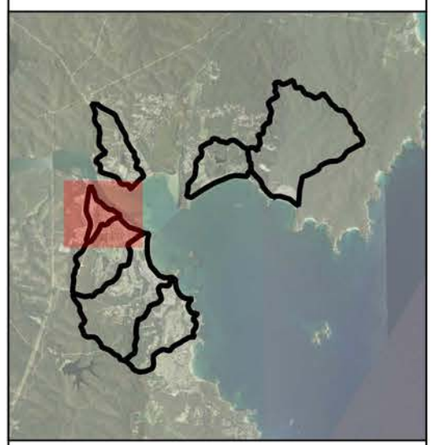
G705-d-1
Water Gardens
Sensitivity Rough -20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 100 200 300 400 m

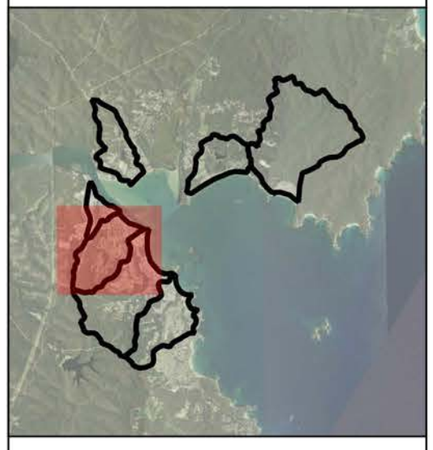
Scale : 1:7500@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G705-e-1
Catalina
Sensitivity Rough -20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 140 280 420 560 m

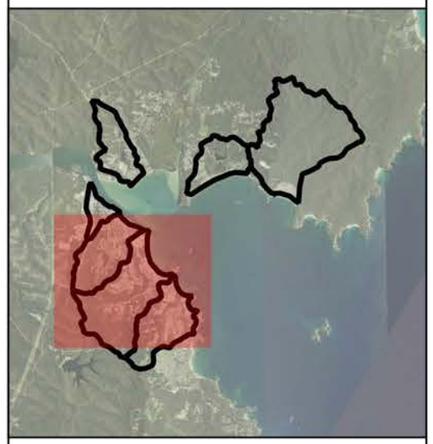
Scale : 1:10000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G705-f-1
Batehaven
Sensitivity Rough -20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 200 400 600 800 m

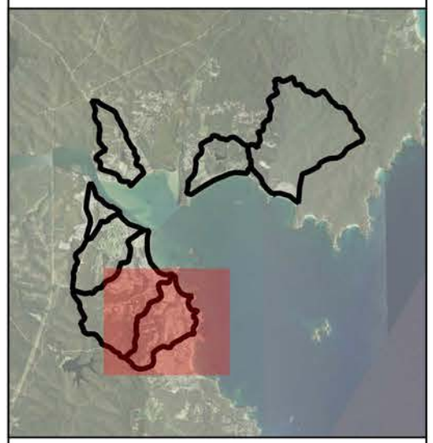
Scale : 1:15000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G705-g-1
Sunshine Bay
Sensitivity Rough -20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 170 340 510 680 m

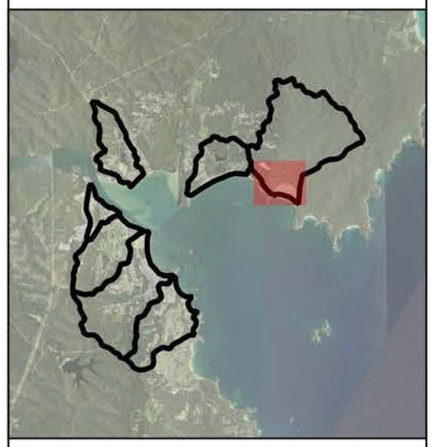
Scale : 1:12000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G706-a-1
Maloneys Beach
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- > 0.5



0 70 140 210 280 m

Scale : 1:5000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G706-b-1
Long Beach
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- > 0.5

