
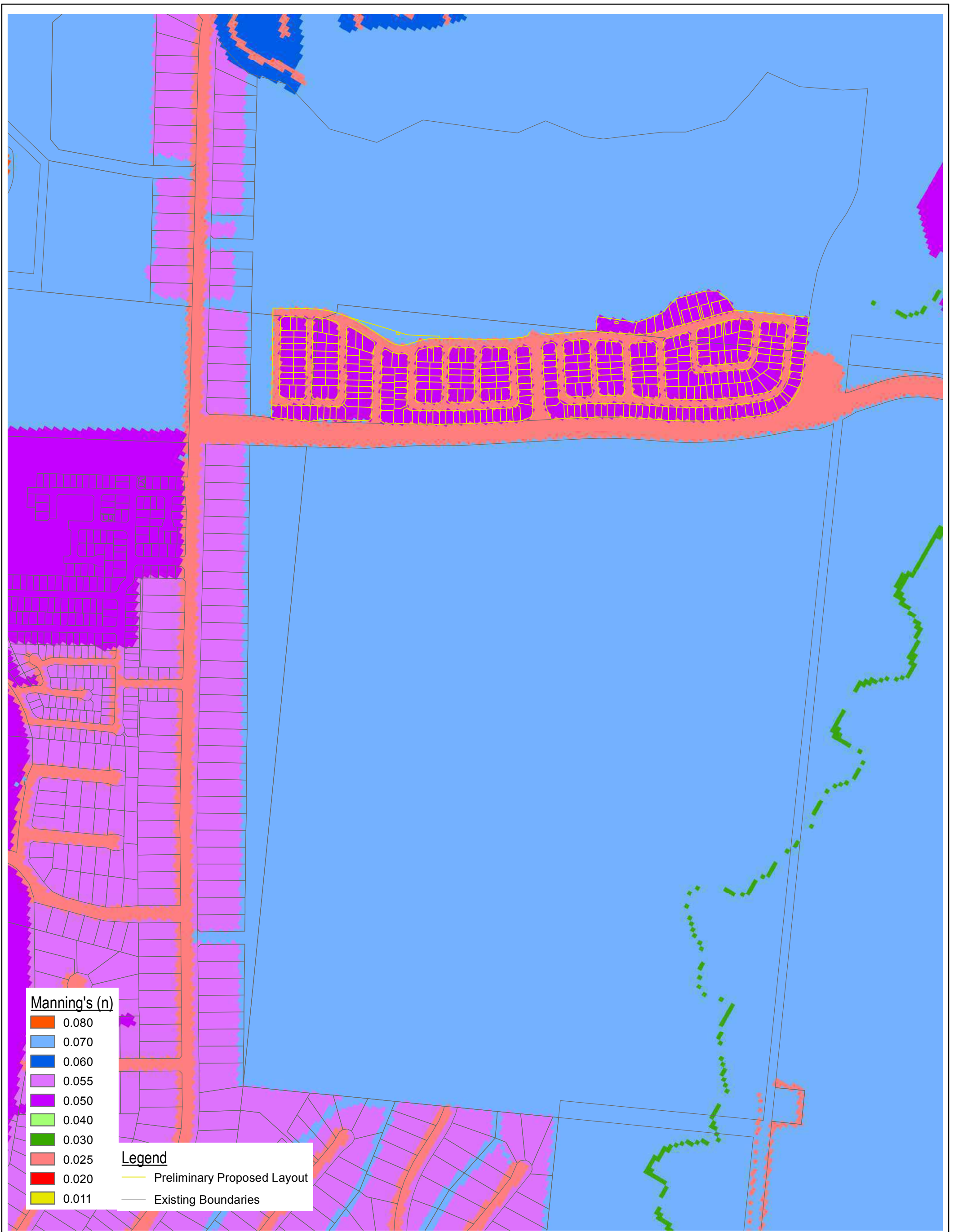
 <p>NORTHERN CONSULTING engineers</p> <p><small>Civil & Structural Engineers 50 Punari Street, Carrington 4812 Phone: [07] 4725 5550 Fax: [07] 4725 5850 Email: mail@nceng.com.au Milton-Mcconnor & Associates Pty. Ltd. ACN 100 817 356</small></p>	<p>In Association With:</p> <p>TURNER OWENS GROUP</p>	<p>MOUNT LOW DEVELOPMENT MASTER PLANNED COMMUNITY FLOOD ASSESSMENT</p>	<p>Baseline Roughness Map</p>
	<p>Date: 21/08/2017 Rev: A NCE Ref: TURF0013</p>		<p>0 75 150 300 Metres Scale 1:8,000 @ A3</p> 



Manning's (n)

- 0.080
- 0.070
- 0.060
- 0.055
- 0.050
- 0.040
- 0.030
- 0.025
- 0.020
- 0.011

Legend

- Preliminary Proposed Layout
- Existing Boundaries


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0 75 150 300
 Metres

Scale 1:8,000 @ A3

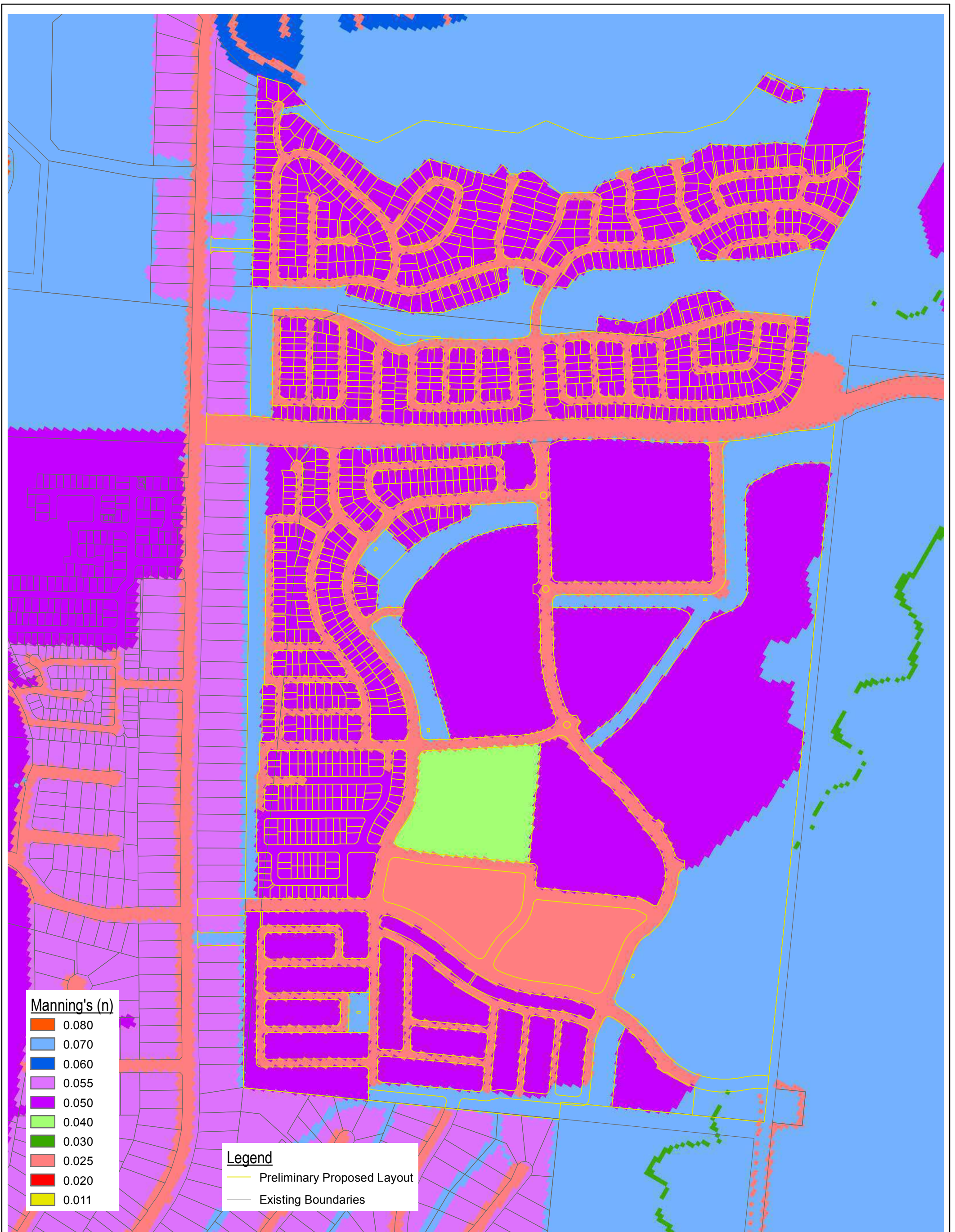












 N



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Developed Precinct B
Roughness Map**

TURF0013/A08



Manning's (n)	
	0.080
	0.070
	0.060
	0.055
	0.050
	0.040
	0.030
	0.025
	0.020
	0.011

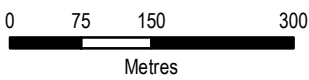
Legend	
	Preliminary Proposed Layout
	Existing Boundaries



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 Metres
 Scale 1:8,000 @ A3



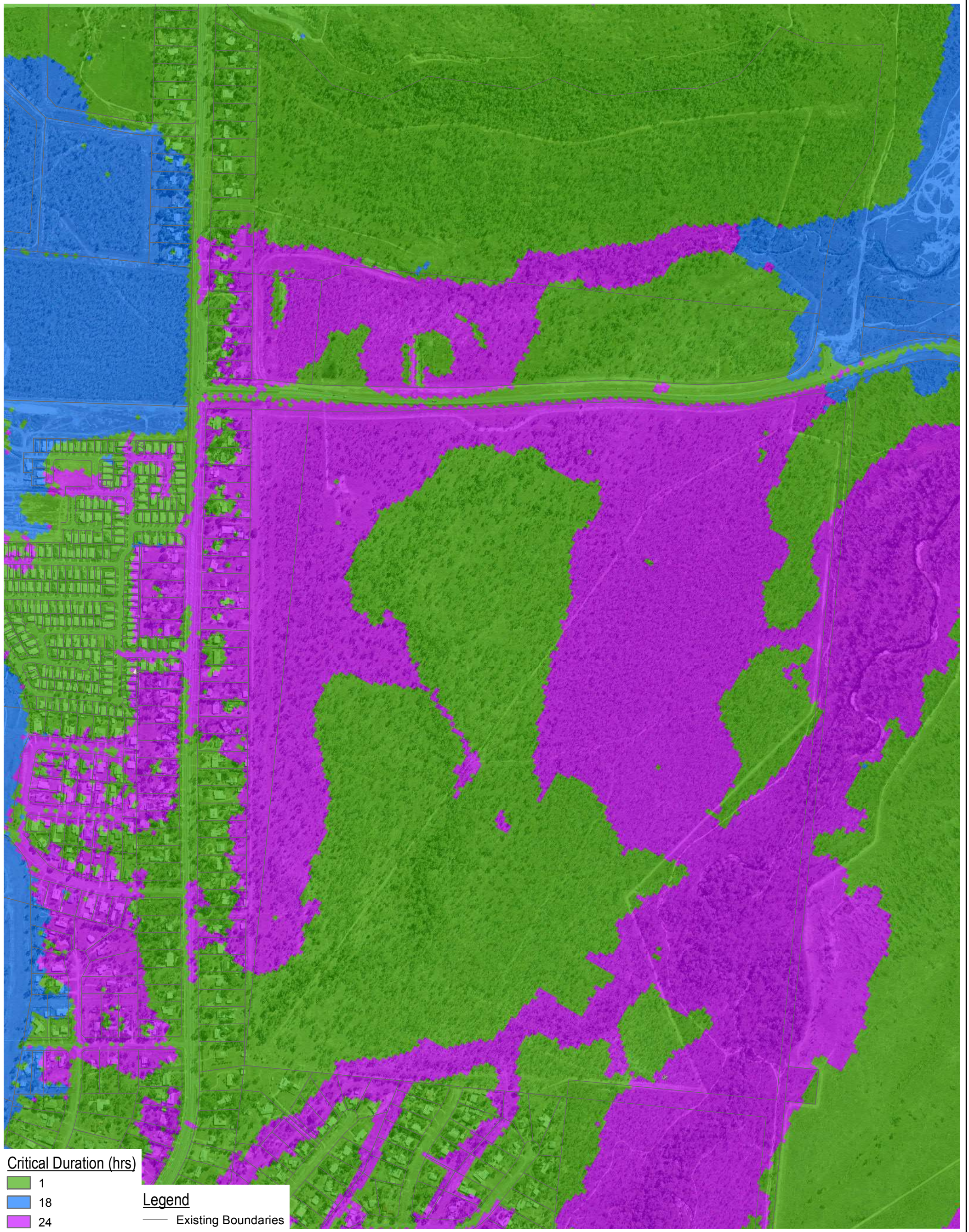
**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Ultimate
 Roughness Map**

