

Legend

Hazard Category (AIDR)

- H1 - Generally safe for vehicles, people and buildings.
- H2 - Unsafe for small vehicles.
- H3 - Unsafe for all vehicles, children and the elderly.

- H4 - Unsafe for all people and all vehicles.
- H5 - Unsafe for all people and all vehicles. Buildings require special engineering design and construction.
- H6 - Unsafe for Vehicles and people. All building types considered vulnerable to failure.

- Study area
- Cadastre
- + Railway

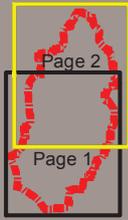
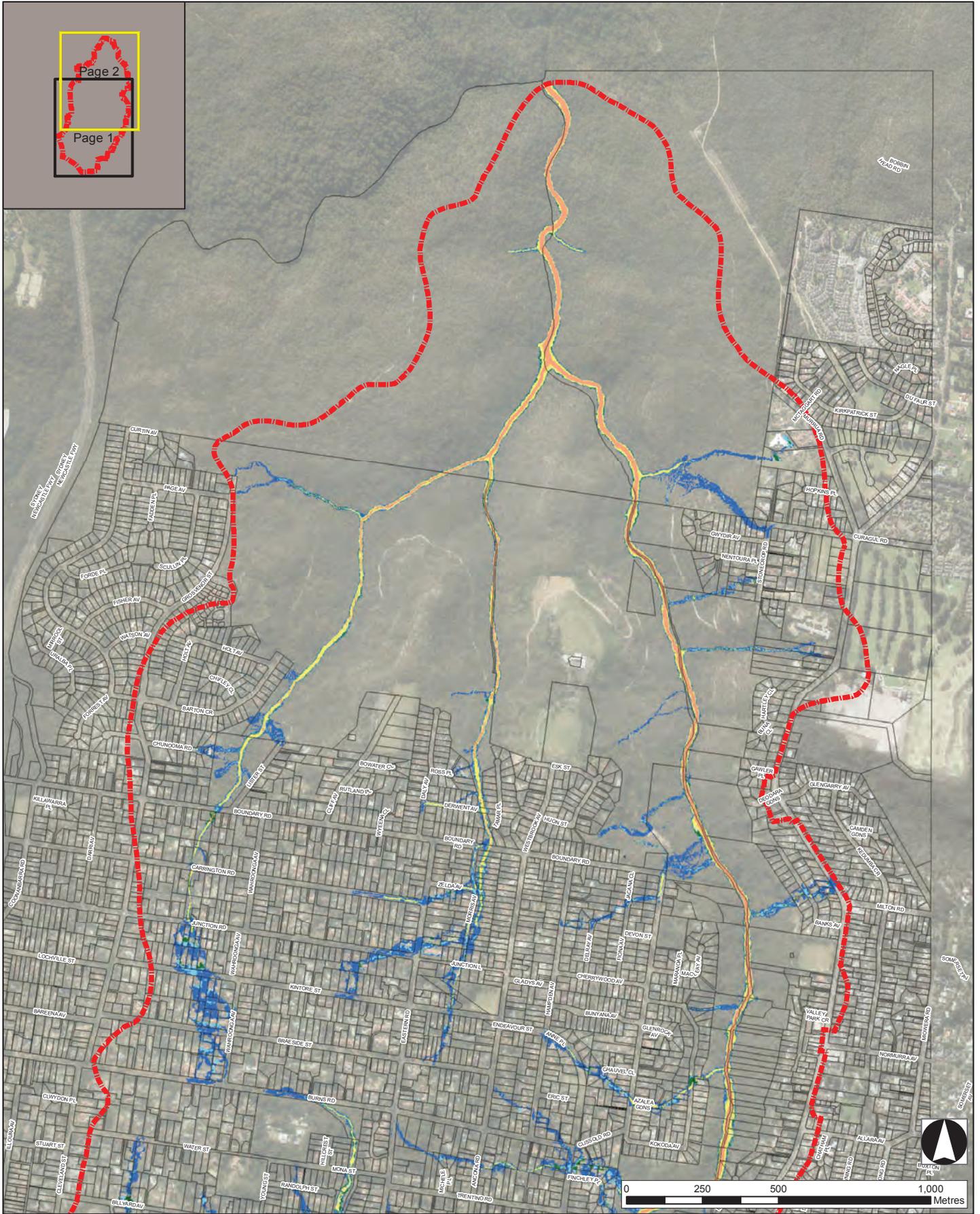


Disclaimer: Flood mapping is based on data and assumptions identified in this report. Jacobs does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.

