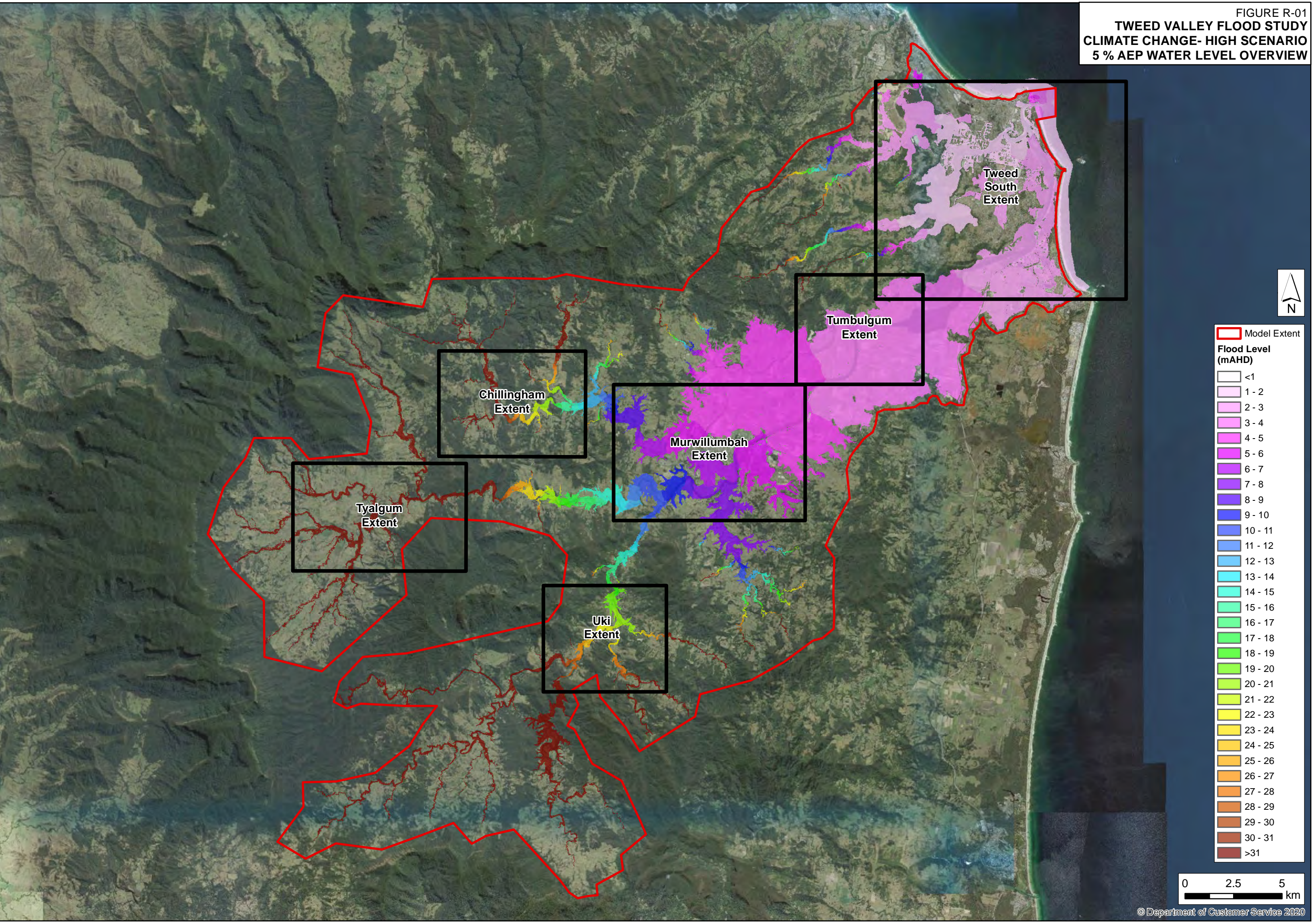




APPENDIX R. CLIMATE CHANGE MAPS

FIGURE R-01
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER LEVEL OVERVIEW

J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-01_5p_Water_Level_Overview_CC_High.mxd



Model Extent	
[Red outline]	Model Extent
Flood Level (mAHd)	
[White]	<1
[Lightest pink]	1 - 2
[Light pink]	2 - 3
[Pink]	3 - 4
[Magenta]	4 - 5
[Purple-magenta]	5 - 6
[Purple]	6 - 7
[Dark purple]	7 - 8
[Blue-purple]	8 - 9
[Blue]	9 - 10
[Light blue]	10 - 11
[Cyan]	11 - 12
[Light cyan]	12 - 13
[Green-cyan]	13 - 14
[Green]	14 - 15
[Light green]	15 - 16
[Yellow-green]	16 - 17
[Yellow]	17 - 18
[Light yellow]	18 - 19
[Yellow-orange]	19 - 20
[Orange]	20 - 21
[Light orange]	21 - 22
[Orange]	22 - 23
[Dark orange]	23 - 24
[Brown-orange]	24 - 25
[Brown]	25 - 26
[Dark brown]	26 - 27
[Very dark brown]	27 - 28
[Blackish brown]	28 - 29
[Dark brown]	29 - 30
[Blackish brown]	30 - 31
[Black]	>31

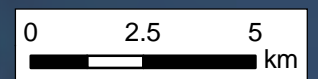
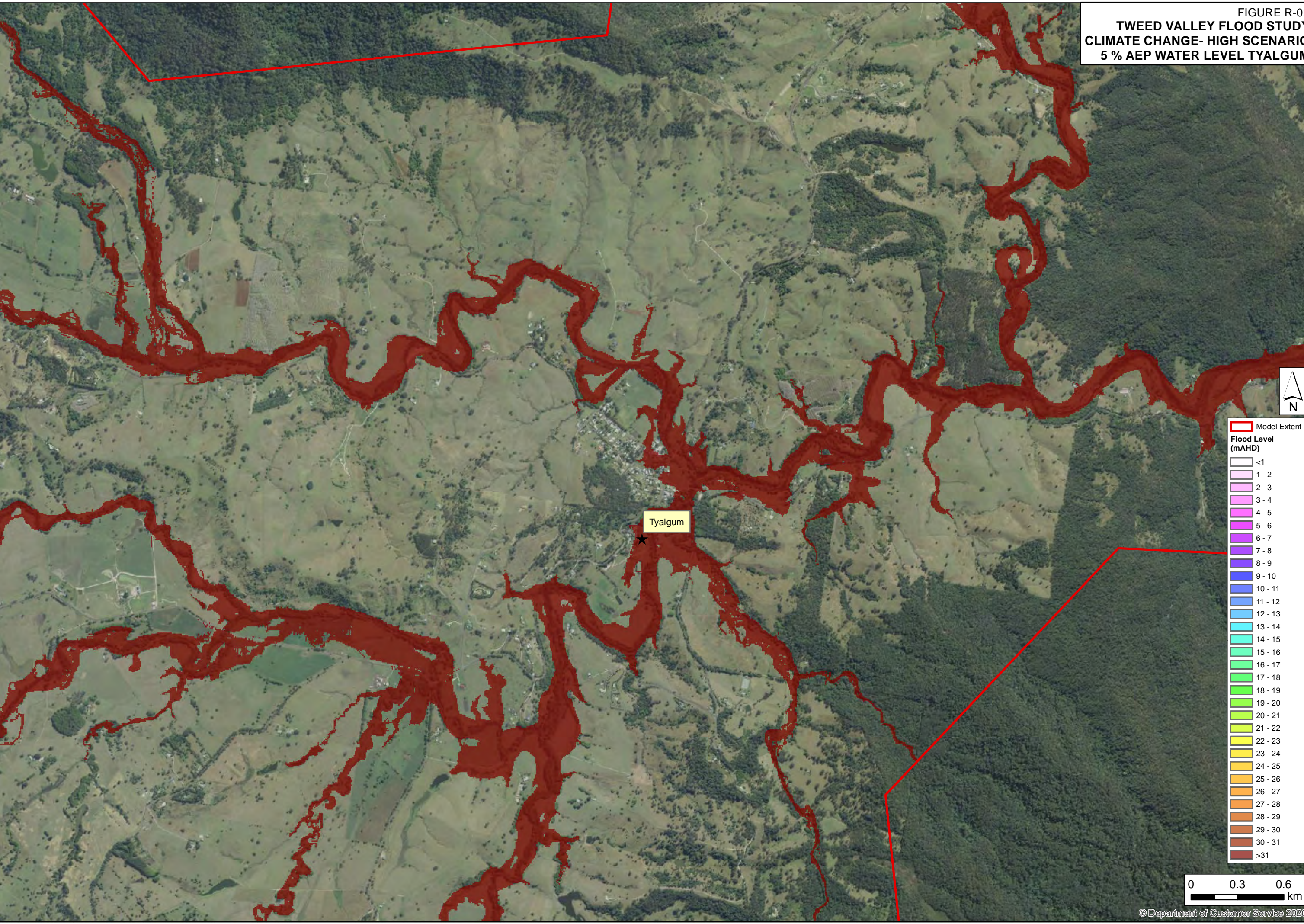
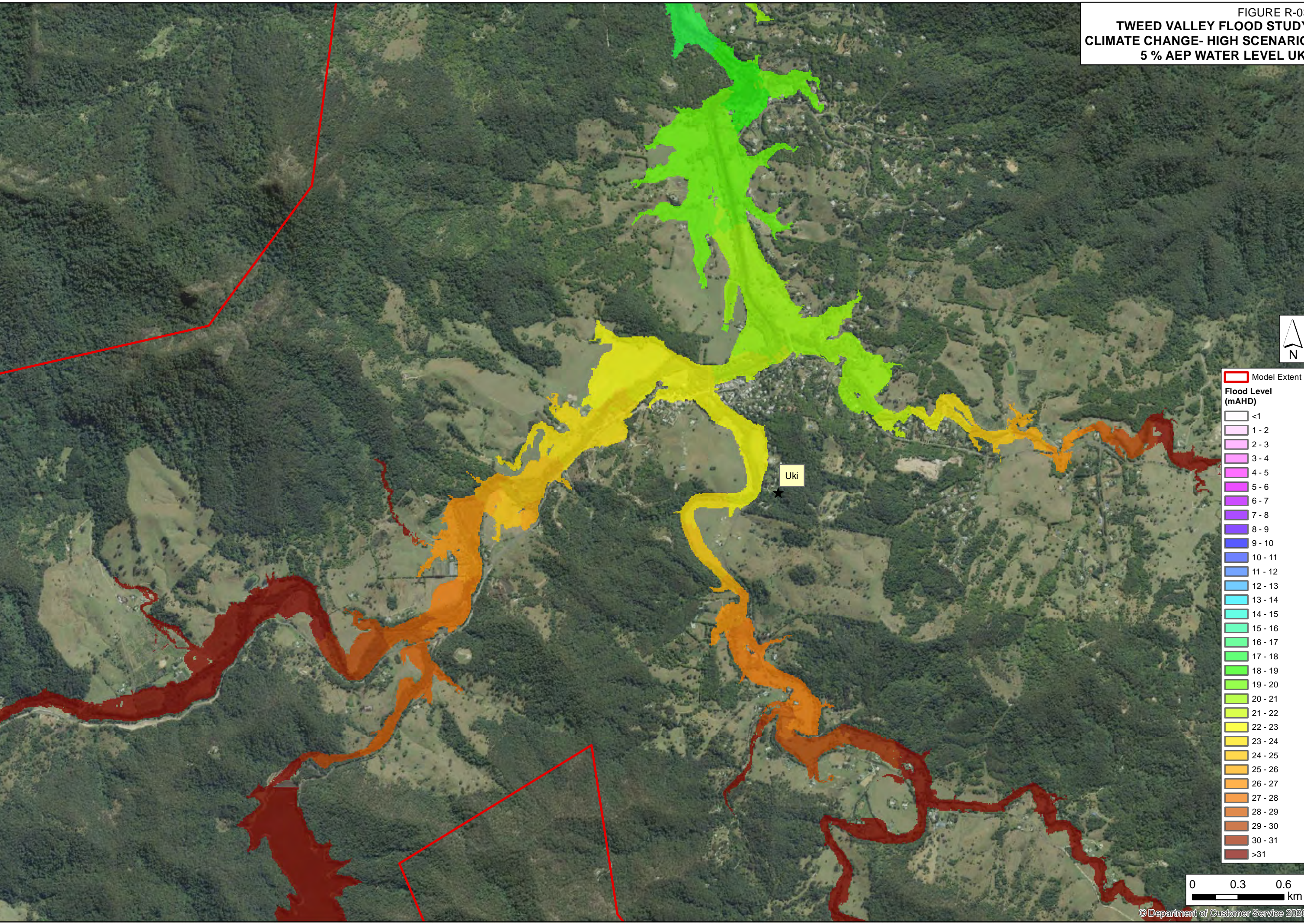


FIGURE R-02
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER LEVEL TYALGUM



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-02_5p_Water_Level_Tyalgum_CC_High.mxd

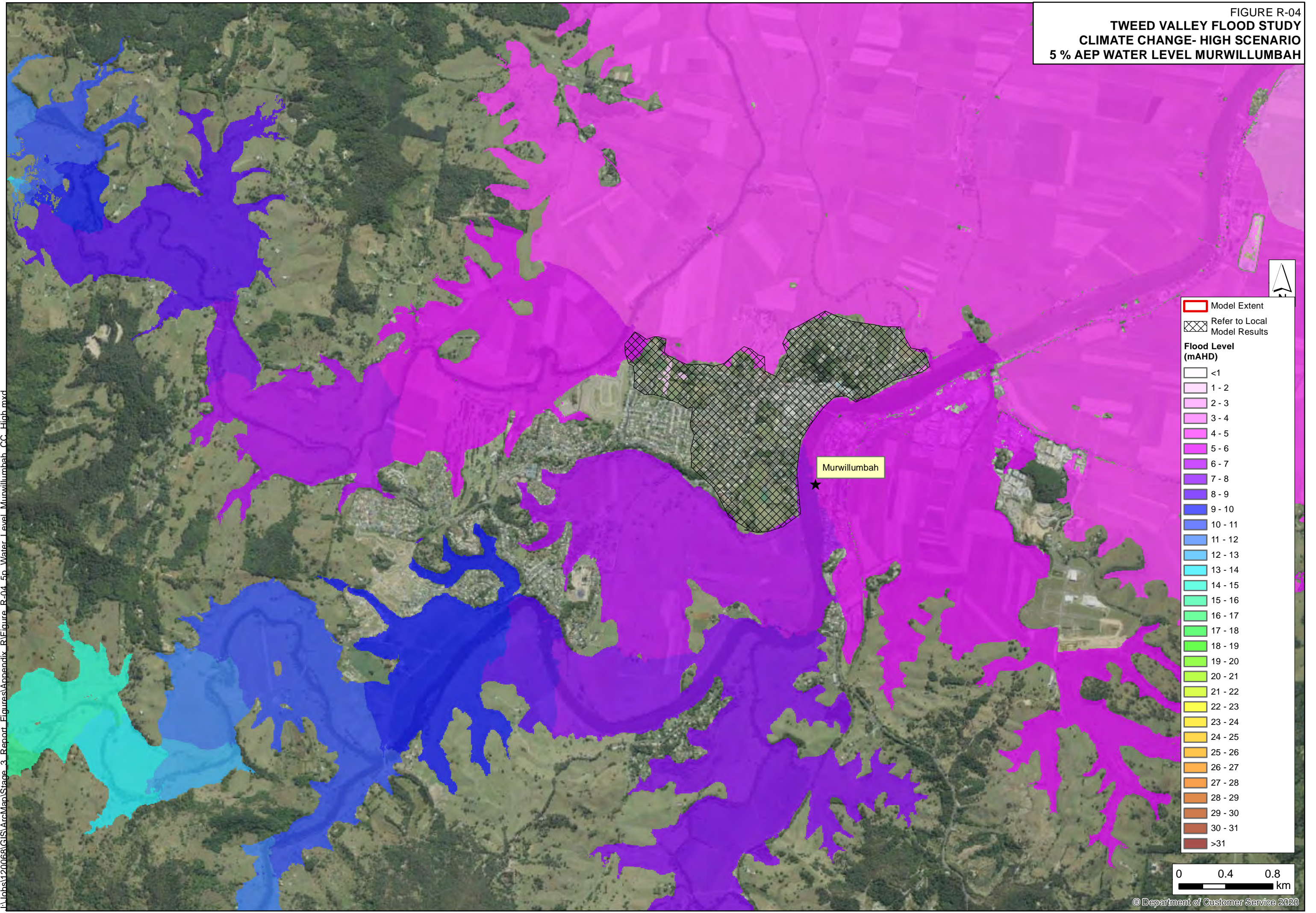
FIGURE R-03
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER LEVEL UKI



Model Extent
Model Extent
Flood Level (mAHW)
<1
1 - 2
2 - 3
3 - 4
4 - 5
5 - 6
6 - 7
7 - 8
8 - 9
9 - 10
10 - 11
11 - 12
12 - 13
13 - 14
14 - 15
15 - 16
16 - 17
17 - 18
18 - 19
19 - 20
20 - 21
21 - 22
22 - 23
23 - 24
24 - 25
25 - 26
26 - 27
27 - 28
28 - 29
29 - 30
30 - 31
>31

0 0.3 0.6 km

FIGURE R-04
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER LEVEL MURWILLUMBAH



Model Extent
 [Red outline]

Refer to Local Model Results
 [Hatched pattern]

Flood Level (mAHd)

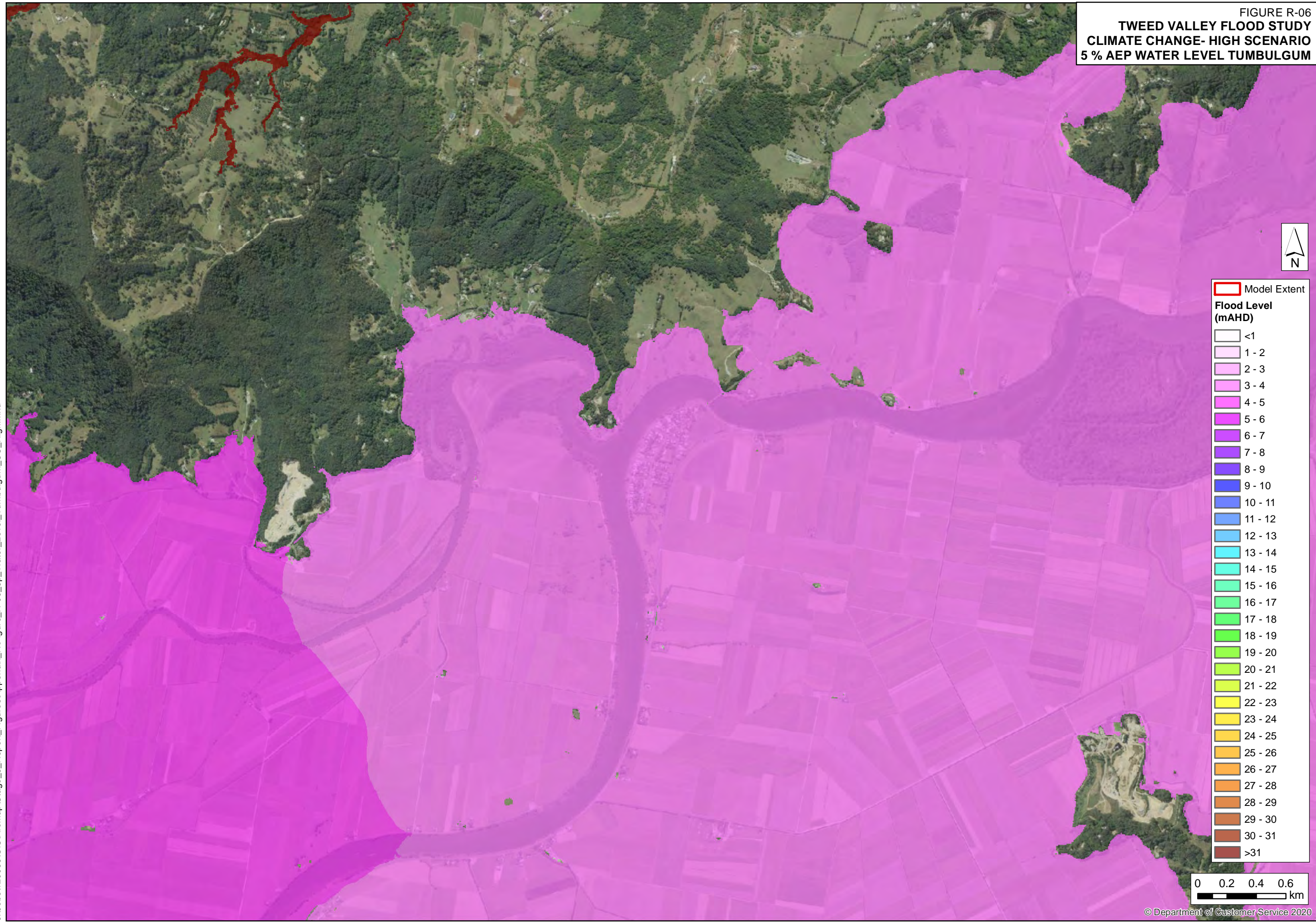
[White]	<1
[Lightest pink]	1 - 2
[Light pink]	2 - 3
[Pink]	3 - 4
[Light purple]	4 - 5
[Purple]	5 - 6
[Dark purple]	6 - 7
[Violet]	7 - 8
[Blue-violet]	8 - 9
[Blue]	9 - 10
[Dark blue]	10 - 11
[Medium blue]	11 - 12
[Light blue]	12 - 13
[Cyan]	13 - 14
[Light cyan]	14 - 15
[Light green]	15 - 16
[Green]	16 - 17
[Yellow-green]	17 - 18
[Yellow]	18 - 19
[Light yellow]	19 - 20
[Yellow-orange]	20 - 21
[Orange]	21 - 22
[Light orange]	22 - 23
[Orange-red]	23 - 24
[Orange]	24 - 25
[Dark orange]	25 - 26
[Red-orange]	26 - 27
[Red]	27 - 28
[Dark red]	28 - 29
[Brownish-red]	29 - 30
[Brown]	30 - 31
[Dark brown]	>31

Murwillumbah

0 0.4 0.8 km

I:\Jobs\120068\GIS\Map\Stage_3_Report_Figures\Appendix_R\Figure_R-04_5p_Water_Level_Murwillumbah_CC_High.mxd

FIGURE R-06
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER LEVEL TUMBULGUM



Model Extent
Model Extent
Flood Level (mAHd)
<1
1 - 2
2 - 3
3 - 4
4 - 5
5 - 6
6 - 7
7 - 8
8 - 9
9 - 10
10 - 11
11 - 12
12 - 13
13 - 14
14 - 15
15 - 16
16 - 17
17 - 18
18 - 19
19 - 20
20 - 21
21 - 22
22 - 23
23 - 24
24 - 25
25 - 26
26 - 27
27 - 28
28 - 29
29 - 30
30 - 31
>31

0 0.2 0.4 0.6 km

FIGURE R-07
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER LEVEL CHILLINGHAM

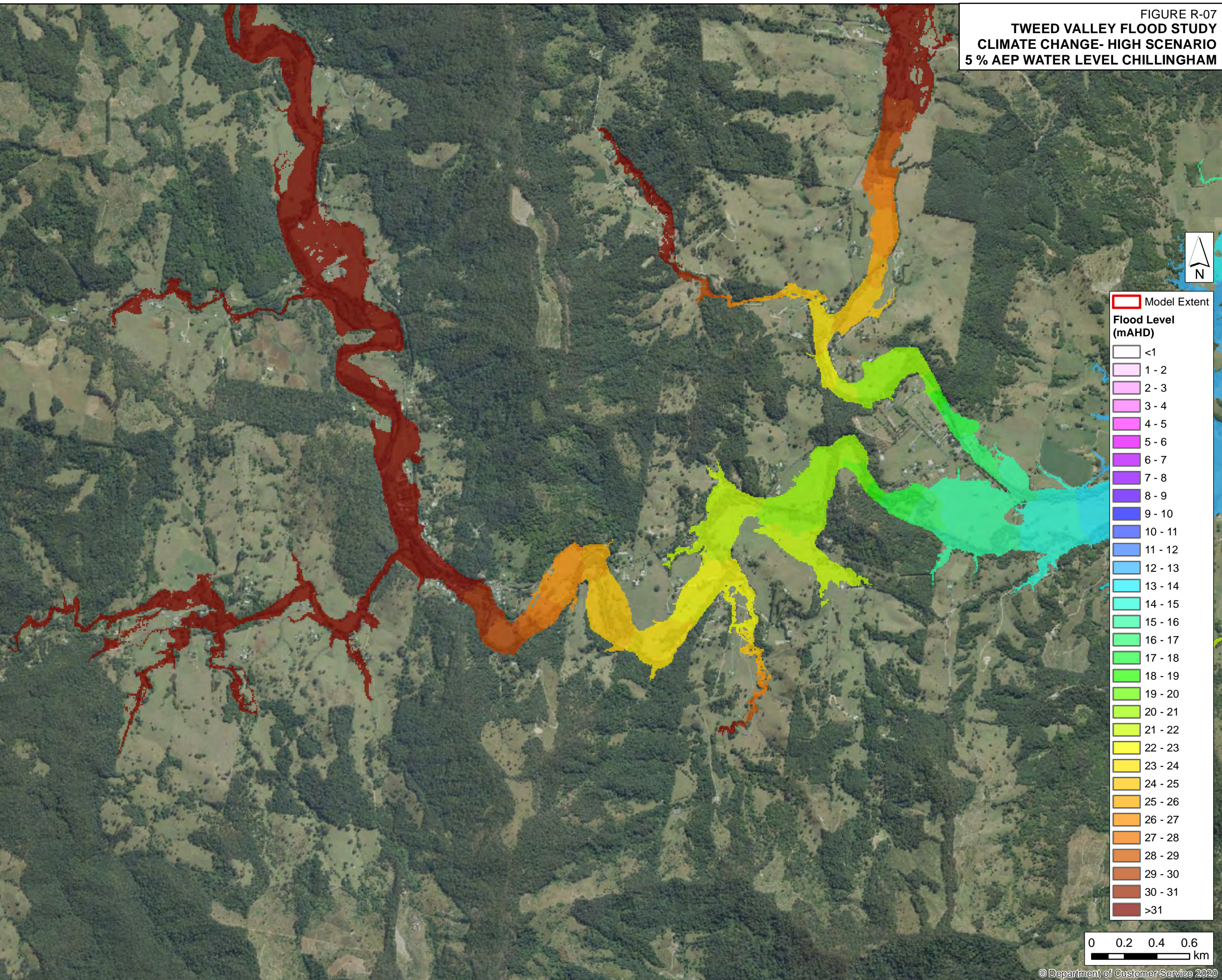
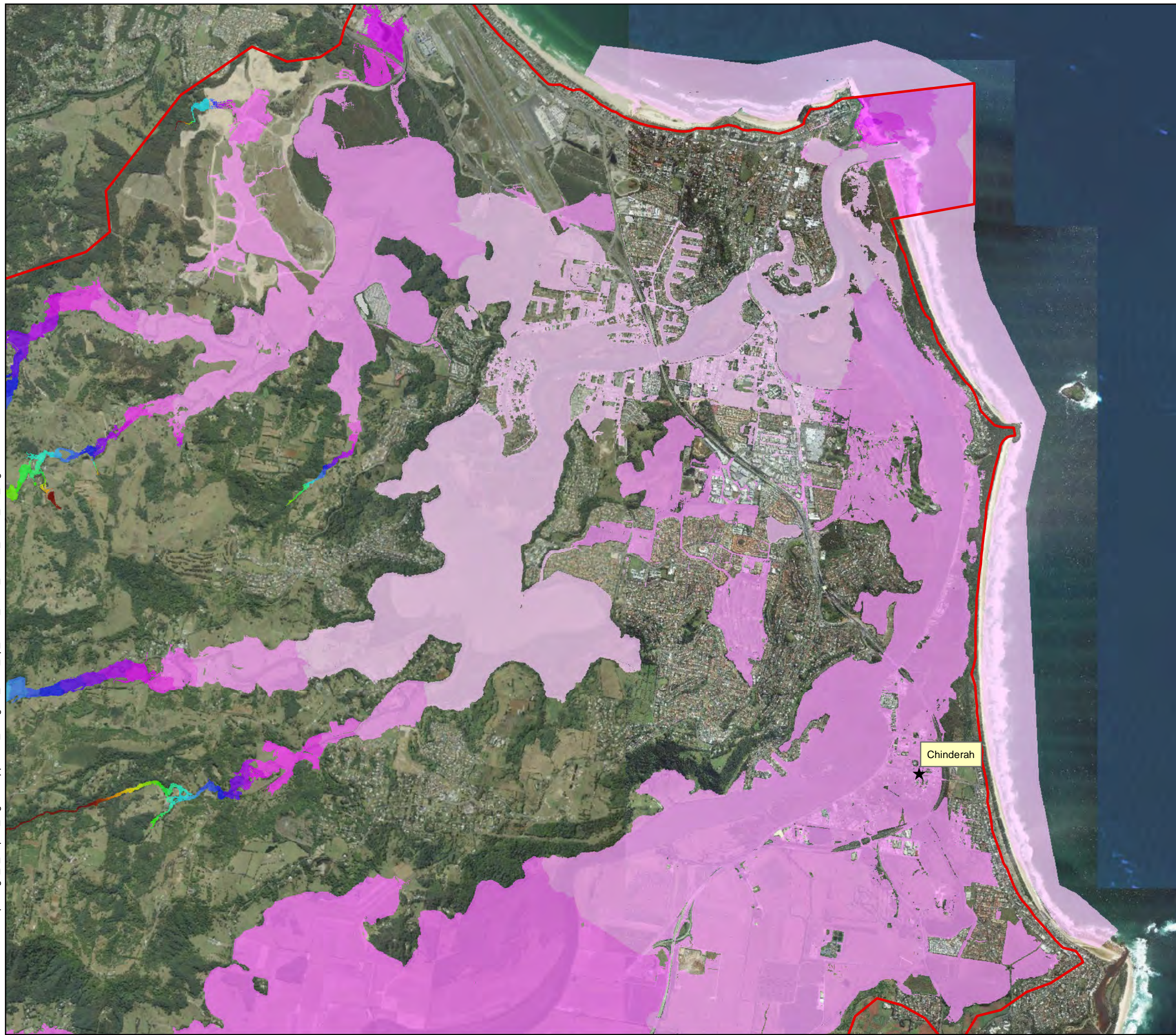
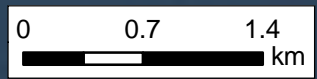


FIGURE R-08
 TWEED VALLEY FLOOD STUDY
 CLIMATE CHANGE- HIGH SCENARIO
 5 % AEP WATER LEVEL TWEED SOUTH



Model Extent	
[Red outline]	Model Extent
Flood Level (mAHd)	
[White box]	<1
[Lightest pink box]	1 - 2
[Light pink box]	2 - 3
[Pink box]	3 - 4
[Magenta box]	4 - 5
[Purple magenta box]	5 - 6
[Purple box]	6 - 7
[Dark purple box]	7 - 8
[Blue purple box]	8 - 9
[Blue box]	9 - 10
[Light blue box]	10 - 11
[Cyan box]	11 - 12
[Light cyan box]	12 - 13
[Green cyan box]	13 - 14
[Green box]	14 - 15
[Light green box]	15 - 16
[Yellow green box]	16 - 17
[Yellow box]	17 - 18
[Light yellow box]	18 - 19
[Yellow box]	19 - 20
[Light orange box]	20 - 21
[Orange box]	21 - 22
[Light orange box]	22 - 23
[Orange box]	23 - 24
[Dark orange box]	24 - 25
[Brown orange box]	25 - 26
[Brown box]	26 - 27
[Dark brown box]	27 - 28
[Dark brown box]	28 - 29
[Dark brown box]	29 - 30
[Dark brown box]	30 - 31
[Dark brown box]	>31

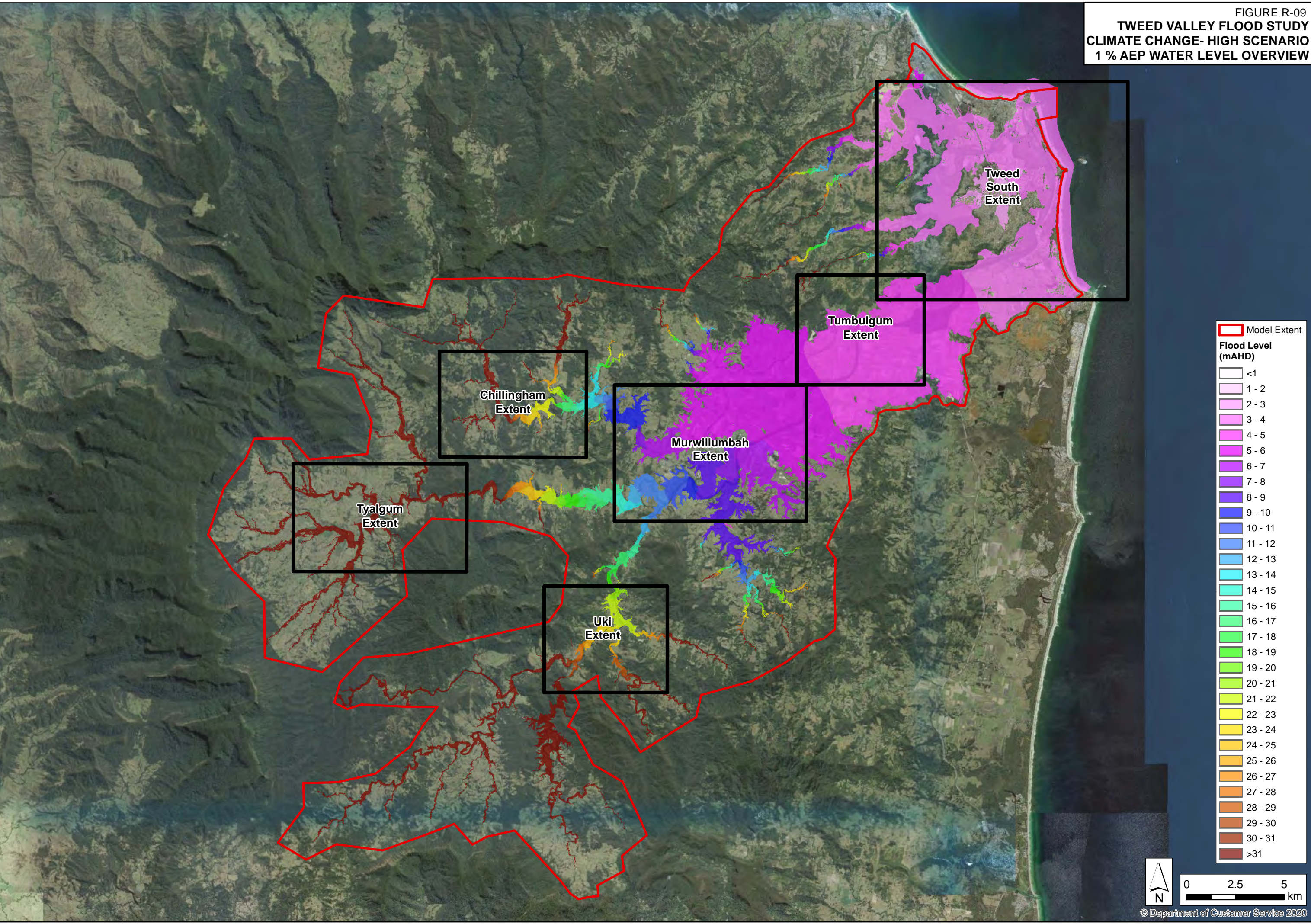
Chinderah



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-08_5p_Water_Level_Tweed_South_CC_High.mxd

FIGURE R-09
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL OVERVIEW

J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-09_1p_Water_Level_Overview_CC_High.mxd



Model Extent	
[Red Outline]	Model Extent
Flood Level (mAHd)	
[White]	<1
[Lightest Pink]	1 - 2
[Light Pink]	2 - 3
[Pink]	3 - 4
[Light Purple]	4 - 5
[Purple]	5 - 6
[Dark Purple]	6 - 7
[Blue-Purple]	7 - 8
[Blue]	8 - 9
[Dark Blue]	9 - 10
[Medium Blue]	10 - 11
[Light Blue]	11 - 12
[Cyan]	12 - 13
[Light Cyan]	13 - 14
[Green-Cyan]	14 - 15
[Green]	15 - 16
[Light Green]	16 - 17
[Yellow-Green]	17 - 18
[Yellow]	18 - 19
[Light Yellow]	19 - 20
[Yellow-Orange]	20 - 21
[Orange]	21 - 22
[Light Orange]	22 - 23
[Orange]	23 - 24
[Dark Orange]	24 - 25
[Red-Orange]	25 - 26
[Red]	26 - 27
[Dark Red]	27 - 28
[Very Dark Red]	28 - 29
[Darkest Red]	29 - 30
[Black-Red]	30 - 31
[Black]	>31


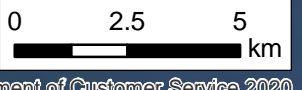
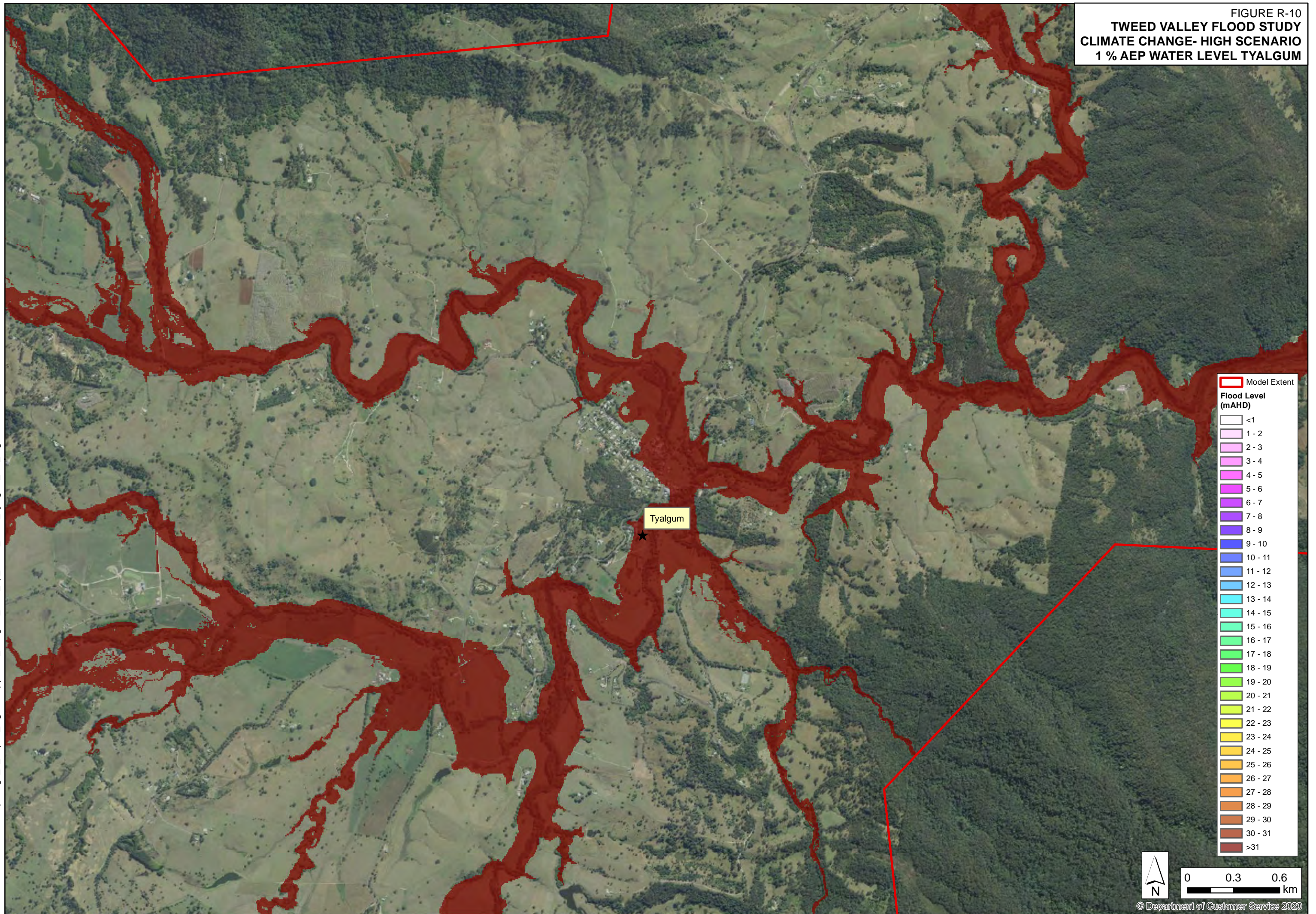



FIGURE R-10
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL TYALGUM



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-10_1p_Water_Level_Tyalgum_CC_High.mxd



