Woolacotts.
CONSULTING ENGINEERS

Macleay Valley Adventure Recreation Park Flood Inundation Report

30 March 2023 / 21-291 / Revision F

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Contents

Document control

Rev No	Date	Revision details	Approved	Verified	Prepared
A	22.11.21	Issue for Review	JC	JC	LN
B	21.02.22	Issue for DA	JC	JC	LN
C	11.03.22	Re-issued for DA	JC	LN	JC
D	14.04.22	Re-issued for Planning Proposal Assessment	JC		JC
E	24.11.22	Re-issued for Planning Proposal Assessment	JC		LN
F	30.03.23	Re-issued for Planning Proposal Assessment	JC		LN

1.0 Introduction

It is proposed to construct a new recreation park to the south-east of the Kempsey Airport, on part of Lot 1 DP1144474 and Lot 2 DP1144474, for the purpose of Indoor and Outdoor Recreation and Tourist Accommodation. Refer to Figure 1 for the location of the site.

Figure 1 – Site Location
(image from MODE)

This report has been prepared to document the flood impact associated with the site and recommendations for management of that risk in the proposed development. As part of the discussion, the report considers the flood information provided by Council and the method used by Woolacotts to determine flood levels at the site.

A 2D TUFLOW flood prepared by JACOBS for Lower Macleay River is adopted to determine the flood levels and flood hazard as part of the flood investigation. Data was extracted from the model on flows and existing ground levels.

2.0 Existing site

The existing site (Area A in Figure 2) is bounded by Kempsey Airport to the north, Old Aerodrome Road to the east and vacant lands to the south and the west. The site area is approximately 23.23ha.

The majority of the site is currently unoccupied and there are two houses and a maintenance shed located at the eastern boundary. The site falls from Kempsey Airport in the north towards to Old Aerodrome Road in the east and a grass channel in the south. Refer to the survey plan in Appendix A and Figure 2 for further details

Figure 2 – Existing Site
(image from Kempsey Shire Council)

3.0 Proposed development

It is proposed to enable Indoor and Outdoor Recreation, together with Tourist accommodation by the construction of a new recreation park consisting of the following facilities:

- New internal access road off Old Aerodrome Road.
- A commercial building, with Indoor Recreation, to the north of the site.
- Public parking area consisting of approximately 45 car spaces, a bus stop area, and a drop off area to the south-east corner of the proposed building
- A private access road to a loading bay to the southern side of the building and an aircraft apron area to the western side of the building.
- Several suspended tourist accommodation cabins to the western side of the public parking area.

4.0 Flood Impact Assessment.

4.1 Existing Flood Behaviour

Hydraulic model results are presented in the following section, which include the assessment of hydrologic flows, potential flooding impacts and flood hazard considerations. Peak flood level, depth, extent, flood velocity and flood hazard have been produced for the 50%AEP, 20%AEP, 10%AEP, 5%AEP, 2%AEP, 1% AEP, 1%AEP with 2050 and 2100 climate changes factors and PMF events.

Appendix 1: Existing Scenario – 50% AEP Flood Depth and Contours.
Appendix 2: Existing Scenario – 50% AEP Flood Velocity.
Appendix 3: Existing Scenario – 50% AEP Flood Hazard.
Appendix 4: Existing Scenario – 20% AEP Flood Depth and Contours.
Appendix 5: Existing Scenario – 20% AEP Flood Velocity.
Appendix 6: Existing Scenario – 20% AEP Flood Hazard.
Appendix 7: Existing Scenario – 10% AEP Flood Depth and Contours.
Appendix 8: Existing Scenario – 10% AEP Flood Velocity.
Appendix 9: Existing Scenario – 10% AEP Flood Hazard.
Appendix 10: Existing Scenario – 5% AEP Flood Depth and Contours.
Appendix 11: Existing Scenario – 5% AEP Flood Velocity.
Appendix 12: Existing Scenario – 5% AEP Flood Hazard.
Appendix 13: Existing Scenario – 2% AEP Flood Depth and Contours.
Appendix 14: Existing Scenario – 2% AEP Flood Velocity.
Appendix 15: Existing Scenario – 2% AEP Flood Hazard.
Appendix 16: Existing Scenario – 1% AEP Flood Depth and Contours.
Appendix 17: Existing Scenario – 1% AEP Flood Velocity.
Appendix 18: Existing Scenario – 1% AEP Flood Hazard.

Appendix 19: Existing Scenario – 1% AEP with 2050 Climate Change (CC) factor Flood Depth and Contours.
Appendix 20: Existing Scenario – 1% AEP with 2050 CC factor Flood Velocity.
Appendix 21: Existing Scenario – 1% AEP with 2050 CC factor Flood Hazard.
Appendix 22: Existing Scenario – 1% AEP with 2100 CC factor Flood Depth and Contours.
Appendix 23: Existing Scenario – 1% AEP with 2100 CC factor Flood Velocity.
Appendix 24: Existing Scenario – 1% AEP with 2100 CC factor Flood Hazard.
Appendix 25: Existing Scenario – PMF - Flood Depth and Contours.
Appendix 26: Existing Scenario – PMF - Flood Velocity.
Appendix 27: Existing Scenario – PMF - Flood Hazard.

Flood hazard mapping has been developed through application of ARR2019 and Australian Emergency Management Institute (AEMI) flood hazard guidelines. The guidelines consider the threat. to people, vehicles and buildings based on flood depth and velocity at a specific location. The AEMI flood hazard mapping can be used to assess the flood hazard for site occupants and proposed site. usage, as well as for the community surrounding the site. The hazard categories are shown in Chart 1 below.

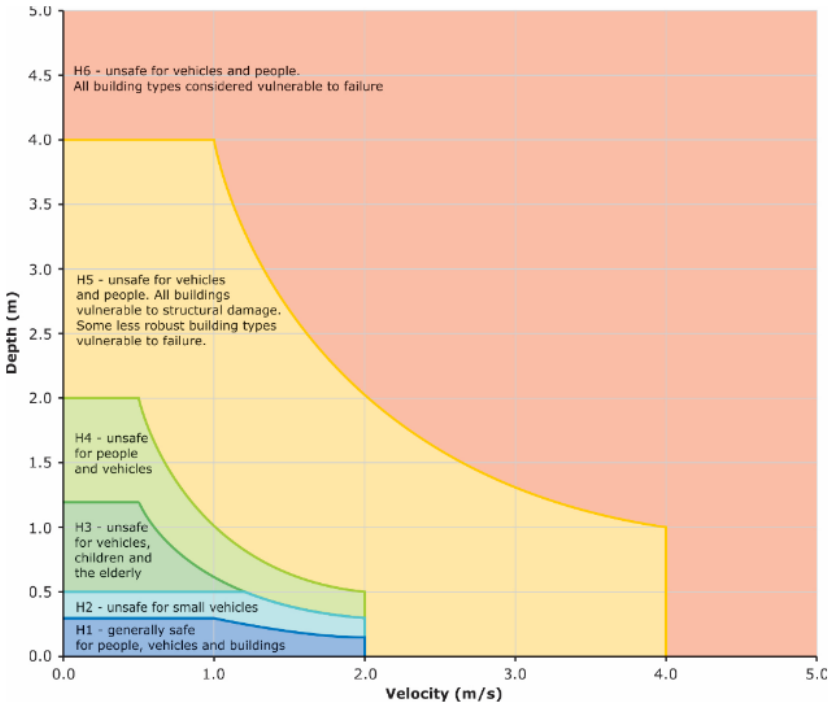


Chart 1: Flood Hazard Curves (Australian Emergency Management Handbook 7)

The results show that the site is affected by the overland flow generated by the local catchment.

4.1.1 Climate Change Assessment

The 1% AEP rainfall intensity was increased by 9.7% for 2050 and 19.7% for the high range climate change scenario of RCP 8. These have been provided for the 1% AEP event and 18, 24, 36, 48-, 72-, 96-, and 120-hour durations.

4.2 Assessment of Proposed Development

The proposed development is located in an area that is largely affected by overland flooding in most flood events. To assess the suitability of the development with regard to overland flow, the proposed development drawings were overlayed in the background of the result files. This was then used to assess flood risk to the site itself.

The table below outlines the flood planning level for the development during the storm events up to and including the PMF storm events.

Storm events	Flood Planning levels for buildings and tourist accommodation cabins	Flood Planning levels for carpark
50% AEP	NA	NA
20% AEP	NA	NA
10% AEP	NA	NA
5% AEP	NA	NA
2% AEP	NA	NA
1% AEP	13.8m AHD	13.8m AHD
1% AEP with 2050 CC	14.3m AHD	14.3m AHD
1% AEP with 2100 CC	14.9m AHD	14.9 mAHD
PMF	24.1m AHD	24.05 mAHD

Table 1: Flood Planning Levels

4.3 Building Elements

Secondary façade supporting framing located within the free board height that is not designed for flood loads will not have sufficient capacity to withstand these pressures and will fail along with the supported facade.

The window and door framing will need to be designed for the flood pressure over the free board flood height. The cladding, windows and doors will need to have sufficient robustness.

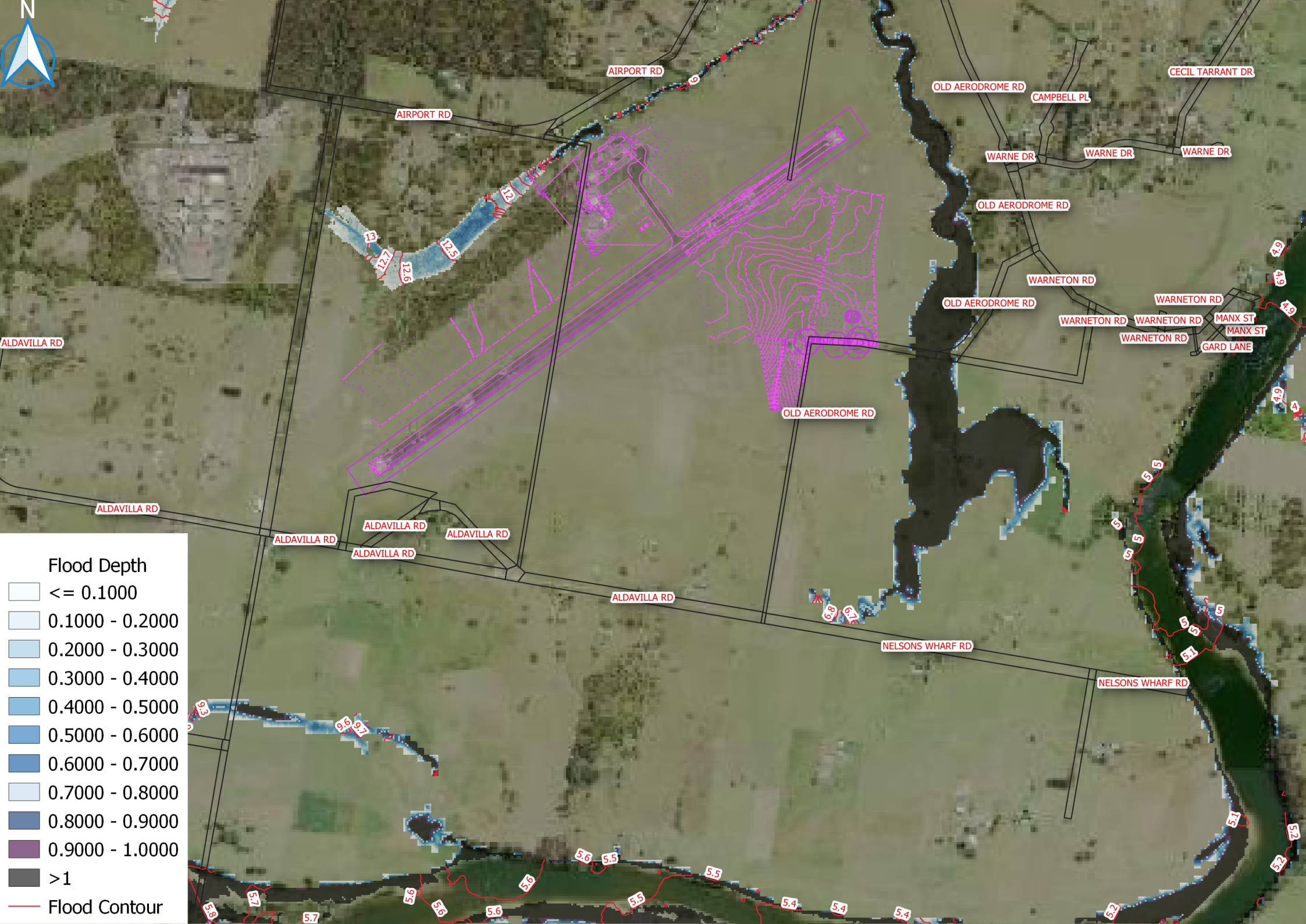
5.0 Conclusion

The recent TUFLOW model prepare by JACOBS demonstrated that the site was affected by Lowever Macleay River.

Flood characteristics for any storm events up to and including PMF events have been assessed, as well as a climate change scenario. Peak flood depths, levels and velocities and hazard has been mapped for the site.

The flood planning levels are detailed in the table 1.

Appendix 1: Existing Scenario 50% AEP Flood Depth and Contours.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AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
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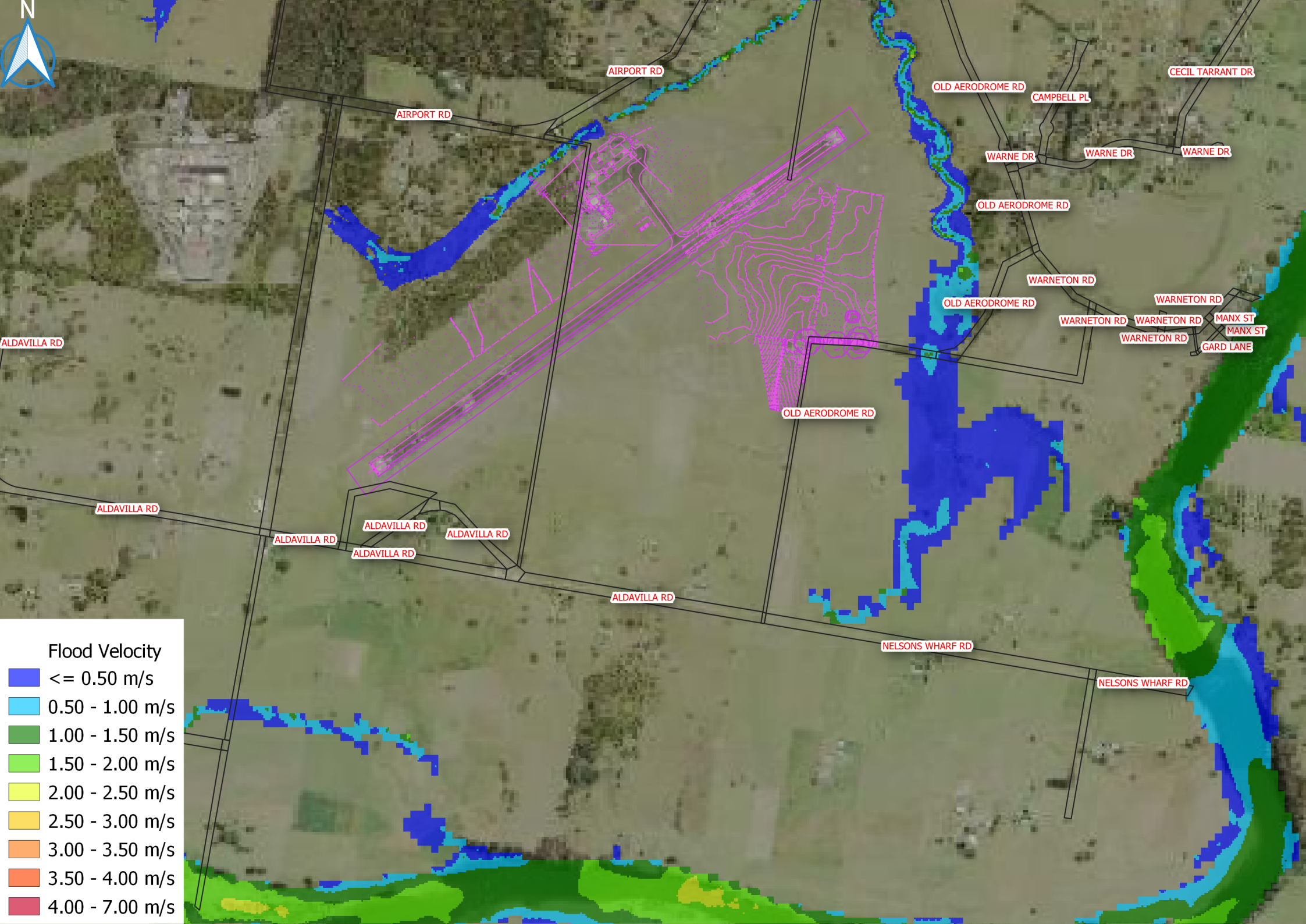
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

Appendix 2: Existing Scenario 50% AEP Flood Velocity.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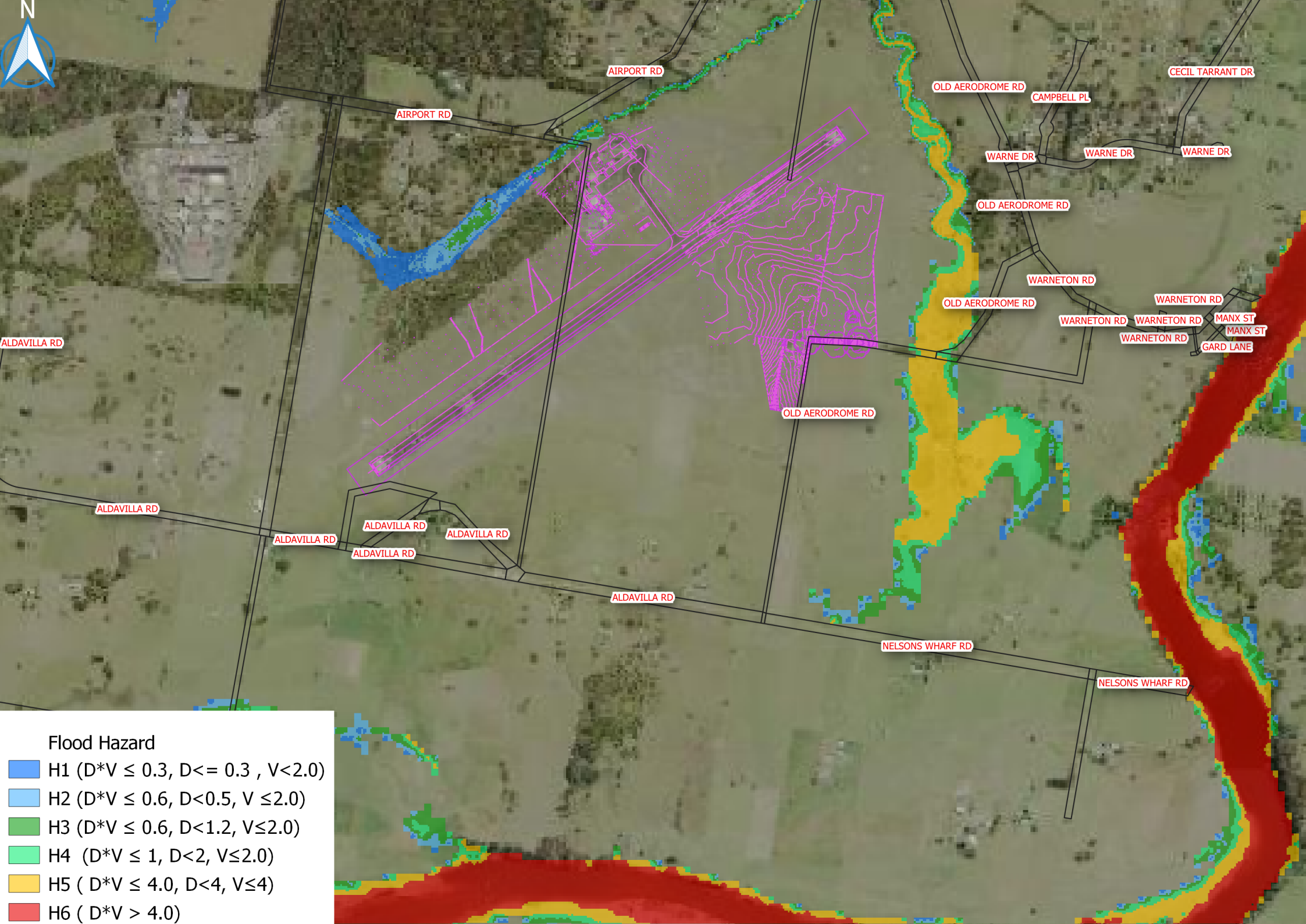
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

Appendix 3: Existing Scenario 50% AEP Flood Hazard.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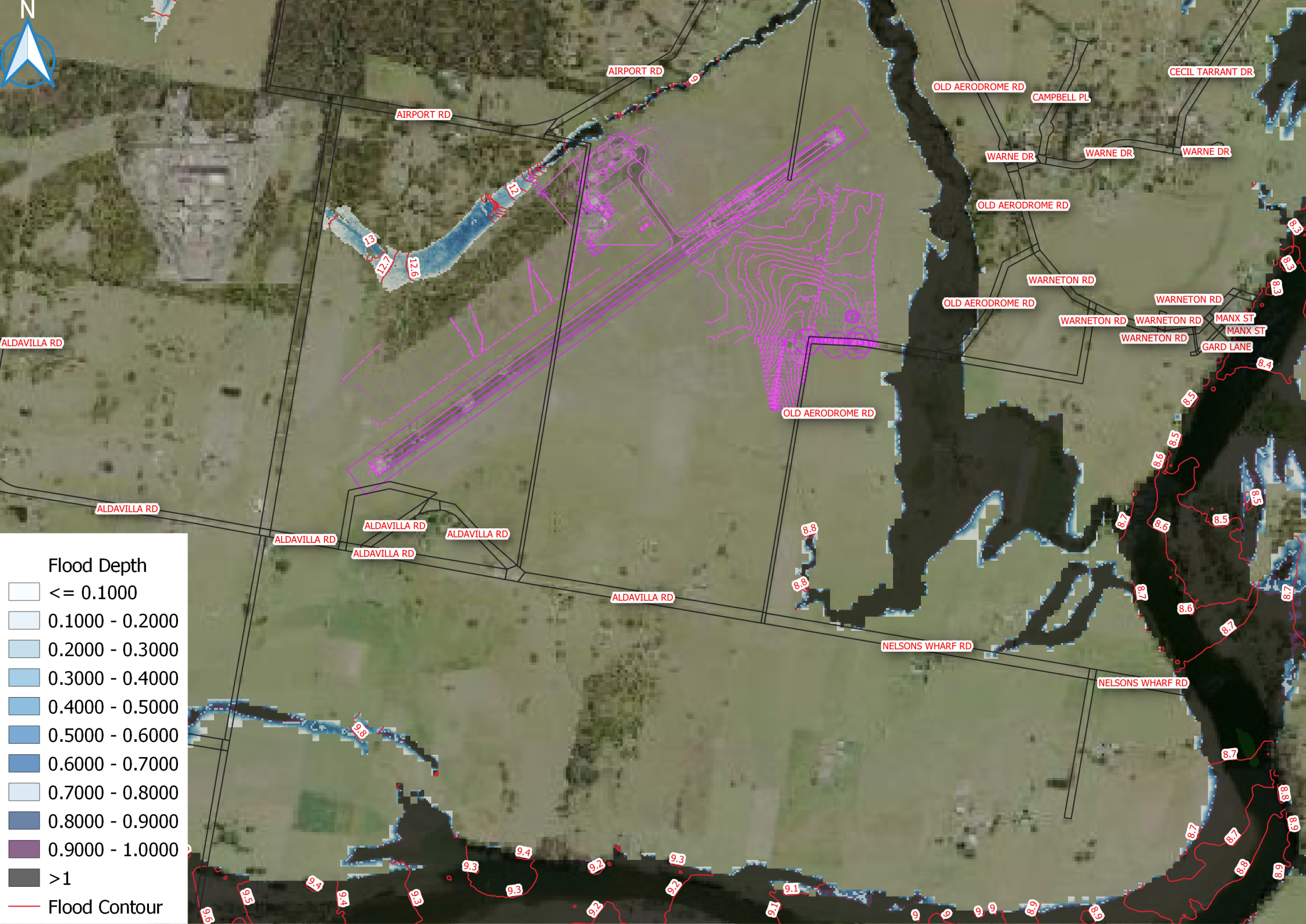
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

Appendix 4: Existing Scenario 20% AEP Flood Depth and Contours.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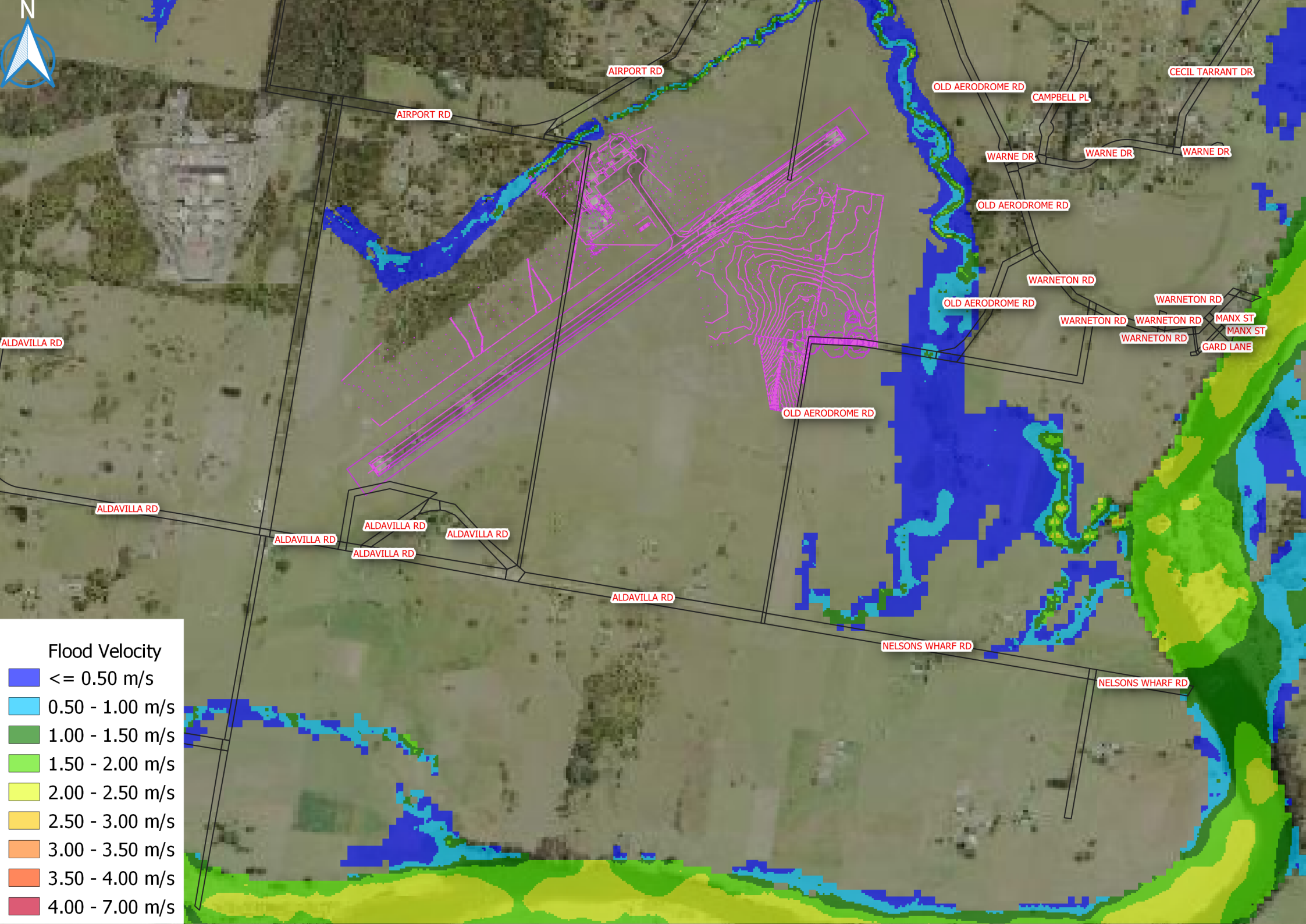
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