**TITLE True Flood Hazard
1% AEP Event
AIDR Categories**

PROJECT Lovers Jump Creek Floodplain Risk Management Study and Plan

DRAWN	PROJECT #	MAP #	REV	VER
LC	IA159900	Map B-9	1	1
CHECK	DATE			
AH	17/04/2018	1:12,000 A3		



Legend

Hazard Category (AIDR)

- H1 - Generally safe for vehicles, people and buildings.
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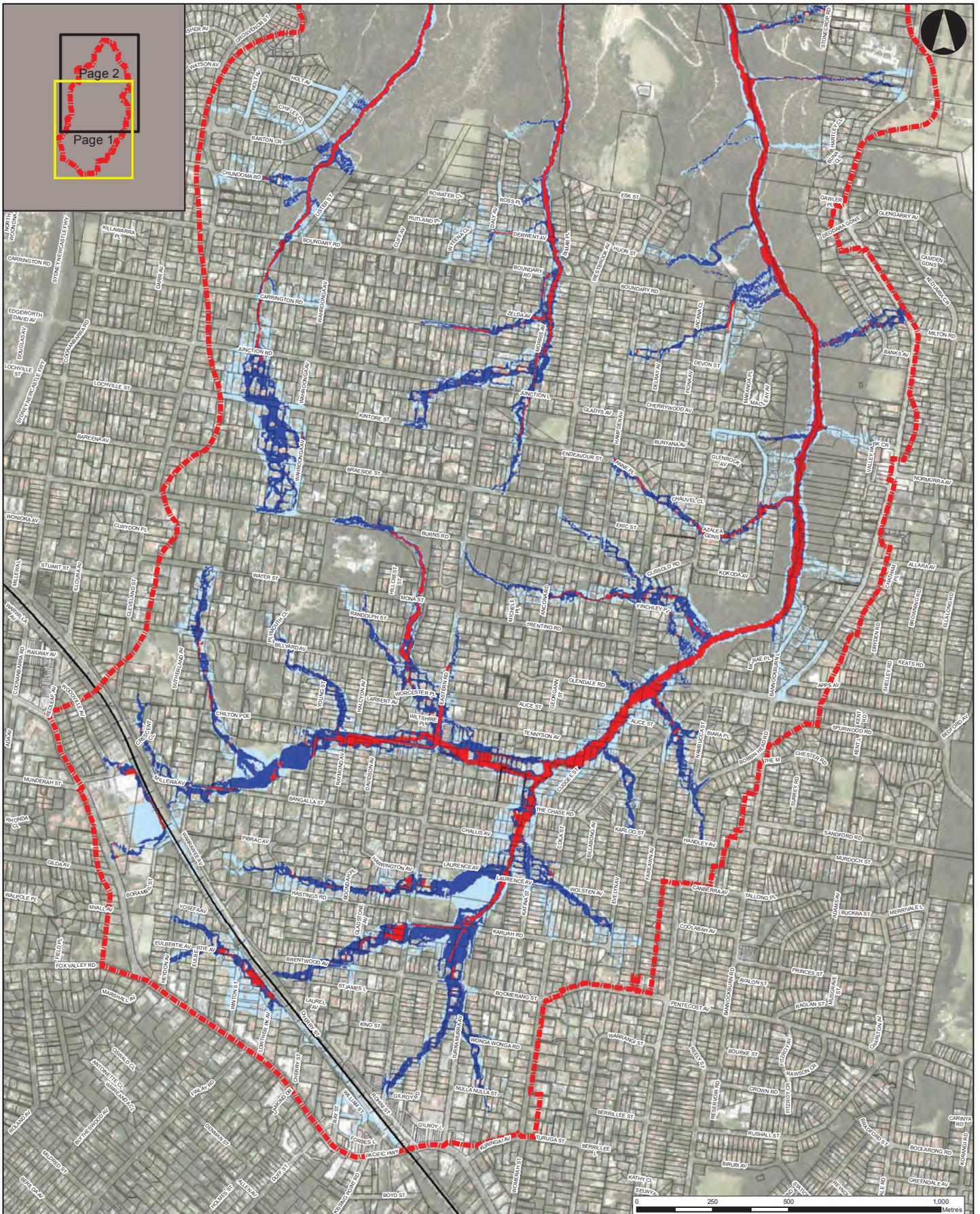
- H4 - Unsafe for all people and all vehicles.
- H5 - Unsafe for all people and all vehicles. Buildings require special engineering design and construction.
- H6 - Unsafe for Vehicles and people. All building types considered vulnerable to failure.

