



Appendix A

Site Inspection Photographs



Allandale Road Underpass



Tuckers Lane Causeway





Bell Street, Greta



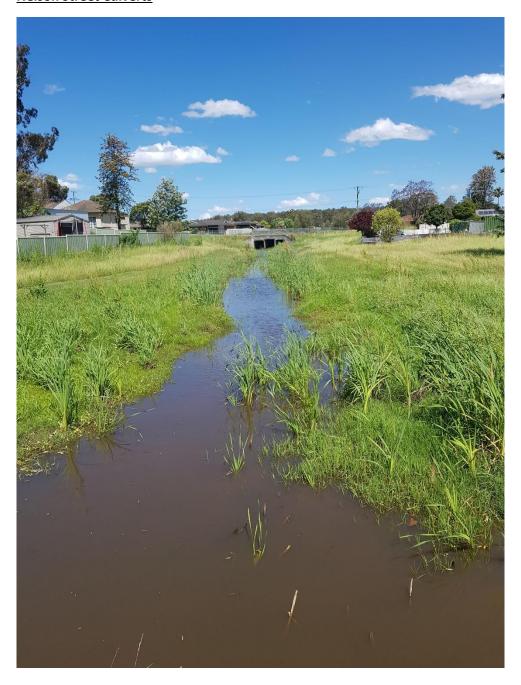


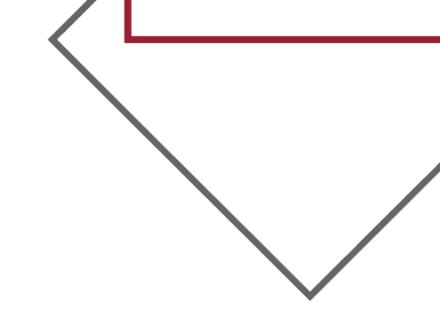
Station Street Causeway Outlet





Nelson Street Culverts







Appendix B

Hydraulic Structure Survey Photographs



Allandale Road Culverts



Dimensions: 1 x 2.4m wide x 0.6m high box culvert

Anvil Street Culverts



Dimensions: 3 x 1.2m wide x 0.75m high box culverts



Maitland Street Culverts



Dimensions: 4 x 0.6m diameter pipes



Nelson Street Culverts



Dimensions: 2 x 2.1m wide x 1.8m high box culverts and 1 x 2.1m wide x 1.9m high link slab



Tuckers Lane Culverts



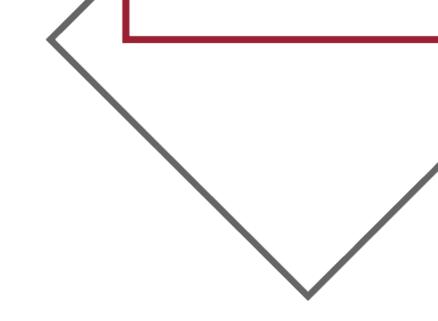
Dimensions: 2 x 0.9m diameter pipes



Tuckers Lane/Hunter Expressway Culverts



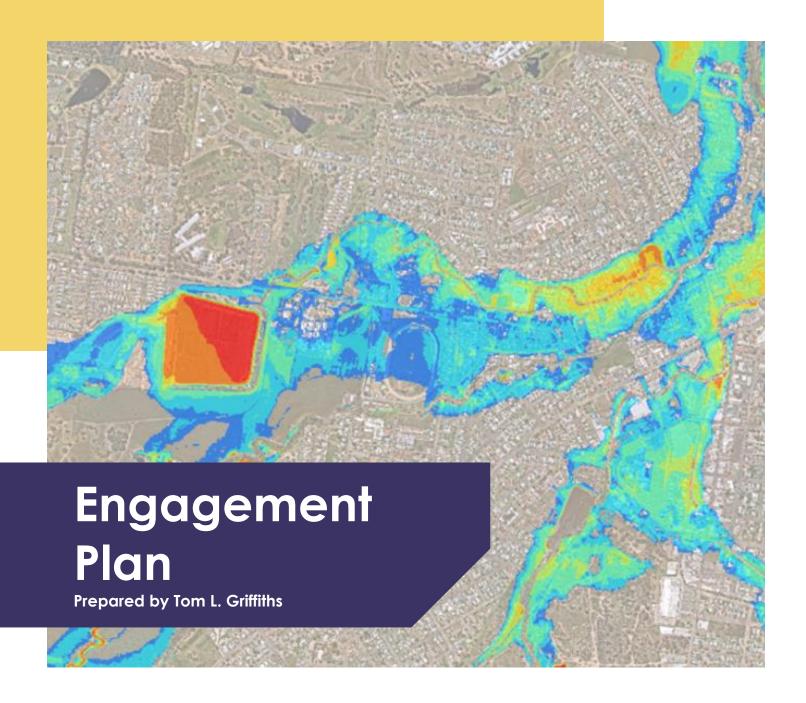
Dimensions: 2 x 0.9m diameter pipes





Appendix C

Community and Stakeholder Engagement Plan



Black Creek Stage 2 & Greta Flood Risk Management Study & Plan

Email: tom.griffiths@cessnock.nsw.gov.au

Tel: 4993 4100

62-78 Vincent St Cessnock 2325



TABLE OF CONTENTS

About the Project	3
Project Context	4
Project Scope	5
Project Statement(s)	5
Stakeholder Analysis	6
Stakeholder analysis table	7
Other engagement processes and events	9
Community engagement purpose and level of influence	9
Community engagement sequence	11
Community engagement timeframes	1
Community engagement risks	1
Evaluation	2

ABOUT THE PROJECT

Project Name:

Black Creek Stage 2 & Greta Floodplain Risk Management Study & Plan (FRMSP)

Grant Reference(s): Black Creek Stage 2 FRMSP: 2021/FMP/0065 Greta FRMSP: 2021/FMP/0095 **Funding Source:** 2021-22 Floodplain Management Program **Funding Ratio:** 2:1 Department of Planning & Environment DPE: Council **Council Project Lead:** Phillip Townsend Phillip Buchanan **DPE Regional Representative Community Engagement Lead:** Tom Griffiths Consultant: Rhelm PTY LTD. **Rhelm Project Lead:** Joel Fraleigh **Communications Advisor:** Tom Griffiths Black Creek Stage 2 FRMSP: SIF22/6 **Content Manager References:** Greta FRMSP: SIF22/7 This Document: DOC2022/197932 COL22/14119 14/12/2022 V.1 **Engagement Plan date and** version: Has this engagement plan been Yes No signed off by the project sponsor?

PROJECT CONTEXT

Local, regional, national or international trends

- Floodplain Risk Management
- Climate Change Adaptation
- Heightened awareness and alert of natural disaster impact
- Large population growth within floodplain areas, e.g. Huntlee

Community context

- Significant community consultation required throughout the development of the FRMSPs
- Some areas have a significant flash flood risk, e.g.
 Central Greta
- April 2015 Flood Event the Greta Flood Study (2019) identified 18 homes that experienced over floor flooding including a house in Sale Street that was washed off its foundations
- Subsequent flood events occurred during 2021-2022 again resulting in over floor flooding
- Access and isolation issues and ensuing economic impacts due to low set causeways and/or bridges

Organisational context

- Ongoing management of a significant number of flooding and or drainage related customer complaints from within both catchments
- FRMSPs inform future grant application processes and floodplain management capital works programs

Decision-makers and leaders' context

- FRMSPs are to be formally adopted at project completion
- Governance provided by Council's Floodplain Risk Management Committee comprised of the Mayor, Councillors, Executive Leadership Team, DPE, Emergency Services (SES), Hunter Water and community representatives which endorse decisions and recommendations made.

PROJECT SCOPE

Negotiables
Can suggest and provide feedback on potential flood modification options

Non-Negotiables
Flood modification
options must be
affordable and
practicable to
implement

Project Statement(s)

To reduce the impacts of existing flooding and flood liability through the identification of flood risk management strategies informed by:

- Flood behaviour/patterns
- Social, ecological, economic factors
- The Floodplain Development Manual and local/state government planning policies

To develop robust and achievable FRMSPs to manage flood risk through the investigation of various structural, property, and response modification options.

Stakeholders

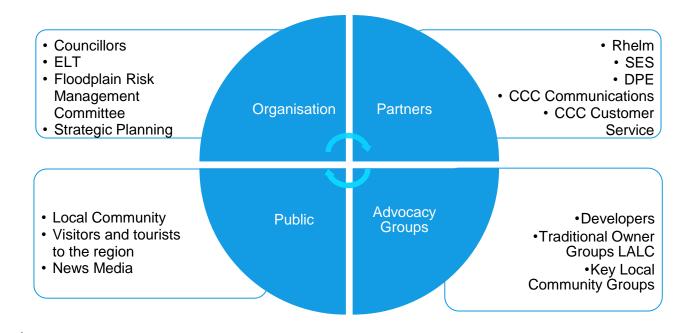
Internal Stakeholders

- Councillors
- Executive Leadership Team (ELT)
- Floodplain Management Committee
- Strategic Planning
- Development Services
- North Area Maintenance
- Customer Service
- Communications and Engagement
- Community Recovery Officer

External Stakeholders

- NSW Government (Department of Planning and Environment) (DPE)
- Local Community
- Key Local Community Groups
- Developers
- News Media
- State Emergency Services (SES)
- Local Aboriginal Lands Council (LALC) & Traditional Owner groups
- Environment groups (Landcare)
- Visitors and tourists to the region
- Utility and Service Providers

Stakeholder Analysis



NB: The above stakeholder analysis is a useful snapshot of the key stakeholders. Each stakeholder group requires targeted engagement and communications strategies.

STAKEHOLDER ANALYSIS TABLE

Stakeholder group	Connection to the project	Level of interest (H, M, L and what interests them)	Level of impact (H, M, L and how impacted)	Level of influence they expect (IAP2 spectrum)					
Primary Stakeholders									
• Councillo	Councillors regularly consult with community and can promote the FRMSP and its management actions	• Medium	• Medium	InformConsult					
NSW Governme (DPE)	 Funding body of modification options 	• High	• High	InformConsult					
 Local communit and Key Local Communit Groups 	during flood events	MediumLevel of impactMitigation methods	• High	InformConsult					
• Council S	• Are responsible in developing and promoting the FRMSP	 High Impact to residents Impacts on development Budget impacts of mitigation methods 	• High	InformConsult					
 State Emergene Service 	Guidance regarding response modification options	Medium	• High	InformConsult					
 Floodplair Managem Committe 	nent committee	• High	• High	InformConsult					

Stakeholder group	Connection to the project	Level of interest (H, M, L and what interests them)	Level of impact (H, M, L and how impacted)	Level of influence they expect (IAP2 spectrum)
	decisions and adoption of FRMSPs.			

Secondary Stakeholders

 News Media 	 Interest in local news Communicate key project updates to the local area 	• Medium	• Low	• Inform
 Developers 	 FRMSP may enhance further development controls 	• High	• High	InformConsult
 Environment groups (Landcare etc.) 	 Can be consulted to advise on and implement vegetation management options 	• Medium	• Low	InformConsult
 Local Aboriginal Lands Council 	 Tangible and intangible indigenous cultural heritage items of significance. 	• Medium	• Low	InformConsult

Other engagement processes and events

Key project leads should identify other engagement projects (current or planned) that are involving the same key stakeholders on a related topic or project. Early notification of the key project milestones and engagement activities (particularly face-to-face engagement) with the engagement lead for those projects should be undertaken and the timeframes documented in the table below.

Engagement process 2023	Jan	Feb	Mar	Apr	Ma y	Jun	Jul	Aug	Sep	Oct	Nov	Dec
 Hunter Estuary Coastal Management Plan 				Stage 2						Stage 3		Stage 4
Climate Change Strategy				Public Exhibiti on								

Community engagement purpose and level of influence

Community engagement purpose(s)	 To inform the community regarding the flood risk context and potential flood modification options. To seek input from the community and incorporate their local flooding knowledge to inform the study.
Community engagement goal(s)	To work with the community to identify flood risk, develop appropriate flood mitigation works and the appropriate methods to educate the community on how to prepare for a flood event.
	2. To inform the local community of the scope of FRMSP.
	To establish a common understanding of flood risk and how decisions are made by inviting key stakeholders to contribute to the development of the FRMSP.
☐ Level of influence expected by stakeholders	Inform, Consult, Involve
Level of influence that the FRMSP can provide	Inform, Consult

9 Level of influence politicians might support

• Inform, Consult

COMMUNITY ENGAGEMENT SEQUENCE

O Project Stage	O Engagement objective(s)	O Stakeholders	O Method selection	O Responsible
Flood Risk Management Study	 Inform stakeholders of the Study. Establish stakeholder mailing list. Identify any additional information pertinent to the project. Investigate stakeholder attitudes towards a range of flood modification strategies & mitigation options: Structural Property Response 	 Councillors Local Aboriginal Lands Council NSW Government (DPE) Local community Key Local Community Groups State Emergency Services Floodplain Management Committee Developers Utility and service providers 	 Media release Establish project webpage on Council website. Letter to residents/ key stakeholders Survey Community Sessions (face-to-face/virtual)? Face to face meetings and presentation to the Floodplain Management Committee 	 Project Lead DPE Community Engagement Officer Cessnock City Council Communicatio ns Team Rhelm
 Flood Risk Management Plan 	 Summarises preferred modification strategies. Update on the progress of FRMSP 	 Local community Local Aboriginal Lands Council NSW Government (DPE) Floodplain Management Committee 	 Information brochure of progress Website update/ E- news copy 	 Community Engagement Officer Cessnock City Council Communicatio ns Team Rhelm
 Exhibition of Study and Plan (& formal adoption) 	 Provide an opportunity for the community to give feedback on the 	CouncillorsLocal Aboriginal Lands Council	 Formal Public Exhibition Social Media post/ Media Releases 	Council StaffCommunity Engagement Officer

O Project Stage	O Engagement objective(s)	O Stakeholders	O Method selection	O Responsible	
	proposed FRMSP	 NSW Government (DPE) Local community Key Local Community Groups State Emergency Services Floodplain Management Committee Developers Utility and service providers 	 Advertisement in the newspaper? Drop-in community information sessions Information postcard (to advertise drop-in session) Frequently Asked Questions (FAQs) 	Cessnock City Council Communications Team Rhelm	
 Implementation 	Update on the progress of adopted FRMSP	 Councillors Local Aboriginal Lands Council NSW Government (DPE) Local community Key Local Community Groups State Emergency Services Floodplain Management Committee Developers Utility and service providers 	 Regular updates to the Floodplain Management Committee Consultation Outcomes Report 	Council Staff Rhelm	

Community engagement timeframes

Use the table below to map the timing of the key project stages/steps, community engagement activities and communications required. You can change the timeframes to be more specific e.g. weeks, if required.

Activities 2023	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Community Engagem Communications Acti		d										
 Flood Risk Management Study (2023) 				Webpage/ Media Release Stakeholder letters/ Community notification	Stakeholder meetings Survey	Community session						
Flood Risk Management Plan							Web copy/ E-news/ Brochure/P ostcard/ FAQs					
Exhibition of Study and Plan (& formal adoption)									Newspaper Advertisement. Postcard/FAQs	Media Release/ Social Media. Public Exhibition Period Drop in session		
Implementation											Consultation Outcomes Report	
Meetings						-				•	-	
Floodplain Management Committee Meetings					10 May (Briefing), - on project overview, community session and project objectives. 17 May (ordinary meeting)				13 September (Briefing) 20 September (ordinary Meeting) - update on public exhibition/com munications approach.		8 November (Briefing) - update on consultation outcomes	

Community engagement risks

Risks	Mitigation measures
 Misunderstanding of the Floodplain Risk Management Process 	 Provide clear visual aids to inform and educate the community on the key steps in the process to develop FRMSPs in accordance with the NSW Floodplain Development Manual, i.e. flood study, floodplain risk management study, floodplain risk management plan, Adoption and Implementation.
 Frustration regarding the timeframe to commence FRMSPs following previous flood studies 	 Provide a timeline and visual aids to demonstrate the FRMSP processes. Clearly outline the project scope and the FRMSP process. Communicate regularly at key project milestones to ensure the community is well informed of the project progress and how to get involved.
 Over engagement/engagement fatigue from previous studies 	 Clearly outline the FRMSP process and the purpose of the engagement and how the community and stakeholders can be involved and contribute to the decision making process.
 Misinformation about previous studies 	 Clear and simple language. The Communications and Customer Service team to be kept informed to minimize any misunderstandings and help to educate and inform the community and key stakeholders.
 Community dissatisfaction at Council's previous response rate and/or approach to the management of floods 	 Prepare key messages ahead of the information session on Council's response to flooding events and how the community can be prepared for future flood events.

EVALUATION

An evaluation plan needs to be outlinedalongside the engagement design and data needs to be gathered throughout the delivery of the engagement process. The evaluation needs to be tied to the engagement purpose, goal and objectives. Copy and paste the first two columns from your engagement sequence. Then identify what success will look like (success indicators), how data will be collected, and when and where the data will be collected. Consider that success indicators could fall within any or all of the following:

- 1. Outcomes criteria: what was achieved
- 1. **Acceptance criteria**: how well stakeholders and community members accepted the engagement process/methods
- 2. **Process criteria:** how well did the team do in designing and delivering the specific engagement methods in the plan

O Project Stage	OEngagement objective(s)	O Success Indicators	O Data collection	O Data collection: who/when/whe re		
 Paste your project stages and correspon ding engageme nt objectives (next column) from your Communit y Engageme nt Sequence. 	Paste your correspondin g engagement objectives from your Community Engagement Sequence.	 What defines success in relation to this engagement objective? Are outcomes, acceptance and/or process criteria relevant? Your indicators should include three elements (generally speaking): 1. Measure (e.g. participants achieving consensus), 2. Target population (e.g. workshop participants), and 3. Threshold i.e. 	How will you collect data to measure the success criteria? E.g. a survey at the end of a workshop? Number of comments in Twitter?	Who will be responsible for data collection? When and where will data be collected?		

O Project Stage	OEngagement objective(s)	O Success Indicators	O Data collection	O Data collection: who/when/whe re
		what's the minimum required to achieve the objective (e.g. 80% agreement)		
 Add rows as required 	•	•	•	•

Overall engagement process evaluation (IAP2)

1. Outcome criteria: what was achieved?

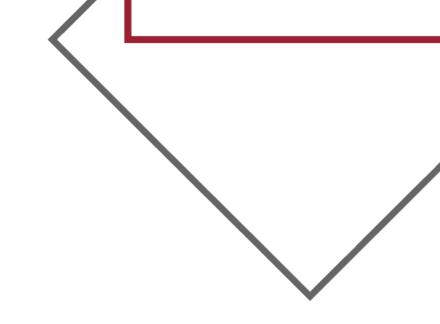
 Quality of decision: the decision provides a feasible solution to the community engagement project 	Develop a SMART success criteria relevant to your engagement process	Identify how data will be collected	 Who will be responsible for data collection? When and where will data be collected?
 Rational Objectives: the methods achieved the rational (e.g. outcomes, information, input) objectives set 	•	•	•
 Experiential Objectives: the methods achieved the experiential (e.g. participant experience, relationship) objectives set 	•	•	•
 Sustainability: the decision was sustainable and implementable 	•	•	•

2. Acceptance criteria: how well the methods were selected and delivered?

 Representative: the participants are a representative sample of the affected or interested public 	•	•	•
 Independence: independent and unbiased 	•	•	•
 Early Involvement: the public is involved as soon as value judgements are important 	•	•	•
 Influence: the feedback or input impacted on the decision 	•	•	•
 Transparency: the process of the method and the decision- making is transparent to the public 	•	•	•
 Relationships: the process supported positive relationships and acknowledged conflicts and worked through the conflict in a constructive manner 	•	•	•
 Valued: participants felt their contribution was valued 	•	•	•

3. Process criteria: how well the public and stakeholders accepted the process?

•	Resource Allocation: participants have the necessary information, human, material and time resources	•	•	•
•	Task Definition: participants are clear about the task, the scope and the output of the method	•	•	•
•	Structured Decision Making: an appropriate process for decision-making is used, and communicated clearly so participants understood how and why a decision is made	•	•	•
•	Cost-effective: outcomes couldn't have been achieved using a more cost-effective mix of engagement methods	•	•	•





Appendix D

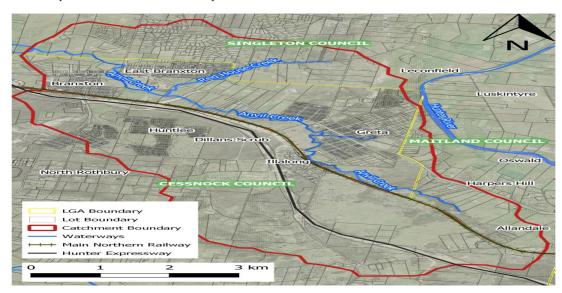
Community Questionnaire

Greta and Black Creek Nulkaba to Branxton (Stage 2) Floodplain Risk Management Study and Plan

Together Cessnock

Greta Study Area Survey

This survey is in reference to the below study area.



Greta and Black Creek Nulkaba to Branxton (Stage 2) Floodplain Risk Management Study and Plan

Together Cessnock

What is the postcode of your primary place of residence?
(Required)
(ricquired)
How long have you lived, worked or visited the Greta study area?
(Choose any one option)
0-5 years
☐ 6-10 years ☐ 11-15 years
☐ 16-20 years
More than 21 years
How do you think you would respond to a major flood in this area?
(Choose any one option)
Remain at my house Evacuate early to an official evacuation centre
Evacuate elsewhere
Don't know/ unsure
Other (please specify)
What information do you look for during a flood event?
Select all that apply
(Choose all that apply)
Road closures
Predicted flood levels
<pre>Evacuation notices Other (please specify)</pre>
Where would you look for updates and information in a flood event?
Select all that apply
(Choose all that apply)

Greta and Black Creek Nulkaba to Branxton (Stage 2) Floodplain Risk Management Study and Plan

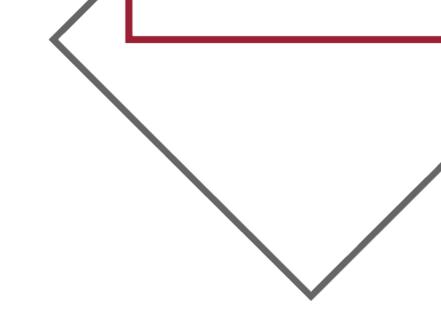
Local Radio		
Social Media (Facebo	ook/Instagram)	
Television		
Word of Mouth		
Council's website		
Hazards Near Me app		
Other (please specify)		
Do you have any other s	suggestions for managing flood risk in the Greta area?	
Do you have any other s	suggestions for managing flood risk in the Greta area?	
Do you have any other s	suggestions for managing flood risk in the Greta area?	
Do you have any other s	suggestions for managing flood risk in the Greta area?	
Do you have any other s	suggestions for managing flood risk in the Greta area?	
Do you have any other s	suggestions for managing flood risk in the Greta area?	
Do you have any other s	suggestions for managing flood risk in the Greta area?	
Do you have any other s	suggestions for managing flood risk in the Greta area?	

Flood Management Options

There are various options we can investigate to manage flood risk in your area. For the following options below, please indicate your level of support.

Level of support for Flood Management Options

Questions	Strongly object	Somewhat object	Neither support or object	Somewhat support	Strongly support
Low Levee (less than one metre high)					
Onsite detention requirements for new developments					
Development controls to ensure future development is appropriate for flood-affected land					
Upgrading road culvert capacities (reduce flooding or those upstream)					
Flood warning system (Alert alarm)					
Flood warning signs on roads at locations that can flood					
Emergency response plans for flood affected properties and businesses to ensure business owners and residents know what to do in a flood event					
Voluntary purchase of worst flood-affected residential properties at market value					





Appendix E

Sub-Catchment Parameters



Sub-Catchment	Area (Ha)	EIA (%)	Pervious 'C'	Impervious 'C'
BR_98	1120.02	0.2	1.7	0.1
BR_99	847.249	0.5	1.7	0.1
CC_36	526.15	0.5	1.7	0.1
CC_47	468.984	0.2	1.7	0.1
CC_48	202.476	0.0	1.7	0.1
DR_01	2000.89	0.1	1.7	0.1
DR_02	2064.67	0.1	1.7	0.1
DR_03	1596.395	0.2	1.7	0.1
DR_04	864.113	0.1	1.7	0.1
DR_05	1116.051	0.2	1.7	0.1
DR_06	2027.07	0.1	1.7	0.1
DR_07	2462.637	0.2	1.7	0.1
DR_08	2326.061	0.1	1.7	0.1
DR_09	2638.985	0.6	1.7	0.1
DR_10	1479.521	0.0	1.7	0.1
DR_11	2087.486	0.0	1.7	0.1
DR_12	1538.627	0.0	1.7	0.1
DR_13	1945.735	0.0	1.7	0.1
DR_14	1590.258	0.3	1.7	0.1
DR_15	1690.073	0.1	1.7	0.1
DR_16	919.259	0.0	1.7	0.1
DR_17	633.632	0.1	1.7	0.1
DR_18	1207.555	0.3	1.7	0.1
DR_19	592.351	1.0	1.7	0.1
DR_20	676.415	1.0	1.7	0.1
DR_22	1995.412	0.1	1.7	0.1
DR_23	2872.08	0.3	1.7	0.1
DR_24	2322.186	0.1	1.7	0.1
DR_25	3277.035	0.0	1.7	0.1
DR_26	6082.109	0.2	1.7	0.1
DR_27	4324.955	0.2	1.7	0.1
DR_29	4169.198	0.1	1.7	0.1
DR_30	4257.28	0.2	1.7	0.1
DR_31	3598.46	0.0	1.7	0.1
DR_32	5107.041	0.1	1.7	0.1
DR_37	1711.655	0.4	1.7	0.1
DR_38	951.619	0.2	1.7	0.1
DR_39	2684.768	0.2	1.7	0.1
DR_40	3369.589	0.2	1.7	0.1



DR_41	3775.275	0.3	1.7	0.1
DR_42	1319.259	0.0	1.7	0.1
DR_49	343.282	1.1	1.7	0.1
DR_51	388.63	0.7	1.7	0.1
DR_54	1508.086	0.1	1.7	0.1
DR_55	1211.544	0.2	1.7	0.1
DR_56	958.703	0.0	1.7	0.1
DR_57	340.857	0.1	1.7	0.1
DR_58	2249.2	0.1	1.7	0.1
DR_59	3048.998	0.1	1.7	0.1
DR_60	2078.984	0.0	1.7	0.1
DR_61	2598.207	0.1	1.7	0.1
DR_62	11849.16	0.4	1.7	0.1
DR_63	5670.706	0.2	1.7	0.1
DR_64	2612.538	0.2	1.7	0.1
DR_65	1624.996	0.1	1.7	0.1
DR_84	2549.011	0.0	1.7	0.1
DR_85	344.312	0.4	1.7	0.1
MA_53	225.781	0.3	1.7	0.1
MA_73	95.795	0.3	1.7	0.1
MA_76	153.078	1.1	1.7	0.1
MA_77a	136.711	1.0	1.7	0.1
MA_77b	55.525	0.9	1.7	0.1
MA_91a	24.382	0.7	1.7	0.1
MA_91b	60.083	0.7	1.7	0.1
MA_91c	43.778	1.0	1.7	0.1
MA_91d	31.746	2.3	1.7	0.1
MA_91e	65.291	0.5	1.7	0.1
MA_95	663.15	0.1	1.7	0.1
MA_97	35.542	0.7	1.7	0.1
MA_98a	25.702	0.7	1.7	0.1
MA_98b	171.807	0.3	1.7	0.1
MA_99a	64.991	1.1	1.7	0.1
MA_99b	79.216	4.7	1.7	0.1
MA74a	135.376	0.6	1.7	0.1
MA74b	176.594	10.0	1.7	0.1
MO_44	648.358	0.6	1.7	0.1
MO_45	1489.755	0.4	1.7	0.1
MO_46	712.58	0.5	1.7	0.1
MO_87	477.986	0.1	1.7	0.1



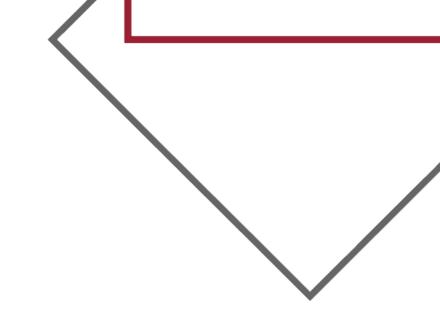
MR_100a	48.447	0.0	1.7	0.1
MR_100b	24.623	10.8	1.7	0.1
MR_100c	12.598	36.9	1.7	0.1
MR_100d	5.081	54.3	1.7	0.1
MR_100e	124.43	7.8	1.7	0.1
MR_100f	353.831	2.7	1.7	0.1
MR_43	898.233	0.7	1.7	0.1
MR_68	330.688	0.4	1.7	0.1
MR_69a	13.972	43.6	1.7	0.1
MR_69b	8.411	4.4	1.7	0.1
MR_69c	28.535	7.5	1.7	0.1
MR_69d	29.977	5.5	1.7	0.1
MR_69e	9.564	2.0	1.7	0.1
MR_69g	564.462	0.7	1.7	0.1
MR_70	151.735	0.3	1.7	0.1
MR_71a	17.661	15.8	1.7	0.1
MR_71b	18.124	0.7	1.7	0.1
MR_71c	15.273	25.3	1.7	0.1
MR_71d	20.455	1.1	1.7	0.1
MR_71e	20.084	15.4	1.7	0.1
MR_71f	3.985	42.9	1.7	0.1
MR_71g	94.806	1.4	1.7	0.1
MR_72a	2.327	53.3	1.7	0.1
MR_72c	2.507	24.2	1.7	0.1
MR_72d	85.245	4.1	1.7	0.1
MR_75	101.721	4.5	1.7	0.1
MR_79a	26.156	2.3	1.7	0.1
MR_79b	27.26	0.3	1.7	0.1
MR_79c	28.914	0.2	1.7	0.1
MR_79d	17.43	9.0	1.7	0.1
MR_79e	71.029	1.2	1.7	0.1
MR_80b	70.262	0.2	1.7	0.1
MR_80c	37.734	3.3	1.7	0.1
MR_80d	45.322	0.2	1.7	0.1
MR_80e	47.781	8.5	1.7	0.1
MR_81	233.775	0.2	1.7	0.1
MR_82	96.321	0.4	1.7	0.1
MR_83a	17.076	1.4	1.7	0.1
MR_83b	14.199	0.6	1.7	0.1
MR_83c	99.686	0.8	1.7	0.1



MR_83d 120,804 2.0 1.7 0.1 MR_84e 50,397 11.3 1.7 0.1 MR_86a 63,539 0.1 1.7 0.1 MR_86b 34,333 0.9 1.7 0.1 MR_86c 10,119 2.6 1.7 0.1 MR_86d 36,906 0.8 1.7 0.1 MR_86e 24,909 0.0 1.7 0.1 MR_86f 12,323 0.6 1.7 0.1 MR_86g 290,554 0.6 1.7 0.1 MR_96g 290,554 0.6 1.7 0.1 MR_96a 20,945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96b 19.723 52.2 1.7 0.1 MR_96c 1.2355 35.6 <t< th=""><th></th><th></th><th></th><th></th><th></th></t<>					
MR_86a 63.539 0.1 1.7 0.1 MR_86b 34.333 0.9 1.7 0.1 MR_86c 10.119 2.6 1.7 0.1 MR_86d 36.906 0.8 1.7 0.1 MR_86e 24.909 0.0 1.7 0.1 MR_86f 12.323 0.6 1.7 0.1 MR_86g 29.0554 0.6 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96a 33.074 4.5 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96e 9.723 52.2 1	MR_83d	120.804	2.0	1.7	0.1
MR_86b 34.333 0.9 1.7 0.1 MR_86c 10.119 2.6 1.7 0.1 MR_86d 36.906 0.8 1.7 0.1 MR_86e 24.909 0.0 1.7 0.1 MR_86f 12.323 0.6 1.7 0.1 MR_86g 290.554 0.6 1.7 0.1 MR_96a 29.045 3.0 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96e 6.718 52.0 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96i 16.816 14.5 <t< th=""><th>MR_83e</th><th>50.397</th><th>11.3</th><th>1.7</th><th>0.1</th></t<>	MR_83e	50.397	11.3	1.7	0.1
MR_86c 10.119 2.6 1.7 0.1 MR_86d 36.906 0.8 1.7 0.1 MR_86e 24.909 0.0 1.7 0.1 MR_86f 12.323 0.6 1.7 0.1 MR_86g 290.554 0.6 1.7 0.1 MR_96g 290.554 0.6 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_99 12.113 1.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	MR_86a	63.539	0.1	1.7	0.1
MR_86d 36.906 0.8 1.7 0.1 MR_86e 24.909 0.0 1.7 0.1 MR_86f 12.323 0.6 1.7 0.1 MR_86g 290.554 0.6 1.7 0.1 MR_92 122.432 0.7 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96e 6.718 52.0 1.7 0.1 MR_96e 6.718 52.0 1.7 0.1 MR_96e 6.718 52.0 1.7 0.1 MR_96e 16.816 14.5 1.7 0.1 MR_96i 16.816 14.5 <td< th=""><th>MR_86b</th><th>34.333</th><th>0.9</th><th>1.7</th><th>0.1</th></td<>	MR_86b	34.333	0.9	1.7	0.1
MR_86e 24,909 0.0 1.7 0.1 MR_86f 12,323 0.6 1.7 0.1 MR_86g 290,554 0.6 1.7 0.1 MR_96a 20,945 3.0 1.7 0.1 MR_96a 20,945 3.0 1.7 0.1 MR_96b 33,074 4.5 1.7 0.1 MR_96b 12,355 35.6 1.7 0.1 MR_96d 19,759 21.8 1.7 0.1 MR_96e 9,723 52.2 1.7 0.1 MR_96e 10,829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96g 16.816 14.5 1.7 0.1 MR_96i 16.816 14.5 <t< th=""><th>MR_86c</th><th>10.119</th><th>2.6</th><th>1.7</th><th>0.1</th></t<>	MR_86c	10.119	2.6	1.7	0.1
MR_86f 12.323 0.6 1.7 0.1 MR_86g 290.554 0.6 1.7 0.1 MR_92 122.432 0.7 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.799 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96e 10.829 46.7 1.7 0.1 MR_96e 6.718 52.0 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_97 183.157 0.1 <t< th=""><th>MR_86d</th><th>36.906</th><th>0.8</th><th>1.7</th><th>0.1</th></t<>	MR_86d	36.906	0.8	1.7	0.1
MR_86g 290.554 0.6 1.7 0.1 MR_92 122.432 0.7 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96i 12.894 27.4 1.7 0.1 MR_97 183.157 0.1 <	MR_86e	24.909	0.0	1.7	0.1
MR_92 122.432 0.7 1.7 0.1 MR_96a 20.945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96g 16.816 14.5 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96i 12.894 27.4 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 <t< th=""><th>MR_86f</th><th>12.323</th><th>0.6</th><th>1.7</th><th>0.1</th></t<>	MR_86f	12.323	0.6	1.7	0.1
MR_96a 20.945 3.0 1.7 0.1 MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96i 12.894 27.4 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 <th< th=""><th>MR_86g</th><th>290.554</th><th>0.6</th><th>1.7</th><th>0.1</th></th<>	MR_86g	290.554	0.6	1.7	0.1
MR_96b 33.074 4.5 1.7 0.1 MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96i 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7	MR_92	122.432	0.7	1.7	0.1
MR_96c 12.355 35.6 1.7 0.1 MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78a 5.723 80.5 1.7 0.1	MR_96a	20.945	3.0	1.7	0.1
MR_96d 19.759 21.8 1.7 0.1 MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78a 5.723 80.5 1.	MR_96b	33.074	4.5	1.7	0.1
MR_96e 9.723 52.2 1.7 0.1 MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7	MR_96c	12.355	35.6	1.7	0.1
MR_96f 10.829 46.7 1.7 0.1 MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	MR_96d	19.759	21.8	1.7	0.1
MR_96g 6.718 52.0 1.7 0.1 MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 </th <th>MR_96e</th> <th>9.723</th> <th>52.2</th> <th>1.7</th> <th>0.1</th>	MR_96e	9.723	52.2	1.7	0.1
MR_96h 8.411 51.9 1.7 0.1 MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_88a 64.981 5.7 1.7 </th <th>MR_96f</th> <th>10.829</th> <th>46.7</th> <th>1.7</th> <th>0.1</th>	MR_96f	10.829	46.7	1.7	0.1
MR_96i 16.816 14.5 1.7 0.1 MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	MR_96g	6.718	52.0	1.7	0.1
MR_96j 12.894 27.4 1.7 0.1 MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 <th>MR_96h</th> <th>8.411</th> <th>51.9</th> <th>1.7</th> <th>0.1</th>	MR_96h	8.411	51.9	1.7	0.1
MR_96k 7.928 44.8 1.7 0.1 MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7	MR_96i	16.816	14.5	1.7	0.1
MR_97 183.157 0.1 1.7 0.1 MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1	MR_96j	12.894	27.4	1.7	0.1
MR_98a 11.498 0.9 1.7 0.1 MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1 <th>MR_96k</th> <th>7.928</th> <th>44.8</th> <th>1.7</th> <th>0.1</th>	MR_96k	7.928	44.8	1.7	0.1
MR_98b 55.823 0.1 1.7 0.1 MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7	MR_97	183.157	0.1	1.7	0.1
MR_99 129.113 1.0 1.7 0.1 RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	MR_98a	11.498	0.9	1.7	0.1
RC_52a 33.85 0.7 1.7 0.1 RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	MR_98b	55.823	0.1	1.7	0.1
RC_52b 21.437 0.0 1.7 0.1 RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	MR_99	129.113	1.0	1.7	0.1
RC_52c 31.008 1.0 1.7 0.1 RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_52a	33.85	0.7	1.7	0.1
RC_78a 7.93 53.5 1.7 0.1 RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_52b	21.437	0.0	1.7	0.1
RC_78b 6.234 78.4 1.7 0.1 RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_52c	31.008	1.0	1.7	0.1
RC_78c 5.723 80.5 1.7 0.1 RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_78a	7.93	53.5	1.7	0.1
RC_78d 8.218 57.2 1.7 0.1 RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_78b	6.234	78.4	1.7	0.1
RC_88a 64.981 5.7 1.7 0.1 RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_78c	5.723	80.5	1.7	0.1
RC_88b 39.785 1.5 1.7 0.1 RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_78d	8.218	57.2	1.7	0.1
RC_88c 31.4 0.7 1.7 0.1 RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_88a	64.981	5.7	1.7	0.1
RC_88d 28.043 5.8 1.7 0.1 RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_88b	39.785	1.5	1.7	0.1
RC_88e 40.265 7.1 1.7 0.1 RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_88c	31.4	0.7	1.7	0.1
RC_88f 46.681 5.5 1.7 0.1 RC_88g 33.746 5.8 1.7 0.1	RC_88d	28.043	5.8	1.7	0.1
RC_88g 33.746 5.8 1.7 0.1	RC_88e	40.265	7.1	1.7	0.1
	RC_88f	46.681	5.5	1.7	0.1
RC_88h 32.323 6.0 1.7 0.1	RC_88g	33.746	5.8	1.7	0.1
	RC_88h	32.323	6.0	1.7	0.1



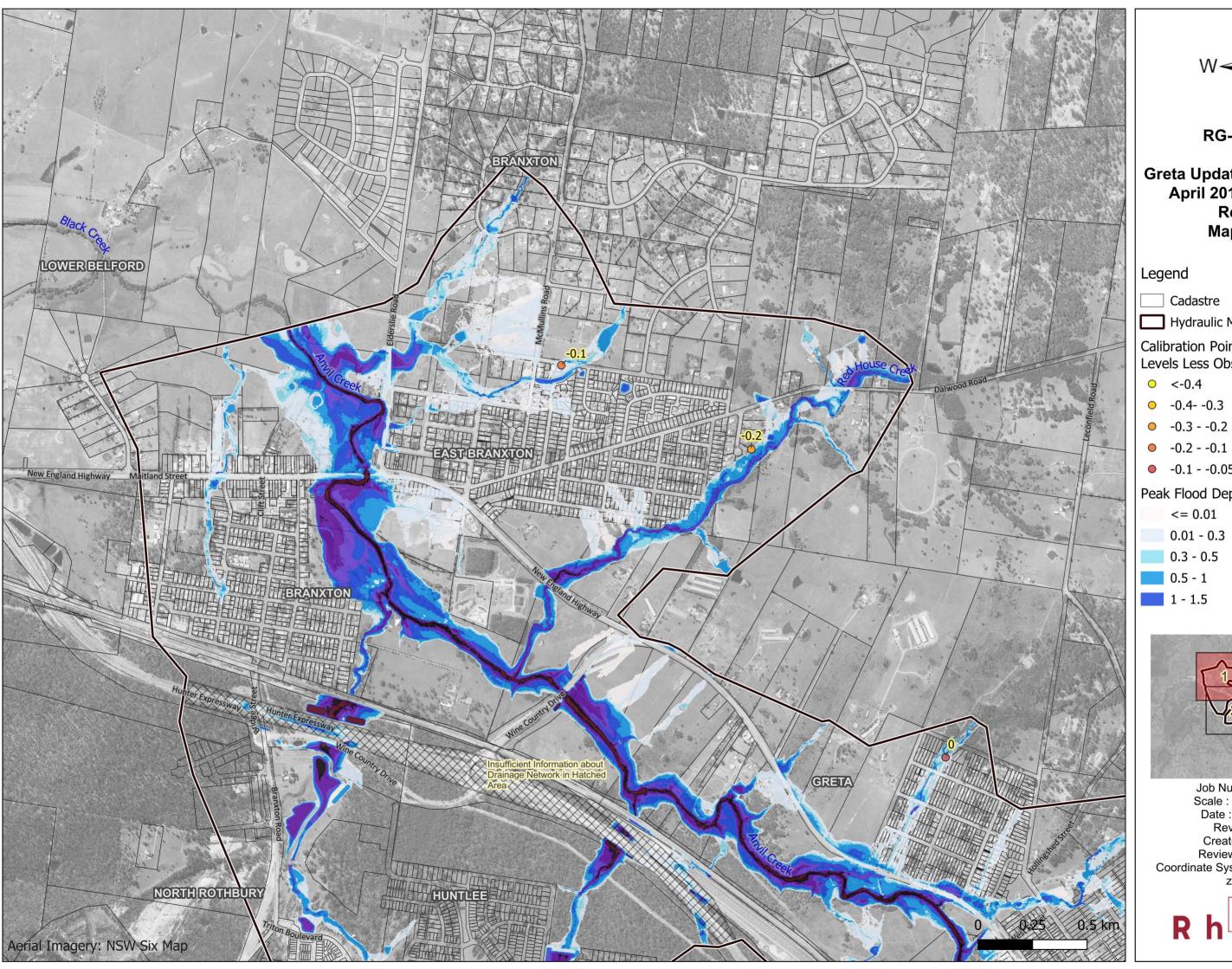
RC_89a	12.932	3.6	1.7	0.1
RC_89b	10.791	5.4	1.7	0.1
RC_89c	20.05	2.8	1.7	0.1
RC_89d	19.517	3.8	1.7	0.1
RC_89e	14.334	35.4	1.7	0.1
RC_89f	16.743	1.2	1.7	0.1
RC_89g	11.818	18.0	1.7	0.1
RC_89h	18.207	22.9	1.7	0.1
RC_89i	16.052	29.5	1.7	0.1
RC_89j	9.843	47.2	1.7	0.1
RC_89k	12.556	32.0	1.7	0.1
RC_89I	7.679	27.4	1.7	0.1
RC_89m	7.929	53.2	1.7	0.1
RC_89n	14.105	1.7	1.7	0.1
RC_89o	19.566	4.1	1.7	0.1
RC_89p	9.638	11.9	1.7	0.1
RC_90a	8.011	16.1	1.7	0.1
RC_90b	12.506	28.5	1.7	0.1
RC_90c	11.147	17.1	1.7	0.1
RC_90d	22.485	0.2	1.7	0.1
RC_90e	11.954	5.8	1.7	0.1
RC_90f	16.43	24.3	1.7	0.1
RC_90g	12.881	14.4	1.7	0.1
RC_90h	13.009	8.6	1.7	0.1
RC_93a	7.281	35.7	1.7	0.1
RC_93b	59.598	1.4	1.7	0.1
RC_94a	25.564	4.9	1.7	0.1
RC_94b	46.612	5.9	1.7	0.1
RC_94c	37.198	6.3	1.7	0.1
RC_94d	24.34	6.8	1.7	0.1
RC_96	32.917	1.9	1.7	0.1
WC_21	614.953	0.6	1.7	0.1
WC_28	2099.557	0.2	1.7	0.1
WC_33	2005.703	0.4	1.7	0.1
WC_34	860.59	0.8	1.7	0.1
WC_35	727.382	0.3	1.7	0.1
WC_50	327.38	0.4	1.7	0.1
WC_66	622.502	0.5	1.7	0.1
WC_67	700.506	0.8	1.7	0.1





Appendix F

Flood Maps





RG-01-001a

Greta Updated Flood Study April 2015 Validation Results Map 1 of 3

- Cadastre
- Hydraulic Model Extent

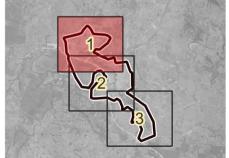
Calibration Points (Modelled Levels Less Observed Levels) [m]

- -0.05 0.05 0.05 - 0.1
- -0.4- -0.3
 - 0.1 0.2
- -0.2 -0.1
- 0.2 0.3
- -0.1 -0.05
- 0.3 0.4