TURF0013/A09

APPENDIX B

MIKE FLOOD Results





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0 75 150 300
 Metres
 Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Baseline
Critical Duration Map**

TURF0013/B01



Critical Duration (hrs)

- 1
- 18
- 24

Legend

- Preliminary Proposed Layout
- Existing Boundaries



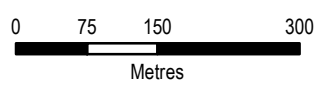
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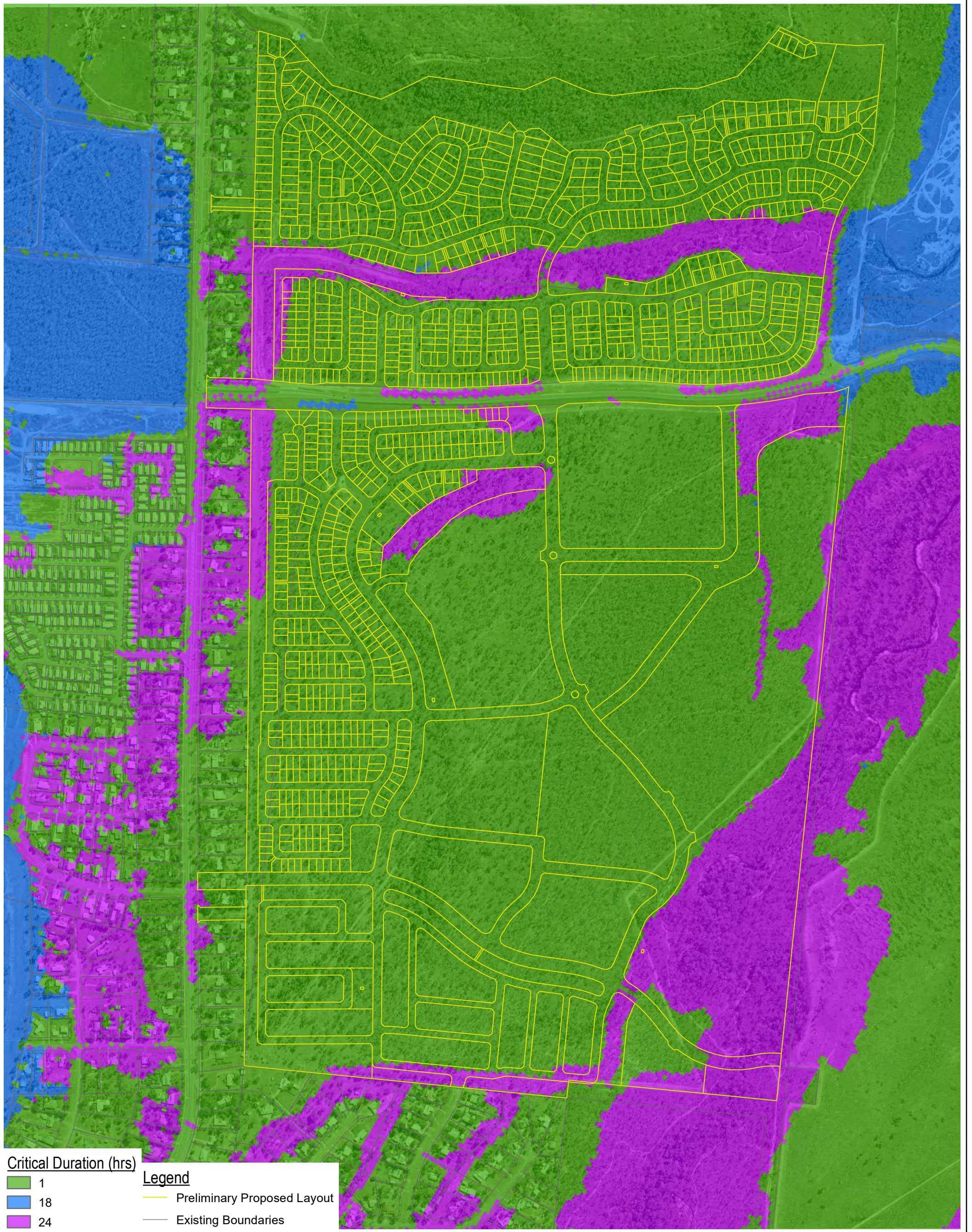
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**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Developed Precinct B
Critical Duration Map**

TURF0013/B02





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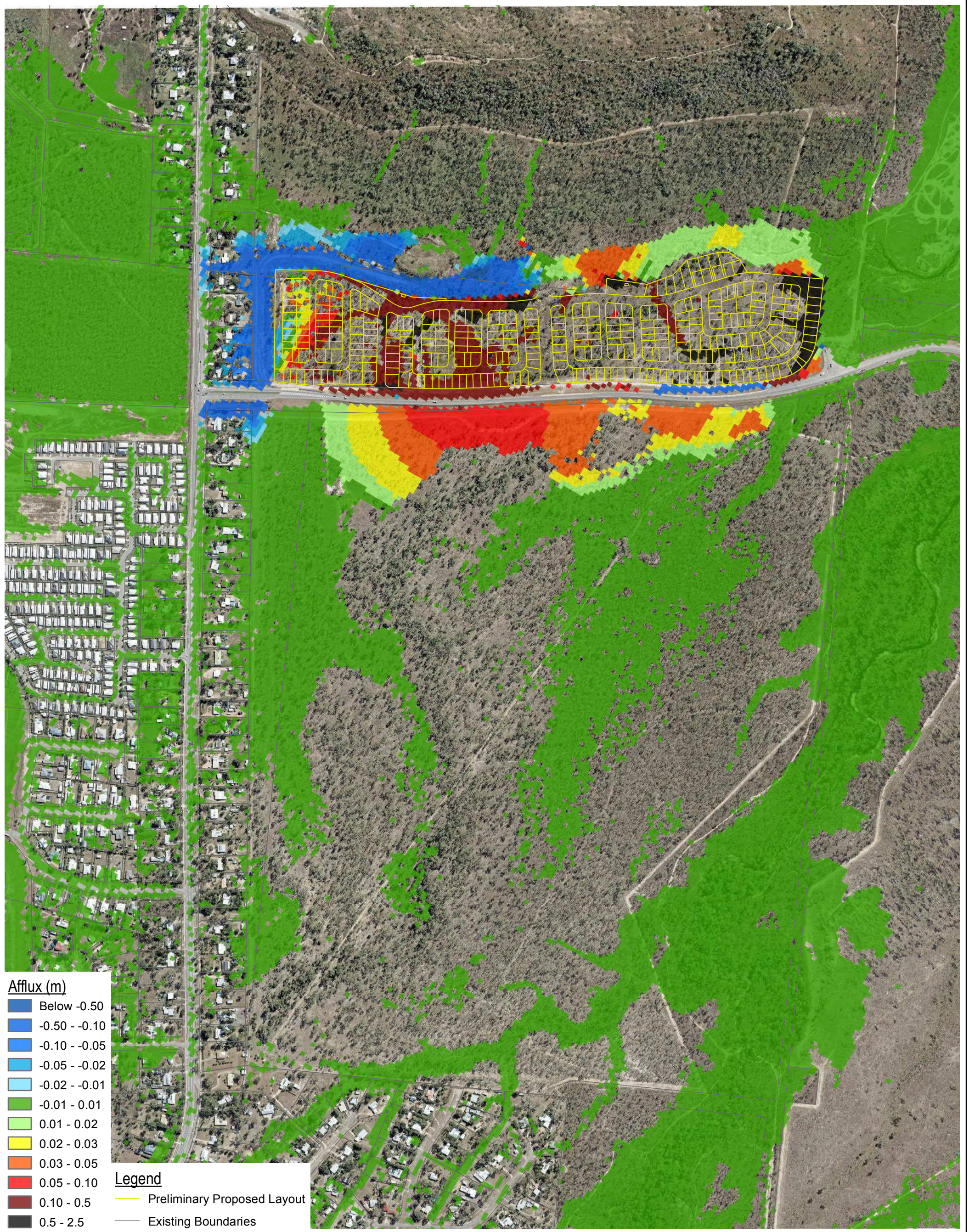
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 Metres
 Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Developed Ultimate
Critical Duration Map**

TURF0013/B03




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0 75 150 300
Metres

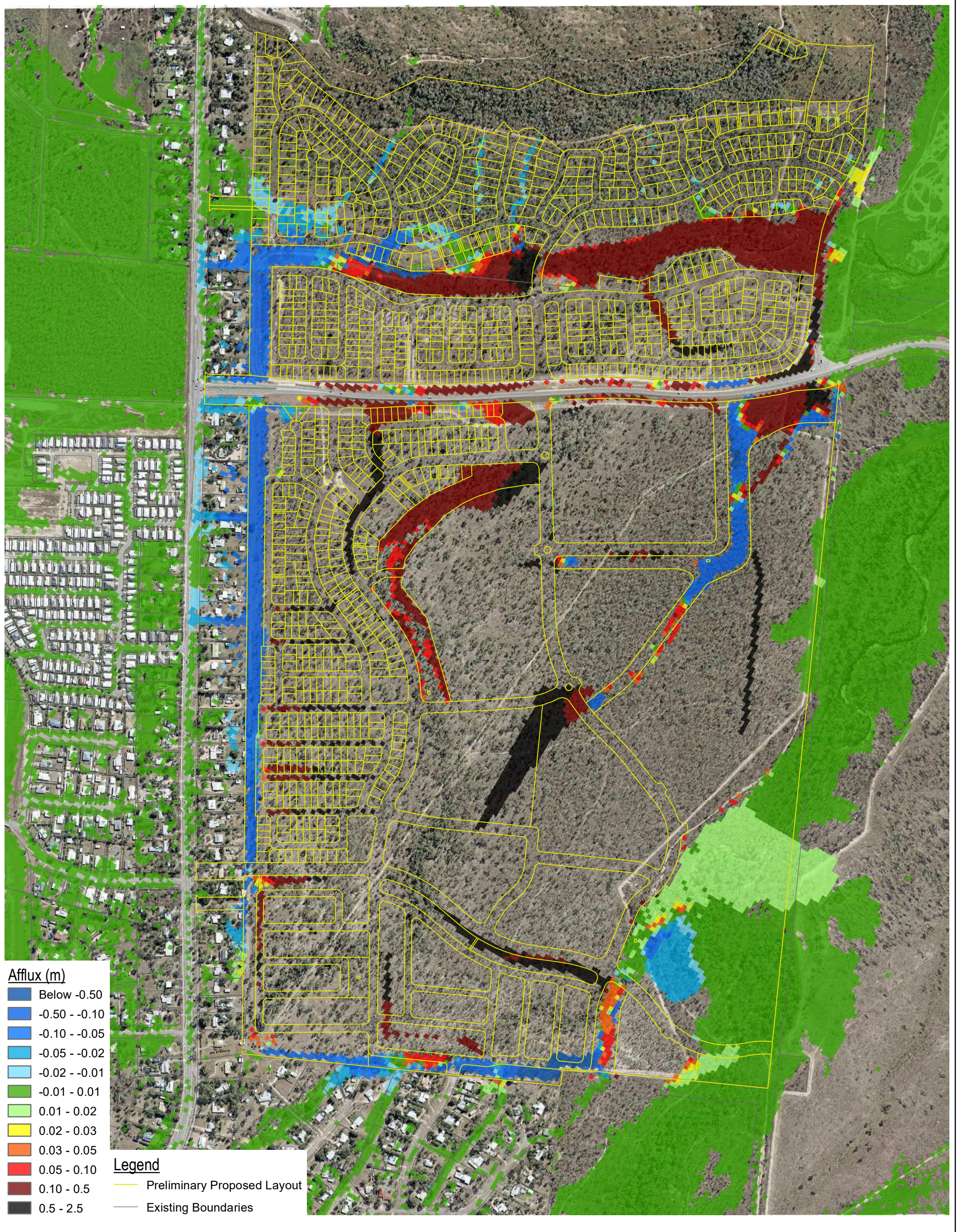
Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Afflux 'Developed Precinct B'
minus 'Baseline'
1% AEP All Critical Durations**

TURF0013/B04



- Afflux (m)**
- Below -0.50
 - 0.50 - -0.10
 - 0.10 - -0.05
 - 0.05 - -0.02
 - 0.02 - -0.01
 - 0.01 - 0.01
 - 0.01 - 0.02
 - 0.02 - 0.03
 - 0.03 - 0.05
 - 0.05 - 0.10
 - 0.10 - 0.5
 - 0.5 - 2.5

