

To: Michael McErlean

From: Helen Doherty

Company: North Harbour

SLR Consulting Australia Pty Ltd

cc:

Date: 23 March 2026

Project No. 620.30047.00304

**RE: North Harbour Area 1 Precinct
Flood Impact Assessment**

Confidentiality

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1.0 INTRODUCTION

A Flood Management Plan (FMP) has been prepared for the assessment of the Area 1 precinct (SLR, 2025). The FMP was prepared in accordance with Moreton Bay Council requirements and adopted the 2012 TUFLOW model which was current at the time of the preparation of the FMP. Council has since updated the TUFLOW model. Council were contacted regarding the updated model and have stated that whilst the updated model has not yet been adopted by Council for general use, it is Council's preference for this model to be adopted for future assessment of the North Harbour PDA. The assessment of the impacts of the Area 1 development have therefore been reassessed using Council's updated model. This memo presents the results of that assessment.

The Area 1 precinct is located east of the existing North Harbour development, north of Parry Road, as shown on Figure 1.

North Harbour Area 1 Precinct Flood Impact Assessment

Locality Plan

FIGURE 1

LEGEND

-  PDA Boundary
-  North Harbour Boundary
-  Area 1 Extent



00.06 12 18 24 km



Coordinate System: GDA94 MGA zone 56

Scale: 1:25000 at A4

Project Number: 620-BNE16

Date: 23-Mar-2026

Drawn by: HD



2.0 COUNCIL TUFLOW MODEL

Council's TUFLOW model was provided for the assessment of flooding at the North Harbour PDA. The model provided is v003a and was developed in 2022.

Since Council's model was developed, upgrades to the TUFLOW software have occurred. In the 2023-03 release, TUFLOW started supporting the use of tif files for rasters. Tif files are faster and use significantly less data than ascii or flt files. The most recent version of TUFLOW has therefore been adopted for the assessment of the PDA (including Area 1).

Upon receiving Council's updated model, SLR attempted an analysis using the most recent version of TUFLOW. This resulted in a number of errors which prevented the model from running. Changes to Council's model were therefore required.

Changes to the model were also required to appropriately model the existing North Harbour development. Council's model did not include structures or all approved infrastructure for the North Harbour development.

Finally, in order to reduce run times, initial runs were tested using a 10 metre grid (Council's model uses a 5 metre grid). The change to the grid size necessitated further changes to the model.

The changes are listed in Table 1.

In order to confirm that the changes did not impact on results, flood levels for the 1% AEP, 720 minute event were compared with those from Council's model. The results of this comparison are shown on Figure 2.



Table 1 TUFLOW Model Modifications

Reason for change	Change	Comments
Change to most recent version of TUFLOW	2d_lfcsh_Fauna and Guard rails removed	TUFLOW no longer allows 2 layered flow constriction (lfcsh) lines in the same cell. All of the lfcsh removed were remote from the site.
	Reporting lines removed	Duplicate names not allowed. Reporting lines not relevant to PDA site.
	PO lines fixed	TUFLOW no longer allows the reporting of H (water level) for PO lines.
Change 5 metre grid to 10 metre grid	Remove Gregor Road zsh	Error – could not tin. This area is a long way from the site and unlikely to have any impact
	Remove three lfcsh that were too close to another one	All lines removed occurred at structures with separate bridges for north and southbound. The bridge with the greater impact on flood levels was retained.
Incorporate North Harbour development	Remove 2d_zsh_NorthHarbourEdits	Replace with correct information (culverts)
Miscellaneous	Amend height of culvert 001_04464a	Height is in model as 21.0. Should be 2.1.

North Harbour Area 1 Precinct Flood Impact Assessment

Impact of Model Changes

FIGURE 2

LEGEND

-  PDA Boundary
-  North Harbour Boundary

dh_E001_Council_00100Y

Band 1 (Gray)

-  ≤ -0.1000
-  $-0.1000 - -0.0500$
-  $-0.0500 - -0.0200$
-  $-0.0200 - 0.0200$
-  $0.0200 - 0.0500$
-  $0.0500 - 0.1000$
-  > 0.1000



00.00 06.12 18.24 km



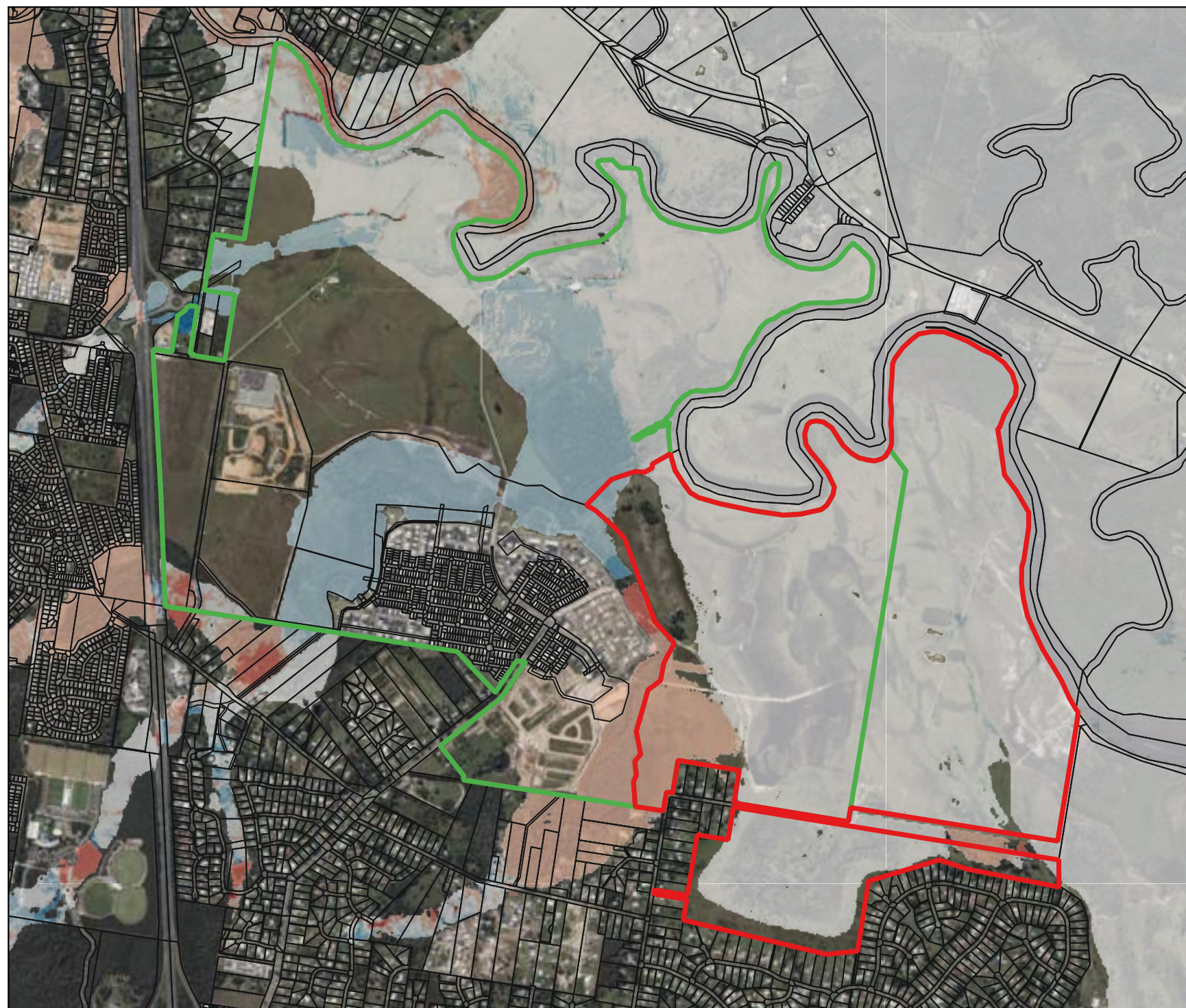
Coordinate System: GDA94 MGA zone 56

Scale: 1:25000 at A4

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Drawn by: HD



3.0 FLOODING ASSESSMENT

In order to incorporate the Area 1 precinct into the model, the following changes were made to the TUFLOW model:

- Add DEM provided by North Harbour. Ground levels prior to and post development are shown on Figure 3 and Figure 4 respectively.
- Remove temporary crossing and associated culverts from east of proposed arterial road
- Add culverts to arterial road crossing
- Adjust Manning's n

The model was then analysed for the events provided by Council.

Flood mapping attached shows the flood level, depth, velocity and hazard, along with the flood level impacts and velocity impacts. Hazard impacts have not been included as there were no discernible impacts. It is noted that impacts were determined by comparing conditions for the approved development (which includes the residential west area, MIBA and the sports fields) with the results including Area 1. That is, the impacts show the impacts of the development of Area 1 only. The previous assessment, as report in the FMP v9 compared results with conditions prior to any development at the North Harbour site.

The mapping shows that the development of the Area 1 precinct results in a minor reduction in flood level in the tributary west of Area 1. This is due to the removal of the low flow crossing east of the proposed arterial, with large culverts under the proposed arterial. The change in flood level results in minimal change in velocity.

Hazard impact mapping has not been included as there were no changes in hazard categories.



North Harbour Area 1 Precinct Flood Impact Assessment

Existing Site Topography

FIGURE 3

LEGEND

-  PDA Boundary
-  North Harbour Boundary

Ground Levels (mAHD)

-  10
-  -6.639391

Contours

-  0.5 metre



00.06 12 18 24 km



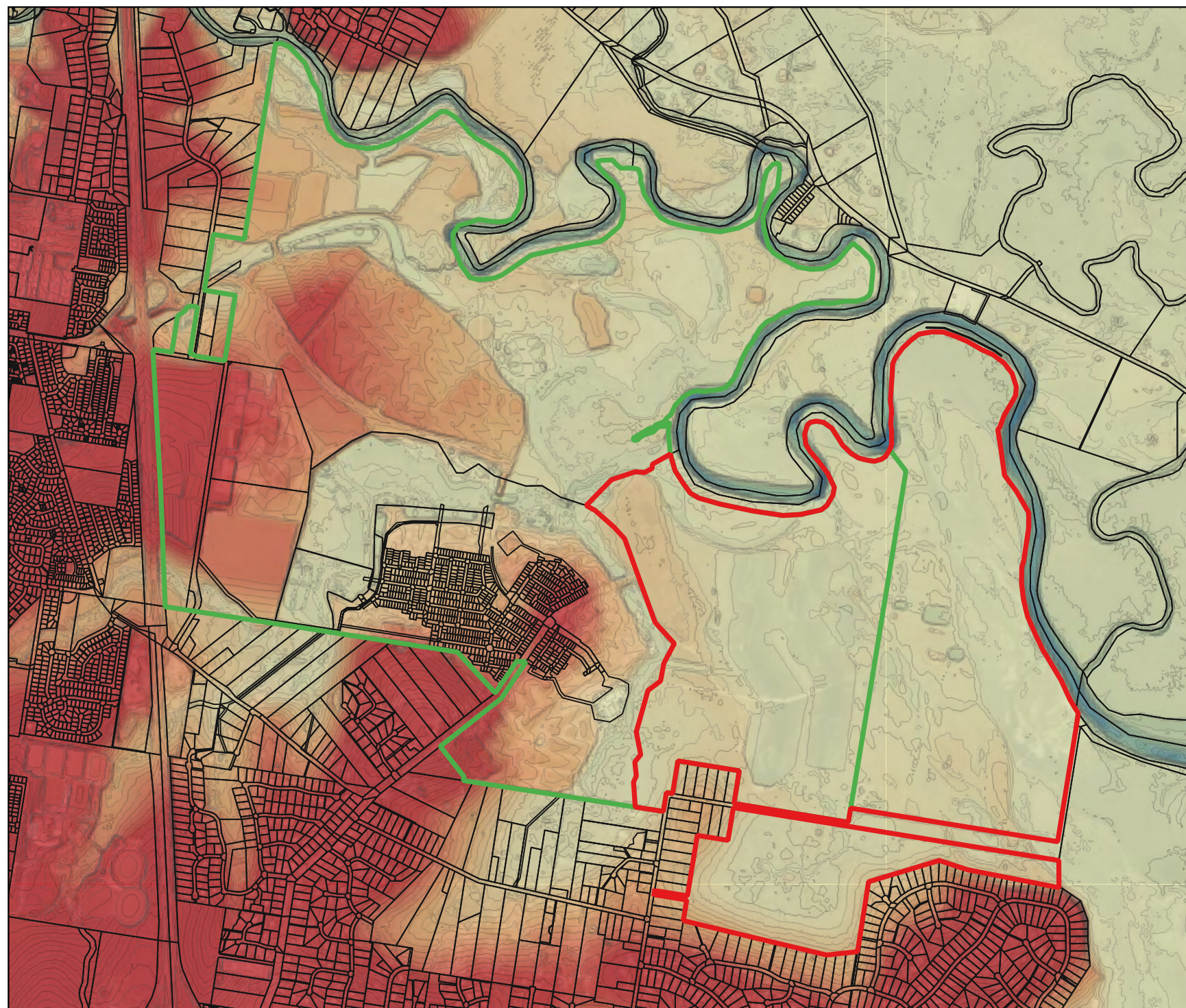
Coordinate System: GDA94 MGA zone 56

Scale: 1:25000 at A4

Project Number: 620-BNE16

Date: 23-Mar-2026

Drawn by: HD



North Harbour Area 1 Precinct Flood Impact Assessment

Site Topography including Area 1

FIGURE 4

LEGEND

-  PDA Boundary
-  North Harbour Boundary

Ground Levels (mAHD)

-  10
-  -6.639391

Contours

-  0.5 metre



00.06 12 18 24 km



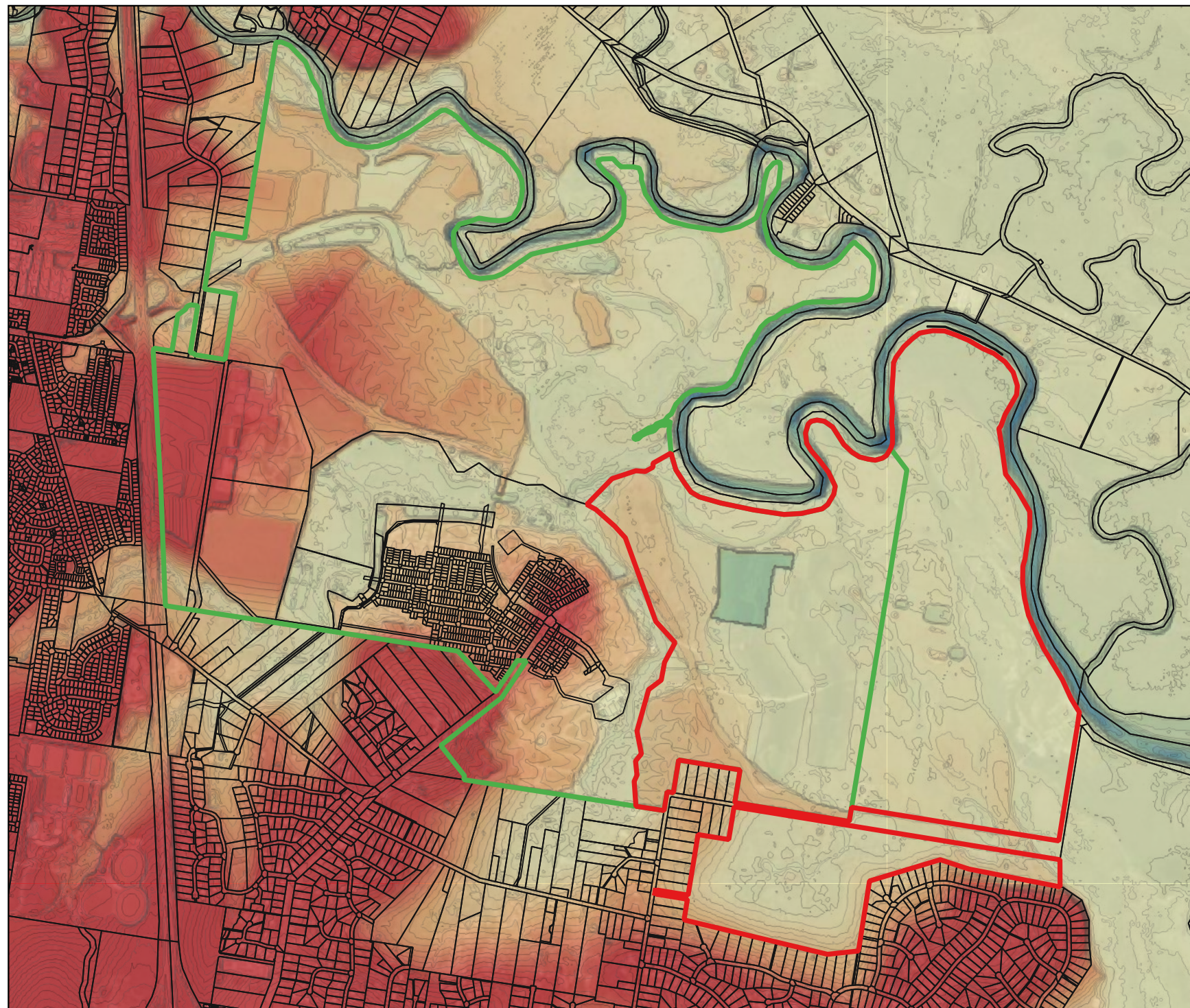
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Scale: 1:25000 at A4

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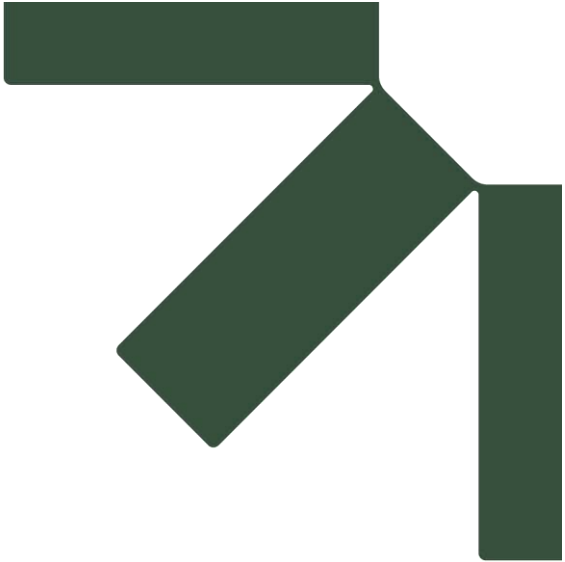
Drawn by: HD



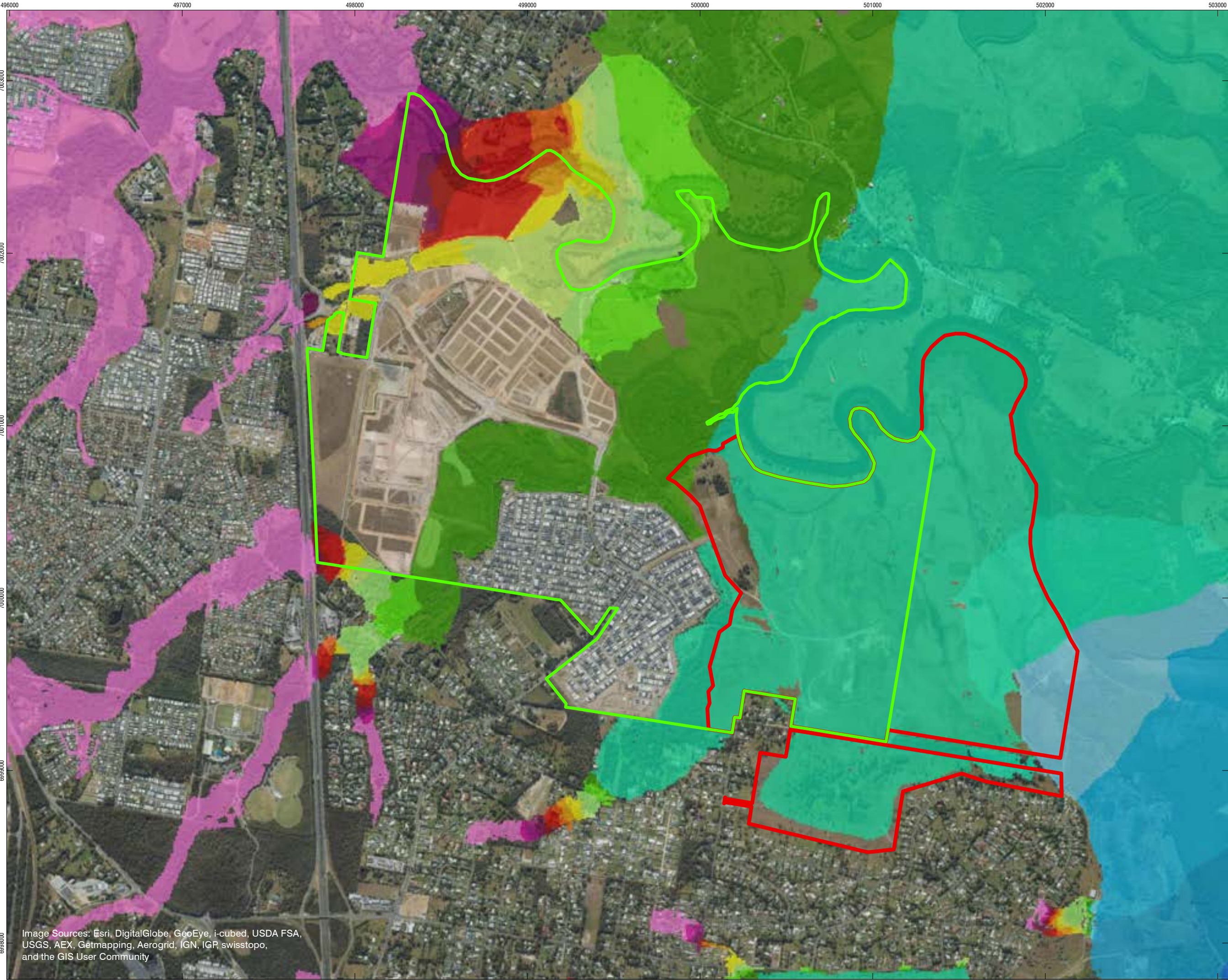
4.0 CONCLUSIONS

The previously conducted flood impact assessment for the Area 1 precinct has been repeated using Council's updated TUFLOW model. The assessment has demonstrated that the development of the Area 1 precinct will not result in any unacceptable impacts to flood level, velocity or hazard.