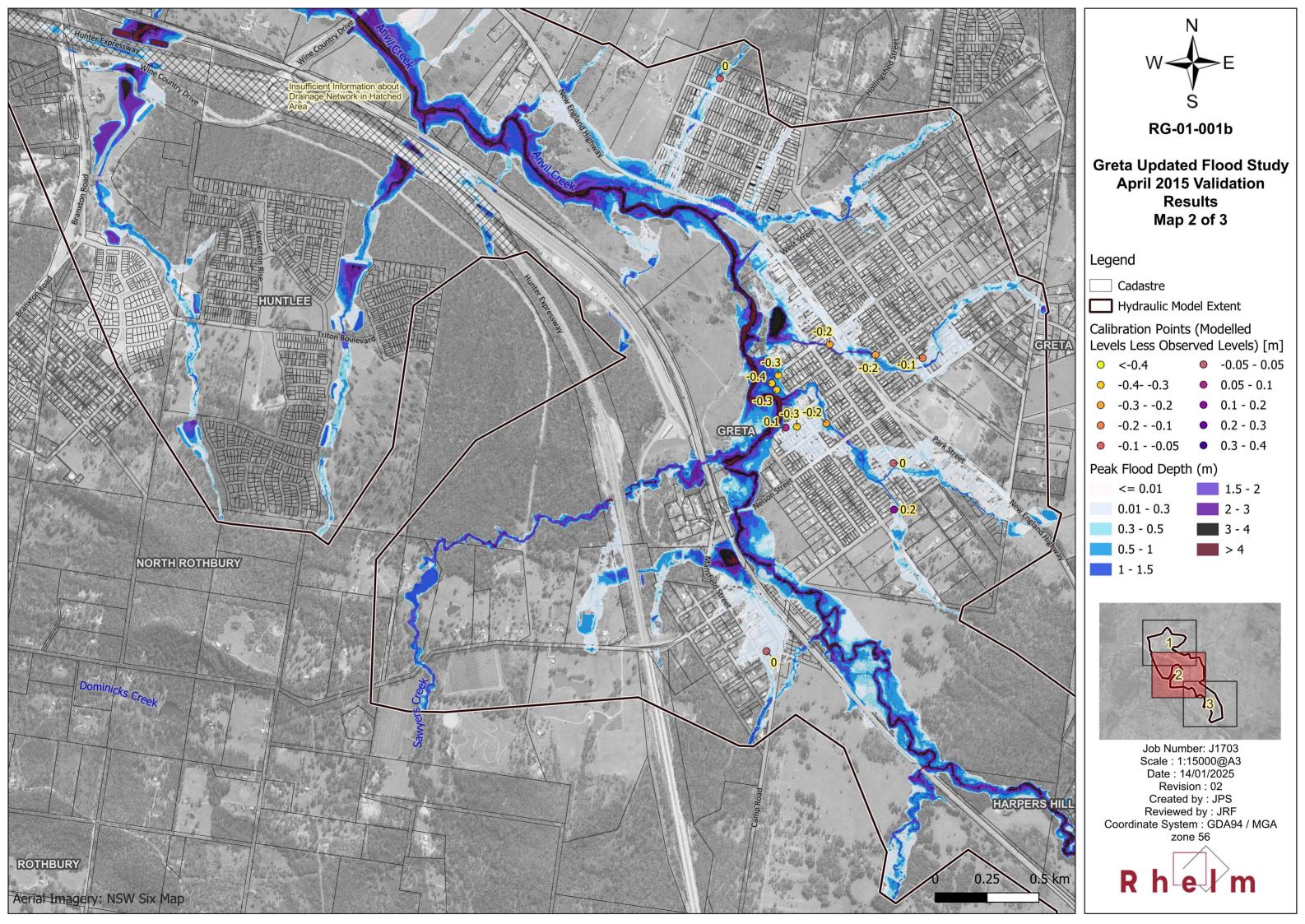
Peak Flood Depth (m)

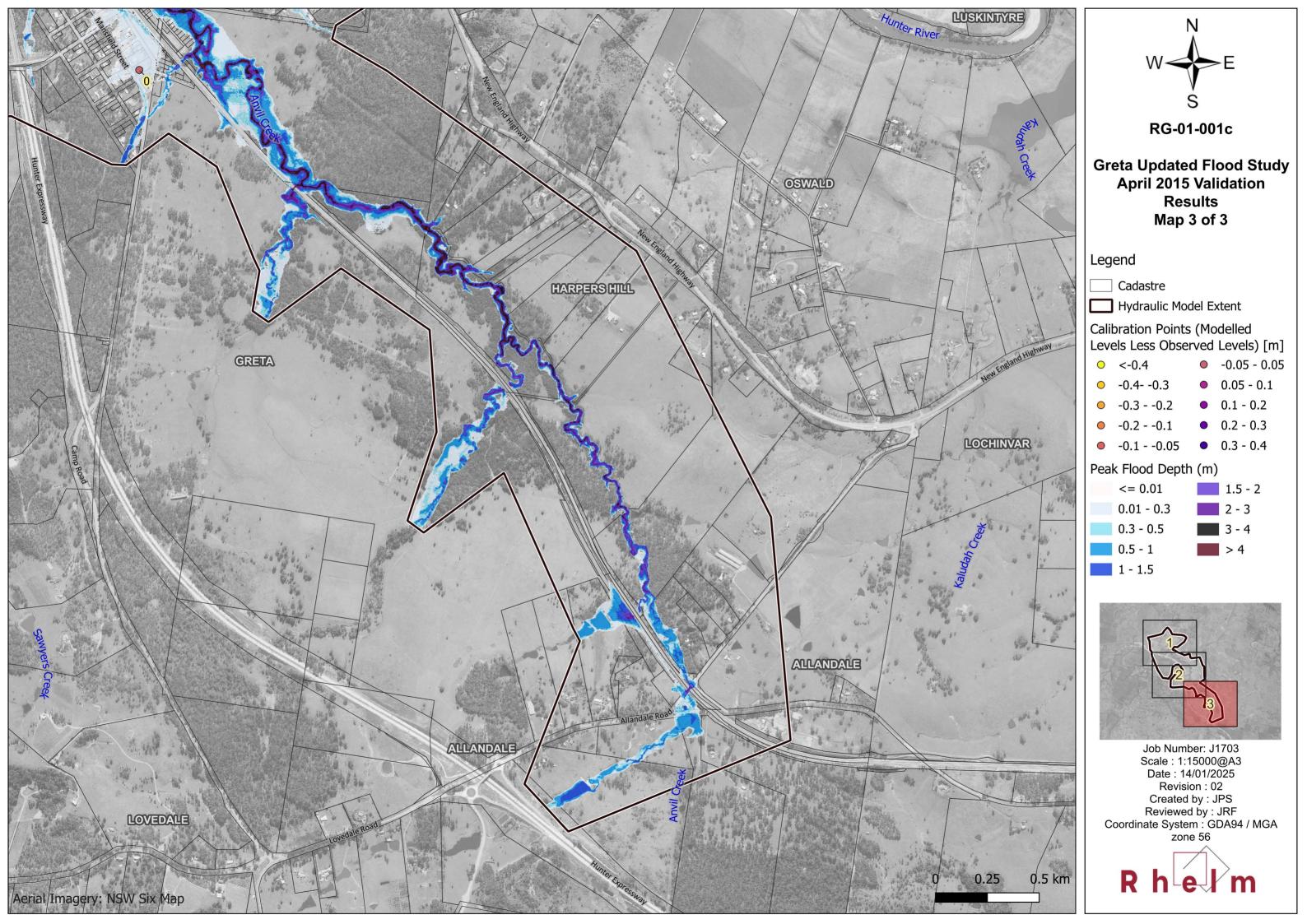
- <= 0.01
 - 1.5 2
- 0.01 0.3
- 0.3 0.5

- 1 1.5













RG-01-002a

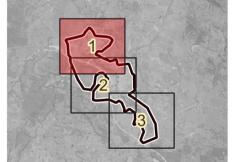
Greta Updated Flood Study Updated Flood Study Less Flood Study (WMAwater, 2019) - 1% AEP Map 1 of 3

Legend

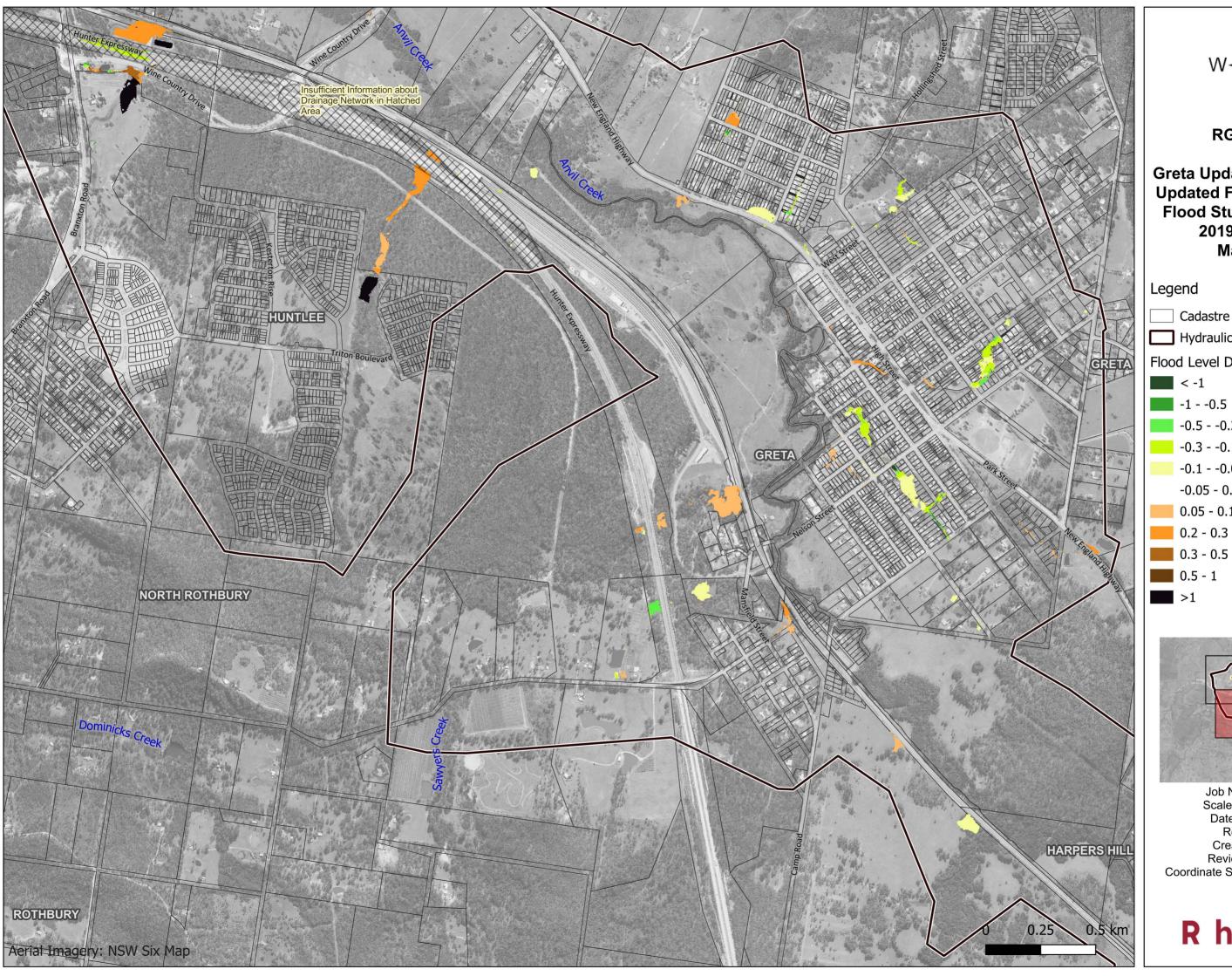
- Cadastre
- Hydraulic Model Extent

Flood Level Difference (m)

- -1 -0.5
- -0.5 -0.3
- -0.3 -0.1
- -0.1 -0.05
- -0.05 0.05
- 0.05 0.1
- 0.2 0.3
- 0.3 0.5









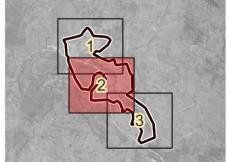
RG-01-002b

Greta Updated Flood Study Updated Flood Study Less Flood Study (WMAwater, 2019) - 1% AEP Map 2 of 3

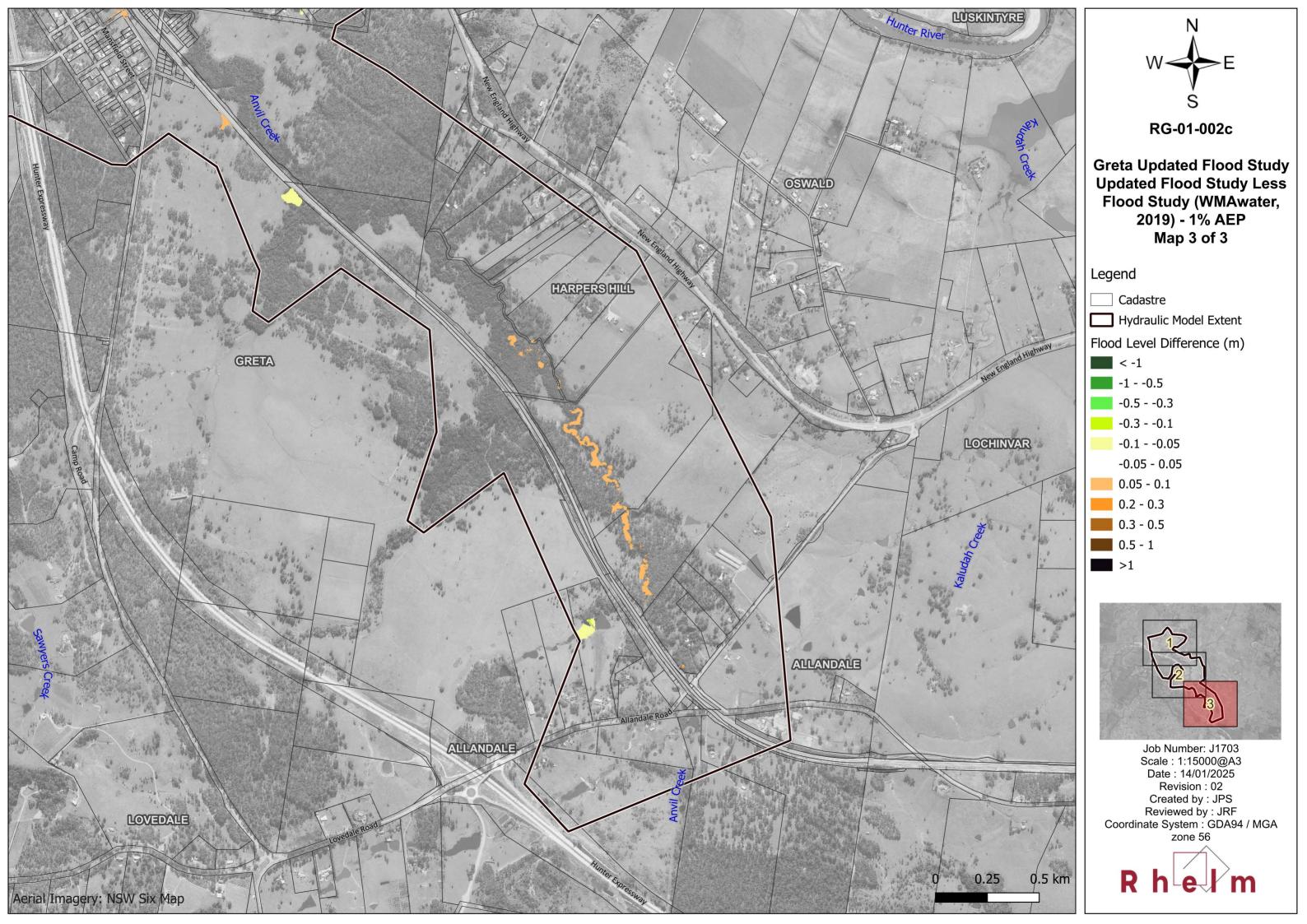
- Cadastre
- Hydraulic Model Extent

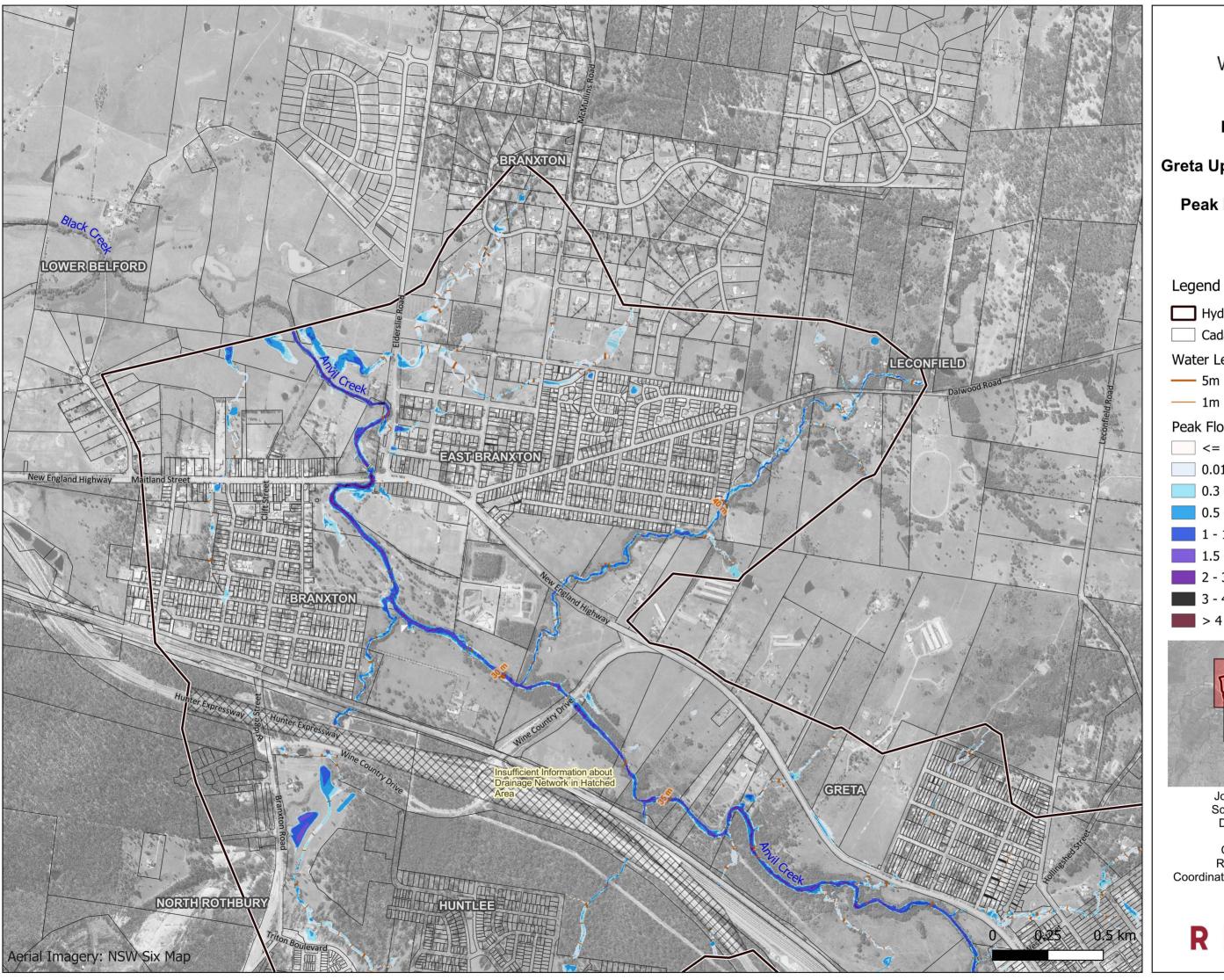
Flood Level Difference (m)

- -1 -0.5
- -0.5 -0.3
- -0.3 -0.1
 - -0.1 -0.05
 - -0.05 0.05
- 0.05 0.1
- 0.2 0.3











Peak Flood Depth and Elevation 1EY Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

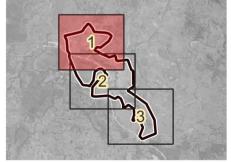
Water Level Contours

Peak Flood Depth (m)

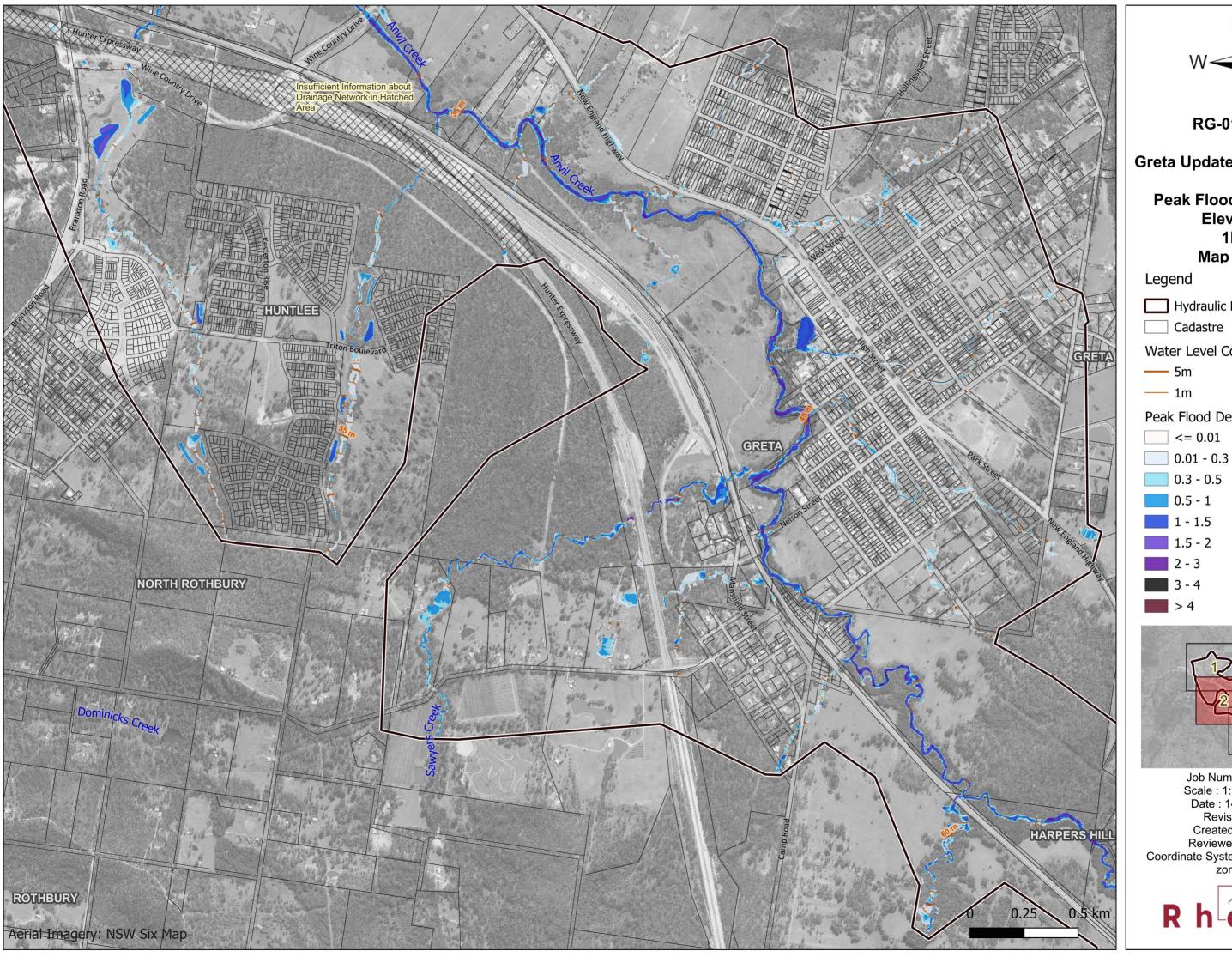
<= 0.01

0.01 - 0.3

0.3 - 0.5









Peak Flood Depth and Elevation 1EY Map 2 of 3

Legend

Hydraulic Model Extent

Cadastre

Water Level Contours

Peak Flood Depth (m)

<= 0.01

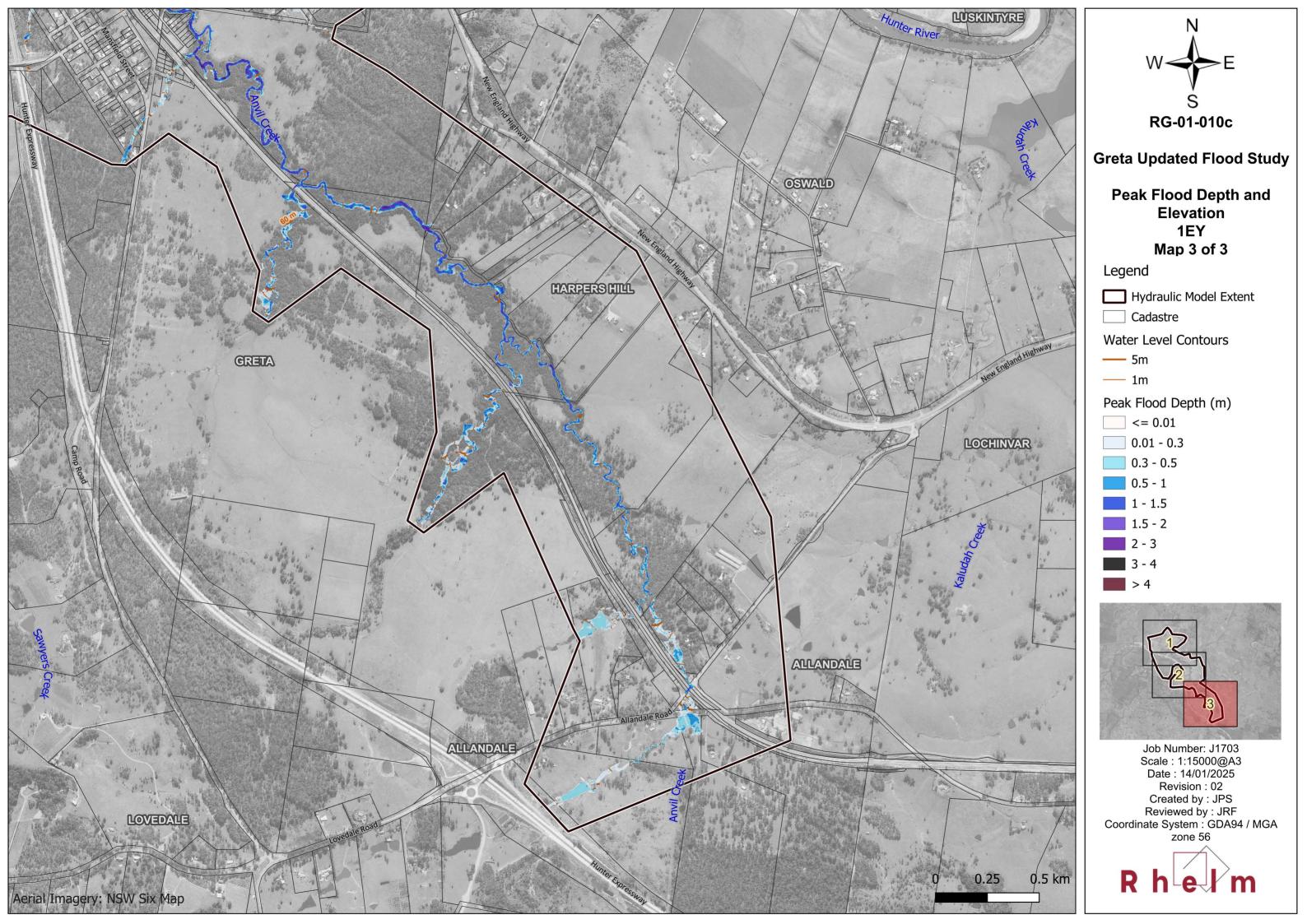
0.3 - 0.5

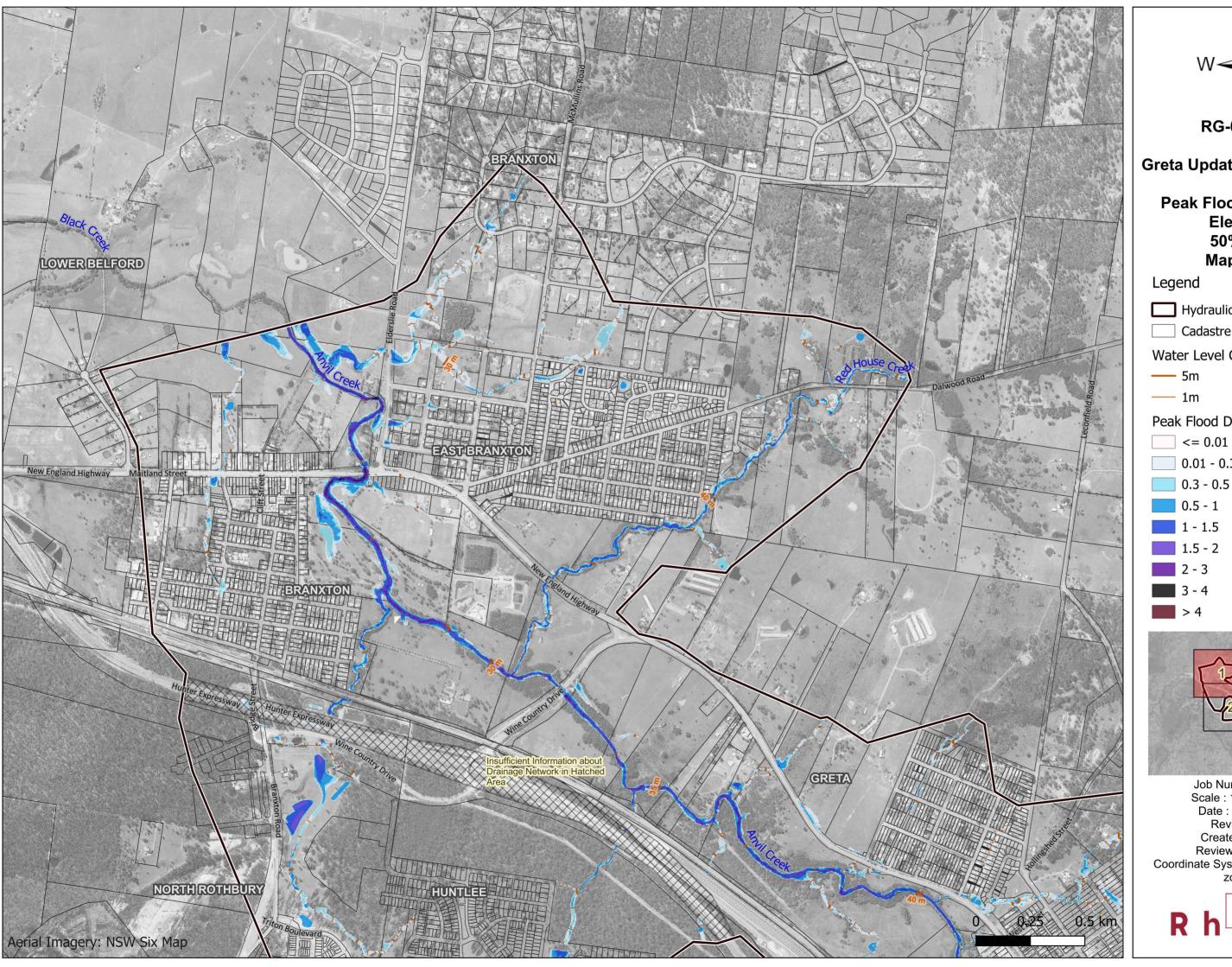
0.5 - 1

1 - 1.5

1.5 - 2









Peak Flood Depth and Elevation 50% AEP Map 1 of 3

Legend

Hydraulic Model Extent

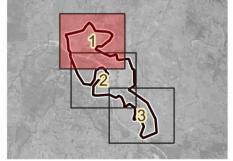
Cadastre

Water Level Contours

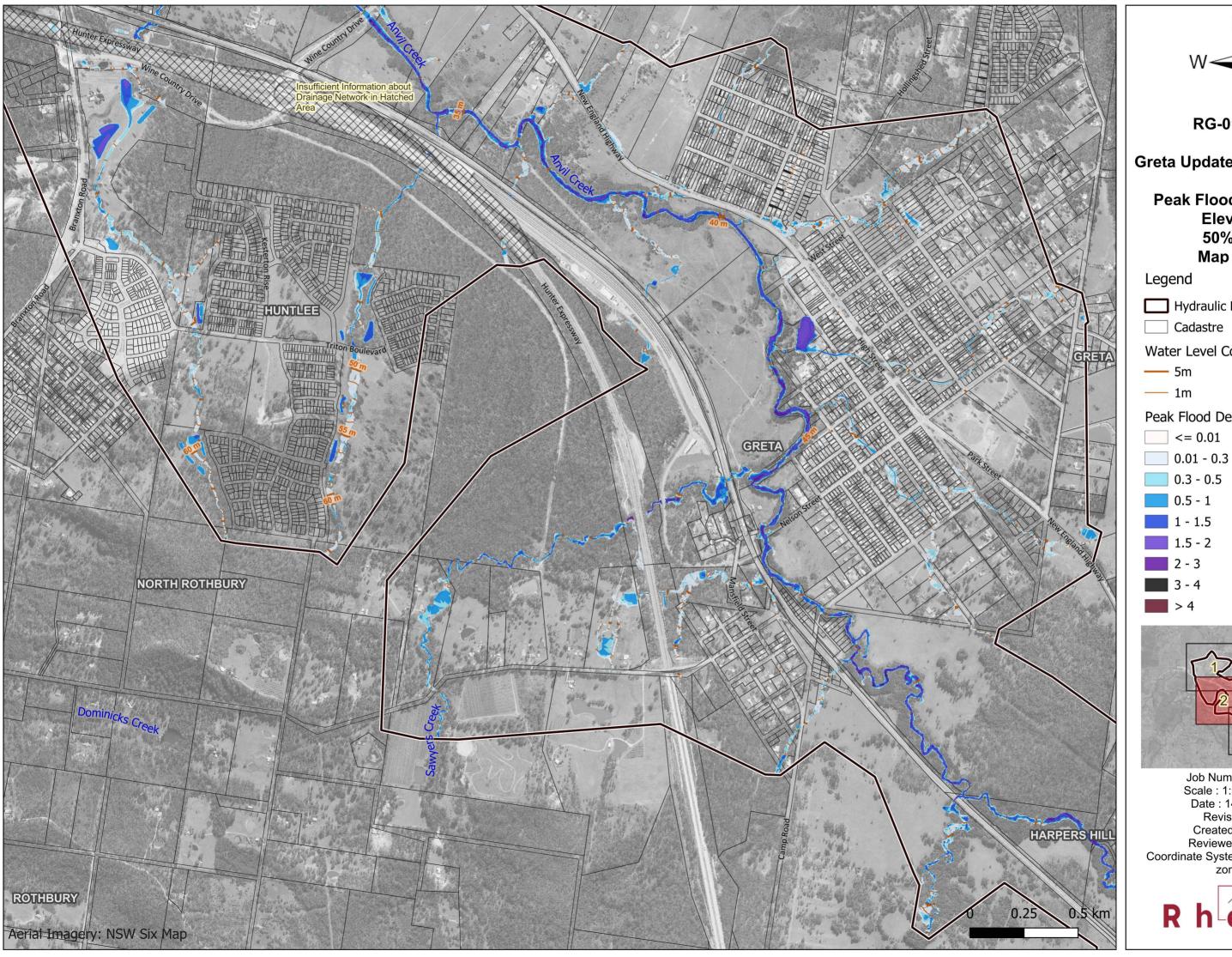
Peak Flood Depth (m)

<= 0.01

0.01 - 0.3









Peak Flood Depth and Elevation 50% AEP Map 2 of 3

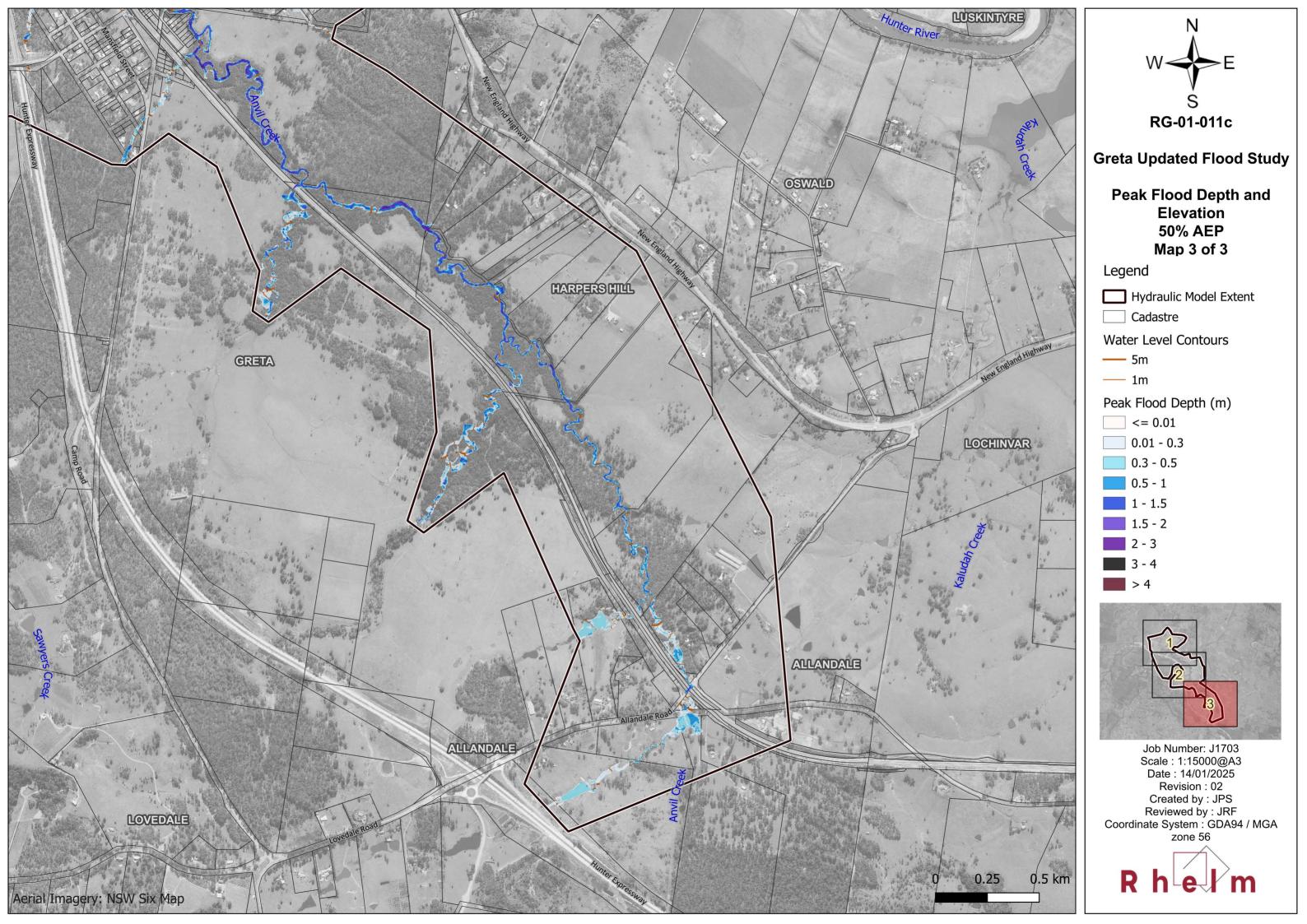
Hydraulic Model Extent

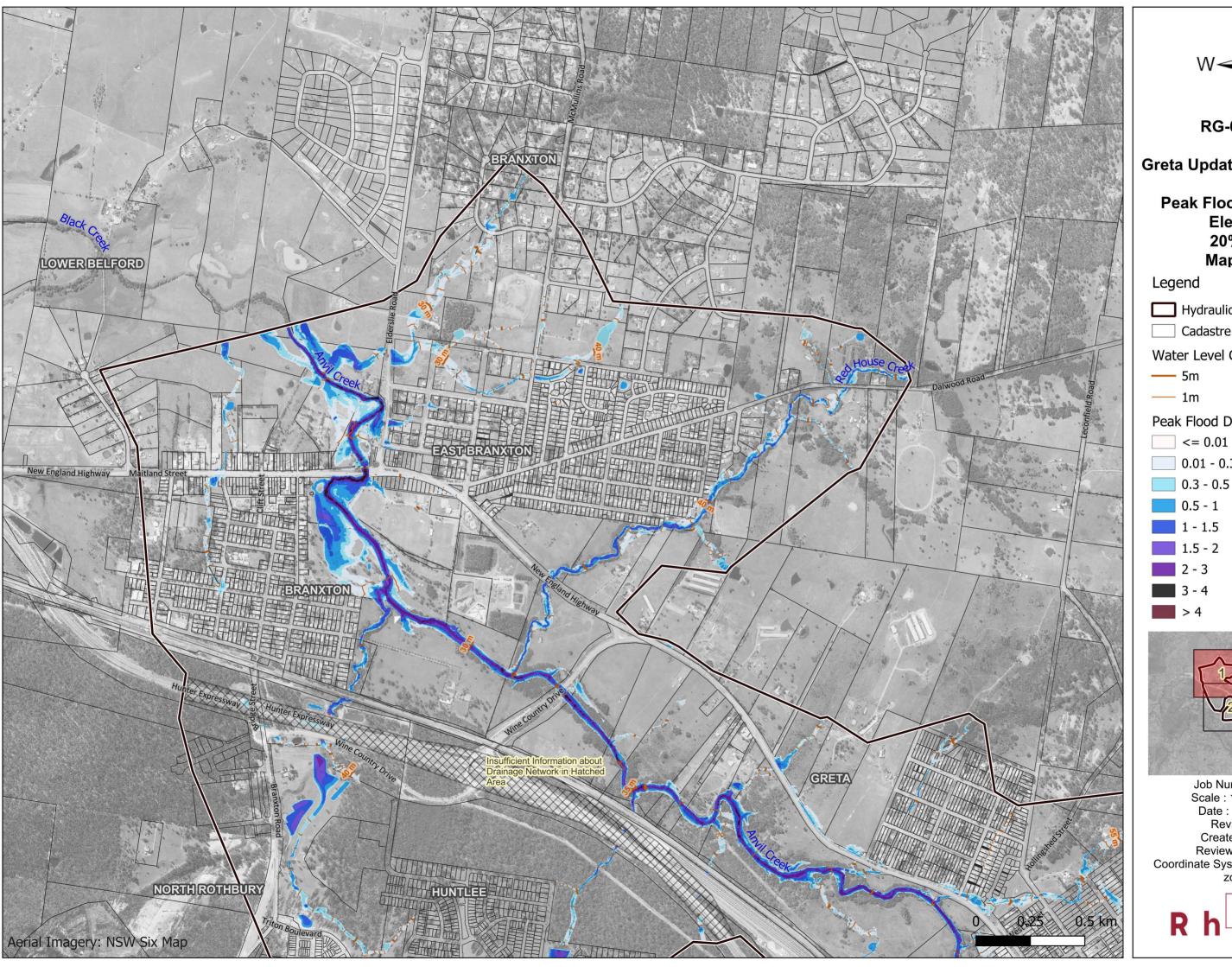
Water Level Contours

Peak Flood Depth (m)











Peak Flood Depth and Elevation 20% AEP Map 1 of 3

Legend

Hydraulic Model Extent

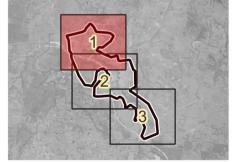
Cadastre

Water Level Contours

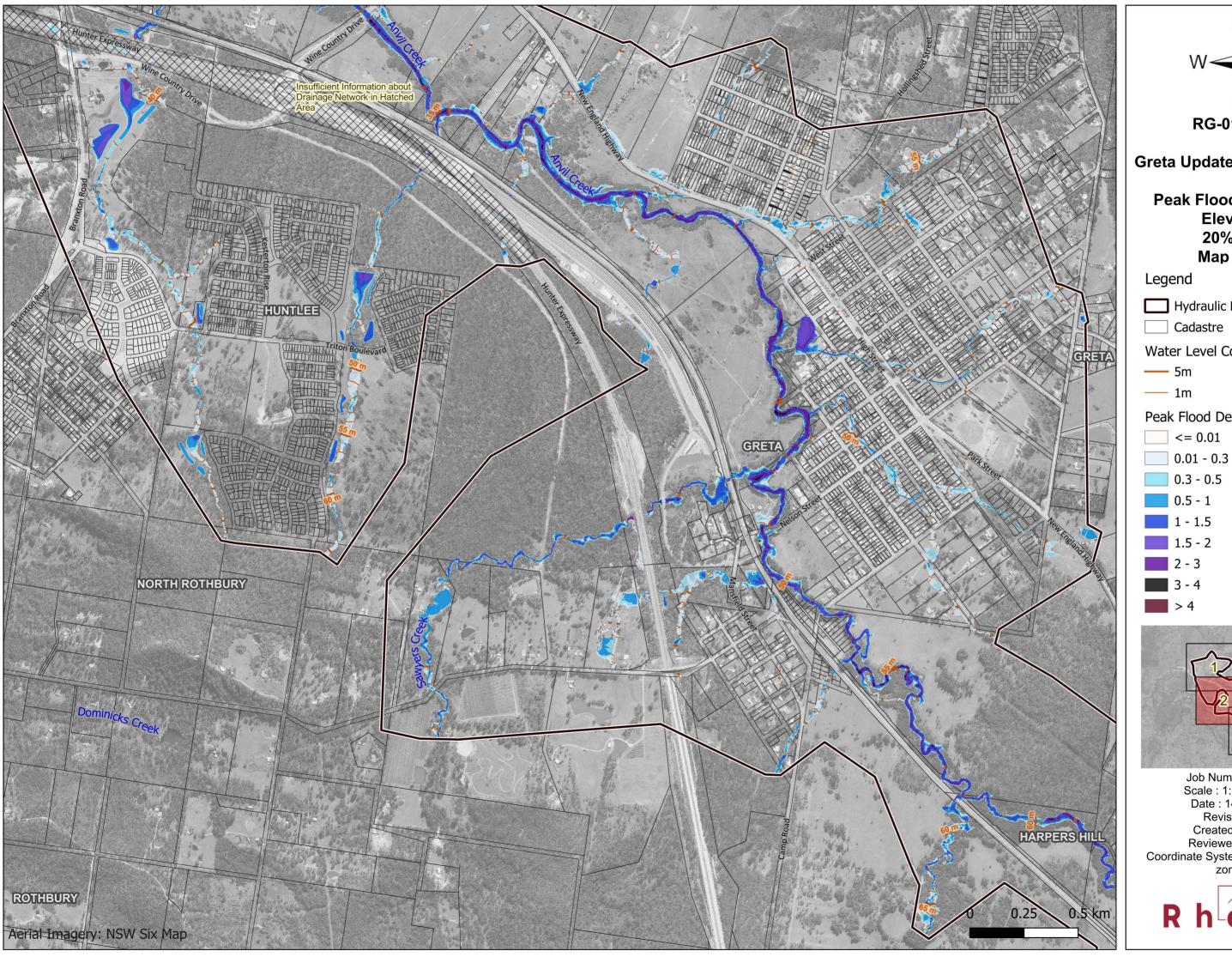
Peak Flood Depth (m)