- Legend**
- Preliminary Proposed Layout
 - Existing Boundaries



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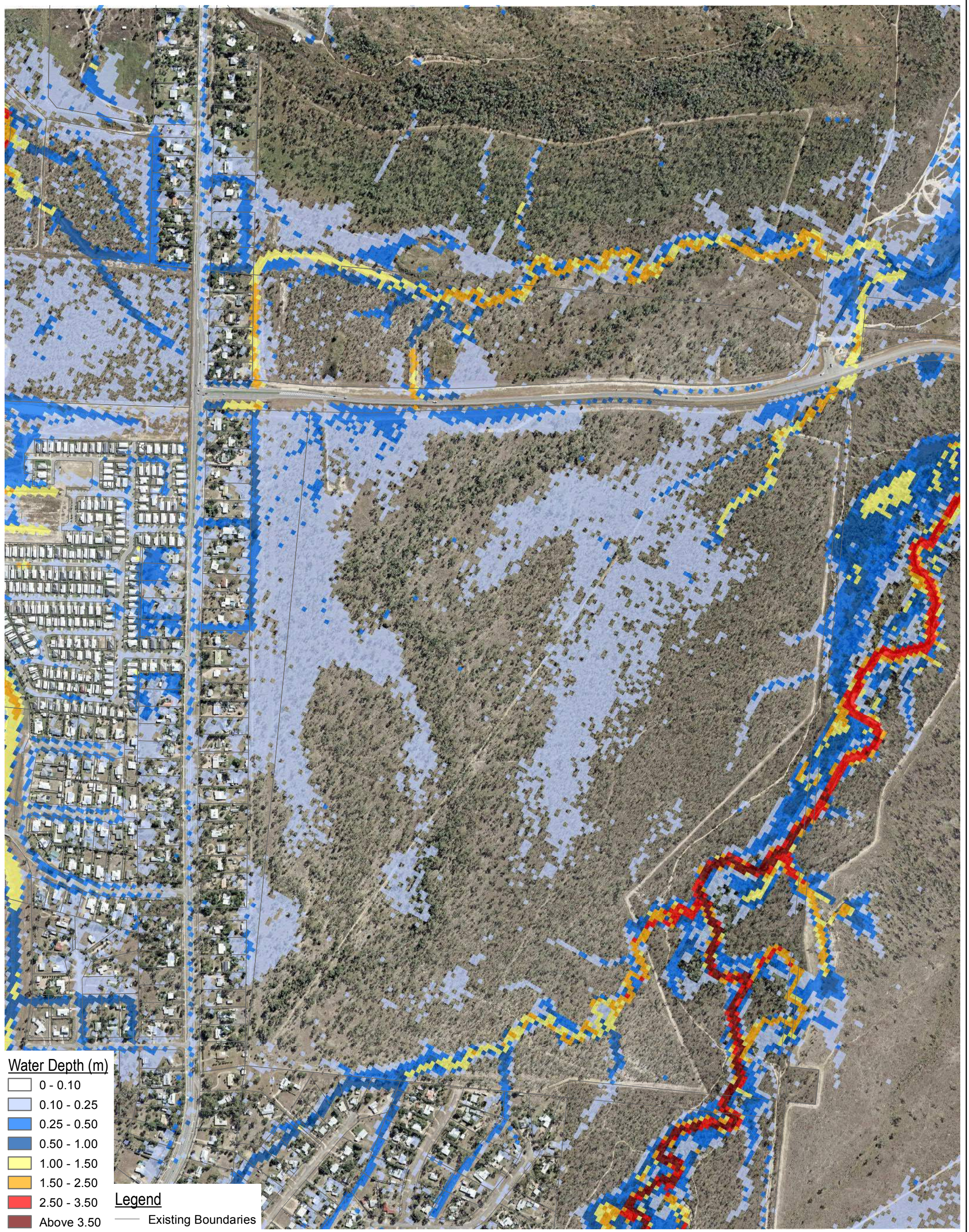
0 70 140 280
 Metres
 Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Afflux 'Developed Ultimate'
minus 'Baseline'
1% AEP All Critical Durations**

TURF0013/B05



Water Depth (m)

- 0 - 0.10
- 0.10 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.50
- 2.50 - 3.50
- Above 3.50

Legend

— Existing Boundaries



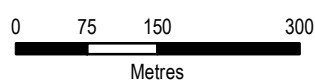
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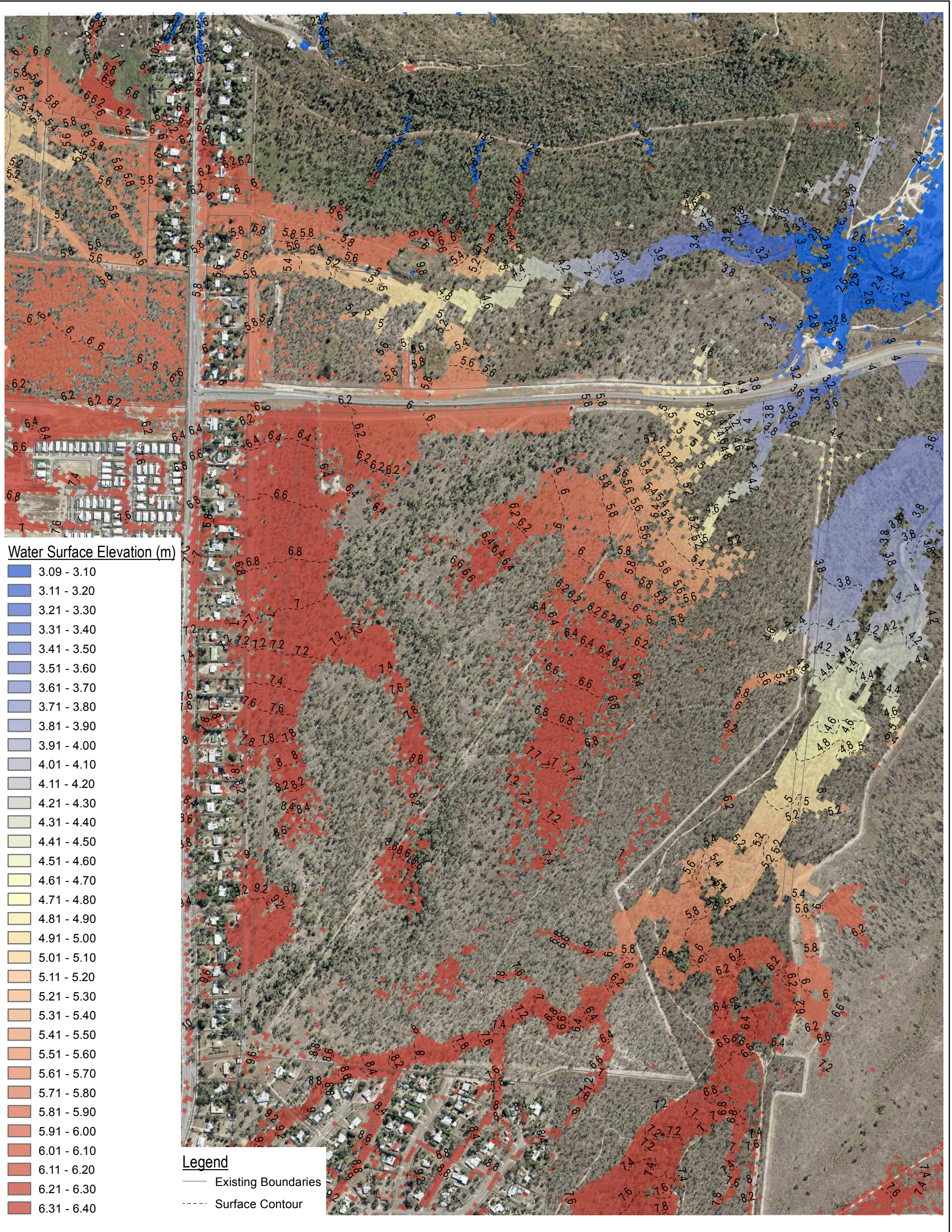
Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Baseline
Maximum Water Depth
1% AEP 1 hour**

TURF0013/B06



Water Surface Elevation (m)

- 3.09 - 3.10
- 3.11 - 3.20
- 3.21 - 3.30
- 3.31 - 3.40
- 3.41 - 3.50
- 3.51 - 3.60
- 3.61 - 3.70
- 3.71 - 3.80
- 3.81 - 3.90
- 3.91 - 4.00
- 4.01 - 4.10
- 4.11 - 4.20
- 4.21 - 4.30
- 4.31 - 4.40
- 4.41 - 4.50
- 4.51 - 4.60
- 4.61 - 4.70
- 4.71 - 4.80
- 4.81 - 4.90
- 4.91 - 5.00
- 5.01 - 5.10
- 5.11 - 5.20
- 5.21 - 5.30
- 5.31 - 5.40
- 5.41 - 5.50
- 5.51 - 5.60
- 5.61 - 5.70
- 5.71 - 5.80
- 5.81 - 5.90
- 5.91 - 6.00
- 6.01 - 6.10
- 6.11 - 6.20
- 6.21 - 6.30
- 6.31 - 6.40

Legend

- Existing Boundaries
- - - Surface Contour

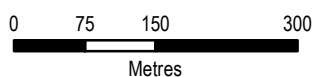


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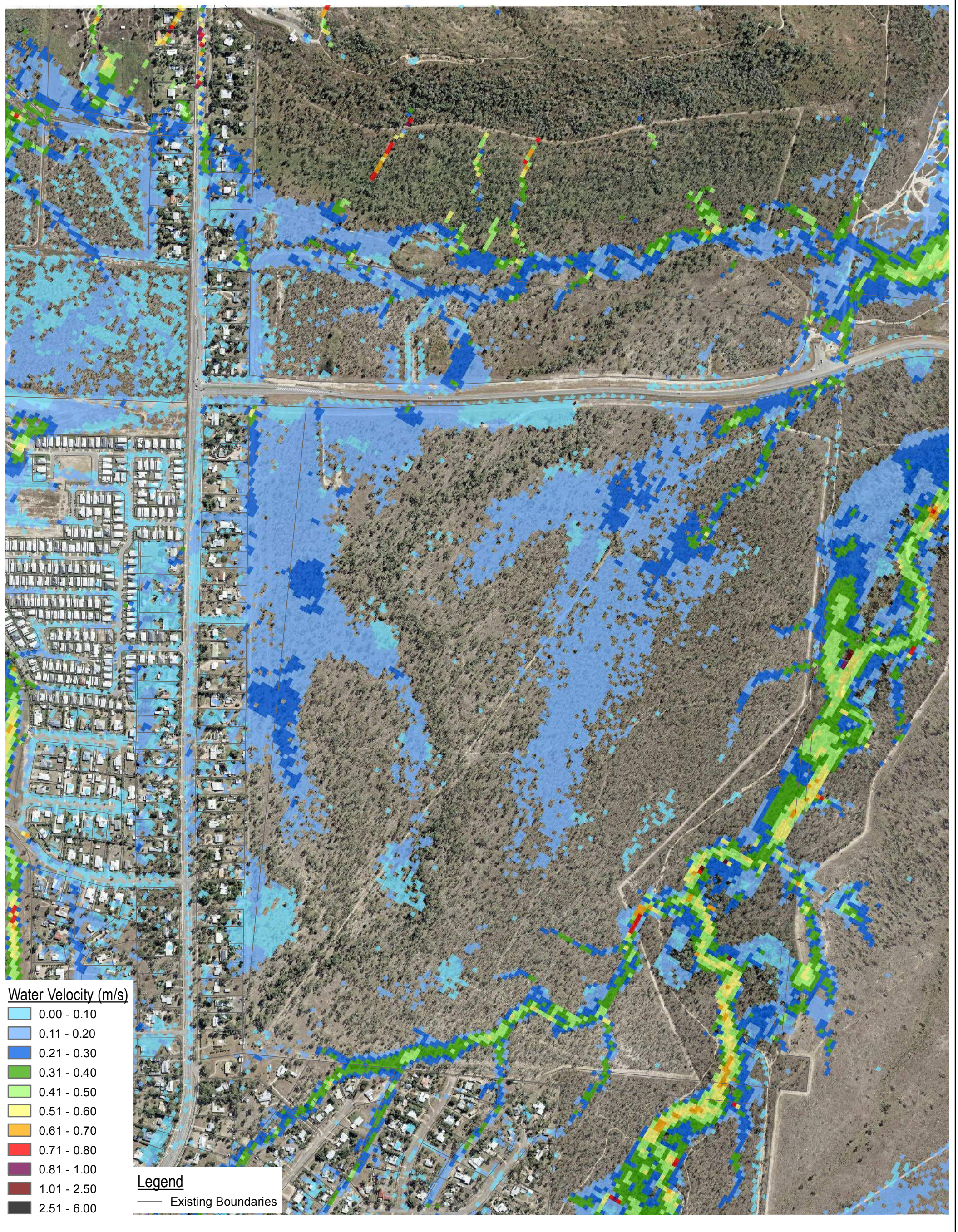
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**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Baseline Maximum
Water Surface Elevation
1% AEP 1 hour**

