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"Where will our knowledge take you?"

Williams River Flood Study

A3 Drawing Addendum

Port Stephens COUNCIL

Williams River
Flood Study

Prepared For:	Port Stephens Council and Dungog Shire Council
Prepared By:	BMT WBM Pty Ltd (Member of the BMT group of companies)

DOCUMENT CONTROL SHEET

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Document :	R.B16030.003.05_A3_DA.doc
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Client Contact:	Wal Mills and Greg McDonald
Client Reference	

Title :	Williams River Flood Study Drawing Addendum
Author :	Greg Rogencamp, Phillip Ryan
Synopsis :	Drawings to Accompany Williams River Flood Study

REVISION/CHECKING HISTORY

REVISION NUMBER	DATE OF ISSUE	CHECKED BY		ISSUED BY	
2	11th July 2008	PAR		GJR	
3	22nd August 2008	PAR		GJR	
4	5th September 2008	GJR		PAR	
5	15 June 2009	SAW		PAR	

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DESTINATION	REVISION			
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Greg Bermard	1	1		
FPM Committee		6		
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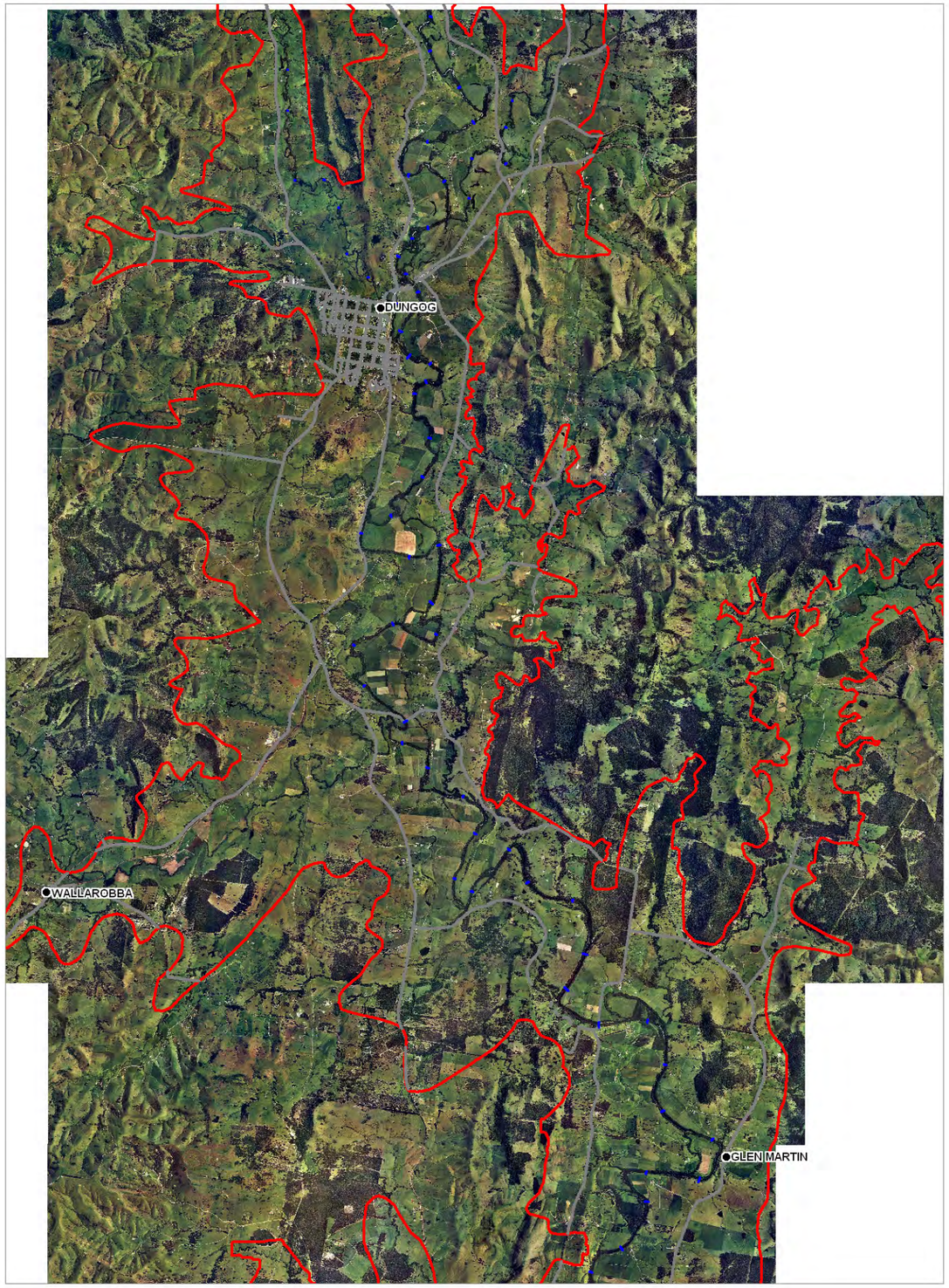

Extent of Photgrammetry
Road and Rail Breaklines From Photogrammetry
Cross Section - HWA
Cross Section - DOC
Cross Section - DNR
Cross Section - PWD
DNR Levee Survey
Floodgate

Title:
Topographical Data Sources

Figure:
Drawing 1

Rev:
A

N

0 2 4km
Approx. Scale

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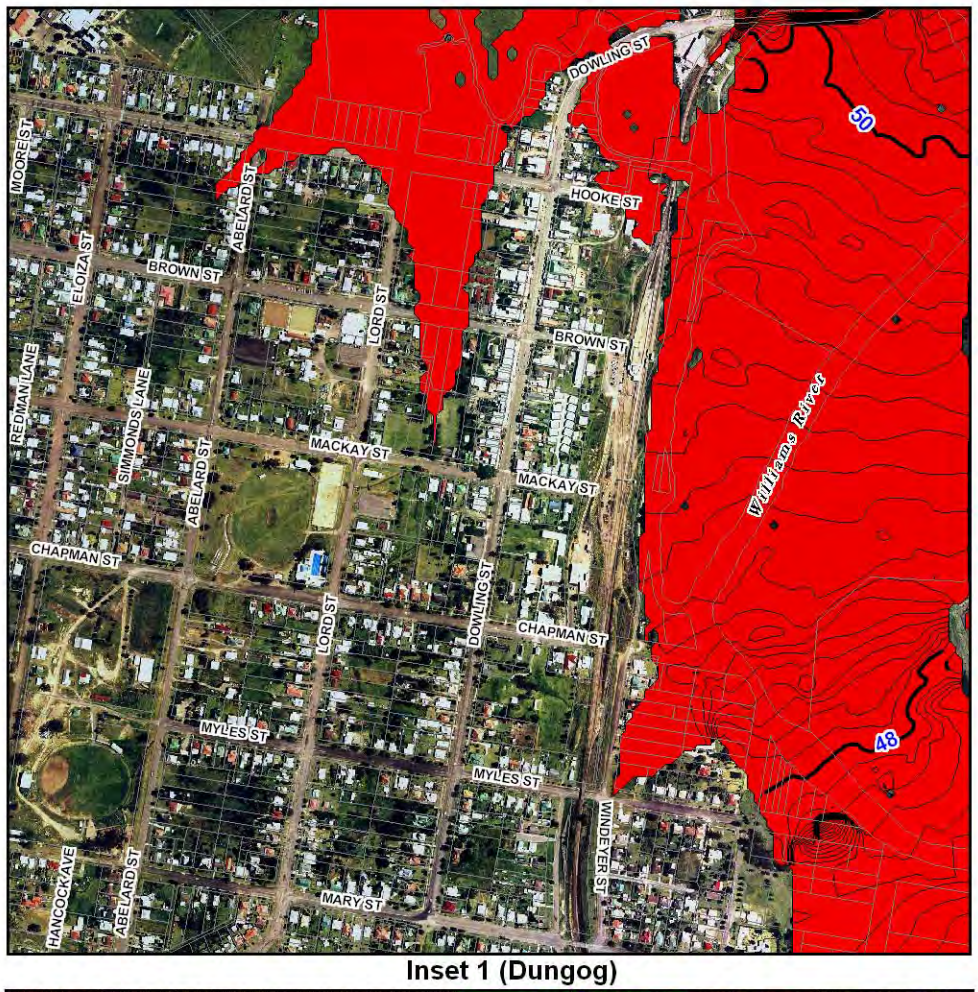
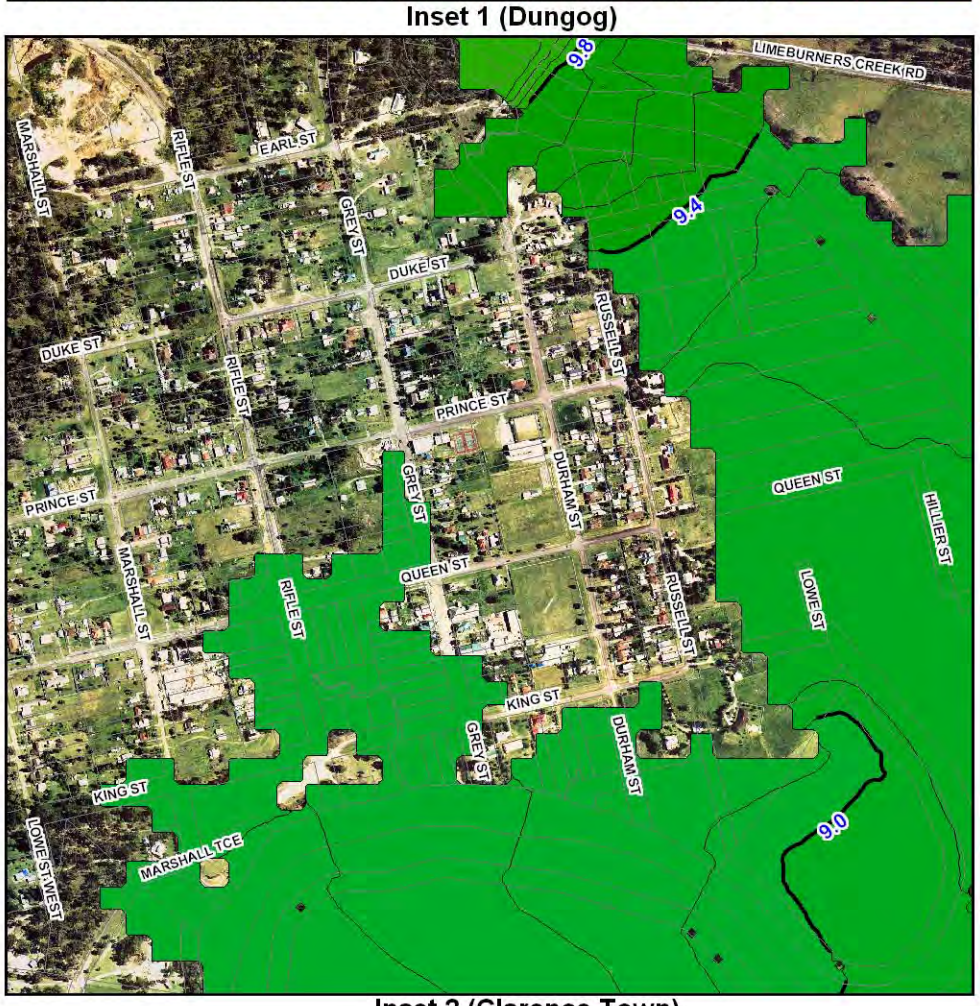
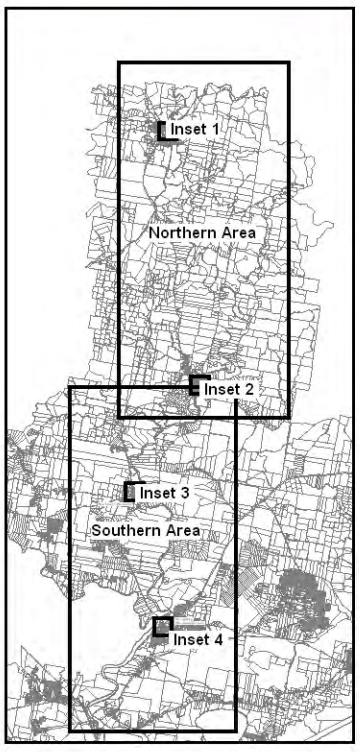


Inset 1 (Dungog)



Inset 2 (Clarence Town)



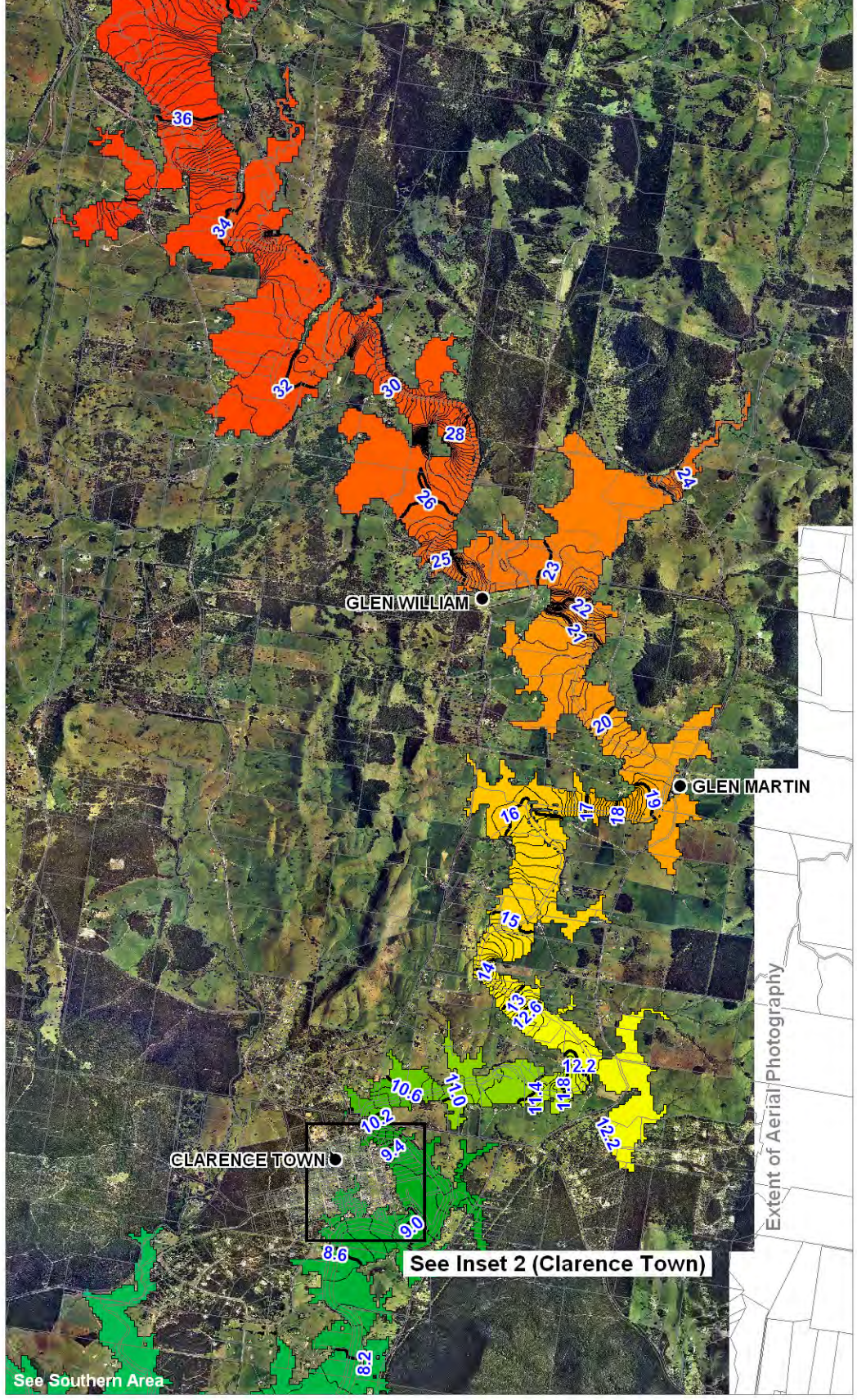
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Water Level (mAHD)

