Ordinary Council Meeting

Business Paper

Pursuant to section 9 of the *Local Government Act 1993*, notice is hereby given that an Ordinary Council Meeting of Parkes Shire Council will be held in the Parkes Council Chambers, 2 Cecile Street, Parkes on Tuesday 18 November 2025 at 3:00 PM.

Kent Boyd PSM

GENERAL MANAGER

Governing Body

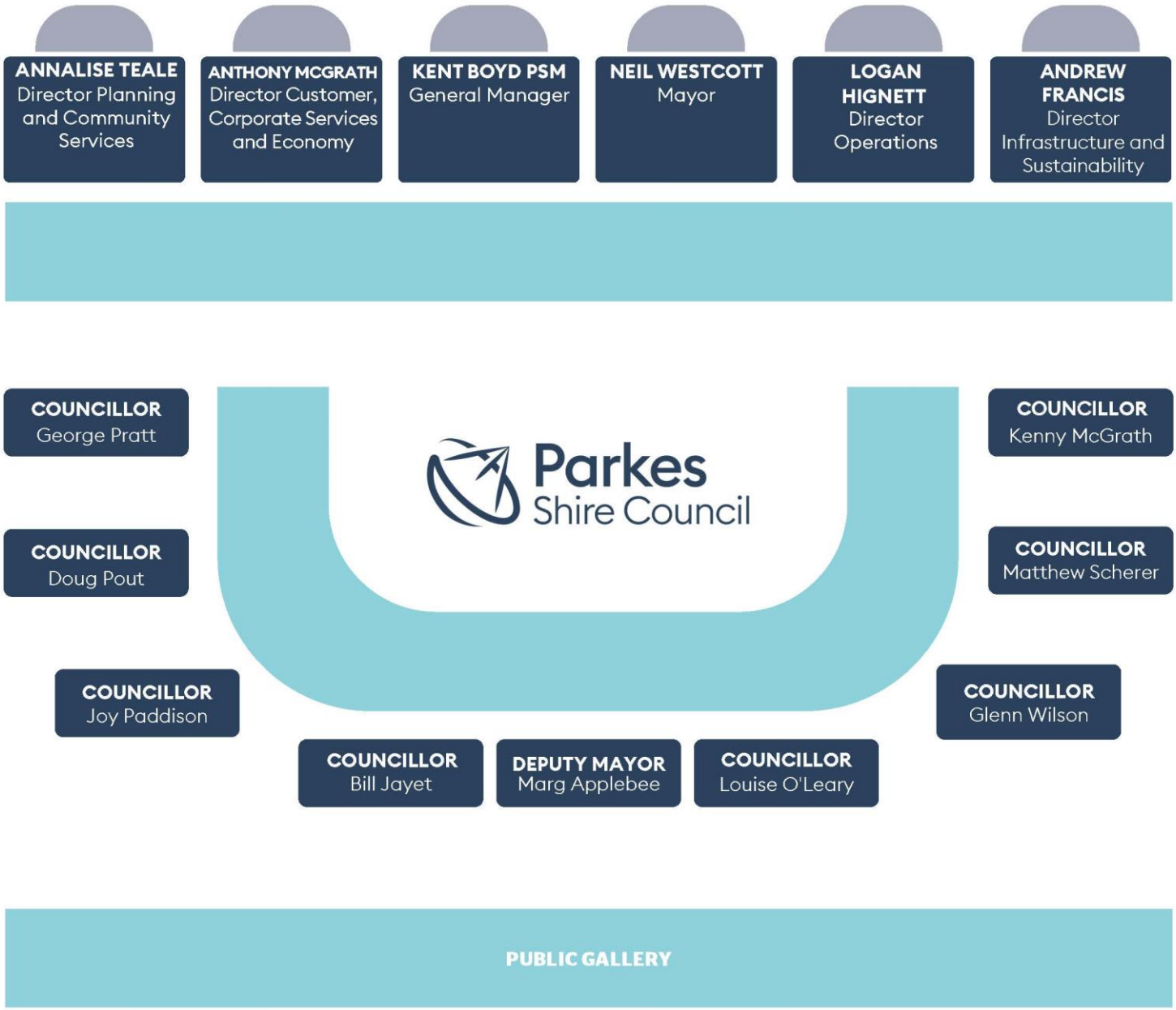
Composition:	Ten (10) Councillors
Membership:	Councillor WP Jayet, Councillor KM McGrath, Councillor LA O'Leary, Councillor J Paddison, Councillor DJA Pout, Councillor GW Pratt, Councillor MK Scherer, Councillor GS Wilson
Quorum:	6 Councillors
Chairperson:	Chairperson, Councillor NC Westcott
Deputy Chairperson:	Deputy Chair, Councillor MA Applebee

Pursuant to section 223 of the *Local Government Act 1993*, the role of Parkes Shire Council's governing body is:

- To direct and control the affairs of Parkes Shire Council in accordance with the *Local Government Act 1993*, in consultation with the General Manager.
- To provide effective civic leadership to the local community.
- To ensure as far as practicable the financial sustainability of the Council.
- To ensure as far as practicable that the Council acts in accordance with the principles set out in Chapter 3 of the *Local Government Act 1993* and other strategic plans, programs, strategies and policies of the Council.
- To determine and adopt a rating and revenue policy and Operational Plans that support the optimal allocation of the Council's resources to implement the strategic plans (including the Community Strategic Plan) of the Council and for the benefit of the local area.
- To keep under review the performance of the Council, including service delivery.
- To make decisions necessary for the proper exercise of the Council's regulatory functions.
- To determine the process for appointment of the General Manager by the Council and to monitor the General Manager's performance.
- To determine the senior staff positions within the organisation structure of the Council, following consultation with the General Manager.
- To consult regularly with community organisations and other key stakeholders and keep them informed of the Council's decisions and activities.
- To be responsible for ensuring that the Council acts honestly, efficiently and appropriately.

Matters determined by meetings of Parkes Shire Council's governing body will include all those non-delegable functions identified in section 377 of the *Local Government Act 1993*.

Council Chambers
Seating Plan



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Guiding Principles

In accordance with section 8A of the *Local Government Act 1993*, Councillors are reminded of the guiding principles applicable to decision-making by local councils:

Councils should recognise diverse local community needs and interests.

Councils should consider social justice principles.

Councils should consider the long-term and cumulative effects of actions on future generations.

Councils should consider the principles of ecologically sustainable development.

Council decision-making should be transparent and decision-makers are to be accountable for decisions and omissions.

Statement of Ethical Obligations

In accordance with clause 3.22 of Council's Code of Meeting Practice, Councillors are reminded of their Oath or Affirmation of Office made under section 233A of the Act and their obligations under Council's Code of Conduct to disclose and appropriately manage conflicts of interest.

Oath or Affirmation of Office

The Oath or Affirmation is taken by each Councillor whereby they swear or declare to undertake the duties of the office of Councillor in the best interests of the people of the Parkes Shire and Parkes Shire Council and that they will faithfully and impartially carry out the functions, powers, authorities and discretions vested in them under the *Local Government Act 1993* or any other Act to the best of their ability and judgment.

Conflicts of Interest

All Councillors must declare and manage any conflicts of interest they may have in matters being considered at Council meetings in accordance with the Council's Code of Conduct. All declarations of conflicts of interest and how the conflict of interest was managed will be recorded in the minutes of the meeting at which the declaration was made.

Councillors attending a meeting by audio-visual link must declare and manage any conflicts of interest they may have in matters being considered at the meeting in accordance with Council's Code of Conduct. Where a Councillor has declared a pecuniary or significant non-pecuniary conflict of interest in a matter being discussed at the meeting, the Councillor's audio-visual link to the meeting will be suspended or terminated for the time during which the matter is being considered or discussed by Council, or at any time during which Council is voting on the matter.

Councillors should ensure that they are familiar with Parts 4 and 5 of Council's Code of Conduct in relation to their obligations to declare and manage conflicts of interests.

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1 OPENING OF MEETING

In the spirit of open, accessible and transparent government, meetings of Parkes Shire Council are video recorded and webcast, consistent with Council's Code of Meeting Practice and the *Local Government Act 1993*.

Council accepts no liability for any defamatory, discriminatory or offensive remarks or gestures made during the course of meetings. Opinions expressed or statements made by individual participants are the opinions or statements of those individuals, and do not imply any form of endorsement by Council.

Closed sessions of Council meetings are not video recorded or webcast.

Recordings and webcasts are protected by copyright and owned by Council, and published to Council's website. No part may be copied, recorded, reproduced or transmitted without the prior written consent of the General Manager. Any recording or webcast is not, and shall not, be taken to be an official record of Council or discussion depicted therein. Only the official minutes may be relied upon as an official record of the meeting.

Authorised media representatives are permitted to record meetings provided written notice has been lodged. A person may be expelled from a meeting for recording without notice. Recordings may only be used for the purpose of accuracy of reporting and are not for broadcast, or to be shared publicly. No recordings of any private third-party conversations or comments of anyone within the Chamber are permitted.

Please ensure that mobile phones and other electronic devised are turned off or are in silent mode for the duration of the meeting.

Under Council’s Code of Meeting Practice, individuals acting in a disorderly manner can be asked by the Chairperson to leave the meeting.

2 ACKNOWLEDGEMENT OF COUNTRY

Parkes Shire Council acknowledges the Wiradjuri People who are the Traditional Custodians of the Land. We would also like to pay respect to the Elders past, present and emerging of the Wiradjuri Nation and extend that respect to other Aboriginal peoples from other nations who are present.

3 PRAYER

4 APOLOGIES AND APPLICATIONS FOR A LEAVE OF ABSENCE

In accordance with clauses 5.3, 5.4 and 5.5 of Council's Code of Meeting Practice, apologies must be received and accepted from absent Councillors and a leave of absence from the Council Meeting may be granted.

5 APPLICATIONS TO ATTEND BY AUDIO-VISUAL LINK

In accordance with clauses 5.18 and 5.19 of Council's Code of Meeting Practice, Councillors may attend and participate in meetings by audio-visual link with the approval of the Council.

Requests by Councillors for approval to attend a meeting by audio-visual link must be made in writing to the General Manager prior to the meeting in question and provide reasons why the Councillor will be presented from attending the meeting in person.

Councillors attending a meeting by audio-visual link are reminded that they must ensure that no other person is within sight or hearing of the meeting at any time that the meeting is closed to the public under section 10A of the *Local Government Act 1993*.

Note: Consistent with clause 5.43 of Council's Code of Meeting Practice, attendance by Council staff at meetings of the Council by audio-visual link shall be with the approval of the General Manager.

6 CONFIRMATION OF MINUTES

6.1 MINUTES OF THE ORDINARY COUNCIL MEETING HELD ON 21 OCTOBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Annexures: **A. Ordinary Council Meeting Minutes - 21 October 2025**

RECOMMENDATION

That Ordinary Council Meeting:

1. Receive and confirm the Minutes of the Ordinary Council Meeting held on Tuesday 21 October 2025 appended at *Annexure A.*

Ordinary Council Meeting

Minutes

Tuesday 21 October 2025

Minutes of the Ordinary Council Meeting

Held on Tuesday, 21 October 2025 at the

Parkes Council Chamber, 2 Cecile Street, Parkes

Present:

Cr Neil Westcott	Councillor (Chairperson)
Cr Marg Applebee	Councillor (Deputy Chair)
Cr William Jayet	Councillor
Cr Ken McGrath	Councillor
Cr Joy Paddison	Councillor
Cr George Pratt	Councillor
Cr Matthew Scherer	Councillor
Cr Glenn Wilson	Councillor

Council Officers in Attendance:

Mr Kent Boyd PSM	General Manager
Mr Jaco Barnard	Chief Financial Officer
Mr Andrew Francis	Director Infrastructure and Sustainability
Mrs Marisa Malherbe	Acting Director Operations
Mr Anthony McGrath	Director Customer, Corporate Services and Economy
Mrs Annalise Teale	Director Planning and Community Services
Mrs Sally Chapman	Senior Corporate Grants Officer
Mrs Veronica Shaw	Manager Governance, Risk and Corporate Performance
Mrs Toni Lennane	Executive and Councillor Support Coordinator (Minute Secretary)

NOTES

Cr Marg Applebee attended via audio-visual link.

The meeting commenced at 3:02 pm and concluded at 5:41 pm.

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1 OPENING OF MEETING

The Mayor declared the Ordinary Council Meeting of Tuesday 21 October 2025 open and welcomed Councillors, Council Officers and members of the public attending and listening to the meeting.

The Mayor advised attendees that the meeting was being recorded and streamed live on the internet, to enhance the accessibility of Council meetings to the broader Parkes Shire community, and that the recording will be archived and made available on Council's website.

The Mayor asked that attendees ensure that mobile phones and other electronic devices were turned off or in silent mode for the duration of the meeting.

The Mayor further advised that all care would be taken to maintain privacy, however, as a visitor in the public gallery, members of the public should be aware that their presence may be recorded.

2 ACKNOWLEDGEMENT OF COUNTRY

The Mayor read the following Acknowledgement of Country:

> *Parkes Shire Council acknowledges the Traditional Custodians of the Wiradjuri Country and recognises and respects their cultural heritage, beliefs and continuing connection with the lands and rivers of the Parkes Shire.*
>
> *Council pays its respects to Elders past, present and emerging and extends this respect to all First Nations peoples in the Parkes Shire.*

3 PRAYER

The General Manager read the Prayer:

> O God,
> Guide the Council in the way of Thy divine wisdom,
> We Pray through Jesus Christ, Our Lord,
>
> AMEN

4 APOLOGIES AND APPLICATIONS FOR A LEAVE OF ABSENCE

Councillor Louise O'Leary and Councillor Doug Pout

5 APPLICATIONS TO ATTEND BY AUDIO-VISUAL LINK

An application to attend by audio-visual link was received from Councillor Marg Applebee.

6 CONFIRMATION OF MINUTES

6.1 MINUTES OF THE ORDINARY COUNCIL MEETING HELD ON 16 SEPTEMBER 2025

RESOLVED OCM 337/25

Moved: Cr William Jayet
Seconded: Cr George Pratt

That Ordinary Council Meeting receive and confirm the Minutes of the Ordinary Council Meeting held on Tuesday 16 September 2025 appended at *Annexure A.*

CARRIED

7 DISCLOSURES OF INTERESTS

The Mayor reminded Councillors and Council Officers of their obligation under Council's Code of Conduct to disclose and manage any conflicts of interest they may have in matters being considered at the meeting, and invited Councillors and Council Officers to disclose any such interests.

Nil interests were disclosed.

8 LATE BUSINESS

The Mayor advised that the following late items of business had been submitted by Council Officers, and invited a motion to enable the addition of the late items to the meeting agenda.

1. Confidential: Croaker Detention Basin (Resources for Regions – Round 9).

9 ADOPTION OF MULTIPLE ITEMS OF BUSINESS

The Council may, at any time, resolve to adopt multiple items of business, as recommended in the report, byway of a single resolution. The Chairperson must list the items of business to be adopted and ask Councillors to identify any individual items of business listed by the Chairperson that they intend to vote against the recommendation made in the Business Paper, or that they wish to speak on (13.2).

9.1 ADOPTION OF MULTIPLE ITEMS OF BUSINESS

RESOLVED OCM 338/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council adopt the recommendation as listed in the Agenda for the following items and that the order of business be adjusted accordingly.

10.2 Keep Australia Beautiful: Tidy Towns Sustainability Awards hosted by Parkes.

11.1 Local Government NSW Flood Recovery Forum 2025.

11.2 Official opening of BP Service Centre on Parkes Bypass – 14 October 2025.

12.1 Minutes of the Economy, Destination and Events Advisory Committee Meeting held on 16 September 2025.

12.2 Minutes of the Audit, Risk and Improvement Committee Meeting held on 24 September 2025.

12.3 Minutes of the Parkes Sports Council Meeting held on 9 October 2025.

12.4 Minutes of the Parkes Sports Council Meeting held on 14 October 2025.

13.4 Leave of Absence – Councillors O'Leary and Pout.

14.3 Updated Elvis Festival Memorial Wall Guidelines and Use of Parkes T1 funds to restore the Wall and signage.

14.4 Request to Use Peak Hill Town Improvement Funds to Upgrade Lindner Oval Irrigation and Purchase a Plaque.

14.5 Request for Financial Assistance – RACGP Event.

14.7 ARIC Four Year Strategic Workplan – 2024-28.

14.8 Adoption of Council Policies – Related Party Disclosure.

15.3 Adoption of Updated Council Policy – Liquid Trade Waste.

16.2 Transfer of Crown Roads to Council.

17.1 (DCPS) Quarterly Rangers Report July to September 2025.

17.3 September 2025 Building Statistics Update.

CARRIED

10 MAYORAL MINUTE(S)

10.1 ROAD AND PLACE NAMING

RESOLVED OCM 339/25

Moved: Cr Joy Paddison
Seconded: Cr George Pratt

That Council:

1. Develop a policy and procedure to ensure that Road and Place Naming methodology is clear, consistent and fair.
2. The procedure should include the method to ensure the historic relevance of selected names are recorded and accessible.

CARRIED

At 3:08 pm the Mayor adjourned the meeting while we had IT look at our audio recording as it appeared to be not clear enough for people to hear.

At 3:17 pm the Mayor resumed the meeting.

10.2 KEEP AUSTRALIA BEAUTIFUL: TIDY TOWNS SUSTAINABILITY AWARDS HOSTED BY PARKES

RESOLVED OCM 340/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and note the report on the Keep Australia Beautiful Tidy Towns Awards, which were hosted by Parkes Shire Council on 10-12 October 2025.

CARRIED

10.3 MEETINGS, FUNCTIONS AND EVENTS ATTENDED BY MAYOR AND COUNCILLORS

RESOLVED OCM 341/25

Moved: Cr William Jayet
Seconded: Cr Joy Paddison

That Council:

1. Note the report on the Meetings functions and events attended in an official capacity, by the Mayor and Councillors during the period 12 September 2025 through to 18 October 2025.

CARRIED

10.4 COMING KNOWN EVENTS FOR MAYOR AND COUNCILLORS

RESOLVED OCM 342/25

Moved: Cr Ken McGrath
Seconded: Cr William Jayet

That Council:

1. Note the known upcoming meetings, functions and events for the Mayor and Councillors for the period 17 October 2025 through to 14 November 2025:

CARRIED

11 COUNCILLOR REPORT(S)

11.1 LOCAL GOVERNMENT NSW FLOOD RECOVERY FORUM 2025

RESOLVED OCM 343/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That:

1. That the information about the Local Government NSW Flood Recovery Forum held on13 October 2025 be received and noted.

CARRIED

11.2 OFFICIAL OPENING OF BP SERVICE CENTRE ON PARKES BYPASS - 14 OCTOBER 2025

RESOLVED OCM 344/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and note the information about the official opening of the BP Service Centre on the Parkes Bypass held on 14 October 2025.

CARRIED

12 REPORTS OF COMMITTEES

12.1 MINUTES OF THE ECONOMY, DESTINATION AND EVENTS ADVISORY COMMITTEE MEETING HELD ON 16 SEPTEMBER 2025

RESOLVED OCM 345/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and confirm the Minutes of the Economy, Destination and Events Advisory Committee Meeting held on Tuesday 16 September 2025 appended at *Annexure A*.
2. Adopt the recommendations of the committee including:
   (a) Review the Digital Playbook and the reactivation of the Shop Parkes Facebook page. Intent for the Shop Parkes Facebook page to be reactivated within the next two weeks.
   (b) Look to update the Visit Parkes Region Website, specifically the listing of businesses that are a part of the Shop Parkes Gift Card program.
   (c) Continue to pursue avenues around addressing the aesthetics of empty shop fronts with a focus on more prominent ones. Council to consider financial vs non-financial possibilities.
   (d) Council to review CID Grant to explore possibilities of using fund to help facilitate a larger meeting as discussed in point 7.3. Larger meeting to include Council, Chambers, and Businesses from Parkes Shire to try and network and create a collaborative group and approach to benefit everyone.

CARRIED

12.2 MINUTES OF THE AUDIT, RISK AND IMPROVEMENT COMMITTEE MEETING HELD ON 24 SEPTEMBER 2025

RESOLVED OCM 346/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and confirm the Minutes of the Audit, Risk and Improvement Committee Meeting held on Wednesday 24 September 2025 appended at *Annexure A*.

CARRIED

12.3 MINUTES OF THE PARKES SPORTS COUNCIL MEETING HELD ON 9 OCTOBER 2025

RESOLVED OCM 347/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and confirm the minutes of the Parkes Sports Council Grants Selection Committee appended at *Annexure A*.

CARRIED

12.4 MINUTES OF THE PARKES SPORTS COUNCIL MEETING HELD ON 14 OCTOBER 2025

RESOLVED OCM 348/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and confirm the Minutes of the Parkes Sports Council Meeting held on Tuesday 14 October 2025 appended at *Annexure A*.

CARRIED

13 REPORTS OF THE GENERAL MANAGER

13.1 ENERGY FROM WASTE (EFW) – PARLIAMENTARY INQUIRY SUBMISSION AND LGNSW CONFERENCE MOTION

RESOLVED OCM 349/25

Moved: Cr Neil Westcott
Seconded: Cr Joy Paddison

That Council:

1. Reaffirms that these actions do not constitute support for the Parkes Energy Recovery – Energy from Waste Project (PERP) proposal but are intended to ensure safeguards and community protections are in place should the project proceed.
2. Endorses the attached draft submission to the NSW Parliamentary Inquiry into Proposed Energy from Waste Facilities, including the 34 recommendations within.
3. Forward the attached submission to the NSW Parliamentary Inquiry into Proposed Energy from Waste Facilities to the Hon. Penny Sharpe, Minister for the Environment, accompanied by the attached cover letter, requesting urgent and immediate consideration and action on the recommendations relevant to her portfolio.
4. Forward the attached draft submission to the Hon. Paul Scully, MP, Minister for Planning and Public Spaces, with the attached cover letter, requesting urgent and immediate consideration and action on the recommendations relevant to his portfolio, particularly referral of the project to the Independent Planning Panel.
5. Forward the attached draft submission to the local member Mr Philip Donato, MP, requesting support for the recommendations in the submission.
6. Endorses the proposed motion to the 2025 LGNSW Annual Conference advocating for a $15/tonne community-hosting levy.
7. If the PERP has not been referred to the Independent Planning Commission (IPC) by the Minister prior to public exhibition, that Council lodge an objection and opposition to the project.

In Favour: Crs Neil Westcott, Marg Applebee, William Jayet, Ken McGrath, Joy Paddison, George Pratt, Matthew Scherer and Glenn Wilson

Against: Nil

CARRIED 8/0

13.2 2025 LGNSW ANNUAL CONFERENCE MOTION – RESTORING EQUITY FOR MINING-IMPACTED COMMUNITIES

RESOLVED OCM 350/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That:

1. Council endorse the attached motion to the 2025 LGNSW Annual Conference, titled "Restoring Equity for Mining Impacted Communities"

CARRIED

13.3 2025 LGNSW ANNUAL CONFERENCE MOTION - URGENT ACTION TO RESTORE AND REFORM RURAL HEALTH SERVICES IN NSW

RESOLVED OCM 351/25

Moved: Cr George Pratt
Seconded: Cr William Jayet

That:

1. Council endorses the attached motion titled, "Urgent Action to Restore and Reform Rural Health Services in NSW", to the LGNSW 2025 Conference
2. Council endorses Dr Joe McGirr MP's "*Better Care, Closer to Home"* Rural Health Action Plan

CARRIED

13.4 LEAVE OF ABSENCE – COUNCILLORS O'LEARY AND POUT

RESOLVED OCM 352/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That:

1. Councillor O'Leary be granted leave of absence from the Ordinary Council meetings in October, November and December 2025 and other associated Councillor duties during that period.
2. That Councillor Pout be granted leave of absence from the Ordinary Council meetings in October and November 2025 and other associated Councillor duties during that period.

CARRIED

13.5 ICAC REFERAL REGARDING POSSIBLE CORRUPTION

RESOLVED OCM 353/25

Moved: Cr George Pratt
Seconded: Cr Ken McGrath

That:

1. Council receive and notes the report.

CARRIED

13.6 INVESTMENTS AND BORROWINGS REPORT AS AT 30 SEPTEMBER 2025

RESOLVED OCM 354/25

Moved: Cr William Jayet
Seconded: Cr Joy Paddison

That Council:

1. Receive and note the Statement of Investments and Borrowings as on 30 September 2025

CARRIED

At 4:11 pm, General Manager Kent Boyd left the meeting.

At 4:12 pm, General Manager Kent Boyd rejoined the meeting.

13.7 MONTHLY FINANCIAL REPORTS AS AT 30 SEPTEMBER 2025

RESOLVED OCM 355/25

Moved: Cr Neil Westcott
Seconded: Cr William Jayet

That Council:

1. Receive and note the year-to-date financial reports for the period up to 30 September 2025.

CARRIED

14 REPORTS OF THE DIRECTOR CUSTOMER, CORPORATE SERVICES AND ECONOMY

14.1 MAJOR PROJECTS AND CURRENT WORKS - CUSTOMER, CORPORATE SERVICES & ECONOMY - OCTOBER 2025.

RESOLVED OCM 356/25

Moved: Cr William Jayet
Seconded: Cr George Pratt

That Council:

1. Receive and note the status report of Major Projects within Parkes Shire Council's Customer, Corporate Services and Economy Directorate.

CARRIED

At 4:17 pm, Senior Corporate Grants Officer Sally Chapman left the meeting.

At 4:19 pm, Director Infrastructure and Sustainability Andrew Francis left the meeting.

At 4:20 pm Chief Financial Officer Jaco Barnard left the meeting.

At 4:21 pm Director Infrastructure and Sustainability Andrew Francis rejoined the meeting.

14.2 TRIAL OF VISUAL ACTIVATION FOR EMPTY SHOP FRONTS

RESOLVED OCM 357/25

Moved: Cr Ken McGrath
Seconded: Cr William Jayet

That Council:

1. Endorse a **trial program of visual activation** for vacant shopfronts in the Parkes CBD, using temporary treatments to improve appearance and reduce negative perceptions.
2. Allocate funding of up to $3,000 for the installation of one visual activation medium (selected from options below) at a priority shopfront location.
3. Receive a further report at the conclusion of the trial presenting outcomes, feedback, and recommendations.

CARRIED

At 4:23 pm, Senior Corporate Grants Officer Sally Chapman rejoined the meeting.

At 4:28 pm, Chief Financial Officer Jaco Barnard rejoined the meeting.

14.3 UPDATED ELVIS FESTIVAL MEMORIAL WALL GUIDELINES AND USE OF PARKES TI FUNDS TO RESTORE THE WALL AND SIGNAGE.

RESOLVED OCM 358/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Endorse the changes to the Guidelines for the Elvis Festival Memorial Wall to indicate that applicants will be responsible for the installation of the plaque once approved.
2. Endorse the use of the existing niche wall fee of **$187** for the use of the **Elvis Festival Memorial Wall**.
3. Approve the allocation of up to $9,000 to restore the Elvis Festival Memorial Wall, repair the gate and light, and install some new signage from the Parkes Town Improvement Reserve.

CARRIED

14.4 REQUEST TO USE PEAK HILL TOWN IMPROVEMENT FUNDS TO UPGRADE LINDNER OVAL IRRIGATION AND PURCHASE A PLAQUE

RESOLVED OCM 359/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Approve the allocation of up to $3,800 from the Peak Hill Town Improvement Fund Reserve to supply and install a memorial plaque to Dud and Toni Francis in the Commercial Gardens.
2. Approve the allocation of up to $55,000 from the Peak Hill Town Improvement Fund Reserve to upgrade the irrigation system on Lindner Oval.

CARRIED

14.5 REQUEST FOR FINANCIAL ASSISTANCE - RACGP EVENT

RESOLVED OCM 360/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Approve the transfer of up to $5,000.00 from the Community Events to the Economic Events budget to support the Royal Australian College of General Practice RACGP.

CARRIED

14.6 AMENDED APPLICATION FOR PUBLIC HOLIDAYS FOR PARKES SHIRE DISTRICT SHOWS - 2026 AND 2027

RESOLVED OCM 361/25

Moved: Cr Ken McGrath
Seconded: Cr George Pratt

That Council

1. Confirm the recommended dates provided in the 16 September 2025 Council Meeting *(OCM 318/25)* to make application to the NSW Premier's Department of Industrial Relations for the gazettal of public holidays and half holidays for the Shows in the Parkes District for 2026 and 2027 as requested by the various PA&H Associations with the respective times and boundaries defined as follows:

   Trundle

   Public Holiday from 9.00am - 5.00pm Wednesday 19 August 2026 and Wednesday 18 August 2027 to be declared for Suburb of Trundle along with neighbouring Suburb of Bogan Gate and Suburb Bruie Plains. As per boundaries detailed on the Parkes Shire Council website.

   Peak Hill

   Public Holiday from 9.00am - 5.00pm Wednesday 26 August 2026 and Wednesday 25 August 2027 to be declared for Suburb of Peak Hill. As per boundaries detailed on the Parkes Shire Council website.

   Parkes

   Public Holiday from 12.00pm noon - 5.00pm Tuesday 1st September 2026 and Tuesday 31st August 2027 to be declared for Parkes Suburb, Suburb Tichborne, Suburb Nelungaloo, Suburb Gunningbland, Suburb Cooks Myall, Suburb Goonumbla, Suburb Alectown: along with neighbouring part Suburb Mandagery and part Suburb Cookamidgera within the Parkes Local Government Area. As per boundaries detailed on the Parkes Shire Council website.

CARRIED

14.7 ARIC FOUR YEAR STRATEGIC WORKPLAN - 2024-28

RESOLVED OCM 362/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Endorse the Audit, Risk and Improvement Committees Four Year Strategic Workplan 2024-28, appended at *Annexure A*.
2. Publish the endorsed Strategic Workplan on Council's website and intranet.

CARRIED

14.8 ADOPTION OF COUNCIL POLICIES - RELATED PARTY DISCLOSURE

RESOLVED OCM 363/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Adopt the Related Party Disclosure policy included as *Annexure A* to this report.
2. Publish the adopted policy on Council's Website and intranet.

CARRIED

15 REPORTS OF THE DIRECTOR INFRASTRUCTURE AND SUSTAINABILITY

15.1 MAJOR PROJECTS AND CURRENT WORKS - INFRASTRUCTURE AND SUSTAINABILITY

RESOLVED OCM 364/25

Moved: Cr William Jayet
Seconded: Cr George Pratt

That Council:

1. Receive and note the Infrastructure and Sustainability Major Projects and Current Works Report for September 2025, appended at *Annexure A*.