0 0.3 0.6 km

FIGURE R-11
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL UKI

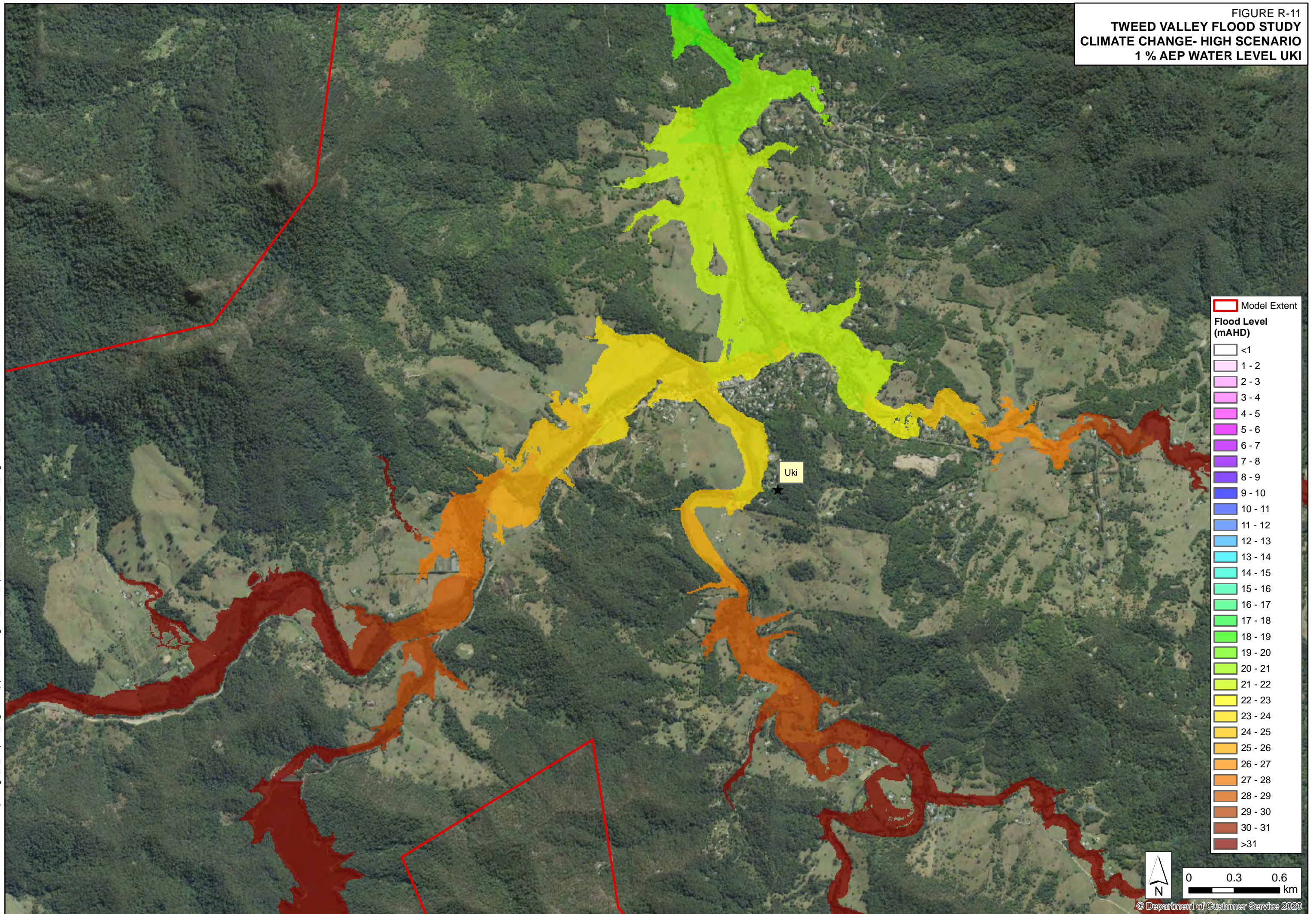
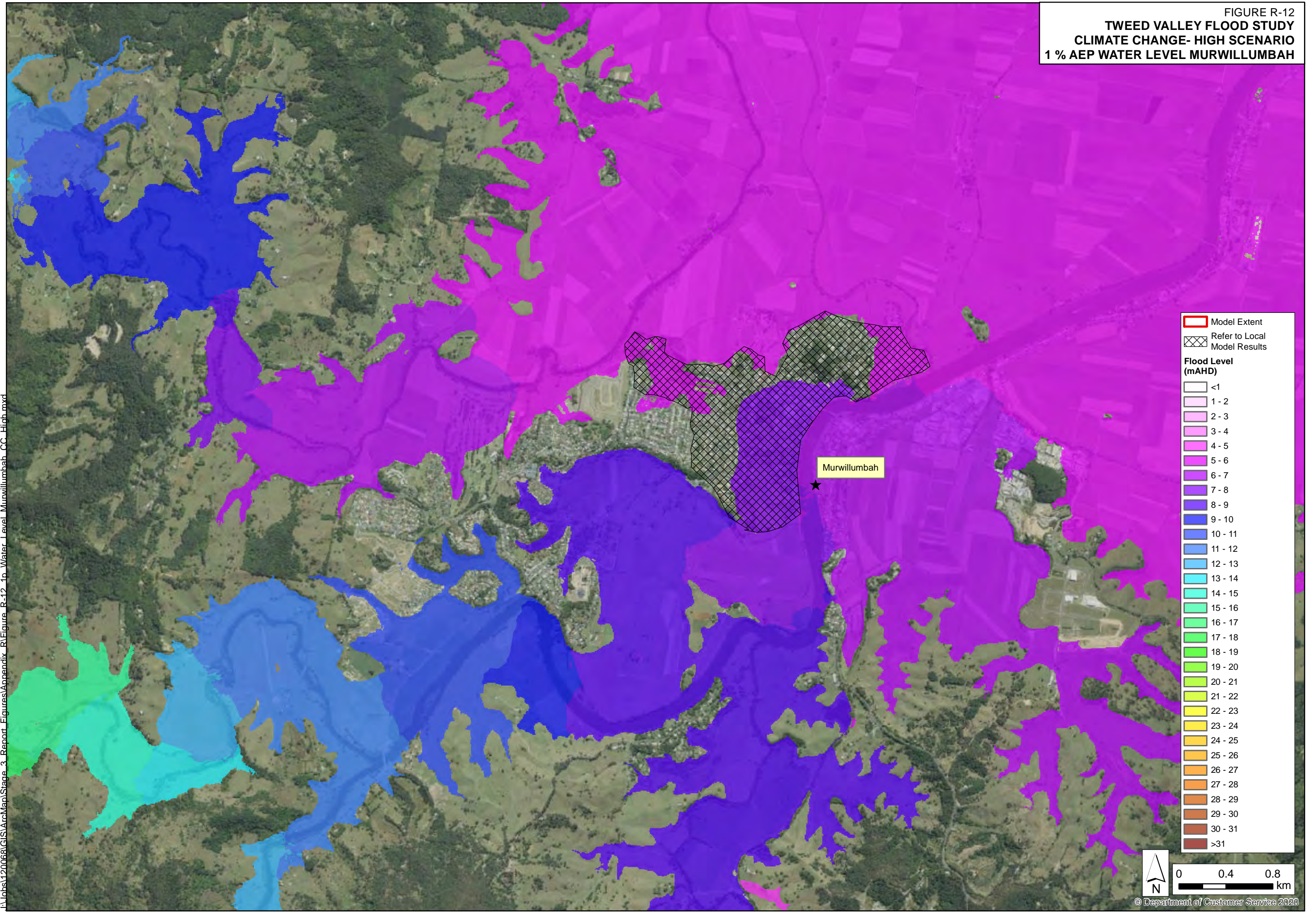


FIGURE R-12
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL MURWILLUMBAH



Model Extent
 Model Extent

Refer to Local Model Results
 Refer to Local Model Results

Flood Level (mAHD)

	<1
	1 - 2
	2 - 3
	3 - 4
	4 - 5
	5 - 6
	6 - 7
	7 - 8
	8 - 9
	9 - 10
	10 - 11
	11 - 12
	12 - 13
	13 - 14
	14 - 15
	15 - 16
	16 - 17
	17 - 18
	18 - 19
	19 - 20
	20 - 21
	21 - 22
	22 - 23
	23 - 24
	24 - 25
	25 - 26
	26 - 27
	27 - 28
	28 - 29
	29 - 30
	30 - 31
	>31

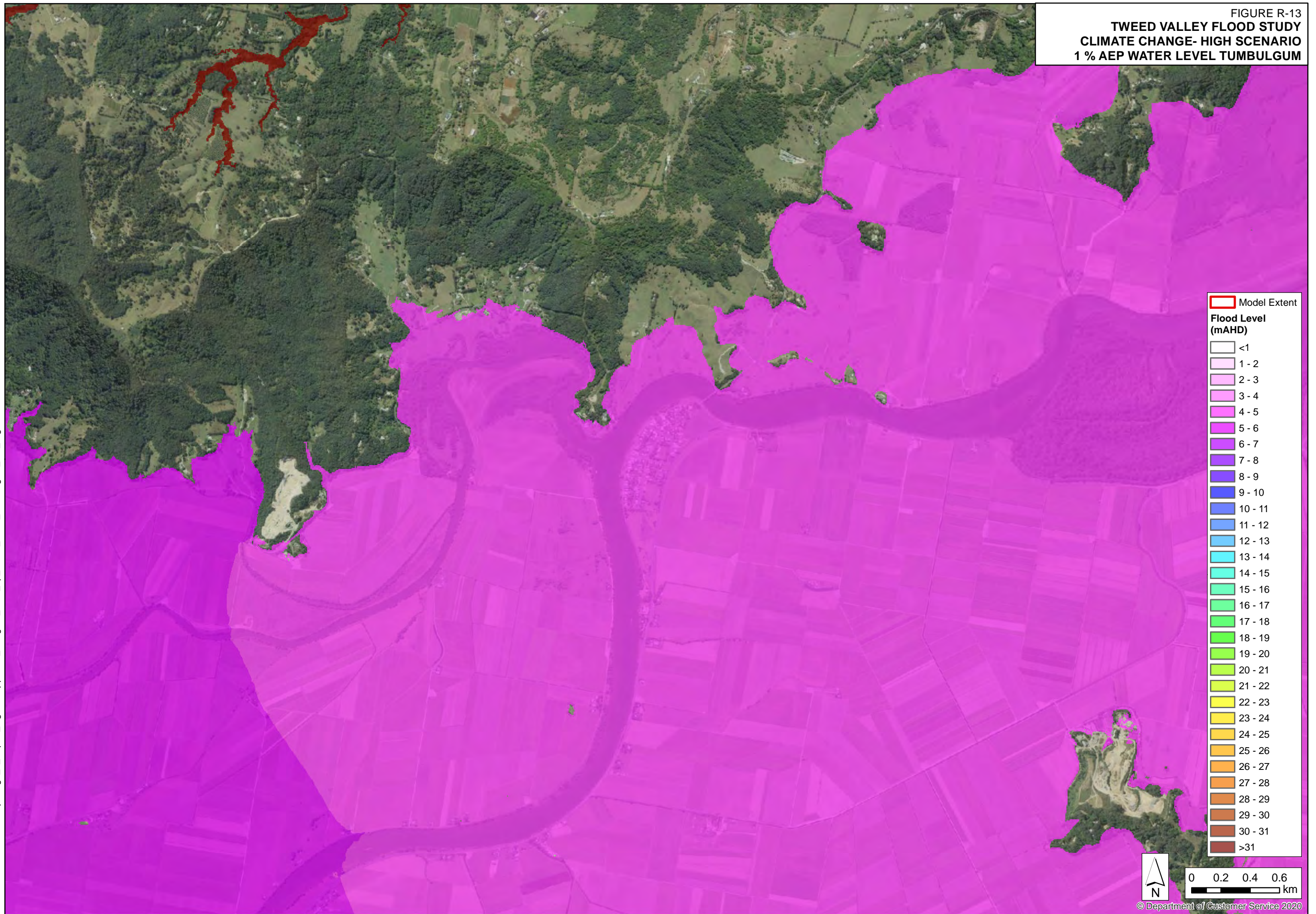
Murwillumbah

N

0 0.4 0.8 km

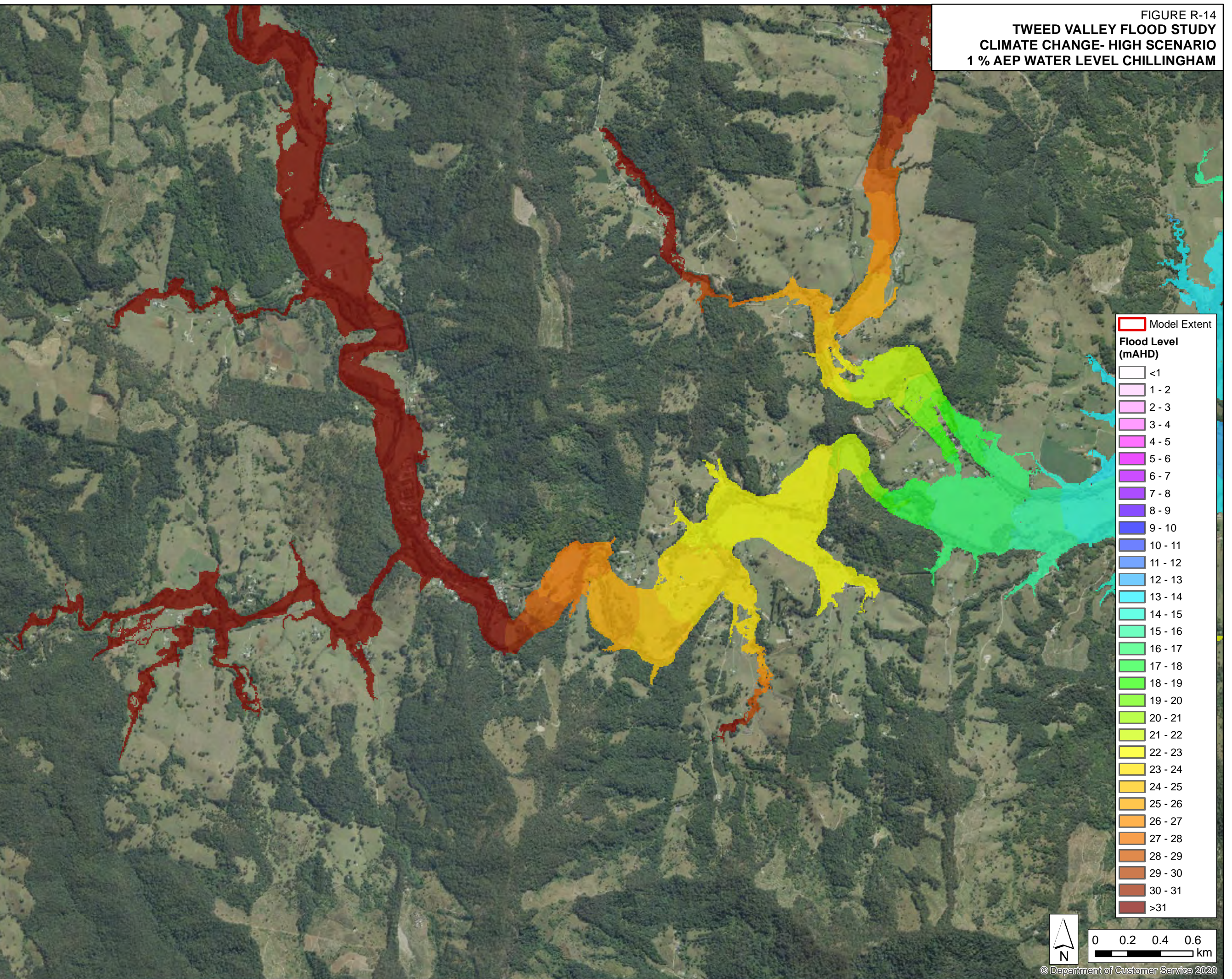
I:\Jobs\120068\CIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-12_1p_Water_Level_Murwillumbah_CC_High.mxd

FIGURE R-13
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL TUMBULGUM



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-13_1p_Water_Level_Tumbulgum_CC_High.mxd

FIGURE R-14
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL CHILLINGHAM



Model Extent

Flood Level (mAHD)

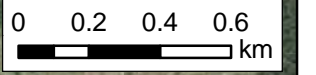
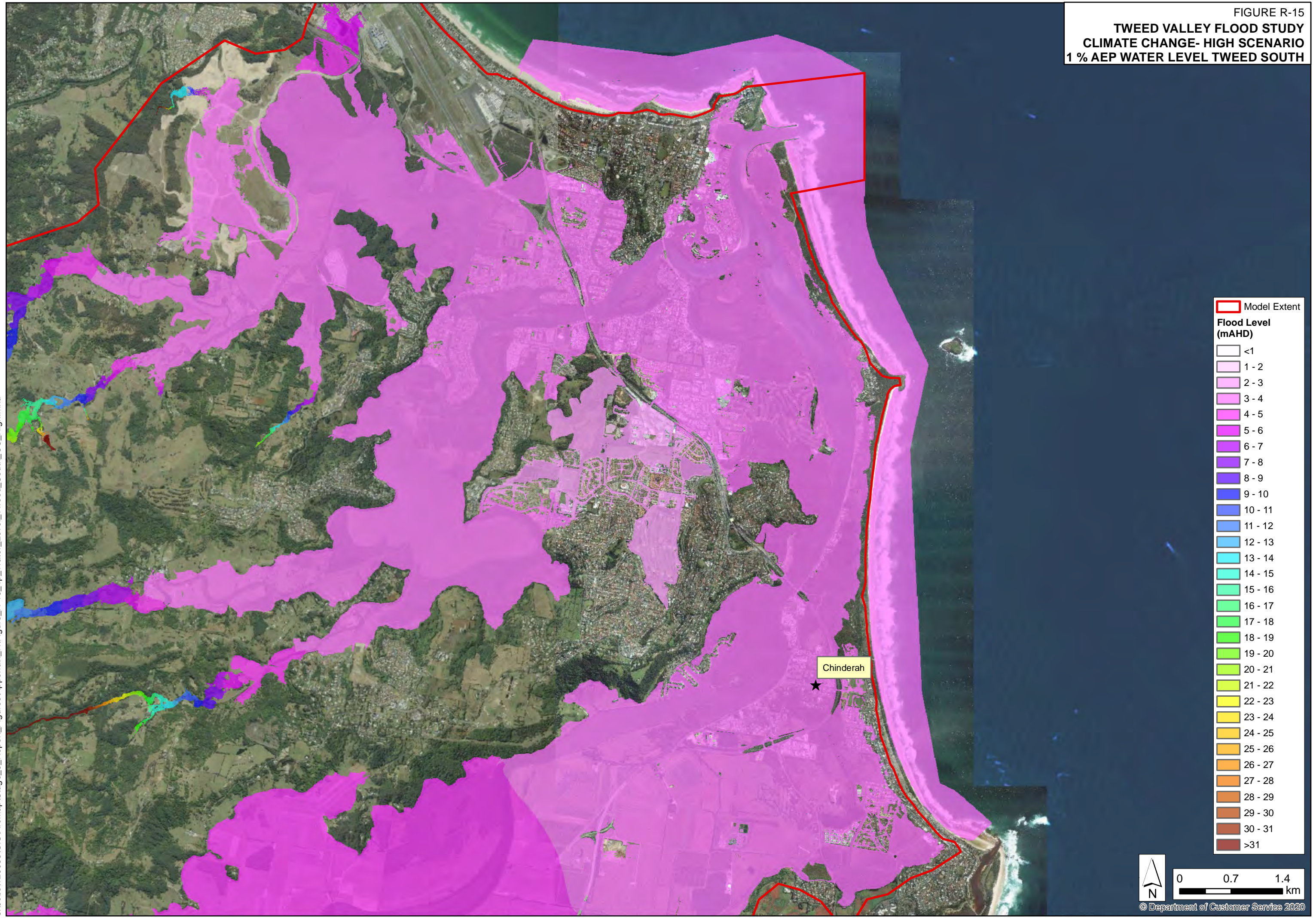


FIGURE R-15
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL TWEED SOUTH



Model Extent	
[Red outline]	Model Extent
Flood Level (mAHd)	
[White]	<1
[Lightest pink]	1 - 2
[Light pink]	2 - 3
[Pink]	3 - 4
[Magenta]	4 - 5
[Purple-magenta]	5 - 6
[Purple]	6 - 7
[Dark purple]	7 - 8
[Violet]	8 - 9
[Blue-violet]	9 - 10
[Blue]	10 - 11
[Dark blue]	11 - 12
[Medium blue]	12 - 13
[Light blue]	13 - 14
[Cyan]	14 - 15
[Light cyan]	15 - 16
[Light green]	16 - 17
[Green]	17 - 18
[Yellow-green]	18 - 19
[Yellow]	19 - 20
[Light yellow]	20 - 21
[Yellow-orange]	21 - 22
[Orange]	22 - 23
[Dark orange]	23 - 24
[Red-orange]	24 - 25
[Red]	25 - 26
[Dark red]	26 - 27
[Brownish-red]	27 - 28
[Brown]	28 - 29
[Dark brown]	29 - 30
[Blackish-brown]	30 - 31
[Black]	>31

Chinderah



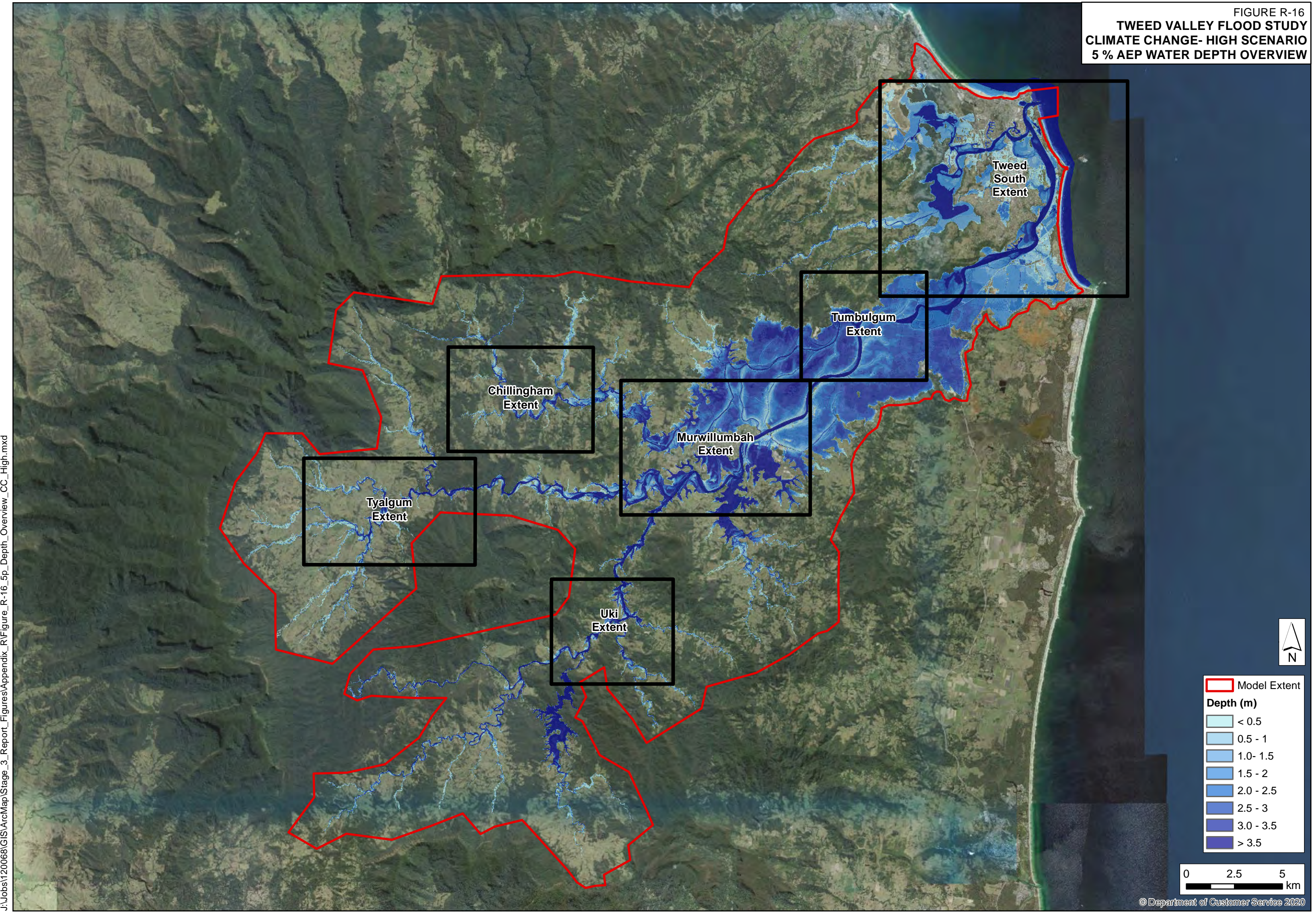
North arrow pointing up.

Scale bar: 0, 0.7, 1.4 km.

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J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-15_1p_Water_Level_Tweed_South_CC_High.mxd

FIGURE R-16
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER DEPTH OVERVIEW



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-16_5p_Depth_Overview_CC_High.mxd

FIGURE R-17
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER DEPTH TYALGUM

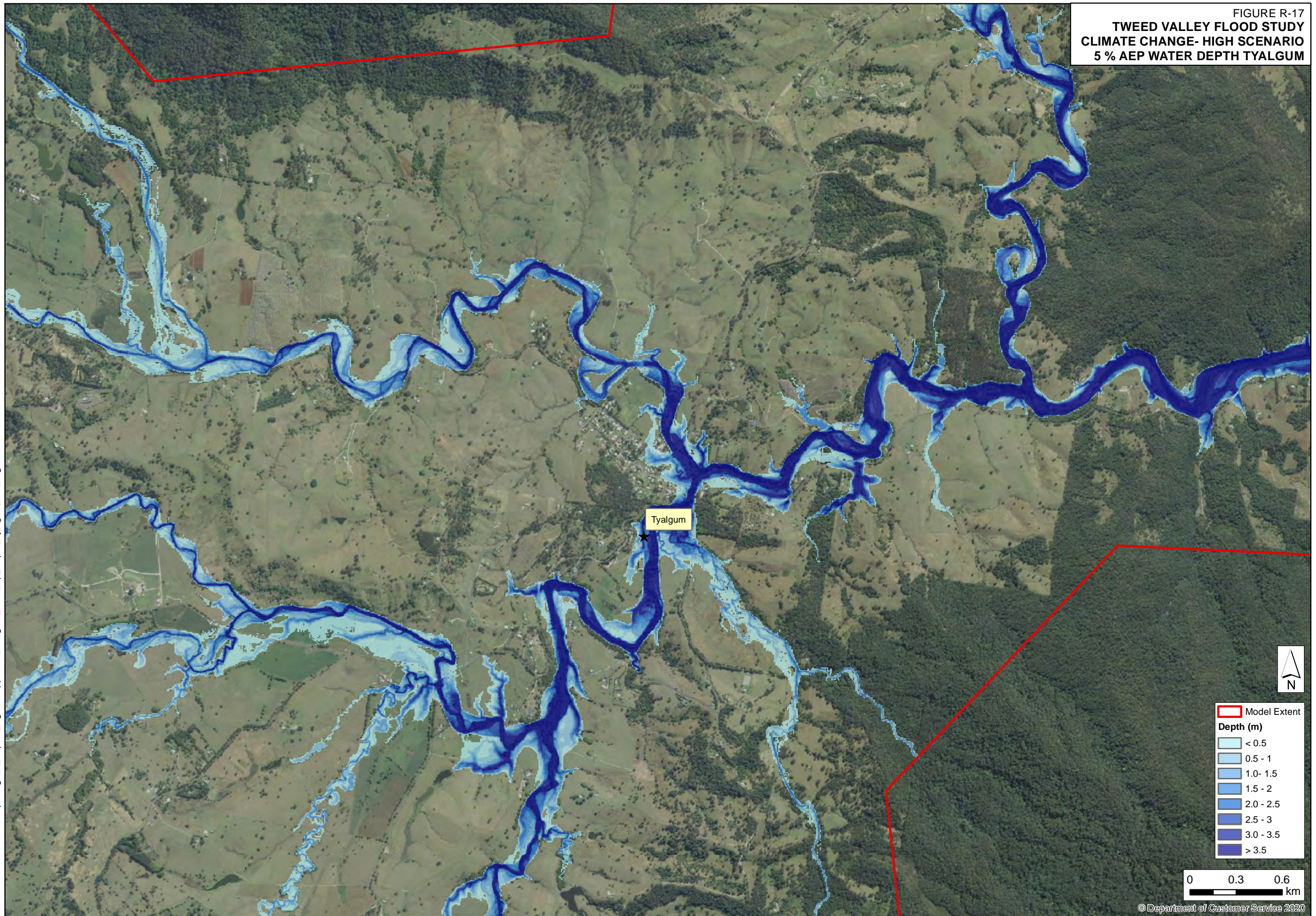
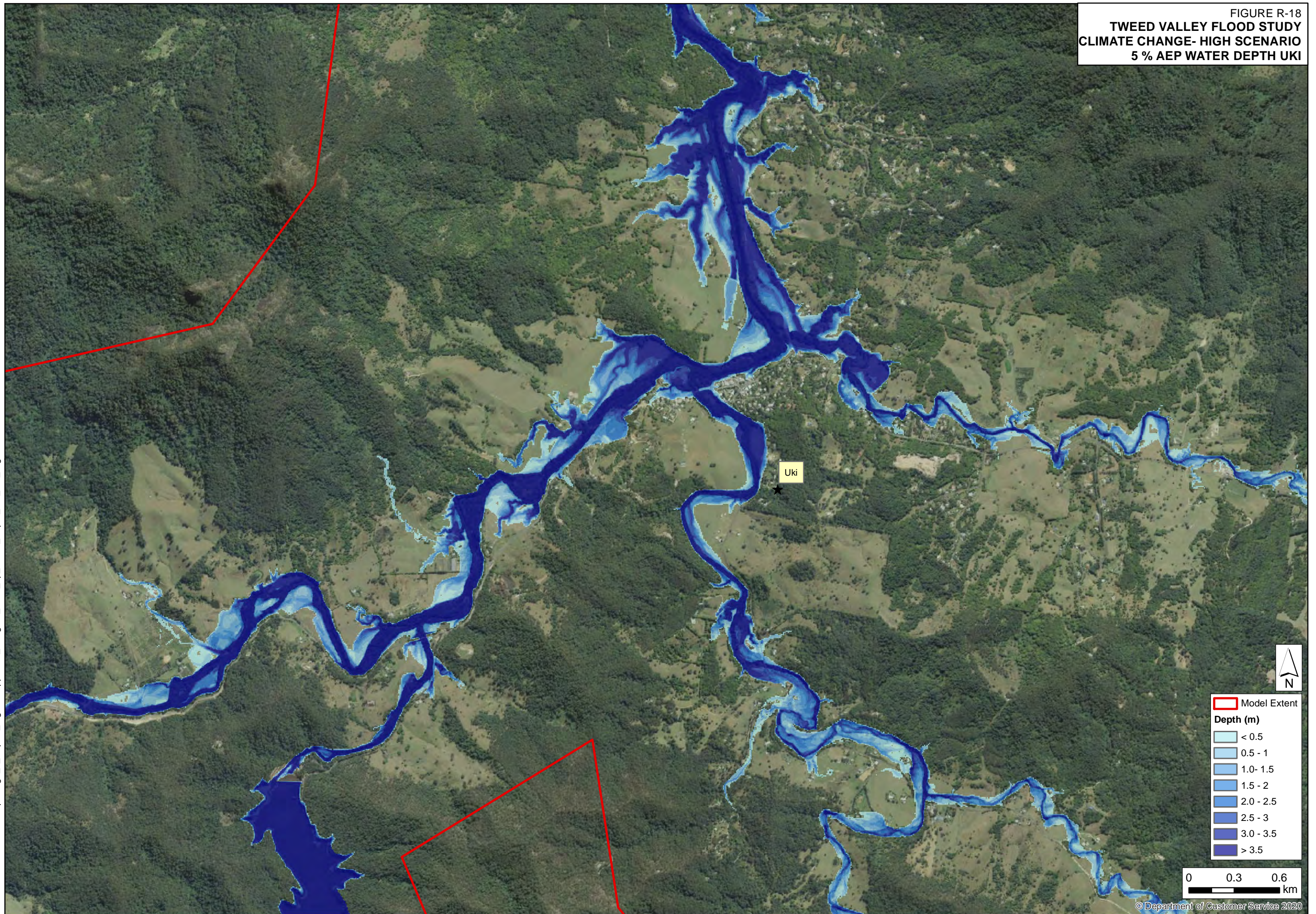
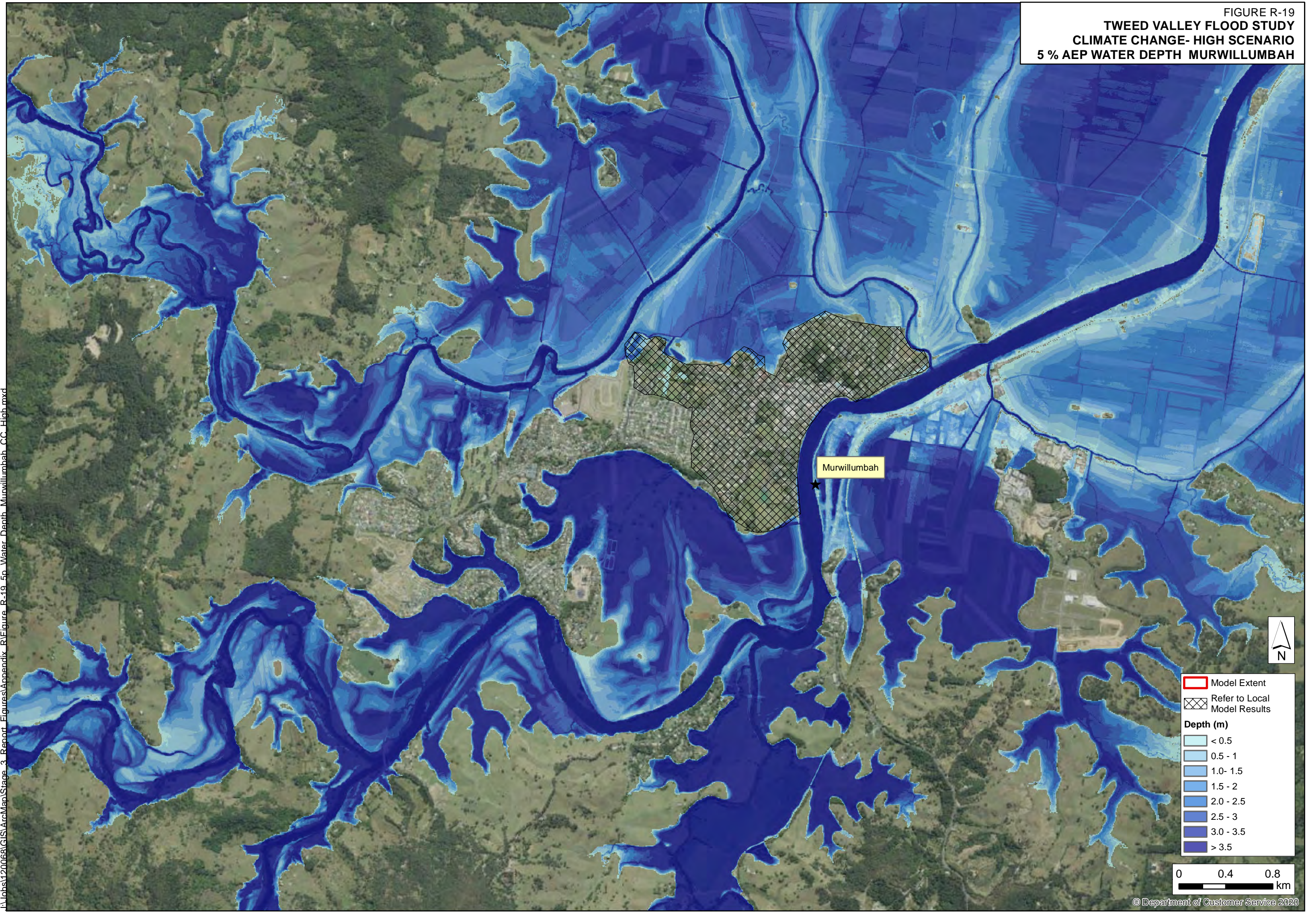


FIGURE R-18
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER DEPTH UKI



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-18_5p_Water_Depth_Uki_CC_High.mxd

FIGURE R-19
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER DEPTH MURWILLUMBAH



Model Extent
 Model Extent

Refer to Local Model Results
 Refer to Local Model Results

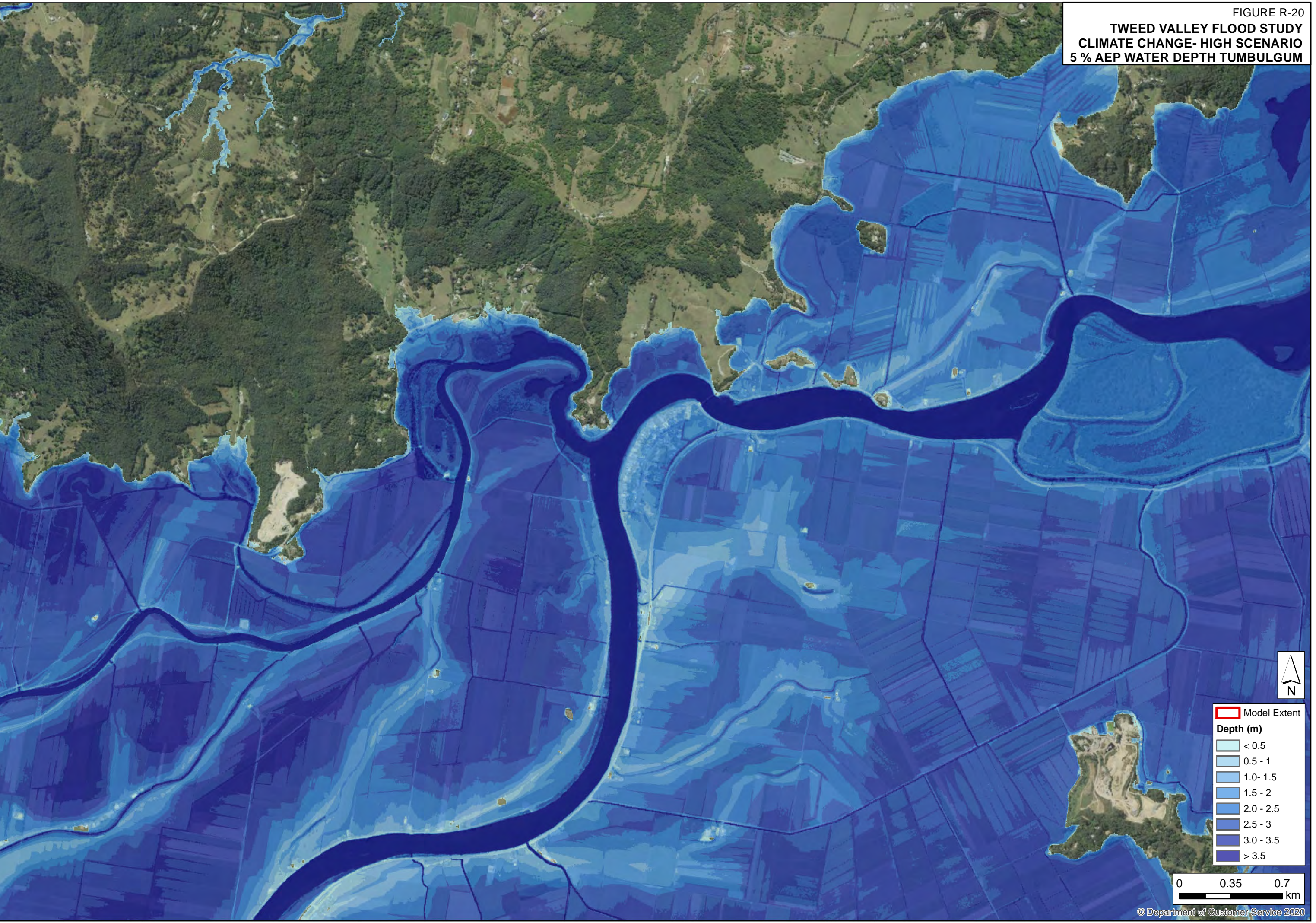
Depth (m)

< 0.5
0.5 - 1
1.0 - 1.5
1.5 - 2
2.0 - 2.5
2.5 - 3
3.0 - 3.5
> 3.5

0 0.4 0.8
 km

I:\Jobs\120068\GIS\Map\Stage_3_Report_Figures\Appendix_R\Figure_R-19_5p_Water_Depth_Murwillumbah_CC_High.mxd

FIGURE R-20
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER DEPTH TUMBULGUM



Model Extent

Depth (m)

- < 0.5
- 0.5 - 1
- 1.0 - 1.5
- 1.5 - 2
- 2.0 - 2.5
- 2.5 - 3
- 3.0 - 3.5
- > 3.5

0 0.35 0.7 km

J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-20_5p_Water_Depth_Tumbulgum_CC_High.mxd

FIGURE R-21
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER DEPTH CHILLINGHAM

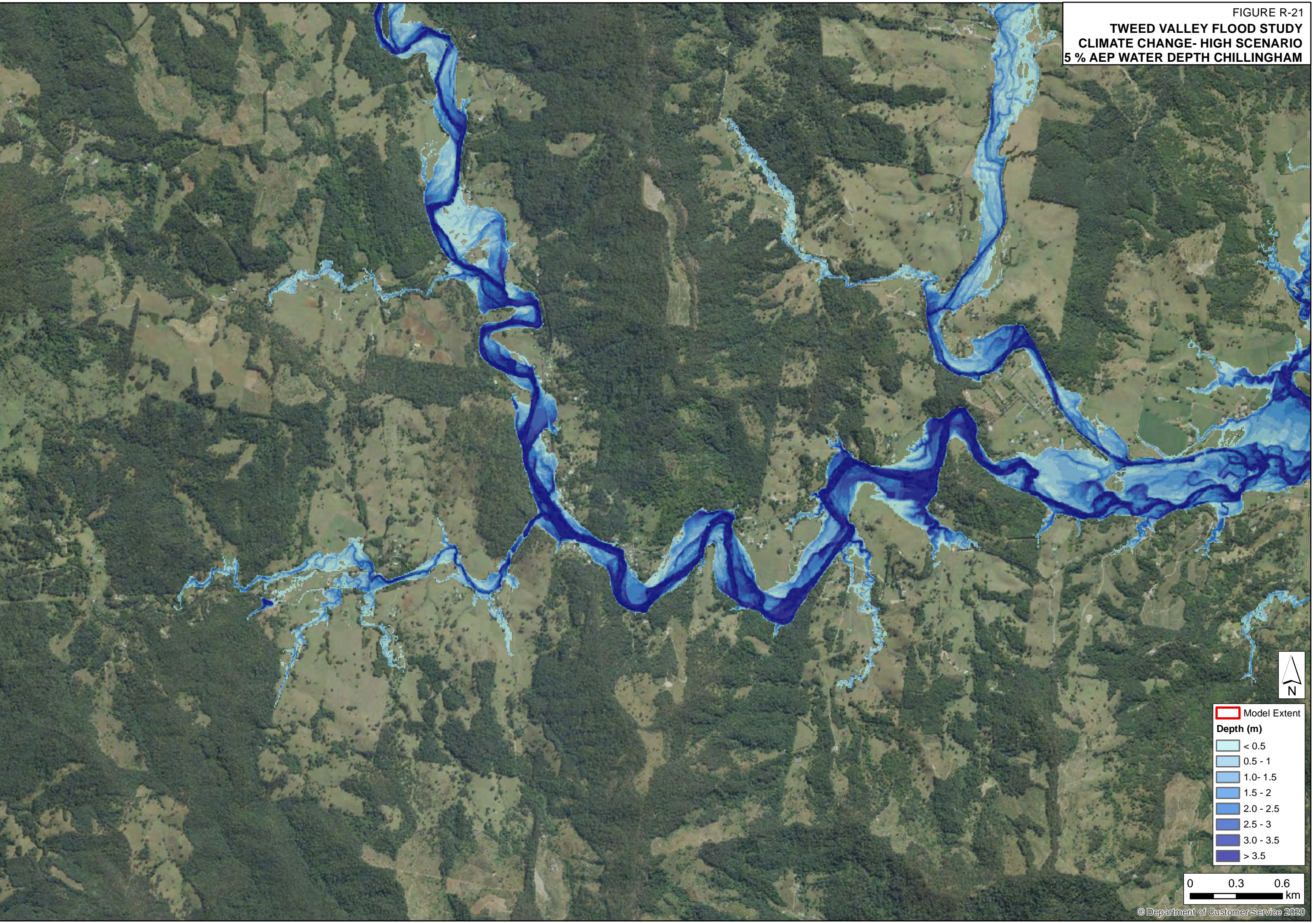
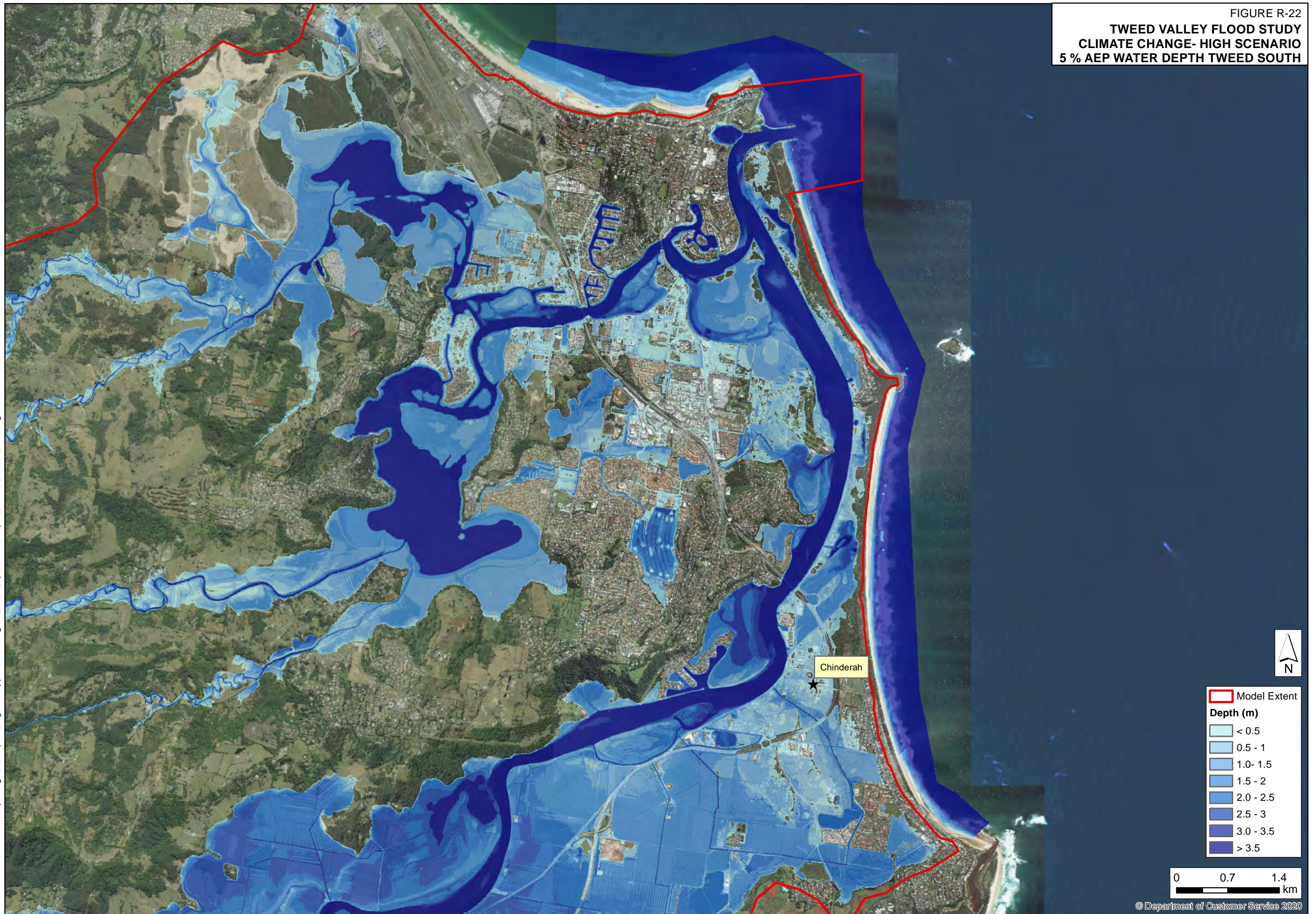
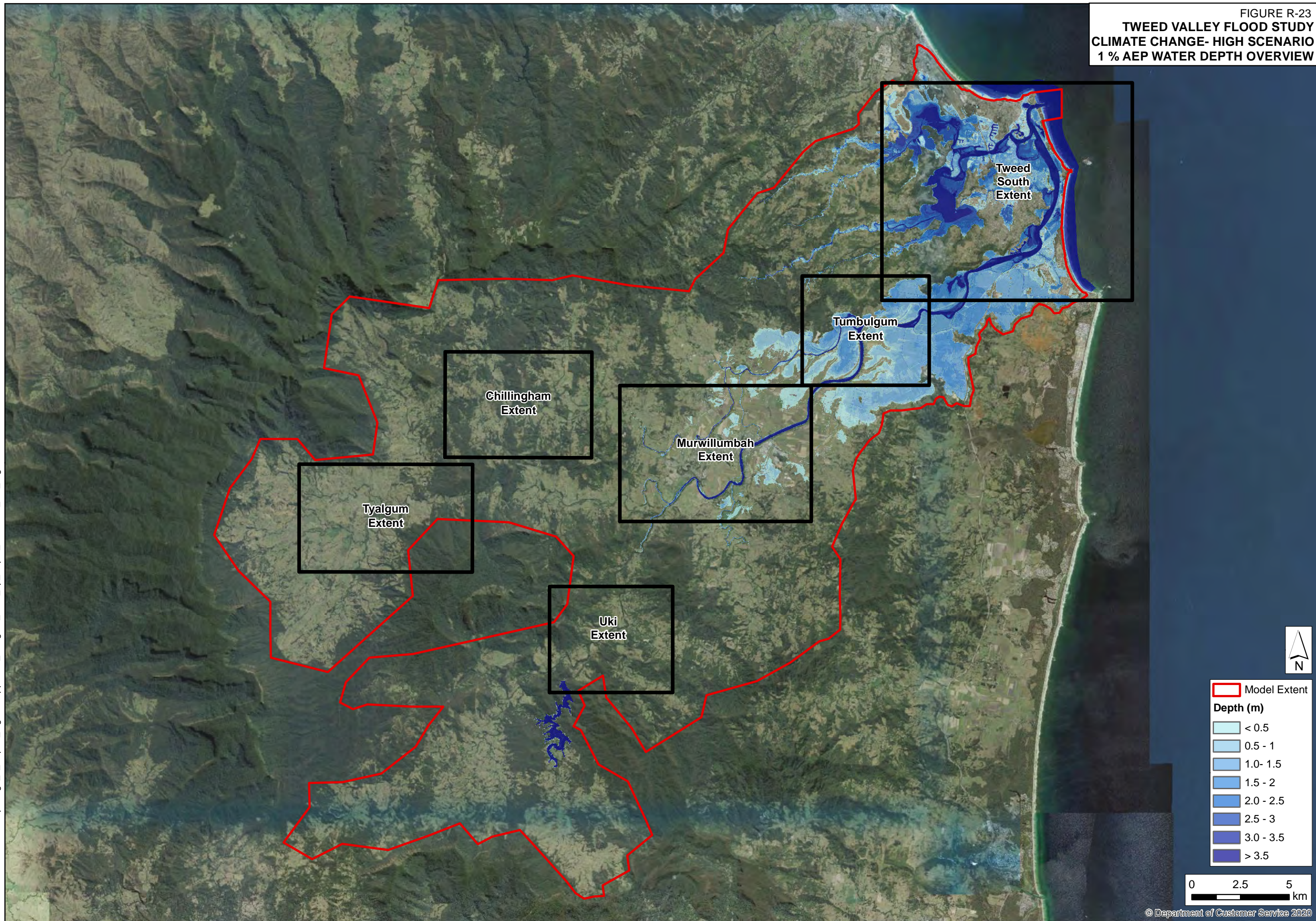