- Study area
- Cadastre
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TITLE True Flood Hazard 1% AEP Event AIDR Categories			
PROJECT Lovers Jump Creek Floodplain Risk Management Study and Plan			
DRAWN LC	PROJECT # IA159900	MAP # Map B-9	REV VER 1 1
CHECK AH	DATE 17/04/2018	1:12,000 A3	



Legend

- High Risk
- Medium Risk
- Low Risk
- Study area
- Cadastrate
- Railway

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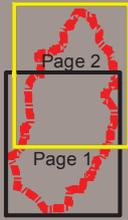
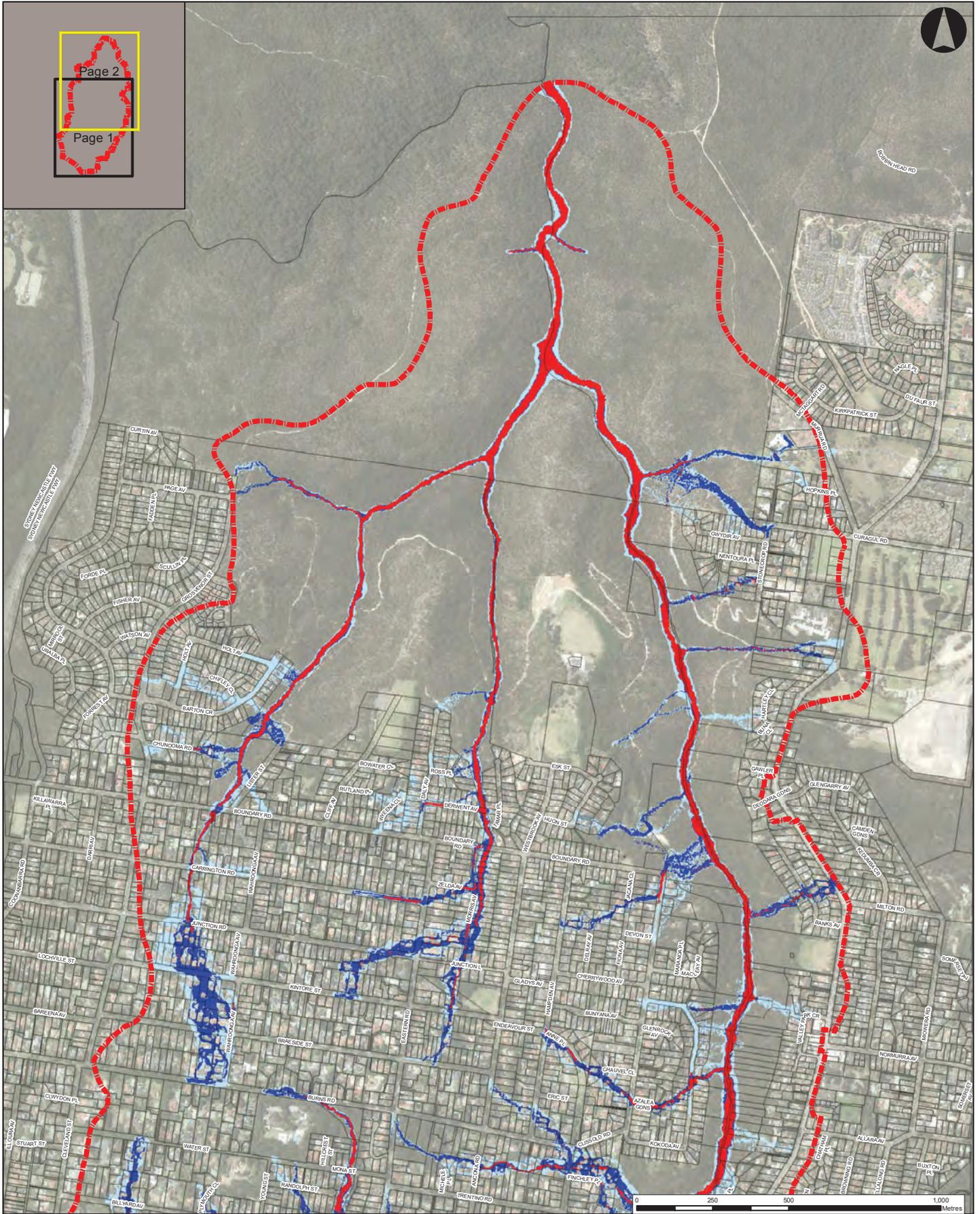
TITLE Flood Risk Precincts