Appendix A Flood Mapping – Pre Development



North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Levels - 1 % AEP

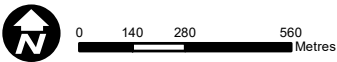
APPENDIX A1-1

Legend

- North Harbour Boundary
- PDA Boundary

Level (m AHD)

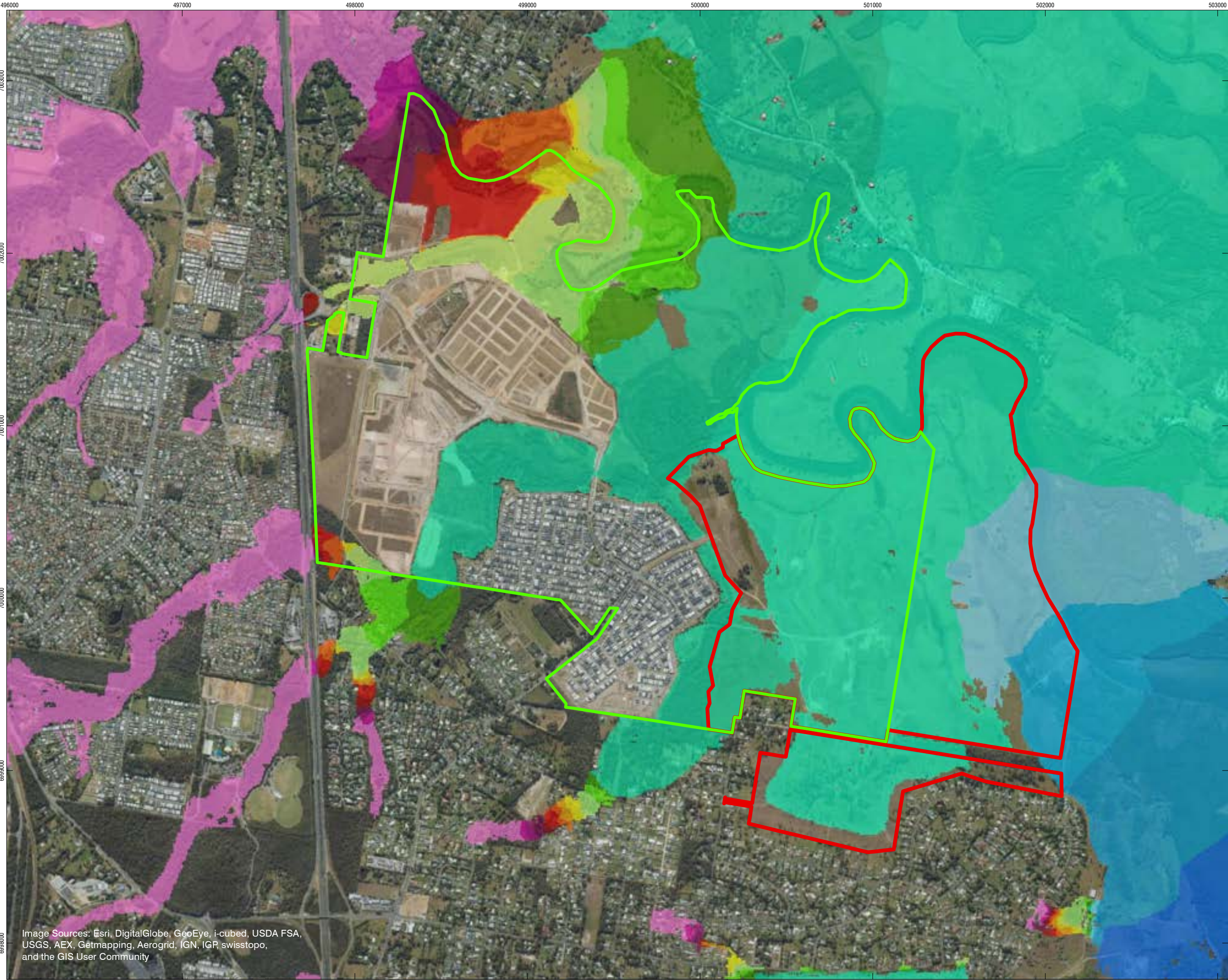
- Below 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

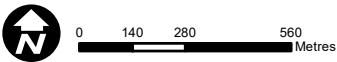
Pre Development Scenario (A001)
Peak Flood Levels - 2% AEP

APPENDIX A1-2

- Legend
- North Harbour Boundary
 - PDA Boundary

Level (m AHD)

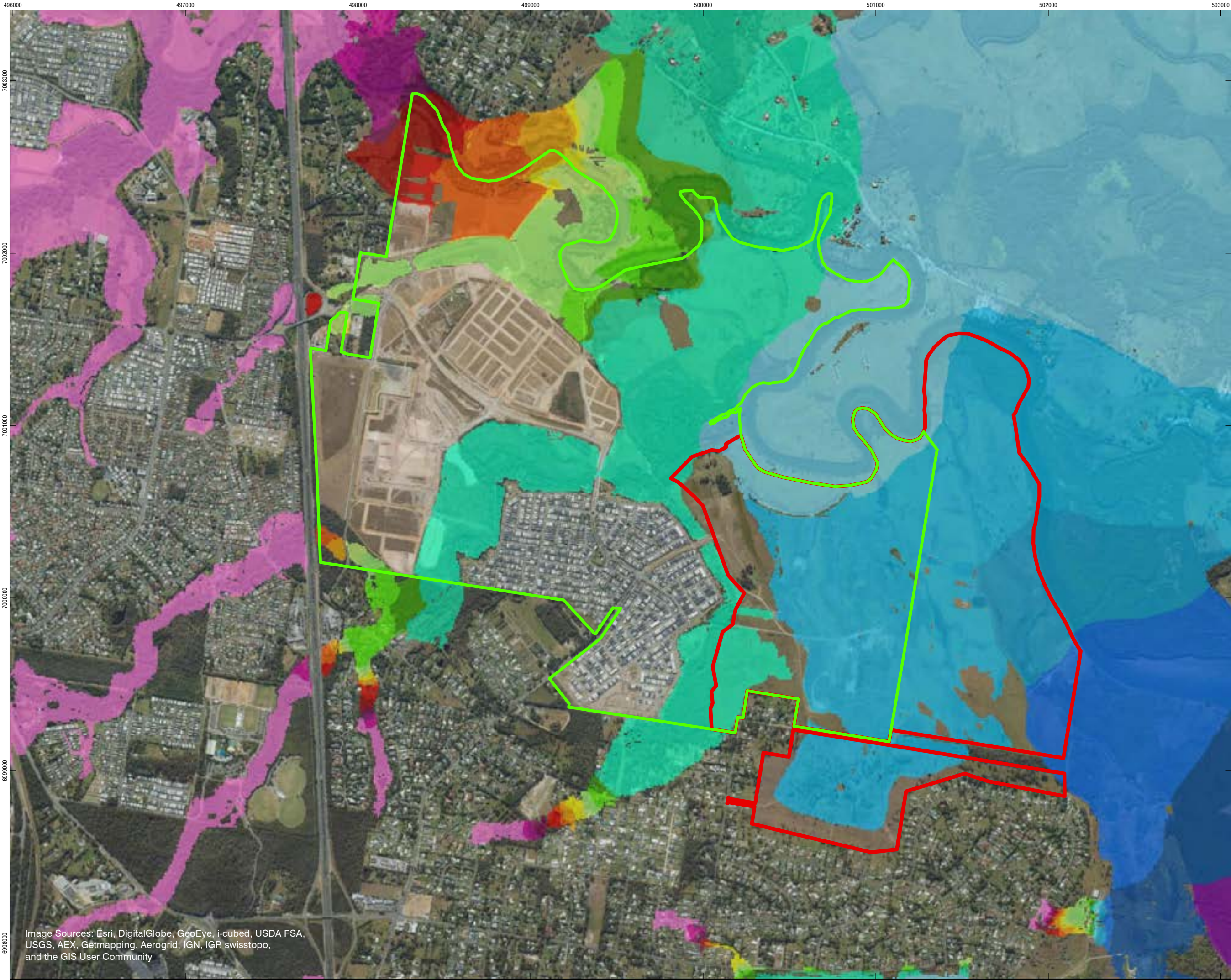
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- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



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North Harbour Area 1 Precinct
Flood Impact Assessment

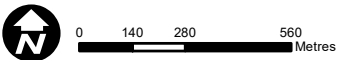
Pre Development Scenario (A001)
Peak Flood Levels - 5% AEP

APPENDIX A1-3

- Legend
- North Harbour Boundary
 - PDA Boundary

Level (m AHD)

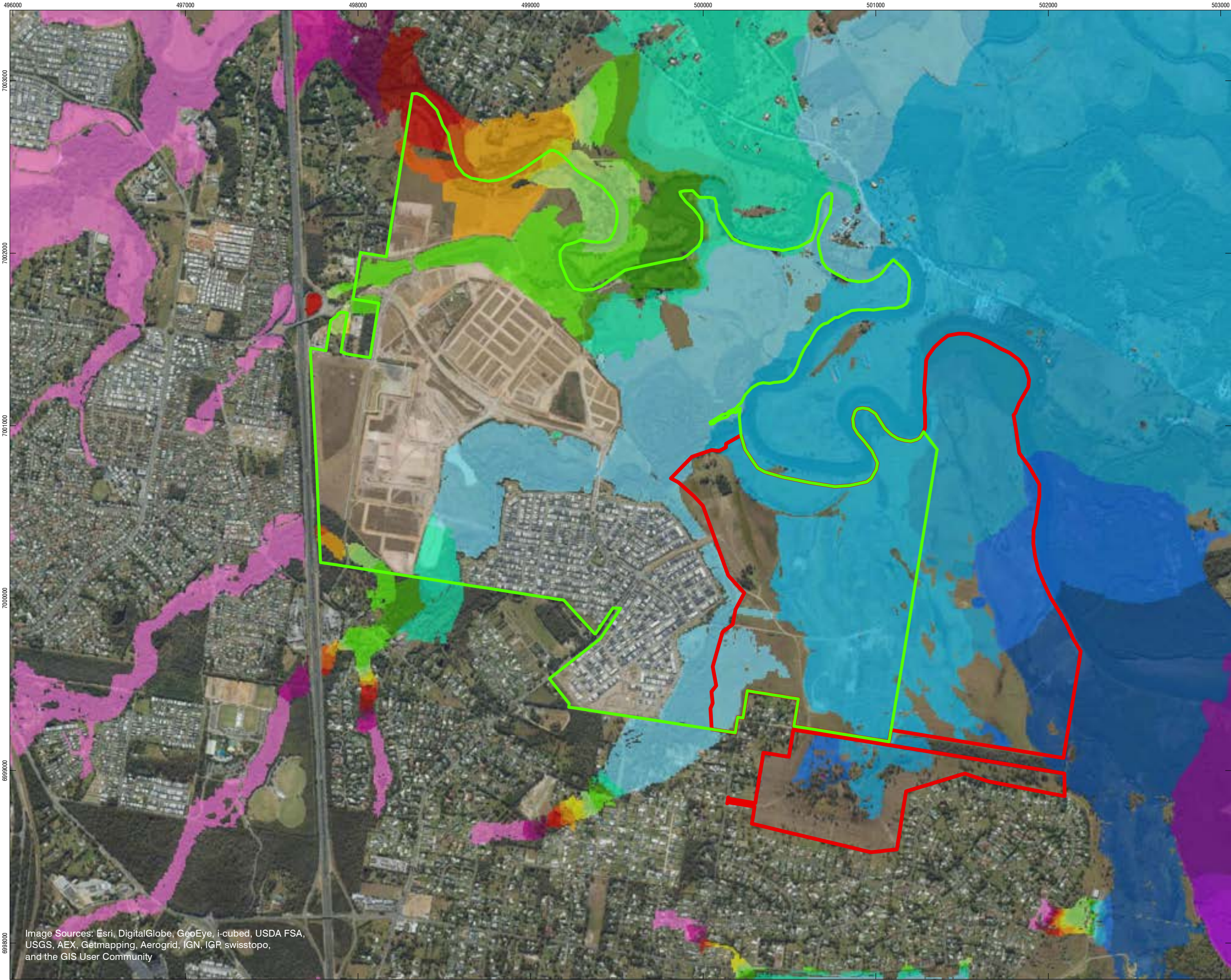
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- 2.00 to 2.25
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- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System:	GDA 1994 MGA Zone 56
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North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Levels - 10% AEP

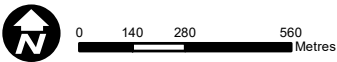
APPENDIX A1-4

Legend

- North Harbour Boundary
- PDA Boundary

Level (m AHD)

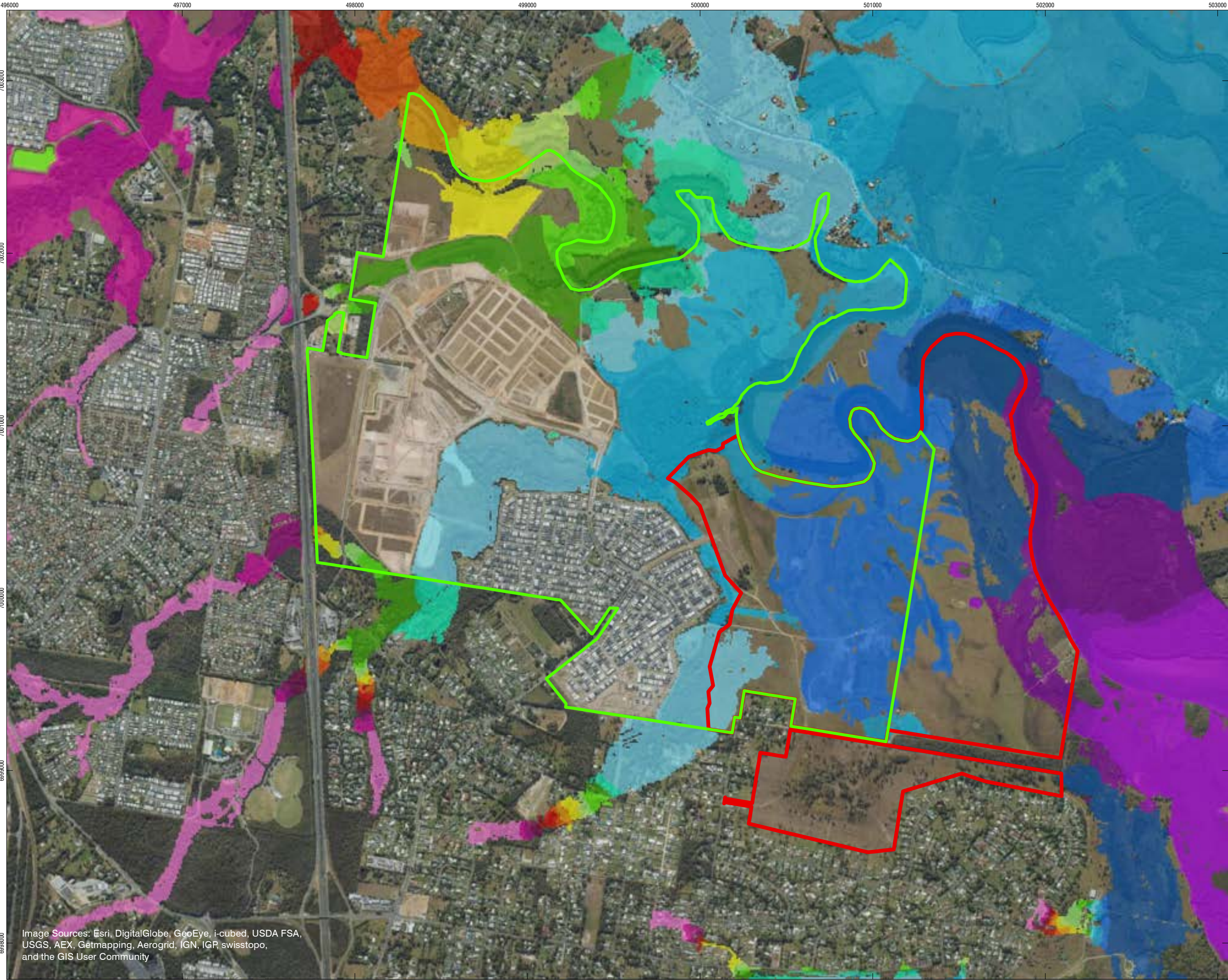
- Below 1.00
- 1.00 to 1.25
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- 1.50 to 1.75
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- 2.00 to 2.25
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- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
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North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Levels - 20% AEP

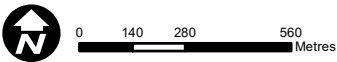
APPENDIX A1-5

Legend

- North Harbour Boundary
- PDA Boundary

Level (m AHD)

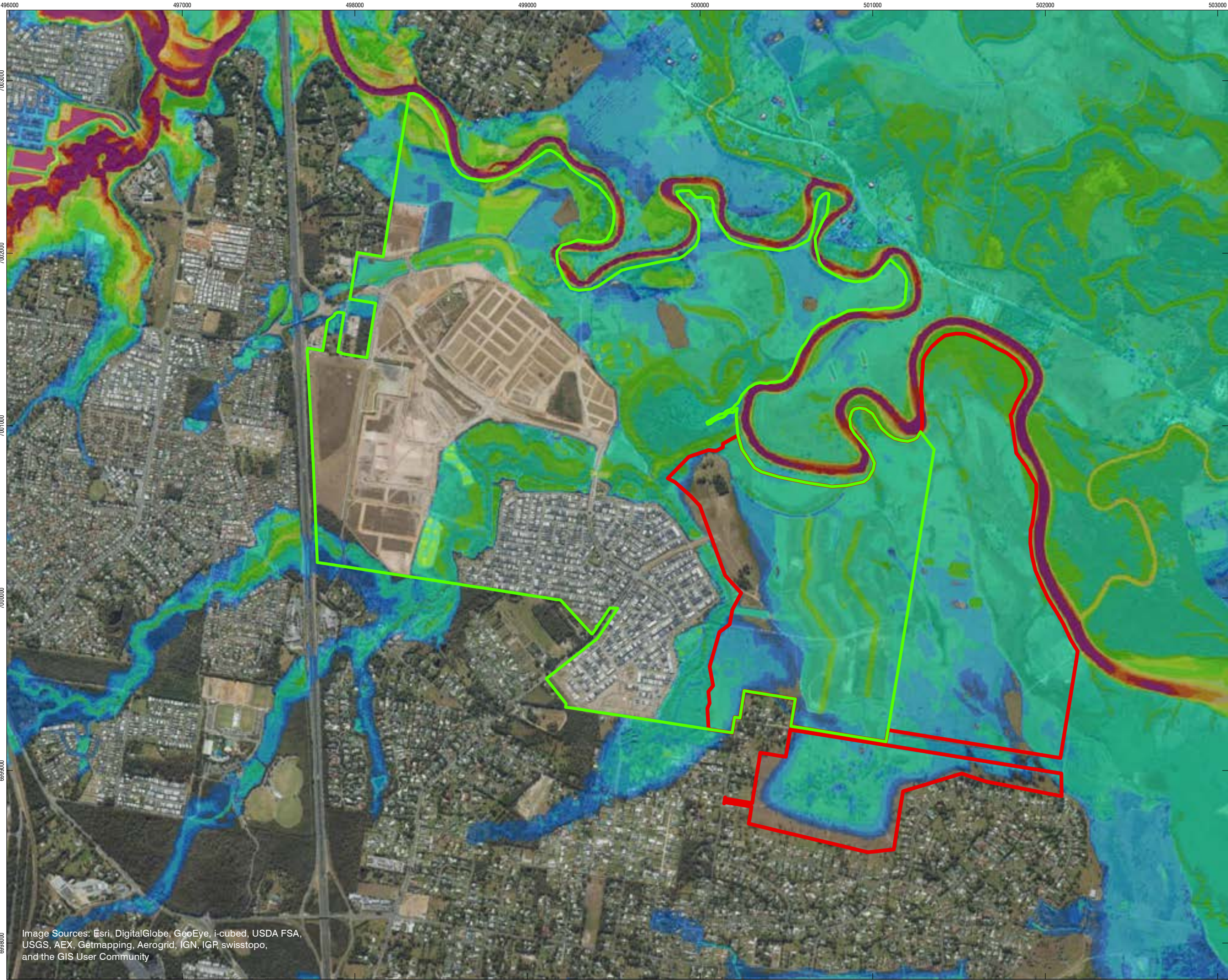
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- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System: GDA 1994 MGA Zone 56
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Project Number: 620.30047.00304
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North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Depths - 1 % AEP

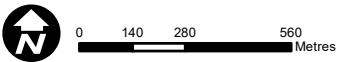
APPENDIX A2-1

Legend

- North Harbour Boundary
- PDA Boundary

Depth (m)

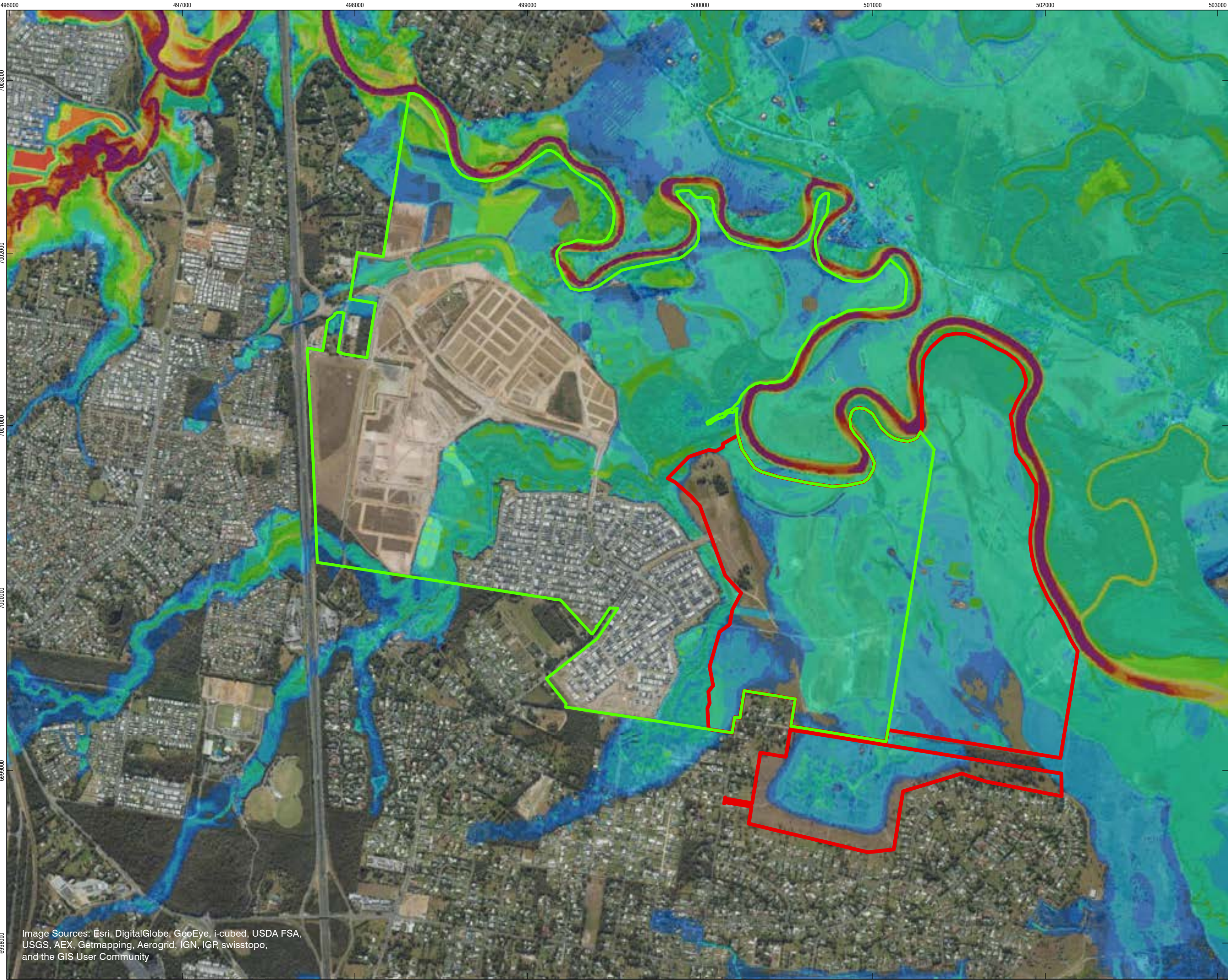
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- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System:	GDA 1994 MGA Zone 56
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**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Pre Development Scenario (A001)
Peak Flood Depths - 2% AEP**

APPENDIX A2-2

Legend

- North Harbour Boundary
- PDA Boundary

Depth (m)

- 0.01 to 0.25
- 0.25 to 0.50
- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



0 140 280 560 Metres

Coordinate System: GDA 1994 MGA Zone 56

Scale: 1:20,000 at A3

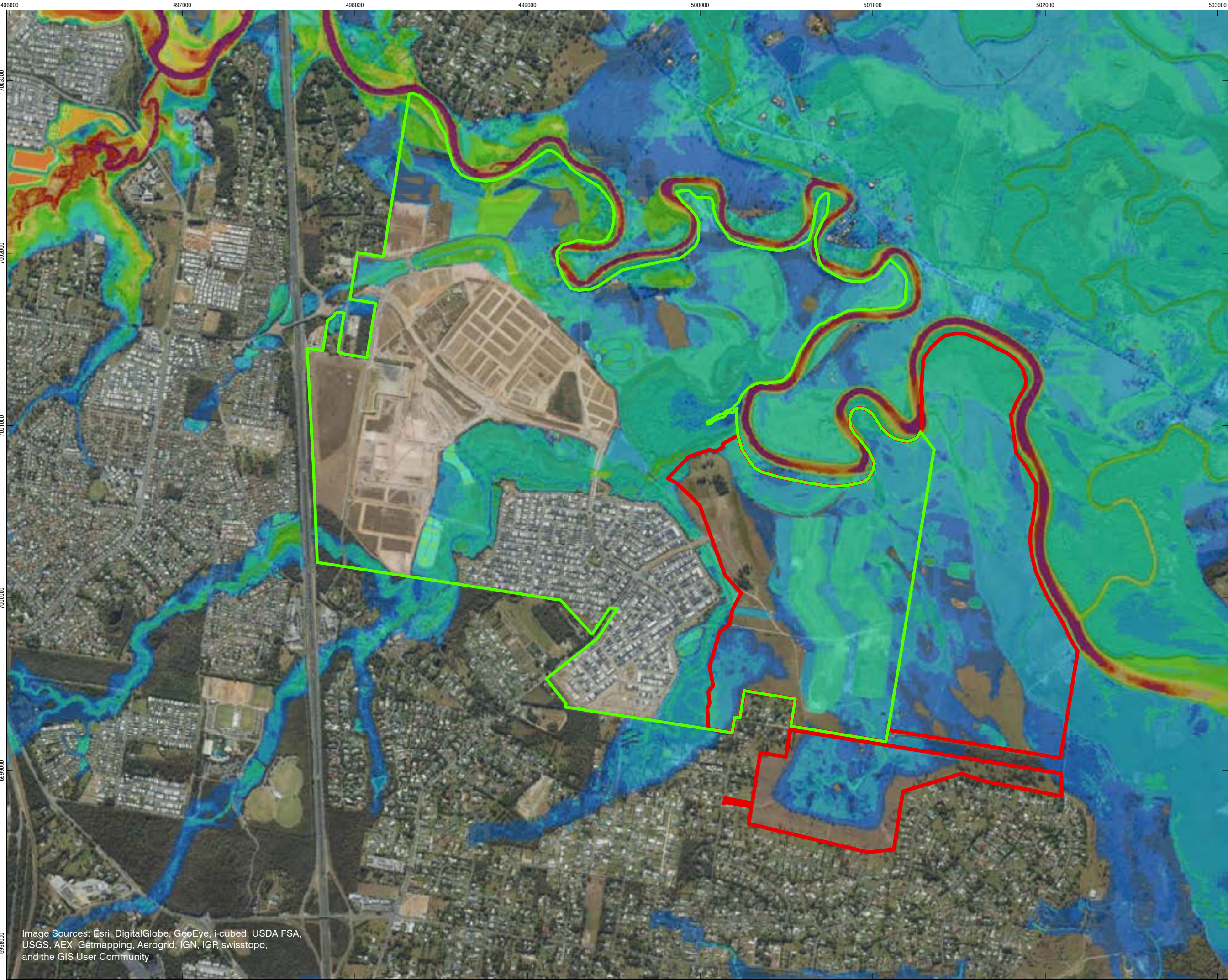
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Date: 23-Mar-2026

Drawn by: HD



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**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Pre Development Scenario (A001)
Peak Flood Depths - 5% AEP**

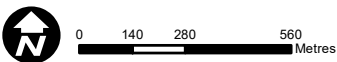
APPENDIX A2-3

Legend

- North Harbour Boundary
- PDA Boundary

Depth (m)

