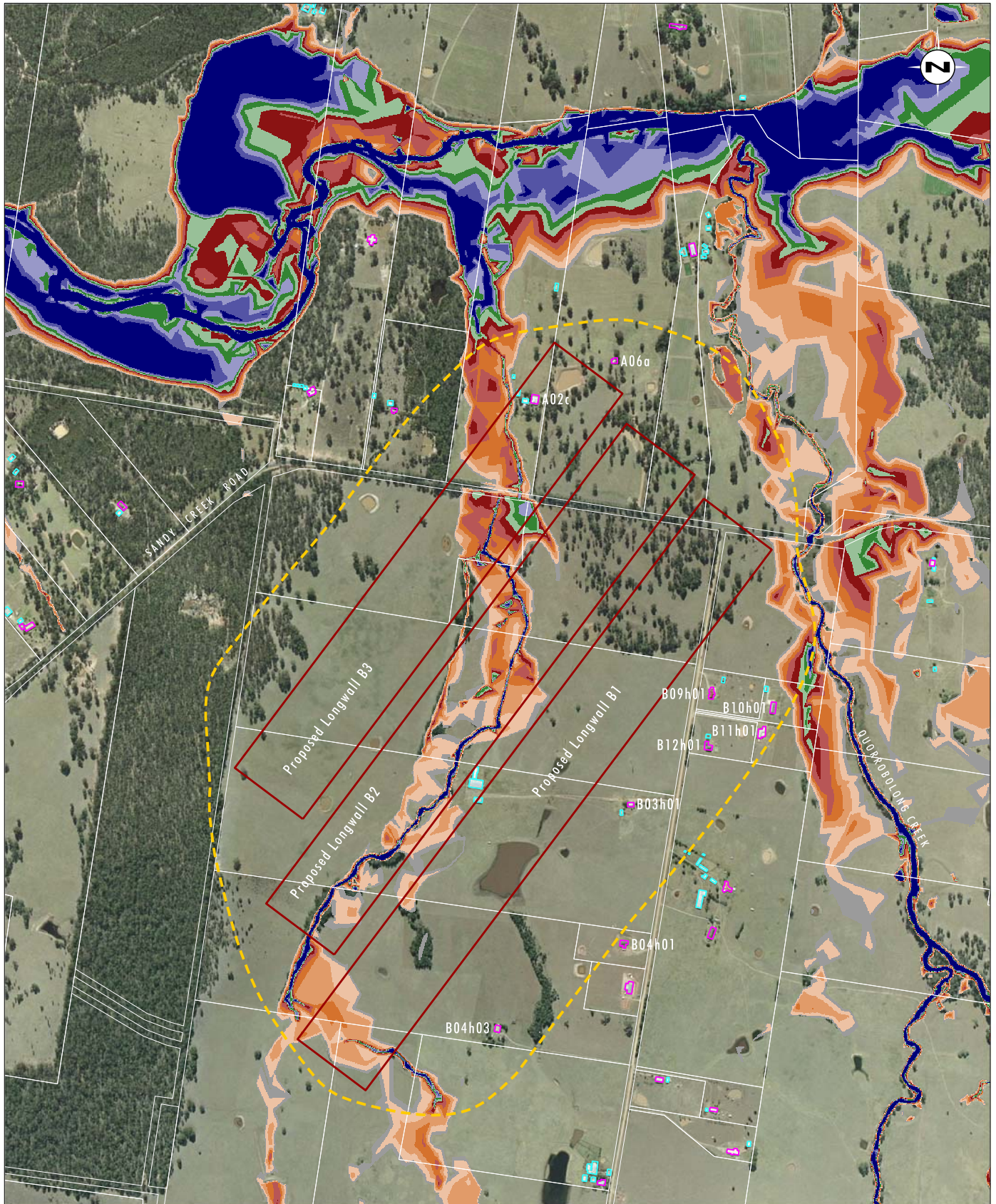


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Depth (m)

- | | |
|--|--|
| Range [0.001 : 0.100] | Range [1.500 : 1.700] |
| Range [0.100 : 0.300] | Range [1.700 : 1.900] |
| Range [0.300 : 0.500] | Range [1.900 : 8.000] |
| Range [0.500 : 0.700] | |
| Range [0.700 : 0.900] | |
| Range [0.900 : 1.100] | |
| Range [1.100 : 1.300] | |
| Range [1.300 : 1.500] | |

FIGURE B4

1% AEP Storm Event: Maximum Modelled Flood Depths, Predicted Subsidence - Approved LWA3-A19, Proposed LWB1-B3