TURF0013/B07



Water Velocity (m/s)

- 0.00 - 0.10
- 0.11 - 0.20
- 0.21 - 0.30
- 0.31 - 0.40
- 0.41 - 0.50
- 0.51 - 0.60
- 0.61 - 0.70
- 0.71 - 0.80
- 0.81 - 1.00
- 1.01 - 2.50
- 2.51 - 6.00

Legend

— Existing Boundaries

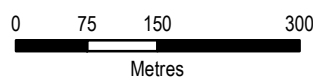


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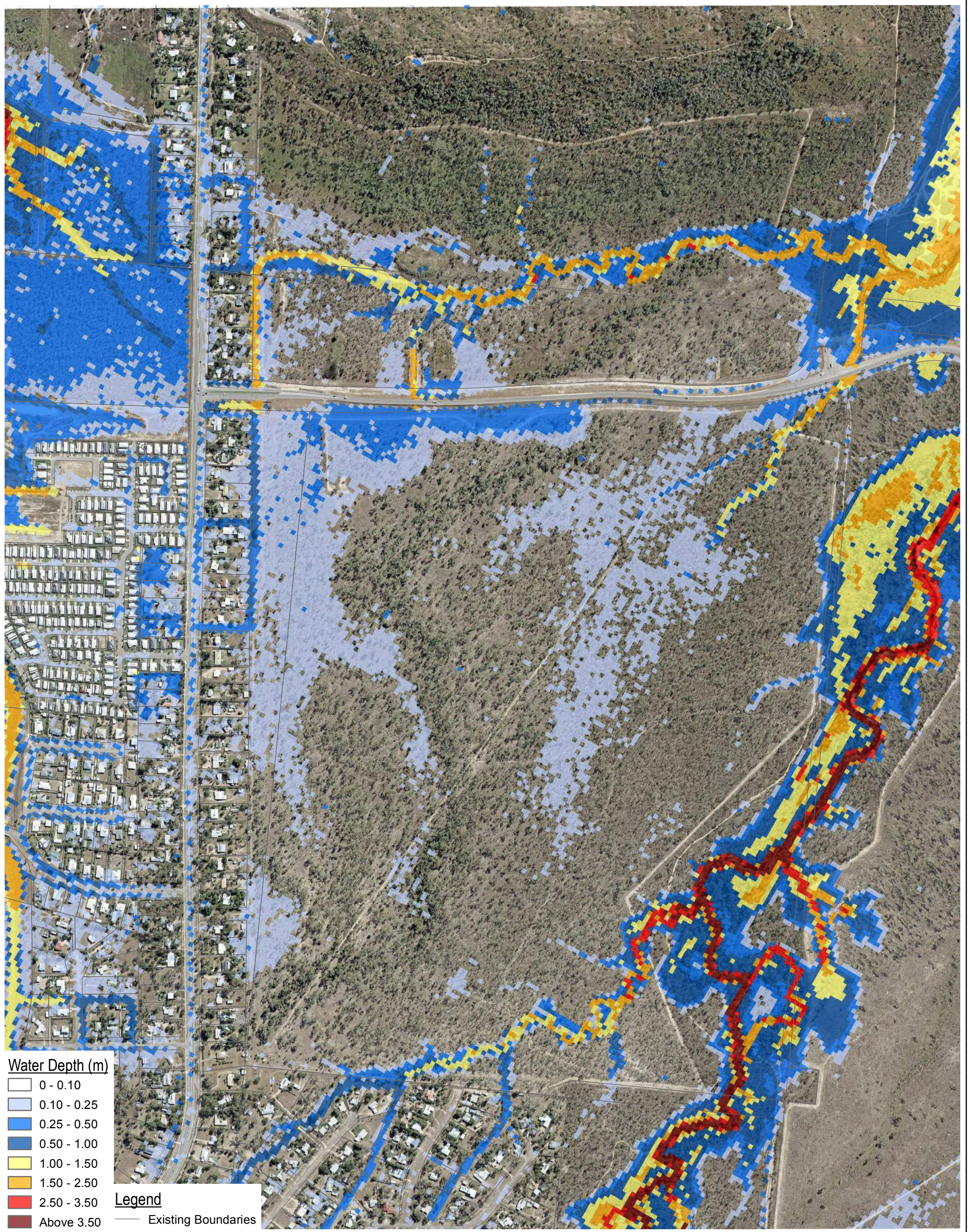
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**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Baseline
 Maximum Water Velocity
 1% AEP 1 hour**

TURF0013/B08



Water Depth (m)

- 0 - 0.10
- 0.10 - 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.50
- 2.50 - 3.50
- Above 3.50

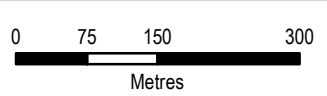
Legend

— Existing Boundaries



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Scale 1:8,000 @ A3

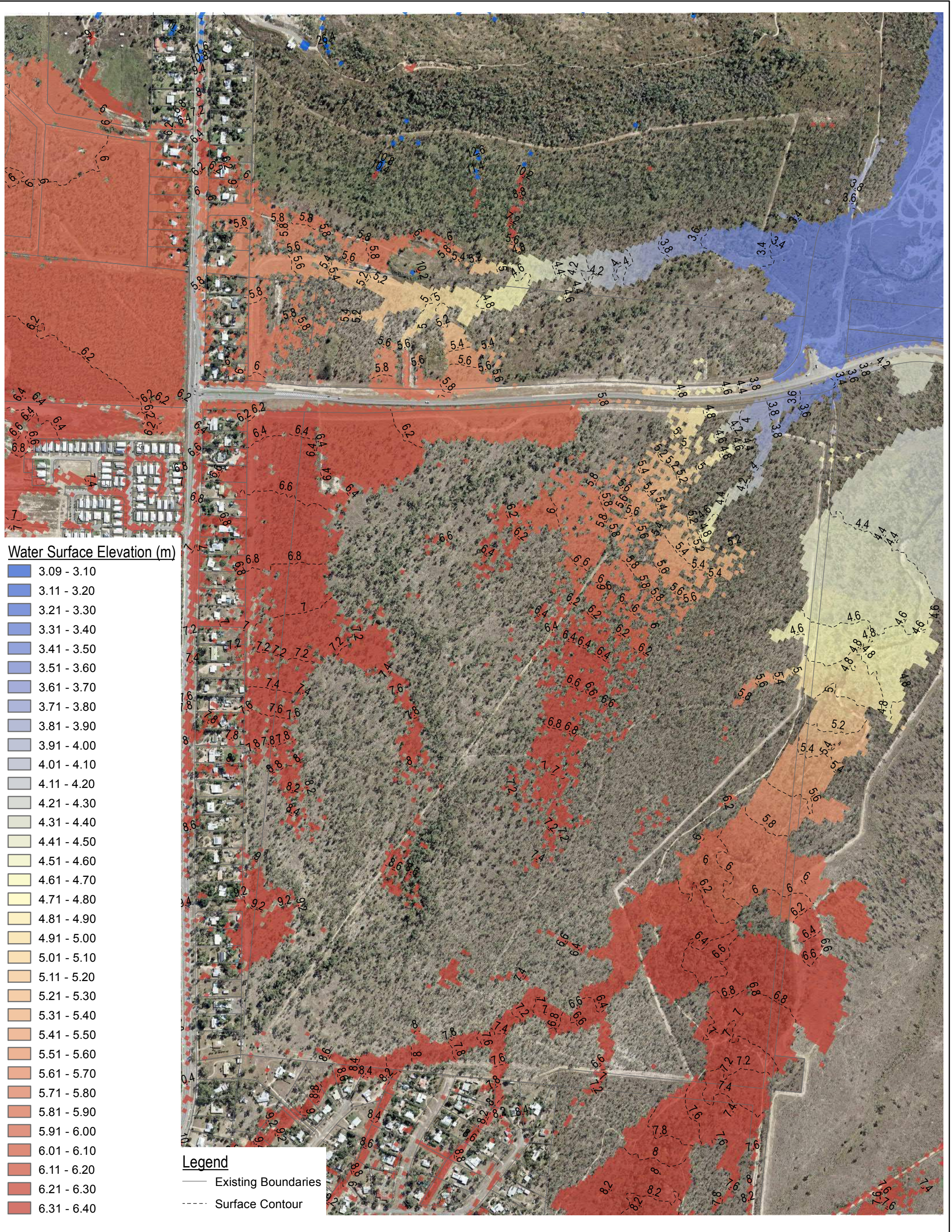


**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Baseline
 Maximum Water Depth
 1% AEP 18 hour**

TURF0013/B09

Date: 21/08/2017 Rev: A NCE Ref: TURF0013



Water Surface Elevation (m)

- 3.09 - 3.10
- 3.11 - 3.20
- 3.21 - 3.30
- 3.31 - 3.40
- 3.41 - 3.50
- 3.51 - 3.60
- 3.61 - 3.70
- 3.71 - 3.80
- 3.81 - 3.90
- 3.91 - 4.00
- 4.01 - 4.10
- 4.11 - 4.20
- 4.21 - 4.30
- 4.31 - 4.40
- 4.41 - 4.50
- 4.51 - 4.60
- 4.61 - 4.70
- 4.71 - 4.80
- 4.81 - 4.90
- 4.91 - 5.00
- 5.01 - 5.10
- 5.11 - 5.20
- 5.21 - 5.30
- 5.31 - 5.40
- 5.41 - 5.50
- 5.51 - 5.60
- 5.61 - 5.70
- 5.71 - 5.80
- 5.81 - 5.90
- 5.91 - 6.00
- 6.01 - 6.10
- 6.11 - 6.20
- 6.21 - 6.30
- 6.31 - 6.40

Legend

- Existing Boundaries
- Surface Contour

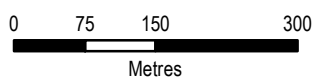


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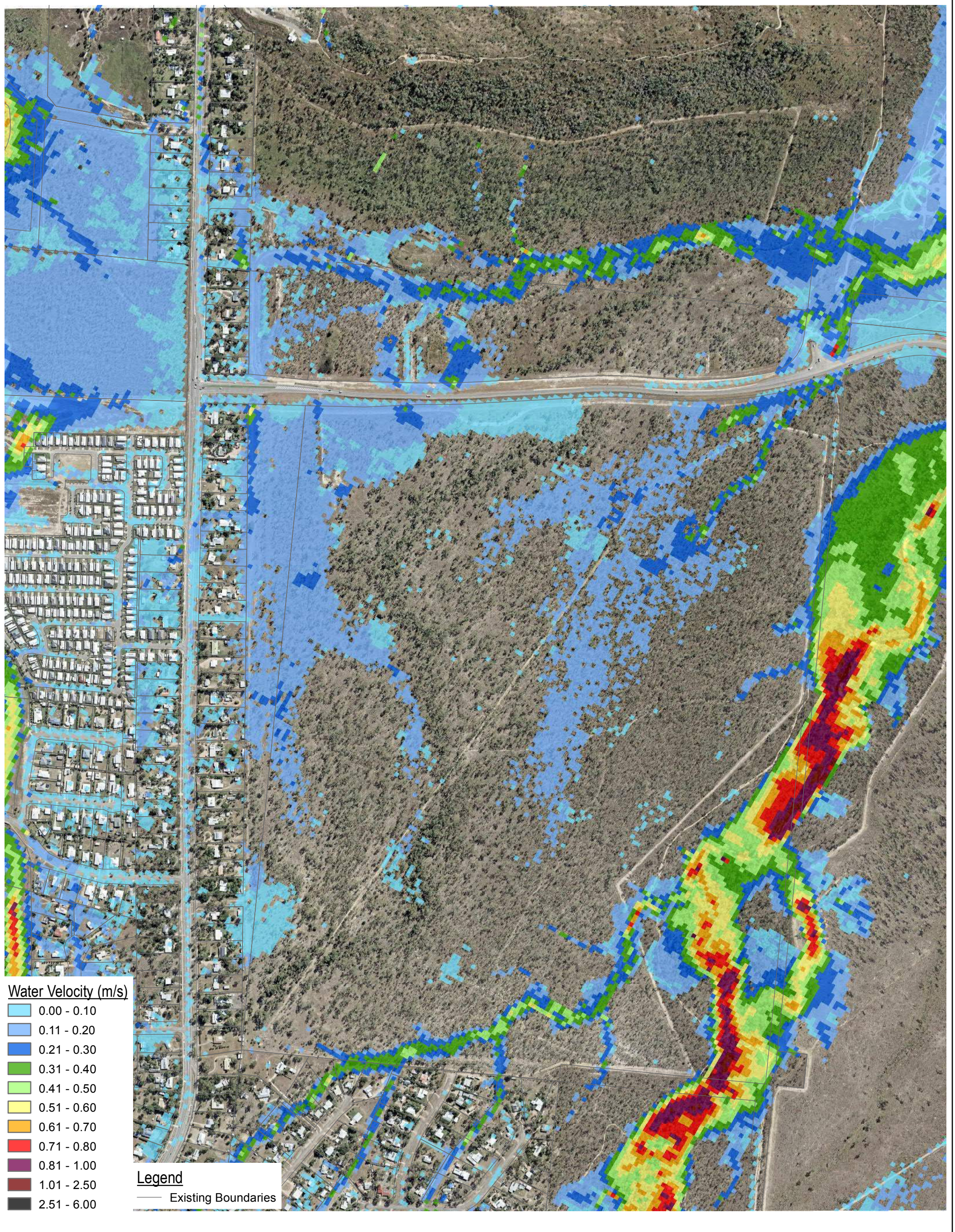
Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Baseline Maximum
Water Surface Elevation
1% AEP 18 hour**