PROJECT Lovers Jump Creek Floodplain Risk Management Study and Plan



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DRAWN	PROJECT #	MAP #	REV	VER
LC	IA159900	Map B-10	1	1
CHECK	DATE			
AH	14/03/2019			1:12,000 A3



Legend

- Flood Risk Precinct
- High Risk
- Medium Risk
- Low Risk
- Study area
- Cadastre
- Railway

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TITLE Flood Risk Precincts

PROJECT Lovers Jump Creek Floodplain Risk Management Study and Plan



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DRAWN	PROJECT #	MAP #	REV	VER
LC	IA159900	Map B-10	1	1
CHECK	DATE			
AH	14/03/2019	1:12,000 A3		

Appendix C. Community Consultation

Lovers Jump Creek Flood Risk Management Study & Plan

November 2017

Questionnaire

Importance of Community Questionnaire for residents and businesses

Ku-ring-gai Council has engaged Jacobs to carry out the Lovers Jump Creek Floodplain Risk Management Study and Plan. The project builds on the Flood Study completed in 2016 for the catchment. We are seeking feedback from the community on your views on how flooding should be managed in the catchment.

If you cannot answer any question, or do not wish to answer a question, then leave it unanswered and proceed to the next question. Your input to this important study will be greatly appreciated. Any information that you provide will be treated as confidential. Specific information on the respondents or their responses will not be made available or reported on. There is a page at the back for additional comments. If you need additional space, please add sheets.

Please complete your questionnaire by Sunday 7th January 2018 online at

<https://www.surveymonkey.com/r/LoversJumpFRMQuestionnaire> or return a scan of your completed survey via E-mail to floodriskmanagement@kmc.nsw.gov.au

Hard copy surveys can be returned to:

Council Chambers 818 Pacific Highway, Gordon
(Mon-Fri 8.30am – 4.30pm)

Turrumurra Library 5 Ray Street, Turrumurra
(Mon-Thur 9.30am - 6pm; Fri-Sat 9.30am - 5pm; Sun
1pm - 4pm)

For additional Questionnaires or further information about the Lovers Jump Creek Floodplain Risk Management Study and Plan, please e-mail floodriskmanagement@kmc.nsw.gov.au, contact Sophia Findlay, ph. 9424 0853 or visit Ku-ring-gai Council's Flood Risk Management web page www.kmc.nsw.gov.au/floodrisk.

YOUR DETAILS

Please complete the questionnaire for the property in which you have an interest.

Your contact details would be appreciated in case we need to follow up on some details or seek additional comment. Can you please also mark the location of your residence/business with a clear dot on the attached map, as best as you can. **Please note that providing these details is optional.**

All information provided will remain confidential and will only be used for the purpose of this study. Specific information on the respondents or their responses will not be made available or reported on.

Name: _____

Address: _____

Phone: _____

Email (please provide if you wish to receive project updates electronically):

Do you wish to remain on the mailing list to receive further details, such as Newsletters or Community Bulletins on the Study?



Lovers Jump Creek Flood Risk Management Study & Plan

PART A – ABOUT YOUR PROPERTY AND FLOOD EXPERIENCE

1. Do you live in the study area?

- a. Yes
- b. No

If No, are you a frequent visitor to the area? Please specify

2. Do you own or rent in the study area?

- a. Own and occupy
- b. Own investment property
- c. Rent
- d. N/A

How long have you occupied your property in the study area?