1.0 to 1.2	4.4 to 4.6	10.6 to 11.0	24.0 to 25.0	56.0 to 58.0
1.2 to 1.4	4.6 to 4.8	11.0 to 11.4	25.0 to 26.0	58.0 to 60.0
1.4 to 1.6	4.8 to 5.0	11.4 to 11.8	26.0 to 28.0	60.0 to 62.0
1.6 to 1.8	5.0 to 5.4	11.8 to 12.2	28.0 to 30.0	62.0 to 64.0
1.8 to 2.0	5.4 to 5.8	12.2 to 12.6	30.0 to 32.0	64.0 to 66.0
2.0 to 2.2	5.8 to 6.2	12.6 to 13.0	32.0 to 34.0	66.0 to 68.0
2.2 to 2.4	6.2 to 6.6	13.0 to 14.0	34.0 to 36.0	68.0 to 70.0
2.4 to 2.6	6.6 to 7.0	14.0 to 15.0	36.0 to 38.0	70.0 to 72.0
2.6 to 2.8	7.0 to 7.4	15.0 to 16.0	38.0 to 40.0	72.0 to 74.0
2.8 to 3.0	7.4 to 7.8	16.0 to 17.0	40.0 to 42.0	74.0 to 76.0
3.0 to 3.2	7.8 to 8.2	17.0 to 18.0	42.0 to 44.0	76.0 to 78.0
3.2 to 3.4	8.2 to 8.6	18.0 to 19.0	44.0 to 46.0	78.0 to 80.0
3.4 to 3.6	8.6 to 9.0	19.0 to 20.0	46.0 to 48.0	80.0 to 82.0
3.6 to 3.8	9.0 to 9.4	20.0 to 21.0	48.0 to 50.0	82.0 to 84.0
3.8 to 4.0	9.4 to 9.8	21.0 to 22.0	50.0 to 52.0	84.0 to 86.0
4.0 to 4.2	9.8 to 10.2	22.0 to 23.0	52.0 to 54.0	
4.2 to 4.4	10.2 to 10.6	23.0 to 24.0	54.0 to 56.0	



Title:

Williams River 0.5% AEP Flood Event
Northern Area - Peak Water Level

Figure: Drawing 2

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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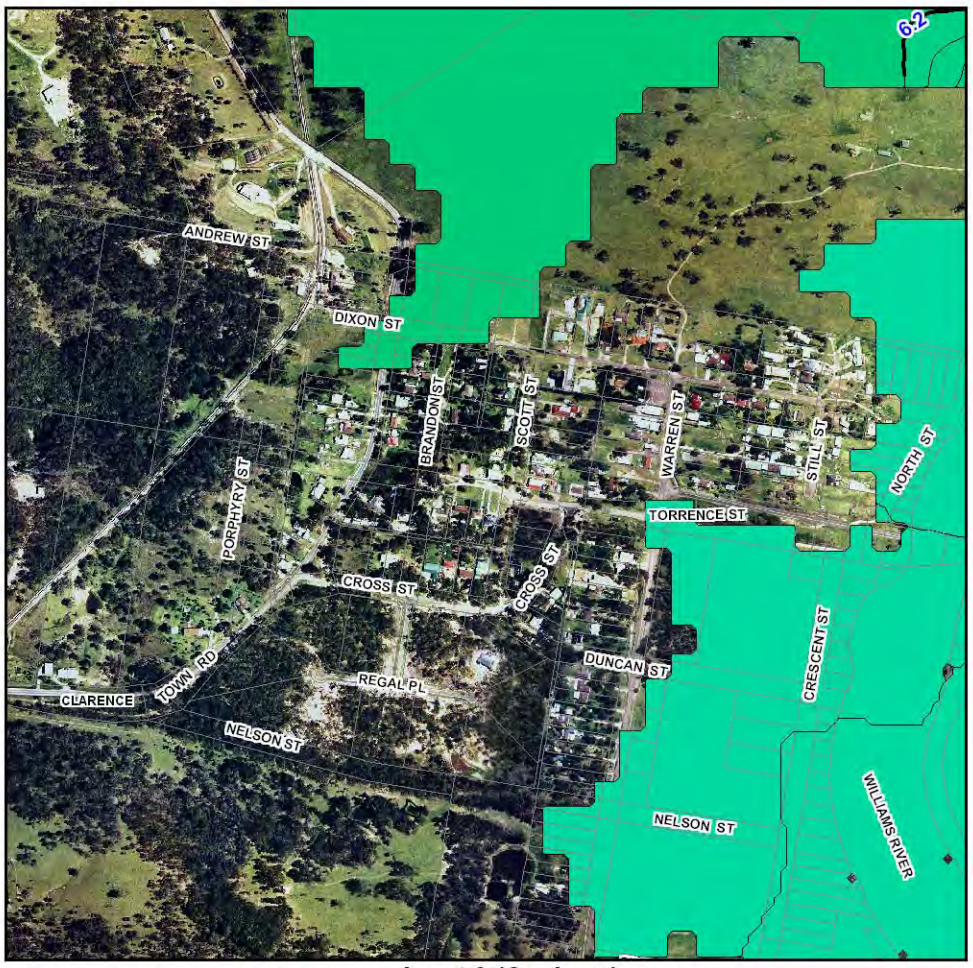
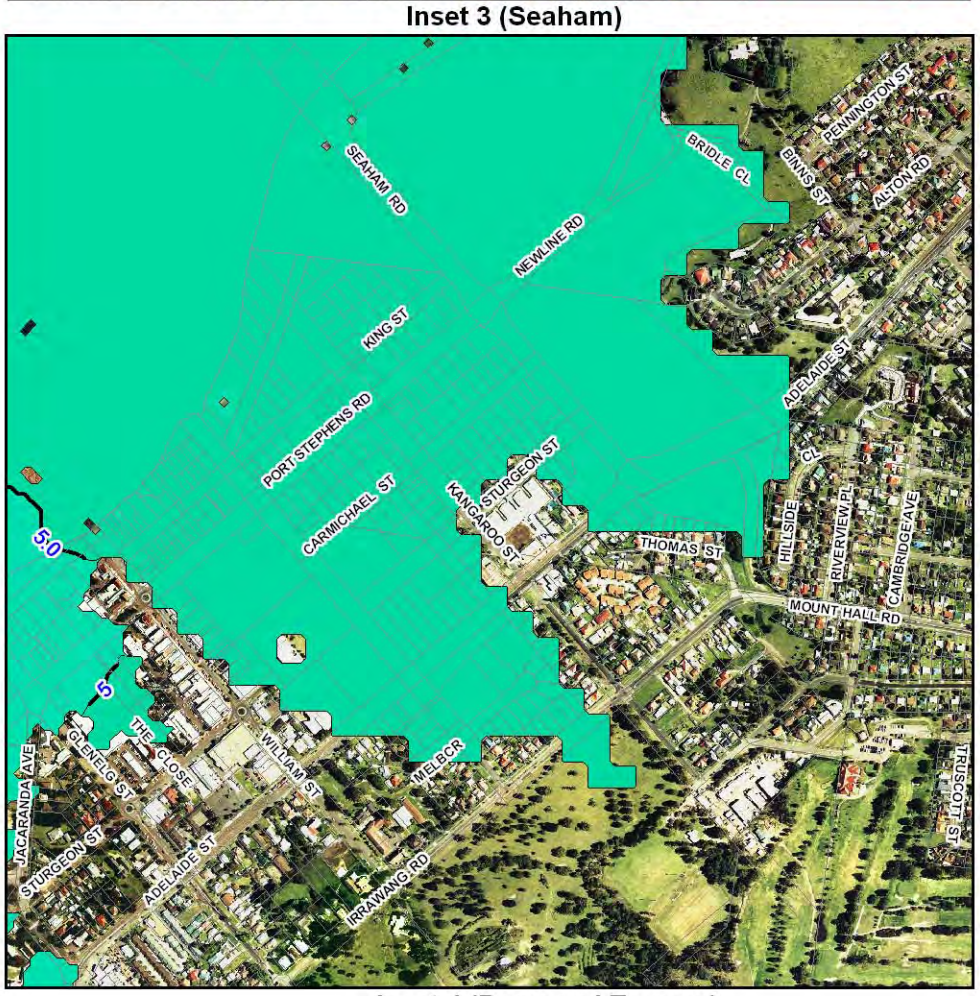
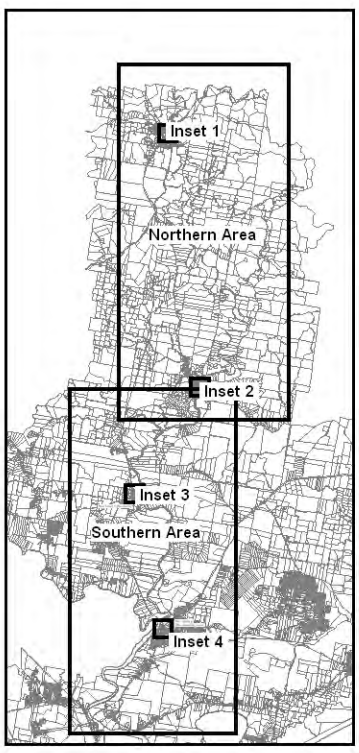


Inset 3 (Seaham)



Inset 4 (Raymond Terrace)



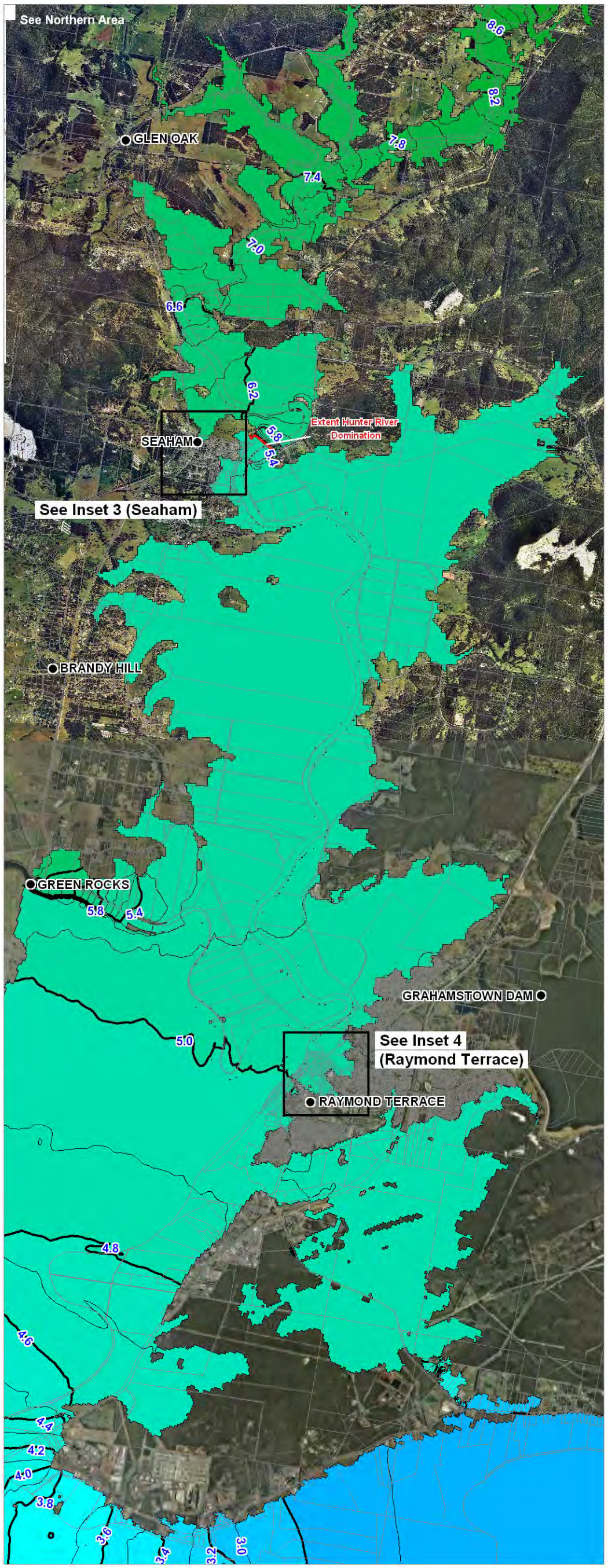
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Water Level (mAHD)