<= 0.01

0.01 - 0.3









Peak Flood Depth and Elevation 20% AEP Map 2 of 3

Hydraulic Model Extent

Cadastre

Water Level Contours

Peak Flood Depth (m)

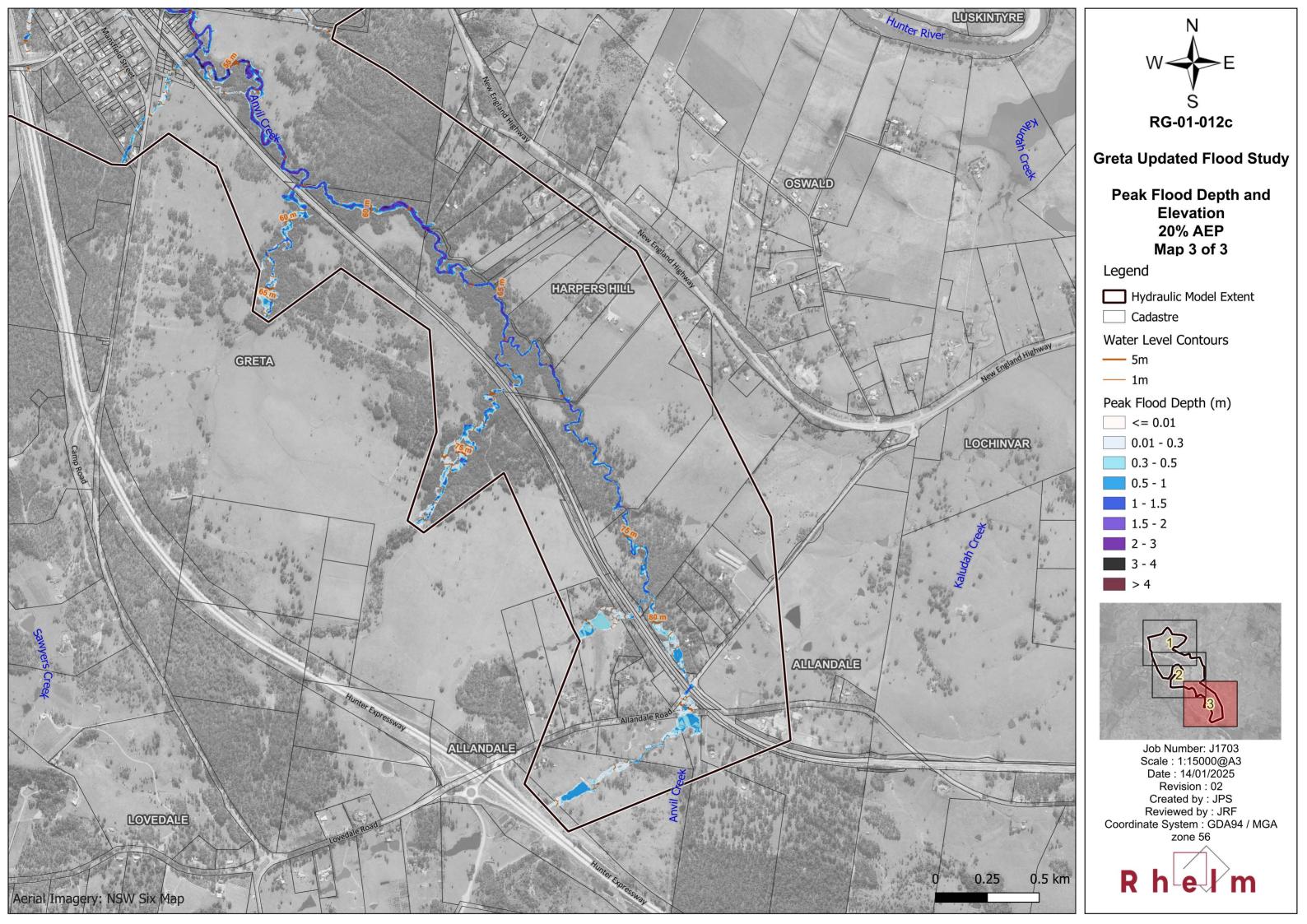
<= 0.01

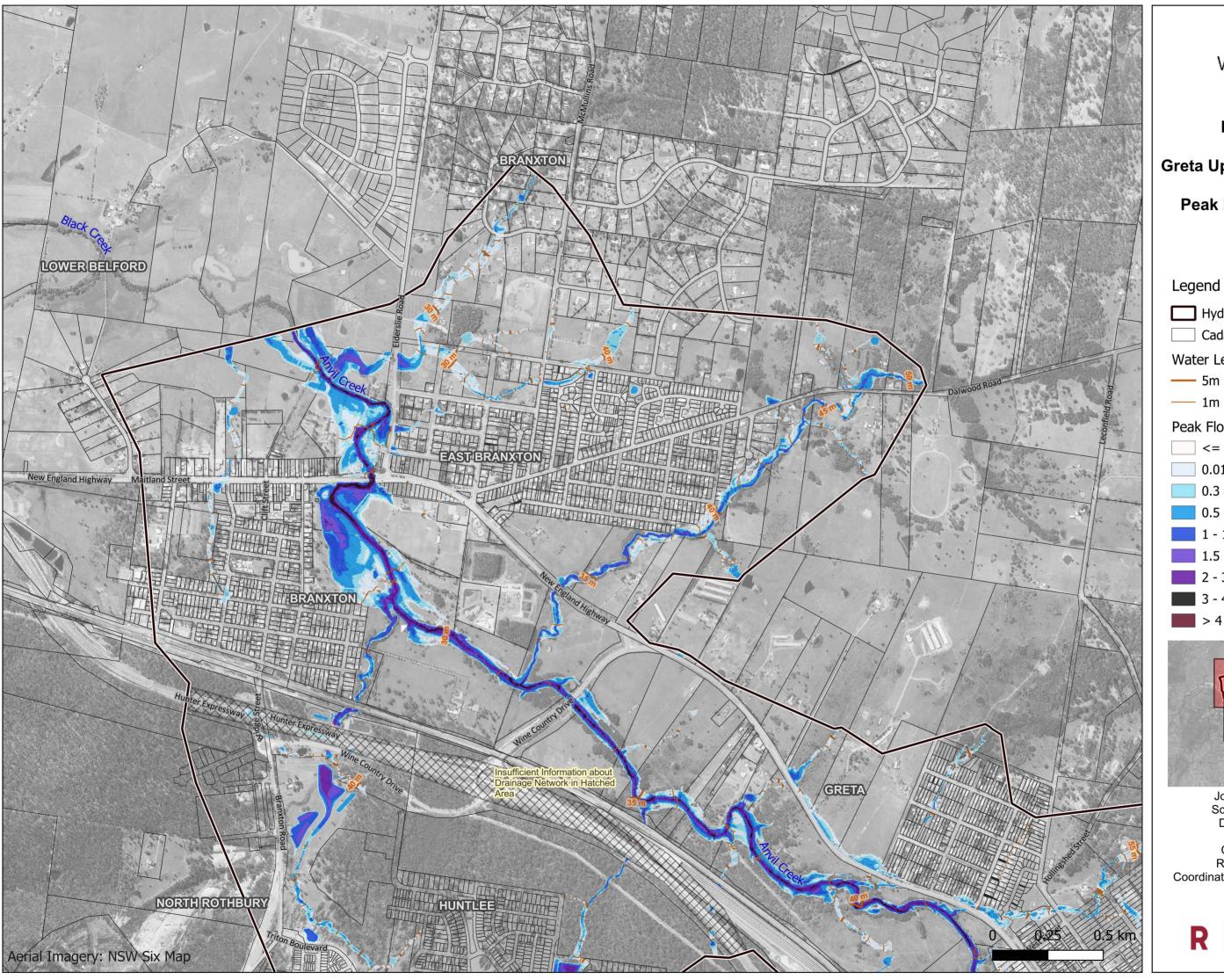
0.5 - 1

1.5 - 2











Peak Flood Depth and Elevation 10% AEP Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

Water Level Contours

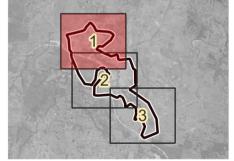
Peak Flood Depth (m)

<= 0.01

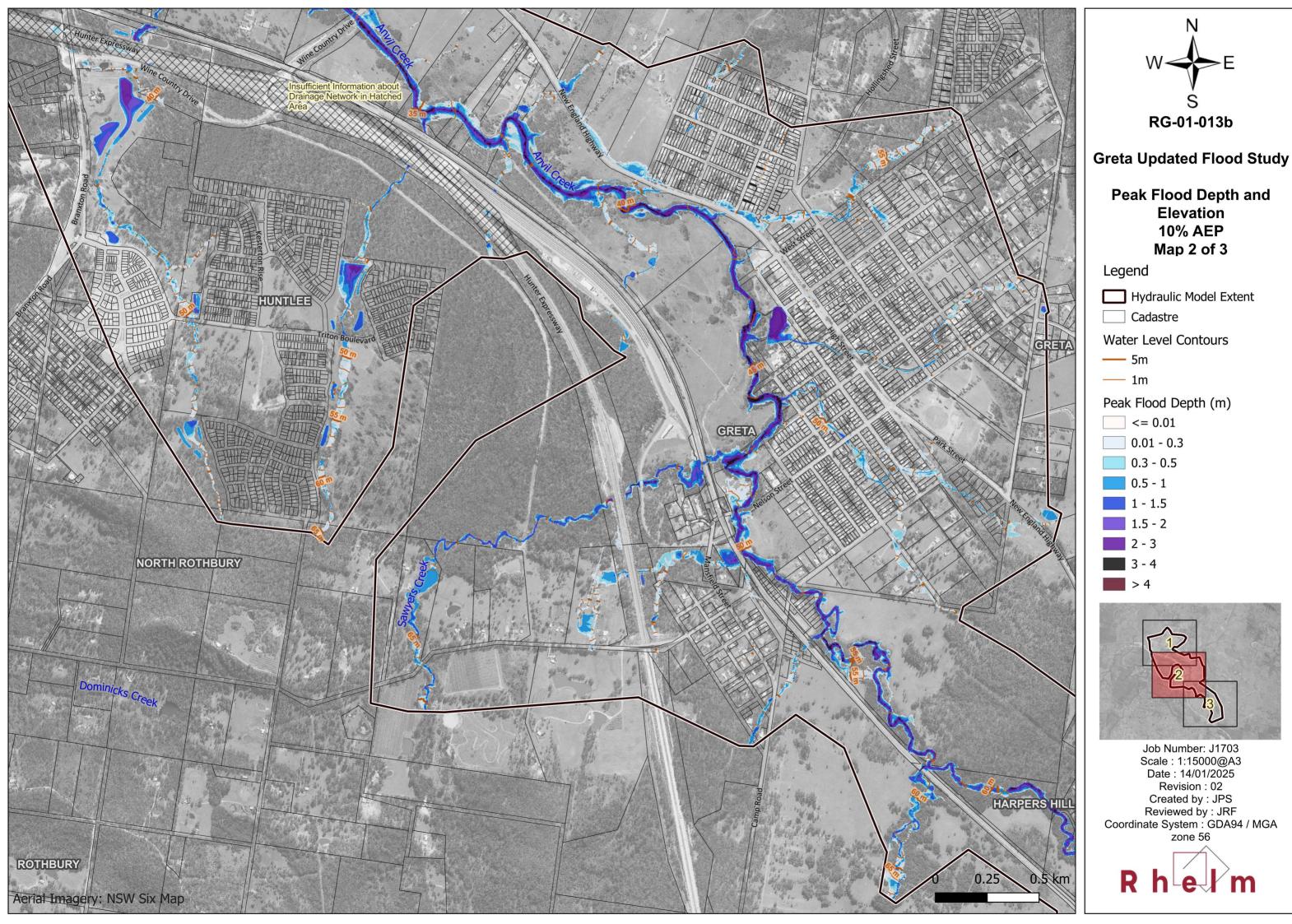
0.01 - 0.3

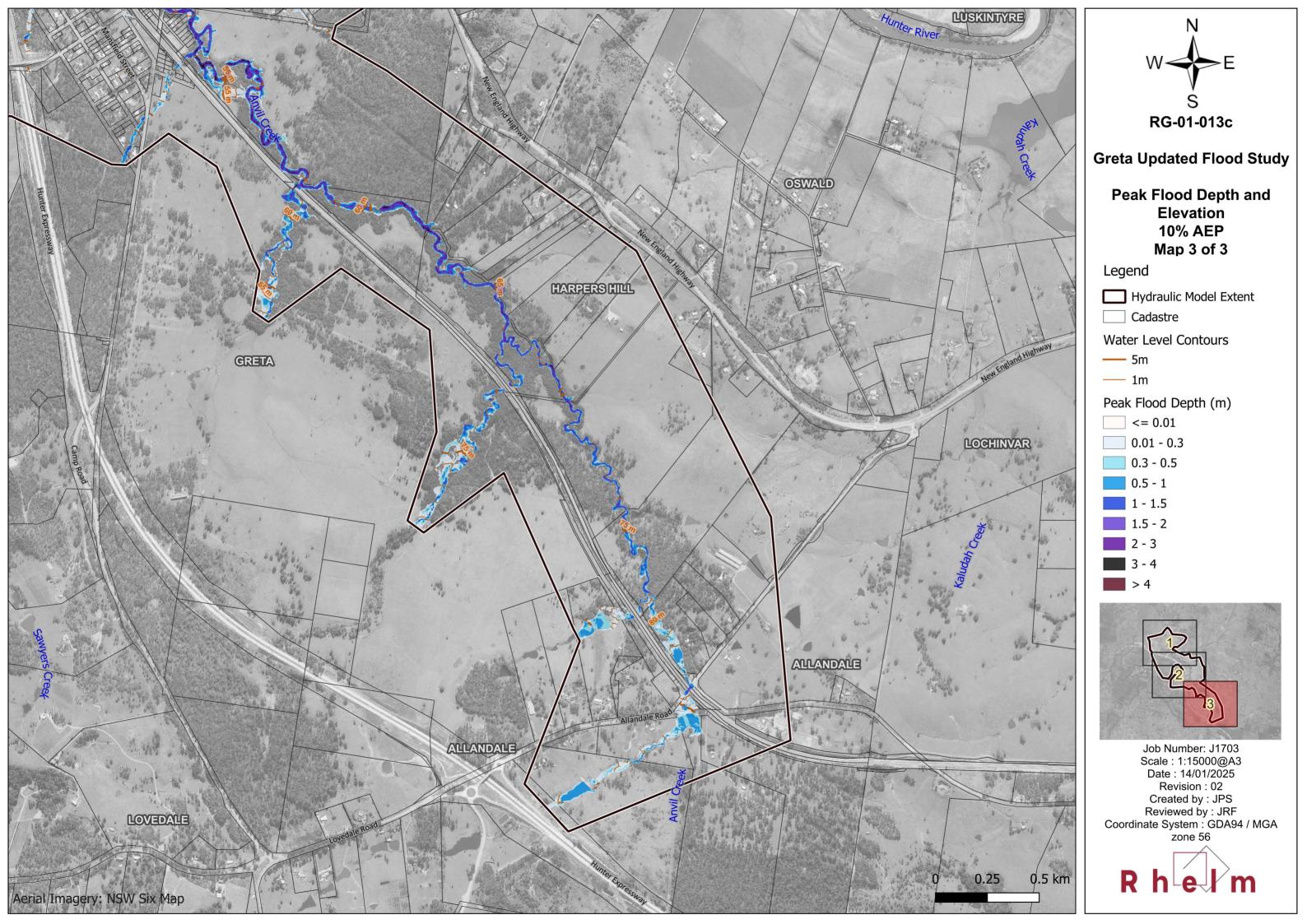
0.3 - 0.5

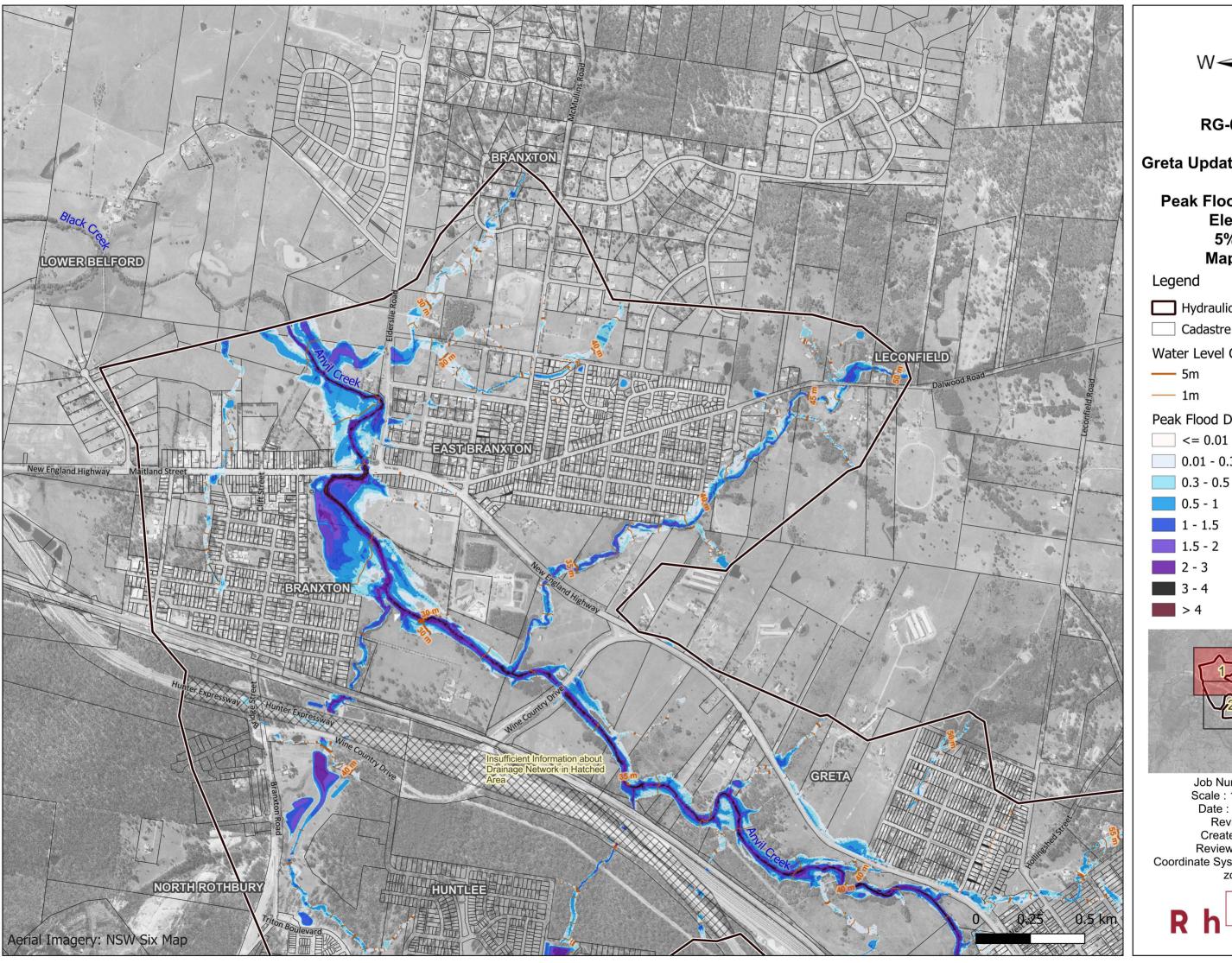
0.5 - 1













Peak Flood Depth and Elevation 5% AEP Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

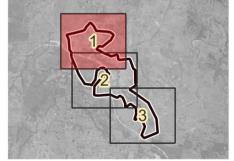
Water Level Contours

Peak Flood Depth (m)

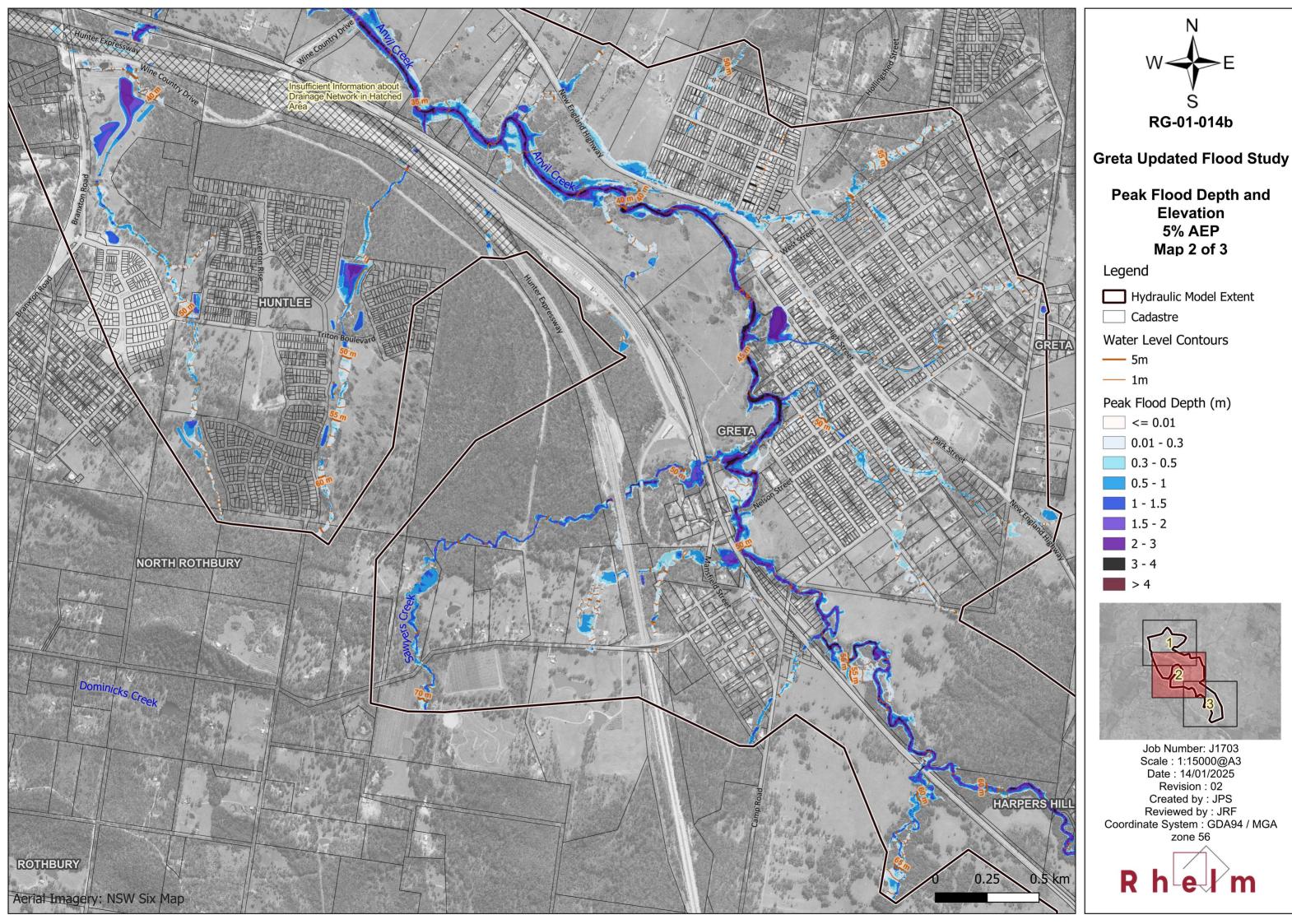
<= 0.01

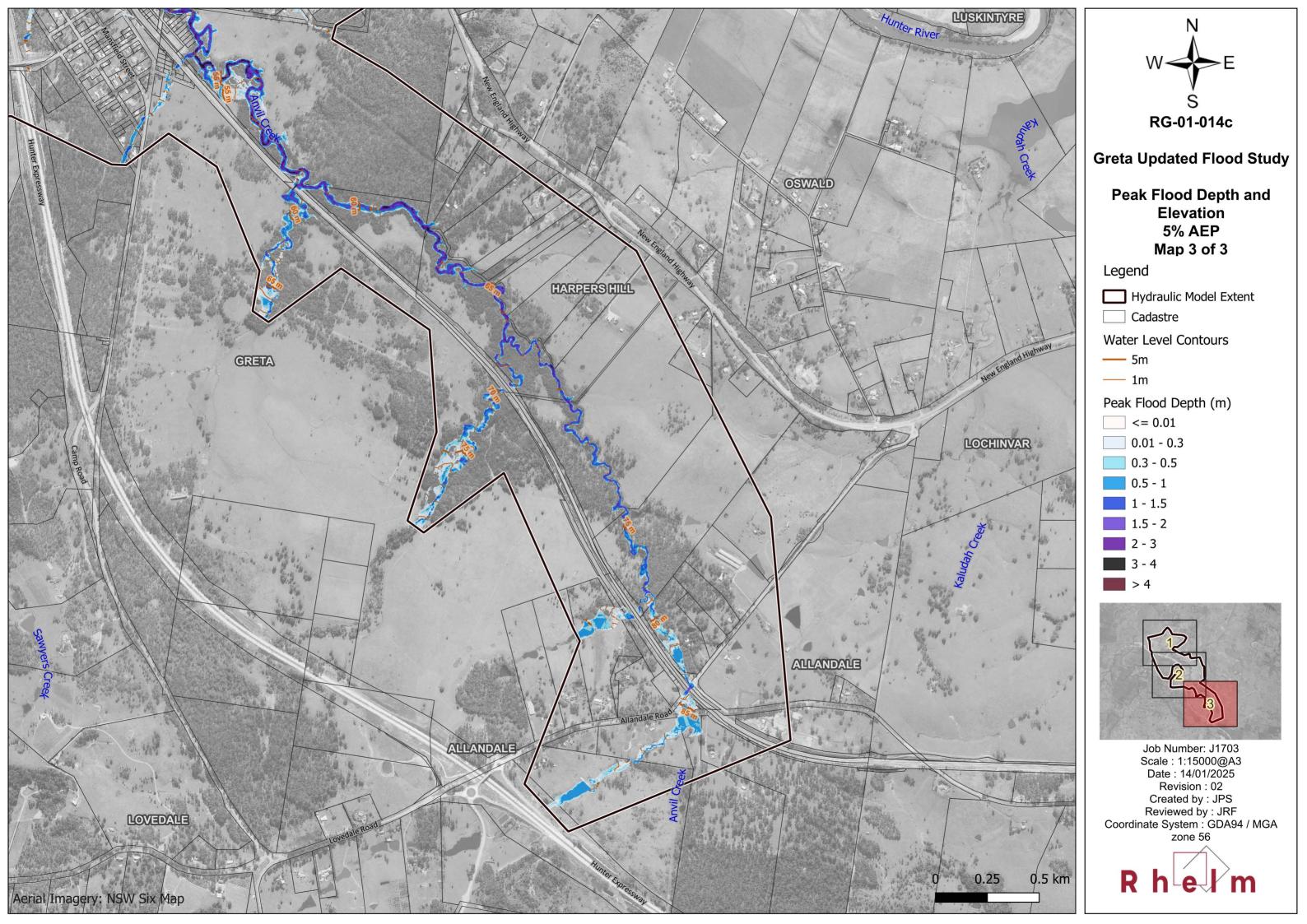
0.01 - 0.3

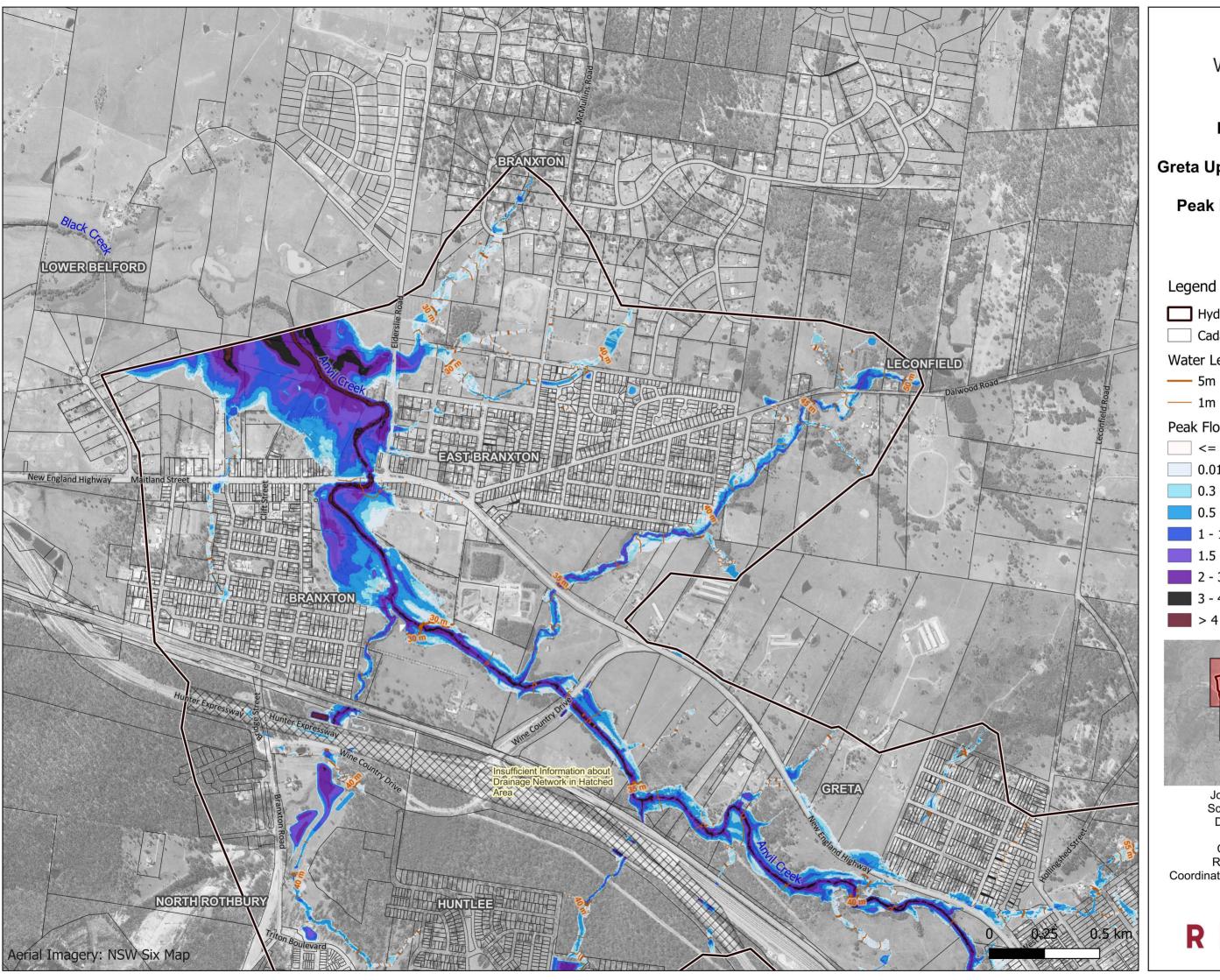
0.5 - 1













Peak Flood Depth and Elevation 2% AEP Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

Water Level Contours

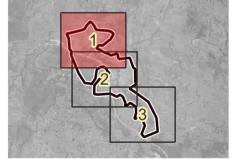
Peak Flood Depth (m)

<= 0.01

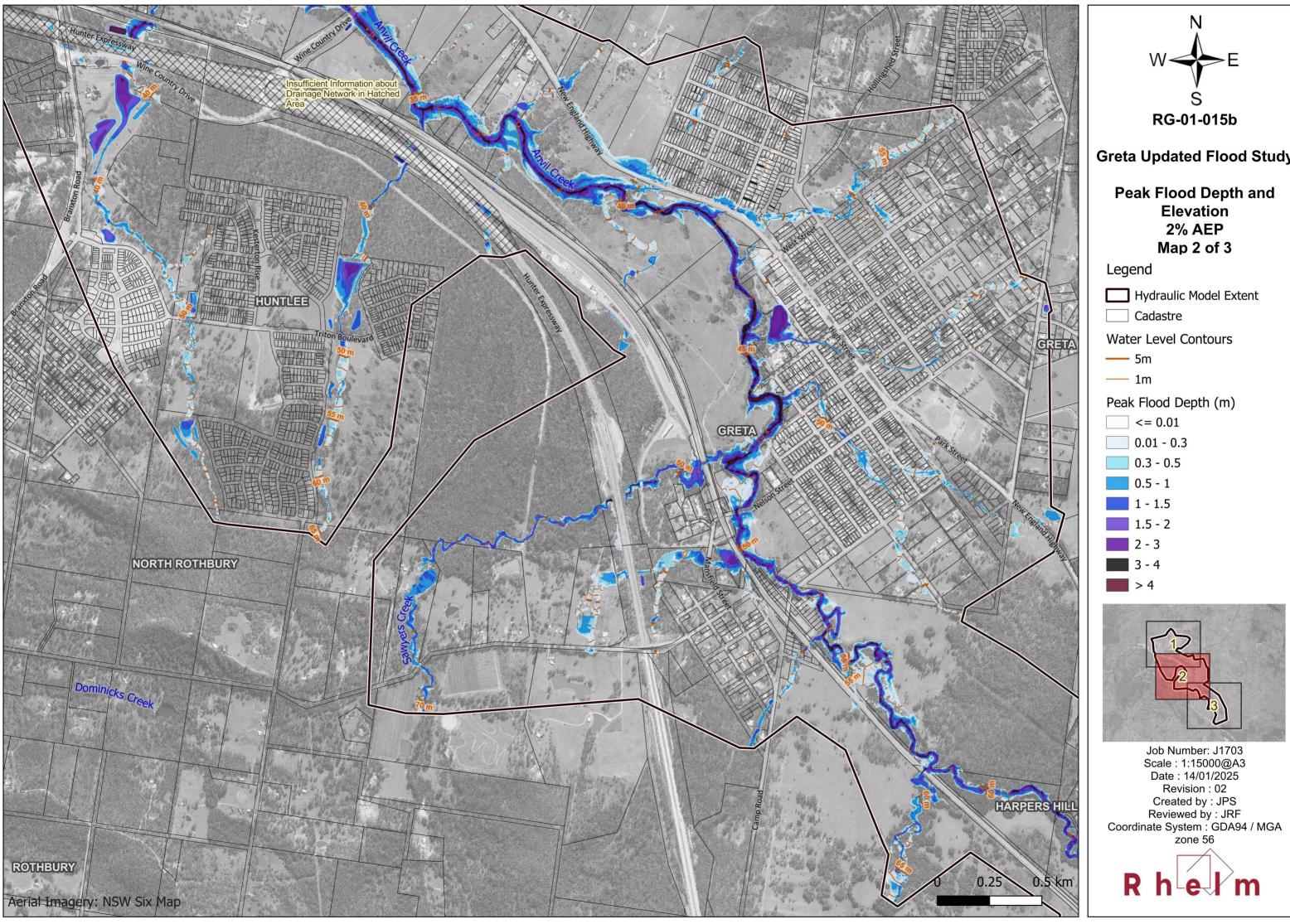
0.01 - 0.3

0.3 - 0.5 0.5 - 1







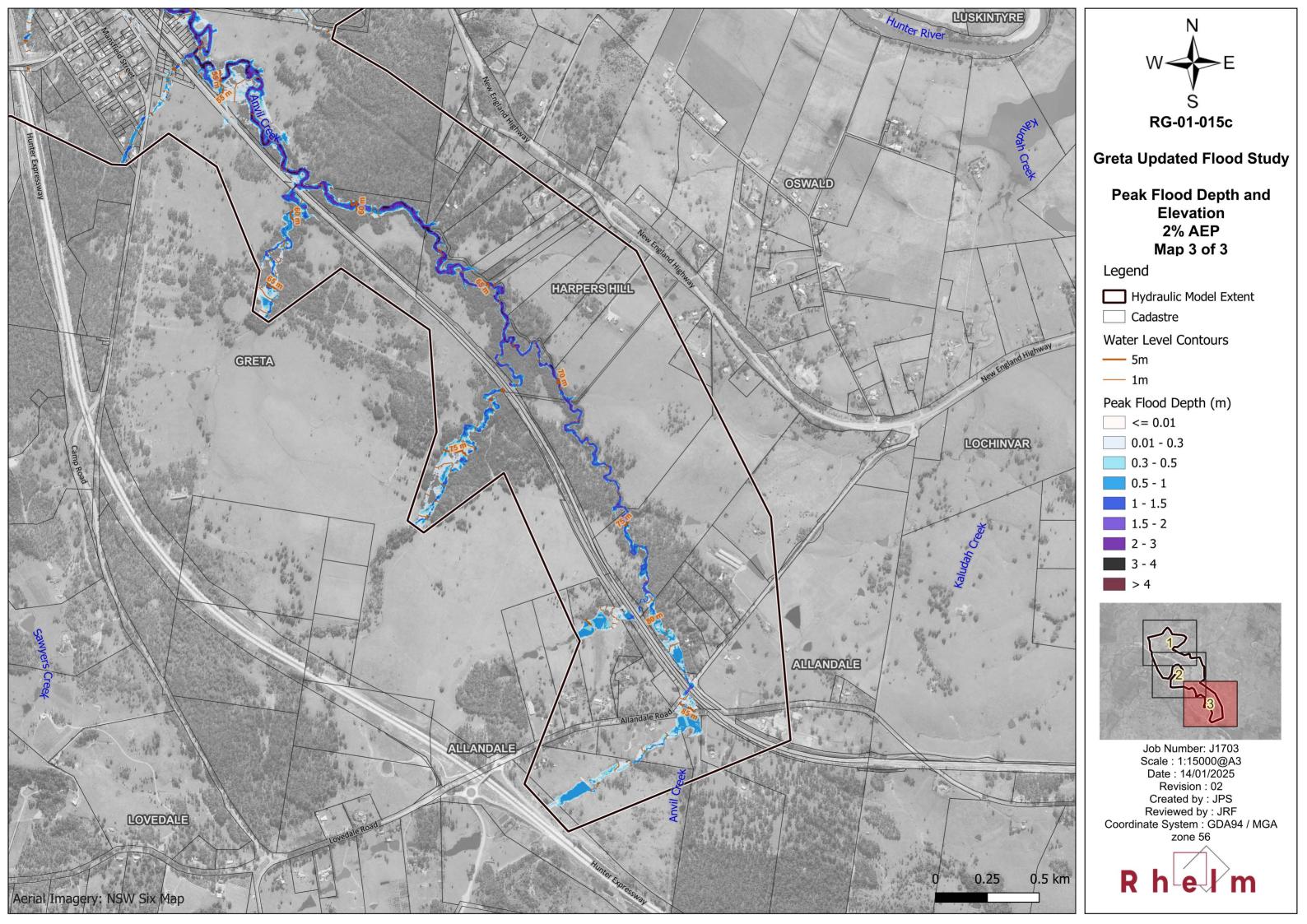


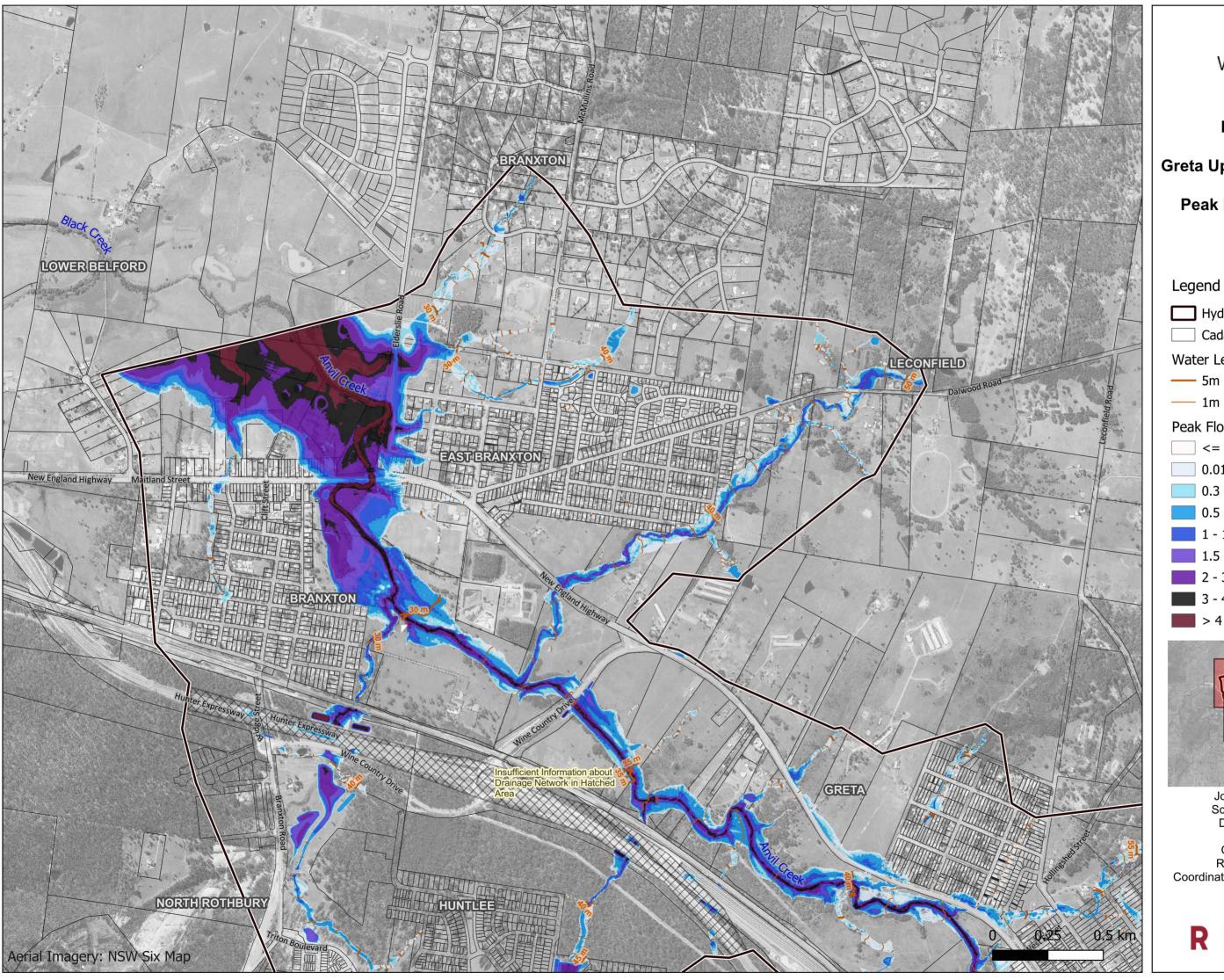


Peak Flood Depth and Elevation **2% AEP**











Peak Flood Depth and Elevation 1% AEP Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

Water Level Contours

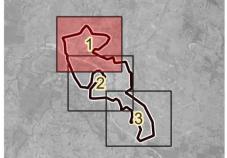
Peak Flood Depth (m)