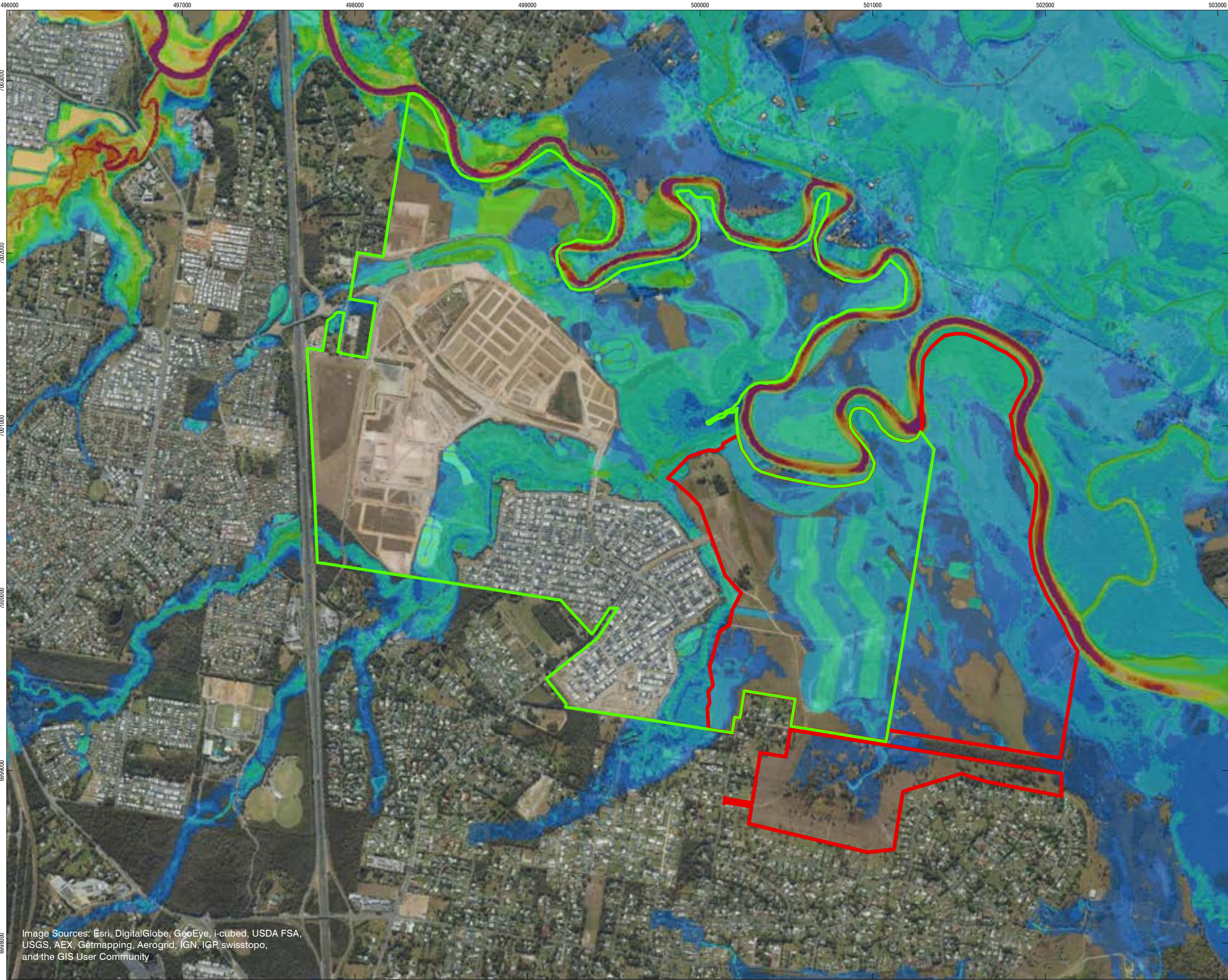
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- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System: GDA 1994 MGA Zone 56
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Project Number: 620.30047.00304
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North Harbour Area 1 Precinct
Flood Impact Assessment

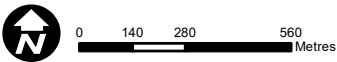
Pre Development Scenario (A001)
Peak Flood Depths - 10% AEP

APPENDIX A2-4

- Legend
- North Harbour Boundary
 - PDA Boundary

Depth (m)

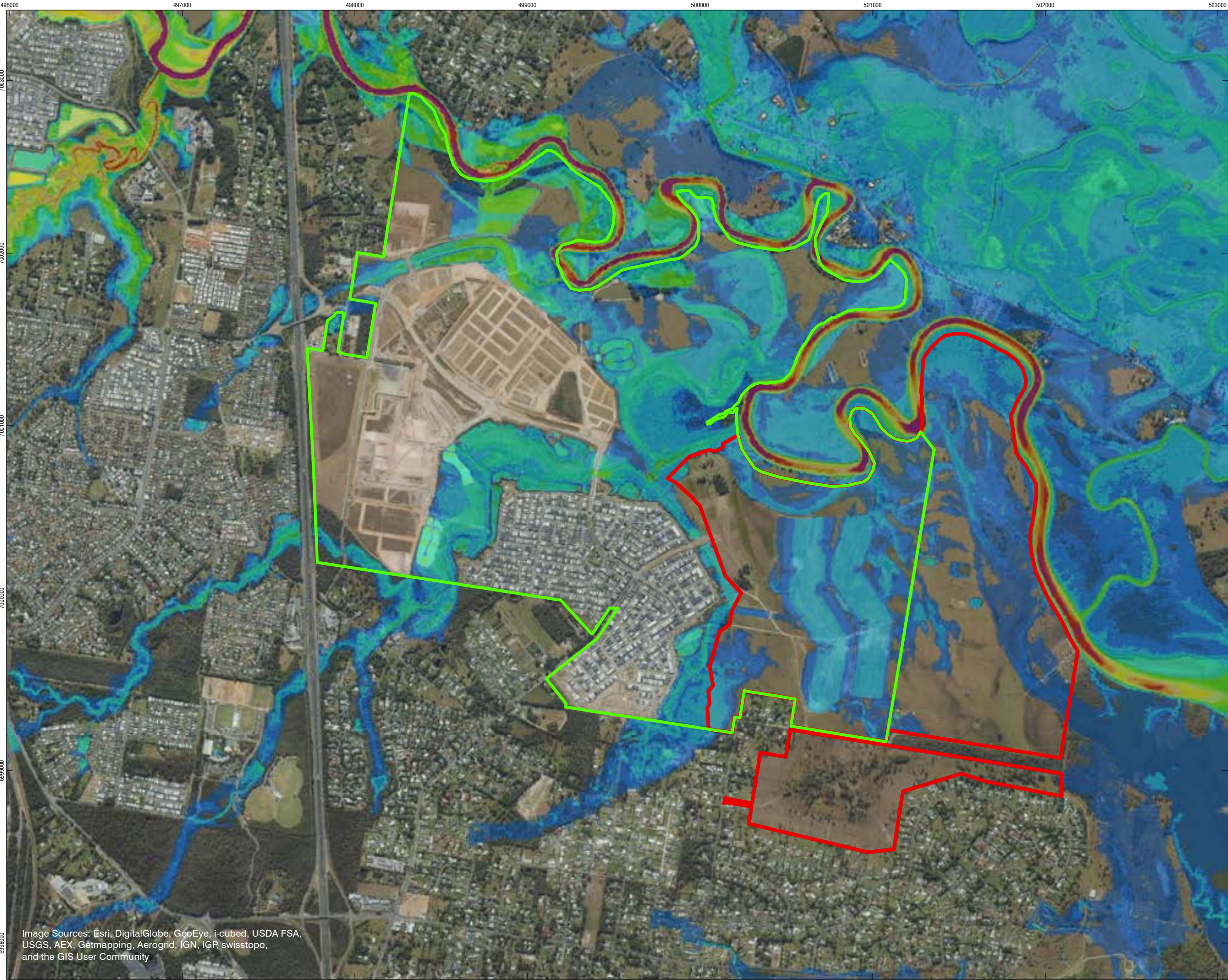
- 0.01 to 0.25
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- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System:	GDA 1994 MGA Zone 56
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**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Pre Development Scenario (A001)
Peak Flood Depths - 20% AEP**

APPENDIX A2-5

Legend

- North Harbour Boundary
- PDA Boundary

Depth (m)

- 0.01 to 0.25
- 0.25 to 0.50
- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



0 140 280 560 Metres

Coordinate System: GDA 1994 MGA Zone 56

Scale: 1:20,000 at A3

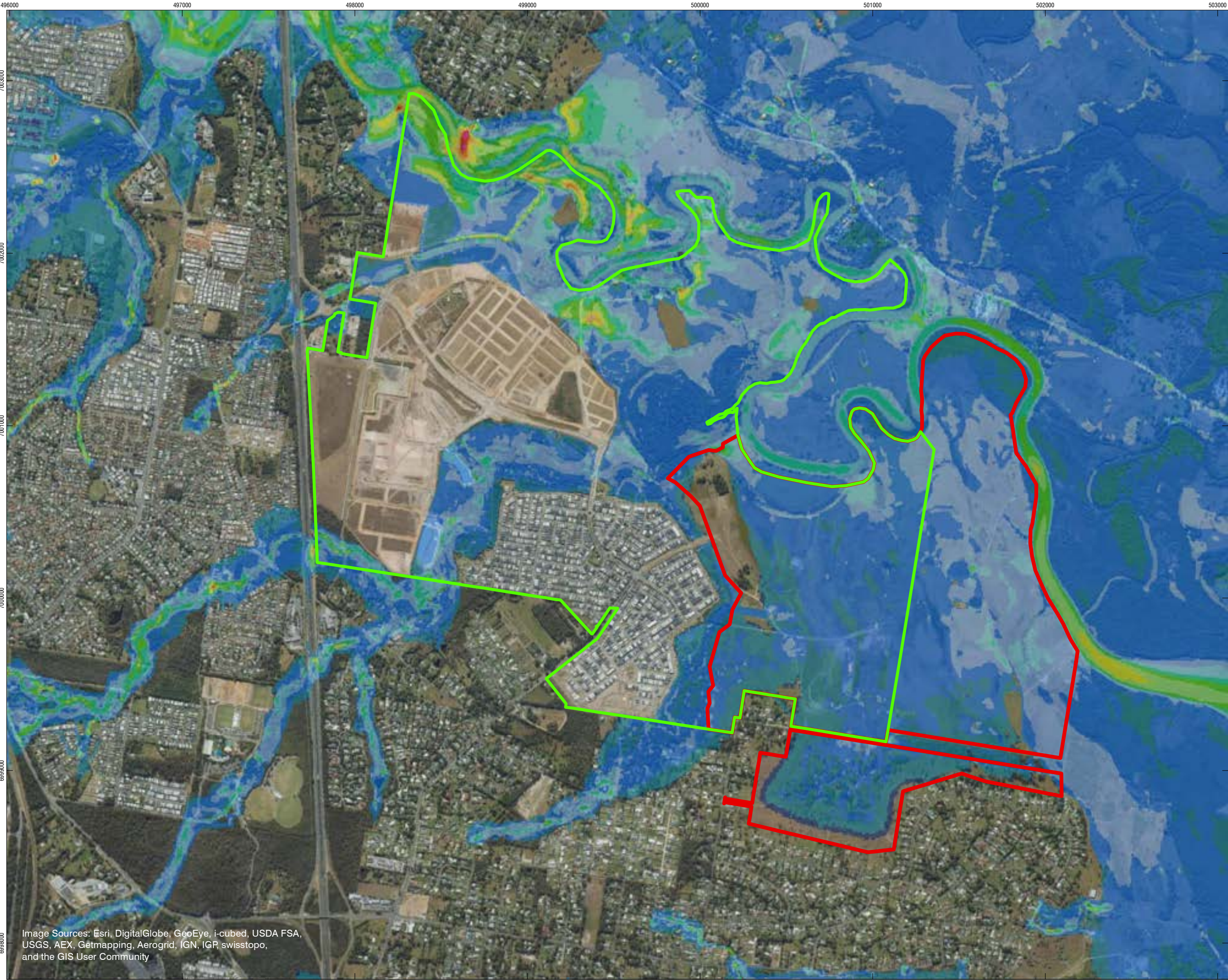
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North Harbour Area 1 Precinct
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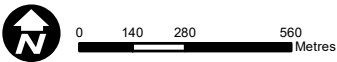
Pre Development Scenario (A001)
Peak Flood Velocities - 1 % AEP

APPENDIX A3-1

- Legend
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)

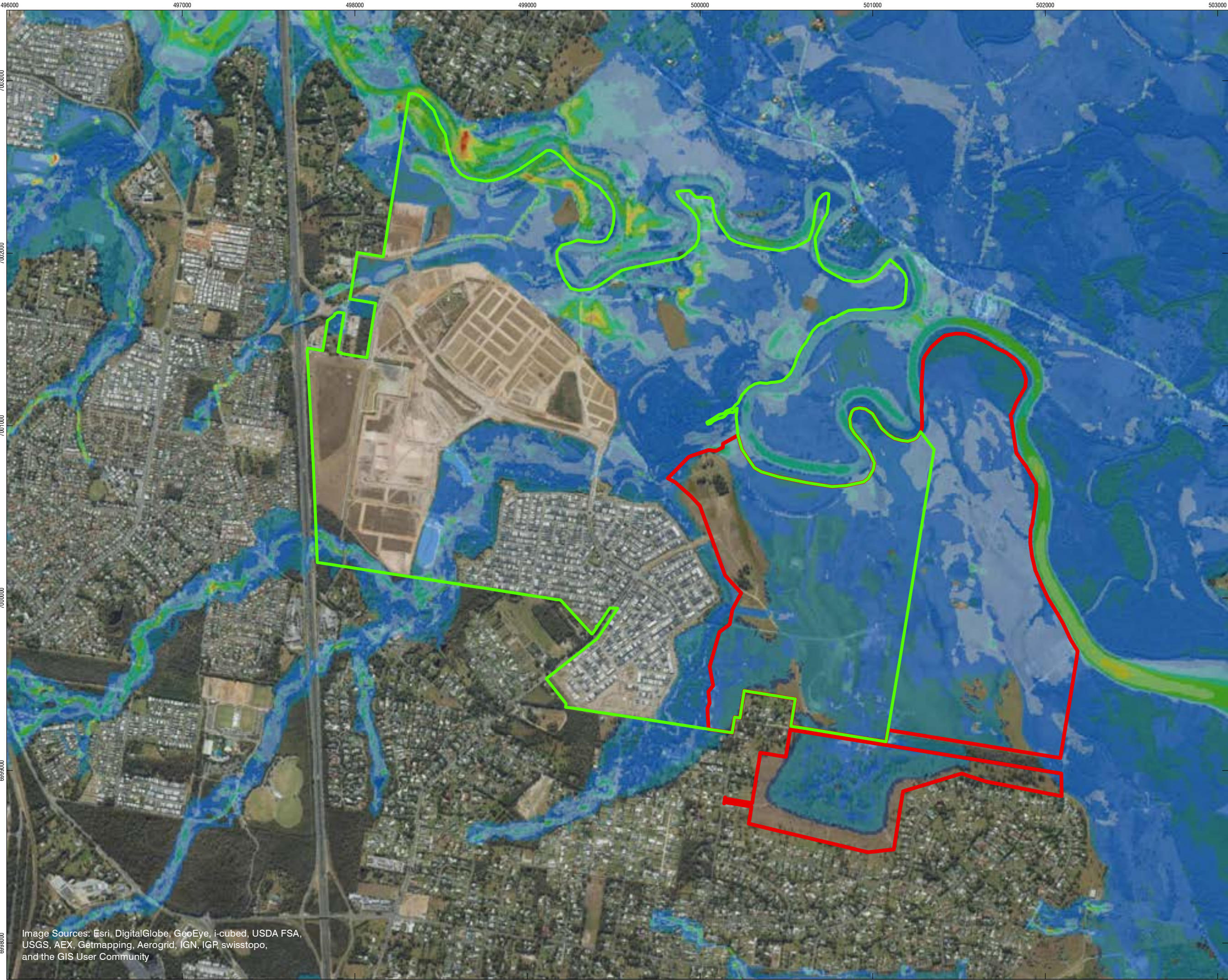
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



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North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Velocities - 2% AEP

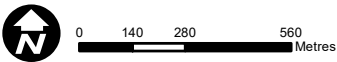
APPENDIX A3-2

Legend

- North Harbour Boundary
- PDA Boundary

Velocity (m/s)

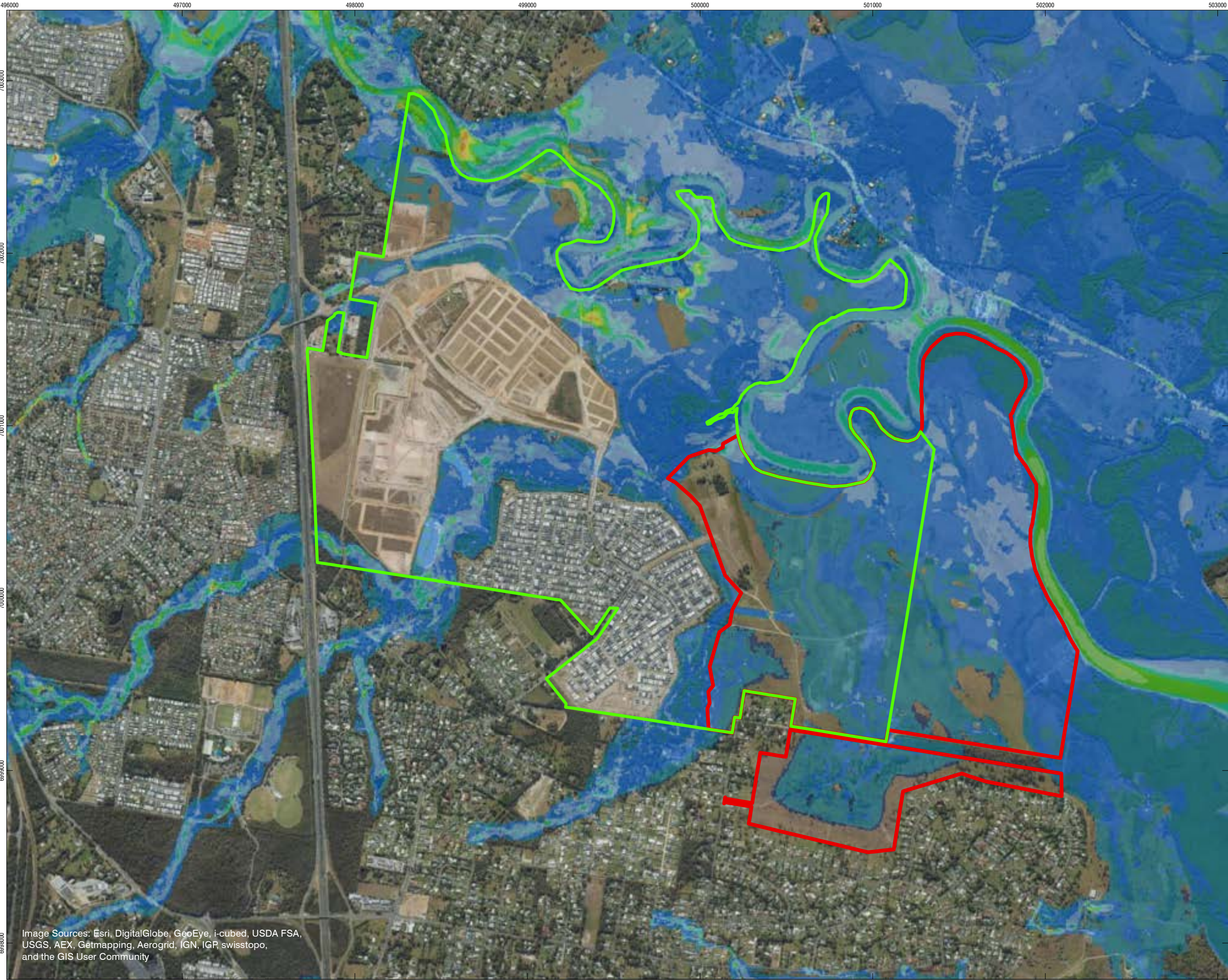
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Velocities - 5% AEP

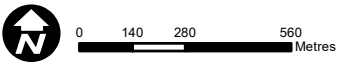
APPENDIX A3-3

Legend

- North Harbour Boundary
- PDA Boundary

Velocity (m/s)

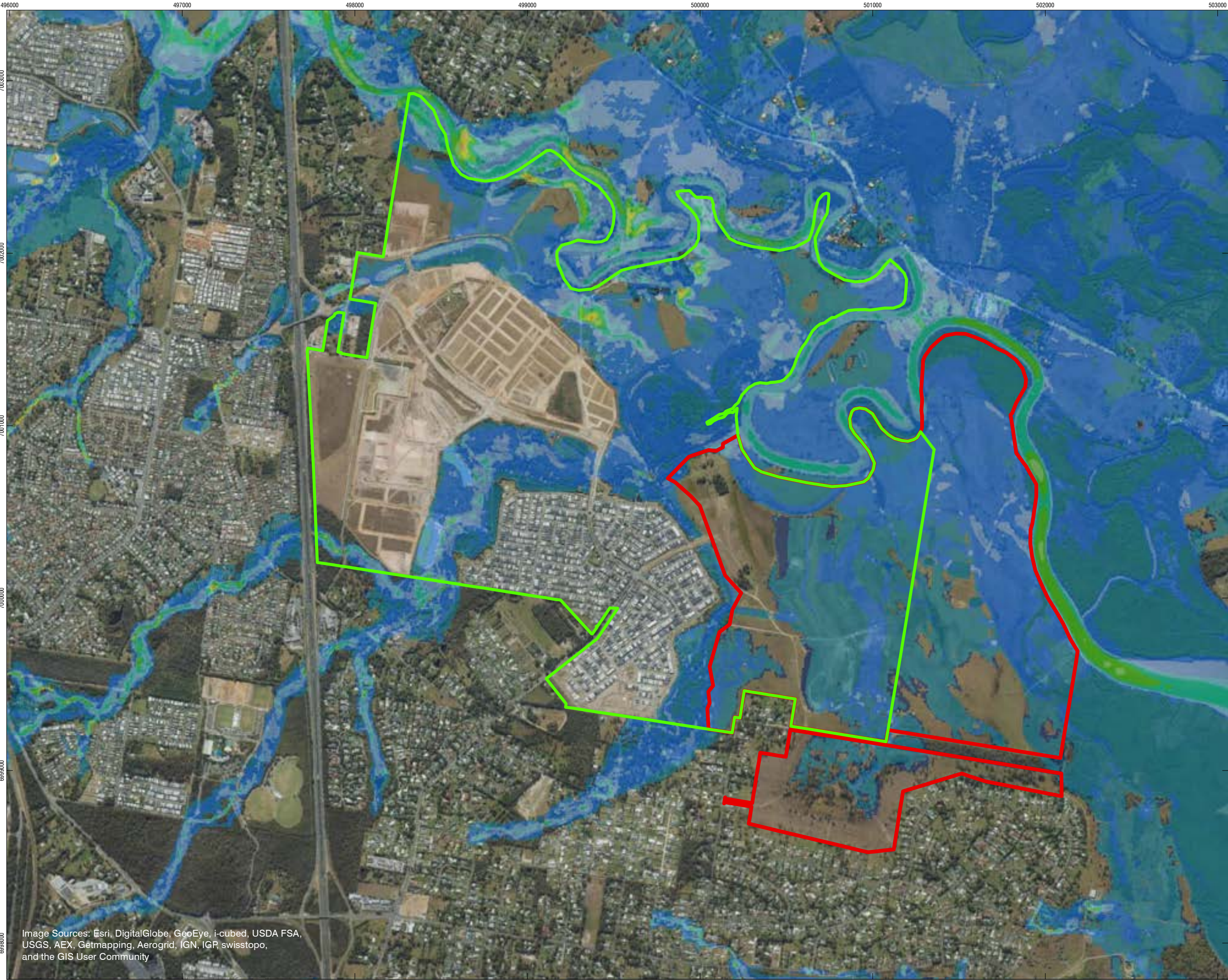
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

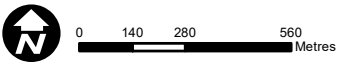
**Pre Development Scenario (A001)
Peak Flood Velocities - 10% AEP**

APPENDIX A3-4

- Legend**
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)

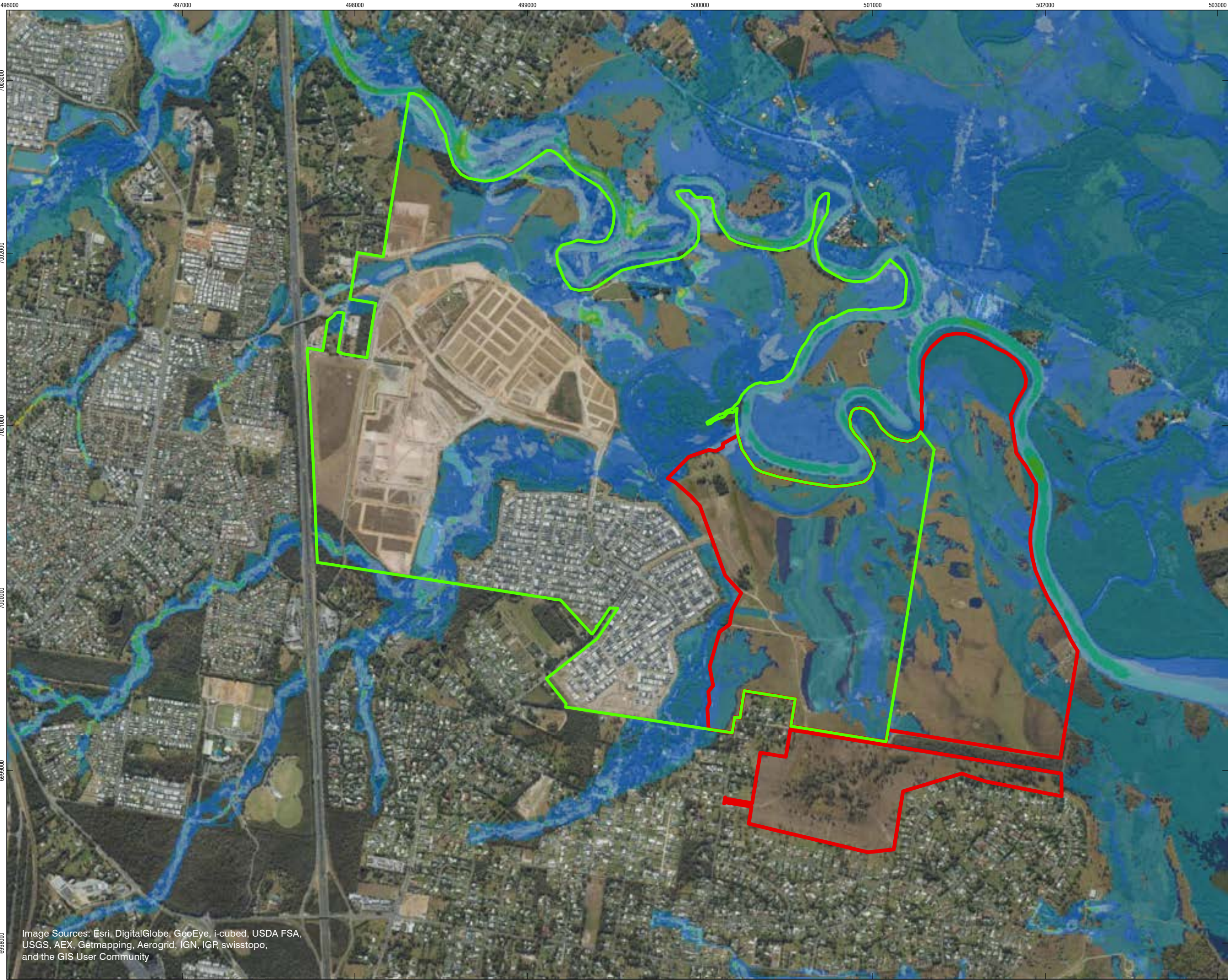
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