1.0 to 1.2	4.4 to 4.6	10.6 to 11.0	24.0 to 25.0	56.0 to 58.0
1.2 to 1.4	4.6 to 4.8	11.0 to 11.4	25.0 to 26.0	58.0 to 60.0
1.4 to 1.6	4.8 to 5.0	11.4 to 11.8	26.0 to 28.0	60.0 to 62.0
1.6 to 1.8	5.0 to 5.4	11.8 to 12.2	28.0 to 30.0	62.0 to 64.0
1.8 to 2.0	5.4 to 5.8	12.2 to 12.6	30.0 to 32.0	64.0 to 66.0
2.0 to 2.2	5.8 to 6.2	12.6 to 13.0	32.0 to 34.0	66.0 to 68.0
2.2 to 2.4	6.2 to 6.6	13.0 to 14.0	34.0 to 36.0	68.0 to 70.0
2.4 to 2.6	6.6 to 7.0	14.0 to 15.0	36.0 to 38.0	70.0 to 72.0
2.6 to 2.8	7.0 to 7.4	15.0 to 16.0	38.0 to 40.0	72.0 to 74.0
2.8 to 3.0	7.4 to 7.8	16.0 to 17.0	40.0 to 42.0	74.0 to 76.0
3.0 to 3.2	7.8 to 8.2	17.0 to 18.0	42.0 to 44.0	76.0 to 78.0
3.2 to 3.4	8.2 to 8.6	18.0 to 19.0	44.0 to 46.0	78.0 to 80.0
3.4 to 3.6	8.6 to 9.0	19.0 to 20.0	46.0 to 48.0	80.0 to 82.0
3.6 to 3.8	9.0 to 9.4	20.0 to 21.0	48.0 to 50.0	82.0 to 84.0
3.8 to 4.0	9.4 to 9.8	21.0 to 22.0	50.0 to 52.0	84.0 to 86.0
4.0 to 4.2	9.8 to 10.2	22.0 to 23.0	52.0 to 54.0	
4.2 to 4.4	10.2 to 10.6	23.0 to 24.0	54.0 to 56.0	



Title:

Williams River 0.5% AEP Flood Event
Southern Area - Peak Water Level

Figure: Drawing 3

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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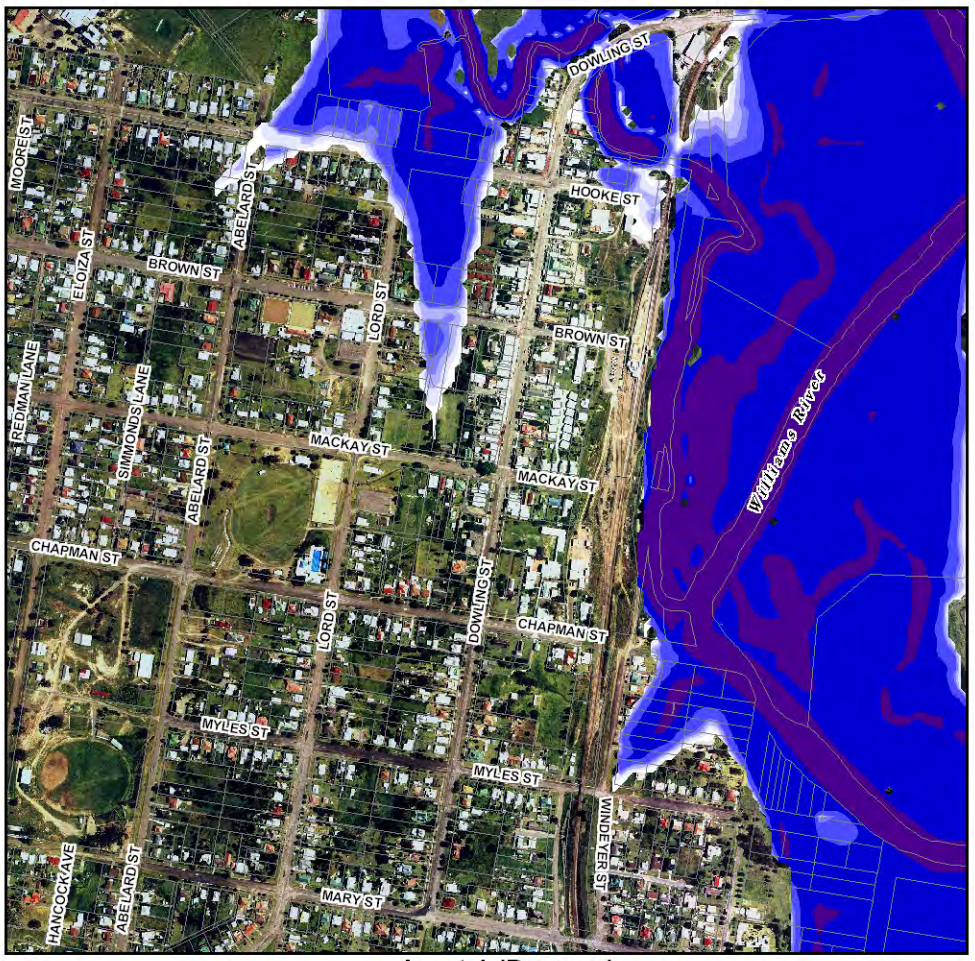
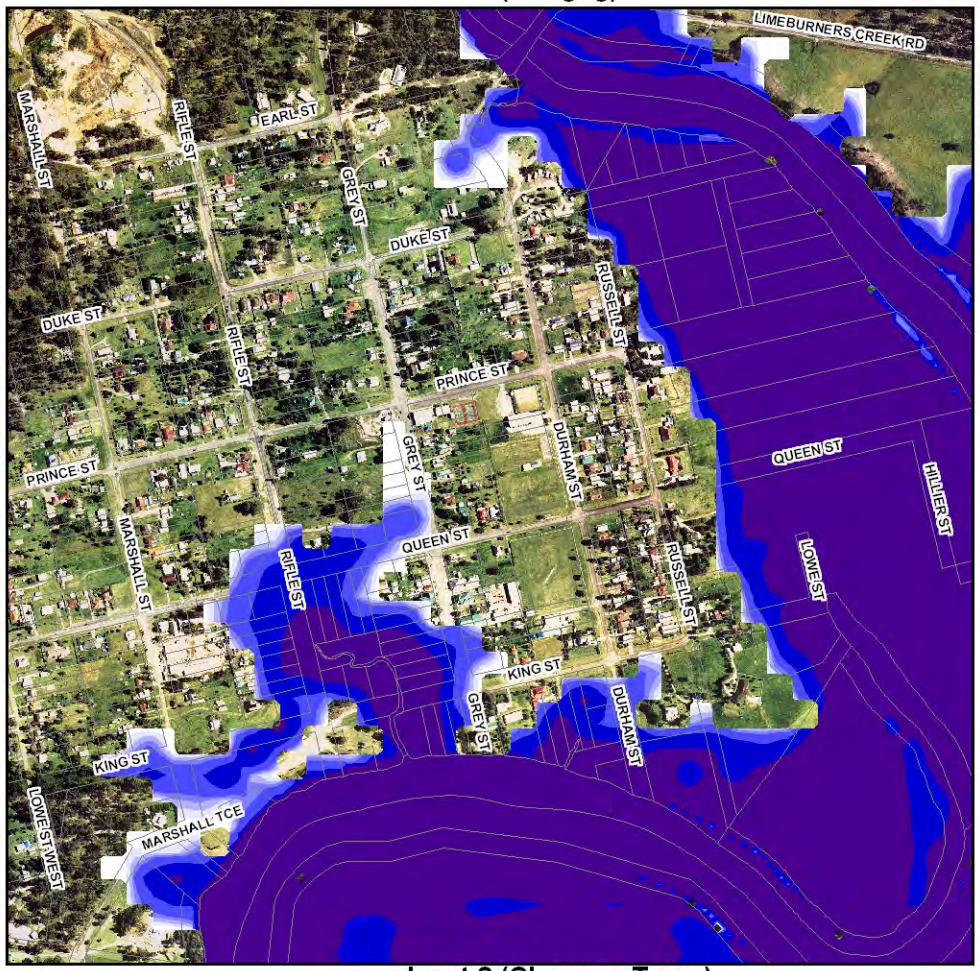


Inset 1 (Dungog)



Inset 2 (Clarence Town)

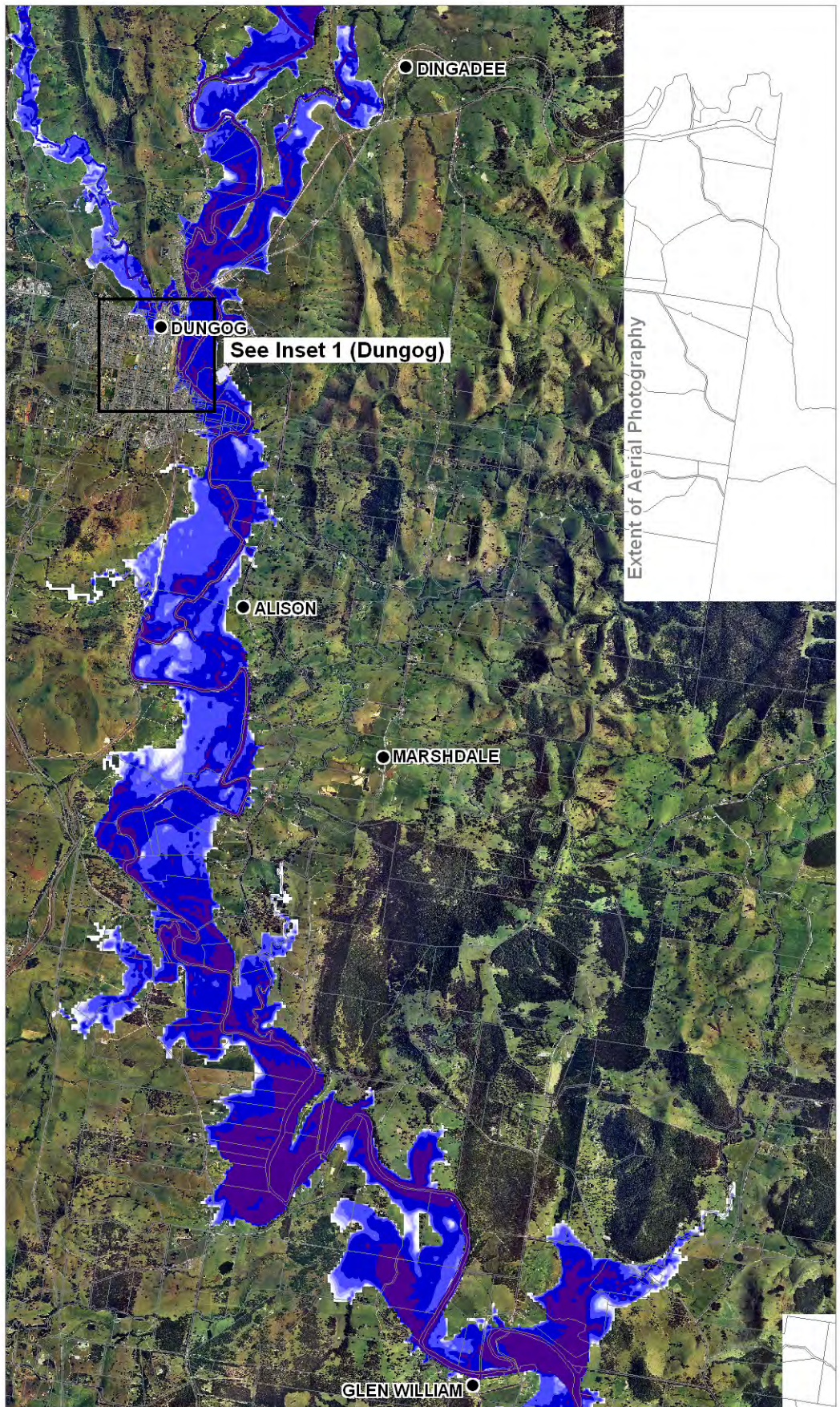
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Depth (m)

- 0.0 to 0.25
- 0.25 to 0.5
- 0.5 to 0.75
- 0.75to 1.0
- 1.0 to 2.0
- 2.0 to 4.0
- > 4.0



Title:

Williams River 0.5% AEP Flood Event
Northern Area - Peak Depths

Figure: Drawing 4

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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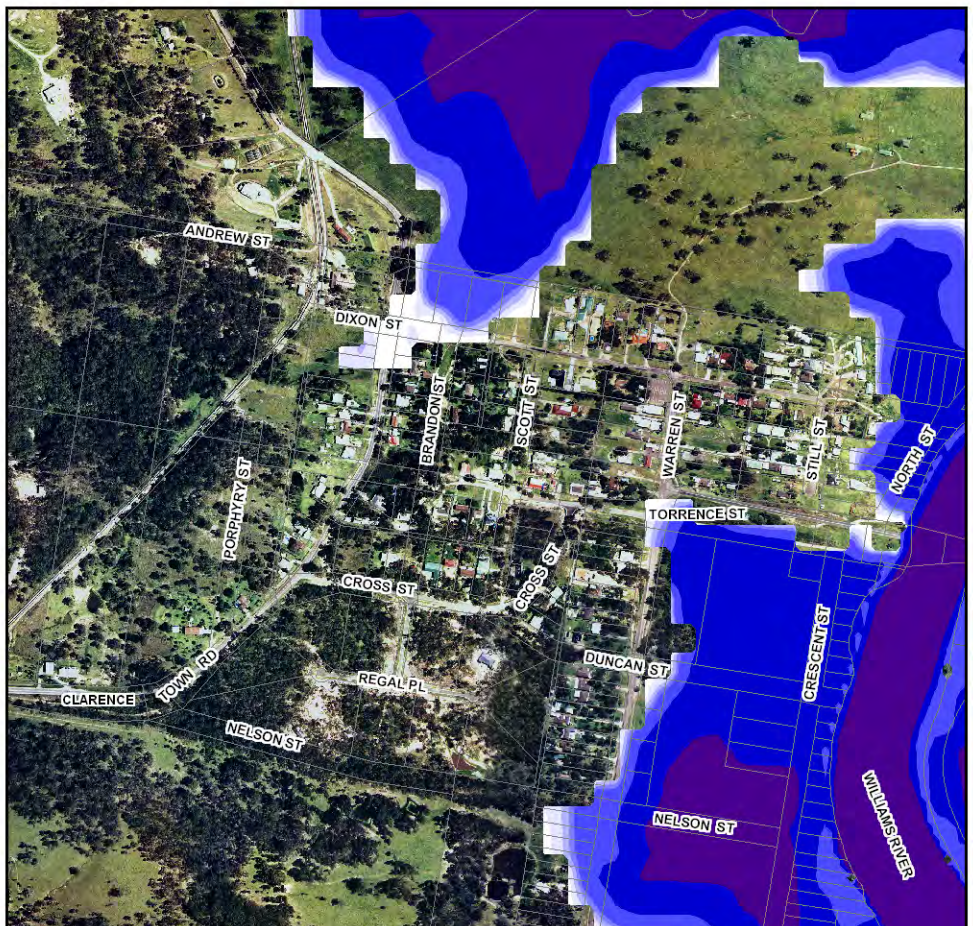
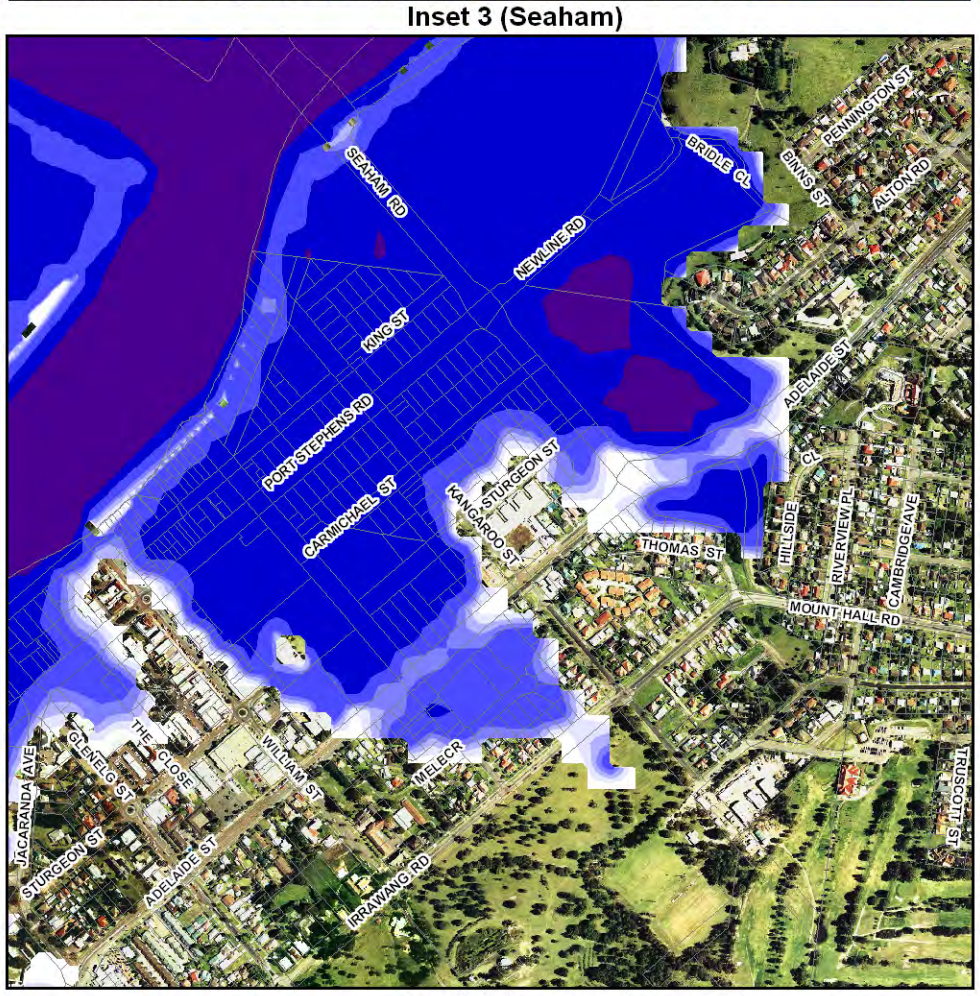
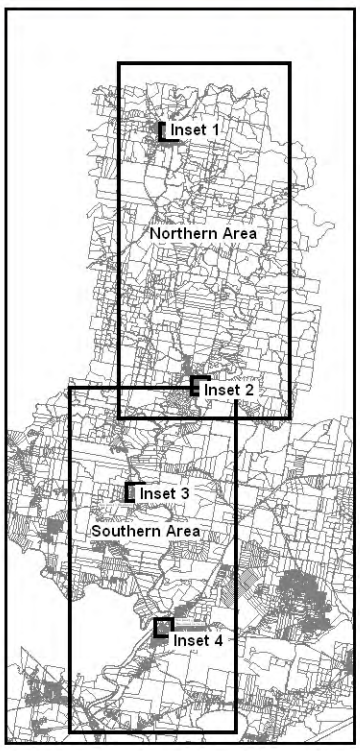
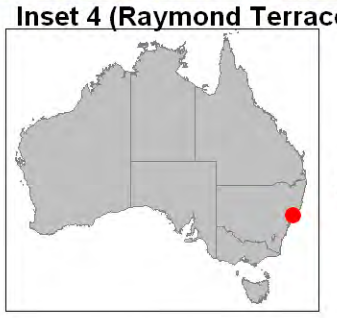


Inset 3 (Seaham)



Inset 4 (Raymond Terrace)





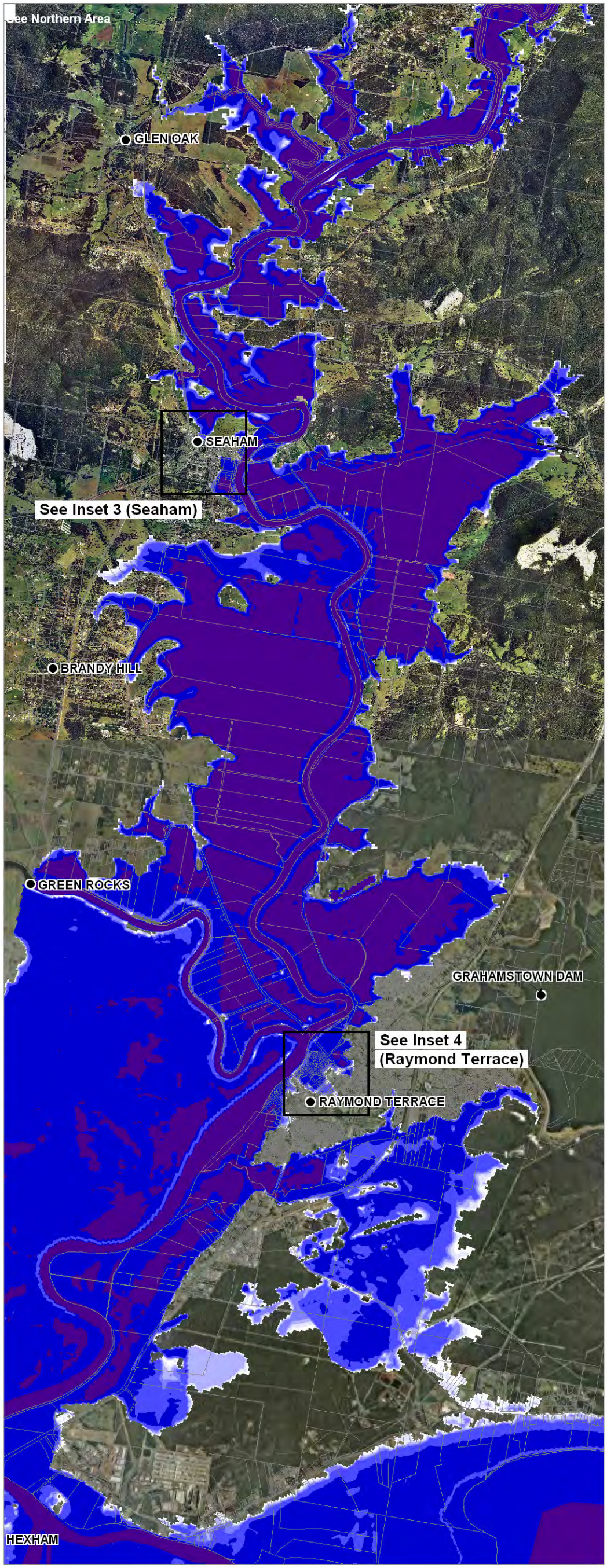
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Depth (m)

- 0.0 to 0.25
- 0.25 to 0.5
- 0.5 to 0.75
- 0.75to 1.0
- 1.0 to 2.0
- 2.0 to 4.0
- > 4.0



Title:

Williams River 0.5% AEP Flood Event
Southern Area - Peak Depths

Figure: Drawing 5

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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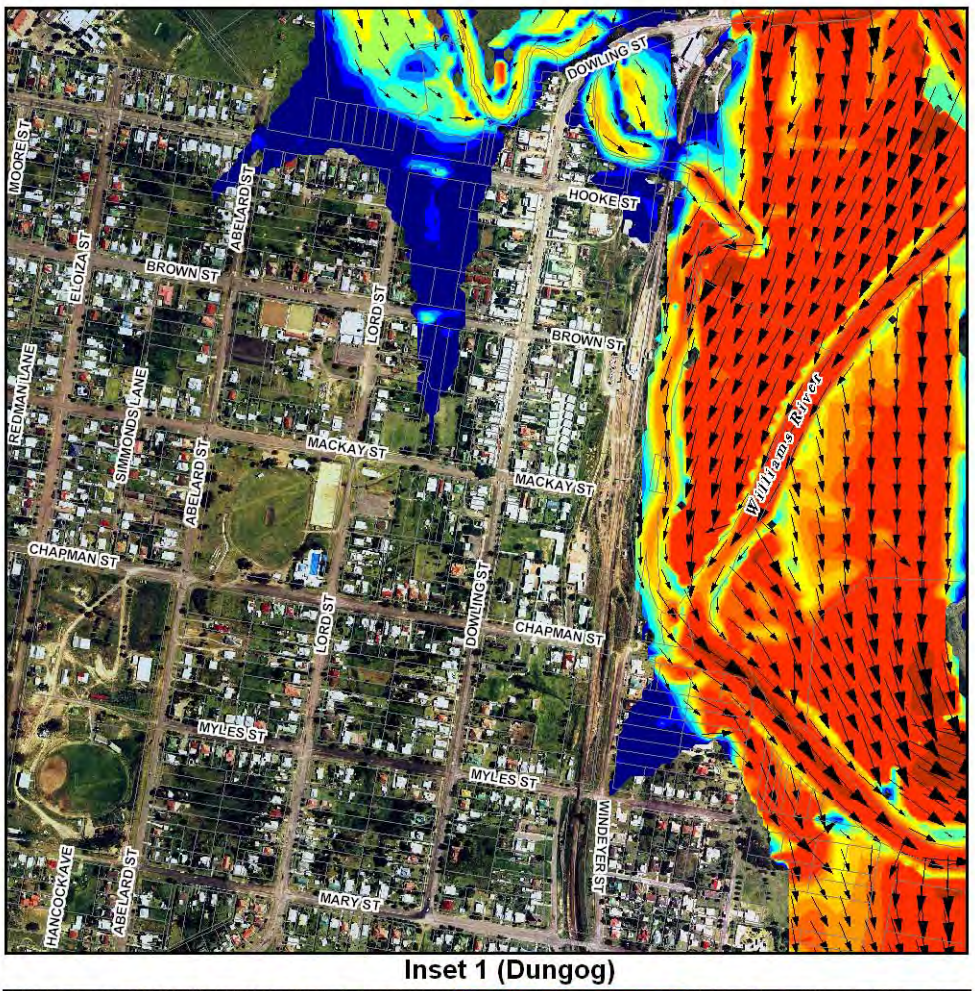

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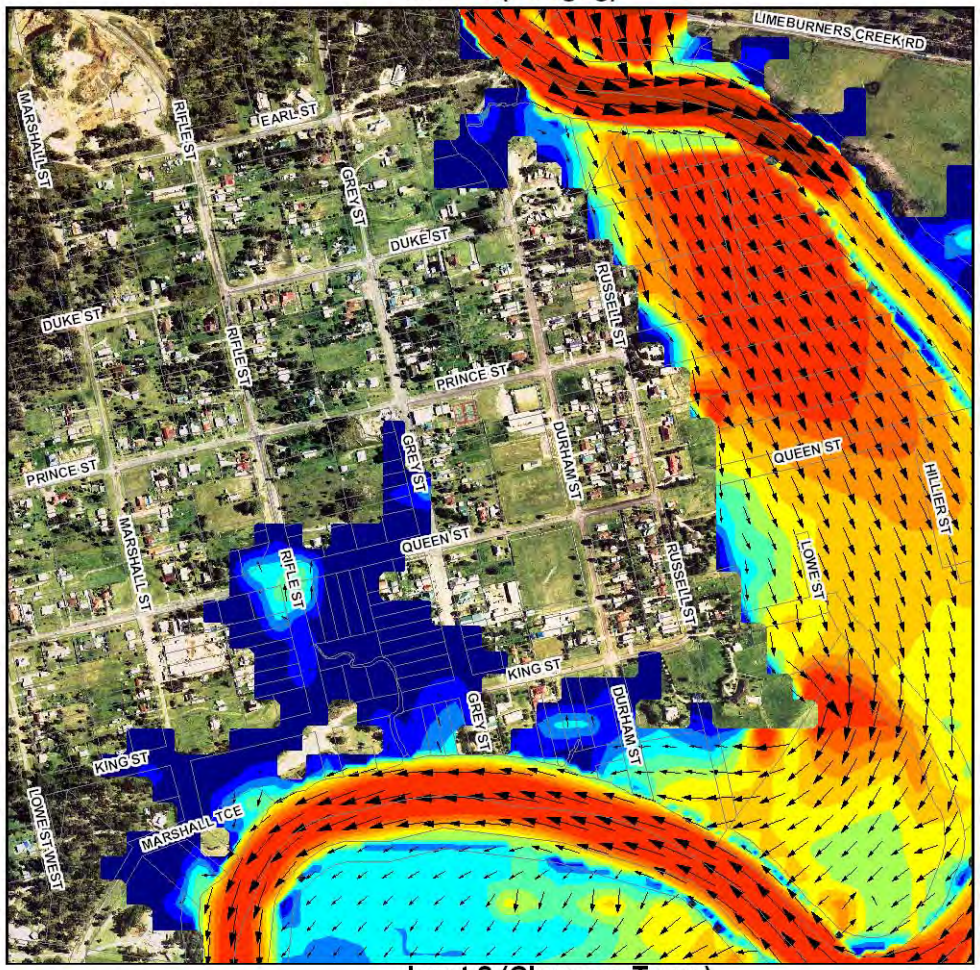