CARRIED

15.2 KERBSIDE COLLECTION REVIEW - ALECTOWN RESIDENTIAL

RESOLVED OCM 365/25

Moved: Cr Neil Westcott
Seconded: Cr Ken McGrath

That Council:

1. Does not proceed with a kerbside collection service for the Alectown community.

CARRIED

15.3 ADOPTION OF UPDATED COUNCIL POLICY - LIQUID TRADE WASTE

RESOLVED OCM 366/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That:

1. Adopt the updated Discharge of Liquid Trade Waste to the Sewerage System operational policy, included as *Annexure A* to this report.

CARRIED

16 REPORTS OF THE DIRECTOR OPERATIONS

16.1 MAJOR PROJECTS AND CURRENT WORKS - OPERATIONS

RESOLVED OCM 367/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and note the Operations Major Projects and Current Works Report for September 2025, appended at *Annexure A*.

CARRIED

At 4:47 pm, Cr George Pratt left the meeting.

16.2 TRANSFER OF CROWN ROADS TO COUNCIL

RESOLVED OCM 368/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That:

1. Council endorses the transfer of the following Crown Roads to Parkes Shire Council ownership:
   - Part Coleman Road north of Reymond Road, Parkes, adjacent to Lot 545 DP 750152 and Lot 1147 DP 823428.
   - Lagoon Street north of Bogan Street, Bogan Gate, adjacent to Lots 17, 18, 23, and 27 DP 752095.

CARRIED

17 REPORTS OF THE DIRECTOR PLANNING AND COMMUNITY SERVICES

17.1 (DCPS) QUARTERLY RANGERS REPORT JULY TO SEPTEMBER 2025

RESOLVED OCM 369/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That:

1. The report be noted.

CARRIED

At 4:49 pm, Cr George Pratt rejoined the meeting.

At 4:50 pm, Acting Director Operations Marisa Malherbe left the meeting.

17.2 UPDATE REPORT - DOGS ON SPORTING FIELDS

RESOLVED OCM 370/25

Moved: Cr William Jayet
Seconded: Cr Ken McGrath

That Council:

1. Receive and note the update report on the management of dogs on sporting fields.

CARRIED

At 4:51 pm Acting Director Operations Marisa Malherbe rejoined the meeting.

17.3 SEPTEMBER 2025 BUILDING STATISTICS UPDATE

RESOLVED OCM 371/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Receive and note the September 2025 Building Statistics Report.

CARRIED

18 NOTICES OF MOTION/QUESTIONS WITH NOTICE

18.1 NOTICE TO ALTER OR RESCIND RESOLUTION OCM 331/25 - OPERATING HOURS - PEAK HILL MEMORIAL POOL.

RESOLVED OCM 372/25

Moved: Cr Joy Paddison
Seconded: Cr William Jayet

That Council:

1. Rescind resolution **[OCM 331/25]** regarding Item 16.3 from the Ordinary Council meeting held on 16 September 2025, which was "That Council, having considered the submissions received, resolve to retain the current operating hours for Peak Hill Memorial Pool for the 2025/2026 season.″
2. Further consider the operator's proposal and community feedback, and endorse the following operating hours for the Peak Hill Memorial Pool for the 2025/2026 season as follows:

   Total contract hours: 38

   Operating times:

   Monday 1 Hour for aquatic aerobics (at no cost)

   Wednesday 12 pm to 7 pm (7)

   Thursday 12 pm to 7pm (7)

   Friday 12pm to 7pm (7)

   Saturday 10.30am to 7pm (8.5)

   Sunday 10.30am to 7pm (8.5)

   Total operating hours: 39
3. Note the pool operator has agreed to open the facility on Monday mornings to accommodate the existing Aqua Aerobics program, with lifeguard supervision provided at no additional cost to Council.
4. Advise the pool operator accordingly and update public information materials to reflect the endorsed hours.

In Favour: Crs Ken McGrath, Joy Paddison, George Pratt, Matthew Scherer and Glenn Wilson

Against: Crs Neil Westcott, Marg Applebee and William Jayet

CARRIED 5/3

19 CONFIDENTIAL MATTERS

RESOLVED OCM 373/25

Moved: Cr Glenn Wilson
Seconded: Cr Ken McGrath

That Ordinary Council Meeting:

1. Moves into Closed Session to deal with the matters below, which are classified as confidential under section 10A(2) of *the Local Government Act 1993* for the reasons specified:

19.1 SALE OF INDUSTRIAL ESTATE LAND - LANGLANDS/HANLON STREET PARKES

This matter is considered to be confidential under Section 10A(2) - c of the Local Government Act, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business.

Further it is considered that discussions of this matter in open Council would, on balance, be contrary to the public interest as it would prejudice Council's ability to secure the optimum outcome for the community.

19.2 2025047 - ENABLING INFRASTRUCTURE FOR NEW HOUSING DEVELOPMENT - STAGE 1 SUBDIVISION WORKS - ROSE STREET

This matter is considered to be confidential under Section 10A(2) - d(i) of the Local Government Act, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with commercial information of a confidential nature that would, if disclosed prejudice the commercial position of the person who supplied it.

Further it is considered that discussions of this matter in open Council would, on balance, be contrary to the public interest as it would prejudice Council's ability to secure the optimum outcome for the community.

19.3 DISPUTED WATER ACCOUNT

This matter is considered to be confidential under Section 10A(2) - g of the Local Government Act, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with advice concerning litigation, or advice as comprises a discussion of this matter, that would otherwise be privileged from production in legal proceedings on the ground of legal professional privilege.

Further it is considered that discussions of this matter in open Council would, on balance, be contrary to the public interest as it would prejudice Council's ability to secure the optimum outcome for the community.

19.4 CROAKER DETENTION BASIN (RESOURCES FOR REGIONS – ROUND 9

This matter is considered to be confidential under Section 10A(2) - g of the Local Government Act, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with advice concerning litigation, or advice as comprises a discussion of this matter, that would otherwise be privileged from production in legal proceedings on the ground of legal professional privilege.

Further it is considered that discussions of this matter in open Council would, on balance, be contrary to the public interest as it would prejudice Council's ability to secure the optimum outcome for the community.

2. Exclude the media and public from the meeting on the basis that the business to be considered is classified as confidential, pursuant to 10A(1), 10(2) and 10A(3) of the *Local Government Act 1993*.
3. Withhold reports and correspondence relevant to the subject business be withheld from the media and public as provided by section 11(2) of the *Local Government Act 1993*.
4. Make public resolutions made by the Council in Closed Session after the conclusion of the Closed Session, and record such resolutions in the minutes of the Council meeting.

CARRIED

At 4:59 pm, the Meeting went into Closed Session.

At 5:00 pm Director Infrastructure and Sustainability Andrew Francis left the meeting.

RESOLVED OCM 374/25

Moved: Cr Glenn Wilson
Seconded: Cr Joy Paddison

That Ordinary Council Meeting:

1. Resume in Open Session and note the Mayor's report on Confidential Resolutions.

CARRIED

At 5:37 pm, the Council in Closed Session returned to Open Session.

19.1 SALE OF INDUSTRIAL ESTATE LAND - LANGLANDS/HANLON STREET PARKES

RESOLVED OCM 375/25

Moved: Cr Neil Westcott
Seconded: Cr George Pratt

That:

1. Council note, that lot 11 DP1305621, passed in at the public auction held on 25 September 2025.
2. Council accepts the subsequent offer of Mr Ian Westcott of $90 per square metre plus GST, for lot 11 DP1305621.

CARRIED

19.2 2025047 - ENABLING INFRASTRUCTURE FOR NEW HOUSING DEVELOPMENT - STAGE 1 SUBDIVISION WORKS - ROSE STREET

RESOLVED OCM 376/25

Moved: Cr Ken McGrath
Seconded: Cr Joy Paddison

That:

1. Select Steve Magill Earthmoving Pty Ltd as the preferred tenderer for the delivery of the Rose Street Subdivision Stage 1 Works.
2. Delegate authority to the General Manager and Director of Operations to enter into contract negotiations with Steve Magill Earthmoving Pty Ltd to finalise the commercial terms, with the contract value not to exceed an upper-bound cost of $2,467,670 (ex GST)

CARRIED

19.3 DISPUTED WATER ACCOUNT

RESOLVED OCM 377/25

Moved: Cr Marg Applebee
Seconded: Cr William Jayet

That:

1. Council understands that overall that the readings have levelled out but that in this instance, in good faith and the evidence provided, that Council will split the difference from the average of the last three reads.

CARRIED

19.4 CROAKER DETENTION BASIN (RESOURCES FOR REGIONS - ROUND 9)

RESOLVED OCM 378/25

Moved: Cr Neil Westcott
Seconded: Cr William Jayet

That Council:

1. Note the successful completion of the Croaker Detention Basin construction ahead of schedule and on-budget; and
2. Note that additional works are being completed as part of a scope variation, including culvert installation, base slap pouring, and contour battering on the northwestern side of North Parkes Oval.

CARRIED

20 REPORT OF CONFIDENTIAL RESOLUTIONS

In accordance with clauses 14.22 and 14.23 of Council's Code of Meeting Practice, resolutions passed during a meeting, or a part of a meeting that is closed to the public must be made public by the Chairperson as soon as practicable. Such resolutions must be recorded in the publicly available minutes of the meeting.

21 CONCLUSION OF MEETING

The meeting concluded at 5:41 pm.

This is the final page of the minutes comprising 25 pages numbered 1 to 25 of the Ordinary Council Meeting held on Tuesday, 21 October 2025 and confirmed on Tuesday, 18 November 2025.

MAYOR

7 DISCLOSURES OF INTERESTS

In accordance with Part 16 of Council's Code of Meeting Practice, all Councillors must disclose and manage any conflicts of interest they may have in matters being considered at the meeting.

Council's Code of Conduct deals with pecuniary and non-pecuniary conflicts of interest and political donations, and provides guidance on how these issues should be managed.

Councillors, and where applicable, other Council Officials, must be familiar with Council's Code of Conduct and their obligations to disclose and manage any conflicts of interest that they may have in matters being considered at this Council Meeting.

Note: Councillors and staff who declare an Interest at the Council Meeting are also required to complete a Declaration of Interest form.

Obligations	
Pecuniary Interests	A Councillor who has a pecuniary interest in any matter with which the Council is concerned, and who is present at a meeting of the Council at which the matter is being considered, must disclose the nature of the interest to the meeting. The Councillor must not be present at, or in sight of, the meeting: (a) At any time during which the matter is being considered or discussed, or (b) At any time during which the Council is voting on any question in relation to the matter.
Non-Pecuniary Conflicts of Interest	A Councillor who has a non-pecuniary conflict of interest in a matter, must disclose the relevant private interest in relation to the matter fully and on each occasion on which the non-pecuniary conflict of interest arises in relation to the matter.
Significant Non-Pecuniary Conflicts of Interest	A Councillor who has a significant non-pecuniary conflict of interest in relation to a matter under consideration at a Council meeting, must manage the conflict of interest as if they had a pecuniary interest in the matter.
Less than Significant Non-Pecuniary Interests	A Councillor who determines that they have a non-pecuniary conflict of interest in a matter that is not significant and does not require further action, when disclosing the interest must also explain why conflict of interest is not significant and does not require further action in the circumstances.

8 LATE BUSINESS

9 ADOPTION OF MULTIPLE ITEMS OF BUSINESS

The Council may, at any time, resolve to adopt multiple items of business, as recommended in the report, byway of a single resolution. The Chairperson must list the items of business to be adopted and ask Councillors to identify any individual items of business listed by the Chairperson that they intend to vote against the recommendation made in the Business Paper, or that they wish to speak on (13.2).

10 MAYORAL MINUTE(S)

10.1 MAYOR PHYLLIS MILLER OAM - HONOURED AT 2025 MINISTERS' AWARDS FOR WOMAN IN LOCAL GOVERNMENT

IP&R Linkage: **Pillar:** Leadership

Goal: Strong relationships

Strategy: Work in partnership with other Councils, regional organisations and State and Federal Governments.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Note the information in the report.
2. Write a letter to Mayor Phyllis Miller OAM congratulating her on receiving the Councillor Lilliane Brady OAM Ward 2025 Award.

REPORT

Phyllis Miller OAM, Mayor of Forbes Shire Council and President of Local Government NSW, has been recognised for her exceptional leadership and service to local government, receiving the Councillor Lilliane Brady OAM Award at the 2025 Ministers' Awards for Women in Local Government.

The award was presented at a ceremony at NSW Parliament House hosted by Minister for Local Government Ron Hoenig and Minister for Women Jodie Harrison. Now in its 18th year, this prestigious program celebrates the contributions and accomplishments of women in Councils across NSW.

The Ministers noted that the awards honour the outstanding achievements of women in Local Government, acknowledging their diverse career journeys and invaluable contributions to communities. They emphasised the importance of recognising inspirational women who are paving the way for future generations and highlighted progress toward greater female representation in Councils.

The Councillor Lilliane Brady OAM Award is determined by the Minister for Local Government to recognise and honour the dedication and tireless work of a female council staff member or elected representative. Mayor Miller's achievement reflects her strong advocacy for rural communities and her commitment to strengthening Local Government across the state. She was the first woman to be elected as President of the NSW Shires Association in its 100 year history and is the only elected Councillor to serve as the President of both the NSW Shires Association and Local Government (NSW). Mayor Miller has also been a Councillor at Forbes Shire Council for the last 30 years. Her leadership continues to inspire women in Local Government and beyond, including Parkes Shire Council.

On behalf of Parkes Shire Council, I extend our heartfelt congratulations to our neighbouring Mayor Phyllis Miller OAM on receiving the Councillor Lilliane Brady OAM Award. This recognition is a testament to her exceptional leadership, tireless advocacy for rural communities, and unwavering commitment to strengthening local government across NSW.

For more information about the awards, visit: https://www.olg.nsw.gov.au/our-minister/ministers-awards-for-women-in-local-government

Mayor of Forbes, Phyllis Miller OAM receiving the Councillor Lilliane Brady OAM Award from NSW Minister for Local Government Ron Hoenig, at the 2025 Ministers' Awards for Women in Local Government.

Cr Neil Westcott

MAYOR

10.2 NSW HONOUR FOR MICHAEL OSTLER, PRINCIPAL OF PARKES EAST PUBLIC SCHOOL

IP&R Linkage: **Pillar:** Community

Goal: Our community is creative, proud and has a strong sense of belonging.

Strategy: Encourage, support and recognise community participation including volunteers.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Note the information in the report.
2. Write a letter to Mr Michael Ostler congratulating him on receiving the NSW Primary Principals' Association (NSWPPA) Distinguished Service Award at the NSWPPA Conference.

REPORT

The New South Wales Primary Principals' Association (NSWPPA) was held in Sydney on 28 – 31 October. At this Awards Conference, Parkes East Primary School's Principal Mr Michael Ostler was presented with the NSW Primary Principal's Association (NSWPPA) Distinguished Service Award.

The NSW Primary Principals' Association (NSWPPA) represents over 1,800 Government Primary School Principals across NSW. Each year at their State Conference, they present awards to recognise outstanding contributions to the profession.

The Distinguished Service Award is one of the highest honours given by NSWPPA. It acknowledges individuals who have demonstrated exceptional leadership, service, and commitment to supporting principals and improving education in NSW. Recipients are typically recognised for long-term contributions, advocacy, and involvement in initiatives that strengthen school leadership and student outcomes.

The award was presented during the 2025 NSWPPA Conference, which is a major annual event featuring professional learning, networking, and recognition of excellence among school leaders. The conference includes sessions on leadership, wellbeing, and educational innovation, and attracts hundreds of principals from across the state.

Mr Ostler received this recognition because of his distinguished service to the NSW Primary Principals' Association (NSWPPA) over 22 years. This award acknowledges Mr Ostler's valuable and distinguished contribution to his colleagues, his school, his Primary Principal's Council and to rural education across New South Wales.

Mr Ostler's service to public education has been unwavering as he leads his Principal colleagues, advocating for the betterment of our schools and ensuring the Department of Education hears the voice of Primary Principals in regional, rural and remote communities.

We would like to congratulate Mr Ostler for his dedication to Parkes East Public School and for receiving this very prestigious award.

Michael, pictured with Education Department Deputy Secretary for Pre-schools—Mark Barraket and the head of the Education Department Secretary Murat Dizdar, receiving his Award.

Cr Neil Westcott
MAYOR

10.3 GRADDLE CREEK BRIDGE SOD TURN EVENT ON 28 OCTOBER 2025

IP&R Linkage: **Pillar:** Community

Goal: Our community is liveable, growing and connected.

Strategy: Strengthen active transport routes, including cycleways, footpaths and walking tracks, to improve linkages between areas of high activity and new residential growth.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Receive and note the information about the Graddle Creek Bridge Sod Turn Event on 28 October 2025.

REPORT

A major milestone was reached in October at the Graddle Creek Bridge construction site with on-site works officially commencing with a sod turn ceremony. This event marked the start of a long-awaited and transformative infrastructure upgrade along The McGrane Way for the Parkes Shire and wider Central West.

The event was attended by Stephen Lawrence MLC, representing the Minister for Roads and Regional Transport, Hon. Jenny Aitchison; Member for Orange Phil Donato; and Executive Director of Partnerships & Integration (West) Mrs Holly Davies, representing Transport for NSW. Parkes Shire Councillors in attendance included Deputy Mayor Marg Applebee, Cr George Pratt, Cr Bill Jayet, Cr Kenny McGrath, and Cr Joy Paddison. The event was also attended by members of the local community, the McGrane Way Action Group, and other stakeholders who attended to support the commencement of this significant project.

The existing low-level causeway at Graddle Creek has long presented safety and reliability challenges. Narrow and highly vulnerable to flooding, the crossing has been impacted by six major flood events and six declared natural disasters in the past four years. When closed, freight and passenger vehicles face detours of up to 218 kilometres, with Transport for NSW estimating costs of approximately $600 per heavy vehicle per detour. With more than 25,000 annual heavy vehicle trips, the economic impact on producers, freight operators, and local communities is significant.

The new bridge will provide a flood-resilient, safer, and more reliable route for all road users. Key features include a wider road surface, properly aligned approaches, and safe shoulders, eliminating the dangerous dogleg bend and low causeway that have contributed to accidents and delays.

The project represents an investment of over $8.1 million, including $7.99 million from the NSW Government's former Fixing Country Roads program, and demonstrates the benefits of collaboration between local, state, and industry partners. The construction contract has been awarded to Dearnu Pty Ltd, a Peak Hill-based company with more than 30 years' experience in bridge construction, ensuring the project is delivered with regional expertise.

The McGrane Way is a designated regional freight route linking Narromine, Parkes, and Lachlan Shires. It supports grain and livestock transport, connects producers to the Central West Livestock Exchange in Forbes, and provides access for mining operations such as the CleanTeQ Sunrise project. This route is critical for primary producers, freight operators, emergency services, and residents.

Construction is expected to be completed by the end of 2026, weather permitting. Council acknowledges the support of the NSW Government, Minister for Regional Transport and Roads Jenny Aitchison, and the local community, whose letters of support were instrumental in securing funding. Council also recognises the work of staff in managing planning, land acquisition, and approvals to bring this project to delivery.

This bridge will strengthen regional connectivity, reduce risks, and improve economic resilience for the Parkes Shire and the wider Central West.

Pictured: Robert Mortimer, Pam Mortimer, Garry Langley, Stephen Lawrence MLC, Mayor Neil Westcott, Deputy Mayor Marg Applebee, Brian Leak and Phil Donato MP at the sod turning event at Graddle Creek Bridge.

This marked the official start of construction for the Graddle Creek Bridge.

Cr Neil Westcott

MAYOR

10.4 THE ROYAL AUSTRALIAN COLLEGE OF GENERAL PRACTITIONERS (RACGP) CIVIC RECEPTION IN PARKES ON 28 OCTOBER 2025

IP&R Linkage: **Pillar:** Economy

Goal: Our economy provides diverse employment pathways and education training opportunities

Strategy: Support industry in attracting skilled professionals.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Receive and note the report.
2. Continue promoting Parkes as a prime location for GP training and rural practice
3. Advocate for investment in rural health workforce initiatives and incentives
4. Work with health authorities to prioritise reopening Parkes maternity services
5. Strengthen collaboration with regional partners to address shared health challenges

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REPORT

The Royal Australian College of General Practitioners ("RACGP") attended a Civic Reception held at the Parkes Services Club on 28 October 2025. This was part of their tour with Registrars undertaking their first or second term of GP Training.

Whilst on the tour they visited Wellington, Dubbo, Parkes, Forbes and Condobolin which each town showcasing why their town is a great place to live and work. It also showed the incredible support that the local medical practices, communities and the broader rural health services provide to GP trainees.

Western NSW has significantly increased registrar numbers in Western NSW, with 80-90 expected to seek placements next year.

Like many rural communities, Parkes faces ongoing challenges in attracting and retaining medical staff and we continue to do everything we can. We only have so much power and influence, but we do everything we can to promote Parkes as a great place to be a general practitioner, especially we look forward to the day when babies are born in Parkes Hospital again, given it has been nearly six years since a baby was born in the Parkes maternity unit (which was closed due to a lack of staff).

At the Civic Reception we hosted over 70 medical students, registrars and local professionals along with representatives from medical centres from Parkes, Forbes and Condobolin; and Mayors, Councillors and General Managers from Parkes, Forbes and Lachlan Shires.

We also had great entertainment on the night with Parkes Elvis Festival's 2025 Miss Priscilla (Gracey Denham-Jones) who provided great music throughout the night. I also finished the night off in my Elvis suit so that I could sing a few songs with Mis Priscilla to showcase how great our Elvis Festival is, and we ensured everyone knew when the next festival was on so that they could come along as most hadn't been to an Elvis Festival in Parkes.

It was an enjoyable night, and it was an honour to have the young professionals come into our community and getting the rich taste of what it is like to live in the country.

Attendees at the RACGP Dinner in Parkes

Medical staff from local medical practices

Cr Neil Westcott
MAYOR

10.5 BANGALA-LA PRESCHOOL AWARD AT CENTRAL WEST EARLY CHILDHOOD AWARDS ON 1 NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Advocate and provide strong representation for our community at the regional, state, and federal levels.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Council congratulate Sasannah Davey for winning the Family Day Care Educator Award at the recent Central West Early Childhood Awards held on 1 November 2025 in Bathurst.

REPORT

Central West Childcare Services Bangala-la Preschool and Family Day Care celebrated on 1 November 2025 in Bathurst, the Central West Early Childhood Awards.

These Awards acknowledge the wonderful role that services, staff and educators achieve within the community, nurturing and supporting the children and families.

Susannah Davey won the “Family Day Care Educator” Award. This is well deserved by Susannah.

Bangala-la Preschool and Family Day Care had educators who were nominated in a number of categories, showing their dedication and passion for their roles. We are lucky to have so many great educators working with us and our team.

Cr Neil Westcott
MAYOR

10.6 GOODNESS GRAVEL EVENT IN PARKES SHIRE - 1-2 NOVEMBER 2025

IP&R Linkage: **Pillar:** Economy

Goal: Our Shire is an attractive destination to live, work, visit and invest.

Strategy: Support our visitor economy through promotion of our Shire, supporting and delivering local events, and enabling the continuation of the iconic Elvis Festival.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Receive and note the report on the Goodnessgravel event held in Parkes Shire over the weekend of 1-2 November 2025.

REPORT

Parkes Shire was proud to host the Goodnessgravel finale for 2025 on 1–2 November 2025 marking the first time this popular gravel cycling series has come to our region. Goodnessgravel is a non-competitive cycling event designed to showcase rural destinations and attract visitors to regional NSW.

The event offered three course options (50km, 110km, and 130km) across scenic countryside, with routes spanning three Local Government Areas. Conditions were ideal, with the organisers praising our smooth, well-graded gravel roads delivering an exceptional experience for riders.

Over 200 riders attended, including repeat participants from previous Goodnessgravel events. Our staff actively supported event logistics, earning praise from organisers for their hands-on assistance and hospitality. Council supported the event through its Destination Events fund.

Photo 1: Riders on a section of gravel road near the CSIRO Radio Telescope. (Outer Image Collective / @outerimage.au)

The event brought increased visitation outside peak tourist periods, supporting local businesses. It also strengthened our shire's reputation as a cycling tourism hub, aligning with Council's strategic objectives for regional tourism development. There was positive media coverage through Flow Mountain Bike and social platforms, highlighting Parkes' unique attractions and cycling infrastructure.

Special thanks to Lisa Moon, Tourism and Visitor Services Coordinator, and all Council staff who assisted with event delivery, especially the operations teams for ensuring our gravel roads were well presented.

Cr Neil Westcott

MAYOR

10.7 MEETINGS, FUNCTIONS AND EVENTS ATTENDED BY MAYOR AND COUNCILLORS

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Advocate and provide strong representation for our community at the regional, state, and federal levels.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Note the report on the Meetings functions and events attended in an official capacity, by the Mayor and Councillors during the period 18 October 2025 through to 14 November 2025.

REPORT

Table 1: lists the Meetings, functions and events attended by the Mayor and Councillors during the period 18 October 2025 through to 14 November 2025:

Table 1: Meetings, Functions and Events attended by Mayor and Councillors

Date	Function
Tuesday 21 October	Ordinary Council Meeting, Council Chambers **All Councillors and Directors** **Apologies: Cr Louise O'Leary and Cr Doug Pout**
Wednesday 23 October	Meals on Wheels AGM, Parkes **Cr Doug Pout** Trundle Community Consultative Committee Meeting **Deputy Mayor Marg Applebee**
Tuesday 28 October	Graddle Creek Sod Turn Event, Tullamore **Mayor Neil Westcott, Deputy Mayor Marg Applebee, Cr Bill Jayet, Cr Joy Paddison, Cr Kenny McGrath and General Manager Kent Boyd** Royal Australian College of GPs (RACGP) Event **Mayor Neil Westcott, Deputy Mayor Marg Applebee and General Manager Kent Boyd**

Wednesday 29 October	Parkes Show Society Crop Competition 2025, Parkes **Cr Joy Paddison**
Thursday 30 October	Presentation of Sports and Rising Star Grants **Mayor Neil Westcott** Rural Roads Advisory Committee, Parkes **Mayor Neil Westcott and Cr Ken McGrath** **Apologies: Cr Louise O'Leary, Cr Glenn Wilson and cr George Pratt** Inspired Women's Speed Networking, Parkes **Deputy Mayor Marg Applebee and Cr Louise O'Leary** **Apology: Cr Joy Paddison**
Friday 31 October	Peak Hill Rural Aid Farm Recovery Final Community BBQ at the Peak Hill Bowling Club **Mayor Neil Westcott and Cr Louise O'Leary** Special Screening of "The Dish" at Parkes Library, Parkes **Cr Bill Jayet**
Tuesday 4 November	Arts Advisory Committee, Parkes **Cr Bill Jayet** **Apology: Cr Doug Pout** Community, Liveability and Access Advisory Committee, Parkes **Mayor Neil Wescott, Deputy Mayor Marg Applebee, Cr Bill Jayet and Cr George Pratt** **Apology: Cr Louise O'Leary** Waste Advisory Committee Meeting **Mayor Neil Westcott, Deputy Mayor Marg Applebee and Cr George Pratt** **Apologies: Cr Louise O'Leary, Cr Doug Pout and Cr Glenn Wilson** Councillor Workshop, Council Chambers **All Councillors & Directors** **Apologies: Cr Bill Jayet, Cr Louise O'Leary, Cr Doug Pout and Cr Glenn Wilson**

Friday 7 November	Crafted Joy: The Handmade Toy Challenge Competition Judging, Craft Corner Parkes **Cr Joy Paddison**
Monday 10 November	Gathering of Kindness, Lachlan Health Service **Mayor Neil Westcott** **Apology: Deputy Mayor Marg Applebee**
Tuesday 11 November	Remembrance Day, Parkes **Mayor Neil Westcott & Cr George Pratt** **Apologies: Deputy Mayor Marg Applebee, Cr Bill Jayet, Cr Joy Paddison & Cr Doug Pout** Remembrance Day, Peak Hill **Cr Louise O'Leary** SWITCH Conference, Penrith **Cr Bill Jayet**
Wednesday 12 November	SWITCH Conference, Penrith **Cr Bill Jayet** Central NSW Joint Organisation Board meeting, Sydney **Deputy Mayor Marg Applebee, General Manager Kent Boyd** **Apology: Mayor Neil Westcott** Tullamore Community Consultative Committee Meeting **Cr George Pratt**
Thursday 13 November	SWITCH Conference, Penrith **Cr Bill Jayet** Central NSW Joint Organisation, Parliament House Sydney **Deputy Mayor Marg Applebee** **Apologies: Mayor Neil Westcott and General Manager Kent Boyd** Floodplain Management Committee Meeting **Cr George Pratt** **Apology: Deputy Mayor Marg Applebee**

	CMA Governor's Reception, Governor's House Sydney **Mayor Neil Westcott, Deputy Mayor Marg Applebee, Ex-Mayor Ken Keith** **Apology: General Manager Kent Boyd**
Friday 14 November	SWITCH Conference, Penrith **Cr Bill Jayet** CMA - AGM & Housing, Skills & Education **Mayor Neil Westcott and Deputy Mayor Marg Applebee**

Pictured: Robert Mortimer, Pam Mortimer, Garry Langley, Stephen Lawrence MLC, Mayor Neil Westcott, Deputy Mayor Marg Applebee, Brian Leak and Phil Donato MP at the sod turning event at Graddle Creek Bridge.

This marked the official start of construction for the Graddle Creek Bridge.

Pictured: Cr Bill Jayet, with library staff, Amy Butler, Kerryn Jones and Debbie Anderson attending the SWITCH Annual Conference of the New South Wales Public Libraries Association in Penrith this year.

Pictured: Cr Joy Paddison with Marg Marshall at the Craft Corner Parkes for the judging of Craft Corner's competition - Crafted Joy: The Handmade Toy Challenge

Pictured: Cr Joy Paddison with Crop Competition Winners from the Parkes Show Society Crop Competition 2025 held at the Parkes Bowling Club.

Cr Neil Westcott

MAYOR

10.8 COMING KNOWN EVENTS FOR MAYOR AND COUNCILLORS

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Advocate and provide strong representation for our community at the regional, state, and federal levels.