FIGURE R-22
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER DEPTH TWEED SOUTH



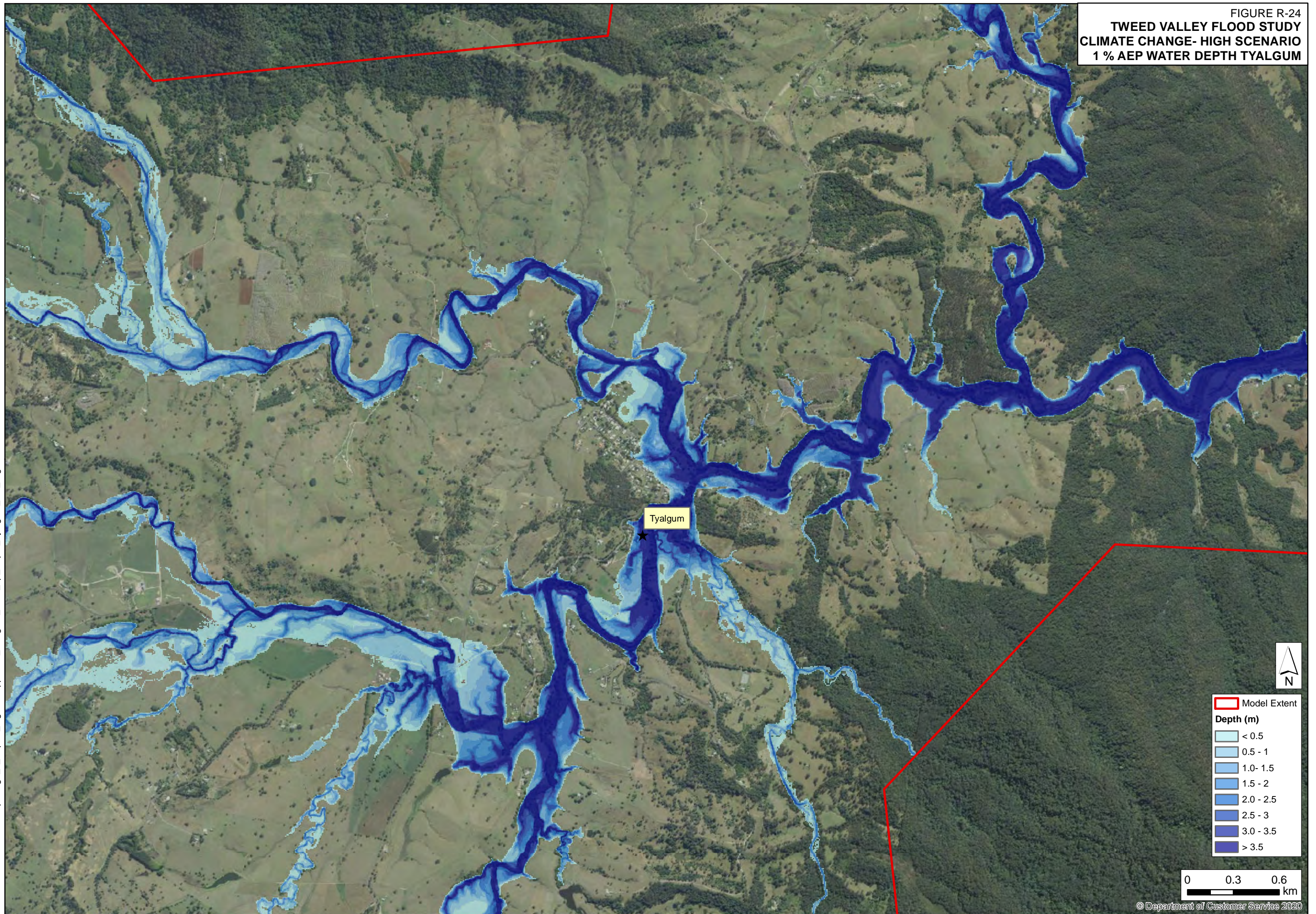
J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-22_5p_Water_Depth_Tweed_South_CC_High.mxd

FIGURE R-23
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER DEPTH OVERVIEW



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-23_1p_Depth_Overview_CC_High.mxd

FIGURE R-24
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER DEPTH TYALGUM



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-24_1p_Depth_Tyalgum_CC_High.mxd

FIGURE R-25
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER DEPTH UKI

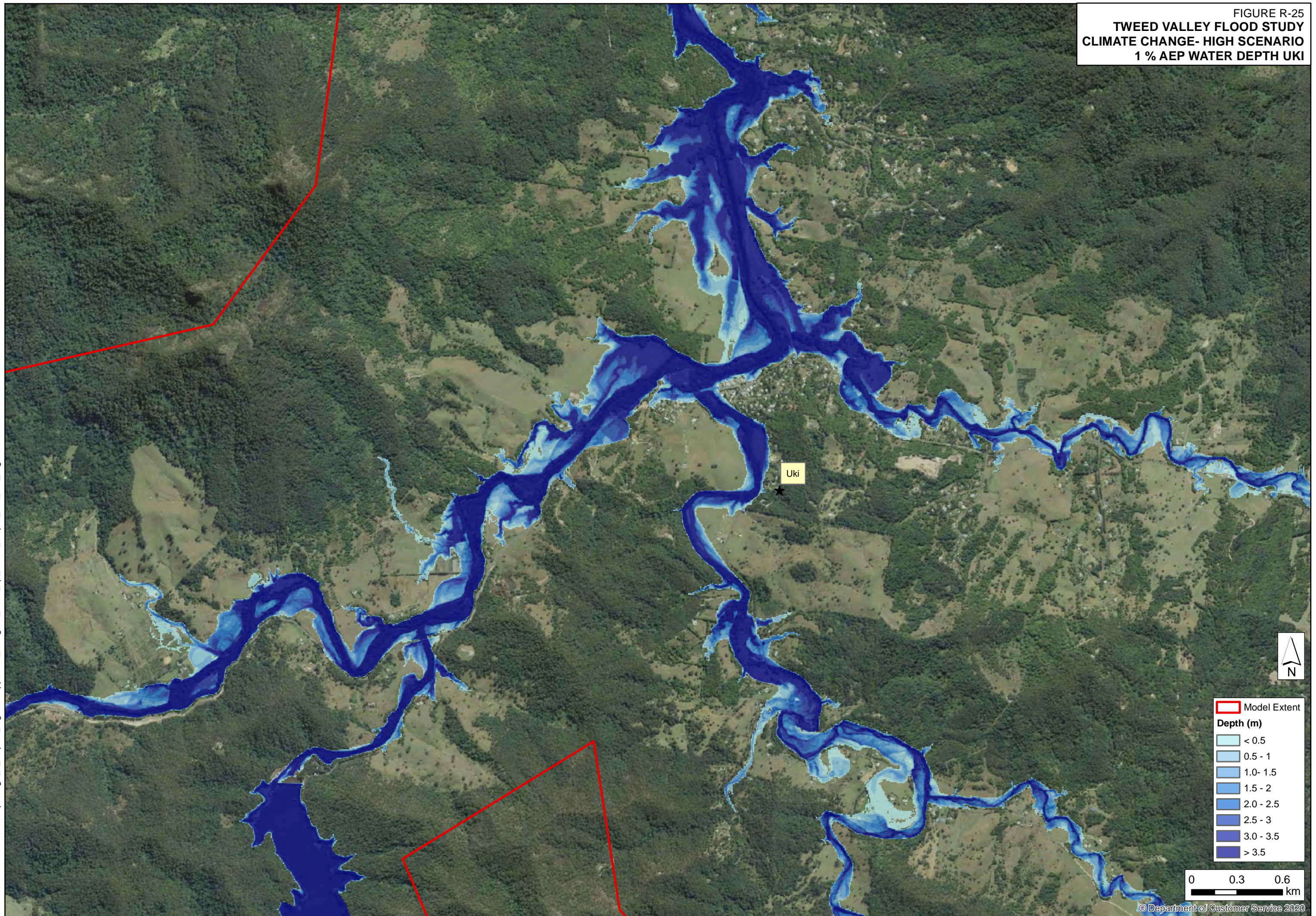


FIGURE R-26
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER DEPTH MURWILLUMBAH

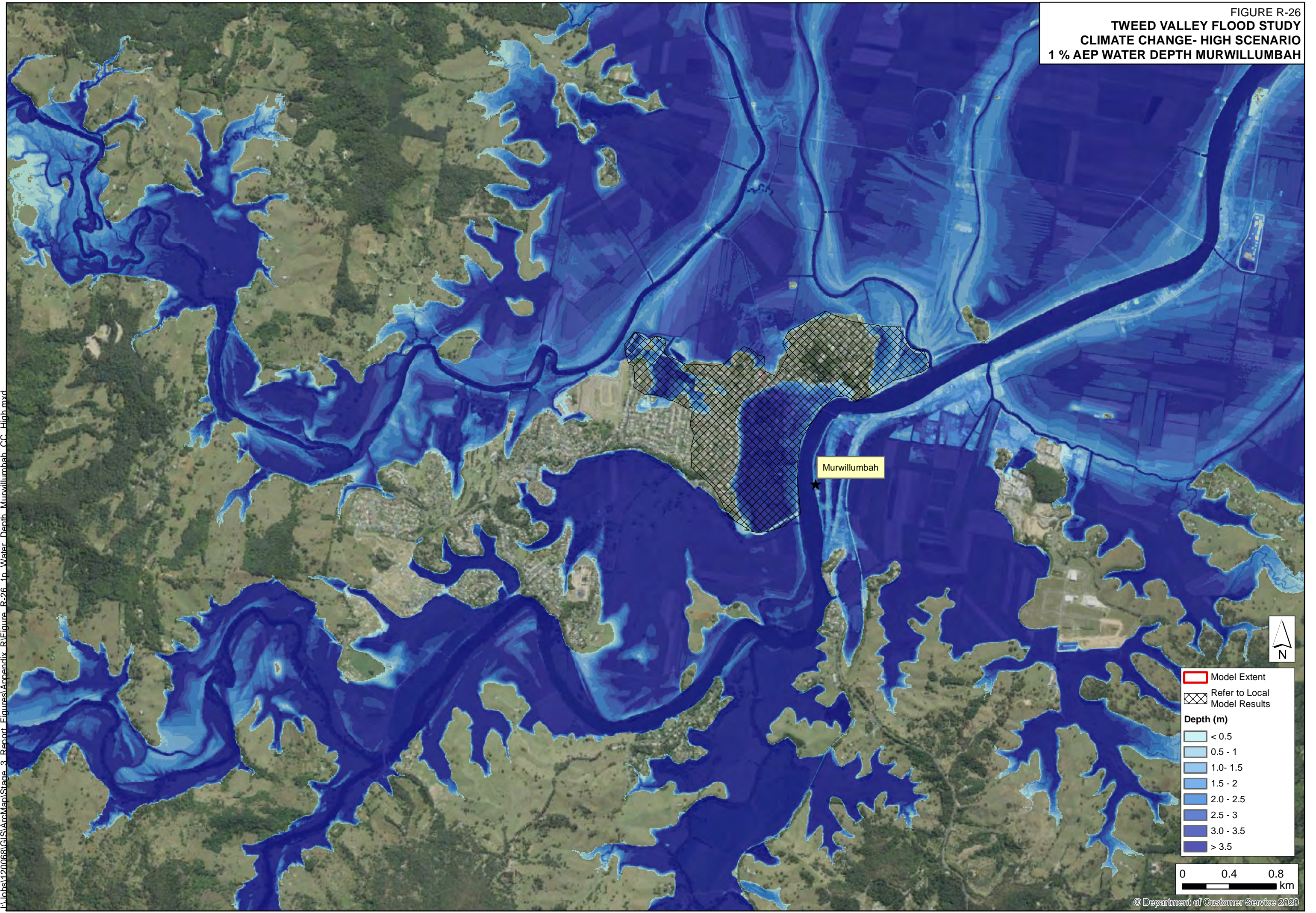
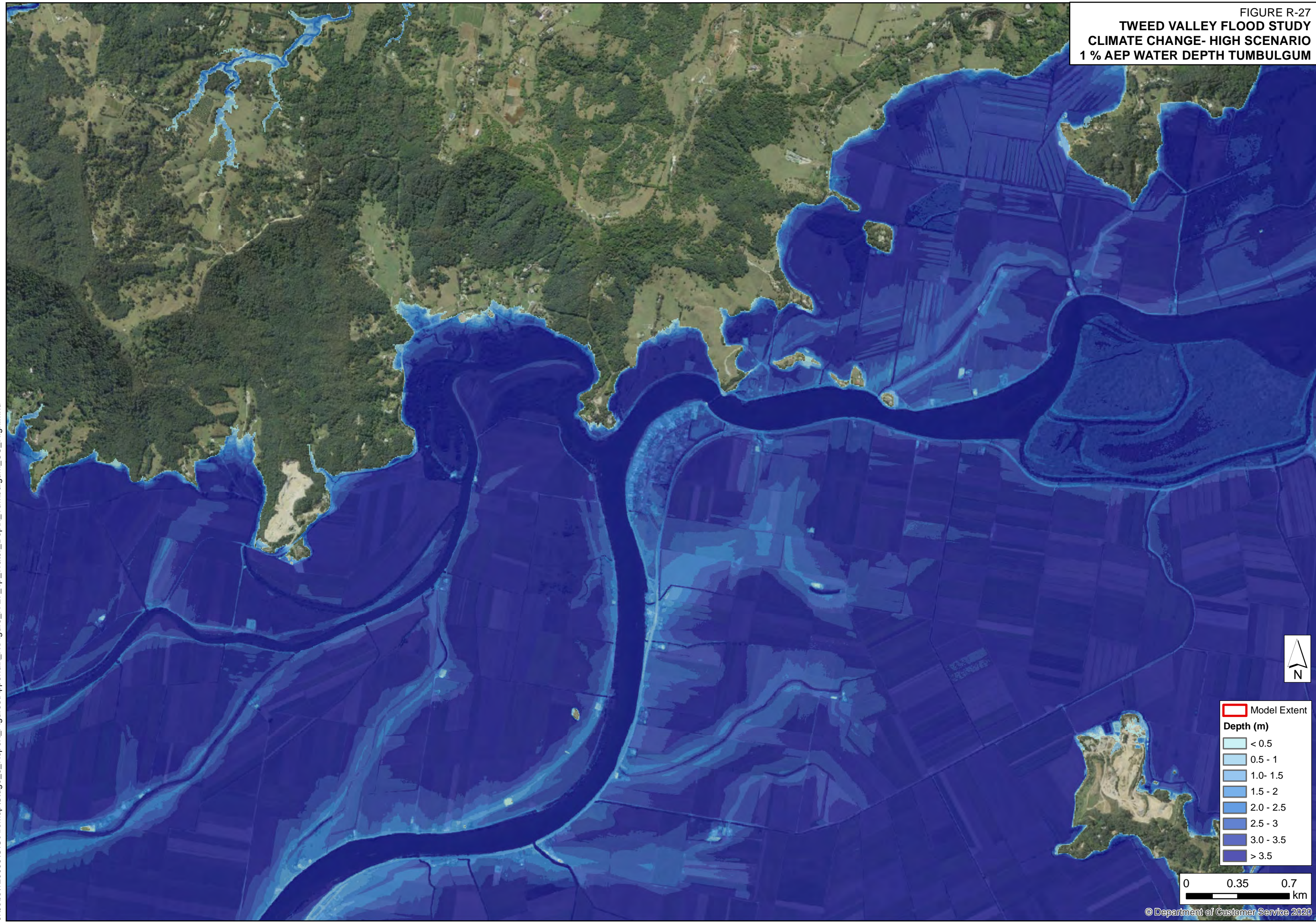
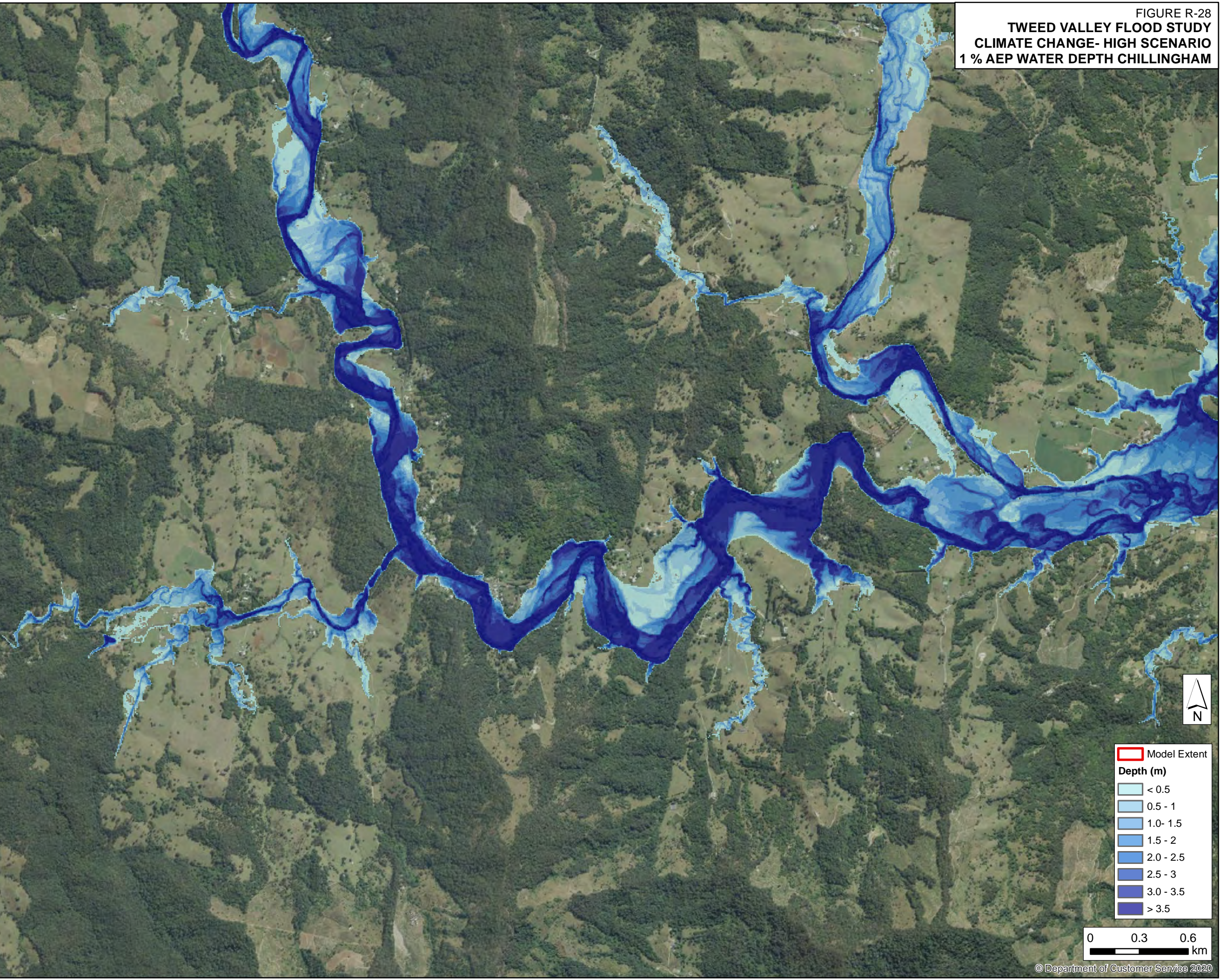


FIGURE R-27
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER DEPTH TUMBULGUM



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-27_1p_Water_Depth_Tumbulgum_CC_High.mxd

FIGURE R-28
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER DEPTH CHILLINGHAM



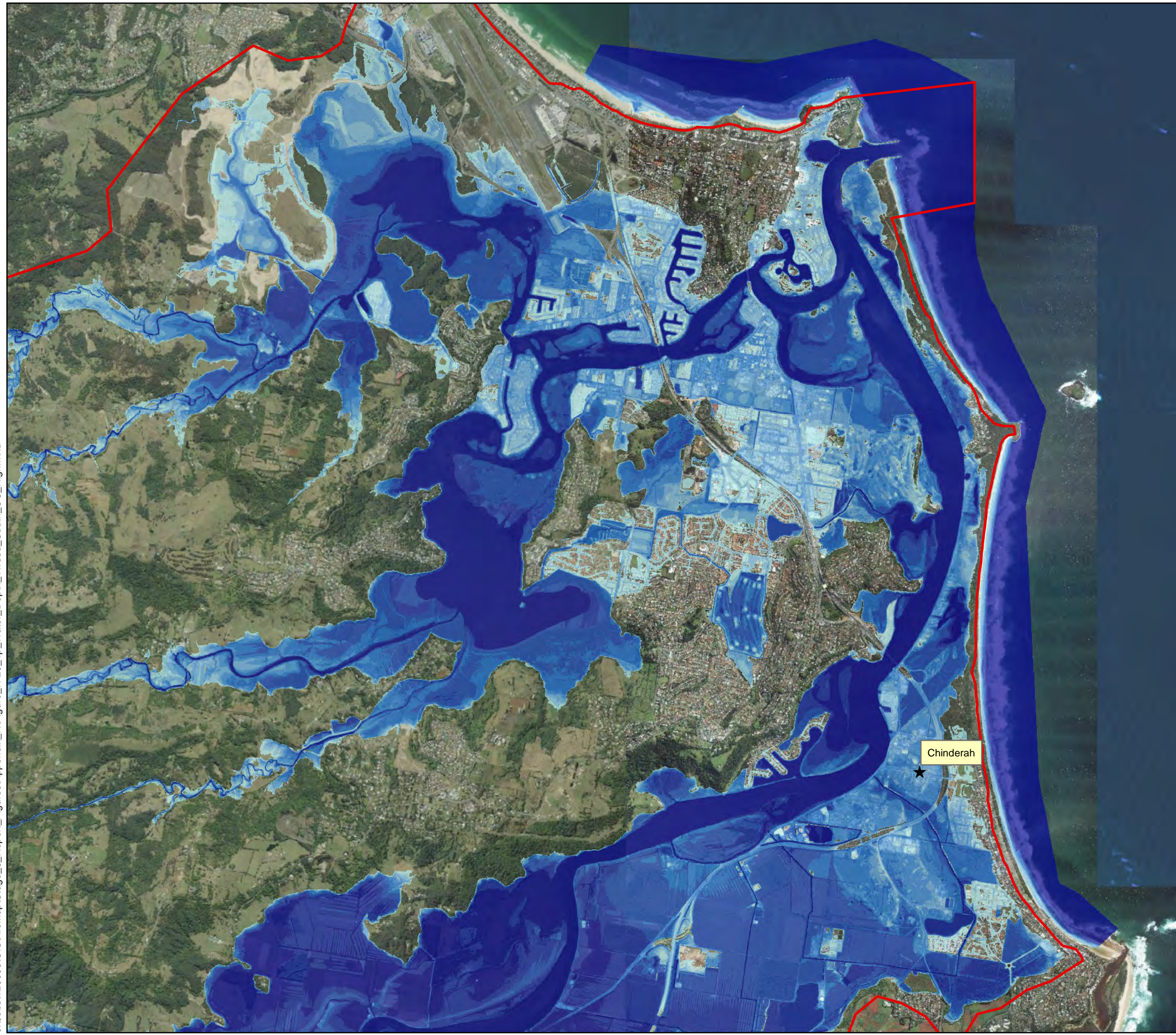
Model Extent

Depth (m)

- < 0.5
- 0.5 - 1
- 1.0 - 1.5
- 1.5 - 2
- 2.0 - 2.5
- 2.5 - 3
- 3.0 - 3.5
- > 3.5

0 0.3 0.6 km

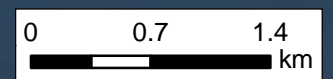
FIGURE R-29
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER DEPTH TWEED SOUTH



Model Extent

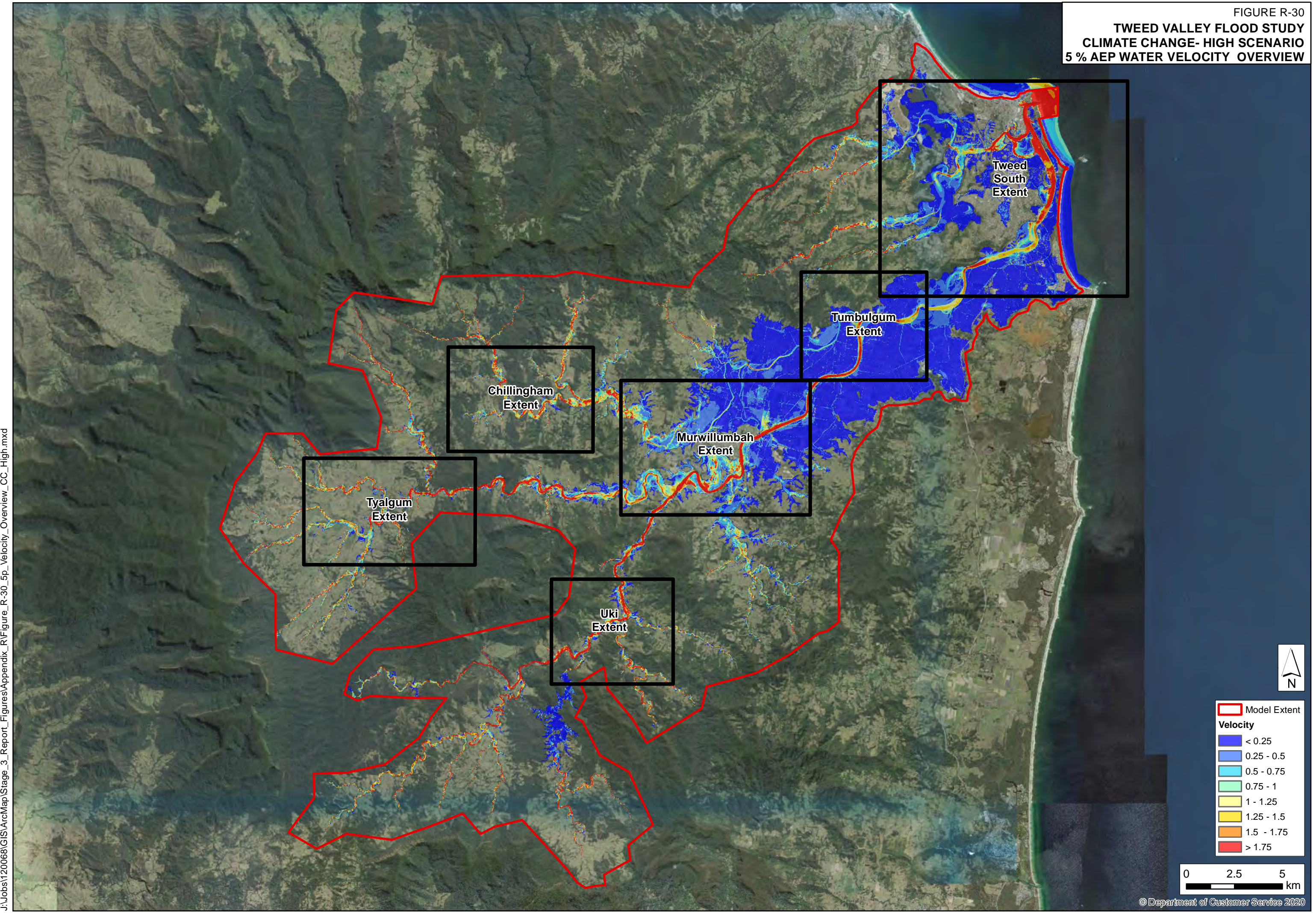
Depth (m)

- < 0.5
- 0.5 - 1
- 1.0 - 1.5
- 1.5 - 2
- 2.0 - 2.5
- 2.5 - 3
- 3.0 - 3.5
- > 3.5



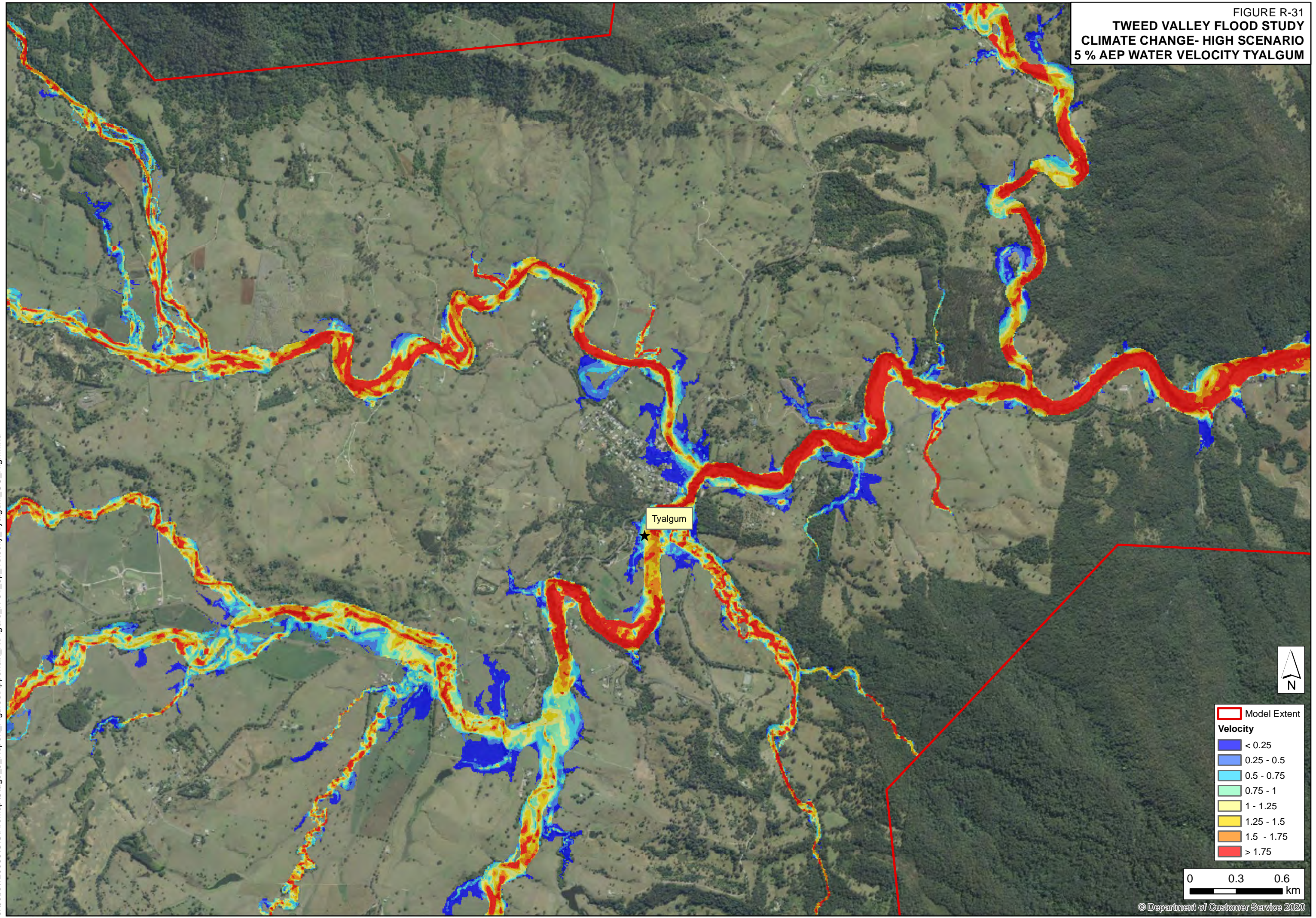
J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-29_1p_Water_Depth_Tweed_South_CC_High.mxd

FIGURE R-30
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER VELOCITY OVERVIEW



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-30_5p_Velocity_Overview_CC_High.mxd

FIGURE R-31
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER VELOCITY TYALGUM



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-31_5p_Velocity_Tyalgum_CC_High.mxd

FIGURE R-32
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER VELOCITY UKI

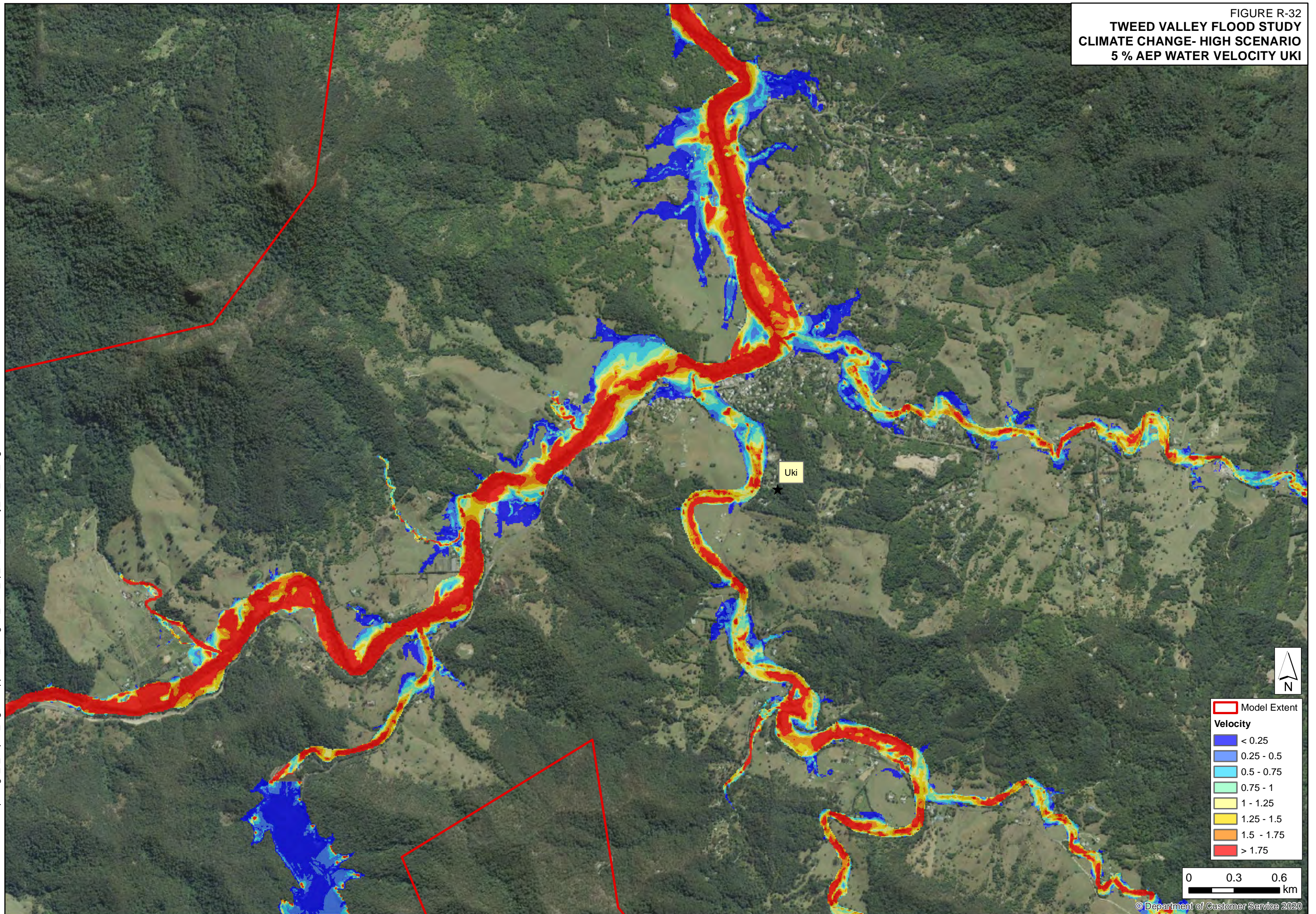


FIGURE R-33
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER VELOCITY MURWILLUMBAH