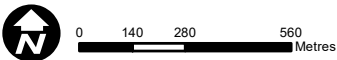
**Pre Development Scenario (A001)
Peak Flood Velocities - 20% AEP**

APPENDIX A3-5

- Legend**
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)

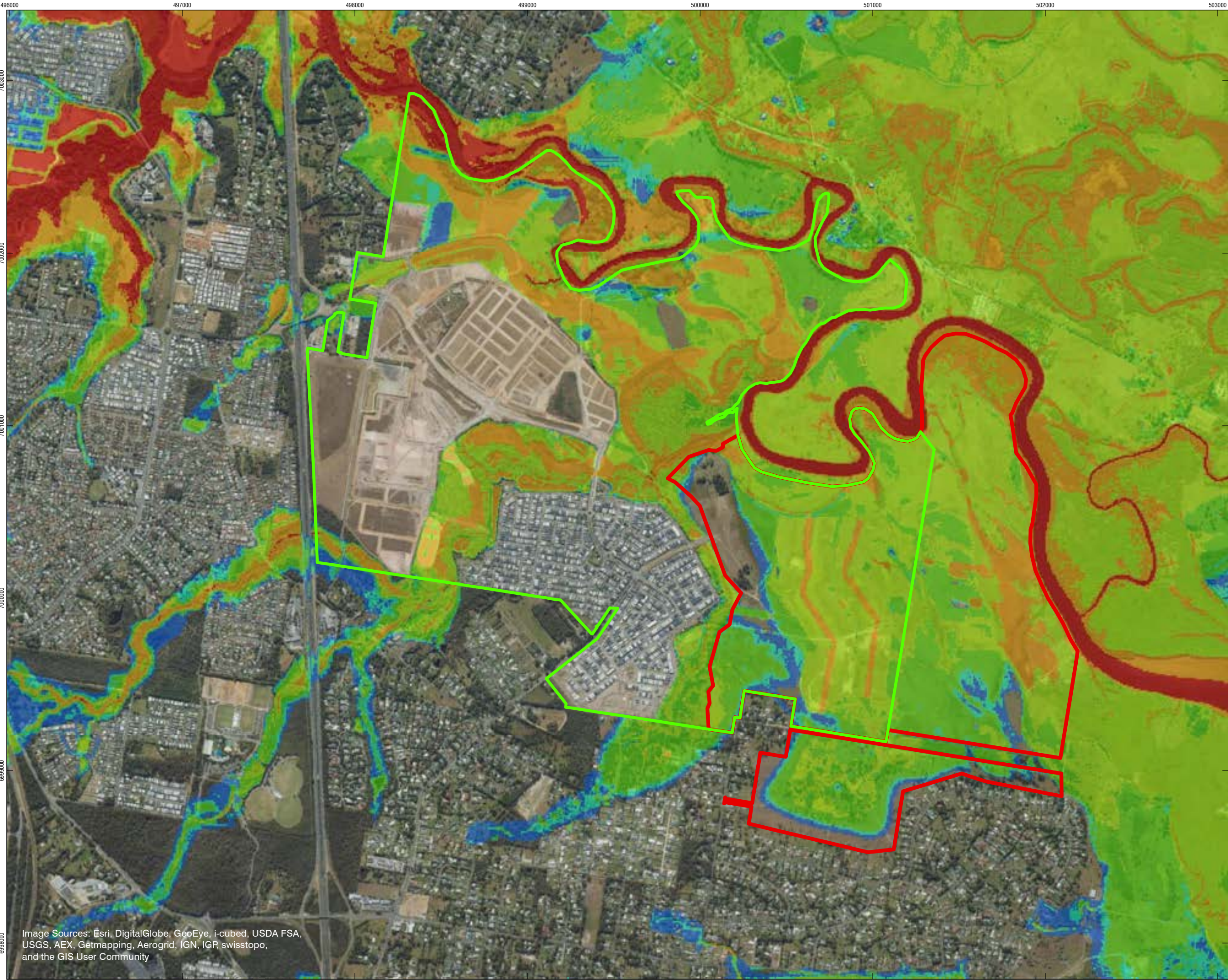
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Hazard - 1 % AEP

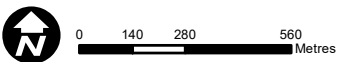
APPENDIX A4-1

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

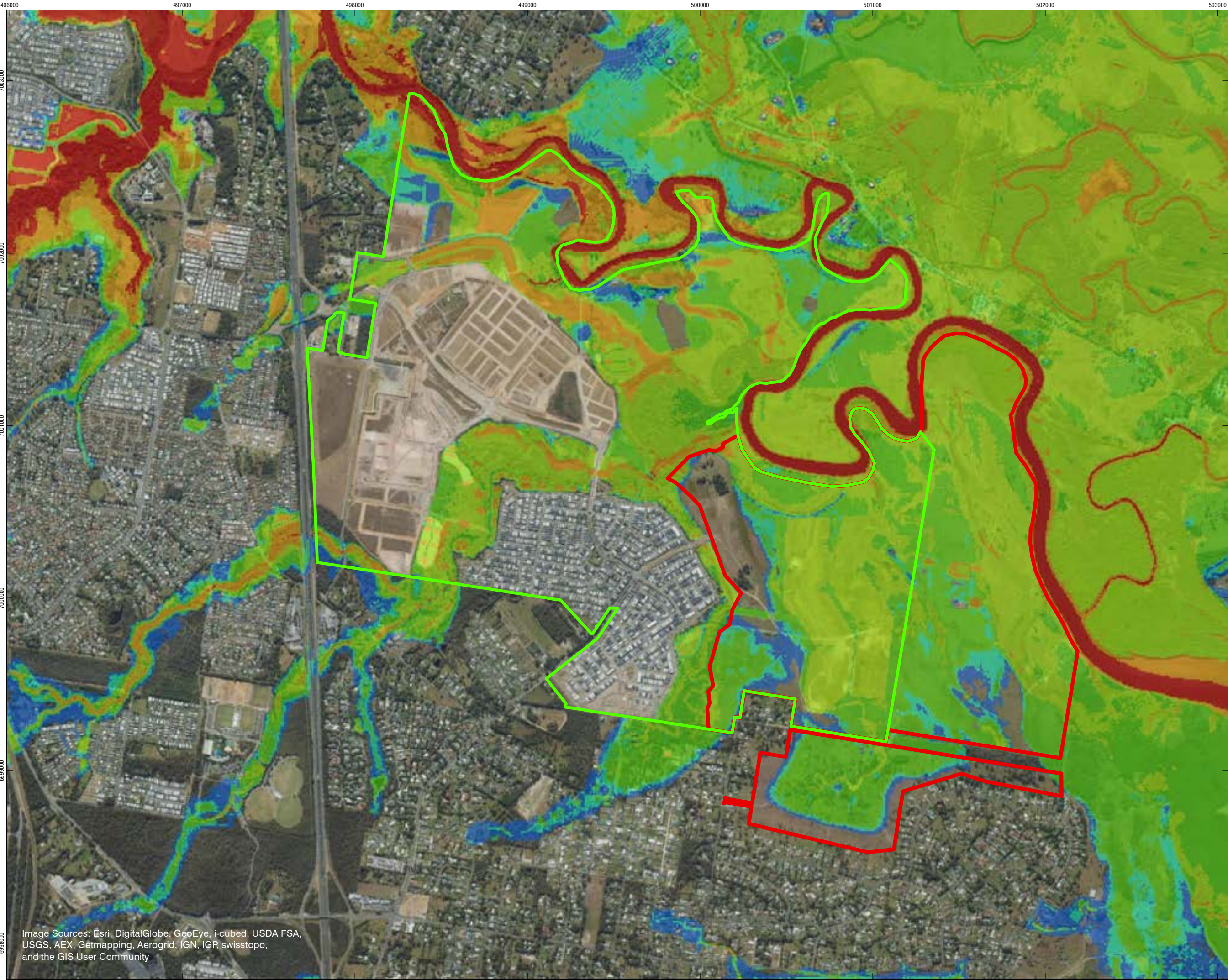
- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Hazard - 2% AEP

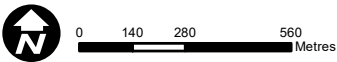
APPENDIX A4-2

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

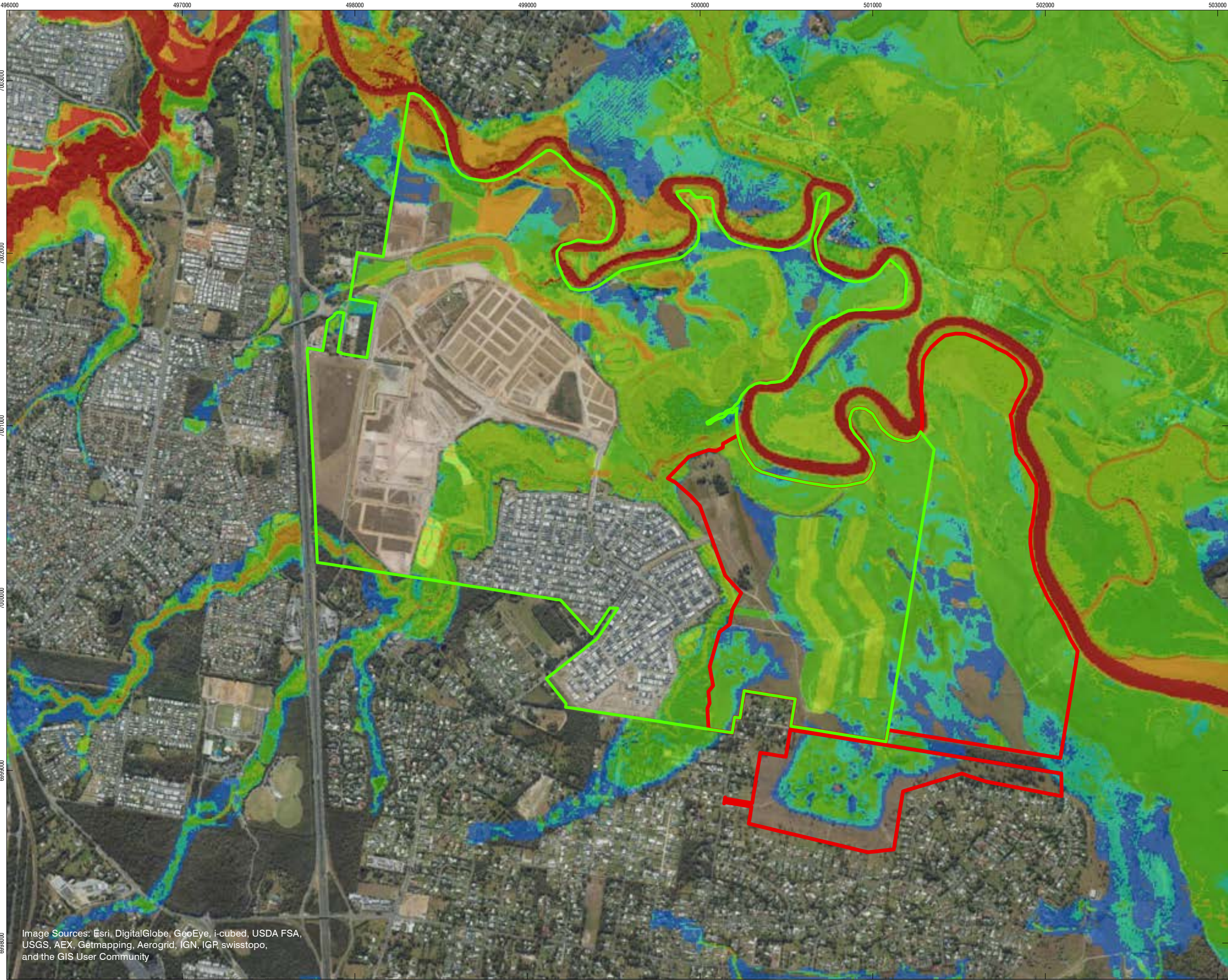
- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Hazard - 5% AEP

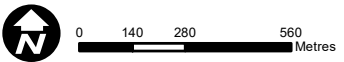
APPENDIX A4-3

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

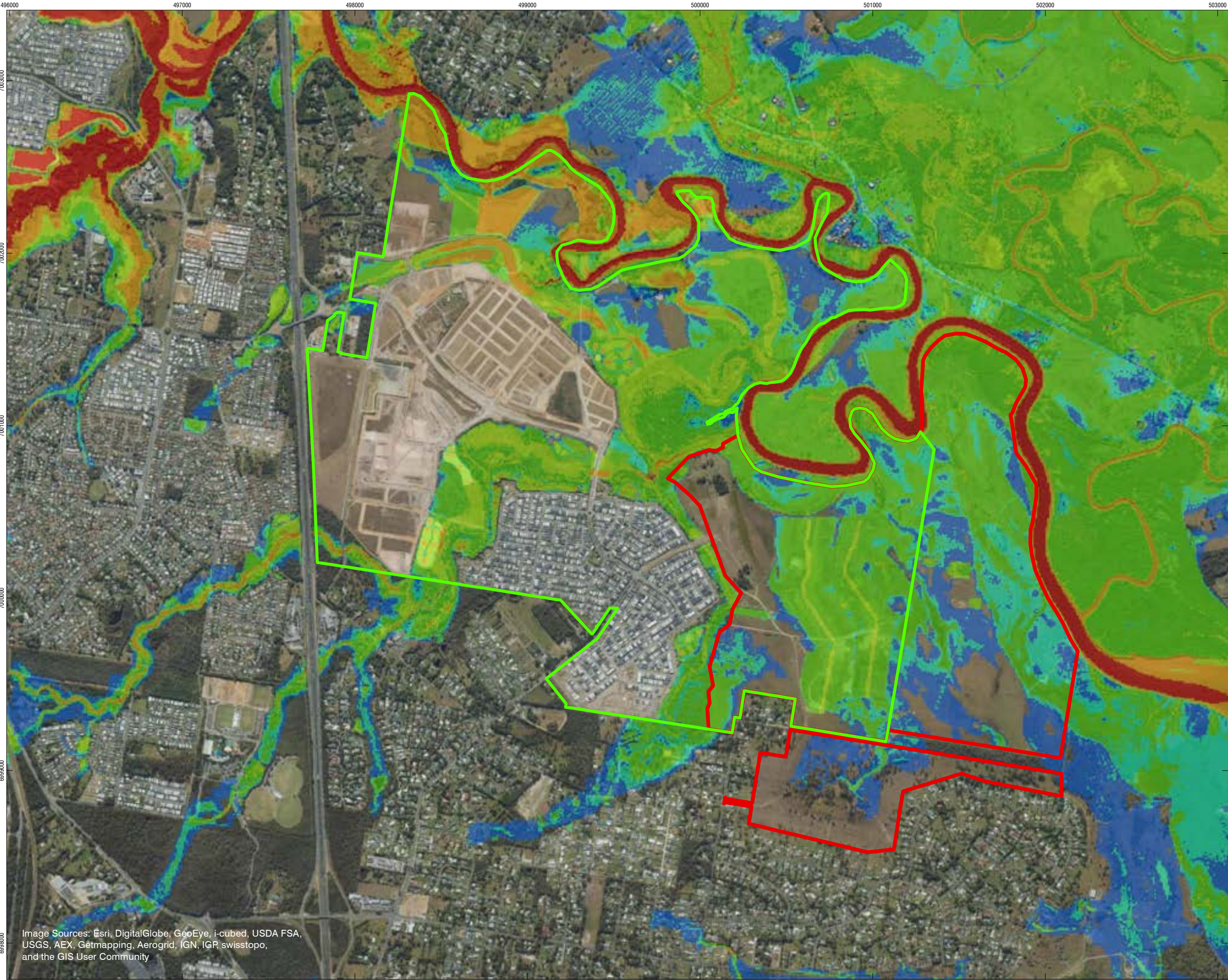
- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Pre Development Scenario (A001)
Peak Flood Hazard - 10% AEP

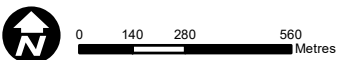
APPENDIX A4-4

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

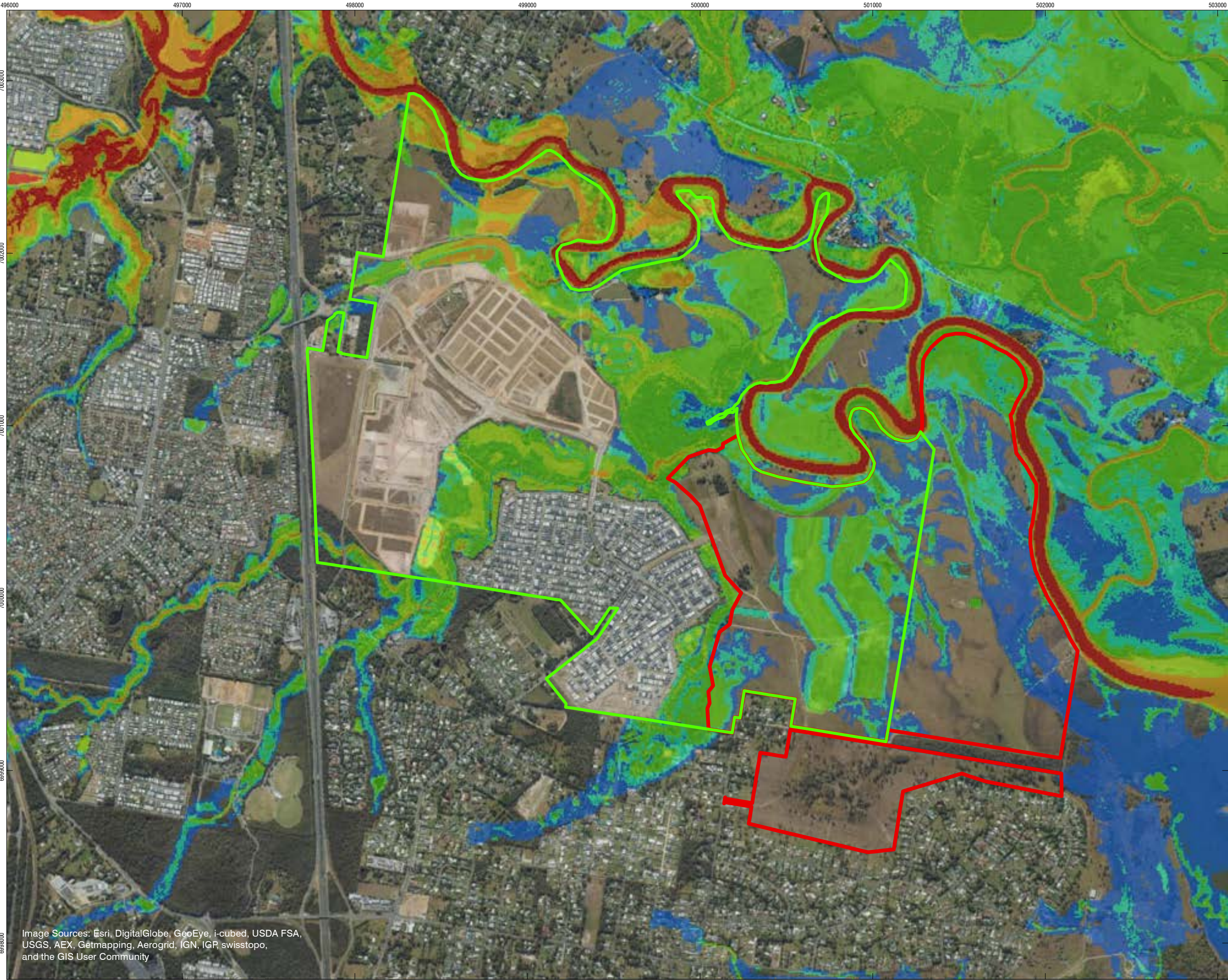
- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Pre Development Scenario (A001)
Peak Flood Hazard - 20% AEP**

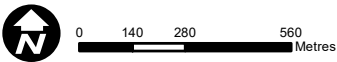
APPENDIX A4-5

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

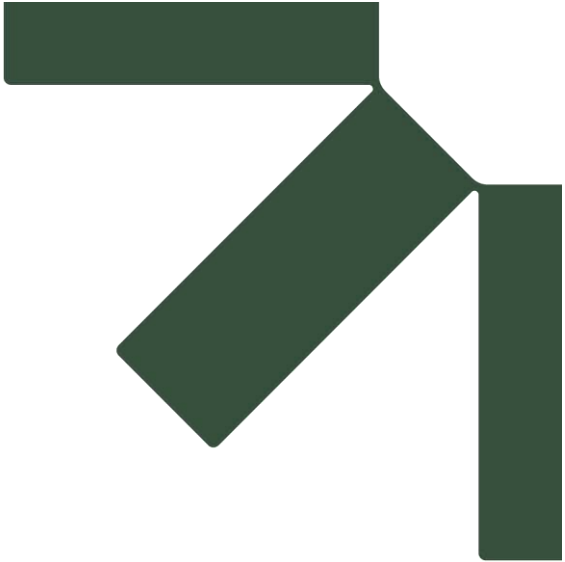
- H1
- H2
- H3
- H4
- H5
- H6



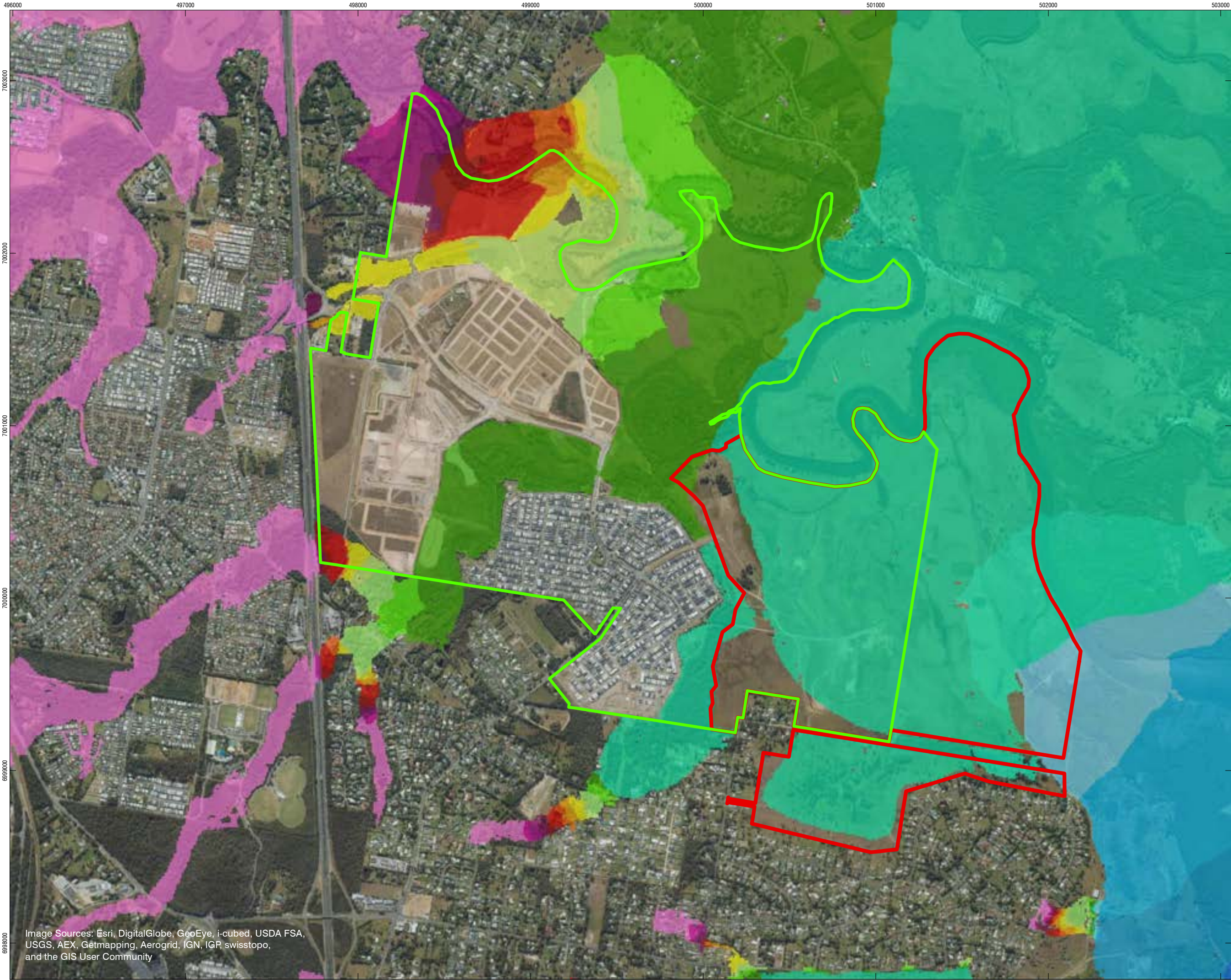
Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Appendix B Flood Mapping – Post Development



**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Levels - 1 % AEP**

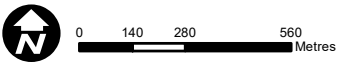
APPENDIX B1-1

Legend

- North Harbour Boundary
- PDA Boundary

Level (m AHD)