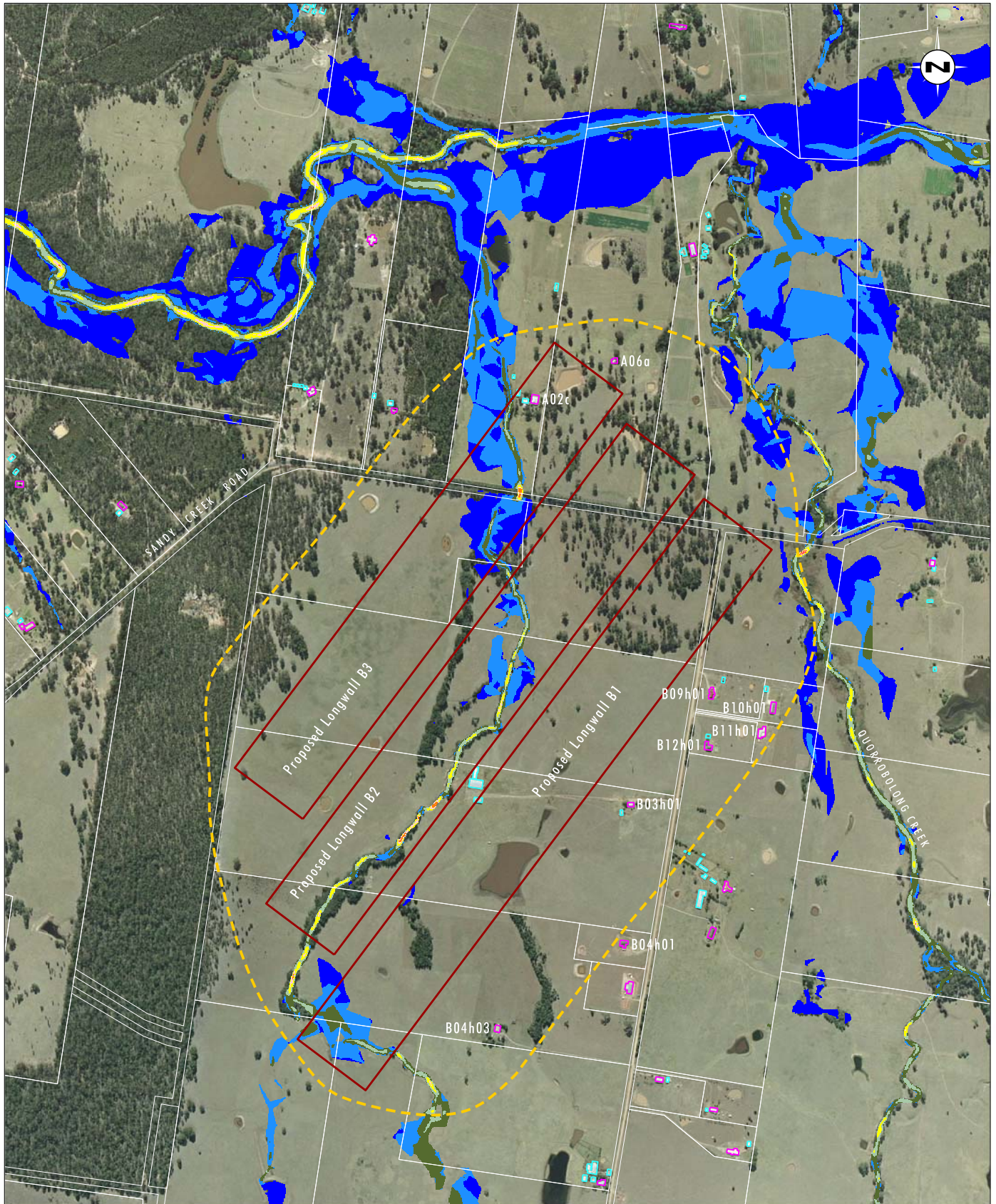


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Velocity (m/s)

- | | |
|---|--|
| Range [0.100 : 0.250] | Range [2.000 : 2.250] |
| Range [0.250 : 0.500] | Range [2.250 : 3.000] |
| Range [0.500 : 0.750] | |
| Range [0.750 : 1.000] | |
| Range [1.000 : 1.250] | |
| Range [1.250 : 1.500] | |
| Range [1.500 : 1.750] | |
| Range [1.750 : 2.000] | |

FIGURE B5

100% AEP Storm Event: Maximum Modelled Flow Velocities, Predicted Subsidence - Approved LWA3-A8, Proposed LWB1-B3

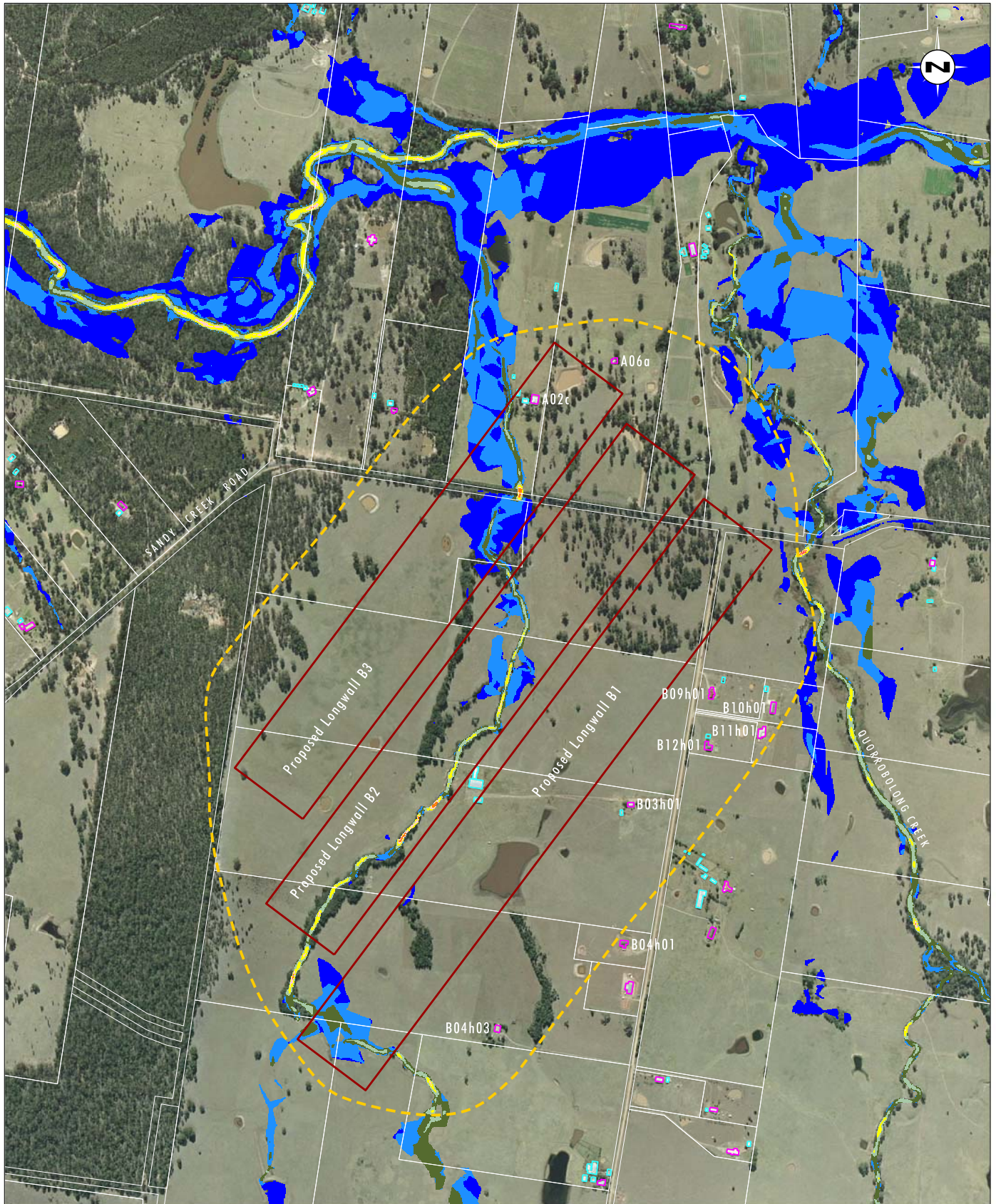


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Velocity (m/s)

- | | |
|--|--|
| Range [0.100 : 0.250] | Range [2.000 : 2.250] |
| Range [0.250 : 0.500] | Range [2.250 : 3.000] |
| Range [0.500 : 0.750] | |
| Range [0.750 : 1.000] | |
| Range [1.000 : 1.250] | |
| Range [1.250 : 1.500] | |
| Range [1.500 : 1.750] | |
| Range [1.750 : 2.000] | |

FIGURE B6

100% AEP Storm Event: Maximum Modelled Flow Velocities, Predicted Subsidence - Approved LWA3-A19, Proposed LWB1-B3