TURF0013/B10




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0 75 150 300
Metres

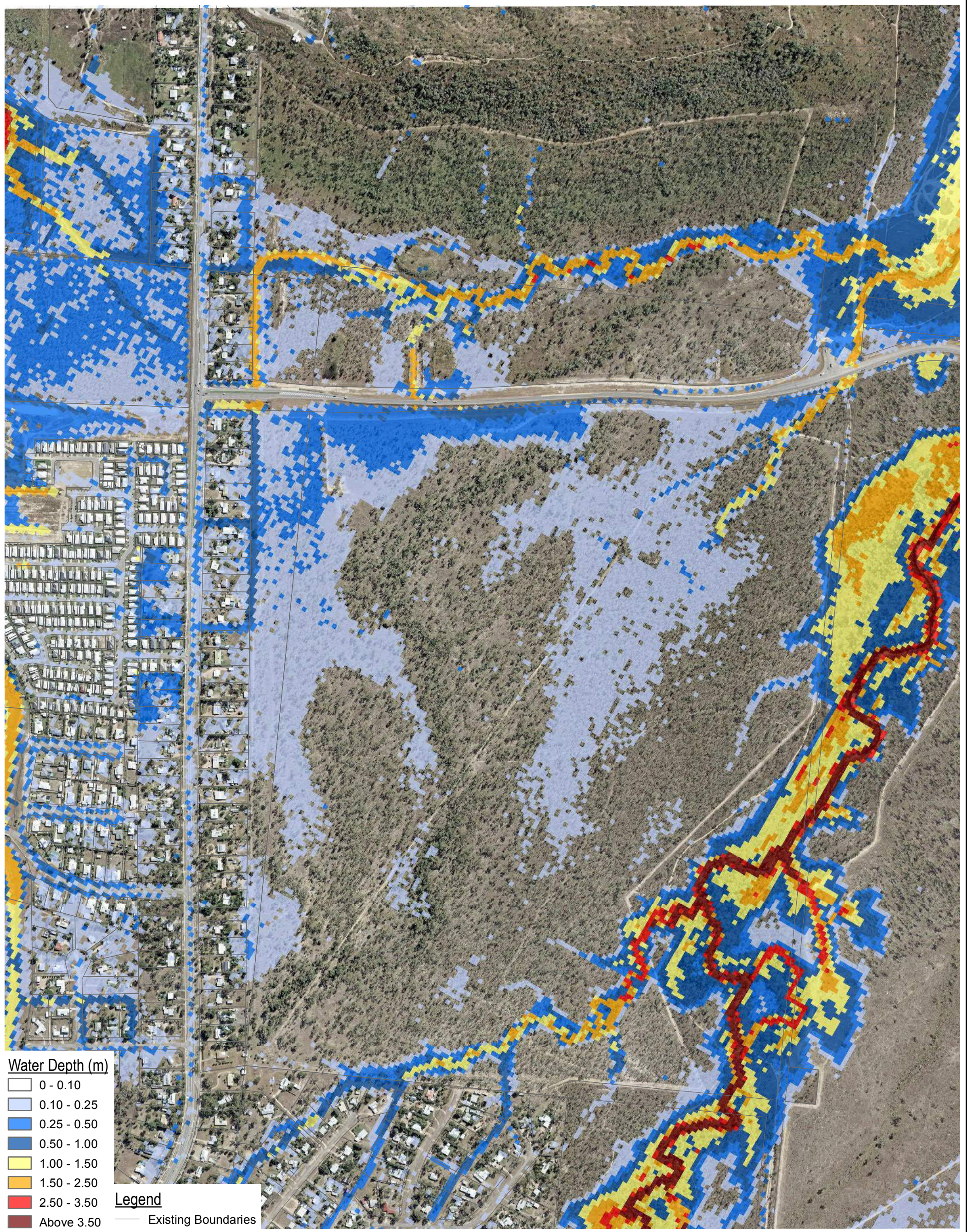
Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Baseline
 Maximum Water Velocity
 1% AEP 18 hour**

TURF0013/B11



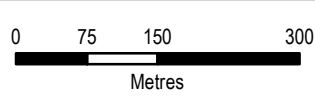

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Metres

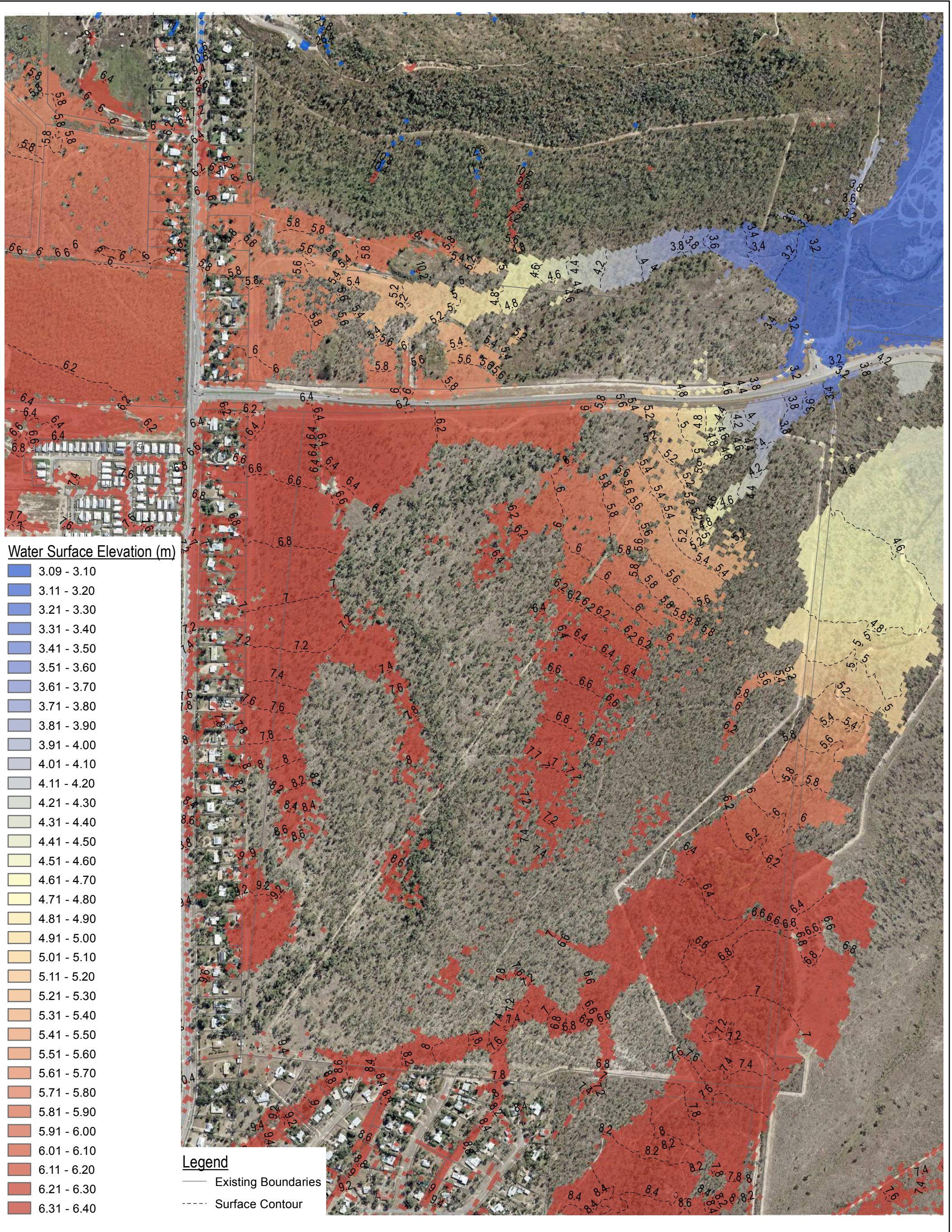
Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Baseline
 Maximum Water Depth
 1% AEP 24 hour**

TURF0013/B12



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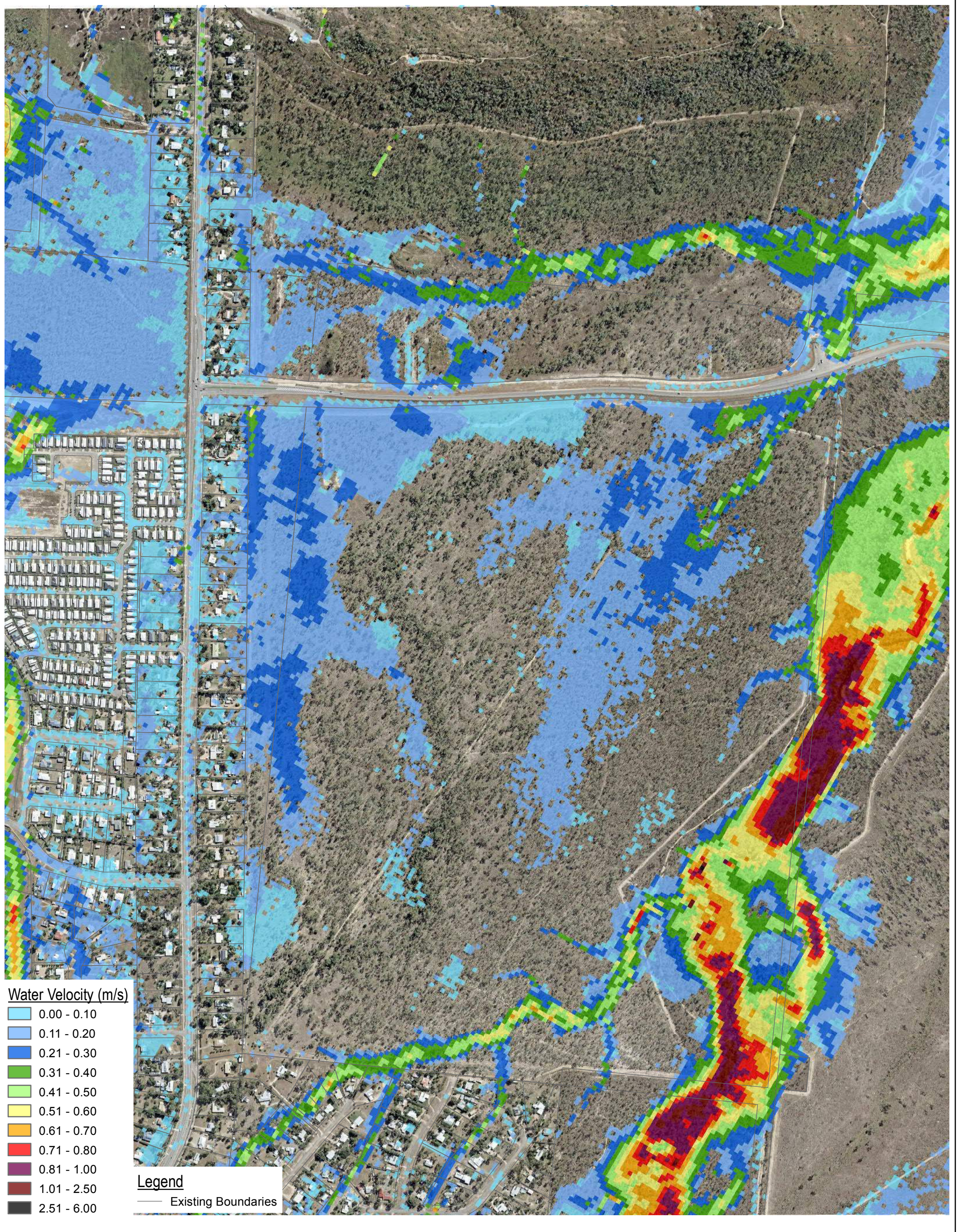
0 75 150 300
Metres