<= 0.01

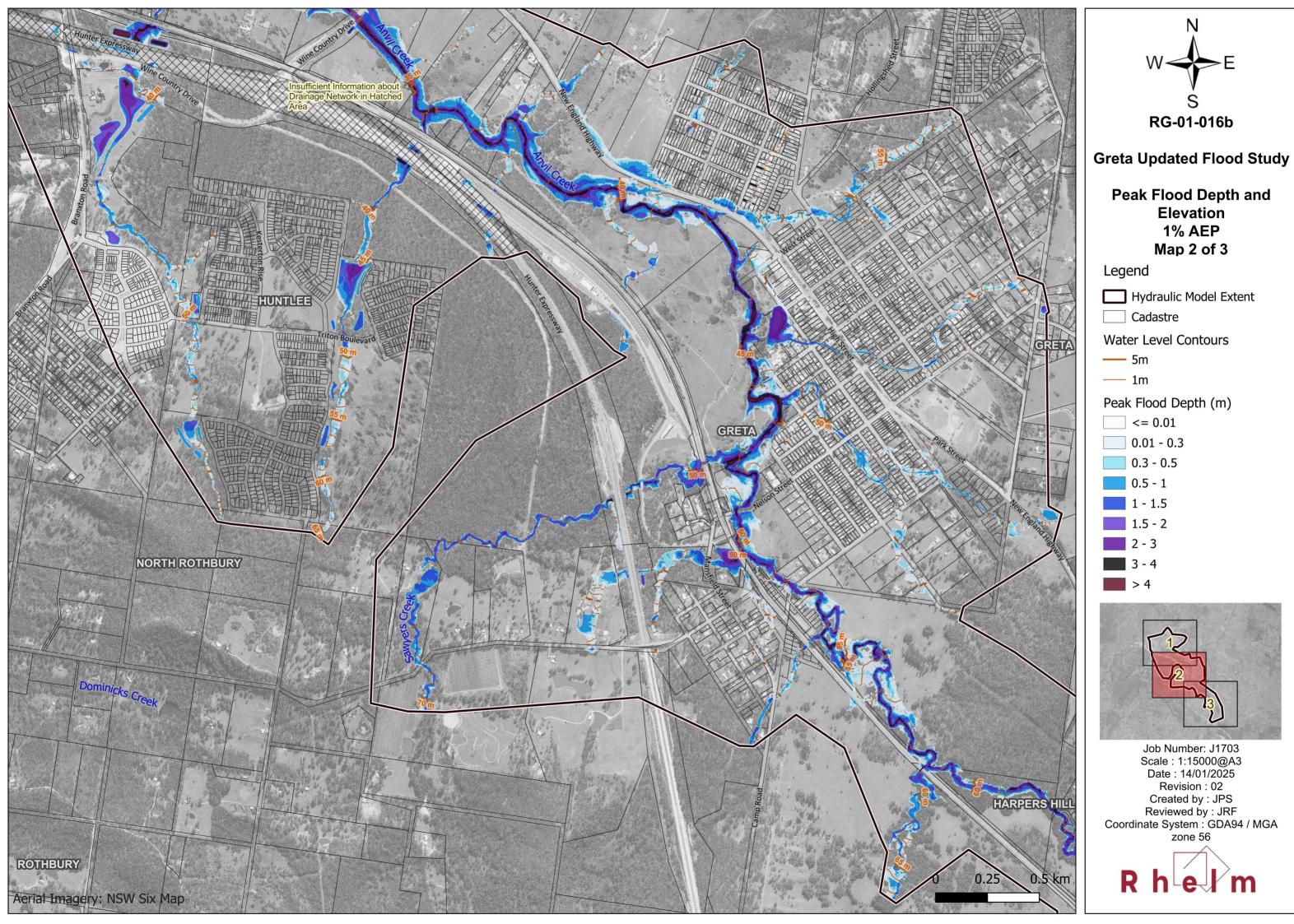
0.01 - 0.3

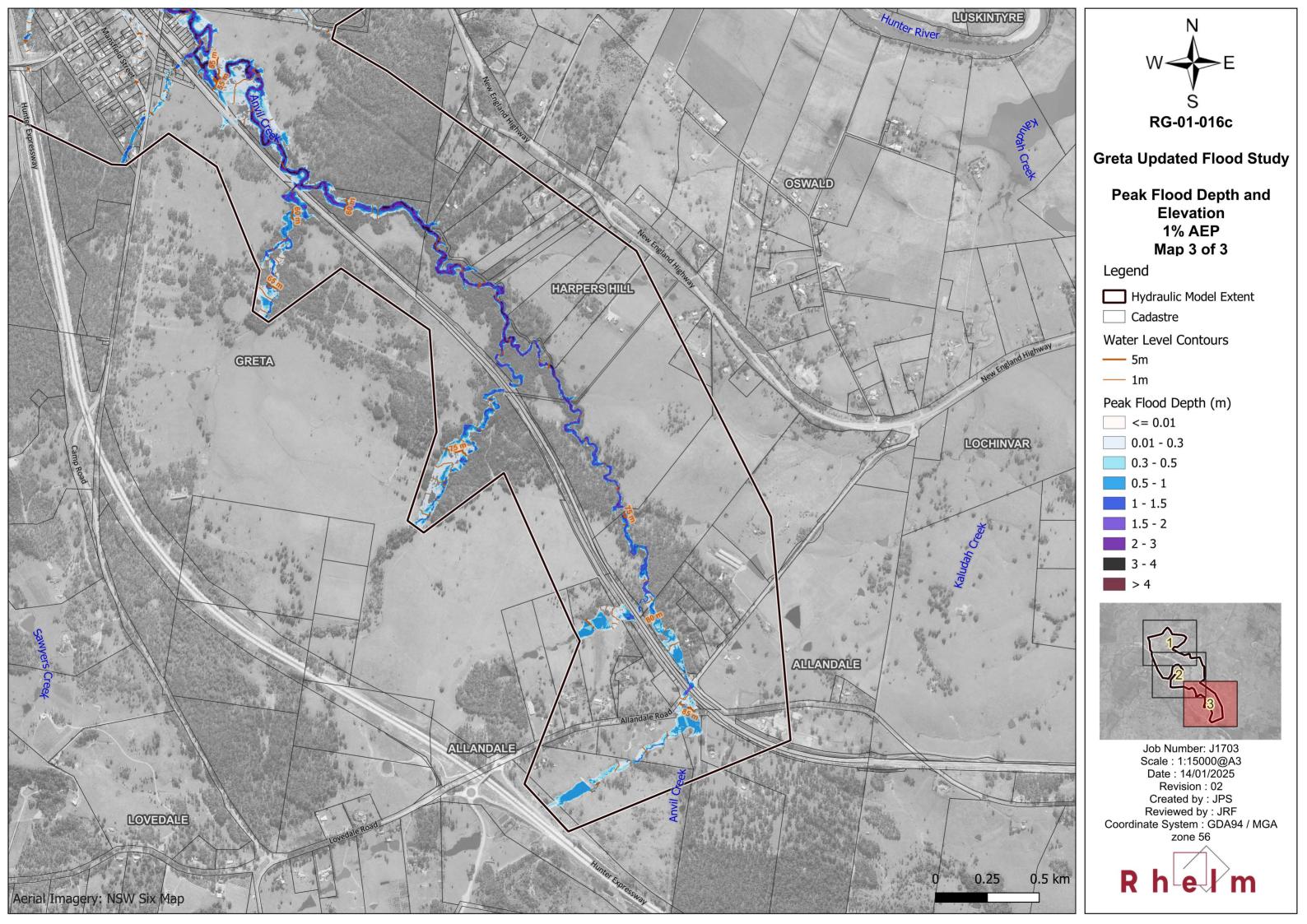
0.3 - 0.5

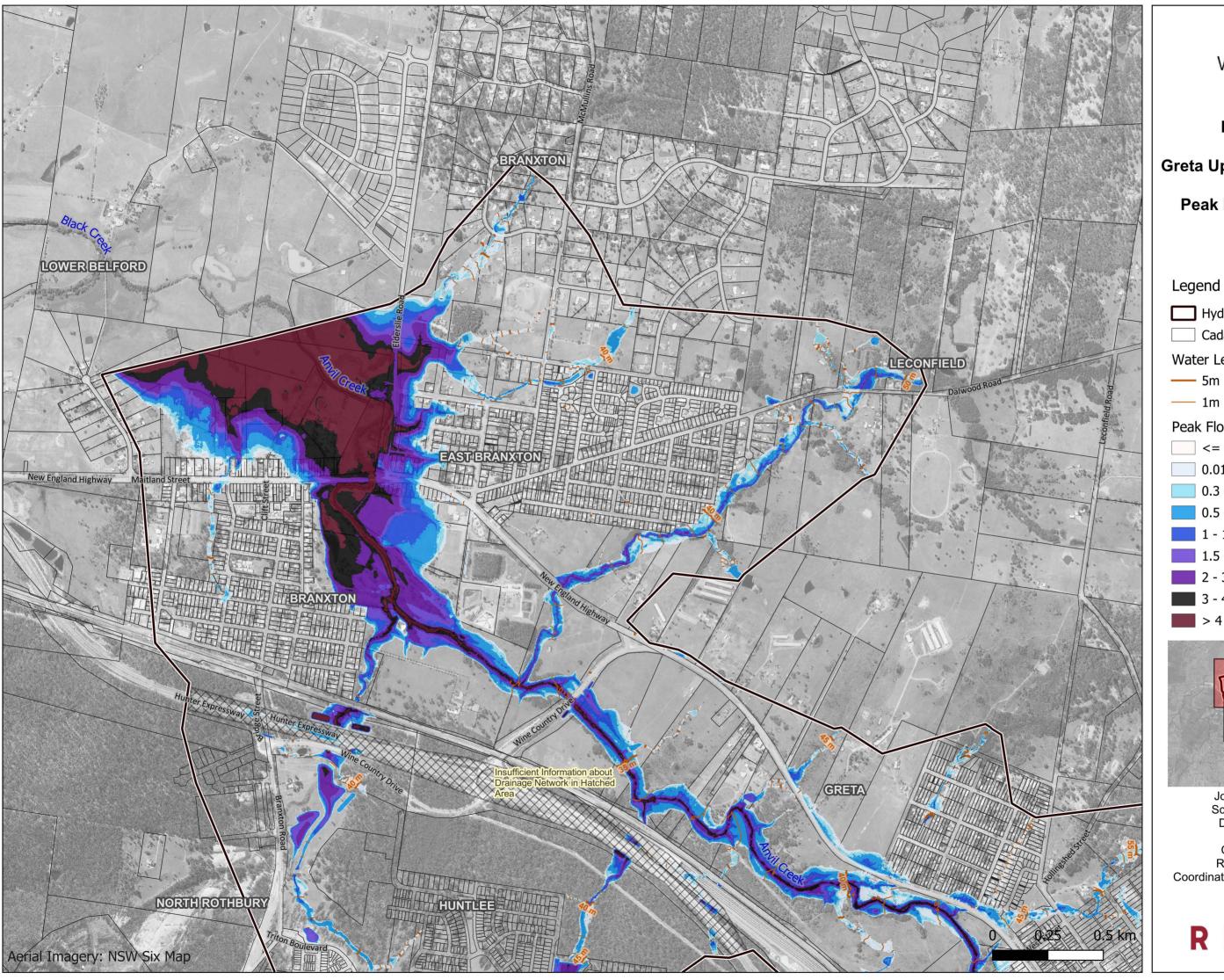
0.5 - 1













Peak Flood Depth and Elevation 0.5% AEP Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

Water Level Contours

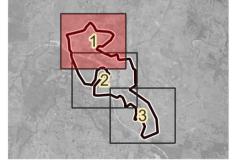
Peak Flood Depth (m)

<= 0.01

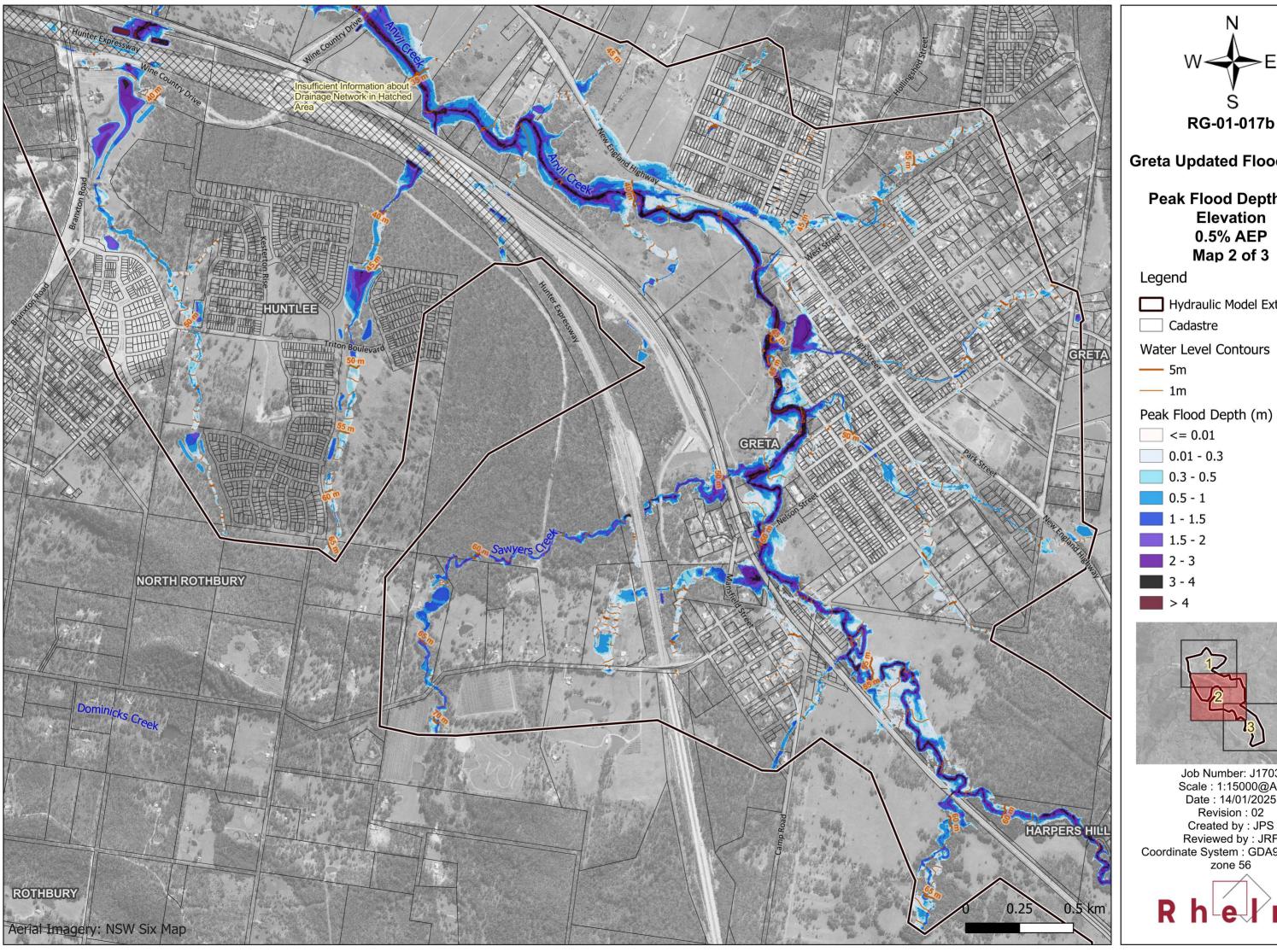
0.01 - 0.3

0.3 - 0.5

0.5 - 1









Peak Flood Depth and Elevation 0.5% AEP Map 2 of 3

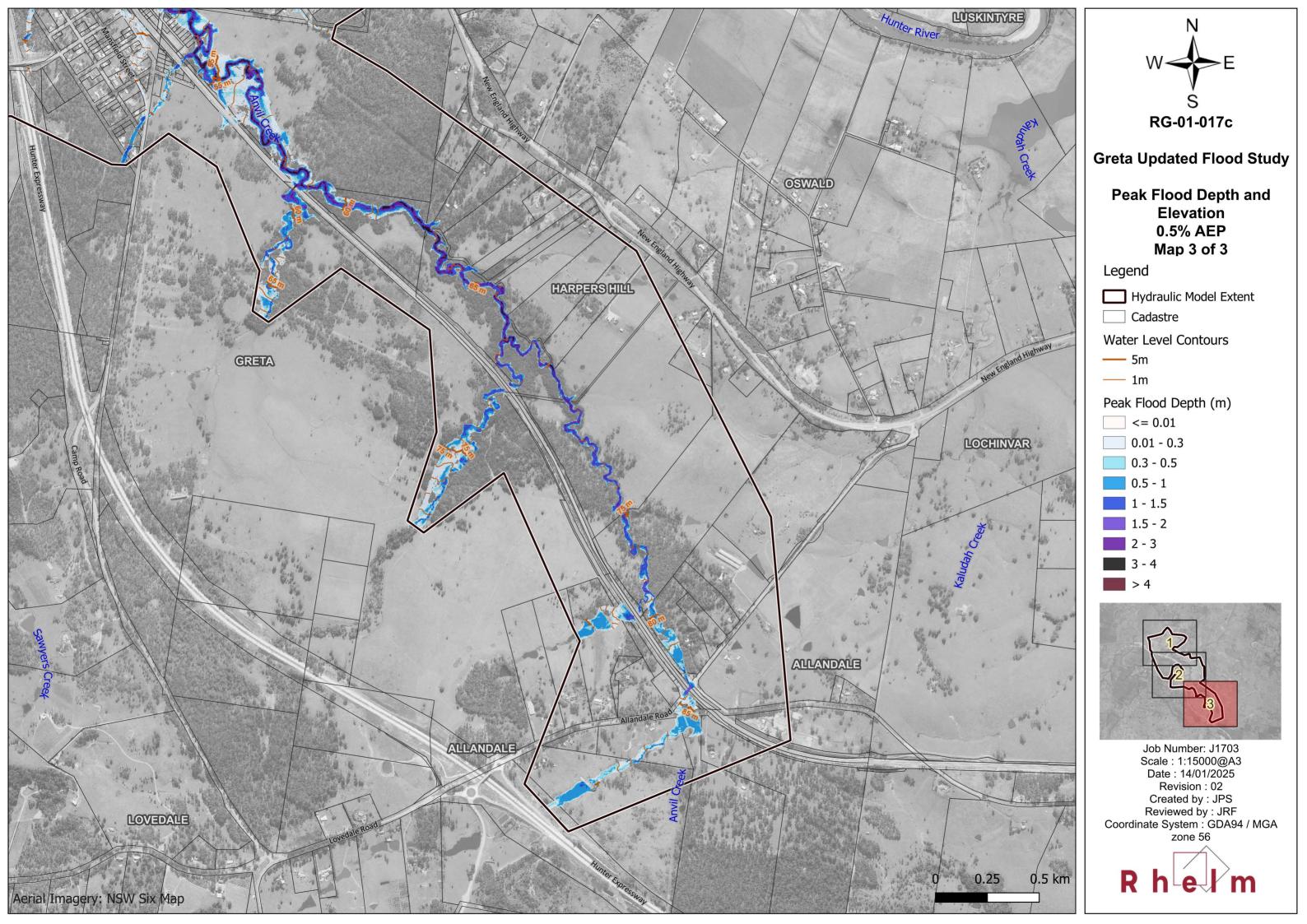
Hydraulic Model Extent

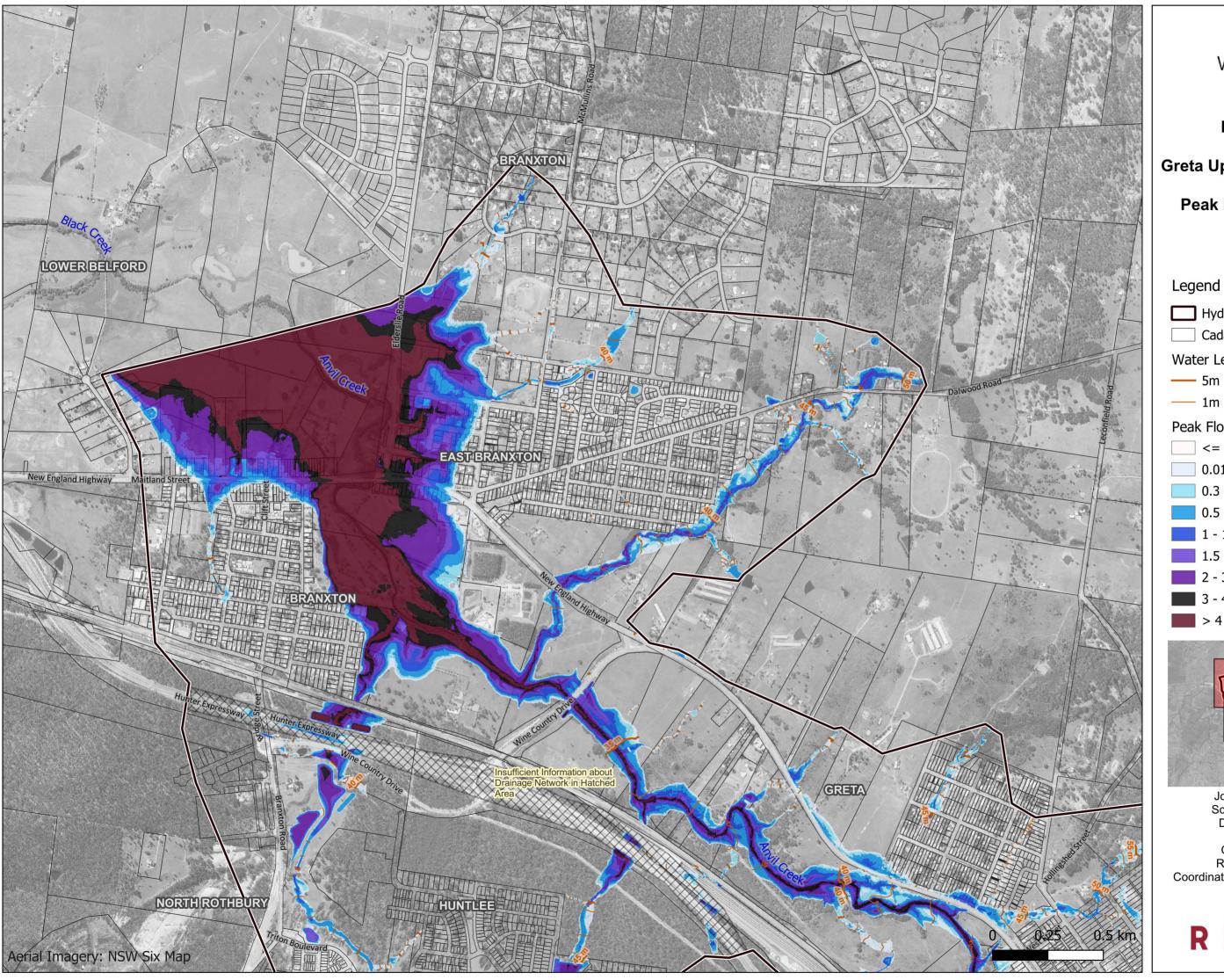
Water Level Contours

Peak Flood Depth (m)











Greta Updated Flood Study

Peak Flood Depth and Elevation 0.2% AEP Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

Water Level Contours

Peak Flood Depth (m)

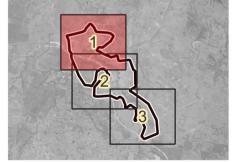
<= 0.01

0.01 - 0.3

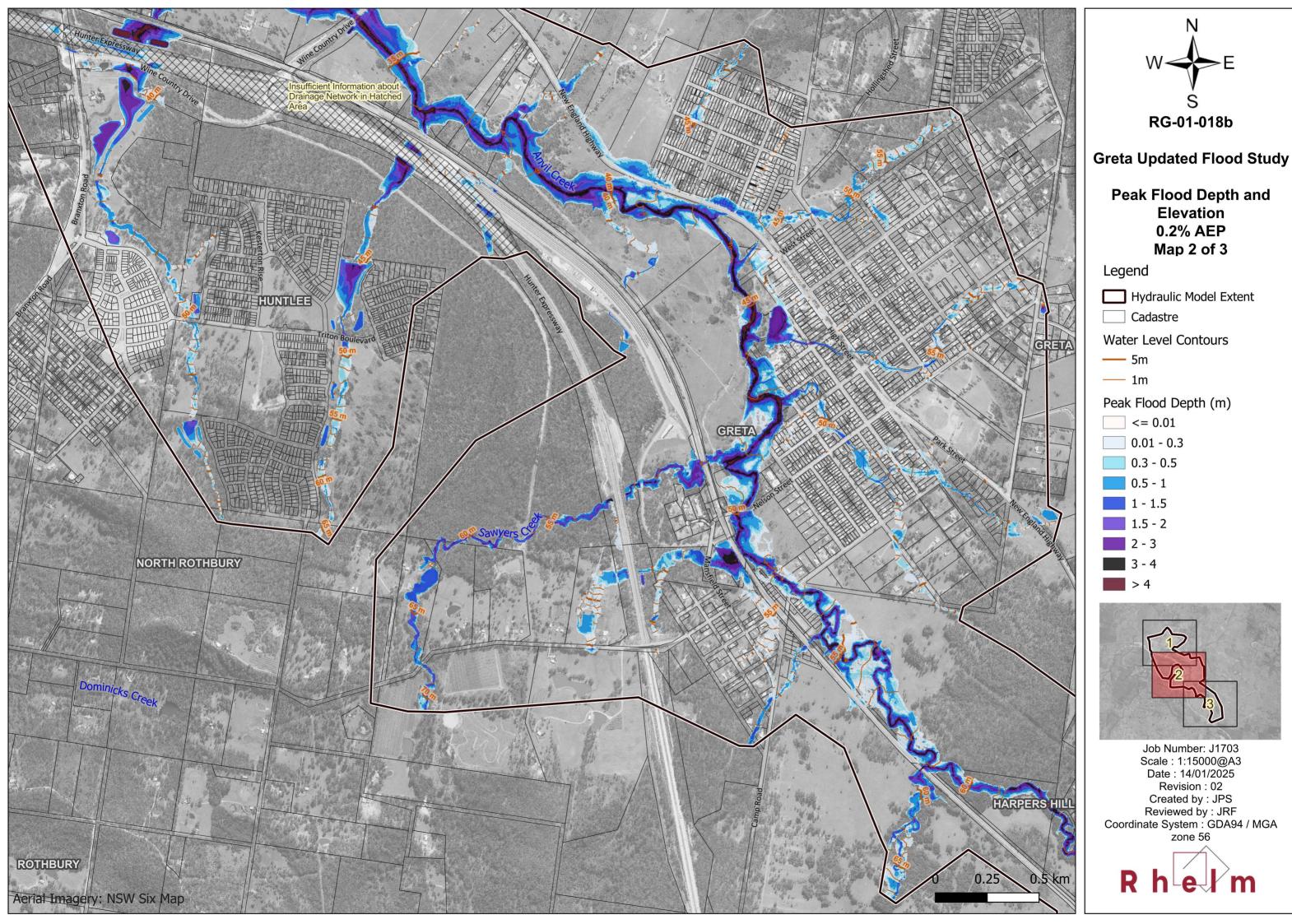
0.3 - 0.5

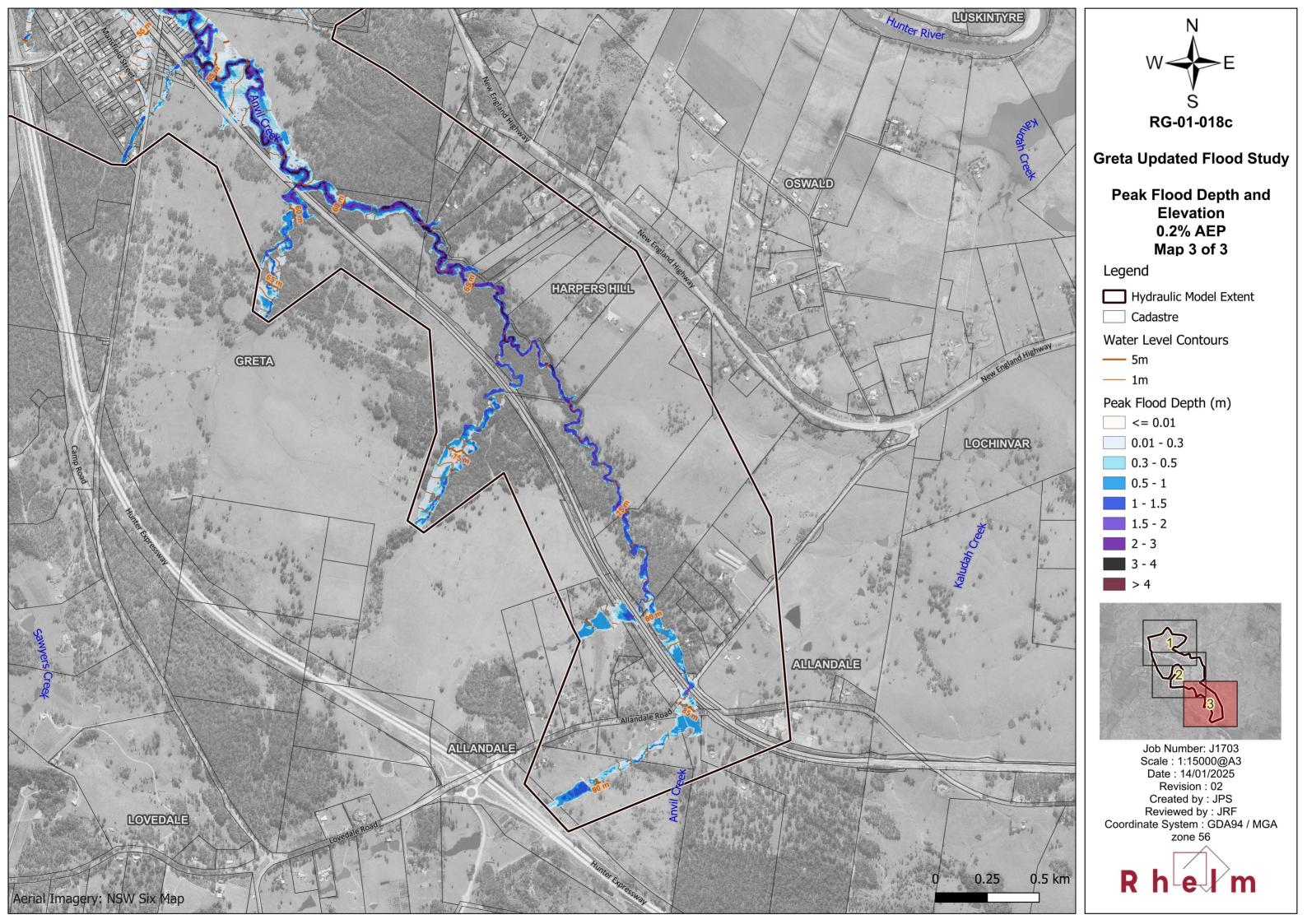
0.5 - 1

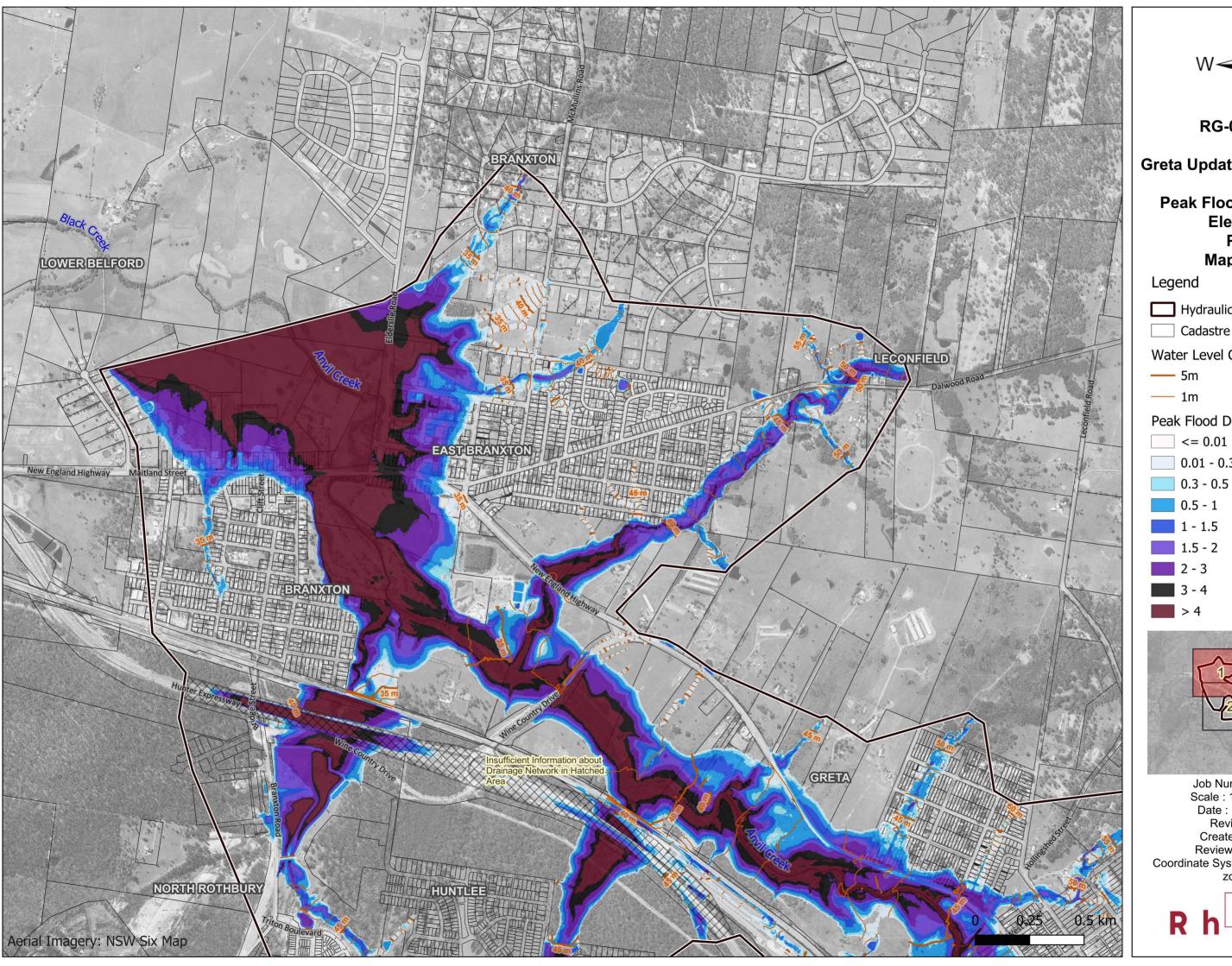














RG-01-019a

Greta Updated Flood Study

Peak Flood Depth and Elevation **PMF** Map 1 of 3

Legend

Hydraulic Model Extent

Cadastre

Water Level Contours

— 1m

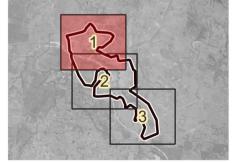
Peak Flood Depth (m)

<= 0.01

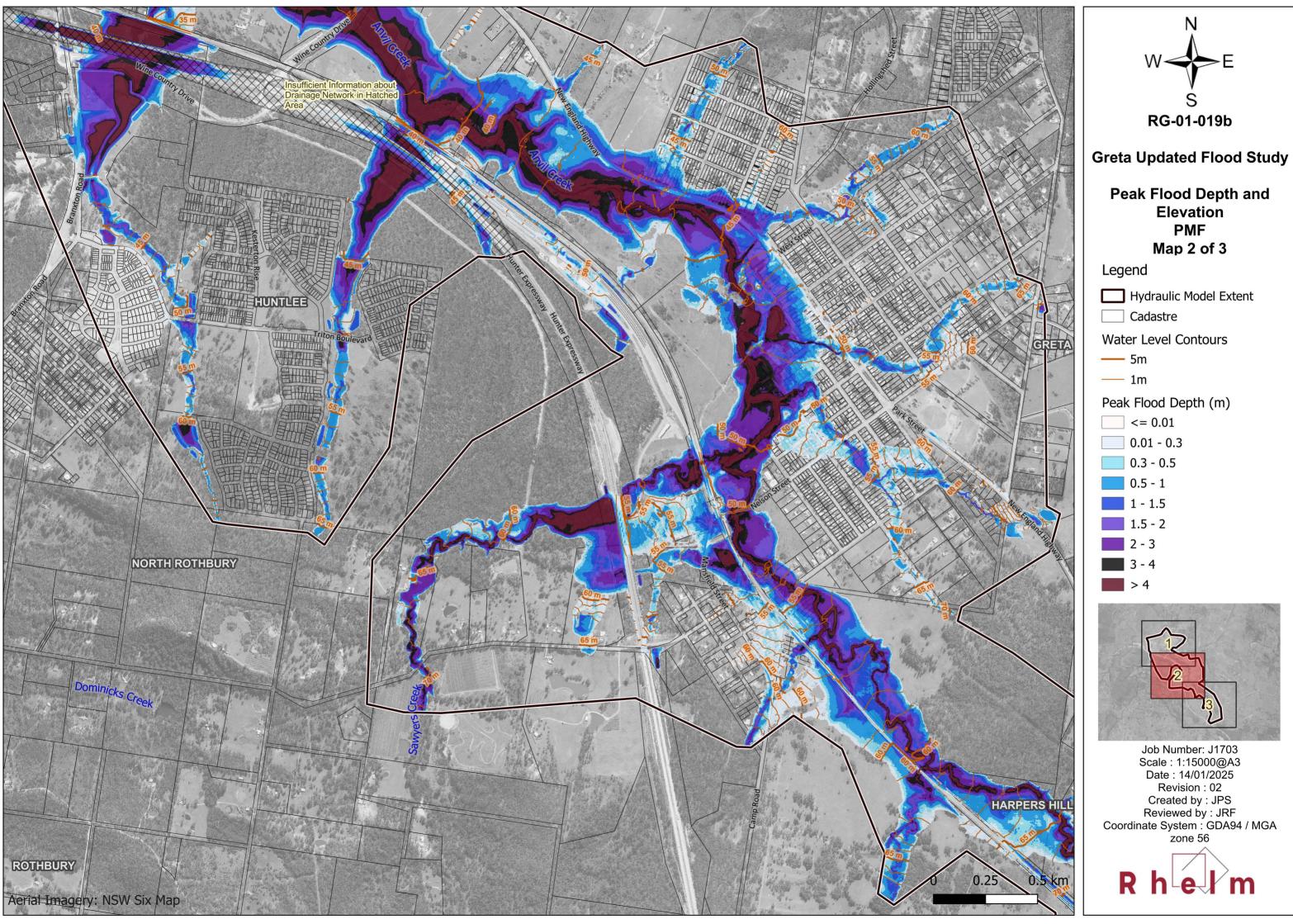
0.01 - 0.3

0.5 - 1

1 - 1.5



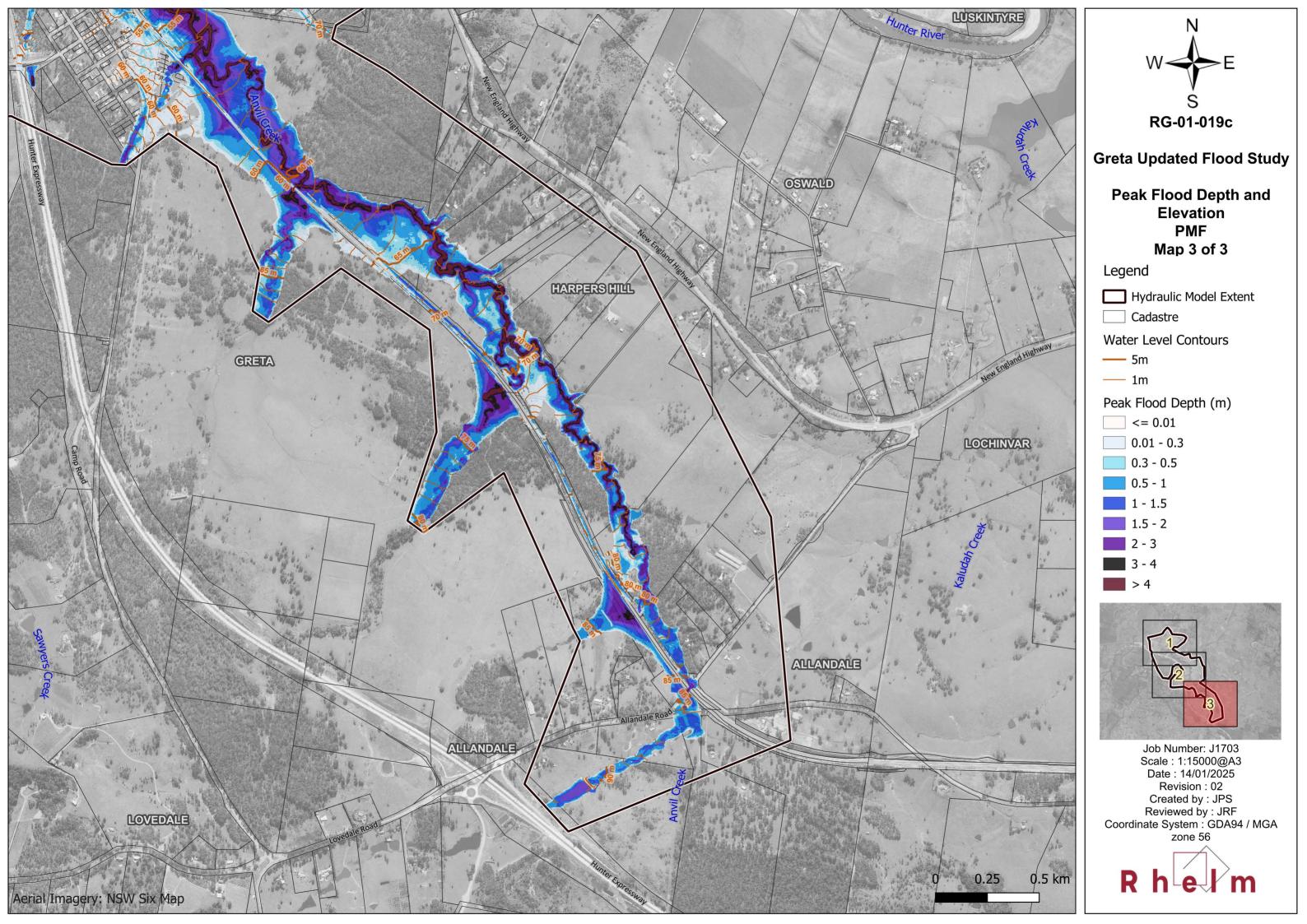


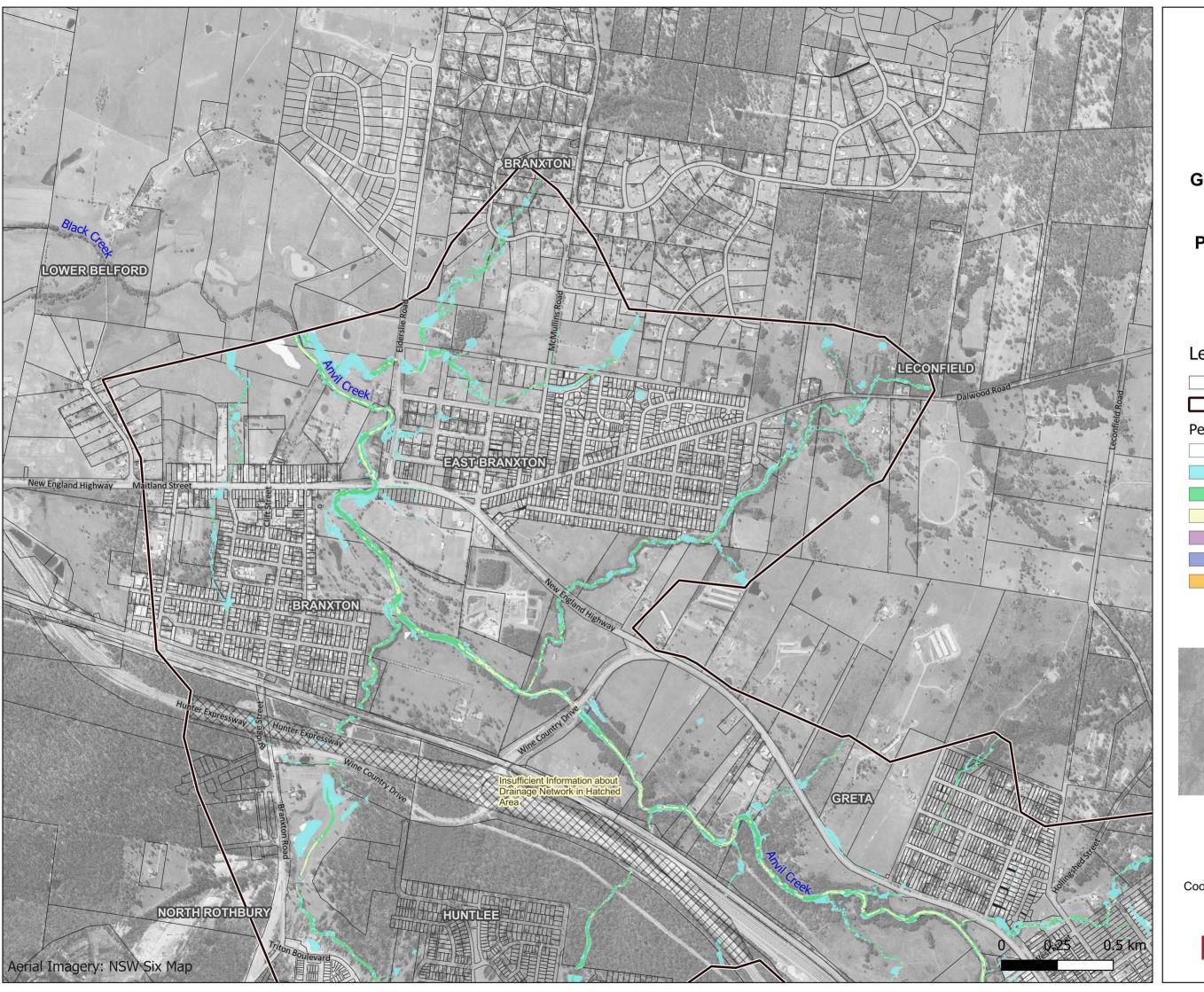














RG-01-020a

Greta Updated Flood Study

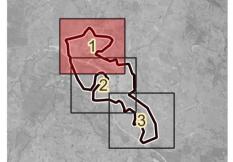
Peak Flood Velocity 1EY Map 1 of 3

Legend

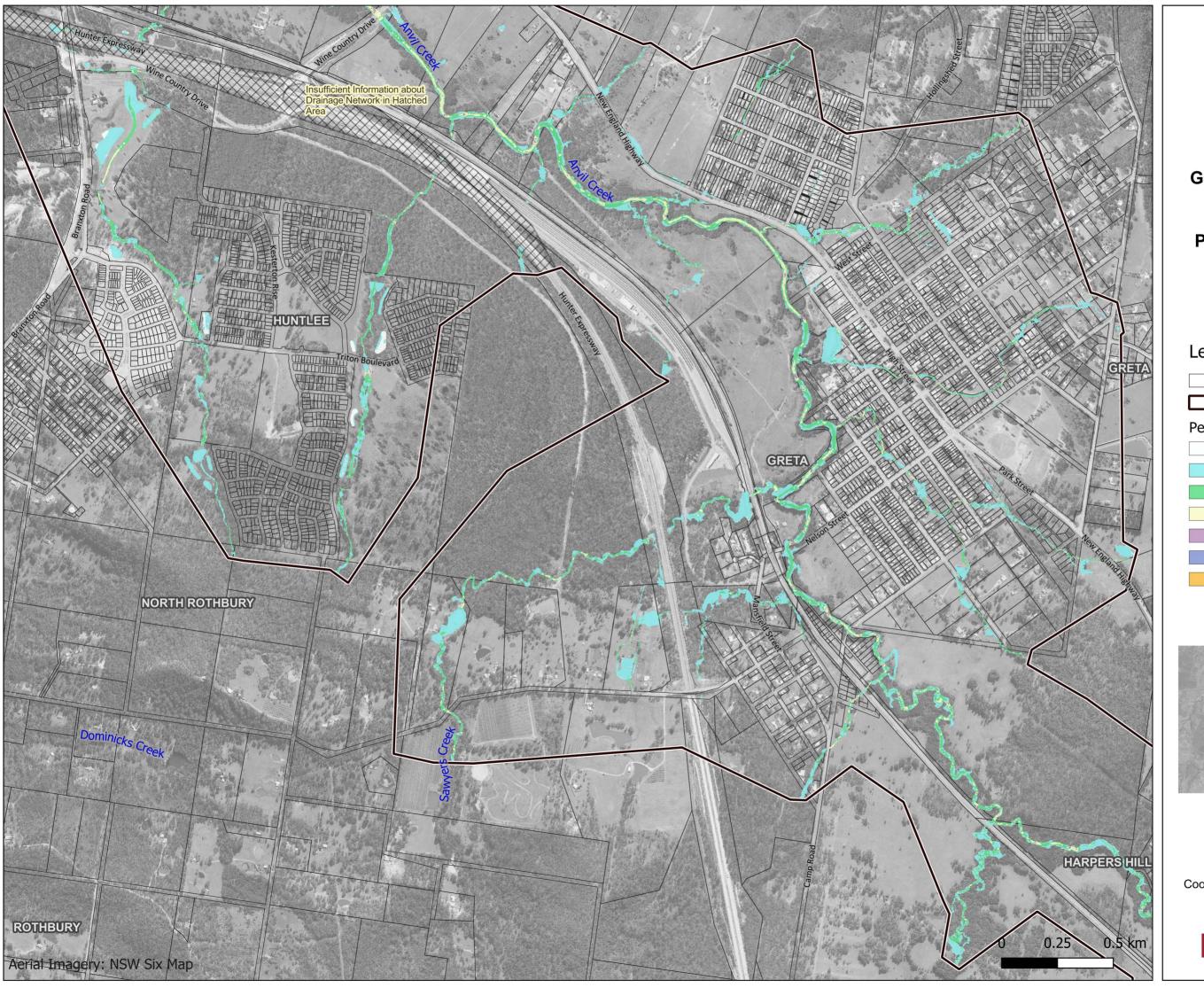
- Cadastre
- Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 2 _ 1