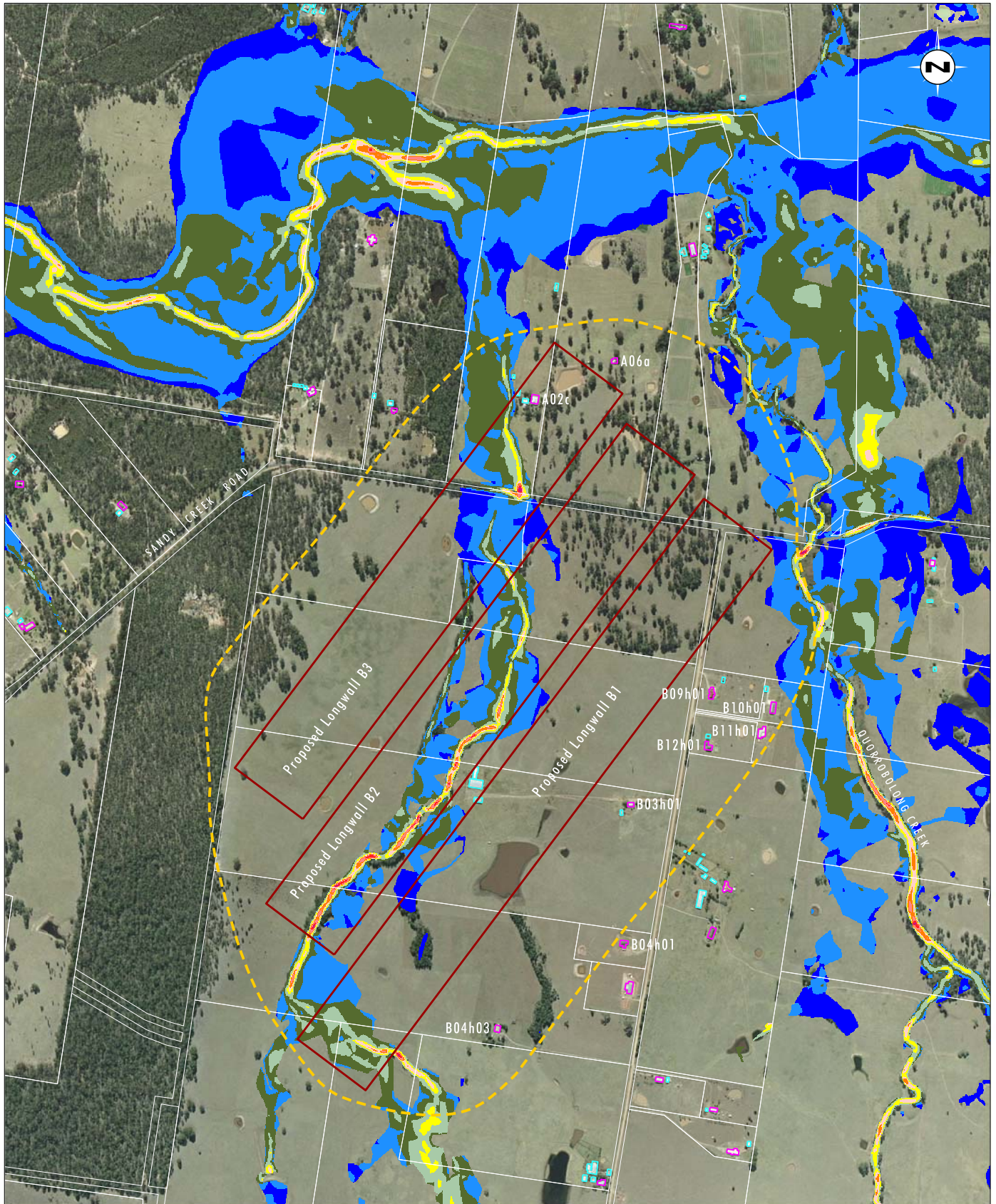


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Velocity (m/s)

- | | |
|---|--|
| Range [0.100 : 0.250] | Range [2.000 : 2.250] |
| Range [0.250 : 0.500] | Range [2.250 : 3.000] |
| Range [0.500 : 0.750] | |
| Range [0.750 : 1.000] | |
| Range [1.000 : 1.250] | |
| Range [1.250 : 1.500] | |
| Range [1.500 : 1.750] | |
| Range [1.750 : 2.000] | |

FIGURE B7

1% AEP Storm Event: Maximum Modelled Flow Velocities, Predicted Subsidence - Approved LWA3-A8, Proposed LWB1-B3

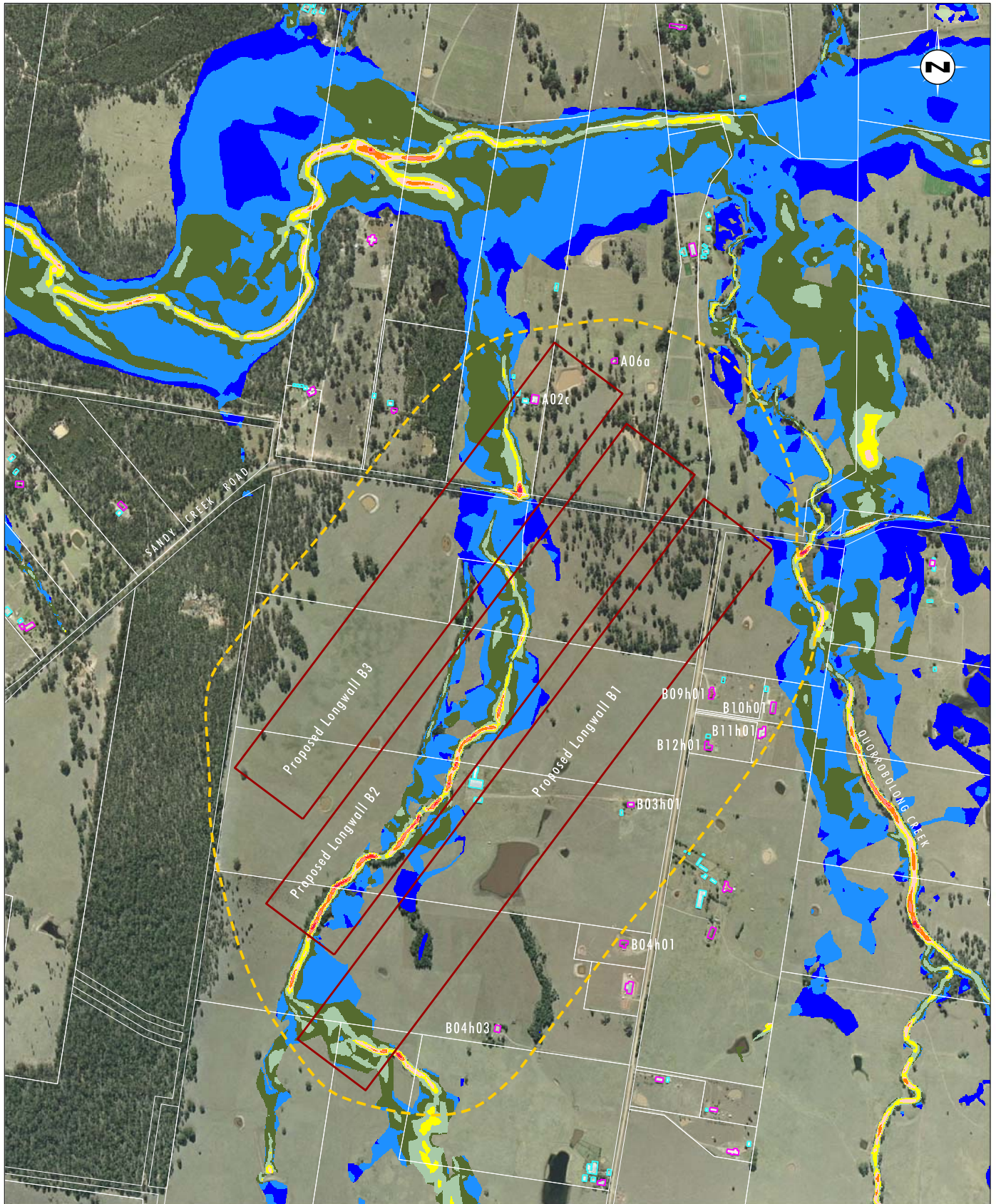


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Water Velocity (m/s)