0 100 200 300 400 m

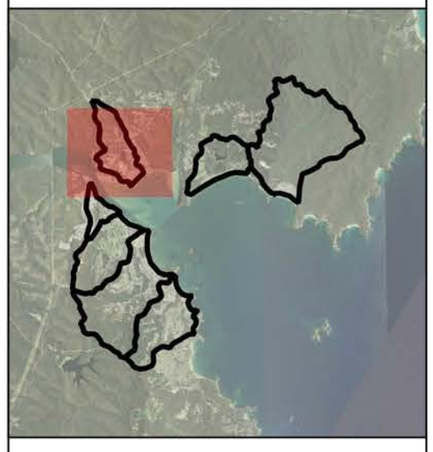
Scale : 1:7500@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G706-c-1
Surfside
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- > 0.5



0 140 280 420 560 m

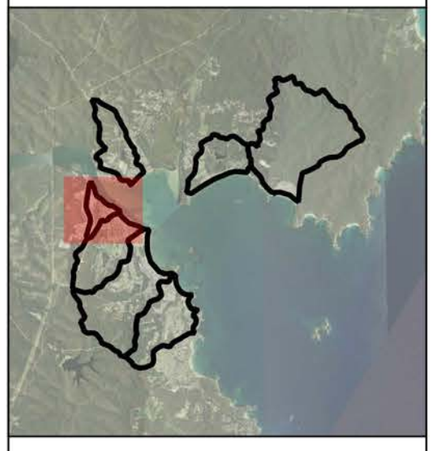
Scale : 1:10000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G706-d-1
Water Gardens
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- > 0.5



0 100 200 300 400 m

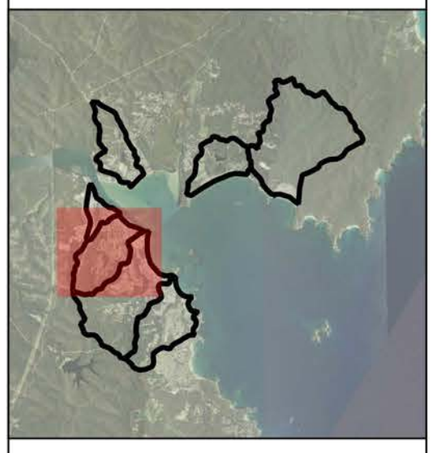
Scale : 1:7500@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G706-e-1
Catalina
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- > 0.5



0 140 280 420 560 m

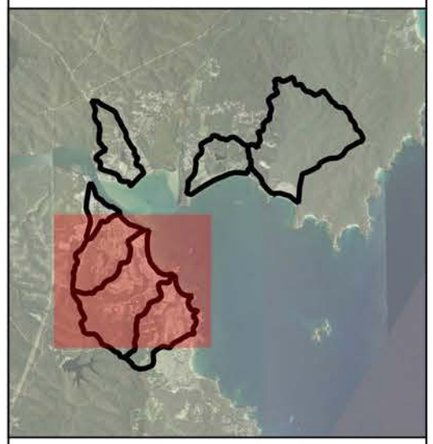
Scale : 1:10000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G706-f-1
Batehaven
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- > 0.5



0 200 400 600 800 m

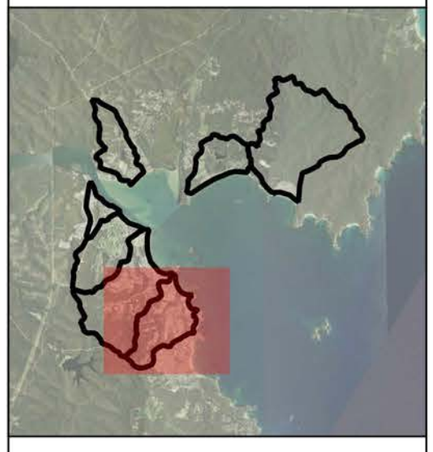
Scale : 1:15000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G706-g-1
Sunshine Bay
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.4
- 0.4 - 0.5
- > 0.5



0 170 340 510 680 m

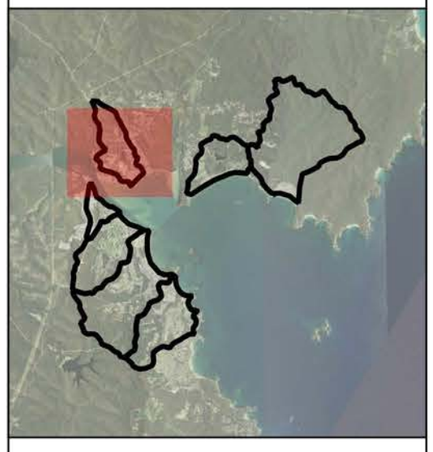
Scale : 1:12000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G707-c-1
Surfside
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 140 280 420 560 m