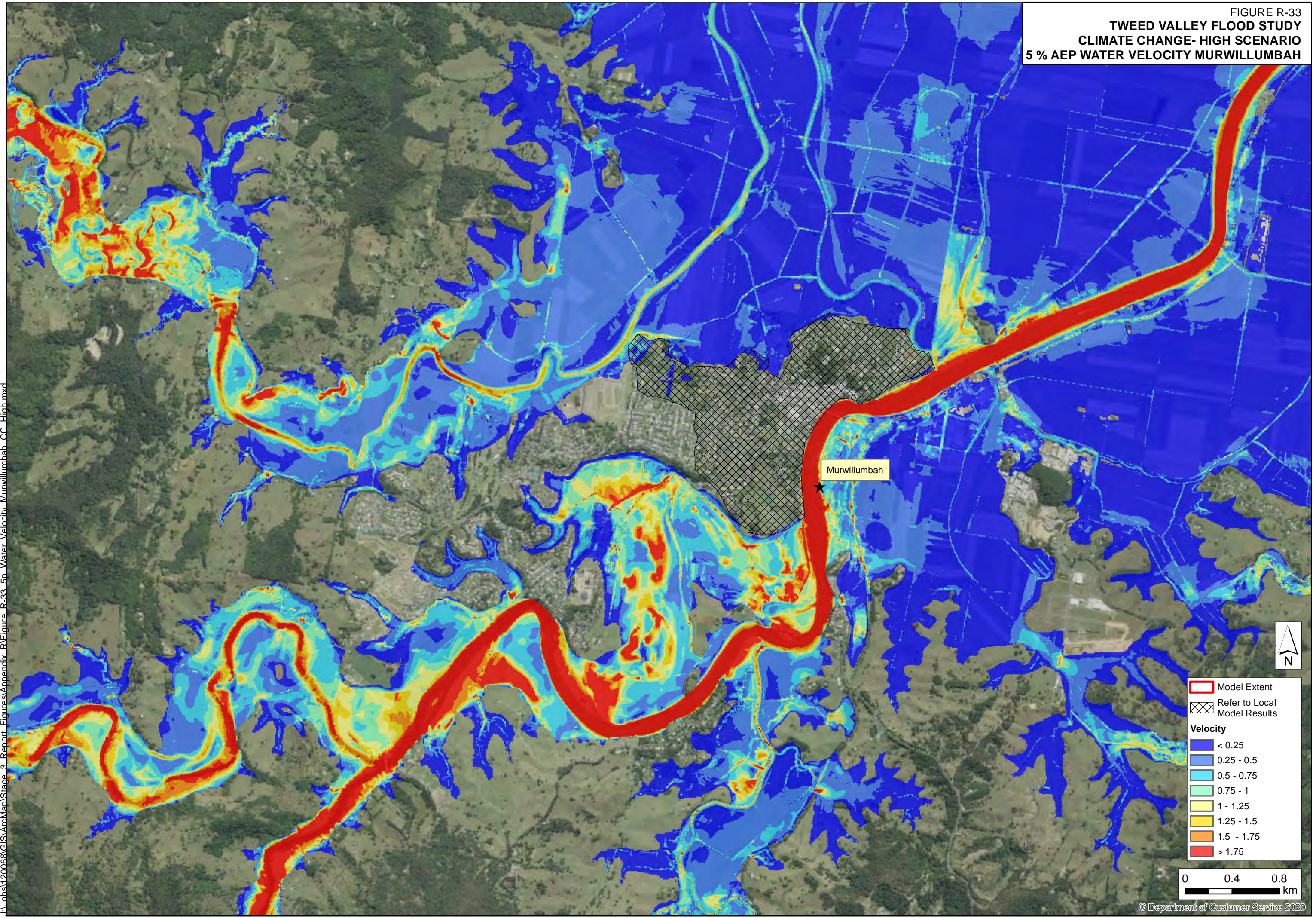
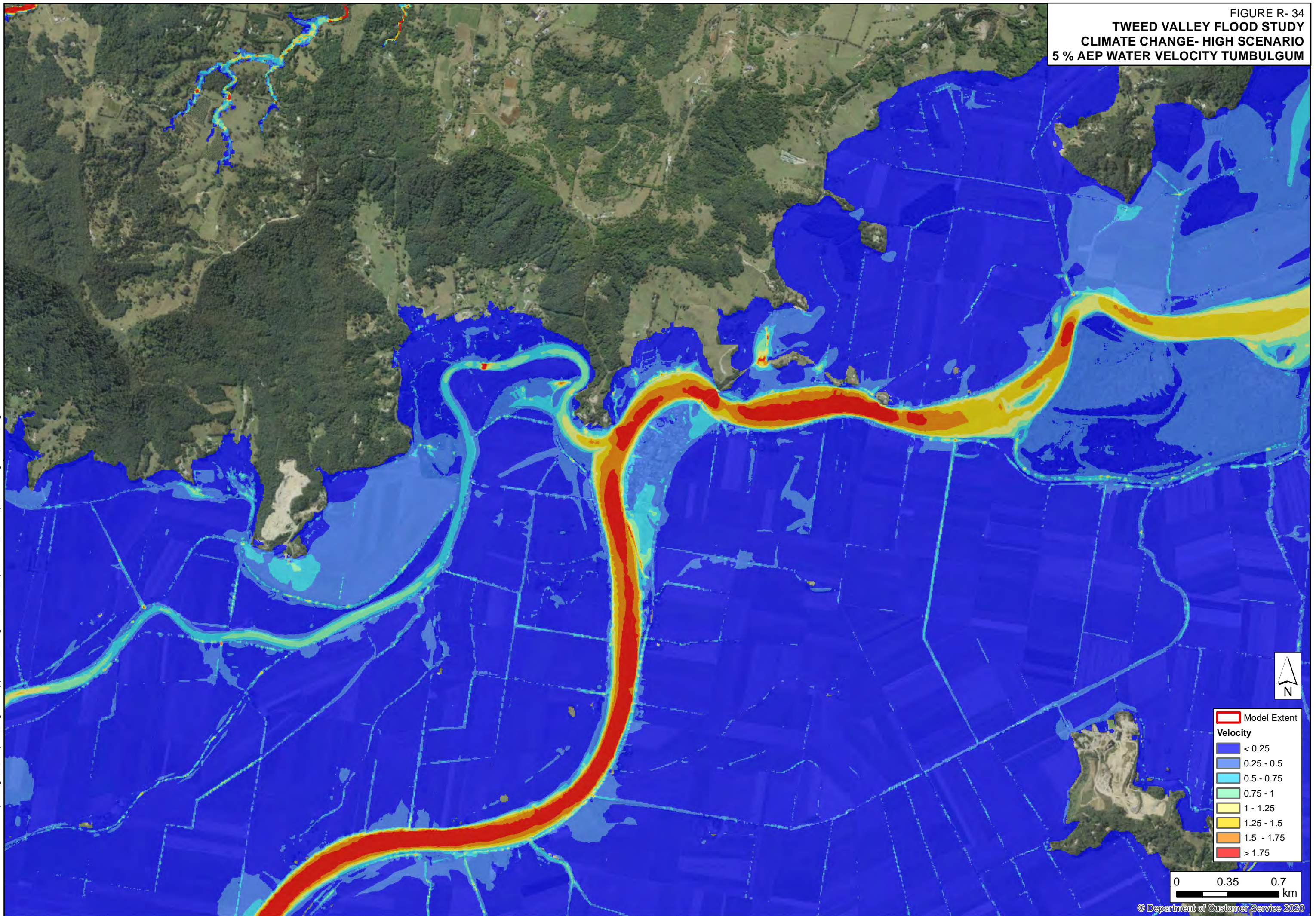


FIGURE R- 34
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER VELOCITY TUMBULGUM



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-34_5p_Water_Velocity_Tumbulgum_CC_High.mxd

FIGURE R-35
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER VELOCITY CHILLINGHAM

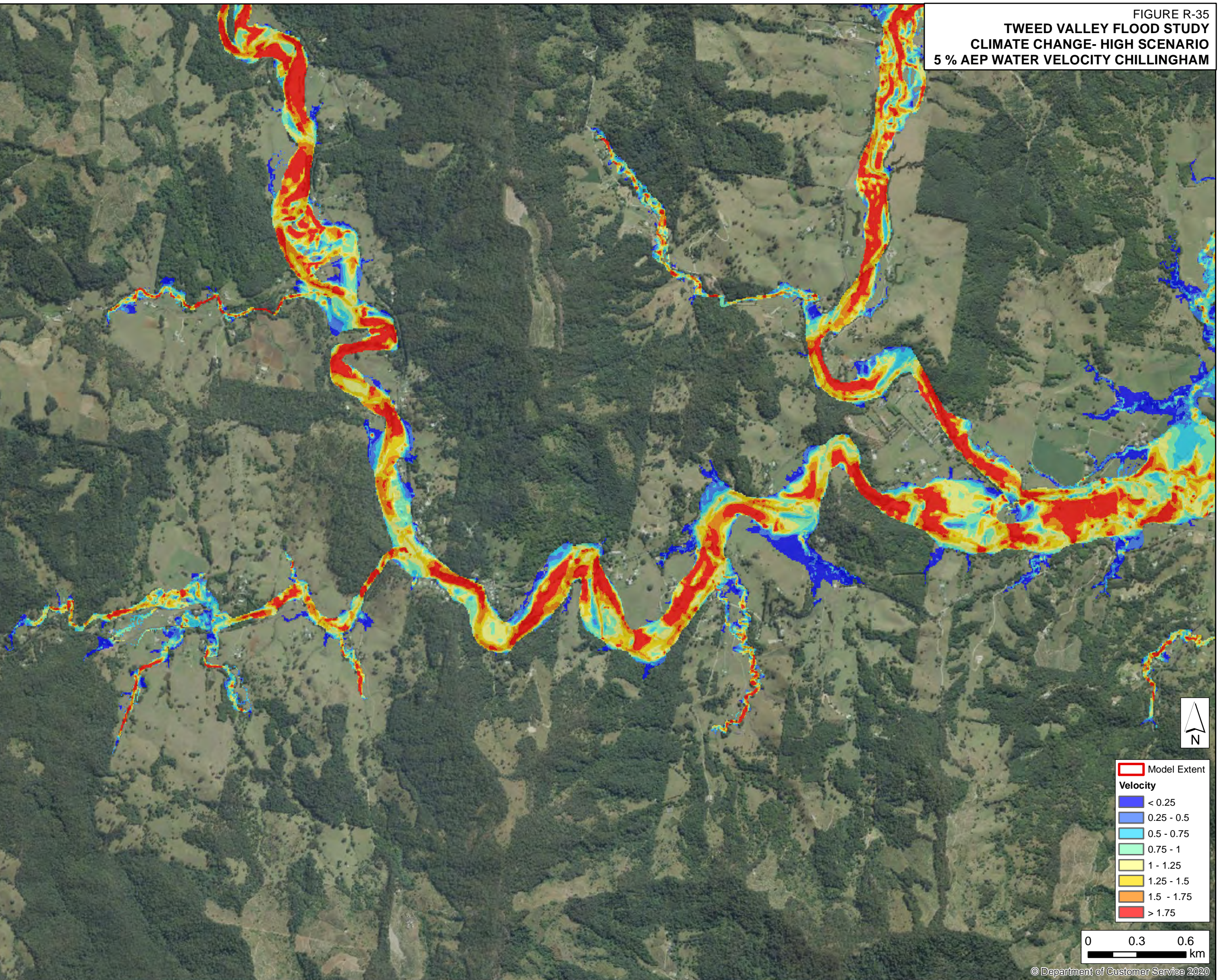


FIGURE R-36
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP WATER VELOCITY TWEED SOUTH

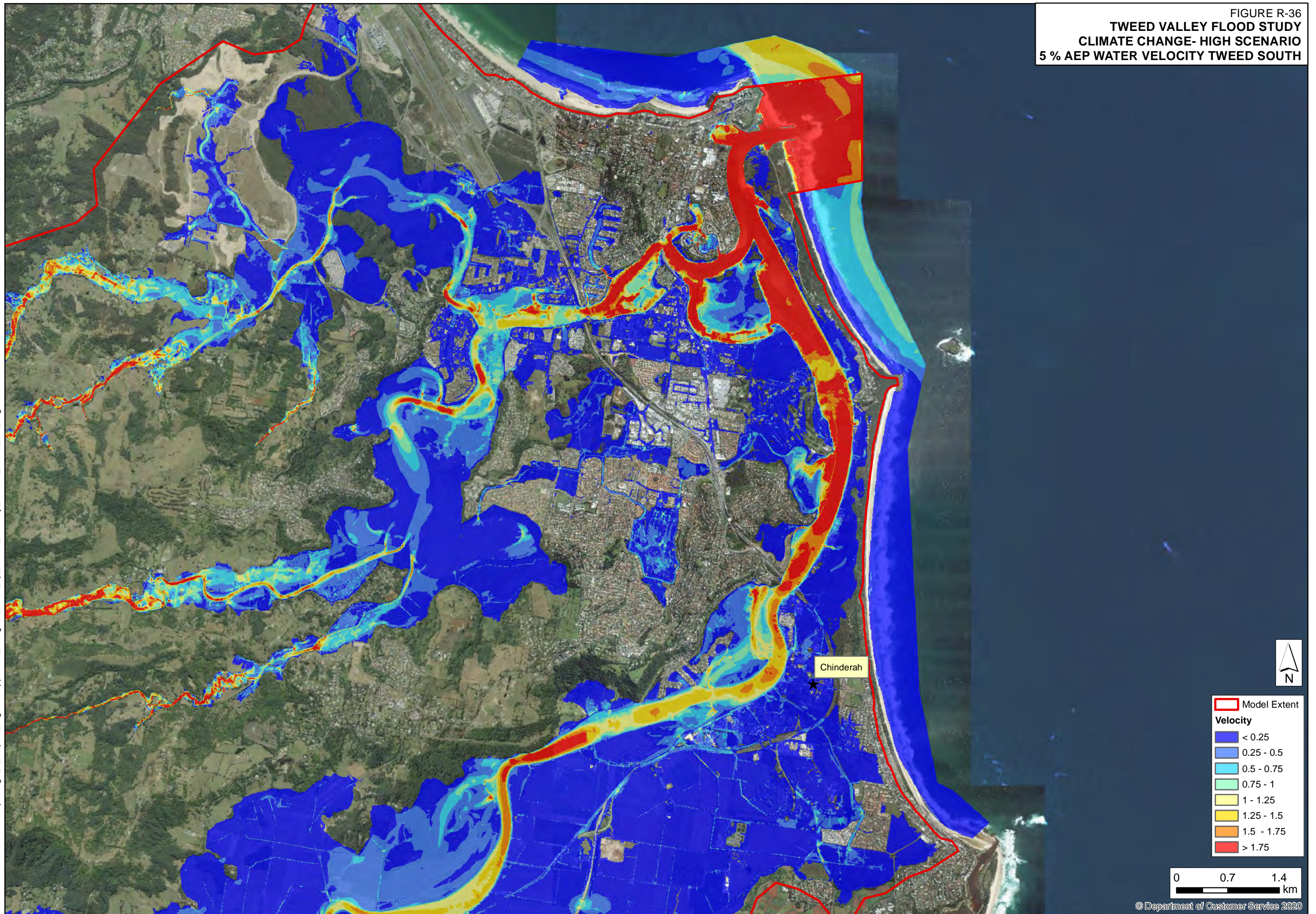
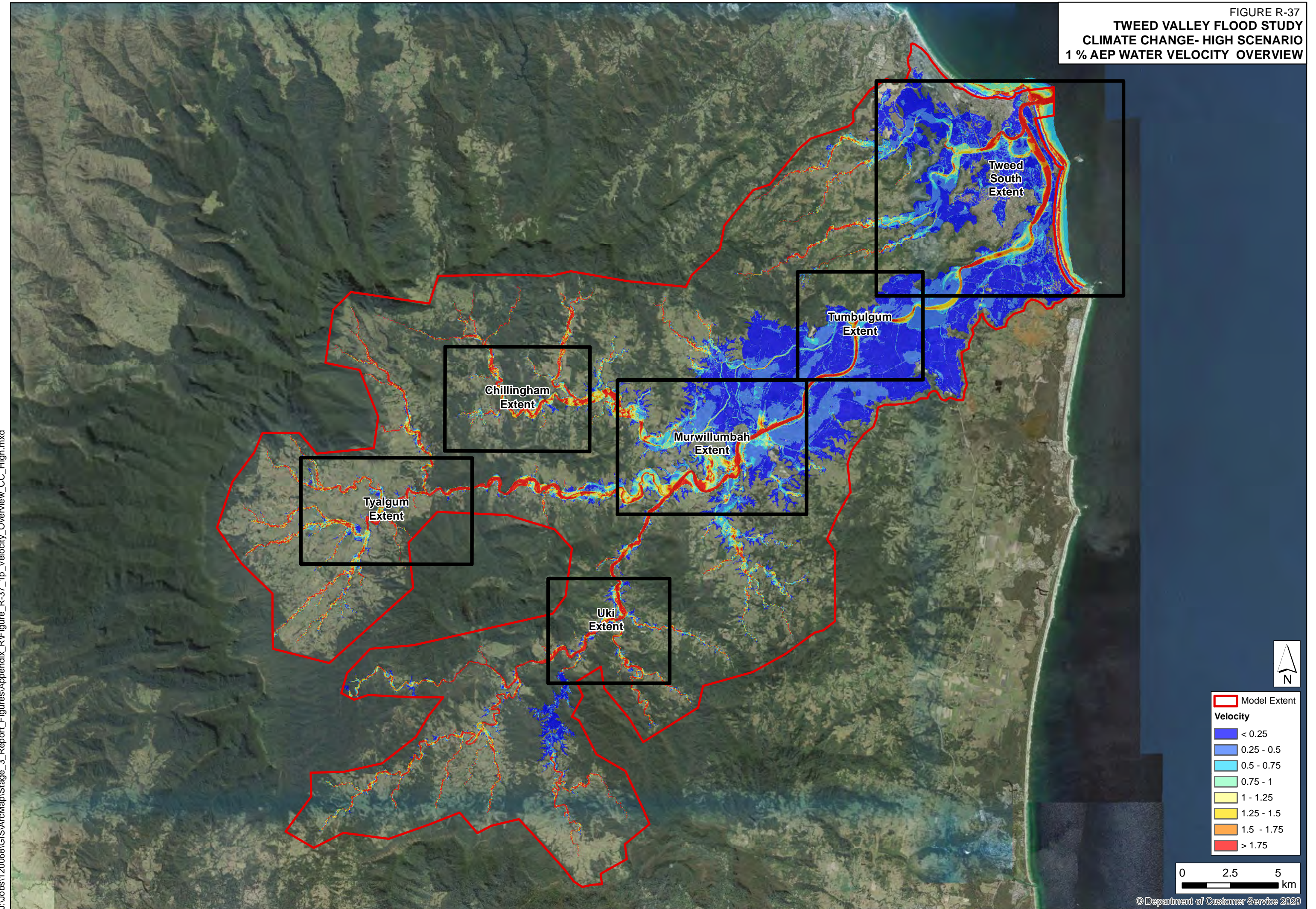


FIGURE R-37
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER VELOCITY OVERVIEW



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-37_1p_Velocity_Overview_CC_High.mxd

FIGURE R-38
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER VELOCITY TYALGUM

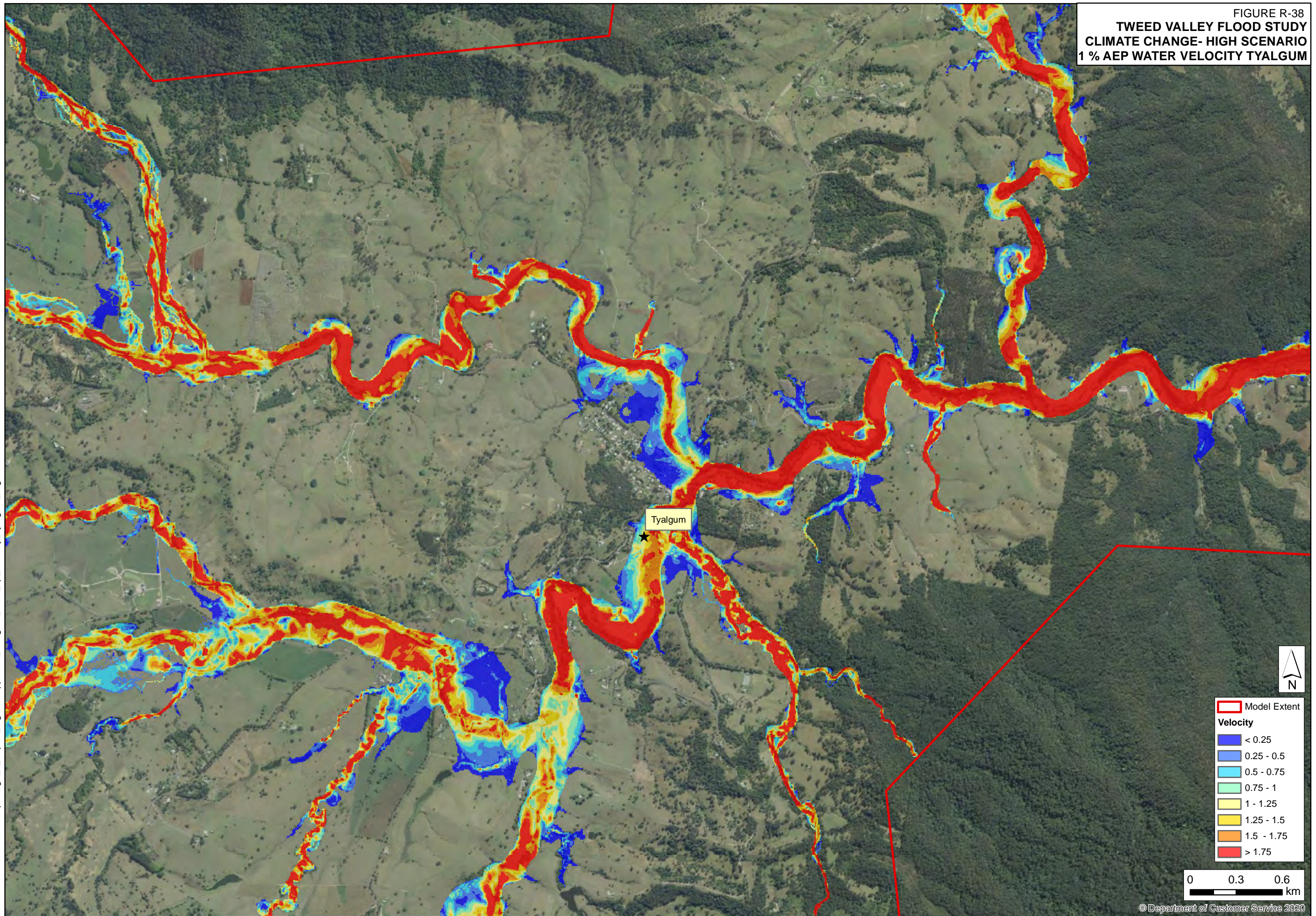
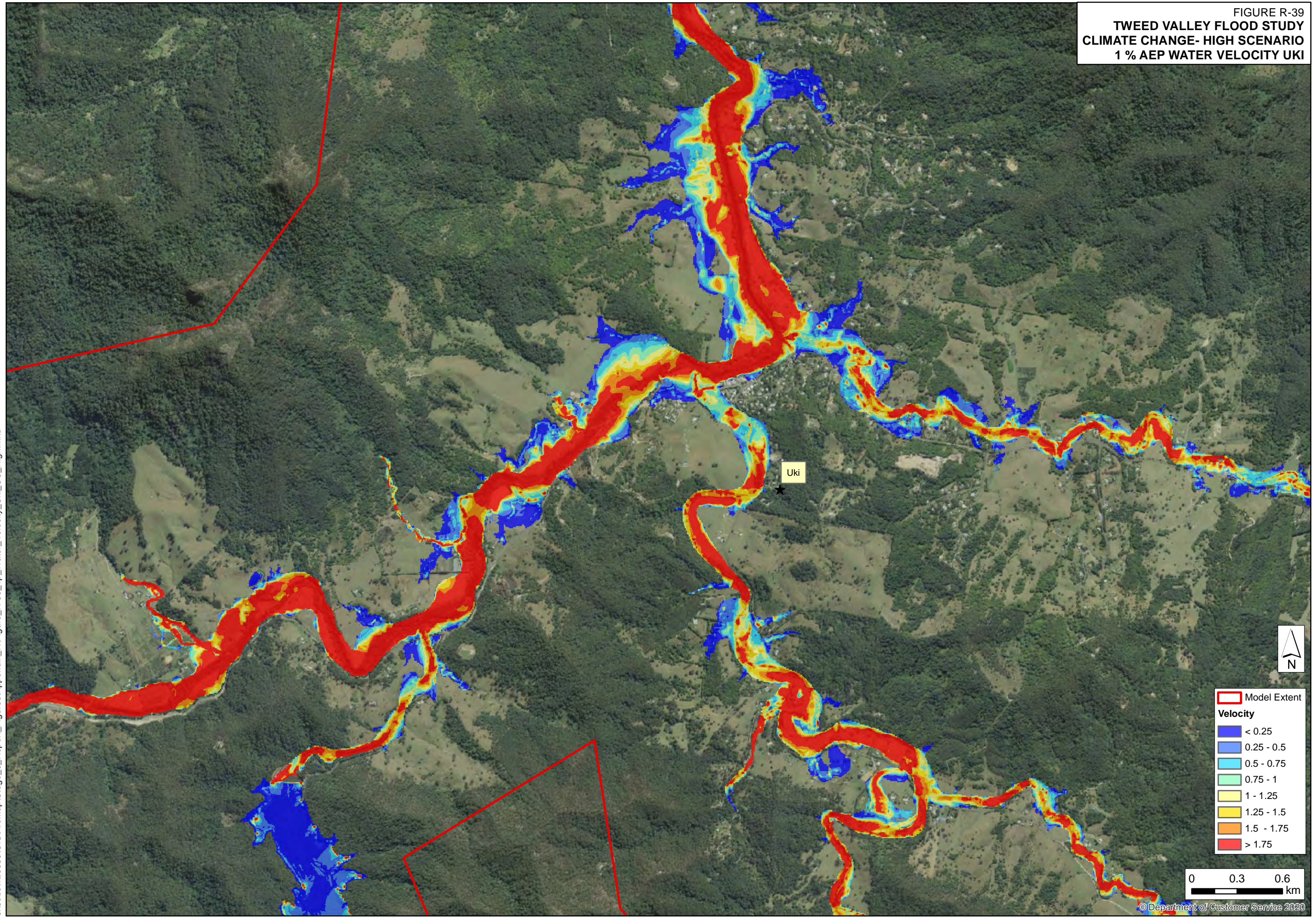
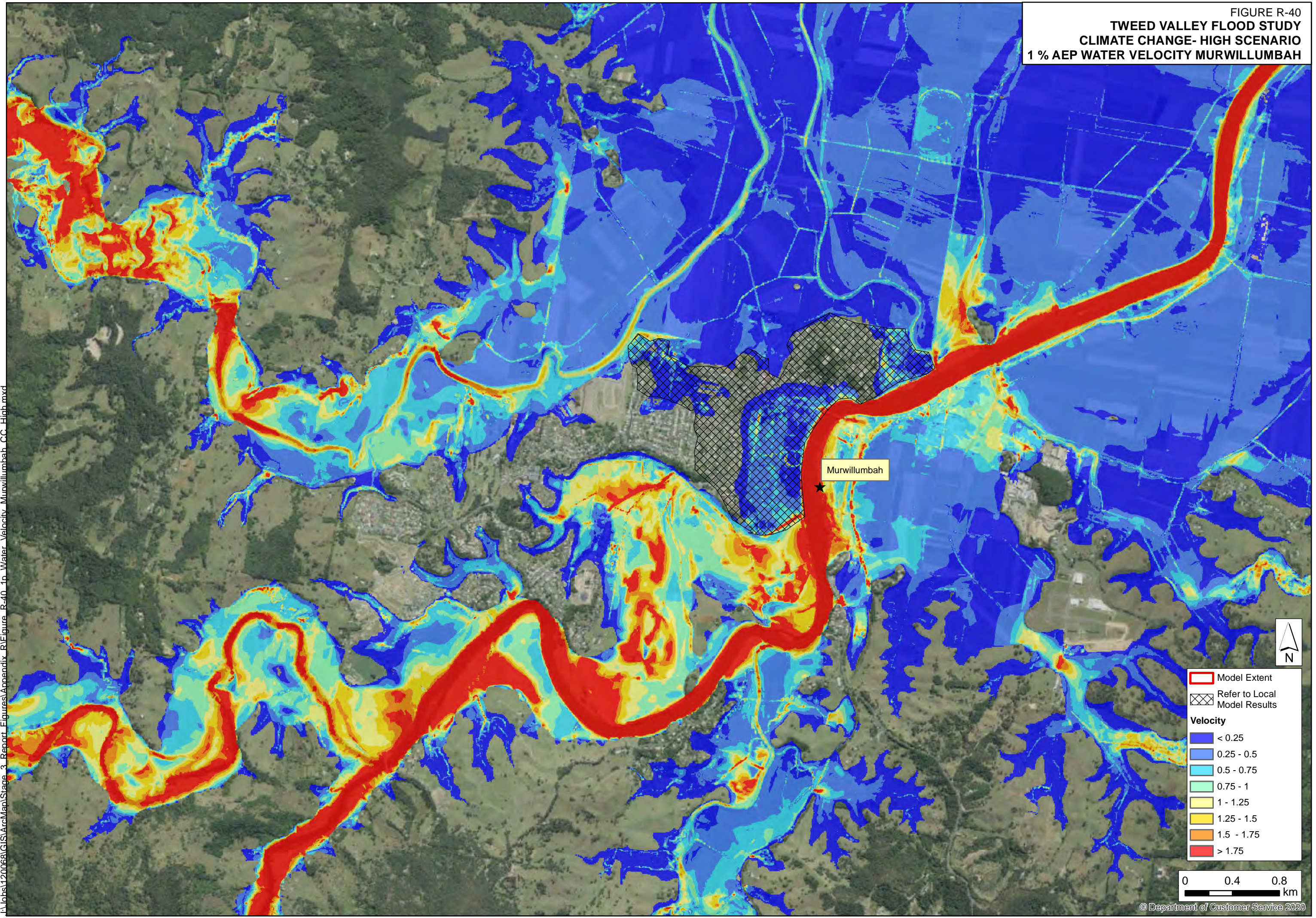


FIGURE R-39
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER VELOCITY UKI



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-39_1p_Water_Velocity_Uki_CC_High.mxd

FIGURE R-40
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER VELOCITY MURWILLUMBAH



\\jobs\120068\GIS\MapStage_3_Report_Figures\Appendix_R\Figure_R-40_1p_Water_Velocity_Murwillumbah_CC_High.mxd

FIGURE R-41
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER VELOCITY TUMBULGUM

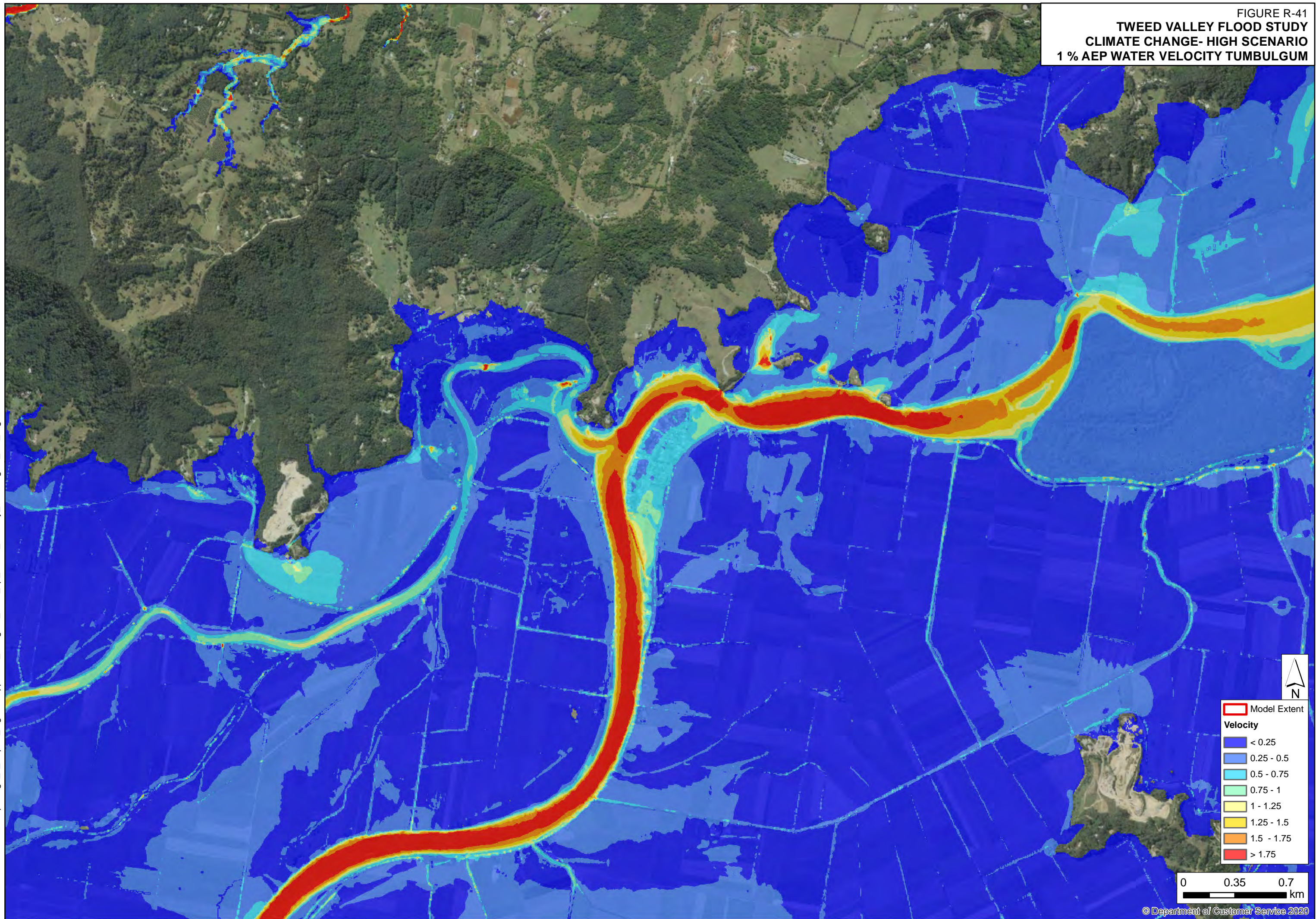


FIGURE R-42
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER VELOCITY CHILLINGHAM

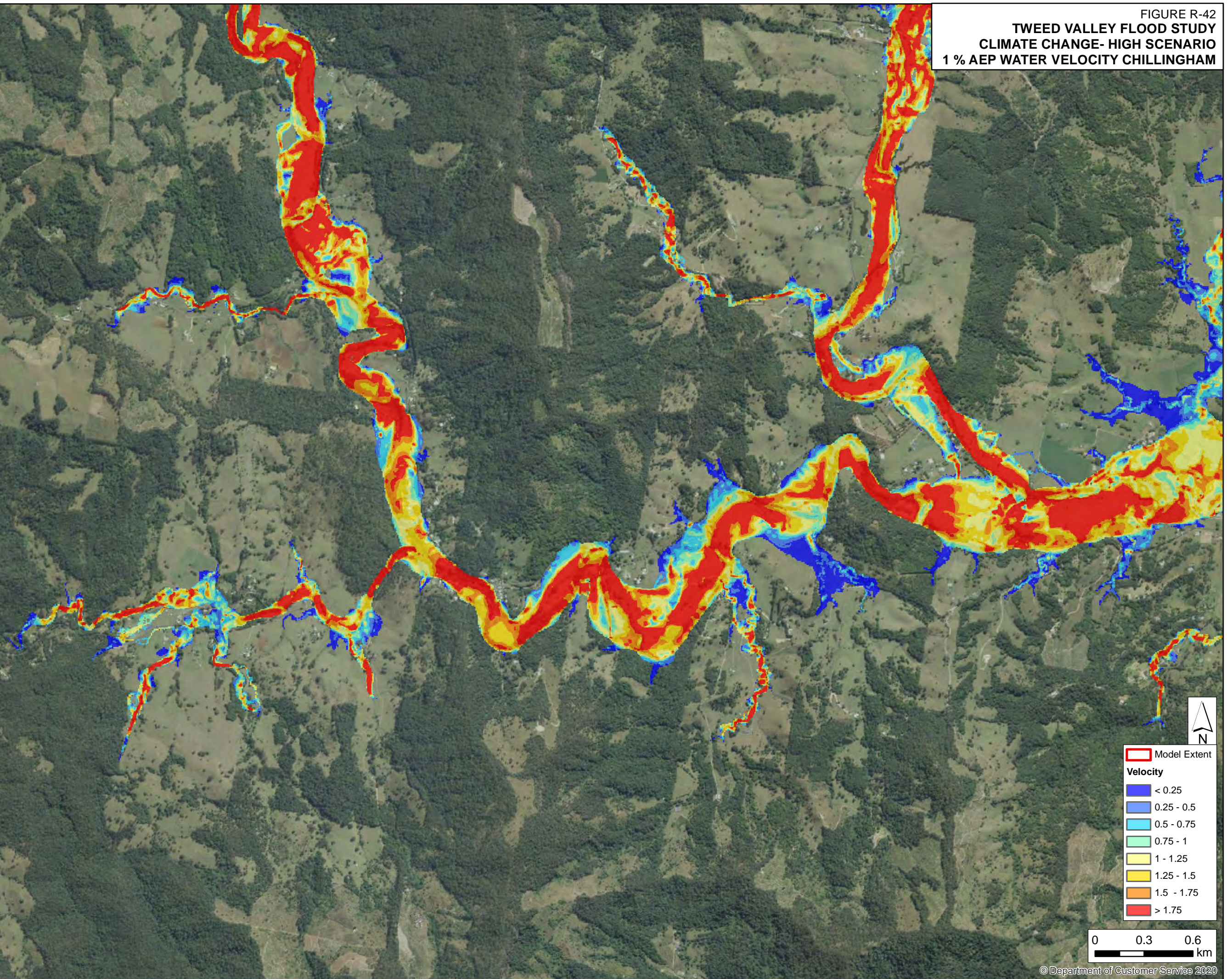
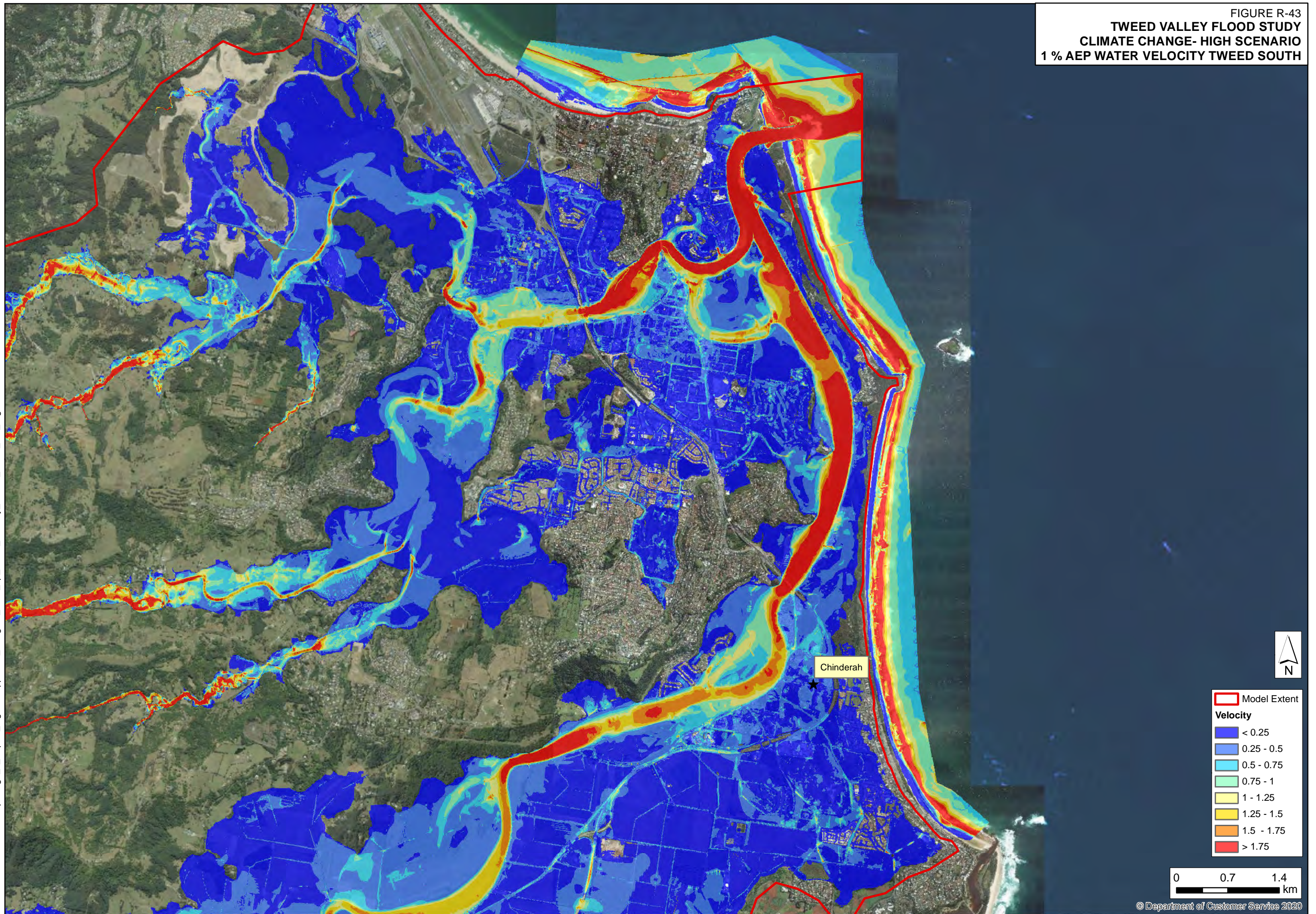


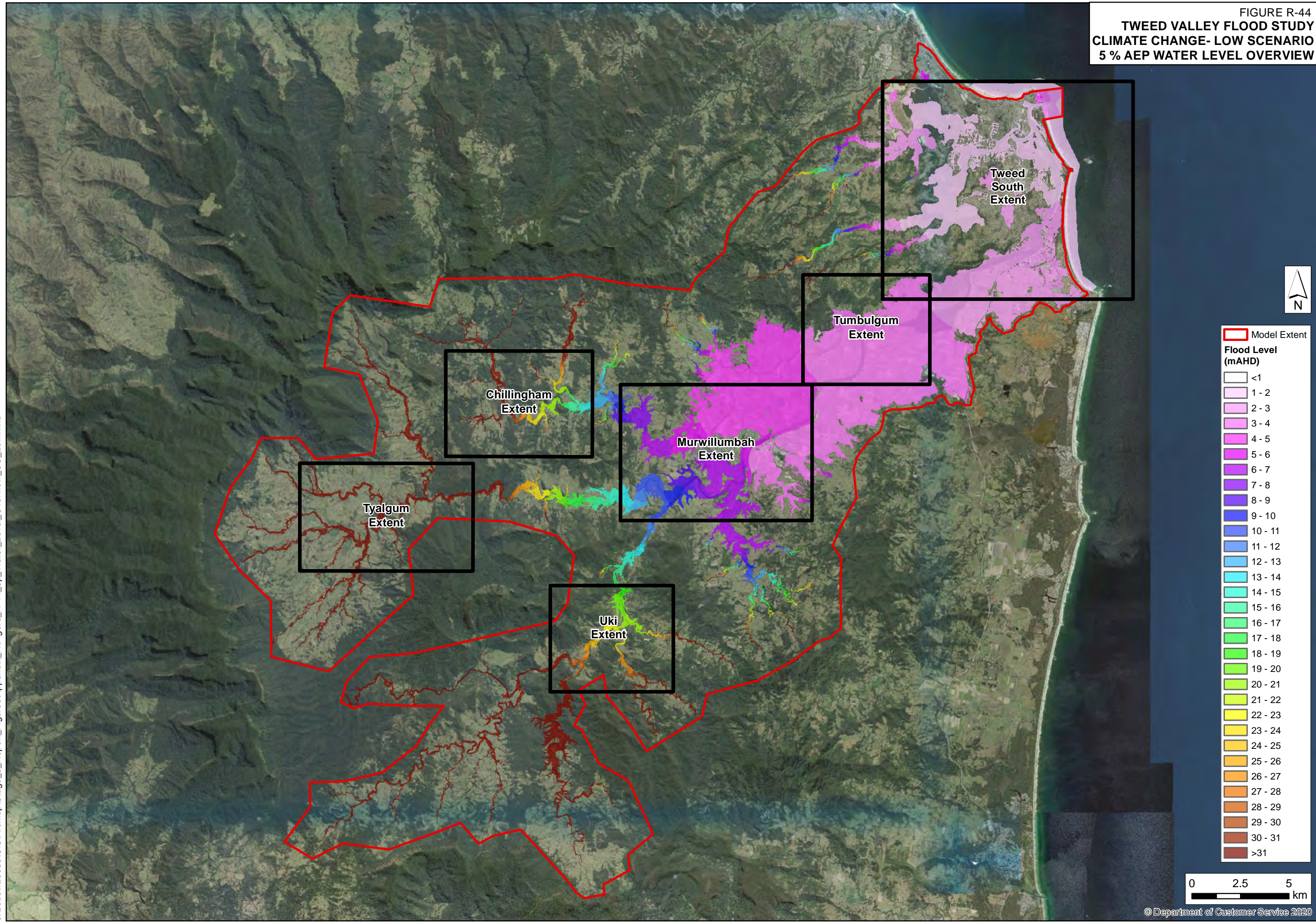
FIGURE R-43
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER VELOCITY TWEED SOUTH



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-43_1p_Water_Velocity_Tweed_South_CC_High.mxd

FIGURE R-44
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER LEVEL OVERVIEW