- Range [0.100 : 0.250]
- Range [0.250 : 0.500]
- Range [0.500 : 0.750]
- Range [0.750 : 1.000]
- Range [1.000 : 1.250]
- Range [1.250 : 1.500]
- Range [1.500 : 1.750]
- Range [1.750 : 2.000]
- Range [2.000 : 2.250]
- Range [2.250 : 3.000]

FIGURE B8

1% AEP Storm Event: Maximum Modelled Flow Velocities, Predicted Subsidence - Approved LWA3-A19, Proposed LWB1-B3

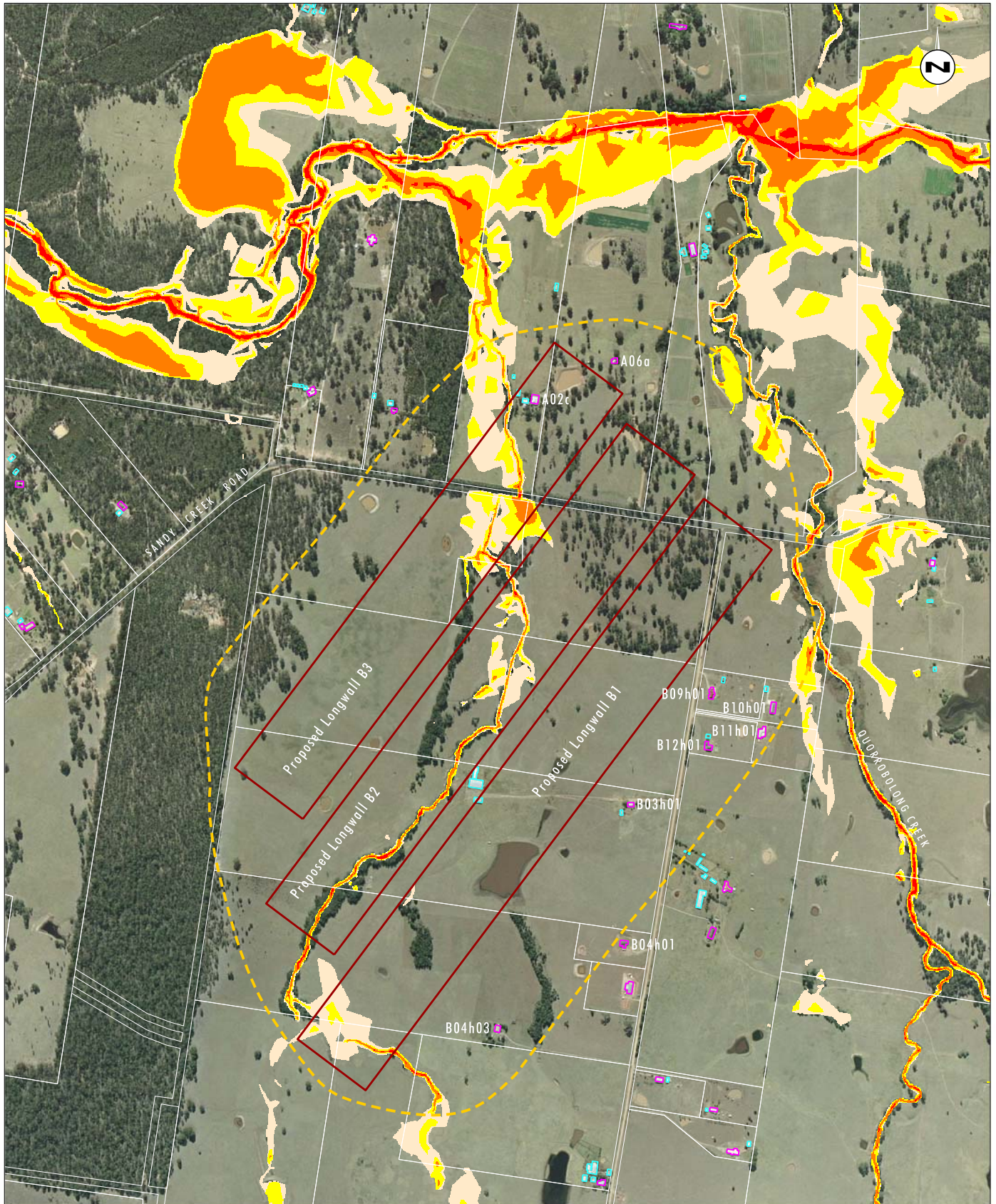


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Hazard Category

- Low Hazard - Walking and Vehicle Access
- Low Hazard - Vehicles unstable
- High Hazard - Wading unsafe
- High Hazard - Damage to light structures

FIGURE B9

100% AEP Storm Event: Maximum Modelled Flood Hazard, Predicted Subsidence - Approved LWA3-A8, Proposed LWB1-B3