Author: **Cr Neil Westcott**

Annexures: **Nil**

MOTION

That Council:

1. Note the known upcoming meetings, functions and events for the Mayor and Councillors for the period 15 November 2025 through to 13 December 2025:

REPORT

Table1. below, lists the upcoming meetings, functions and events requiring the attendance of the Mayor or Councillors in relation to community or civic matters during the period 15 November 2025 through to 13 December 2025:

Table 1: Known upcoming Meetings, Functions and Events for Mayor and Councillors

Date	Function
Monday 17 November	Rotary Civic Reception **Invited: All Councillors and Directors**
Tuesday 18 November	Economy, Destination and Events Advisory Committee, Parkes **Mayor Neil Westcott, Deputy Mayor Marg Applebee, Cr Bill Jayet and Cr Glenn Wilson** **Apology: Cr Doug Pout and Cr Joy Paddison** Ordinary Council Meeting, Council Chambers **All Councillors and Directors**
Wednesday 19 November	Community Safety Working Group, Parkes **Invited: All Councillors and General Public**
Thursday 20 November	Parkes Shire Concert Band AGM **Cr Bill Jayet**
Saturday 22 November – Monday 24 November	Local Government NSW Annual Conference, Penrith **Mayor Neil Westcott, Deputy Mayor Marg Applebee and General Manager Kent Boyd**

Monday 24 November	Peak Hill Community Consultative Committee Meeting **Mayor Neil Westcott**
Wednesday 26 November	Audit, Risk and Improvement Committee (ARIC), Parkes **Cr Joy Paddison** **Apology: Deputy Mayor Marg Applebee** Enquiry by Design Workshop: East Parkes Masterplan, Parkes **Invited: All Councillors**
Sunday 30 November	Parkes School of Dance Inc **Invited: All Councillors and General Manager**
Thursday 27 November	Trundle Community Consultative Committee Meeting **Deputy Mayor Marg Applebee**
Monday 1 December	Central West Childcare Services Bangala-la Preschool event **Mayor Neil Westcott and Deputy Mayor Marg Applebee**
Tuesday 2 December	Community, Liveability and Access Advisory Committee Meeting, Committee Room **Mayor Neil Westcott, Deputy Marg Applebee, Cr George Pratt, Cr Doug Pout and Cr Bill Jayet** **Apology: Cr Louise O'Leary** Councillor Workshop, Council Chambers **All Councillors and Directors**
Monday 8 December	Bogan Gate, Community Memorial Hall Inc. Committee Meeting **Cr George Pratt**
Wednesday 10 December	Tullamore Community Consultative Committee Meeting **Cr George Pratt**
Saturday 13 December	Farewell for Rick and Barb Newton, Tullamore **Invited: All Councillors, Directors, past staff and general public**

Cr Neil Westcott
MAYOR

11 COUNCILLOR REPORT(S)

11.1 RURAL AID PEAK HILL FARM RECOVERY EVENT OVERVIEW

IP&R Linkage: **Pillar:** Community

Goal: Our community is liveable, growing and connected.

Strategy: Provide vibrant and welcoming town centres, streetscapes, public spaces and meeting places.

Author: **Louise O'Leary, Councillor**

Authoriser: **Kent Boyd PSM, General Manager**

Annexures: **Nil**

RECOMMENDATION

That Council:

1. Receive and note the Report about the Rural Aid Peak Hill Farm Recovery Event that occurred on 26-31 October 2025.

ISSUES AND COMMENTARY

Rural Aid held its final 2025 Farm Recovery Event in Peak Hill from 26–31 October, bringing together 37 volunteers and 5 Rural Aid staff from across Australia to assist local primary producers and the wider community still recovering from the 2022 floods.

Over the course of the week, volunteers supported eight local farms and completed three community projects, including works at the Peak Hill Showgrounds, Bowling Club, and Community Garden. Tasks ranged from fencing and painting to garden restoration and general maintenance, all designed to help farming families and community spaces recover and rebuild.

Volunteers travelled more than 33,600 km from as far as Queensland, Victoria, and South Australia, contributing over 1300 hours of skilled labour and injecting over $22,000 directly into the local economy through local catering, supplies, and accommodation.

Rural Aid has a proud 10-year history (2015–2025) of supporting rural communities through financial assistance, fodder drops, volunteer programs, and mental health and wellbeing services. The Peak Hill event marks another important milestone in that journey, demonstrating the ongoing commitment to helping farmers and rural towns recover stronger, together.

The Rural Aid Volunteers camped at the Peak Hill Showgrounds with meals each evening provided by the Peak Hill Bowling Club Ladies, culminated with a final BBQ on Friday 31st October. Mayor Neil Westcott and I joined to thank Dave Thiele (Farm Recovery & Community Event Coordinator), the Rural Aid Committee, and their band of valued volunteers with their work and commitment in and around the Peak Hill community.

Established in 2015, Rural Aid's vision is to safeguard farming and rural communities before, during and after natural disasters. They stand ready to support farmers when disaster strikes and to offer the help needed at the time.

Rural Aid is also dedicated to supporting a stable future for our farmers to ensure they can keep providing food and fibre for all Australians. We do this through our innovative programs that increase the resilience and sustainability of farmers, families, and rural communities. As an independent charity, Rural Aid rely on the generosity of their industry partners and supporters who fundraise, donate and volunteer to enable their vision to be realised.

Rural Aid CEO John Warlters said the Peak Hill event was an opportunity to provide meaningful, hands-on support to farmers and residents who have been quietly working through long recovery processes.

Mr Warlters said that “the people of Peak Hill have shown incredible resilience, but there are still important jobs left to do, and we know that a helping hand can go a long way, not just in completing physical work, but in lifting spirits and renewing connections.”

Rural Aid has maintained a strong relationship with Peak Hill producers since 2022, delivering financial assistance, hay and mental health support in the aftermath of the floods. In a recent conversation, a local farmer shared that while progress has been made, many in the community are still facing tough conditions and that a coordinated volunteer effort could make a meaningful difference.

Mr Warlters said, “This is not just about fixing fences - it’s about supporting people, families, and communities who are proud, capable and deeply committed to the land.” “These events are about more than the physical work, they’re a reminder that no matter how remote a community might feel, they’re not doing it alone.”

The week-long event also focused on strengthening social connection and improving shared spaces, which are central to community life in rural towns.

Rural Aid’s Mental Health and Wellbeing team will continue to work with the Peak Hill community beyond the event, providing a safe and supportive space for producers to seek help and share their stories.

More information about Rural Aid can be found on their website: www.ruralaid.org.au

Photos taken of the volunteers and Rural Aid staff during their visit to Peak Hill

Photos courtesy of: Cr Louise O'Leary, https://media.ruralaid.org.au/rural-aid-to-deliver-final-farm-recovery-event-for-2025-in-peak-hill/ and Rural Aid's Facebook page: https://www.facebook.com/RuralAidAustralia/

Louise O'Leary

COUNCILLOR

12 REPORTS OF COMMITTEES

12.1 MINUTES OF THE RURAL ROADS ADVISORY COMMITTEE MEETING HELD ON 30 OCTOBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Sue McGrath, Business Support Coordinator**

Authoriser: **Marisa Malherbe, Executive Manager Operations**

Annexures: **A. Rural Roads Advisory Committee Meeting Minutes - 30 October 2025**

RECOMMENDATION

That Council:

1. Receive and confirm the Minutes of the Rural Roads Advisory Committee Meeting held on Thursday 30 October 2025 appended at *Annexure A*.

Rural Roads Advisory Committee

Minutes

Thursday 30 October 2025

Minutes of the Rural Roads Advisory Committee

Held on Thursday, 30 October 2025 at the

Parkes Coachman Hotel Motel, 48-54 Welcome Street, Parkes

Present:

Cr Neil Westcott	Councillor
Cr Ken McGrath	Councillor
Mr Gary Langley	
Mr Gavin Tom	
Mr Graeme Hunter	
Mr Peter Kelly	
Mr Garry Parker	
Mr Ron Umbers	
Mr Robert Watt	

Council Officers in Attendance:

Marisa Malherbe – Acting Director Operations

NOTES

The meeting commenced at 6:00 pm and concluded at 7:45 PM.

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1 OPENING OF MEETING

The Chairperson declared the Rural Roads Advisory Committee of Thursday, 30 October 2025 open and welcomed Council Officials in attendance.

2 ACKNOWLEDGEMENT OF COUNTRY

The Chairperson read the following Acknowledgement of Country:

Parkes Shire Council acknowledges the Traditional Custodians of the Wiradjuri Country and recognises and respects their cultural heritage, beliefs and continuing connection with the lands and rivers of the Parkes Shire.

Council pays its respects to Elders past, present and emerging and extends this respect to all First Nations peoples in the Parkes Shire.

3 APOLOGIES

Logan Hignett – Director Operations, Cr Louise O'Leary, Cr Glenn Wilson, Andrew Filed – No response

4 CONFIRMATION OF MINUTES

4.1 MINUTES OF THE RURAL ROADS ADVISORY COMMITTEE HELD ON 12 JUNE 2025

RESOLVED RRA 011/25

That the Committee receive and confirm the Minutes of the meeting held on Thursday 12 June 2025.

CARRIED

5 DISCLOSURES OF INTERESTS

The Chairperson reminded Council Officials of their obligation under Council's Code of Conduct to disclose and manage any conflicts of interest they may have in matters being considered at the meeting, and invited Council Officials present to disclose any such interests.

Nil interests were disclosed.

6 LATE BUSINESS

The Chairperson advised that no late items of business had been submitted to the meeting.

7 OFFICERS' REPORTS

7.1 UPDATE - 2025/2026 ROADS PROGRAM

RESOLVED RRA 012/25

That:

1. The information and verbal update from Council be noted by the Rural Roads Committee

CARRIED

7.2 UPDATE - SAFER LOCAL ROADS AND INFRASTRUCTURE PROGRAM (SLRIP)

RESOLVED RRA 013/25

That:

1. The information in the report be received and noted.

CARRIED

7.3 UPDATE - REALIGNMENT AND NEW BRIDGE AT GRADDLE CREEK, THE MCGRANE WAY

RESOLVED RRA 014/25

That:

1. The information in the report be received and noted.

CARRIED

7.4 2025 HARVEST MAINTENANCE PROGRAM

RESOLVED RRA 015/25

That:

1. The information in the report be received and noted.

CARRIED

7.5 PARKES SHIRE NHVR CONDITIONS

RESOLVED RRA 016/25

That:

1. The information in the report be received and noted.

CARRIED

7.6 UPDATE - COMMITTEE CUSTOMER REQUEST

RESOLVED RRA 017/25

That:

1. The information contained within the report be received and noted.

CARRIED

8 GENERAL BUSINESS

8.1 RRAG FEEDBACK

Robert Mortimer:

Commended Council, noting that Middle Field Road and Wattle Bank Roads are in the best condition they have been for many years.

Gavin Tom

Commended Council on the excellent grading of Cooka Hills Road

8.2 GRAEME HUNTER

DISCUSSION

(a) Condobolin Road – significant number of pot holes

(b) McGrath Lane – sign needs to be replaced or reinstated

COUNCIL RESPONSE

(a) RD2025/1562

(b) SI2025/0244

8.3 GARRY LANGLEY

DISCUSSION

(a) Curra Lane - requires grading

(b) Alagala Road - surface is breaking down, with gravel turning to dust, requested re-sheeting as a consideration

COUNCIL RESPONSE

(a) RD2025/1563

(b) RD2025/1564

8.4 PETER KELLY

DISCUSSION

(a) Requested removal of suckers along Ben Nevis Road

(b) Requested removal of suckers along Boree Lane

COUNCIL RESPONSE

(a) RD2025/1565

(b) RD2025/1566

8.5 GARRY PARKER

DISCUSSION

(a) Blackstock Hill Road - Requesting road to be graded

(b) Curra Lane - Requesting road to be graded

(c) Collingwood Lane - Requesting road to be graded

(d) Hollywood Road - Requesting road to be graded

COUNCIL RESPONSE

(a) RD2025/1568

(b) RD2025/1563

(c) RD2025/1569

(d) RD2025/1570

8.6 ROBERT WATT

DISCUSSION

(a) Burrill Creek Road - Requesting road to be graded

(b) Queried the construction timeline for the Burrill Creek Causeways

(c) Raised concern regarding culvert placement on Baldry Road near the Kadina intersection, noting that water crosses at a different location

COUNCIL RESPONSE

(a) RD2025/1567

(b) Construction timeline for Burrill Creek Causeways is February 2026

(c) RD2025/1574

8.7 RON UMBERS

DISCUSSION

(a) Tubby Lane Road requires grading

(b) Noted that the bridge on Gunning Bland to Forbes Road has a sunken approach, creating a raised area that may damage vehicles

COUNCIL RESPONSE

(a) RD2025/1571

(b) RD2025/1572

8.8 GAVIN TOM

DISCUSSION

(a) Requested Council assistance with the access road behind the silos, local residents have undertaken patch repairs

COUNCIL RESPONSE

(c) RD2025/1573

9 REPORT OF CONFIDENTIAL RESOLUTIONS

In accordance with clauses 14.22 and 14.23 of Council's Code of Meeting Practice, resolutions passed during a meeting, or a part of a meeting that is closed to the public must be made public by the Chairperson as soon as practicable. Such resolutions must be recorded in the publicly available minutes of the meeting.

9 CONCLUSION OF MEETING

The meeting concluded at 7.45 PM.

This is the final page of the minutes comprising 8 pages numbered 1 to 8 of the Rural Roads Advisory Committee held on Thursday, 30 October 2025.

CHAIRPERSON

12.2 MINUTES OF THE ARTS ADVISORY COUNCIL MEETING HELD ON 4 NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Cordelia Moon, Development-Certificates Coordinator**

Authoriser: **Annalise Teale, Director Planning and Community Services**

Annexures: **A. Arts Advisory Council Meeting Minutes - 4 November 2025**

RECOMMENDATION

That Council:

1. Receive and confirm the Minutes of the Arts Advisory Council Meeting held on Tuesday 4 November 2025 appended at *Annexure A*.

Arts Advisory Council Meeting

Minutes

Tuesday 4 November 2025

Minutes of the Arts Advisory Council Meeting

Held on Tuesday, 4 November 2025 at the

Parkes Council Chamber, 2 Cecile Street, Parkes

Present:

Cr Bill Jayet	Councillor
Margot Jolly	Chairperson
Elly Tom	Committee Member
Rhonda Redenbach	Committee Member
Judy Unger	Committee Member

Council Officers in Attendance:

Annalise Teale	Director Planning and Community Services
Kerryn Jones	Manager Cultural, Education & Library Services
Cordelia Moon	Minutes Secretary

NOTES

The meeting commenced at 9:30am and concluded at 10:31am.

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2 ACKNOWLEDGEMENT OF COUNTRY 4
3 APOLOGIES 4
4 CONFIRMATION OF MINUTES 4
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6 LATE BUSINESS 5
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7.1 Parkes Painting Group Report 5
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8.2 MUSIC FOUNDATION PROPOSAL 7
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8.4 PUBLIC PIANO 8
8.5 ART OPPORTUNITIES FOR VILLAGES 8
9 REPORT OF CONFIDENTIAL RESOLUTIONS 8
10 CONCLUSION OF MEETING 8

1 OPENING OF MEETING

The Chairperson declared the Arts Advisory Council Meeting of Tuesday, 4 November 2025 open and welcomed Council Officials in attendance.

2 ACKNOWLEDGEMENT OF COUNTRY

The Chairperson read the following Acknowledgement of Country:

Parkes Shire Council acknowledges the Traditional Custodians of the Wiradjuri Country and recognises and respects their cultural heritage, beliefs and continuing connection with the lands and rivers of the Parkes Shire.

Council pays its respects to Elders past, present and emerging and extends this respect to all First Nations peoples in the Parkes Shire.

3 APOLOGIES

Annette Witherow

Cr Joy Paddison

Cr Doug Pout

Cr Neil Westcott (Mayor)

Cr Louise OLeary

Sharon Degeling

4 CONFIRMATION OF MINUTES

4.1 MINUTES OF THE ARTS ADVISORY COUNCIL MEETING HELD ON 5 AUGUST 2025

RESOLVED AAC 001/25

Moved: Cr William Jayet
Seconded: Ms Kerryn Jones

That the committee receive and confirm the Minutes of the meeting held on Tuesday 5 August 2025 appended at *Annexure A.*

CARRIED

5 DISCLOSURES OF INTERESTS

The Chairperson reminded Council Officials of their obligation under Council's Code of Conduct to disclose and manage any conflicts of interest they may have in matters being considered at the meeting, and invited Council Officials present to disclose any such interests.

Nil interests were disclosed.

6 LATE BUSINESS

The Chairperson advised that no late items of business had been submitted to the meeting.

7 OFFICERS' REPORTS

7.1 PARKES PAINTING GROUP REPORT

DISCUSSION:

. Margot Jolly provided an update

- It was noted that the recent exhibition at *The Buchanan* was very successful and well organised.
- The Parkes Potters Group and the Parkes Painting Group have booked an exhibition in the *Coventry Room* for 2026.

RESOLVED AAC 002/25

That:

1. The Committee note and accept this report.

CARRIED

7.2 PARKES SHIRE CONCERT BAND REPORT

DISCUSSION:

. Elly Tom provided an update

- Recent performances included events in *Grenfell* and *West Wyalong*.
- The Parkes Shire Concert Band continues to support the *school band* and *M&D Society*.
- The Parkes Shire Concert Band are continuing to investigate alternate options for the band room, as the current room at the Parkes Aquatic Centre is not suitable as it is not accessible for all members.
- The committee discussed preparing / reviewing plans for a new facility and possible location near the Rose Street Community Hall. Rhonda Redenbach will review historical information to determine whether previous plans would be suitable. Alternatively, a lift could be installed at the existing facility.
- Cr Bill Jayet suggested liaising with Council's Grants Team to seek opportunities for grant funding.

RESOLVED AAC 003/25

That:

1. The Committee note and accept this report.
2. Council to investigate the feasibility of accessibility upgrades to existing premises vs development of a new site.

CARRIED

7.3 PARKES COMMUNITY ARTS REPORT

DISCUSSION:

. Margot Jolly provided an update

- Cr Bill Jayet congratulated the committee for their contribution to the recent Keep Australia Beautiful Awards, specifically the preparation of event welcome bags.

RESOLVED AAC 004/25

That:

1. The committee note and accept this report.

CARRIED

7.4 CULTURAL CENTRE REPORT

DISCUSSION:

. Kerryn Jones provided an update

- Highlights included *Lego Spike Robotics* workshops and the *NAIDOC Mini Film Festival*.
- Special acknowledgment given to Council's Creative Learning Coordinator, Sharon Degeling for outstanding work in planning and delivering the *Questacon Exhibition*, which attracted over 3,000 visitors (including schools and community groups).
- Planning for a number of exhibitions in the Coventry Room are currently underway.
- Australia Day Cultural Awards: Members encouraged to submit nominations.
- Cr Bill Jayet requested paper nomination forms due to reported issues with the online system. It was noted that these were available from the library.

RESOLVED AAC 005/25

That:

1. The committee note and accept this report.
2. Council's Communications Team to review online form and ensure it is working correctly.

CARRIED

7.5 PARKES POTTERS GROUP REPORT

DISCUSSION:

. Margot Jolly provided an update

- The exhibition at The Buchanan in September was very successful.

RESOLVED AAC 006/25

That:

1. The Committee accept and note this report.

CARRIED

8 GENERAL BUSINESS

8.1 PEAK HILL UPDATE

DISCUSSION:

- Presented the *Peak Hill Tourism Brochure* featuring photos from the *Arts Out West* photography exhibition at *The Carrington*.
- *Mosaic Murals* project progressing, designs developed by Source Towney
- Planning underway for *Back to Peak Hill* event, scheduled for Gold Fever Festival – 25–26 September 2026.
- Venues to include *Bowling Club* and *Golf Club*.
- Issue noted with proposed upgrades to the Carrington Hotel.

OUTCOME

- Director Planning and Community Services to seek an update from Council's Property Manager regarding Carrington Hotel issues.

8.2 MUSIC FOUNDATION PROPOSAL

DISCUSSION:

- Proposed outreach to Orange Conservatorium to explore establishing a music foundation in Parkes with potential affiliation.
- Elly Tom expressed interest in attending the meeting.

OUTCOME

- Contact David Shaw, CEO Orange Conservatorium, to arrange a meeting to discuss opportunities for affiliation with the Parkes community.

8.3 OLD CAMERA HOUSE BUILDING

DISCUSSION:

- Proposed to remove the stickers on the old Camera House building and replace with a Who is Parkes photograph. To be further discussed with Parkes Community Arts.

8.4 PUBLIC PIANO

DISCUSSION:

- Cr Bill Jayet spoke about a piano being placed in a public space for visitors to play during Elvis and noted that there are a couple available.
- Kerryn advised that the piano in the Parkes Shire Library would be available during Elvis for members of the public to play.

8.5 ART OPPORTUNITIES FOR VILLAGES

DISCUSSION:

- Raised the need to reach out to village members in regard to opportunities to promote and engage on art related matters.

9 REPORT OF CONFIDENTIAL RESOLUTIONS

In accordance with clauses 14.22 and 14.23 of Council's Code of Meeting Practice, resolutions passed during a meeting, or a part of a meeting that is closed to the public must be made public by the Chairperson as soon as practicable. Such resolutions must be recorded in the publicly available minutes of the meeting.

10 CONCLUSION OF MEETING

The meeting concluded at 10:31am.

This is the final page of the minutes comprising 8 pages numbered 1 to 8 of the Arts Advisory Council Meeting held on Tuesday, 4 November 2025.

CHAIRPERSON

12.3 MINUTES OF THE COMMUNITY, LIVEABILITY AND ACCESS ADVISORY COMMITTEE MEETING HELD ON 4 NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Cordelia Moon, Development-Certificates Coordinator**

Authoriser: **Annalise Teale, Director Planning and Community Services**

Annexures: **A. Community, Liveability and Access Advisory Committee Meeting Minutes - 4 November 2025**

RECOMMENDATION

That Council:

1. Receive and confirm the Minutes of the Community, Liveability and Access Advisory Committee Meeting held on Tuesday 4 November 2025 appended at *Annexure A*.

Community, Liveability and Access Advisory Committee Meeting

Minutes

Tuesday 4 November 2025

Minutes of the Community, Liveability and Access Advisory Committee Meeting

Held on Tuesday, 4 November 2025 at the

Parkes Council Chamber, 2 Cecile Street, Parkes

Present:

Cr Marg Applebee	Councillor (Chair)
Cr Neil Westcott	Mayor
Cr Bill Jayet	Councillor
Cr George Pratt	Councillor
Mr Jeff Evans	Community Member
Ms Lyn McLeod	Community Member

Council Officers in Attendance:

Ms Kerryn Jones	Cultural, Education and Library Services Manager
Mrs Annalise Teale	Director Planning and Community Services
Ms Ann-Marie Winter	Central West Childcare Services Manager
Tim Gillogly	Shire Presentation Coordinator
Cordelia Moon	Minutes Secretary

NOTES

The meeting commenced at 10:34am and concluded at 11:55am.

Order Of Business

1 OPENING OF MEETING 4
2 ACKNOWLEDGEMENT OF COUNTRY 4
3 APOLOGIES 4
4 CONFIRMATION OF MINUTES 4
4.1 Minutes of the Community, Liveability and Access Advisory Committee Meeting held on 5 August 2025 4
5 DISCLOSURES OF INTERESTS 4
6 LATE BUSINESS 4
7 OFFICERS' REPORTS 5
7.1 Public Places and Spaces Accessibility Audit 5
7.2 Parkes Pedestrian and Cycling Strategy 2016 5
7.3 Central West Childcare Services Report 5
7.4 Parkes Shire Library & Cultural Centre 5
8 REPORT OF CONFIDENTIAL RESOLUTIONS 6
9 CONCLUSION OF MEETING 6

1 OPENING OF MEETING

The Chairperson declared the Community, Liveability and Access Advisory Committee Meeting of Tuesday, 4 November 2025 open and welcomed Council Officials in attendance.

2 ACKNOWLEDGEMENT OF COUNTRY

The Chairperson read the following Acknowledgement of Country:

Parkes Shire Council acknowledges the Traditional Custodians of the Wiradjuri Country and recognises and respects their cultural heritage, beliefs and continuing connection with the lands and rivers of the Parkes Shire.

Council pays its respects to Elders past, present and emerging and extends this respect to all First Nations peoples in the Parkes Shire.

3 APOLOGIES

Cr Louise O'Leary

Cr Doug Pout

4 CONFIRMATION OF MINUTES

4.1 MINUTES OF THE COMMUNITY, LIVEABILITY AND ACCESS ADVISORY COMMITTEE MEETING HELD ON 5 AUGUST 2025

RECOMMENDATION

That the receive and confirm the Minutes of the meeting held on Tuesday 5 August 2025 appended at *Annexure A.*

Moved: Cr Bill Jayet

Seconded: Ann-Marie Winter

5 DISCLOSURES OF INTERESTS

The Chairperson reminded Council Officials of their obligation under Council's Code of Conduct to disclose and manage any conflicts of interest they may have in matters being considered at the meeting, and invited Council Officials present to disclose any such interests.

Nil interests were disclosed.

6 LATE BUSINESS

The Chairperson advised that no late items of business had been submitted to the meeting.

7 OFFICERS' REPORTS

7.1 PUBLIC PLACES AND SPACES ACCESSIBILITY AUDIT

DISCUSSION

Director Planning and Community Services, Annalise Teale presented the report.

1. It was noted that Cr Louise O'Leary provided additional information regarding Peak Hill and the Accessibility Audit, which will be considered in the review.
2. Cr Bill Jayet recommended that the Trundle Library, Pioneer Oval and Peak Hill Library be prioritised for any future accessibility upgrades.
3. Cr George Pratt raised accessibility issues from Southern Cross to the Showground and the 'no parking' sign at the Parkes High School.
4. Committee discussed the Accessibility Audit and desire to provide further review and input.
5. The Committee discussed the need for a changing places facility in the Parkes Shire and appropriate locations.
6. The Committee discussed an all-inclusive park and opportunities for such a facility in the Parkes Shire.

RECOMMENDATION

That:

1. The Committee review the findings of the Audit and provide feedback regarding the priority sites for upgrade.
2. A community survey is developed for review at the next meeting to enable feedback about accessibility in the Parkes Shire.

7.2 PARKES PEDESTRIAN AND CYCLING STRATEGY 2016

DISCUSSION

Director Planning and Community Services, Annalise Teale presented the report.

1. The Committee reviewed the Parkes Pedestrian and Cycling Strategy 2016 Map and identified the following priority areas:
   - Footpath connection to Wetlands
   - Walking track to be extended to connect to the West
   - Footpath connecting Thomas Street and Victoria Street for easier and safer access to the Christian School

RECOMMENDATION

That:

1. The Council progress the investigation of a pedestrian pathway in West Parkes, as identified in the Pedestrian and Cycling Strategy 2016 / Western Entry Masterplan.
2. The Parkes Pedestrian and Cycling Strategy 2016 is reviewed and updated to include the Newell Highway Bypass, path networks that have been constructed since the adoption of

this plan (i.e. by Transport for NSW) and identify a connected path network that promotes physical activity.

3. Investigations are undertaken to provide path connectivity to the Parkes Wetlands either via Eugowra Road or Nash Street.

7.3 CENTRAL WEST CHILDCARE SERVICES REPORT

DISCUSSION

Central West Childcare Services Manager, Ann-Marie Winter presented the report.

RECOMMENDATION

That:

1. The Committee note and received the information in the report

7.4 PARKES SHIRE LIBRARY & CULTURAL CENTRE

DISCUSSION

Cultural, Education and Library Services Manager, Kerryn Jones presented the report.

1. Kerryn Jones called for nominations to review Australia Day Awards
    - Cr Bill Jayet – Australia Day Cultural Awards
    - Lyn McLeod – Jack Scoble Scholarships
    - Mayor Neil Westcott noted his availability to stand in as needed

RECOMMENDATION

That:

1. The committee accept this report
2. The committee nominates representatives to assess nominations for the 2026 Australia Day Cultural Awards and make recommendations to Council on behalf of this committee.
3. The committee nominates representatives to assess, short-list, and interview short-listed applicants for the 2026 Jack Scoble Scholarship and make recommendations to Council on behalf of this committee.

8 REPORT OF CONFIDENTIAL RESOLUTIONS

In accordance with clauses 14.22 and 14.23 of Council's Code of Meeting Practice, resolutions passed during a meeting, or a part of a meeting that is closed to the public must be made public by the Chairperson as soon as practicable. Such resolutions must be recorded in the publicly available minutes of the meeting.

9 CONCLUSION OF MEETING

The meeting concluded at 11.55am.

This is the final page of the minutes comprising 7 pages numbered 1 to 7 of the Community, Liveability and Access Advisory Committee Meeting held on Tuesday, 4 November 2025.

Cr Marg Applebee
CHAIRPERSON

12.4 MINUTES OF THE WASTE ADVISORY COMMITTEE MEETING HELD ON 4 NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Sharyn Ware, Waste Management Coordinator**

Authoriser: **Michael Chambers, Manager Environment and Sustainability**

Annexures: **A. Waste Advisory Committee Meeting Minutes - 4 November 2025**

RECOMMENDATION

That Council:

1. Receive and confirm the Minutes of the Waste Advisory Committee Meeting held on Tuesday 4 November 2025 appended at *Annexure A*.

Waste Advisory Committee

Minutes

Tuesday 4 November 2025

Minutes of the Waste Advisory Committee

Held on Tuesday, 4 November 2025 at the

Parkes Council Chamber, 2 Cecile Street, Parkes

Present:

Cr Marg Applebee	Deputy Chair
Cr Neil Westcott	Councillor
Cr George Pratt	Councillor

Council Officers in Attendance:

Andrew Francies	Director Environment & Sustainability
Sharyn Ware	Waste Management Coordinator

NOTES

The meeting commenced at 1.00pm and concluded at 1.55pm.

Order Of Business

1 OPENING OF MEETING 4
2 ACKNOWLEDGEMENT OF COUNTRY 4
3 APOLOGIES 4
4 CONFIRMATION OF MINUTES 4
4.1 Minutes of the Waste Advisory Committee held on 18 March 2025 4
5 DISCLOSURES OF INTERESTS 4
6 LATE BUSINESS 4
7 OFFICERS' REPORTS 5
7.1 Alectown Landfill Closure & Transfer Station Update 5
7.2 Bogan Gate Landfill - Successful Grant Application 5
7.3 Costing - Transfer Station v. Unmanned Landfill 5
7.4 Costing - Residential and Commercial Green Waste 5
7.5 Costing - Bulky Waste Collection 6
7.6 Costing - Council Garbage Truck 6
7.7 Textile Recycling Opportunity - Parkes Waste Facility 6
7.8 FOGO Bin Changes 6
8 REPORT OF CONFIDENTIAL RESOLUTIONS 7
9 CONCLUSION OF MEETING 7

1 OPENING OF MEETING

The Chairperson declared the Waste Advisory Committee of Tuesday, 4 November 2025 open and welcomed Council Officials in attendance.