RG-01-020b

Greta Updated Flood Study

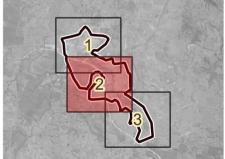
Peak Flood Velocity 1EY Map 2 of 3

Legend

- Cadastre
- ☐ Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 3 4
- > 4



Job Number: J1703 Scale: 1:15000@A3 Date: 14/01/2025 Revision: 02 Created by: JPS Reviewed by: JRF Coordinate System: GDA94 / MGA zone 56

R h e l m







RG-01-021a

Greta Updated Flood Study

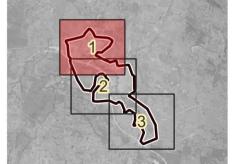
Peak Flood Velocity 50% AEP Map 1 of 3

Legend

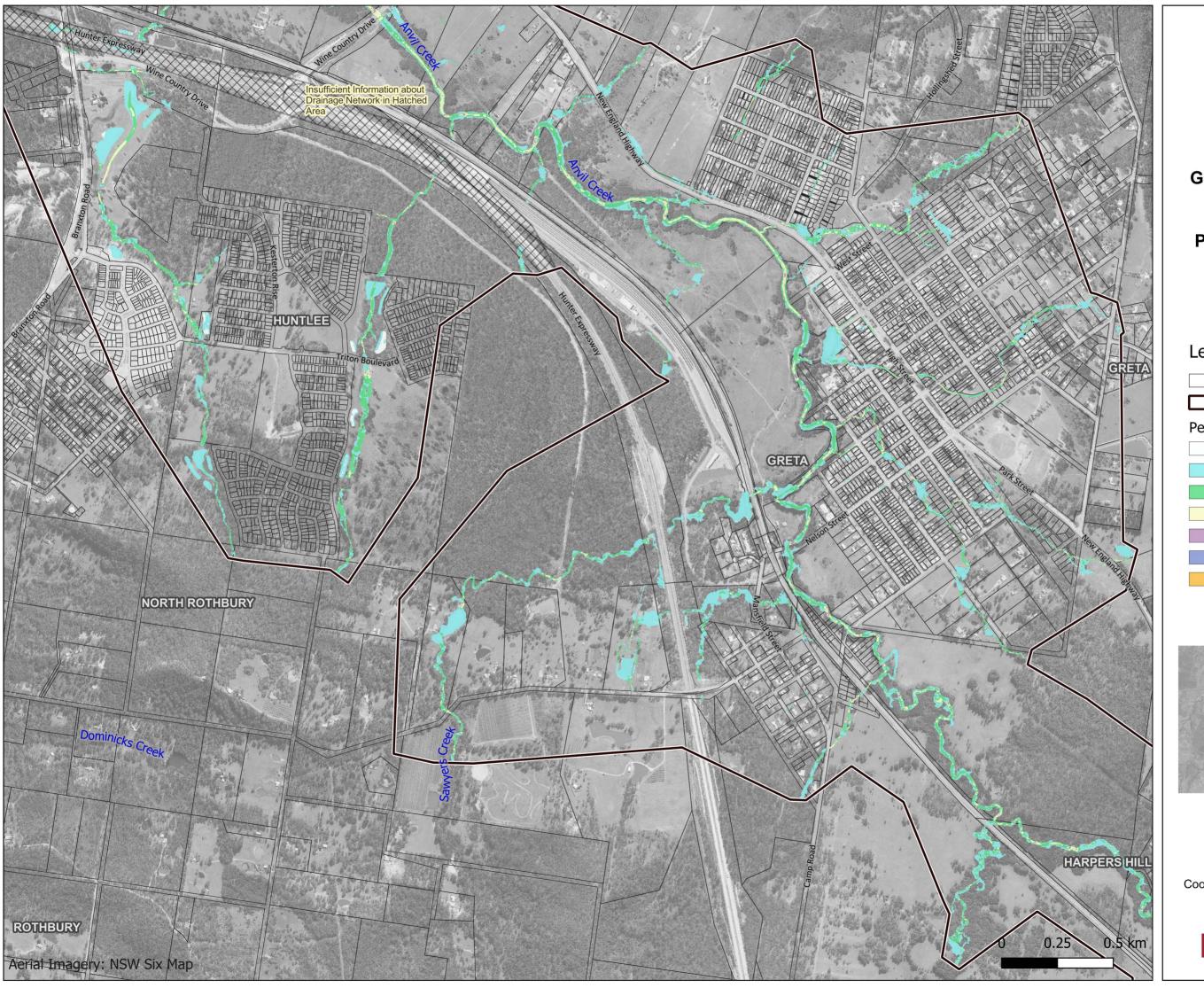
- Cadastre
- Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- _ _ .
- 3 4
- > 4









RG-01-021b

Greta Updated Flood Study

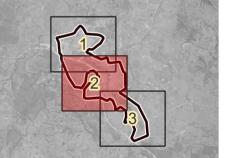
Peak Flood Velocity 50% AEP Map 2 of 3

Legend

- Cadastre
- Hydraulic Model Extent

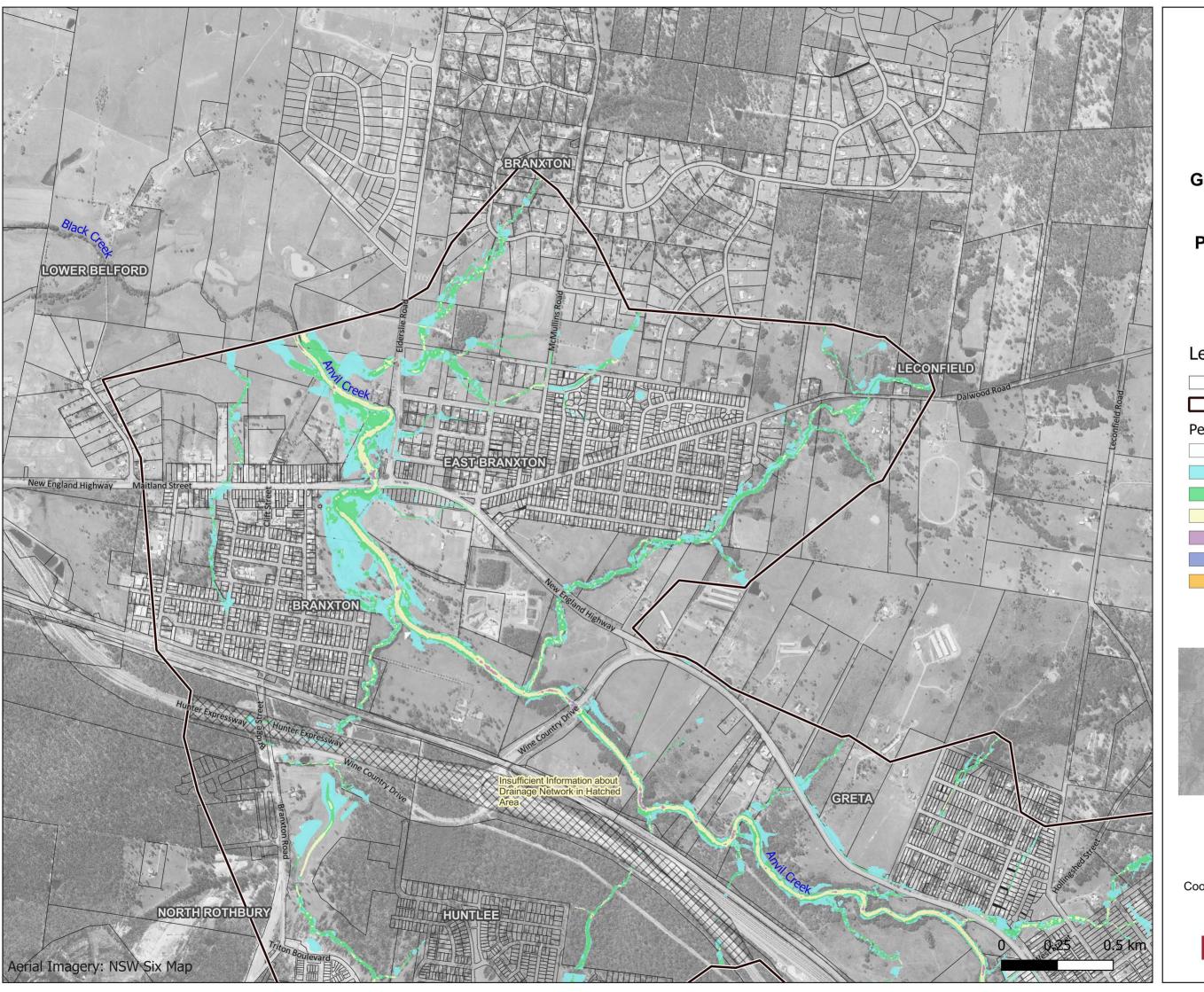
Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 3 4
- > 4











RG-01-022a

Greta Updated Flood Study

Peak Flood Velocity 20% AEP Map 1 of 3

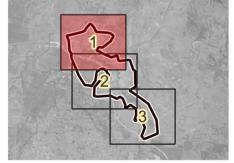
Legend

- Cadastre
- Hydraulic Model Extent

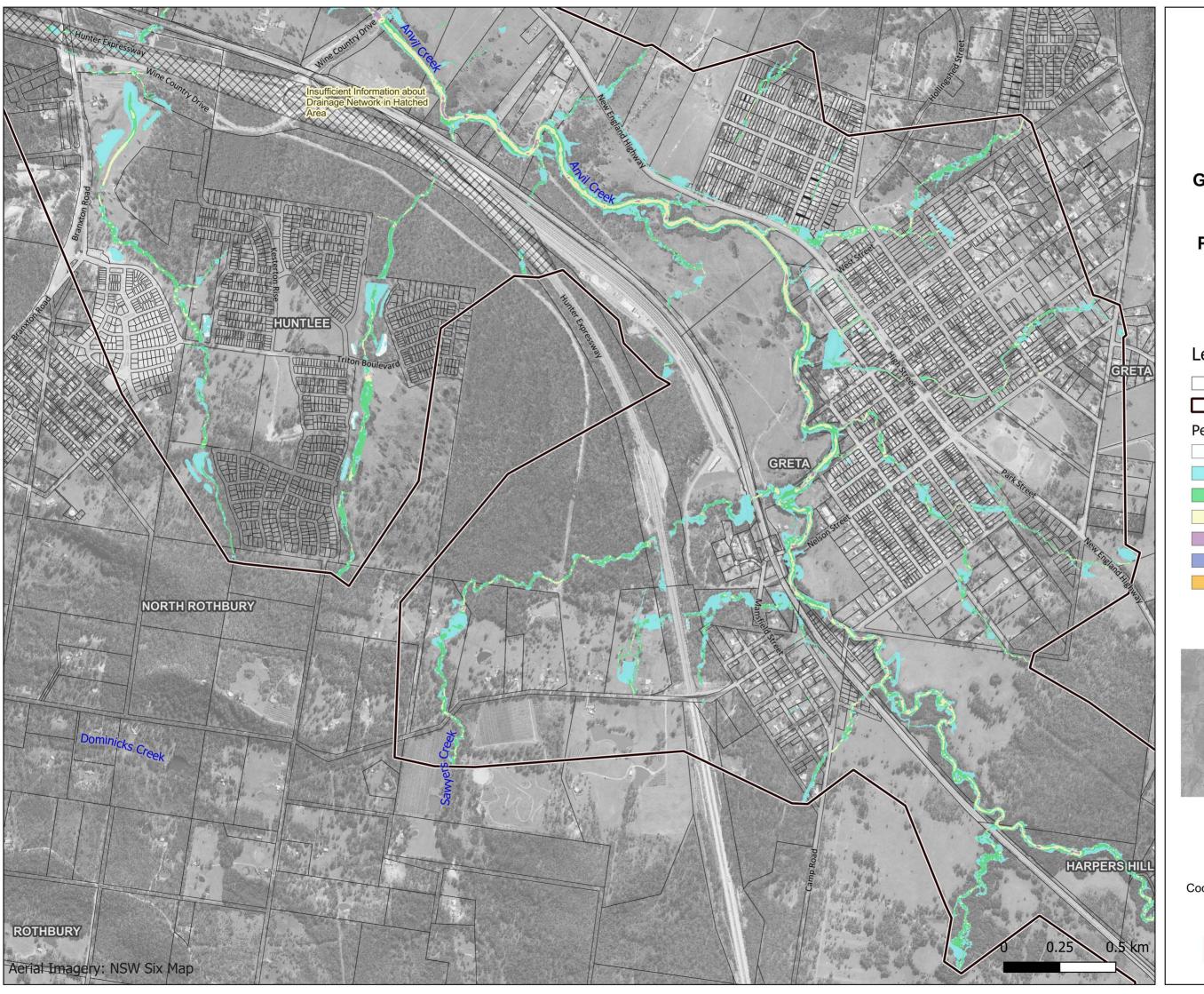
Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- _ . .
- 3 4











RG-01-022b

Greta Updated Flood Study

Peak Flood Velocity 20% AEP Map 2 of 3

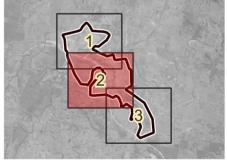
Legend

- Cadastre
- ☐ Hydraulic Model Extent

Peak Velocity (m/s)

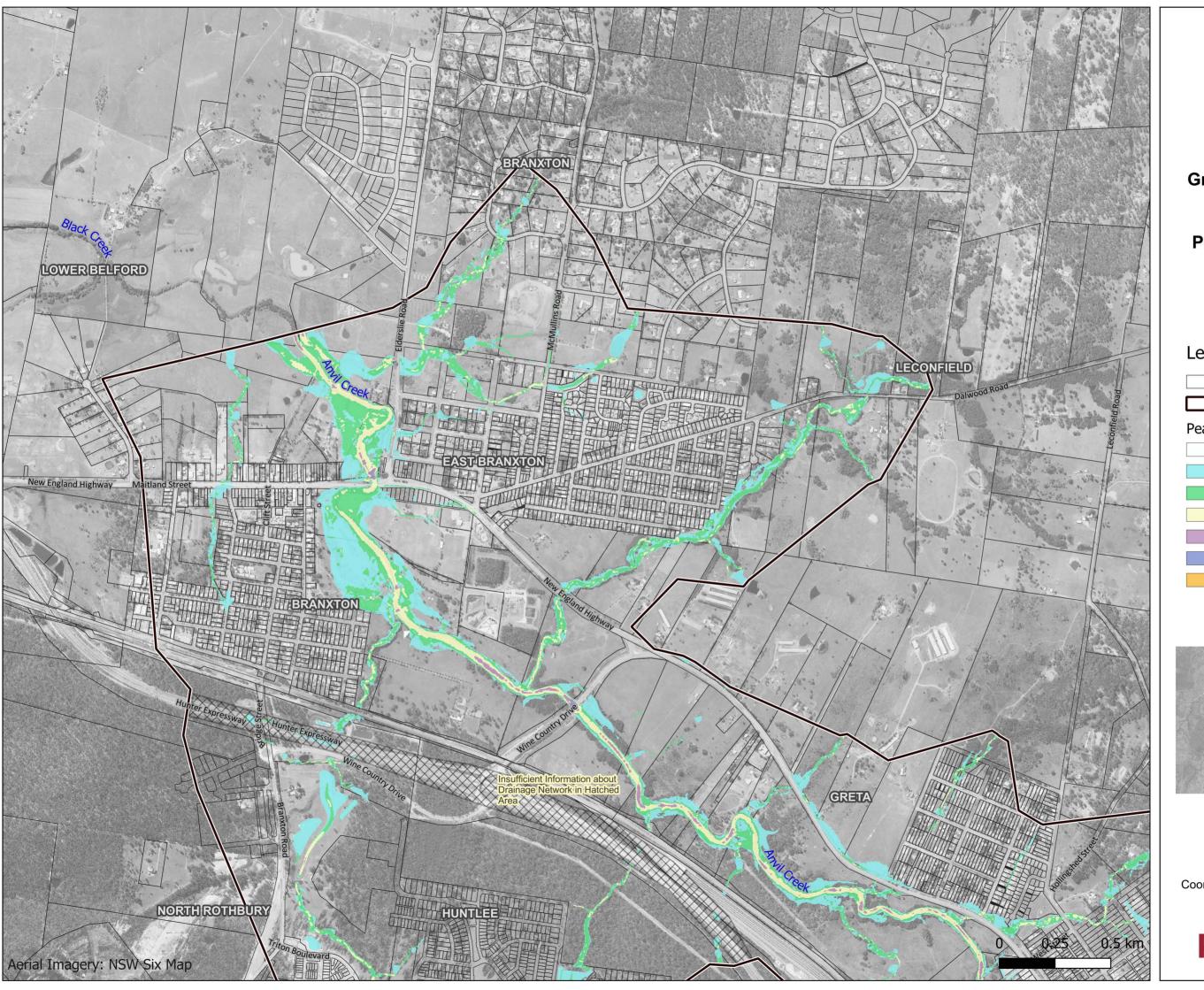
- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- ____ J -













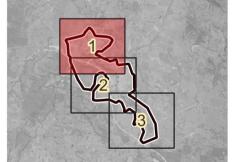
RG-01-023a

Greta Updated Flood Study

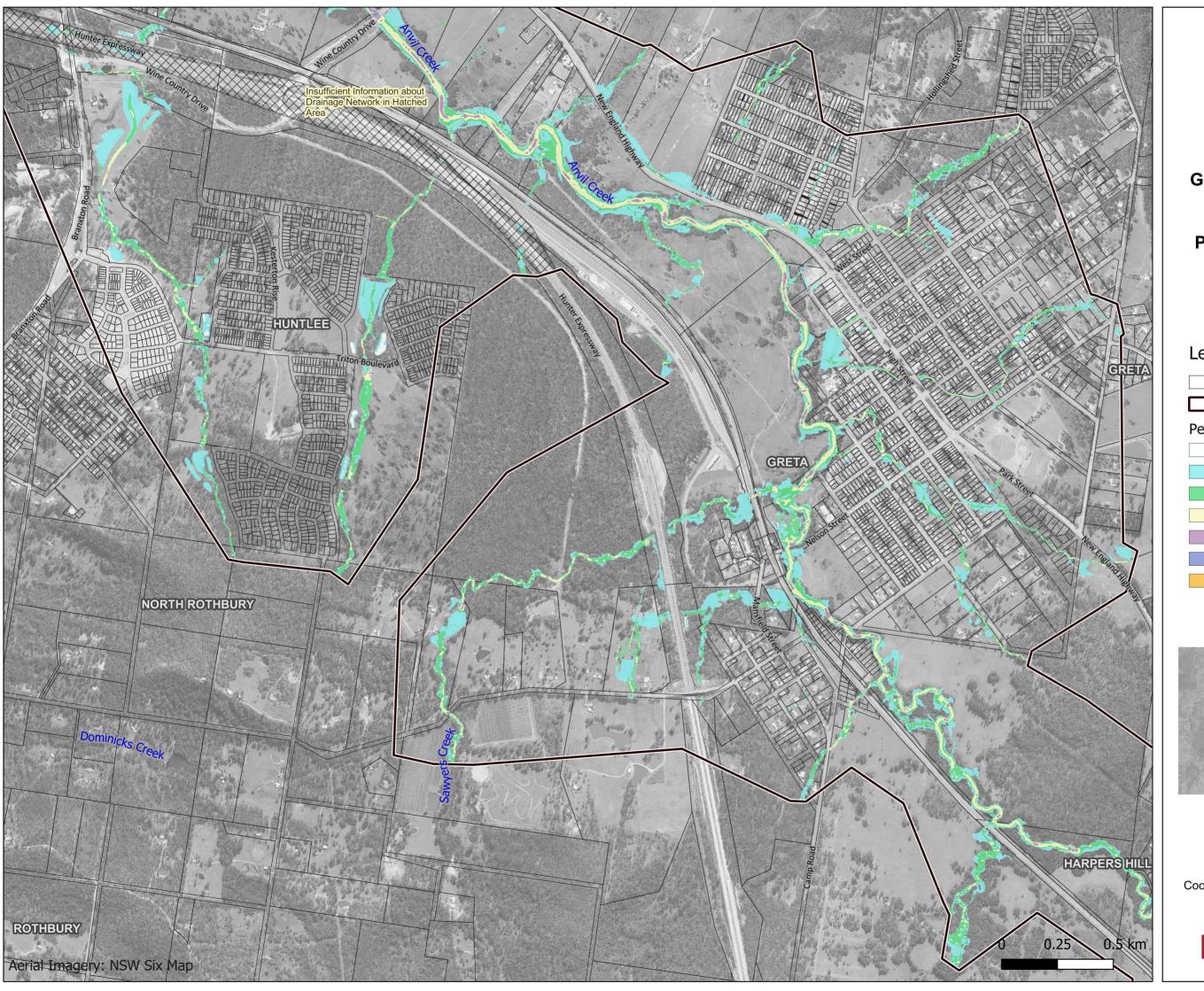
Peak Flood Velocity 10% AEP Map 1 of 3

Legend

- Cadastre
- Hydraulic Model Extent
- Peak Velocity (m/s)
- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- _ _ .
- 3 4
- > 4









RG-01-023b

Greta Updated Flood Study

Peak Flood Velocity 10% AEP Map 2 of 3

Legend

- Cadastre
- ☐ Hydraulic Model Extent

Peak Velocity (m/s)

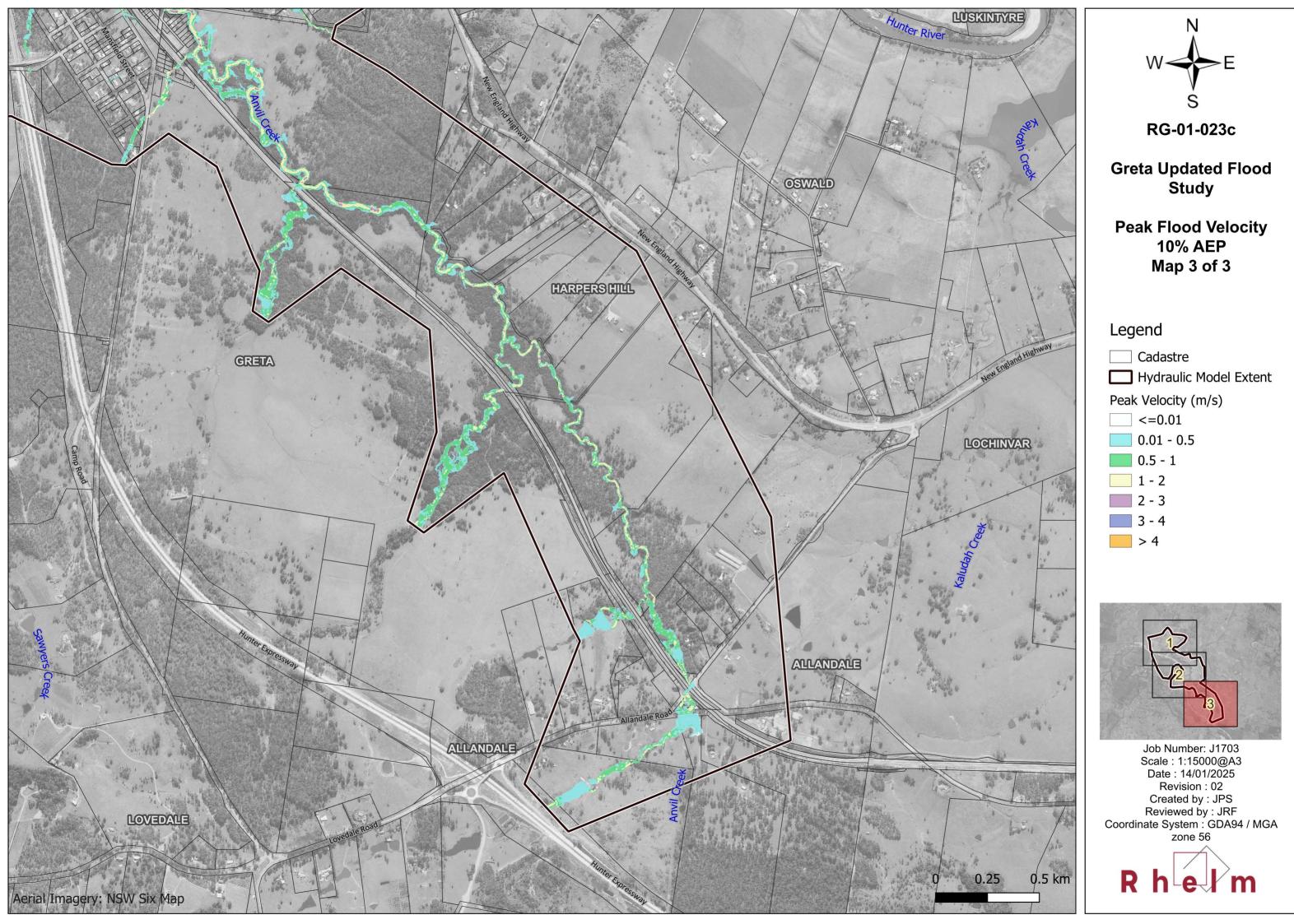
- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- ____ J -

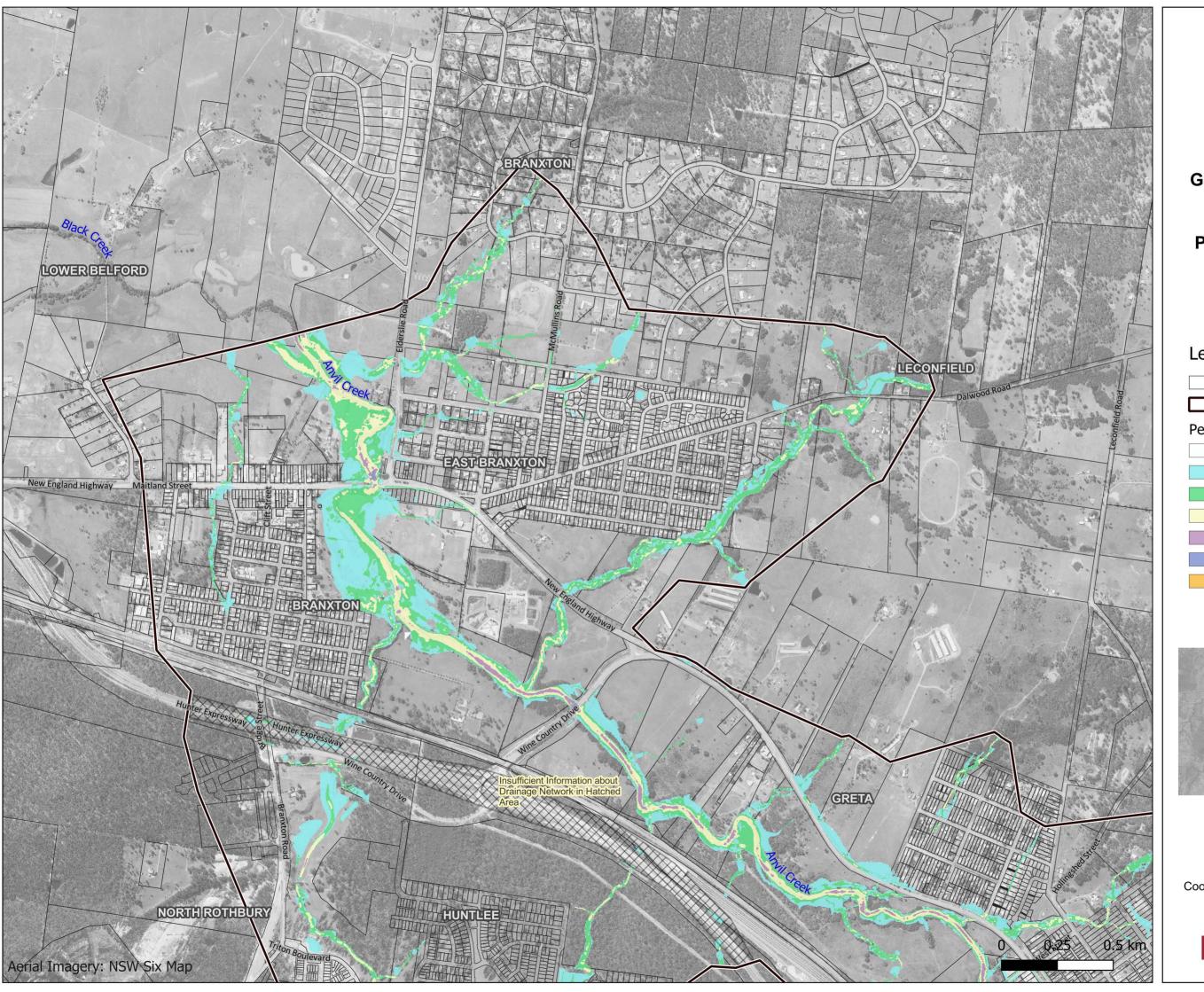




Job Number: J1703 Scale: 1:15000@A3 Date: 14/01/2025 Revision: 02 Created by: JPS Reviewed by: JRF Coordinate System: GDA94 / MGA zone 56

R h e l m







RG-01-024a

Greta Updated Flood Study

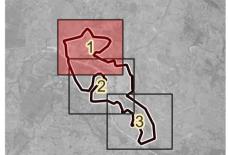
Peak Flood Velocity 5% AEP Map 1 of 3

Legend

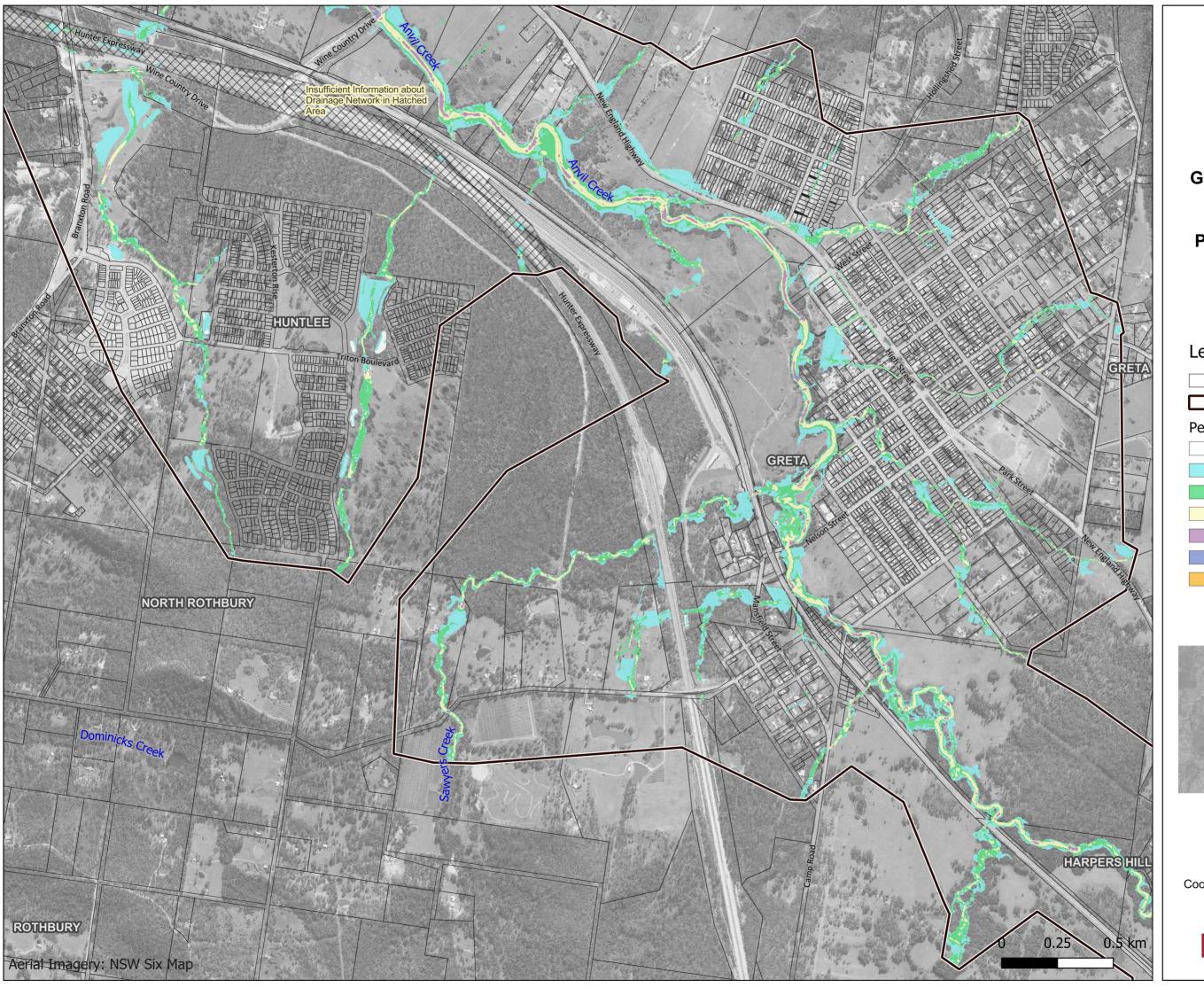
- Cadastre
- Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 3 4
- J -









RG-01-024b

Greta Updated Flood Study

Peak Flood Velocity 5% AEP Map 2 of 3

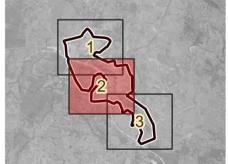
Legend

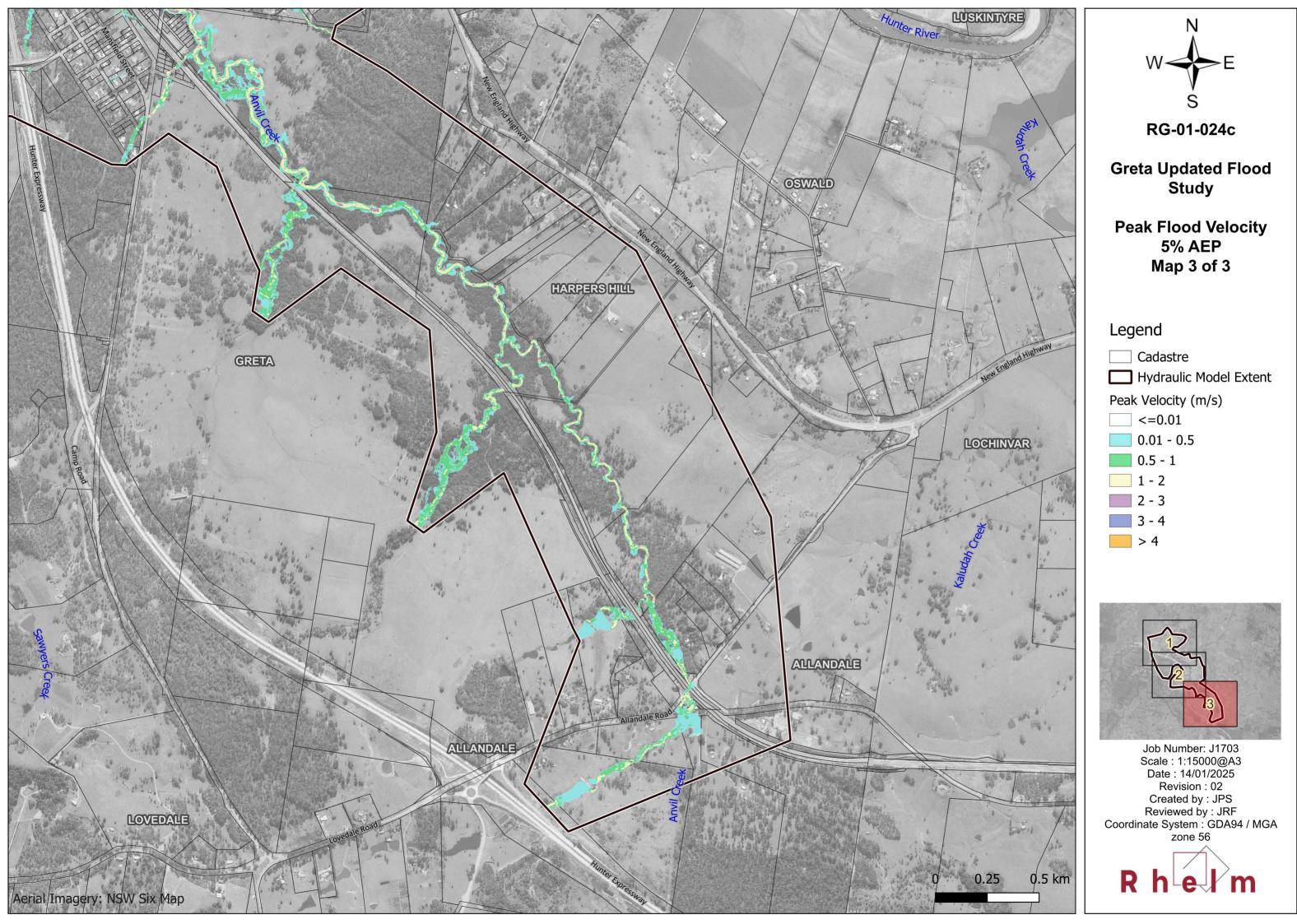
- Cadastre
- ☐ Hydraulic Model Extent

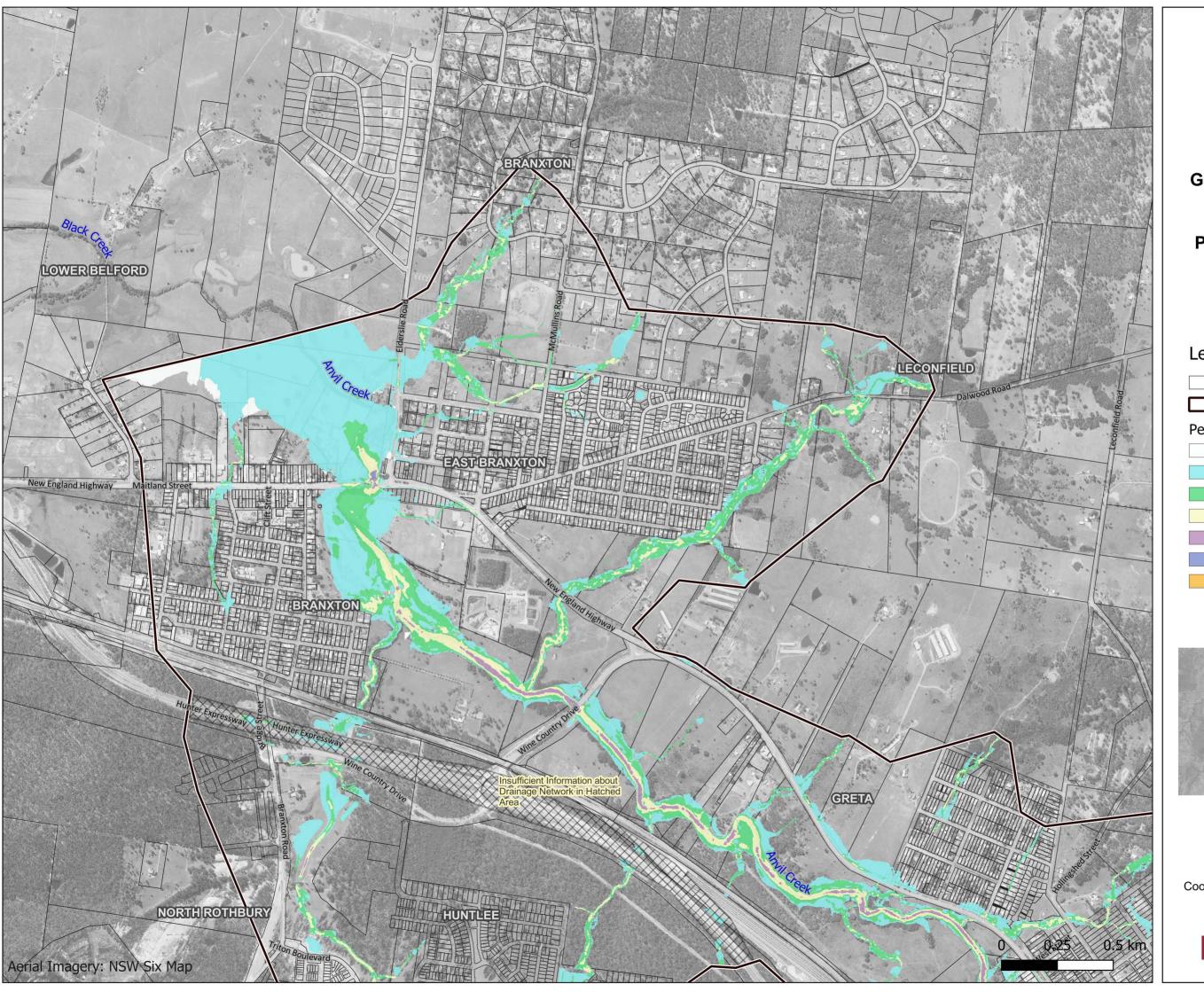
Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- 3 4











RG-01-025a

Greta Updated Flood Study

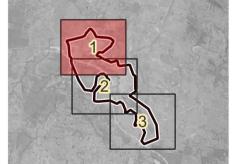
Peak Flood Velocity 2% AEP Map 1 of 3

Legend

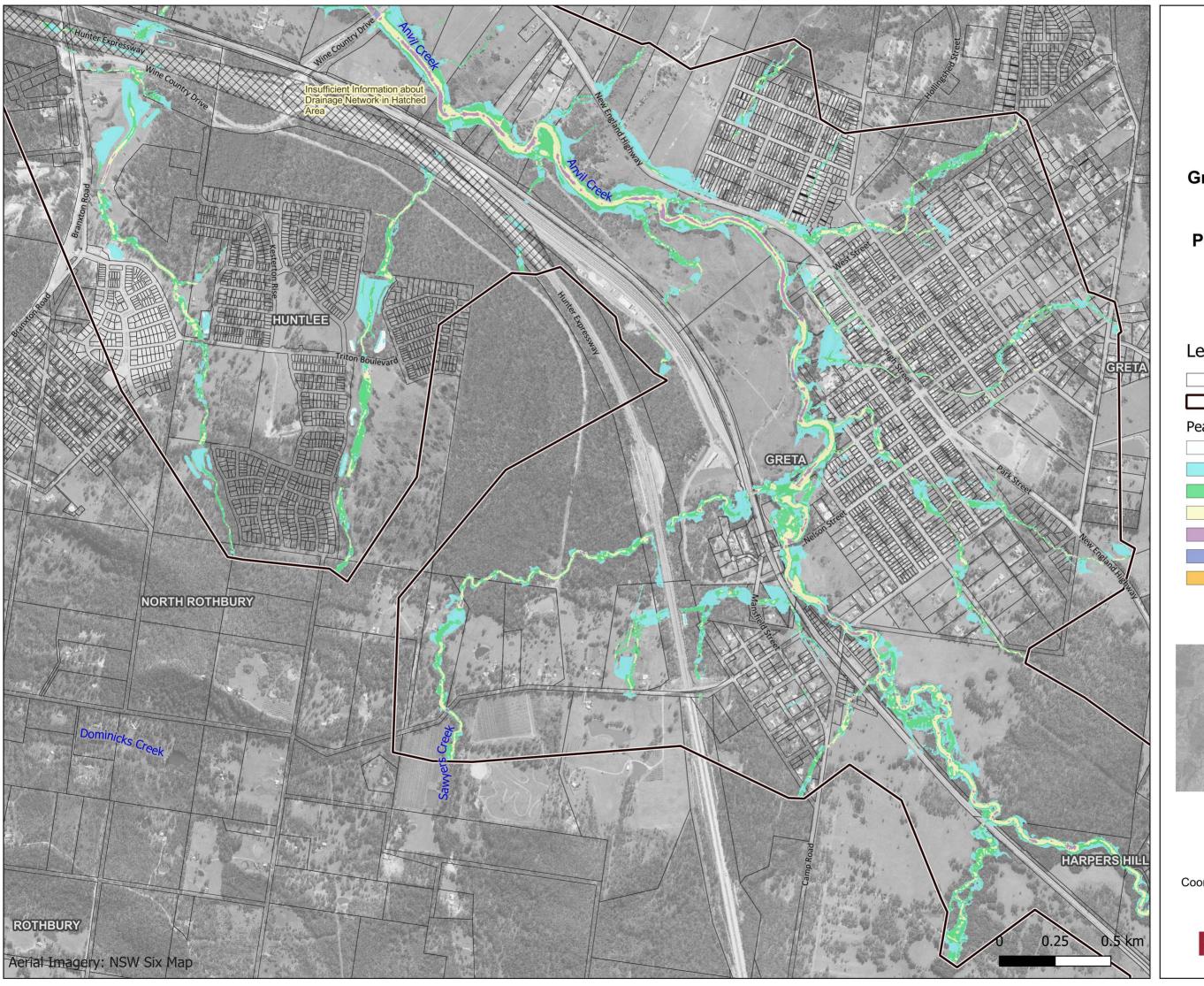
- Cadastre
- Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- ____
- 3 4
- > 4