Scale 1:8,000 @ A3

**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Baseline Maximum
 Water Surface Elevation
 1% AEP 24 hour**

TURF0013/B13



Water Velocity (m/s)

- 0.00 - 0.10
- 0.11 - 0.20
- 0.21 - 0.30
- 0.31 - 0.40
- 0.41 - 0.50
- 0.51 - 0.60
- 0.61 - 0.70
- 0.71 - 0.80
- 0.81 - 1.00
- 1.01 - 2.50
- 2.51 - 6.00

Legend

— Existing Boundaries



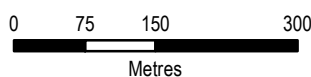
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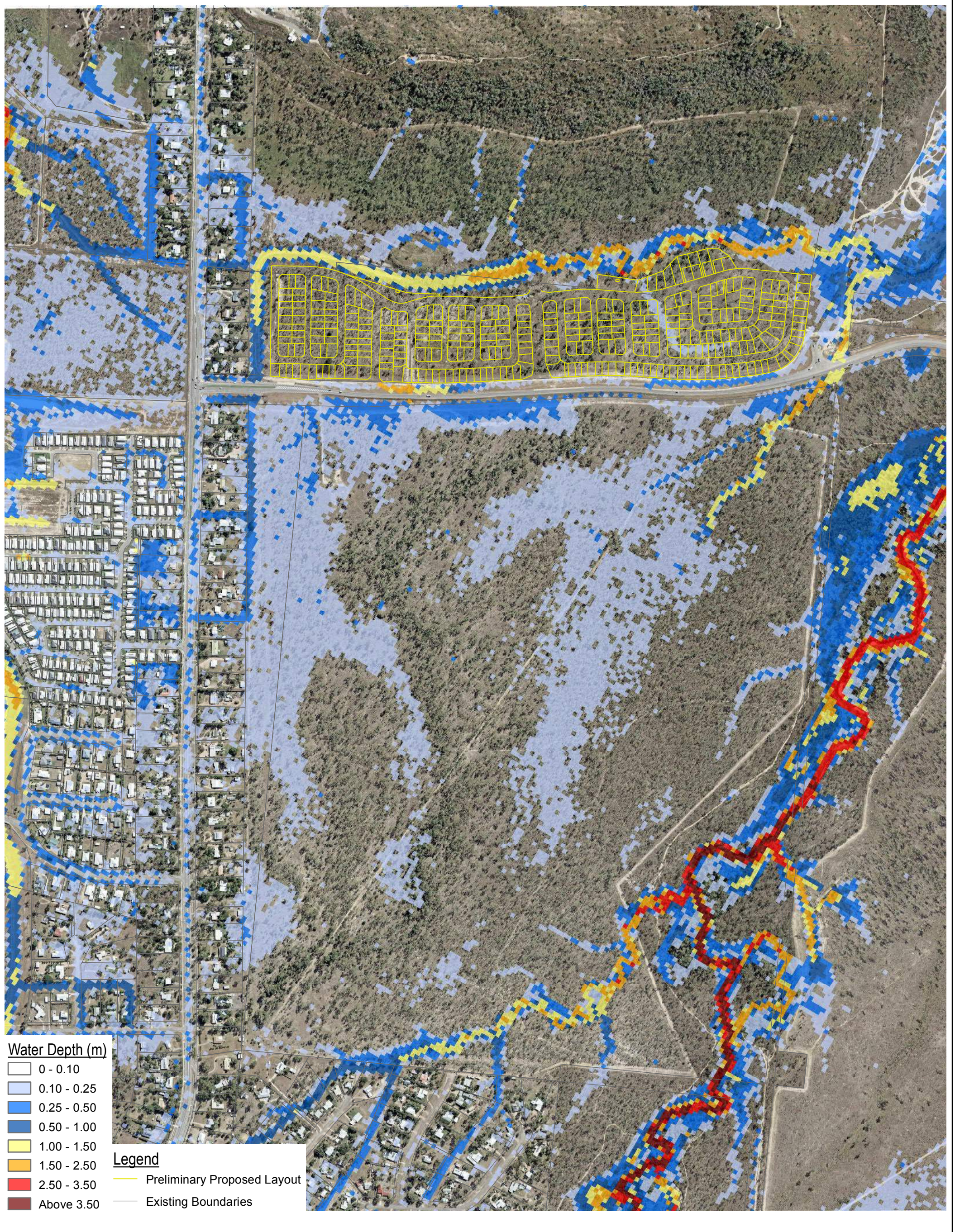
Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Baseline
Maximum Water Velocity
1% AEP 24 hour**

TURF0013/B14




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0 75 150 300
Metres

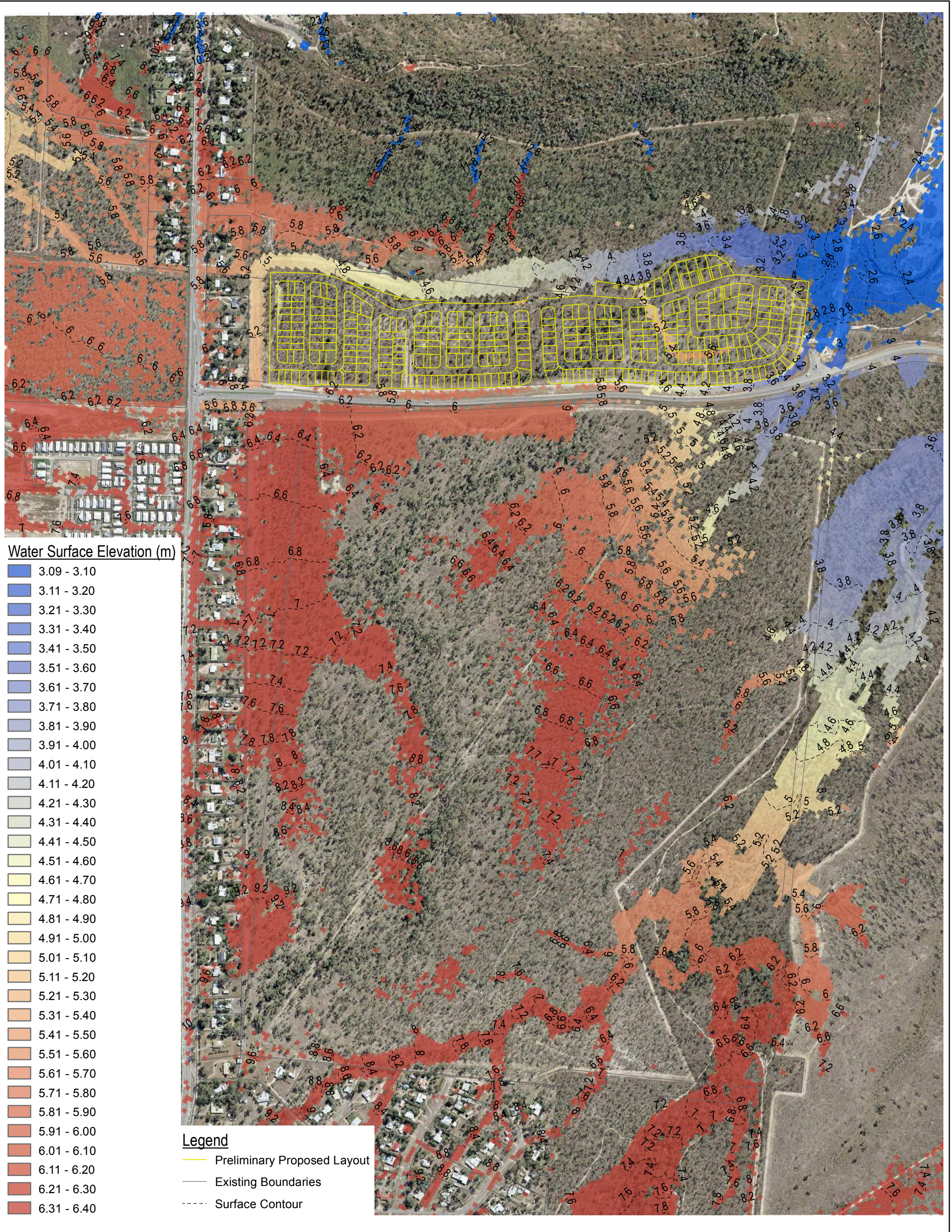
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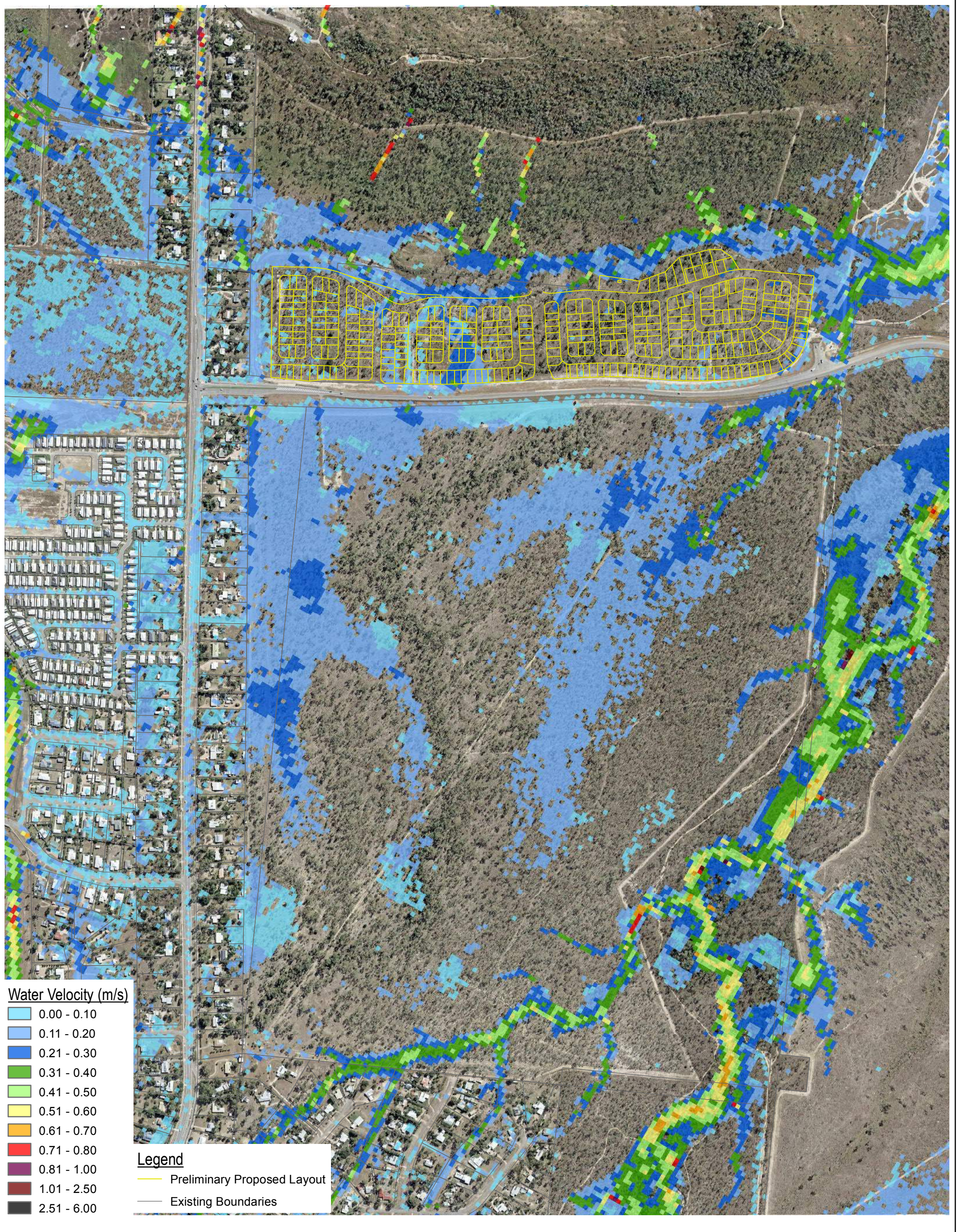
**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Precinct B
 Maximum Water Depth
 1% AEP 1 hour**