Scale : 1:10000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G707-d-1
Water Gardens
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2

0 100 200 300 400 m

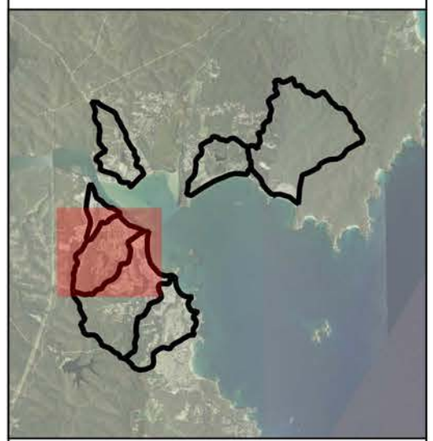
Scale : 1:7500@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G707-e-1
Catalina
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 140 280 420 560 m

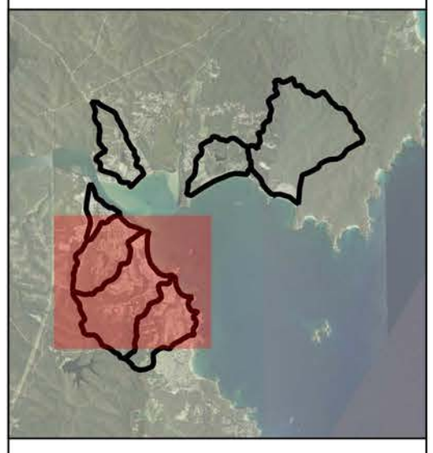
Scale : 1:10000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G707-f-1
Batehaven
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 200 400 600 800 m

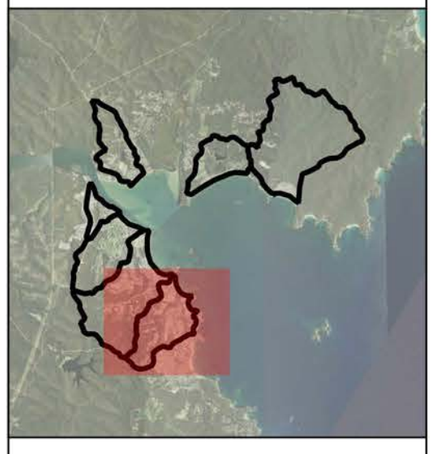
Scale : 1:15000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G707-g-1
Sunshine Bay
Sensitivity Downstream Boundary +20%

Catchment Area
Model Area

Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 170 340 510 680 m

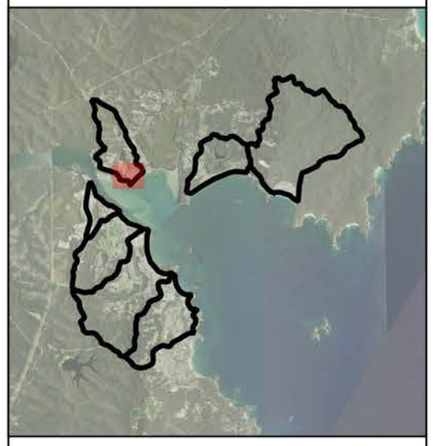
Scale : 1:12000@A3
Date : 10 September 2019
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm

G708
Surfside
Sensitivity Culvert Blockage

Catchment Area
Model Area

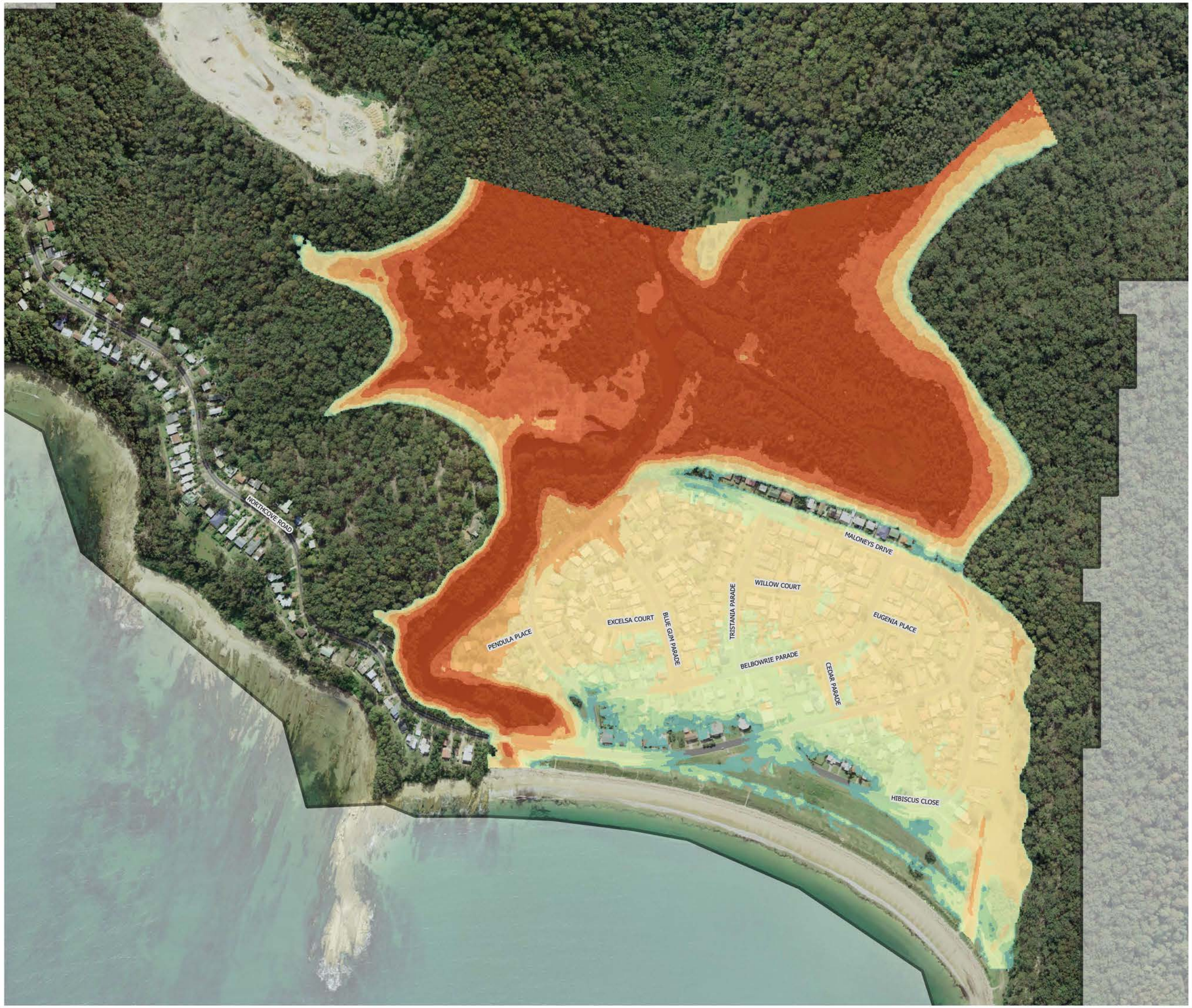
Difference (m)
- <= -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- > 0.2



0 40 80 120 160 m

Scale : 1:3,000 @A3
Date : 12 July 2021
Revision : A
Created by : LRE
Coordinate System : MGA94 Zone 56

Rhelm
engineering | environmental | economics | engagement



N

W E

S

G801-a-1
Maloneys Beach
PMF Depth

Legend

Study Area

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 80 160 240 m

1:5,000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-a-2
Maloneys Beach
1% AEP Depth

Legend

- Study Areas

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 80 160 240 m

1:5000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-a-3
Maloneys Beach
10% AEP Depth

Legend

- Study Areas

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 80 160 240 m

1:5000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-b-1
Long Beach
PMF Depth

Legend

Study Area

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 80 160 240 m

1:5,000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-b-2
Long Beach
1% AEP Depth

Legend

- Study Areas

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 80 160 240 m

1:5000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-b-3
Long Beach
10% AEP Depth

Legend

- Study Areas

Depth (m)