Appendix 5: Existing Scenario 20% AEP Flood Velocity.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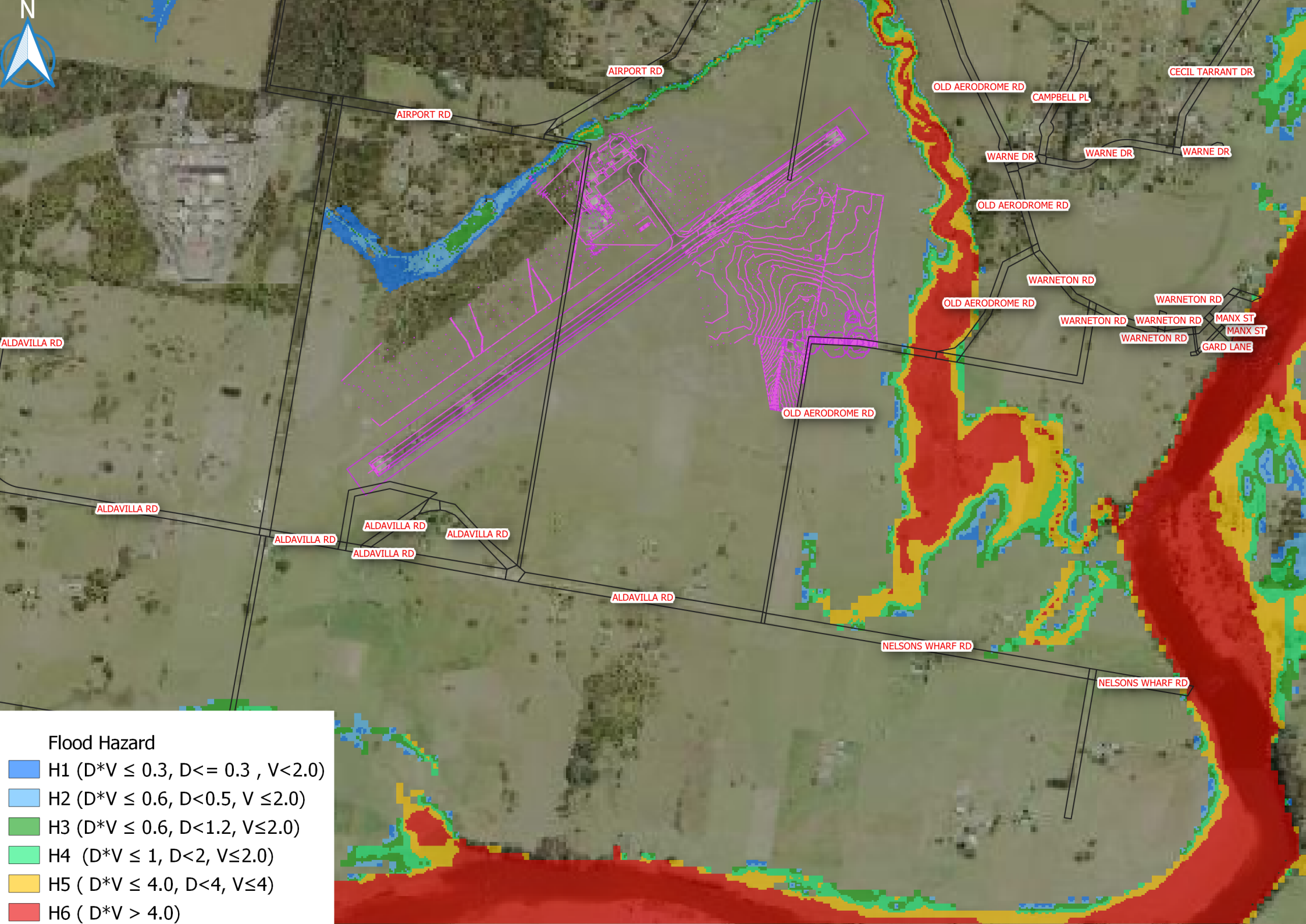
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

Appendix 6: Existing Scenario 20% AEP Flood Hazard.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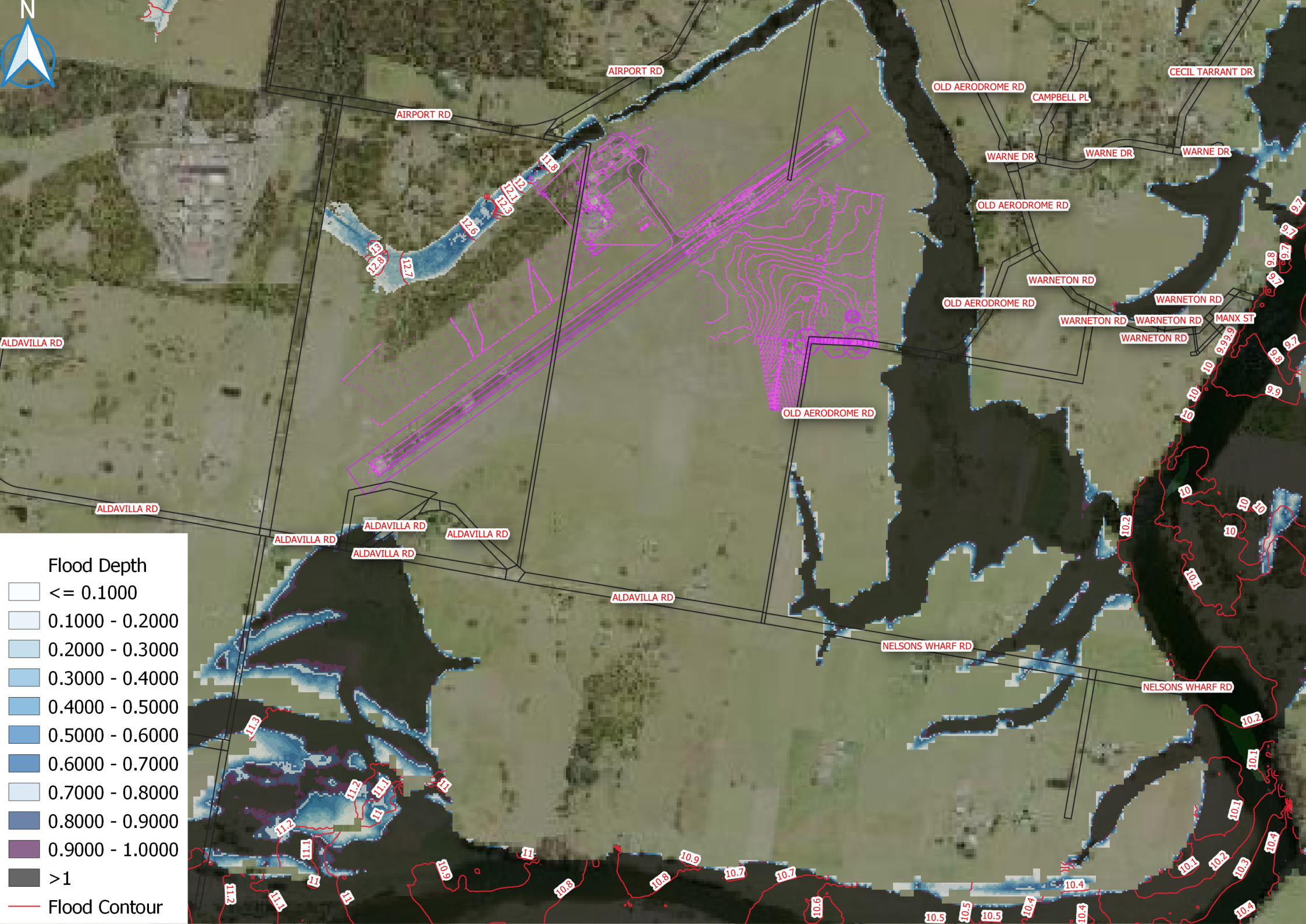
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

Appendix 7: Existing Scenario 10% AEP Flood Depth and Contours.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ALDAVILLA RD
ALDAVILLA RD
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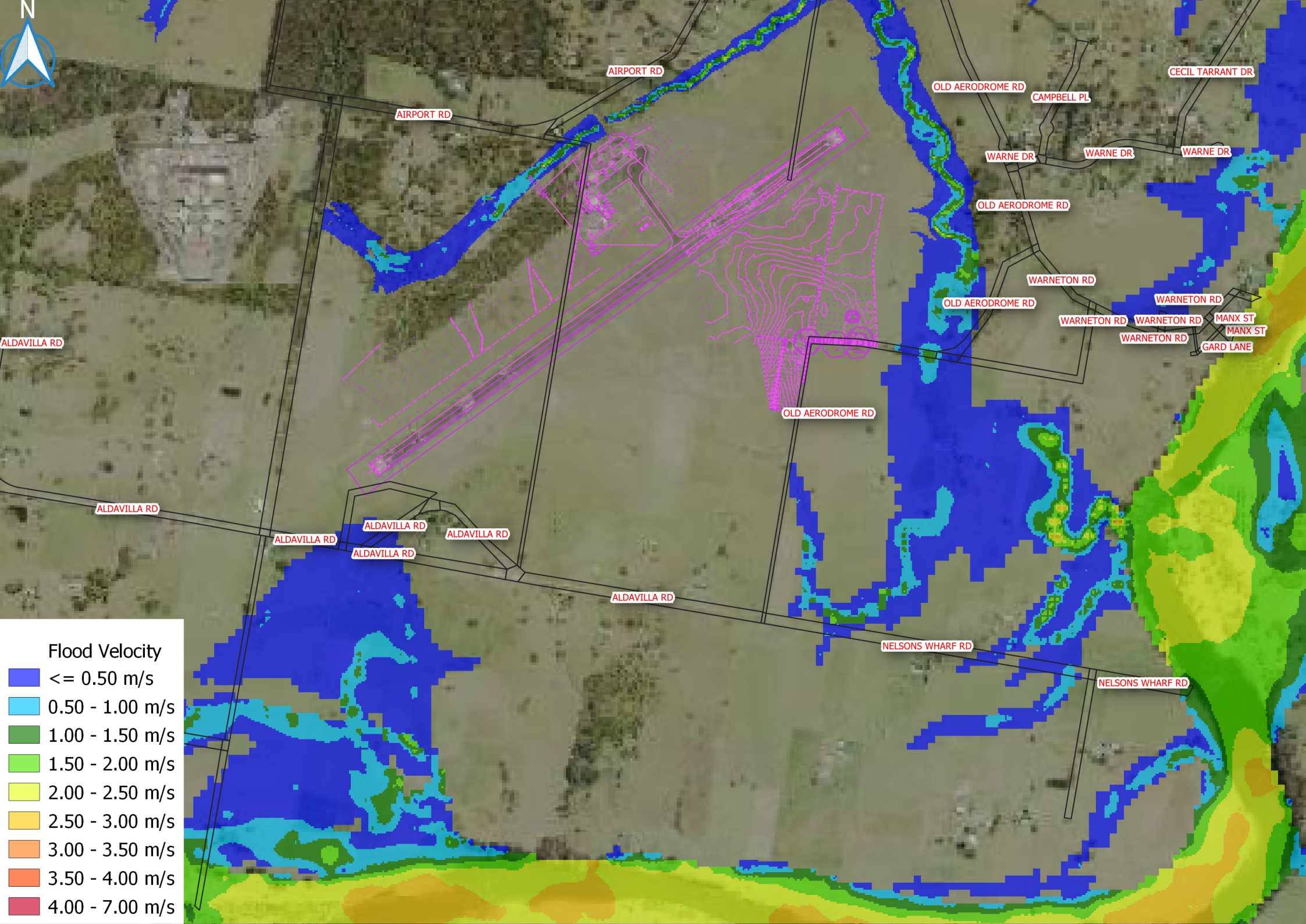
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

Appendix 8: Existing Scenario 10% AEP Flood Velocity.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ALDAVILLA RD
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NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
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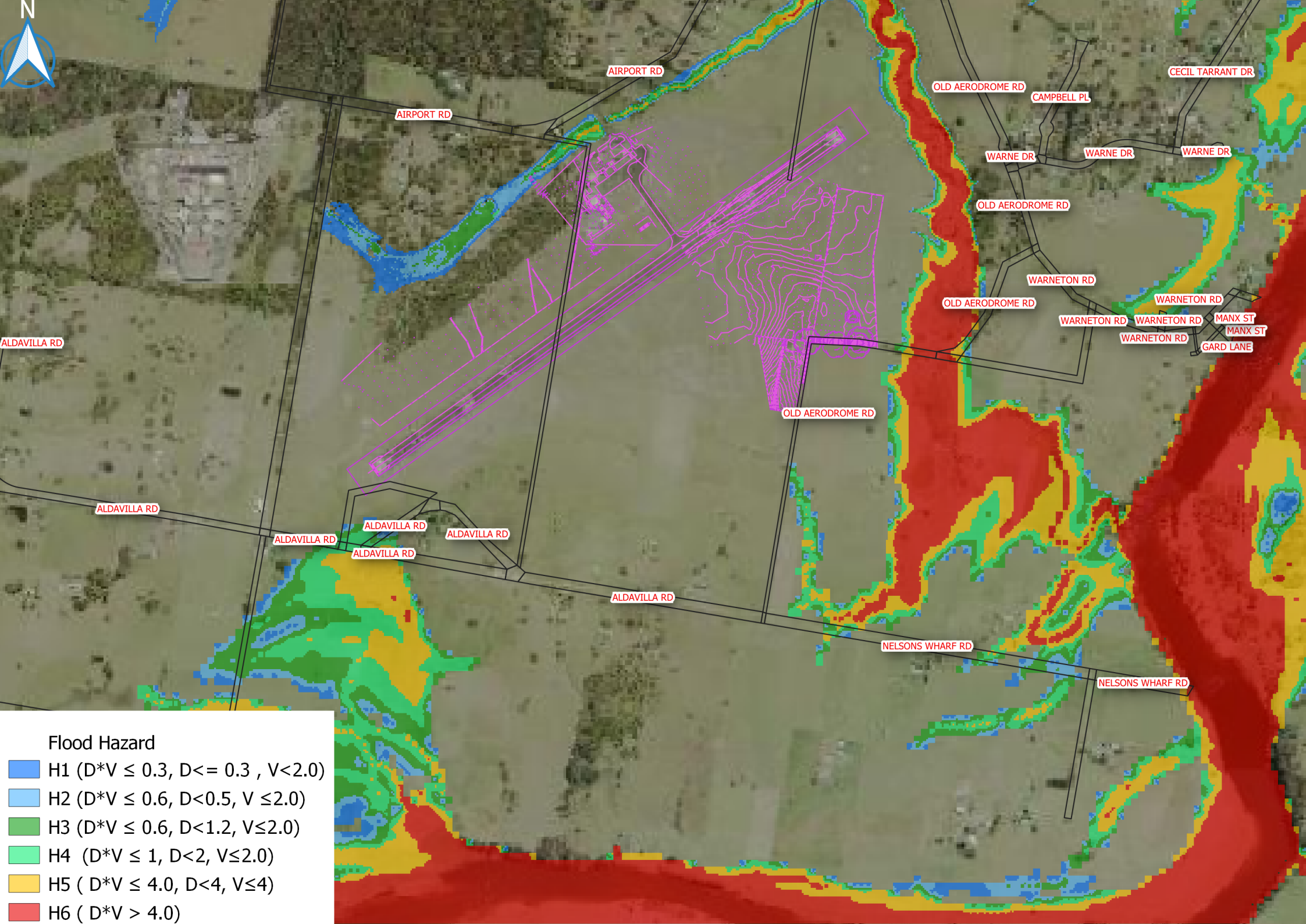
3.50 - 4.00 m/s
4.00 - 7.00 m/s

Appendix 9: Existing Scenario 10% AEP Flood Hazard.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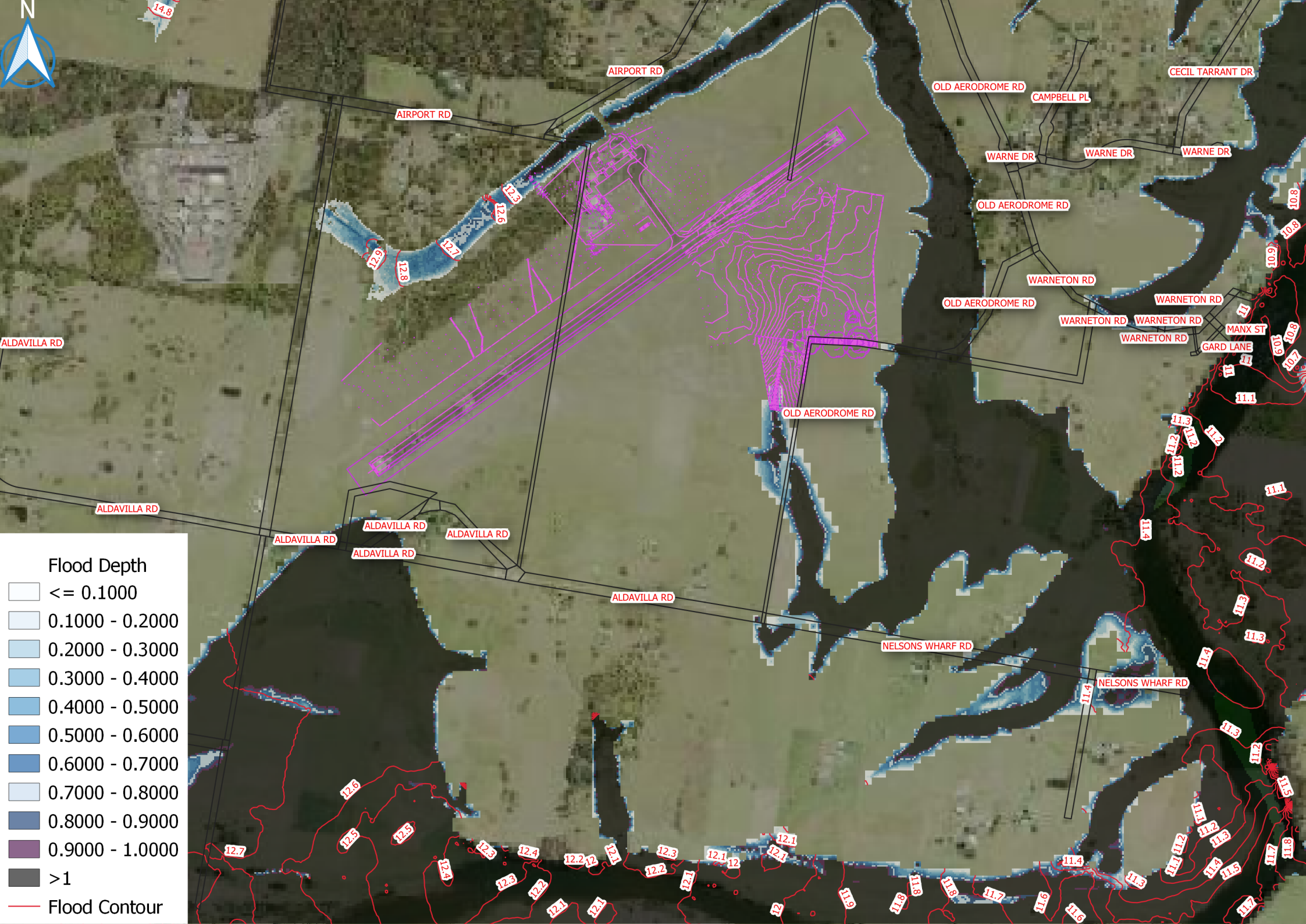
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

Appendix 10: Existing Scenario 5% AEP Flood Depth and Contours.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ALDAVILLA RD
ALDAVILLA RD
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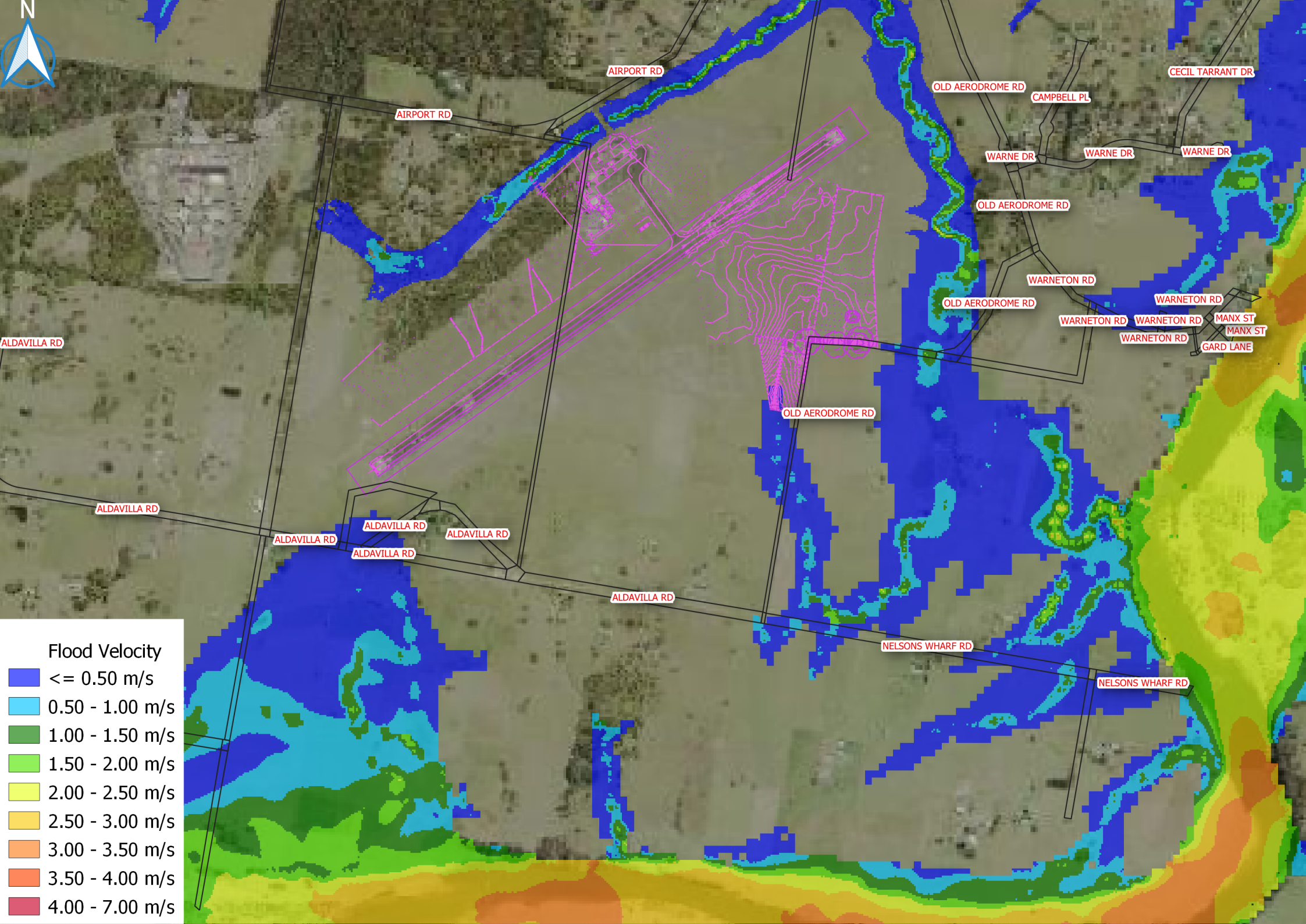
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

Appendix 11: Existing Scenario 5% AEP Flood Velocity.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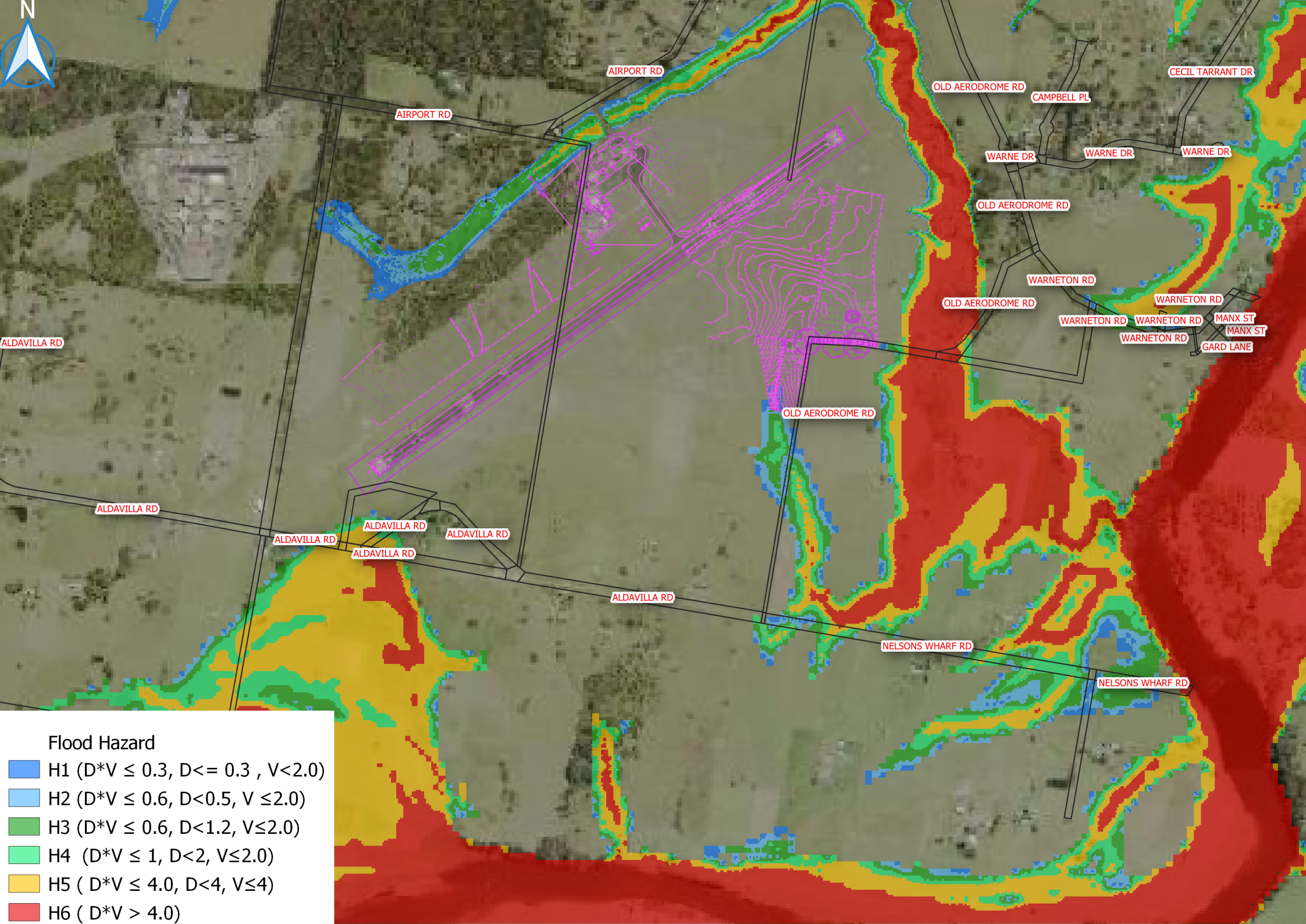
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