TURF0013/B15



 <p>NORTHERN CONSULTING engineers</p> <p><small>Civil & Structural Engineers 50 Punari Street, Currajong 4812 Phone: [07] 4725 5550 Fax: [07] 4725 5850 Email: mail@nconz.com.au Milton Muncaster & Associates Pty. Ltd. ACN: 100 817 356</small></p>	<p>In Association With:</p> <p>TURNER OWENS GROUP</p>	<p>MOUNT LOW DEVELOPMENT MASTER PLANNED COMMUNITY FLOOD ASSESSMENT</p>	<p>Developed Precinct B Maximum Water Surface Elevation 1% AEP 1 hour</p>
	<p>Date: 21/08/2017 Rev: A NCE Ref: TURF0013</p>		<p>0 75 150 300 Metres</p> <p>Scale 1:8,000 @ A3</p> 




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Date: **21/08/2017** Rev: **A** NCE Ref: **TURF0013**

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0 75 150 300
Metres

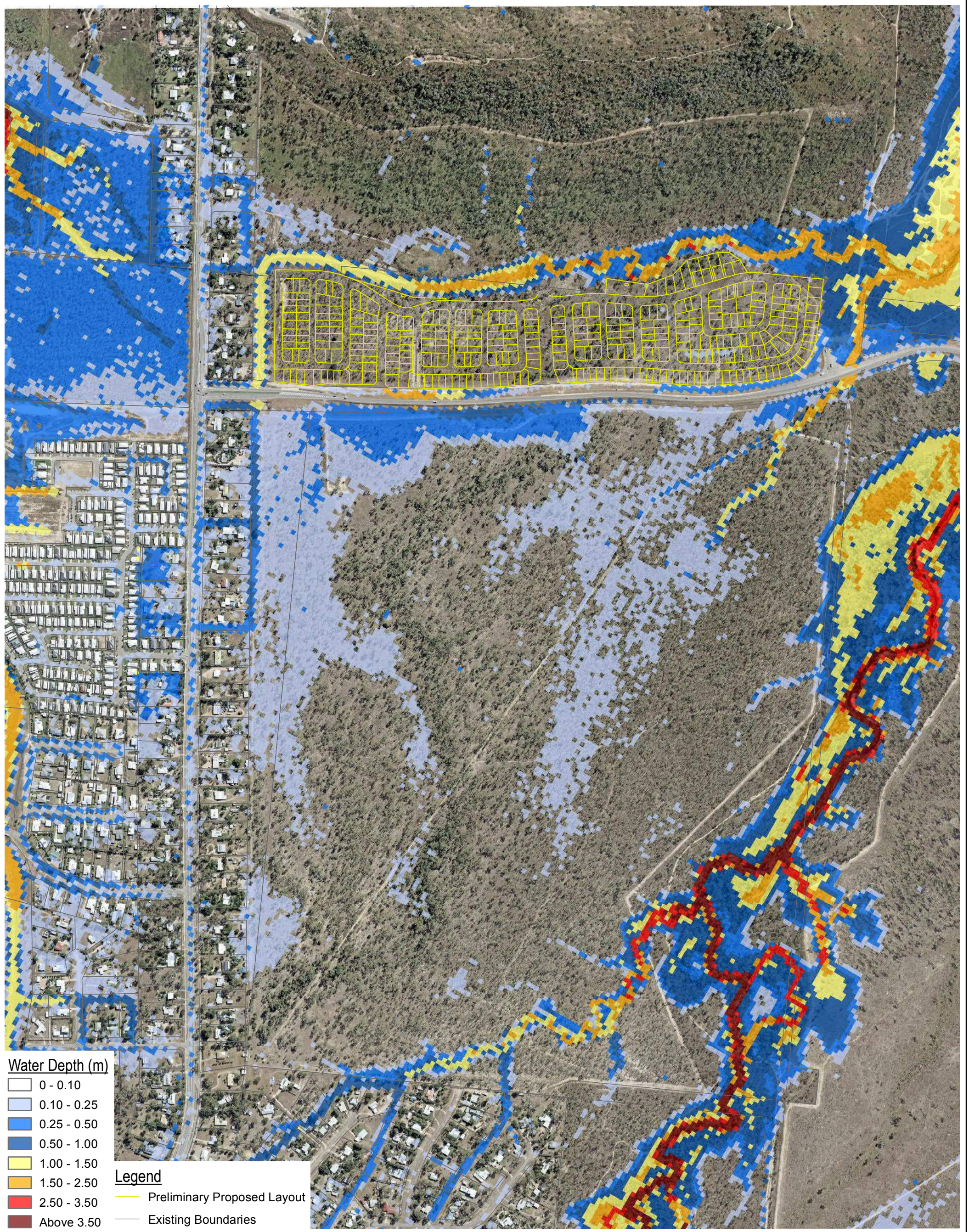
Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Precinct B
 Maximum Water Velocity
 1% AEP 1 hour**

TURF0013/B17





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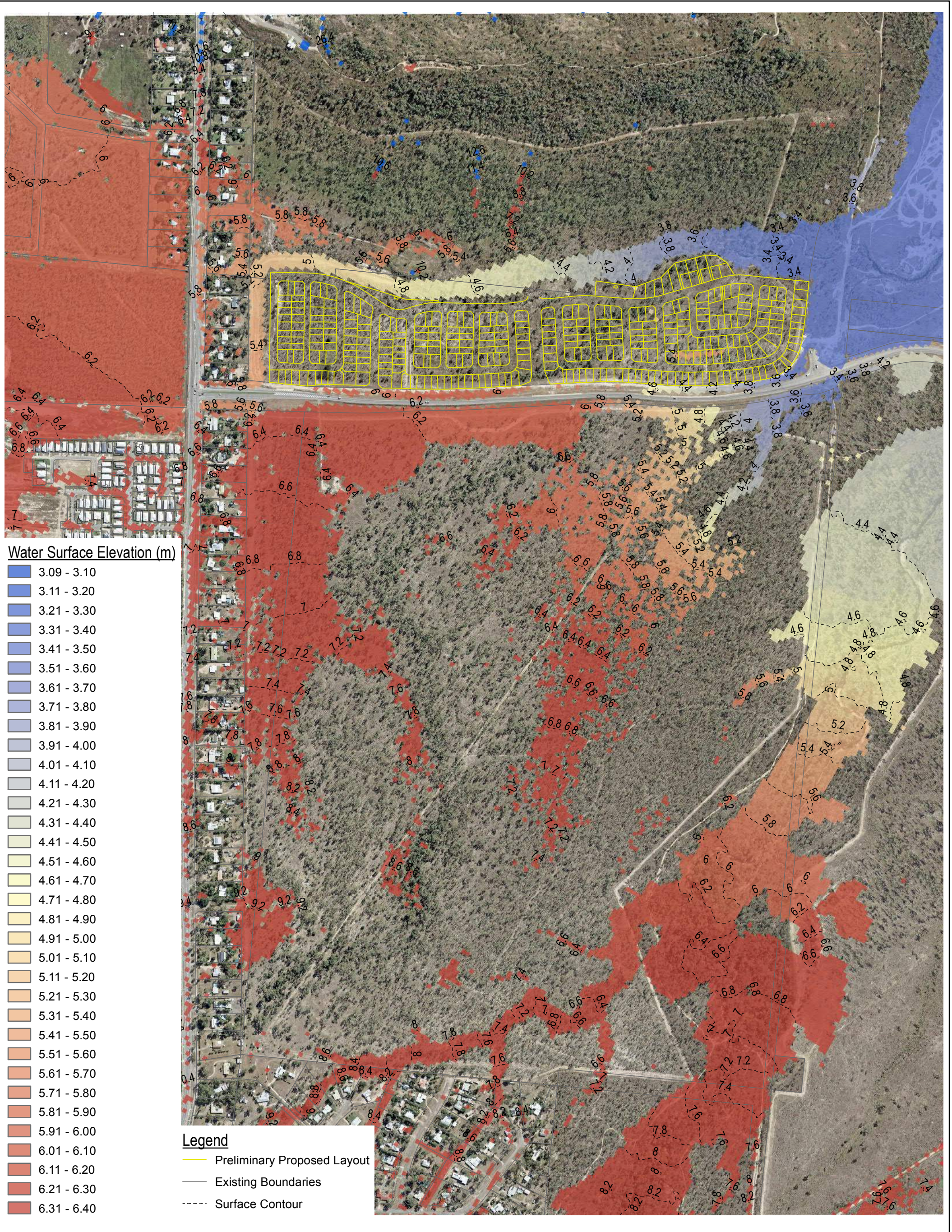
0 75 150 300
 Metres
 Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Precinct B
 Maximum Water Depth
 1% AEP 18 hour**

TURF0013/B18



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 ACN: 100 817 356

Date: **21/08/2017** Rev: **A** NCE Ref: **TURF0013**

In Association With:

TURNER OWENS GROUP

0 75 150 300
Metres

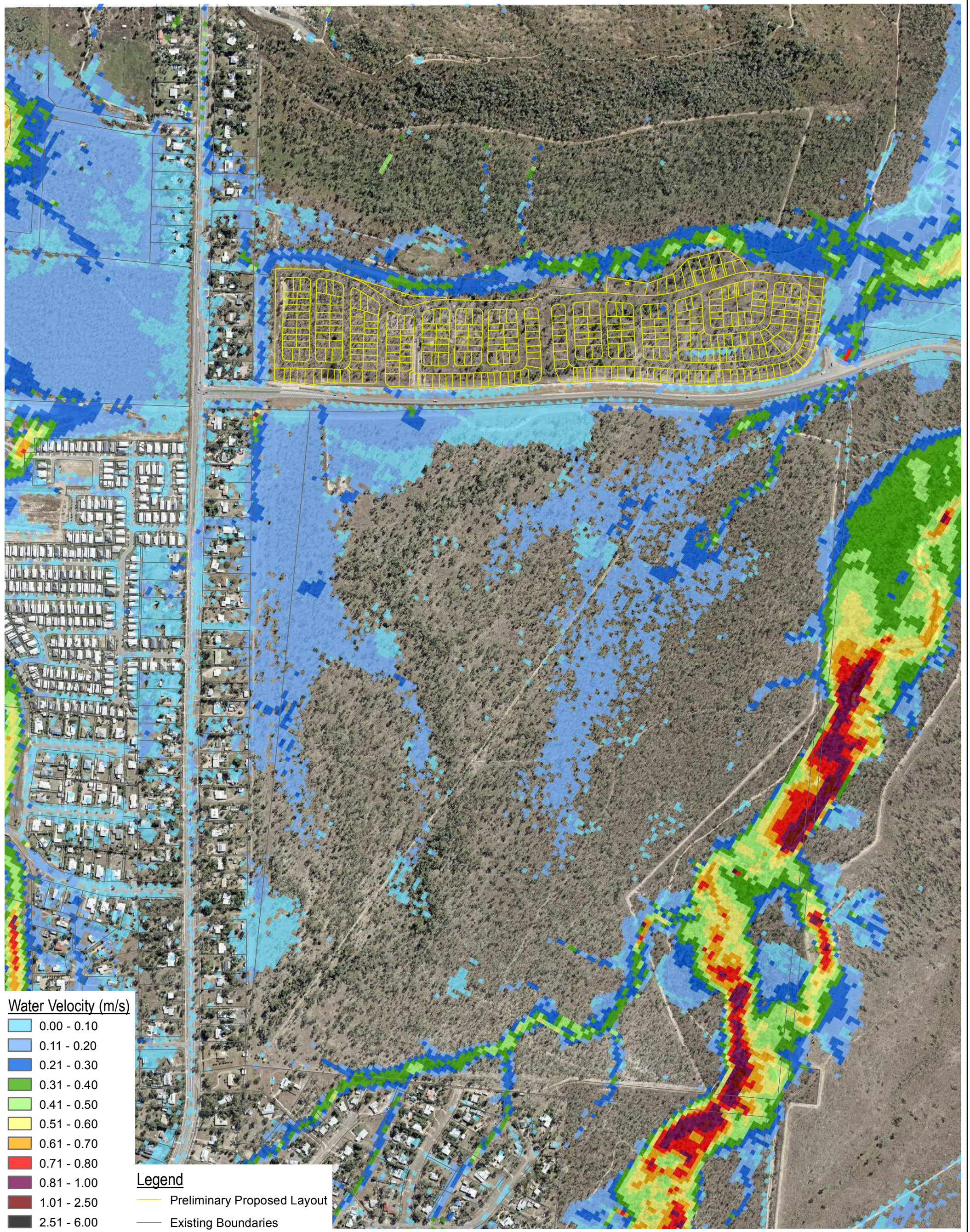
Scale 1:8,000 @ A3

N

**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Precinct B
 Maximum Water Surface
 Elevation 1% AEP 18 hour**

TURF0013/B19




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Date: **21/08/2017** Rev: **A** NCE Ref: **TURF0013**