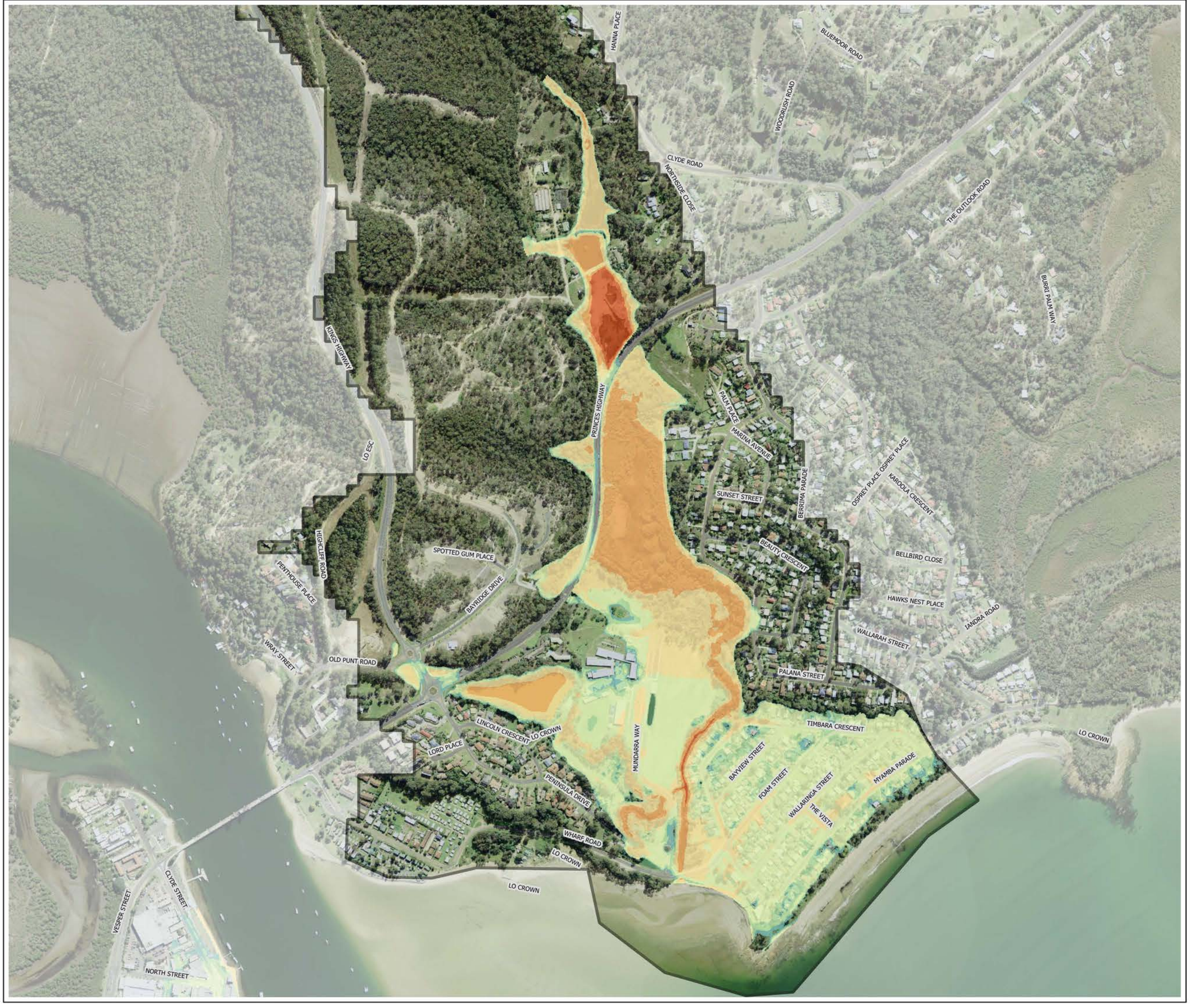
- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 80 160 240 m

1:5000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm



N

W E

S

G801-c-1 Surfside PMF Depth

Legend

Study Area

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 130 260 390 m

1:8,000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-c-2
Surfside
1% AEP Depth

Legend

- Study Areas

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 130 260 390 m

1:8000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-c-3
Surfside
10% AEP Depth

Legend

- Study Areas

Depth (m)