3. Do you own or manage a business in the study area?

- a. Yes

How long has it operated in the study area?

- b. No (go to Question 5)

4. If you answered yes to Q3, what kind of business is it?

- a. Home Based Business
- b. Shop/Commercial premises
- c. Industrial
- d. Other

Please specify

5. Are you aware of flooding in the Lovers Jump Creek Catchment Area?

- a. Aware
- b. Some knowledge
- c. Not aware

6. Do you wish to share any information on flooding on your property? (You can tick more than one box). Please write any descriptions at the end of the questionnaire

- a. No information
- b. Own experience
- c. Information from Council
- d. Photographs
- e. Other



Lovers Jump Creek Flood Risk Management Study & Plan

7. Are you aware of any works that have been carried out near you that you believe have negatively impacted on the flood behaviour at your property? (Tick all boxes that apply)

- a. Not aware of any measures
- b. Building or renovation activities
- c. Fencing
- e. Creek works
- f. Upgraded roads, culverts
- g. Overland flow obstructions
- h. Other (please specify):

8. Are you aware of any works that have been carried out near you that you believe have improved the flood behaviour at your property? (Tick all boxes that apply)

- a. Not aware of any measures
- b. Building or renovation activities
- c. Fencing
- d. Creek works
- e. Upgraded roads, culverts
- g. Overland flow obstructions
- h. Other (please specify):

PART B – YOUR OPINION ON THE FLOODPLAIN RISK MANAGEMENT MEASURES

9. Please rank the following development types according to what you consider should be assigned greatest priority in protecting from flooding (1 = greatest priority to 7 = least priority). Please identify specific items if necessary.

Rank	Development Type
	Commercial:
	Heritage items, please specify :
	Residential:
	Community facilities (schools, halls, etc.):
	Critical utilities (power substations, telephone exchanges, etc.):
	Emergency facilities (Hospital, Police Station, etc.):
	Recreation areas and facilities:

Lovers Jump Creek Flood Risk Management Study & Plan

10. Please rank the following flood management options according to what you consider should be undertaken (1 = greatest priority to 6 = least priority).

Rank	Management option
	Protecting residents/business from flooding
	Protecting land of residents/businesses from flooding
	Maintaining an emergency flood free access
	Providing flood signage for public safety
	Support from SES
	Providing flood warning

11. Which of the following measures do you think Council should consider for reducing the flood risk at your property?

(Indicate your preferences by ranking with numbers, with "1" being the most preferred and "5" being the least preferred.)

Rank	Development Type
	Zoning, building & development controls, including fencing
	Improved drainage infrastructure and flood mitigation works
	Upgrading roads
	Public awareness & education

Other (please specify):

12. What notifications do you consider Council should give about the potential flood affectation of individual properties?

(Tick all boxes that apply)