Appendix 12: Existing Scenario 5% AEP Flood Hazard.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NELSONS WHARF RD
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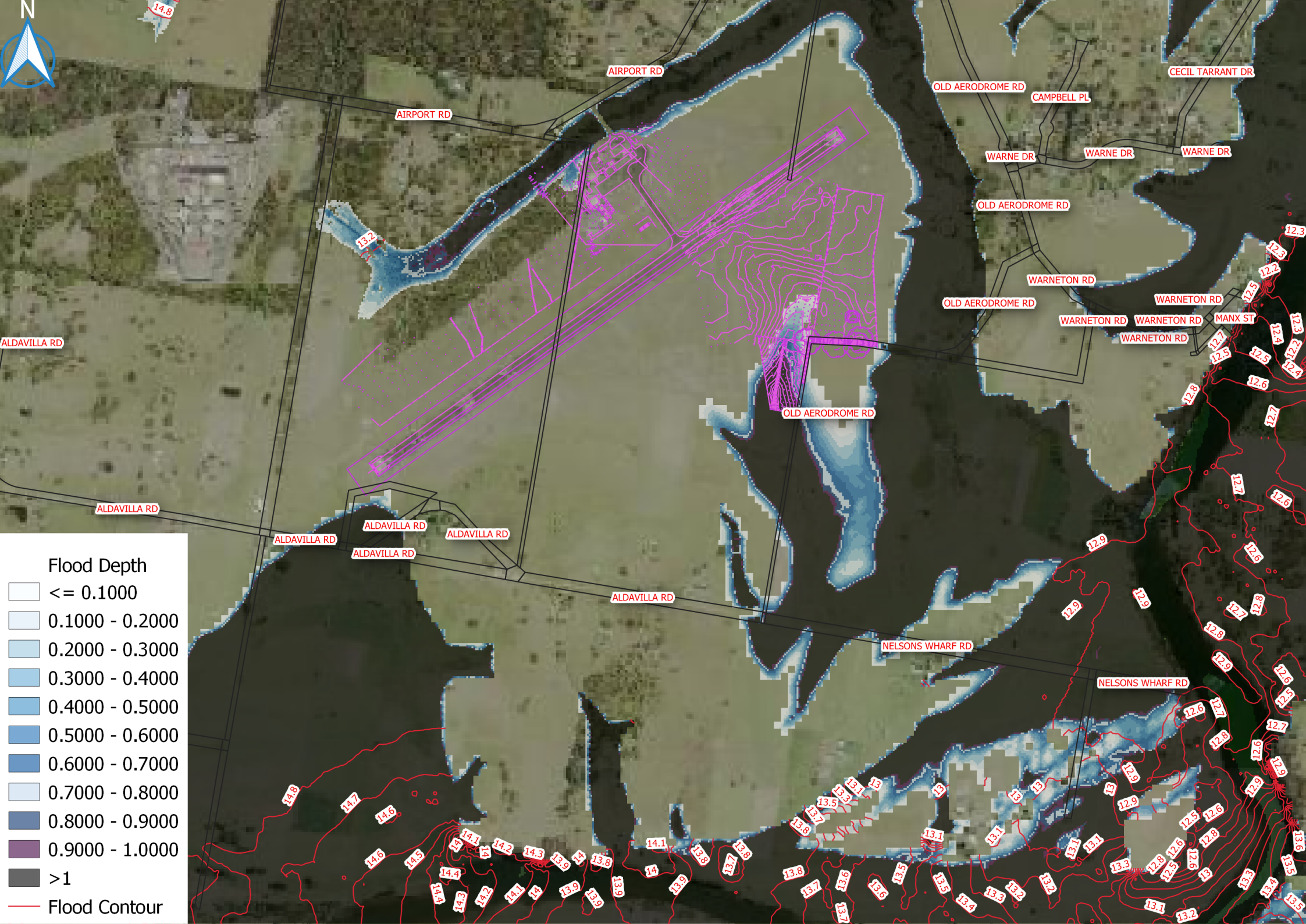
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

Appendix 13: Existing Scenario 2% AEP Flood Depth and Contours.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NELSONS WHARF RD
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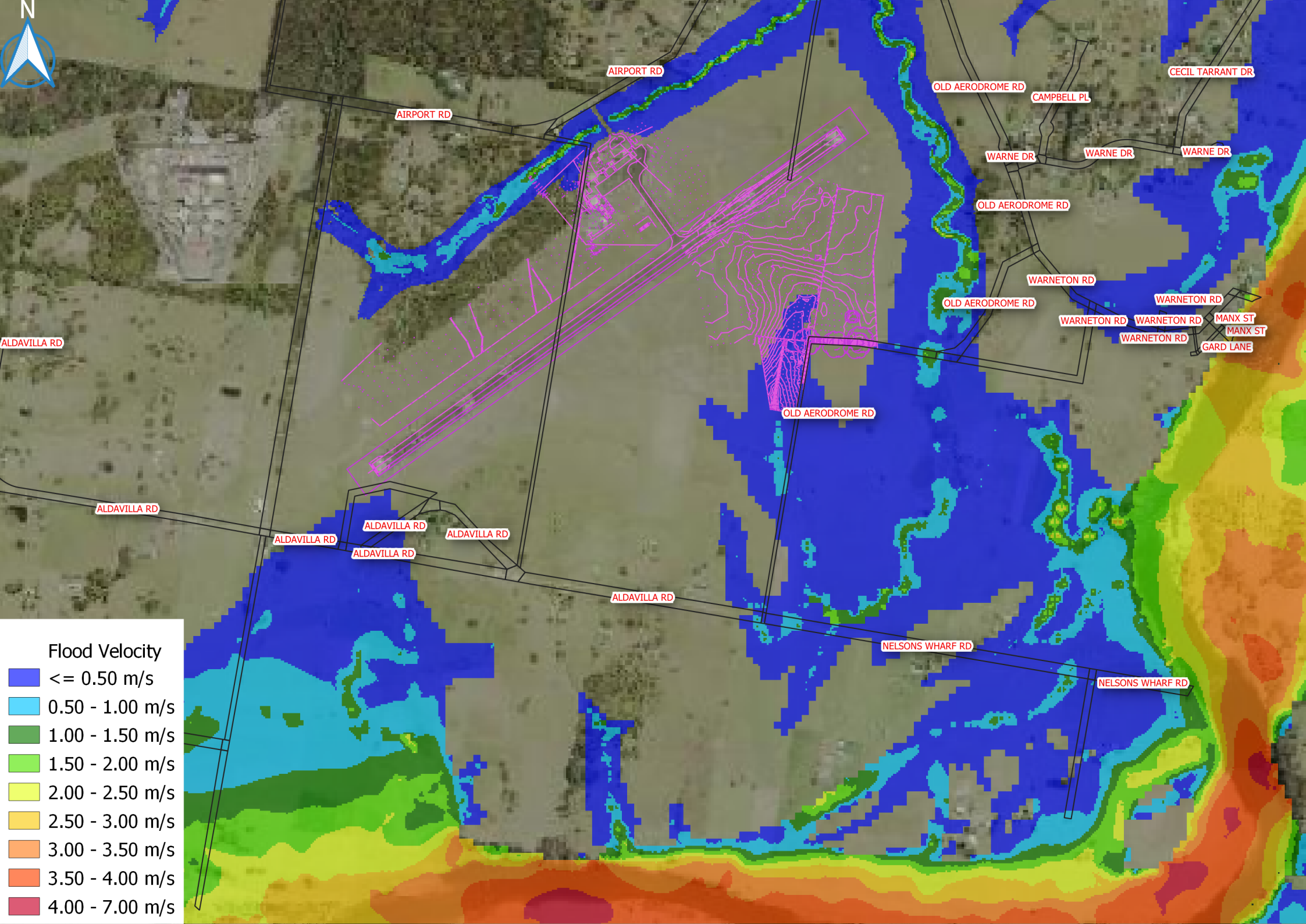
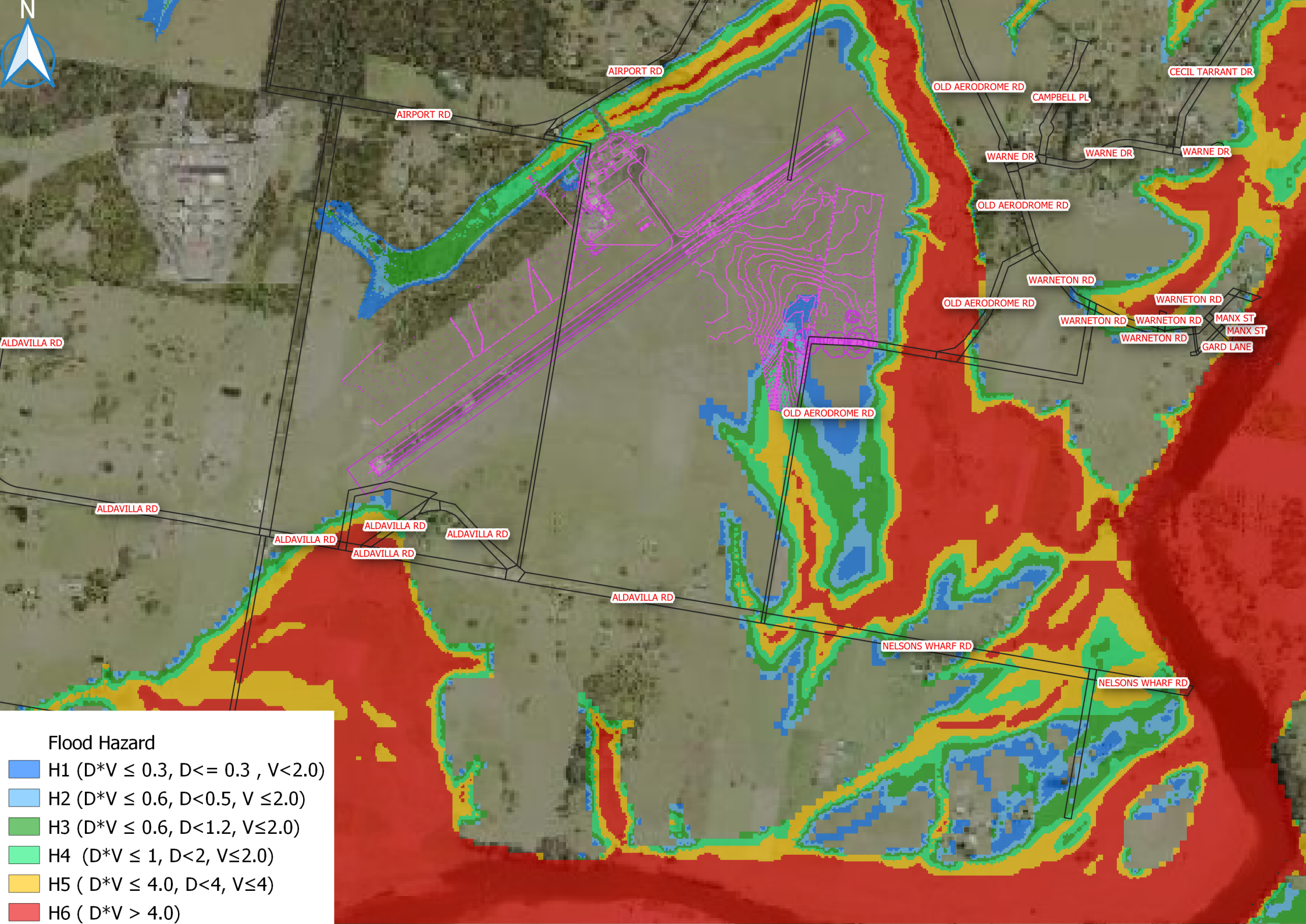
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

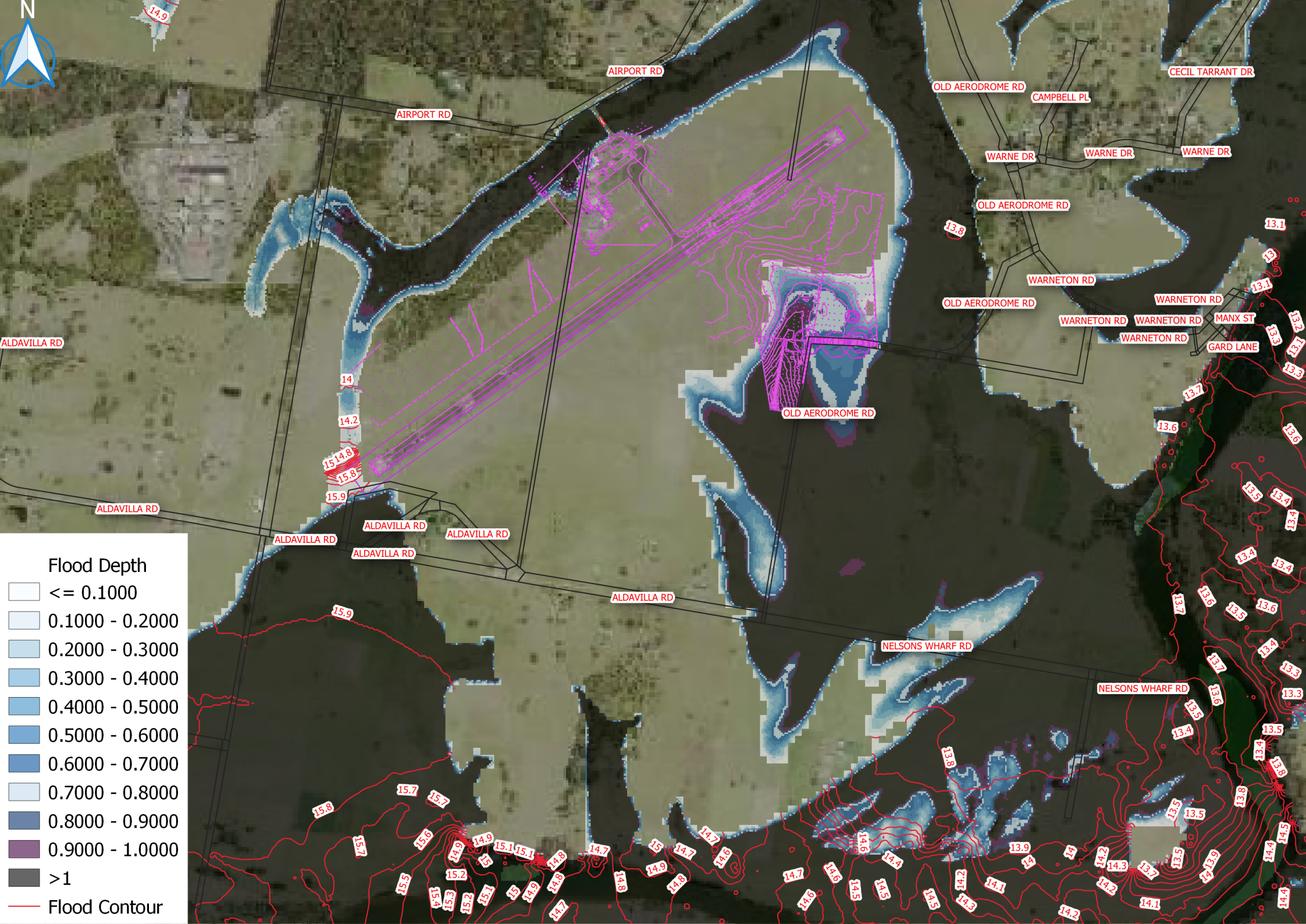
Appendix 14: Existing Scenario 2% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

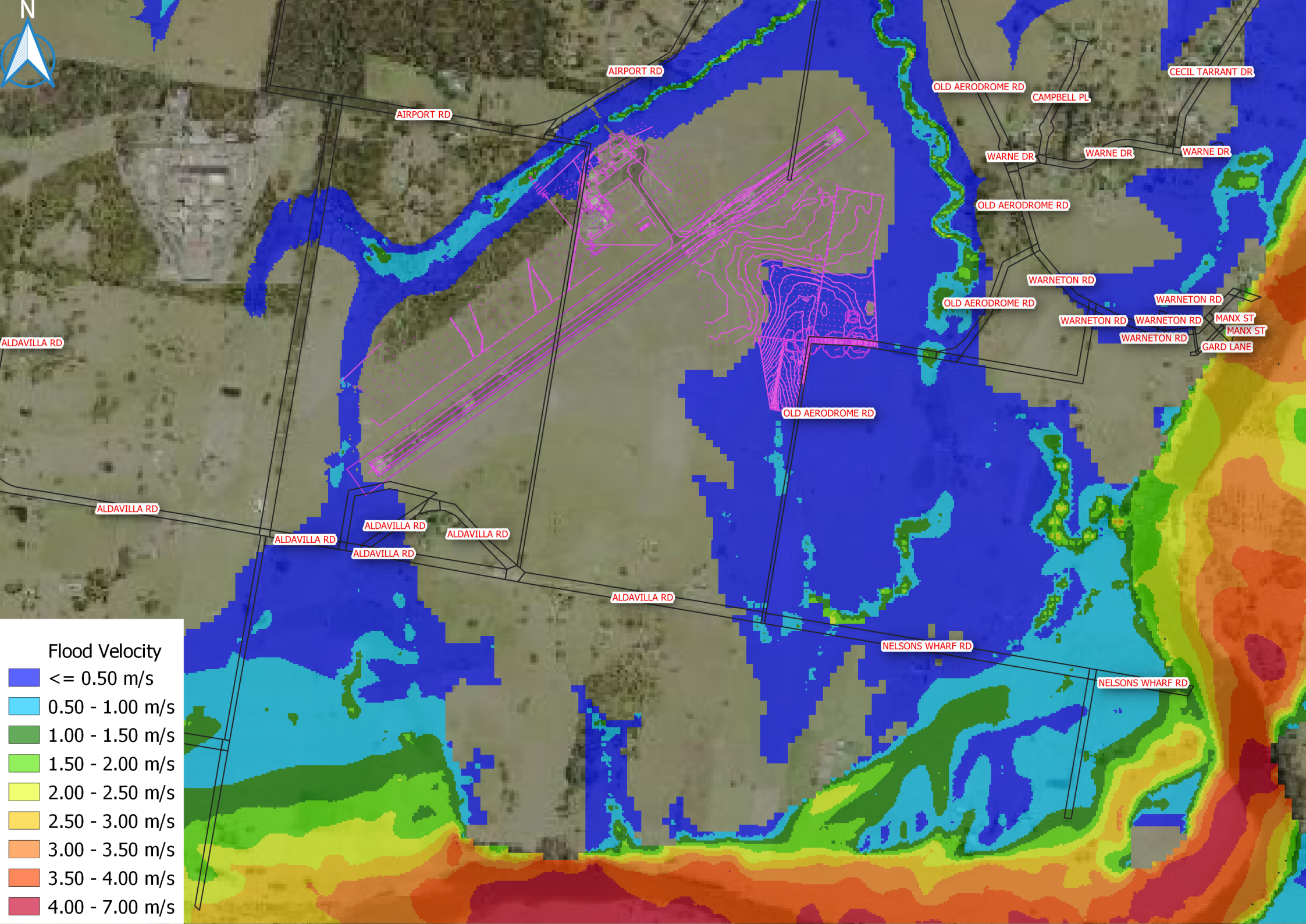
Appendix 15: Existing Scenario 2% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
WARNETON RD
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

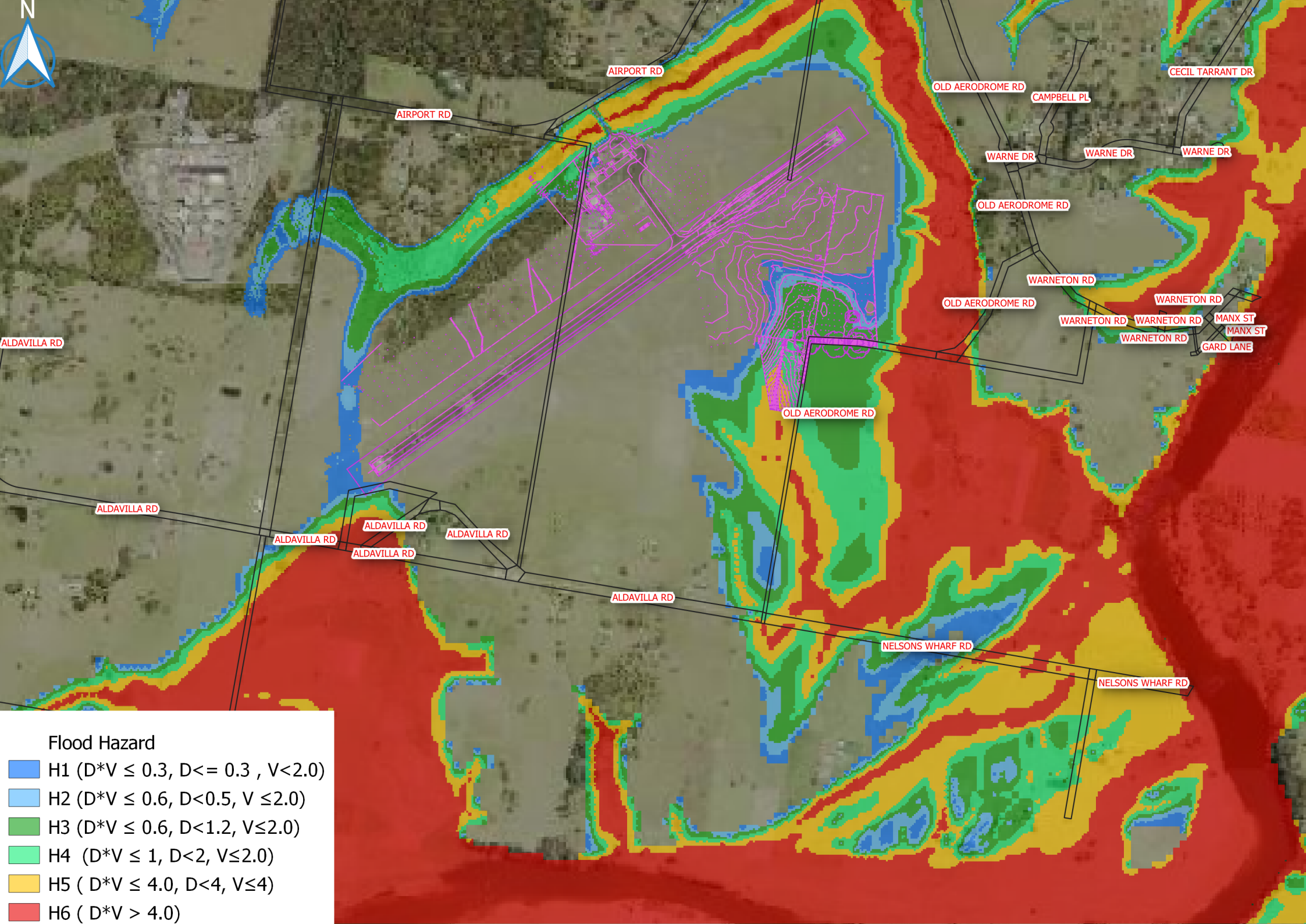
Appendix 16: Existing Scenario 1% AEP Flood Depth and Contours.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

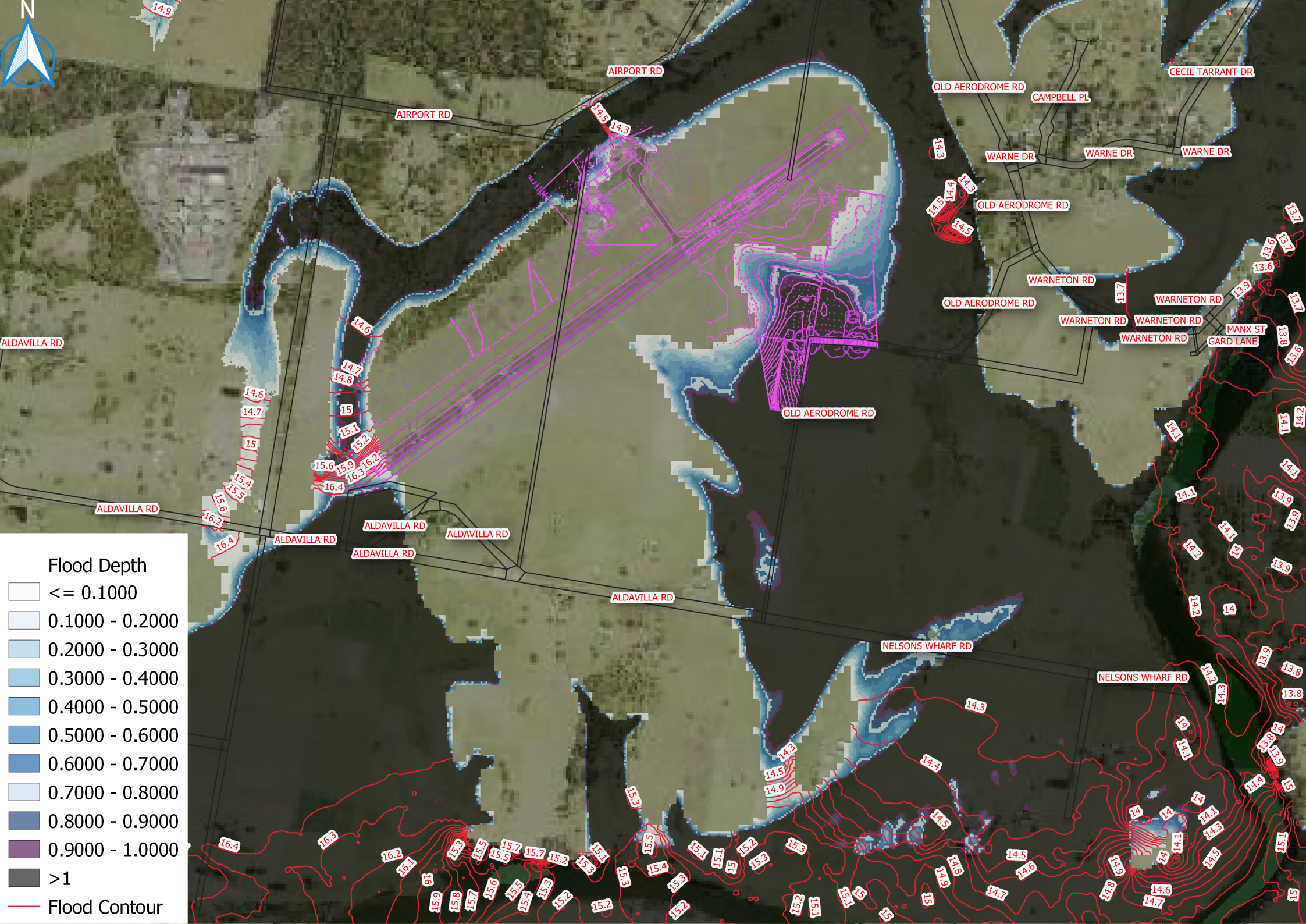
Appendix 17: Existing Scenario 1% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
MANX ST
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

