




### Map G101

### Catchment Areas

#### Legend

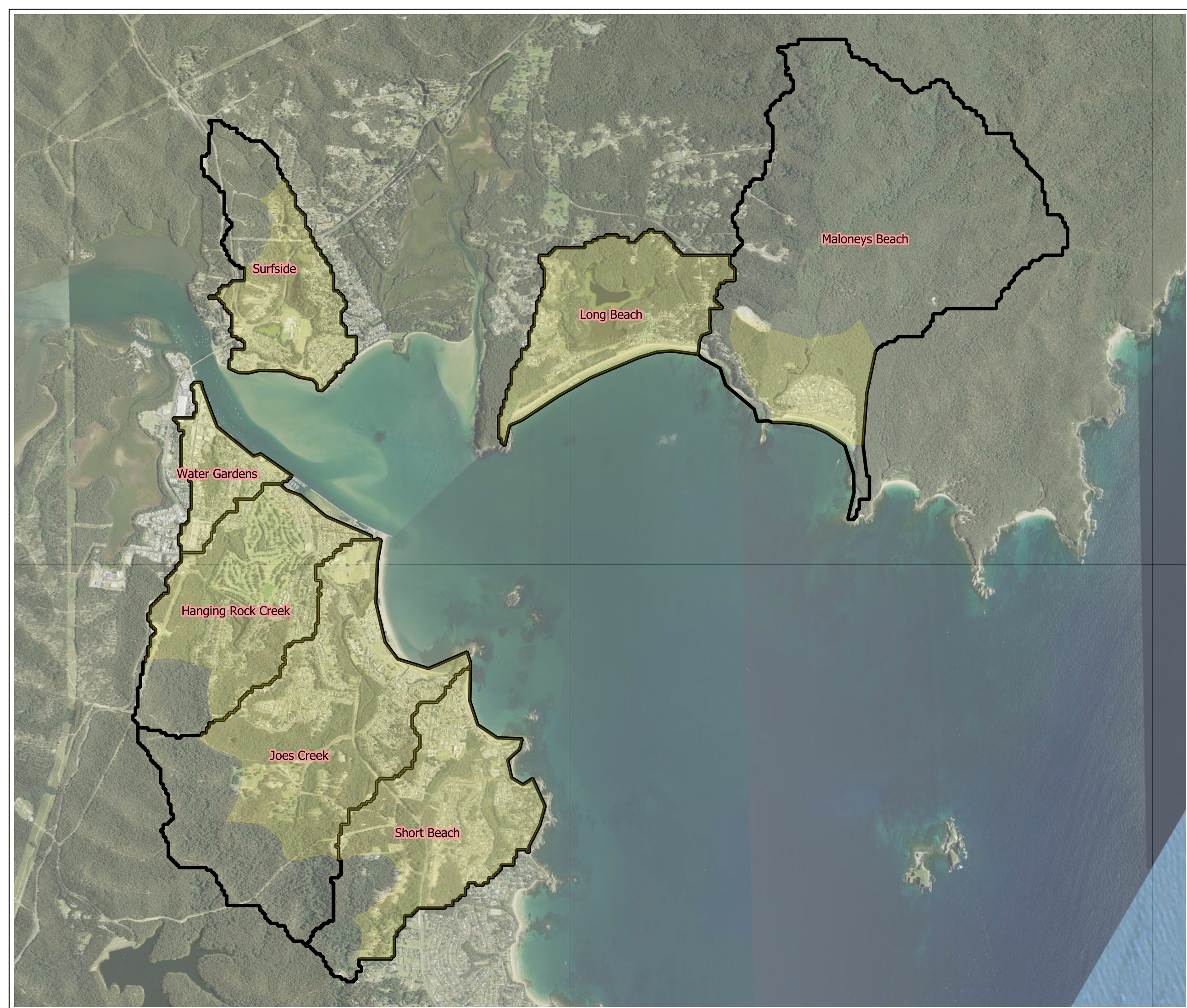
-  Catchment Boundary
-  Study Areas

500 0 500 1,000 1,500 m



1:35,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA 56





### Map G201

### Maloneys Creek (Maloneys Lagoon)

#### Legend

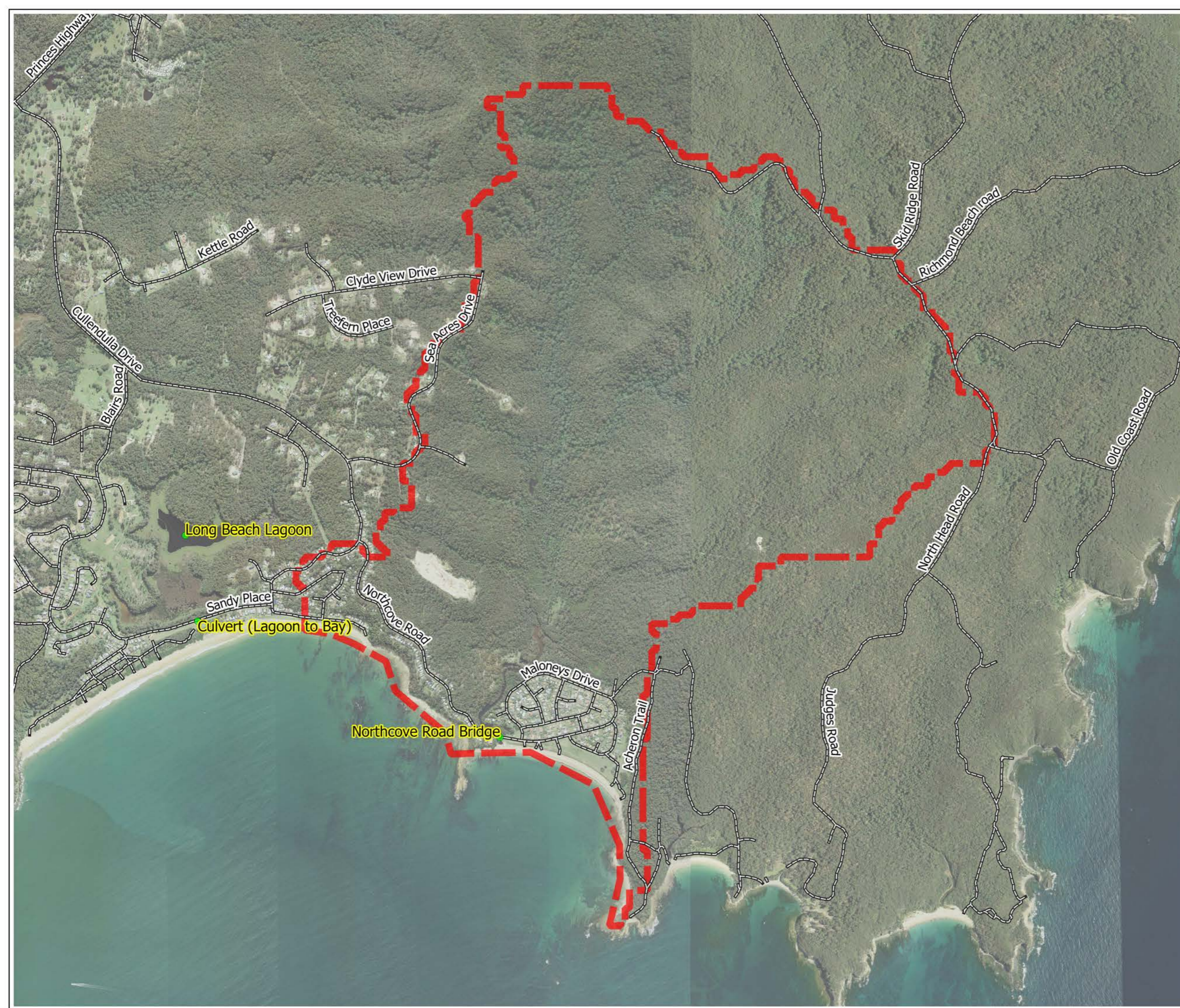
-  Catchment Boundary
-  Key Locations

250 0 250 500 750 m



1:20,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : AXS  
Coordinate System : MGA 56





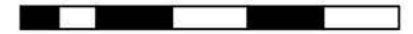
### Map G202

### Long Beach (Long Beach Lagoon)

#### Legend

-  Catchment Boundary
-  Key Locations

100 0 100 200 300 400 m



1:10,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : AXS  
Coordinate System : MGA 56