2 ACKNOWLEDGEMENT OF COUNTRY

The Chairperson read the following Acknowledgement of Country:

Parkes Shire Council acknowledges the Traditional Custodians of the Wiradjuri Country and recognises and respects their cultural heritage, beliefs and continuing connection with the lands and rivers of the Parkes Shire.

Council pays its respects to Elders past, present and emerging and extends this respect to all First Nations peoples in the Parkes Shire.

3 APOLOGIES

Cr Louise O'Leary	Councillor
Cr Glenn Wilson	Councillor
Cr Doug Pout	Councillor

4 CONFIRMATION OF MINUTES

4.1 MINUTES OF THE WASTE ADVISORY COMMITTEE HELD ON 18 MARCH 2025

RESOLVED WAC 001/25

Moved: Cr Marg Applebee
Seconded: Cr Neil Westcott

That the receive and confirm the Minutes of the meeting held on Tuesday 18 March 2025 appended at *Annexure A.*

CARRIED

5 DISCLOSURES OF INTERESTS

The Chairperson reminded Council Officials of their obligation under Council's Code of Conduct to disclose and manage any conflicts of interest they may have in matters being considered at the meeting, and invited Council Officials present to disclose any such interests.

Nil interests were disclosed.

6 LATE BUSINESS

The Chairperson advised that no late items of business had been submitted to the meeting.

7 OFFICERS' REPORTS

7.1 ALECTOWN LANDFILL CLOSURE & TRANSFER STATION UPDATE

RESOLVED WAC 002/25

That Council:

1. Receive and note the information provided in the report

CARRIED

7.2 BOGAN GATE LANDFILL - SUCCESSFUL GRANT APPLICATION

RESOLVED WAC 003/25

Moved: Cr George Pratt
Seconded: Cr Marg Applebee

That:

1. The Bogan Gate landfill closure and establishment of Transfer Station be approved
2. The project be introduced at the next Bogan Gate CCC Meeting
3. Community consultation to be carried out with the larger Bogan Gate community, particularly tip key holders, with feedback via Council Report

CARRIED

7.3 COSTING - TRANSFER STATION V. UNMANNED LANDFILL

RESOLVED WAC 004/25

Moved: Cr Marg Applebee
Seconded: Cr Neil Westcott

That Council:

1. Receive and note the information provided in the report

CARRIED

7.4 COSTING - RESIDENTIAL AND COMMERCIAL GREEN WASTE

RESOLVED WAC 005/25

Moved: Cr Marg Applebee
Seconded: Cr George Pratt

That Council:

1. Receive and note the information provided in the report

CARRIED

7.5 COSTING - BULKY WASTE COLLECTION

RESOLVED WAC 006/25

Moved: Cr George Pratt
Seconded: Cr Neil Westcott

That Council:

1. Receive and note the information provided in the report

CARRIED

7.6 COSTING - COUNCIL GARBAGE TRUCK

RESOLVED WAC 007/25

Moved: Cr George Pratt
Seconded: Cr Marg Applebee

That Council:

1. Receive and note the information provided in the report

CARRIED

7.7 TEXTILE RECYCLING OPPORTUNITY - PARKES WASTE FACILITY

RESOLVED WAC 008/25

Moved: Cr George Pratt
Seconded: Cr Marg Applebee

That Council:

1. Proceed with the purchase of a textile recycling bin for Parkes Waste Facility
2. Engage RRRecycle to collect and process
3. Charge commercial business at the general rate (currently $81.50 per tonne) but provide free of charge to residents/charities

CARRIED

7.8 FOGO BIN CHANGES

RESOLVED WAC 009/25

Moved: Cr Neil Westcott
Seconded: Cr George Pratt

That Council:

1. Receive and note the information provided in the report

CARRIED

8 REPORT OF CONFIDENTIAL RESOLUTIONS

In accordance with clauses 14.22 and 14.23 of Council's Code of Meeting Practice, resolutions passed during a meeting, or a part of a meeting that is closed to the public must be made public by the Chairperson as soon as practicable. Such resolutions must be recorded in the publicly available minutes of the meeting.

9 CONCLUSION OF MEETING

The meeting concluded at 1.55pm.

This is the final page of the minutes comprising 7 pages numbered 1 to 7 of the Waste Advisory Committee held on Tuesday, 4 November 2025 and confirmed on Tuesday, 18 November 2025.

Cr Marg Applebee

CHAIRPERSON

12.5 MINUTES OF THE LOCAL TRAFFIC FORUM MEETING HELD ON 5 NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Sue McGrath, Business Support Coordinator**

Authoriser: **Marisa Malherbe, Executive Manager Operations**

Annexures: **A. Local Traffic Forum Meeting Minutes - 5 November 2025**

RECOMMENDATION

That Council:

1. Receive and confirm the Minutes of the Local Traffic Forum Meeting held on Wednesday 5 November 2025 appended at *Annexure A*.

Local Traffic Forum Committee

Minutes

Wednesday 5 November 2025

Minutes of the Local Traffic Forum Committee

Held on Wednesday, 5 November 2025 at the

Parkes Council Chamber, 2 Cecile Street, Parkes

Present:

Cr Ken McGrath	Councillor
Mr Jason Nicholson	Transport for NSW
Mr Joshua Tolley	NSW Police
Mr Jerome Beckett	NSW Police

Council Officers in Attendance:

Ben Coultas	Senior Design Engineer
Sue McGrath	Business Support Coordinator

NOTES

The meeting commenced at 09:15 am and concluded at 09:34 am.

Order Of Business

1 OPENING OF MEETING 4
2 ACKNOWLEDGEMENT OF COUNTRY 4
3 APOLOGIES 4
4 DISCLOSURES OF INTERESTS 4
5 LATE BUSINESS 4
7 OFFICERS' REPORTS 5
7.1 2025 Parkes Christmas Parade 5
8 GENERAL BUSINESS 6
8.1 Local Traffic Form Meeting Dates - 2026 6
8.2 Intersection Hartigan avenue & London Road 6
8.3 sIGNAGE AT the BP SERVICES STATION 6
8.3 update on the St Joseph's School, Peak Hill 7
8.4 update on 'no stopping' forbes road 7
8.5 update on HPAA Peak HIll 14
8.4 update on Reid Street 14
9 REPORT OF CONFIDENTIAL RESOLUTIONS 14
10 CONCLUSION OF MEETING 14

1 OPENING OF MEETING

The Chairperson declared the Local Traffic Forum Committee of Wednesday, 5 November 2025 open and welcomed Council Officials in attendance.

2 ACKNOWLEDGEMENT OF COUNTRY

The Chairperson read the following Acknowledgement of Country:

Parkes Shire Council acknowledges the Traditional Custodians of the Wiradjuri Country and recognises and respects their cultural heritage, beliefs and continuing connection with the lands and rivers of the Parkes Shire.

Council pays its respects to Elders past, present and emerging and extends this respect to all First Nations peoples in the Parkes Shire.

3 APOLOGIES

Mitchell Gage – Sergeant Parkes Highway Patrol, Chris McQuie - Western Road Liners, Mel Suitor – Road Safety Injury Prevention Officer

4 DISCLOSURES OF INTERESTS

The Chairperson reminded Council Officials of their obligation under Council's Code of Conduct to disclose and manage any conflicts of interest they may have in matters being considered at the meeting, and invited Council Officials present to disclose any such interests.

Nil interests were disclosed.

5 LATE BUSINESS

The Chairperson advised that no late items of business had been submitted to the meeting.

6 OFFICERS' REPORTS

7.1 2025 PARKES CHRISTMAS PARADE

STAFF RECOMMENDATION

Council Responsibilities:

That:

1. Approval is subject to the following conditions:
   (a) Notify Emergency services of and proposed road closure or detours.
   (b) Allow for emergency vehicle access.
   (c) Control noise as required under the Protection of the Environment Operations (Noise Control) Regulation 2008.
   (d) Council reserves the right to cancel the approval at any time.
   (e) That the organisers receive approval from the Police for holding a Public Assembly and relevant road closures.
   (f) Confirmation of event times and traffic control times.
   (g) The organisers secure police escort to be used in conjunction with submitted traffic control plan.
   (h) For state and regional roads that the organisers seek approval from Transport for NSW for the traffic control on Short St.
   (i) This recommendation does not commit Council to providing further assistance or provision of equipment for the event.

Events Responsibilities:

That:

2. Approval is subject to the applicants complying with the following conditions:
   (a) Provide Council with evidence of Current Public Liability Insurance. Insurance is to note to interests of Parkes Shire Council, NSW Police, State Emergency Services and Transport for NSW (TfNSW) (*to be provided prior to the event taking place*).
   (b) Provide Council a Traffic Management Plan for approval. (To be submitted prior to the event taking place).
   (c) Notify Emergency services of and proposed road closure or detours.
   (d) Allow for emergency vehicle access.
   (e) Control noise as required under the Protection of the Environment Operations (Noise Control) Regulation 2008.
   (f) The organiser of the event to be responsible for and reimburse Council for cost of damage repairs, cleaning etc of the street if required.
   (g) Comply with Council Officer’s reasonable directives.
   (h) The organiser is to maintain the area in clean and tidy condition.
   (i) That the organisers receive approval from the Police for holding a Public Assembly and relevant road closures.
   (j) Confirmation of event times and traffic control times.

(k) The organisers secure police escort to be used in conjunction with submitted traffic control plan.

(l) Police representative has requested for all future events that a separate event application be submitted to Police for approval.

(m) For state and regional roads that the organisers has approval from Transport for NSW for the traffic control on Short Street.

7 GENERAL BUSINESS

8.1 LOCAL TRAFFIC FORM MEETING DATES - 2026

1. The report detail is for the information of the Forum.

8.2 INTERSECTION HARTIGAN AVENUE & LONDON ROAD

RAISED

Council has received an email from Parkes Highway Patrol raising concerns regarding the poor condition of the road surface at the rail crossing intersection on Hartigan Avenue (traffic lights) and London Road.

FORUM RESPONSE

Council Operations departments is working with TfNSW and ARTC to gain access to the intersection to completed works. This is lengthy process to be able to access the rail corridor. Council is looking to potentially start work by end of the year or early in the new year 2026.

8.3 SIGNAGE AT THE BP SERVICES STATION

RAISED

Council has received an email from Parkes Highway Patrol raising concerns with the signage at the BP Services Station.

At the intersection of Henry Parkes Way (Condobolin Road) and Ross Road, it is suggested that a **'No Right Turn'** sign be installed for eastbound traffic on Henry Parkes Way to prevent vehicles from entering the BP slip lane, which is intended for westbound traffic only. Additionally, signage should be considered for vehicles travelling southbound on Ross Road, as the current layout allows them to almost travel directly across Henry Parkes Way into the same BP entry point.

FORUM RESPONSE

Council has contacted Transport for NSW regarding this matter and is awaiting their response and next steps.

8.3 UPDATE ON THE ST JOSEPH'S SCHOOL, PEAK HILL

RAISED

Parking to the be altered with the relocation of signage by Parkes Shire Council. This concept will be sent to Parkes Shire Council from TfNSW. The School is also installing a new gate way to accommodate the parking changes.

8.4 UPDATE ON 'NO STOPPING' FORBES ROAD

RAISED

Cr McGrath raised the 'No Stopping' signs along the Forbes Road, requesting the signs be removed.

FORUM RESPONSE

Newell Highway No Stopping Signage was raised at the Local Traffic Committee on 14 February 2018. Report attached.

5.4 Newell Highway No Stopping Signage

Executive Summary

Council has been asked to review the no-stopping along the Newel Highway between Station Street and Callaghan Street by Deanne Freeman on behalf of RMS, as there is no closure to the no-stopping signage on the southern end of the Newel Highway

Staff Recommendation

1. Install no-stopping signs from the front Supercheap Auto south bound to Callaghan Street including one repeater.
2. Install repeater between BP Entrance to Woodward Street.
3. Install no stopping between Woodward Street and Callaghan Street including one repeater.

Committee's Recommendation

1. Install no-stopping signs from the front Supercheap Auto south bound to Callaghan Street including one repeater.
2. Install repeater between BP Entrance to Woodward Street.
3. Install no stopping between Woodward Street and Callaghan Street including one repeater.
4. Consult with residents in the area regarding a 'No Stopping' sign being located in front of their properties

Support for Recommendation: Unanimous

The Local Traffic Committee Meeting minutes were adopted at Councils Ordinary Meeting on 20 February 2018

13 DIRECTOR WORKS & SERVICES REPORT

13.1 (DWS) Committee Minutes - Parkes Local Traffic Committee Meeting 14 February 2018

Executive Summary

The Parkes Local Traffic Committee Meeting was held on Wednesday 14 February 2018. The Minutes of the meeting are attached.

Recommendation

1. That the Minutes of the Parkes Shire Local Traffic Committee Meeting held on 14 February 2018 be adopted.

18 - 48 Resolution

That the recommendation be adopted.

Moved Councillor Ken McGrath, seconded Councillor Louise O'Leary.

CARRIED

TFNSW RESPONSE

Representative from TfNSW provided there update after the meeting and is now attached with the minutes.

Forbes Road (Newell Highway) NO STOPPING

The removal of no stopping signs on the eastern side of Newell Highway (Forbes Road) between Woodward St and Callaghan St was reviewed as requested by Councillor Ken McGrath. The review raised a number of safety concerns about the proposal.

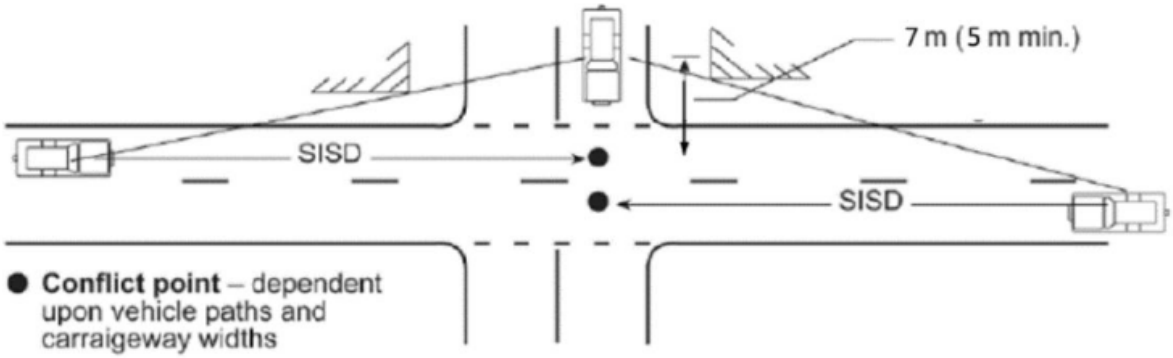
- There is deficient Safe intersection sight distance (SISD) for Callaghan St and the three accesses in between Woodward St and Callaghan St if the NO STOPPING signs were to be removed and parallel parking was to be allowed on the eastern side of Forbes Road.
- The removal of the NO STOPPING signage along the eastern side of Forbes Road between Woodward St and Callaghan St then allows any vehicle from light vehicles to B Doubles to park here which would restrict sight distance.

The SISD for both intersections Woodward St and Callaghan St and the three accesses between these two streets has been assessed in accordance with the Austroads - Guide to Road Design Part 4A: Unsignalised and Signalised Intersections. The assessment was based on the minimum conflict point distance of 5m and a 2 second reaction time. The resulting SISD should be 97m in a 50km/h zone.

There is four out of the five intersections and accesses from Woodward St and Callaghan St which have restricted Safe Intersection Sight Distance.

3.2.2 Safe Intersection Sight Distance (SISD)

Figure 3.2: Safe intersection sight distance (SISD)



Plan

Table 3.2: Safe intersection sight distance (SISD) and corresponding minimum crest vertical curve size for sealed roads (S < L)

Design speed (km/h)	Based on safe intersection sight distance for cars[1] h_1 = 1.1; h_2 = 1.25, d = 0.36[2]; Observation time = 3 sec					
	R_T = 1.5 sec[3]		R_T = 2.0 sec		R_T = 2.5 sec	
	SISD (m)	K	SISD (m)	K	SISD (m)	K
40	67	4.9	73	6	–	–
50	90	8.6	97	10	–	–
60	114	14	123	16	–	–
70	141	22	151	25	–	–
80	170	31	181	35	–	–
90	201	43	214	49	226	55
100	234	59	248	66	262	74
110	–	–	285	87	300	97
120	–	–	324	112	341	124
130	–	–	365	143	383	157

97m
97m
97m
97m

- If parallel parking was to be allowed on the eastern side of Forbes Road between Woodward St and Callaghan St this would create an issue for motorist travelling southbound. When a vehicle is turning right into Super Cheap Auto and waiting for motorist traveling northbound the vehicles behind would not be able to pass the vehicle turning right into Super Cheap Auto. This would cause stacking of traffic past Woodward St then could cause stacking of motorist trying to turn right or left out of Woodward St to get onto the Forbes Road.

Example below of stacking effect if parking on eastern side of Forbes Road

Recommendation

TfNSW recommend that the NO STOPPING signs between Woodward St and Callaghan St are to be retained due to safety concerns with the restricted SISD, stacking of traffic and narrow sections of the shoulder which would not cater for caravans and trucks to park with the desirable clearance of 500mm to the nearest travel lane as stated in **Guide to Road Design part 3.**

8.5 UPDATE ON HPAA PEAK HILL

RAISED

Lodged application part of the Blackspot funding. Funding announcement to be in the new year about April 2026

8.4 UPDATE ON REID STREET

RAISED

Lodged application part of the Blackspot funding Proactive. Funding announcement to be in the new year about April 2026. A Road Safety Audit was completed (RSA) part of the application which flagged issues with the speed zones and school zones. This information to be passed onto TfNSW for review.

8 REPORT OF CONFIDENTIAL RESOLUTIONS

In accordance with clauses 14.22 and 14.23 of Council's Code of Meeting Practice, resolutions passed during a meeting, or a part of a meeting that is closed to the public must be made public by the Chairperson as soon as practicable. Such resolutions must be recorded in the publicly available minutes of the meeting.

9 CONCLUSION OF MEETING

The meeting concluded at 9.34 AM.

This is the final page of the minutes comprising 14 pages numbered 1 to 14 of the Local Traffic Forum Committee held on Wednesday, 5 November 2025.

Ken McGrath

CHAIRPERSON

12.6 MINUTES OF THE PARKES SPORTS COUNCIL MEETING HELD ON 11 NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Authoriser: **Kent Boyd PSM, General Manager**

Annexures: **A. Minutes of the Parkes Sports Council Meeting held on 11 November 2025.** ⇩

RECOMMENDATION

That Council:

1. Receive and confirm the Minutes of the Parkes Sports Council Meeting held on Tuesday 11 November 2025 appended at *Annexure A*.

11 Nov 2025 Sports Council Minutes

Tuesday, 11 November 2025 5:12 PM

Welcome
Al Gersbach welcomed all to the meeting.

Attendance
Luke Nash (Finances), Al Gersbach (Chair), Anthony McGrath (Secretary), Jason O'Bryan (Junior League), Michael Greenwood (Senior League), Andrew Daley (Hockey), Andrew Thomas (Senior Rugby League)

Online
Linda Snyman (Dragon Boating),

Guests
Geoff Finn (Sports Fields Supervisor, Parkes Shire Council)

Apologies

Cr Louise O'Leary (Councillor Representative), Wilbur Harris (Netball), Doug Moore (Little Athletics), Cr Doug Pout, Ken Keith (Golf), Gordon Pritchard (Horse Racing), Wayne Osbourne (Soccer), Cody Reynolds (Touch), Jay Kross (Squash), Gail Richardson (Community Representative), Greg Morrissey (Mr Cricket).

Confirmation of Previous Minutes
The previous minutes were distributed with the agenda, moved by A McGrath seconded by seconded by Michael Greenwood that they are a true and correct record. Carried

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General Meeting

Notable Sporting Performances or Events

Hockey
- Australian Masters selections: Ian Westcott 50s, Graeme Tanswell 55s, Maureen Massey 70s, Lee Hodge to manage 65s. Denise Gersbach shadow 50s & Casey Miles shadow 35s.
- Toby Collins & Sam Carr selected in U21 Indoor Blues side.
- Riley Constable U21 women's Blues indoor.
- Meg Searl & Lara Drennan U21 State indoor.
- Meg Searl Open women's Blues.
- Parkes Premier League side won the Premier League competition after winning the final in Parkes.

Dragon Boating
- Western Region regatta, combined side enjoyable, Linda was sweep for the winning Sydney

Cricket
- Harry Yelland, Emon Moody and Zac Guyer selected for U16 zone size to play in Bradman Cup.
- Emon and Zac playing for Western PSSA cricket side at state championships

Junior League
- Western Rams Jet Clark and Mason Oram,
- Maliah Morrison, Piper White, Leni Constable & Katy Galvin & Lil Gosper selected for

Western to play in the Lisa Fiola Cup (tackle).

Review of Outstanding Actions

13/8/2019	1	Sports Legends Board at Parkes Leagues Club to be reviewed and alternatives considered.	Alan Macdonald
14/10/2020	2	Dedication ceremony for the Cheney family trophy to be conducted before the first Grinsted Cup match this season	Luke Nash
12/03/2024	3	Investigate switchboard upgrade at SDF. Also lights out on Miriah Williams filed (SW)	Geoff
8/04/2025	4	Investigate relocation of the Park Run sign to the start of the park run track adjacent to the storage shed on the path.	Tim
10/6/2026	5	SMS lighting system at Lindner Oval is not working consistently	Anthony
~~9/8/2025~~	~~6~~	~~Request report on the activities of the rangers in relation to dogs on sports fields.~~	~~Anthony~~
~~14/10/2025~~	~~7~~	~~How long will the Croaker Basin take to drain out once it is full of water.~~	~~Anthony~~

Discussion / Action Taken
Update provided on the outstanding tasks as follows:

6. Report was tabled at the October Council meeting and distributed to groups at this meeting.
7. The Council Engineering department has advised that the croaker basin is estimated to take about 6 hours to drain from full after run off has stopped. The water drains into the Victoria Street stormwater system.

Correspondence

The following items of correspondence was received or sent

1. Advice of meeting and minutes sent out to groups.
2. Sarah from Good Sports thanked the Sports Council for allowing her to attend the October meeting.

Action
1,2 For information.

Grants Received
Nil.

Sports Projects Update (Geoff Finn)

Geoff was provided the following update for the meeting.

- Turf to be added this week to croaker basin works
- Cheney park lighting project to starting next week. Commission on 10 December. Handover on 19 December. Touch may need to move some games up to McGlynn during construction
- Multicourt at Trundle will have new surface next week. Project should be completed in three weeks. Fencing and drainage done.
- Al asked about divers checking Lake Endeavour. Anthony advised that it was a safety

check of the swimming area to ensure its safe for summer swimming.

Geoff reminded groups to pick up rubbish and tidy amenities when finished. Also ensure that facilities are locked up when you leave. Consider other users and leave the facilities how you found them.

Around the Grounds

Cricket

- Seasons have started. Jnr number low. Two senior sides playing with Forbes, Condobolin and Trundle.
- Parkes rep side playing in zone carnival.
- Thanks to the team for the preparation of the wickets.

Dragon Boating

- Played in Masters games in Canberra with a mixed crew. One crew won a bronze medal
- Training to switch to Sunday mornings
- Has done some radio with sports arena on 2PK.
- Concern about life ring not remaining on hooks.
- Water is crystal clear at lake endeavour.

Rugby League

- NRL Audit - Brooke would like to discuss with a council representative on the condition of the facilities. 25 November meeting with NRL and Council representatives.
- NRL introducing preseason knockouts for PMP competition.
- Draw indicates start date of 18 April for 15 rounds including a 'Magic Round' starting with St Pats.
- PSSA rugby league state championships in Parkes in June.
- Training starting 15 December aiming for West Wyalong knockout.

Junior League

- Concern of the condition of the pioneer after the car club. Ask the council reconsider the hire of pioneer and instead use an alternate venue
- Warm up area at Pioneer needs irrigation to run a mini league field.
- Would like to be able to use field event area for another mod league field but would need discuss cages moved.
- Have almost 300 players and 19 teams - current venues are fast becoming obsolete especially with the inability to meet the new NRL facilities guidelines.
- Cheney park is not suitable, canteen not suitable - no rangehood. No women's amenities.
- Pioneer also not suitable as canteen need an upgrade. No women's amenities.
- Have looked at modular amenities and are seeking costs. Considering club grants.
- Would like to run a 9s invitational for U16s during preseason.

Hockey

- Indoor season starting
- AGM has been held with the executive returned. There will be a new sports council representative.

Financial Report - Operational and Capital Works Projects

Luke presented the financial report and asked that the committee accept the report, which was seconded by Michael Greenwood and carried.

Sports Council (Sporting Grounds) Overview - Month Ending - 31 October 2025

Sporting Grounds - Operational Revenue

	Budget	Actual	% Budget Received
Sports Council -Levies/Usage Charges	$51,731	$32,950	64%
Sports Council - SMS Lighting	$16,210	$6,752	42%
	$67,941	**$39,702**	**58%**

Sporting Grounds - Operational Expenditure

	Budget	Actual	Committed	A + C	% Spent	Bu Rem
Sporting Grounds Operating	$293,701	$92,064	$0	$92,064	31%	$20
	$293,701	**$92,064**	**$0**	**$92,064**	**31%**	**$20**

Sporting Grounds - Capital Expenditure

Capital Expenditure Projects	Budget	Actual	Committed	A + C	% Spent	Bu Rem
Berryman Oval - Trundle (Flood Repairs) - Carpark, Tennis Courts & Pool Pump Shed **(NSW Govt)**	$636,300	$122,680	$103,374	$226,054	36%	$4
Cheney Park - Lighting Upgarde **(ClubsGrant $210.5k & PMJRL $75k)**	$285,580	$8,921	$189,205	$198,126	69%	$
	$921,880	**$131,601**	**$292,579**	**$424,180**	**46%**	**$49**

General Business

Croaker Basin
Concern expressed by those present included lack of consultation on the new design, lack of fencing around the basin, lack of turf on the existing warmup area (northside of entrance). Moved by Michael Greenwood, seconded by Andrew Daley that a council engineer be requested to attend the next meeting.

Wet Weather - Closing of Fields
Andrew Thomas asked if a protocol could be put in place to call the closure of a field due to wet weather sooner. Previously fields have been closed on the day of the game meaning that clubs travelling would already be on the way. Also the local club will lose money through unsold canteen stock. Games don't get replayed so the home game is marked as a point each. Suggest that a decision be made at 5pm on the day before the game. Anthony to set up a meeting with Tim and Geoff to discuss some guidelines and then consult with Andrew and other sporting groups on a wet weather protocol.

Recycle Water
Some discussion on the inadequate recycle water being used on sporting fields. Use of raw water is causing issues with reliability of watering with continuing alarms. Jason O'Bryan reported that the water quality is also lower when raw water is used, which causes issues with pumping calibration when dirt or minerals are caught in the sensors. Linda advised that the storage tank smells quite bad. Al was also concerned about the lack of maintenance as there was long grass around the tank.

Dogs on Sports Fields
Anthony tabled a copy of the Council report on the activities of the Rangers and Council on reducing the incidents of dogs on sporting fields. Some users reporting seeing rangers at Keast Park and have noticed a reduction in dogs on sports fields. A copy will be distributed with the minutes.

Booking - Sports Buildings
Anthony advised that Council's Facilities Managers is asking that Groups ensure that bookings are correct when using the facilities. There was 4 incidents of damage reported at two sporting fields which were then invoiced on to the group that booked the facility.

Sports Awards
All groups are encouraged to nominate someone for the a sports award. Nominations close 5 December 2025.
Australia Day Awards Scheme Parkes Shire Council

Next Meeting

9 December 2025 at 7pm.

Meeting Actions

11/11/2025	1	Guidelines for closing sporting fields due to wet weather to be reviewed mainly about weekend sport. Consultation with all sporting groups to occur.	Anthony & Tim / Geoff
11/11/2025	2	Report maintenance of Recycle Water Storage tank required, bad smell and long grass.	Anthony
11/11/2025	3	Request that Council engineer attend the next meeting to review the Croaker Basin project.	Anthony
11/11/2025	4	League have requested that council review the use of Pioneer for the Car Club event and Elvis Rugby. Asking that alternate venues be considered.	Tim

Attachments

Nil

12.7 MINUTES OF THE FLOODPLAIN MANAGEMENT COMMITTEE MEETING HELD ON 13 NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our local government is open, accountable and transparent.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Kylie Trueber, Risk and Emergency Management Coordinator**

Authoriser: **Andrew Francis, Director Infrastructure and Sustainability**

Annexures: **A. Minutes of Floodplain Management Committee Meeting** ⇩

RECOMMENDATION

That Council:

1. Receive and confirm the Minutes of the Floodplain Management Committee Meeting held on Thursday 13 November 2025 appended at *Annexure A*.

Minutes of the Floodplain Management Committee Meeting

Date	13 November 2025
Time	3:00 PM - 5:00 PM
Location	Microsoft Teams Meeting; Committee Room
Present	Kylie Trueber, Tony McPhail, Cr George Pratt, Andrew Francis, James Buchanan, Peter Kelly, Annalise Teale, Taylah Burt, Marisa Malherbe, Tanvir Ahmed, James Harris
Absent	Cr Marg Applebee
Note Taker	Taylah Burt

Agenda

1 - Apologies

Participated: Cr George Pratt

The meeting noted the apologies received, with Marj Appleby being the sole apology mentioned. This item was brief and served to account for members who were unable to attend the meeting.

3 - Confirmation of Minutes

The minutes from the previous meeting were confirmed. A mover and seconder were requested and provided, ensuring that the minutes were officially approved. This procedural step ensures the accuracy and record-keeping of past discussions and decisions.

2025-08-13 - Floodplain Management Committee Meeting - Minutes.pdf

4 - Business Arising

No specific business arising from the previous minutes was discussed. This agenda item was addressed briefly, indicating that there were no outstanding issues or follow-ups required from the last meeting.

5 - Declarations of Interest

Participated: Cr George Pratt

No declarations of interest were made by the members present. This item ensures transparency and that no conflicts of interest exist among the committee members regarding the matters to be discussed.