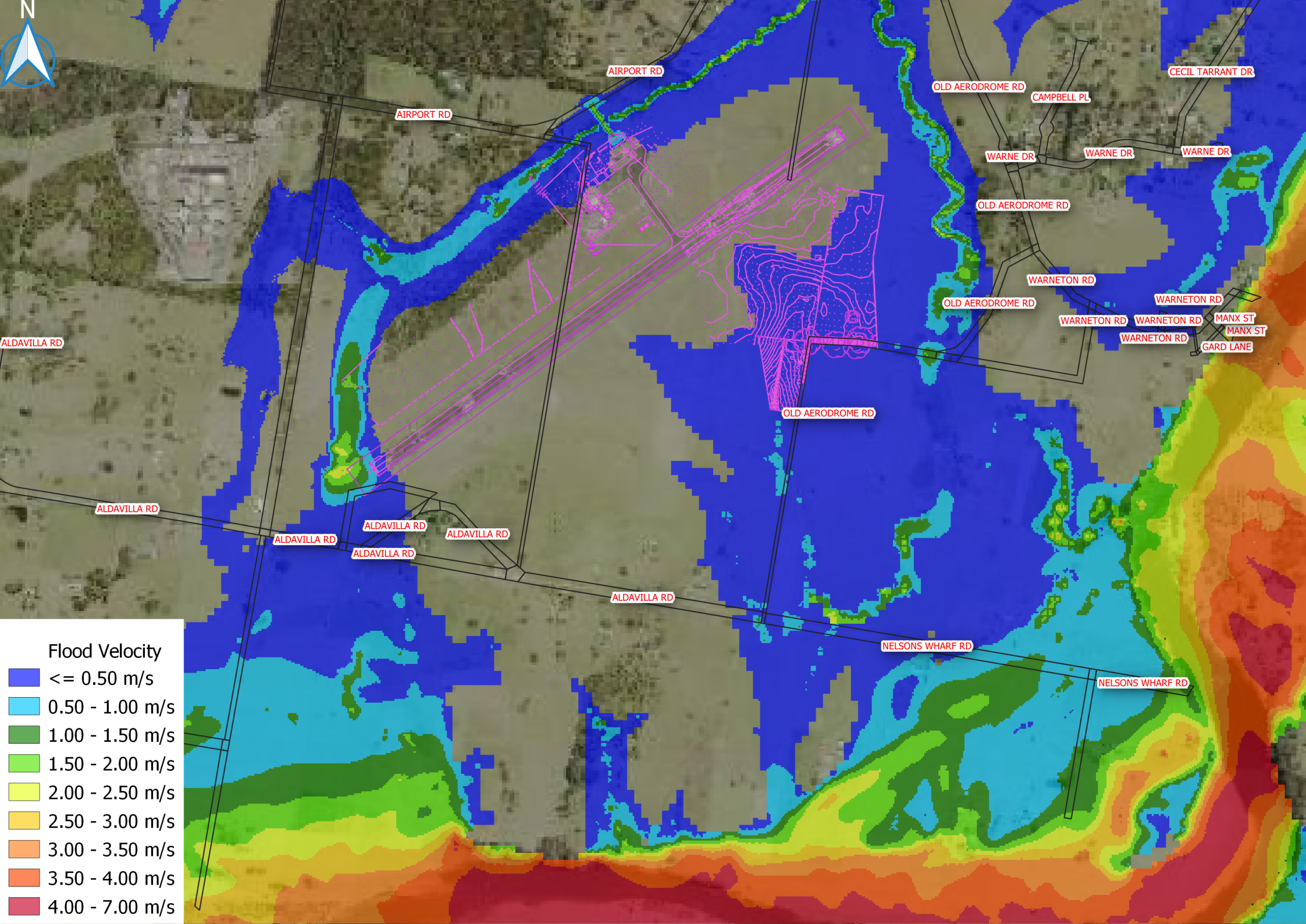
Appendix 18: Existing Scenario 1% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
WARNETON RD
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

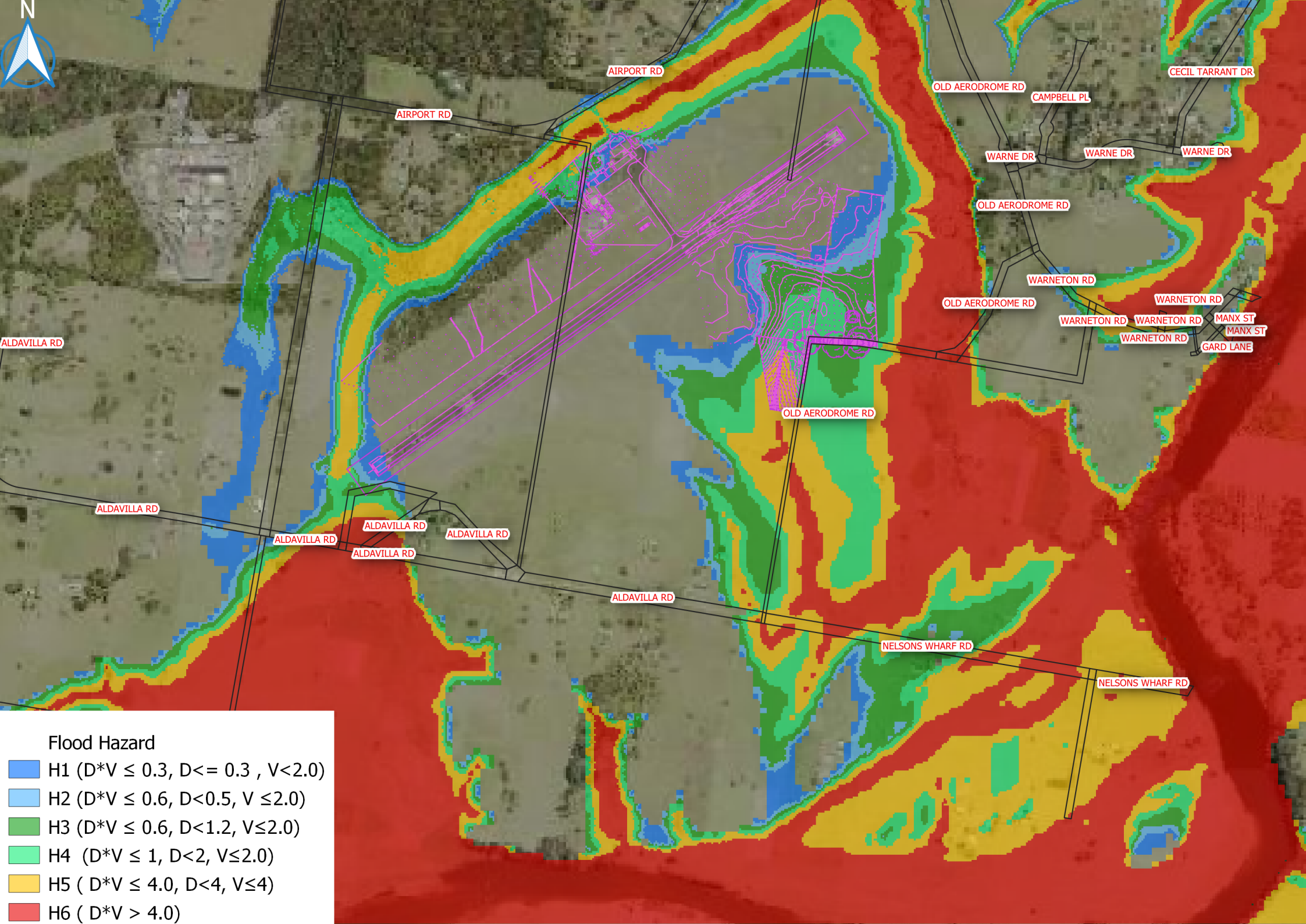
Appendix 19: Existing Scenario 1% AEP with 2050 CC factor Flood Depth and Contours.


N
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

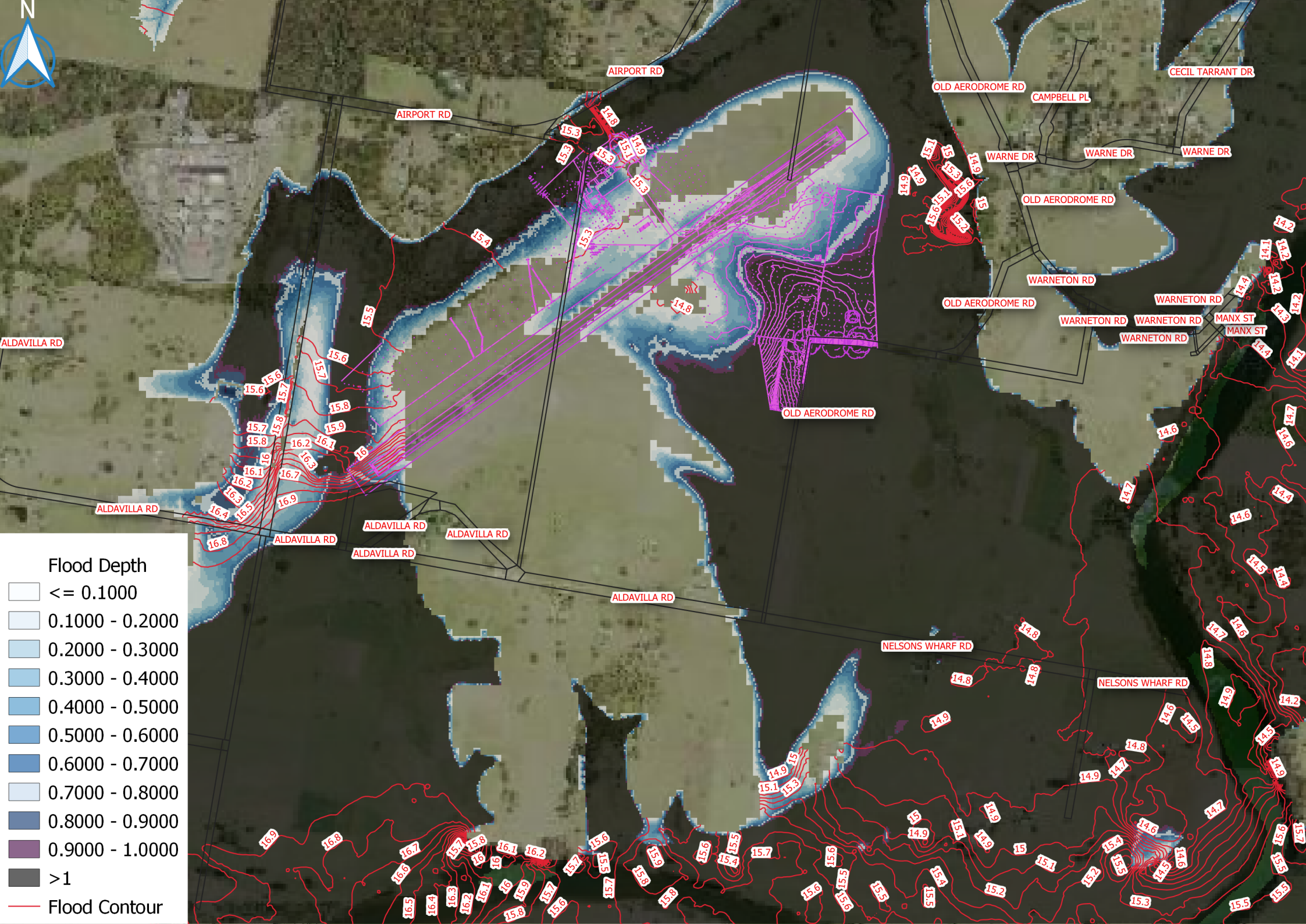
Appendix 20: Existing Scenario 1% AEP with 2050 CC factor Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

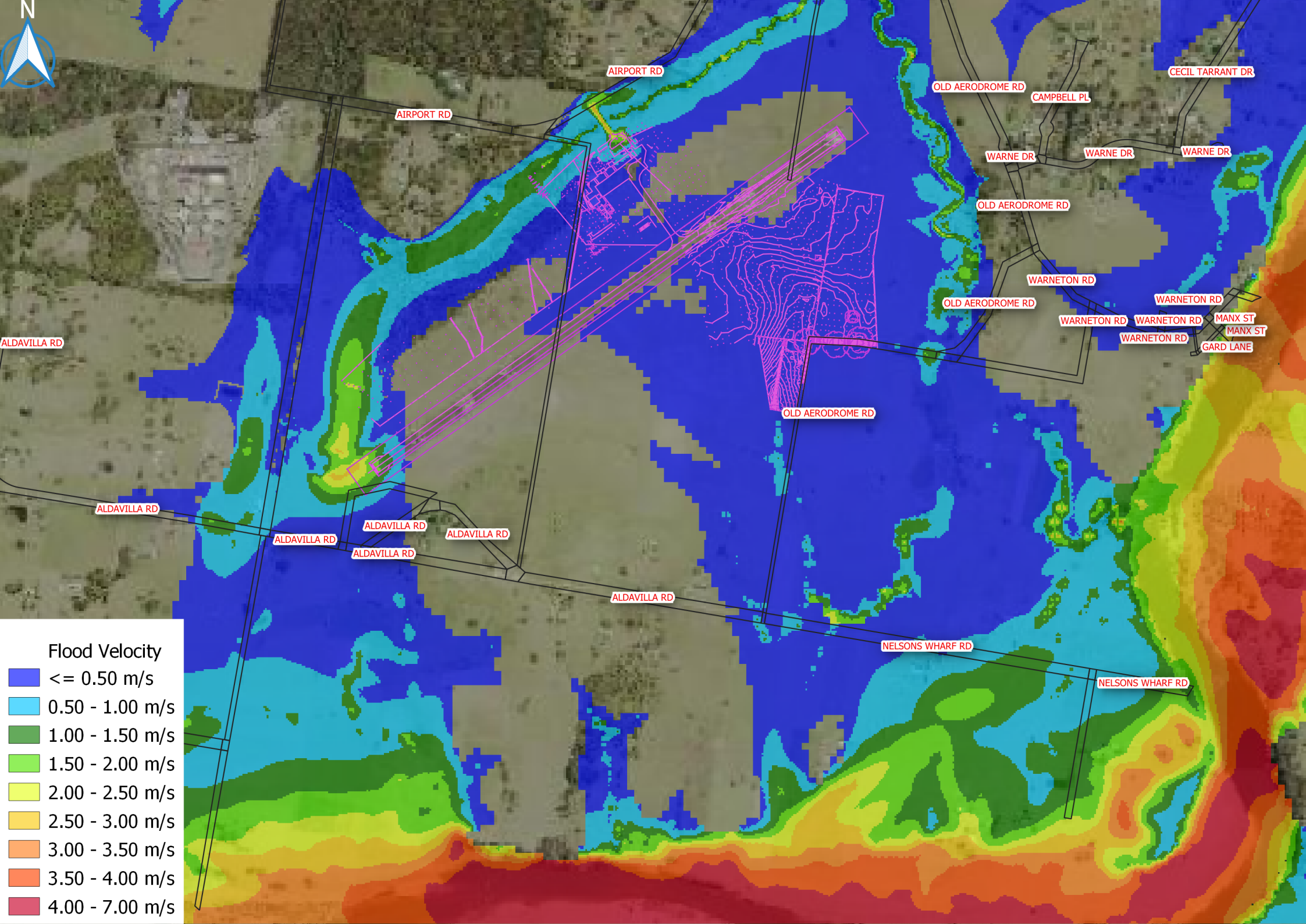
Appendix 21: Existing Scenario 1% AEP with 2050 CC factor Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

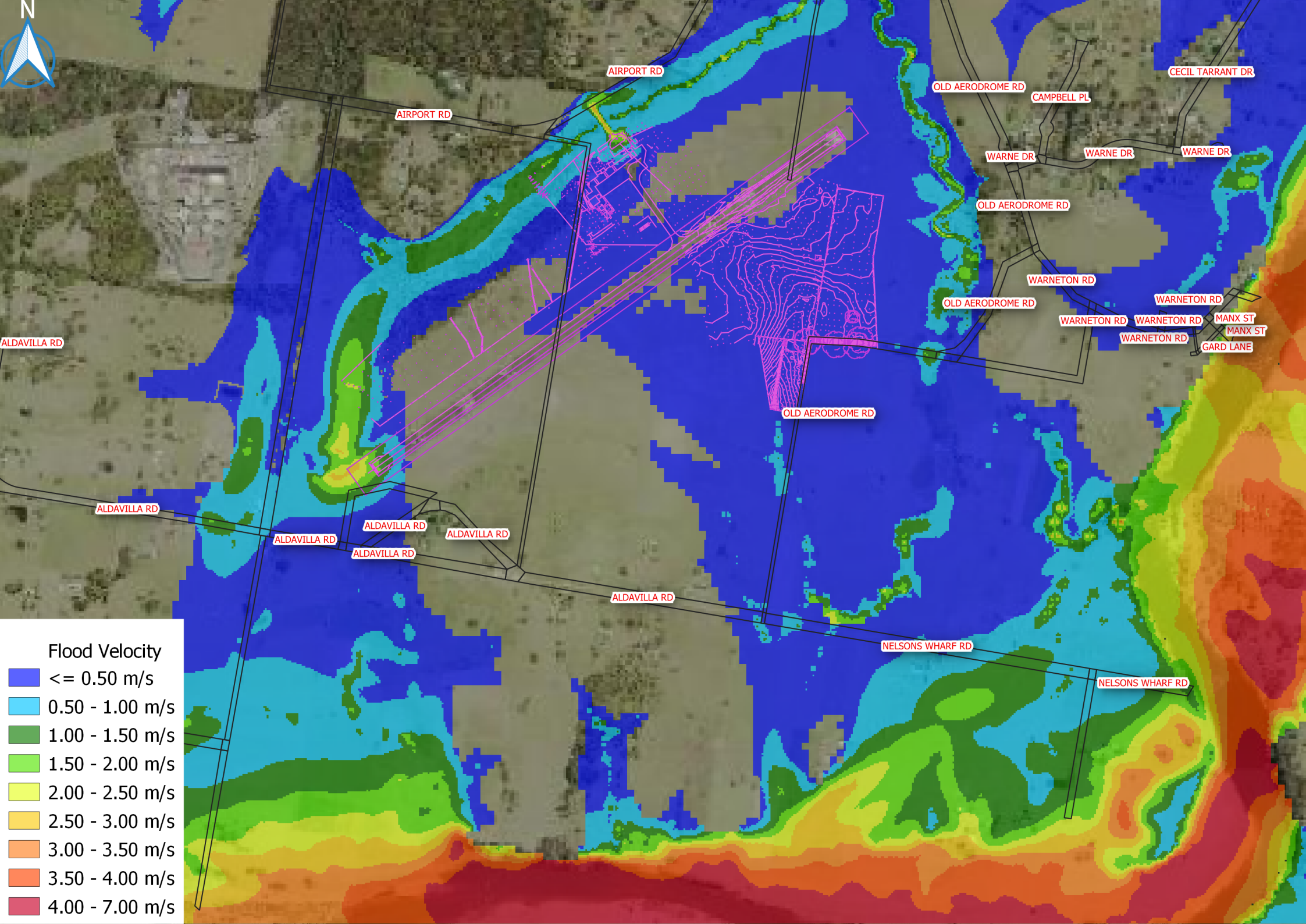
Appendix 22: Existing Scenario 1% AEP with 2100 CC factor Flood Depth and Contours.


N
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNETON RD
MANX ST
ALDAVILLA RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

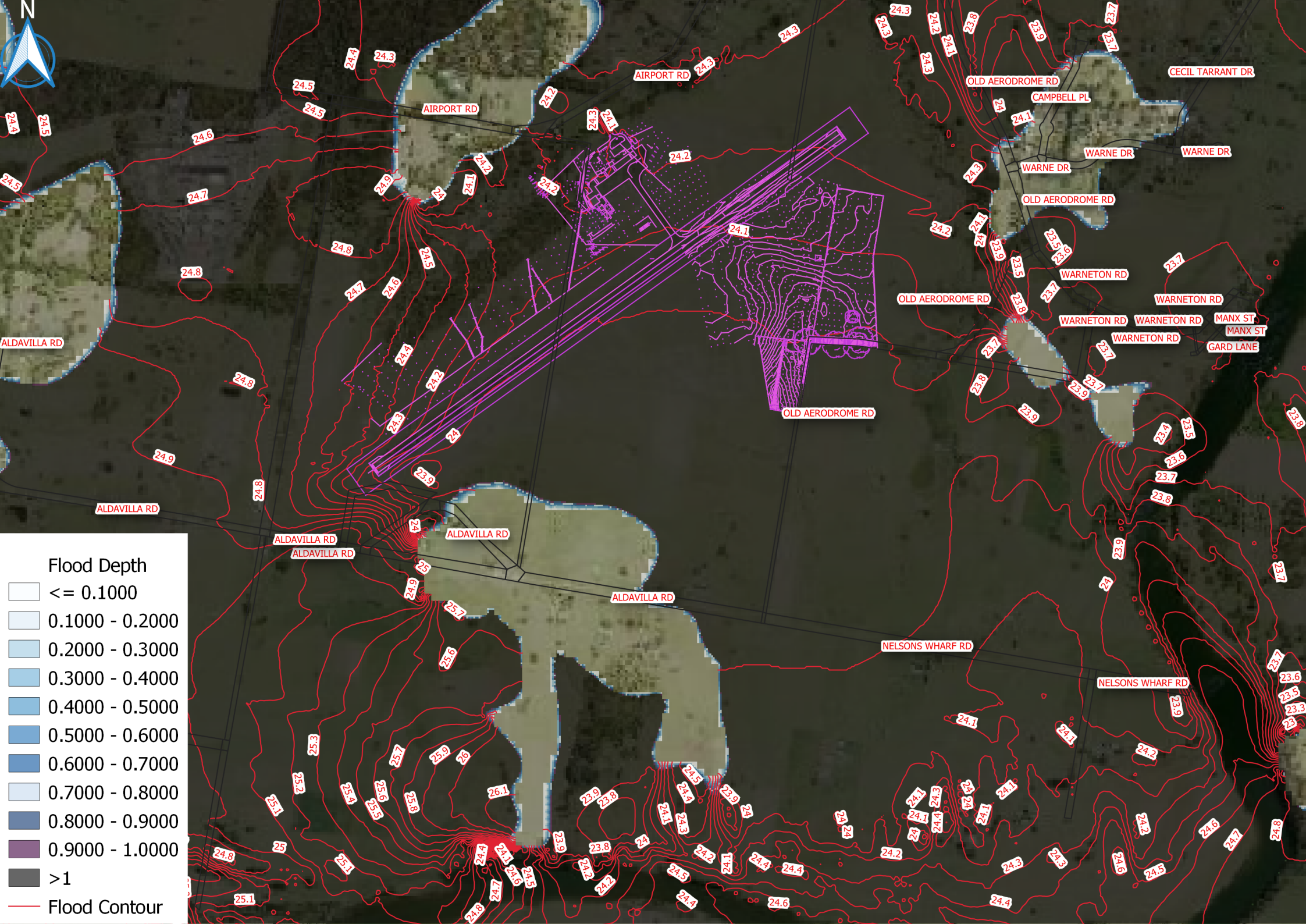
Appendix 23: Existing Scenario 1% AEP with 2100 CC factor Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

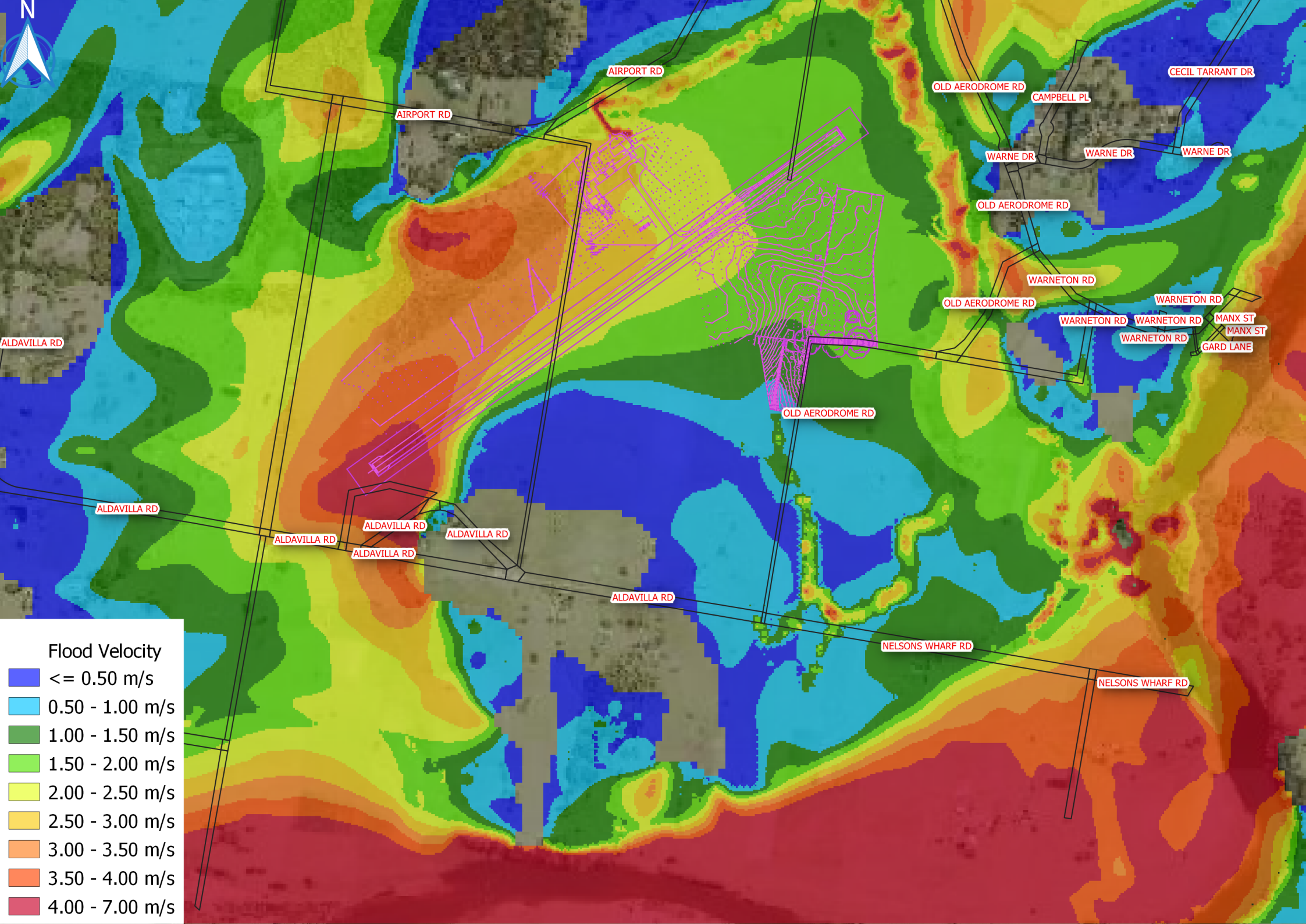
Appendix 24: Existing Scenario 1% AEP with 2100 CC factor Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

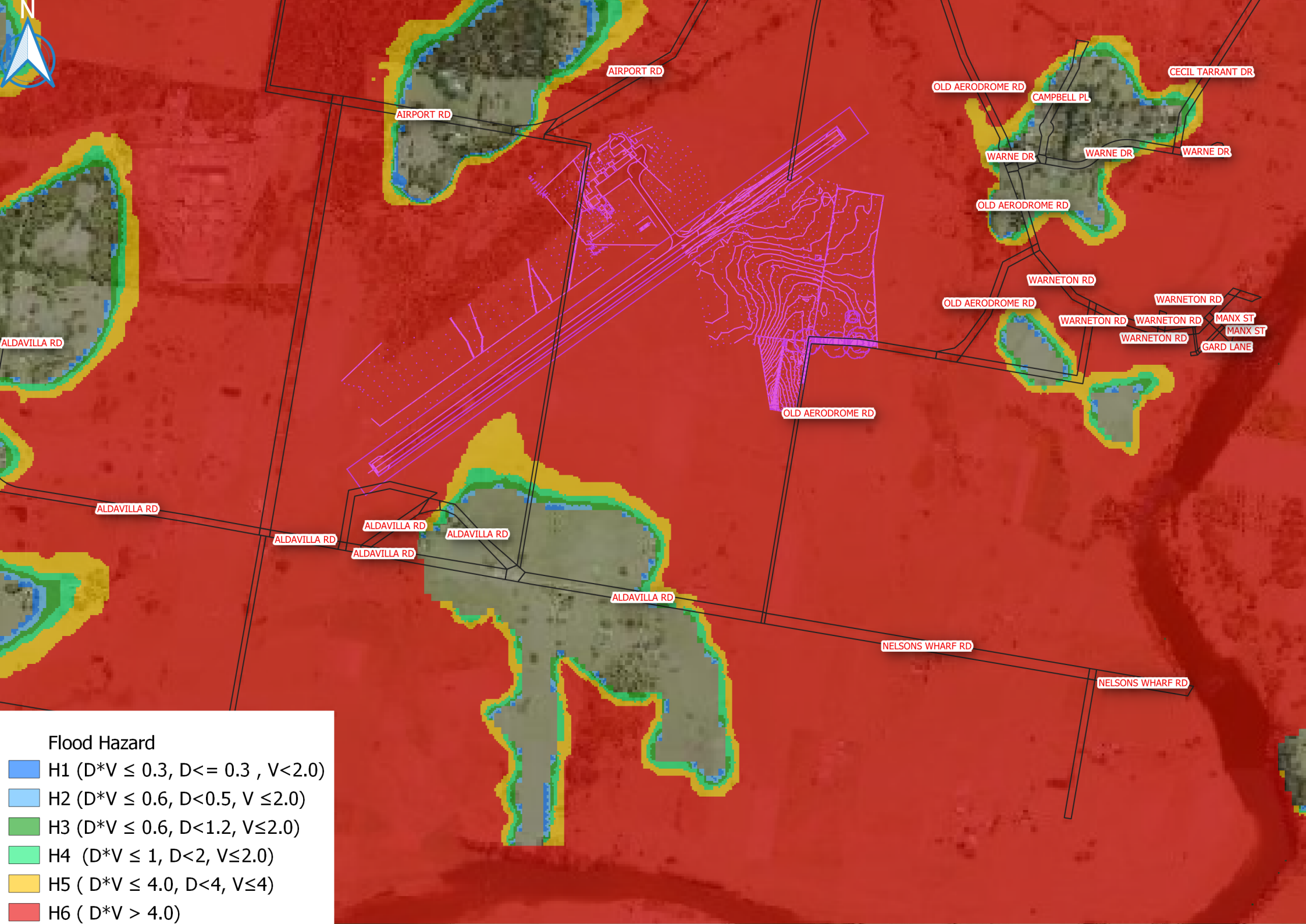
Appendix 25: Existing Scenario PMF Flood Depth and Contours.