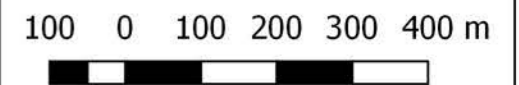


### Map G203

### Surfside (Surfside Creek)

#### Legend

-  Catchment Boundary
-  Key Locations



1:10,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : AXS  
Coordinate System : MGA 56



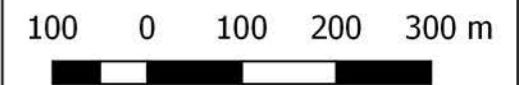


### Map G204

### The Water Gardens

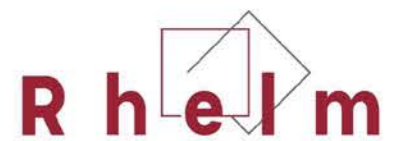
#### Legend

-  Catchment Boundary
-  Key Locations



1:8,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : AXS  
Coordinate System : MGA 56



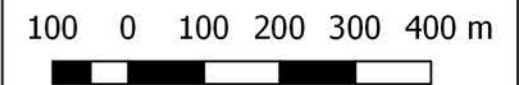


### Map G205

## Catalina (Hanging Rock Creek)

### Legend

-  Catchment Boundary
-  Key Locations



1:10,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : AXS  
Coordinate System : MGA 56