6 - Items of Business

The committee moved on to the main items of business, focusing on various flood studies and risk management plans. The chair proposed a change in the order of discussions, prioritising updates from Trundle and East Parkes before addressing the Parkes Town, Bogan Gate and Cookamidgera studies.

Update from East Parkes after the working group meeting the afternoon prior, the members have requested to have Frequency Modelling completed to review prior to the adoption of the study. Once all information has been received, the secretary will call another FMC to discuss the output and the review of the Study for endorsement.

Update from Trundle Flood Feasibility Study, the Safety in Design meeting has been held, the final report is due to Council 8 December for inclusion in the December meeting, the report will be sent to the FMC for review and endorsement via email.
Andrew spoke to Peter Kellys query at the community consultation afternoon regarding a levee bank, and advised that this would take a variation to the modelling, which is not able to be completed under this funding, as it was not noted in the original risk mitigation study and plan, but has gave assurance that this will be looked at when able to once the current study has been completed.

6.1 - Bogan Gate Flood Risk Management Study and Plan

James B raised a clarifying question regarding vegetation management, specifically about sediment removal. It was agreed that sedimentation should be included in the vegetation management plan to avoid limiting the scope of potential works. Additionally, there was discussion about the required funding for infrastructure improvements, particularly concerning ARTC's coordination's. The committee discussed and endorsed the Bogan Gate Flood Risk Management Study and Plan. The discussion highlighted the importance of including specific measures for vegetation and sedimentation management and clarified the funding coordination for infrastructure improvements. The committee's endorsement allows the plan to proceed to council for formal adoption.

Decision: The committee endorsed the Bogan Gate Flood Risk Management Study and Plan to go to council for adoption.
Task: Include specific measures for vegetation and sedimentation management.
Task: Clarify funding coordination for infrastructure improvements.
Task: Include a shelter-in-place addendum in the final report as an addendum after council adoption.

6.3 - Cookamidgera Flood Study

The Cookamidgera Flood Study was reviewed by the committee. There were no significant questions or objections raised, indicating general concurrence with the study's findings and recommendations. The committee moved to endorse the Cookamidgera Flood Risk Management Study and Plan for adoption by the council. The motion was moved and seconded, with unanimous approval. The committee noted the need to include a shelter-in-place addendum, similar to the Bogan Gate study, as recommended by the Department.

Decision: The committee endorsed the Cookamidgera Flood Risk Management Study and Plan for adoption by the council.
Task: Include a shelter-in-place addendum in the Cookamidgera Flood Risk Management Study and Plan.

6.4 - Cookamidgera Flood Risk Management Study and Plan

The Cookamidgera Flood Risk Management Study and Plan was reviewed by the committee. There were no significant questions or objections raised, indicating general concurrence with the study's findings and recommendations. The committee moved to endorse the Cookamidgera Flood Risk Management Study and Plan for adoption by the council. The committee noted the need to include a shelter-in-place addendum, similar to the Bogan Gate study, as recommended by the Department. The committee's endorsement allows the plan to proceed to council for formal adoption.

Decision: The committee endorsed the Cookamidgera Flood Risk Management Study and Plan for adoption by the council.
Task: Include a shelter-in-place addendum in the final report as an addendum after council adoption.

6.5 - Parkes Town Centre Flood and Drainage Study

The Parkes Town Centre Flood and Drainage Study was discussed, with the final report ready for endorsement. The committee reviewed the report and noted that only minor administrative changes were required, such as spelling and grammar corrections. There were no significant changes to the technical content of the report. The committee agreed to review the final report and provide any additional comments before it is issued. The report's adoption will be aimed for the December council meeting, pending final review by the committee members.

Decision: The committee agreed to review the final report and provide any additional comments before it is issued.
Task: Review the final report and provide any additional comments before it is issued.

7 - General Business

Participated: Cr George Pratt

General business was discussed briefly, with members requesting copies of the Trundle and East Parkes studies for review. The committee acknowledged the need for a potential meeting before the next scheduled quarterly meeting to review and adopt additional reports. The importance of timely review and endorsement via email was emphasised to ensure that reports can be submitted to council without delay.

Task: Request copies of the Trundle and East Parks studies for review.
Task: Coordinate a potential meeting before the next scheduled quarterly meeting to review and adopt additional reports.
Task: Ensure timely review and endorsement via email to submit reports to council without delay.

8 - Next Meeting Date

The next meeting date has yet to be confirmed, but will be in February 2026. The committee discussed the possibility of needing an additional meeting before this date to review and adopt reports, depending on the timing of final report submissions and the necessary review process. The importance of coordinating with consultants and ensuring timely feedback was highlighted to maintain progress on flood management initiatives.

13 REPORTS OF THE GENERAL MANAGER

13.1 INVESTMENTS AND BORROWINGS REPORT AS AT 31 OCTOBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is sustainable and plans for the future.

Strategy: Operate in a financially sustainable and responsible manner.

Author: **Luke Nash, Executive Manager Finance**

Authoriser: **Jaco Barnard, Chief Financial Officer**

Annexures:
A. PSC - Investment Register - 31 October 2025 ⇩
B. PSC - Loans Register - 31 October 2025 ⇩

RECOMMENDATION

That Council:

1. Receive and note the Statement of Investments and Borrowings as on 31 October 2025

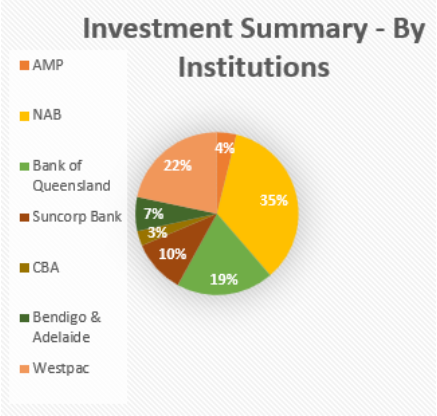
BACKGROUND

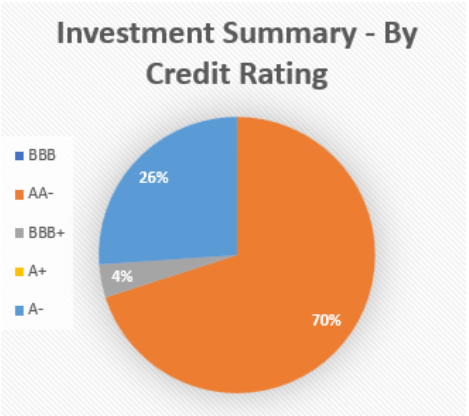
In accordance with clause 212 of the Local Government (General) Regulation 2021 ("the Regulations"), the Responsible Accounting Officer must provide Parkes Shire Council ("Council") with a monthly written report setting out details of Council's investments under section 625 of the Local Government Act 1993 ("the Act"). The report must also include certification that these investments have been made in accordance with the Act, the Regulations and Council's Investment Policy.

ISSUES AND COMMENTARY

The balance of Council's investments as of 31 October 2025 stands at $51,741,094 and the principal outstanding on council's borrowings at $19,747,856. Council's investments decreased slightly by $0.14 million in October, driven by an increase in outflows associated with the capital works program.

On 31 October 2025, Council's investment portfolio continues to yield 4.78 per cent per annum. The strong performance of the portfolio continues to be driven by several longer-dated deposits that were originally invested beyond 9-12 months. Council's investments cover externally restricted cash reserves and internal restricted cash reserves. The following charts depict a summary of the investments held by Council based on the individual institutional exposure and credit rating of the institutions with which they are held.





LEGISLATIVE AND POLICY CONTEXT

Council's investments are held in accordance with Council's Investment Policy which accords with the requirements of the:

- Local Government Act 1993 ("the Act") - Section 625
- Local Government Act 1993 - Order (of Minister) dated 16 November 2020
- The Trustee Amendment (Discretionary Investments) Act 1997 - Sections 14A(2), 14C(1) and (2); and
- Local Government (General) Regulation 2021 ("the Regulation") - Clauses 212 and 215.

FINANCIAL IMPLICATIONS

All returns on investments are included in Council's Operating Budget. Any amendment to budgeted interest income is affected through the Quarterly Budget Review process. Both the average level of funds invested, and the rate of return determine returns. In accordance with the Australian equivalent of International Accounting Standards, securities that are classified as held for trading are required to be valued at market value at each balance date. Investments in the form of cash or cash equivalents and held to maturity investments are valued at cost. Floating Rate Notes acquired on the secondary market are valued at cost. Where the purchase consideration is different to face value, the resulting premium or discount are amortised on a straight-line basis over the life of the Note.

RISK IMPLICATIONS

Council's investments are managed in accordance with Council's Investment Policy. As at the end of October, all counterparties were within the Policy limits. Overall, the portfolio is diversified amongst the investment grade spectrum with no exposure to unrated ADI's.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

CONCLUSION

The Chief Financial Officer has certified that the investments listed in the Investment Summary have been made in accordance with section 625 of the Act, clause 212 of the Regulation and Council's Investment Policy. Council's investments continue to focus on capital protection, as well as compliance with the Investment Policy, whilst actively seeking the best return allowable within these parameters. It is recommended that Council receive and note the Statement of Investments and Borrowings as on 31 October 2025.

Parkes Shire Council
Investment Register as at 31 October 2025

ADI/Issuer	Rating	Investment Type	Principal	Yield	Settlement Date	Maturity Date
Bank of Queensland	A-	Term Deposit	2,000,000	4.44	15/05/2025	17/11/2025
Suncorp Bank	AA-	Term Deposit	1,000,000	4.98	23/01/2025	24/11/2025
NAB	AA-	Term Deposit	1,500,000	5.10	27/11/2024	27/11/2025
Suncorp Bank	AA-	Term Deposit	1,000,000	4.58	29/04/2025	28/11/2025
Bank of Queensland	A-	Term Deposit	1,500,000	4.29	29/05/2025	28/11/2025
NAB	AA-	Term Deposit	500,000	4.15	22/07/2025	19/12/2025
AMP	BBB+	Term Deposit	2,000,000	4.25	15/07/2025	15/01/2026
Bendigo & Adelaide	A-	Term Deposit	1,500,000	4.19	17/07/2025	19/01/2026
Bank of Queensland	A-	Term Deposit	1,500,000	4.34	19/05/2025	19/01/2026
Suncorp Bank	AA-	Term Deposit	1,500,000	4.41	19/06/2025	19/01/2026
NAB	AA-	Term Deposit	2,000,000	4.10	21/08/2025	21/01/2026
NAB	AA-	Term Deposit	1,000,000	4.30	15/05/2025	16/02/2026
NAB	AA-	Term Deposit	1,000,000	4.30	19/05/2025	19/02/2026
Suncorp Bank	AA-	Term Deposit	1,500,000	4.41	19/06/2025	19/02/2025
Suncorp Bank	AA-	Term Deposit	500,000	4.41	19/06/2025	19/02/2026
Bank of Queensland	A-	Term Deposit	2,000,000	4.14	28/08/2025	27/02/2026
NAB	AA-	Term Deposit	2,000,000	4.20	21/07/2025	27/02/2026
NAB	AA-	Term Deposit	2,500,000	4.10	21/08/2025	23/03/2026
Bank of Queensland	A-	Term Deposit	1,500,000	4.24	9/10/2025	9/04/2026
Bank of Queensland	A-	Term Deposit	1,500,000	4.19	23/10/2025	23/04/2026
NAB	AA-	Term Deposit	2,000,000	4.05	28/08/2025	28/05/2026
NAB	AA-	Term Deposit	3,000,000	4.10	30/06/2025	29/05/2026
Bendigo & Adelaide	A-	Term Deposit	2,000,000	3.89	29/08/2025	29/06/2026
NAB	AA-	Term Deposit	1,000,000	4.10	21/08/2025	21/08/2026
NAB	AA-	Term Deposit	1,500,000	4.15	29/10/2025	29/10/2026
CBA	AA-	Floating Rate Note	1,520,370	4.74	11/01/2022	14/01/2027
Westpac	AA-	Cash at Call - Main	2,720,719		***At Call***	
Westpac	AA-	Cash at Call - Maxi	8,500,005		***At Call***	
Total			**51,741,094**			

Investment Balances by Type			
Term Deposit	39,000,000		
Floating Rate Note	1,520,370	**40,520,370**	***Investments***
Cash at Call - Main	2,720,719		
Cash at Call - Maxi	8,500,005	**11,220,724**	***Cash***
Total Balance - 31/10/2025	**51,741,094**		

I, Jaco Barnard, Parkes Shire Council Chief Financial Officer, certify as required under Section 212 of the Local Government Regulations 2021, that Council's investments have been made in accordance with the Local Government Act 1993 and Parkes Shire Council Investment Policy.

Signed: *Jaco Barnard*

Parkes Shire Council Loan Register as at 31 October 2025							
Borrower (by Purpose)	**Lender**	**System Loan No.**	**Loan Term Years**	**Date of Maturity**	**Interest Rate**	**Original Amount Borrowed $**	**Principal Outstanding as 31 October 2025**
General Fund							
Airport Runway Rehabilitation	NAB	1	20	2030	8.21%	$ 2,000,000	759,613.17
30 Welcome Street	NAB	3	20	2030	8.21%	$ 500,000	189,903.29
Henry Parkes Centre	NAB	4	20	2030	8.01%	$ 950,000	389,612.65
Community Infrastructure, Drainage Projects and IT	TCorp	10	10	2026	3.485%	$ 2,220,000	2,220,000.00
Transport Infrastructure	TCorp	11	10	2028	3.670%	$ 3,000,000	3,000,000.00
Land Development	TCorp	12	10	2044	5.730%	$ 4,000,000	3,889,046.28
Total General Fund						**$ 12,670,000**	**10,448,175.39**
Sewer Fund							
Parkes Sewer Treatment Plant	TCorp	7	10	2026	2.90	$ 4,000,000	4,000,000.00
Total Sewer Fund						**$ 4,000,000**	**4,000,000.00**
Water Fund							
Parkes Water Treatment Plant	TCorp	9	20	2036	3.045	$ 8,500,000	5,299,680.24
Total Water Fund						**$ 8,500,000**	**5,299,680.24**
Total All Funds						**$ 25,170,000**	**19,747,855.63**

13.2 MONTHLY FINANCIAL REPORTS AS AT 31 OCTOBER 2025

IP&R Linkage: **Pillar:** Leadership
Goal: Our Local Government is sustainable and plans for the future.
Strategy: Operate in a financially sustainable and responsible manner.

Author: **Luke Nash, Executive Manager Finance**

Authoriser: **Jaco Barnard, Chief Financial Officer**

Annexures: **A. Annexure A - Director's Report October 2025** ⇩

RECOMMENDATION

That Council:

1. Receive and note the year-to-date financial reports for the period up to 31 October 2025.

BACKGROUND

The NSW Local Government Act section 8B establishes principles of sound financial management as follows:

a) Council spending should be responsible and sustainable, aligning general revenue and expenses.
b) Councils should invest in responsible and sustainable infrastructure for the benefit of the local community.
c) Councils should have effective financial and asset management, including sound policies and processes for the following:
    (i) performance management and reporting,
    (ii) asset maintenance and enhancement,
    (iii) funding decisions,
    (iv) risk management practices.
d) Councils should have regard to achieving intergenerational equity, including ensuring the following:
    (i) policy decisions are made after considering their financial effects on future generations,
    (ii) the current generation funds the cost of its services (which also means the current generation should not bear costs for benefit of future generations

This report monitors the progress of the 2025-26 operational budget, which programs the plan to achieve the actions, and strategic objectives set within Council's delivery plan.

ISSUES AND COMMENTARY

Council has achieved a favourable consolidated net operating result of $8.2m at the end of October which is in line with the budget. The general fund reflected a profit of $8.9m, the water fund reflected a loss of $285k while the sewer fund reflected a loss of $426k. The year-to-date income was $2.8m more than budgeted, while the cash expenses were $162k more than budgeted.

Depreciation was $2.1m more than budget due to the road assets revaluation which was done in the 2024/25 financial year.

Annexure A provides more detailed commentary into the financial performance of the organisation for the period ending 31 October 2025 compared to the adopted budget.

LEGISLATIVE AND POLICY CONTEXT

Local Government Act (section 8B)

FINANCIAL IMPLICATIONS

The monthly financial report presented a comparison between actuals vs. budget for the period ending 31 October 2025.

RISK IMPLICATIONS

Council's budgets are monitored in accordance with the adopted operational plan and long-term financial plan. It is essential for council to monitor programs against budget to avoid depending on savings from other programs and to utilise reserves that had been set aside for other specific purposes.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

CONCLUSION

Council continues to place a strong emphasis on cost reductions to ensure that favourable budget results can be maintained, internal management reporting and strengthened purchasing controls are assisting to deliver improved financial performance.

PSC Income Statement 2025/2026
October Year to Date

	Consolidated			General Fund			Water Fund			Sewer Fund			
	Act $'000	Budget $'000	Variance $'000	Act $'000	Budget $'000	Variance $'000	Act $'000	Budget $'000	Variance $'000	Act $'000	Budget $'000	Variance $'000	Financial Commentary
Rates and annual charges	23,800	23,932	(132)	20,693	20,661	32	2,008	2,050	(42)	1,099	1,221	(122)	Waste (+$55k), Sewer Access (-$122k)
User charges and fees	4,120	3,109	1,011	2,164	1,185	979	1,801	1,745	56	155	179	(24)	Waste (+$370k) Asbestos and Inland rail, RMCC (+$191k), FDCare (+$231k), Water NPM (+$238k) Residential (-$171k)
Interest and investment revenue	746	362	384	650	183	467	74	119	(46)	23	60	(37)	Higher cash balance due to grants and increase in interest rates.
Other revenues	793	492	301	762	456	305	31	28	4	0	8	(8)	Elvis sponsorship (+$344k)
Grants and contributions provided for opex	2,930	1,610	1,320	2,930	1,610	1,320	0	0	0	0	0	0	Fresh Start (+$123k), FDCare (+$184k), FAGs (+$1.1m), Stronger CC (+$69k), Regional Housing (-$25k), Regional Drought Program (-$37k)
Income	**32,390**	**29,505**	**2,885**	**27,199**	**24,096**	**3,103**	**3,914**	**3,942**	**(28)**	**1,277**	**1,467**	**(190)**	
Employee Cost	7,569	6,880	(689)	6,423	5,860	(563)	609	550	(59)	537	470	(67)	Works & Services (-$472k), Water (-$59k), Sewer (-$67k)
Materials & Consumables	750	1,289	539	637	979	341	72	167	95	41	143	103	Road maintenance (+$62k), Pool (-$38k), Water (+$95k) Sewer (+$103k)
External Services	4,852	4,342	(510)	4,284	3,632	(651)	489	411	(78)	79	299	219	Governance (-$52k), Econ Dev (-$53k), Events (+$178k), Road maintenance (-$356k), FDCare (-$336k), Pool (-$120k), Water (-$78k), Sewer (+$219k)
Water, Electricity & Statutory	1,183	1,167	(16)	596	360	(237)	556	727	171	30	80	50	Rates (-$319k), Water (+$49k)
IT & Communications	16	104	88	14	102	89	0	2	2	2	0	(2)	
Insurance	346	310	(36)	346	310	(36)	0	0	0	0	0	0	
Administration	1,445	1,123	(322)	1,221	982	(239)	191	131	(60)	32	10	(22)	Governance (-$52k), Timing of IT subscriptions (-$155k), Fleet & Depot (-$107k)
Travel & Entertainment	40	86	45	36	79	42	3	5	2	1	2	0	
Financials	85	175	89	85	175	89	0	0	0	0	0	0	Unwinding of discount (+$75k)
Internal Charges	(762)	(706)	56	(1,625)	(1,565)	59	546	569	23	317	290	(26)	
Interest Paid	273	267	(7)	175	173	(2)	57	55	(2)	41	39	(2)	
Cost of Assets Sold	281	240	(41)	251	240	(11)	31	0	(31)	0	0	0	Profit due to vehicle sales.
Sale Proceeds of Assets	(803)	(161)	642	(740)	(161)	579	(63)	0	63	0	0	0	
Expenses	**15,277**	**15,114**	**(162)**	**11,704**	**11,166**	**(539)**	**2,492**	**2,616**	**125**	**1,080**	**1,333**	**252**	
Cash profit for the year	**17,114**	**14,391**	**2,723**	**15,495**	**12,930**	**2,565**	**1,423**	**1,326**	**97**	**196**	**134**	**62**	
Depreciation	**8,917**	**6,803**	**(2,114)**	**6,587**	**4,643**	**(1,945)**	**1,708**	**1,576**	**(131)**	**622**	**584**	**(38)**	Increase due to revaluation of roads assets.
Net Operation result as at October	**8,196**	**7,588**	**609**	**8,908**	**8,288**	**620**	**(285)**	**(251)**	**(35)**	**(426)**	**(450)**	**24**	

13.3 QUARTERLY BUDGET REVIEW AS AT 30 SEPTEMBER 2025

IP&R Linkage: **Pillar:** Leadership
Goal: Our Local Government is sustainable and plans for the future.
Strategy: Operate in a financially sustainable and responsible manner.

Author: **Luke Nash, Executive Manager Finance**

Authoriser: **Jaco Barnard, Chief Financial Officer**

Annexures: **A. Quarterly Budget Review - 30 September 2025** ⇩

RECOMMENDATION

That Council:

1. Receive and note the budget review report to 30 September 2025
2. Adopt the budget variations proposed in the quarterly budget review to 30 September 2025

BACKGROUND

In accordance with Clause 203 of the Local Government (General) Regulation 2005 not later than two months after the end of each quarter (except the June Quarter), the Responsible Accounting Officer must submit to Council a statement that shows by reference to the estimate of income and expenditure set out in the management plan that Council has adopted for the current year, a revised estimate of the income and expenditure for that year. The Office of Local Government (OLG) has updated its guidelines and provided a standardised reporting format in the August 2025 issue.

ISSUES AND COMMENTARY

Council's original net operating budgeted result for the year ending 30 June 2026 was a deficit of ($2.97 million). This comprised an operating loss of ($3.99 million) in the General Fund, partially offset by positive operating results of $0.93 million in the Water Fund and $0.09 million in the Sewer Fund.

During the first quarter, Council identified variations to the original budget and is now projecting a revised net operating deficit of ($9.23 million) for the year ending 30 June 2026. The primary contributor to this variation is an increase in depreciation expense of $6.35 million.

A comprehensive revaluation of Council's transport asset classes has resulted in a significant increase in General Fund depreciation, rising by approximately $5.8 million. In addition, depreciation within the Water and Sewer Funds has been affected by asset indexation and the transfer of assets from the Regional Growth Development Corporation (RGDC) as part of the Parkes Special Activation Precinct.

It should be noted that, although depreciation is a non-cash expense, it has a material impact on Council's operating result from continuing operations.

In addition to the major variations outlined above, several minor budget adjustments have been identified. The table below summarises the proposed budget variations for inclusion in the Quarterly Budget Review for the quarter ending 30 September 2025.

Fund	Reporting Category	Budget Variation Amount	Reason for Proposed Variation
General	Income – Interest and Investment Revenue	180,000	The increase in interest revenue reflects both a higher level of investment holdings and stronger interest rate returns than those assumed in the original budget.
Water	Income – Interest and Investment Revenue	90,000	
Sewer	Income – Interest and Investment Revenue	30,000	
General	Income – Other Revenue	380,000	Council successful in receiving additional funding through Destination NSW for the 2026 Parkes Elvis Festival
General	Income - User Fees & Charges	663,000	Recognition of costs associated with providing family day care services, costs are offset by levies charged to families and funding received
General	Income – Grants and Contributions provided for Operating Purposes	350,000	
General	Expense – Materials & Services	1,013,000	
General	Expense – Materials & Services	120,000	Increase in expenditure compared to budget estimates for the management contract of Parkes Shire Swimming Facilities
General	Expense – Materials & Services	320,000	Recognition of land rates applicable to Council-owned land and buildings.
Water	Expense – Materials & Services	12,000	
General	Expense – Materials & Services	142,000	Increase in expenditure associated with the development of Parkes Shire Council Flood Management Plans.
General	Expense – Depreciation	5,835,000	Increase in depreciation expenses following the revaluation of transport asset classes during the 2024-25 FY and annual indexation of assets.
Water	Expense – Depreciation	395,000	Increase in depreciation expenses following the indexation of assets and recognition of assets transferred from Regional Growth Development Corporation (Parkes SAP) during the 2024-25 FY.
Sewer	Expense – Depreciation	115,000	Increase in depreciation due to asset indexation recorded during the 2024-25 FY.
General	Expense – Material & Services	($235,000)	Recognition of internal overheads allocated to Water & Sewer Funds associated with fleet maintenance & servicing activities.
Water	Expense – Material & Services	120,000	
Sewer	Expense – Material & Services	115,000	

LEGISLATIVE AND POLICY CONTEXT

Local Government (General) Regulation 2005 Clause 203. The quarterly budget review monitors the progress of the 2025/26 operational budget, which programs the plan to achieve the actions, and strategic objectives set within Council's progressive delivery plan.

FINANCIAL IMPLICATIONS

The quarterly budget review for has been presented from a comparison between actuals vs. budget and budget forecast for each fund across council to 30 September 2025.

RISK IMPLICATIONS

Council's budgets are monitored in accordance with the adopted operational plan and long-term financial plan. It is essential for council to monitor programs against budget to avoid depending on savings from other programs and to utilise reserves that had been set aside for other specific purposes.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

CONCLUSION

The following statement is made in accordance with Clause 203(2) of the Local Government (General) Regulation 2005:

It is my opinion that the Quarterly Budget Review Statement for Parkes Shire Council for the quarter ended 30 September 2025 still indicates that Council's projected financial position at 30 June 2026 will be unsatisfactory at year end at a consolidated level and across general fund operations.

Quarterly Budget Review

30 September 2025

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Parkes Shire Council

Income and Expenses Budget Review Statement

Parkes Shire Council

Budget review for the quarter ended 30/09/2025

Consolidated Fund

Description	Previous Year Actual 2024/25 $000's	Current Year Original Budget 2025/26 $000's	Approved Changes Review Q 1 $000's	Approved Changes Review Q 2 $000's	Approved Changes Review Q 3 $000's	Revised Budget $000's	Recommended changes for council resolution $000's	Projected Year End (PYE) Result 2025/26 $000's	VARIANCE ORIGINAL budget v PYE 2025/26 $000's	ACTUAL YTD 2025/26 $000's
INCOME										
Rates and Annual Charges	30,886	32,557				32,557	0	32,557	0	23,471
User Charges and Fees	14,202	11,267				11,267	663	11,930	663	2,962
Other Revenue	1,600	717				717	380	1,097	380	665
Grants and Contributions - Operating	13,955	15,569				15,569	350	15,919	350	2,522
Grants and Contributions - Capital	36,334	51,600				51,600	0	51,600	0	2,891
Interest and Investment Income	2,147	1,087				1,087	300	1,387	300	554
Other Income	670	589				589	0	589	0	113
Net gain from disposal of assets	1,489	764				764	0	764	0	134
Total Income from continuing operations	**101,283**	**114,150**	**0**	**0**	**0**	**114,150**	**1,693**	**115,843**	**1,693**	**33,312**
EXPENSES										
Employee benefits and on-costs	21,610	20,641				20,641	0	20,641	0	5,950
Materials & Services	23,802	22,887				22,887	1,607	24,494	1,607	3,880
Borrowing Costs	1,046	800				800	0	800	0	210
Other Expenses	1,024	780				780	0	780	0	166
Net Loss from Disposal of Assets	0	0				0	0	0	0	0
Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**47,482**	**45,108**	**0**	**0**	**0**	**45,108**	**1,607**	**46,715**	**1,607**	**10,206**
Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**53,801**	**69,042**	**0**	**0**	**0**	**69,042**	**86**	**69,128**	**86**	**23,106**
Depreciation, amortisation and impairment of non financial assets	20,469	20,410				20,410	6,345	26,755	6,345	6,654
Operating result from continuing Operations	**33,332**	**48,632**	**0**	**0**	**0**	**48,632**	**-6,259**	**42,373**	**-6,259**	**16,452**
Net Operating Result before grants and contributions provided for capital purposes	**-3,002**	**-2,968**	**0**	**0**	**0**	**-2,968**	**-6,259**	**-9,227**	**-6,259**	**13,561**

Income and Expenses Budget Review Statement

Parkes Shire Council

Budget review for the quarter ended 30/09/2025

General Fund

Description	Previous Year Actual 2024/25 $000's	Current Year Original Budget 2025/26 $000's	Approved Changes Review Q 1 $000's	Approved Changes Review Q 2 $000's	Approved Changes Review Q 3 $000's	Revised Budget $000's	Recommended changes for council resolution $000's	Projected Year End (PYE) Result 2025/26 $000's	VARIANCE ORIGINAL budget v PYE 2025/26 $000's	ACTUAL YTD 2025/26 $000's
INCOME										
Rates and Annual Charges	19,524	20,803				20,803	0	20,803	0	20,697
User Charges and Fees	6,882	4,324				4,324	663	4,987	663	1,313
Other Revenue	1,294	816				816	380	1,196	380	665
Grants and Contributions - Operating	13,902	15,569				15,569	350	15,919	350	2,522
Grants and Contributions - Capital	20,835	24,252				24,252	0	24,252	0	1,914
Interest and Investment Income	1,355	550				550	180	730	180	457
Other Income	670	490				490	0	490	0	88
Net gain from disposal of assets	1,447	764				764	0	764	0	122
Total Income from continuing operations	**65,909**	**67,568**	**0**	**0**	**0**	**67,568**	**1,573**	**69,141**	**1,573**	**27,778**
EXPENSES										
Employee benefits and on-costs	18,550	17,581				17,581	0	17,581	0	5,062
Materials & Services	16,741	14,497				14,497	1,360	15,857	1,360	1,900
Borrowing Costs	622	520				520	0	520	0	134
Other Expenses	987	780				780	0	780	0	166
Net Loss from Disposal of Assets	0	0				0	0	0	0	
Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**36,900**	**33,378**	**0**	**0**	**0**	**33,378**	**1,360**	**34,738**	**1,360**	**7,262**
Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**29,009**	**34,190**	**0**	**0**	**0**	**34,190**	**213**	**34,403**	**213**	**20,516**
Depreciation, amortisation and impairment of non financial assets	13,780	13,928				13,928	5,835	19,763	5,835	4,910
Operating result from continuing Operations	**15,229**	**20,262**	**0**	**0**	**0**	**20,262**	**-5,622**	**14,640**	**-5,622**	**15,606**
Net Operating Result before grants and contributions provided for capital purposes	**-5,606**	**-3,990**	**0**	**0**	**0**	**-3,990**	**-5,622**	**-9,612**	**-5,622**	**13,692**