N
AIRPORT RD
OLD AERODROME RD
CECIL TARRANT DR
CAMPBELL PL
WARNE DR
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

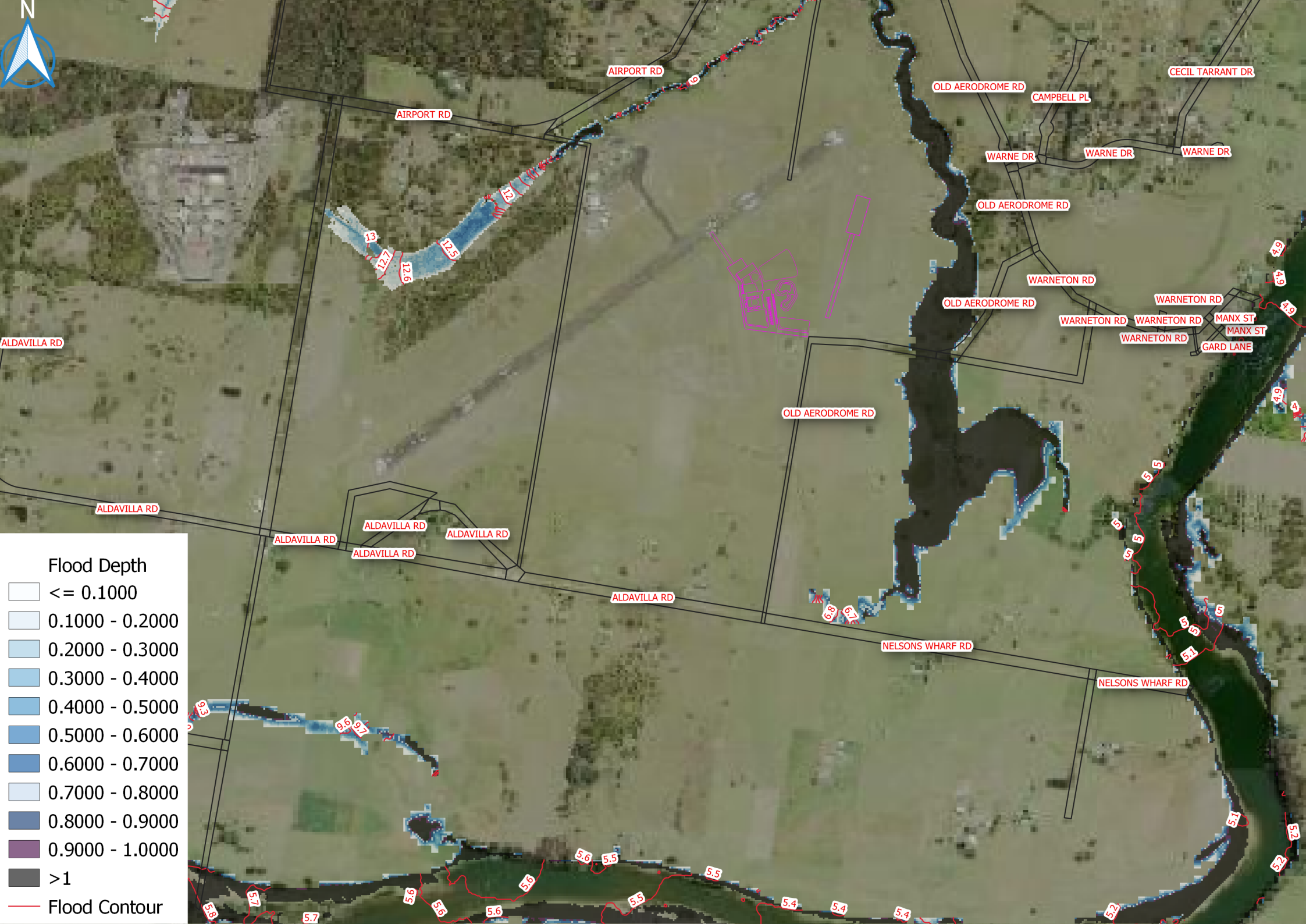
Appendix 26: Existing Scenario PMF Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

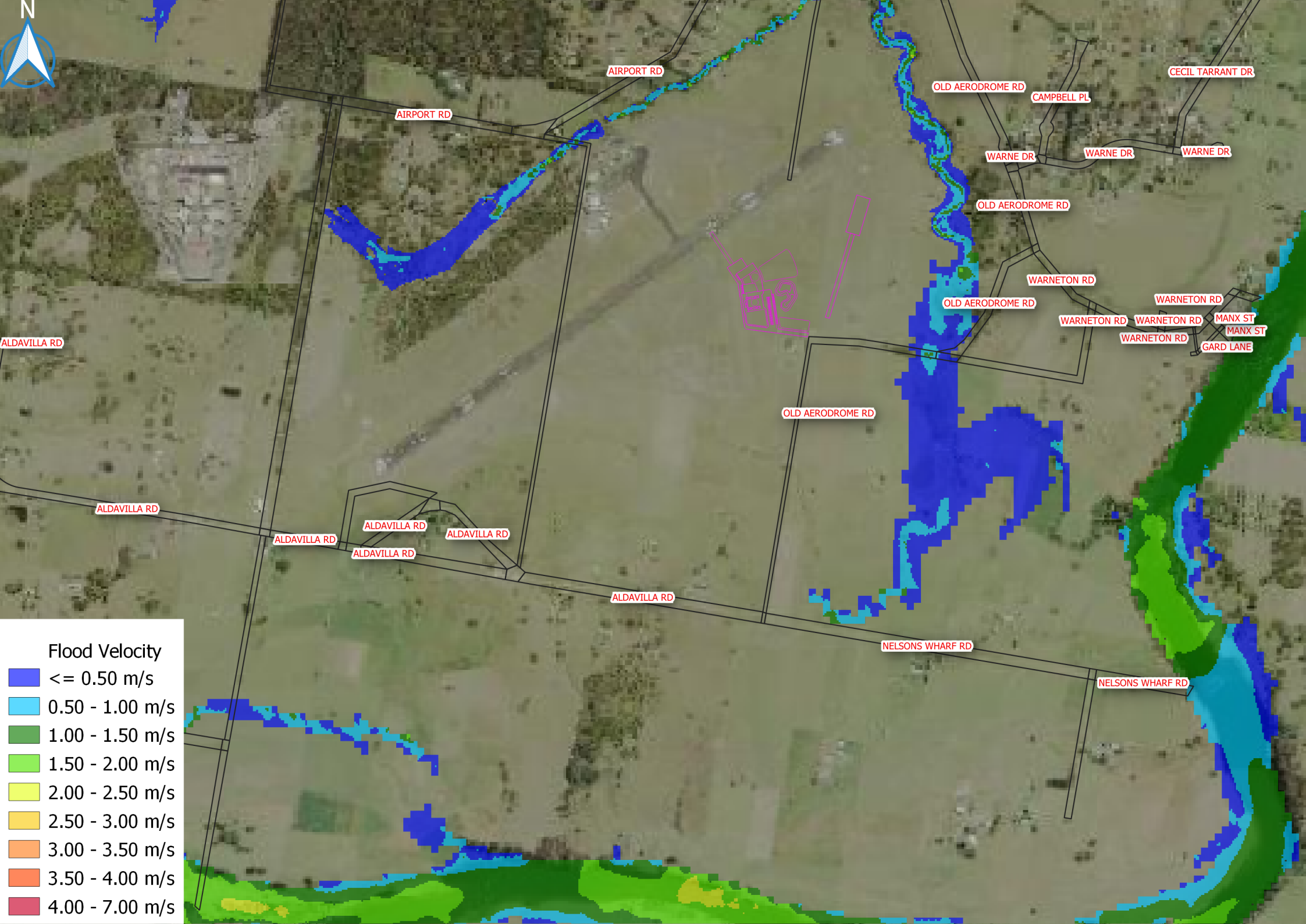
Appendix 27: Existing Scenario PMF Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

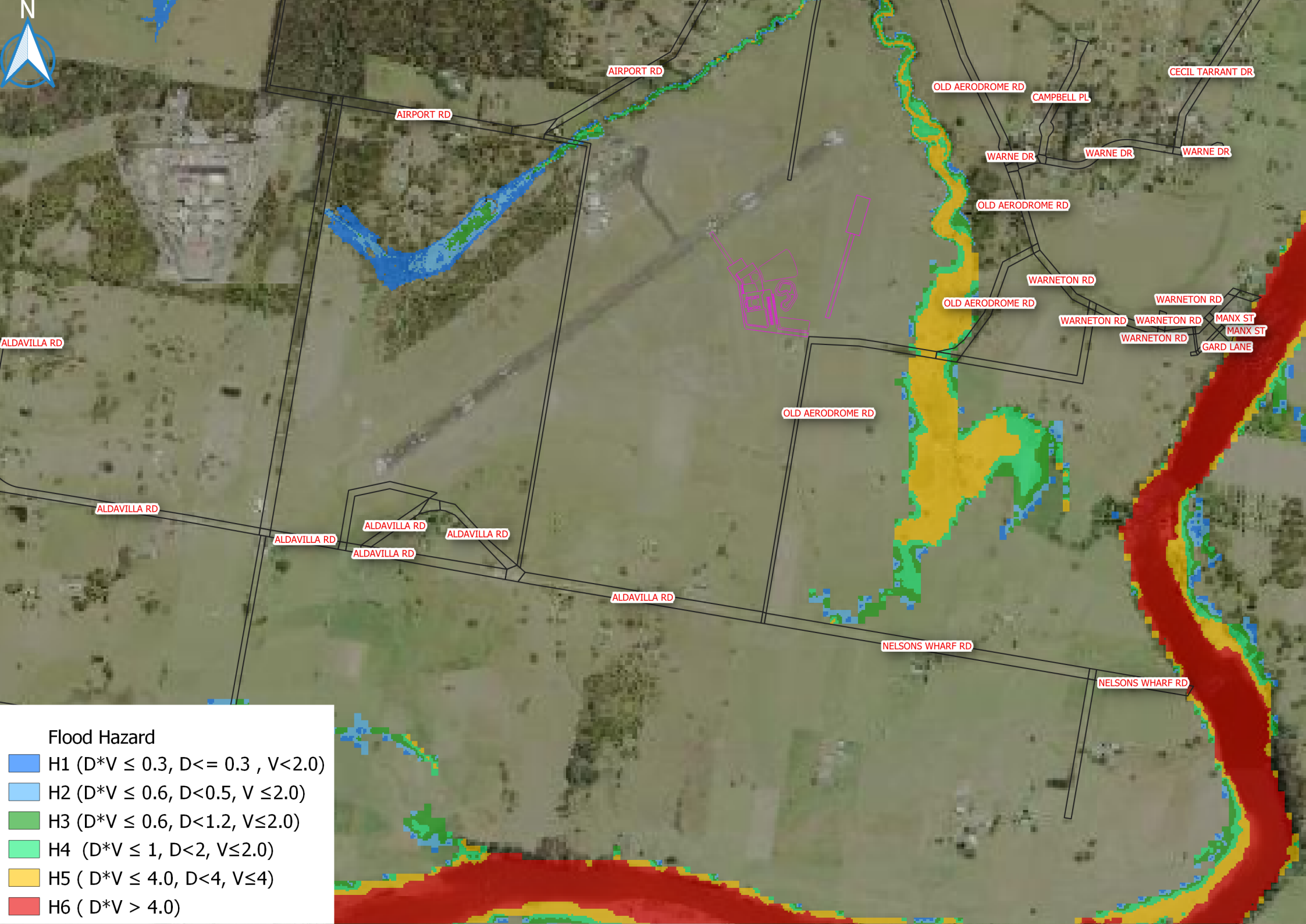
Appendix 28: Proposed Scenario 50% AEP Flood Depth and Contours.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

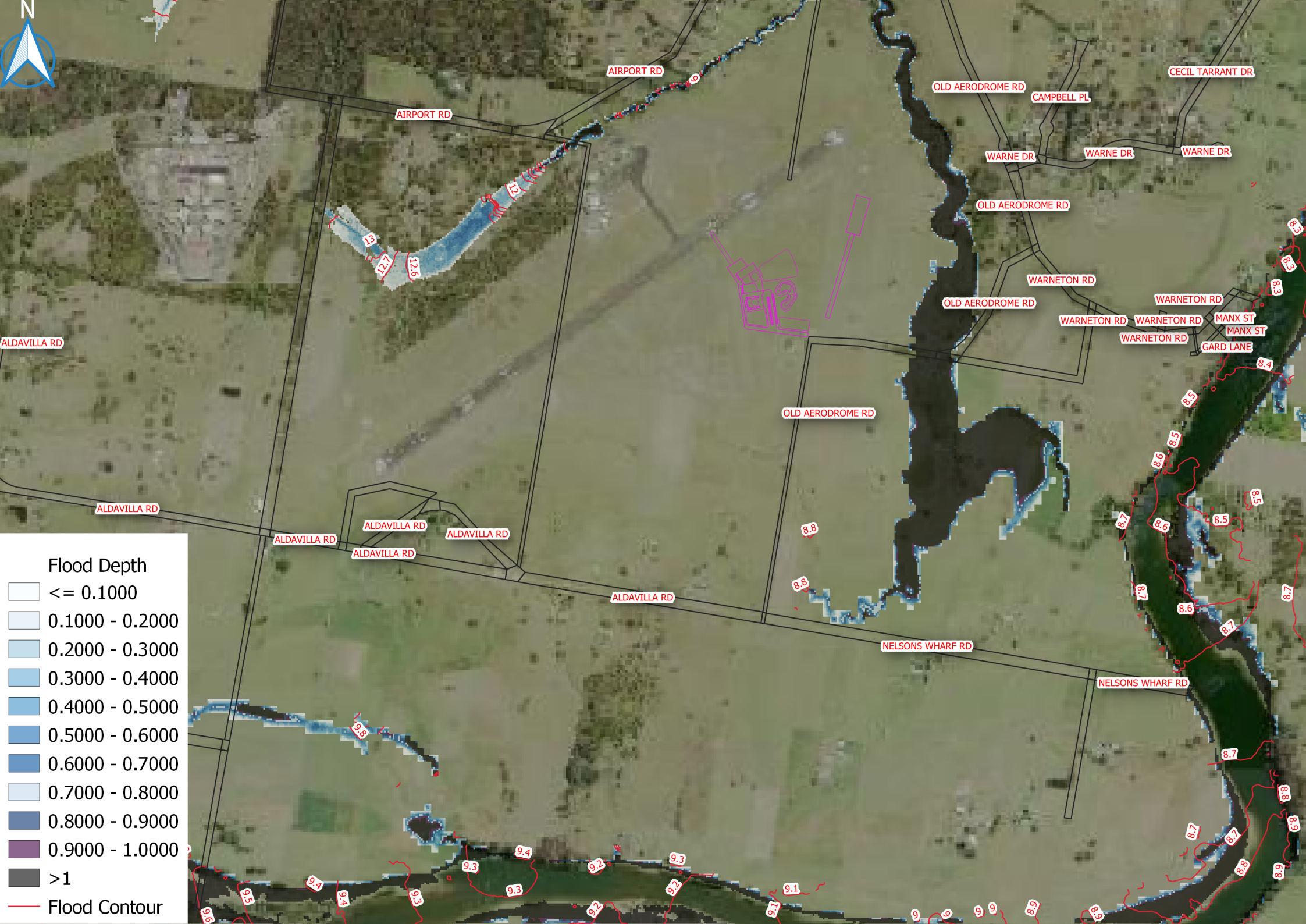
Appendix 29: Proposed Scenario 50% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

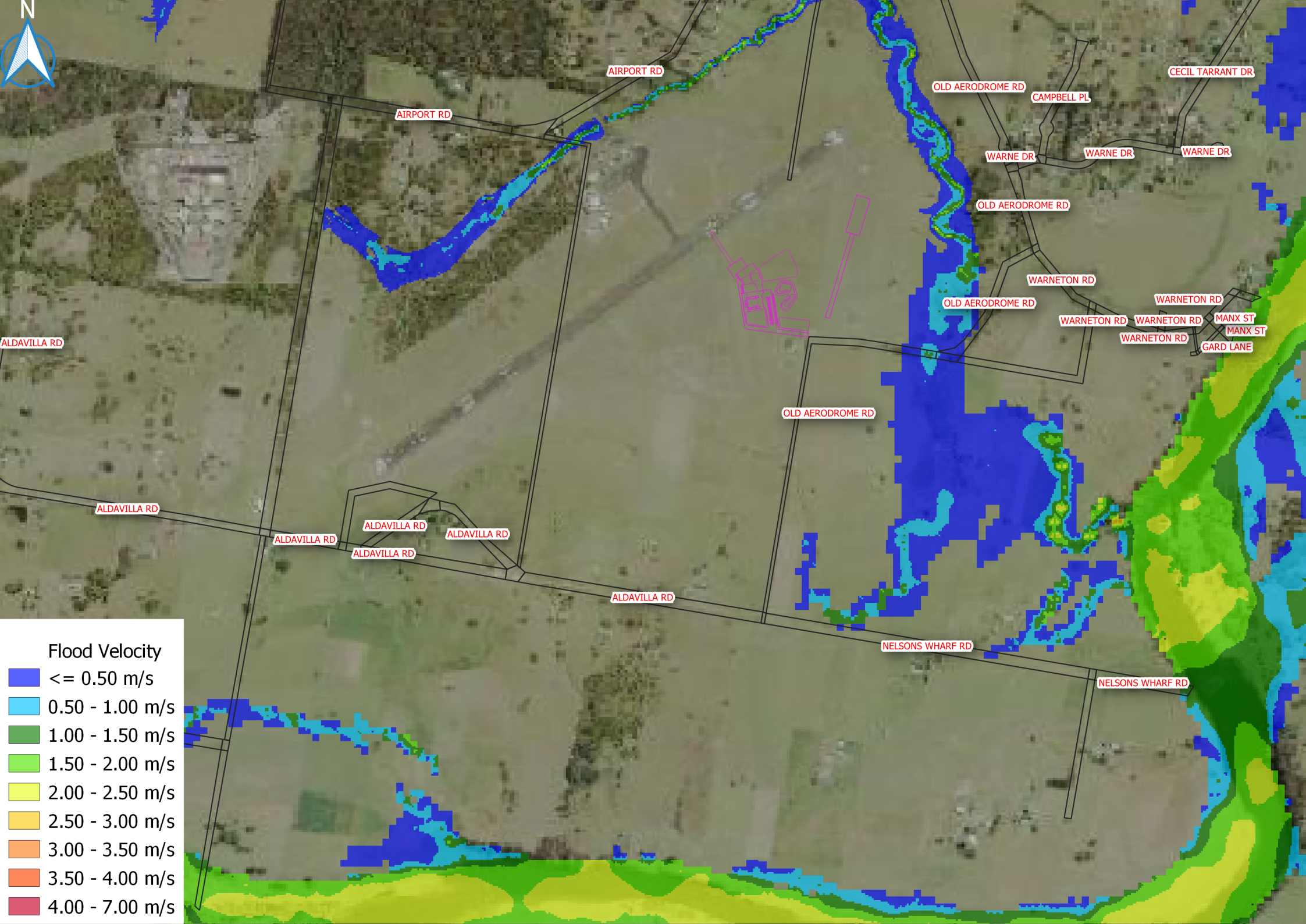
Appendix 30: Proposed Scenario 50% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

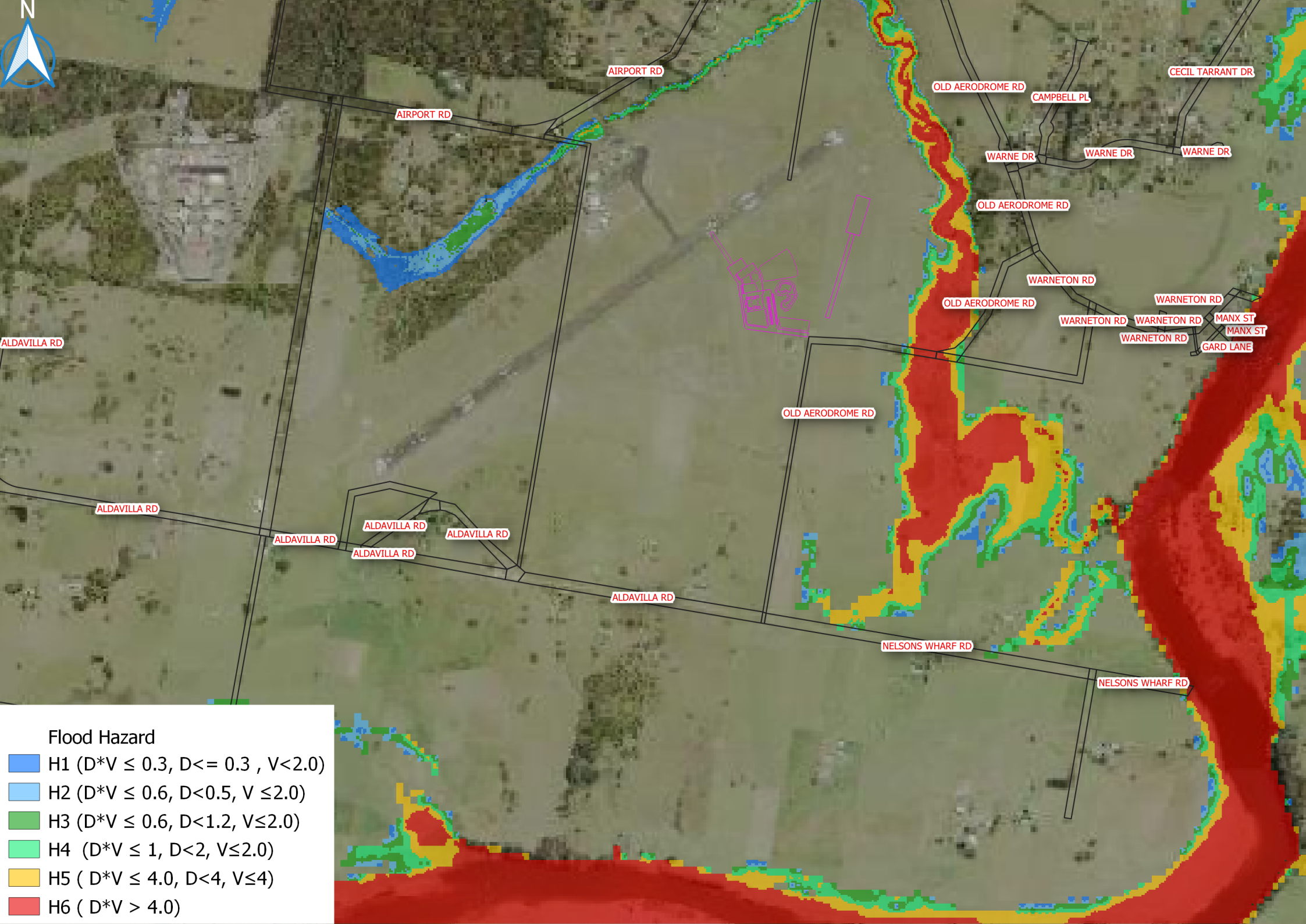
Appendix 31: Proposed Scenario 20% AEP Flood Depth and Contours.