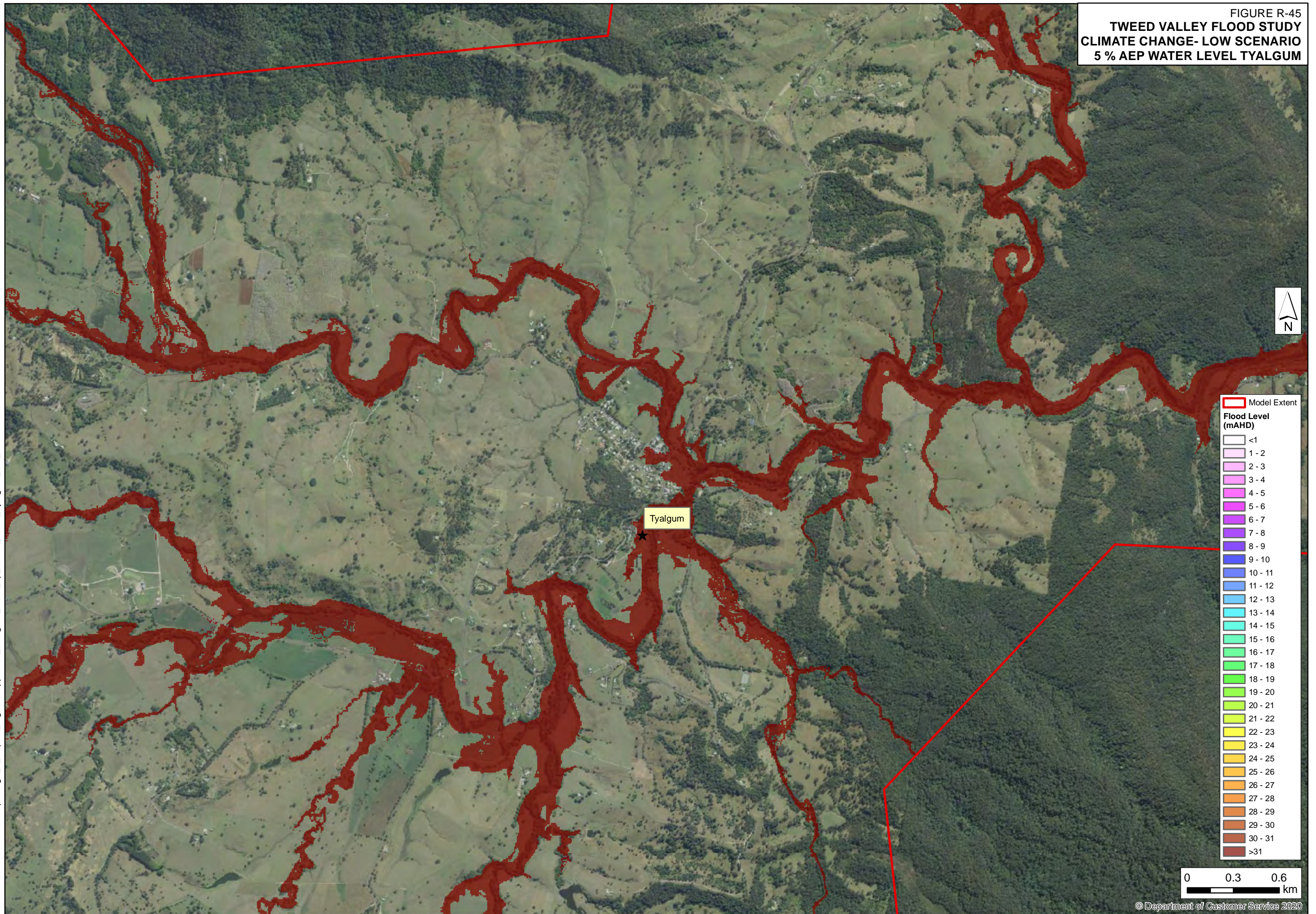
J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-44_5p_Water_Level_Overview_CC_Low.mxd



Model Extent	
[Red Outline]	Model Extent
Flood Level (mAHW)	
[White]	<1
[Lightest Pink]	1 - 2
[Light Pink]	2 - 3
[Medium-Light Pink]	3 - 4
[Medium Pink]	4 - 5
[Medium-Dark Pink]	5 - 6
[Dark Pink]	6 - 7
[Purple-Blue]	7 - 8
[Blue-Purple]	8 - 9
[Blue]	9 - 10
[Light Blue]	10 - 11
[Medium Light Blue]	11 - 12
[Light Cyan]	12 - 13
[Cyan]	13 - 14
[Light Green]	14 - 15
[Green]	15 - 16
[Light Green]	16 - 17
[Green]	17 - 18
[Light Green]	18 - 19
[Light Green]	19 - 20
[Light Green]	20 - 21
[Light Green]	21 - 22
[Light Green]	22 - 23
[Light Green]	23 - 24
[Light Green]	24 - 25
[Light Green]	25 - 26
[Light Green]	26 - 27
[Light Green]	27 - 28
[Light Green]	28 - 29
[Light Green]	29 - 30
[Light Green]	30 - 31
[Light Green]	>31

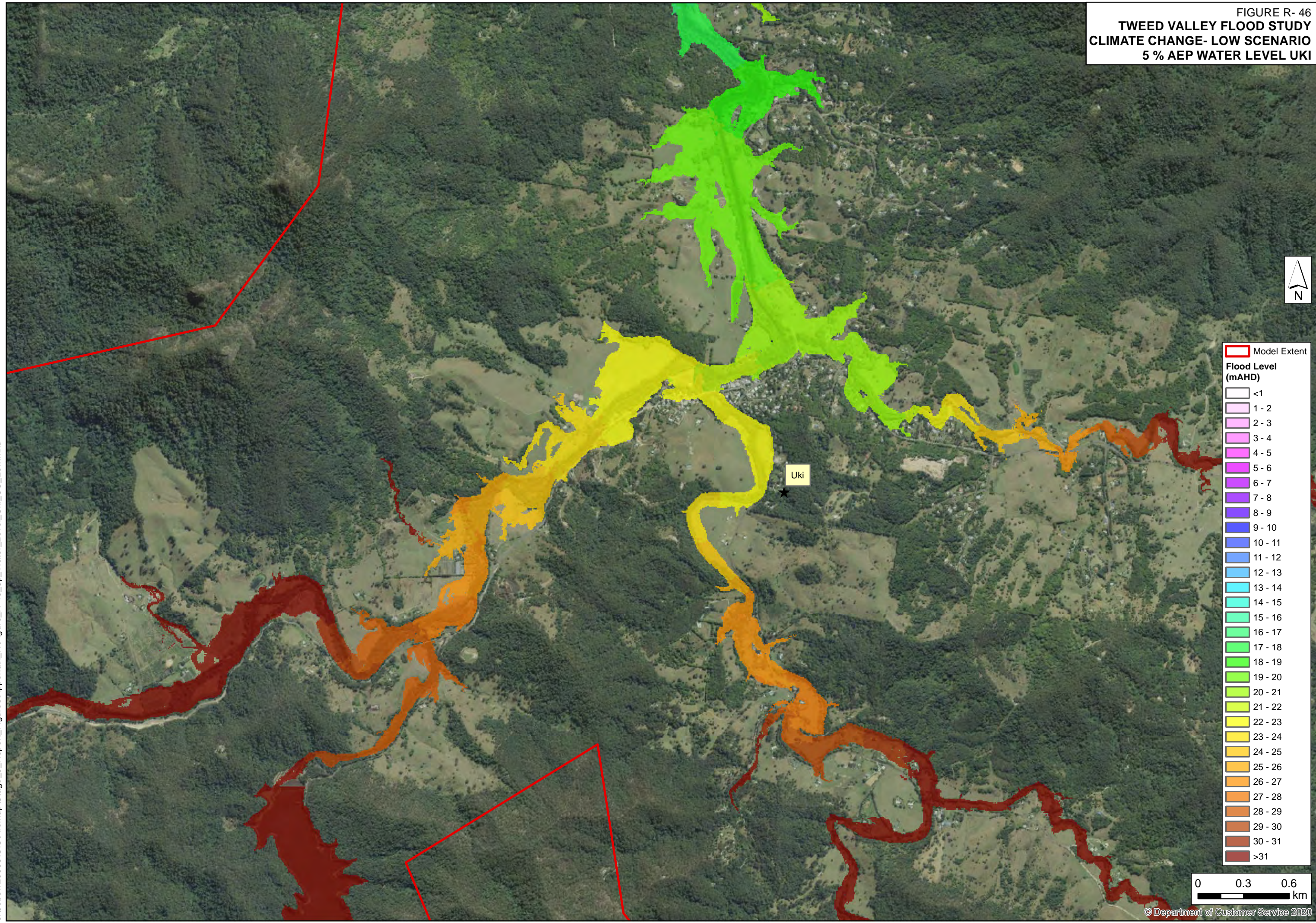
0 2.5 5 km

FIGURE R-45
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER LEVEL TYALGUM



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-45_5p_Water_Level_Tyalgum_CC_Low.mxd

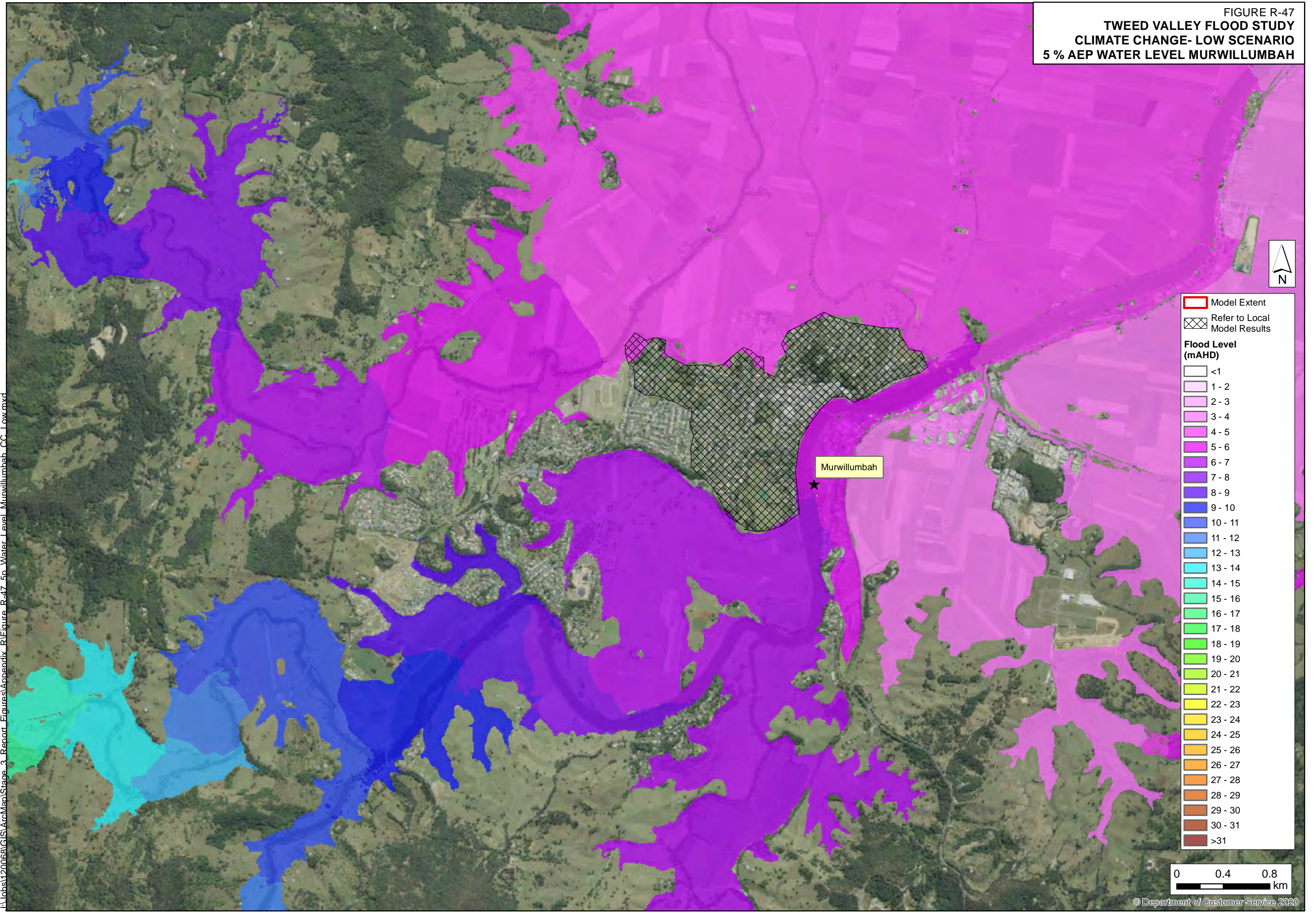
FIGURE R- 46
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER LEVEL UKI



Model Extent	
[Red outline]	Model Extent
Flood Level (mAHD)	
[White]	<1
[Lightest pink]	1 - 2
[Light pink]	2 - 3
[Pink]	3 - 4
[Light purple]	4 - 5
[Purple]	5 - 6
[Dark purple]	6 - 7
[Blue-purple]	7 - 8
[Blue]	8 - 9
[Dark blue]	9 - 10
[Medium blue]	10 - 11
[Light blue]	11 - 12
[Cyan]	12 - 13
[Light cyan]	13 - 14
[Cyan]	14 - 15
[Light green]	15 - 16
[Green]	16 - 17
[Light green]	17 - 18
[Yellow-green]	18 - 19
[Yellow]	19 - 20
[Light yellow]	20 - 21
[Yellow]	21 - 22
[Light orange]	22 - 23
[Orange]	23 - 24
[Light orange]	24 - 25
[Orange]	25 - 26
[Dark orange]	26 - 27
[Red-orange]	27 - 28
[Red-orange]	28 - 29
[Red]	29 - 30
[Dark red]	30 - 31
[Dark red]	>31

J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-46_5p_Water_Level_Uki_CC_Low.mxd

FIGURE R-47
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER LEVEL MURWILLUMBAH



Model Extent
 [Red outline symbol]

Refer to Local Model Results
 [Hatched symbol]

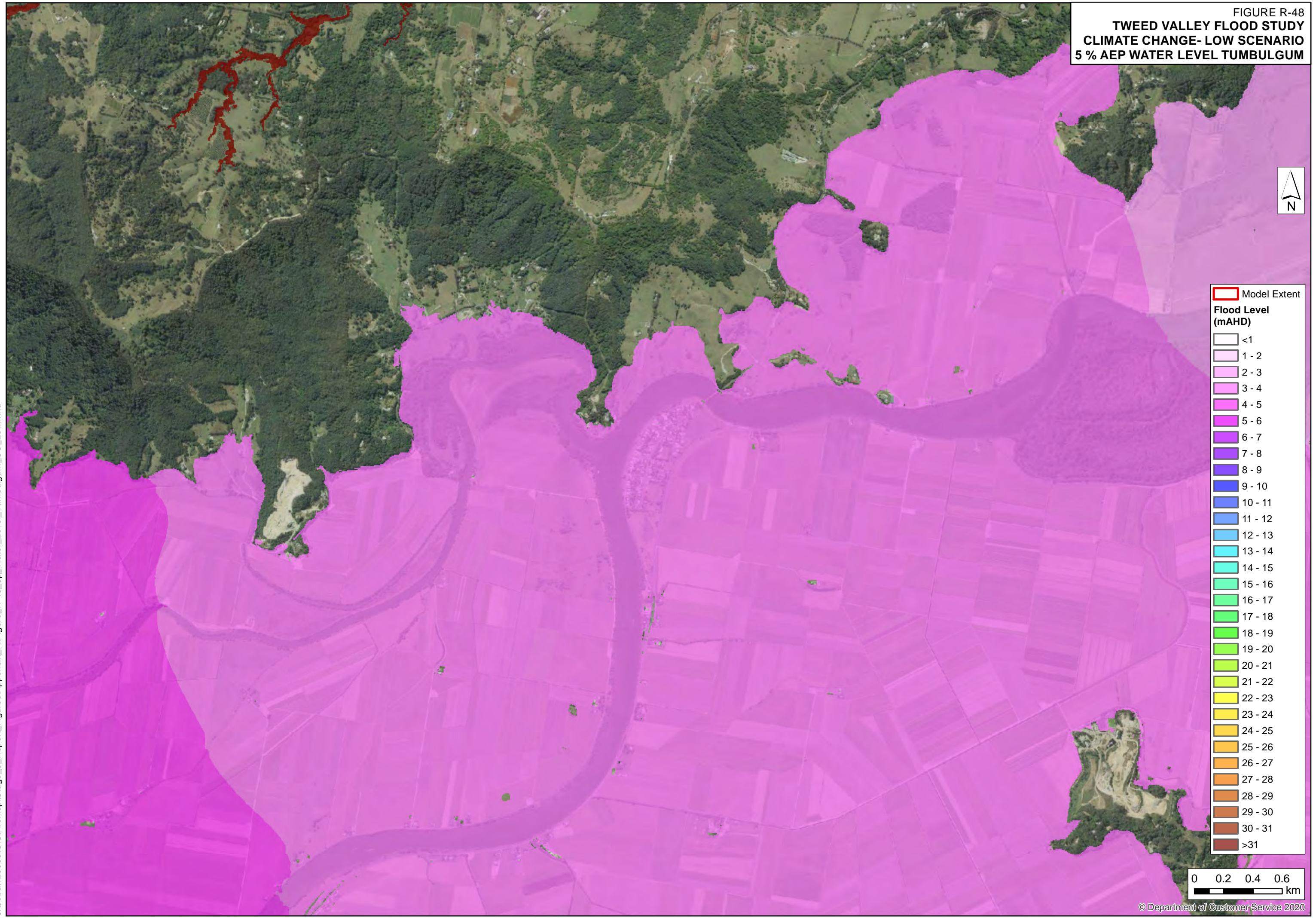
Flood Level (mAHD)

[White box]	<1
[Light pink box]	1 - 2
[Pink box]	2 - 3
[Light purple box]	3 - 4
[Purple box]	4 - 5
[Dark purple box]	5 - 6
[Blue-purple box]	6 - 7
[Blue box]	7 - 8
[Dark blue box]	8 - 9
[Medium blue box]	9 - 10
[Light blue box]	10 - 11
[Cyan box]	11 - 12
[Light cyan box]	12 - 13
[Cyan box]	13 - 14
[Light green box]	14 - 15
[Green box]	15 - 16
[Light green box]	16 - 17
[Green box]	17 - 18
[Light green box]	18 - 19
[Green box]	19 - 20
[Light green box]	20 - 21
[Yellow-green box]	21 - 22
[Yellow box]	22 - 23
[Light orange box]	23 - 24
[Orange box]	24 - 25
[Light orange box]	25 - 26
[Orange box]	26 - 27
[Light orange box]	27 - 28
[Orange box]	28 - 29
[Light orange box]	29 - 30
[Orange box]	30 - 31
[Dark orange box]	>31

0 0.4 0.8 km

I:\Jobs\120068\GIS\Map\Stage_3_Report_Figures\Appendix_R\Figure_R-47_5p_Water_Level_Murwillumbah_CC_Low.mxd

FIGURE R-48
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER LEVEL TUMBULGUM



Model Extent
Model Extent
Flood Level (mAHD)
<1
1 - 2
2 - 3
3 - 4
4 - 5
5 - 6
6 - 7
7 - 8
8 - 9
9 - 10
10 - 11
11 - 12
12 - 13
13 - 14
14 - 15
15 - 16
16 - 17
17 - 18
18 - 19
19 - 20
20 - 21
21 - 22
22 - 23
23 - 24
24 - 25
25 - 26
26 - 27
27 - 28
28 - 29
29 - 30
30 - 31
>31

0 0.2 0.4 0.6 km

FIGURE R-49
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER LEVEL CHILLINGHAM

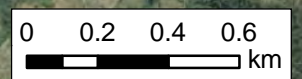
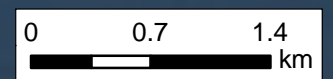


FIGURE R-50
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER LEVEL TWEED SOUTH



Chinderah



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-50_5p_Water_Level_Tweed_South_CC_Low.mxd

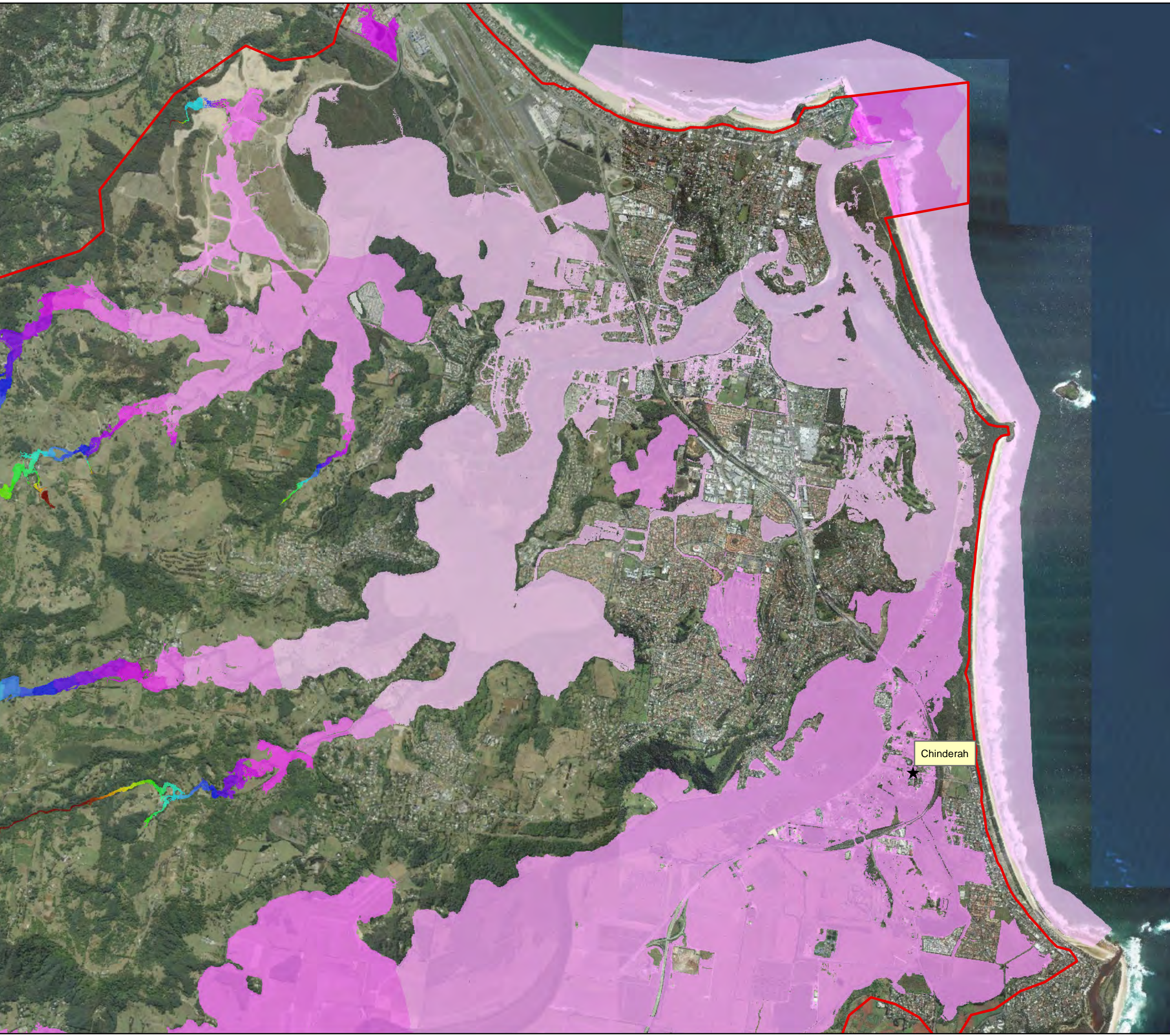
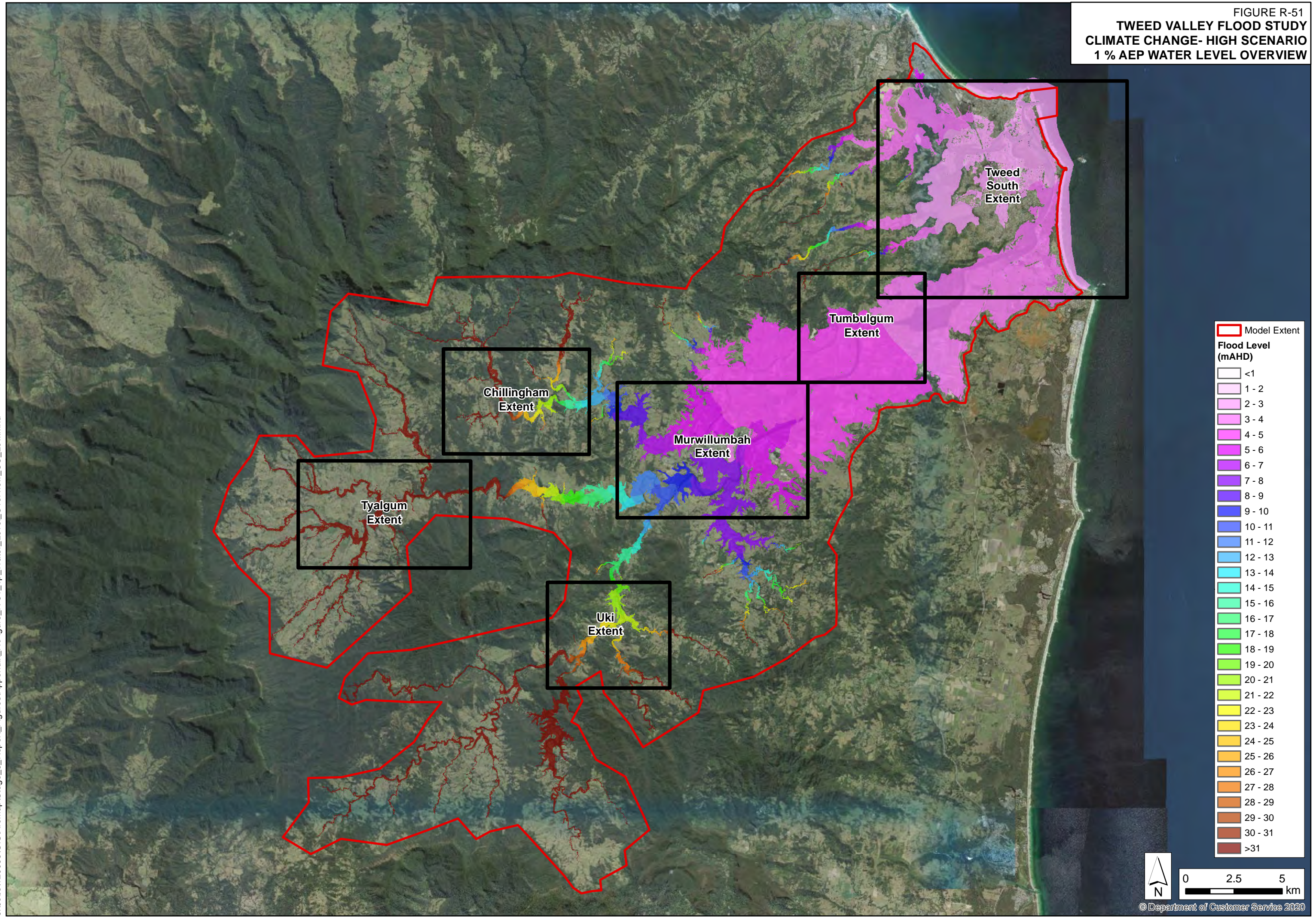


FIGURE R-51
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL OVERVIEW

J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-51_1p_Water_Level_Overview_CC_Low.mxd



Model Extent	
[Red Outline]	Model Extent
Flood Level (mAHD)	
[White]	<1
[Lightest Pink]	1 - 2
[Light Pink]	2 - 3
[Pink]	3 - 4
[Light Purple]	4 - 5
[Purple]	5 - 6
[Dark Purple]	6 - 7
[Blue-Purple]	7 - 8
[Blue]	8 - 9
[Dark Blue]	9 - 10
[Medium Blue]	10 - 11
[Light Blue]	11 - 12
[Cyan]	12 - 13
[Light Cyan]	13 - 14
[Green-Cyan]	14 - 15
[Green]	15 - 16
[Light Green]	16 - 17
[Yellow-Green]	17 - 18
[Yellow]	18 - 19
[Light Yellow]	19 - 20
[Yellow-Orange]	20 - 21
[Orange]	21 - 22
[Light Orange]	22 - 23
[Orange]	23 - 24
[Dark Orange]	24 - 25
[Red-Orange]	25 - 26
[Red]	26 - 27
[Dark Red]	27 - 28
[Very Dark Red]	28 - 29
[Dark Red]	29 - 30
[Dark Red]	30 - 31
[Dark Red]	>31


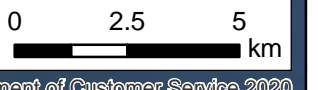
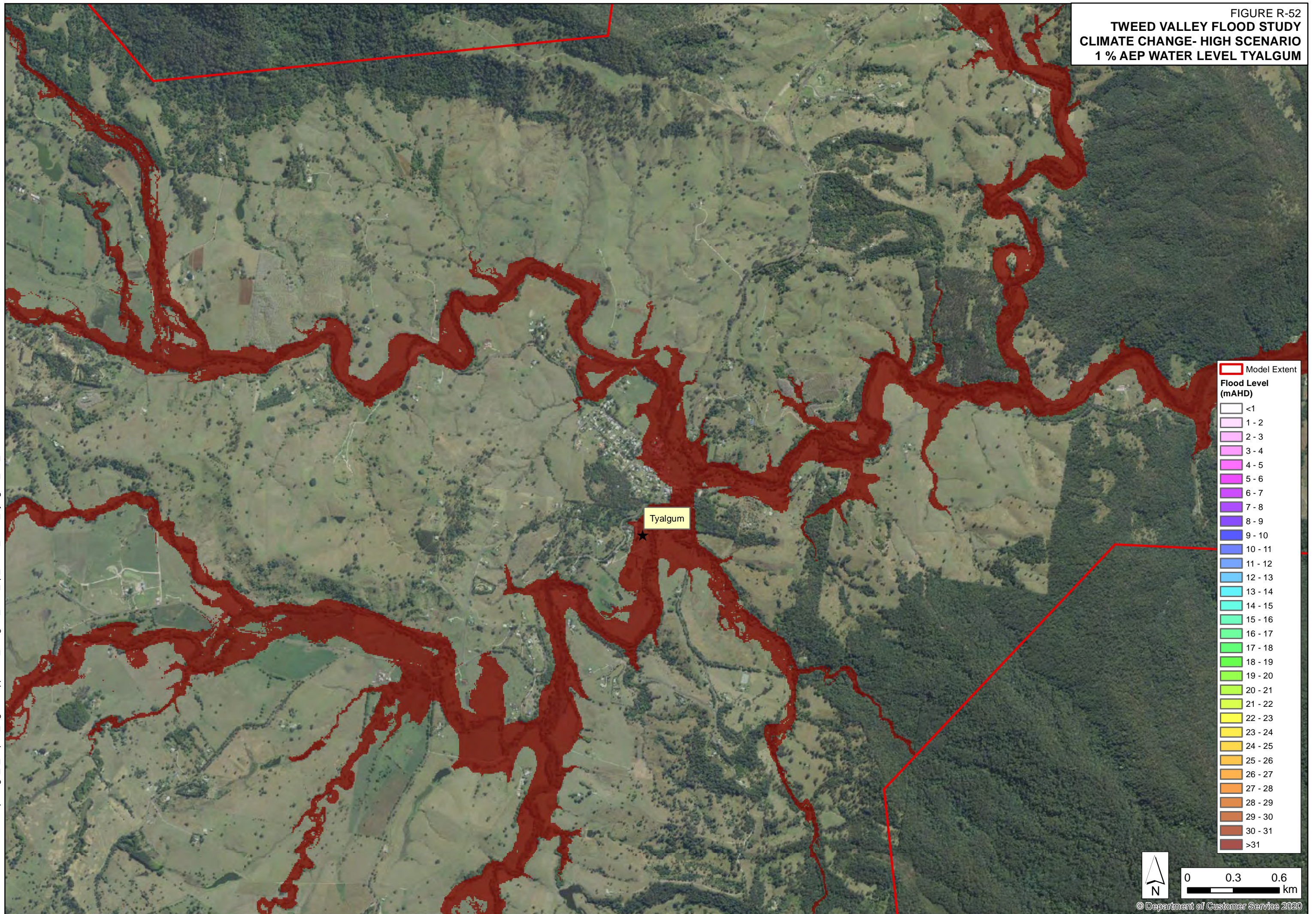



FIGURE R-52
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL TYALGUM



J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-52_1p_Water_Level_Tyalgum_CC_Low.mxd

FIGURE R-53
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL UKI

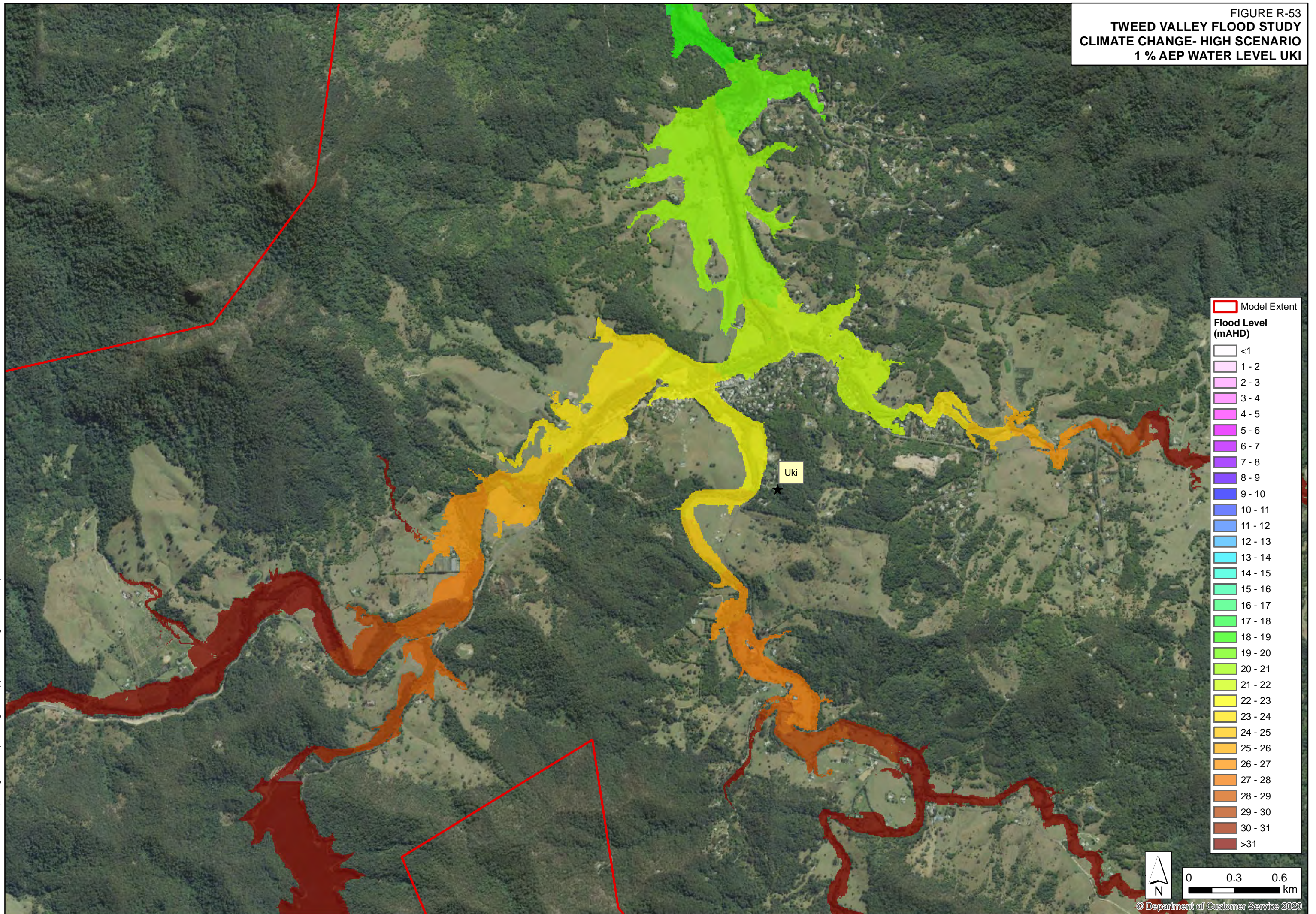
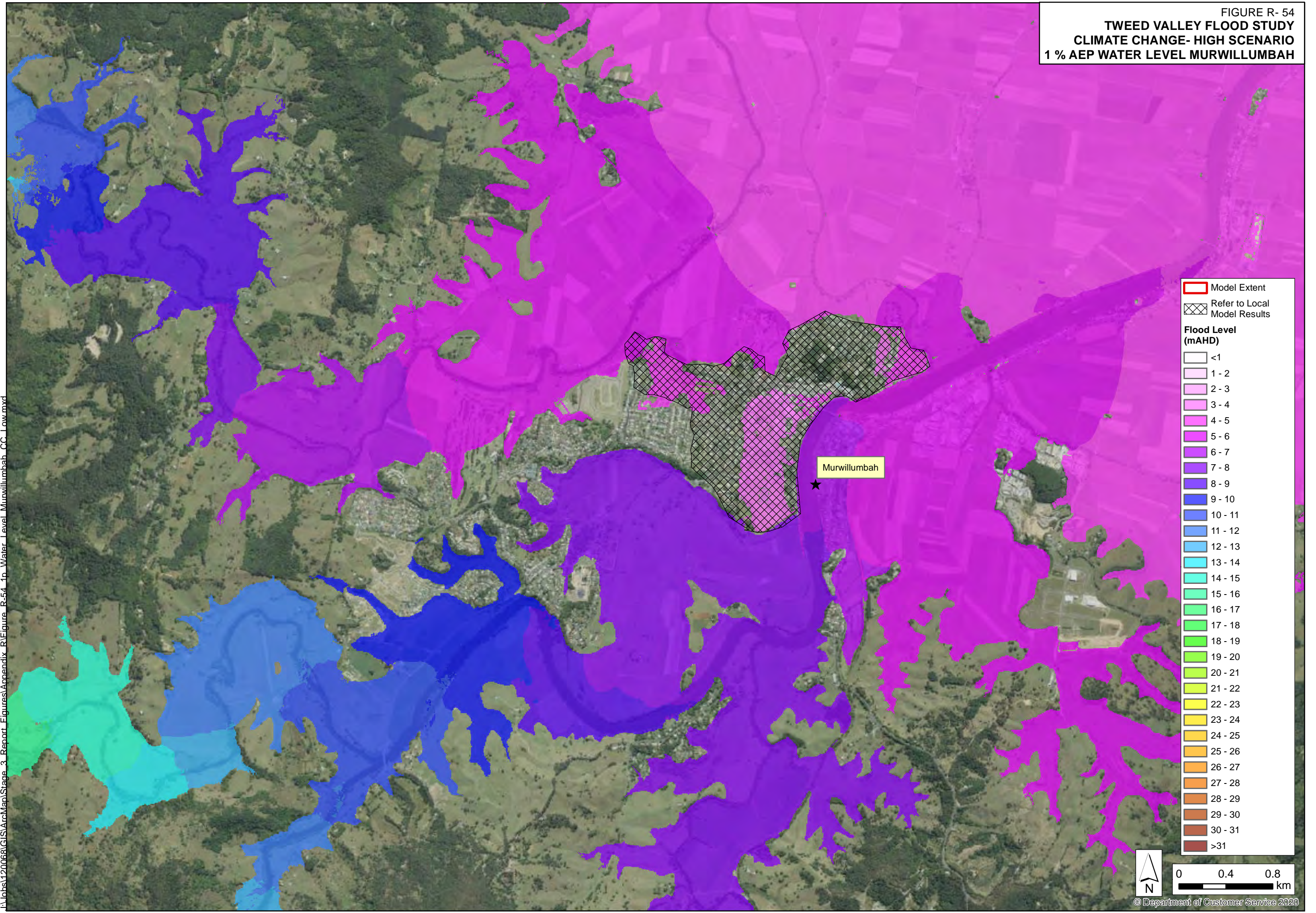


FIGURE R- 54
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL MURWILLUMBAH



Model Extent
 Model Extent

Refer to Local Model Results
 Refer to Local Model Results

Flood Level (mAHD)

	<1
	1 - 2
	2 - 3
	3 - 4
	4 - 5
	5 - 6
	6 - 7
	7 - 8
	8 - 9
	9 - 10
	10 - 11
	11 - 12
	12 - 13
	13 - 14
	14 - 15
	15 - 16
	16 - 17
	17 - 18
	18 - 19
	19 - 20
	20 - 21
	21 - 22
	22 - 23
	23 - 24
	24 - 25
	25 - 26
	26 - 27
	27 - 28
	28 - 29
	29 - 30
	30 - 31
	>31

N

0 0.4 0.8 km

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\\jobs\120068\GIS\MapStage_3_Report_Figures\Appendix_R\Figure_R-54_1p_Water_Level_Murwillumbah_CC_Low.mxd

FIGURE R-55
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL TUMBULGUM

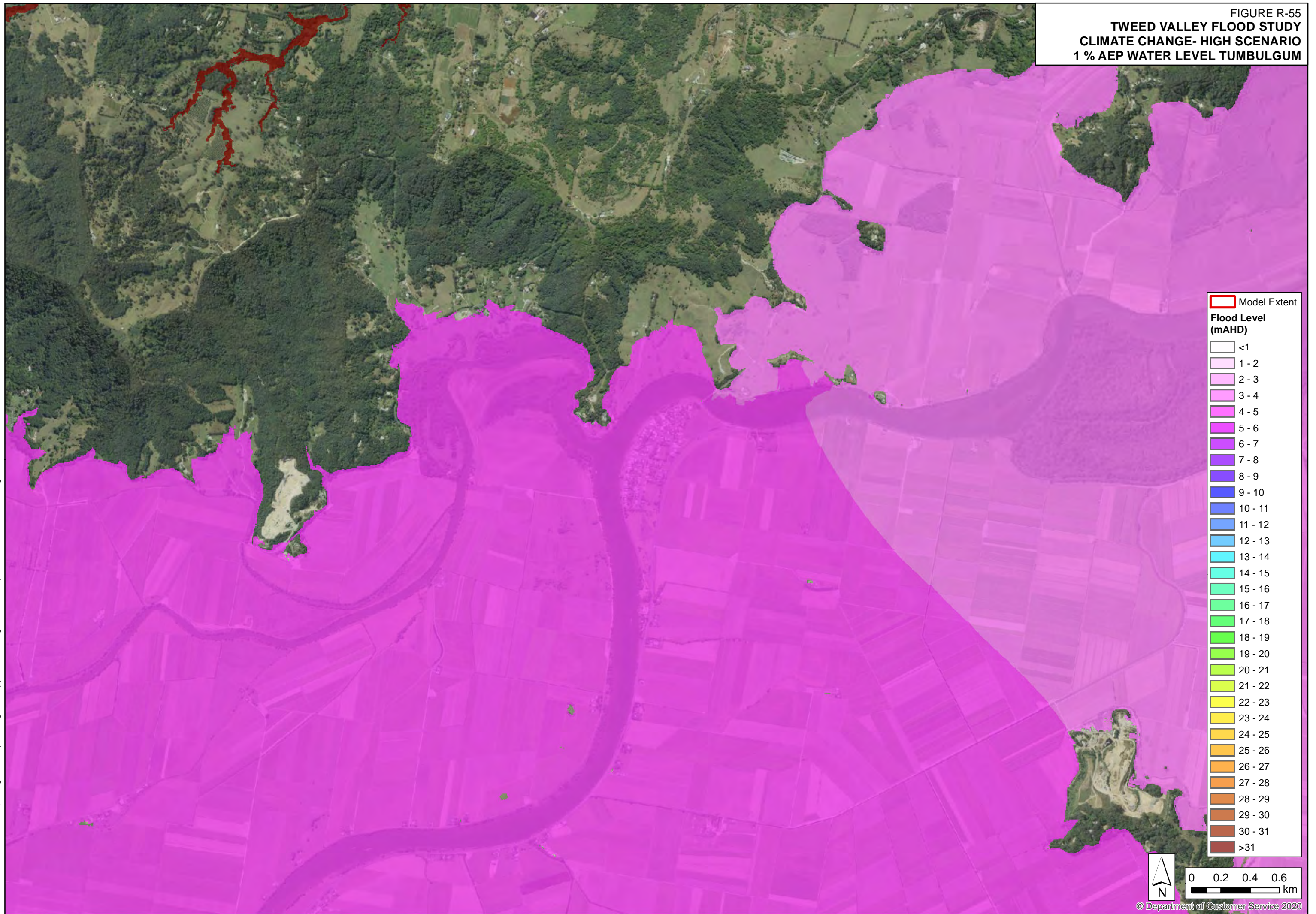
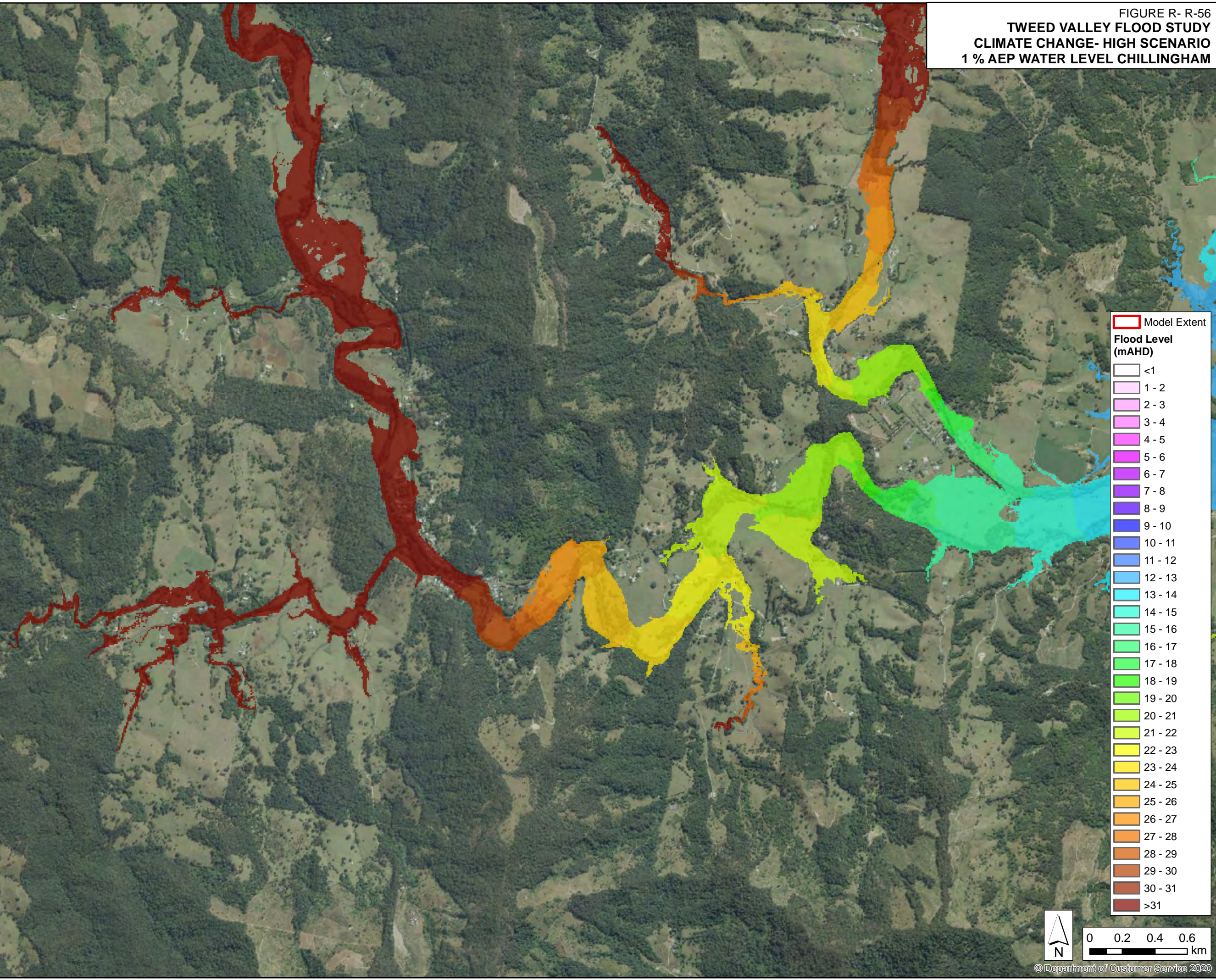