Income and Expenses Budget Review Statement

Parkes Shire Council

Budget review for the quarter ended 30/09/2025

Water Fund

Description	Previous Year Actual 2024/25 $000's	Current Year Original Budget 2025/26 $000's	Approved Changes Review Q 1 $000's	Approved Changes Review Q 2 $000's	Approved Changes Review Q 3 $000's	Revised Budget $000's	Recommended changes for council resolution $000's	Projected Year End (PYE) Result 2025/26 $000's	VARIANCE ORIGINAL budget v PYE 2025/26 $000's	ACTUAL YTD 2025/26 $000's
INCOME										
Access Charges	6,572	6,829				6,829	0	6,829	0	1,661
User Charges	6,531	6,241				6,241	0	6,241	0	1,490
Fees	0	0				0	0	0	0	0
Grants & Contributions - Operating	53	0				0	0	0	0	0
Interest and Investment Income	554	358				358	90	448	90	77
Other Income	228	80				80	0	80	0	25
Net gain from disposal of assets	0	0				0	0	0	0	12
Total Income from continuing operations	**13,938**	**13,508**	**0**	**0**	**0**	**13,508**	**90**	**13,598**	**90**	**3,265**
EXPENSES										
Employee benefits and on-costs	1,538	1,651				1,651	0	1,651	0	478
Materials & Services	4,936	5,544				5,544	132	5,676	132	1,413
Borrowing Costs	231	164				164	0	164	0	45
Water purchase charges	423	490				490	0	490	0	191
Calculated taxaxtion equivalents	0	0				0	0	0	0	0
Debt guarantee fee	0	0				0	0	0	0	0
Other Expenses	21	0				0	0	0	0	0
Net Loss from Disposal of Assets	0	0				0	0	0	0	0
Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**7,149**	**7,849**	**0**	**0**	**0**	**7,849**	**132**	**7,981**	**132**	**2,127**
Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**6,789**	**5,659**	**0**	**0**	**0**	**5,659**	**-42**	**5,617**	**-42**	**1,138**
Depreciation, amortisation and impairment of non financial assets	4,880	4,729				4,729	395	5,124	395	1,277
Surplus / (Deficit) from continuing operations before capital amounts	**1,909**	**930**	**0**	**0**	**0**	**930**	**-437**	**493**	**-437**	**-139**
Grants and Contributions - Capital	12,893	22,738				22,738	0	22,738	0	801
Surplus / (Deficit) from continuing operations after capital amounts	**14,802**	**23,668**	**0**	**0**	**0**	**23,668**	**-437**	**23,231**	**-437**	**662**

Income and Expenses Budget Review Statement

Parkes Shire Council

Budget review for the quarter ended 30/09/2025

Sewer Fund

Description	Previous Year Actual 2024/25 $000's	Current Year Original Budget 2025/26 $000's	Approved Changes Review Q 1 $000's	Approved Changes Review Q 2 $000's	Approved Changes Review Q 3 $000's	Revised Budget $000's	Recommended changes for council resolution $000's	Projected Year End (PYE) Result 2025/26 $000's	VARIANCE ORIGINAL budget v PYE 2025/26 $000's	ACTUAL YTD 2025/26 $000's
INCOME										
Access charges	4,790	4,925				4,925	0	4,925	0	1,113
User charges	704	614				614	0	614	0	129
Liquid trade-waste charges	85	88				88	0	88	0	30
Fees	0	0				0	0	0	0	0
Grants and contributions - Operating	0	0				0	0	0	0	0
Interest and Investment Income	238	179				179	30	209	30	20
Other Income	78	37				37	0	37	0	0
Net gain from disposal of assets	42	0				0	0	0	0	0
Total Income from continuing operations	**5,937**	**5,843**	**0**	**0**	**0**	**5,843**	**30**	**5,873**	**30**	**1,292**
EXPENSES										
Employee benefits and on-costs	1,522	1,409				1,409	0	1,409	0	410
Materials & Services	1,702	2,473				2,473	115	2,588	115	376
Borrowing Costs	193	116				116	0	116	0	31
Calculated taxation equivalents	0	0				0	0	0	0	0
Debt Guarantee fee	0	0				0	0	0	0	0
Other Expenses	16	0				0	0	0	0	0
Net Loss from Disposal of Assets	0	0				0	0	0	0	0
Total Expenses from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**3,433**	**3,998**	**0**	**0**	**0**	**3,998**	**115**	**4,113**	**115**	**817**
Operating Result from continuing operations excluding depreciation, amortisation and impairment of non financial assets	**2,504**	**1,845**	**0**	**0**	**0**	**1,845**	**-85**	**1,760**	**-85**	**475**
Depreciation, amortisation and impairment of non financial assets	1,809	1,753				1,753	115	1,868	115	467
Surplus / (Deficit) from continuing operations before capital amounts	**695**	**92**	**0**	**0**	**0**	**92**	**-200**	**-108**	**-200**	**8**
Grants and Contributions - Capital	2,606	4,610				4,610	0	4,610	0	176
Surplus /(Deficit) from continuing operations after capital amounts	**3,301**	**4,702**	**0**	**0**	**0**	**4,702**	**-200**	**4,502**	**-200**	**184**

14 REPORTS OF THE DIRECTOR CUSTOMER, CORPORATE SERVICES AND ECONOMY

14.1 MAJOR PROJECTS AND CURRENT WORKS - CUSTOMER, CORPORATE SERVICES & ECONOMY - NOVEMBER 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Effectively collaborate, engage, and communicate with our community to inform decision making and promote services, projects and initiatives.

Author: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Authoriser: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Annexures: **A. Major Projects - Customer Corporate Services and Economy - November 2025** ⇩

RECOMMENDATION

That Council:

1. Receive and note the status report of Major Projects within Parkes Shire Council's Customer, Corporate Services and Economy Directorate.

BACKGROUND

A monthly status report of Major Projects within Parkes Shire Council's Customer, Corporate Services and Economy Department is tabled to keep Council abreast of projects being undertaken across the Parkes Shire.

ISSUES AND COMMENTARY

This report presents an update on the current major projects within the Parkes Shire being managed or undertaken by Council's Customer, Corporate Services and Economy Directorate. The report outlines work that has been carried out over the past month, together with work to be done in the next month and is provided for the information of Councillors.

The Directorate Major Projects and Current Works Report is appended at *Annexure A.*

Projects listed include:

Project	*Status*	*Comment*
Parkes Elvis Festival (PEF) 2026		*Resources are low, recruiting for 2 new roles.*
The Community Improvement District (CID) Pilot Program		*Engagement is low but project is on track*
Fresh Start Program – New Cadets, Apprentices and Trainees		*18 new positions approved, recruiting for 7 apprentices and cadet planner.*
CiA Live Corporate Software System Upgrade.		*On hold*

LEGISLATIVE AND POLICY CONTEXT

There are no legislative or policy considerations for Council associated with this report.

FINANCIAL IMPLICATIONS

Projects have been allocated funding either from grants or Council funds as provided in the Operational Budget and indicated in the report.

RISK IMPLICATIONS

The Project risk status is indicated by the RAG (Red, Amber, Green) indicators as shown against each project in the report.

COMMUNITY CONSULTATION

Each project may have its own requirements for community consultation or notification in relation to the delivery of the project works.

Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

Parkes Elvis Festival (PEF) 2026

Project Status (RAG - Report):	Critical (Red) / At Risk (Amber) / On Track (Green)					
	Scope	Budget	Schedule	Resources	Risks	Benefits

	Budget	*This month*	*Total to date*	*Income Pipeline / Commitments*	*Actual + Commitments*	*Estimated total when works complete **
Income	1,093,457	0.00	457,648	391,974	849,622	1,093,457
Expenses	1,171,929	31,131	106,399	484,495	590,894	1,352,544
Totals (Loss)	(78,472)	(31,131)	351,249	(92,521)	258,728	**(259,087)**

** Expenses includes event staff salaries of 180,615.*

Project Details

The Parkes Elvis Festival 2026 is a major cultural celebration that honours Elvis Presley's legacy while delivering substantial economic and community benefits to the region. Drawing thousands of visitors annually, the festival boosts local tourism and business activity through a diverse program of performances, competitions, workshops, and community events. Its success relies on strong stakeholder engagement, including sponsors, local businesses, artists, and government bodies, alongside a strategic marketing plan aimed at maximizing audience reach through digital and media channels.

Operational excellence is central to the festival's delivery, encompassing logistics, venue management, licensing, and risk mitigation. Coordinated event execution ensures smooth scheduling and staffing, while post-event evaluation provides insights for future improvements. Key outcomes include a vibrant and inclusive program, secured partnerships, effective marketing, and a comprehensive post-event report. The festival not only enhances regional tourism and economic growth but also strengthens cultural identity and community spirit. A wide network of stakeholders—from volunteers, council staff and attendees—plays a vital role in shaping the festival's enduring success.

Task Completed

- Strategic Theme Selected: "Love Me Tender" confirmed as the official 2026 Festival theme, guiding program, brand, and marketing development.
- Stakeholder Debriefs Completed: Post-PEF 2025 debriefs held with major sponsors, delivery partners, and internal teams to inform planning and improvements.
- Project Governance Activated
- Internal Improvement Actions Underway: High-priority recommendations from the Elvis Festival Review are being integrated into delivery planning
- Festival Program Framework Initiated: Over 20 artist and performances currently in the pipeline
- Stakeholder Engagement Initiated: Portfolio Holders, NSW Trainlink, venue managers
- Detailed budget and financial plan developed
- DNSW Event Investment Proposal Submitted
- Sponsorship and Partnership Strategy PEF 2026 developed
- Develop a marketing and promotion strategy
- Procurement workflow
- PEF Website live on 1 July 2025
- Created a Sponsorship and Funding Prospectus
- Festival Launch held and tickets are now on sale

- Volunteer program strategy developed
- Programming for the event now finalised
- Marketing campaign plan submitted to DNSW

Tasks forecast to be completed (next steps: 1 month)

- Risk management and safety planning
- Final production meetings
- Submit permit and licence applications

Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

- Finalise operational requirements

Current Works

The approvals for the UETA heats and Finals have now been finalised, with tickets now on sale (finals sold out!). In addition, at joint marketing agreement has been reached with Fane to promote the festival with the Pricsilla Presley Life After Elvis tour later in November.

The resignation of Senior Events and Partnership Specialist last month places the additional funding required for the project through sponsorship and advertising at risk and not realised. This has also left a further gap in resourcing to effectively manage the milestones required for payment for the DNSW and TfNSW agreements respectively. A casual staff member from tourism is currently being utilised to facilitate further conversations with businesses for sponsorship and partnership opportunities while the new fixed-term Events Assistant is reviewing our contractual obligations with any current agreements.

Recruitment for the two Events Officer roles is underway, with external applications now being accepted. Bronte Thompson has been successful in obtaining a 4-month secondment within the events team and now working full time alongside the festival director and current events trainee on the deliverables. Significant support is still required to train new key personnel and additional resources onboarding and training will be required for the successful applicants upon appointment during the critical stages of pre festival delivery.

An expression of interested process with existing staff yielded 56 staff, however, more will be needed to deliver the festival. Discussions are continuing between operations and the Festival Producer.

Other staff are involved and are assisting with aspects such as merchandising, contracts, logistics, staff scheduling, etc where possible, whilst also working in their substantive roles.

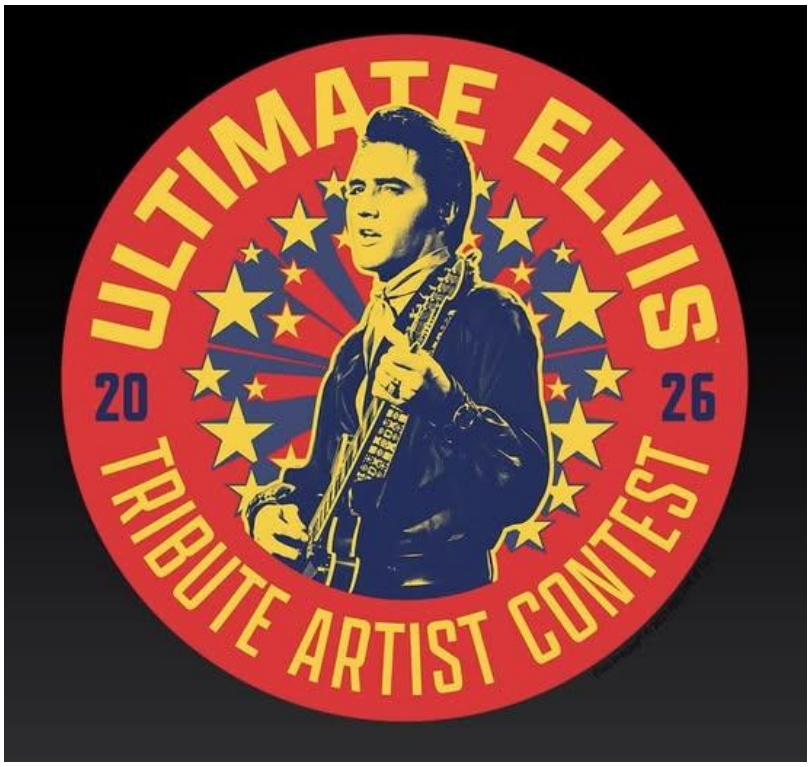
Estimated budget expenses are being costed at the upper limit and will be adjusted once further quotes come in for review and approval. Progress ticket sales are listed under 'Income Pipeline' because 123Tix are holding the money until the event is held. The income total *excludes* the ticket fee. Parkes Toyota have agreed to be a sponsor and will be providing vehicles for event staff to transport our international and headline acts. Any sponsors listed below have agreed to participate but have not yet been invoiced:

Pipeline Income Item	*Income*
Leagues Club Shows (inc. UETA)	283,747
Miss Priscilla Dinner	7,138
Trainlink Elvis Express	75,749
Rex Hound Dog Express (from 10/11/2025)	0
Camping (council venues)	18,340
Sponsor (not invoiced)	0
Total:	**384,974**

Marketing campaign now submitted to DNSW, and the Main Stage Artist and Contracts deadlines extended in line with programming deadline. Accommodation finalisation is ongoing and major festival components deadline updated 15th of November.

Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

Progress Photos



Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

The Community Improvement District (CID) Pilot Program

Project Status (RAG - Report):	Critical (Red)/ At Risk (Amber) /On Track (Green)					
	Scope	Budget	Schedule	Resources	Risks	Benefits

Approved Budget	*Expenditure this month*	*Total Expenditure to date*	*Outstanding Commitments*	*Actual + Commitments*	*Estimated total when works complete*
300,000 (Ops)	68,620.25	100,859.79	70,147.19	167,188.98	300,000
60,000 (Cap)	0	0	0		60,000

Project Details

The Parkes Community Improvement District (CID) Pilot Program is a NSW Government–funded initiative aimed at testing business-led, place-based revitalisation in the Parkes CBD. Parkes Shire Council is one of a limited number of participants across NSW, with $360,000 in funding to deliver a comprehensive two-year pilot exploring governance, engagement, planning, branding, and activation.

Scope and Deliverables
The program delivers a blend of non-physical and physical interventions:

Non-Physical Deliverables include
- the development of a **CBD Vibrancy Strategy** (via an external consultant),
- creation of a **governance model**,
- a suite of training and development **workshops for local businesses**, and
- accessible **branding assets** that businesses can adopt and adapt.

Physical Deliverables include
- a **temporary lighting** installation,
- delivery of a **place-based community event**, and
- both **temporary and permanent street closures** with vehicle management to support safe, welcoming activations.
-

Tasks Completed

- Agreement executed by the Recipient and provided to the Agency
- An agreed draft Project Plan (Annexure A) including a list of anticipate expenditures budget.
- Release of RFQ for Strategic Place Plan for Parkes CBD Vibrancy Strategy (non-physical intervention stream).
- Comms Plan Created (relative to upcoming deliverables)
- Milestone 1 data compiled
- Parkes: Small Business Edition's bookings confirmed.
- Evaluation of RFQ completed
- Strategic Planner engaged for CBD Vibrancy Strategy
- Various engagement activities including Nadioc and Homegrown
- Small business workshop marketing
- Initial event planning completed including stage and layout

- Milestone Report 1 data compiled
- Business workshops delivered
- Branding consultant appointed
- Type of temporary bollards determined for street closures

Tasks forecast to be completed (next steps 1-3 months)

- Preliminary findings report about the CBD Vibrancy strategy due.
- Feedback from Council due 30 November
- Brand design workshop with Councillors and other reference groups

Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

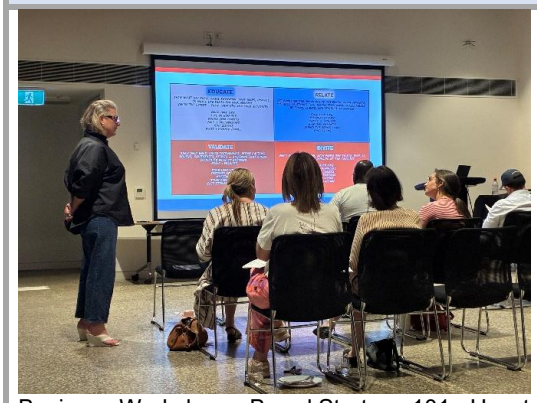
- Redesign of business engagement committee due to low interest
- Completion of Clarinda St and Cooke Park lighting.
- Purchase of traffic management and road closure items

Current Works

Engagement has been limited from the business community dictating a need for a pivot away from the standard deliverables. We are in discussions with Transport for NSW in relation to this ongoing.

Transport for NSW are understanding of the lack of engagement and are in favour of pivoting towards a measure of engagement post activities (lights, event, training) to act as a before and after measure of the proof of concept.

Progress Photos



Business Workshop – Brand Strategy 101 - How to Show Up Online Without Selling Your Soul

Small Business Workshop: From Idea to Impact: Writing Competitive Grant Applications

Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

Fresh Start Program – New Cadets, Apprentices and Trainees (CATs)

Project Status (RAG - Report):	Critical (Red) / At Risk (Amber) / On Track (Green)					
	Scope	Budget	Schedule	Resources	Risks	Benefits

	Approved Budget	*This month*	*Total to date*	*Outstanding*	*Estimated total when complete*
Expenditure	297,762	26,789	88,330	209,432	297,762
Income	297,762	1,272	114,958	182,804	297,762

Project Details

The Fresh Start Program (the Program) funding is part of a commitment from the NSW government that was negotiated by the Unions to increase the NSW local government workforce by 15%. Under the Program, $252.2 million is being invested over six years to provide direct support to local councils across the state in wage support for 1,300 new apprentices, trainees and cadets.

There are four rounds of funding:

- 1 - January 2025 to 8 November 2024
- 2 - July 2025 to 31 March 2025
- 3 - January 2026 to 31 July 2025
- 4 - January 2027 to 31 July 2026

Task Completed

- Round 1 Submission
- Council received provisional approval for 8 positions:
  - Apprentice Plumber
  - Apprentice Electrician
  - Small Plant Apprentice
  - Parks and Gardens Apprentice
  - Work Health and Safety Trainee
  - Concrete Trainee
  - Cadet Planner
  - Civil Engineer Cadet
- Round 1 progress report completed by 30/3/2025
- Round 2 funding submission completed by 31/03/2025
- Council received approval for 3 positions:
  - Finance Trainee
  - Works Coordinator Trainee
  - Heavy Vehicle Mechanic Apprentice
- Round 1 progress report 2 completed 30/04/2025
- Round 3 funding submission submitted on 31 July 2027 for:
  - 7 Civil Construction Apprentices – Cert 3 (Plant Operator)
- Finance Trainee has now been appointed from Round 2
- Invoices sent in for grant payment for roles that have been recruited.
- Provisional approval for seven (7) Civil Construction Apprentices received.

- Heavy Vehicle Apprentice has been appointed from Round 2
- Trainee Works Coordinator has been appointed from Round 2

Tasks forecast to be completed (next steps: 1 month)

- Recruitment for the 7 Civil Construction apprentices underway.

Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

Current Works
Recruitment tasks and funding body reports are the primary area of work now. So far, Council has received approval for 18 new trainees, apprentices and cadets. To date 8 roles have been appointed, 1 is to be re-recruited, 1 is being considered for reallocation to another department and 1 is on hold, pending the appointment of a supervising electrician and 7 are being advertised.

Progress Photos – Round 1 Apprentice Mechanic Dom Gibson with Small Plant Mechanic Darren Tonkin.

Customer Corporate Services and Economy
Major Projects & Current Works - November 2025

CiA Live - Corporate Software System Upgrade – Stage 2B Property

Due Date	Approved Budget	Expenditure this Month	Total Expenditure to Date	Outstanding Commitments	Estimated Total when Works Complete
30 June 2027	52,000	0	0	0	52,000

Project Status (RAG - Report):	Critical (Red) / At Risk (Amber) / On Track (Green)					
	Scope	Budget	Schedule	Resources	Risks	Benefits

Project Details

Technology One has introduced an upgrade program, called CiA Live, to move all its existing customers from the older Ci system interface to the newer CiAnywhere browser-based system interface. Technology One is putting most of its R & D effort into the CiA product and sees no future in developing two interfaces. Moving to the CiAnywhere system has provided end users a more user-friendly experience of TechnologyOne products with enhanced performance, a simplified interface, and capability to streamline business processes.

Budget is based on fixed price contract over 5 years, payable annually. Adjustments may be made to the budget for workforce costs once scoping has been completed.

The first part of the project included the upgrade of the Financial based systems and has been completed. The next phase is to upgrade the property and rating systems then followed by the planning and regulatory systems.

Task Completed

- Financial Systems
- Stage 2A of the Property Systems (including customer requests and management)

Tasks forecast to be completed (next steps: 1 month)

- Stage 2B for the rest of the property systems is on hold until Technology One has the resources and software ready to proceed.

Current Works

The project is currently on hold until November 2025. The schedule will be determined once a kick off meeting has been scheduled after the early adopters have completed their Stage 2B transition. Initial contact with Technology One has been established to restart the project.

Progress Photos

There are no photos available currently.

14.2 REQUEST TO USE BOGAN GATE TOWN IMPROVEMENT RESERVE TO SUPPORT A GRANT FOR A TOILET BLOCK IN BURRAWANG PARK

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Authoriser: **Kent Boyd PSM, General Manager**

Annexures: **Nil**

RECOMMENDATION

That Council:

1. Increase the allocation from the Bogan Gate Town Improvement Fund Reserve to support a grant to install a toilet block in Burrawang Park to $20,000.
2. Provide a letter of support for a public toilet in Burrawang Park as part of the grant application to the funding body.

BACKGROUND

Parkes Shire Council ("Council") is guided by the advice provided by the various Community Consultative Committees ("CCC") in determining the most appropriate projects to be included in their Town Improvement Allocations, however, the final decision concerning the expenditure of the funds remains with Council.

At its meeting held on 16 September 2005 Council approved the allocation of $10,000 from the Bogan Gate Town Improvement Reserve to support a grant application to install a public toilet in Burrawang Park. The amount request was incorrectly listed as $10,000 and should have been $20,000 as per the original request from the Bogan Gate CCC.

ISSUES AND COMMENTARY

Council previously received an email request from the Bogan Gate Community Memorial Hall Inc. requesting that Council allocate funds from the Bogan Gate Town Improvement Fund ("TIF") Reserve to support a grant application under the Club Grants program to install a public toilet block in Burrawang Park.

In her original letter to Council, Secretary Shelly Nutley stated that the funds would be set aside in the TIF reserve to support the grant application.

In addition, a letter of support from Council was requested by Chair Ron Umbers, to support the application for grant funding. The Grants team is assisting with the grant application and, if successful, the project would be managed by Council staff.

LEGISLATIVE AND POLICY CONTEXT

Section 405 of the Local Government Act 1993 ("the Act") states that Council must have an Operational Plan, which includes a detailed annual budget, which details the activities to be engaged as part of the Delivery Program for that year. In addition, that plan must be publicly exhibited.

Council must vote to allocate funds from its reserves for projects not listed in its Operational Plan in accord with the Financial Reserves Policy.

This project was not specifically listed in the Operational Plan and Budget for completion this financial year, however the project is listed as possible future works (unfunded) in the Operational Plan.

FINANCIAL IMPLICATIONS

The Trundle TIF had an uncommitted balance of $46,146.83 at the end of August 2025 and can support the setting aside of an additional $10,000, now totalling $20,000, towards the grant application.

RISK IMPLICATIONS

The adoption of the recommendations for the report will ensure that Council will comply with section 356 of the Act and allow the transfer of funds from its reserves to support the project in accord with its Financial Reserves Policy.

COMMUNITY CONSULTATION

The Bogan Gate Community Memorial Hall Inc. Committee is recognised by Council as the peak consultative body for the Bogan Gate community and surrounding areas. The Committee has met and agreed to formally request the allocation of funding from the Bogan Gate TIF.

14.3 REQUEST FOR FINANCIAL ASSISTANCE - COMMUNITY SAFETY WORKING GROUP - 19 NOVEMBER 2025

IP&R Linkage: **Pillar:** Community

Goal: Our community is safe, active and healthy.

Strategy: Deliver and support services, programs, and initiatives to promote community safety including safeguarding all children, reduce crime and anti-social behaviour.

Author: **Brendan Shipley, Manager Events & Tourism**

Authoriser: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Annexures: **Nil**

RECOMMENDATION

That Council:

1. Support the NSW Police Force Community Safety Working Group Safer by Design Workshop on 19th November 2025.
2. Approve funding of up $1,500.00 from the events budget to meet the cost of catering and booking of the Cooke Park Pavilion.

BACKGROUND

The NSW Police Force have requested Council support their upcoming event, which is a Safer by Design Workshop for Business Owners as part of their Community Safety Working Group. The NSW Police Force requested Council to host the event including financial assistance.

ISSUES AND COMMENTARY

In June 2024, Parkes Shire Council ("Council") endorsed the new Events Financial Assistance Program ("EFAP") to support community and destination events in the Parkes Shire. While Council receives numerous event assistance requests, resources are limited, necessitating a consistent, transparent, and equitable allocation approach. Applications are assessed based on merit, budget availability, Financial Assistance Policy guidelines (Section 6.5), and the *Local Government Act 1993*.

A request has been received from the NSW Police Force to assist with their event, which is to be held on 19th November 2025. The NSW Police Force are partnering with the Crime Prevention Command to hold a Community Safety Working Group. This workshop is to discuss 'Safer by Design' concepts to help businesses and individuals to consider Crime Prevention Strategies to reduce crime in their business and the community. You are invited to participate in this working group.

To help make the event a success, they are seeking assistance with the catering of the event. They have also invited the Councillors and several relevant staff members of Parkes Shire Council to attend. They currently estimate attendance of up to 100 guests for a light lunch.

The request from the NSW Police Force was not received in time for it to be evaluated under the EFAP program, however, an analysis under the General Financial Assistance program was conducted instead.

The following table details the assessment of the project against the Financial Assistance Grants general assessment criteria.

Criteria	Assessment	Comment
Budget Compliance: Ensure the request falls within Council's budget.	Complies	There are sufficient funds available.
Community Accessibility: Verify that the facility, activity or event is open to the Parkes Shire community.	Complies	The event is open to the public.
Participation Costs: Assess whether the costs for patrons to use a facility, attend or participate are reasonable.	Complies	The event is free.
Local Government Area: Confirm that the activity or event takes place within the Parkes Shire Local Government Area.	Complies	The event will take place in Parkes at the Cooke Park Pavilion.
Period: Ensure that the activity or event occurs, or the funds are spent, within 12 months of notification of approval.	Complies	The event is scheduled for 19 November 2025, aligning with the 12-month timeframe.
Community Benefit: Evaluate how any excess proceeds or project outcome will benefit the Parkes Shire community, particularly if proceeds are for charity.	Complies	The workshop will benefit the Parkes Shire community by promoting crime prevention strategies that support safer businesses and public spaces. Safety is a key priority for our residents, as reflected in Parkes Shire's Liveability Census data, and this initiative helps strengthen that commitment.
Request-Outcome Alignment: Assess how the requested amount compares with the stated outcomes of the activity or event.	Complies	Council's financial investment of $1,000.00 aligns with the community benefit expected from hosting the event.
Strategic Goal Alignment: Determine how the objectives or outcomes align with one or more of Council's strategic goals.	Complies	Aligns with strategy of "Deliver and support services, programs, and initiatives to promote community safety including safeguarding all children, reduce crime and anti-social behaviour."
Public Liability Insurance: Verify that public liability insurance is required and current for the activity or event.	Complies	Not applicable.

The assessment, therefore, is that this project regularly meets the guidelines for the provision of funds under the Financial Assistance Policy for general requests.

LEGISLATIVE AND POLICY CONTEXT

In accordance with section 356 of the *Local Government Act 1993*, Council can provide financial assistance through a specific program, providing the details of the program have been included in Council's draft Operational Plan for the year in which the financial assistance is proposed to be given. Council's EFAP includes two separate funds:

1. Community Events Fund

2. Destination Events Fund

Applications for the Destination Event Fund are accepted throughout the year with no set rounds in place. The maximum funding per application is $10,000.00.

FINANCIAL IMPLICATIONS

The Destination event funding program has $25,000 available for destination events. So far, the following events have been funded: this has been allocated to the following events thus far:

- Goodness Gravel Parkes - $6,500
- Trundle Bush Tucker Day - $10,000
- All Roads Lead to Trundle - Requested $10,000

Note: The request for the All-Roads Lead to Trundle is for the supply and delivery of 5 Portaloos and the actual costs are not yet known.

Council is aware of one other application under the destination events assistance fund, which may require assistance of up to $9,500 if approved. Therefore, the destination event budget is likely to be exhausted.

Other Funding Sources

However, Round 2 of the community events program attracted two submissions (each requesting $10,000), so there may be an opportunity to transfer funds from the Community Events budget to support Destination Event initiatives if required.

RISK IMPLICATIONS

The provision of additional funds to the represents a positive civic risk opportunity to increase the economy of the Parkes Shire and improve awareness of what the Parkes Shire has to offer to prospective doctors.

COMMUNITY CONSULTATION

No further community consultation is required if the funding is provided under the existing Events Financial Assistance Program.

14.4 REQUEST TO USE TULLAMORE TOWN IMPROVEMENT FUND RESERVE TO UPGRADE THE LIGHTS AT POLA PARK

IP&R Linkage: **Pillar:** Community

Goal: Our community is safe, active and healthy.