N
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

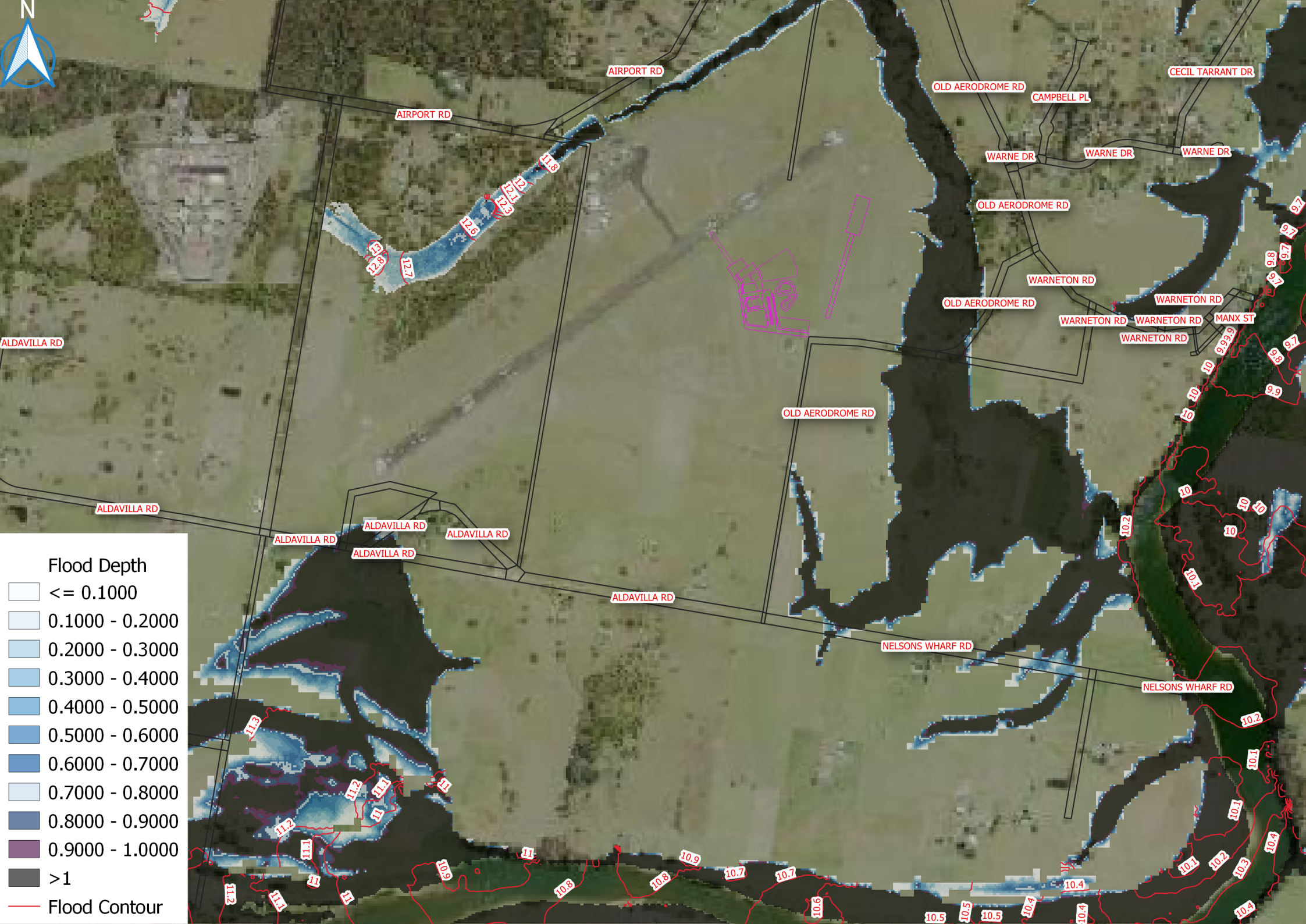
Appendix 32: Proposed Scenario 20% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

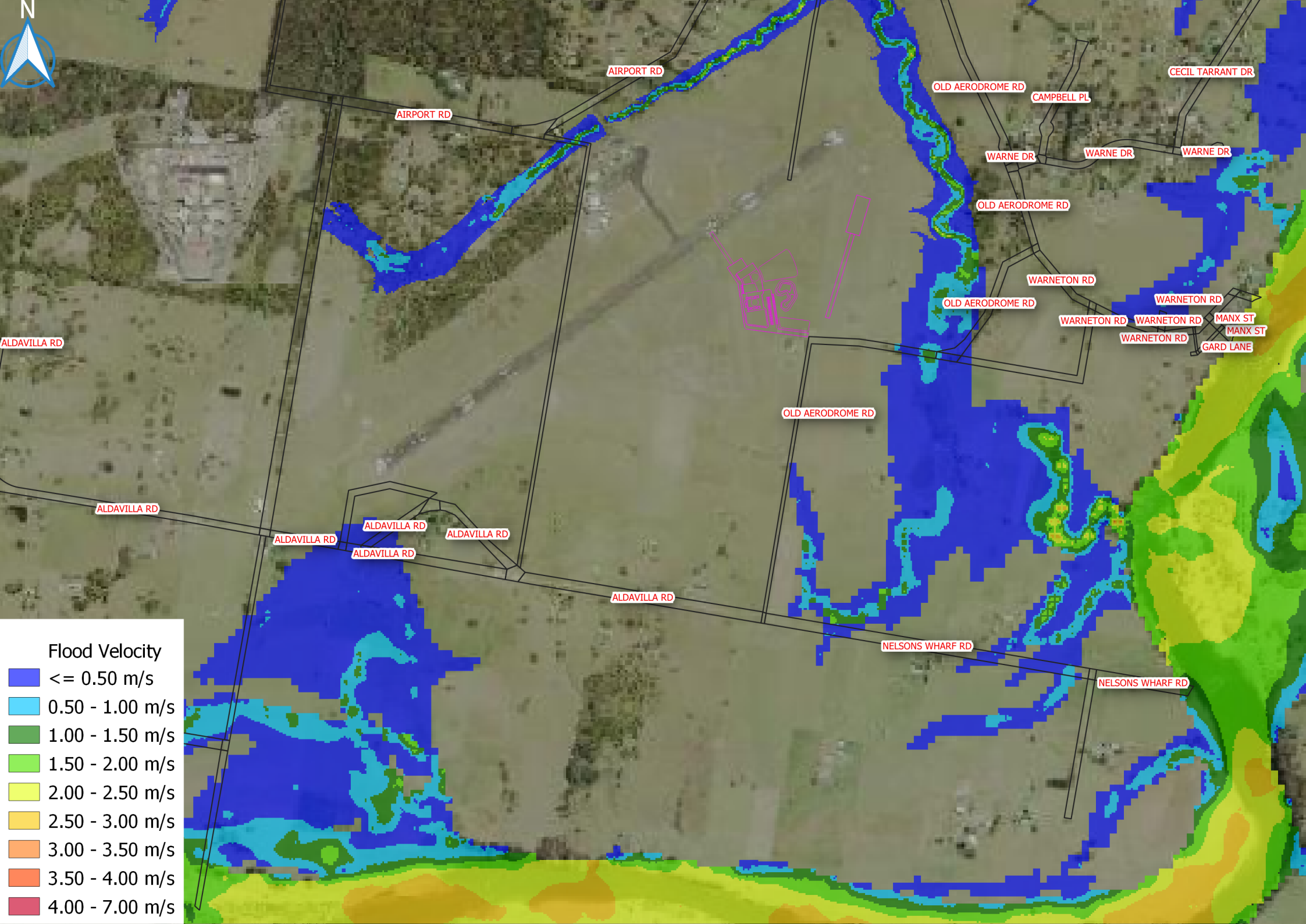
Appendix 33: Proposed Scenario 20% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

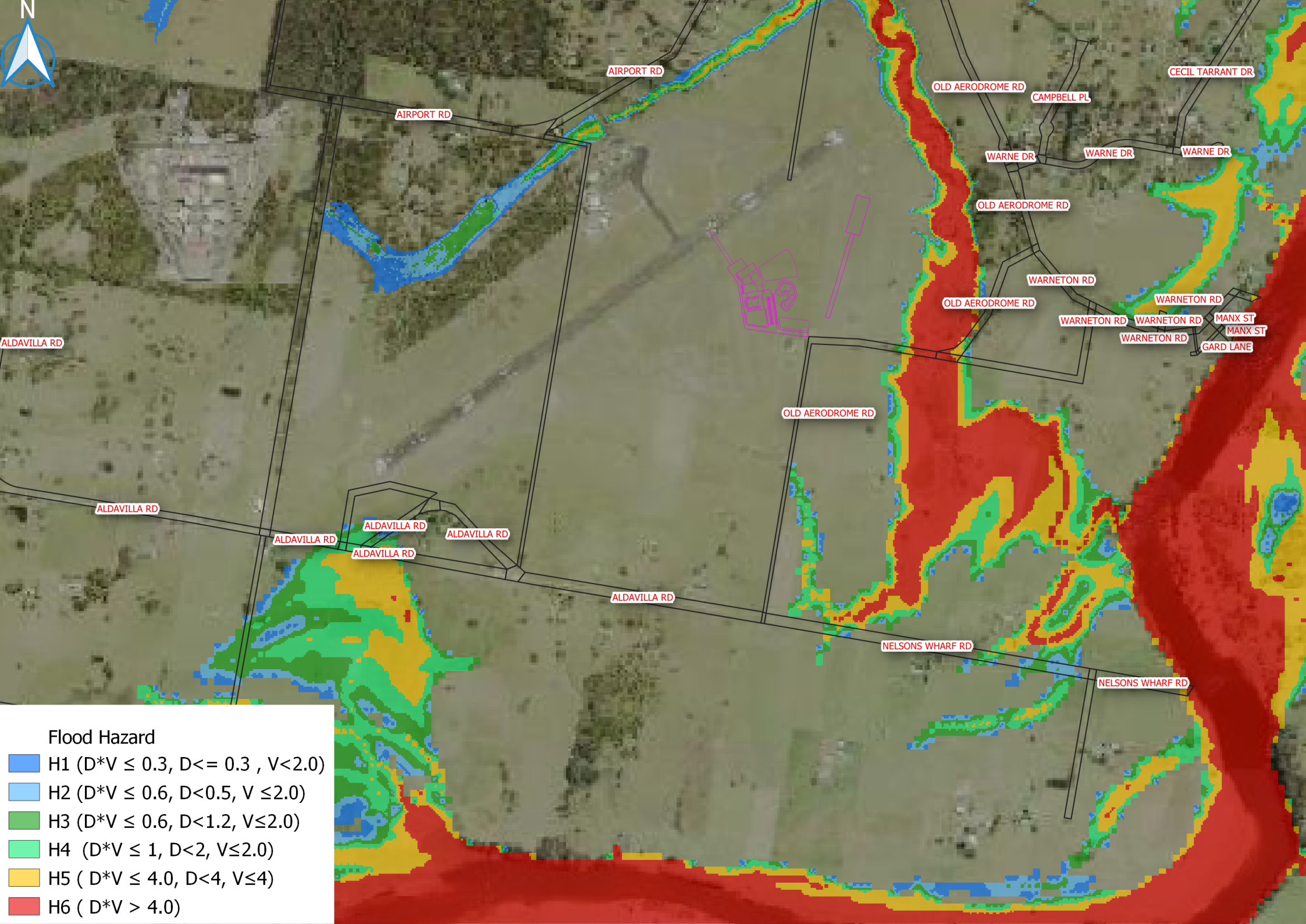
Appendix 34: Proposed Scenario 10% AEP Flood Depth and Contours.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

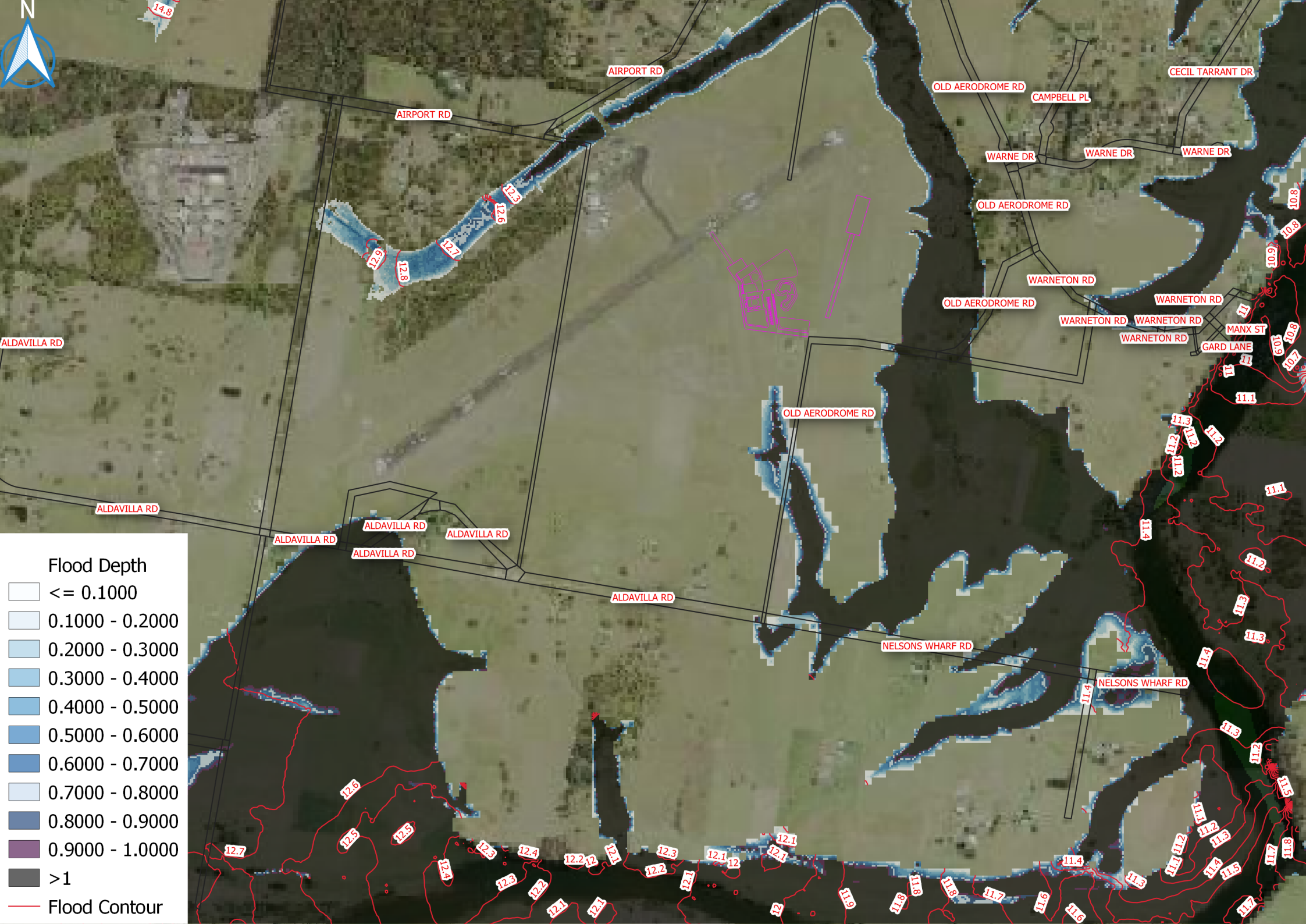
Appendix 35: Proposed Scenario 10% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
WARNETON RD
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

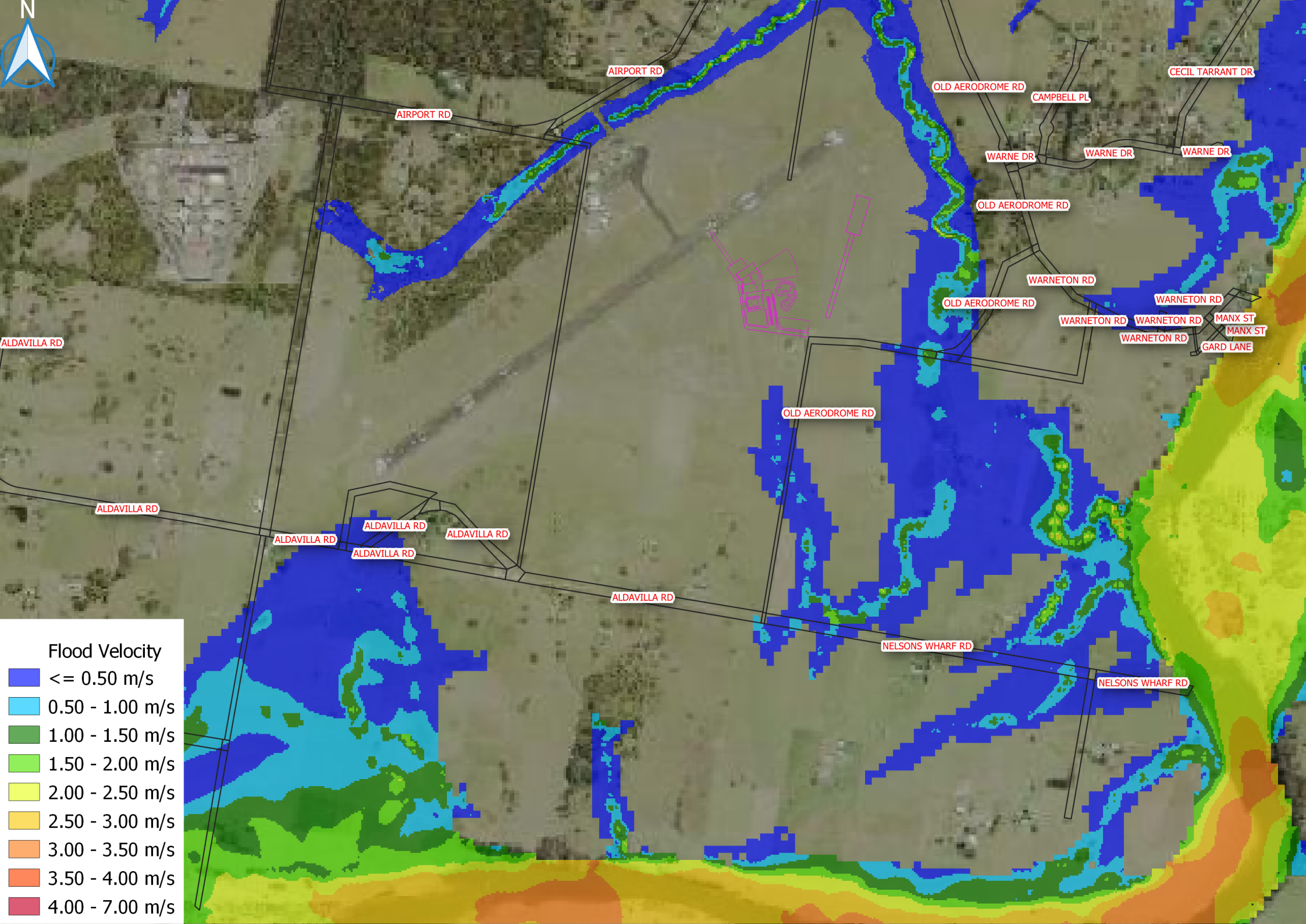
Appendix 36: Proposed Scenario 10% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

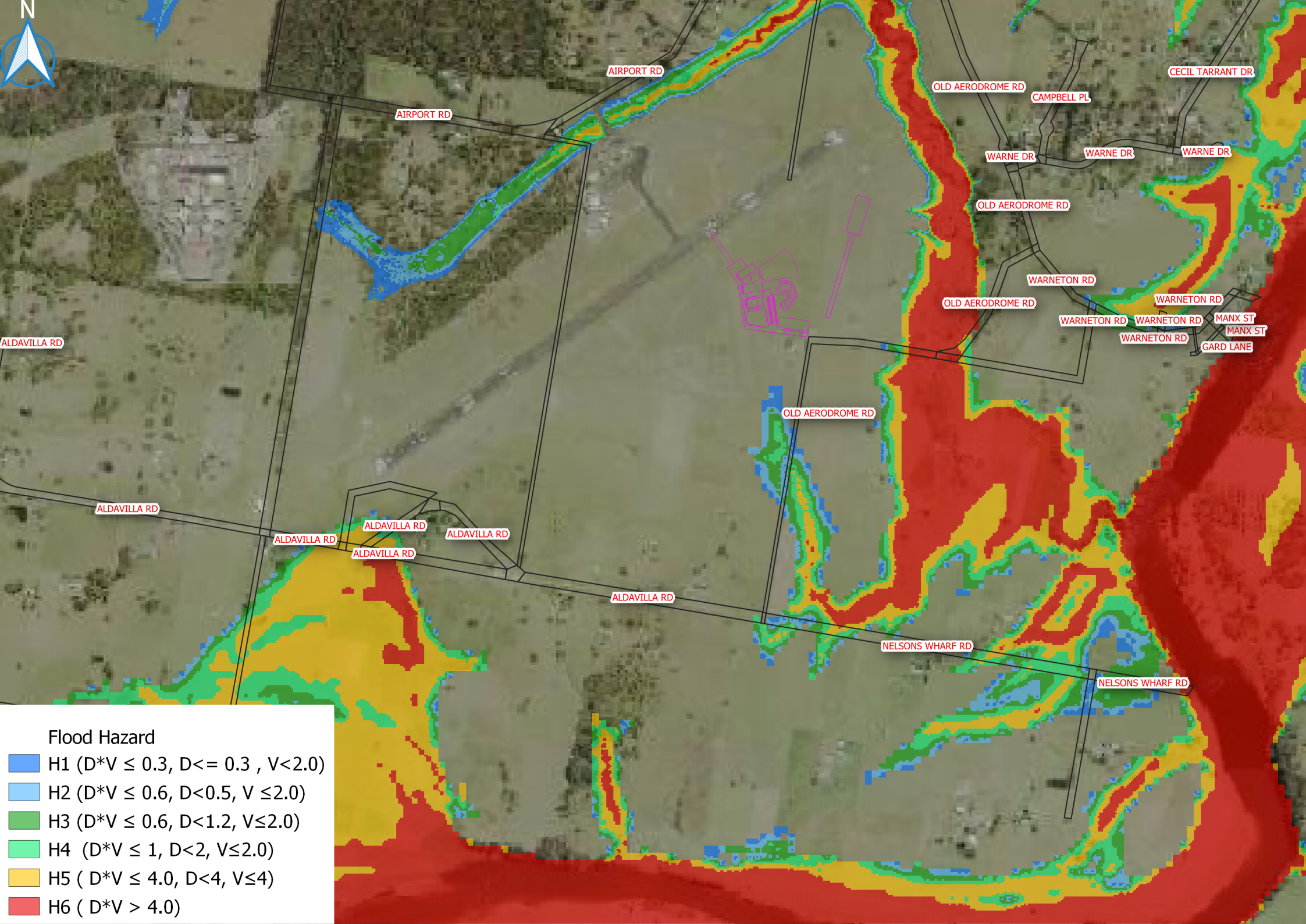
Appendix 37: Proposed Scenario 5% AEP Flood Depth and Contours.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

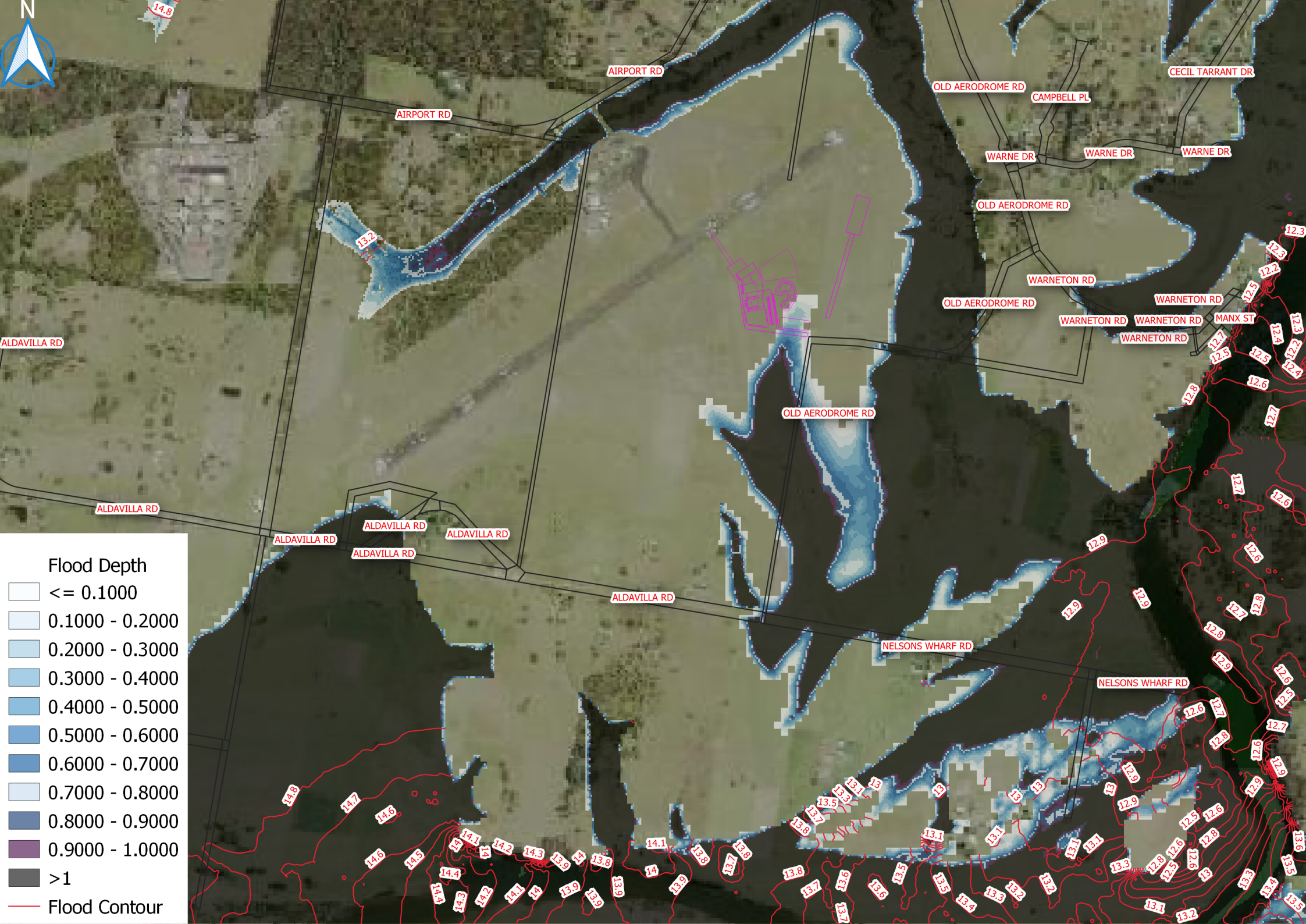
Appendix 38: Proposed Scenario 5% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