Inset 2 (Clarence Town)

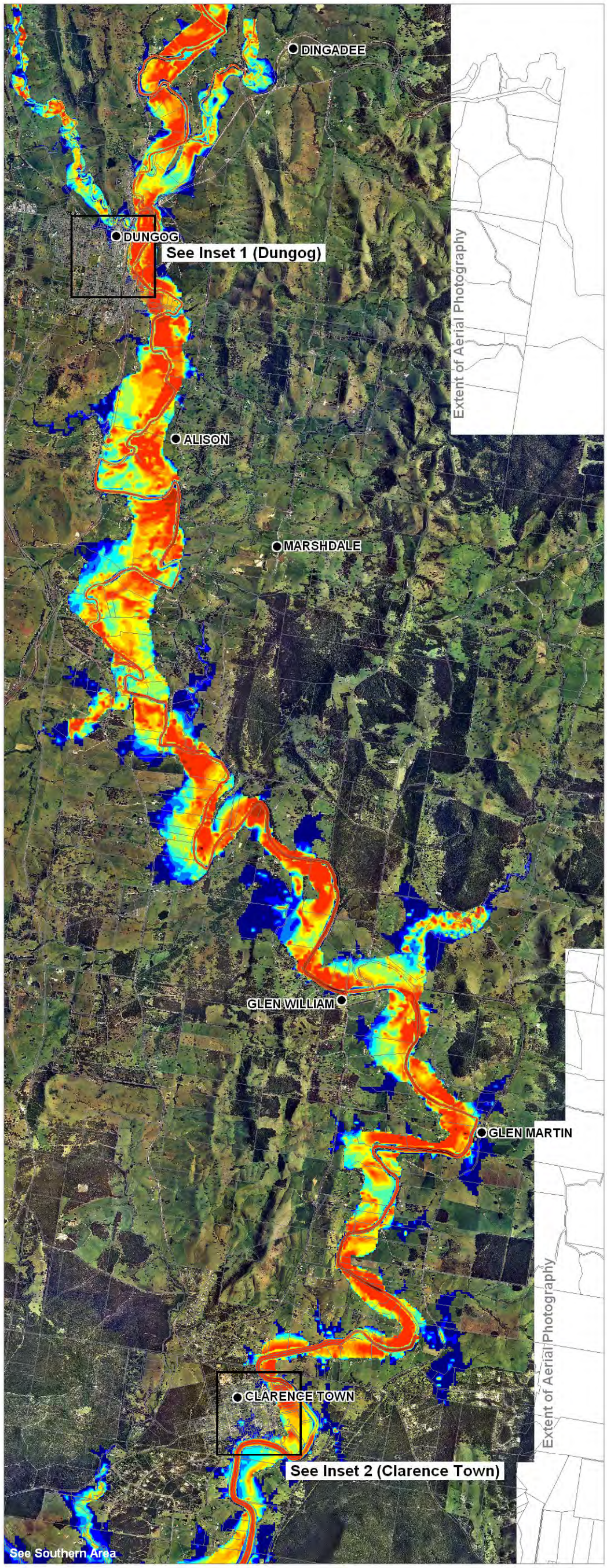
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Velocity at Peak Depth (m/s)

0.0 to 0.2	1.4 to 1.6
0.2 to 0.4	1.6 to 1.8
0.4 to 0.6	1.8 to 2.0
0.6 to 0.8	2.0 to 3.5
0.8 to 1.0	3.5 to 5.0
1.0 to 1.2	> 5.0
1.2 to 1.4	



Title:

Williams River 0.5% AEP Flood Event
Northern Area - Peak Velocitites

Figure: Drawing 6

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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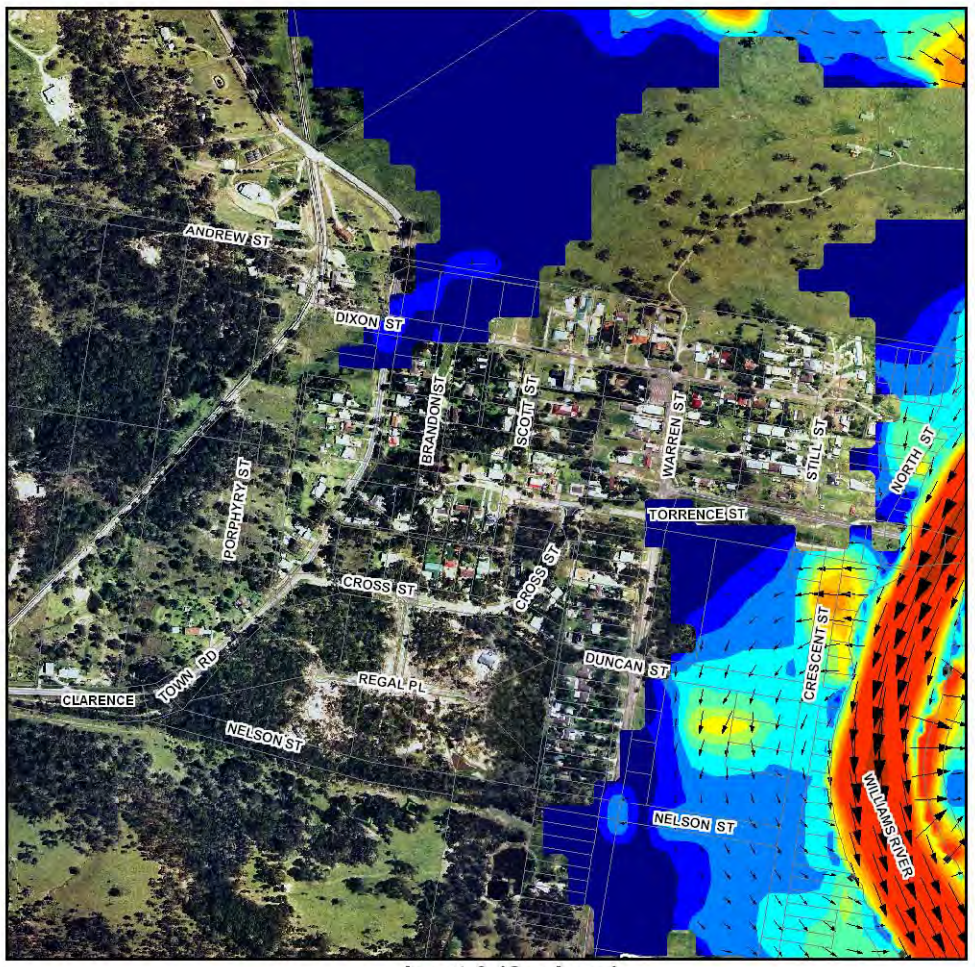

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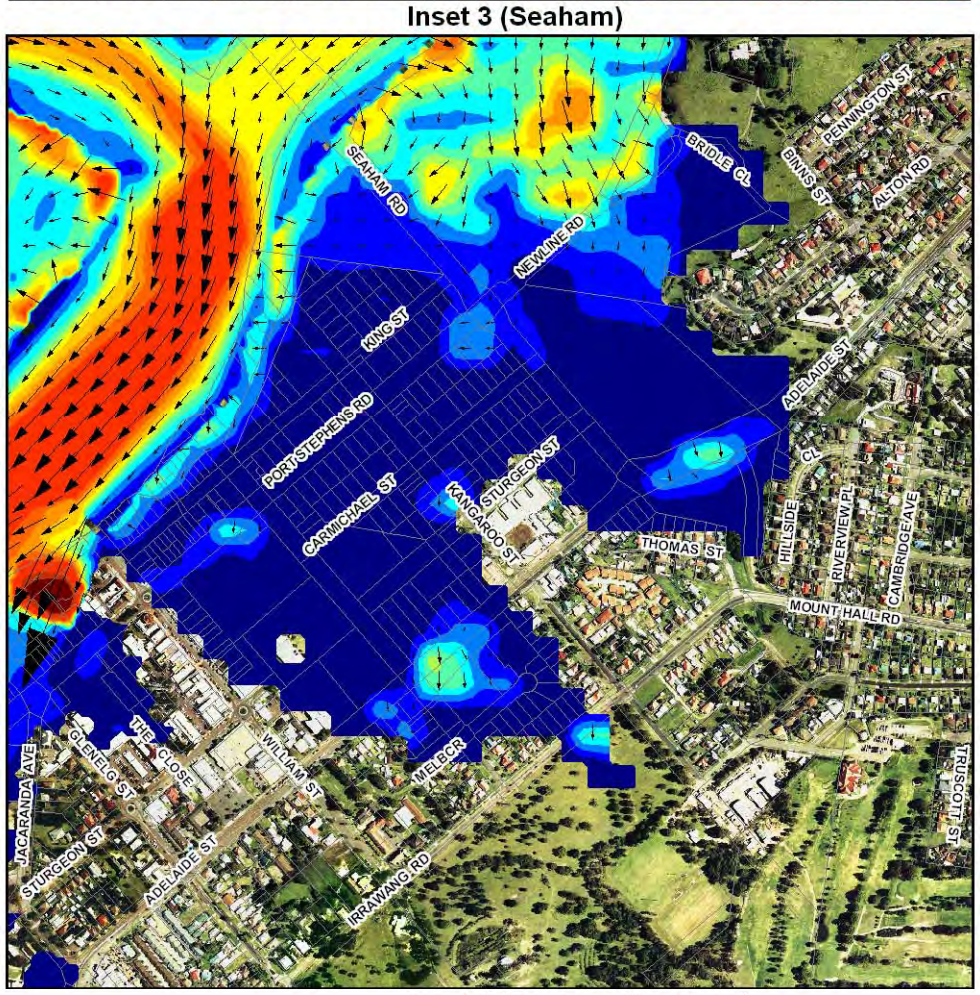

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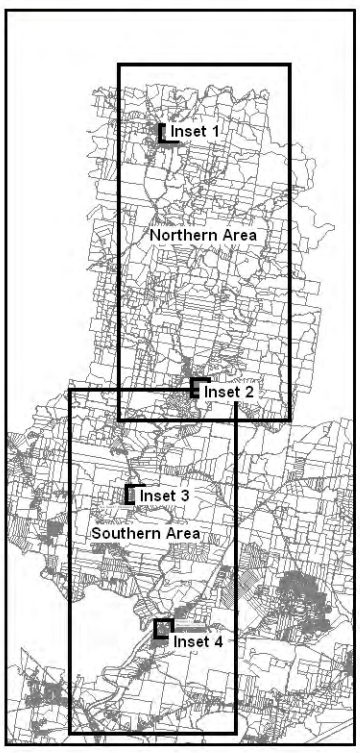
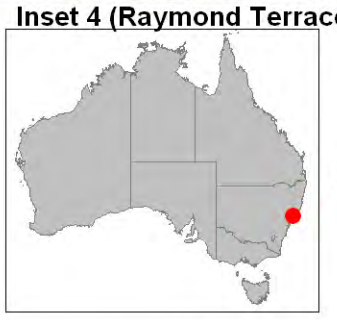




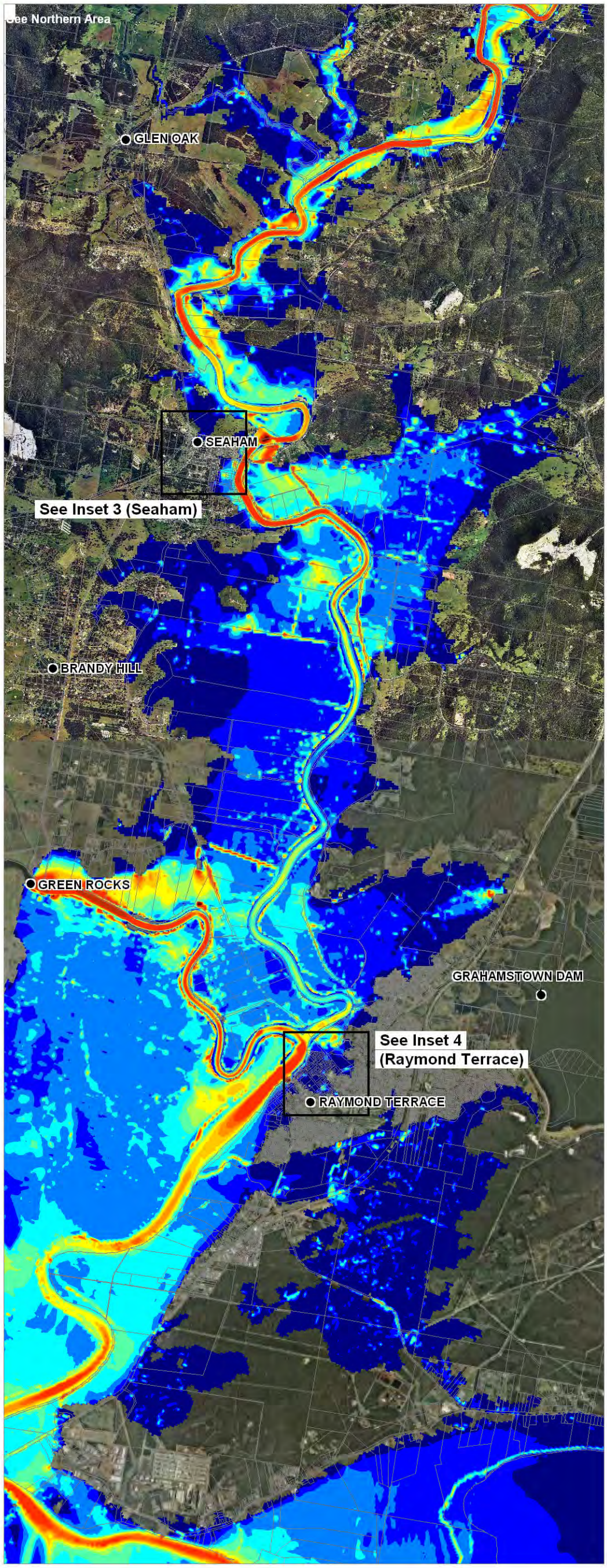
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Velocity at Peak Depth (m/s)

0.0 to 0.2	1.4 to 1.6
0.2 to 0.4	1.6 to 1.8
0.4 to 0.6	1.8 to 2.0
0.6 to 0.8	2.0 to 3.5
0.8 to 1.0	3.5 to 5.0
1.0 to 1.2	> 5.0
1.2 to 1.4	