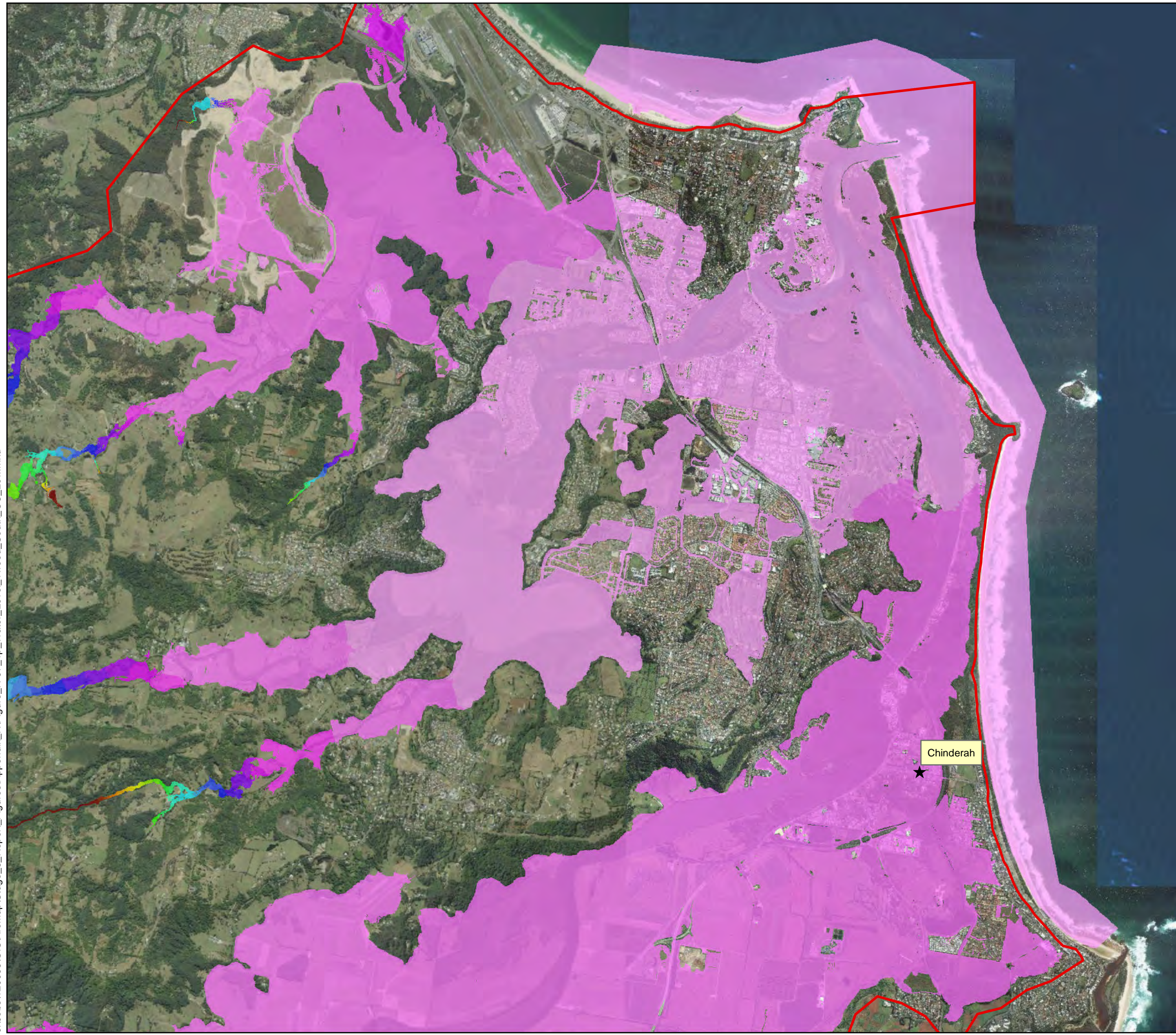
FIGURE R- R-56
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL CHILLINGHAM



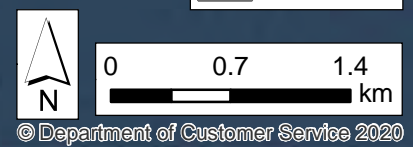
Model Extent	
[Red outline]	Model Extent
Flood Level (mAHW)	
[White]	<1
[Lightest pink]	1 - 2
[Light pink]	2 - 3
[Pink]	3 - 4
[Light purple]	4 - 5
[Purple]	5 - 6
[Dark purple]	6 - 7
[Violet]	7 - 8
[Blue-violet]	8 - 9
[Blue]	9 - 10
[Light blue]	10 - 11
[Medium blue]	11 - 12
[Dark blue]	12 - 13
[Cyan]	13 - 14
[Light cyan]	14 - 15
[Green-cyan]	15 - 16
[Light green]	16 - 17
[Green]	17 - 18
[Yellow-green]	18 - 19
[Yellow]	19 - 20
[Light yellow]	20 - 21
[Yellow-orange]	21 - 22
[Yellow]	22 - 23
[Orange-yellow]	23 - 24
[Orange]	24 - 25
[Dark orange]	25 - 26
[Red-orange]	26 - 27
[Red]	27 - 28
[Dark red]	28 - 29
[Brownish-red]	29 - 30
[Dark brown]	30 - 31
[Black]	>31

0 0.2 0.4 0.6 km

FIGURE R-57
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP WATER LEVEL TWEED SOUTH

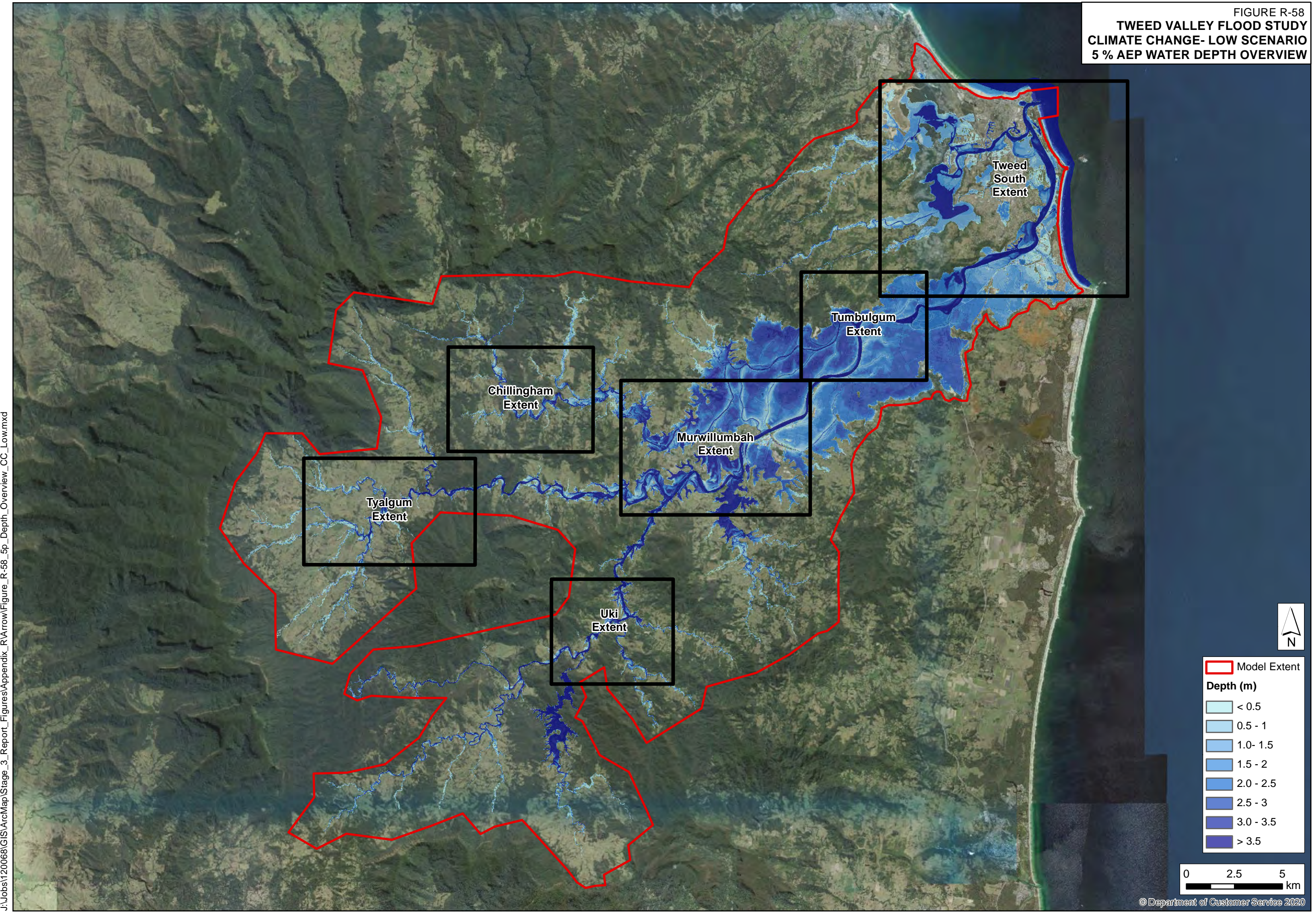


Chinderah



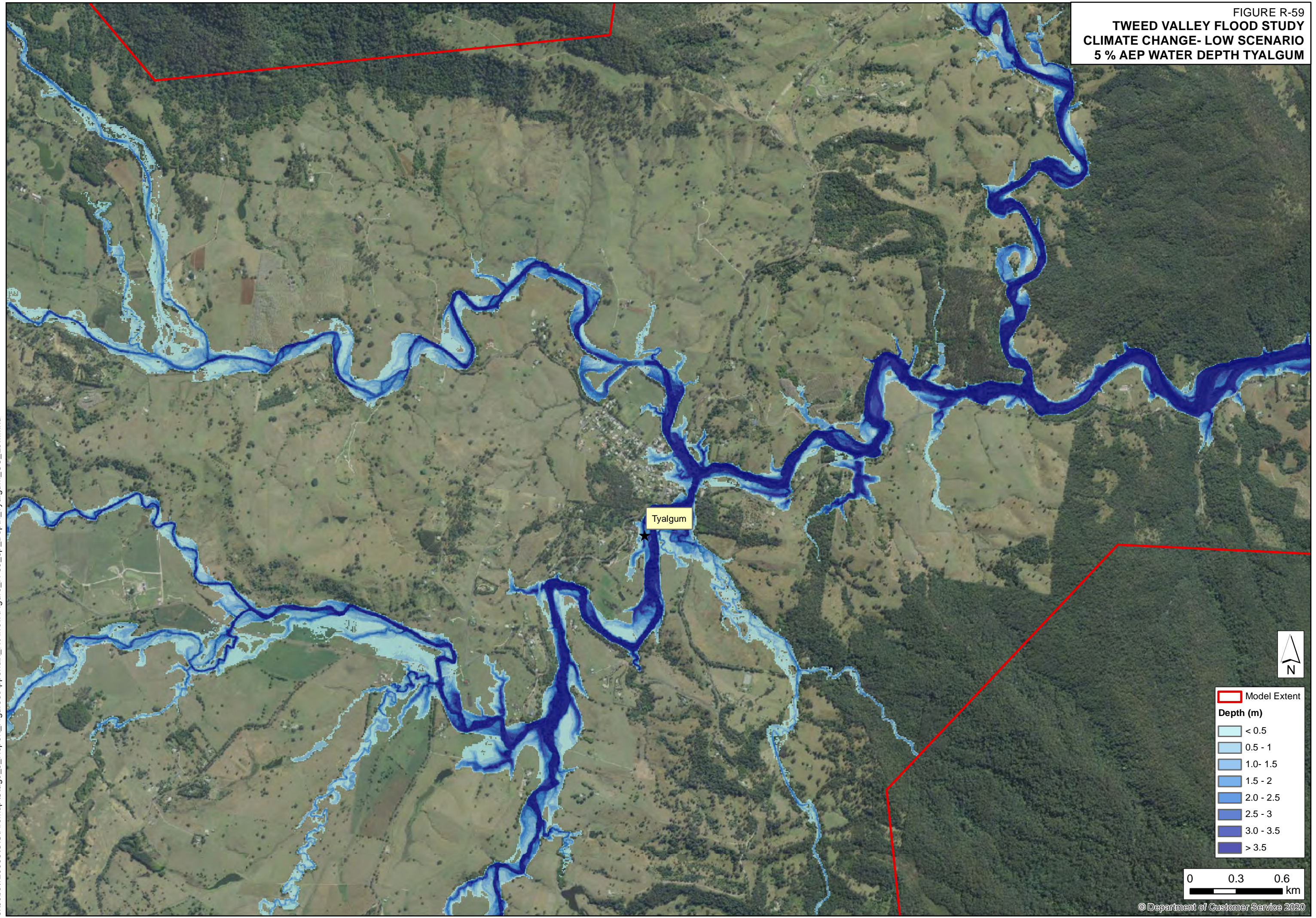
J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Figure_R-57_1p_Water_Level_Tweed_South_CC_Low.mxd

FIGURE R-58
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER DEPTH OVERVIEW



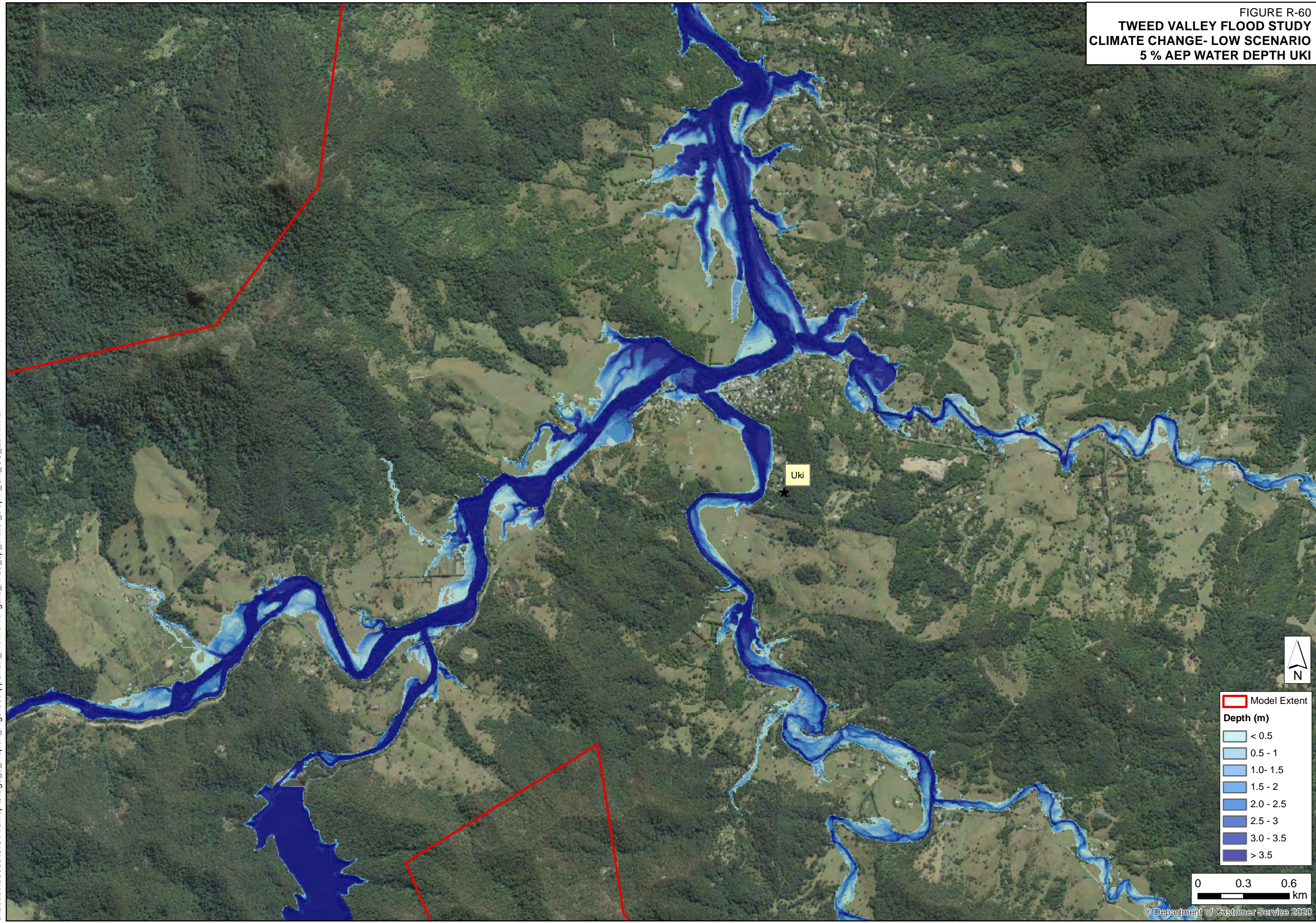
J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-58_5p_Depth_Overview_CC_Low.mxd

FIGURE R-59
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER DEPTH TYALGUM



J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-59_5p_Depth_Tyalgum_CC_Low.mxd

FIGURE R-60
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER DEPTH UKI



Model Extent

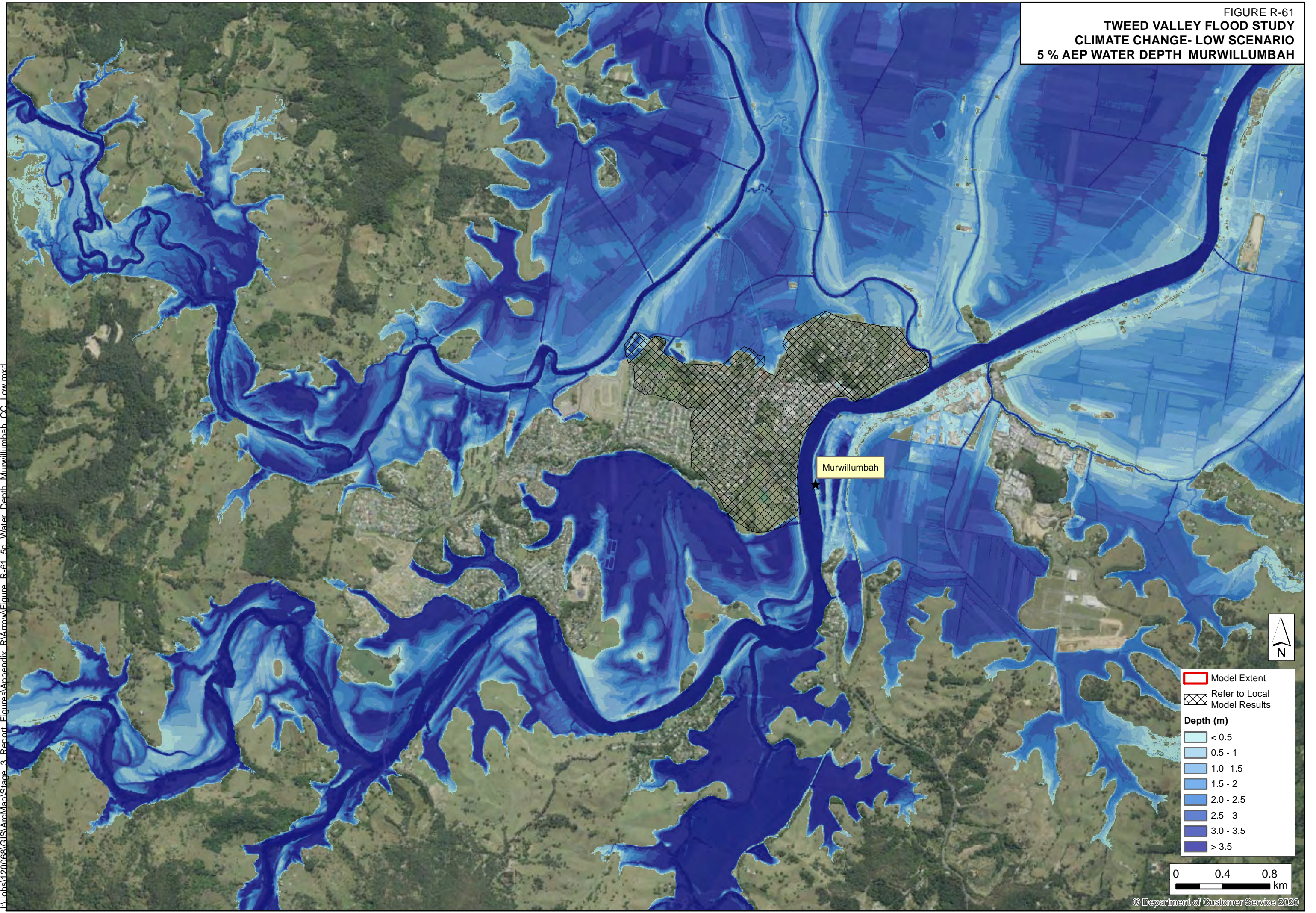
Depth (m)

- < 0.5
- 0.5 - 1
- 1.0 - 1.5
- 1.5 - 2
- 2.0 - 2.5
- 2.5 - 3
- 3.0 - 3.5
- > 3.5

0 0.3 0.6 km

J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-60_5p_Water_Depth_Uki_CC_Low.mxd

FIGURE R-61
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER DEPTH MURWILLUMBAH



Model Extent
Refer to Local Model Results

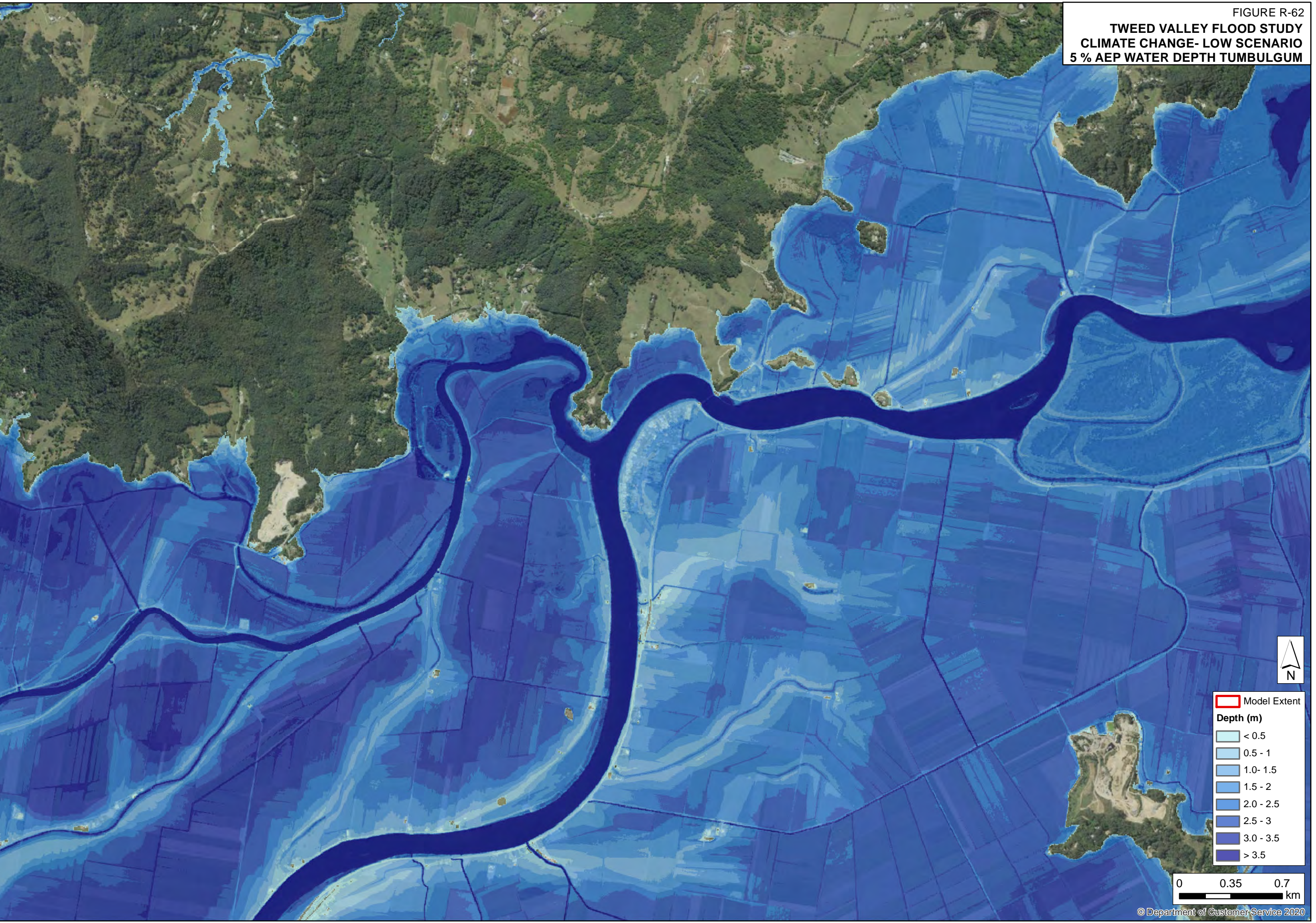
Depth (m)










< 0.5
0.5 - 1
1.0 - 1.5
1.5 - 2
2.0 - 2.5
2.5 - 3
3.0 - 3.5
> 3.5

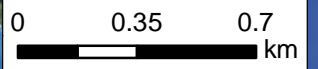
0 0.4 0.8 km

I:\Jobs\120068\GIS\Map\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-61_5p_Water_Depth_Murwillumbah_CC_Low.mxd

FIGURE R-62
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER DEPTH TUMBULGUM

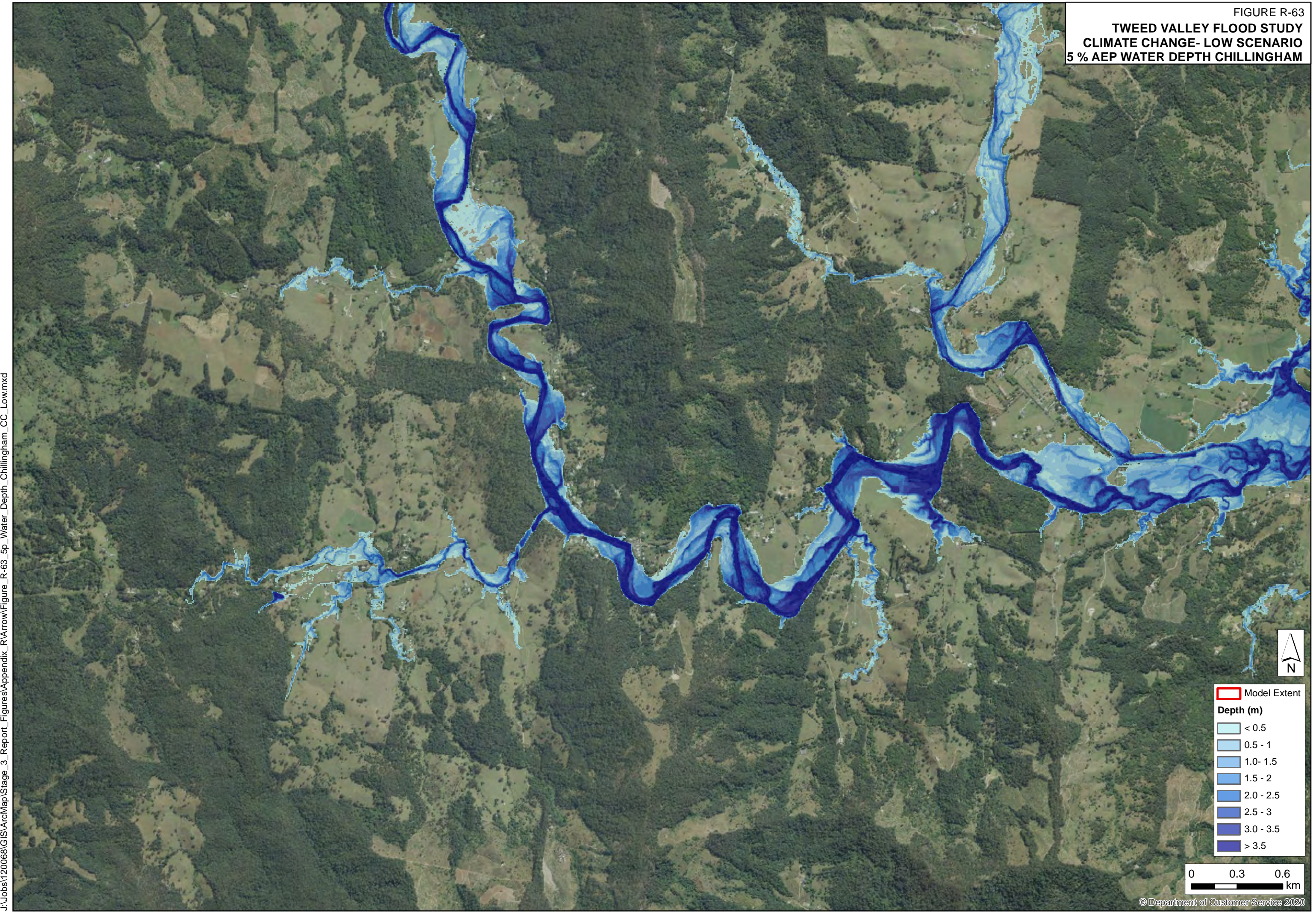


	Model Extent
Depth (m)	
	< 0.5
	0.5 - 1
	1.0 - 1.5
	1.5 - 2
	2.0 - 2.5
	2.5 - 3
	3.0 - 3.5
	> 3.5



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FIGURE R-63
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER DEPTH CHILLINGHAM



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FIGURE R-64
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER DEPTH TWEED SOUTH



Model Extent

Depth (m)

- < 0.5
- 0.5 - 1
- 1.0 - 1.5
- 1.5 - 2
- 2.0 - 2.5
- 2.5 - 3
- 3.0 - 3.5
- > 3.5

0 0.7 1.4 km

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FIGURE R-65
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER DEPTH OVERVIEW

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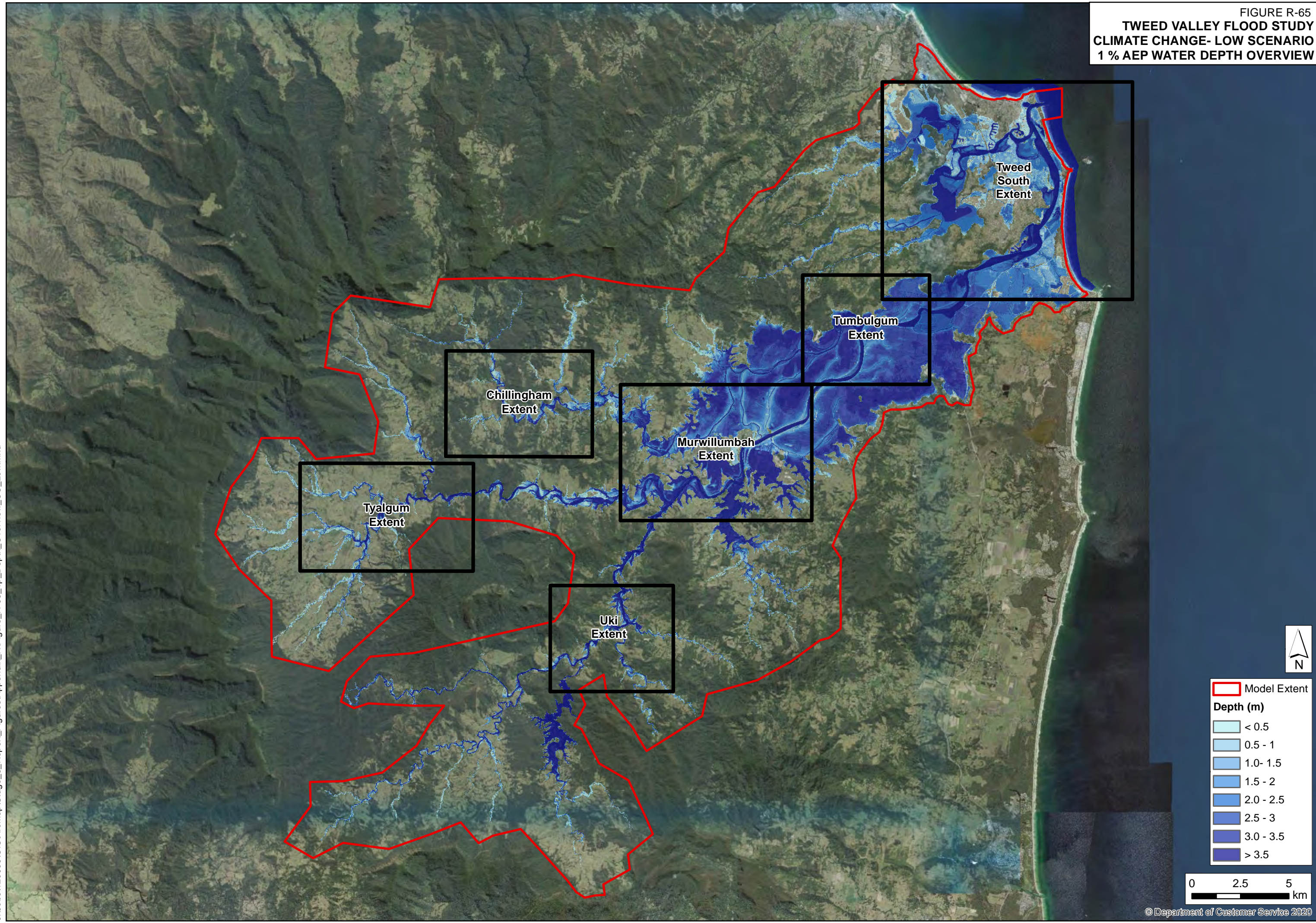


FIGURE R-66
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER DEPTH TYALGUM

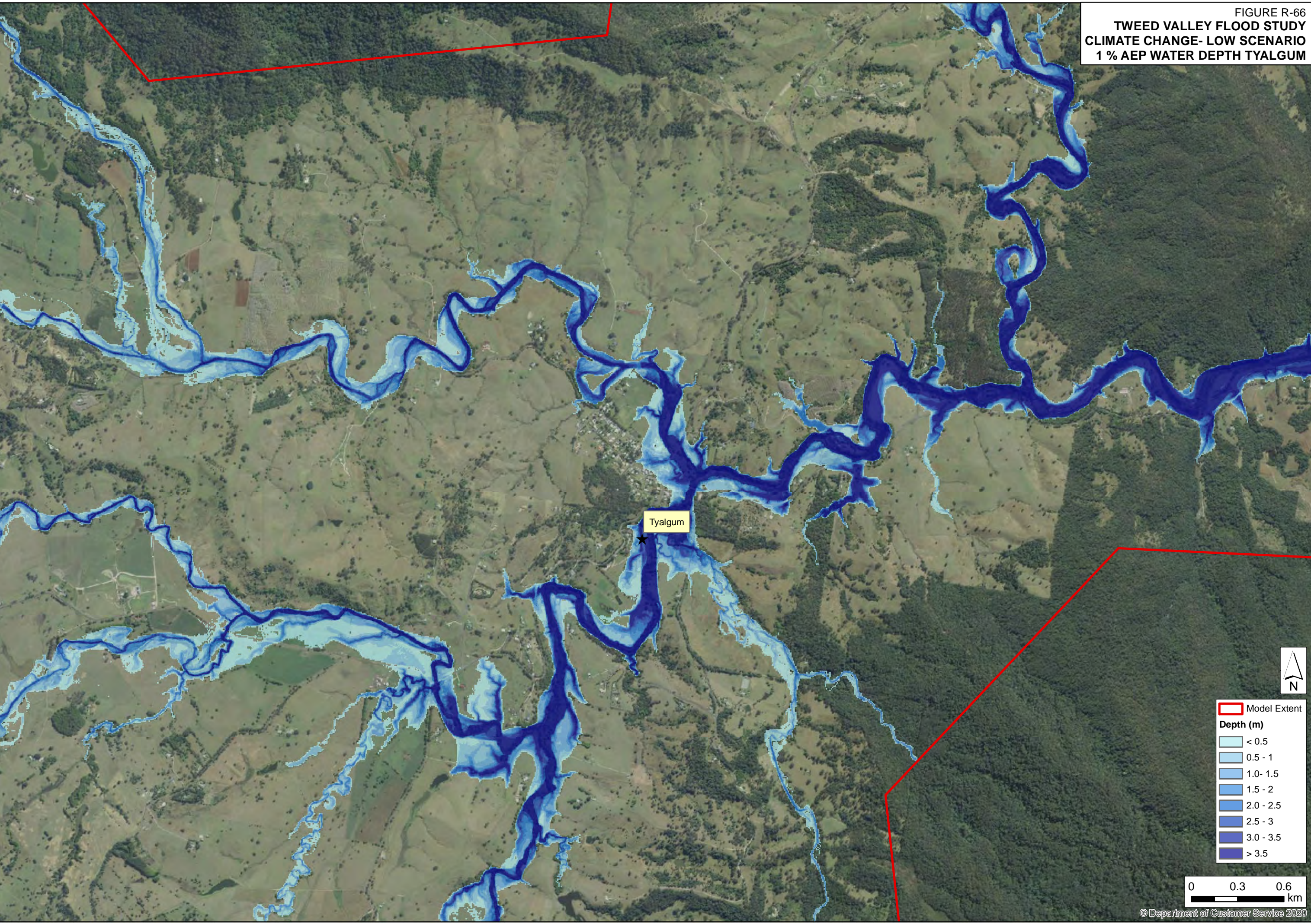
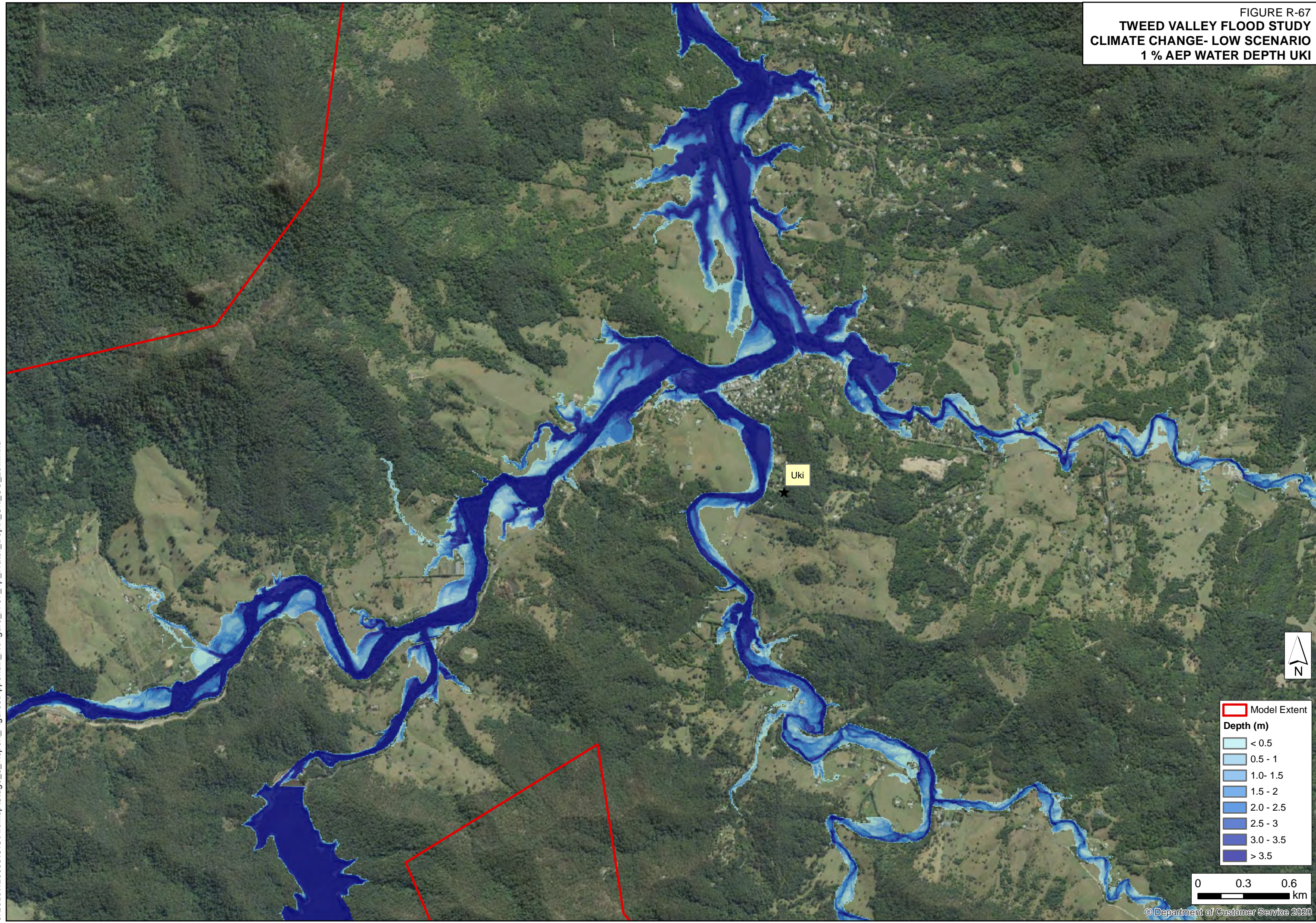