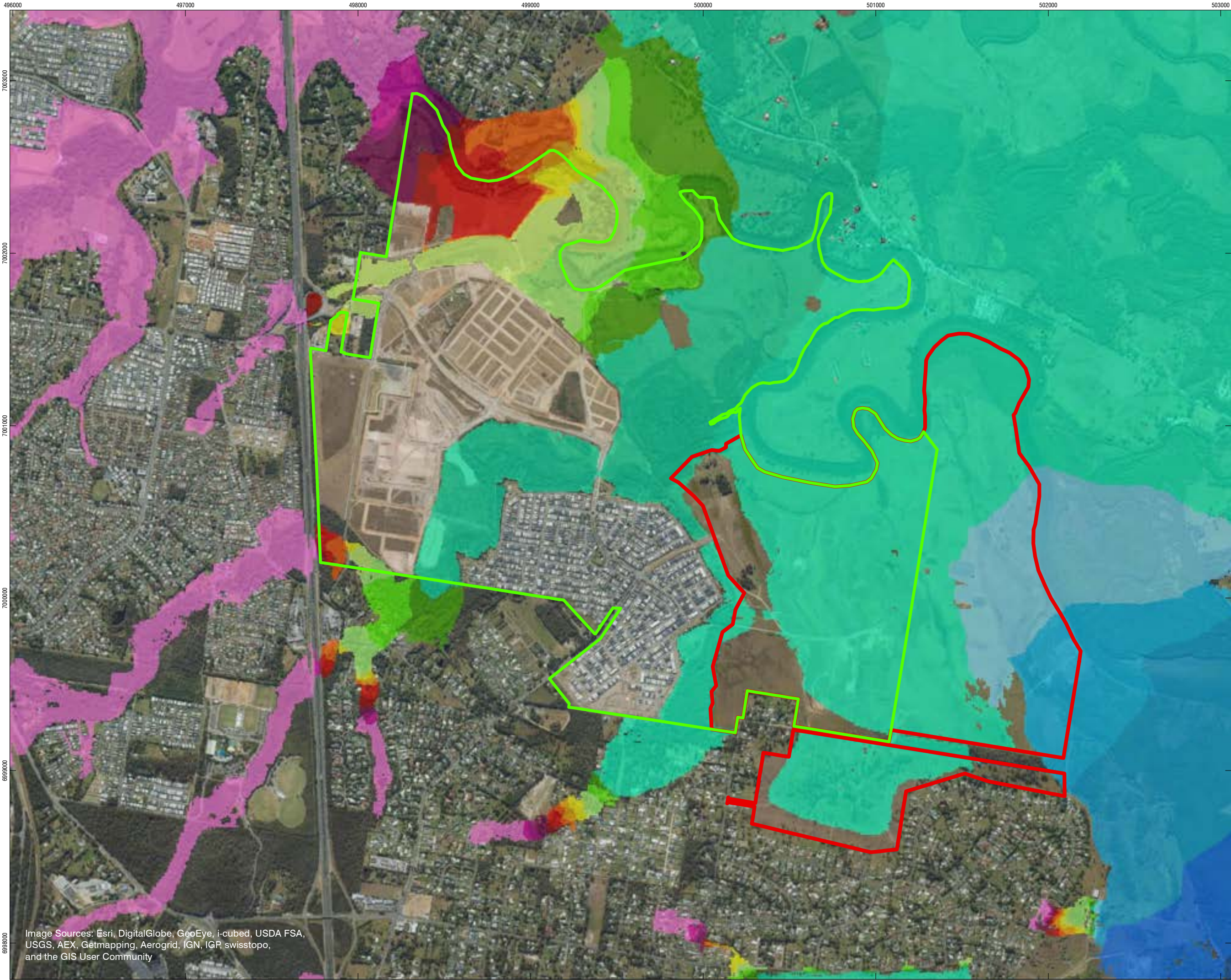
- Below 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Levels - 2% AEP**

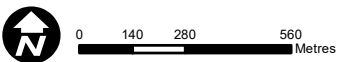
APPENDIX B1-2

Legend

- North Harbour Boundary
- PDA Boundary

Level (m AHD)

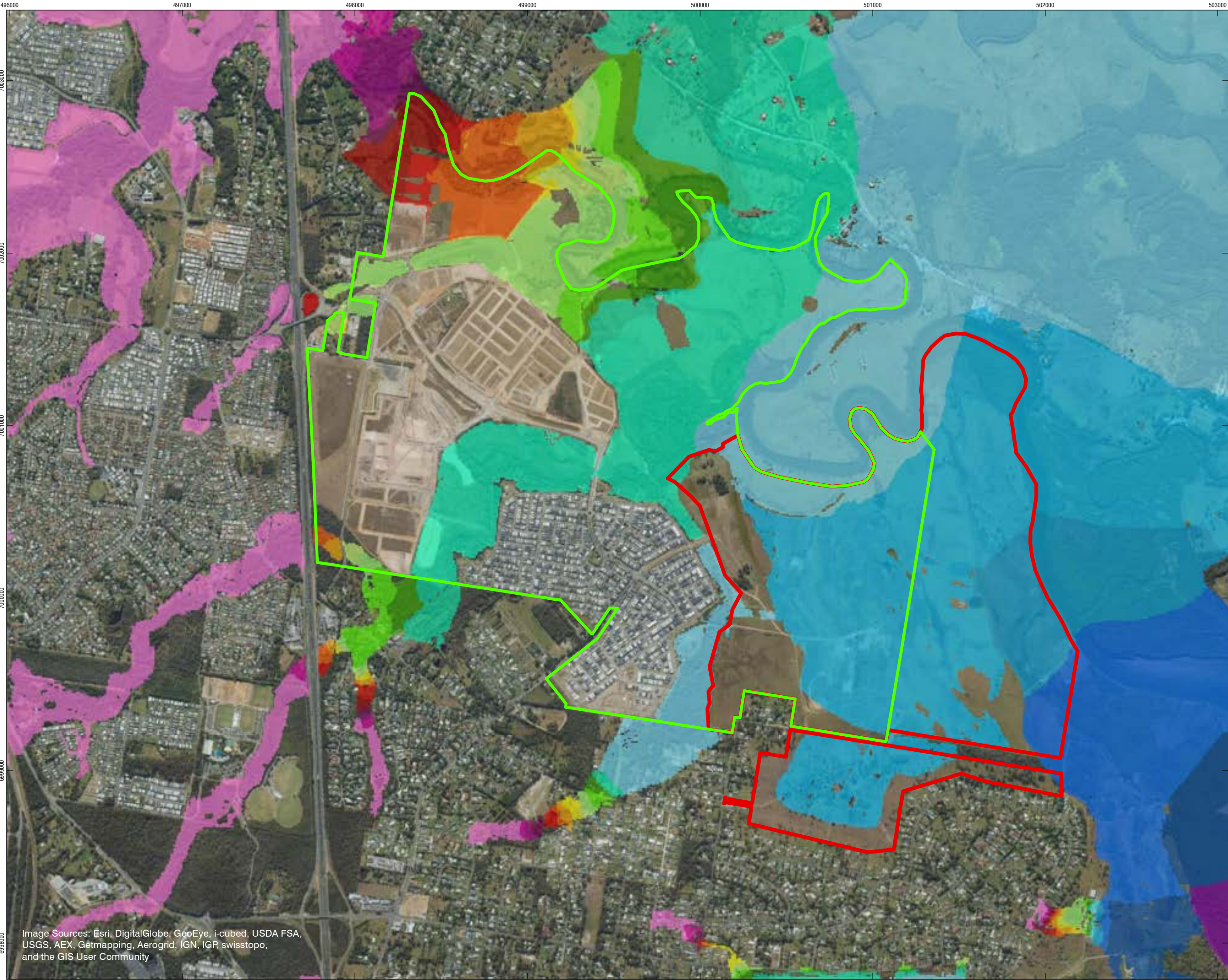
- Below 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

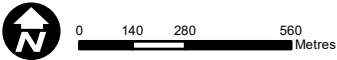
Developed Conditions (A002)
Peak Flood Levels - 5% AEP

APPENDIX B1-3

- Legend
- North Harbour Boundary
 - PDA Boundary

Level (m AHD)

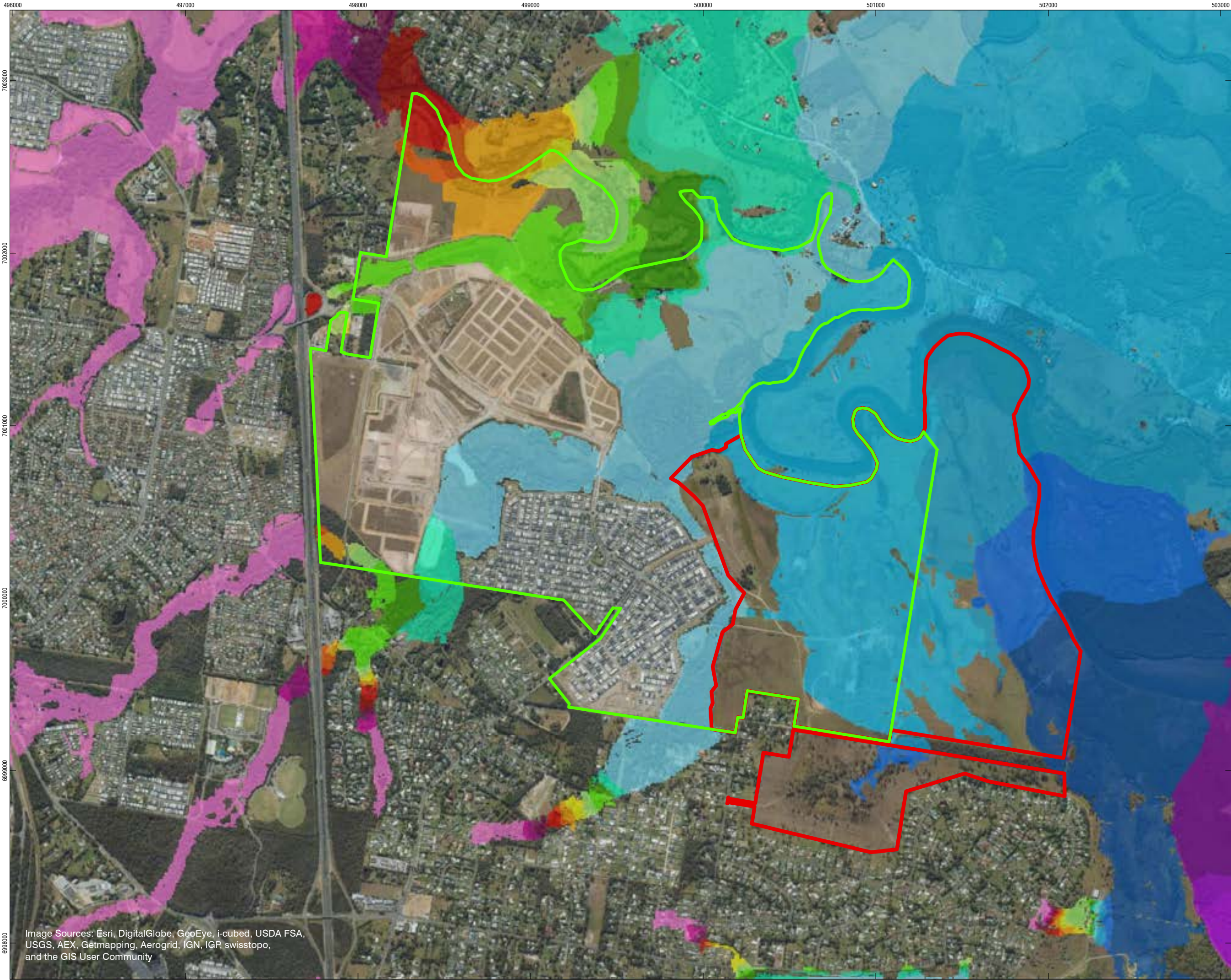
- Below 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

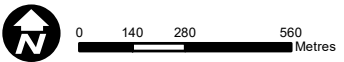
**Developed Conditions (A002)
Peak Flood Levels - 10% AEP**

APPENDIX B1-4

- Legend**
- North Harbour Boundary
 - PDA Boundary

Level (m AHD)

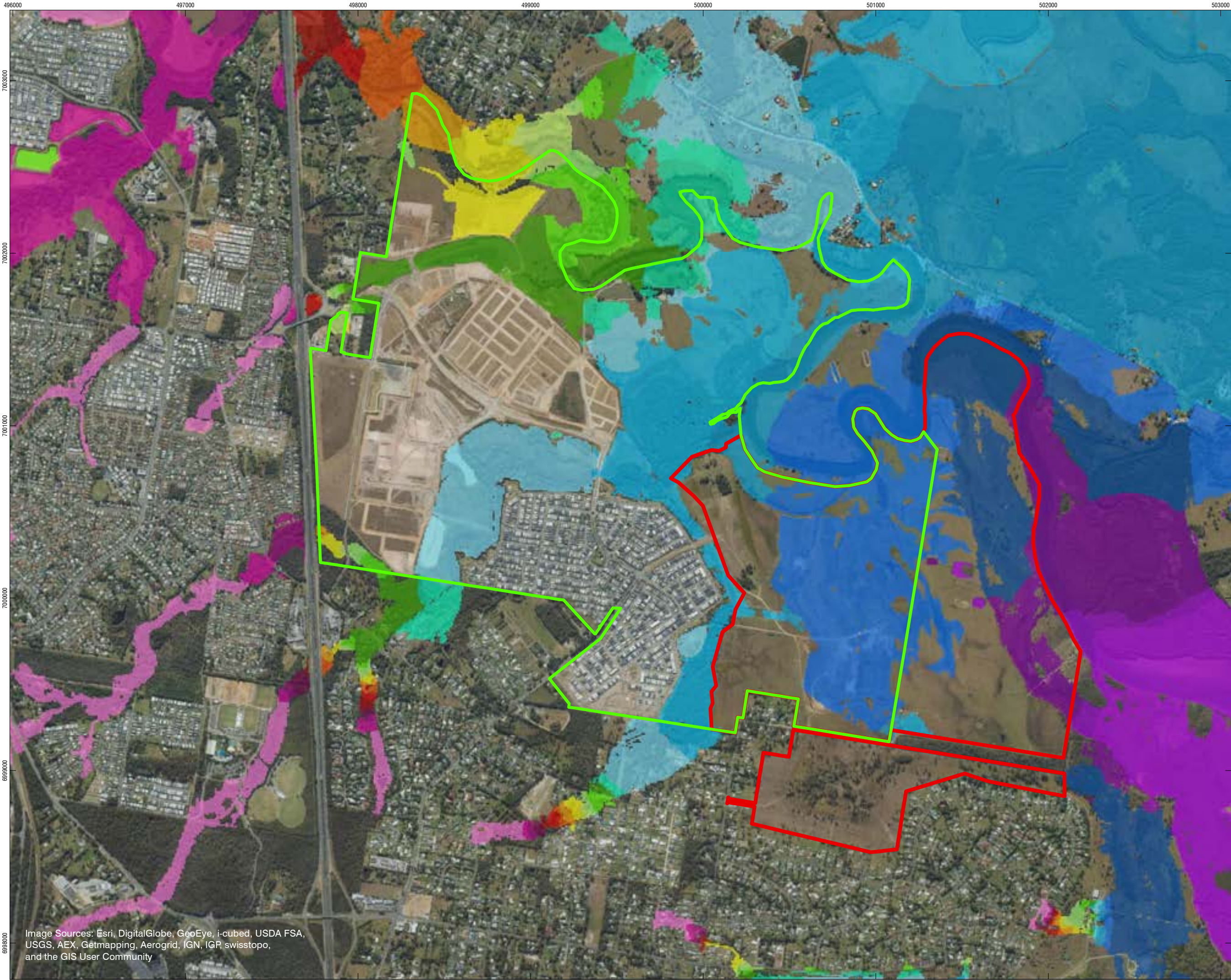
- Below 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Levels - 20% AEP**

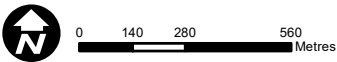
APPENDIX B1-5

Legend

- North Harbour Boundary
- PDA Boundary

Level (m AHD)

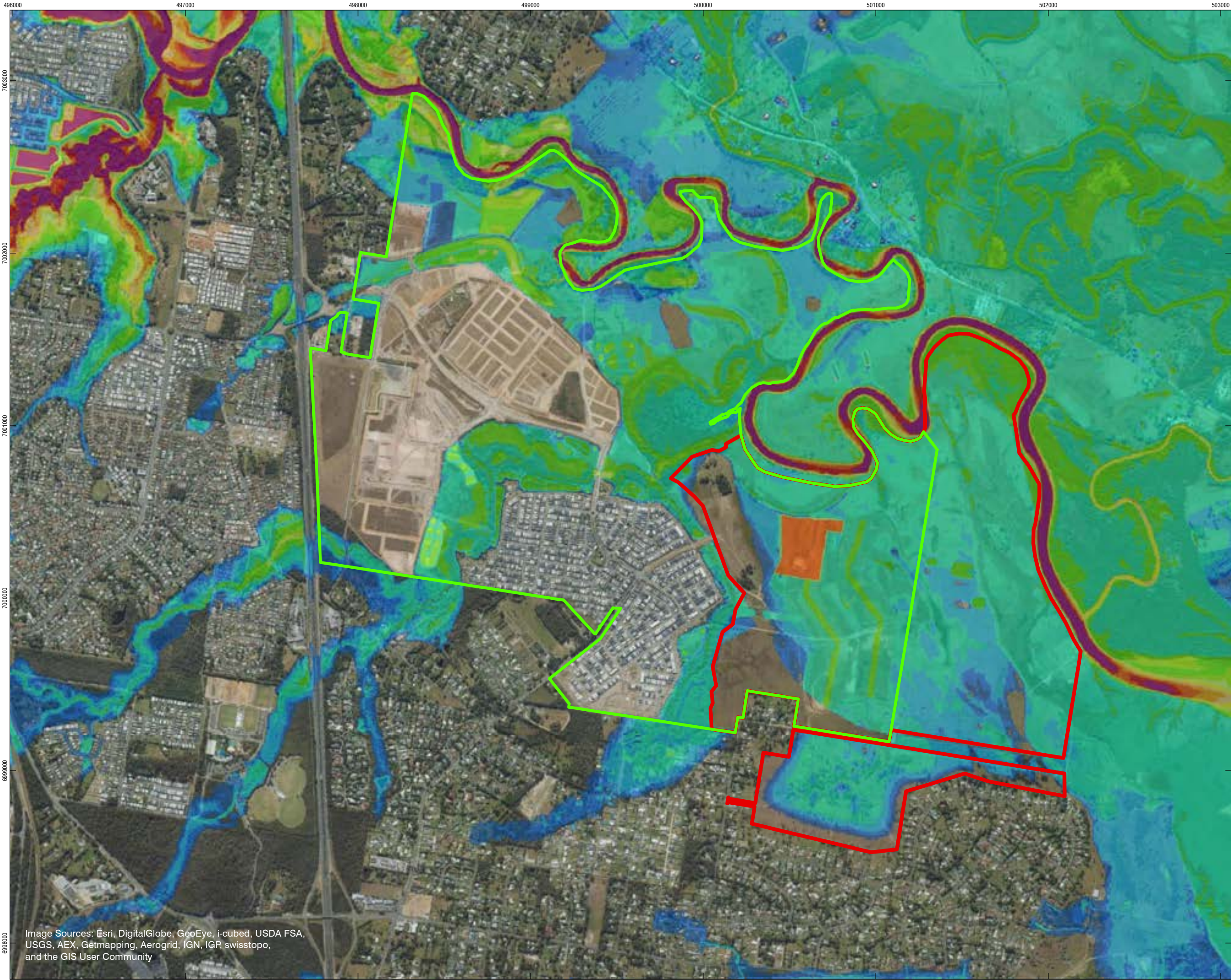
- Below 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75
- 3.75 to 4.00
- 4.00 to 4.25
- 4.25 to 4.50
- 4.50 to 4.75
- 4.75 to 5.00
- 5.00 to 5.25
- 5.25 to 5.50
- 5.50 to 5.75
- 5.75 to 6.00
- 6.00 to 6.25
- Above 6.25



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Depths - 1 % AEP**

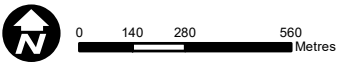
APPENDIX B2-1

Legend

- North Harbour Boundary
- PDA Boundary

Depth (m)

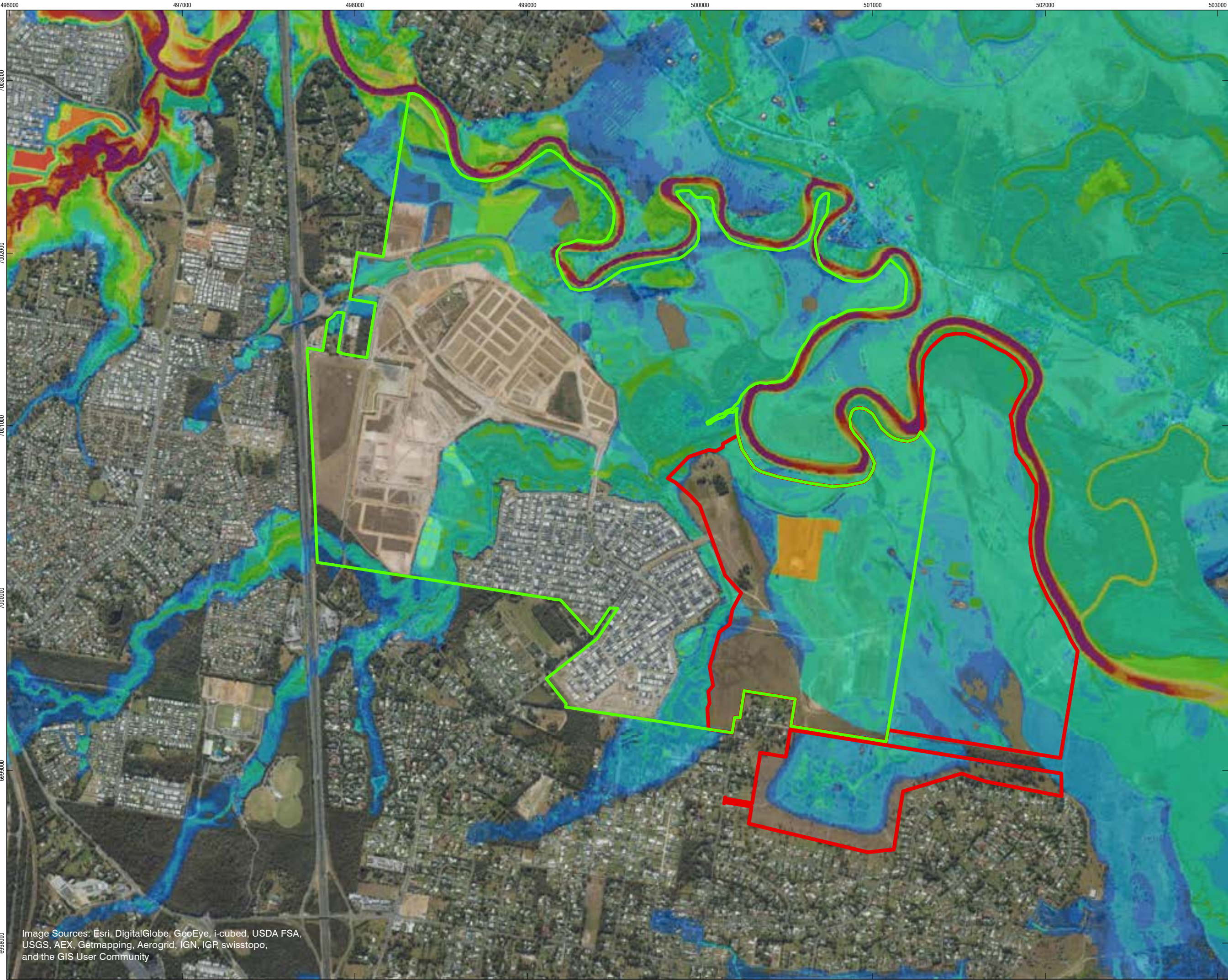
- 0.01 to 0.25
- 0.25 to 0.50
- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

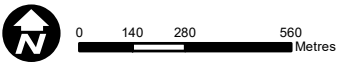
**Developed Conditions (A002)
Peak Flood Depths - 2% AEP**

APPENDIX B2-2

- Legend**
- North Harbour Boundary
 - PDA Boundary

Depth (m)

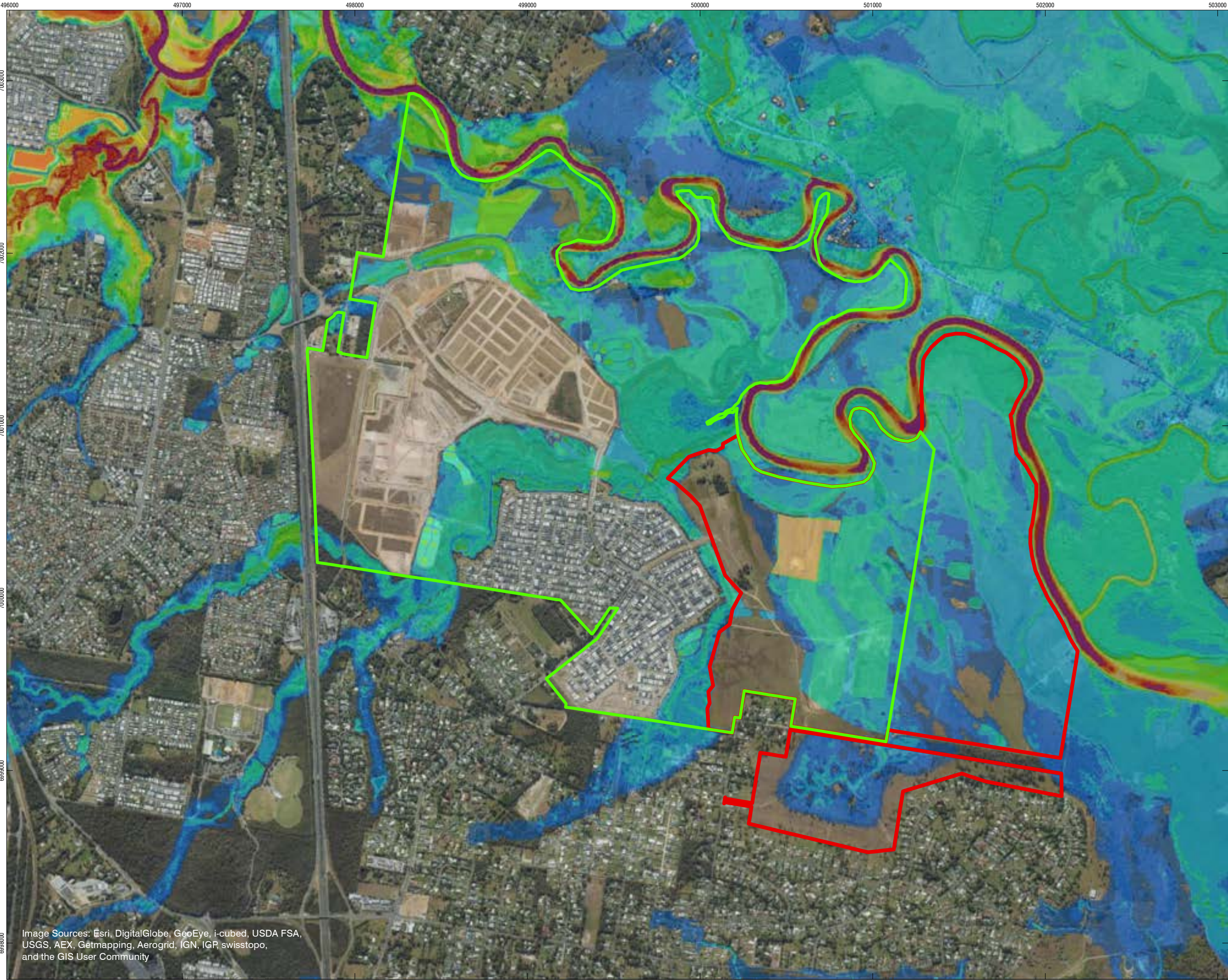
- 0.01 to 0.25
- 0.25 to 0.50
- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