### Map G206

### Batehaven (Joes Creek)

#### Legend

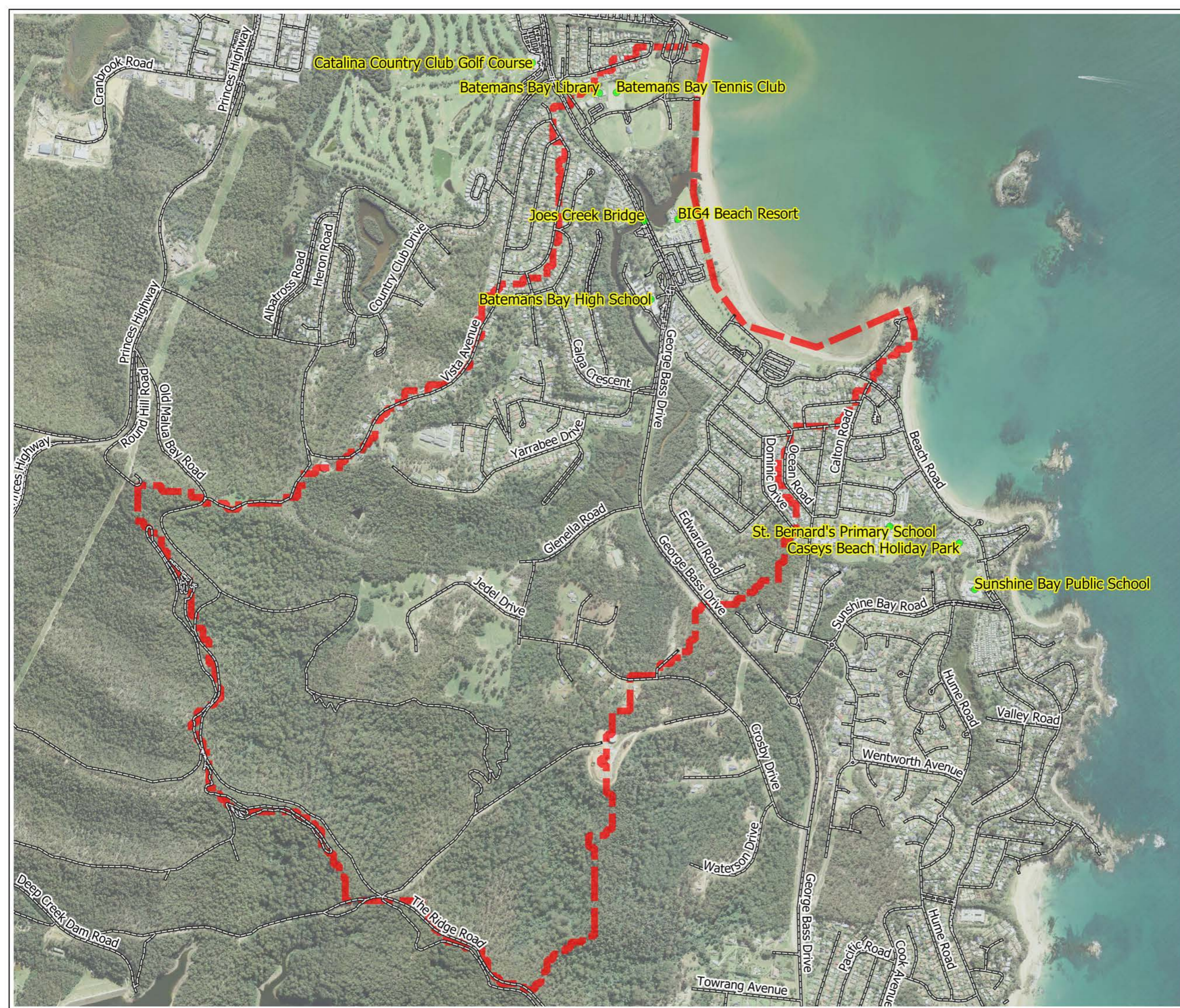
-  Catchment Boundary
-  Key Locations

200 0 200 400 600 m



1:15,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : AXS  
Coordinate System : MGA 56





**Map G207**

**Sunshine Bay /  
Caseys Beach**

**(Short Beach Creek)**

**Legend**

-  Catchment Boundary
-  Key Locations

200 0 200 400 600 m



1:15,000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : AXS  
Coordinate System : MGA 56












### Map G302

### Rainfall Gauges

#### Legend

-  Catchment Boundaries
-  Rain gauges - MHL
-  Rain gauges - water NSW
- Rain gauges - BoM**
  -  Daily
  -  Pluvio