In Association With:

TURNER OWENS GROUP

0 75 150 300
Metres

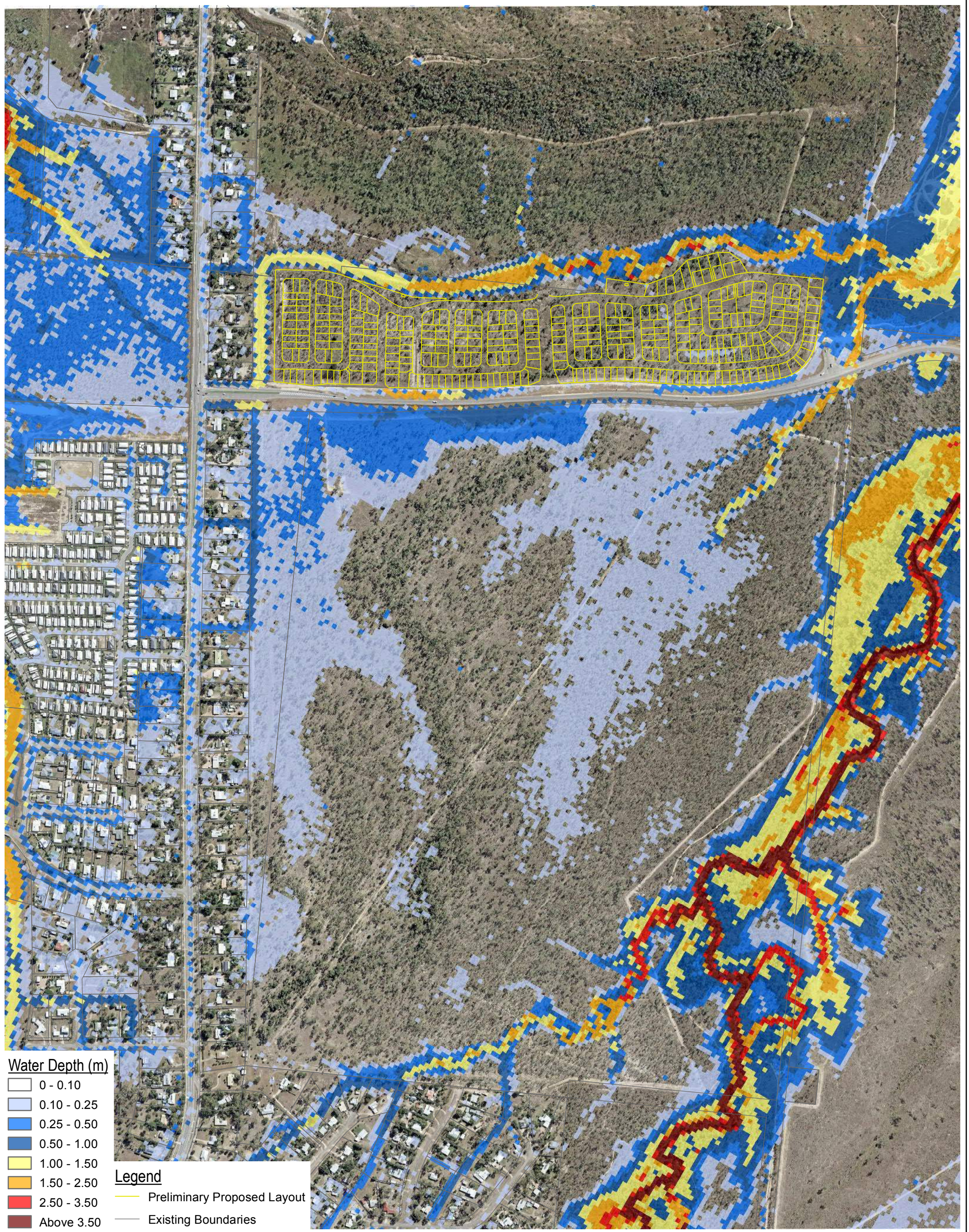
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**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Precinct B
 Maximum Water Velocity
 1% AEP 18 hour**

TURF0013/B20




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In Association With:

TURNER OWENS GROUP

0 75 150 300
Metres

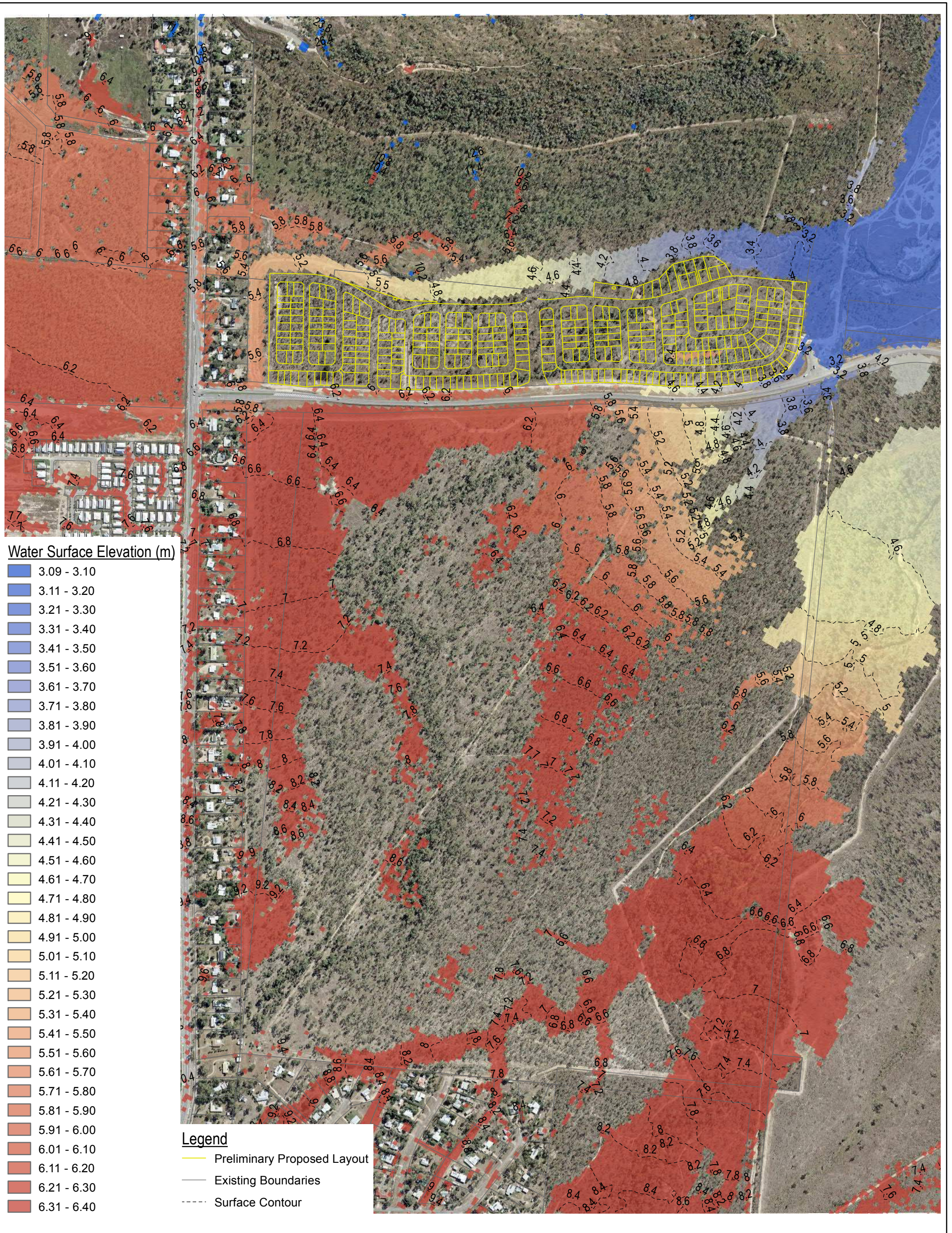
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**MOUNT LOW DEVELOPMENT
MASTER PLANNED COMMUNITY
FLOOD ASSESSMENT**

**Developed Precinct B
Maximum Water Depth
1% AEP 24 hour**

TURF0013/B21



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In Association With:

TURNER OWENS GROUP

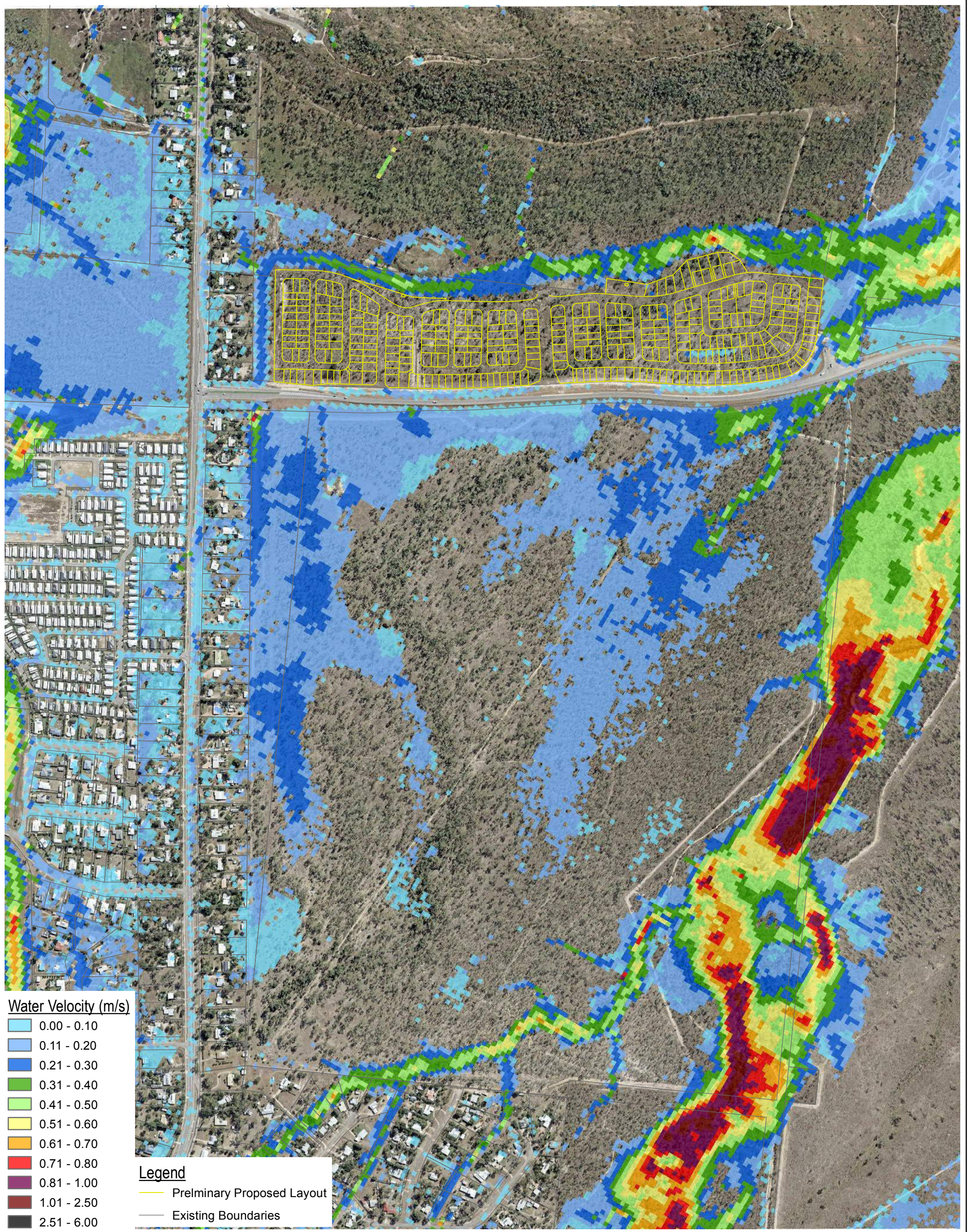
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Metres

Scale 1:8,000 @ A3

**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Precinct B
 Maximum Water Surface
 Elevation 1% AEP 24 hour**

TURF0013/B22




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TURNER OWENS GROUP

0 75 150 300
Metres

Scale 1:8,000 @ A3



**MOUNT LOW DEVELOPMENT
 MASTER PLANNED COMMUNITY
 FLOOD ASSESSMENT**

**Developed Precinct B
 Maximum Water Velocity
 1% AEP 24 hour**

TURF0013/B23