RG-01-025b

Greta Updated Flood Study

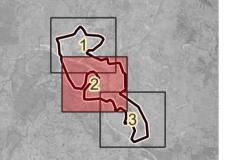
Peak Flood Velocity 2% AEP Map 2 of 3

Legend

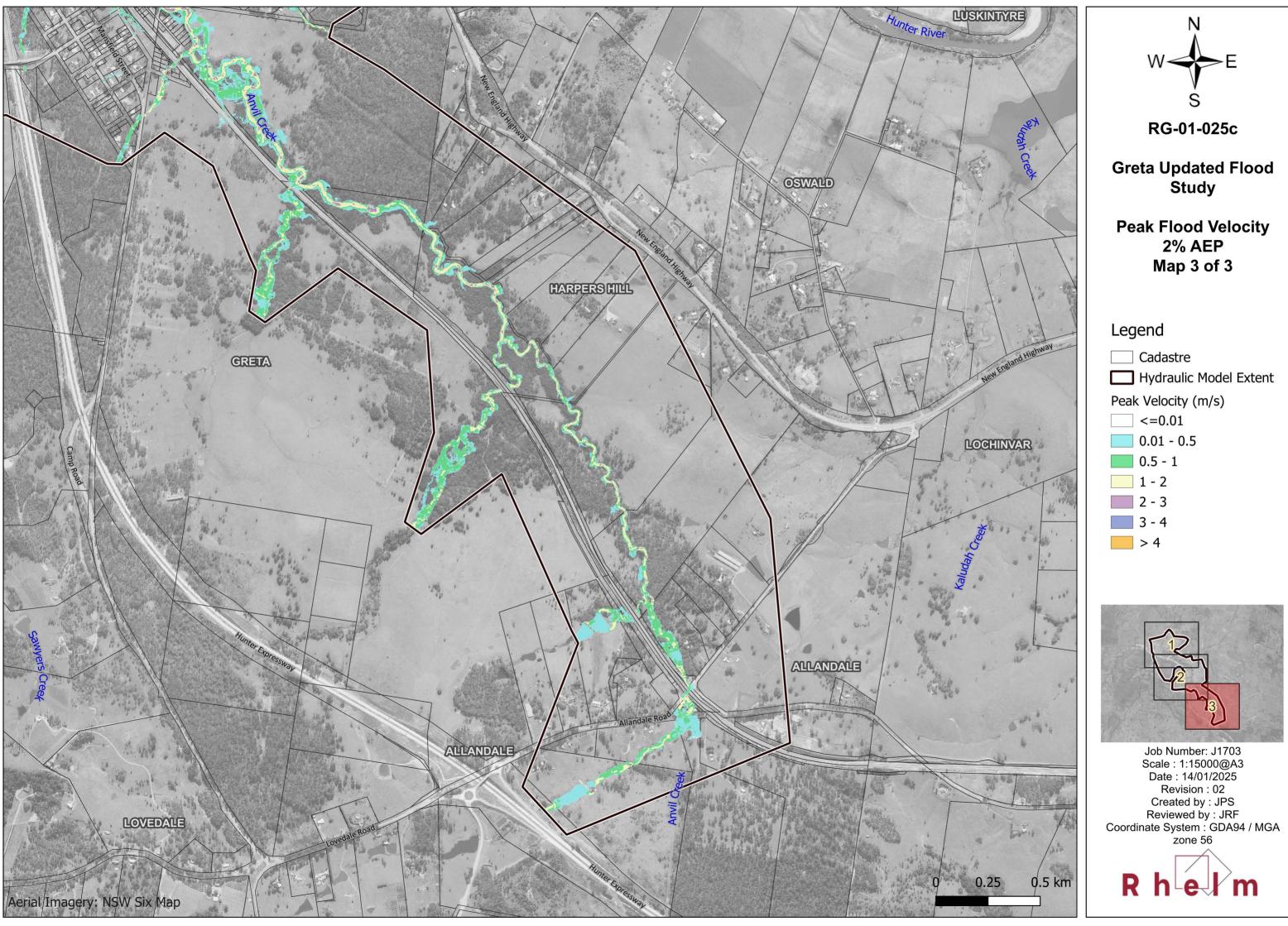
- Cadastre
- Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- _____
- 3 4
- > 4







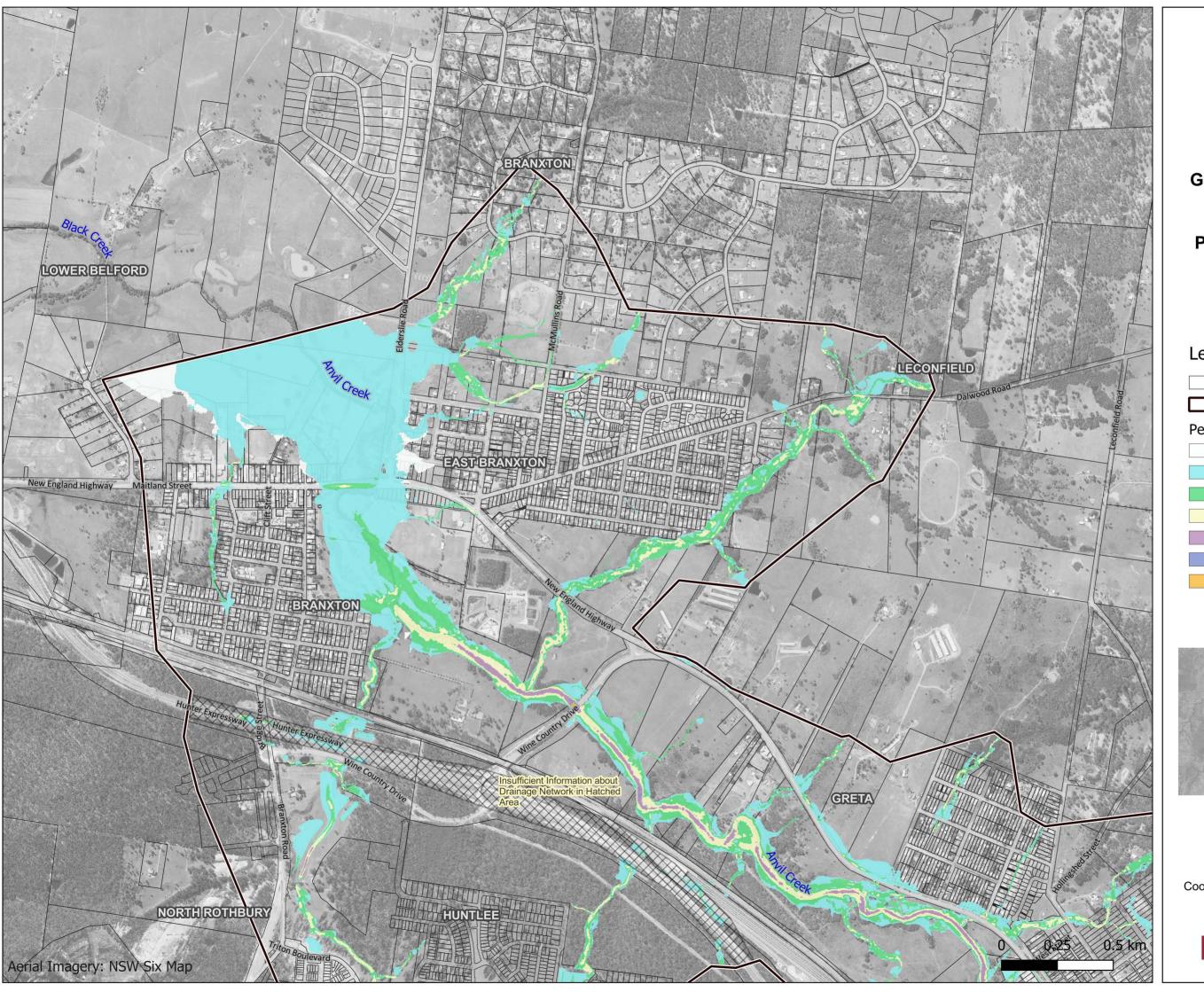


Greta Updated Flood

Peak Flood Velocity









RG-01-026a

Greta Updated Flood Study

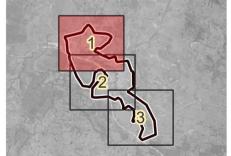
Peak Flood Velocity 1% AEP Map 1 of 3

Legend

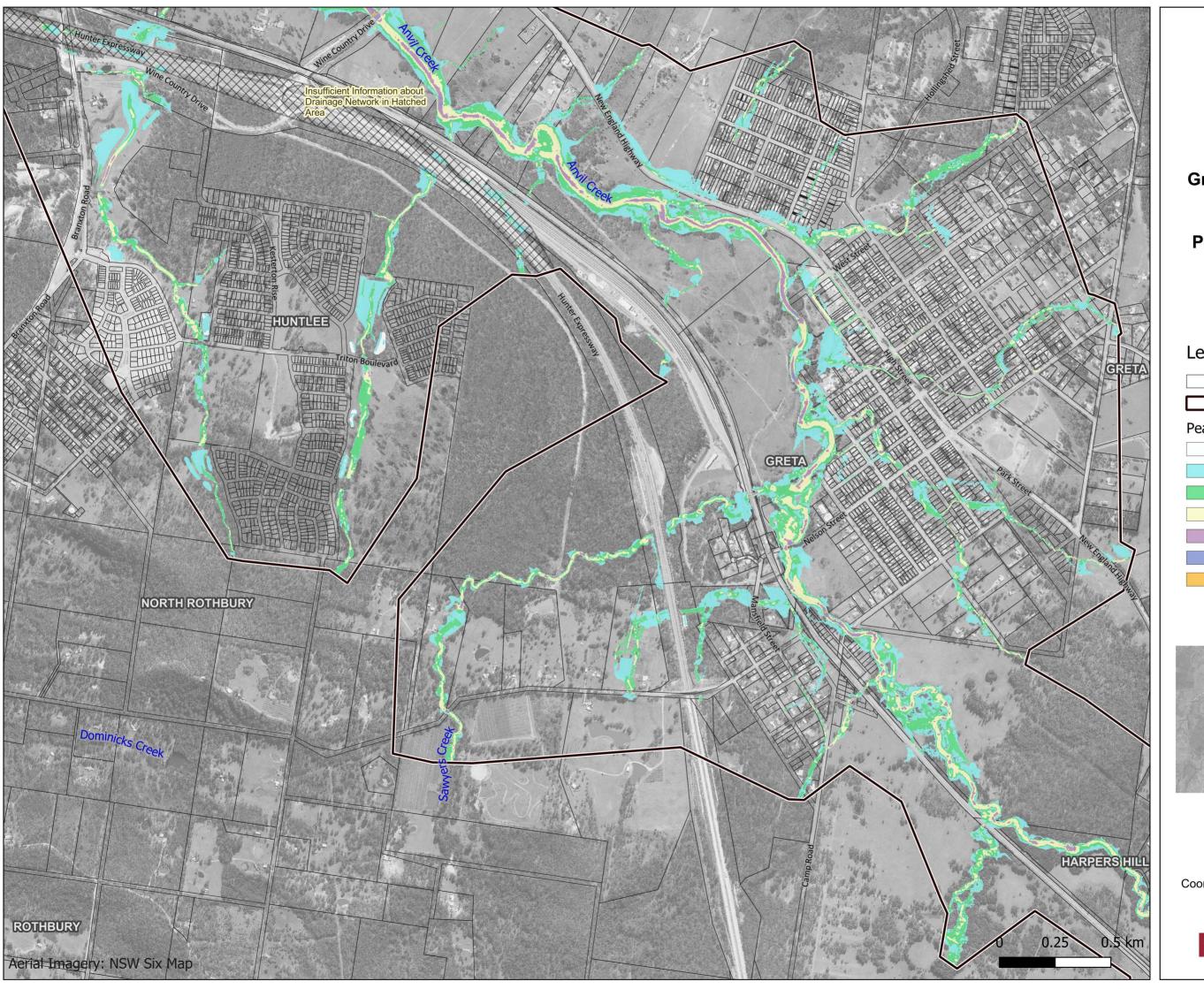
- Cadastre
- Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 3 4
- ____ J -









RG-01-026b

Greta Updated Flood Study

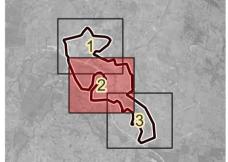
Peak Flood Velocity 1% AEP Map 2 of 3

Legend

- Cadastre
- ☐ Hydraulic Model Extent

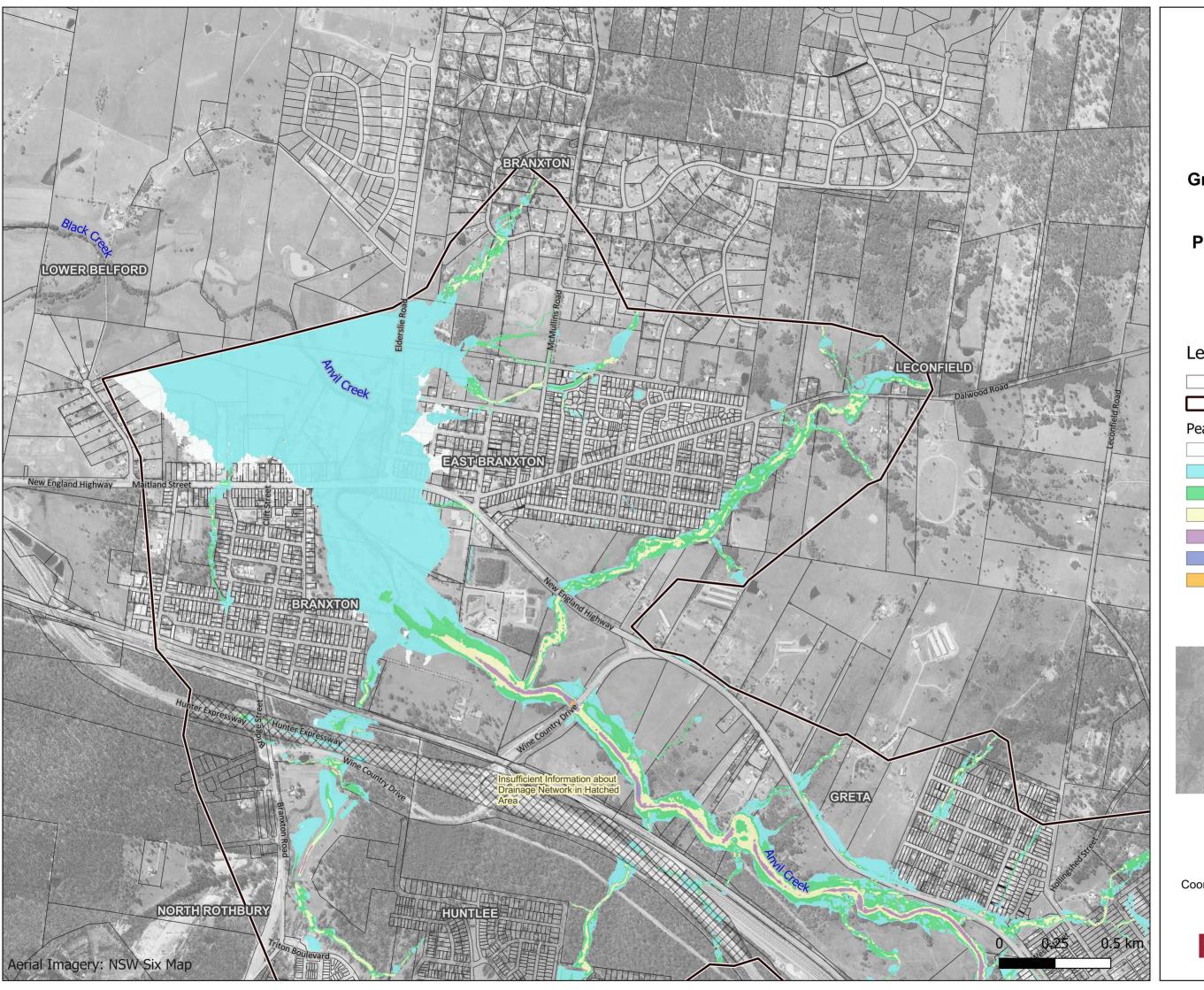
Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 3 4
- > 4











RG-01-027a

Greta Updated Flood Study

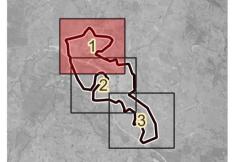
Peak Flood Velocity 0.5% AEP Map 1 of 3

Legend

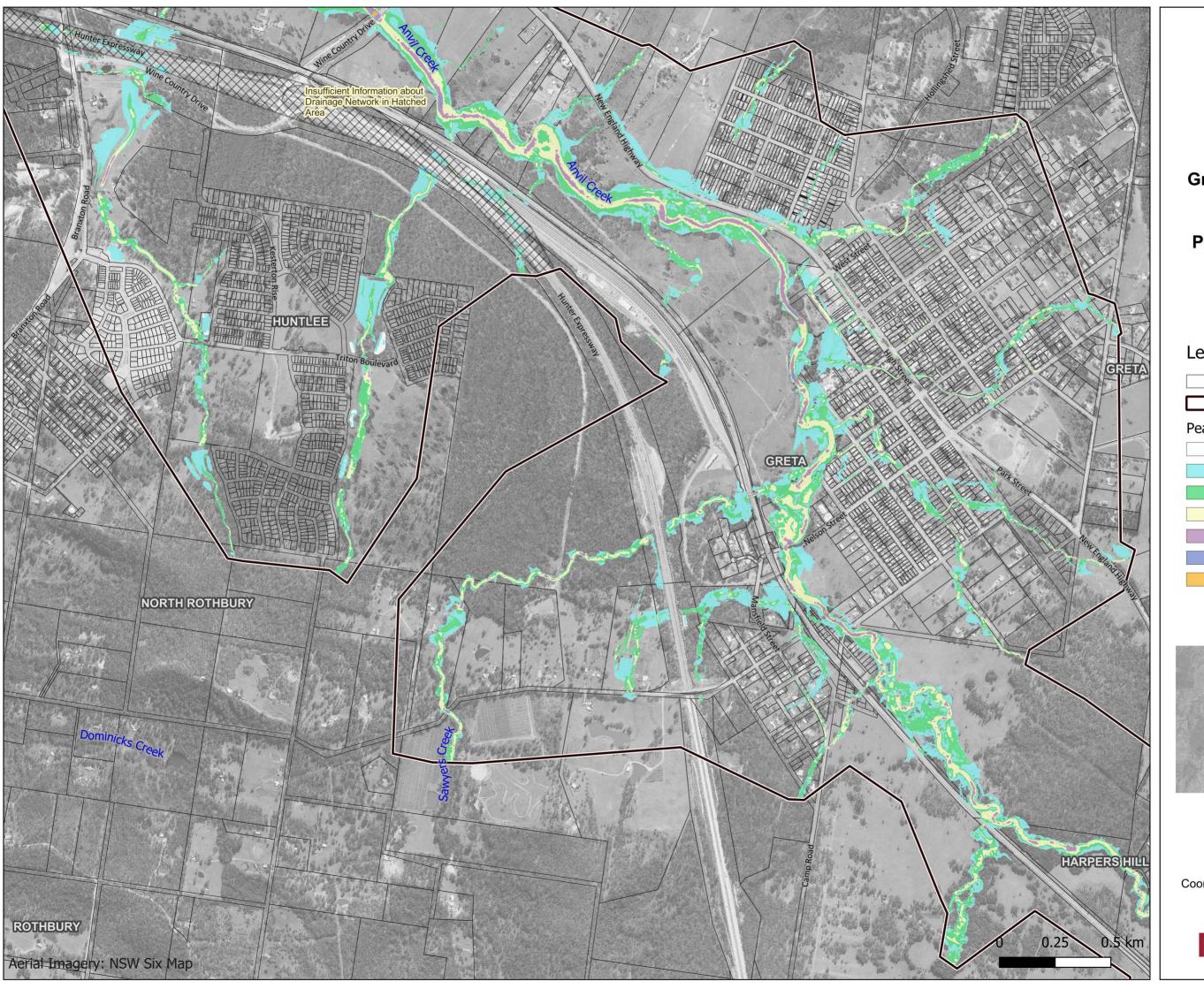
- Cadastre
- Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- _ _ .
- 3 4
- > 4









RG-01-027b

Greta Updated Flood Study

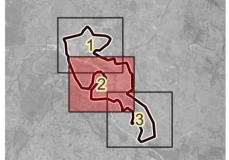
Peak Flood Velocity 0.5% AEP Map 2 of 3

Legend

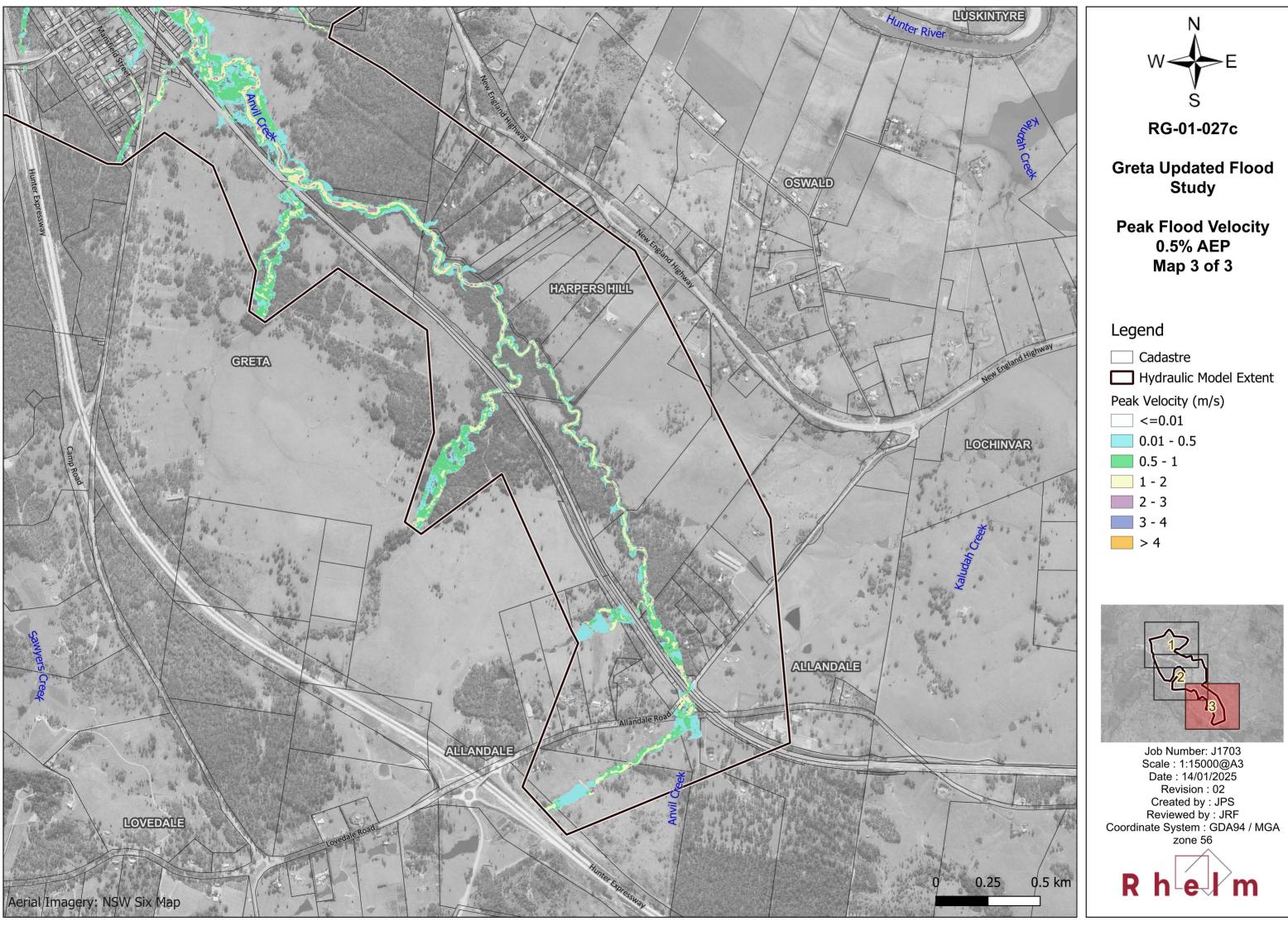
- Cadastre
- ☐ Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 2
- 3 4
- > 4







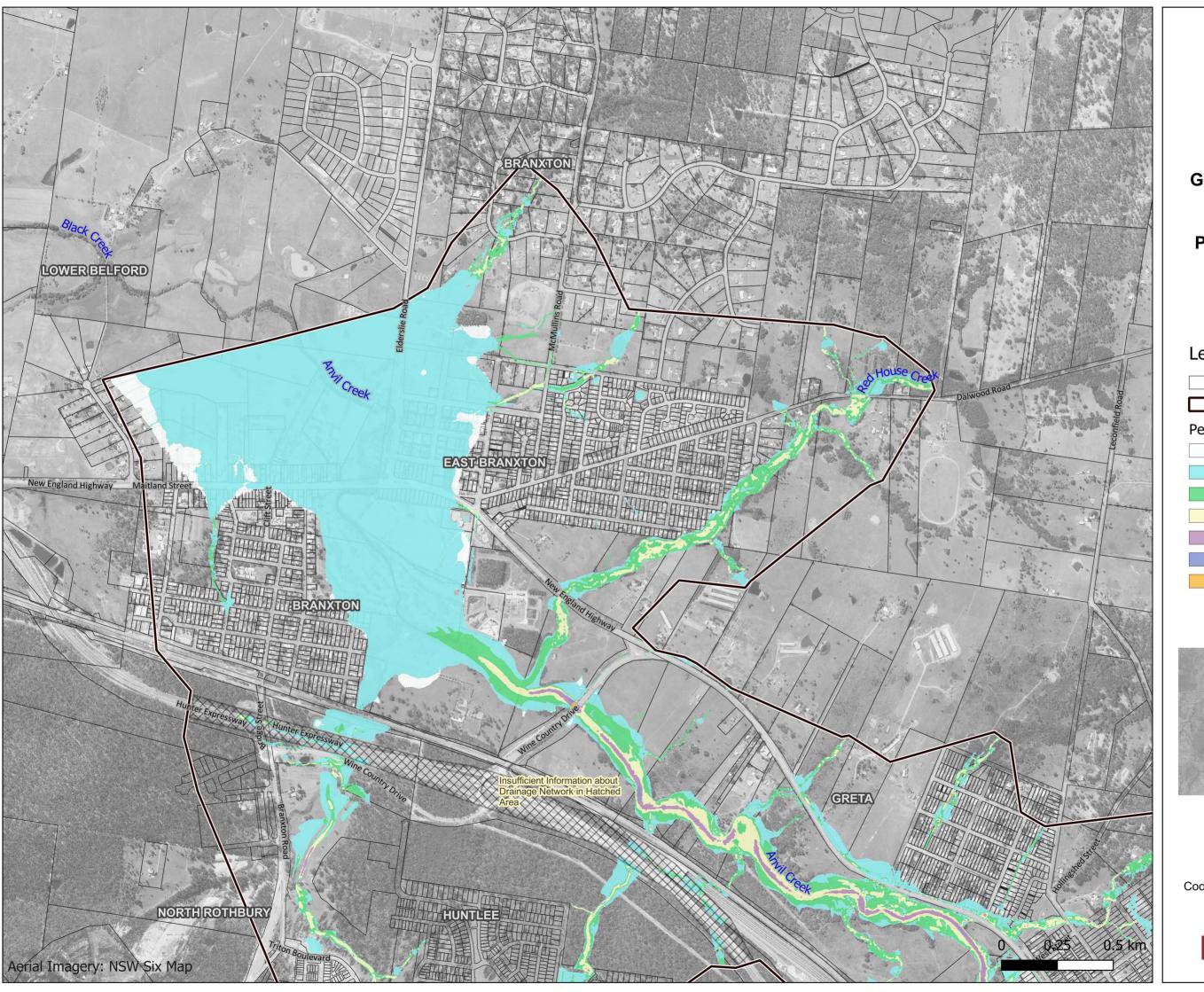


Greta Updated Flood

Peak Flood Velocity









RG-01-028a

Greta Updated Flood Study

Peak Flood Velocity 0.2% AEP Map 1 of 3

Legend

Cadastre

Hydraulic Model Extent

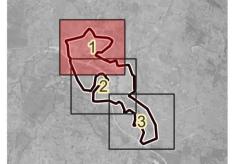
Peak Velocity (m/s)

<=0.01

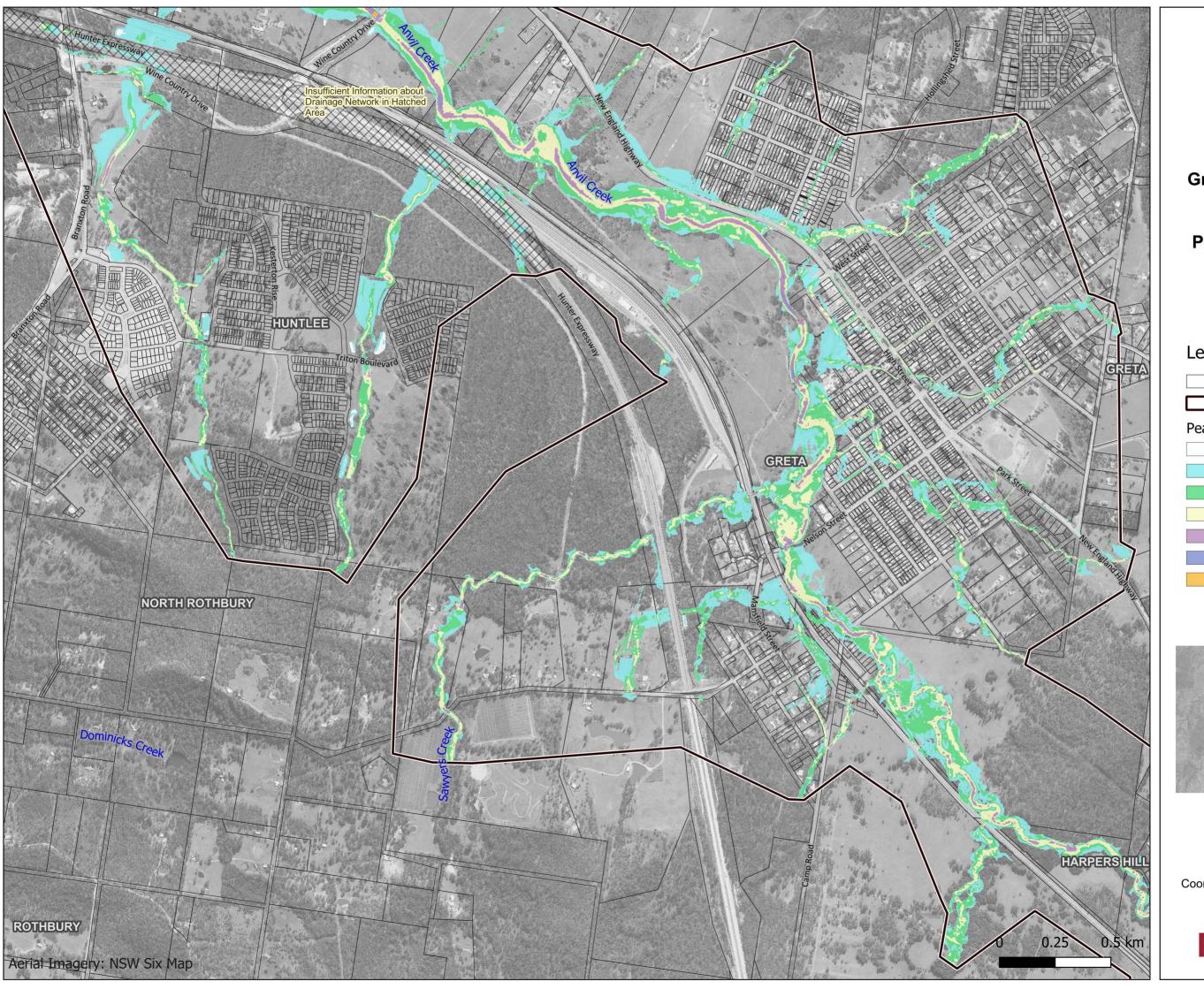
0.01 - 0.5

0.5 - 1

> 4









RG-01-028b

Greta Updated Flood Study

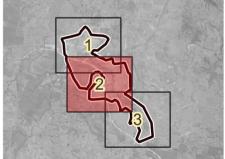
Peak Flood Velocity 0.2% AEP Map 2 of 3

Legend

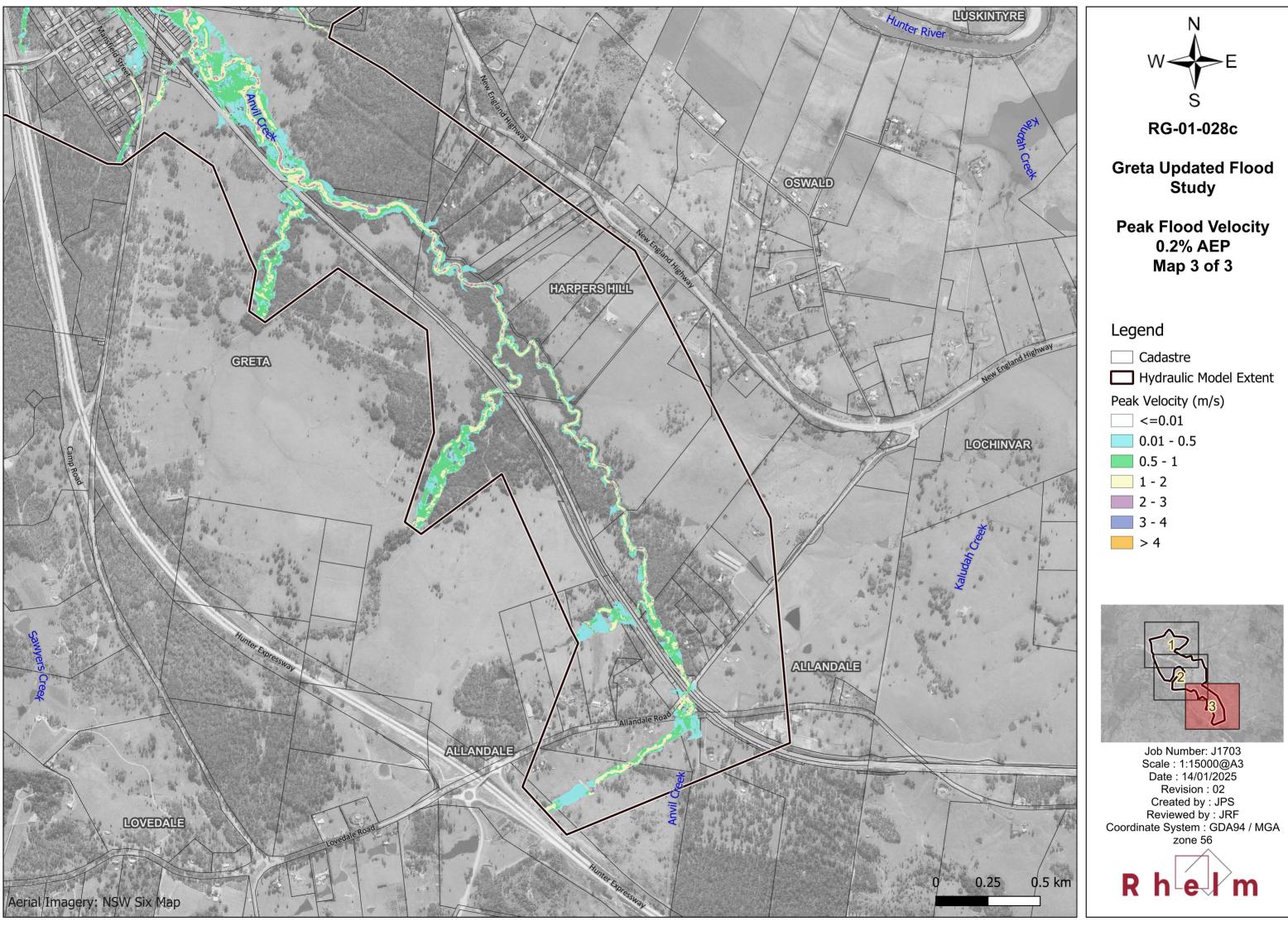
- Cadastre
- ☐ Hydraulic Model Extent

Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 3 4
- > 4



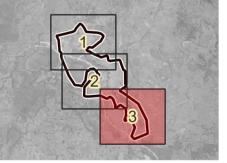




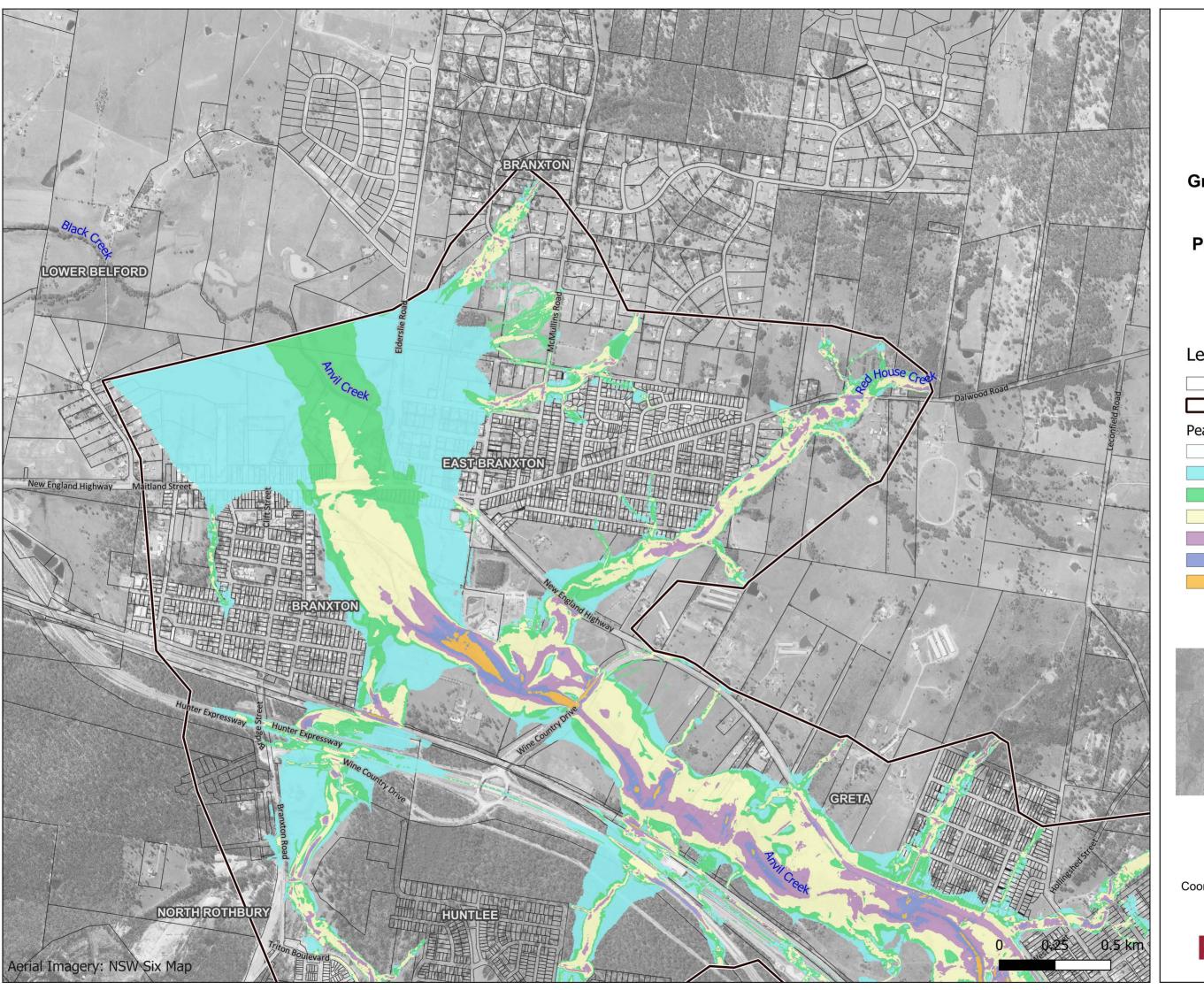


Greta Updated Flood

Peak Flood Velocity









RG-01-029a

Greta Updated Flood Study

Peak Flood Velocity PMF Map 1 of 3

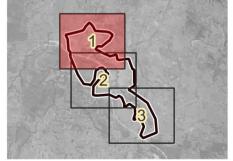
Legend

- Cadastre
- Hydraulic Model Extent

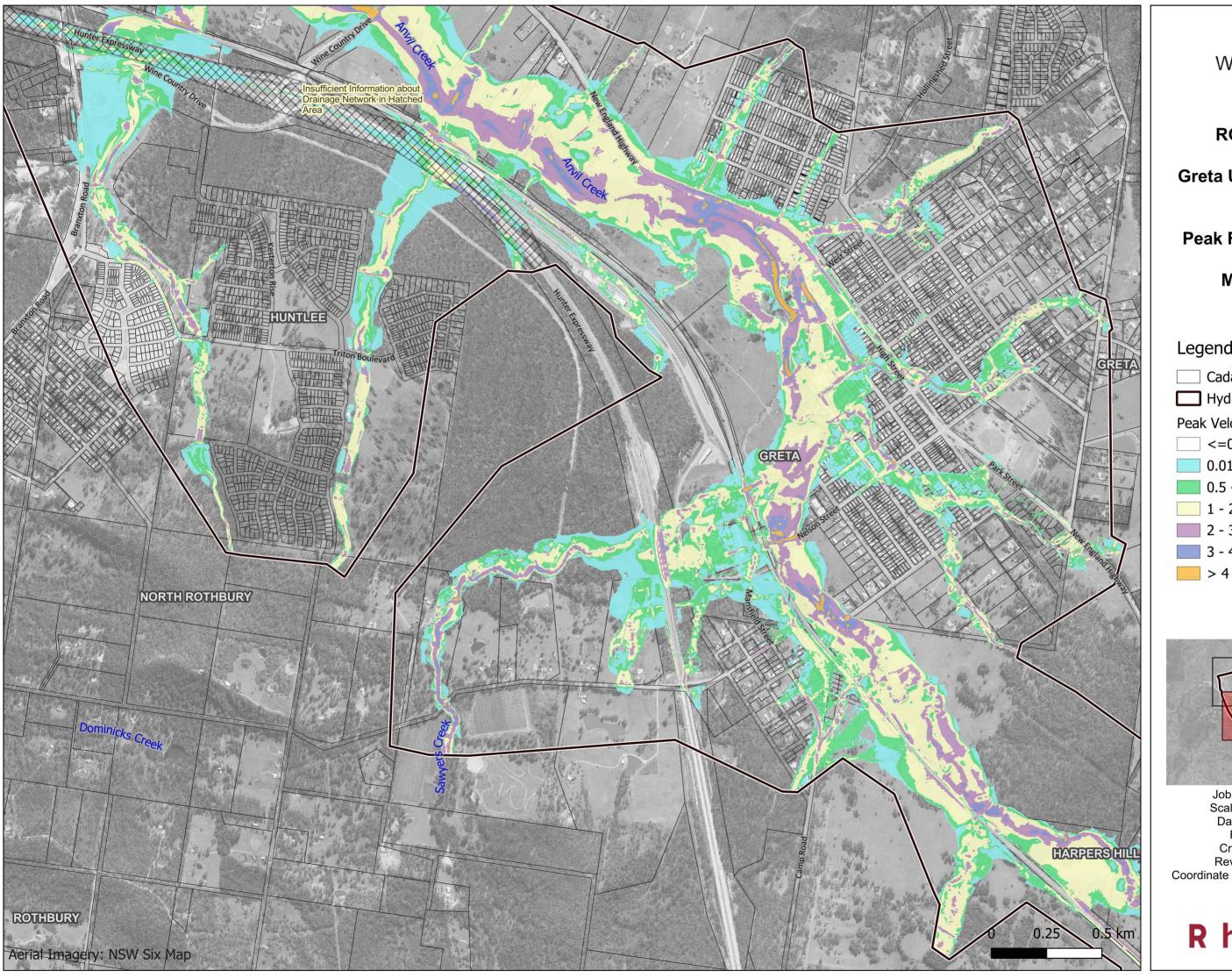
Peak Velocity (m/s)