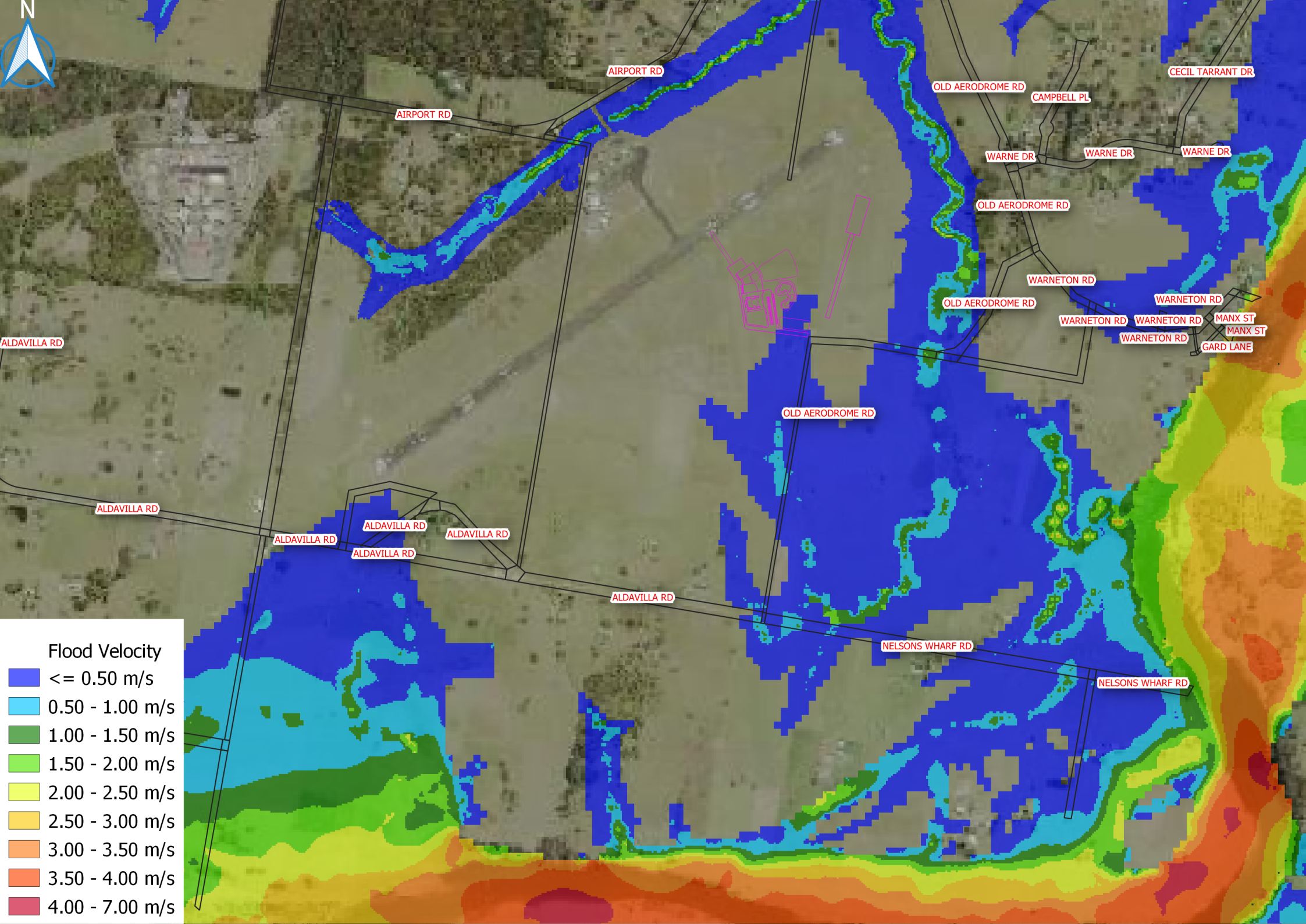
Appendix 39: Proposed Scenario 5% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

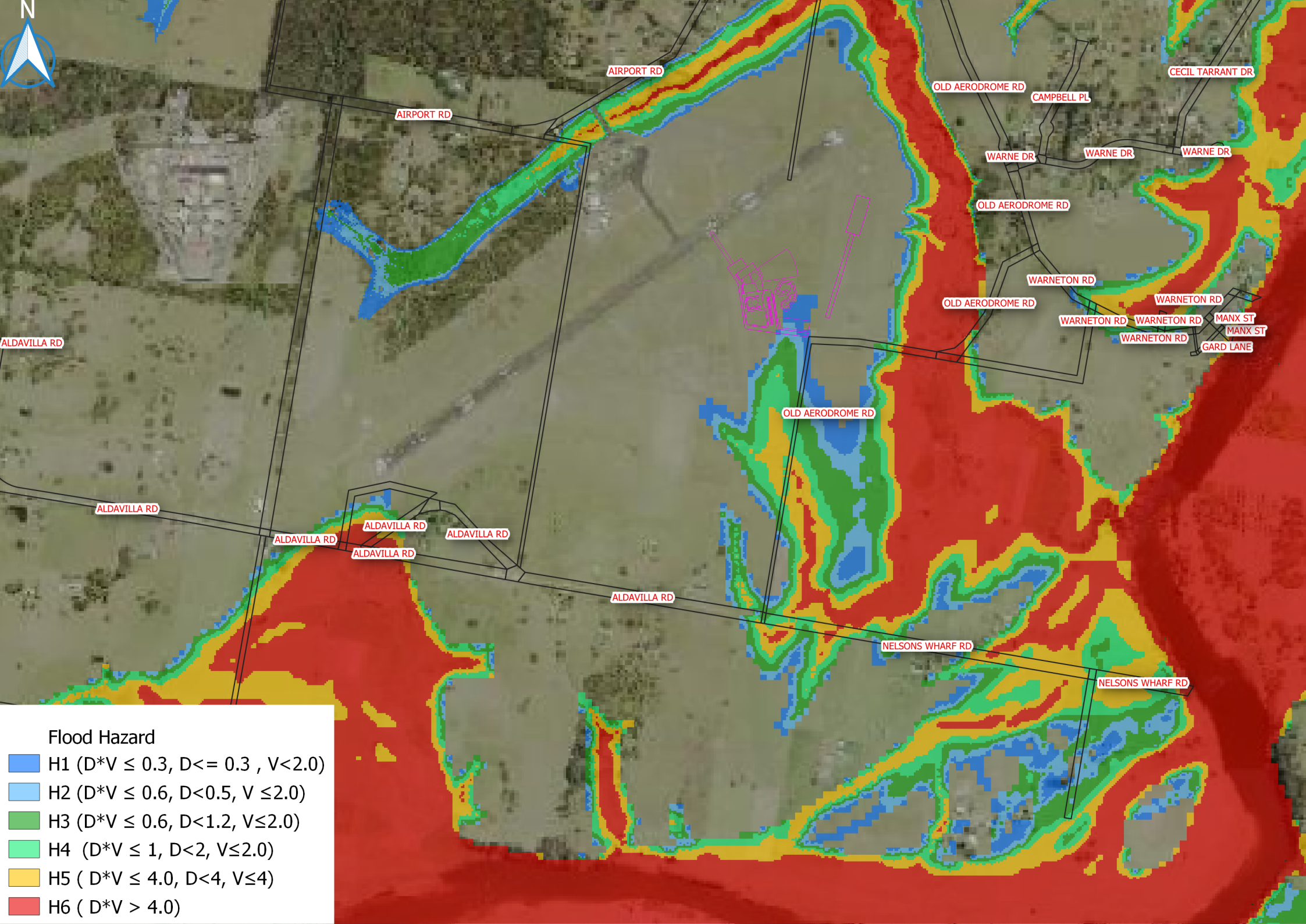
Appendix 40: Proposed Scenario 2% AEP Flood Depth and Contours.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

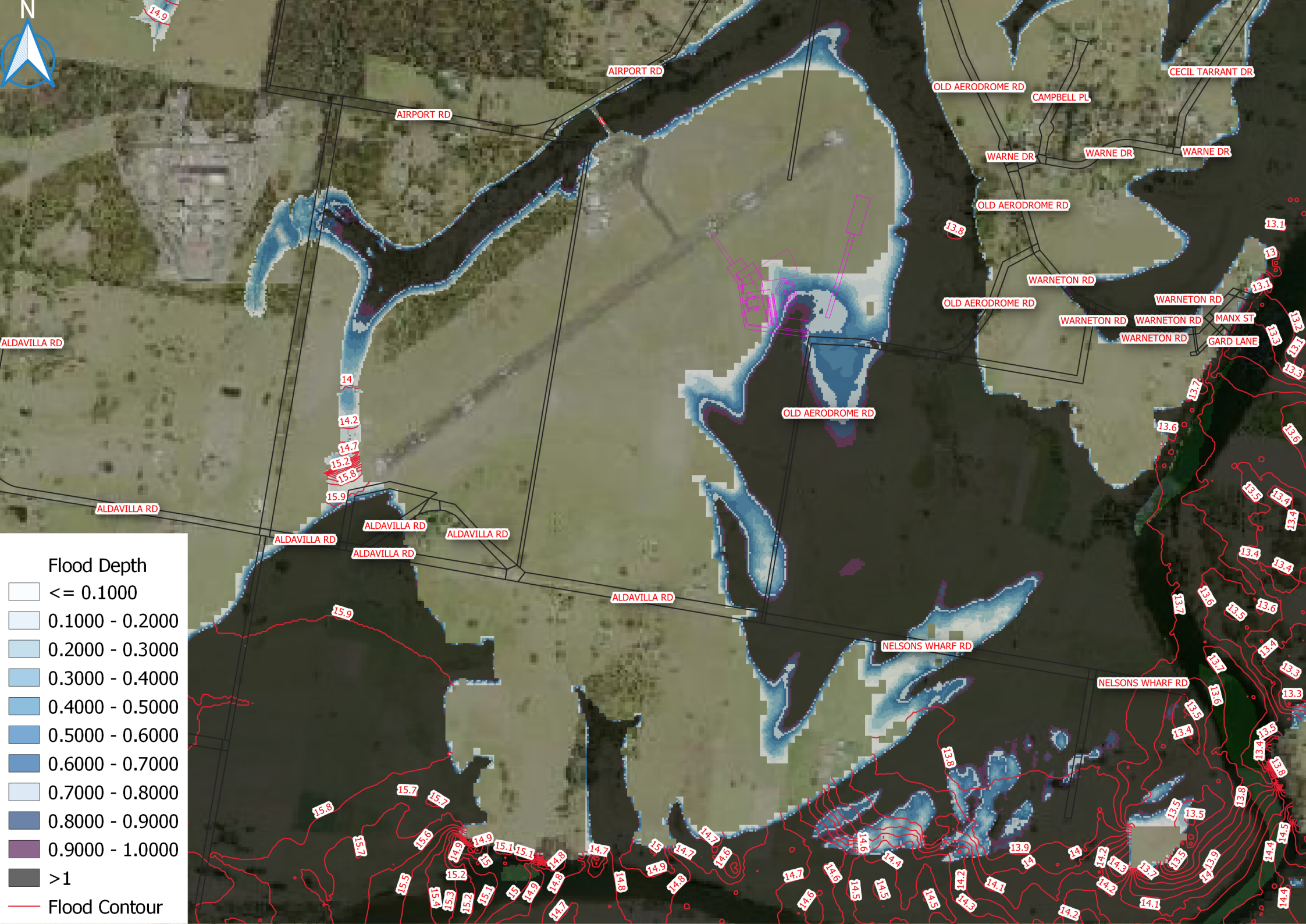
Appendix 41: Proposed Scenario 2% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

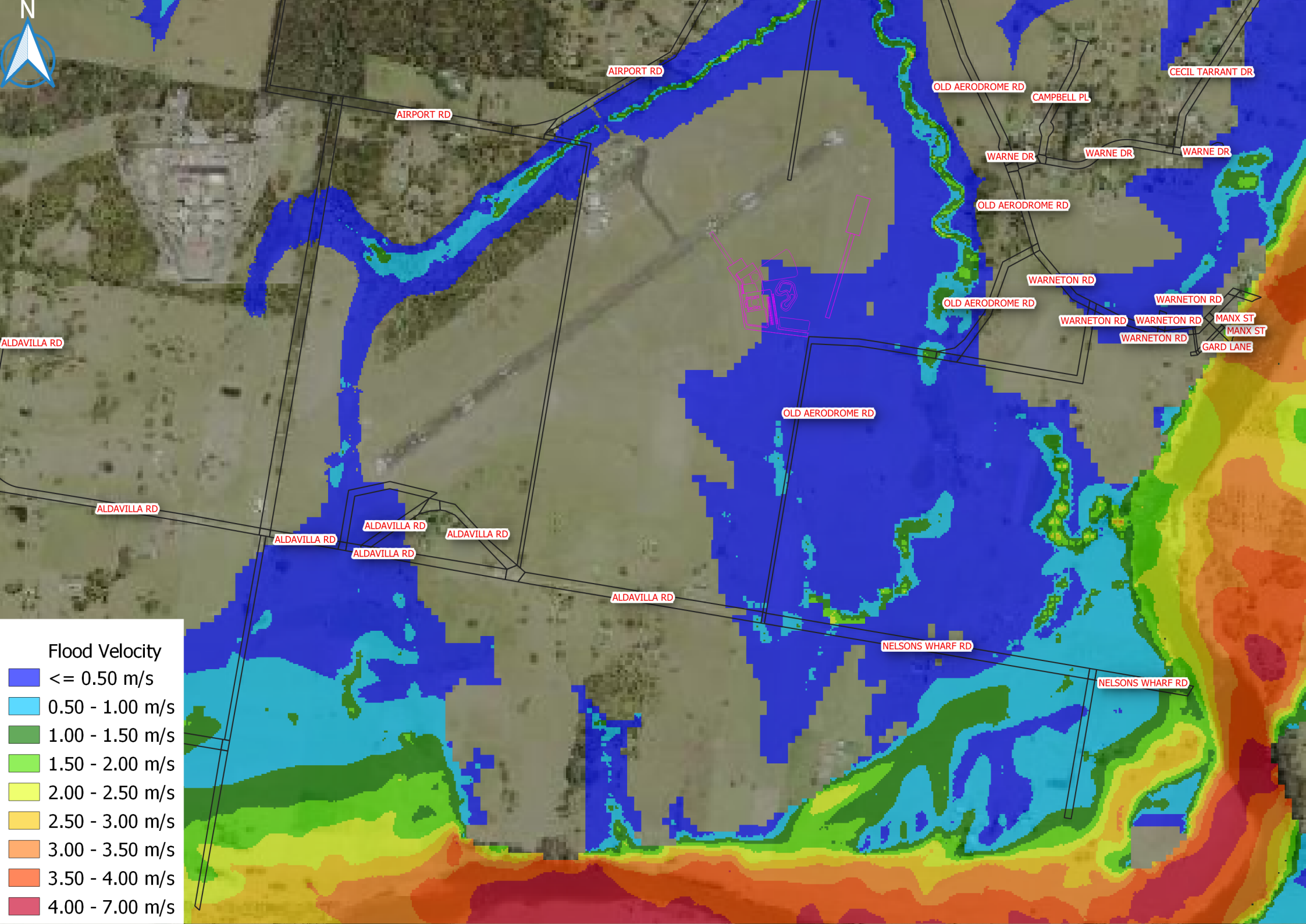
Appendix 42: Proposed Scenario 2% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

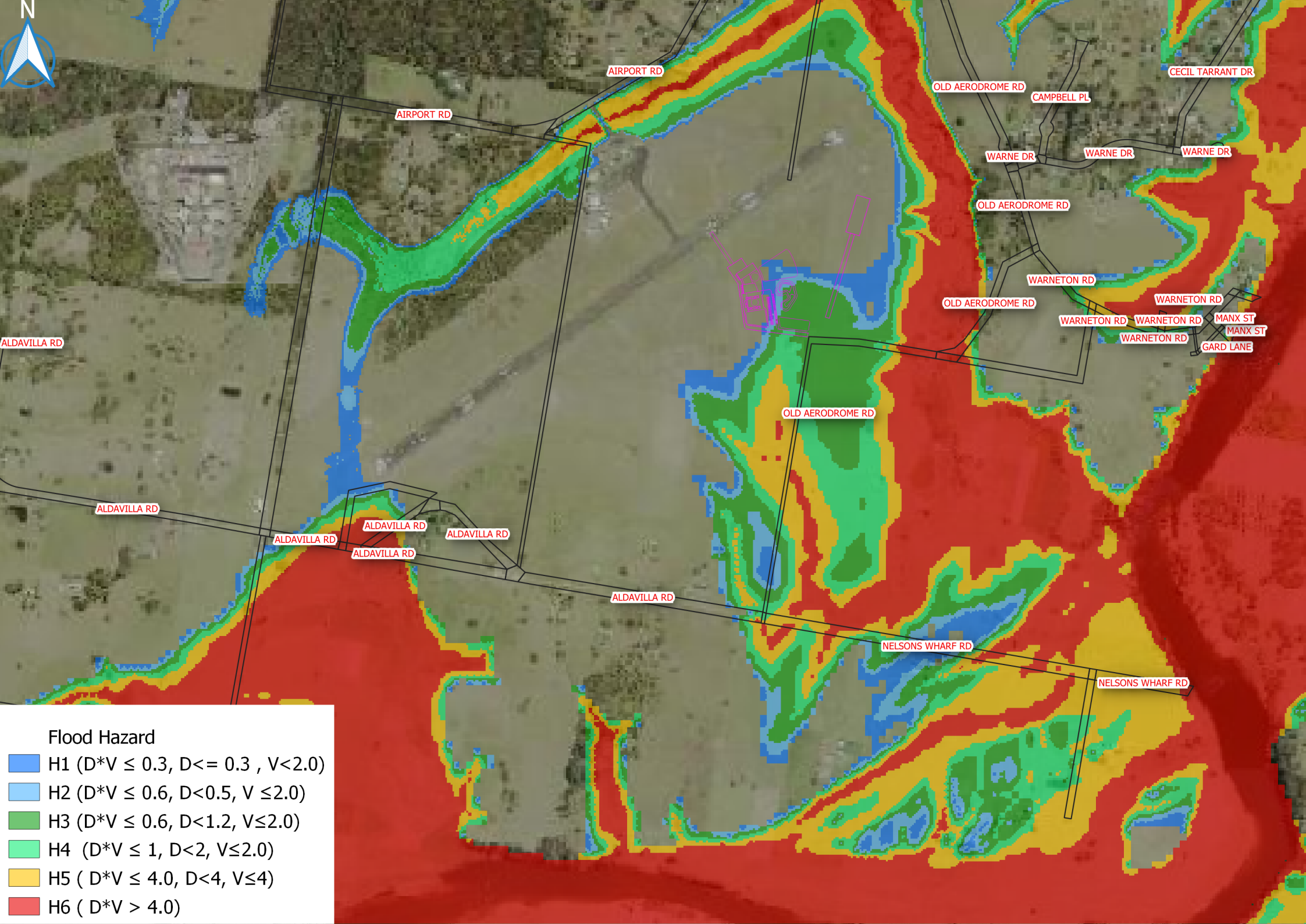
Appendix 43: Proposed Scenario 1% AEP Flood Depth and Contours.


N
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

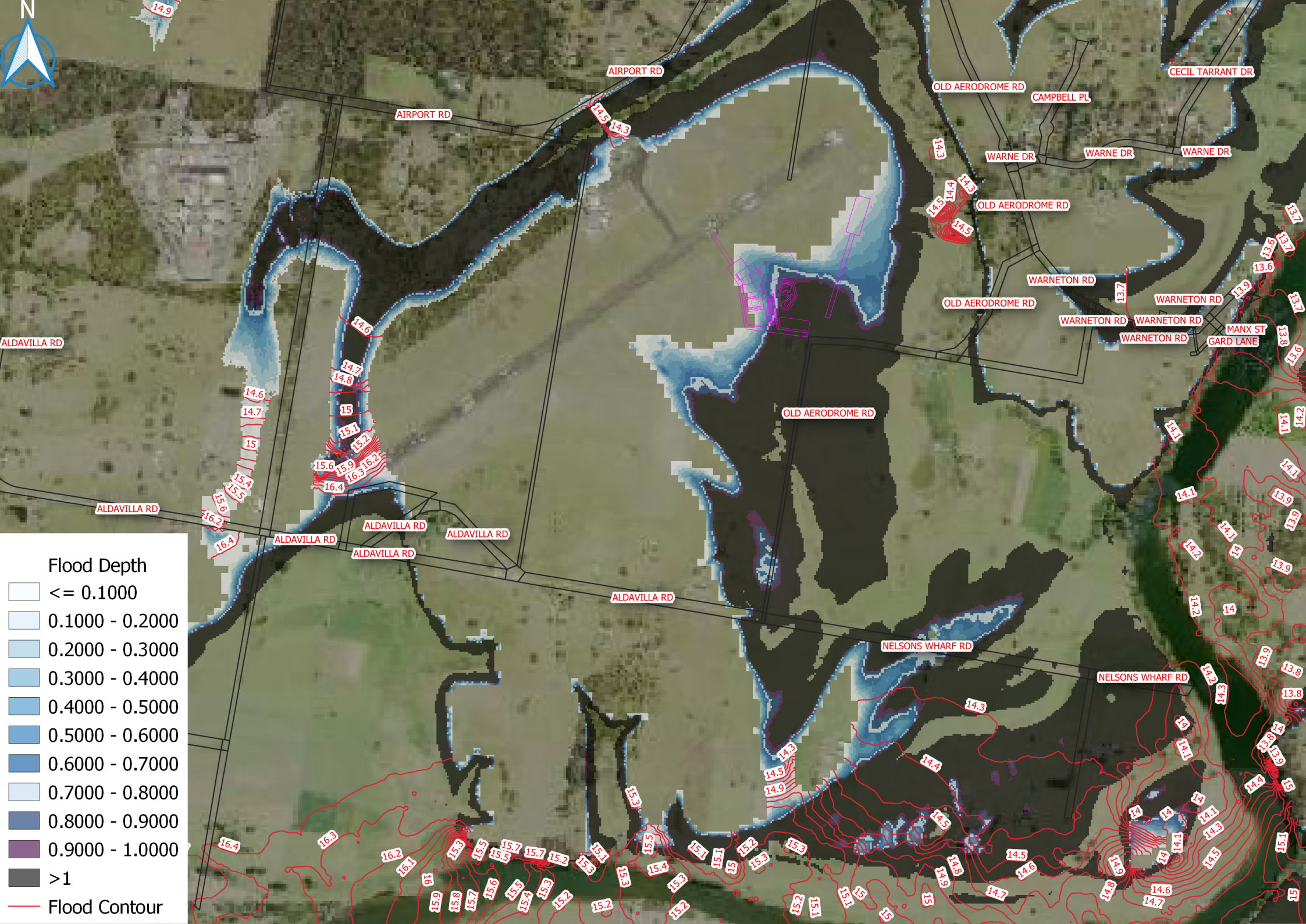
Appendix 44: Proposed Scenario 1% AEP Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

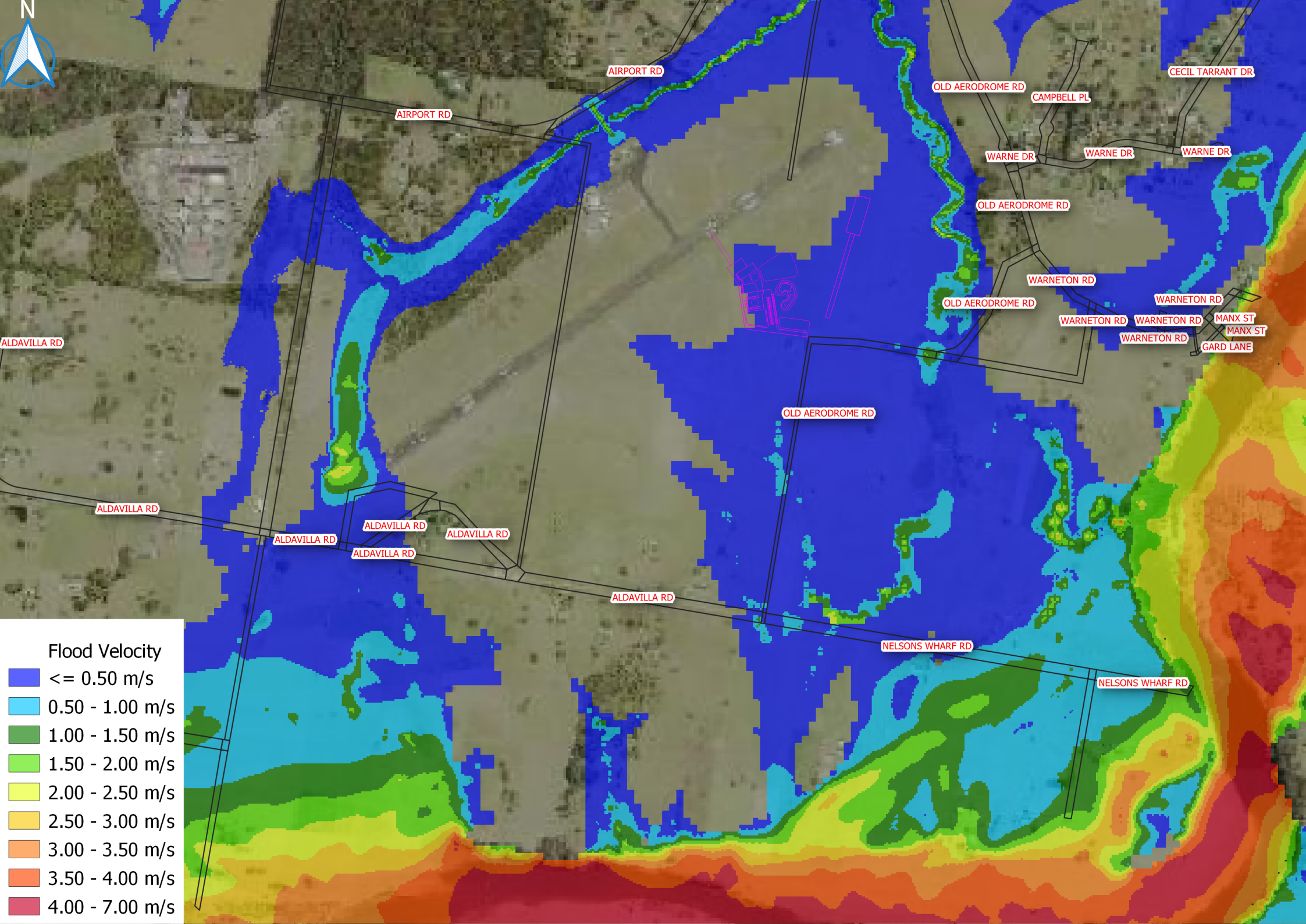
Appendix 45: Proposed Scenario 1% AEP Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

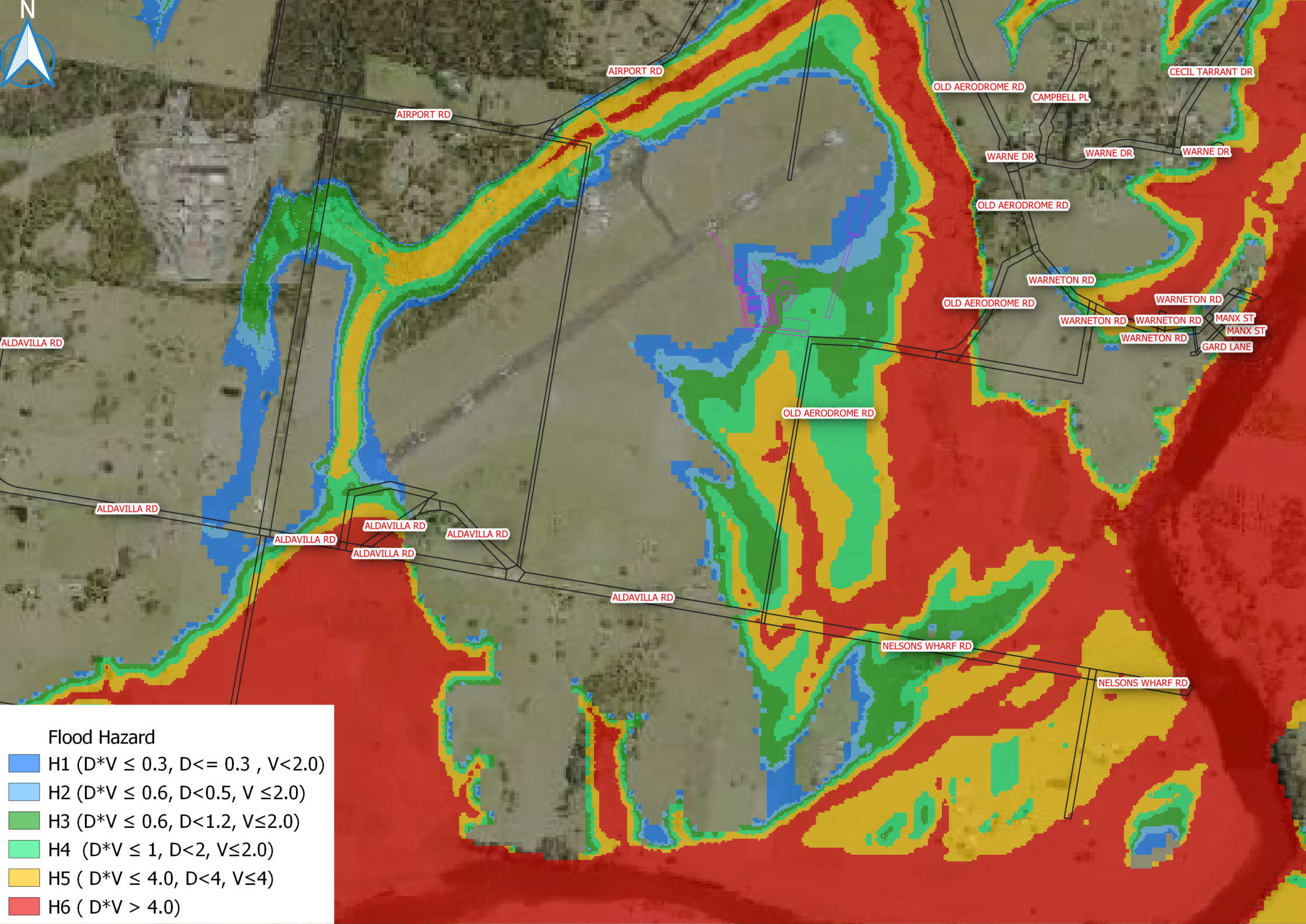
Appendix 46: Proposed Scenario 1% AEP with 2050 CC factor Flood Depth and Contours.