5000 0 5000 10000



1:200000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA 56






### Map G302

### MHL Gauges

#### Legend

 Catchment Boundary

MHL Gauges

 Water Level

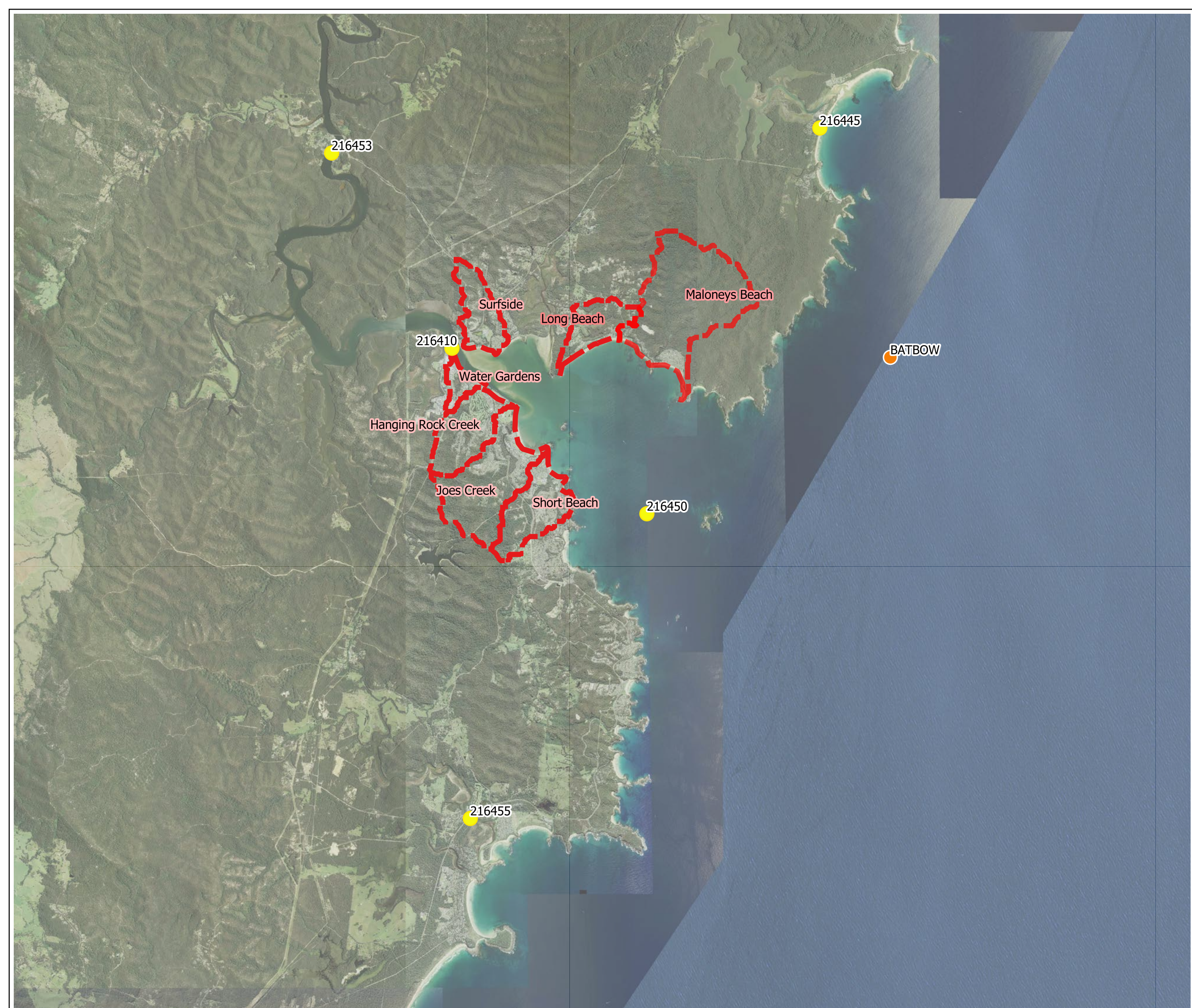
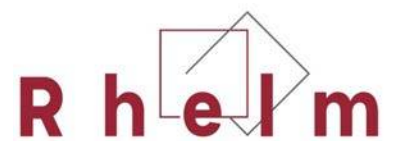
 Wave Direction

1200 0 1200 2400 3600 m



1:100000

Size : A3  
Date : 18 January 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA 56







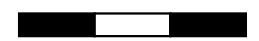
**Map G303**

**Survey Obtained**

**Legend**

-  Catchments
-  Survey Obtained

0 500 1000 1500 m



1:50000

Date : 14 November 2019  
 Revision : A  
 Created by : SLC  
 Coordinate System : Map Grid of Australia 94



**Map G601**

**TUFLOW Model**

**Legend**



 TufLOW Model Extents

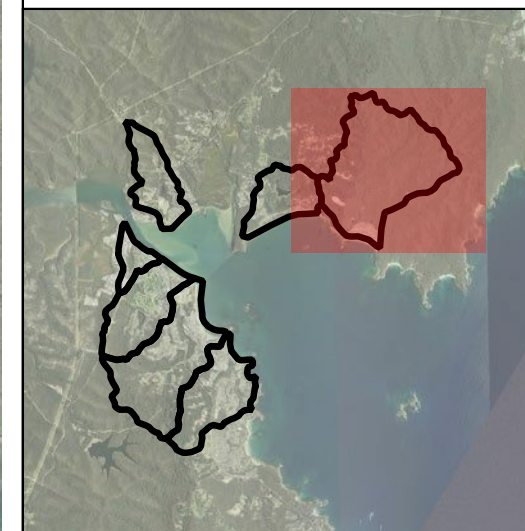


Scale : 1:30000@A3  
Date : 29 January 2019  
Revision : 0  
Created by : ERM  
Coordinate System : MGA 56

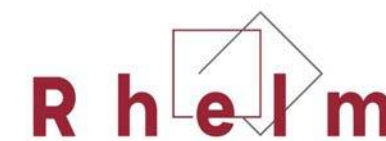


**G601-a-1  
Maloneys Creek  
Subcatchments**



-  Catchment Area
-  Subcatchments

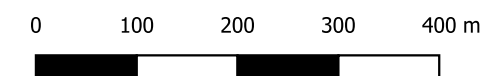
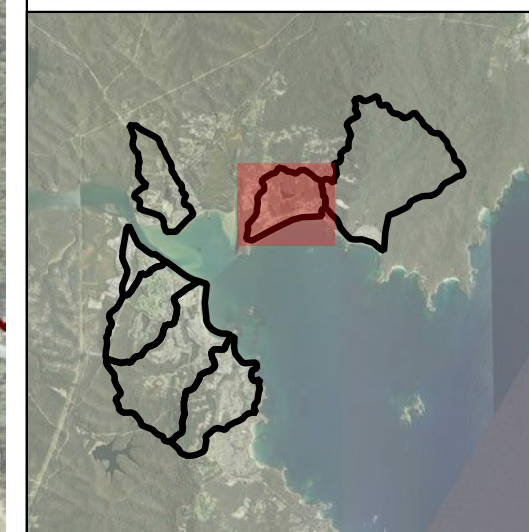