Title:

Williams River 0.5% AEP Flood Event
Southern Area - Peak Velocitites

Figure: Drawing 7

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

BMT WBM
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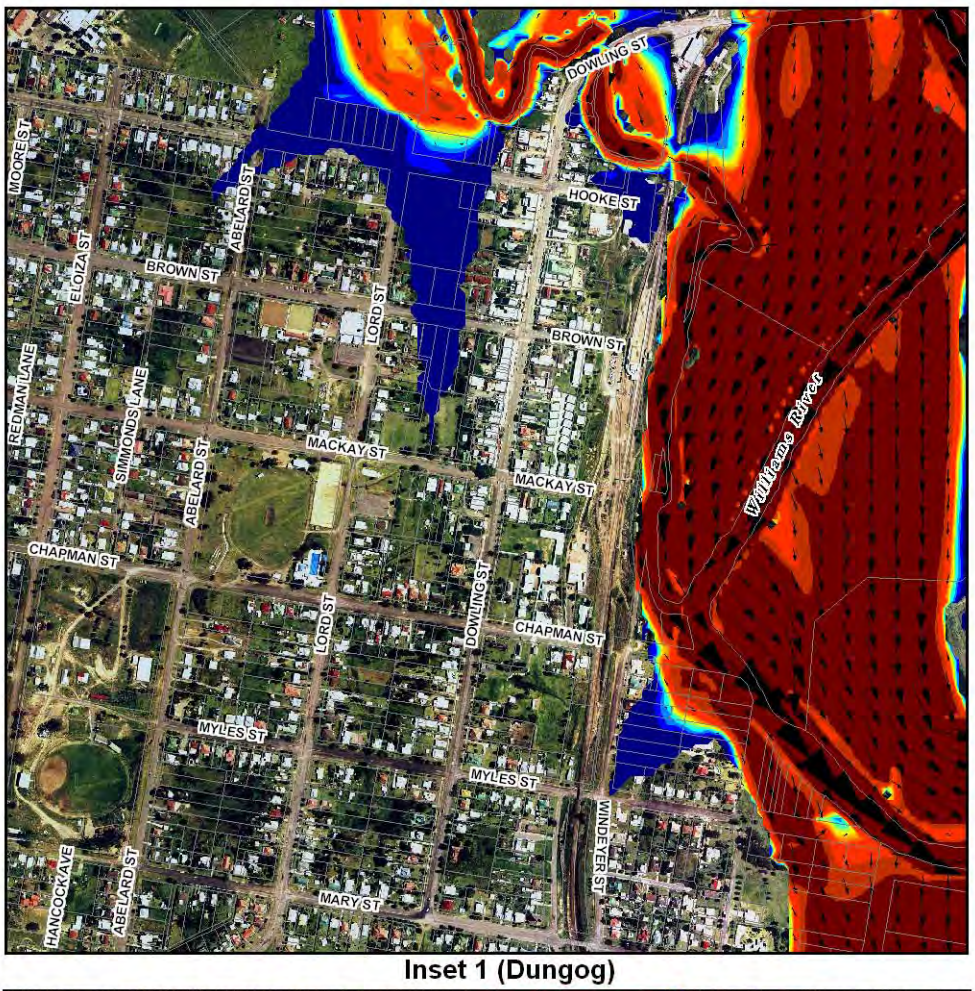
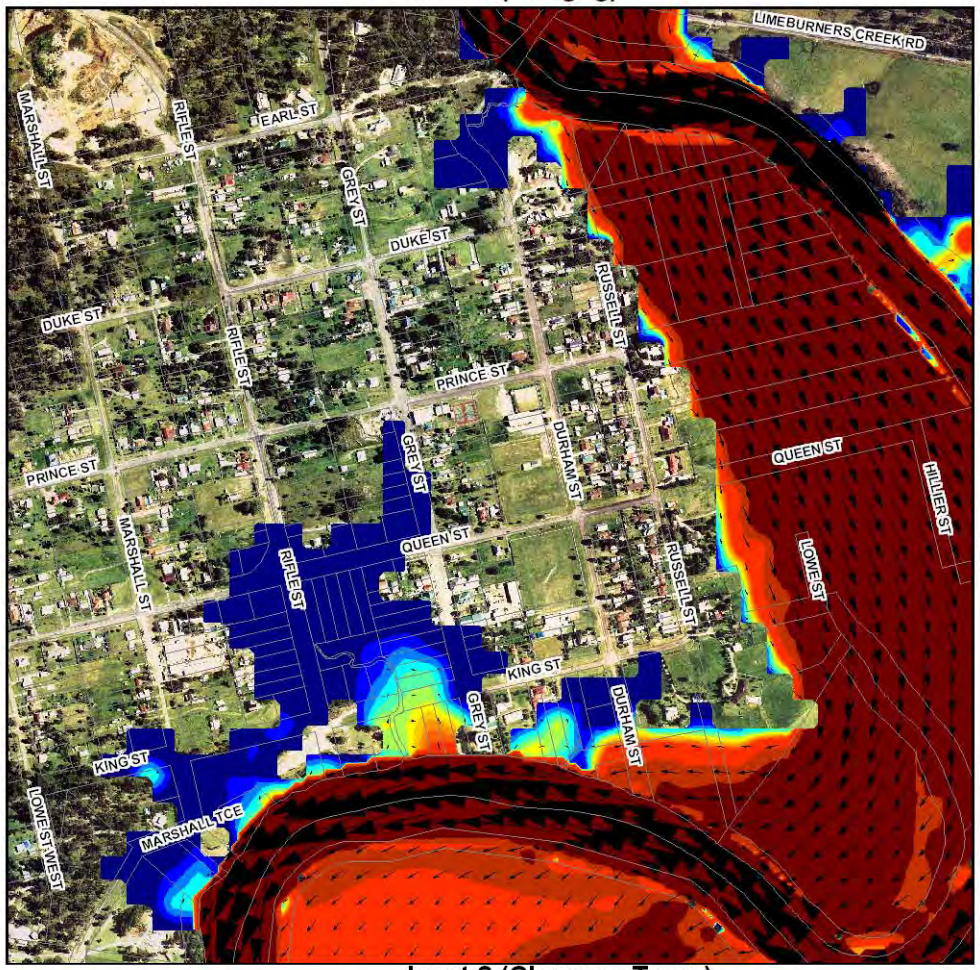
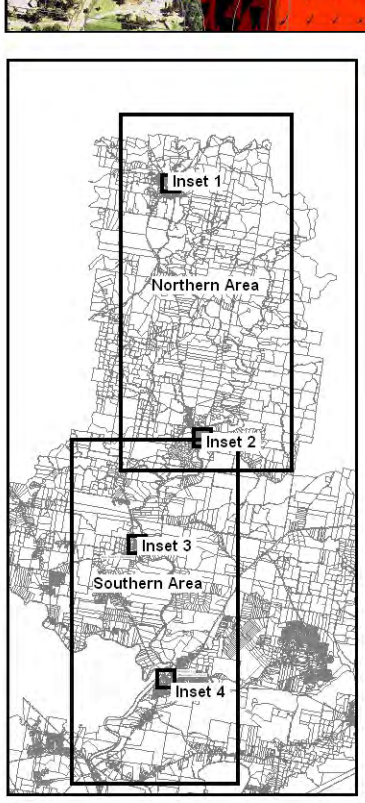
Filepath : \\wbmfs2\drafting\B16030_I_brh Williams River PEV\DRG\A3_Drawing_Addendum\FLD_009_090421_Q200_Velocity_A3.WOR



Inset 1 (Dungog)



Inset 2 (Clarence Town)



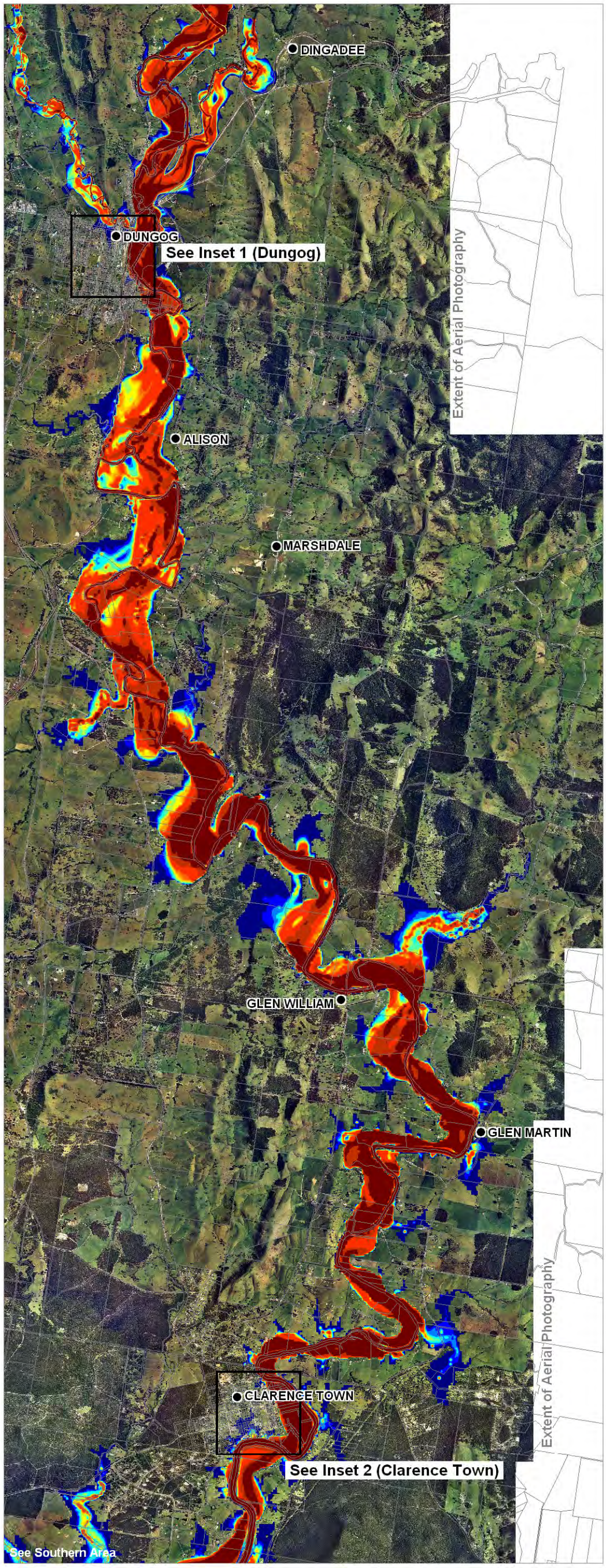
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Velocity-Depth Product (m/s^2)

0.0 to 0.2	1.4 to 1.6
0.2 to 0.4	1.6 to 1.8
0.4 to 0.6	1.8 to 2.0
0.6 to 0.8	2.0 to 3.5
0.8 to 1.0	3.5 to 5.0
1.0 to 1.2	> 5.0
1.2 to 1.4	



Title:

Williams River 0.5% AEP Flood Event
Northern Area - Velocity-Depth Product

Figure: Drawing 8

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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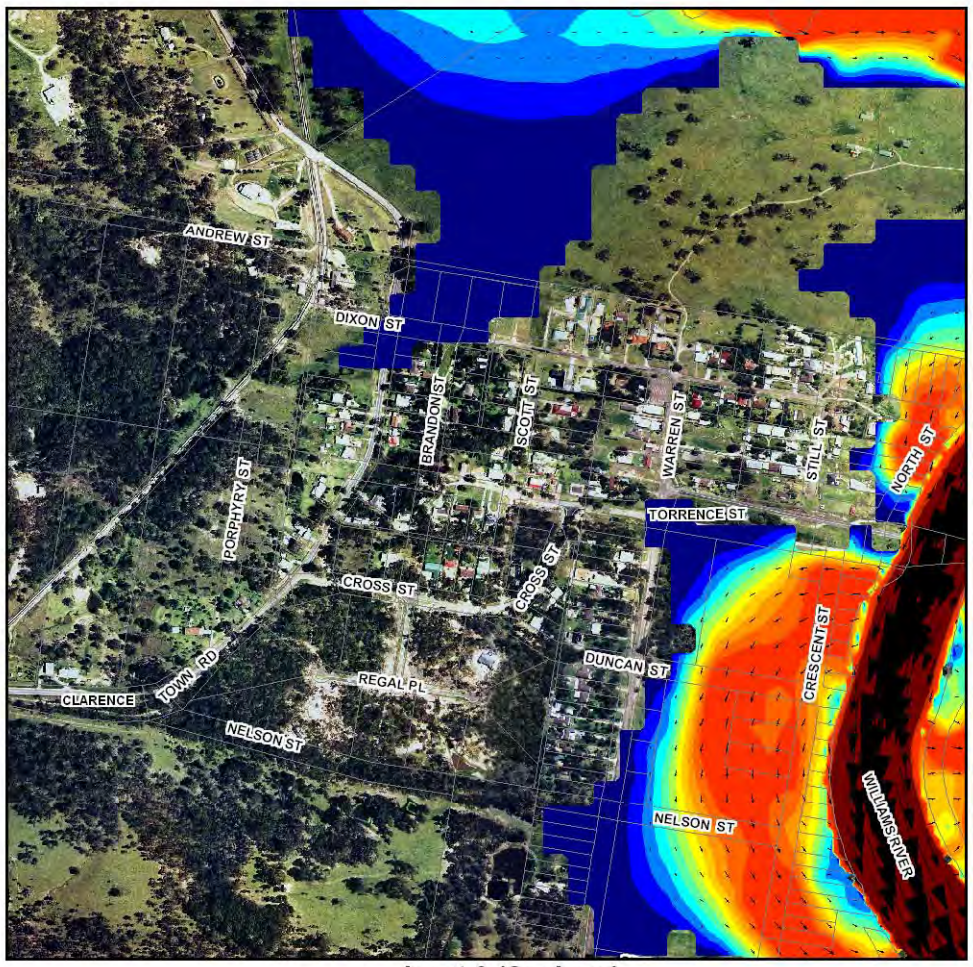
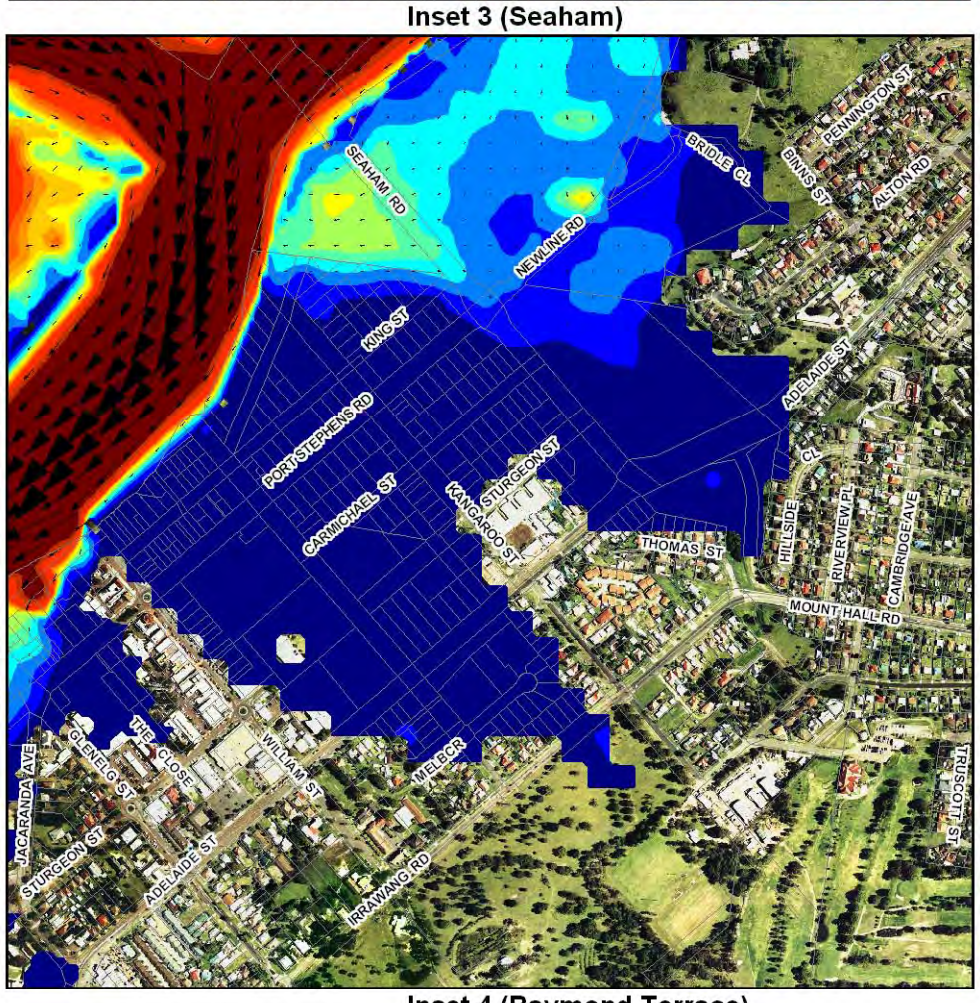
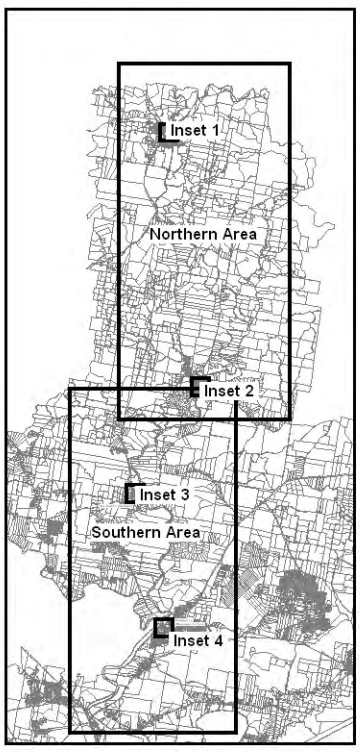
Filepath : I:\B16030_I_brh Williams River PE\\DRG\A3_Drawing_Addendum\FLD_010_090421_Q200_VelocityDepth_A3.WOR

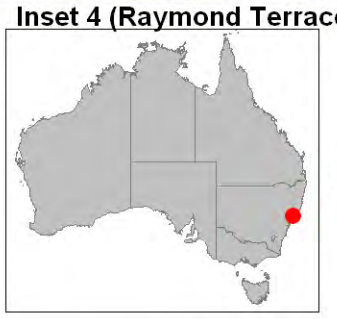


Inset 3 (Seaham)



Inset 4 (Raymond Terrace)





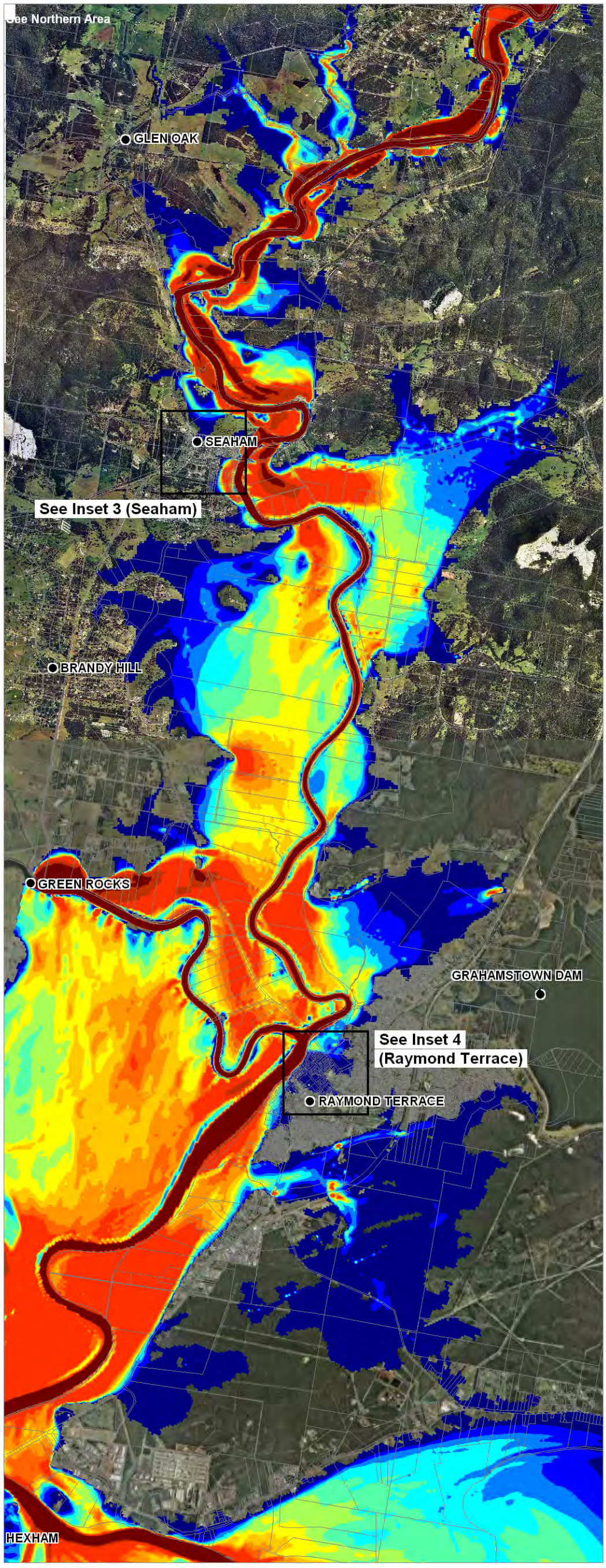
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Modelled Velocity-Depth Product (m/s^2)

0.0 to 0.2	1.4 to 1.6
0.2 to 0.4	1.6 to 1.8
0.4 to 0.6	1.8 to 2.0
0.6 to 0.8	2.0 to 3.5
0.8 to 1.0	3.5 to 5.0
1.0 to 1.2	> 5.0
1.2 to 1.4	



Title:

Williams River 0.5% AEP Flood Event
Southern Area - Velocity-Depth Product

Figure: Drawing 9

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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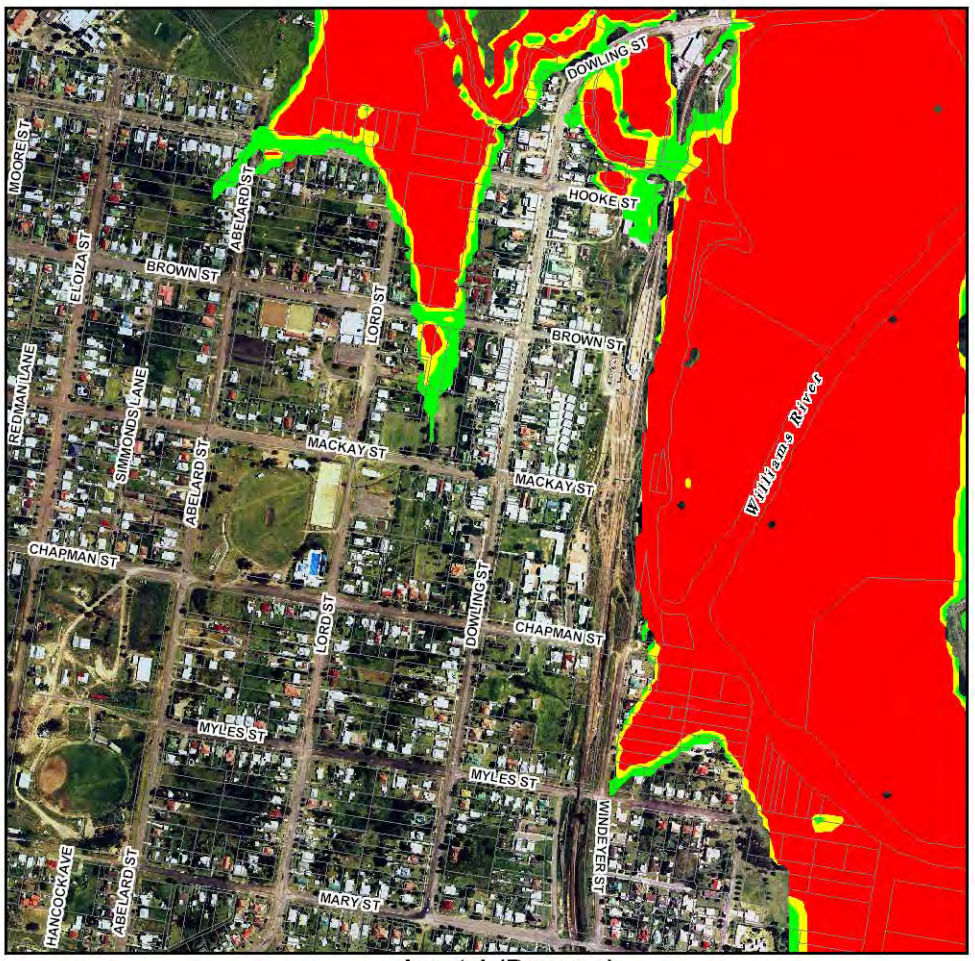
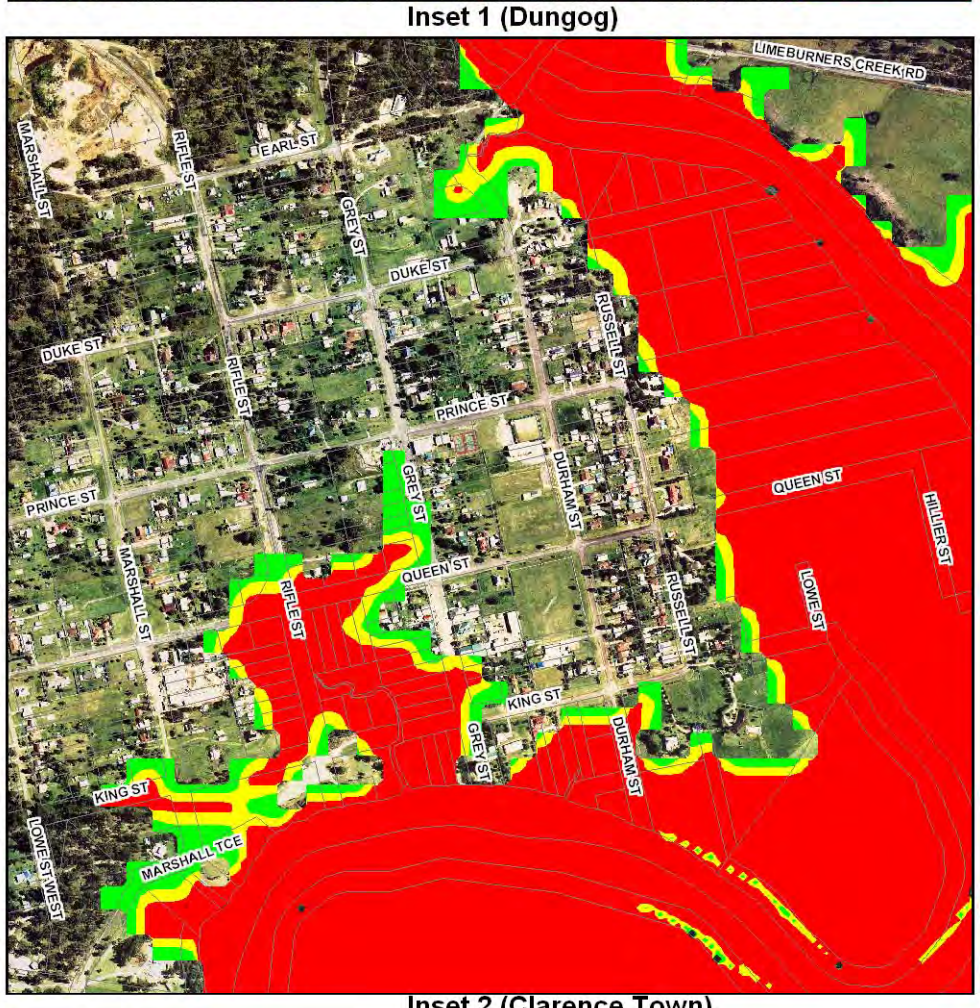
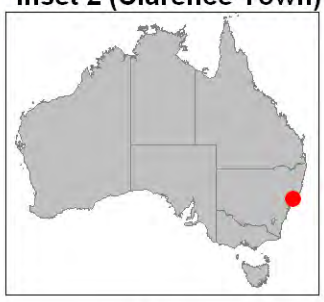
Filepath : I:\B16030_I_brh Williams River PE\\DRG\A3_Drawing_Addendum\FLD_010_090421_Q200_VelocityDepth_A3.WOR