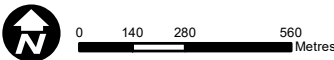
**Developed Conditions (A002)
Peak Flood Depths - 5% AEP**

APPENDIX B2-3

- Legend**
- North Harbour Boundary
 - PDA Boundary

Depth (m)

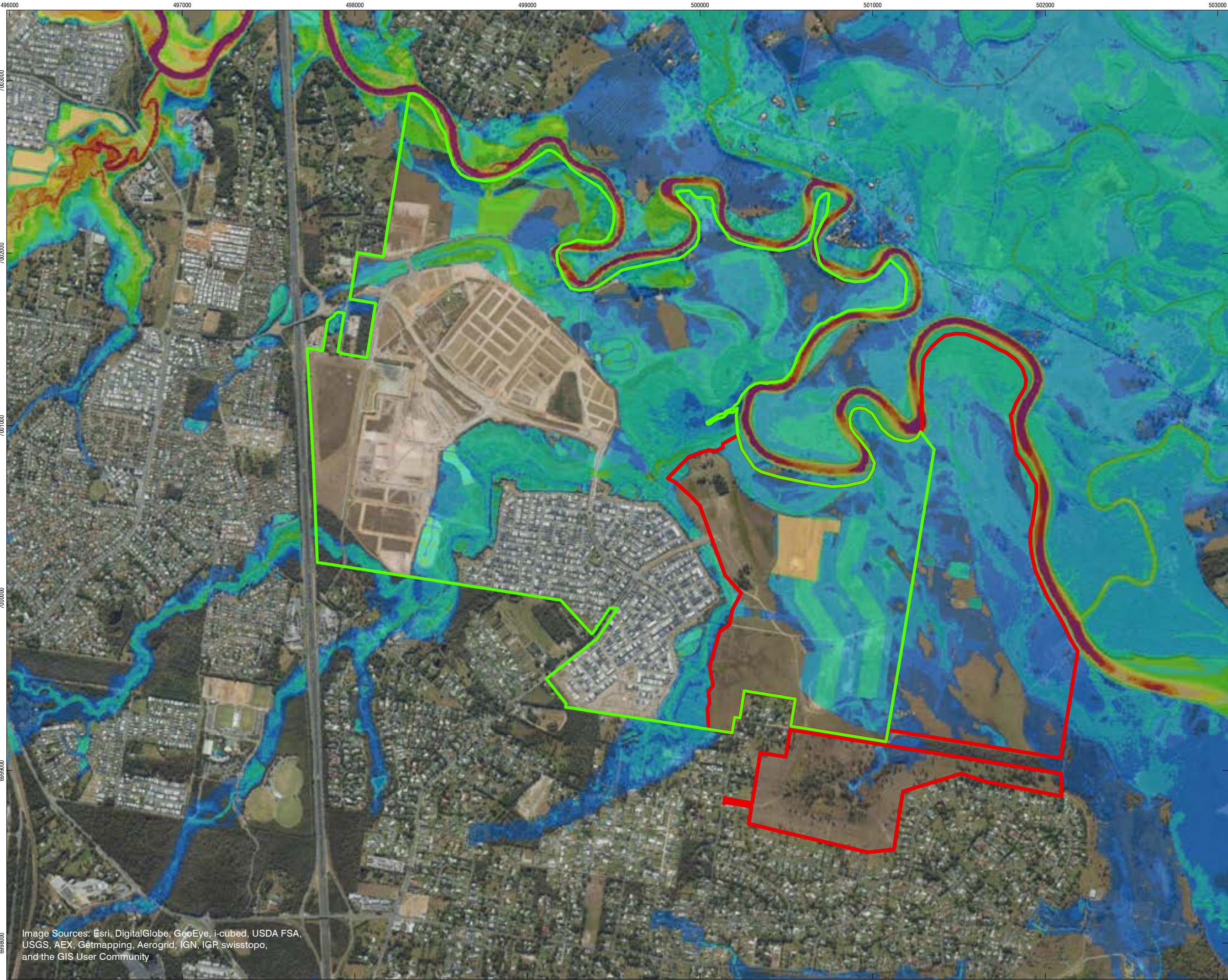
- 0.01 to 0.25
- 0.25 to 0.50
- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002)
Peak Flood Depths - 10% AEP

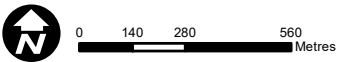
APPENDIX B2-4

Legend

- North Harbour Boundary
- PDA Boundary

Depth (m)

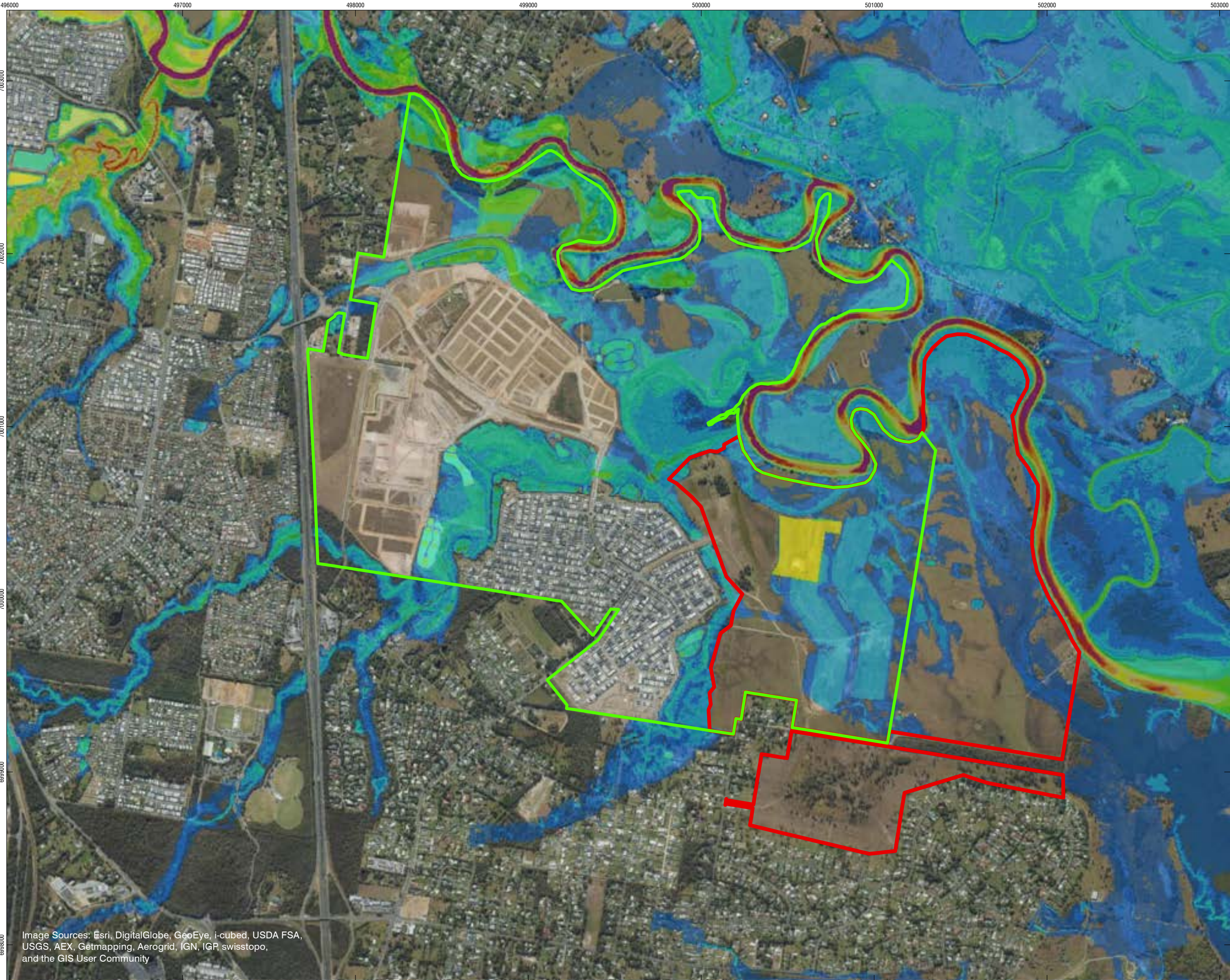
- 0.01 to 0.25
- 0.25 to 0.50
- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Depths - 20% AEP**

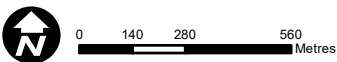
APPENDIX B2-5

Legend

- North Harbour Boundary
- PDA Boundary

Depth (m)

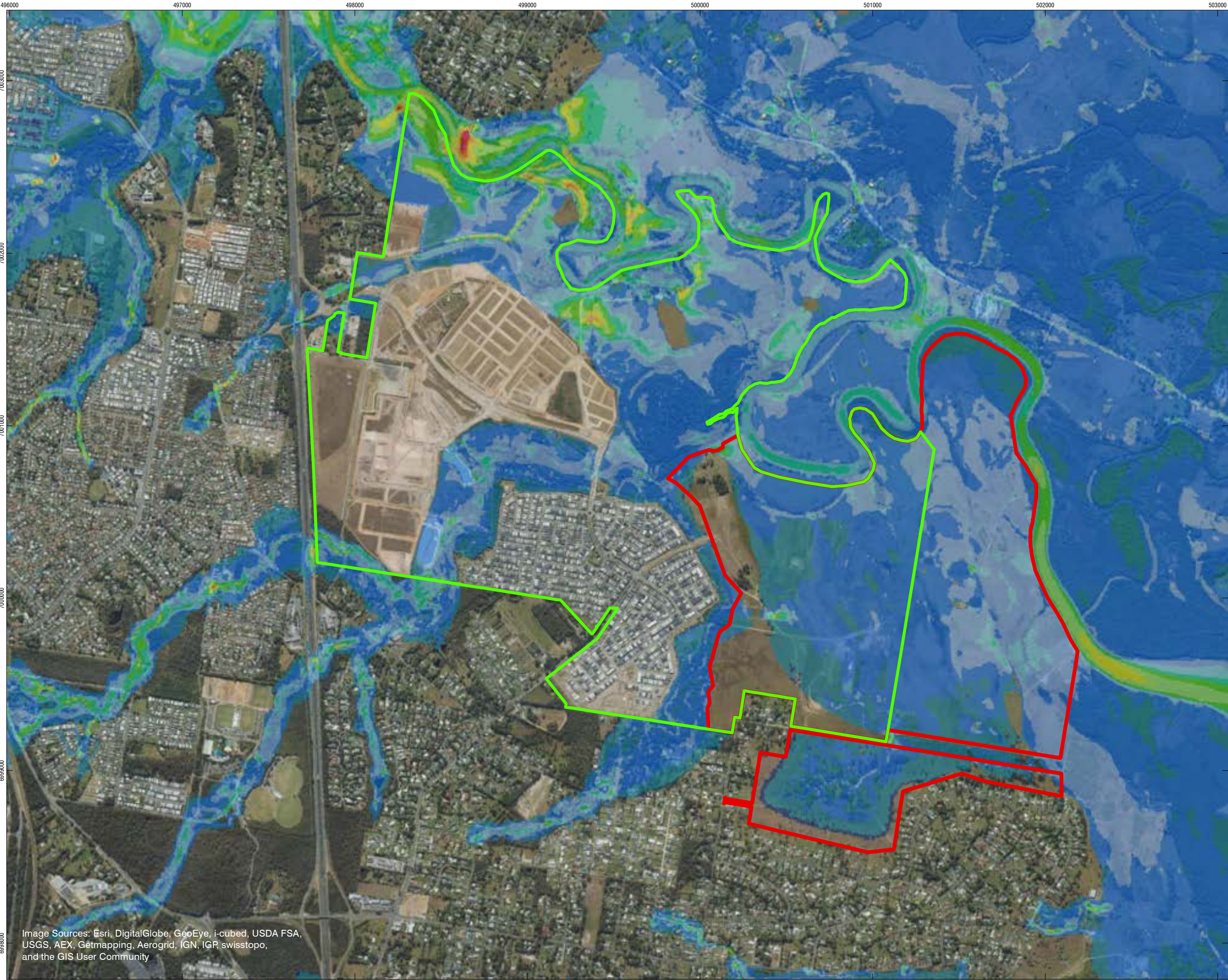
- 0.01 to 0.25
- 0.25 to 0.50
- 0.50 to 1.00
- 1.00 to 1.50
- 1.50 to 2.00
- 2.00 to 2.50
- 2.50 to 3.00
- 3.00 to 3.50
- 3.50 to 4.00
- 4.00 to 4.50
- 4.50 to 5.00
- 5.00 to 5.50
- 5.50 to 6.00
- 6.00 to 6.50
- Above 6.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

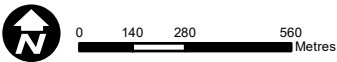
Developed Conditions (A002)
Peak Flood Velocities - 1 % AEP

APPENDIX B3-1

- Legend
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)

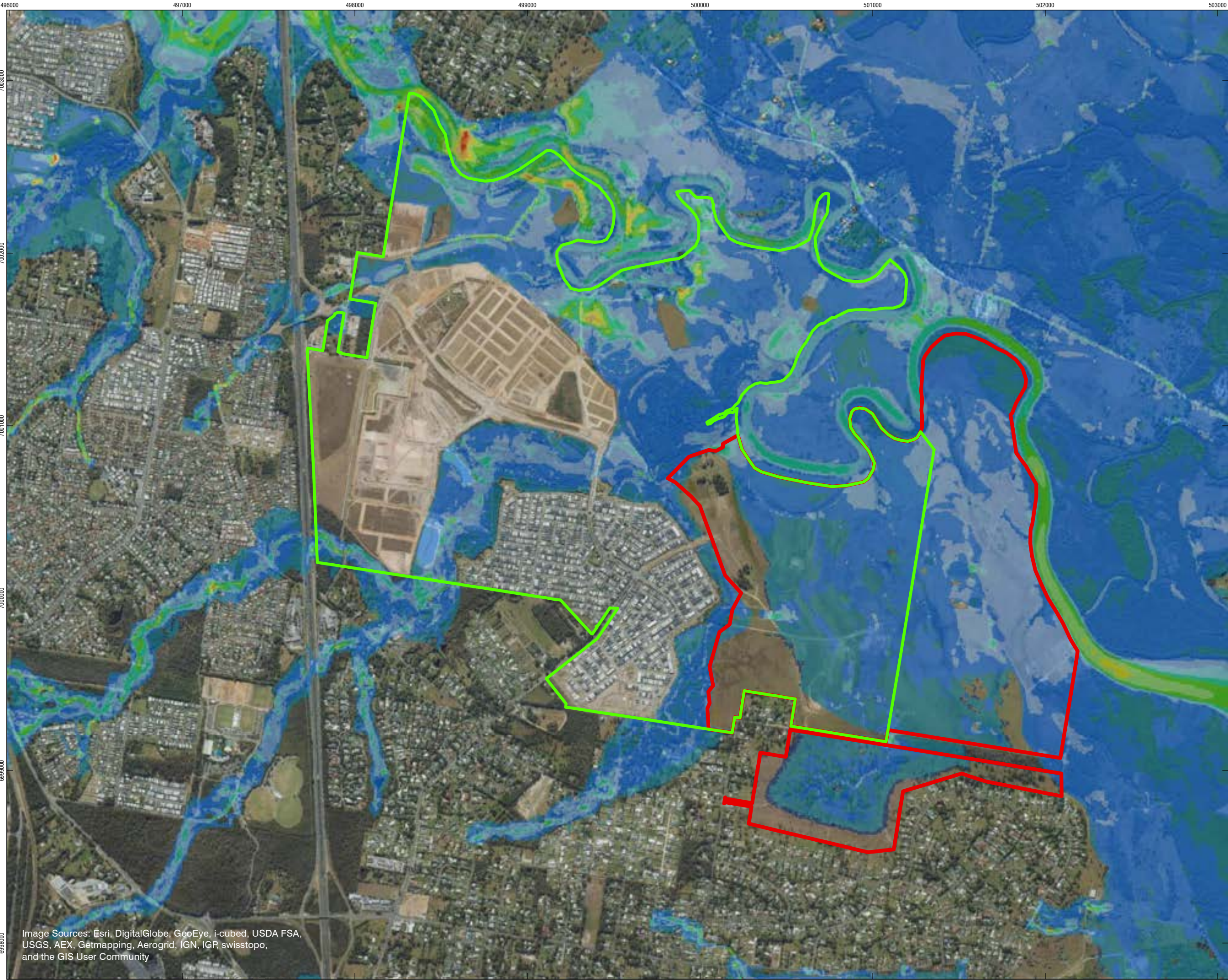
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

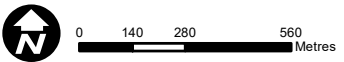
Developed Conditions (A002)
Peak Flood Velocities - 2% AEP

APPENDIX B3-2

- Legend
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)

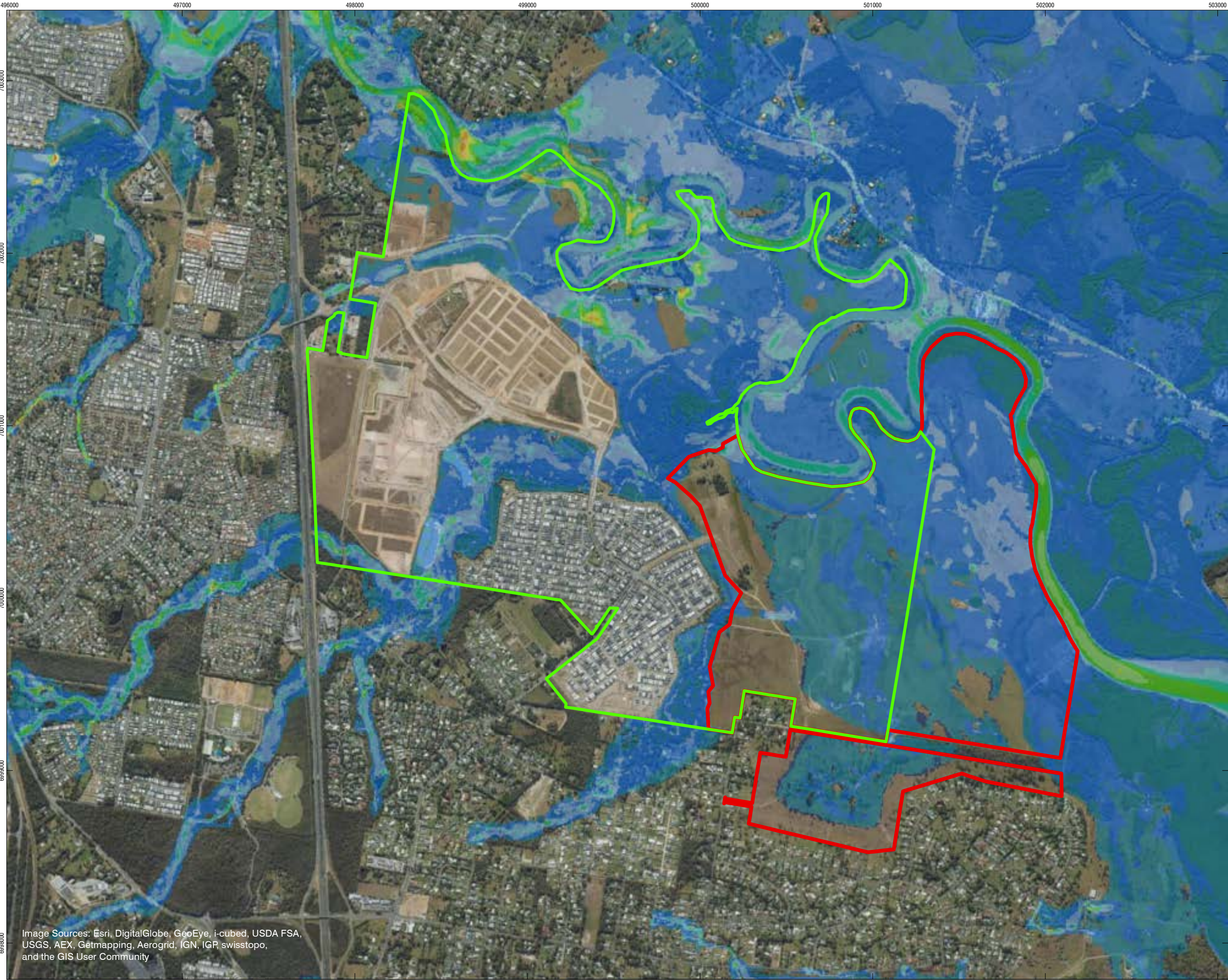
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



**North Harbour Area 1 Precinct
Flood Impact Assessment**

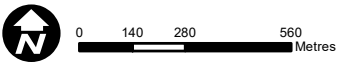
**Developed Conditions (A002)
Peak Flood Velocities - 5% AEP**

APPENDIX B3-3

- Legend**
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)

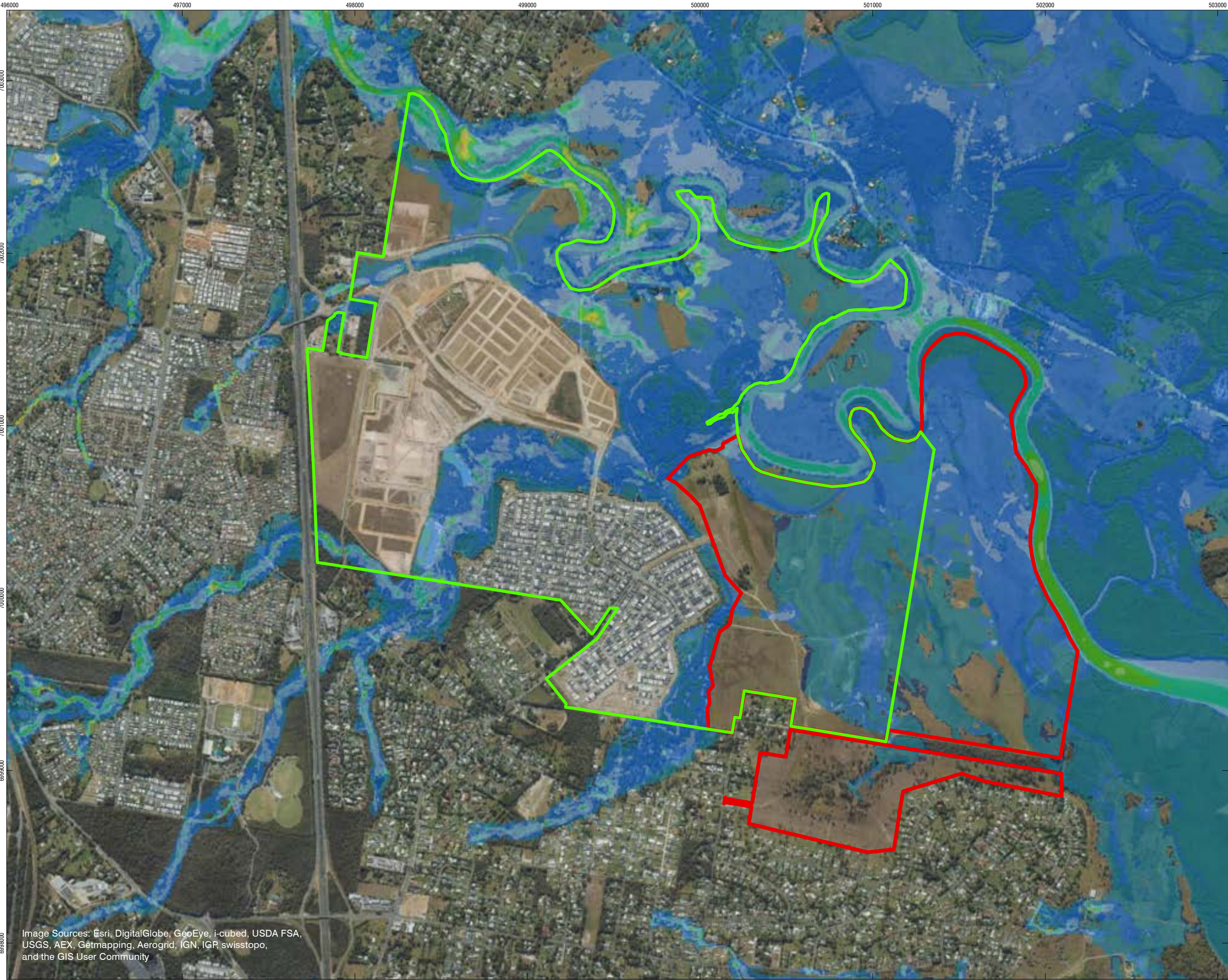
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct Flood Impact Assessment

Developed Conditions (A002)
Peak Flood Velocities - 10% AEP

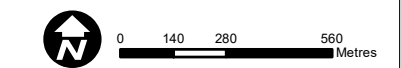
APPENDIX B3-4

Legend

- North Harbour Boundary
- PDA Boundary

Velocity (m/s)