Scale : 1:15000@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56

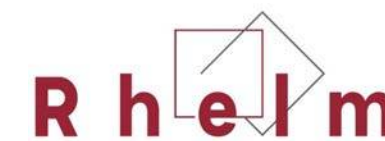


# G601-b-1 Long Beach Subcatchments



-  Catchment Area
-  Subcatchments

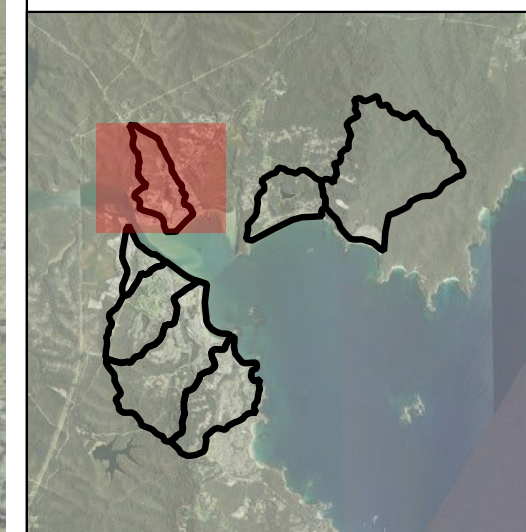


Scale : 1:7500@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56

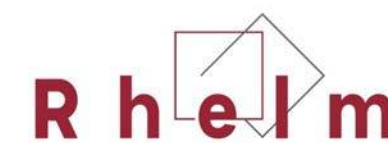


# G601-c-1 Surfside Subcatchments



-  Catchment Area
-  Subcatchments

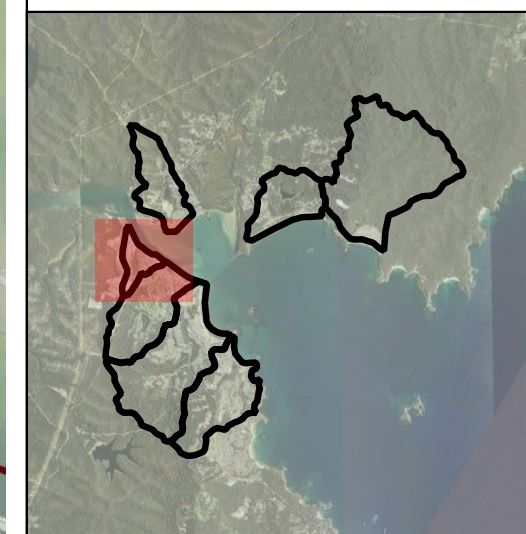


Scale : 1:10000@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56

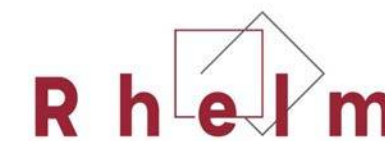


# G601-d-1 Water Gardens Subcatchments

-  Catchment Area
-  Subcatchments





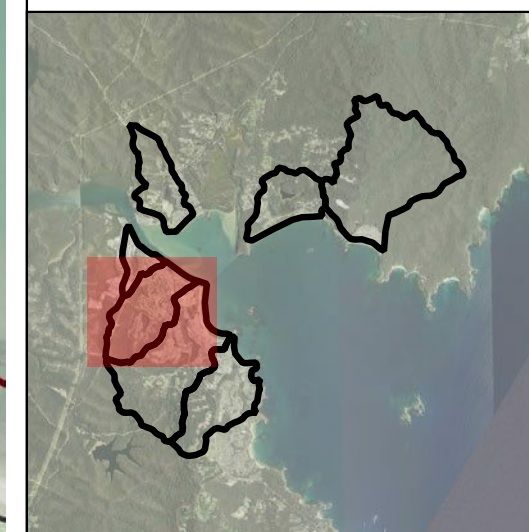
Scale : 1:7500@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56



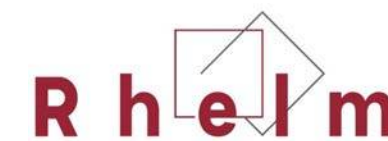


# G601-e-1 Catalina Subcatchments



-  Catchment Area
-  Subcatchments

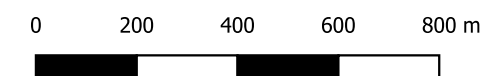
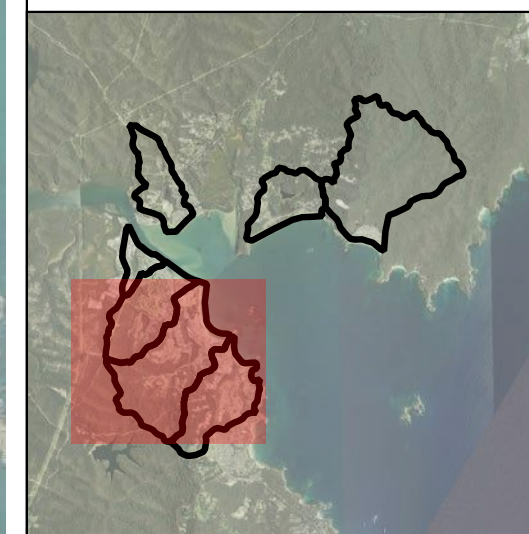