FIGURE R-67
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER DEPTH UKI



Model Extent

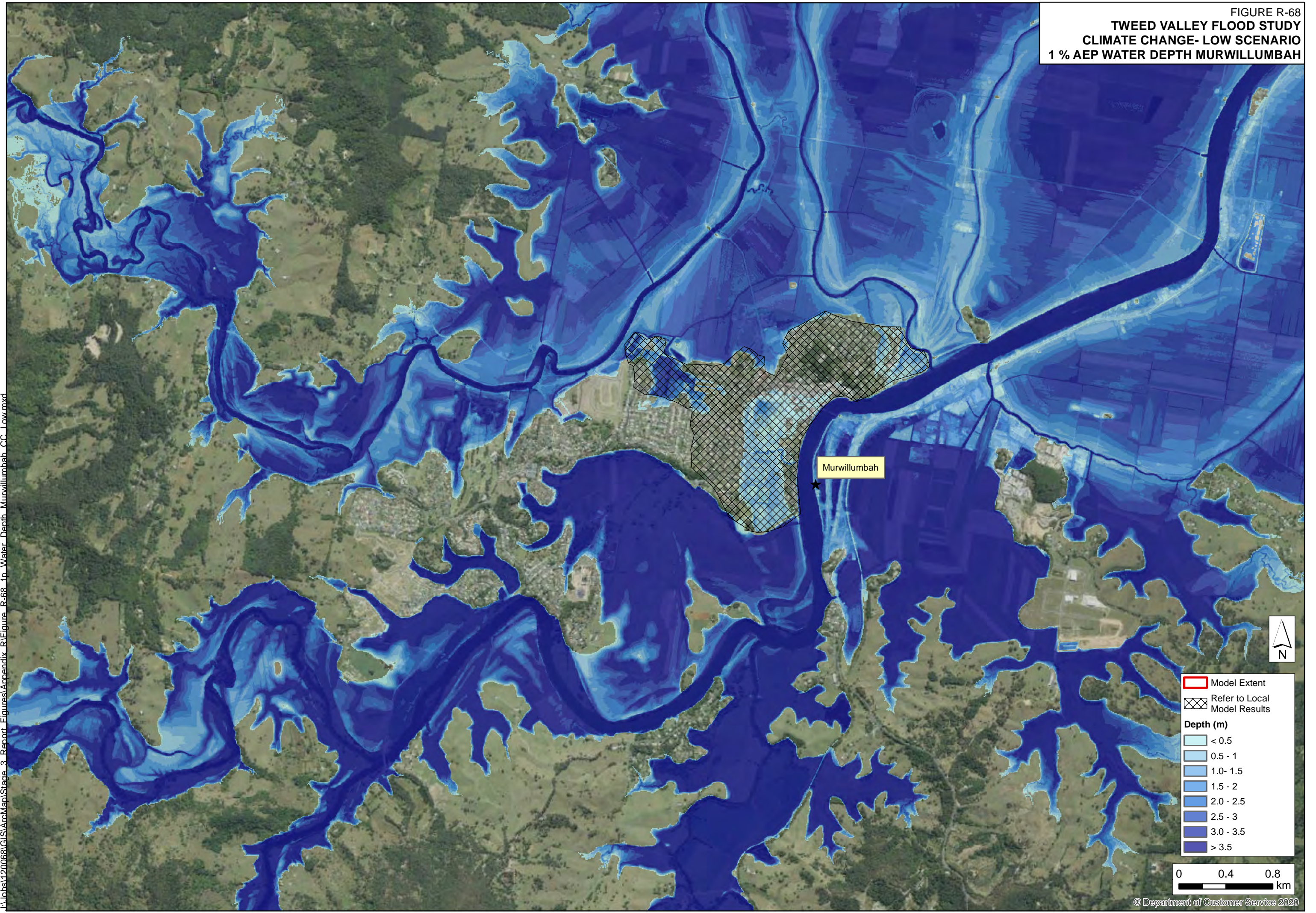
Depth (m)

- < 0.5
- 0.5 - 1
- 1.0 - 1.5
- 1.5 - 2
- 2.0 - 2.5
- 2.5 - 3
- 3.0 - 3.5
- > 3.5

0 0.3 0.6 km

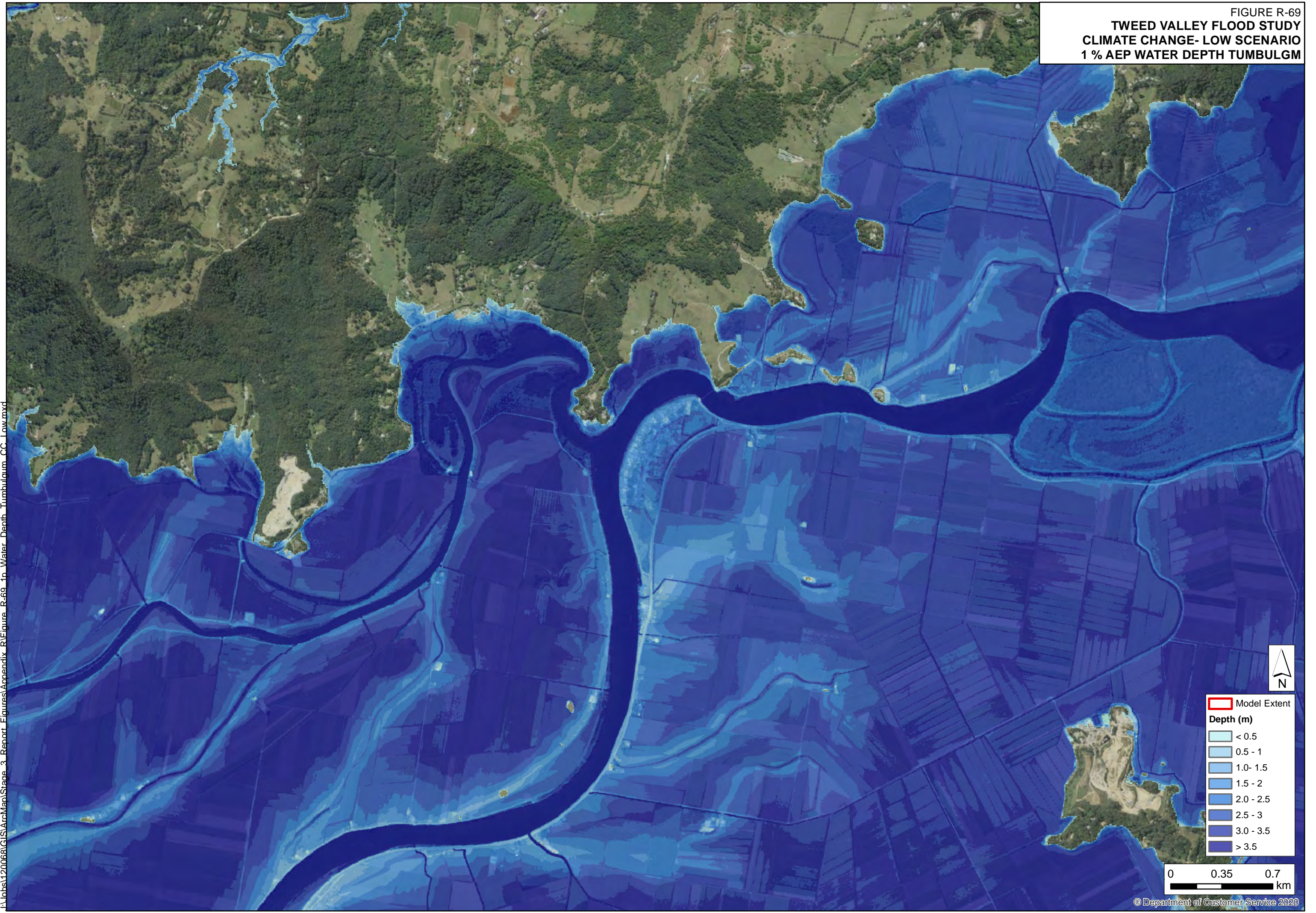
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FIGURE R-68
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER DEPTH MURWILLUMBAH



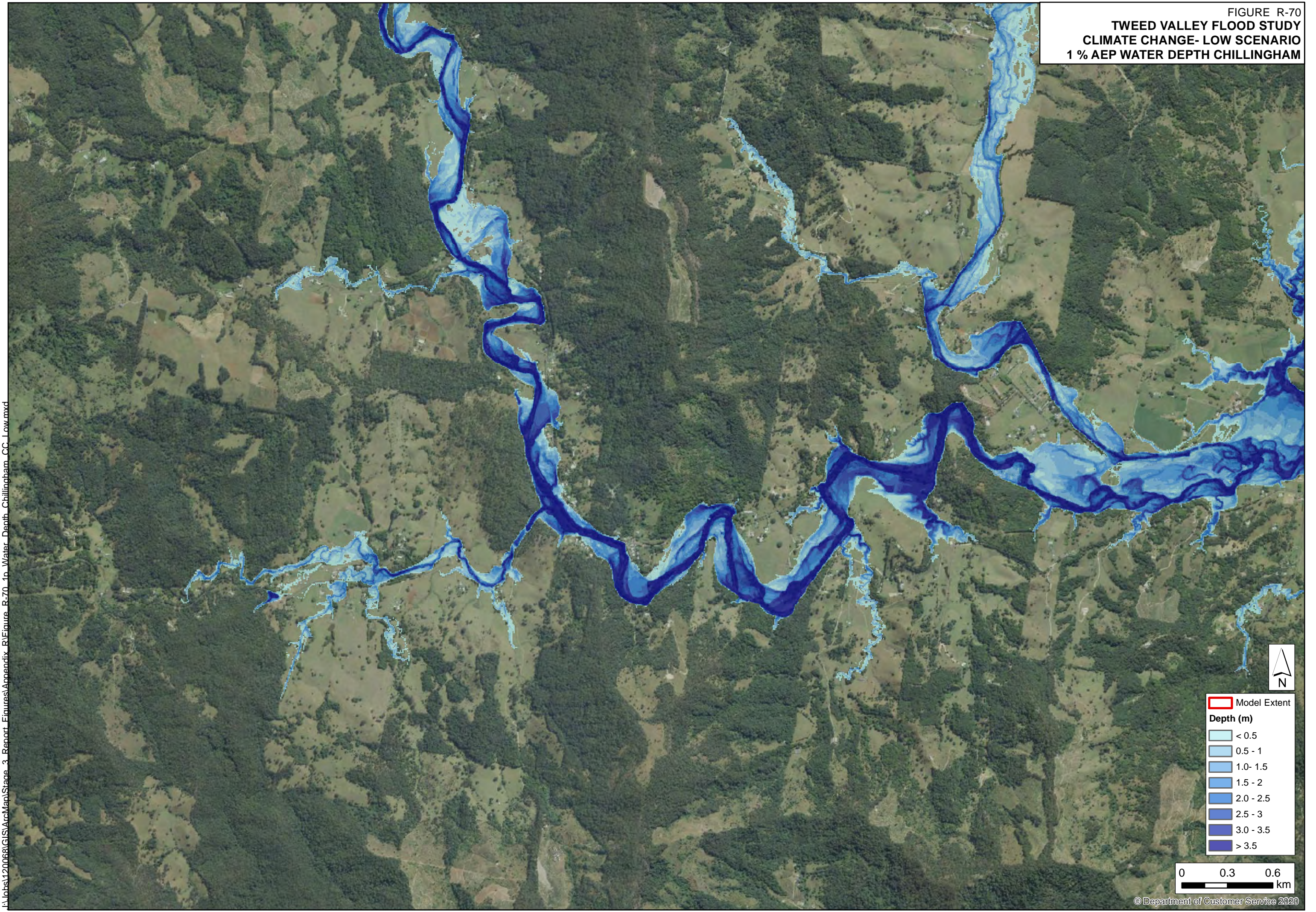
\\jobs\120068\GIS\MapStage_3_Report_Figures\Appendix_R\Figure_R-68_1p_Water_Depth_Murwillumbah_CC_Low.mxd

FIGURE R-69
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER DEPTH TUMBULGM



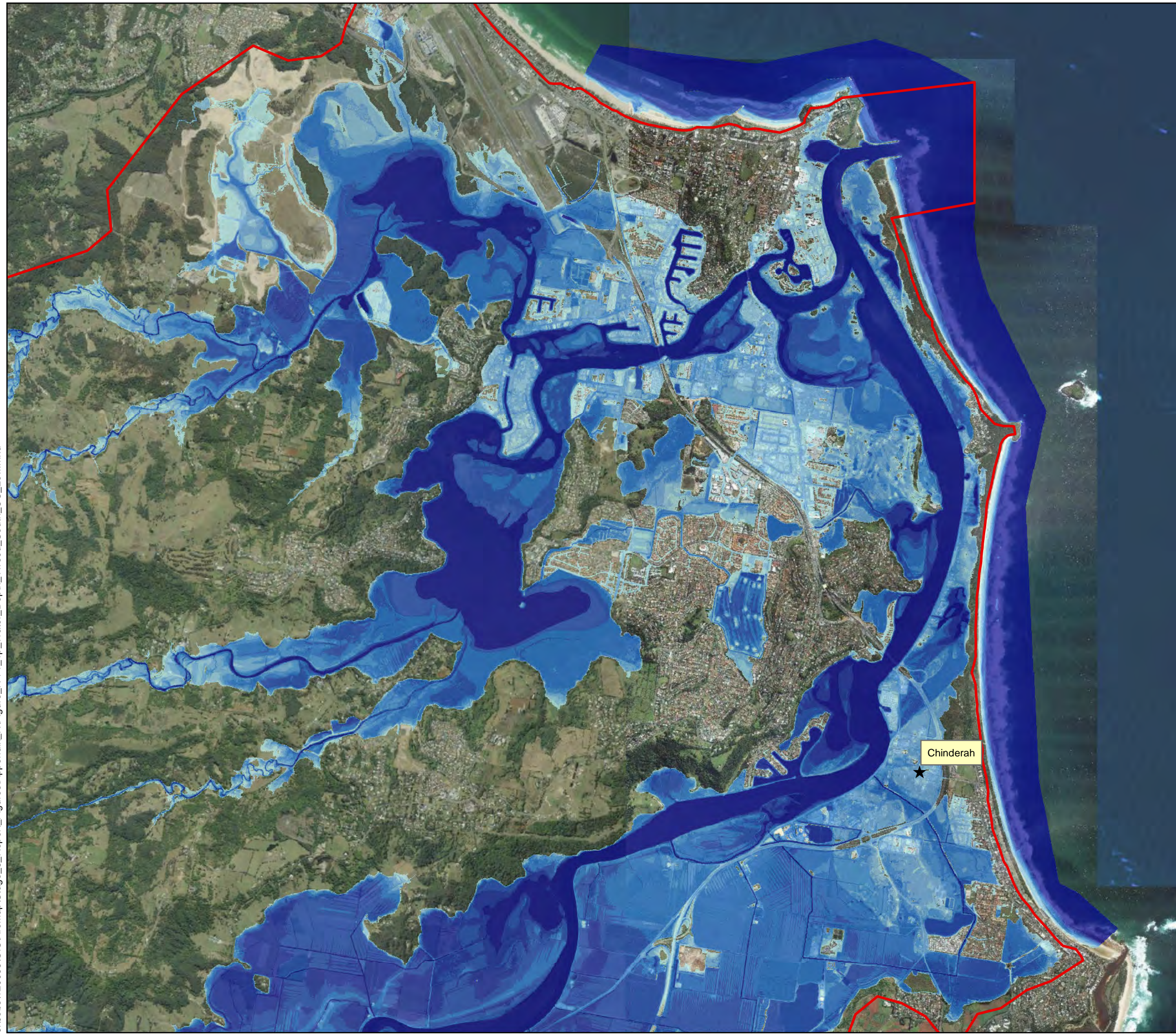
\\jobs\120068\GIS\Map\Stage_3_Report_Figures\Appendix R\Figure_R-69_1p_Water_Depth_Tumbulgm_CC_Low.mxd


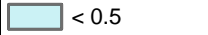
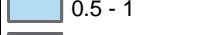
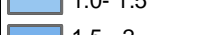
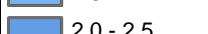
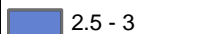
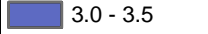
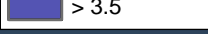

FIGURE R-70
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER DEPTH CHILLINGHAM

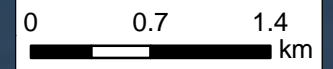


\\jobs\120068\GIS\MapStage_3_Report_Figures\Appendix R\Figure_R-70_1p_Water_Depth_Chillingham_CC_Low.mxd

FIGURE R-71
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER DEPTH TWEED SOUTH

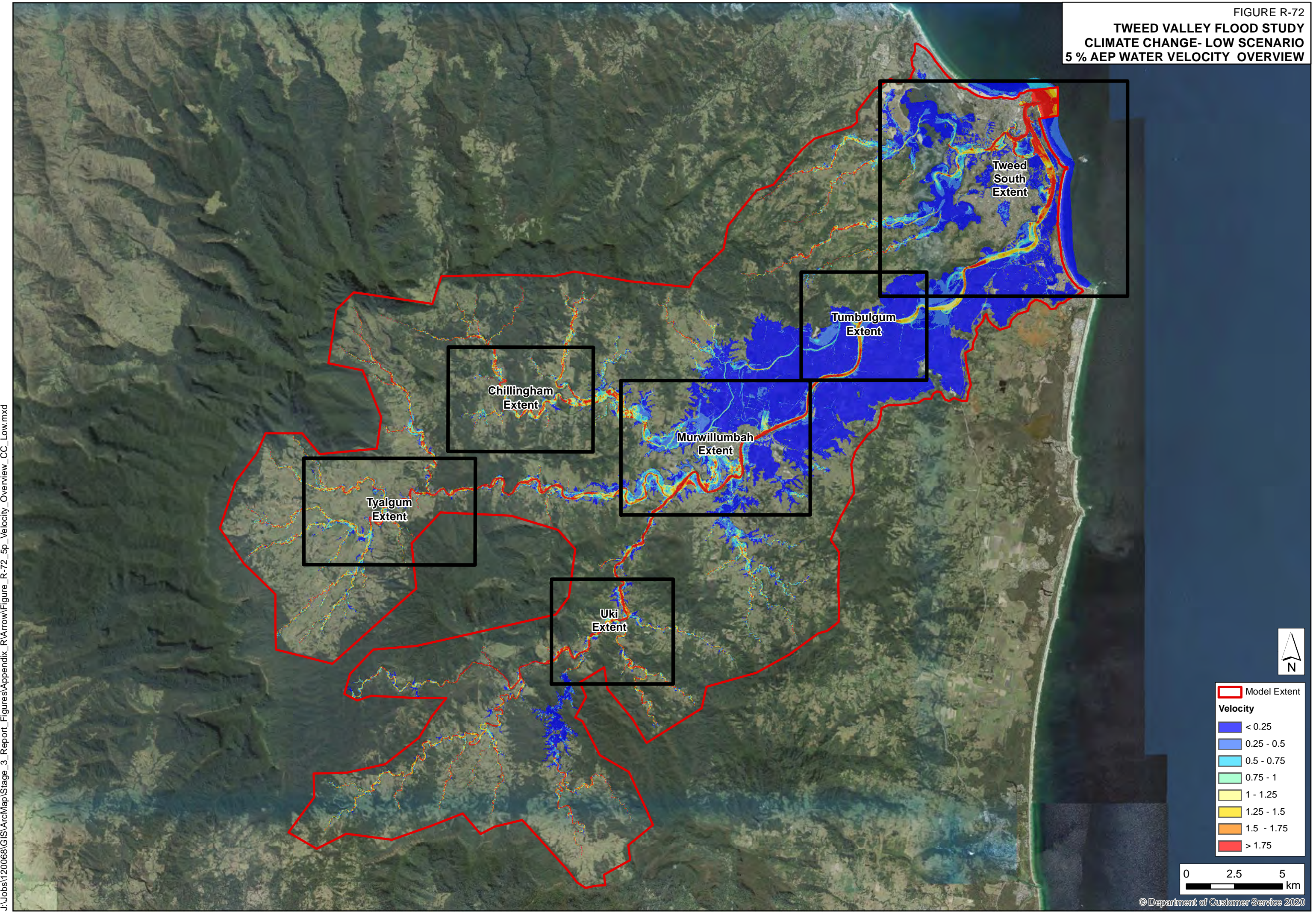


	Model Extent
Depth (m)	
	< 0.5
	0.5 - 1
	1.0 - 1.5
	1.5 - 2
	2.0 - 2.5
	2.5 - 3
	3.0 - 3.5
	> 3.5



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FIGURE R-72
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER VELOCITY OVERVIEW



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FIGURE R-73
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER VELOCITY TYALGUM

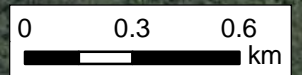
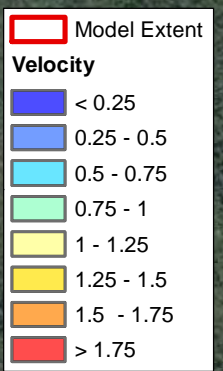
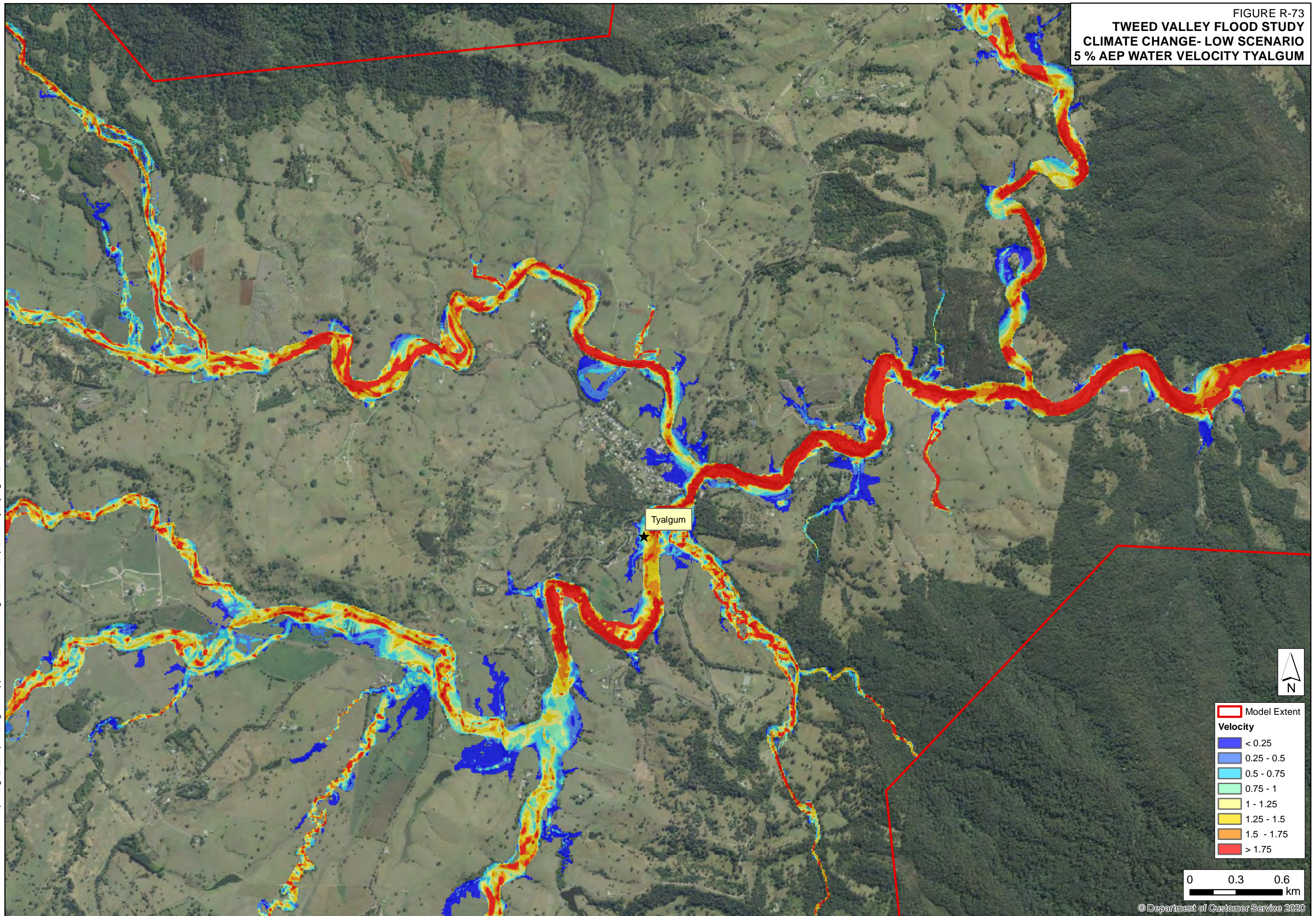
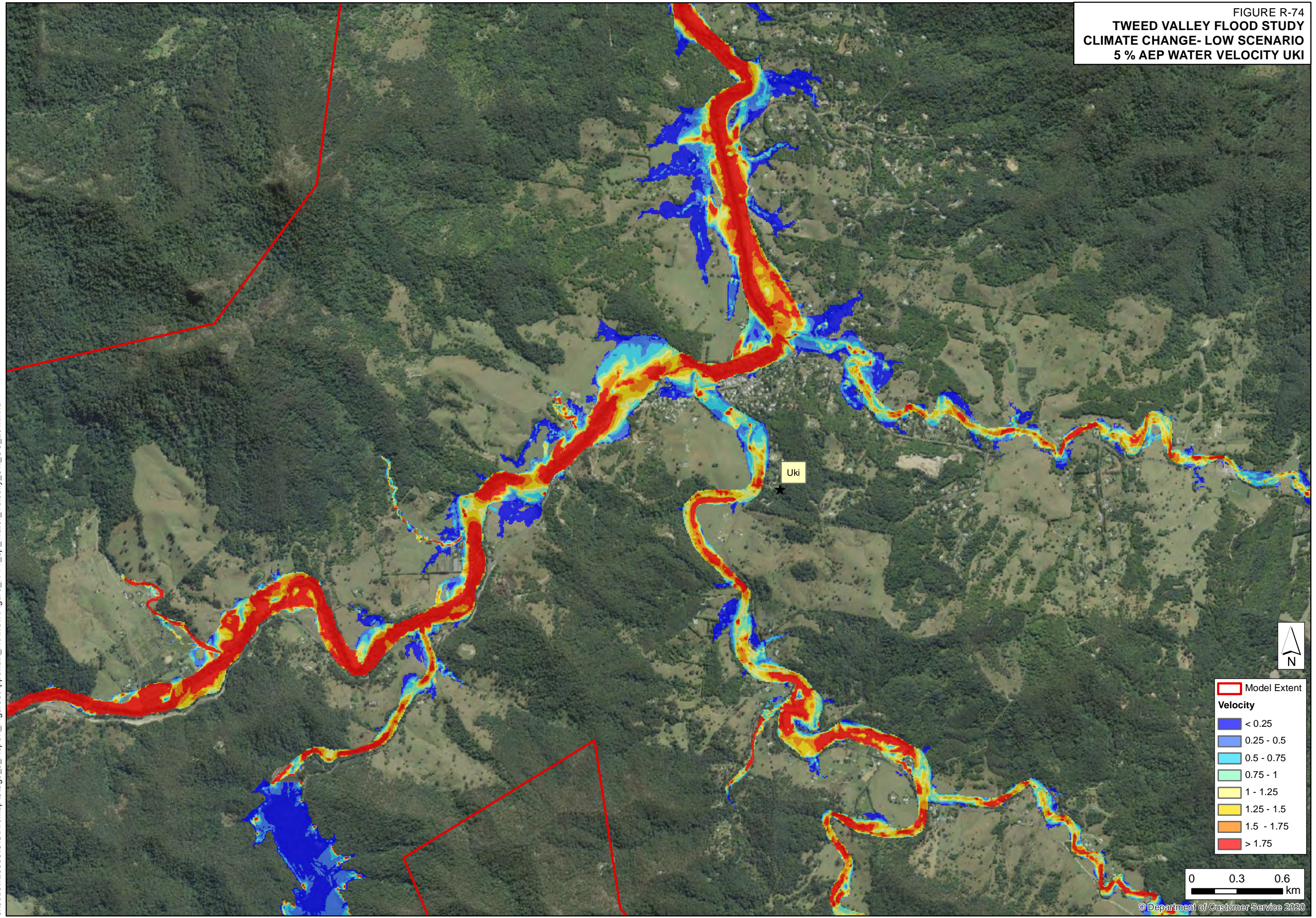
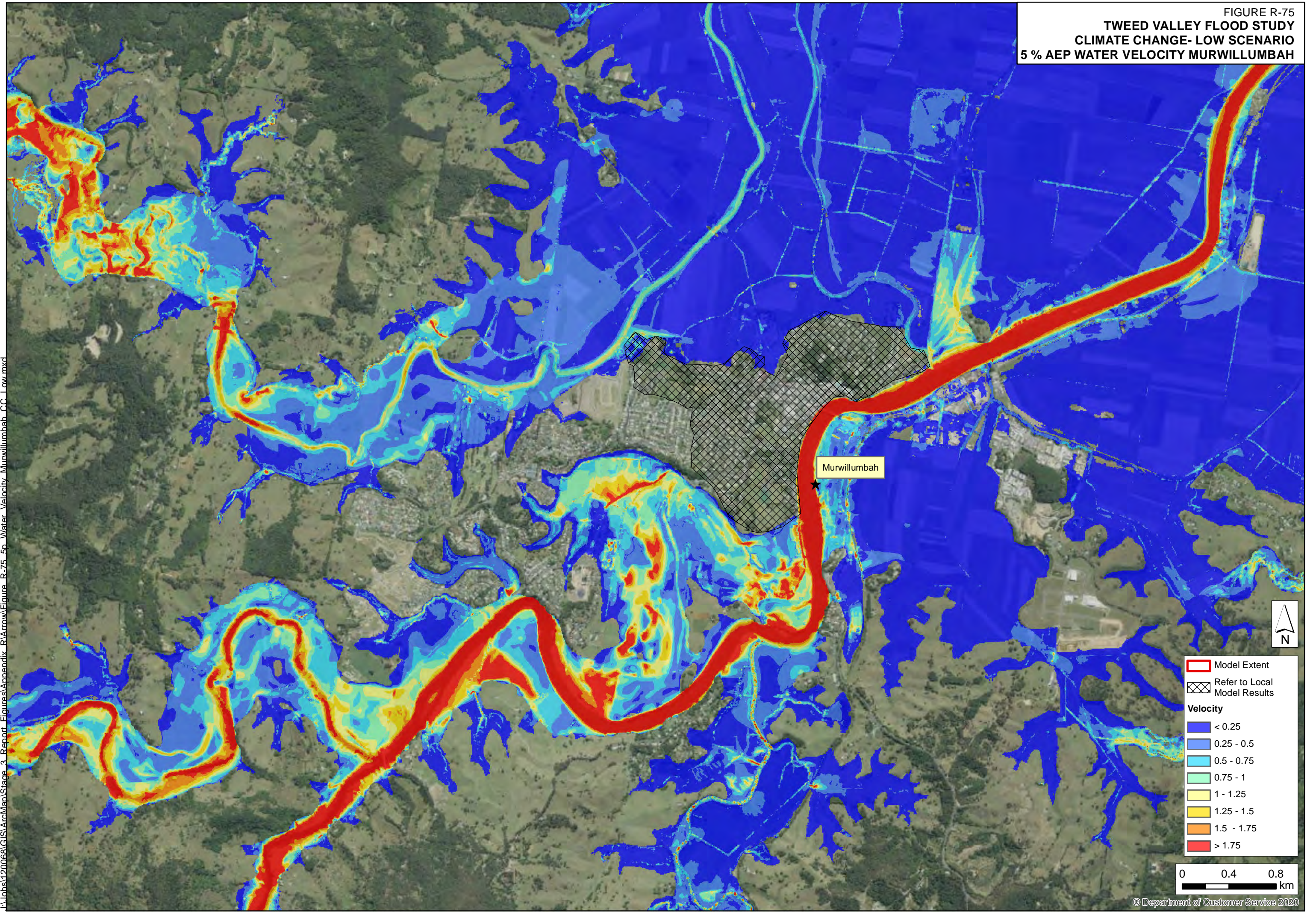


FIGURE R-74
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER VELOCITY UKI



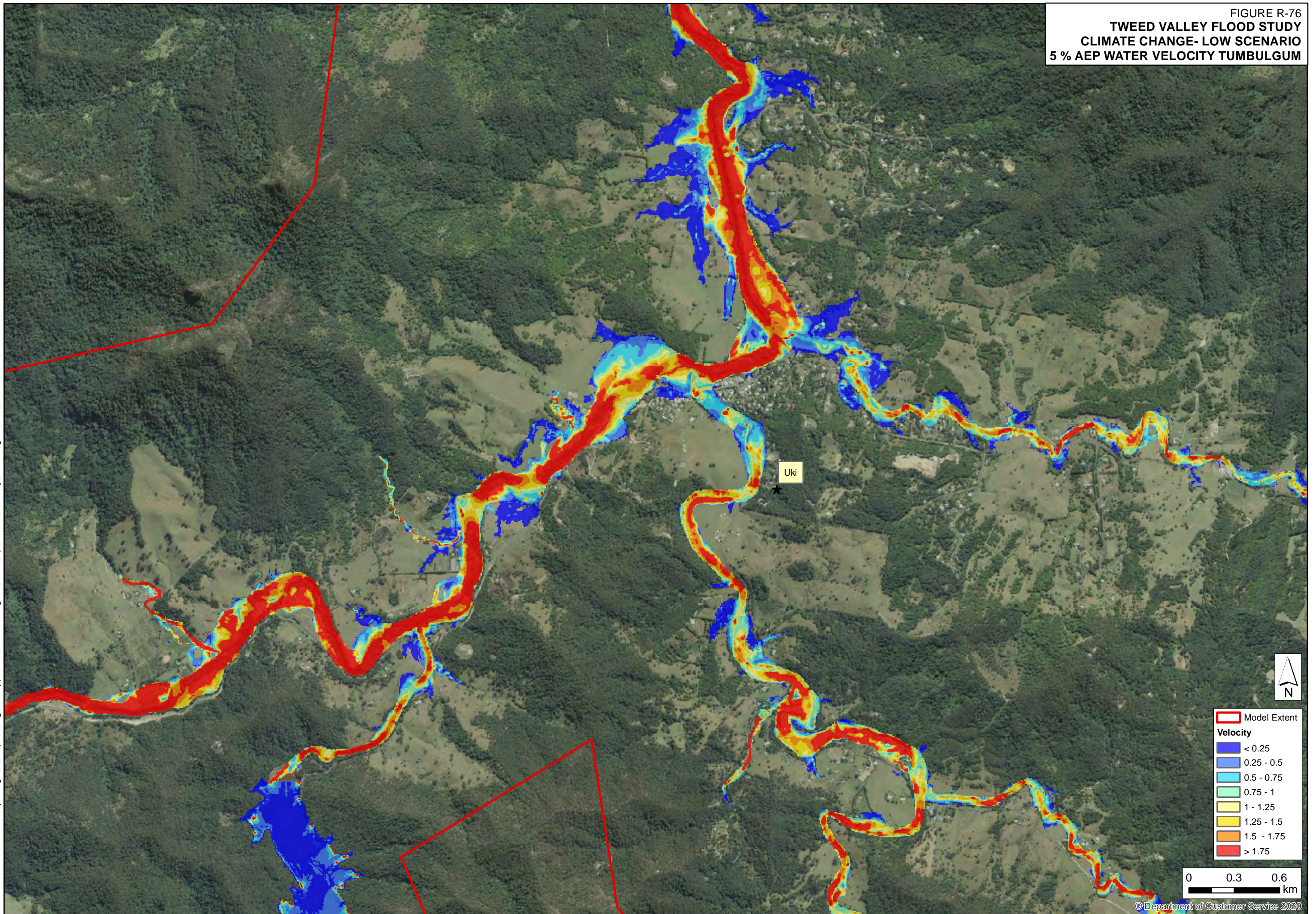
J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-74_5p_Water_Velocity_Uki_CC_Low.mxd

FIGURE R-75
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER VELOCITY MURWILLUMBAH



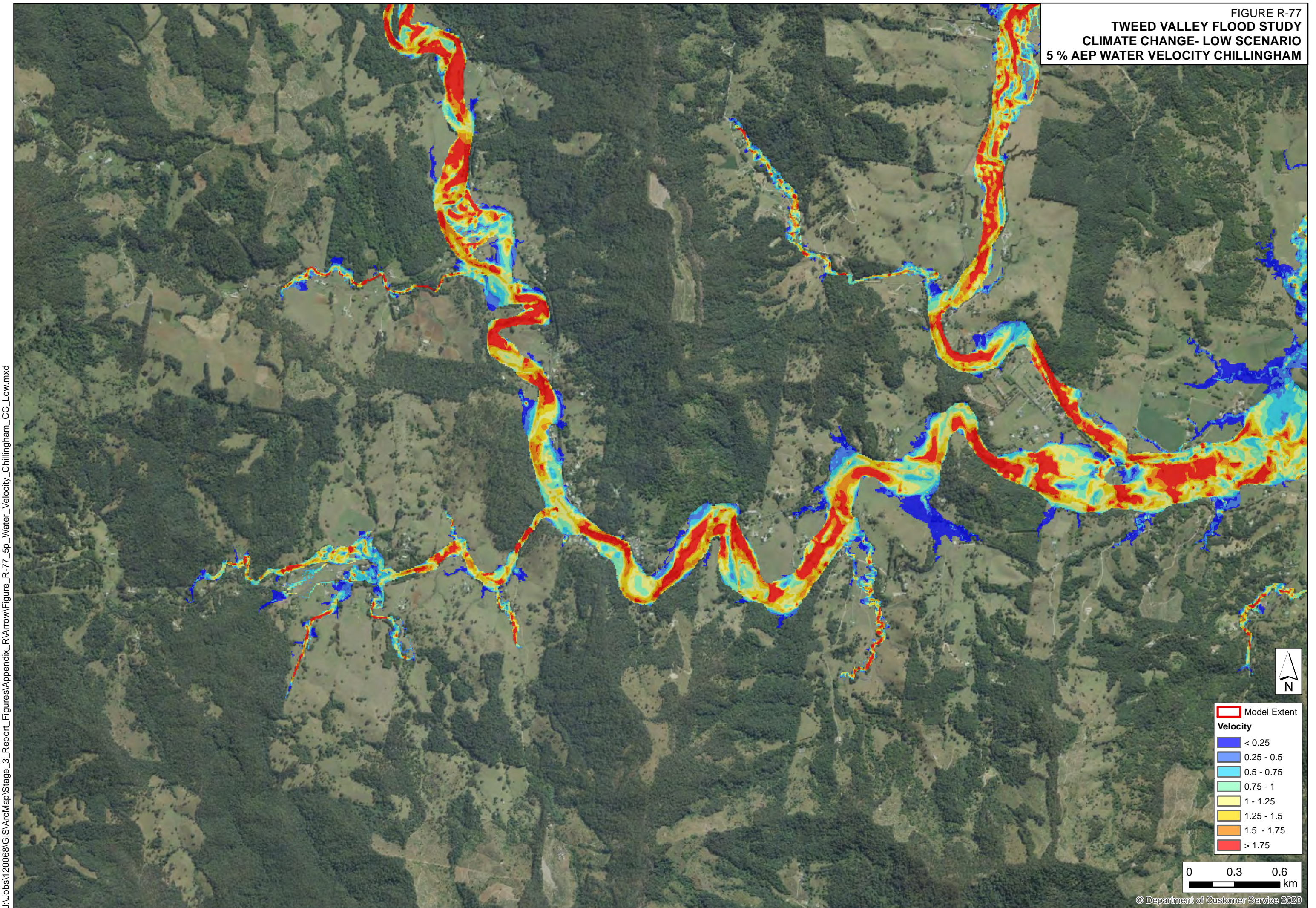
I:\Jobs\120068\GIS\Map\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-75_5p_Water_Velocity_Murwillumbah_CC_Low.mxd

FIGURE R-76
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER VELOCITY TUMBULGUM



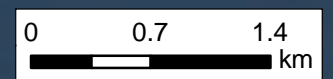
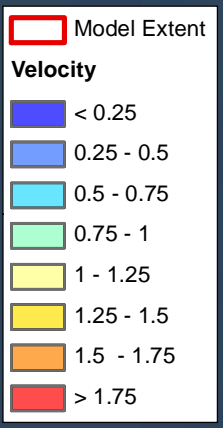
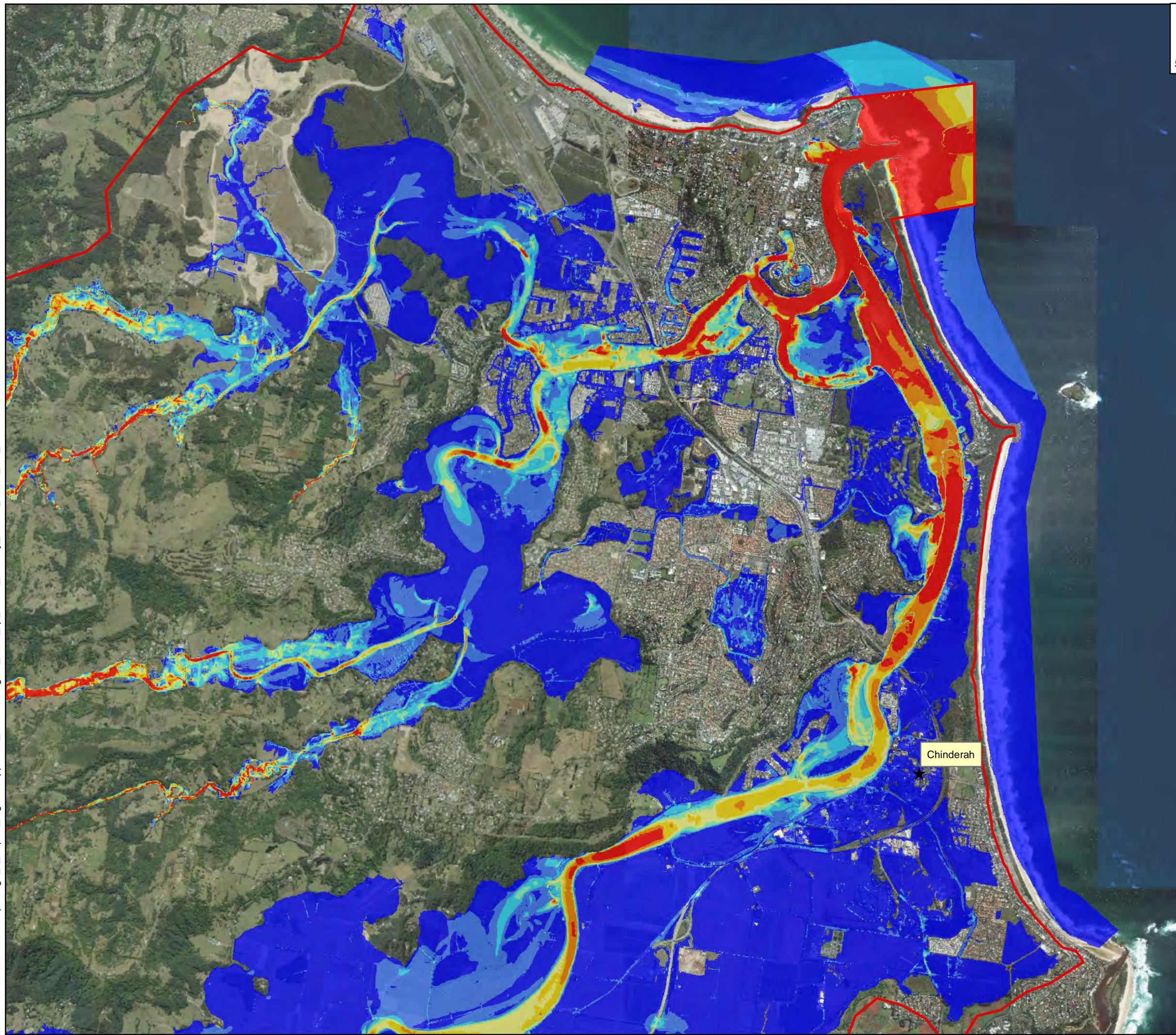
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FIGURE R-77
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER VELOCITY CHILLINGHAM