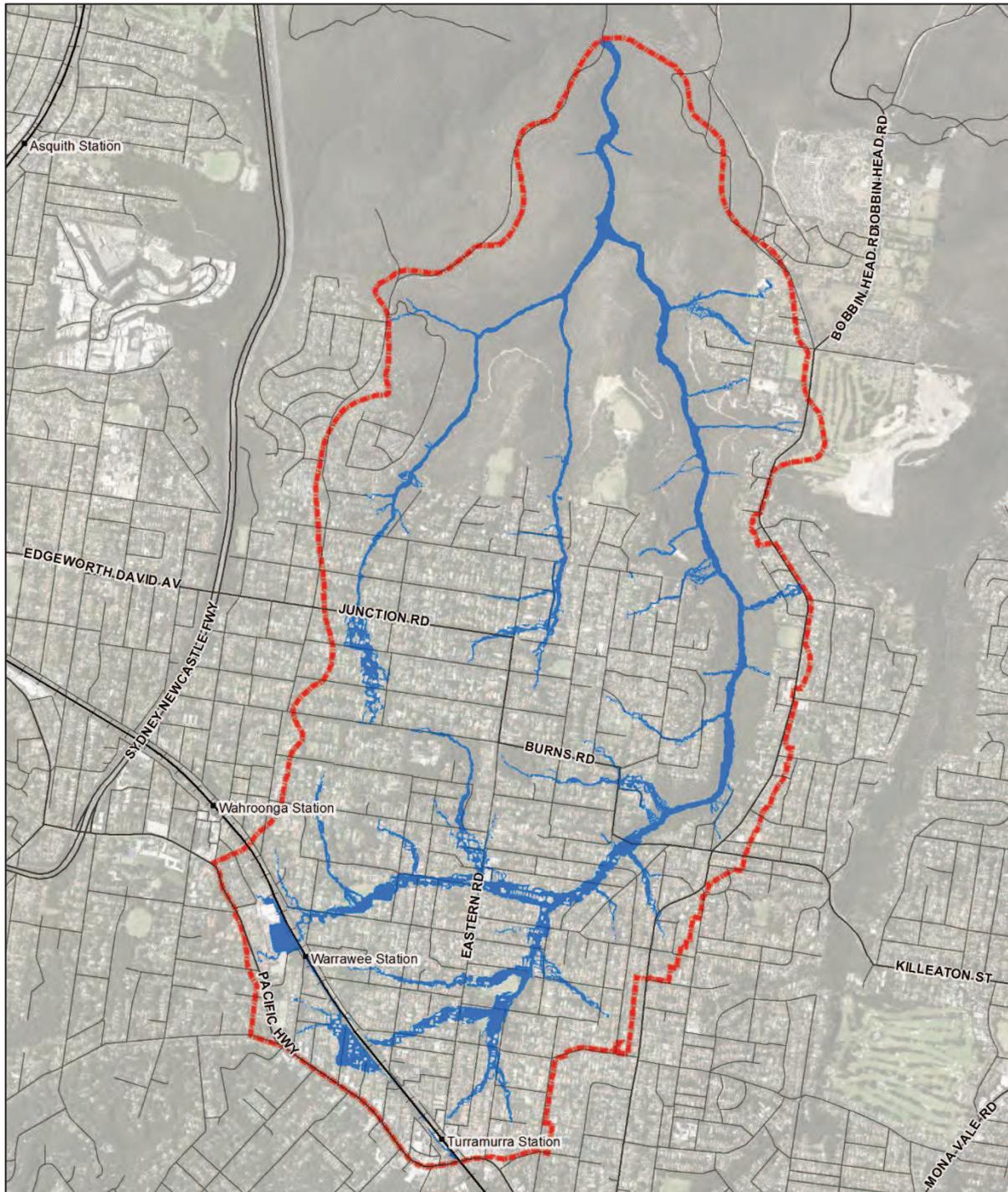
- a. Advise every resident and property owner on a regular basis of the known potential flood affectation
- b. Advise every resident and property owner on a regular basis of Council's policies on the control of land potentially affected by flooding
- c. Advise prospective purchasers/developers on the control of development on land potentially affected by flooding
- d. Provide no notifications