Scale : 1:10000@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56

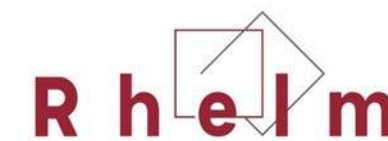


# G601-f-1 Bateshaven Subcatchments



-  Catchment Area
-  Subcatchments

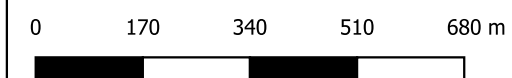
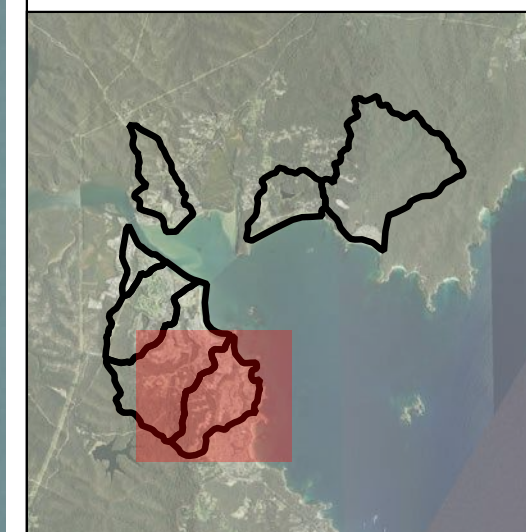


Scale : 1:15000@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56

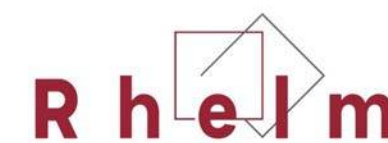


# G601-g-1 Sunshine Bay Subcatchments








-  Catchment Area
-  Subcatchments



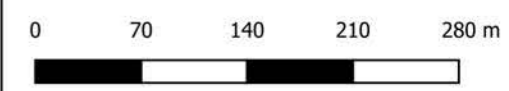
Scale : 1:12000@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56



# G602-a-1 Maloneys Beach Tuflow Model

-  Catchment Area
-  Tuflow Model Area
-  Included Pipes
-  Excluded Pipes
-  Bridges
-  SA Polygons
-  SA Streamlines








Note: Pipes have been included if:  
- They have a size > 600mm  
- They connect pipes >600mm  
- They play a critical role in flood behaviour (ie: minor drainage in Water Gardens)



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

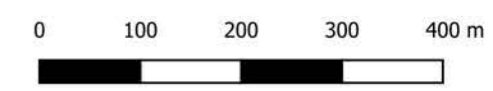
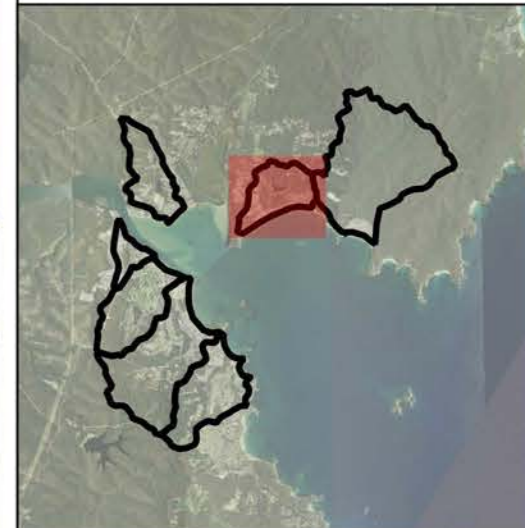


# G602-b-1 Long Beach Tuflow Model

-  Catchment Area
-  Tuflow Model Area
-  Included Pipes
-  Excluded Pipes
-  Bridges
-  SA Polygons
-  SA Streamlines

Note: Pipes have been included if:








- They have a size > 600mm
- They connect pipes >600mm
- They play a critical role in flood behaviour (ie: minor drainage in Water Gardens)



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

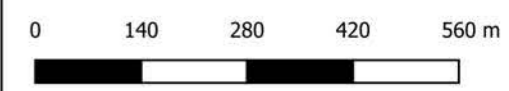
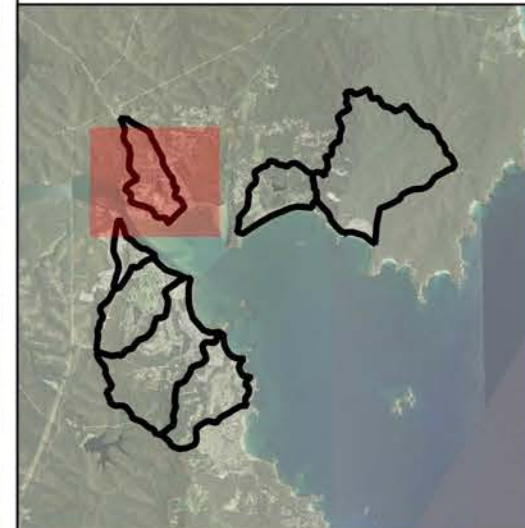


# G602-c-1 Surfside Tuflow Model

-  Catchment Area
-  Tuflow Model Area
-  Included Pipes
-  Excluded Pipes
-  Bridges
-  SA Polygons
-  SA Streamlines

Note: Pipes have been included if:








- They have a size > 600mm
- They connect pipes >600mm
- They play a critical role in flood behaviour (ie: minor drainage in Water Gardens)