Inset 1 (Dungog)



Inset 2 (Clarence Town)



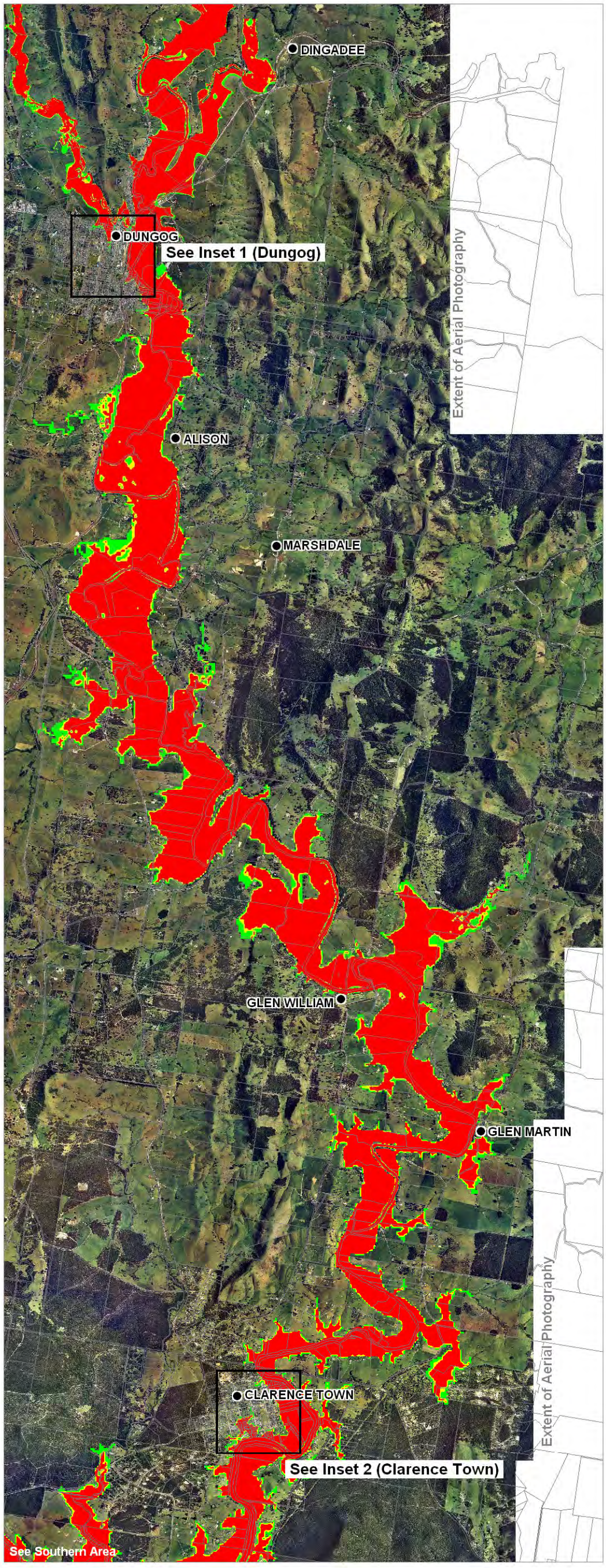
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Provisional Flood Hazard Category

- High Hazard
- Intermediate Hazard
- Low Hazard



Title:

Williams River 0.5% AEP Flood Event
Northern Area - Provisional Hazard

Figure: Drawing 10

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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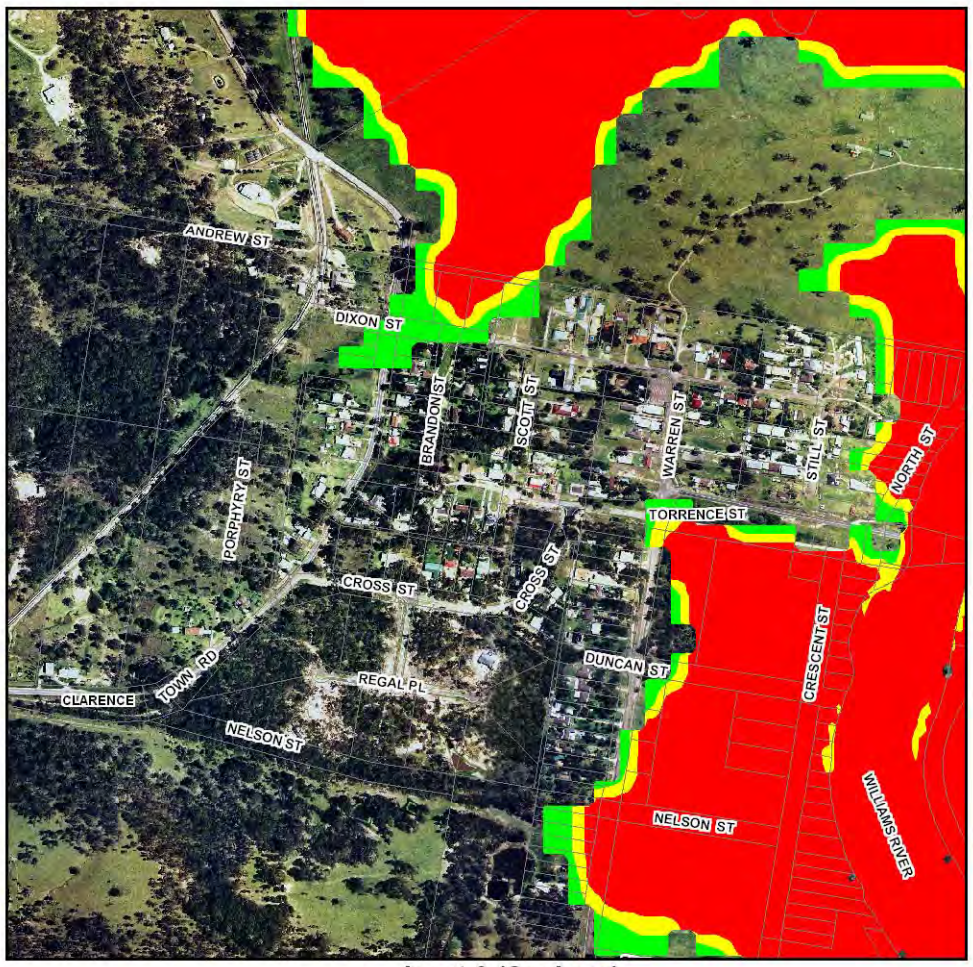
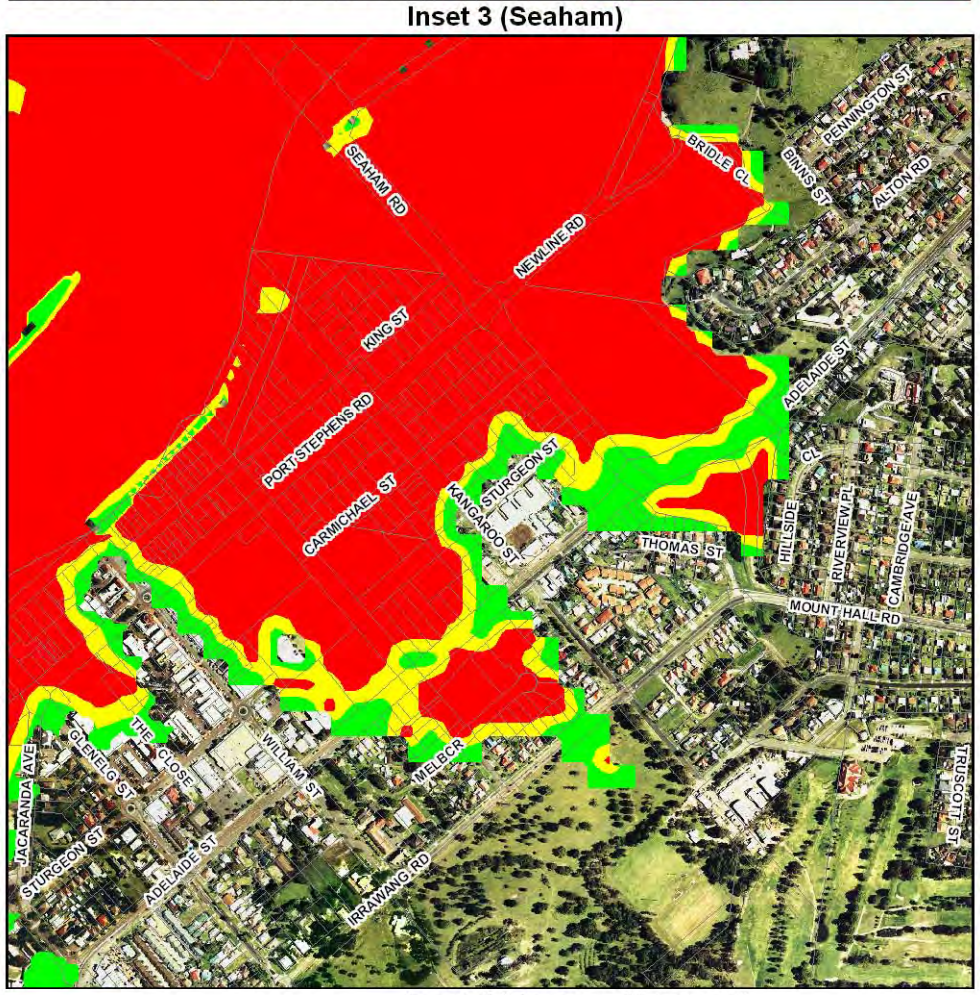
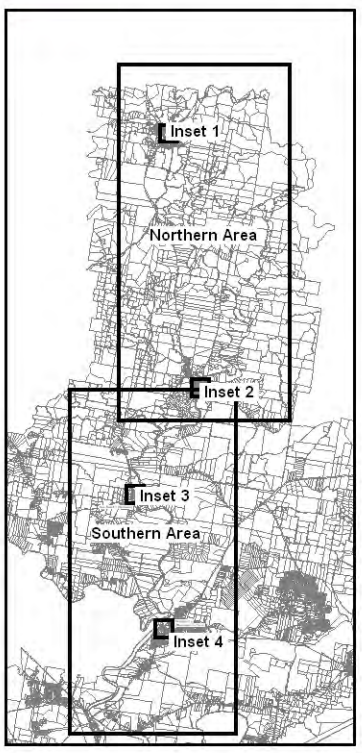
Filepath : \\wbmfs2\drafting\B16030_I_brh Williams River PEV\DRG\A3_Drawing_Addendum\FLD_011_090421_Q200_Hazard_A3.WOR

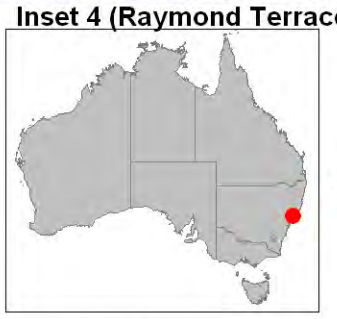


Inset 3 (Seaham)



Inset 4 (Raymond Terrace)





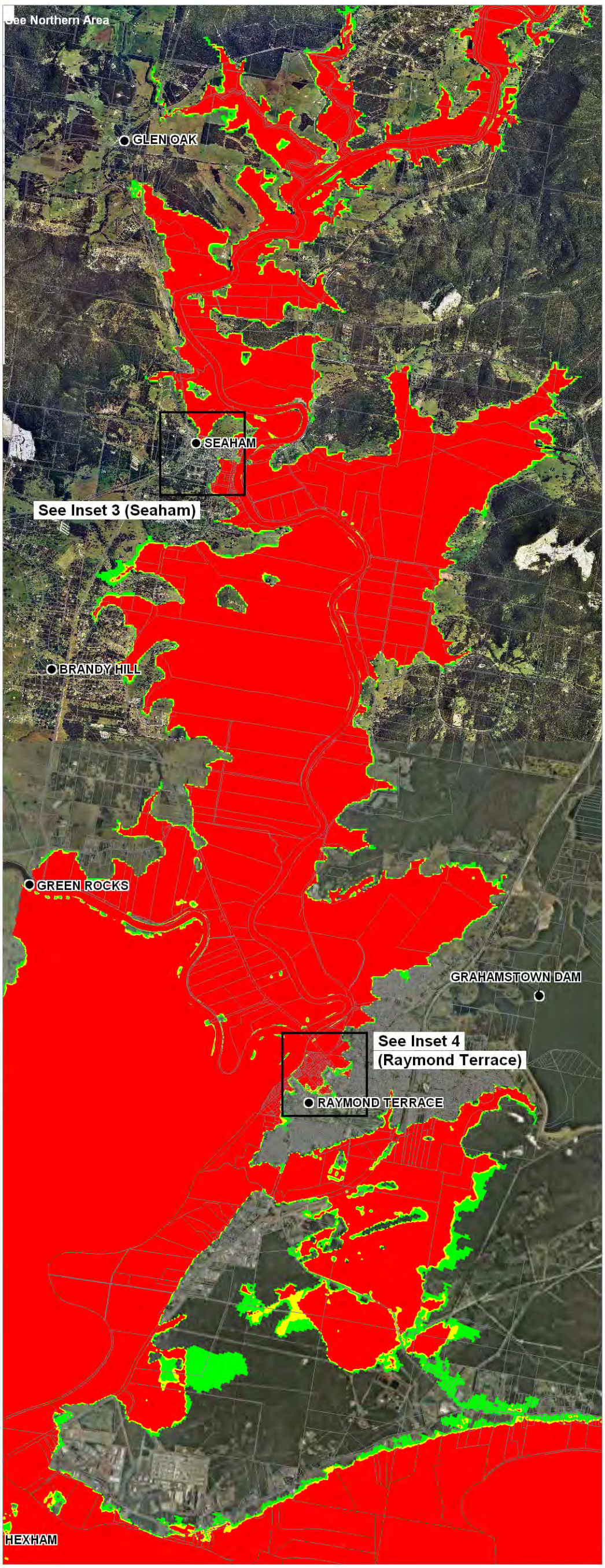
NOTE: Flood Model Simulations include future sea level rise

LEGEND

- Towns
- Cadastral Boundaries

Provisional Flood Hazard Category

- High Hazard
- Intermediate Hazard
- Low Hazard



Title:

Williams River 0.5% AEP Flood Event
Southern Area - Provisional Hazard

Figure: Drawing 11

Rev: A

N

0 1 2km
Scale - Main Map

0 200 400m
Scale - Inset

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