N
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

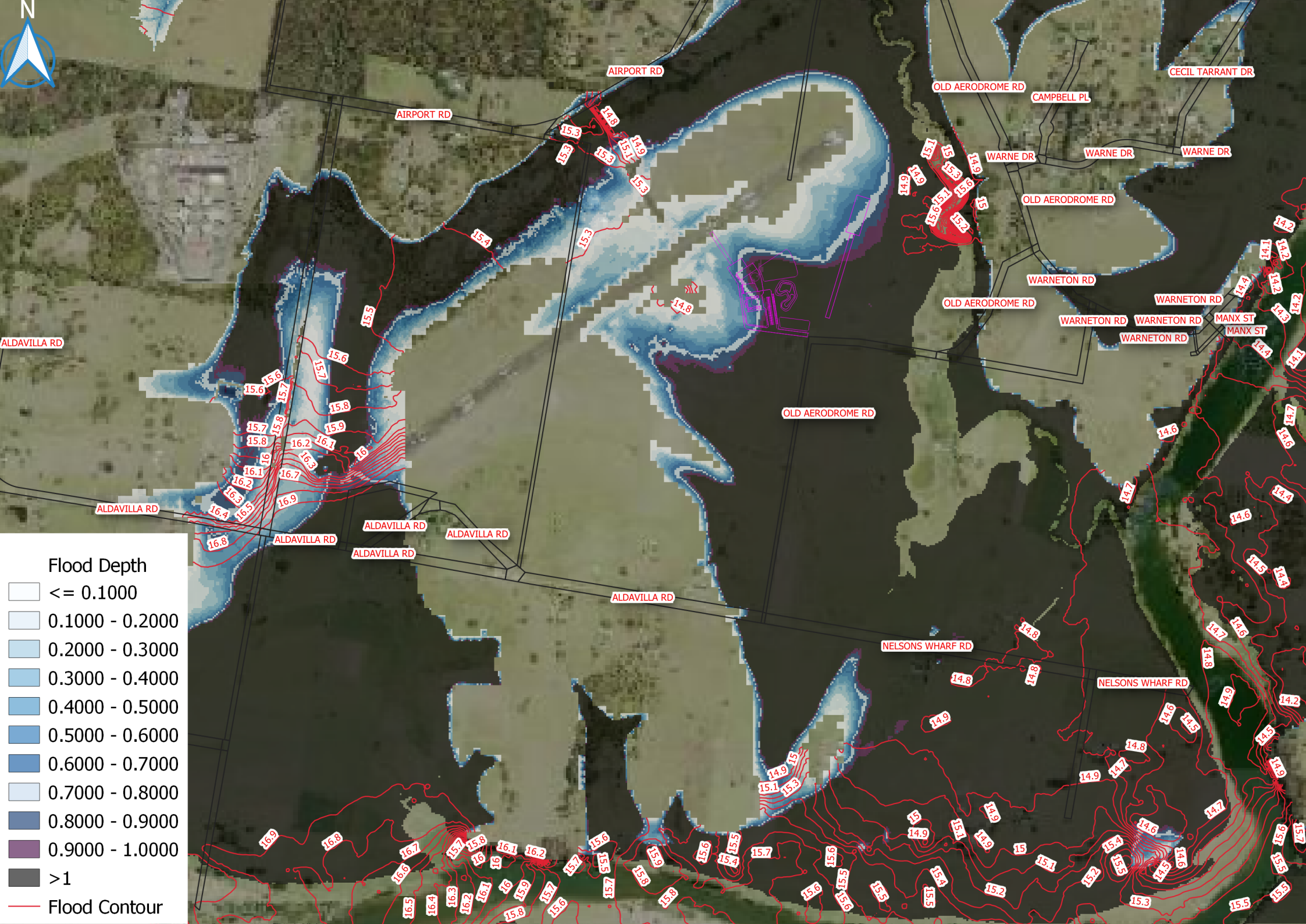
Appendix 47: Proposed Scenario 1% AEP with 2050 CC factor Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

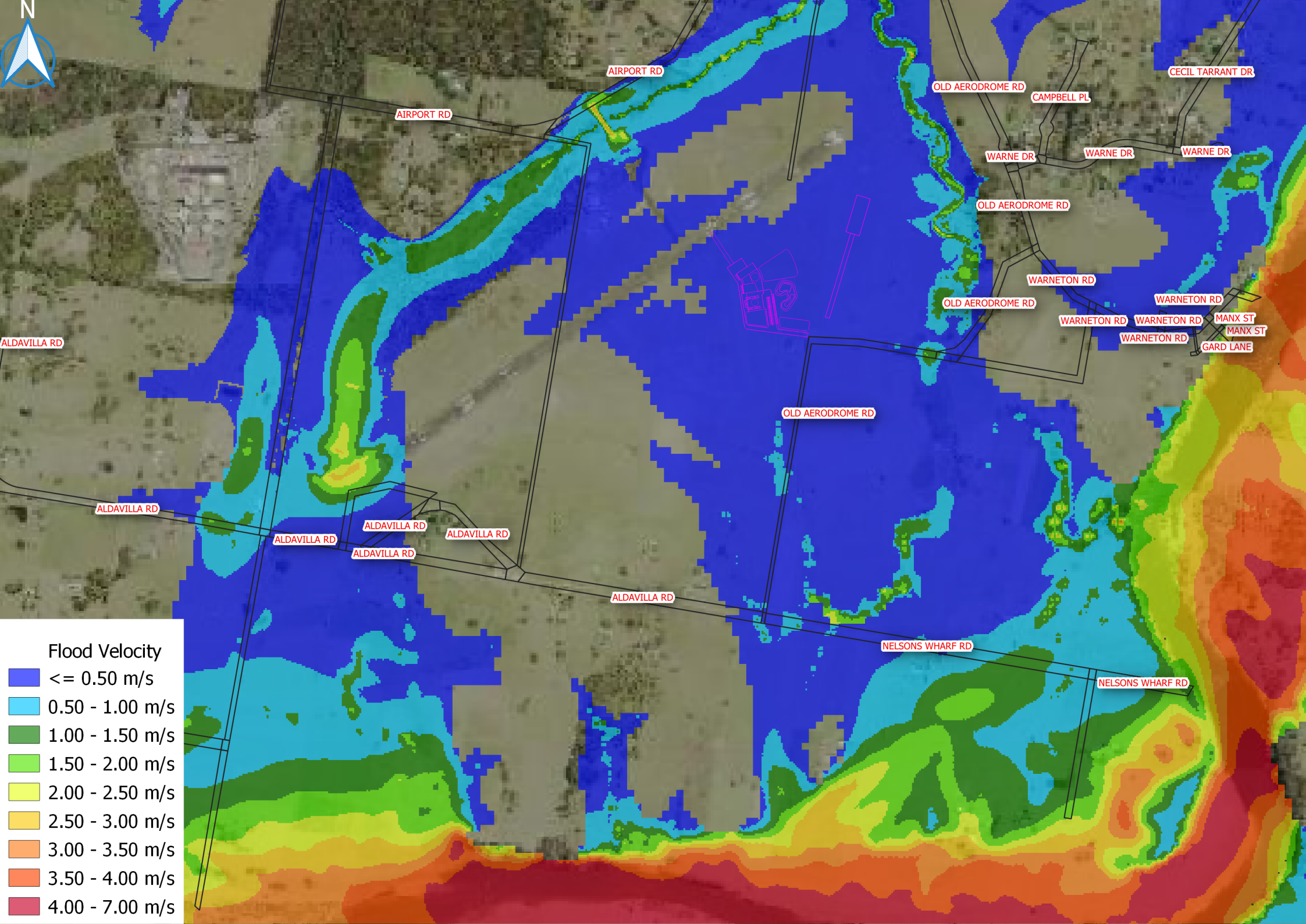
Appendix 48: Proposed Scenario 1% AEP with 2050 CC factor Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

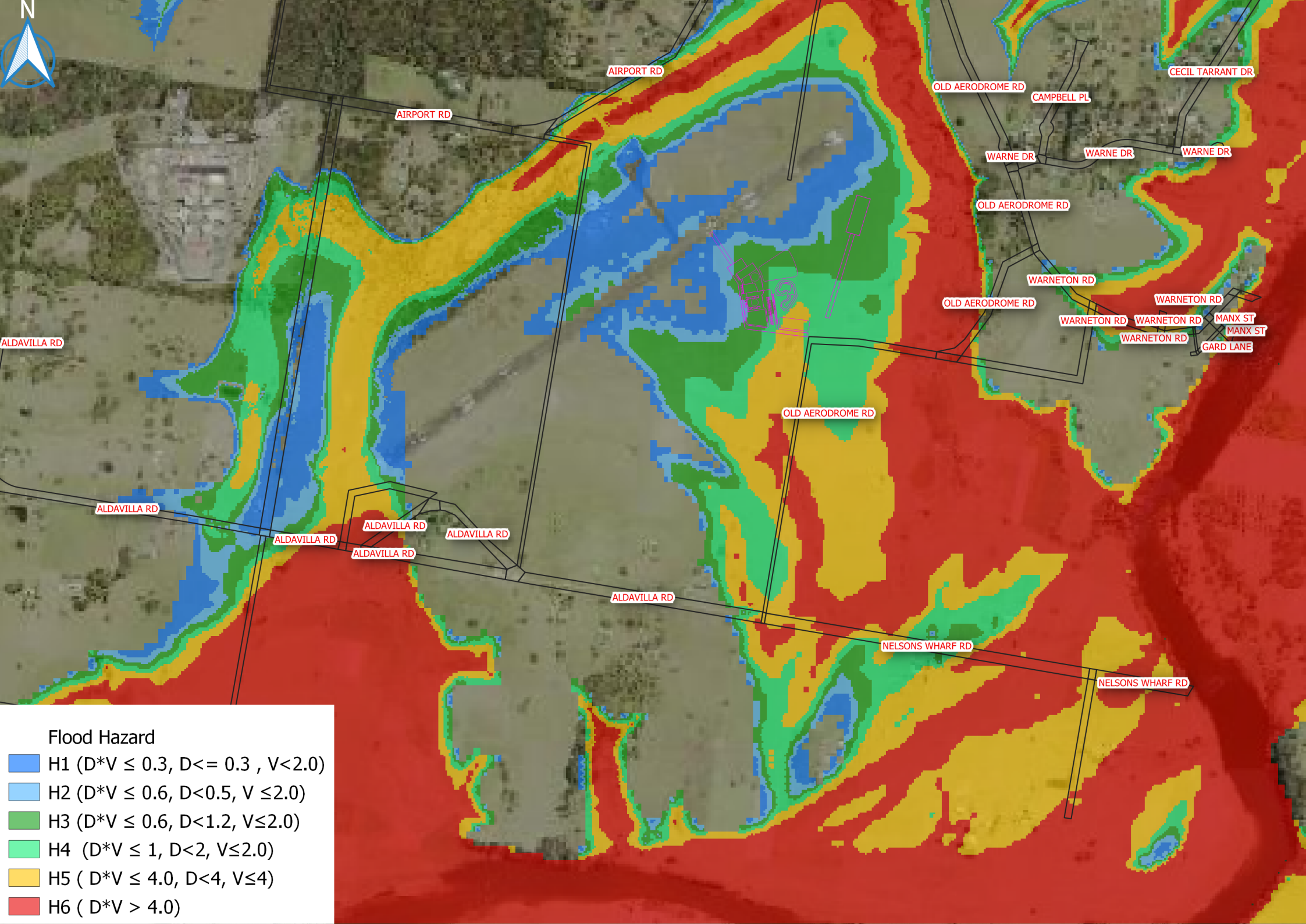
Appendix 49: Proposed Scenario 1% AEP with 2100 CC factor Flood Depth and Contours.


N
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNETON RD
MANX ST
ALDAVILLA RD
NELSONS WHARF RD
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour

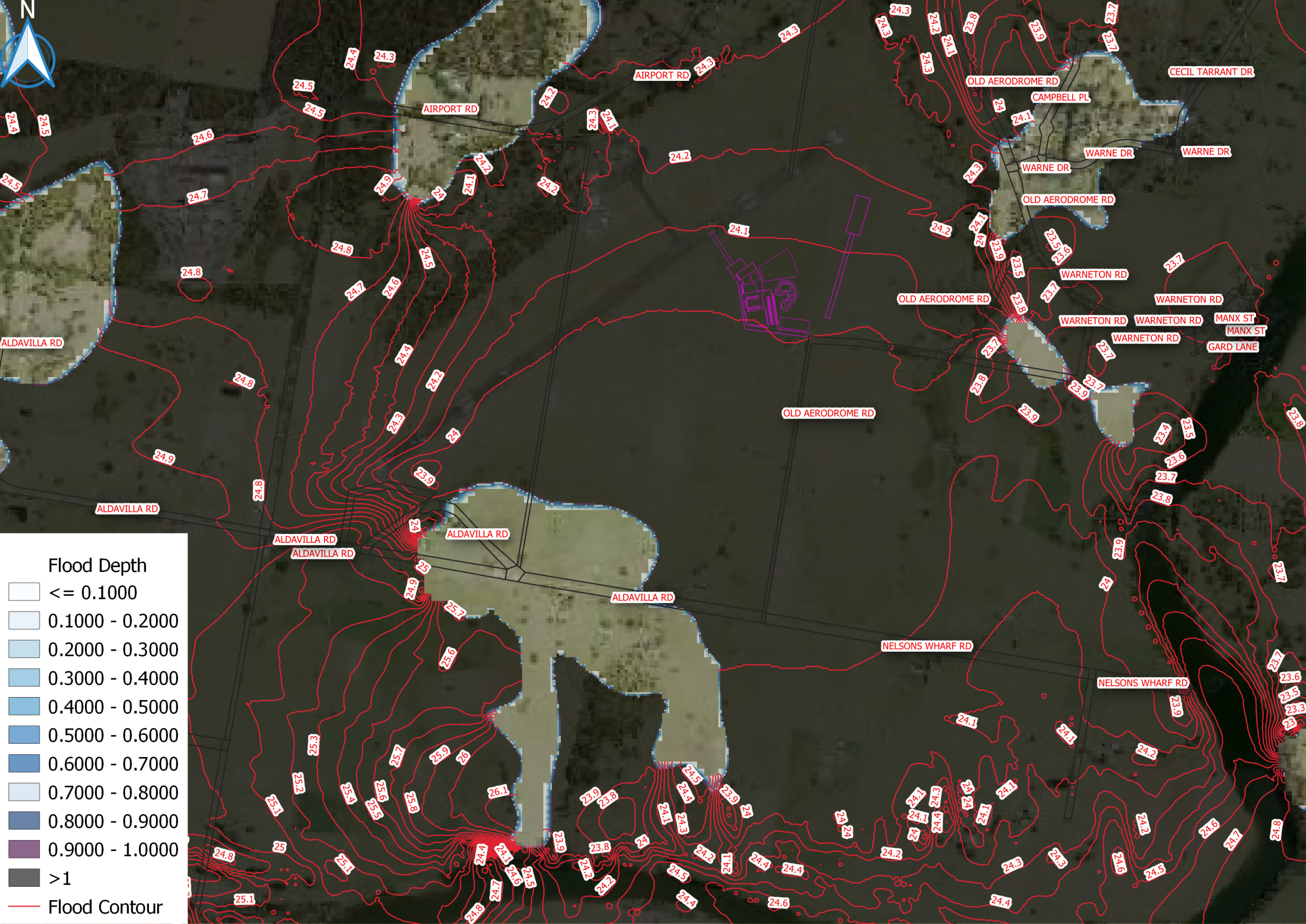
Appendix 50: Proposed Scenario 1% AEP with 2100 CC factor Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

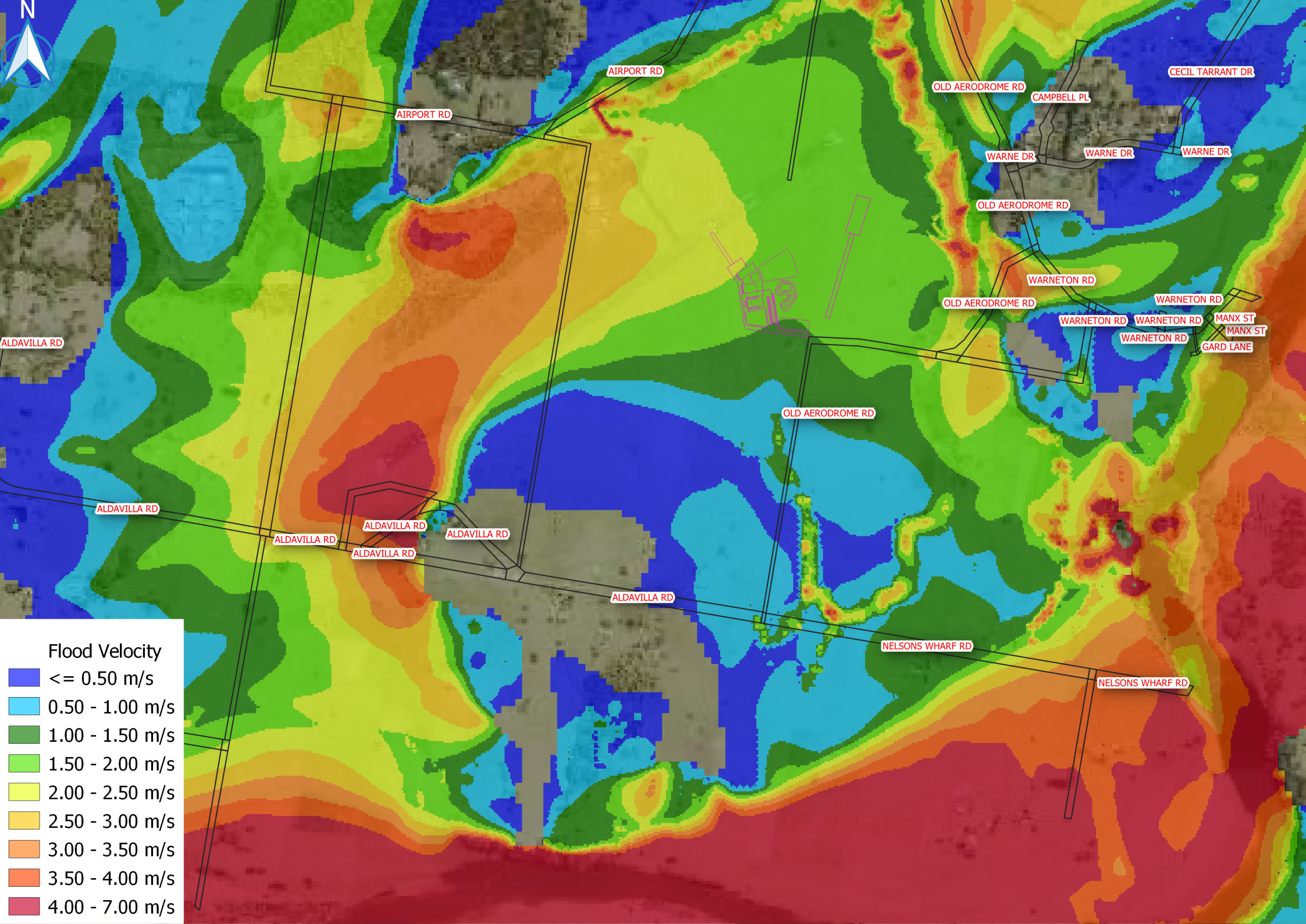
Appendix 51: Proposed Scenario 1% AEP with 2100 CC factor Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)

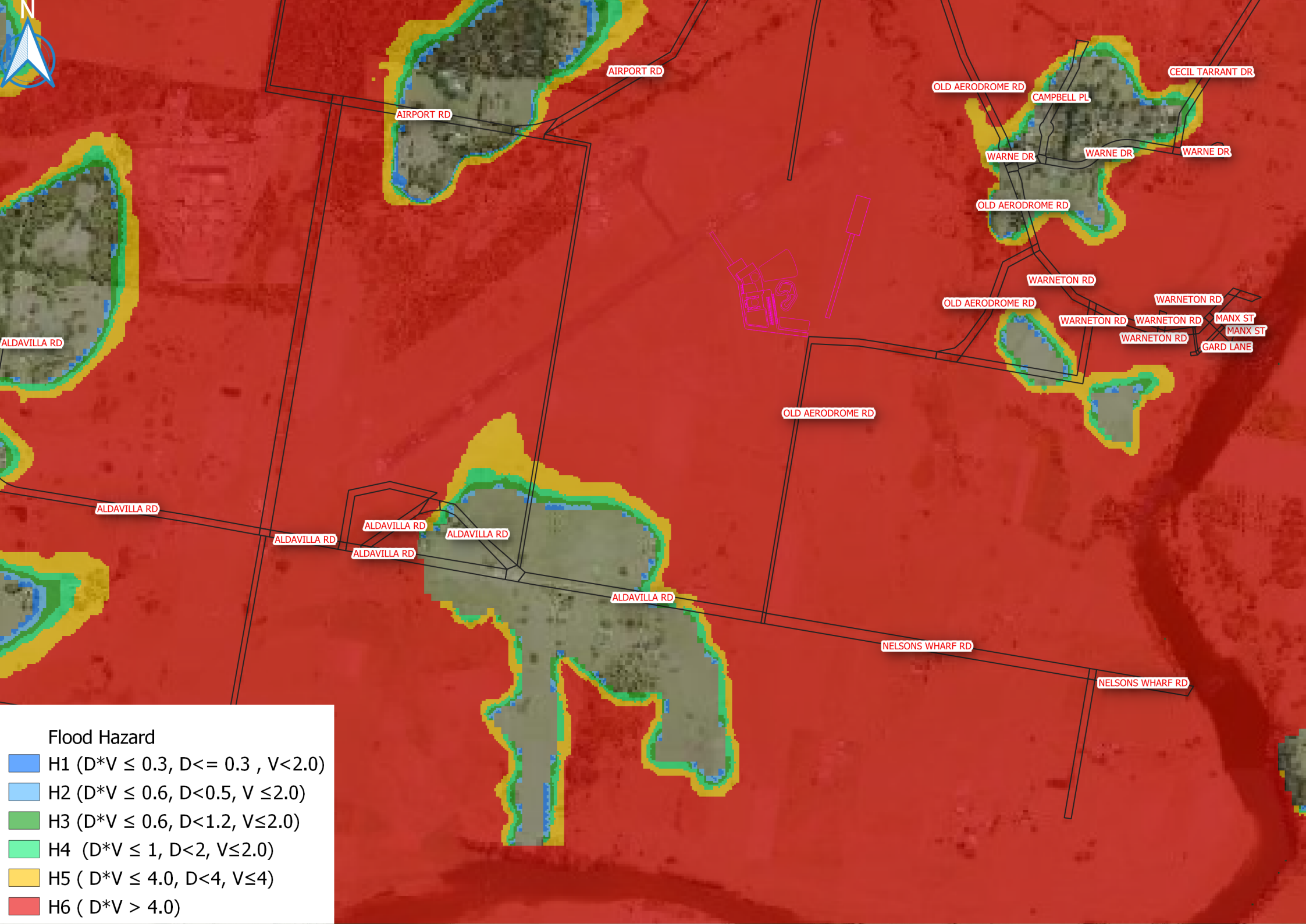
Appendix 52: Proposed Scenario PMF Flood Depth and Contours.


N
Flood Depth
<= 0.1000
0.1000 - 0.2000
0.2000 - 0.3000
0.3000 - 0.4000
0.4000 - 0.5000
0.5000 - 0.6000
0.6000 - 0.7000
0.7000 - 0.8000
0.8000 - 0.9000
0.9000 - 1.0000
>1
Flood Contour
AIRPORT RD
OLD AERODROME RD
CECIL TARRANT DR
CAMPBELL PL
WARNE DR
WARNETON RD
MANX ST
GARD LANE
ALDAVILLA RD
NELSONS WHARF RD

Appendix 53: Proposed Scenario PMF Flood Velocity.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Velocity
<= 0.50 m/s
0.50 - 1.00 m/s
1.00 - 1.50 m/s
1.50 - 2.00 m/s
2.00 - 2.50 m/s
2.50 - 3.00 m/s
3.00 - 3.50 m/s
3.50 - 4.00 m/s
4.00 - 7.00 m/s

Appendix 54: Proposed Scenario PMF Flood Hazard.


N
AIRPORT RD
AIRPORT RD
OLD AERODROME RD
CAMPBELL PL
CECIL TARRANT DR
WARNE DR
WARNE DR
WARNE DR
OLD AERODROME RD
WARNETON RD
OLD AERODROME RD
WARNETON RD
WARNETON RD
WARNETON RD
MANX ST
MANX ST
GARD LANE
ALDAVILLA RD
OLD AERODROME RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
ALDAVILLA RD
NELSONS WHARF RD
NELSONS WHARF RD
Flood Hazard
H1 (D*V ≤ 0.3, D<= 0.3 , V<2.0)
H2 (D*V ≤ 0.6, D<0.5, V ≤2.0)
H3 (D*V ≤ 0.6, D<1.2, V≤2.0)
H4 (D*V ≤ 1, D<2, V≤2.0)
H5 (D*V ≤ 4.0, D<4, V≤4)
H6 (D*V > 4.0)