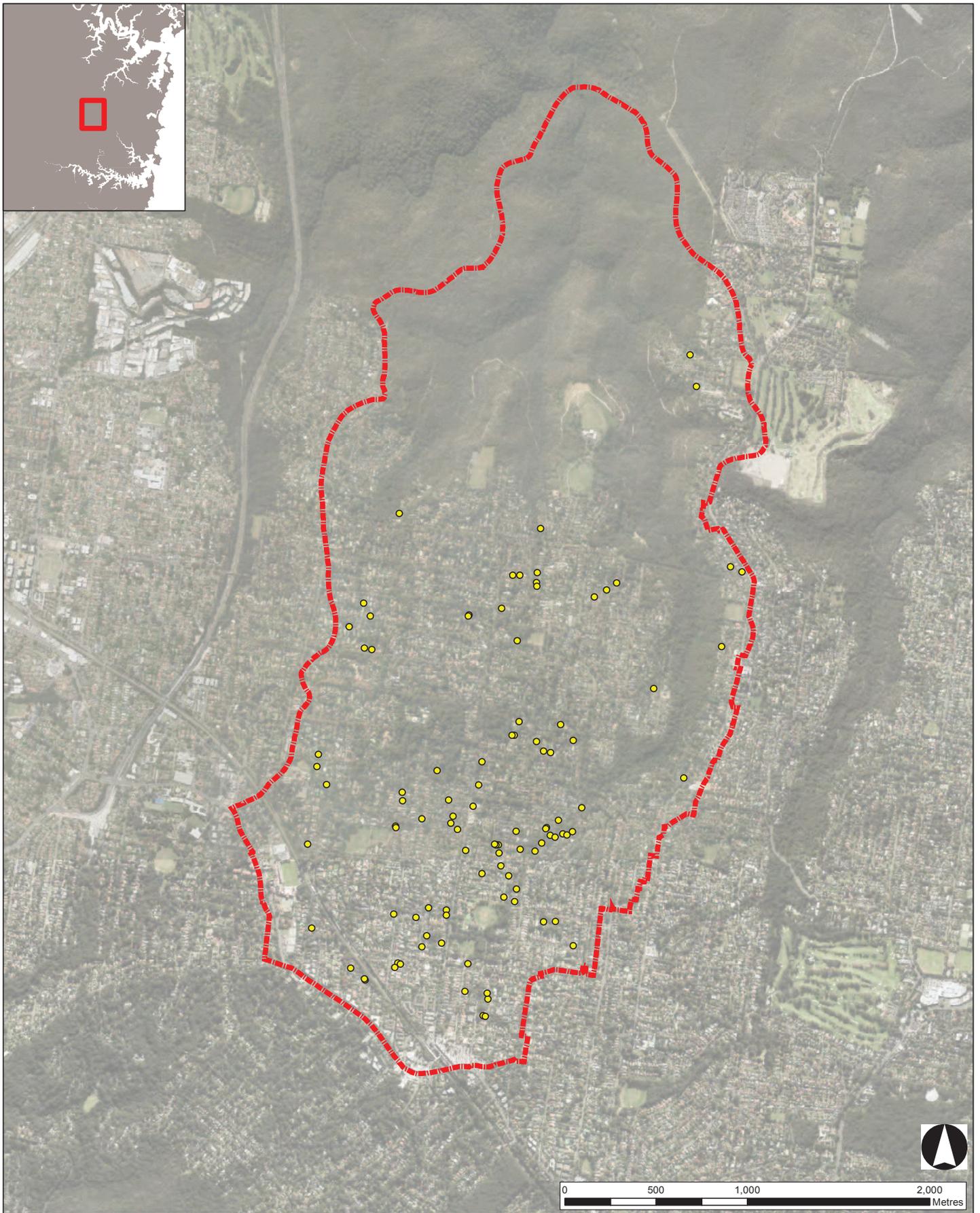
Other (please specify):

Lovers Jump Creek Flood Risk Management Study & Plan

Can you please also mark the location of your residence/business or any known flooding issues with a clear dot, as best as you can. **Please note that providing these details is optional.**

Lovers Jump Creek Catchment showing the extent of the Probable Maximum Flood from the 2016 flood study





Legend

- Response Locations
- Study area



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TITLE Community Survey Response Locations

PROJECT Lovers Jump Creek Floodplain Risk Management Study and Plan

DRAWN	PROJECT #	MAP #	REV	VER
LC	IA159900	Figure C-1	1	1
CHECK	DATE			
AH	17/04/2018	1:12,000 A3		

Summary of key survey questions and responses

Do you live in the study area?

	Count	% of responses
No	3	3%
Yes	100	97%

Do you own or rent in the study area?

Response	Count	% of responses
N/A	1	1%
Own and occupy	94	92%
Own and occupy, Own investment property	1	1%
Own and occupy/Own investment property	1	1%
Own investment property	3	3%
Rent	2	2%

Do you own or manage a business in the study area?

Response	Count	% of responses
No	84	88%
Yes	12	12%

Are you aware of flooding in the Lovers Jump Creek Catchment Area?

Response	Count	% of responses
Aware	39	39%
Not aware	31	31%
Some knowledge	31	30%

Are you aware of any works that have been carried out near you that you believe have negatively impacted on the flood behaviour at your property?

Response	Count
Not aware of any measures	71
Building or renovation activities	16
Fencing	2
Creek works	4
Upgraded roads, culverts	5
Overland flow obstructions	8
Other (please specify)	19

Are you aware of any works that have been carried out near you that you believe have improved the flood behaviour at your property?