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



# G602-d-1 Water Gardens Tuflow Model

-  Catchment Area
-  Tuflow Model Area
-  Included Pipes
-  Excluded Pipes
-  Bridges
-  SA Polygons
-  SA Streamlines








Note: Pipes have been included if:

- They have a size > 600mm
- They connect pipes >600mm
- They play a critical role in flood behaviour (ie: minor drainage in Water Gardens)

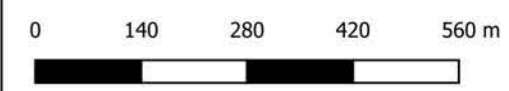
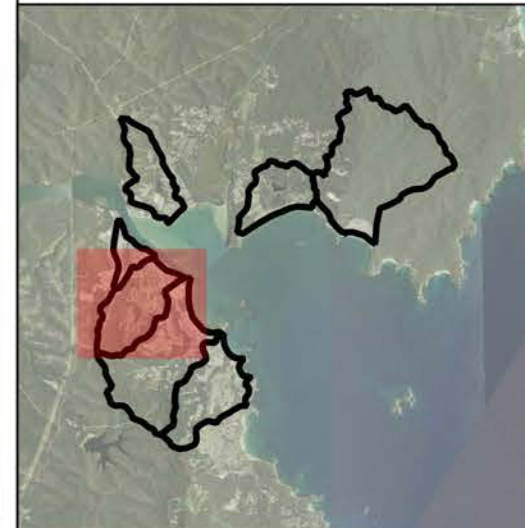


Scale : 1:7500@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56

# G602-e-1 Catalina Tuflow Model

-  Catchment Area
-  Tuflow Model Area
-  Included Pipes
-  Excluded Pipes
-  Bridges
-  SA Polygons
-  SA Streamlines

Note: Pipes have been included if:  
- They have a size > 600mm  
- They connect pipes >600mm  
- They play a critical role in flood behaviour (ie: minor drainage in Water Gardens)










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

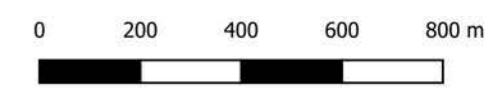
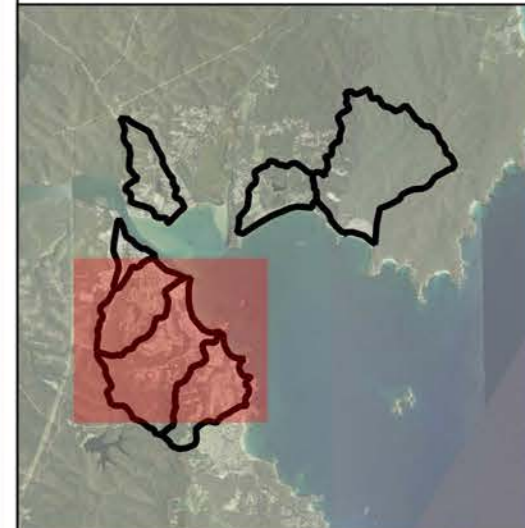




# G602-f-1 Batehaven Tuflow Model

-  Catchment Area
-  Tuflow Model Area
-  Included Pipes
-  Excluded Pipes
-  Bridges
-  SA Polygons
-  SA Streamlines








Note: Pipes have been included if:  
- They have a size > 600mm  
- They connect pipes >600mm  
- They play a critical role in flood behaviour (ie: minor drainage in Water Gardens)



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

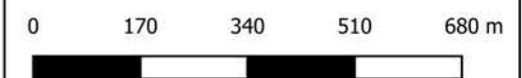
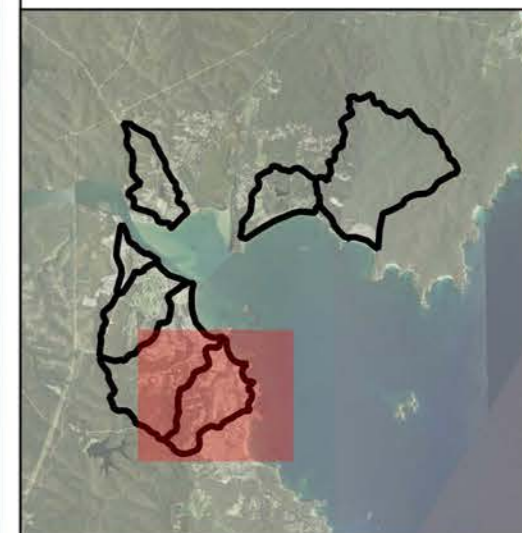


# G602-g-1 Sunshine Bay Tuflow Model

-  Catchment Area
-  Tuflow Model Area
-  Included Pipes
-  Excluded Pipes
-  Bridges
-  SA Polygons
-  SA Streamlines


Note: Pipes have been included if:

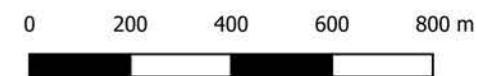
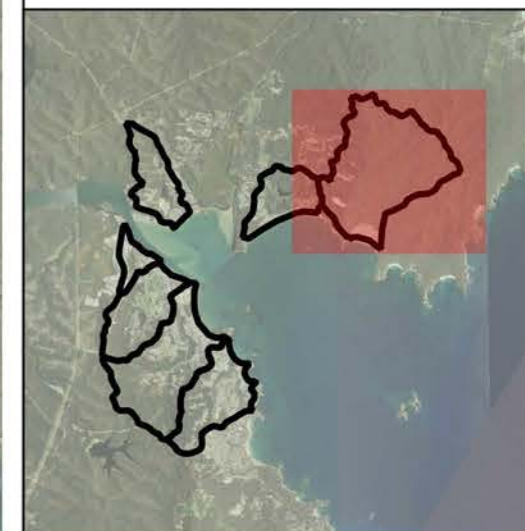
- They have a size > 600mm
- They connect pipes >600mm
- They play a critical role in flood behaviour (ie: minor drainage in Water Gardens)