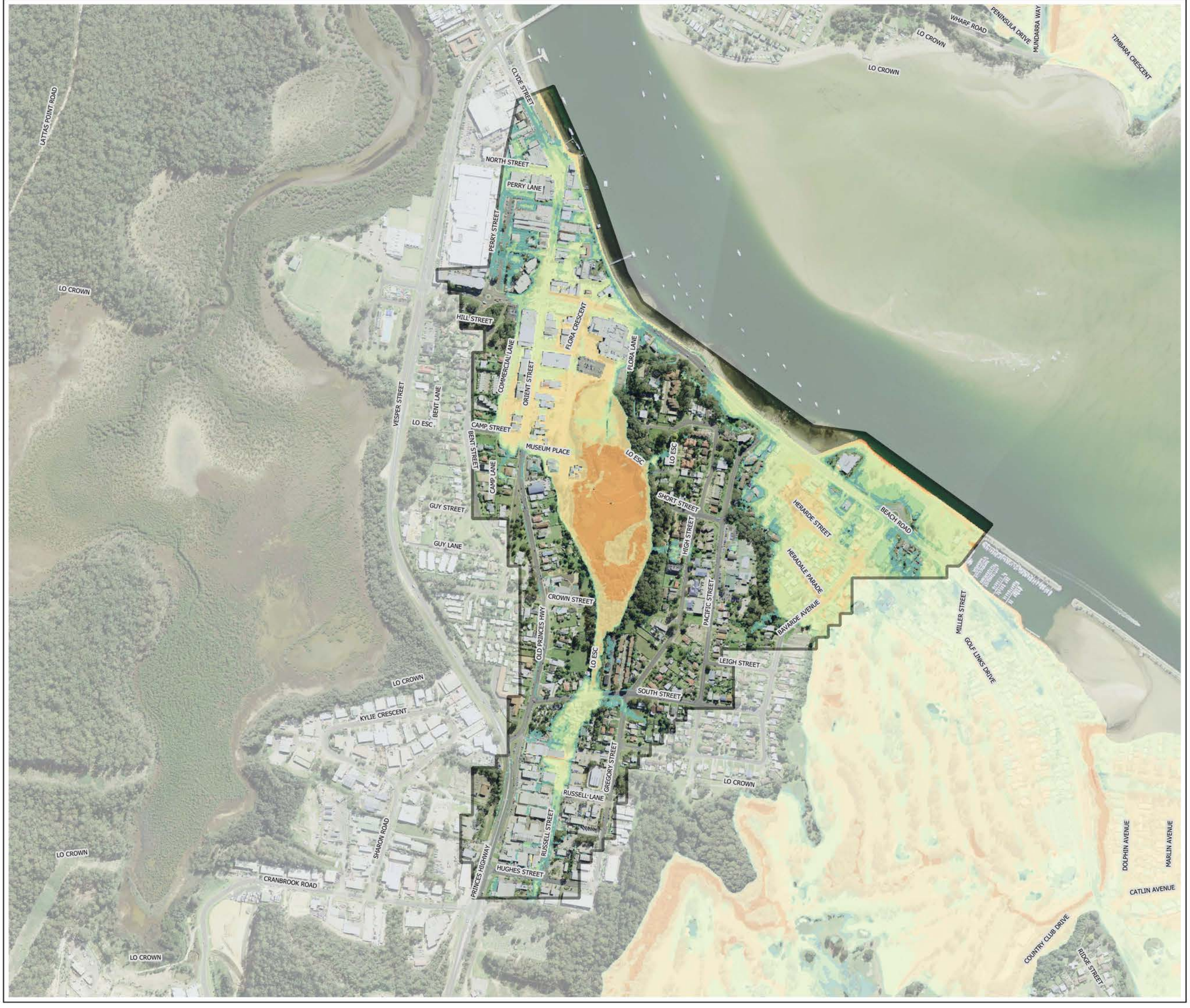
- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 130 260 390 m

1:8000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm



N
W E
S

G801-d-1
Water Gardens
PMF Depth

Legend

Study Area

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 100 200 300 m

1:7,500

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N
W E
S

G801-d-2
Water Gardens
1% AEP Depth

Legend

- Study Areas

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 100 200 300 m

1:7500

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm

N

W E

S

G801-d-3
Water Gardens
10% AEP Depth

Legend

- Study Areas

Depth (m)