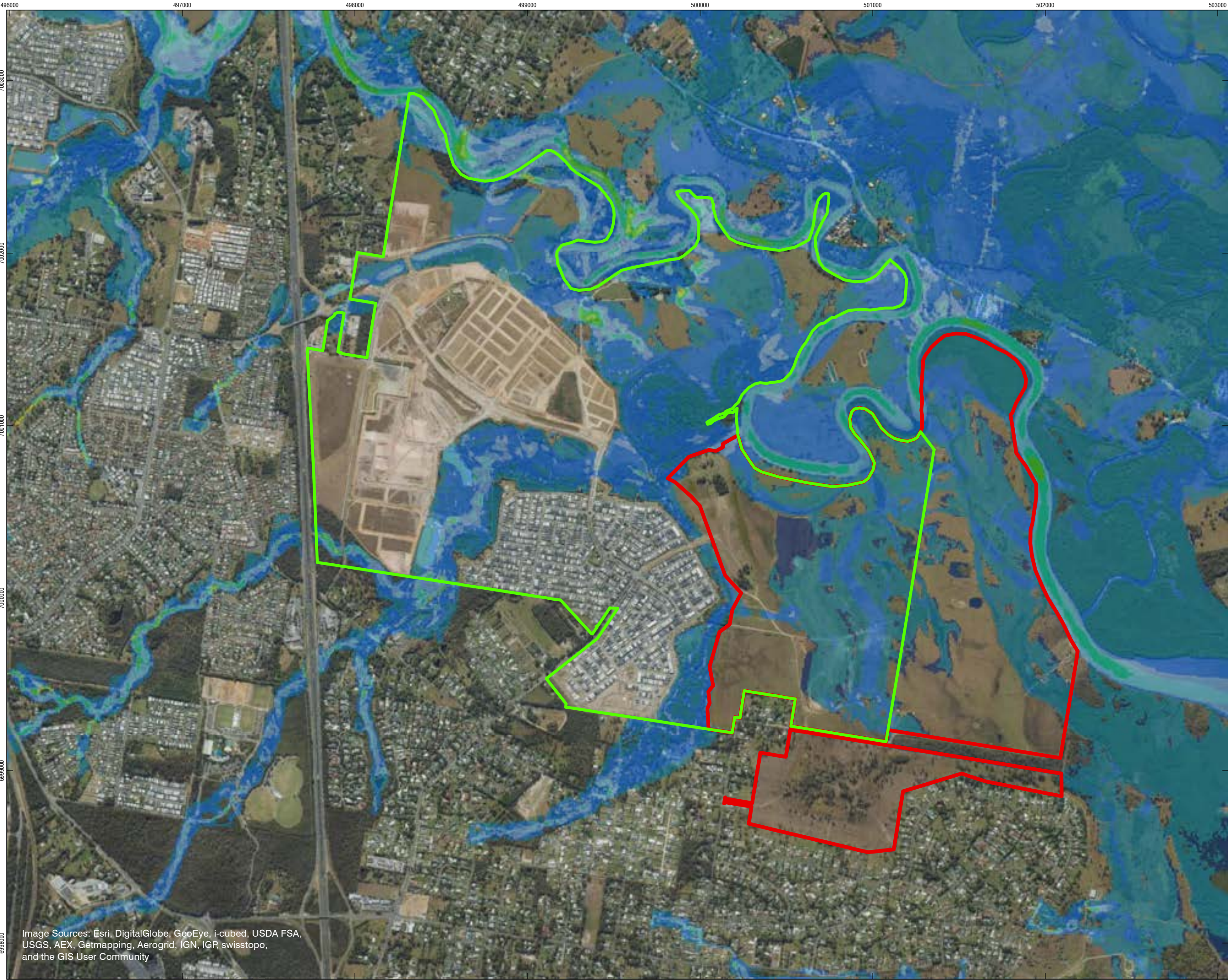
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct Flood Impact Assessment

**Developed Conditions (A002)
Peak Flood Velocities - 20% AEP**

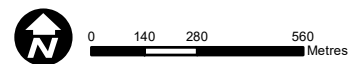
APPENDIX B3-5

Legend

- North Harbour Boundary
- PDA Boundary

Velocity (m/s)

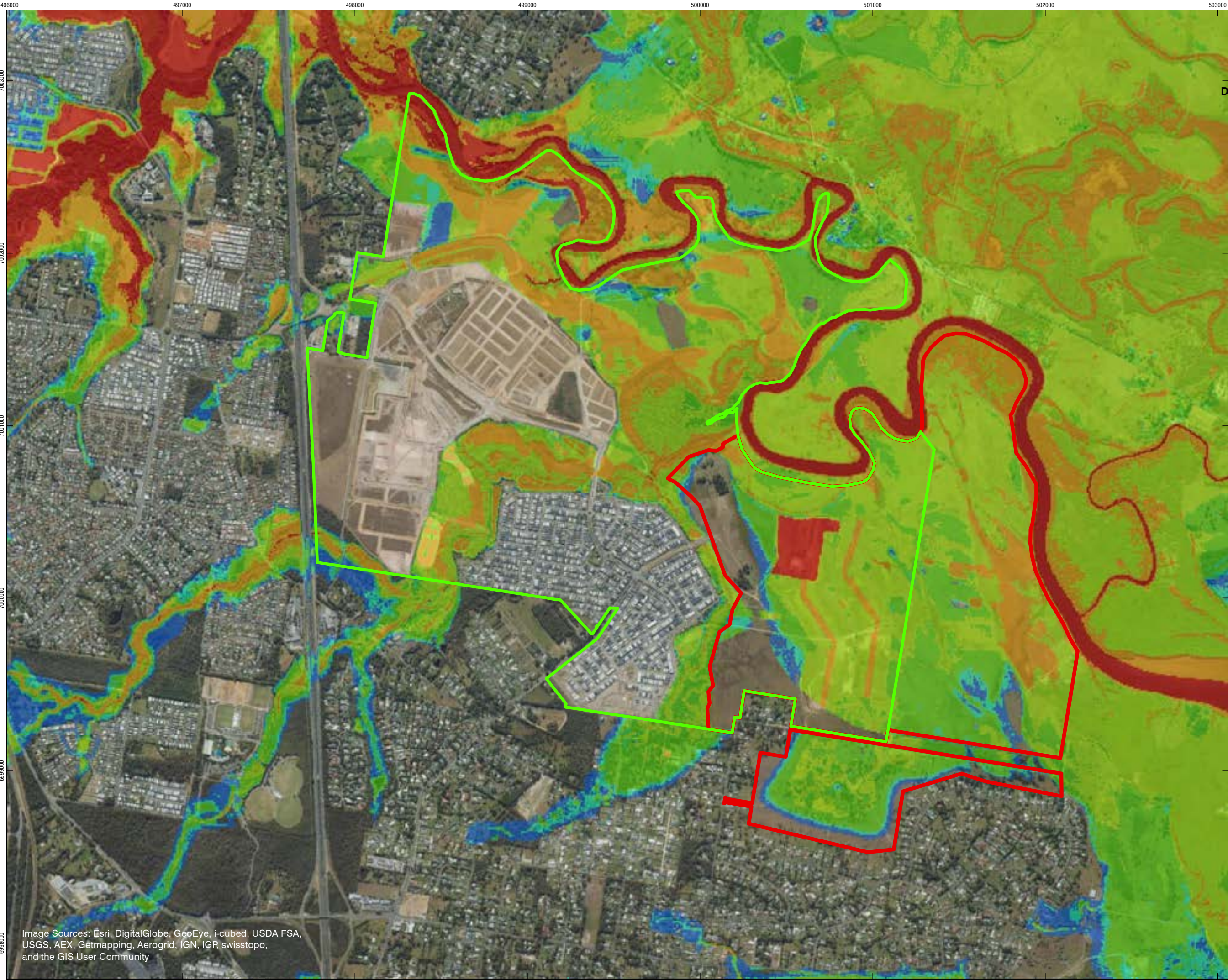
- Below 0.01
- 0.01 to 0.20
- 0.2 - 0.50
- 0.5 - 0.75
- 0.75 - 1.00
- 1.00 to 1.25
- 1.25 to 1.50
- 1.50 to 1.75
- 1.75 to 2.00
- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- Above 3.50



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002 - E008)
Peak Flood Hazard - 1 % AEP

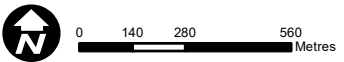
APPENDIX B4-1

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

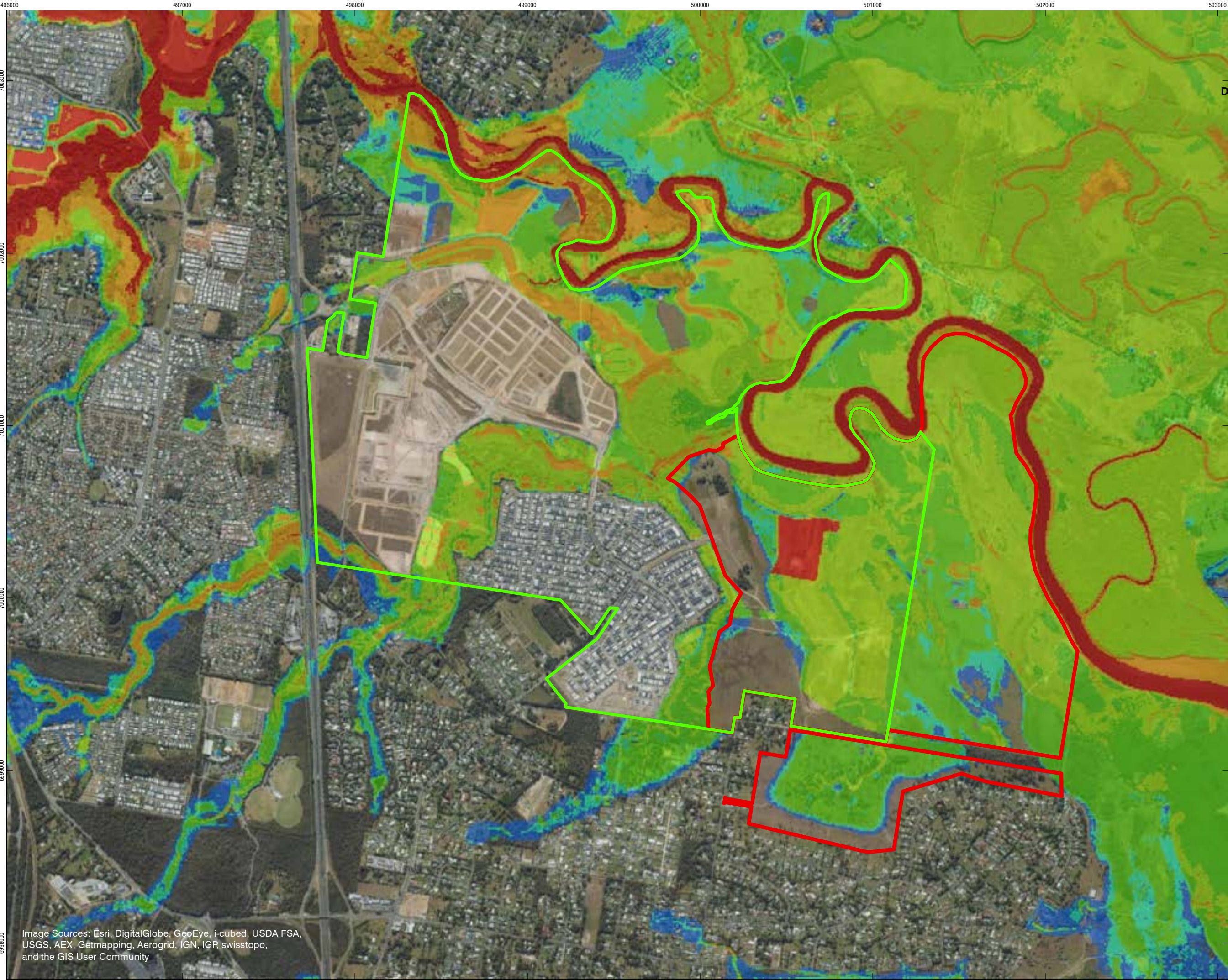
- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002 - E008)
Peak Flood Hazard - 2% AEP

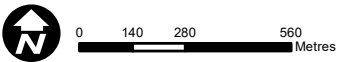
APPENDIX B4-2

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System: GDA 1994 MGA Zone 56

Scale: 1:20,000 at A3

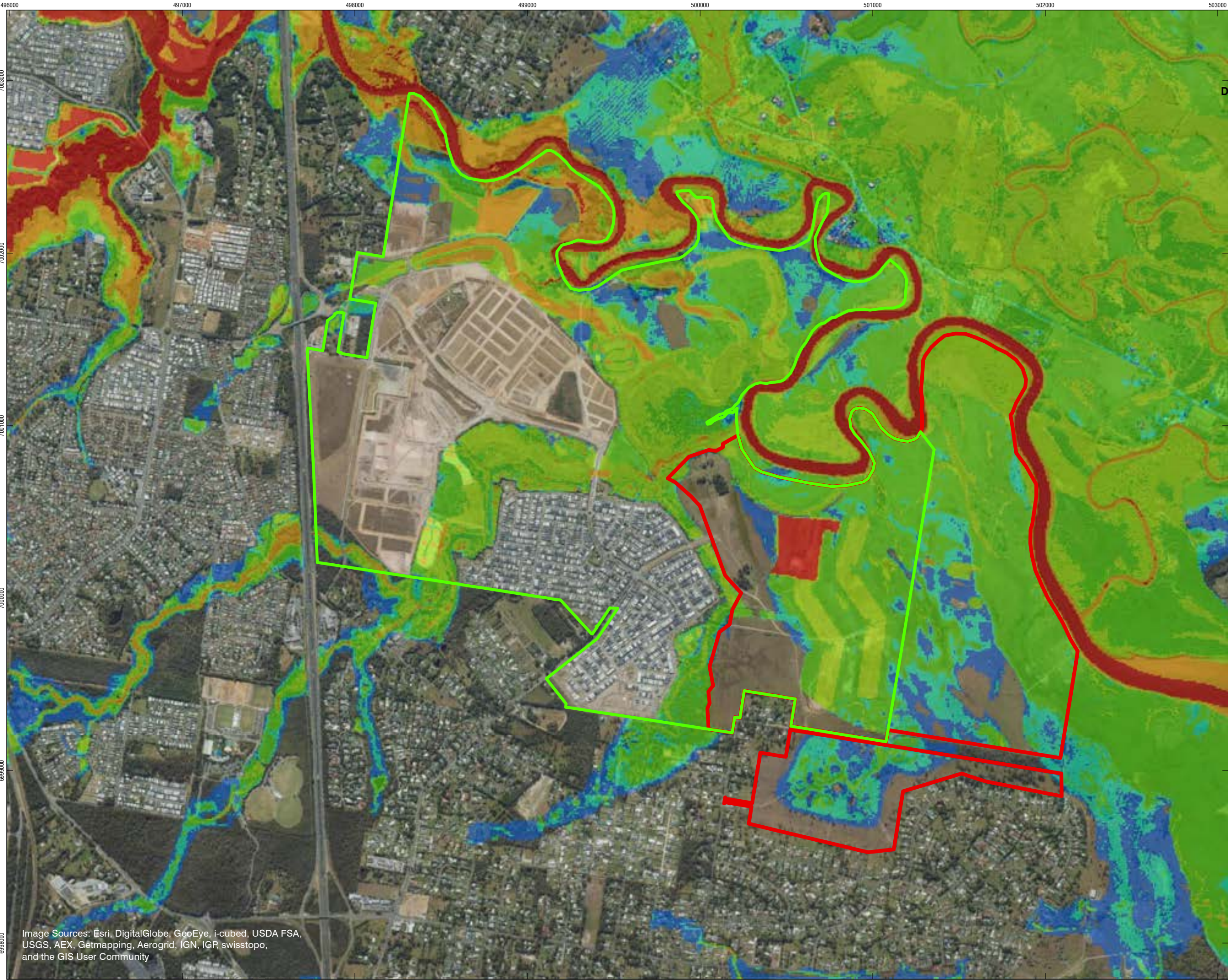
Project Number: 620.30047.00304

Date: 23-Mar-2026

Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA,
USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo,
and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

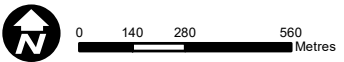
Developed Conditions (A002 - E008)
Peak Flood Hazard - 5% AEP

APPENDIX B4-3

- Legend
- North Harbour Boundary
 - PDA Boundary

Hazard

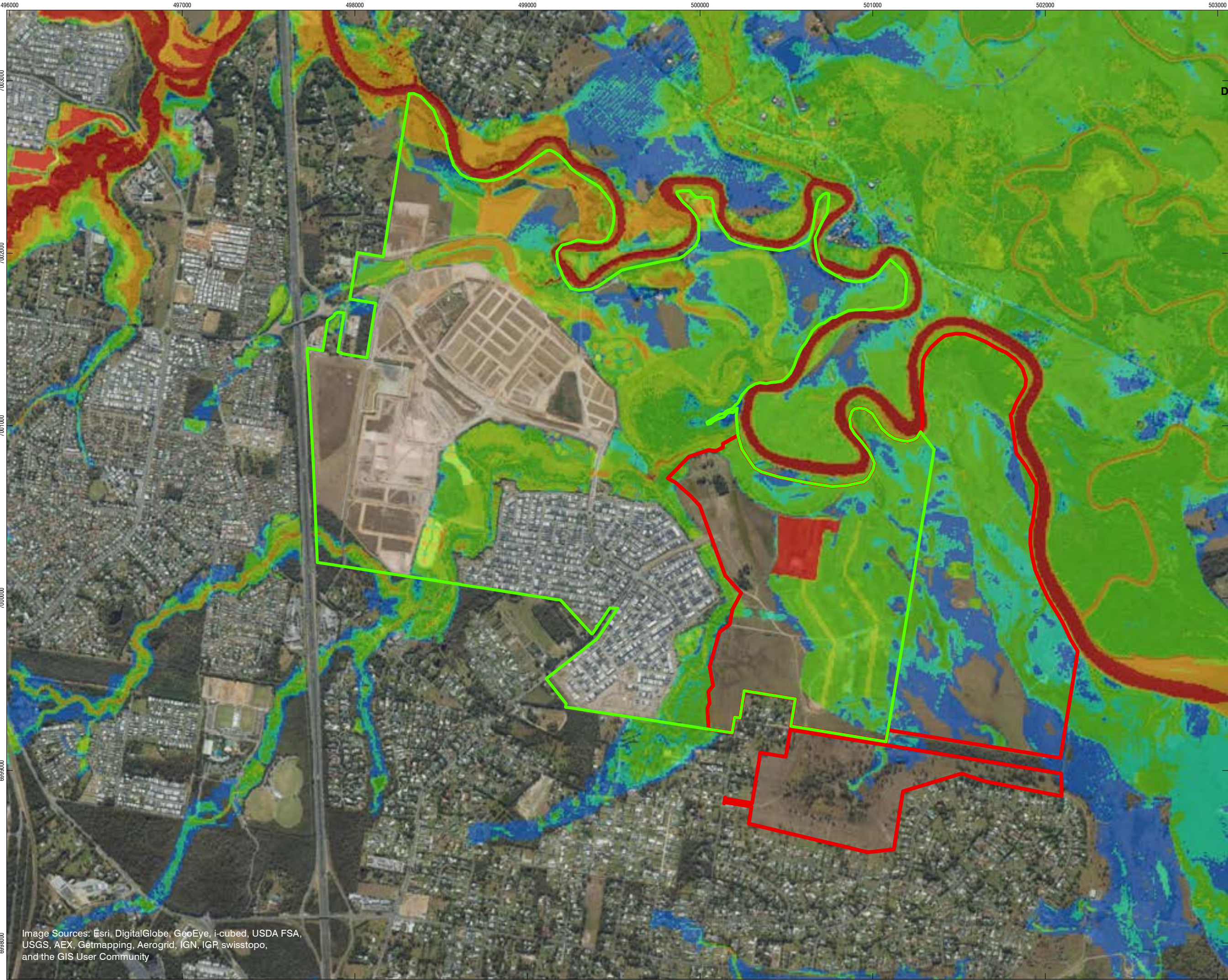
- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002 - E008)
Peak Flood Hazard - 10% AEP

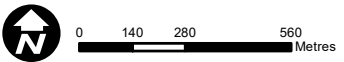
APPENDIX B4-4

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

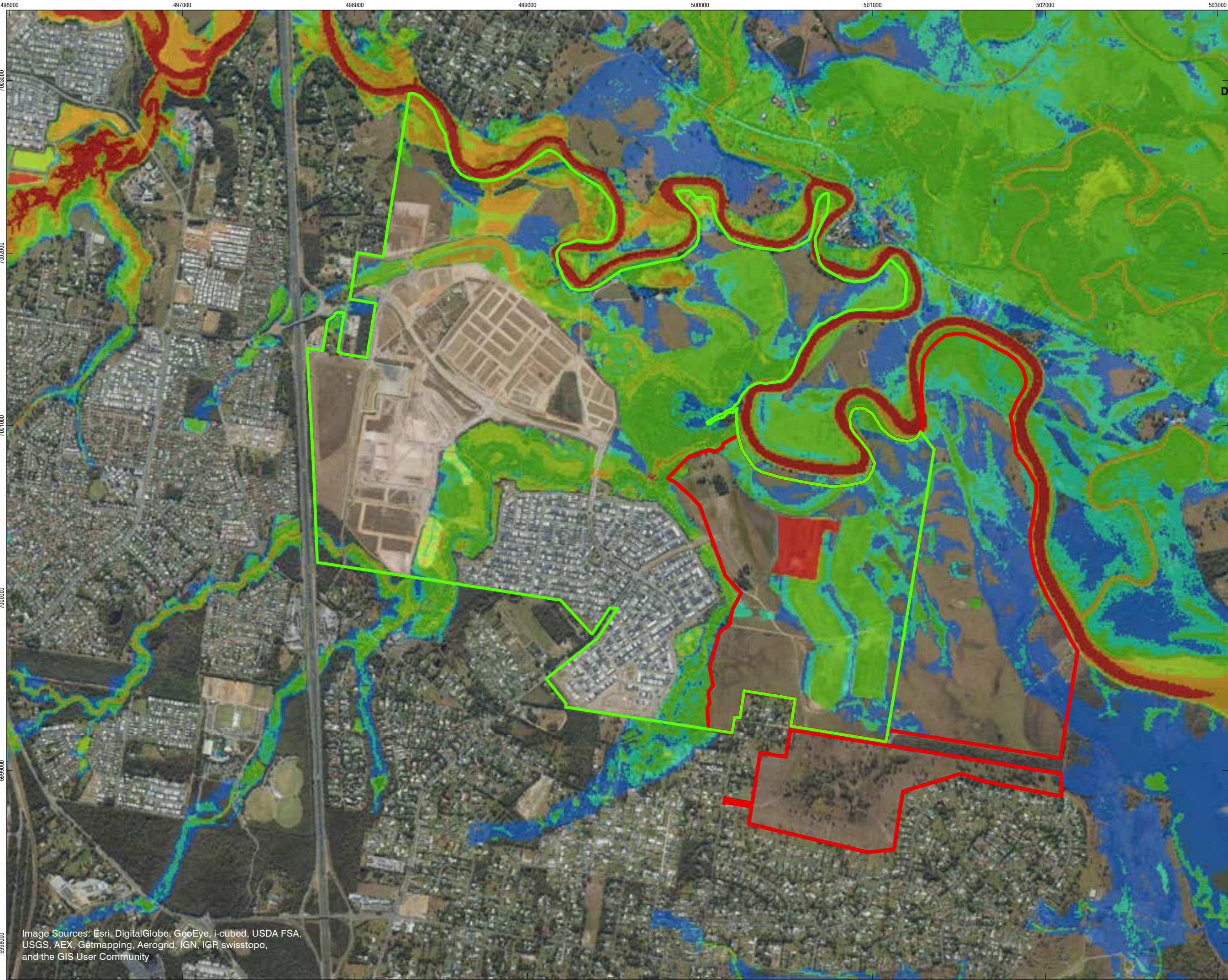
- H1
- H2
- H3
- H4
- H5
- H6



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002 - E008)
Peak Flood Hazard - 20% AEP