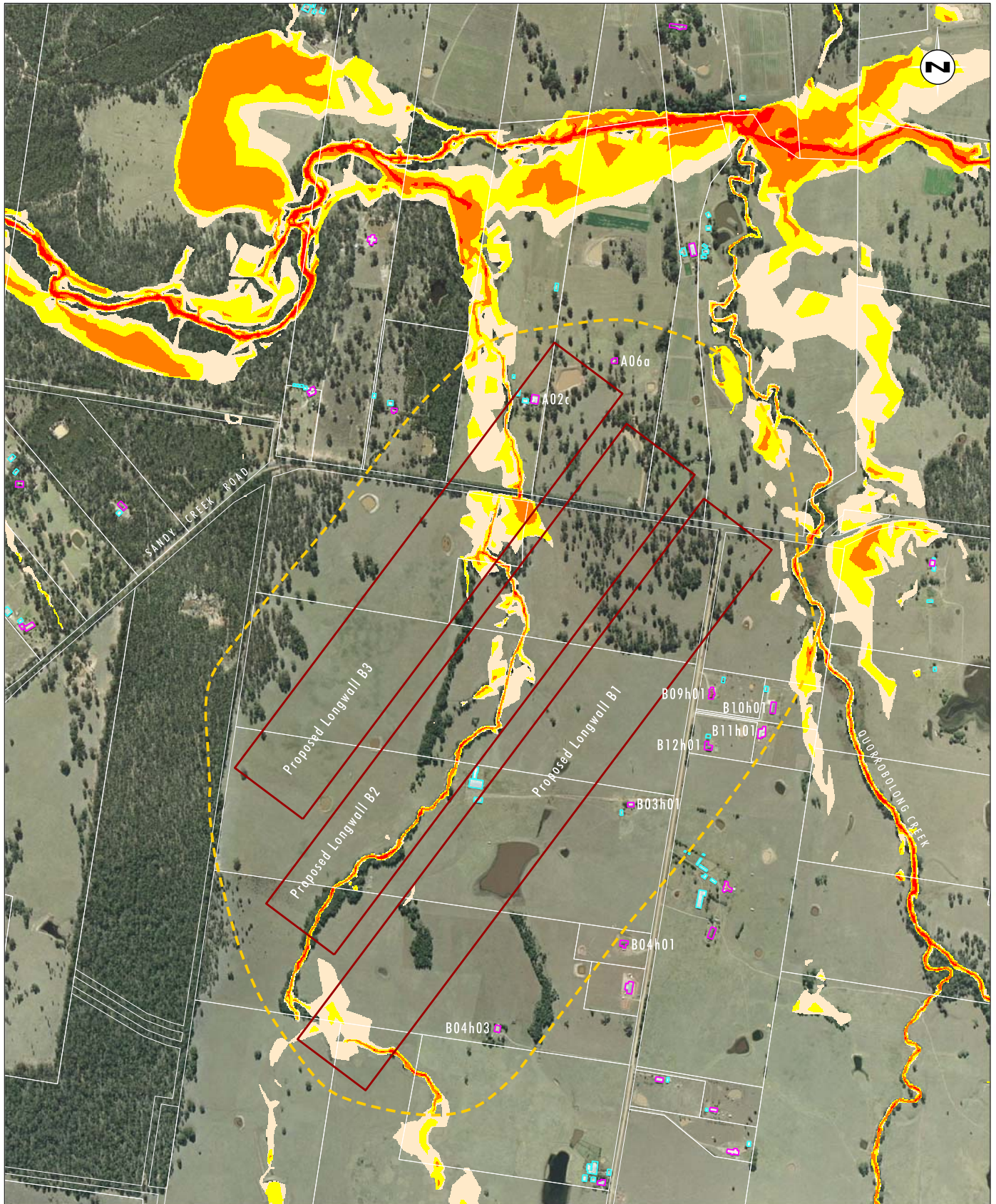


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Hazard Category

- Low Hazard - Walking and Vehicle Access
- Low Hazard - Vehicles unstable
- High Hazard - Wading unsafe
- High Hazard - Damage to light structures

FIGURE B10

100% AEP Storm Event: Maximum Modelled Flood Hazard, Predicted Subsidence - Approved LWA3-A19, Proposed LWB1-B3

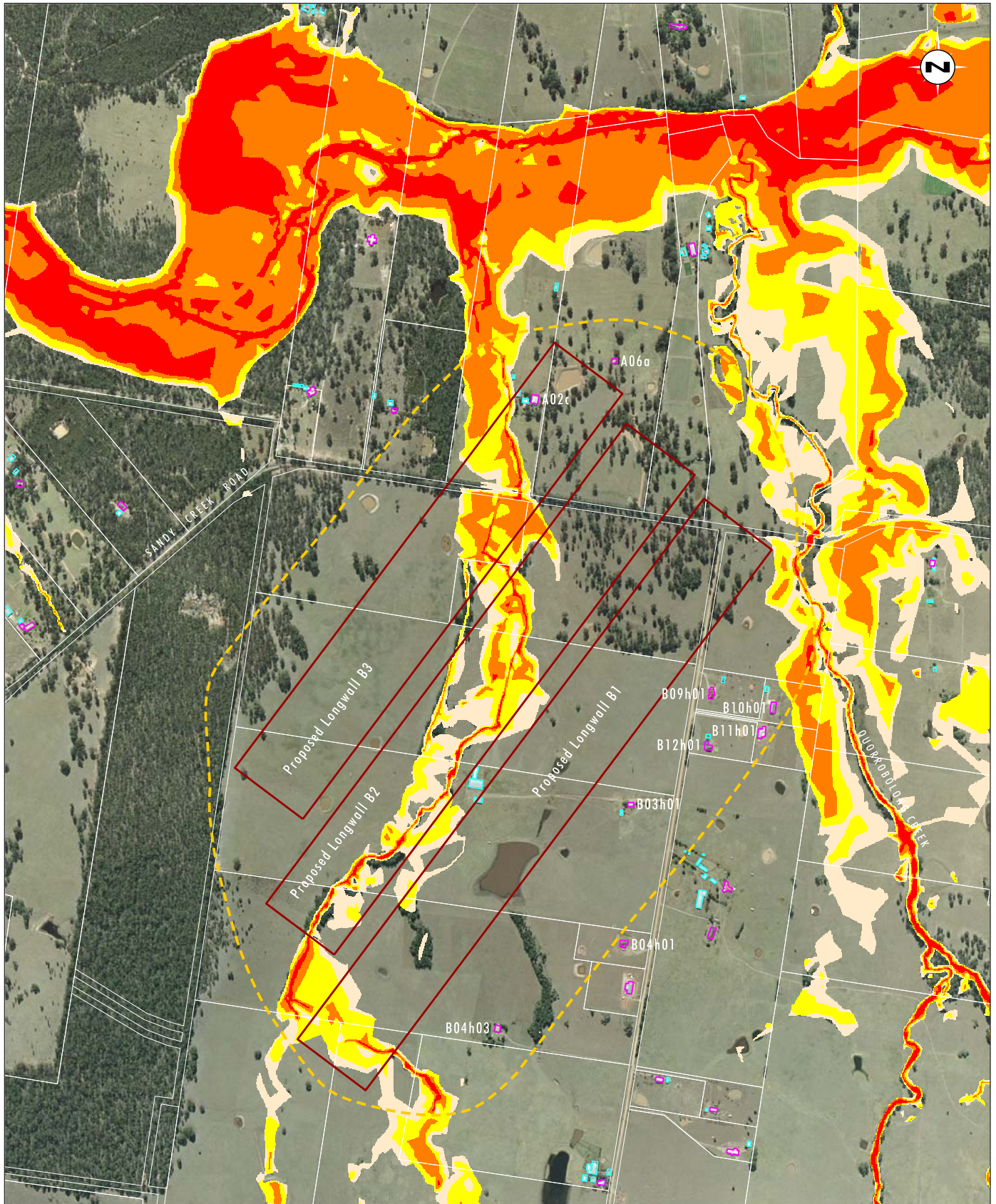


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Hazard Category

- Low Hazard - Walking and Vehicle Access
- Low Hazard - Vehicles unstable
- High Hazard - Wading unsafe
- High Hazard - Damage to light structures