Strategy: Advocate for improved medical, health and wellbeing, allied services, programs, and initiatives in Parkes Shire.

Author: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Authoriser: **Kent Boyd PSM, General Manager**

Annexures: **Nil**

RECOMMENDATION

That Council

1. Approve the allocation of up to $12,500 from the Tullamore Town Improvement Fund Reserve to upgrade the lights at Pola Park.

BACKGROUND

Parkes Shire Council ("Council") is guided by the advice provided by the various Community Consultative Committees ("CCC") in determining the most appropriate projects to be included in their Town Improvement Allocations, however, the final decision concerning the expenditure of the funds remains with Council.

ISSUES AND COMMENTARY

Council has received an email request from Tullamore Inc. (“CCC”) requesting that Council allocate funds from the Trundle Town Improvement Fund ("TIF") Reserve towards the following items:

1. Upgrade of the lights on Pola Park Lights to assist emergency landings.

In her email to Council, Sandy Stanbrook, stated that the matter was discussed at the recent Tullamore Inc meeting where it was agreed to contribute $12,500 towards the upgrade of the lights to provide better lighting if a helicopter is required to land on the oval for an emergency.

Although Council has allocated funds in its Operational Plan towards projects at Tullamore, this project was not specifically listed in the Operational Plan and Budget for completion this fiscal year.

LEGISLATIVE AND POLICY CONTEXT

Section 405 of the Local Government Act 1993 ("the Act") states that Council must have an Operational Plan, which includes a detailed annual budget, which details the activities to be engaged as part of the Delivery Program for that year. In addition, that plan must be publicly exhibited.

Council must vote to allocate funds from its reserves for projects not listed in its Operational Plan in accord with the Financial Reserves Policy.

FINANCIAL IMPLICATIONS

The Trundle TIF had an uncommitted balance of $236,868.49 at October 2025 and can support the allocation of up to $12,500 towards the items requested.

RISK IMPLICATIONS

The adoption of the recommendations for the report will ensure that Council will comply with section 356 of the Act and allow the transfer of funds from its reserves to support the project in accord with its Financial Reserves Policy.

COMMUNITY CONSULTATION

The Tullamore Inc. is the committee is recognised by Council as the peak consultative body for the Trundle community and surrounding areas. Tullamore Inc. has met and agreed to formally request the allocation of funding from the Tullamore TIF Reserve.

14.5 NATIONAL TOWN CRIER CHAMPIONSHIP 9-12 OCTOBER 2025

IP&R Linkage: **Pillar:** Community

Goal: Our community is creative, proud and has a strong sense of belonging.

Strategy: Support and deliver events, festivals and local celebrations that support community connectivity, citizenship and pride.

Author: **Toni Lennane, Executive and Councillor Support Coordinator**

Authoriser: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Annexures: **A. Report by Tim Keith on the National Town Crier Championships 2025** ⇩

RECOMMENDATION

That Council:

1. Receive and note the report by Town Crier Mr Tim Keith on the National Championships.

BACKGROUND

Since 1996, and as a service to the community, Mr Tim Keith has carried out the duties of Parkes Town Crier, enhancing Parkes Shire Council's already considerable civic profile at numerous civic and community events.

Mr Keith's performances are undertaken in his own time, at his own expense and with no personal financial dividend. His welcome to visitors and guests to the Parkes Shire are colourful, popular and well received.

Council has actively supported its local Town Crier and the Ancient and Honourable Guild of Australian Town Criers in the past. Council has hosted the National Championships three times, which not only raised the profile of the Parkes Shire and our community but provided an economic bonus for businesses within the Shire.

ISSUES AND COMMENTARY

The Town Crier event was held in Tuggeranong, Canberra from Thursday, 9 October until Sunday, 12 October. This year's Championship was promoted as part of the Canberra Burns Club Highland Gathering celebration of everything Scottish and the Town Criers were in full regalia. The official opening consisted of over 300 pipers marching in a parade and the Town Criers were able to join in for the opening.

The Town Criers were in full regalia for the whole three days, which helped to promote the guild and this year's championships.

The results of the 2025 Championships were as follows:

- Best Dressed – Judy Campbell (Campaspe Shire)
- Best Dressed Partner – Peter Campbell (Campaspe Shire)
- Pat Adamson Memorial Award (congeniality) – Kevin Howarth (Toowoomba)
- Media Award – Kevin Howarth (Toowoomba)
- Best Scroll – Bob Townsend (Southern Downs)
- Guild Award – James Carter (Strathbogie Shire)

- Loudest Cry – Kevin Howarth (Toowoomba)
- Best Cry:
    - 1st – Kevin Howarth (Toowoomba)
    - 2nd – Judy Campbell (Campaspe Shire)
    - 3rd – Stephen Clarke (Central Coast NSW)
- Senior Section – Over 65 years
    - 1st – Tim Keith (Parkes)
    - 2nd – Bob Townsend (Southern Downs)
    - 3rd – Kevin Howarth (Toowoomba)
- Champion of Champions
    - 1st – Judy Campbell (Campaspe Shire)
    - 2nd – Stephen Clarke (Central Coast NSW)
    - 3rd – Alan Moyse (Bega Valley Shire)
- Conviviality Award – Lord Joseph McGrail-Bateup

Judy Campbell (Campaspe Shire Town Crier) with other Town Criers in Canberra 9-12 October 2025

LEGISLATIVE AND POLICY CONTEXT

There are no legislative or policy considerations for Council associated with this report.

FINANCIAL IMPLICATIONS

It was approved by Council Resolution on 15 July 2025 [OCM 246/25] that Council would reimburse Mr Tim Keith for his expenses to attend the Australian Town Crier Champions where he represented

Parkes Shire Council. This Resolution approved the amount of $737.00 which included a gift to present at the Championships along with Travel and Accommodation expenses.

Mr Tim Keith's expenses including the gift totalled $692.76 of which $593.00 is required to be reimbursed to Mr Keith.

RISK IMPLICATIONS

There is a positive civic opportunity to have Parkes Shire Council represented at the National Town Crier's Championships and an opportunity to support Mr Keith in recognition of his ongoing volunteer service to Parkes Shire.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

National Town Crier Championship
2025 Tuggeranong ACT

Thursday 9th October

Arrived at hotel mid afternoon and caught up with Town Criers, and Host Crier Lord Joseph Mcgrail-Bateup at 6pm who gave as a rundown on what was required over the weekend.

Friday 10th October

Left hotel at 8-45 and travelled into centre of Canberra for a welcome from Peter Cain MLA at the MLA building where we had morning tea followed by an official welcome where we were introduced individuality to Peter and gave him a welcome from our shire.

We then went into the chamber where we were given an explanation of the working of the Canberra Legislative Assembly A drive through the City centre before returning to our hotel about 12-30.

At 2-30 we were bussed of to Burns Club for our AGM, which finished about 5pm with Judy Campbell continuing on as our President.

We were in our full regalia at the Burns Club so we could promote the championships the next day. Back to hotel about 8-30.

Saturday 11th October.

This years championship was promoted as part of the Canberra Burns club Highland Gathering a celebration of everything Scottish and we were in full regalia, on an oval next to the Burns club. The official opening consisted of over 300 pipers marching in parade and we joined in, in our particular clan group for the opening.

We then moved off to our designated area for our championships, a short distance away so we wouldn't clash with them and them with us as both events were being run at the same time.

There was only 7 Town Criers competing this year which was very disappointing as our host crier Joseph had put so much work in organising and running the event.

As usual we did our Home cry first under very windy conditions which made it very difficult, but was the same for everyone. We then did our Host cry without a break so we could get our competition over and then join in with the other events in the Highland games.

The results on a separate page.

We were asked to do cry's for different stall holders to promote and highlight what the were selling.

We were judges for the Kilted Dash, which was run in three age groups, they also had Town Crier Auditions, a fun event where each competitor was given one of our bells and had to ring the bell and do three OYEZ, with two of our members being the judges, lots of fun was had by all.

Saturday night was a dinner at a local Thai restaurant where all the winners were announced.

After dinner we then went back to the local Burns Club for Ceilidh (an informal social gathering with singing, dancing and story telling) we marched in ringing our bells and highlighting the event.

It was a very enjoyable night and a great way to finish off a very busy but well planned day, and event.

Sunday 12th October

We were given a guided tour of Old Parliament House, where we took photos on the steps and the had a 45 minute guided tour of the building.

For all events over the three days we were in Full Regalia, so it really got a workout, but it helped promote our guild and this years championships.

It was a very well organised and run championships and as I have said it's like a family reunion as we generally only see each once a year.

So I would like to again thank council for their support.

Tim Keith

Town Crier

Results for 2025 Championships

Best Dressed Judy Campbell - Campaspe Shire
Best Dressed Partner Peter Campbell-Campaspe Shire
Pat Adamson Memorial Award (congeniality) Kevin Howarth
Media Award Kevin Howarth -Toowoomba
Best Scroll Bob Townshend -Southern Downs
Guild Award James Carter -Strathbogie Shire
Loudest Cry Kevin Howarth
Best Cry 1st Kevin Howarth
2nd Judy Campbell
3rd Stephen Clarke -Central Coast NSW.
Senior Section – Over 65 years
1st Tim Keith- Parkes
2nd Bob Townshend
3rd Kevin Howarth
Champion of Champions
1st Judy Campbell
2nd Stephen Clarke
3rd Alan Moyse
Conviviality Award Lord Joseph Mcgrail- Bateup

14.6 MODEL CODE OF CONDUCT COMPLAINTS STATISTICS SEPTEMBER 2024 - AUGUST 2025

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is contemporary, effective and effecient.

Strategy: Ensure compliance with statutory requirements and ensure Council's operations are supported by good corporate governance and effective risk management.

Author: **Veronica Shaw, Manager Governance, Risk and Corporate Performance**

Authoriser: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Annexures: **A. Return of Code of Conduct Statistics for the Period from 1 September 2024 to 31 August 2025** ⇩

RECOMMENDATION

That Council:

1. Receive and note the information provided in the report.
2. Endorse the Code of Conduct Statistics Return for submission to the Office of Local Government.

BACKGROUND

The Model Code of Conduct ("the Code") requires Council to report on a range of complaints statistics regarding complaints received against Councillors, the Mayor or the General Manager.

The information must be reported to the Council and to the NSW Office of Local Government ("OLG") within three months of the end of September each year, that is, by the end of December.

ISSUES AND COMMENTARY

The Code requires Council to produce a report, using the prescribed form on complaints statistics for the period from 1 September 2024 to 31 August 2025. The data gathered allows OLG to gain a greater understanding of the complaints lodged, including costs associated with assessing and investigating complaints.

The OLG will publish this data in the Time Series Data publication and will include it in the next iteration of the *Your Council* website.

The completed Model Code of Conduct Complaints Statistics at *Annexure A* details the complaints received during the reporting period from 1 September 2023 to 31 August 2024. In total there were six (6) complaints received, with none carrying forward from last year. At the end of August 2025 there were no complaints outstanding.

LEGISLATIVE AND POLICY CONTEXT

Parkes Shire Council has adopted the Model Code of Conduct as published by the Office of Local Government and reviewed this within 12 months of the new Council term. Clauses 11.1 and 11.2 of the Procedures for the Administration of The Model Code of Conduct for Local Councils in NSW, 2025 require that an annual statistical return is produced.

FINANCIAL IMPLICATIONS

There are no financial implications for council associated with this report, however the cost to assess and investigate the complaints during the period was $11,970.

RISK IMPLICATIONS

Failure to complete the annual statistical return on code of conduct complaints, or submitting inaccurate data, exposes Council to statutory non-compliance under section 440AA of the Local Government Act 1993 and associated regulations. This may result in enforcement action by the Office of Local Government, reputational damage, and potential disciplinary or legal consequences. It also undermines transparency, weakens governance oversight, and impairs Council's ability to monitor and respond to conduct-related risks effectively.

COMMUNITY CONSULTATION

There are no community consultation requirements for council associated with this report.

Office of Local Government

Model Code of Conduct Complaints Statistics

Reporting Period: 1 September 2024 - 31 August 2025

Date Due: ***31 December 2025***

Survey return email address: ***codeofconduct@olg.nsw.gov.au***
in Excel format

Council Name:	**Parkes Shire Council**

Contact Name:	**Anthony McGrath**
Contact Phone:	**0418 477 823**
Contact Position:	**Director Customer, Corporate Services and Economy**
Contact Email:	anthony.mcgrath@parkes.nsw.gov.au

All responses to be numeric.

Where there is a zero value, please enter 0.

Enquiries: **Performance Team**
Office of Local Government
Phone: (02) 4428 4100
Enquiry email: olg@olg.nsw.gov.au

Model Code of Conduct Complaints Statistics 2024-25
Parkes Shire Council

Number of Complaints

1		The total number of complaints **received** in the reporting period about councillors and the General Manager (GM) under the code of conduct from the following sources:	
	i	Community	2
	ii	Other Councillors	3
	iii	General Manager	1
	iv	Other Council Staff	0
2		The total number of complaints **finalised** about councillors and the GM under the code of conduct in the following periods:	
	i	3 Months	3
	ii	6 Months	3
	iii	9 Months	0
	iv	12 Months	0
	v	Over 12 months	0

Overview of Complaints and Cost

3	a	The number of complaints **finalised at the outset** by alternative means by the GM or Mayor	3
	b	The number of complaints **referred to the Office of Local Government (OLG)** under a special complaints management arrangement	0

c		The number of code of conduct complaints **referred to a conduct reviewer**	3
d		The number of code of conduct complaints **finalised at preliminary assessment** by conduct reviewer	0
e		The number of code of conduct complaints **referred back to GM or Mayor** for resolution after preliminary assessment by conduct reviewer	0
f		The number of finalised code of conduct complaints **investigated by a conduct reviewer**	3
g		Cost of dealing with code of conduct complaints via preliminary assesment	0
h		Progressed to **full investigation by a conduct reviewer**	3
i		The number of finalised complaints investigated where there was found to be **no breach**	3
j		The number of finalised complaints investigated where there was found to be **a breach**	3
k		The number of complaints referred by the GM or Mayor **to another agency** or body such as the ICAC, the NSW Ombudsman, OLG or the Police	
	i	ICAC	0
	ii	NSW Ombudsman	0
	iii	OLG	3
	iv	Police	0
	v	Other Agency (please specify)	0
		NA	
l		The number of complaints being investigated that are **not yet finalised**	0
m		The **total cost** of dealing with code of conduct complaints within the period made about councillors and the GM including staff costs	11,970

Preliminary Assessment Statistics

4	The number of complaints determined by the conduct reviewer at the preliminary assessment stage by each of the following actions:		
	a	To take no action (clause 6.13(a) of the 2020 Procedures)	3
	b	To resolve the complaint by alternative and appropriate strategies (clause 6.13(b) of the 2020 Procedures)	0
	c	To refer the matter back to the GM or the Mayor, for resolution by alternative and appropriate strategies (clause 6.13(c) of the 2020 Procedures)	0
	d	To refer the matter to another agency or body such as the ICAC, the NSW Ombudsman, OLG or the Police (clause 6.13(d) of the 2020 Procedures)	0
	e	To investigate the matter (clause 6.13(e) of the 2020 Procedures)	3
	f	Other action (please specify)	0
		NA	

Investigation Statistics

5	The number of investigated complaints resulting in a determination that there was **no breach**, in which the following recommendations were made:		
	a	That the council revise its policies or procedures	0
	b	That a person or persons undertake training or other education (clause 7.40 of the 2020 Procedures)	0
6	The number of investigated complaints resulting in a determination that there **was a breach** in which the following recommendations were made:		
	a	That the council revise any of its policies or procedures (clause 7.39 of the 2020 Procedures)	0
	b	In the case of a breach by the GM, that action be taken under the GM's contract for the breach (clause 7.37(a) of the 2020 Procedures)	0

	c	In the case of a breach by a councillor, that the councillor be formally censured for the breach under section 440G of the Local Government Act 1993 (clause 7.37(b) of the 2020 Procedures)	0
	d	In the case of a breach by a councillor, that the councillor be formally censured for the breach under section 440G of the Local Government Act 1993 and that the matter be referred to OLG for further action (clause 7.37(c) of the 2020 Procedures)	3
7		Matter referred or resolved after commencement of an investigation (clause 7.20 of the 2020 Procedures)	0

Categories of misconduct			
8	The number of investigated complaints resulting in a determination that there was a breach with respect to each of the following categories of conduct:		
	a	General conduct (Part 3)	2
	b	Non-pecuniary conflict of interest (Part 5)	0
	c	Personal benefit (Part 6)	0
	d	Relationship between council officials (Part 7)	1
	e	Access to information and resources (Part 8)	0
Outcome of determinations			
9	The number of investigated complaints resulting in a determination that there was a breach in which the council:		
	a	Adopted the independent conduct reviewers recommendation	3
	b	Failed to adopt the independent conduct reviewers recommendation	0
10	The number of investigated complaints resulting in a determination where:		
	a	The external conduct reviewers decision was overturned by OLG	0
	b	Council's response to the external conduct reviewers reccomendation was overturned by OLG	0
11		Date Code of Conduct data was presented to council	15-Apr-25

14.7 ADOPTION OF COUNCIL POLICIES - WORK, HEALTH AND SAFETY POLICY STATEMENT

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is contemporary, effective and effecient.

Strategy: Ensure compliance with statutory requirements and ensure Council's operations are supported by good corporate governance and effective risk management.

Author: **Veronica Shaw, Business Support Officer**

Authoriser: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Annexures: **A. Work, Health and Safety Policy Statement** ⇩

RECOMMENDATION

That Council:

1. Adopt the Work, Health and Safety Policy Statement included as *Annexure A* to this report.
2. Publish the adopted policy on Council's Website and intranet.

BACKGROUND

As part of Council's commitment to continuous improvement, all Council policies receive minor amendments from time to time as required and are on a review schedule to ensure that they comply with current legislation and local government best practice. In addition, the Office of Local Government recommends that council's review all relevant policies in the first twelve months of office.

The following policy has been reviewed and is presented at *Annexure A* for Council's adoption:

- Council Policy – Work, Health and Safety Policy Statement

ISSUES AND COMMENTARY

The method of development and amendments for consideration of the Council Policy appended at *Annexure A* is described below.

Work, Health and Safety Policy Statement (Annexure A)

The original Work, Health and Safety Policy Statement attached at *Annexure A* was developed in 2003. Since its inception it has undergone several amendments to ensure it is up to date with legislation and the international standard.

The latest review of Parkes Shire Council's Work, Health and Safety Policy Statement at *Annexure A* has undergone the following amendments:

- WHSMS document review
- Updated AS/NZS 31000:2009 to AS/NZS 31000:2018
- Added psychosocial and physical hazards

LEGISLATIVE AND POLICY CONTEXT

The key legislation and regulation for all council policies is the Local Government Act 1993 No 30 and Local Government (General) Regulation 2021.

Additional legislation considerations include:

Work Health and Safety Act 2011
Work Health and Safety Regulation 2017

FINANCIAL IMPLICATIONS

There are no financial implications for Council associated with this report.

RISK IMPLICATIONS

Adoption and adherence to the attached reviewed policy ensures Council is compliant with Acts and Regulations.

Failure to adopt and adhere to the attached policy could result in serious consequences, including increased risk of injury or harm to staff and the community, disruption to business operations, damage to Council's reputation, and breaches of WHS legislation that may lead to regulatory penalties or disciplinary action.

COMMUNITY CONSULTATION

Community consultation was not required in the development of this policy; however, the adopted policy will be placed on Council's website.

Parkes Shire Council

Workplace Policy

Work Health and Safety Policy Statement

Workplace Policy
Work Health and Safety Policy Statement

Parkes Shire Council

CONTROLLED DOCUMENT INFORMATION

ECM Number	1115598
Document Owner	Director Customer, Corporate Services and Economy
Document Development Officer	Work, Health and Safety Coordinator
Consulting Stakeholders	Governance
Review Timeframe	Yearly
Last Review Date	November 2025
Next Scheduled Review	November 2026

Document History	
Date	**Details/Comments.**
18/08/2003	Original document
July 2015	WHSMS document review
December 2016	WHSMS document review
September 2017	Change to WHS Regulation 2011 to 2017
December 2017	WHSMS document review
May 2018	Senior Staff document review add Working towards
December 2019	WHSMS document review & change of standard to ISO45001
December 2020	WHSMS document review
December 2021	Document review. Include consultation and communication.
October 2023	WHSMS document review.
October 2024	WHSMS document review. Updated template
November 2025	WHSMS document review Change AS/NZS 31000:2009 to AS/NZS 31000:2018 Added psychosocial and physical hazards

Further Document Information and Relationships	
Related Legislation*	Work Health and Safety Act 2011 Work Health and Safety Regulation 2017
Related Policies	Work Health Safety Management System (WHSMS)
Related Documents	ISO45001:2018.
***Note:** Any reference to Legislation will be updated in this Policy as required. See website http://www.legislation.nsw.gov.au/ for current Acts, Regulations and Environmental Planning Instruments.*	

Workplace Policy
Work Health and Safety Policy Statement

Parkes Shire Council

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1. Purpose 2
2. Commencement 2
3. Scope and Application 2
4. Definitions 2
5. Policy Statement 2
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7. WHS Objectives 3
8. WHS Responsibilities 3
    8.1. Senior Management 3
    8.2. Workers 3
    8.3. Visitors 3
9. Review 4

Workplace Policy
Work Health and Safety Policy Statement

Parkes Shire Council

1. Purpose

A Statement of the organisation's commitment to the provision of a healthy and safe work environment for all workers and interested parties is embodied within the WHSMS.

2. Commencement

This Policy is effective from date of adoption by Council resolution and shall remain in force until repealed by resolution of Council.

3. Scope and Application

This Policy applies to all Council Officials, including Councillors, Council staff, Council committee members, Council delegates, and volunteers of Council.

4. Definitions

In this Policy, the following terms shall be interpreted as having the following meanings:

Term	Definition
Council	means Parkes Shire Council.
Business Day	Means a day that is not a Saturday, a Sunday, 27/28/29/30/31 December, nor a public holiday in Sydney
General Manager	means the General Manager of Parkes Shire Council appointed under section 334 of the *Local Government Act 1993*.
Governing Body	Means a person elected or appointed to civic office as a member of the governing body of Council who is not suspended, including the Mayor.
PCBU	Persons conducting a business or undertakings

5. Policy Statement

Parkes Shire Council acknowledges its responsibility and is committed to its moral and legal responsibility to provide a workplace that is safe for its workers and those directly affected by its undertakings and manage risks to health and safety within the workplace in accordance with the requirements of the WHS Act 2011 and WHS Regulation 2017, and other relevant legal and regulatory requirements.

To facilitate this, Parkes Shire Council will establish, implement and maintain a Work Health and Safety Management System (WHSMS) that conforms with ISO45001:2018. The Work Health and Safety Management System forms the foundation of a proactive, systematic and coordinated approach to the management of health and safety risks arising out of business' undertakings that embrace the risk management principles prescribed in AS/NZS 31000:2018, and provides for fair and effective workplace consultation, cooperation and issue resolution in relation to work health and safety.

6. Aims

- Provide and maintain safe plant and structures
- Provide and maintain safe systems of work
- Safe use, handling and storage of substances, structures and plant
- Provide and maintain adequate facilities for the welfare of workers
- Provide adequate information, training, supervision for its workers
- Provide health monitoring for its workers
- Provide and maintain a work environment without risk to health and safety
- Ensure compliance to relevant legislation, current industry standards and co-operation with Regulatory bodies
- Provide effective consultation and communication methods.

7. WHS Objectives

- Identification and management of work health and safety risks arising from the business' undertakings
- Working towards zero workplace injuries or illnesses by managing physical and psychosocial hazards
- Monitoring, review, reporting and continuous improvement of the WHSMS

8. WHS Responsibilities

8.1. Senior Management

The General Manager, Directors and those involved in strategic decision making must exercise due diligence in ensuring that Parkes Shire Council complies with the duties of a PCBU defined in Section 19 of WHS Act 2011.

8.2. Workers

Workers have a duty to take reasonable care of themselves and others at the workplace and to report any hazards or risks that exist in the workplace. A worker includes a person who carries out work in any capacity for Council, including work as: an employee, a contractor, subcontractor, outworker, volunteer, apprentice or trainee and work experience students.

8.3. Visitors

Visitors to Council's workplaces have a duty to take reasonable care of themselves and others at the workplace and cooperate with any reasonable instructions given by an employee of Parkes Shire Council.

9. Review

As part of Council's commitment to good governance and continuous improvement, this Policy must be reviewed and re-adopted by Council not less than once every four years or as Council otherwise determines in line with legislative requirements and policy changes.

This policy has been approved by the General Manager and will be reviewed again by 10 November 2026.

Kent Boyd
General Manager **Date: 10 November 2025**

14.8 ENDORSEMENT OF THE 2024-2025 ANNUAL REPORT

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is sustainable and plans for the future.

Strategy: Provide clear long-term direction for the community through the development of the Integrated Planning and Reporting framework.

Author: **Teresa Cooper, Corporate Planning and Performance Coordinator**

Authoriser: **Veronica Shaw, Manager Governance, Risk and Corporate Performance**

Annexures: **A. Annual Report 2024-25 (under separate cover)** ⇨

RECOMMENDATION

That Council:

1. Endorse the Annual Report 2024/2025, attached at *Annexure A*, pursuant to section 428 of the *Local Government Act 1993*.
2. Note that the Annual Report 2024/2025 will be submitted to the Minister for Local Government and published to Council's website by 30 November 2025, pursuant to section 428(5) of the *Local Government Act 1993,* with any minor changes and corrections.

BACKGROUND

Under the Integrated Planning and Reporting ("IP&R") provisions of the *Local Government Act 1993* ("the Act") require Parkes Shire Council ("Council") to prepare an Annual Report detailing its achievements in implementing its adopted Delivery Program and Operational Plan over the previous financial year. As with all documents included within the IP&R framework, the Annual Report must be prepared in accordance with the Office of Local Government's ("the OLG") Integrated Planning and Reporting Guidelines ("the Guidelines").

The Annual Report must focus on Council's achievements in implementing its adopted Delivery Program and Operational Plan and include a copy of Council's audited Financial Statements for the year. It must also contain a range of other information as required under the Local Government Act, the Local Government (General) Regulation 2021, and other applicable legislation.

Once adopted by Council, the Annual Report must be submitted to the Minister for Local Government and published to Council's website within five (5) months of the end of the financial year, being 30 November.

ISSUES AND COMMENTARY

The Annual Report attached at *Annexure A* summarises Council's performance over the 2024/2025 year and highlights the projects, services, programs and events delivered during the reporting period to support the implementation of Council's Delivery Program 2022/23 - 2024/25 and Operational Plan 2024/25.

The attached Annual Report has been developed to ensure compliance with relevant legislation. It is recommended that Council note that the Annual Report 2024/25 will be submitted to the Minister for Local Government and published to Council's website by 30 November 2024, pursuant to section 428(5) of the Local Government Act 1993.

The attached Annual Report comprises the following sections:

- Part 1 - Introduction: Includes a message from the Mayor and General Manager and outlines the IP&R framework, including the role and purpose of the Annual Report.
- Part 2 – Liveability: Reports on various aspects of liveability during the last year, including environmental sustainability, library, arts and culture and outdoor spaces.
- Part 3 – Community: Highlights our progress on community objectives during the year, including events and tourism across our villages and towns, connections, grants and projects and customer experience.
- Part 4 – Business Enablement and Information: This section includes developments in business enablement and information, information and records management, information governance and privacy and data protection.
- Part 5 – Governance: Provides an overview of Council, including Council meetings, Councillors, the election and post-election year 2024/25, governance, the Audit, Risk and Improvement Committee, internal audit, contracts and procurement, records and information management and business systems and information and technology.
- Part 6 – Our Organisation and People: This includes awards and recognition, organisation structure, executive leadership team, our people at-a-glance, workforce profile, people development and people and culture.
- Part 7 – Our Financial 2024/25 Year in Review: This includes sections on your rates at work, our operational expenditure, our capital works report, our financial performance and 2025 financial pulse.
- Part 8 - Statutory Reporting: Reports on Council's general reporting requirements set out in section 428 of the Act and clause 217 of the Regulation, as well as other reporting requirements imposed on Council by other legislation.
- Appendix A - Government Information (Public Access) Act Reporting: Contains Council's Government Information (Public Access) Act 2009 Annual Report for the 2024/25 reporting period.
- Appendix B - Audited Financial Statements: Contains Council's audited Financial Statements for the Year Ended 30 June 2025 and Independent Auditor's Report.

The attached report is a draft and may contain minor errors. These will be corrected, and the document will be professionally designed prior to submission to the Minister for Local Government and publication on Council's website.

LEGISLATIVE AND POLICY CONTEXT

Section 428 of the Local Government Act requires that Council prepare an Annual Report within five (5) months of the end of the financial year. The Annual Report has been prepared to ensure compliance with these legislative requirements. In addition to detailing the information prescribed under clause 217 of the Regulation; the Annual Report reports on those matters prescribed by other legislation, including the:

- *Companion Animals Act 1998* and *Companion Animals Regulation 2008*;
- *Government Information (Public Access) Act 2009* and *Government Information (Public Access) Regulation 2018*;
- *Environmental Planning and Assessment Act 1979*; and
- *Public Interest Disclosures Act 1994* and *Public Interest Disclosures Regulation 2011*.

FINANCIAL IMPLICATIONS

There are no financial implications for Council associated with this report. However, the Annual Report does present a summary of Council's performance over the 2024/25 financial year and as required under the Regulation, contains a copy of the organisation's audited Financial Statements for the 2024/25 year.

RISK IMPLICATIONS

Failing to prepare and publish an Annual Report poses significant governance and compliance risks for a council. Without this statutory document, Council may breach legislative requirements under the Local Government Act and Regulations, exposing it to legal action or intervention by the Office of Local Government. Furthermore, the absence of transparent reporting undermines public trust and accountability, weakens internal oversight, and may conceal emerging financial, operational, or compliance risks. This lack of transparency can erode stakeholder confidence, complicate audits, and ultimately jeopardize the council's reputation and access to funding.

The presentation of the report to Council and subsequent submission to the Office of Local Government will ensure that Council complies with its obligations.

COMMUNITY CONSULTATION

While the Annual Report itself does not require formal community consultation, it is informed by the broader Integrated Planning and Reporting (IP&R) framework, which embeds community engagement throughout its processes. The final report will also be published on Council's website.

14.9 RISK MANAGEMENT - INSURANCE PORTFOLIO - 2025-2026

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is contemporary, effective and effecient.