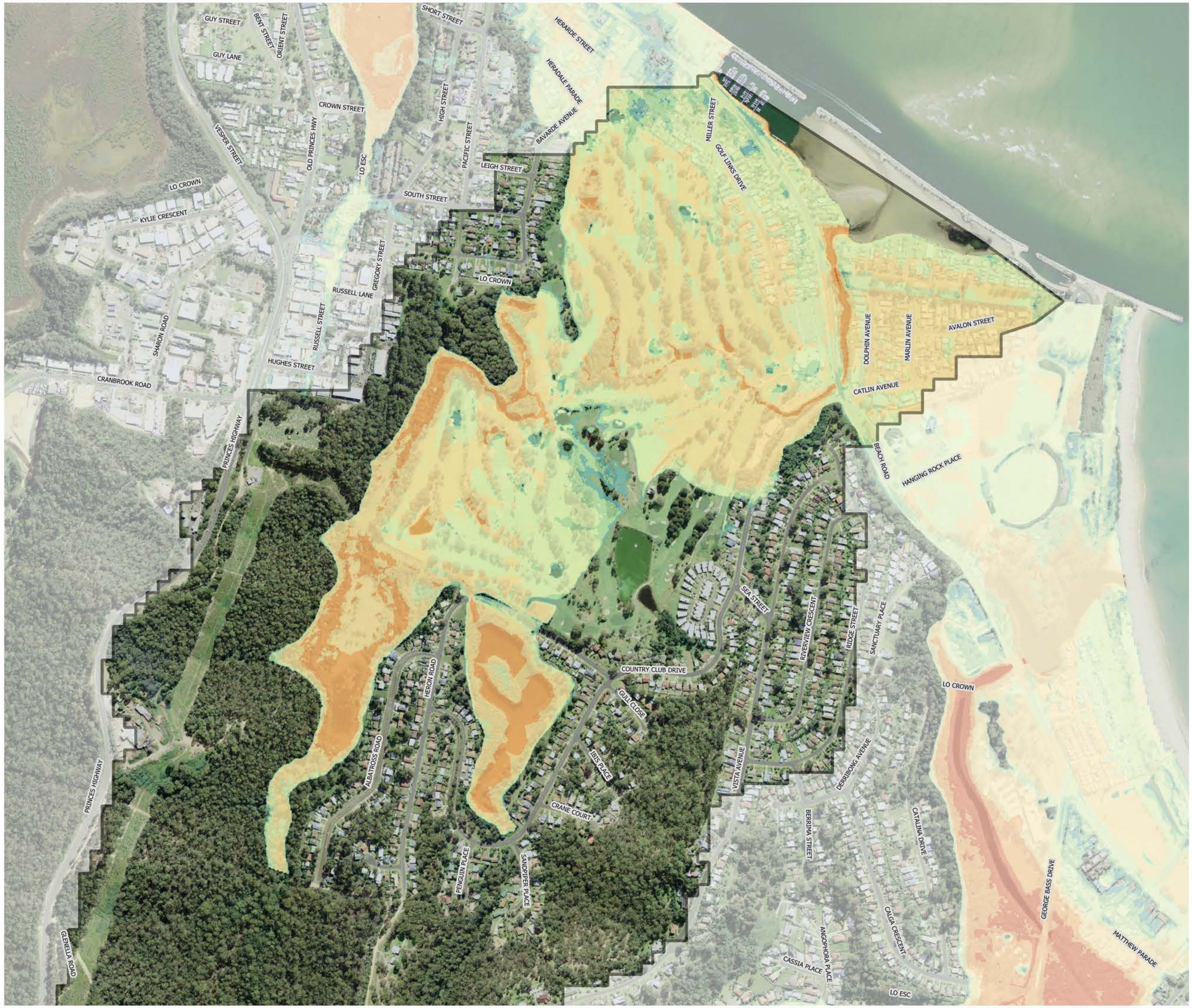
- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 100 200 300 m

1:7500

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm



N
W E
S

G801-e-1
Catalina
PMF Depth

Legend

Study Area

Depth (m)

- 0.15 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- >4

0 130 260 390 m

1:8,000

Size : A3
Date : 15 June 2020
Revision : A
Created by : LRE
Coordinate System : MGA 56

Rhelm