FIGURE B11

1% AEP Storm Event: Maximum Modelled Flood Hazard, Predicted Subsidence - Approved LWA3-A8, Proposed LWB1-B3

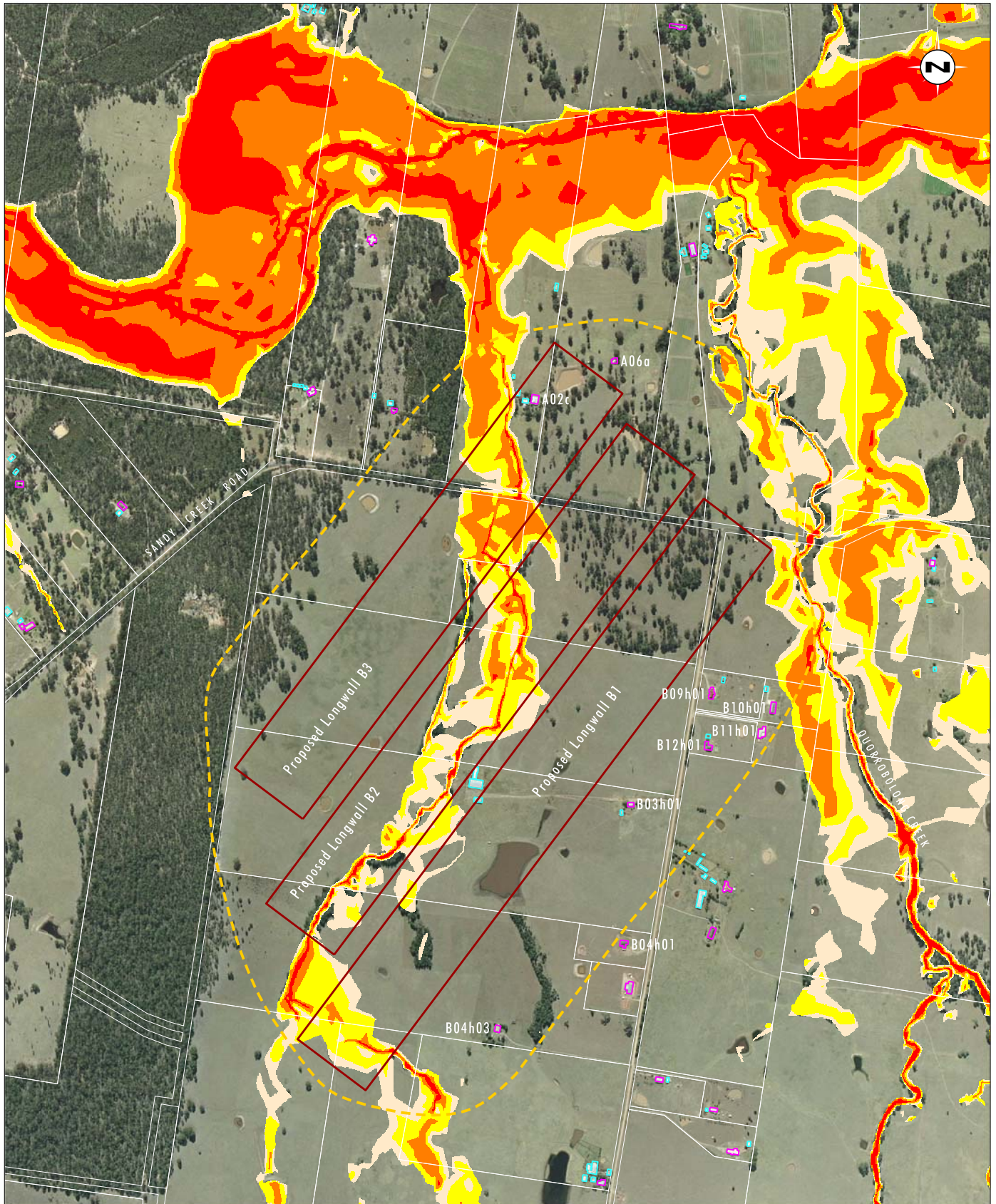


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

0 250 500 750 m
 1:15 000

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

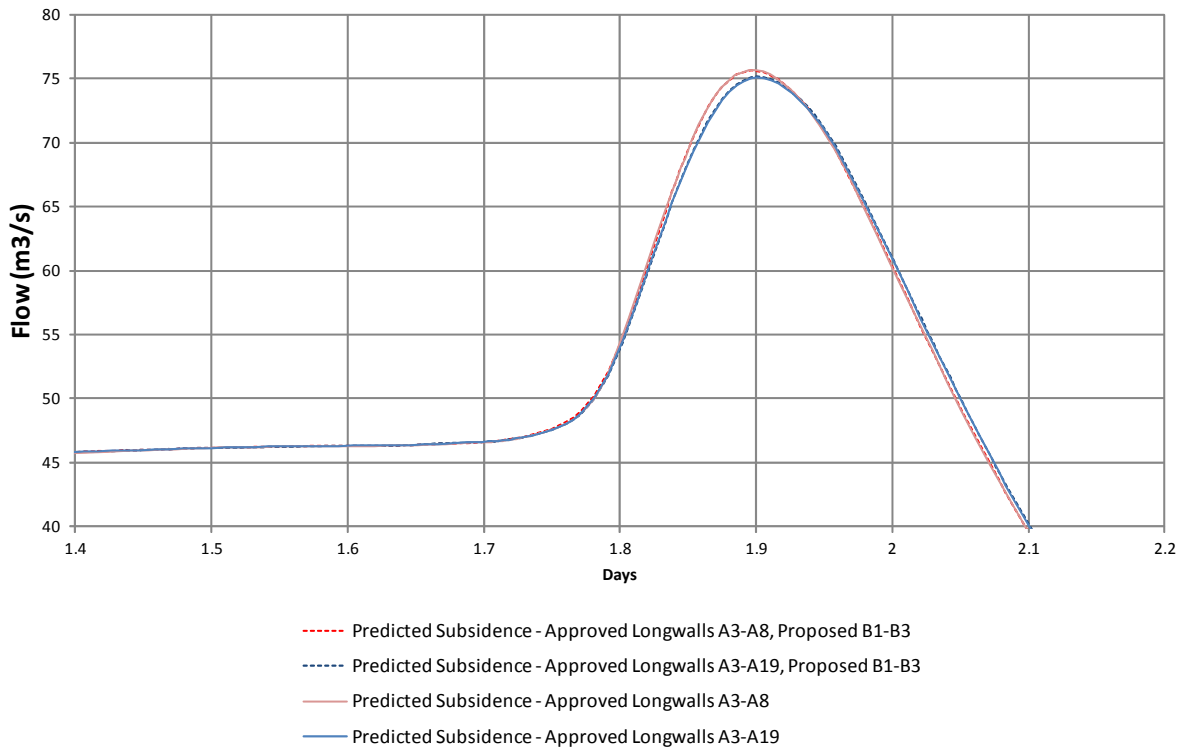
Hazard Category

- Low Hazard - Walking and Vehicle Access
- Low Hazard - Vehicles unstable
- High Hazard - Wading unsafe
- High Hazard - Damage to light structures