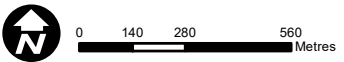
APPENDIX B4-5

Legend

- North Harbour Boundary
- PDA Boundary

Hazard

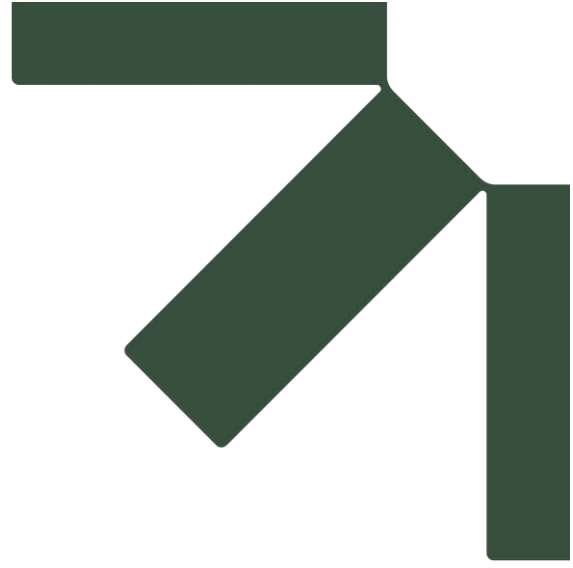
- H1
- H2
- H3
- H4
- H5
- H6



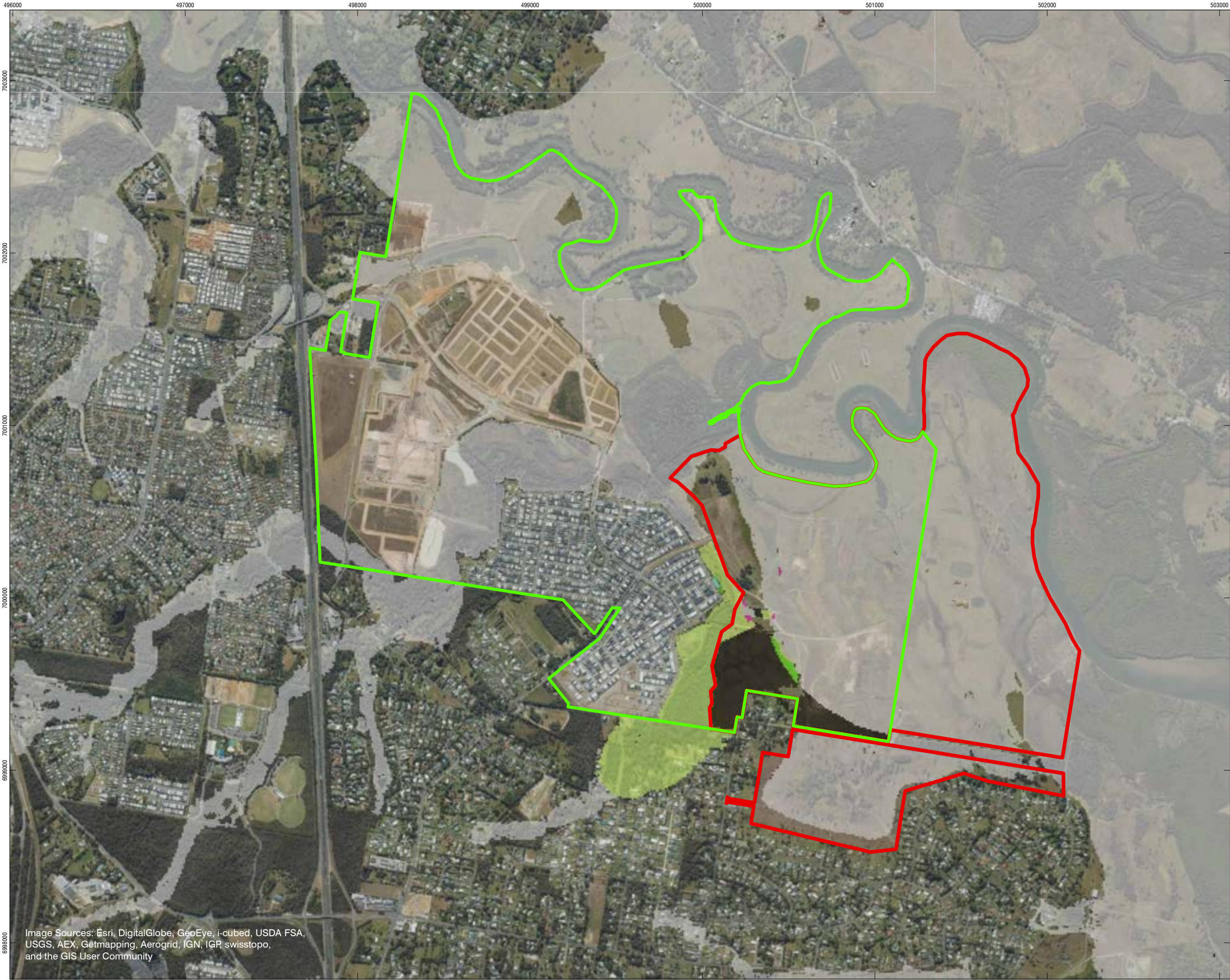
Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



Appendix C Flood Impacts



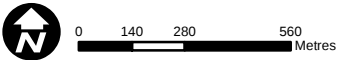
**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Afflux - 1 % AEP**

APPENDIX C1-1

- Legend**
- North Harbour Boundary
 - PDA Boundary

- Impact (m)**
- Below -0.200
 - 0.200 to -0.100
 - 0.100 to -0.050
 - 0.050 to -0.030
 - 0.030 to -0.020
 - 0.020 to 0.020
 - 0.020 to 0.030
 - 0.030 to 0.050
 - 0.050 to 0.100
 - 0.100 to 0.200
 - Above 0.200
 - Was wet now dry
 - Was dry now wet



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



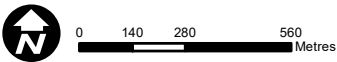
**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Afflux - 2% AEP**

APPENDIX C1-2

- Legend**
- North Harbour Boundary
 - PDA Boundary

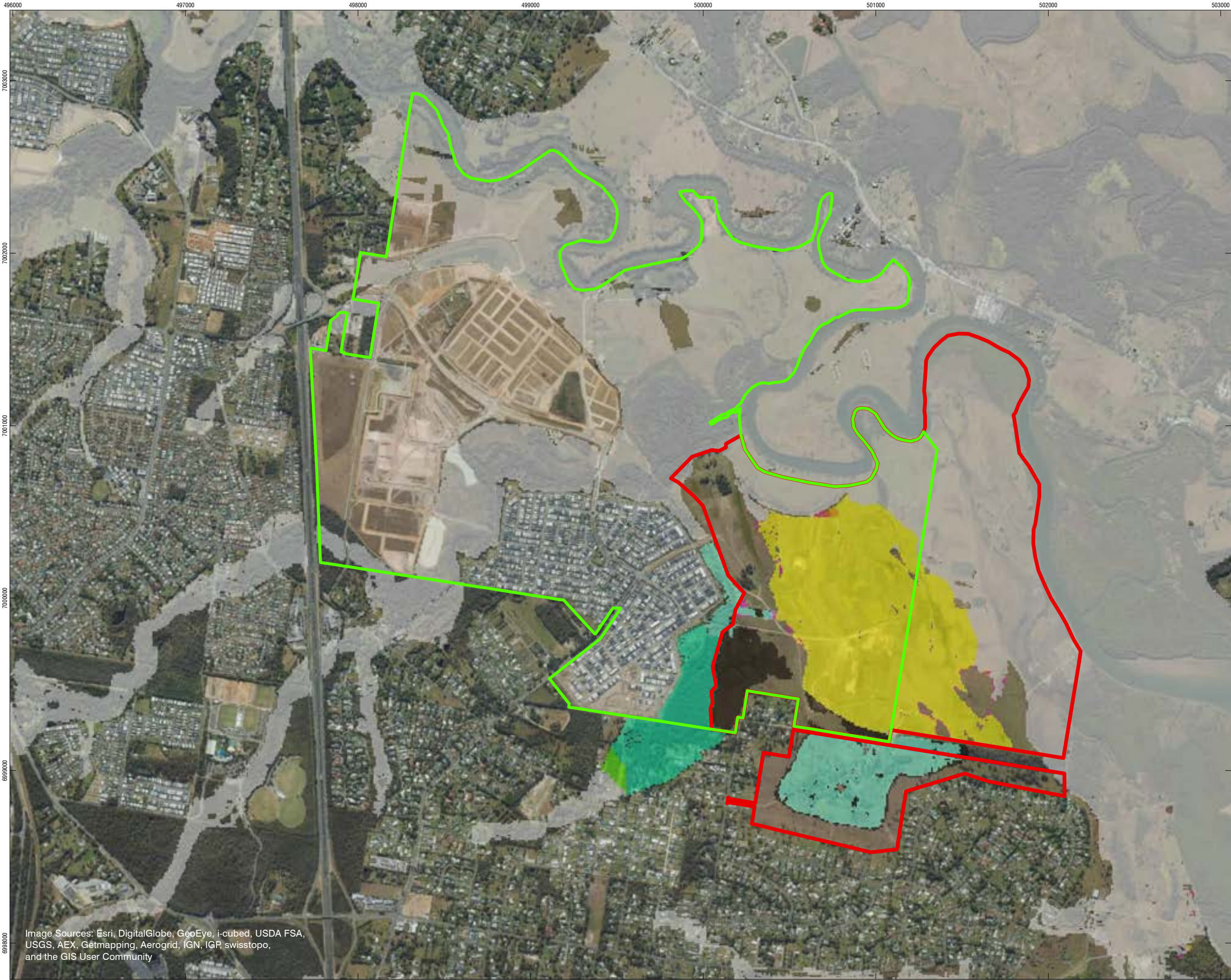
- Impact (m)**
- Below -0.200
 - 0.200 to -0.100
 - 0.100 to -0.050
 - 0.050 to -0.030
 - 0.030 to -0.020
 - 0.020 to 0.020
 - 0.020 to 0.030
 - 0.030 to 0.050
 - 0.050 to 0.100
 - 0.100 to 0.200
 - Above 0.200
 - Was wet now dry
 - Was dry now wet



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



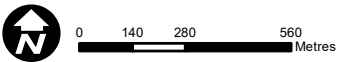
**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Afflux - 5% AEP**

APPENDIX C1-3

- Legend**
- North Harbour Boundary
 - PDA Boundary

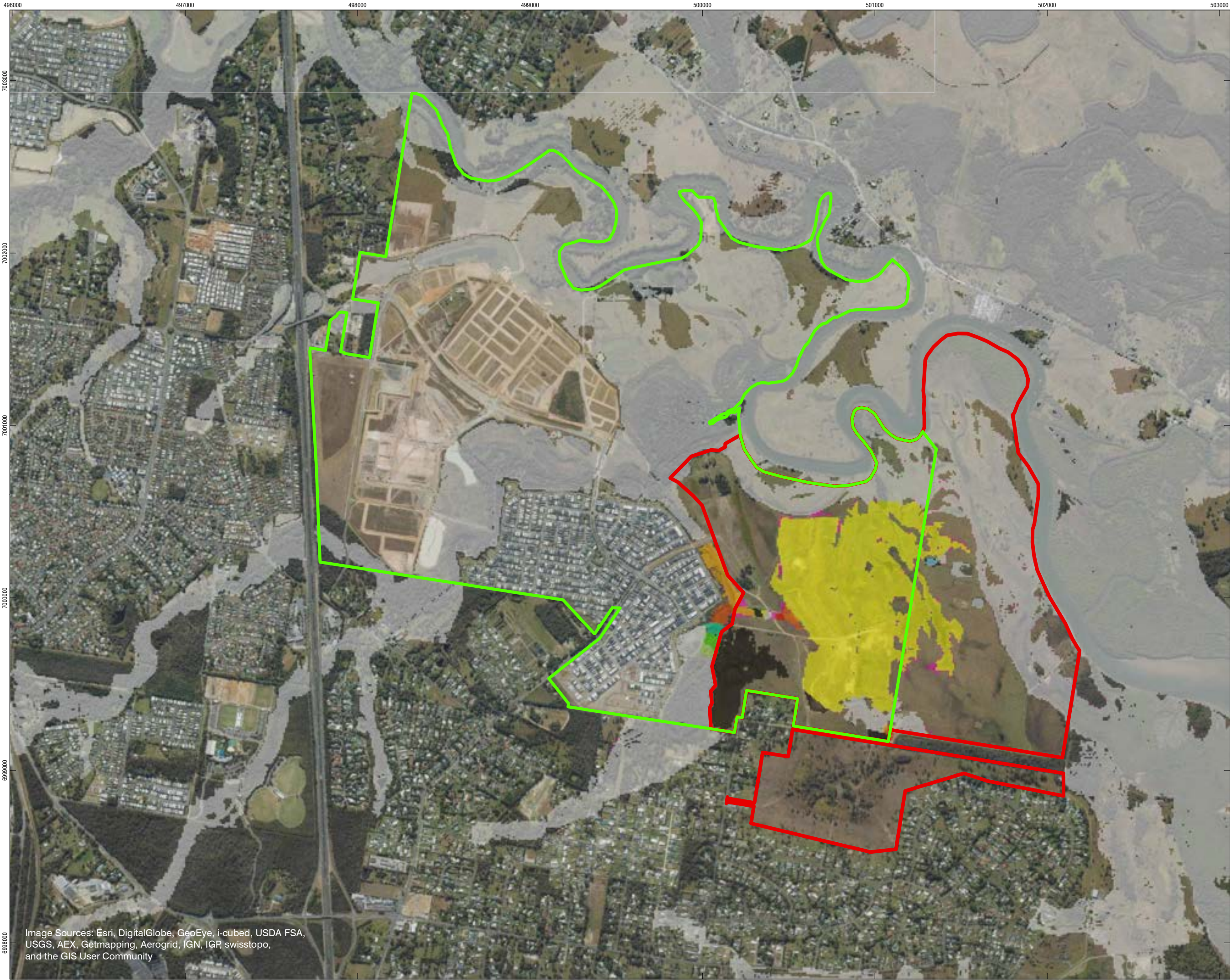
- Impact (m)**
- Below -0.200
 - 0.200 to -0.100
 - 0.100 to -0.050
 - 0.050 to -0.030
 - 0.030 to -0.020
 - 0.020 to 0.020
 - 0.020 to 0.030
 - 0.030 to 0.050
 - 0.050 to 0.100
 - 0.100 to 0.200
 - Above 0.200
 - Was wet now dry
 - Was dry now wet



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



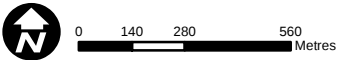
**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Afflux - 10% AEP**

APPENDIX C1-4

- Legend**
- North Harbour Boundary
 - PDA Boundary

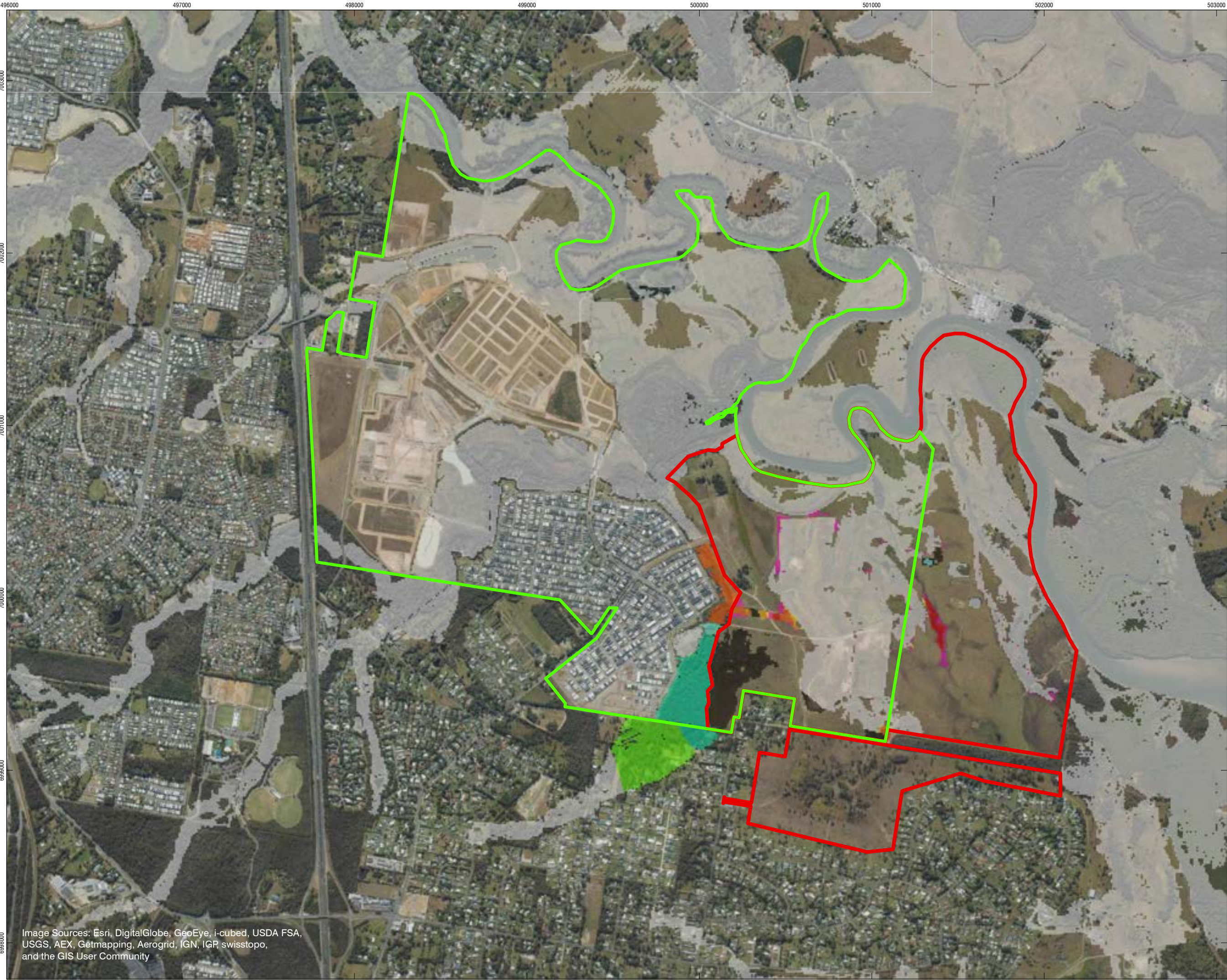
- Impact (m)**
- Below -0.200
 - 0.200 to -0.100
 - 0.100 to -0.050
 - 0.050 to -0.030
 - 0.030 to -0.020
 - 0.020 to 0.020
 - 0.020 to 0.030
 - 0.030 to 0.050
 - 0.050 to 0.100
 - 0.100 to 0.200
 - Above 0.200
 - Was wet now dry
 - Was dry now wet



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



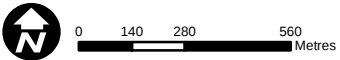
**North Harbour Area 1 Precinct
Flood Impact Assessment**

**Developed Conditions (A002)
Peak Flood Afflux - 20% AEP**

APPENDIX C1-5

- Legend**
- North Harbour Boundary
 - PDA Boundary

- Impact (m)**
- Below -0.200
 - 0.200 to -0.100
 - 0.100 to -0.050
 - 0.050 to -0.030
 - 0.030 to -0.020
 - 0.020 to 0.020
 - 0.020 to 0.030
 - 0.030 to 0.050
 - 0.050 to 0.100
 - 0.100 to 0.200
 - Above 0.200
 - Was wet now dry
 - Was dry now wet



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:20,000 at A3
Project Number: 620.30047.00304
Date: 23-Mar-2026
Drawn by: HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



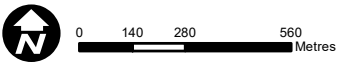
North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002)
Peak Flood Velocity Impact - 1 % AEP

APPENDIX C2-1

- Legend
- North Harbour Boundary
 - PDA Boundary

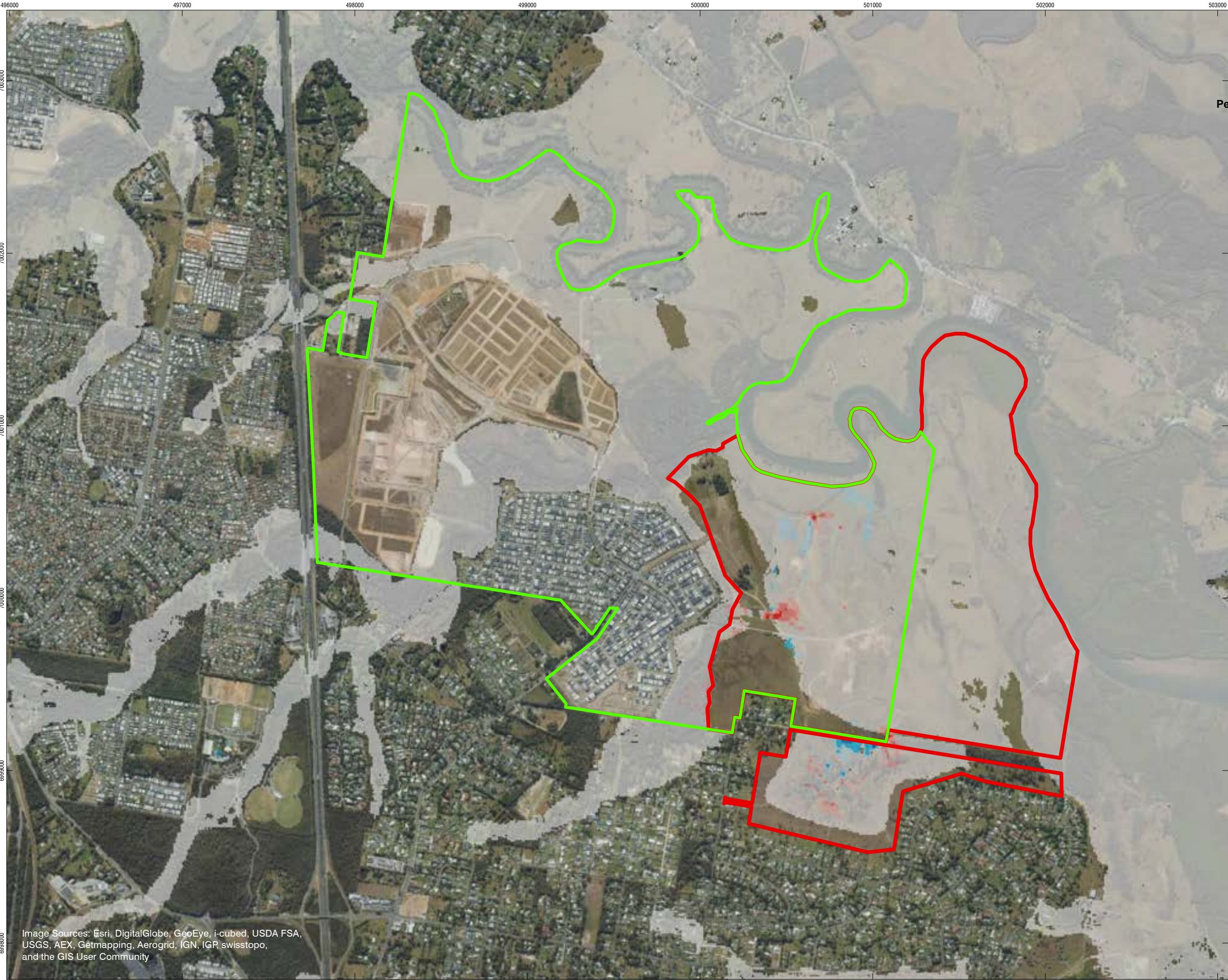
Velocity (m/s)



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



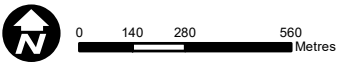
North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002)
Peak Flood Velocity Impact - 2% AEP

APPENDIX C2-2

- Legend
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

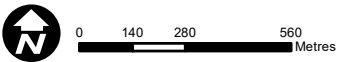
North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002)
Peak Flood Velocity Impact - 5% AEP

APPENDIX C2-3

- Legend
- North Harbour Boundary
 - PDA Boundary

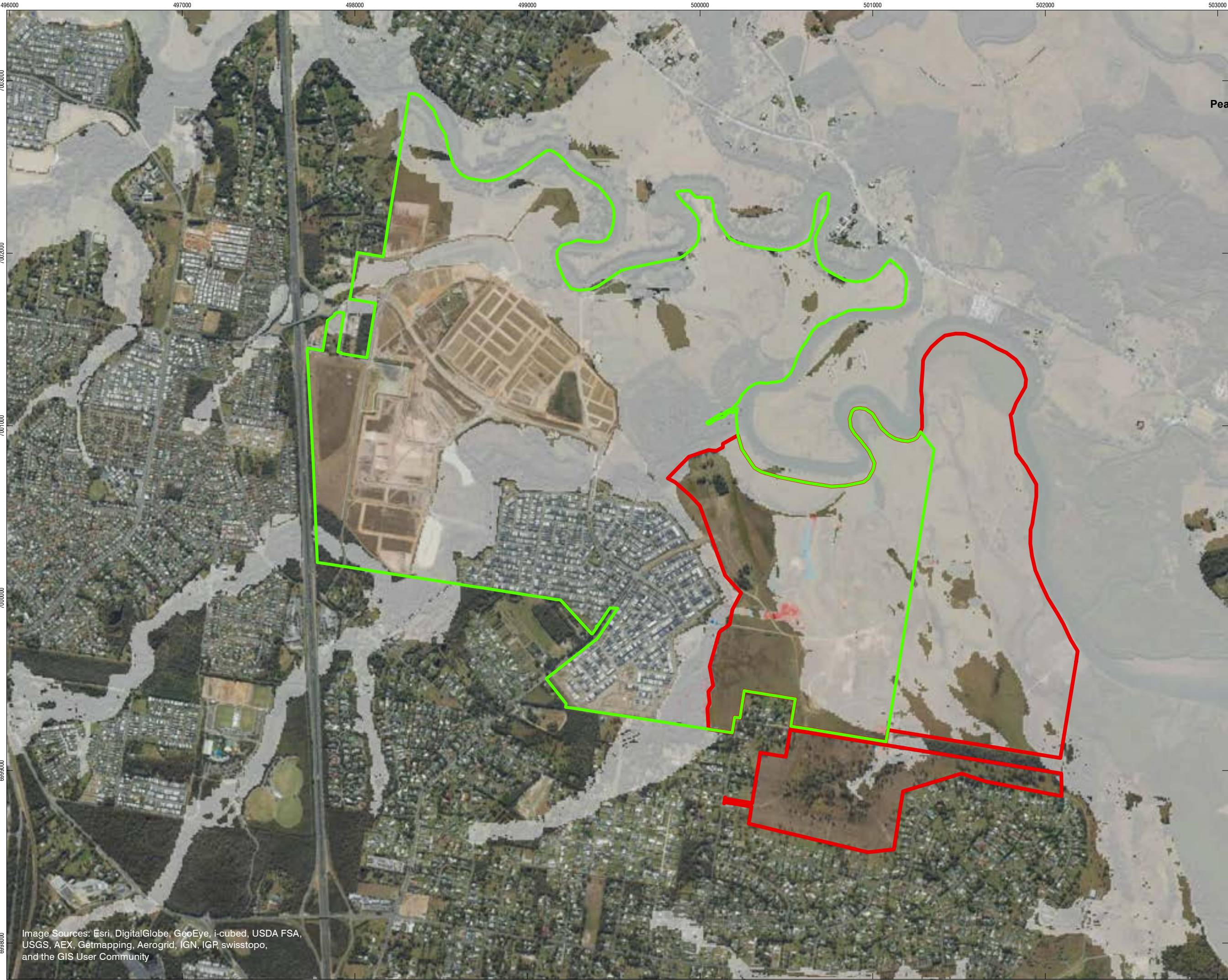
Velocity (m/s)



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



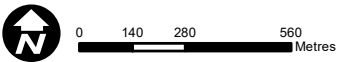
North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002)
Peak Flood Velocity Impact - 10% AEP

APPENDIX C2-4

- Legend
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community



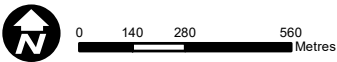
North Harbour Area 1 Precinct
Flood Impact Assessment

Developed Conditions (A002)
Peak Flood Velocity Impact - 20% AEP

APPENDIX C2-5

- Legend
- North Harbour Boundary
 - PDA Boundary

Velocity (m/s)



Coordinate System:	GDA 1994 MGA Zone 56
Scale:	1:20,000 at A3
Project Number:	620.30047.00304
Date:	23-Mar-2026
Drawn by:	HD



Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community