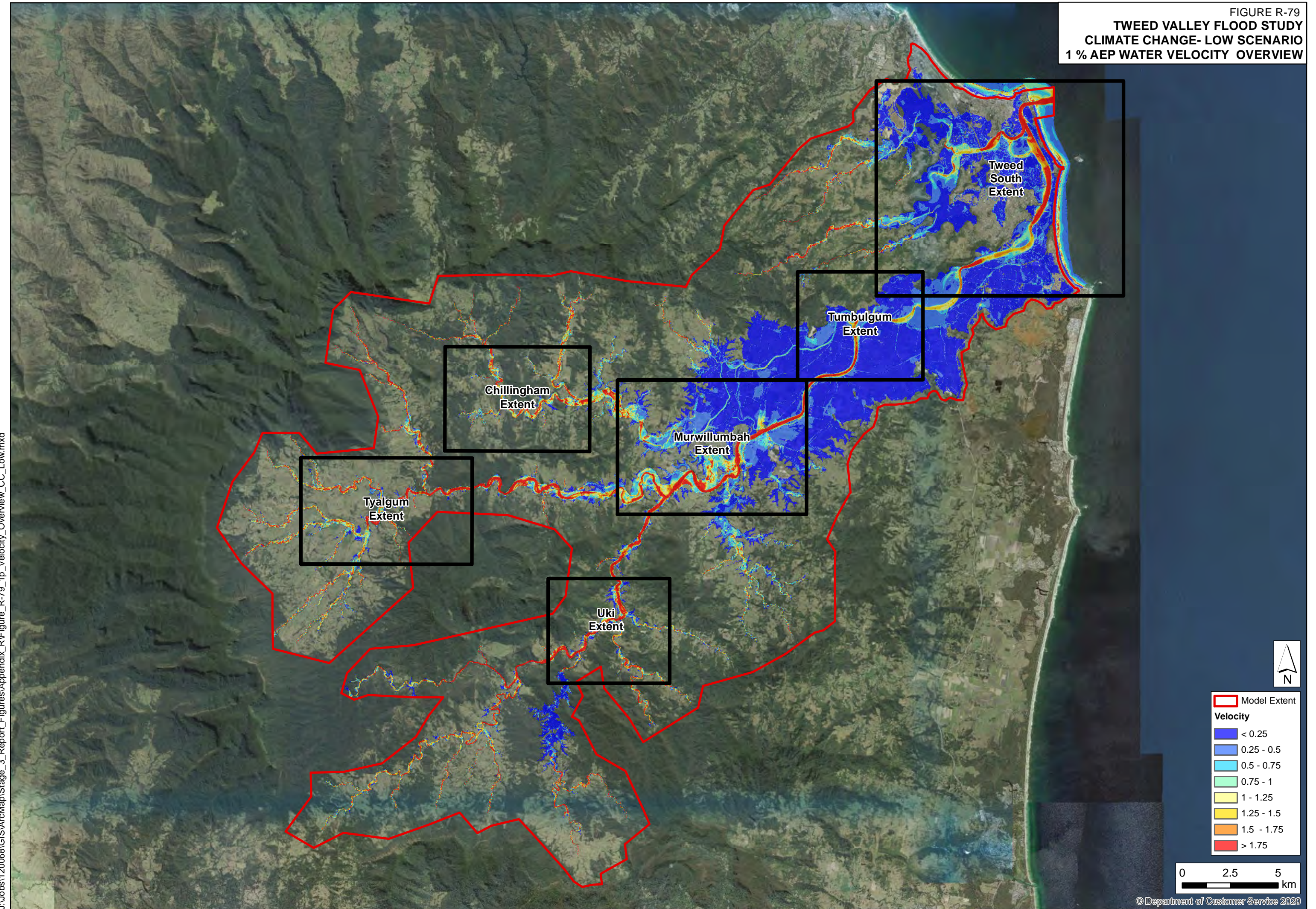
J:\Jobs\120068\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-77_5p_Water_Velocity_Chillingham_CC_Low.mxd

FIGURE R-78
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP WATER VELOCITY TWEED SOUTH



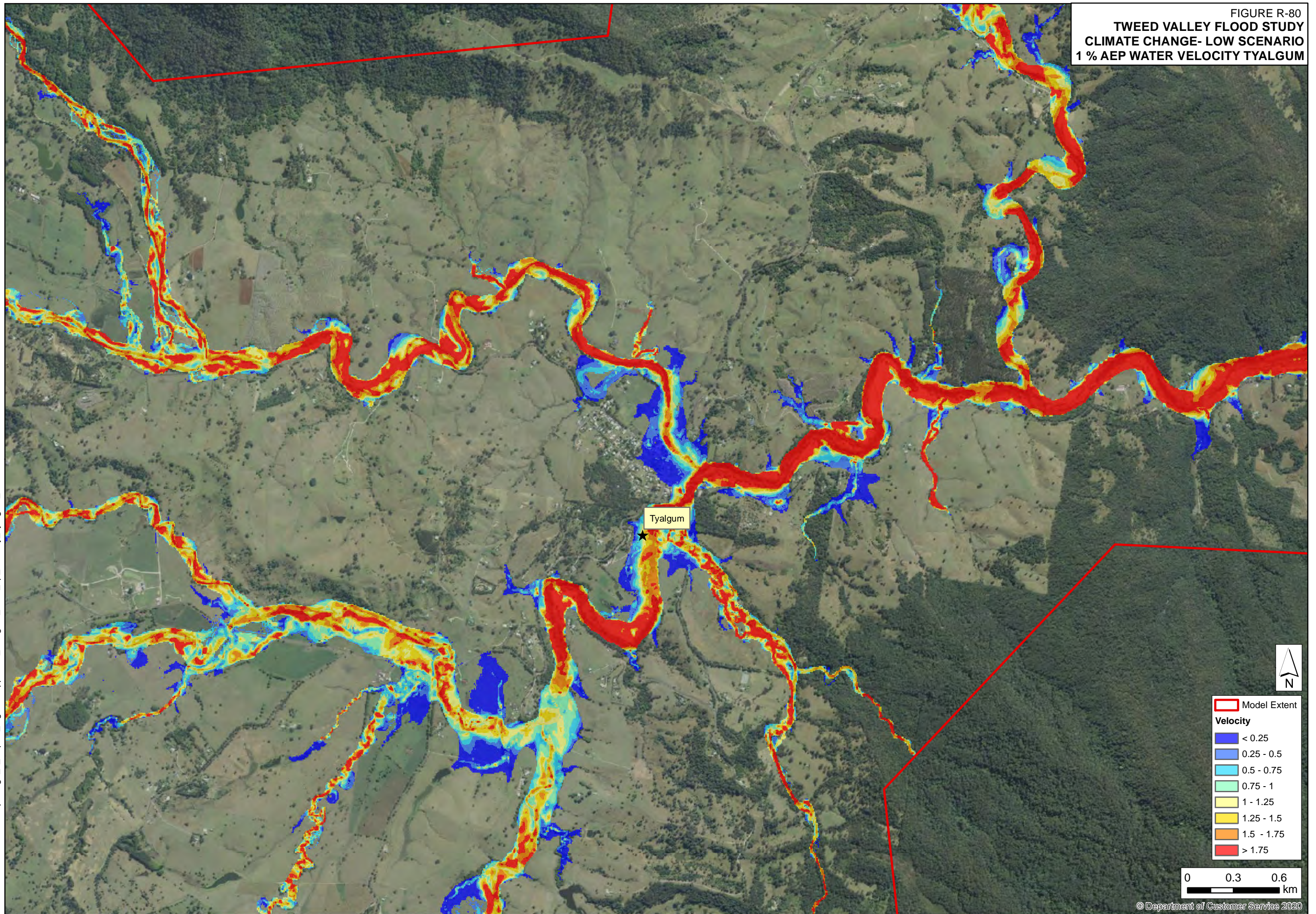
J:\Jobs\1200688\GIS\ArcMap\Stage_3_Report_Figures\Appendix_R\Arrow\Figure_R-78_5p_Water_Velocity_Tweed_South_CC_Low.mxd

FIGURE R-79
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER VELOCITY OVERVIEW



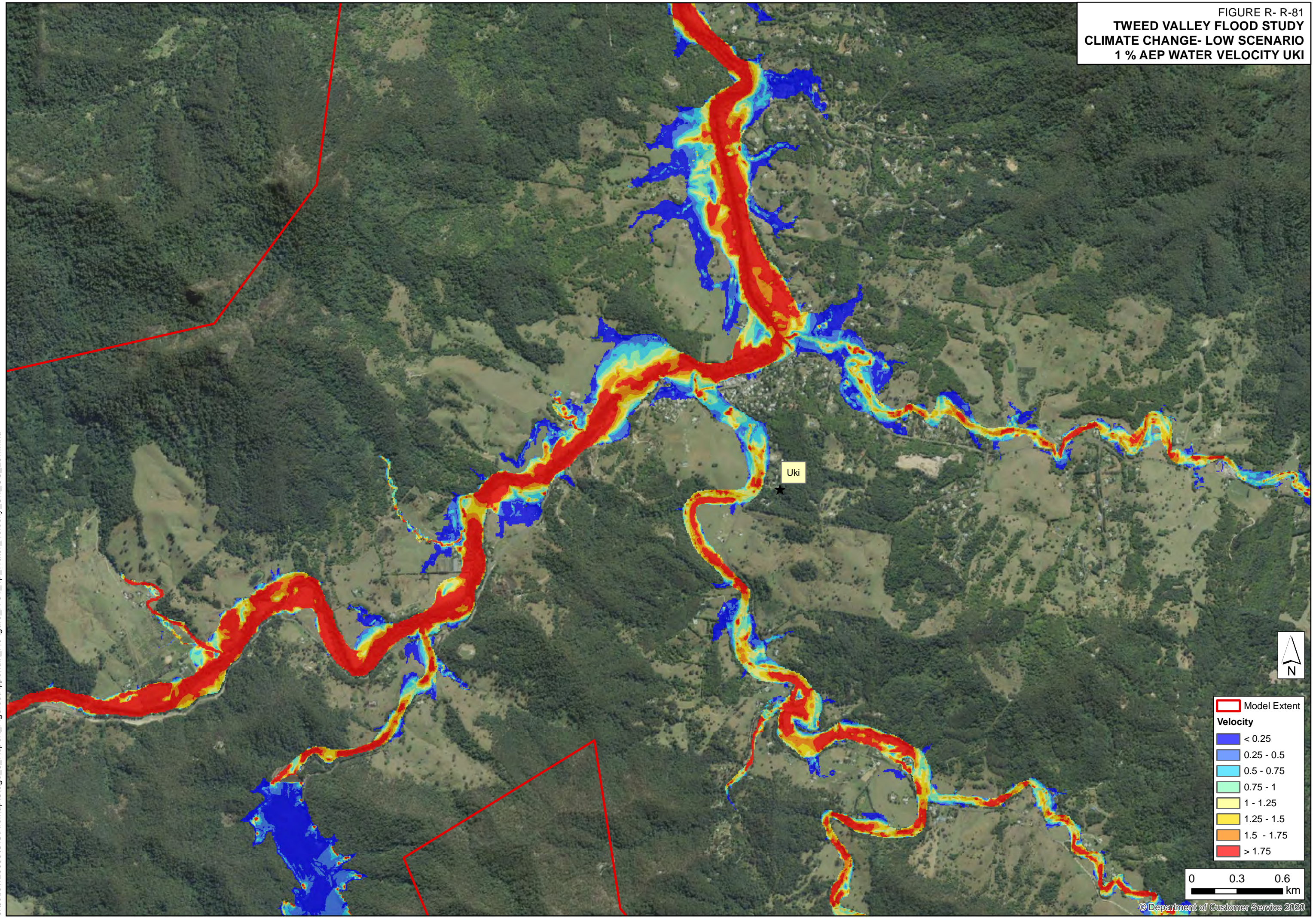
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FIGURE R-80
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER VELOCITY TYALGUM



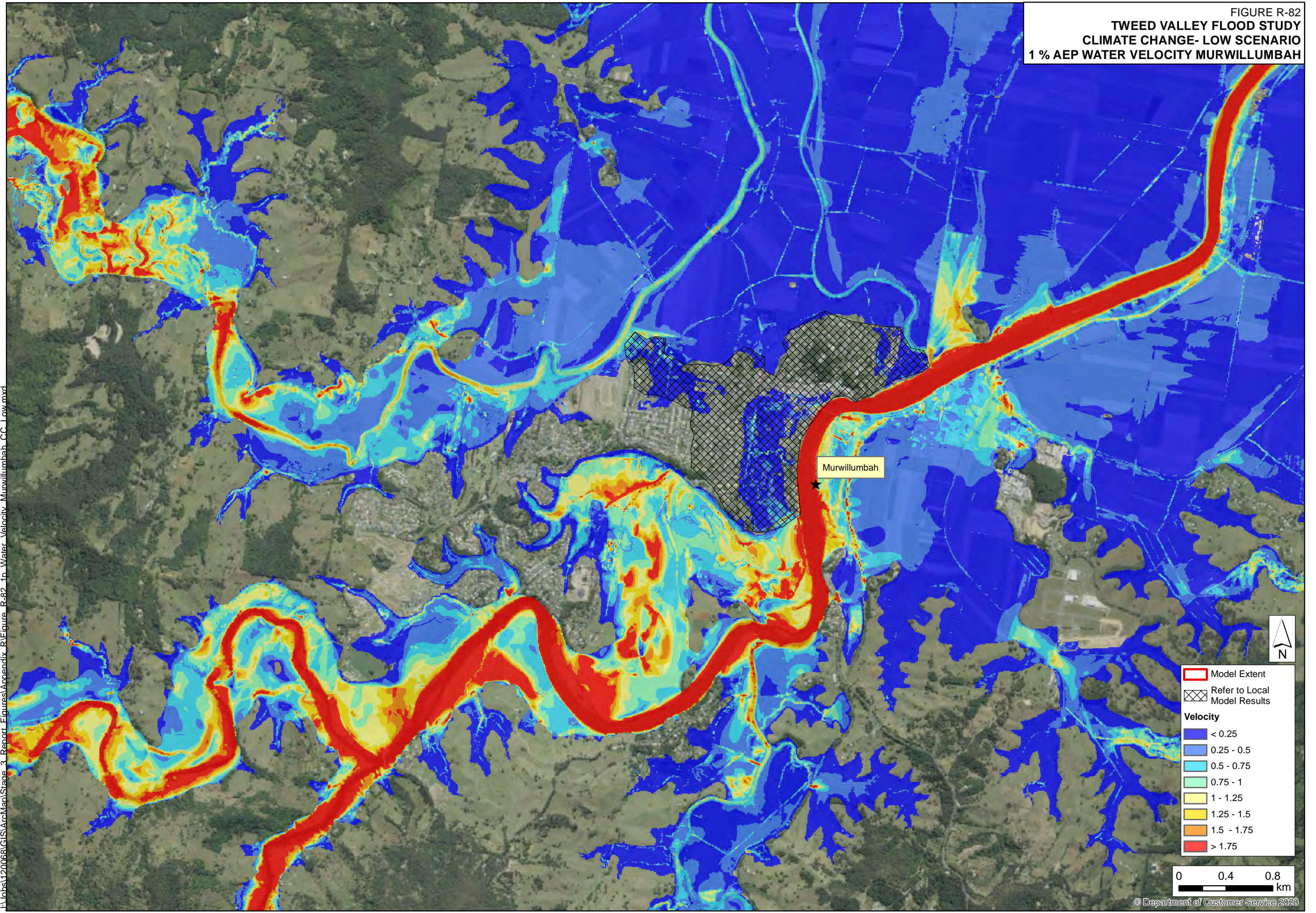
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FIGURE R- R-81
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER VELOCITY UKI



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FIGURE R-82
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER VELOCITY MURWILLUMBAH



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FIGURE R-83
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER VELOCITY TUMBULGUM

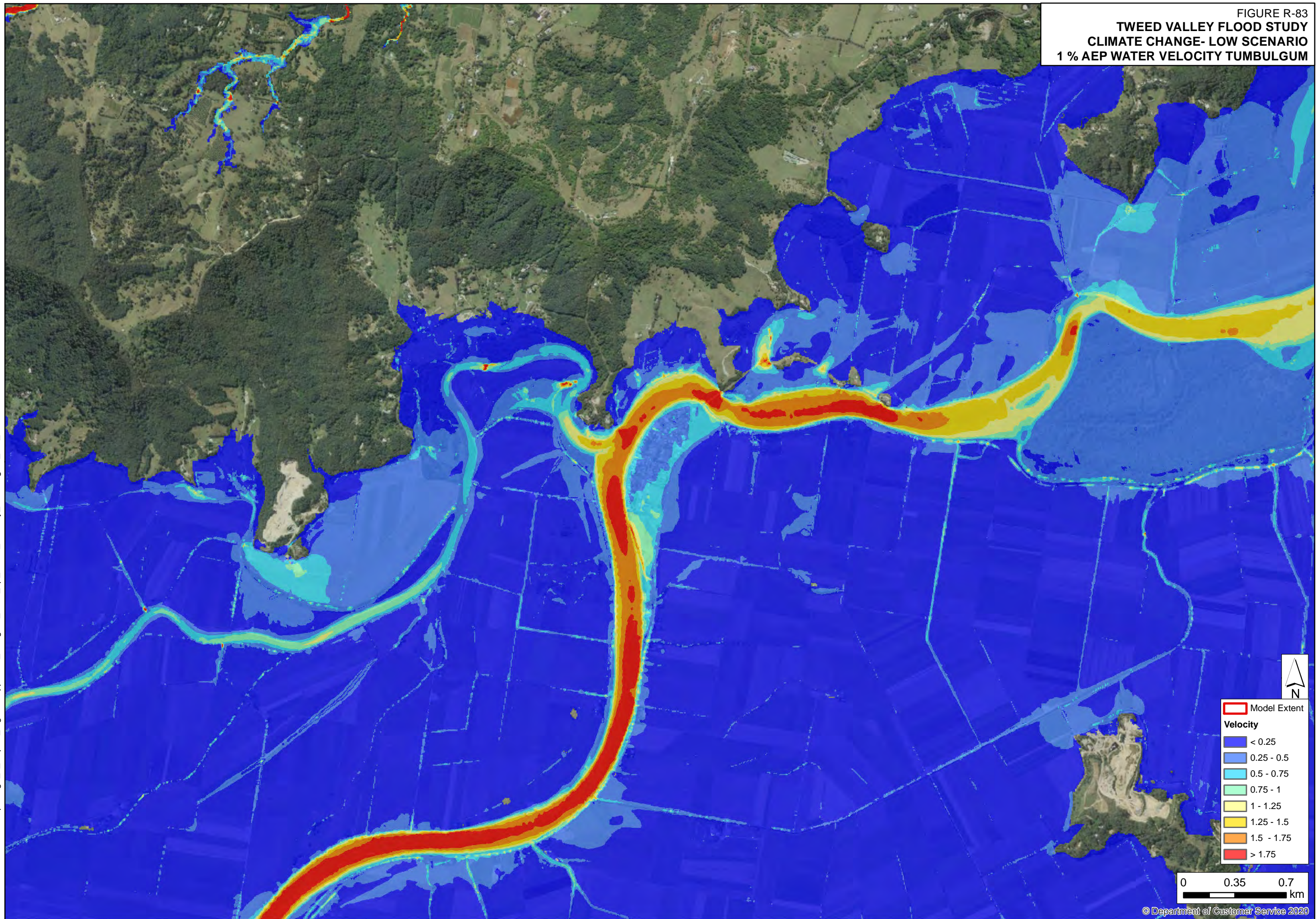
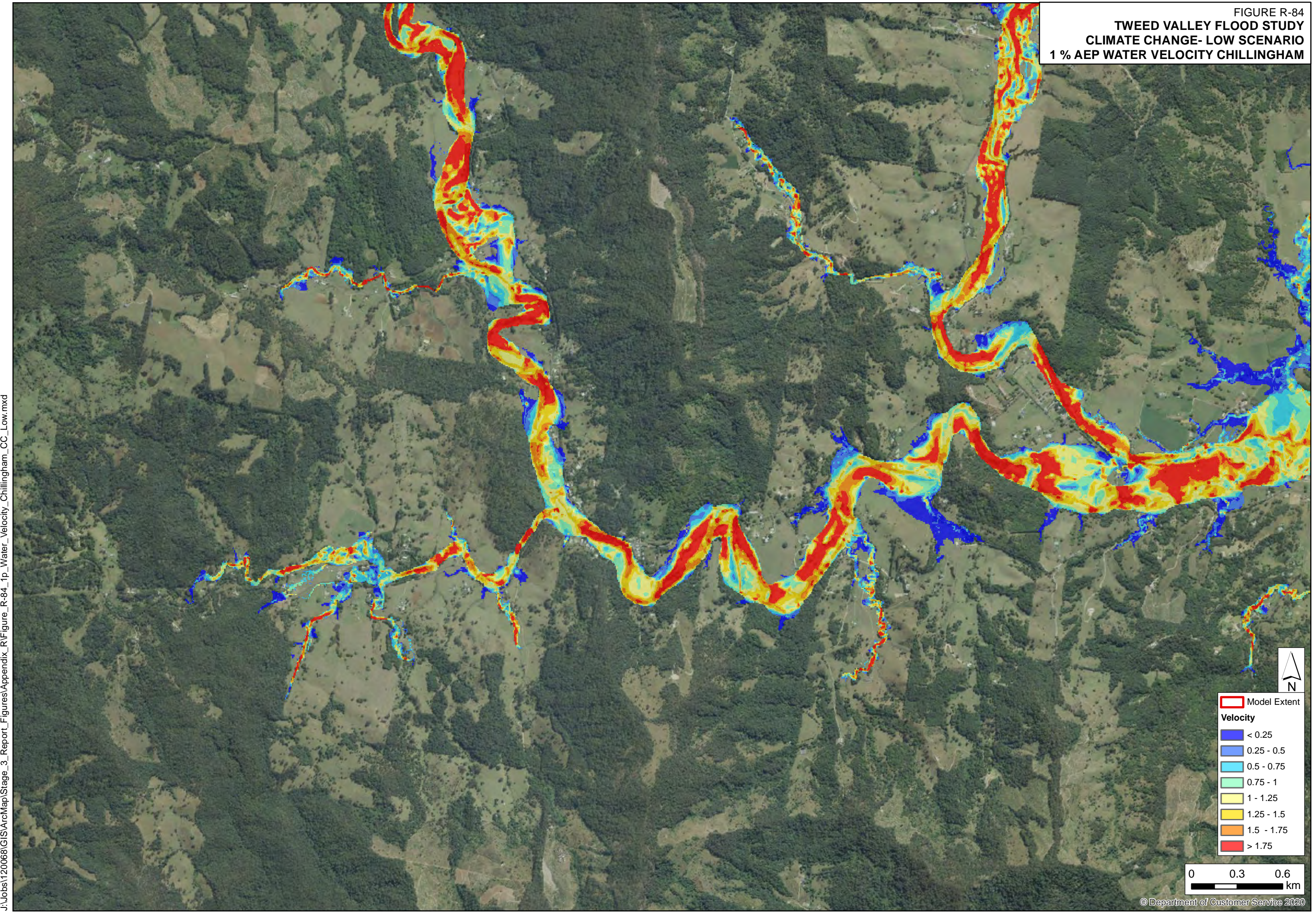
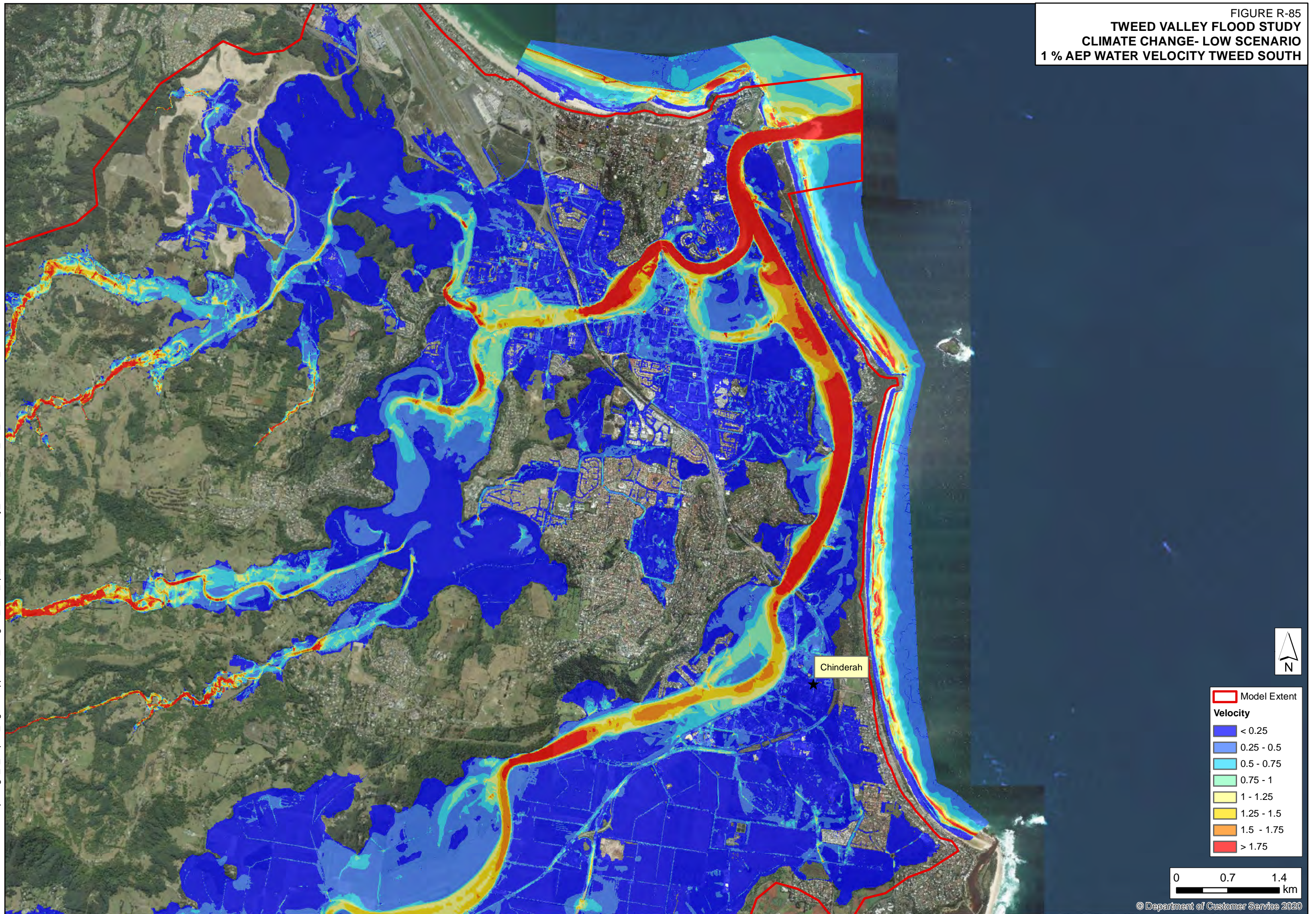


FIGURE R-84
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER VELOCITY CHILLINGHAM



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FIGURE R-85
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP WATER VELOCITY TWEED SOUTH



Model Extent

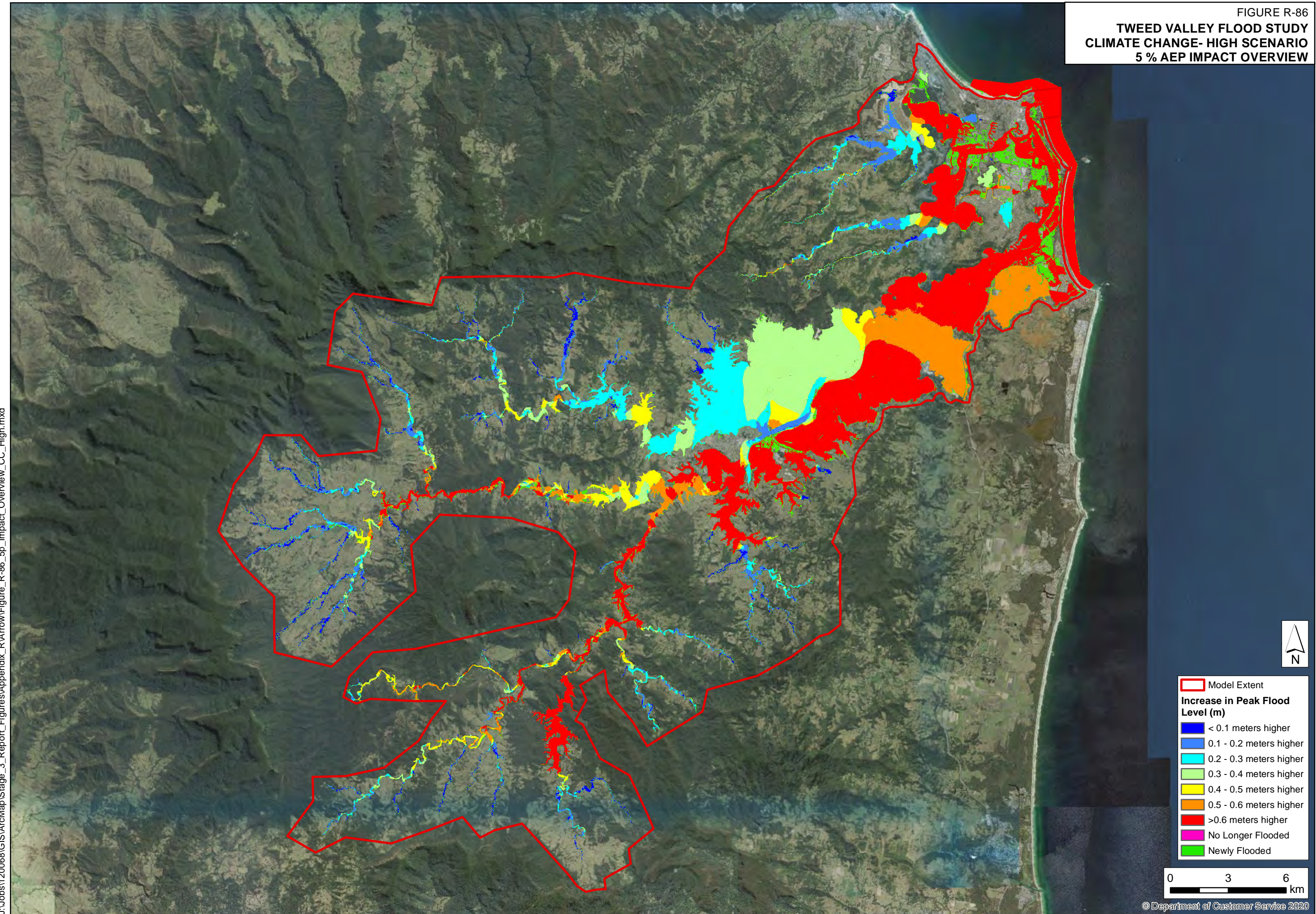
Velocity

- < 0.25
- 0.25 - 0.5
- 0.5 - 0.75
- 0.75 - 1
- 1 - 1.25
- 1.25 - 1.5
- 1.5 - 1.75
- > 1.75

0 0.7 1.4 km

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FIGURE R-86
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
5 % AEP IMPACT OVERVIEW



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FIGURE R-87
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- HIGH SCENARIO
1 % AEP IMPACT OVERVIEW

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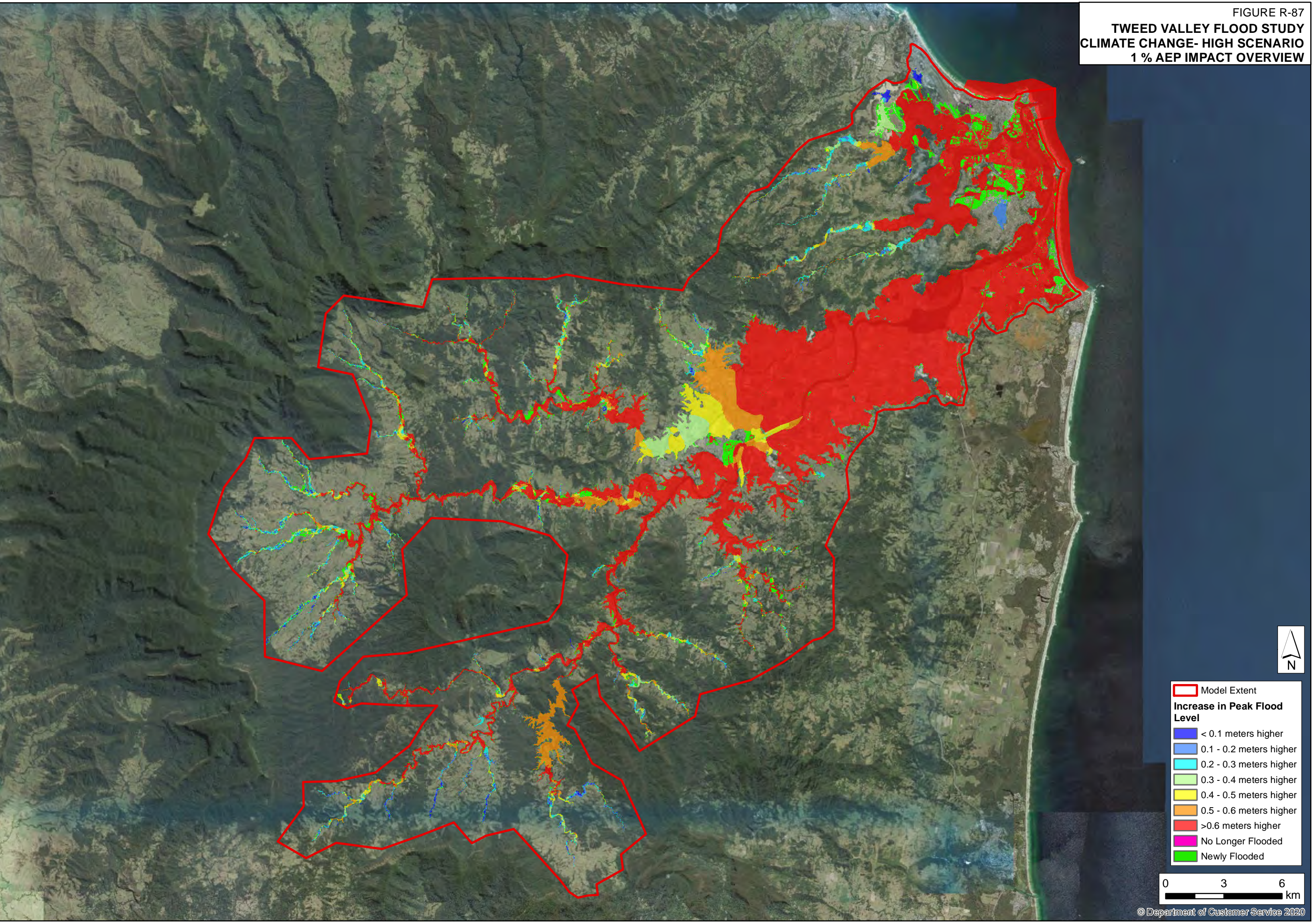
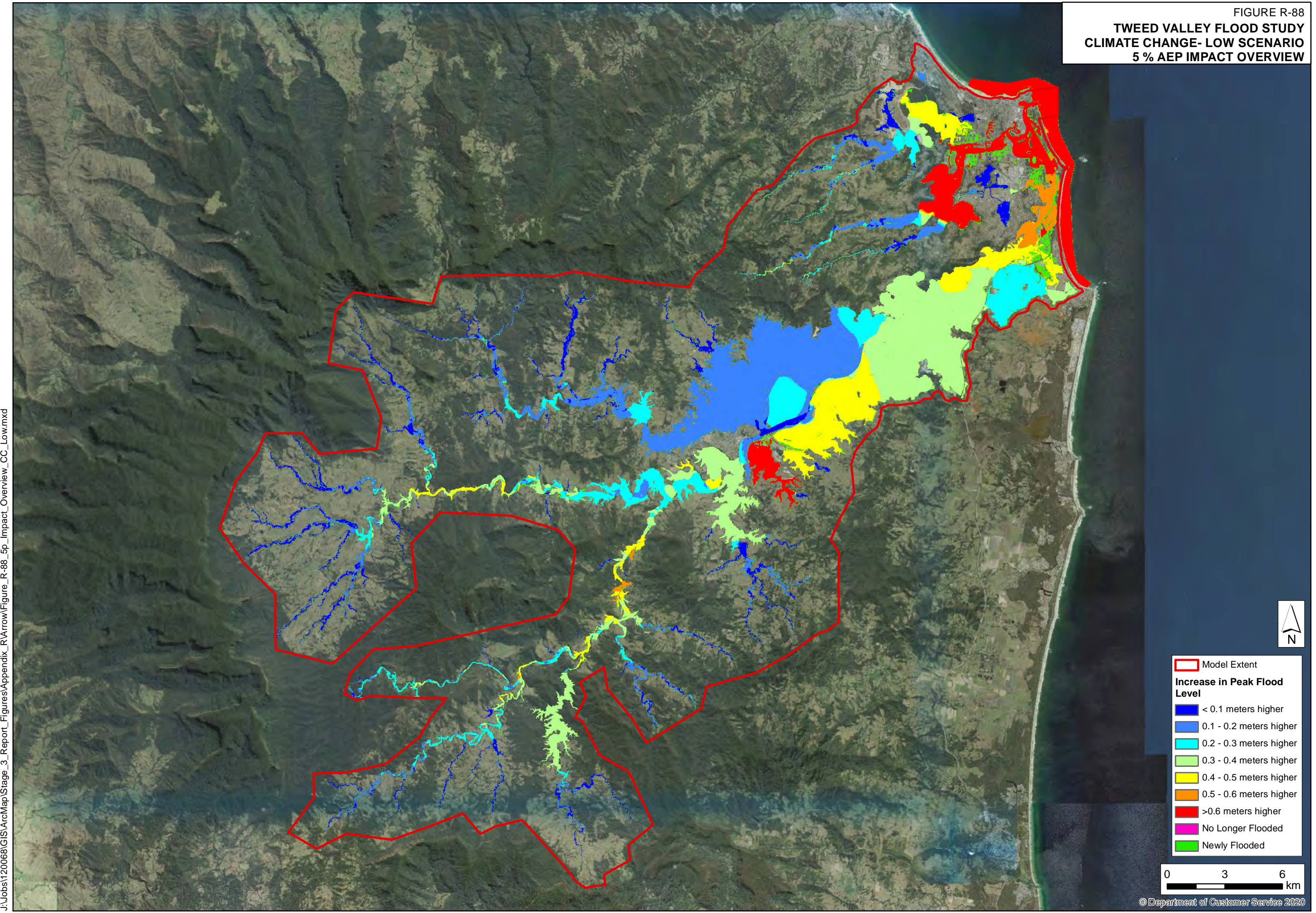


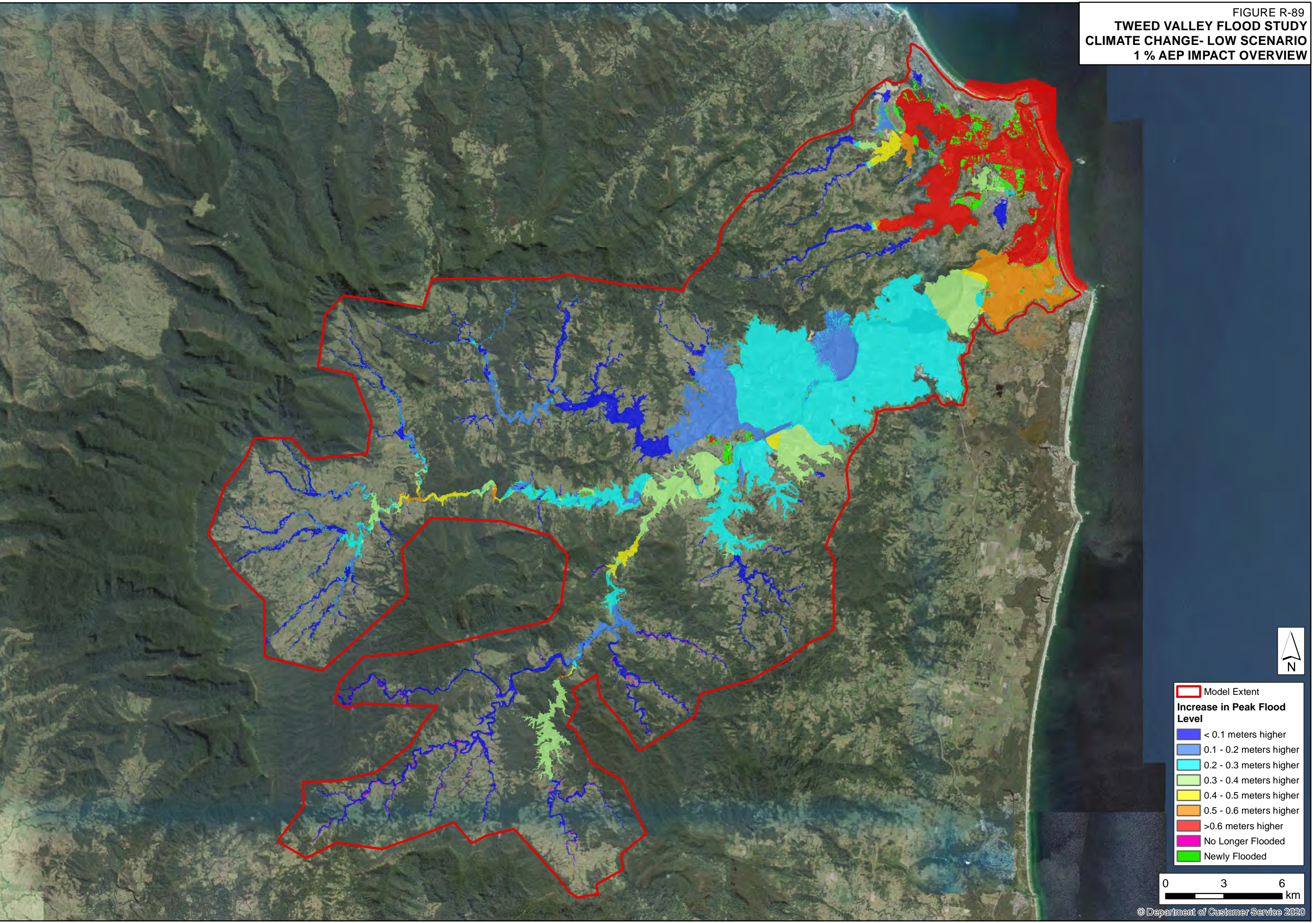
FIGURE R-88
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
5 % AEP IMPACT OVERVIEW



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FIGURE R-89
TWEED VALLEY FLOOD STUDY
CLIMATE CHANGE- LOW SCENARIO
1 % AEP IMPACT OVERVIEW

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Model Extent

Increase in Peak Flood Level

- < 0.1 meters higher
- 0.1 - 0.2 meters higher
- 0.2 - 0.3 meters higher
- 0.3 - 0.4 meters higher
- 0.4 - 0.5 meters higher
- 0.5 - 0.6 meters higher
- >0.6 meters higher
- No Longer Flooded
- Newly Flooded

0 3 6 km