FIGURE B12

1% AEP Storm Event: Maximum Modelled Flood Hazard, Predicted Subsidence - Approved LWA3-A19, Proposed LWB1-B3

1yr Storm Event



100yr Storm Event

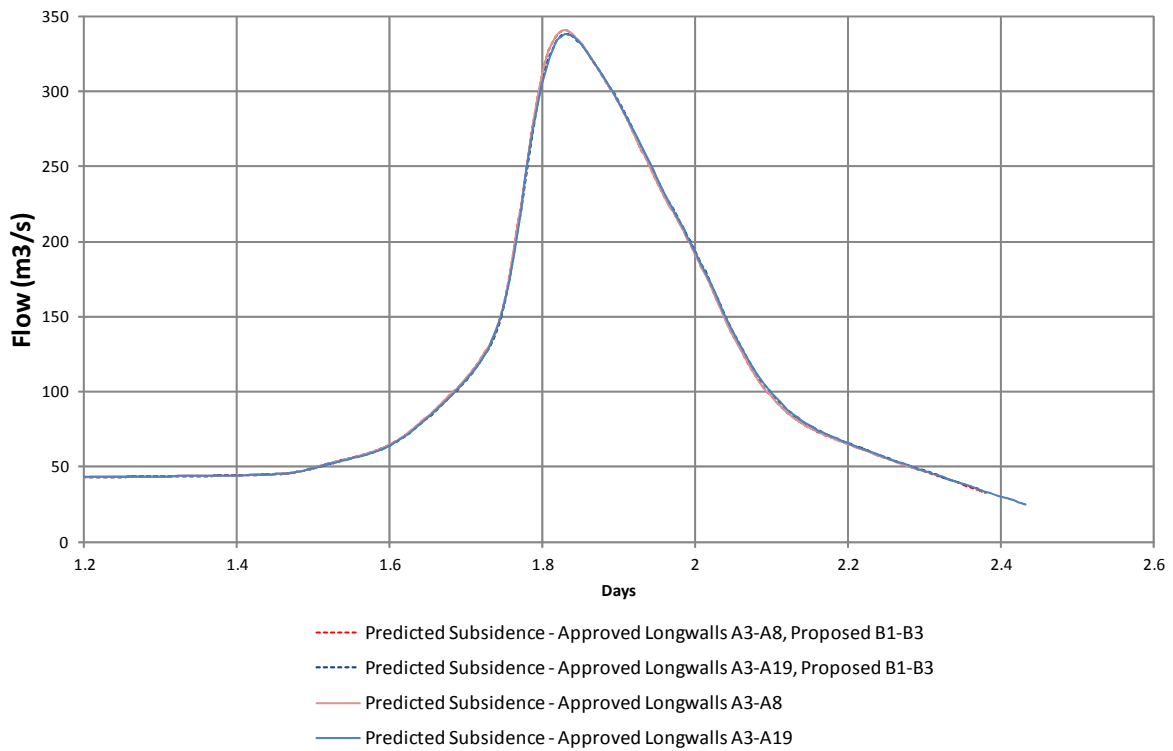


FIGURE B13

Predicted Flood Hydrographs and
100 Year ARI Storm Events, Quorrobolong Creek
downstream of confluence with Unnamed Tributary

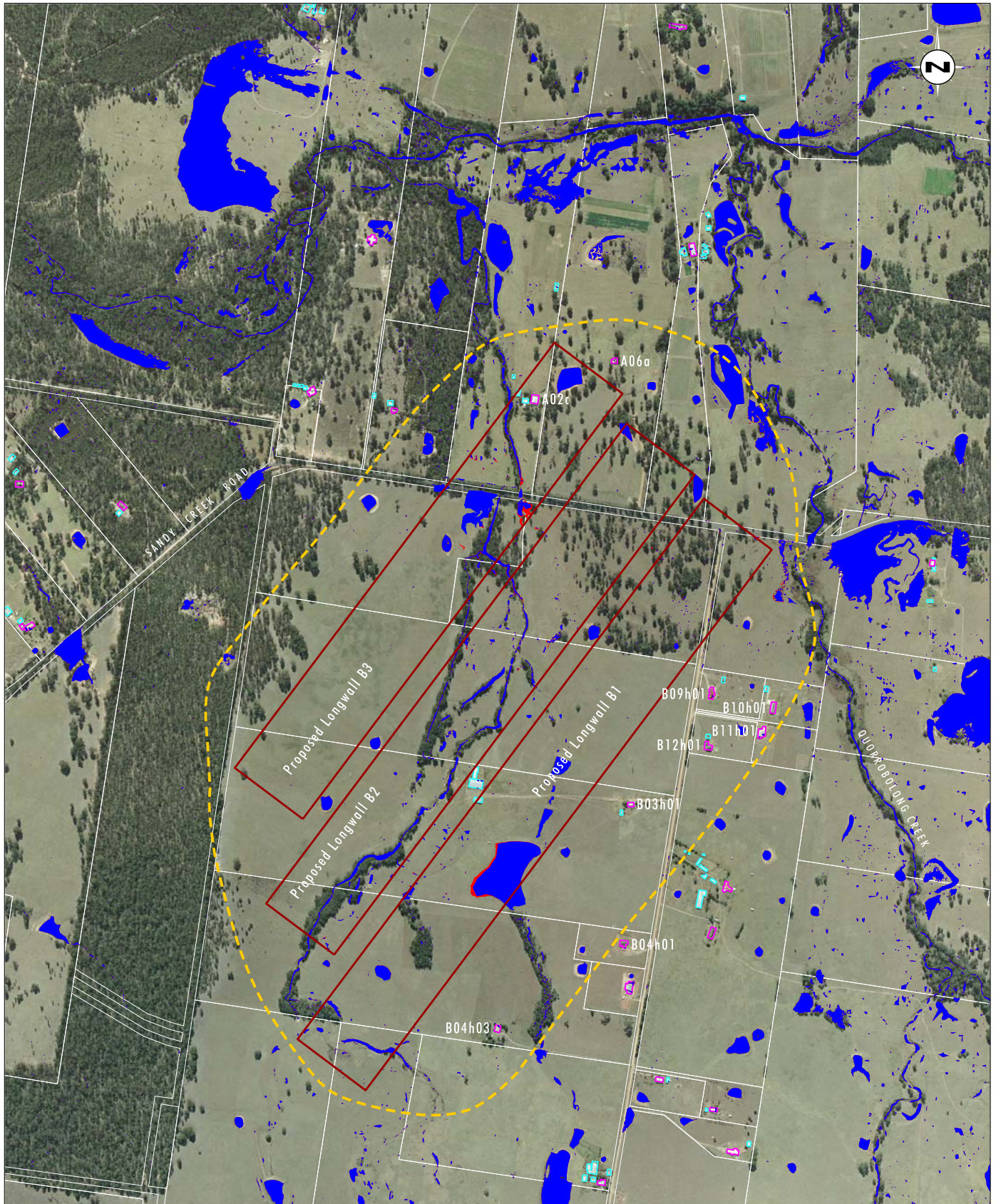


Image Source: Austar Coal Mine
 Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