- <=0.01
- 0.01 0.5
- 0.5 1
- 1 2
- 2 3
- 3 4











RG-01-029b

Greta Updated Flood Study

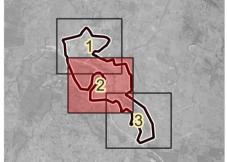
Peak Flood Velocity PMF Map 2 of 3

Legend

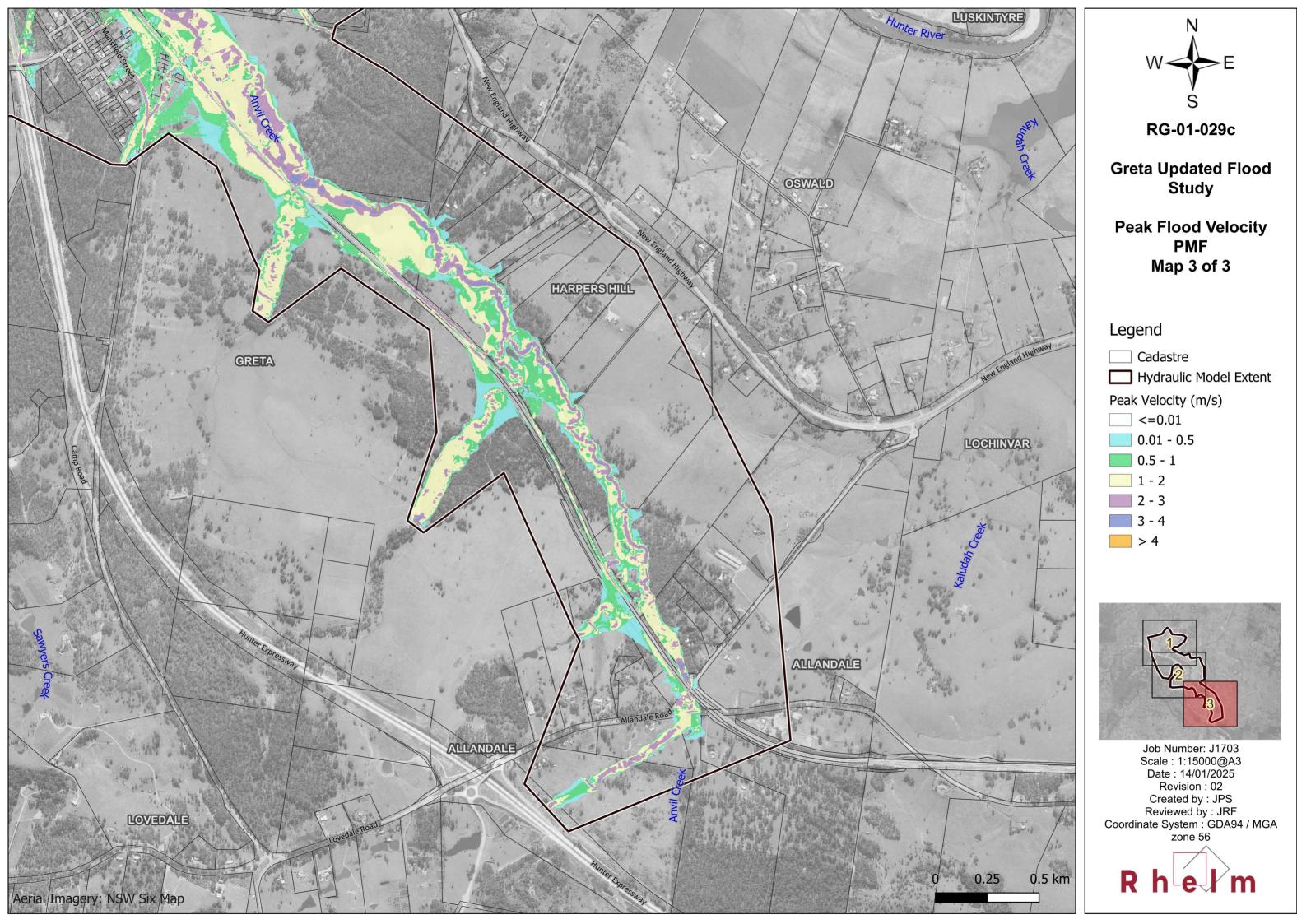
- Cadastre
- Hydraulic Model Extent

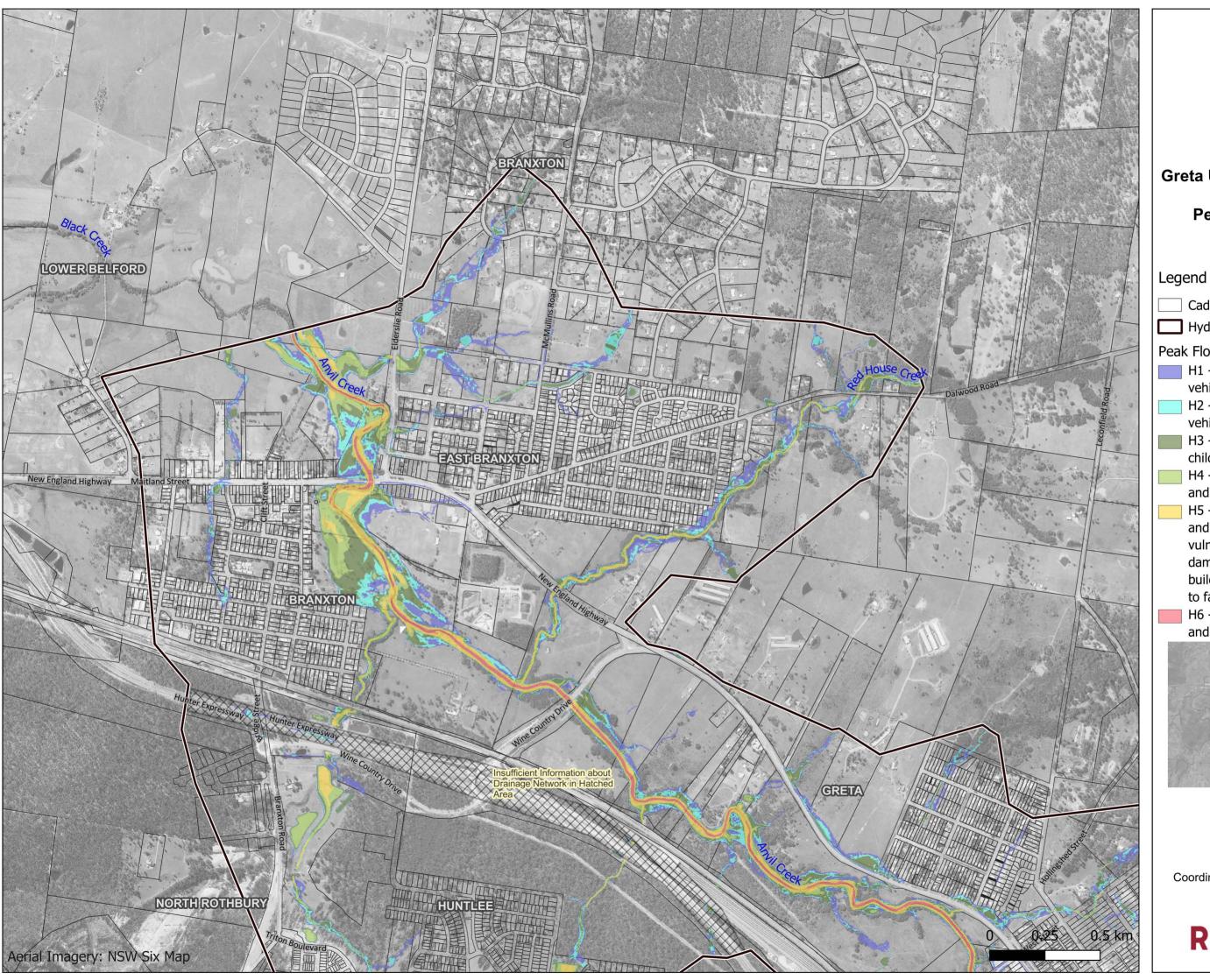
Peak Velocity (m/s)

- <=0.01
 - 0.01 0.5
- 0.5 1











RG-01-030a

Greta Updated Flood Study

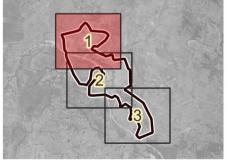
Peak Flood Hazard 5% AEP Map 1 of 3

Cadastre

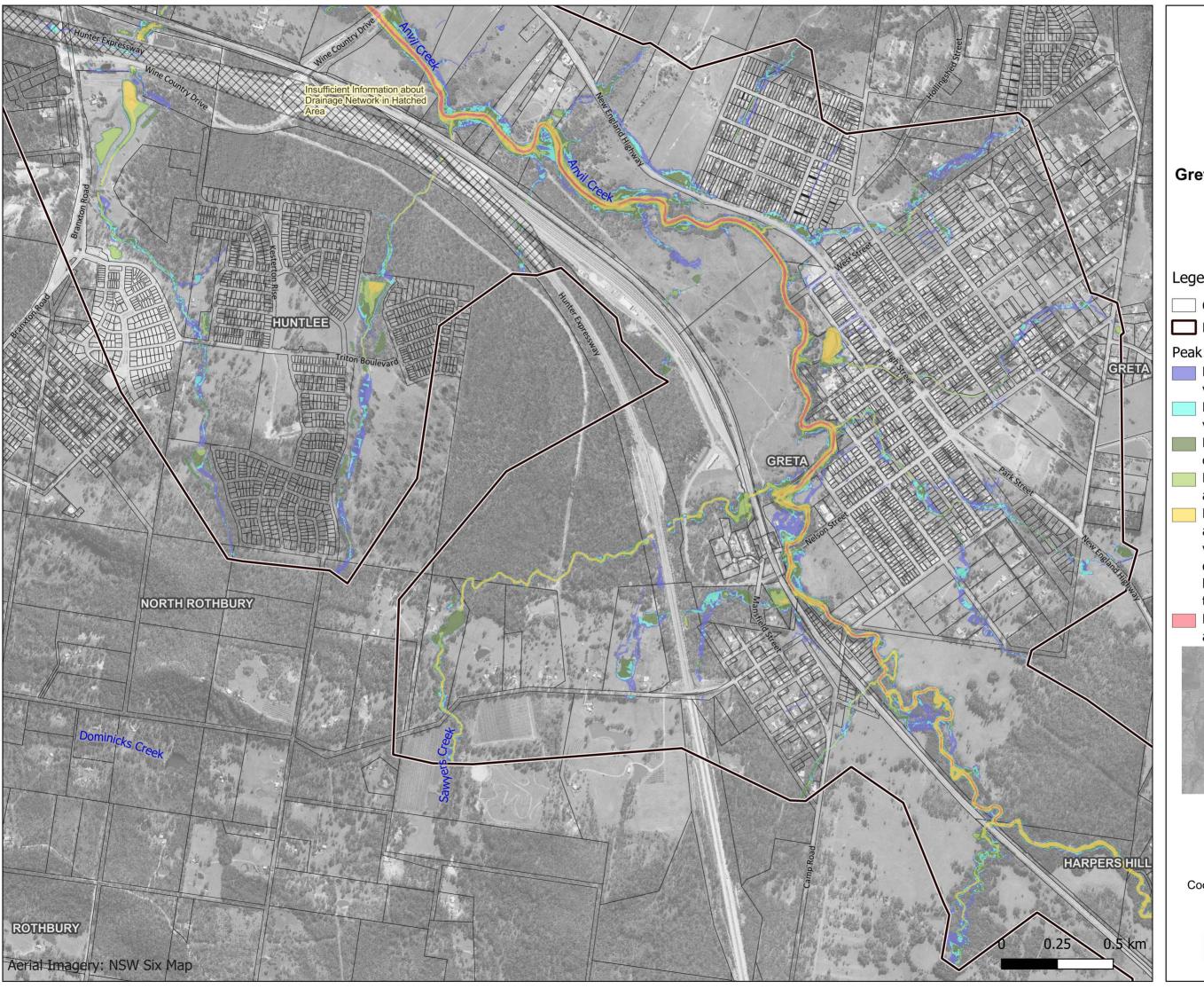
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-030b

Greta Updated Flood Study

Peak Flood Hazard 5% AEP Map 2 of 3

Legend

Cadastre

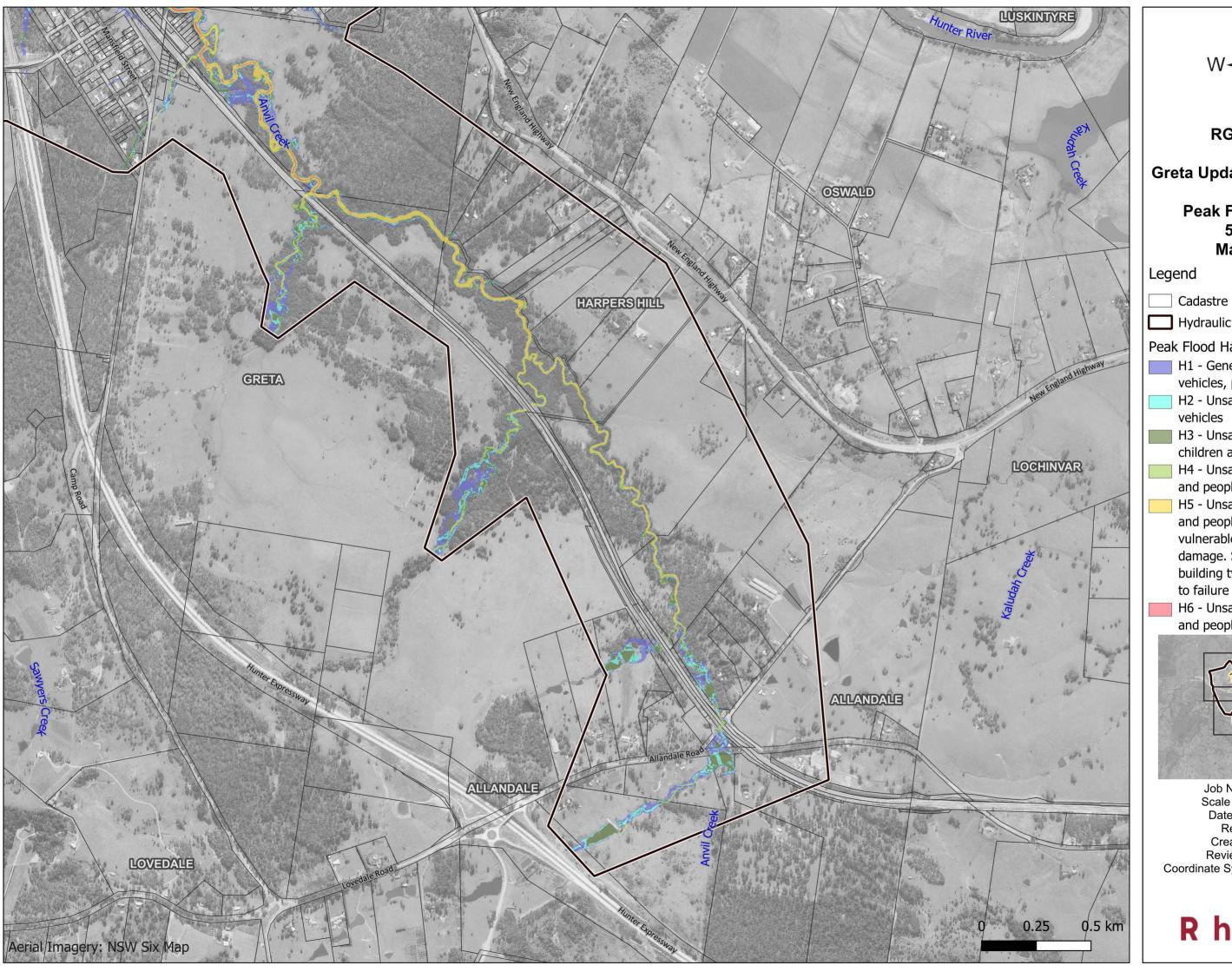
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-030c

Greta Updated Flood Study

Peak Flood Hazard 5% AEP Map 3 of 3

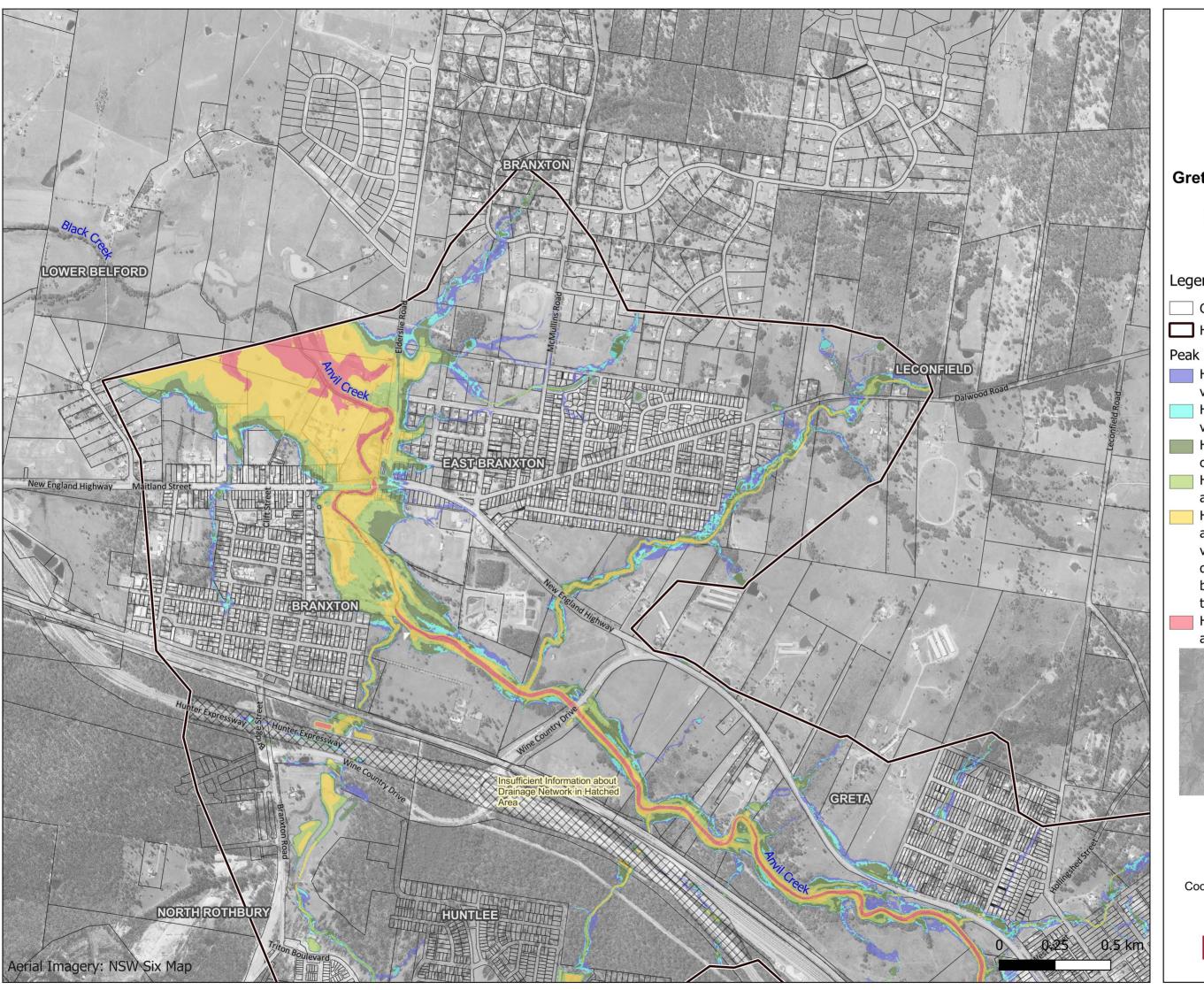
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable
- H6 Unsafe for vehicles and people. All building









RG-01-031a

Greta Updated Flood Study

Peak Flood Hazard 1% AEP Map 1 of 3

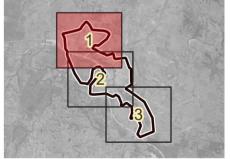
Legend

Cadastre

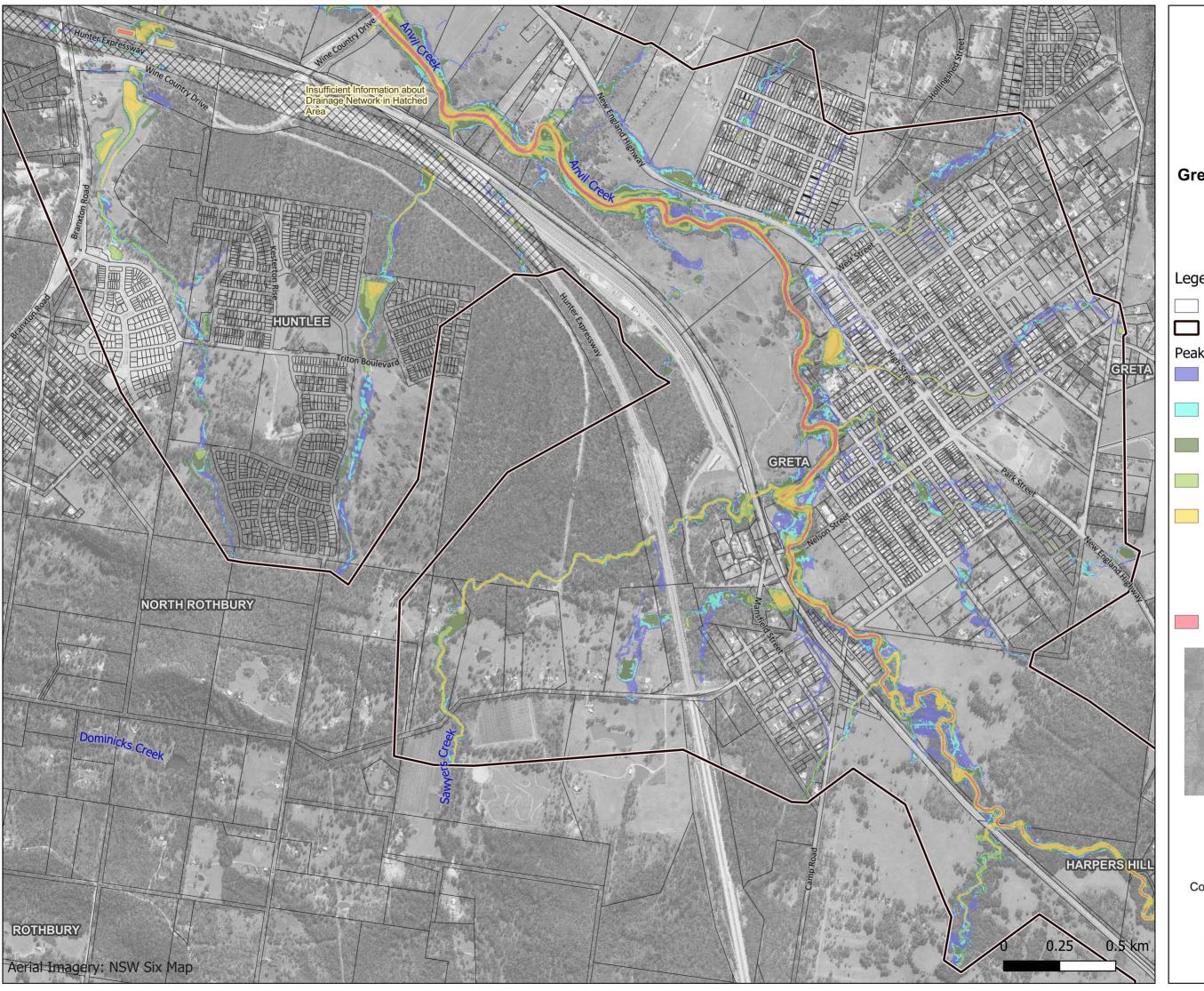
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-031b

Greta Updated Flood Study

Peak Flood Hazard 1% AEP Map 2 of 3

Legend

Cadastre

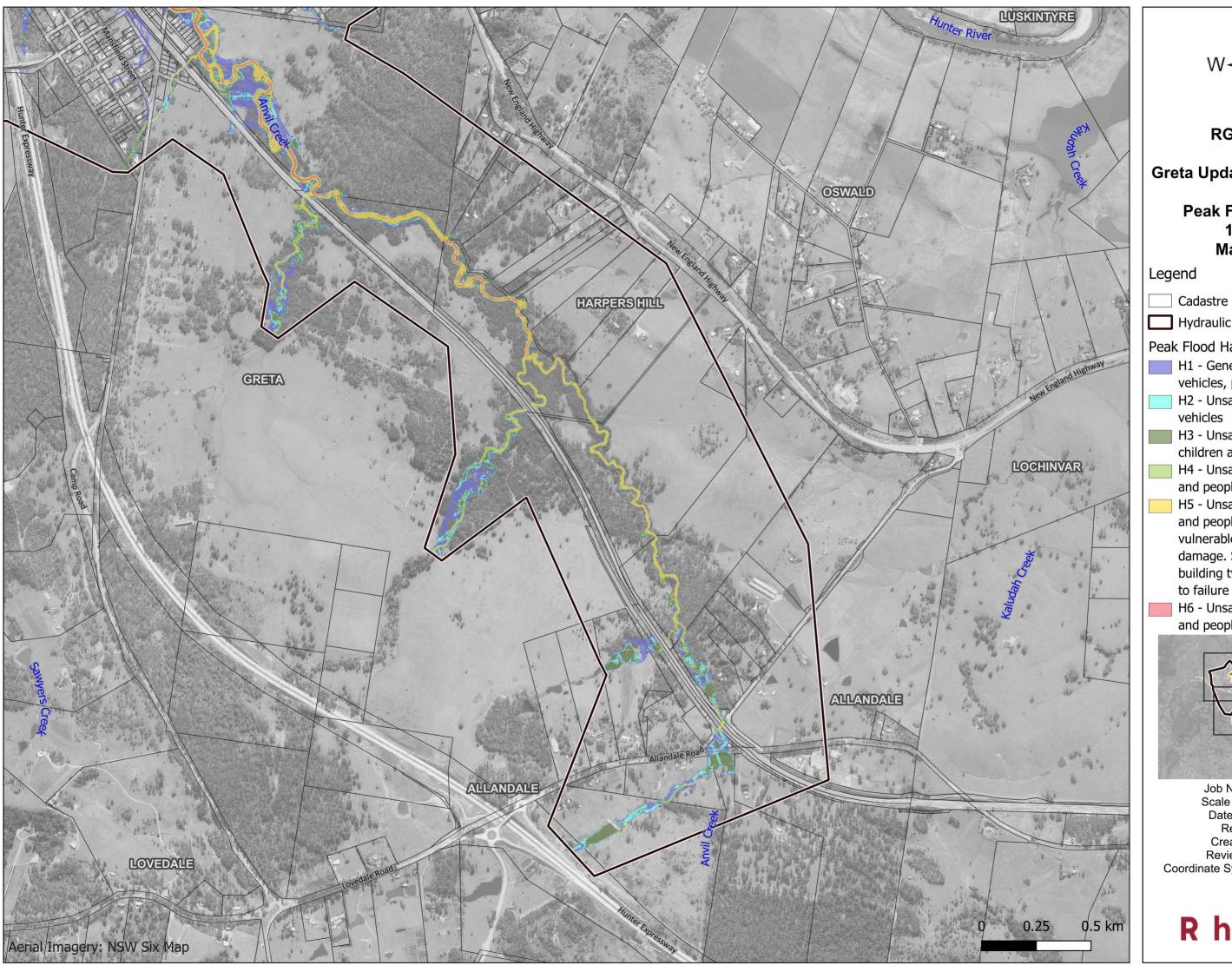
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-031c

Greta Updated Flood Study

Peak Flood Hazard 1% AEP Map 3 of 3

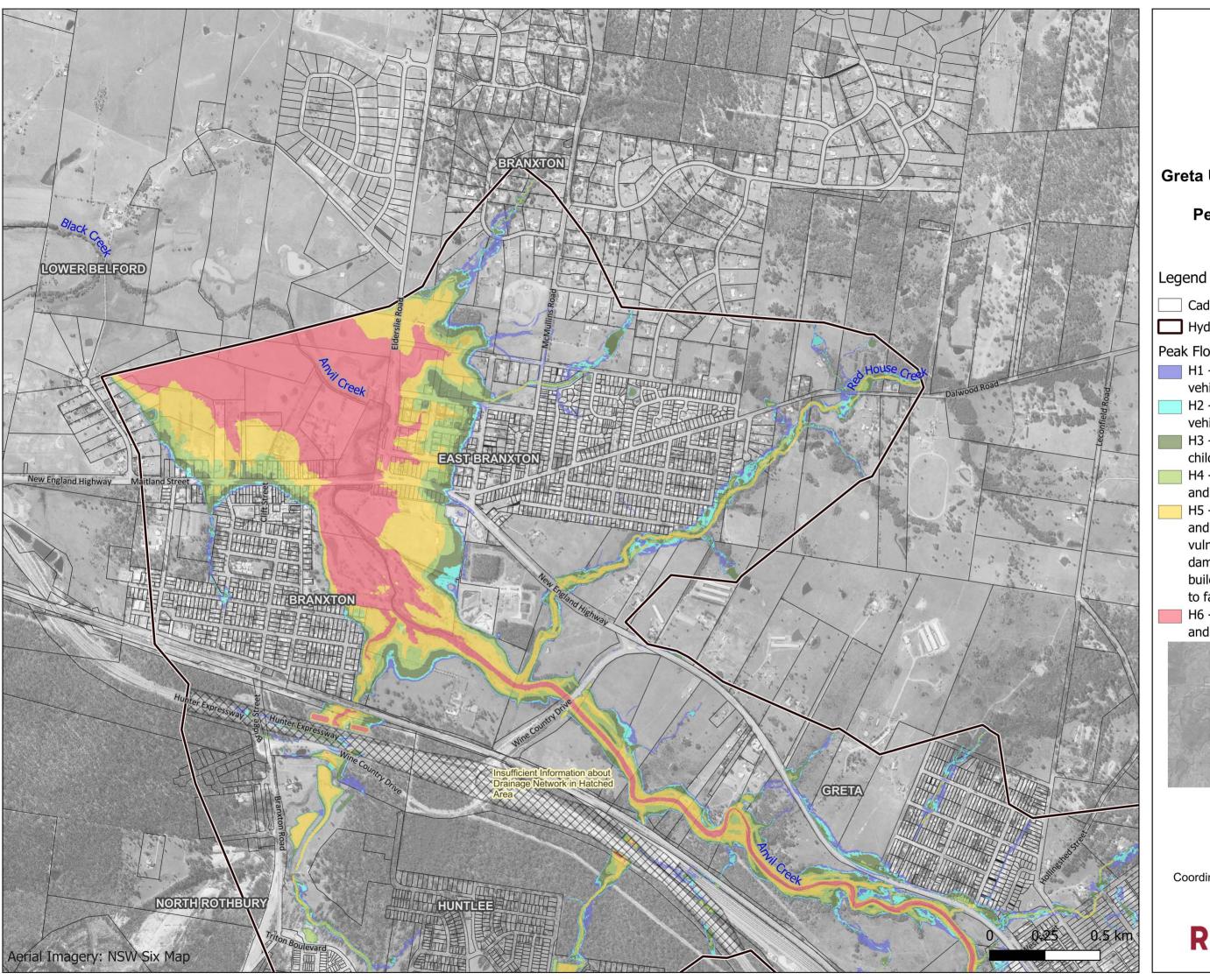
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable
- H6 Unsafe for vehicles and people. All building









RG-01-032a

Greta Updated Flood Study

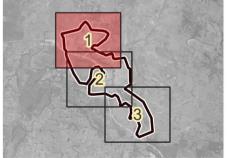
Peak Flood Hazard 0.2% AEP Map 1 of 3

Cadastre

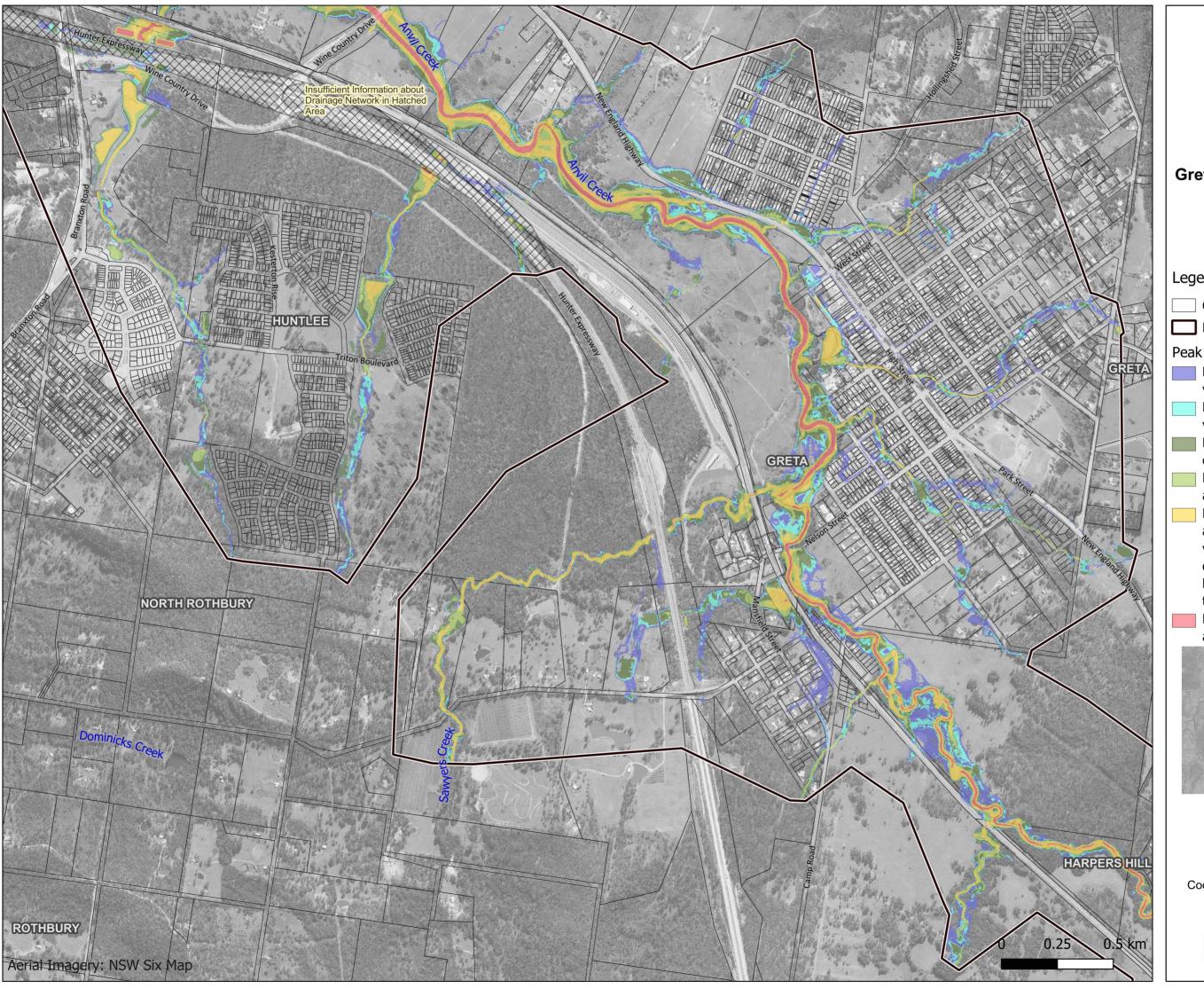
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-032b

Greta Updated Flood Study

Peak Flood Hazard 0.2% AEP Map 2 of 3

Legend

Cadastre

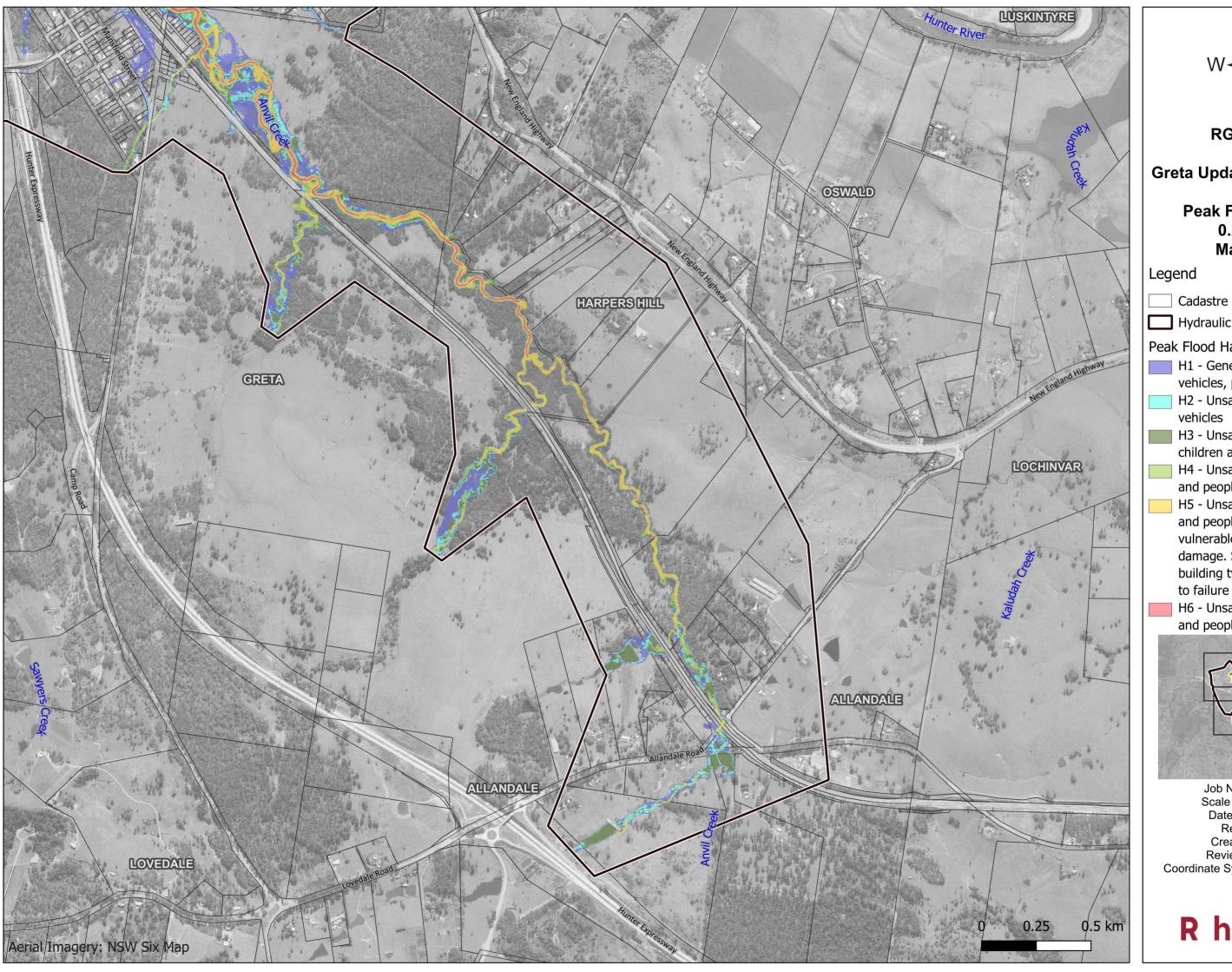
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-032c

Greta Updated Flood Study

Peak Flood Hazard 0.2% AEP Map 3 of 3

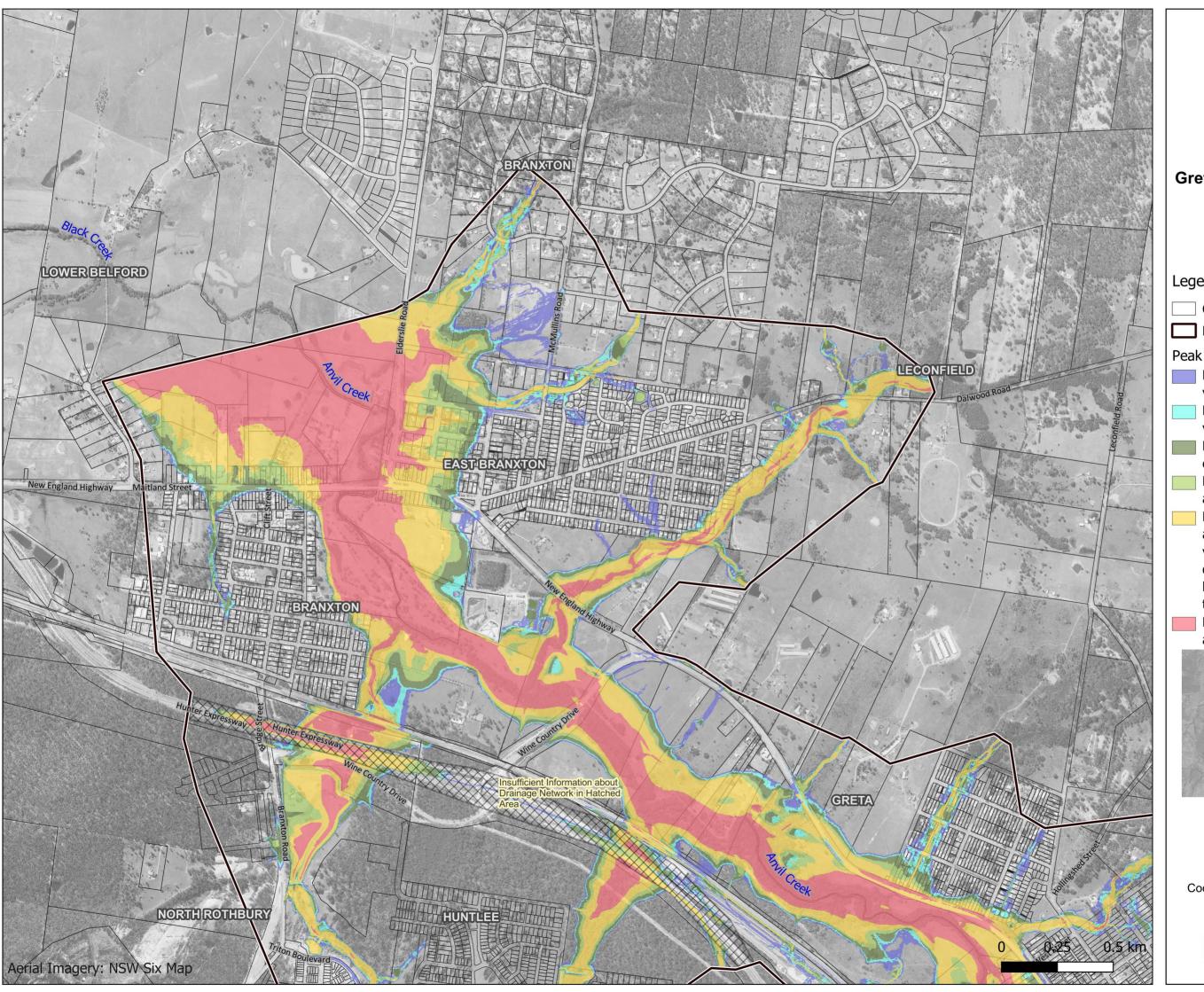
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-033a

Greta Updated Flood Study

Peak Flood Hazard PMF Map 1 of 3

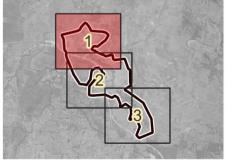
Legend

Cadastre

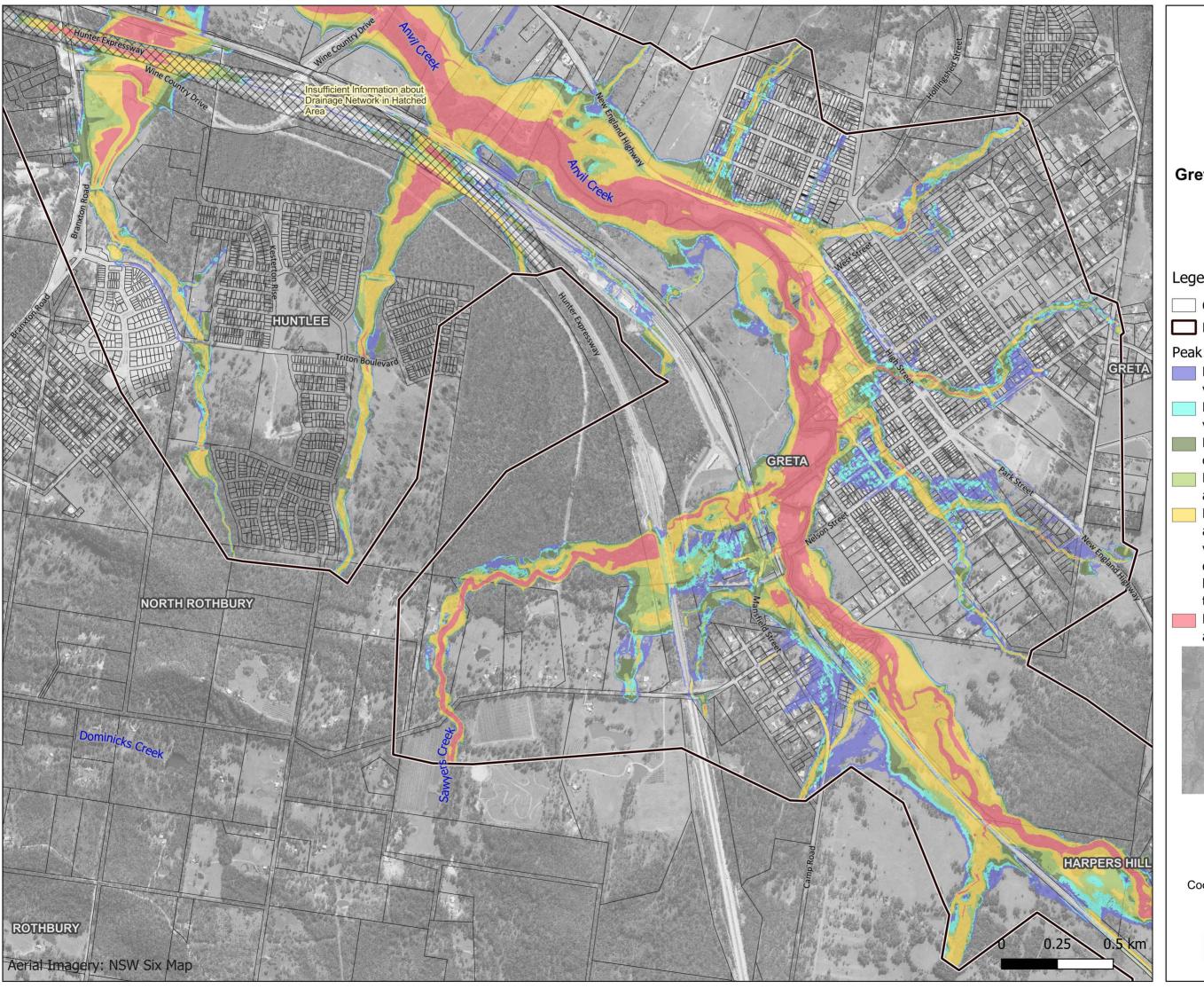
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-033b