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


# G603-a-1 Maloneys Beach Tuflow Roughness

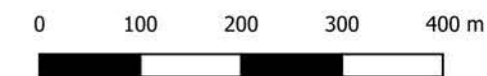
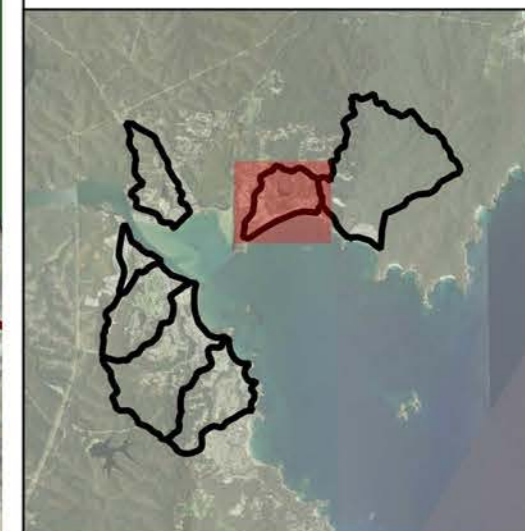
-  Catchment Area
-  Tuflow Model Area
- Roughness Zones**
-  Open Space
-  Neighbourhood Centre
-  Mixed Use
-  Low Density Residential
-  Recreation
-  Vegetation - Dense
-  Vegetation - Light
-  Vegetation - Medium
-  Roads / Carparks



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

# G603-b-1 Long Beach Tuflow Roughness


-  Catchment Area
-  Tuflow Model Area
- Roughness Zones**
-  Open Space
-  Neighbourhood Centre
-  Mixed Use
-  Low Density Residential
-  Recreation
-  Vegetation - Dense
-  Vegetation - Light
-  Vegetation - Medium
-  Roads / Carparks

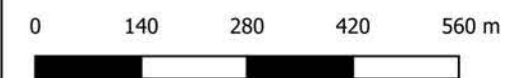
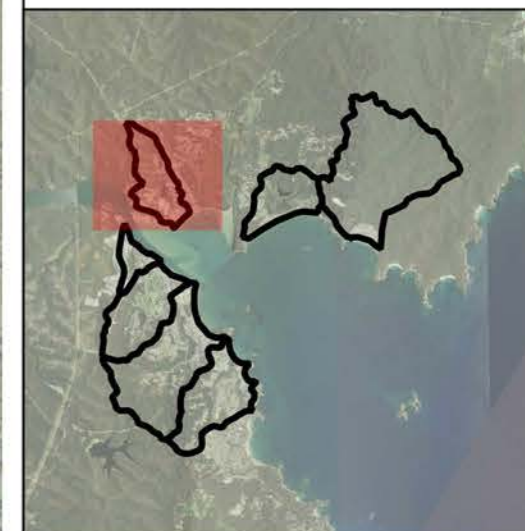


Scale : 1:7500@A3  
Date : 10 September 2019  
Revision : A  
Created by : LRE  
Coordinate System : MGA94 Zone 56



# G603-c-1 Surfside Tuflow Roughness

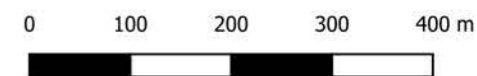
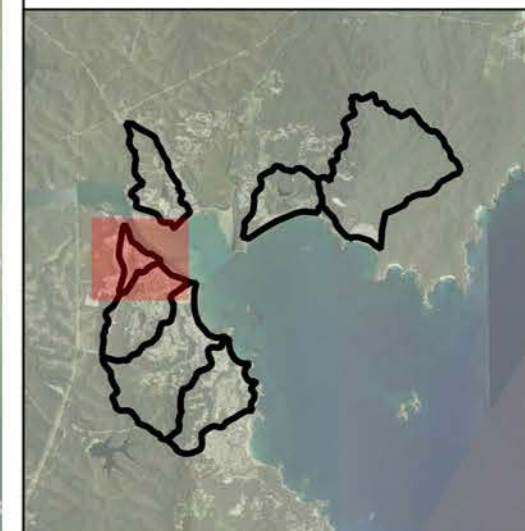
-  Catchment Area
-  Tuflow Model Area
- Roughness Zones**
-  Open Space
-  Neighbourhood Centre
-  Mixed Use
-  Low Density Residential
-  Recreation
-  Vegetation - Dense
-  Vegetation - Light
-  Vegetation - Medium
-  Roads / Carparks



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

# G603-d-1 Water Gardens Tuflow Roughness

-  Catchment Area
-  Tuflow Model Area
- Roughness Zones**
-  Open Space
-  Neighbourhood Centre
-  Mixed Use
-  Low Density Residential
-  Recreation
-  Vegetation - Dense
-  Vegetation - Light
-  Vegetation - Medium
-  Roads / Carparks



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