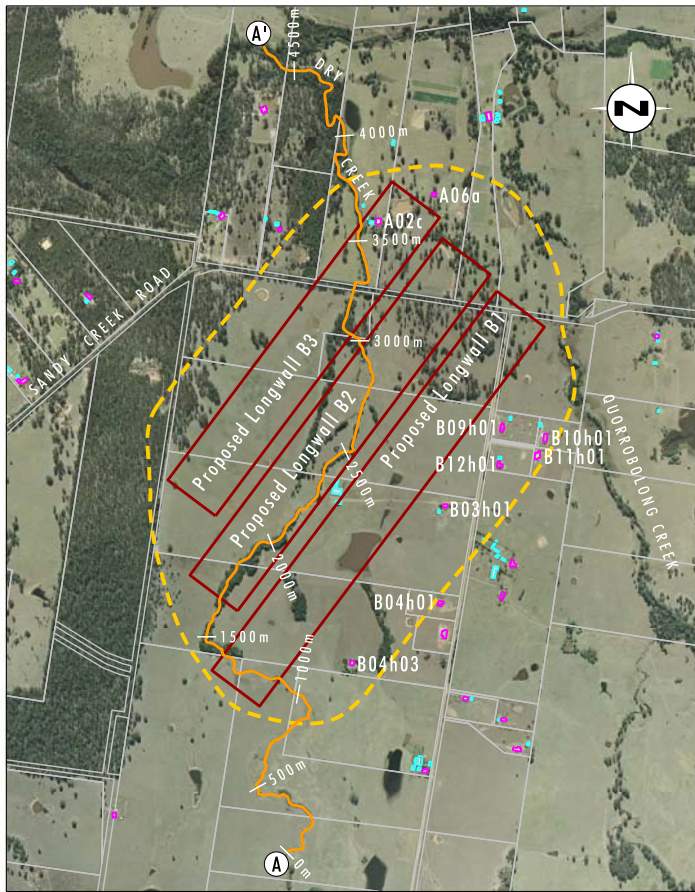
0 250 500 750 m
 1:15 000

Legend

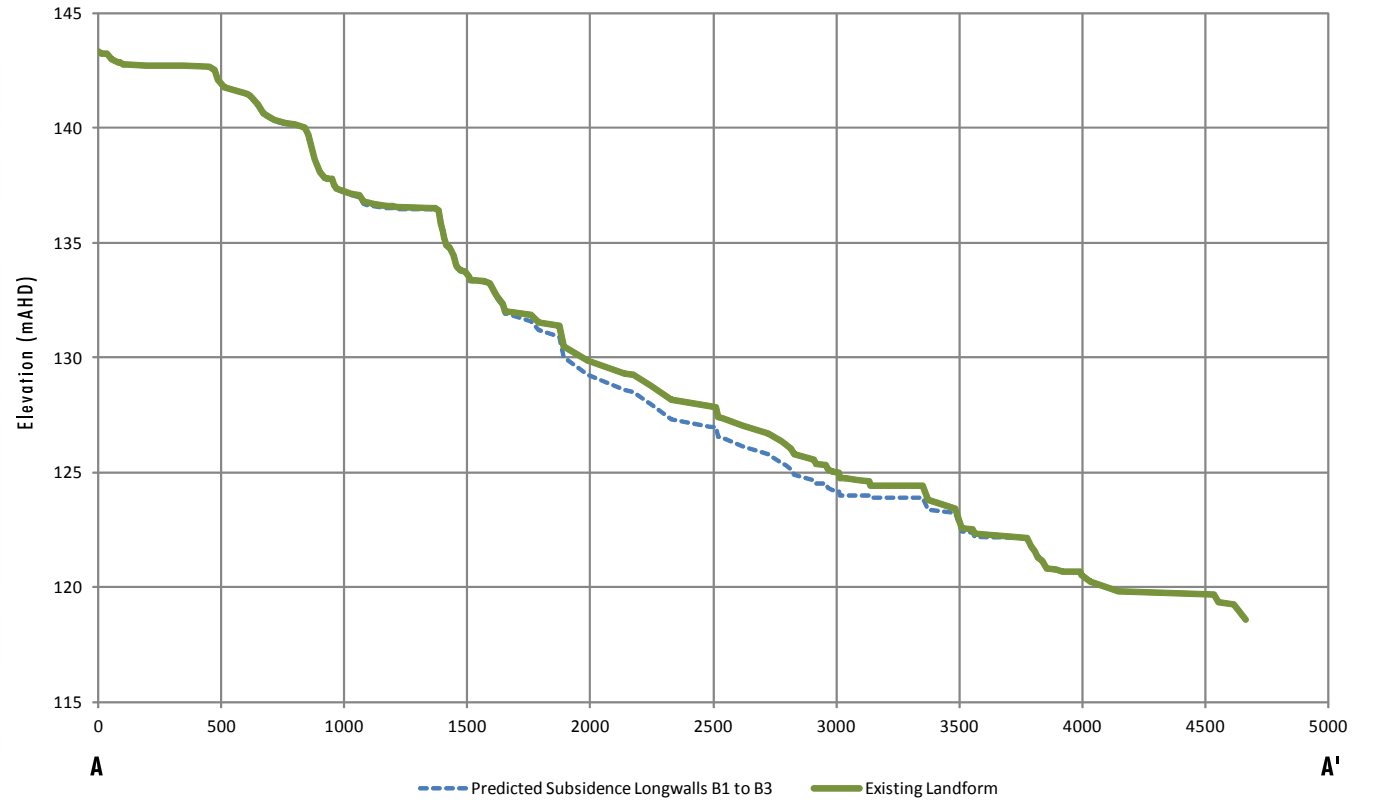
- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area
- Remnant Ponding Approved LWA3-A19
- Remnant Ponding Proposed LWB1-B3

FIGURE B14

**Remnant Ponding
 Approved LWA3-A19
 Proposed LWB1-B3**



Plan View
Scale 1:30 000



Long Section
Horizontal Scale 1:1
Vertical Scale 1:94

Legend

- Dwelling
- Other Structure
- Cadastral Boundary
- Proposed LWB1-B3 Longwall Panels
- LWB1-B3 Modification Area

Image Source: Austar Coal Mine
Data Source: Austar Coal Mine, LPI - Cadastral Boundaries

File Name (A4): R10/3542_157.dgn
20151014 10.08

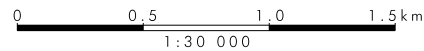


FIGURE B15

Unnamed Tributary Long Section



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