Greta Updated Flood Study

Peak Flood Hazard PMF Map 2 of 3

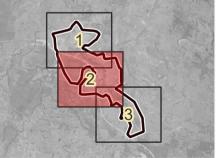
Legend

Cadastre

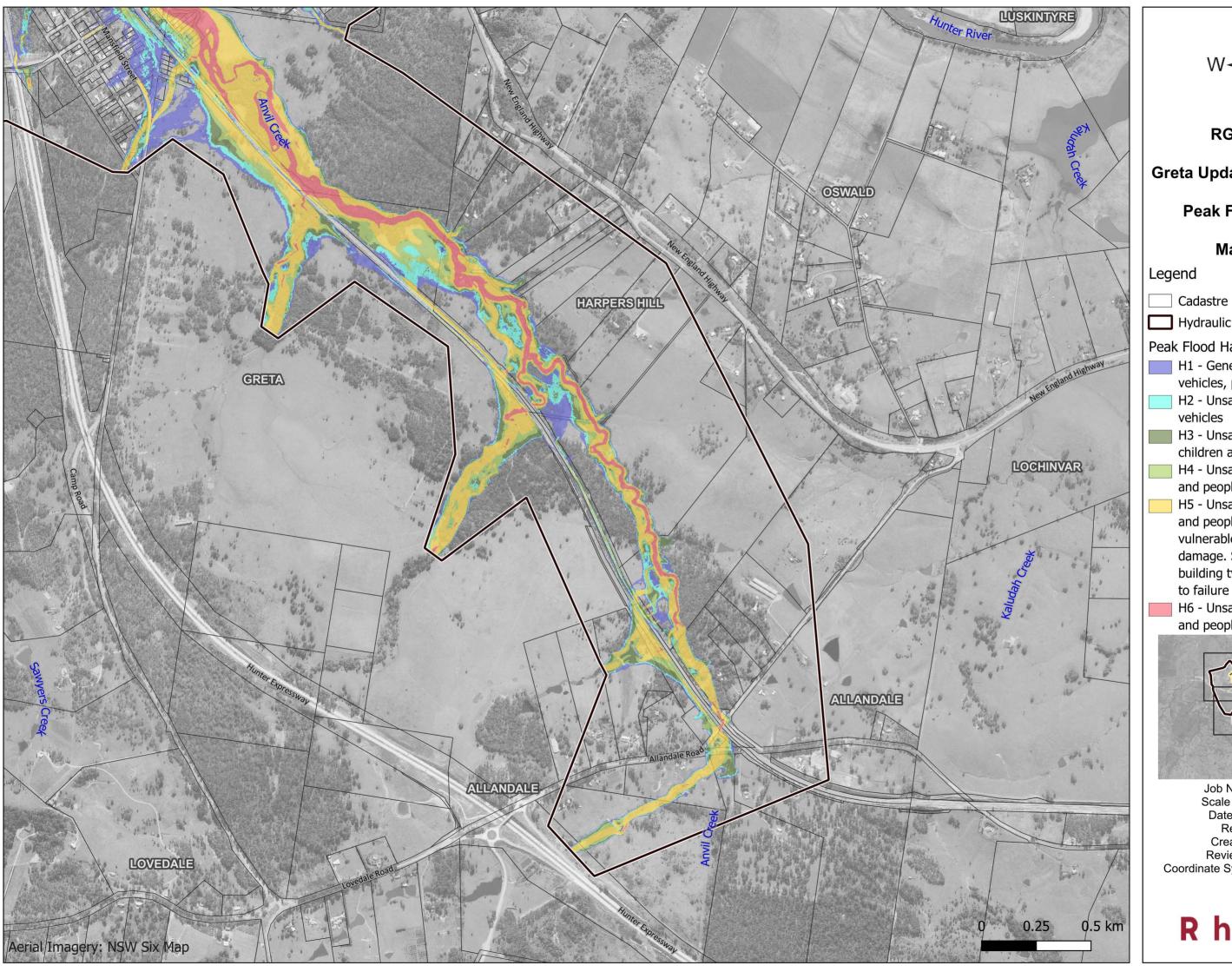
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-033c

Greta Updated Flood Study

Peak Flood Hazard PMF Map 3 of 3

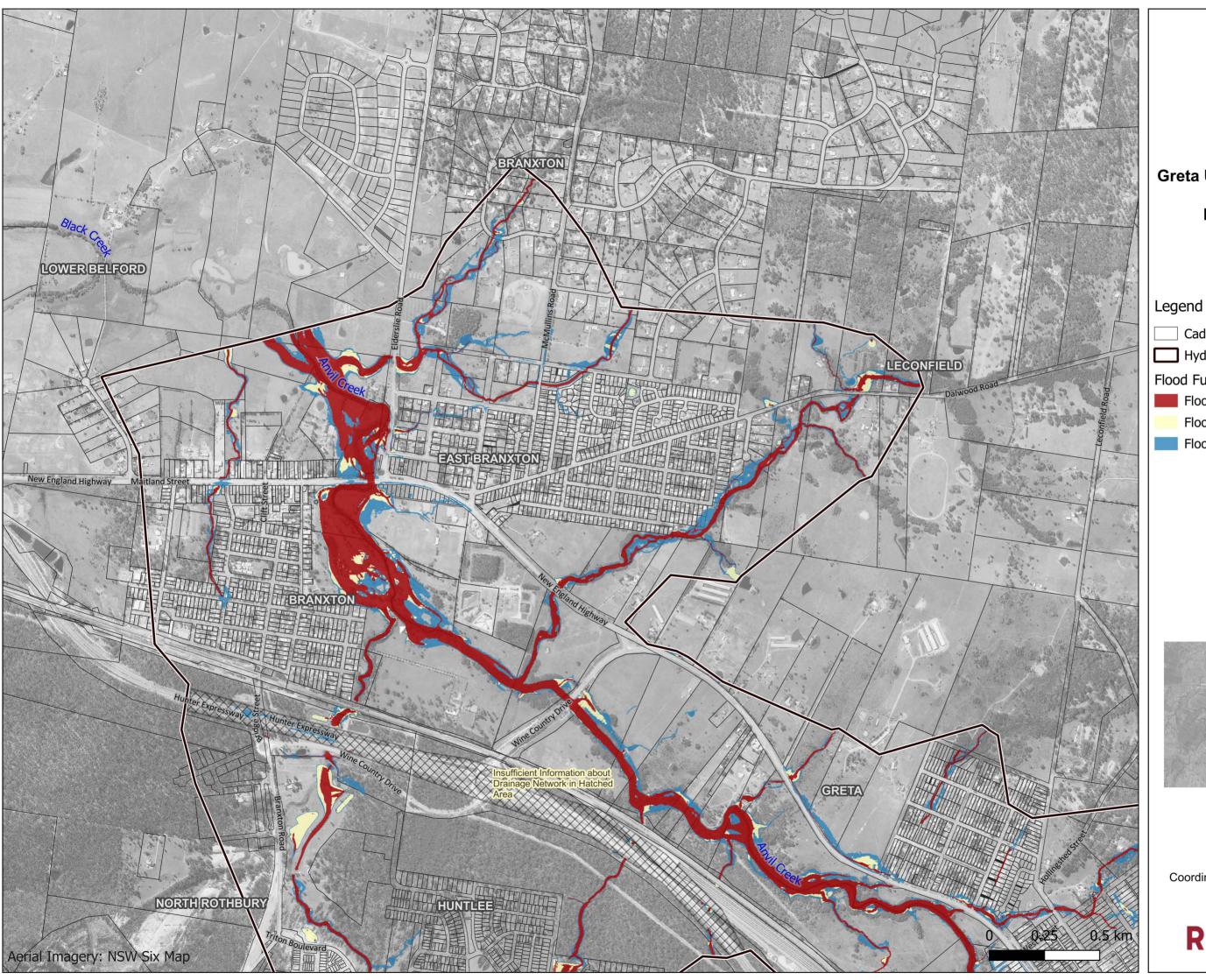
Hydraulic Model Extent

Peak Flood Hazard

- H1 Generally safe for vehicles, people & buildings
- H2 Unsafe for small vehicles
- H3 Unsafe for vehicles, children and the elderly
- H4 Unsafe for vehicles and people
- H5 Unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure
- H6 Unsafe for vehicles and people. All building









RG-01-040a

Greta Updated Flood Study

Flood Function 5% AEP Map 1 of 3

Cadastre

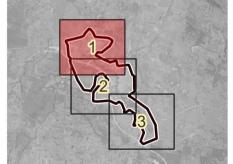
Hydraulic Model Extent

Flood Function

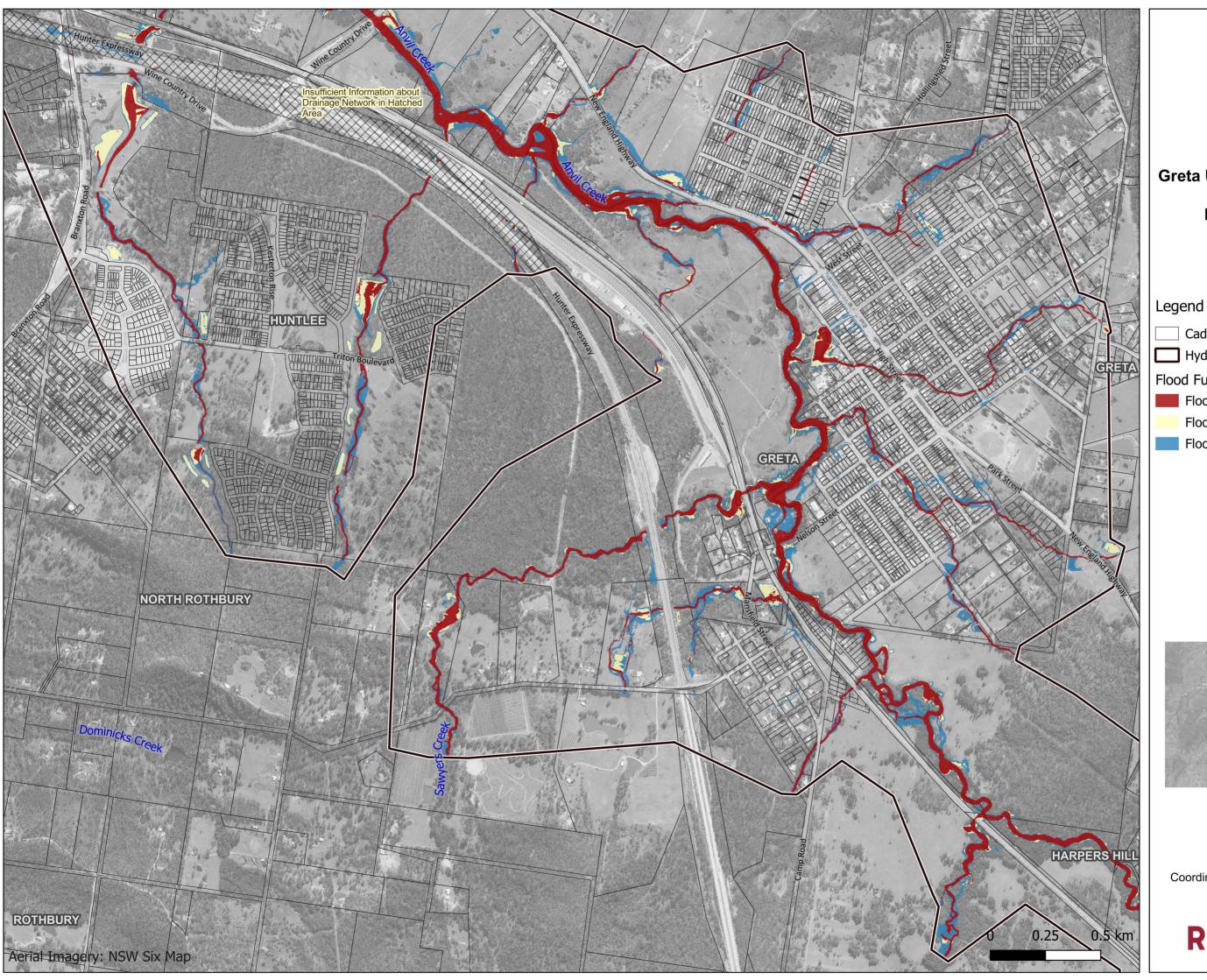
Floodway

Flood Storage

Flood Fringe









RG-01-040b

Greta Updated Flood Study

Flood Function 5% AEP Map 2 of 3

Cadastre

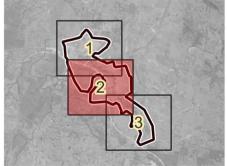
Hydraulic Model Extent

Flood Function

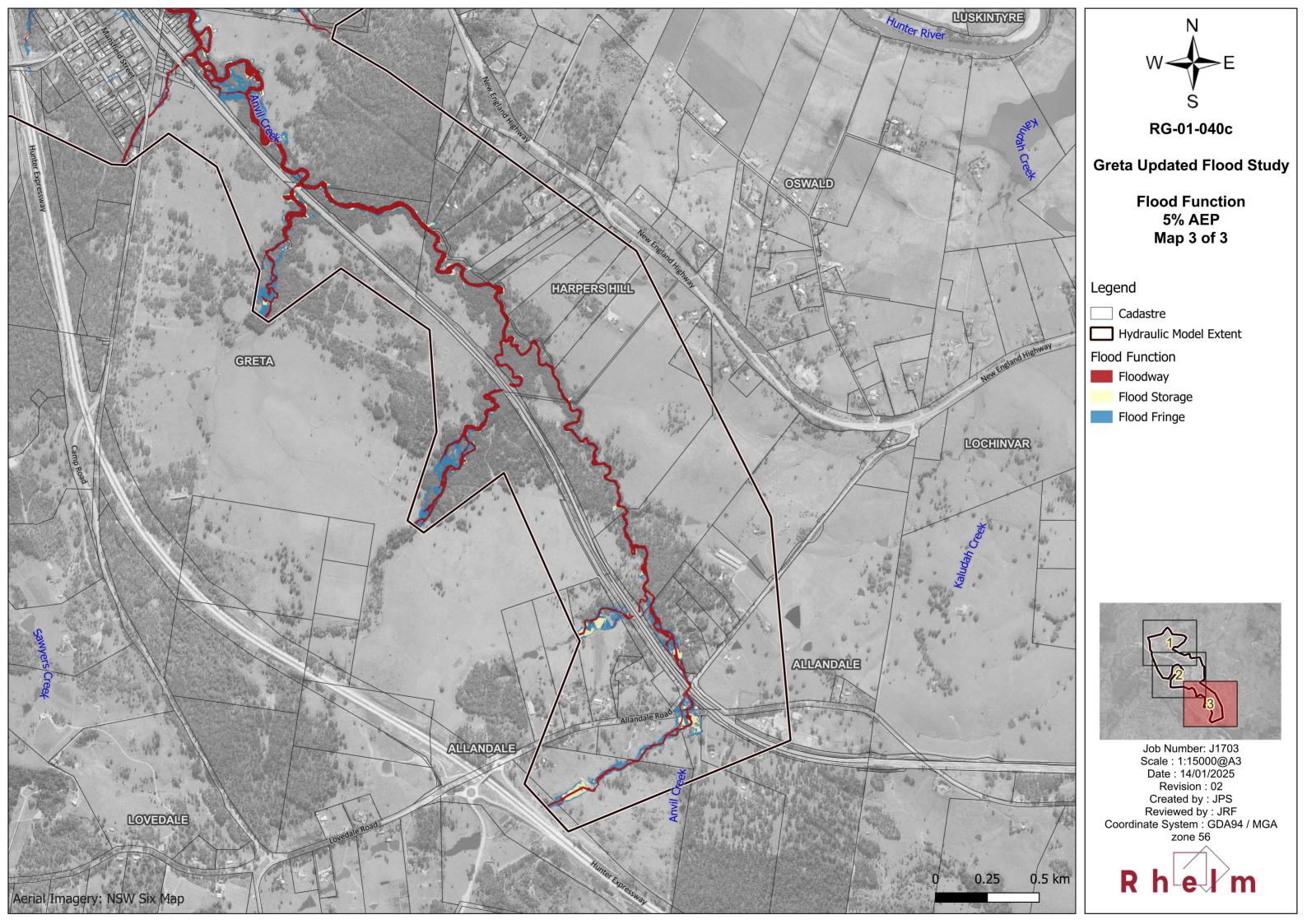
Floodway

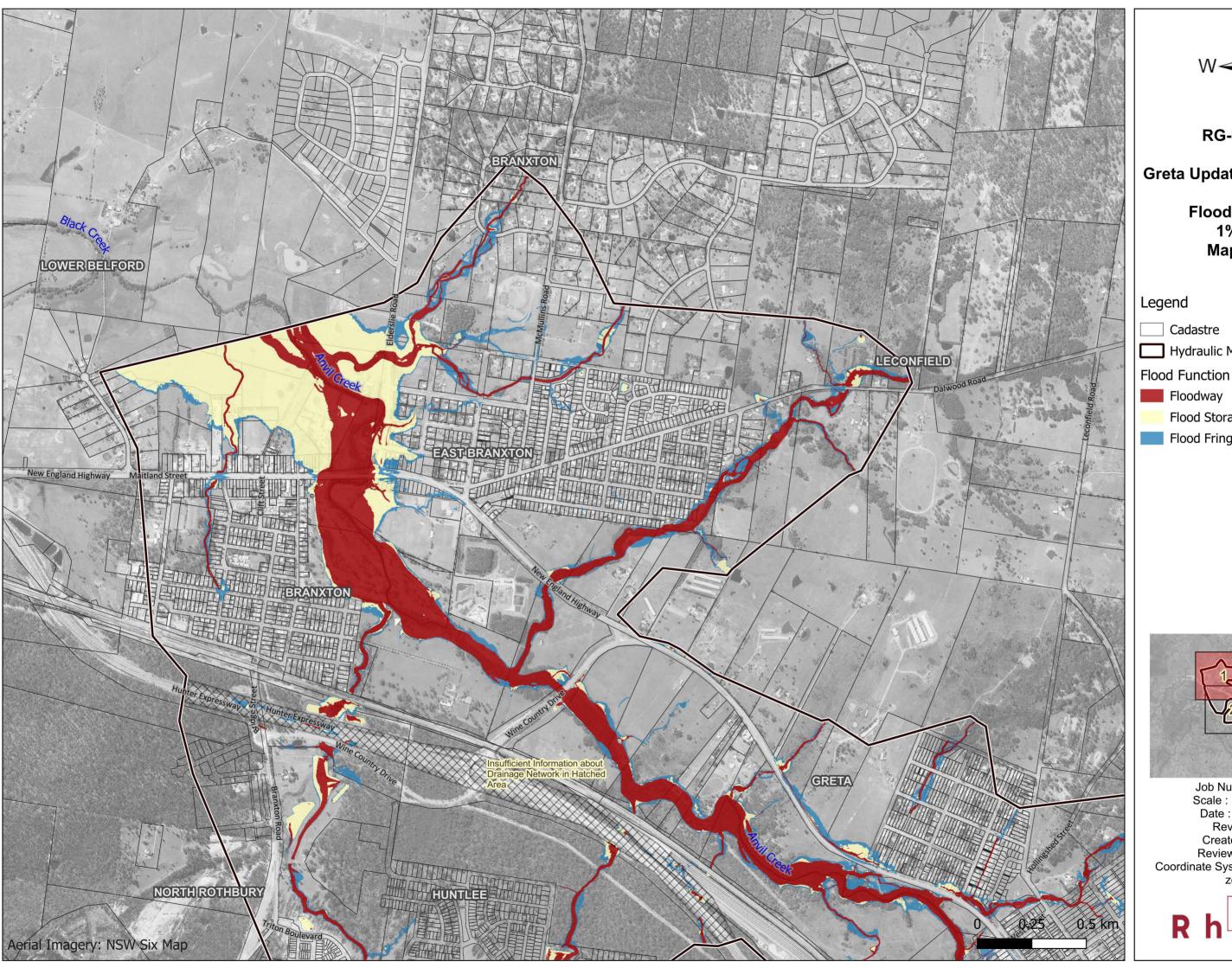
Flood Storage

Flood Fringe











RG-01-041a

Greta Updated Flood Study

Flood Function 1% AEP Map 1 of 3

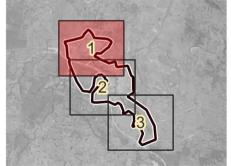
Cadastre

Hydraulic Model Extent

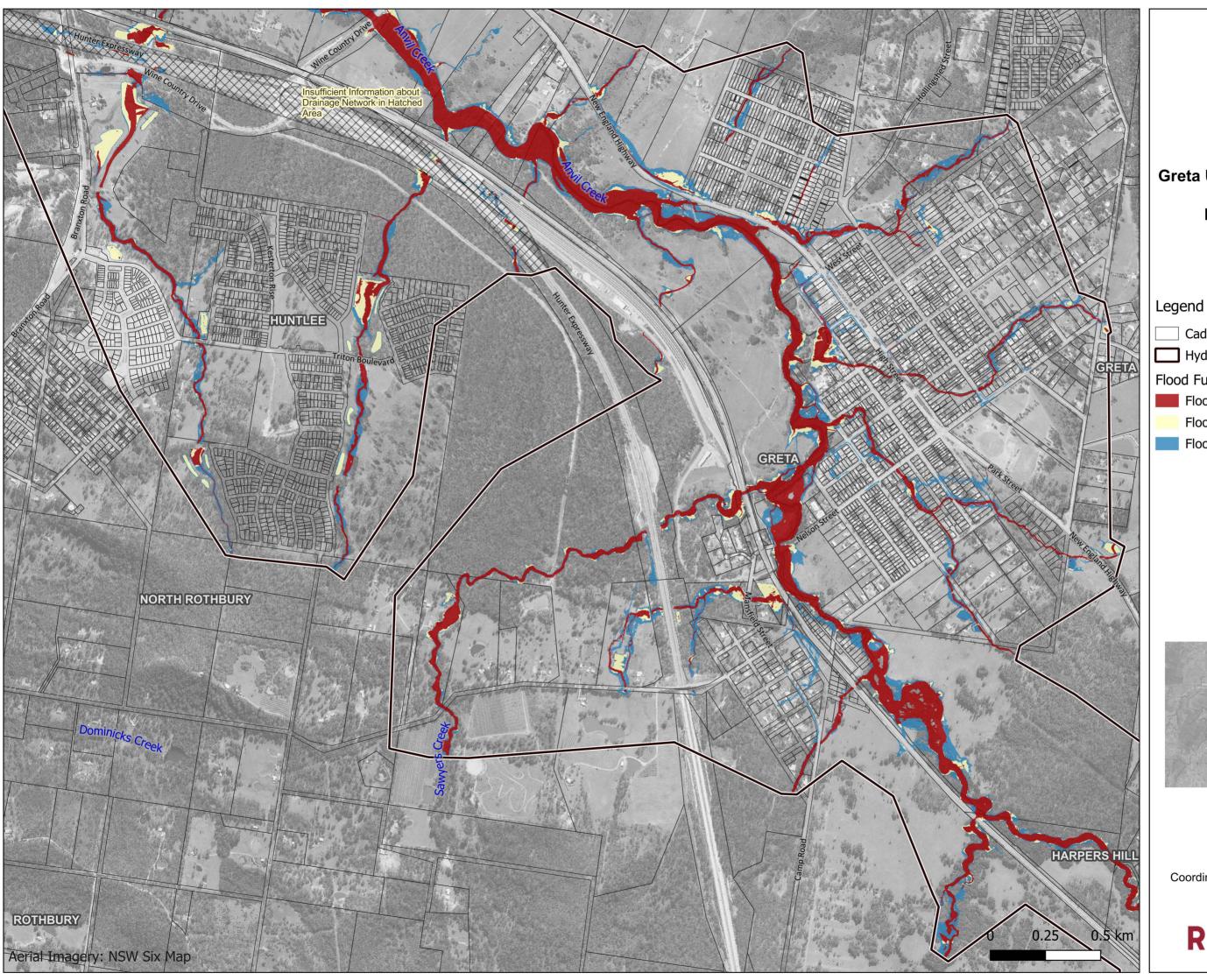
Floodway

Flood Storage

Flood Fringe









RG-01-041b

Greta Updated Flood Study

Flood Function 1% AEP Map 2 of 3

Cadastre

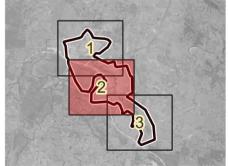
Hydraulic Model Extent

Flood Function

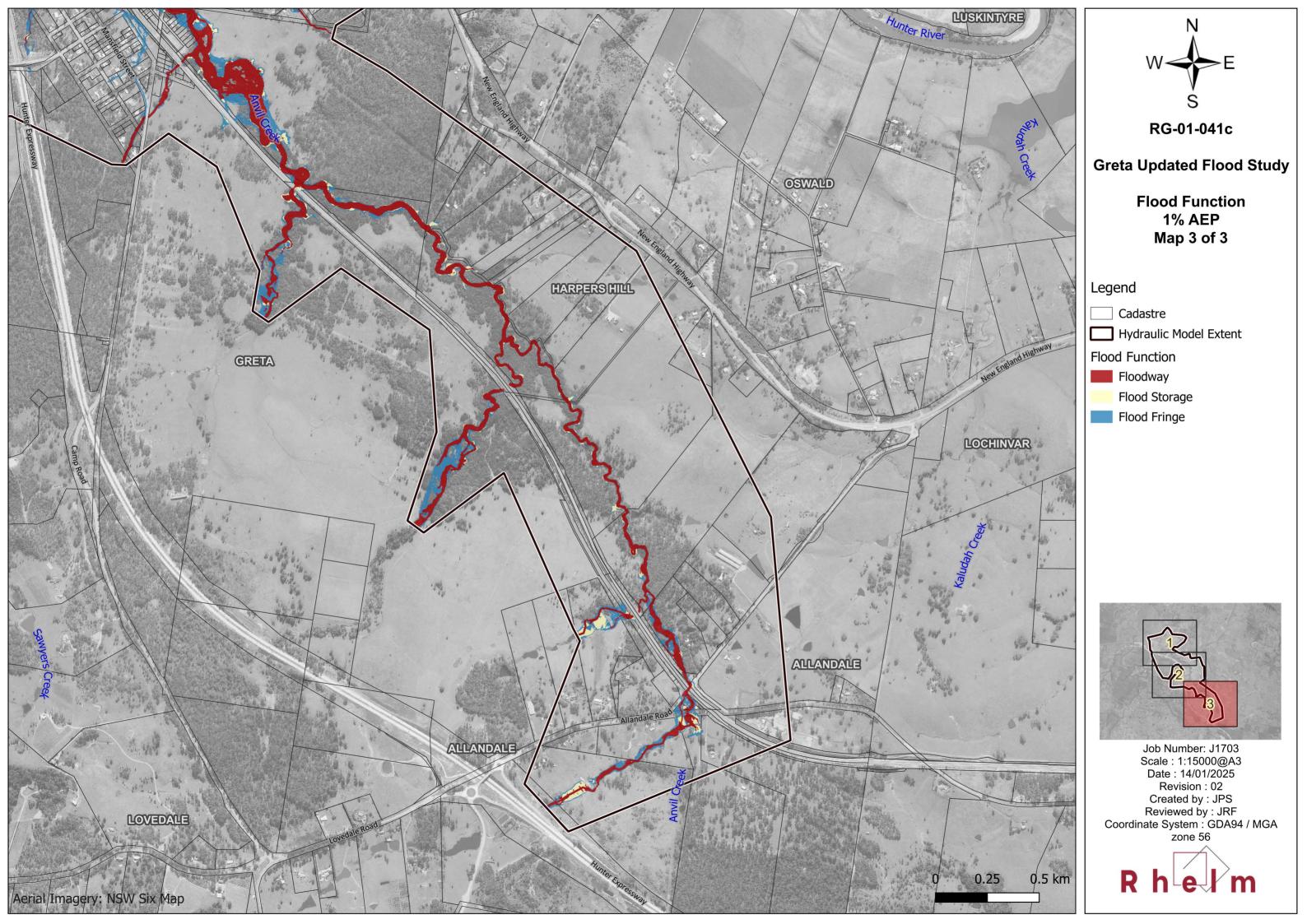
Floodway

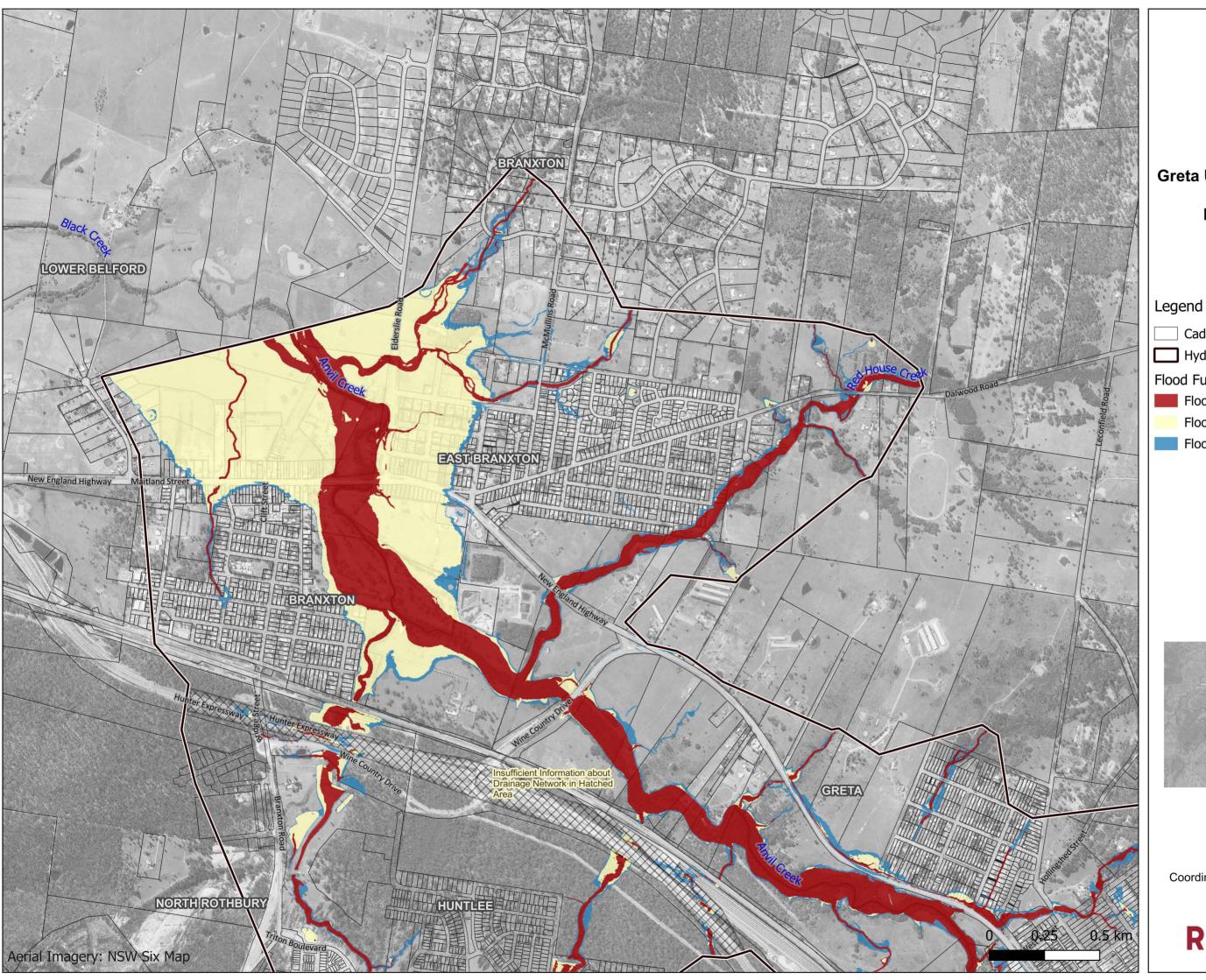
Flood Storage

Flood Fringe











RG-01-042a

Greta Updated Flood Study

Flood Function 0.2% AEP Map 1 of 3

Cadastre

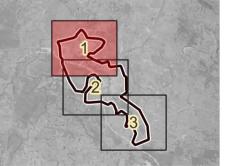
Hydraulic Model Extent

Flood Function

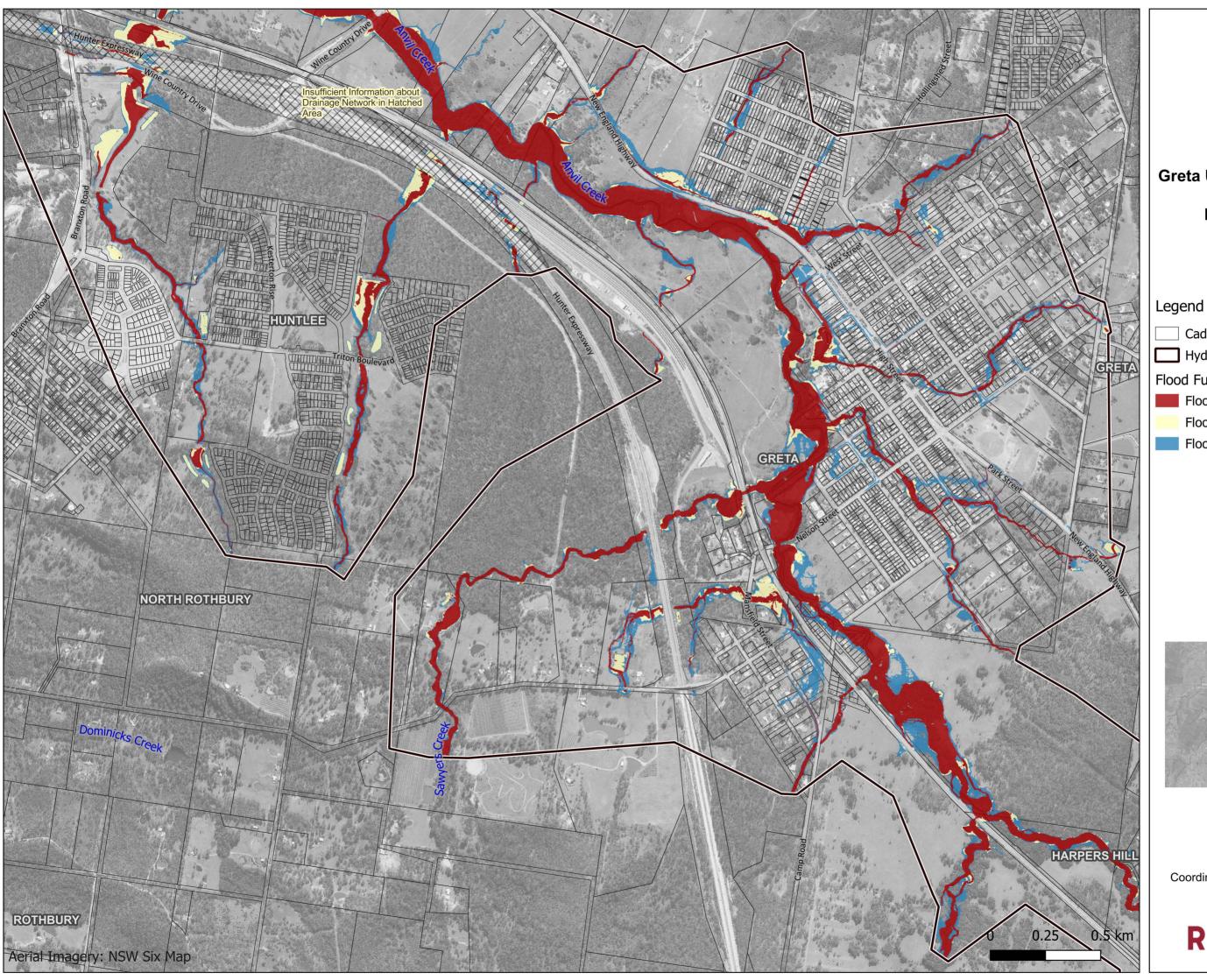
Floodway

Flood Storage

Flood Fringe









RG-01-042b

Greta Updated Flood Study

Flood Function 0.2% AEP Map 2 of 3

Cadastre

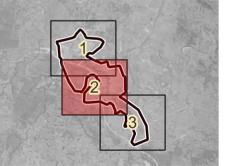
Hydraulic Model Extent

Flood Function

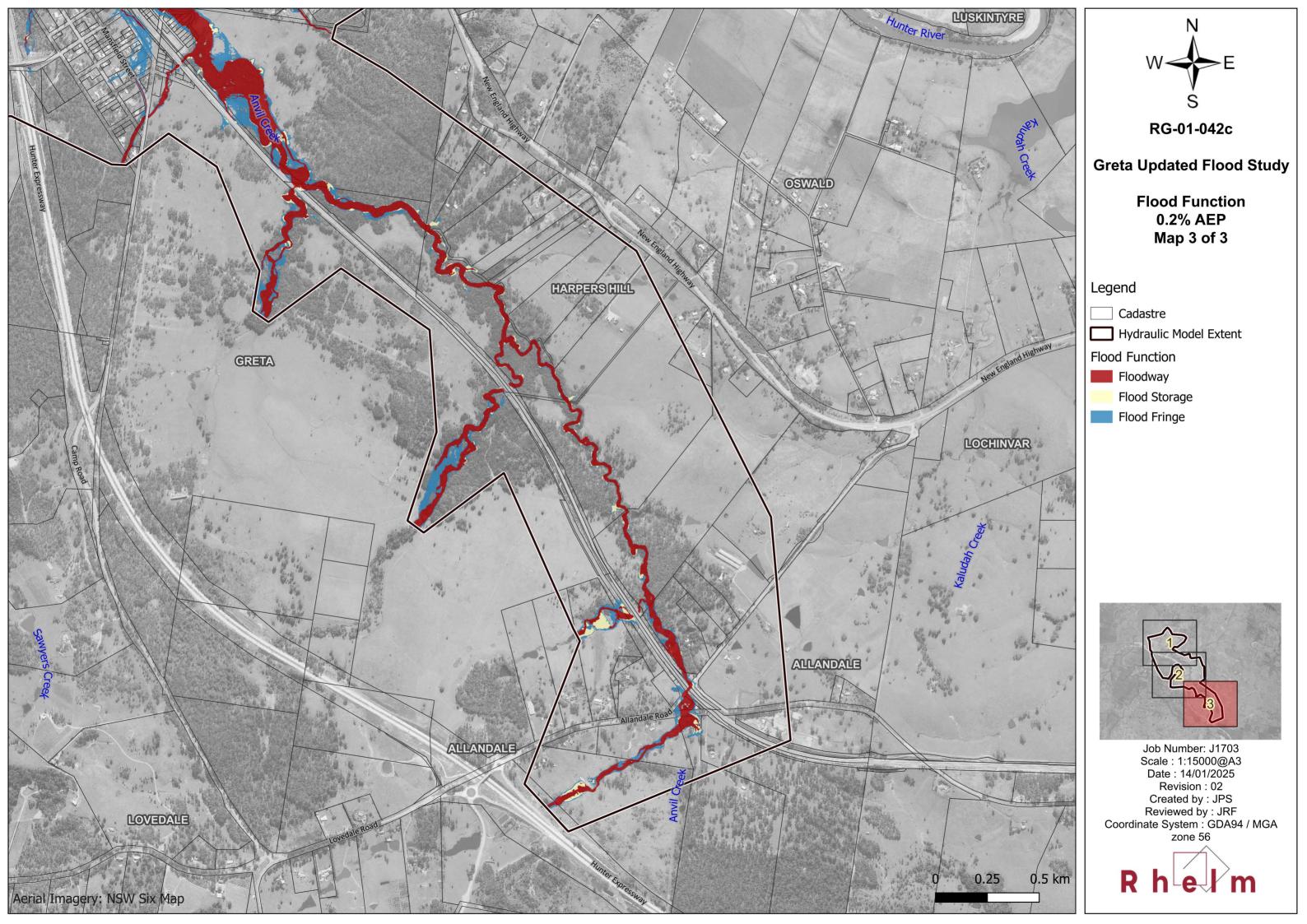
Floodway

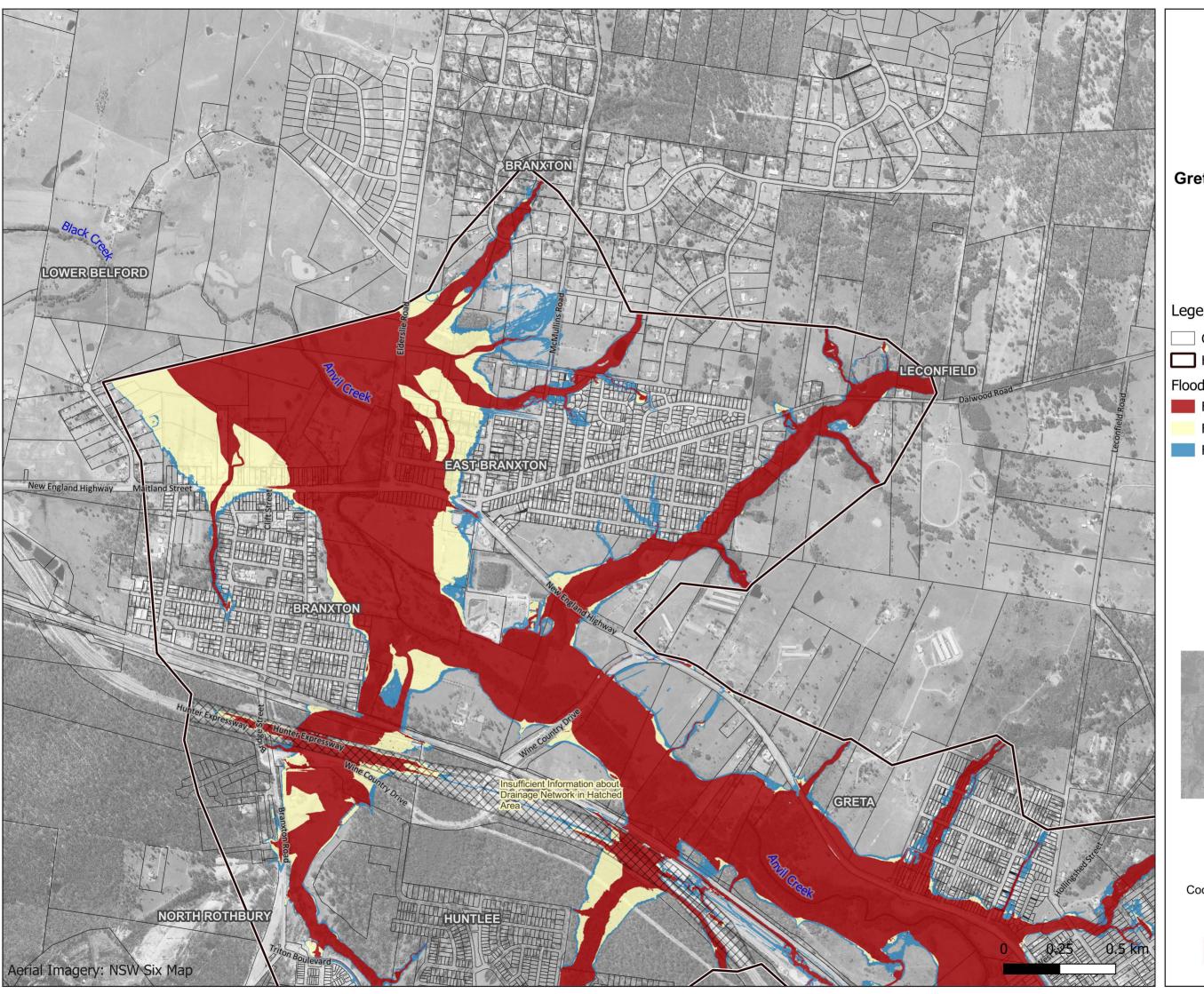
Flood Storage

Flood Fringe











RG-01-043a

Greta Updated Flood Study

Flood Function PMF Map 1 of 3

Legend

Cadastre

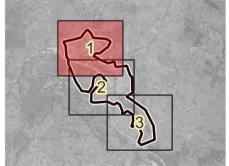
Hydraulic Model Extent

Flood Function

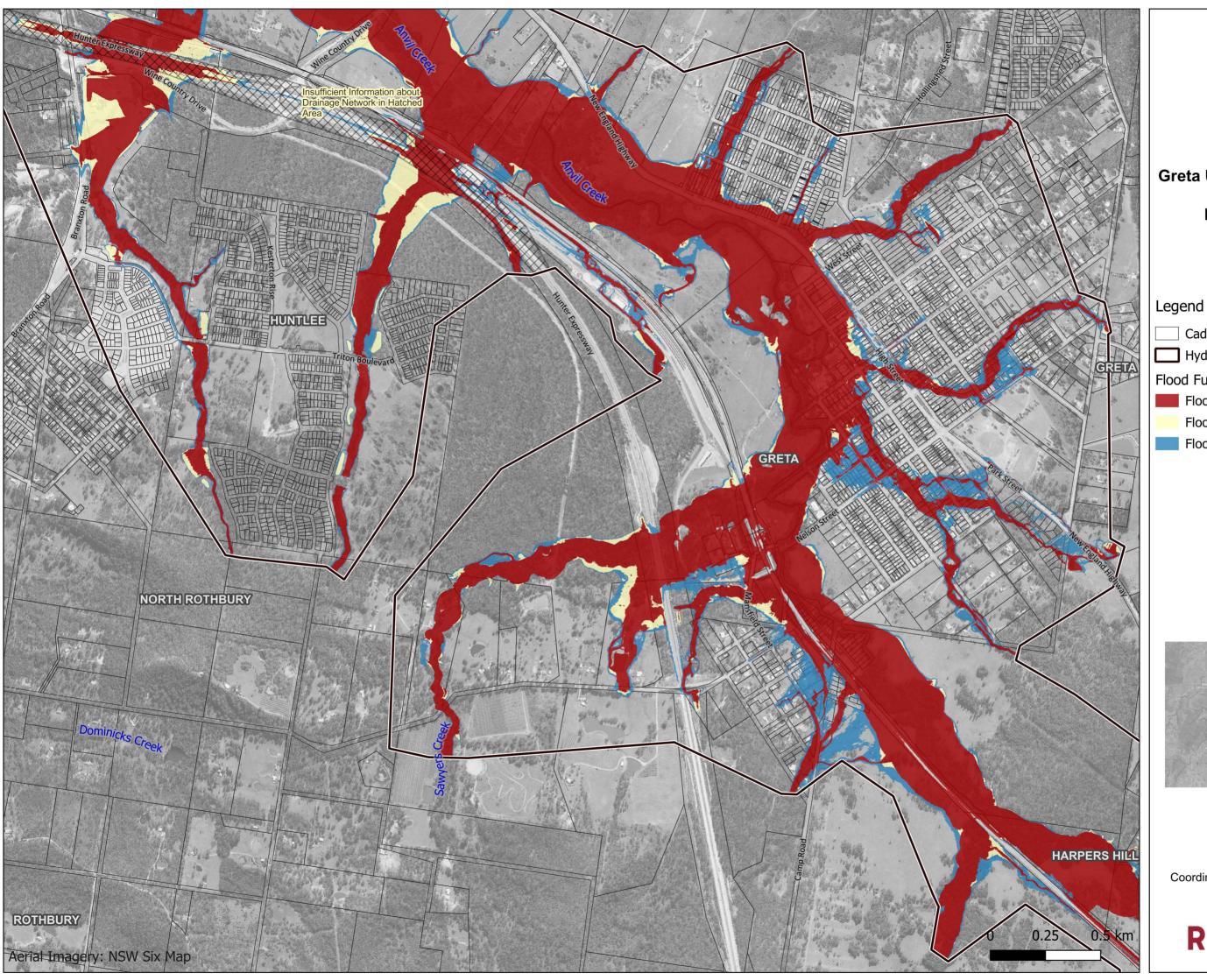
Floodway

Flood Storage

Flood Fringe









RG-01-043b

Greta Updated Flood Study

Flood Function PMF Map 2 of 3

Cadastre

Hydraulic Model Extent

Flood Function

Floodway

Flood Storage

Flood Fringe