Response	Count
Not aware of any measures	75
Building or renovation activities	3
Fencing	0
Creek works	8
Upgraded roads, culverts	6
Overland flow obstructions	0
Other (please specify)	16

Please rank the following development types according to what you consider greatest priority in protecting from flooding (1 = greatest priority to 7 = least priority)

RANK	Count										% of responses										
	Commercial	Heritage items	Residential	Community facilities (Schools, Halls, etc)	Critical utilities (Power substations, Telephone exchanges, etc)	Emergency facilities (Hospital, Police, etc)	Recreation areas and facilities	Commercial	Heritage items	Residential	Community facilities (Schools, Halls, etc)	Critical utilities (Power substations, Telephone exchanges, etc)	Emergency facilities (Hospital, Police, etc)	Recreation areas and facilities	Commercial	Heritage items	Residential	Community facilities (Schools, Halls, etc)	Critical utilities (Power substations, Telephone exchanges, etc)	Emergency facilities (Hospital, Police, etc)	Recreation areas and facilities
1	1	0	47	1	22	19	1	1%	0%	52%	1%	24%	21%	1%	1%	0%	0%	1%	24%	21%	1%
2	7	3	8	5	43	26	1	8%	3%	9%	5%	46%	28%	1%	8%	3%	9%	5%	46%	28%	1%
3	4	3	18	21	14	22	4	5%	3%	21%	24%	16%	26%	5%	5%	3%	21%	24%	16%	26%	5%
4	15	16	8	28	4	11	3	18%	19%	9%	33%	5%	13%	4%	18%	19%	9%	33%	5%	13%	4%
5	29	9	8	23	3	3	10	34%	11%	9%	27%	4%	4%	12%	34%	11%	9%	27%	4%	4%	12%
6	17	31	1	9	1	6	18	20%	37%	1%	11%	7%	22%	1%	20%	37%	1%	11%	7%	22%	1%
7	13	20	0	1	1	0	50	15%	24%	0%	1%	0%	59%	15%	24%	0%	1%	1%	0%	59%	1%

Please rank the following flood management options according to what you consider should be undertaken. (1 = greatest priority to 6 = least priority)

RANK	Protecting residents/ businesses from flooding	Protecting land of residents/ businesses from flooding	Maintaining an emergency flood free access	Providing flood signage for public safety	Support from SES	Providing flood warning	Protecting residents/ businesses from flooding	Protecting land of residents/ businesses from flooding	Maintaining an emergency flood free access	Providing flood signage for public safety	Support from SES	Providing flood warning
	Count											
	% of responses											
1	64	10	11	2	6	8	63%	10%	11%	2%	6%	8%
2	13	40	17	5	10	6	14%	44%	19%	5%	11%	7%
3	3	14	22	9	20	18	3%	16%	26%	10%	23%	21%
4	7	8	18	10	29	12	8%	10%	21%	12%	35%	14%
5	5	9	14	18	13	25	6%	11%	17%	21%	15%	30%
6	1	10	6	41	12	17	1%	11%	7%	47%	14%	20%

Which of the following measures do you think Council should consider for reducing the flood risk at your property? (1 = greatest priority to 5 = least priority)

RANK	Zoning, building & development controls, including fencing	Improved drainage infrastructure and flood mitigation works	Upgrading roads	Public awareness & education	Other (please specify in additional comments)	Zoning, building & development controls, including fencing	Improved drainage infrastructure and flood mitigation works	Upgrading roads	Public awareness & education	Other (please specify in additional comments)	% of responses									
											Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
1	19	69	4	2	3	20%	71%	4%	2%	3%										
2	32	17	31	4	2	37%	20%	36%	5%	2%										
3	19	6	31	21	0	25%	8%	40%	27%	0%										
4	12	1	14	50	3	15%	1%	18%	63%	4%										
5	3	2	5	6	16	9%	6%	16%	19%	50%										

What notifications do you consider Council should give about the potential flood affectation of individual properties? (Tick all boxes that apply)

Response	Count
Advise every resident and property owner on a regular basis of the known potential flood affectation	61
Advise every resident and property owner on a regular basis of Council's policies on the control of land potentially affected by flooding	55
Advise prospective purchasers/developers on the control of development on land potentially affected by flooding	62
Provide no notifications	10
Other (please specify)	13