Strategy: Ensure compliance with statutory requirements and ensure Council's operations are supported by good corporate governance and effective risk management.

Author: **Nikki Bevan, Procurement, Contracts and Insurance Coordinator**

Authoriser: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Annexures: **Nil**

RECOMMENDATION

That Council:

1. Receive and note the report on its Insurance Portfolio Coverage for the period from October 2025 – October 2026.

BACKGROUND

Parkes Shire Council is required by Legislation to acquire adequate Insurance. Parkes Shire Council are a member of Civic Risk Mutual, a company limited by guarantee, which is both an unregistered managed investment scheme and a discretionary mutual fund. A mutual discretionary fund is a scheme where Members contribute money, which is pooled for the purposes of acquiring general insurance products. It includes protections to cover the specified risks of the Members and for payment of claims by Members, on a discretionary basis, up to a certain specified limit.

ISSUES AND COMMENTARY

Civic Risk Mutual Limited also provide a range of membership benefits including risk protection and risk management support. The purpose of participation is not to make an investment or receive a return on the investment of money.

As part of ongoing efforts to enhance councillors' understanding of Council's insurance arrangements, an induction workshop was delivered by Civic Risk Mutual on 20th May 2025. The session provided an overview of Civic Risk Mutual, including its purpose and structure, how the mutual operates to support member councils, and the management services it offers. This induction was a valuable opportunity for councillors to gain insight into the collaborative risk-sharing model and the strategic benefits of membership, reinforcing the importance of informed decision-making in relation to Council's insurance and risk management practices.

In addition to Civic Risk Mutual, Council holds a workers compensation policy with Statewide Mutual.

A list of the policies council currently has in its portfolio are listed below. The premium values have been obscured as they are confidential under d(i) of the Act as it is commercial information that would, if disclosed prejudice the commercial position of the person who supplied it.

Title	Grouped Policies	CRM Membership schedule	Expiry Date	Excess Value	Polic	Policy Limit	Policy Number	Underwriter
CIVIC RISK MUTUAL Membership	Please Note the price of this policy is a total of various polices. Highlighted Orange with Blue text in the Premium Columns. It is not an additional cost on top of these polices.	Yes	31/10/2026	Various	$	See individual policies	N/A	Civic Mutual
Aviation Liability		No	30/06/2026	$ 2,500	$	$ 100,000,000	03 I60 0061720	Aerosure
Contract Works Liability - Annual Policy		No	1/10/2026	$ 5,000	$	$ 4,300,000	01D 2068674	CGU
Crime		Yes	31/10/2026	$ 50,000	$	$ 2,000,000	N/A	Civic Mutual
Cyber Liability		Yes	31/10/2026	$ 15,000	$	$ 25,000	C-521C-091100-CYBER-2024	Coalition
ISR (Property)		Yes	31/10/2026	$ 5,000	$	$ 5,000,000,000	PDBI 2024/25	WTW
Journey Injury		No	30/06/2026	-	$	$ 1,000,000	AU00061428-002	DUAL
Mangaement Liability (Includes Councillors / Directors & Officers Liability, Employment Practice Liability and Statutory Liability)	Councillors & Officers Liability	Yes	31/10/2026	$ 50,000		$ 200,000	G2 ML 2127179	WTW
	Employment Practices Liability	Yes		$ 75,000	$	-	N/A	Civic Mutual
	Statutory Liability	Yes		$ 25,000		$ 100,000	N/A	Civic Mutual
Motor Vehicle (includes Marine Transit	Marine Transit	Yes	31/10/2026	$ 250	$	-	CAS 011307074	Vero
	Motor Vehicle	Yes	31/10/2026	$ 5,000		$ 6,200,000		
Public and products Liability/Professional Indemnity (Includes Community Support, Corporate Travel and Personal Accident	Public and products Liability/Professional Indemnity	Yes	31/10/2026	$ 50,000		$ 50,000	CS5146A241ZA	WTW
	Community Support Liability	Yes	31/10/2026	-	$	$ 2,500	N/A	Civic Mutual
	Corporate Travel	Yes	31/10/2026	$ 250		$ 250	N/A	Civic Mutual
	Personal Accident	Yes	31/10/2026	Bodily injury		-	N/A	Civic Mutual
Workers Compensation		No	30/06/2026	-		-	WC01103	Statewide Mutual
Workers Compensation Top-Up		No	30/06/2026	-	$	-	47-ZAH-316223-03	Richard Oliver Underwriting
Contractors Pollution Liability III		No	1/03/2026	$ 10,000	$	$ 1,000,000.00	01CL549856	Chubb
Total					$			

The overall decrease in insurance expenditure for the current financial year reflects favourable market conditions and the strong financial position of the Civic Risk Mutual, which continues to hold sufficient surplus. Despite the reduction in premiums, particularly across Property, Cyber Liability, and Management Liability, coverage levels remain unchanged, ensuring Council maintains comprehensive protection across all key risk areas.

Continued diligence in maintaining adequate insurance is essential to mitigate financial risk, comply with legislative requirements, and safeguard Council's eligibility for future funding and grants.

LEGISLATIVE AND POLICY CONTEXT

Local Government Act 1993 Part 4 states that a council must plan for adequate insurance.

FINANCIAL IMPLICATIONS

Civic Risk Mutual Membership

The Civic Mutual membership—which includes coverage for Crime, Cyber Liability, Industrial Special Risks (Property), Management Liability, Motor Vehicle, and Public & Products Liability / Professional Indemnity, decreased by $49,800 in the current financial year. This follows a notable increase of $176,201 in the previous year.

The decrease this year is primarily attributed to:

- Property (ISR): ↓ $90,00
- Cyber Liability: ↓ $3,000
- Management Liability: ↓ $2,000

These reductions reflect favourable market conditions and the sufficient surplus held within the mutual. Importantly, there has been no change to coverage levels, ensuring continued protection across all policy areas.

Overall Insurance

Total insurance expenditure has decreased by $35,487 in the current financial year. This reduction is primarily driven by lower premiums across Civic Risk Mutual policies.

It is important to note that while the Contract Works Liability policy premium increased by $13,326, a refund of $9,986.84 was received for works initially covered under the 2024/2025 policy that were not completed. These works are now covered under the 2025/2026 policy, effectively offsetting a portion of the premium increase.

RISK IMPLICATIONS

Maintaining adequate insurance coverage is critical to managing Council's exposure to financial and operational risks. Inadequate or absent insurance presents a high risk, as Council may be required to fund the repair or replacement of assets and cover costs associated with third-party claims arising from incidents, injuries, or property damage.

Furthermore, sufficient insurance coverage is a legislative requirement, and failure to comply may impact Council's eligibility for current and future grants or funding opportunities. This could result in significant financial implications and hinder Council's ability to deliver services and maintain infrastructure.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

14.10 APPOINTMENT OF COUNCILLOR DELEGATES TO 2026 CONFERENCES

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Advocate and provide strong representation for our community at the regional, state, and federal levels.

Author: **Toni Lennane, Executive and Councillor Support Officer**

Authoriser: **Anthony McGrath, Director Customer, Corporate Services and Economy**

Annexures: **Nil**

RECOMMENDATION

That Council:

1. Endorse the attendance of the following Councillors at the conferences being held in 2026 as follows:
   (a) International Women's Day (IWD): _____
   (b) Australian Local Government Women's Association ("ALGWA") NSW Conference: _____
   (c) LGNSW Destination and Visitor Economy Conference: _____.
   _____
   (d) Institute of Public Engineering Australasia (IPWEA) NSW Local Roads Congress: Mayor NC Westcott and Cr _____.
   (e) Australian Local Government Australia (ALGA) National General Assembly (NGA) of Local Government:
   _____
   (f) LGNSW Water Management Conference: Cr _____
   NSW Public Libraries Association Conference (SWITCH): Councillors WP Jayet
   (g) Local Government NSW ("LGNSW") Annual Conference: Mayor Neil Westcott, Deputy Mayor Marg Applebee and _____
   (h) ALGA National Local Roads and Transport Congress: _____
2. Approve reimbursement of out-of-pocket expenses by Councillor delegates in attending the above conferences, in accordance with the Councillor Expenses and Facilities Policy.
3. Voting Delegates:
   (a) Delegate the Mayor and/or Deputy Mayor as voting Delegates at the ALGA National General Assembly (NGA) of Local Government.
   (b) Delegate the Mayor and/or Deputy Mayor as voting Delegates at the LGNSW Annual Conference and LGNSW General Election.

BACKGROUND

Parkes Shire Council ("Council") is committed to supporting the continued professional development of its Councillors and ensuring that they remain up to date with contemporary issues facing Council and the Parkes Shire community, as well as the NSW Local Government sector more broadly.

Attendance at sector conferences provides Councillors with new skills and knowledge on particular issues to ensure they can perform their duties and represent residents to the best of their ability. It

also provides Councillors with the opportunity to network with elected representatives from other local government areas, as well as State and Federal parliamentarians, and advocate on issues of importance to the Parkes Shire community.

Clause 6.32 of the current *Councillor Expenses and Facilities Policy* ("the Policy") provides that Council shall resolve to nominate:

- Three (3) Councillors, one of whom shall be the Mayor (or Deputy Mayor), to attend the Local Government NSW ("LGNSW") Annual Conference; and
- One (1) Councillor with the Mayor or two (2) Councillors to attend each of the following conferences and seminars:
    - International Women's Day ("IWD") Conference
    - Australian Local Government Women's Association ("ALGWA") NSW Conference
    - LGNSW Destination and Visitor Economy Conference
    - Institute of Public Engineering Australasia ("IPWEA") NSW Local Roads Congress
    - Australian Local Government Association ("ALGA") National General Assembly ("NGA) of Local Government
    - LGNSW Water Management Conference
    - NSW Public Libraries Association Conference ("SWITCH")
    - Local Government NSW Annual Conference
    - ALGA National Local Roads and Transport Congress

Determining Councillor attendance at various conferences at this time enables each Councillor to plan their professional development in advance and gives them the opportunity to indicate their interest in participating in conferences that are of interest to them and which they believe will best support their individual professional development needs. This practice also ensures that the annual Councillor Conferences and Seminars Budget are distributed equitably across all Councillors.

ISSUES AND COMMENTARY

Details of the sector conferences scheduled to be held throughout 2025, including the dates and venues/locations of each conference, are outlined in *Table 1*, below, in order of when they will occur throughout the year. The International Women's Day event has also been added, for information should Council wish to add it to the approved event as listed in the Policy:

Table 1: Local Government Sector Conferences 2025

Conference	Date	Location
International Women's Day	8 March 2026	Sydney
ALGWA State Conference	26 – 28 March 2026	Blacktown
LGNSW Destination and Visitor Economy Conference	May 2026	Maitland
IPWEA NSW Local Roads Congress	1 June 2026	Parliament House Sydney
ALGA National General Assembly of Local Government	June 2026	National Convention Centre, Canberra, ACT
LGNSW Water Management Conference	September 2026	Ballina

Table 1: Local Government Sector Conferences 2025		
NSW Public Libraries Association Conference	November 2026	Bathurst
LGNSW Annual Conference	November 2026	To be confirmed
ALGA National Roads and Transport Congress	November/December 2026	To be Confirmed

LEGISLATIVE AND POLICY CONTEXT

Councillor expenses, including costs associated with conference and seminar attendance, must comply with the *Guidelines for the Payment of Expenses and Provision of Facilities for Mayors and Councillors in NSW* ("the Guidelines") issued by the Office of Local Government and prescribed under section 23A of the *Local Government Act 1993* ("the Act"), as well as *Council's Councillor Expenses and Facilities Policy* ("the Policy") adopted under sections 252 and 253 of the Act.

The Policy provides that attendance of Councillors at each conference shall be limited to one (1), except the LGNSW Annual Conference, which shall be limited to three (3) Councillors, including the Mayor. The principle of having one (1) Councillor attend is considered best practice for a rural council and consistent with community expectations.

Approval arrangements for Councillor attendance at conferences should occur, where possible, at a full meeting of the Council. This is reflected in clause 1.6.7 of the Guidelines as well as clause 6.32 of the Policy.

FINANCIAL IMPLICATIONS

The Policy establishes an annual budget for Councillor attendance at conferences and seminars, which is reflected in Council's annual Operational Plan adopted each June.

Consistent with the Policy and Guidelines, Council will reimburse or pay registration fees, accommodation, meals, parking, telephone and travel expenses associated with attendance at the conference plus any other reasonable and directly related out-of-pocket expenses.

RISK IMPLICATIONS

There are no risk implications for Council associated with this report.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

15 REPORTS OF THE DIRECTOR INFRASTRUCTURE AND SUSTAINABILITY

15.1 MAJOR PROJECTS AND CURRENT WORKS - INFRASTRUCTURE AND SUSTAINABILITY

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Effectively collaborate, engage, and communicate with our community to inform decision making and promote services, projects and initiatives.

Author: **Kristine Thacker, Business Support Officer**

Authoriser: **Andrew Francis, Director Infrastructure and Sustainability**

Annexures: **A. Infrastructure Sustainability - Major Projects & Current Works** ⇩

RECOMMENDATION

That Council:

1. Receive and note the Infrastructure and Sustainability Major Projects and Current Works Report for October 2025, appended at *Annexure A*.

BACKGROUND

A monthly status report of Major Projects and Current Works within Parkes Shire Council's Infrastructure and Strategic Futures directorate is tabled to keep Council abreast of projects being undertaken across the Parkes Shire.

ISSUES AND COMMENTARY

This report presents an update on the current major projects within the Parkes Shire being managed or undertaken by Council's Infrastructure and Strategic Futures Department. The report outlines work that has been carried out over the past month and is provided for the information of Councillors.

The Major Projects and Current Works Report is appended at *Annexure A*.

LEGISLATIVE AND POLICY CONTEXT

There are no legislative or policy considerations for Council associated with this report.

FINANCIAL IMPLICATIONS

Projects have been allocated funding either from grants or Council funds as provided in the 2025/2026 Operational Budget.

RISK IMPLICATIONS

There are no risk implications for Council associated with this report.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

CONCLUSION

The Major Projects and Current Works Report, appended at *Annexure A*, provides Council with a briefing on major projects and works underway within the organisation's Infrastructure and Strategic Futures directorate. It is recommended that Council formally resolve to receive and note the report.

Infrastructure & Sustainability
Major Projects & Current Works – October 2025

Regional Recovery Project (RRP-002) - Water Security Project

Due Date	Approved Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
31/12/2026	$9,063,012	$67,954.87	$1,059,501	$189,432	$14,870,593*
Akuna Road Pump Station	$2,469,087	$28,098.35	$447,936	$127,337	To be confirmed
New Eugowra Road Pump Station	$2,501,333	$37,714.52	$559,311	$25,595	To be confirmed
Akuna Road Pump Station Solar System	$1,010,000	$2,142	$52,254	$36,500	To be confirmed

Project Status (RAG - Report):

Critical (Red) / At Risk (Amber) / On Track (Green)					
Budget	Resources	Schedule	Risks	Scope	Benefits

Project Details

The Project Implementation Phase of Parkes Shire Council's, Parkes Water Security Program Package 2A - Regional Recovery Partnership is progressing, the scope of works includes:

- Akuna Road Pump Station
- New Eugowra Road Pump Station
- Akuna Road Pump Station Solar System

Task Completed

- Concept designs completed.
- Preliminary environmental assessments completed.
- No NWG funding is now required for the RRP project.
- Gap analysis completed on the GHD Detail Designs to be able to progress the project.
- Action Plan developed to uplift the current Detail Design to IFT / IFC.
- DGP Water has been engaged to uplift the current designs to IFT / IFC.
- Roadmaps have been refreshed for the Environmental & Planning Approvals and Access / Construction Easement Acquisitions.
- Capital Intensity process completed, including a Level 3 budget estimate review, Minimum Via Capital Cost (MVCC) process, and CAPEX planning.
- Project Control Group meeting with Stakeholders held in August 2025.
- Complete Minor Works Review of Environmental Factors (MW REFs) based on updated designs and funding arrangements.
- Complete Activity 7 Milestone actions.
- Design for pump station completed
- Request for Tender for the Akuna Road and New Eugowra Road Pump Stations has been submitted on Tenderlink
- Design for the Akuna road solar and Akuna road & New Eugowra Road pump station high voltage (HV) complete. However, Essential Energy approval still pending for HV.
- Request for Tender for the Akuna Road solar has been submitted on Tenderlink

  Project Control Group (PCG) meeting with Stakeholders held in 30th Oct, 2026 and next is planned for Dec 2026.

Infrastructure & Sustainability
Major Projects & Current Works – October 2025

Tasks forecast to be completed (next steps: 1-3 months)
• Evaluation of tender submissions be completed by 25/11/25 • Milestone Activity 8 to be completed 28/11/25 • Submission of Milestone Activity 8 to be completed by 19/12/2025 • Tender documents to be online (Tenderlink) planned before 21st Nov, 2026 for HV construction • Procurement of voltage regulator for New Eugowra Road pump station.
Progress Photos
Nil photos

Infrastructure & Sustainability
Major Projects & Current Works – October 2025

Safe & Secure - Water Security Project

Due Date	Approved Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
15/12/2027	$39,170,000	$44,669.57	$2,649,454	$124,718	$61,266,245*
Eugowra Road Pump Station Pipeline	-	$30,552.67	$2,077,144	$114,575	To be confirmed
Akuna Road Pump Station Pipeline	-	$14,116.90	$572,310	$10,143	To be confirmed

Project Status (RAG - Report):	Critical (Red) / At Risk (Amber) / On Track (Green)					
	Scope	Budget	Schedule	Resources	Risks	Benefits

Project Details

The Project Implementation Phase of Parkes Shire Council's, Parkes Water Security Program is progressing with the support of the SSWP426 Funding.

The scope of works includes:

- The 35km pipeline duplication from the New Eugowra Road Pump Station (NERPS) to the Raw Water Storage Lagoon (RWSL), capacity was determined at 400L/s in the 2023 IWCM.

Task Completed

- Survey has been completed from the LRP to the RWSL.
- Progressing an Early Contractor Involvement (ECI) / Request for Information (RFI) process to better understand market status.
- Letters sent to Landowners providing project update.
- Specific communication with residents and landowners to address any specific enquiries and interests.
- Responses to NWG RFIs have been completed.
- Gap analysis completed on the GHD Detail Designs to be able to progress the project.
- Action Plan developed to uplift the current Detail Design to IFT / IFC.
- Roadmaps have been refreshed for the Environmental & Planning Approvals and Access / Construction Easement Acquisitions.
- Capital Intensity completed, including a Level 3 budget estimate review, Minimum Via Capital Cost (MVCC) process, and CAPEX planning.
- Request for Quotes to further the design to Issue for Tender (IFT) out to market. End date by 15th Nov, 2026

Tasks forecast to be completed (next steps: 1-3 months)

- Review of deed, milestones and key dates
- Design resource to be finalised
- Work on procurement of material to be undertaken simultaneously with the design. This is for the pipeline between Eugowra Rd Pump Station to Akuna Rd Pump Station and Akuna Rd Pump Station to water treatment plant (WTP).
- Critical review of the budget to be done before the procurement of material.

Progress Photos

Nil

Infrastructure & Sustainability
Major Projects & Current Works – October 2025

Boardwalks and Bird Hides: Elevating Parkes Wetlands

Due Date	Approved Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
31/01/2027	$1,887,476	$8,500	$60,749.03	$33744.09	$1,887,476

Project Status (RAG - Report):	Critical (Red) / At Risk (Amber) / On Track (Green)					
	Scope	Budget	Schedule	Resources	Risks	Benefits

Project Details

This project will activate Parkes Wetlands into a vital ecological site that will also provide a new recreational and tourism offering for the Parkes community. This project will further allow the wetlands to support native wildlife, provide infrastructure for residents and visitors to enjoy the space, support local/regional/global biodiversity, and increase liveability of the region.

By transforming the site into an immersive, multipurpose aquatic space, Parkes Wetlands will be ideal for birdwatching, active and passive recreation, outdoor education, citizen science, and conservation research.

Key deliverables:

- Construction and installation of two double-story bird-hides
- Construction and installation of an aquatic boardwalk incorporating two large viewing platforms.
- Habitat creation including revegetation and nesting box installation
- Design and installation of interpretive signage around the wetlands
- Commissioning and installation of sculptural artwork.

Tasks Completed

- Engage consultant to design aquatic boardwalk (concept design)
- Release RFQ for project management (specifically for boardwalk and birdhides construction)
- Project Manager engaged
- Stakes and guards ordered for 2025 / 2026 revegetation activities
- Contractor engaged for 2025 revegetation activities
- Preliminary works for 2025 revegetation works undertaken
- Contractor engaged for nest box supply and installation
- Quote sought for hollow augmentation activities
- Quote sought and received for 2025 revegetation activities
- Risk Assessment Workshop for boardwalk
- 2025 revegetation works commenced
- Place tubestock order for 2026
- Finalise survey and drawing of boardwalk/birdhide footprint for tender docs
- Finalise concept designs of boardwalk/birdhide for tender docs
- Develop and release RFI for public artwork
- Develop and release tender documentation for design / fabrication / installation of bird hides
- Develop and release tender documentation for design / fabrication / installation of aquatic boardwalk

Tasks forecast to be completed

- Assess RFT submissions for boardwalk and bird hides
- Council Report re boardwalk and bird hides RFT recommendation
- Award boardwalk and bird hides design / fabrication / installation contract/s
- Assess public artwork EOI submissions; award public artwork commissions

Progress Photos

Nil

15.2 ADOPTION: BOGAN GATE FLOOD RISK MITIGATION STUDY AND PLAN

IP&R Linkage: **Pillar:** Environment

Goal: Our built environment is functional, sustainable and meets the needs of our growing community.

Strategy: Improve our existing stormwater management systems with measures to reduce the impact of intense rainfall events.

Author: **Kylie Trueber, Risk and Emergency Management Coordinator**

Authoriser: **Andrew Francis, Director Infrastructure and Sustainability**

Annexures:
A. Bogan Gate Flood Risk Mitigation Study and Plan ⇩
B. Bogan Gate Flood Risk Mitigation Study and Plan - Figures ⇩

RECOMMENDATION

That Council:

1. Adopt the Bogan Gate / Gunningbland Flood Risk Mitigation Study and Plan and place it on Council's website.

BACKGROUND

Gunningbland and Bogan Gate properties are routinely affected by flooding, extreme events have caused significant land and property damage and required emergency accommodation and SES operations to house displaced residents and provide support for those isolated. A flood study and floodplain risk management study are being delivered for the Gunningbland Creek catchment area and Bogan Gate township to quantify the risk and determine options that may be implemented to reduce the impact of flood water on those communities. This will include assessment of the Sydney to Perth trunk railway line and parallel State Rail to determine the impact of these on flood characteristics and mitigation measures to reduce flood afflux due to these structures. It will also identify "dry areas" for use during flood events and inform SES planning for managing isolated properties during flood events.

The additional collection, review and follow up on information from the community post November 2022 flood event, and update of the calibration / validation of flood modelling so there is a match between the observed flooding and modelled flooding

ISSUES AND COMMENTARY

The Council Floodplain Management Committee, the Project Manager from Public Works and representative from the funding body DCCEEW have reviewed the Flood Risk Management Study and Plan provided from the consultant and are all in agreeance that the study is acceptable to put up to Council for adoption.

LEGISLATIVE AND POLICY CONTEXT

There are no legislative or policy considerations for Council associated with this report

FINANCIAL IMPLICATIONS

Once this report has been adopted by Council, the final milestone payment from the funding body will be able to be processed and the funding deed will be finalised.

RISK IMPLICATIONS

Should this study not be adopted by Council, the risk of the project being completed as per the funding deed, will mean the finalisation not being completed as per the funding deed, requiring monies granted to be handed back to the funding body, and the risk that the next round of applications could be impacted.

COMMUNITY CONSULTATION

Community consultation for this report has occurred from (and including) 8.28am Tuesday 29 July 2025 to 5pm Monday 25 August 2025.

Council staff attended the Bogan Gate Memorial Hall the afternoon Monday 11 August 2025 from 5.30pm, then in attendance at the Bogan Gate CCC meeting from 7pm, with a good turnout of residents for both sessions.

The Draft Study was communicated by way of the Floodplain Committee, Council Official Facebook posts, Parkes Champion Post and radio 2PK (Mayor update).

PARKES SHIRE COUNCIL

BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN

OCTOBER 2025

VOLUME 1 – REPORT

Job No: FZ548 File: BGFRMS&P_V1_Report [Rev 1.3].docx	Date: October 2025 Rev No: 1.3	Principals: SAB Authors: SAB

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FOREWORD

NSW Government's Flood Policy

The NSW Government's Flood Policy is directed at providing solutions to existing flooding problems in developed areas and to ensuring that new development is compatible with the flood hazard and does not create additional flooding problems in other areas.

Under the Policy, the management of flood liable land remains the responsibility of local government. The State subsidises flood mitigation works to alleviate existing problems and provides specialist technical advice to assist councils in the discharge of their flood risk management responsibilities.

The Policy provides for technical and financial support by the Government through the flood risk management process shown below.

Presentation of Study Results

The results of the recently completed *Bogan Gate Flood Study* (Lyall & Associates, 2024) have been used as the basis for preparing the *Bogan Gate Flood Risk Management Study and Plan*. The *Bogan Gate Flood Risk Management Study and Plan* have been prepared under the guidance of the Flood Risk Management Committee comprising representatives from Parkes Shire Council, the NSW Department of Climate Change, Energy, the Environment and Water, the NSW State Emergency Service and community representatives.

ACKNOWLEDGEMENT

Parkes Shire Council has prepared this document with financial assistance from the NSW Government through its Floodplain Management Program. This document does not necessarily represent the opinions of the NSW Government or the Department of Climate Change, Energy, the Environment and Water.

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ABBREVIATIONS

AEP	Annual Exceedance Probability (%)
AHD	Australian Height Datum
ARI	Average Recurrence Interval (years)
ARR 2019	Australian Rainfall and Runoff (2019 Edition)
BoM	Bureau of Meteorology
Council	Parkes Shire Council
DECC	Department of Environment and Climate Change
DCCEEW	Department of Climate Change, Energy, the Environment and Water
FRMM	Flood Risk Management Manual, 2023
FRMC	Flood Risk Management Committee
FPL	Flood Planning Level
FPA	Flood Planning Area
FRMS	Flood Risk Management Study
FRMP	Flood Risk Management Plan
FRMS&P	Flood Risk Management Study and Plan
LEP	Local Environmental Plan
LiDAR	Light Detection and Ranging (survey)
MHFL	Minimum Habitable Floor Level
NSWG	New South Wales Government
NSW SES	New South Wales State Emergency Service
PMF	Probable Maximum Flood
TCM	Total Catchment Management
TWG	Technical Working Group
VP	Voluntary Purchase

SUMMARY

S1 Study Objectives

Parkes Shire Council (**Council**) commissioned the preparation of a *Flood Risk Management Study and Plan* for the village of Bogan Gate (***Bogan Gate FRMS&P***). The overall objectives of the *Bogan Gate Flood Risk Management Study* (***Bogan Gate FRMS***) were to assess the impacts of flooding, review existing Council policies as they relate to development of land in flood liable areas, consider measures for the management of flood affected land and to develop the *Bogan Gate Flood Risk Management Plan* (***Bogan Gate FRMP***) which:

i) Proposes modifications to existing Council policies to ensure that the development of flood affected land is undertaken so as to be compatible with the flood hazard and risk.

ii) Sets out the recommended program of works and measures which are aimed at reducing over time, the social, environmental and economic impacts of flooding.

iii) Provides a program for implementation of the proposed works and measures.

The study area for the *Bogan Gate FRMS&P* applies to areas within the village and its immediate environs that are affected by the following two types of flooding:

- **Main Stream Flooding** which occurs when floodwater surcharges the inbank area of Gunningbland Creek, Blowclear Creek, Botfields Creek and their tributaries. Main Stream Flooding is typically characterised by relatively deep and fast flowing floodwater but can include shallower and slower moving floodwater on the overbank of the aforementioned creeks.
- **Major Overland Flow**, which is experienced during periods of heavy rain and is generally characterised by relatively shallow and slow-moving floodwater that is conveyed overland in an uncontrolled manner toward the abovementioned watercourses.

Figure 1.1 bound in **Volume 2** of this report is a location plan, while **Figure 2.1** shows the extent of both the Blowclear and Gunningbland Creek catchments as far downstream as where the main arm of the latter crosses the Orange Broken Hill Railway Line. **Figure 2.2** (2 sheets) shows the key features of the existing stormwater drainage system in the vicinity of the urbanised parts of Bogan Gate, as well as the extent of the “Village Centre”, the southern and northern portions of which are principally zoned *RU5-Village* and *R5-Large Lot Residential*, respectively.

S2 Study Activities

The activities undertaken in this present study included:

1. Review of available data and the undertaking of a consultation program to ensure that the Bogan Gate community were informed of the objectives, progress and outcomes over the course of the study (**Chapter 1** and **Appendix A**).
2. Review of historic flooding at Bogan Gate, as well as flooding patterns that are presented in the *Bogan Gate Flood Study* for flood events up to the Probable Maximum Flood (**PMF**). (**Chapter 2** and **Appendix B**).
3. Review of the economic impacts of flooding that are presented in the *Bogan Gate Flood Study*, including the numbers of affected properties and estimation of flood damages (**Chapter 2**).
4. Review of current flood related planning controls for Bogan Gate and their compatibility with flooding conditions (**Chapter 2**).

5. Strategic review of potential flood risk management measures aimed at reducing flood damages and recommended inclusions/updates to both the *Parkes Local Environmental Plan 2012* (***Parkes LEP 2012***) and the *Parkes Shire Development Control Plan 2021* (***Parkes Shire DCP 2021***) (**Chapter 3** and **Appendix C**).
6. Ranking of works and measures using a multi-objective scoring system which took into account economic, financial, environmental and planning considerations (**Chapter 4**).
7. Preparation of the *Bogan Gate FRMP* (**Chapter 5**).

S3 Summary of Flood Impacts

While the inbank area of Gunningbland Creek and its major tributaries where they run in a westerly direction to the north of Village Centre is of limited capacity, thereby resulting in the relatively frequent inundation of the adjacent road network, only the central portion of the Village Centre is impacted by Main Stream Flooding. Further to this, floodwater originating from Gunningbland Creek generally only inundates land within the Village Centre that is presently undeveloped for all floods with Annual Exceedance Probabilities (**AEPs**) up to 0.2% (1 in 500).

While parts of the Village Centre are affected by Major Overland Flow, the resulting depths of inundation are relatively shallow for all storms up to 0.2% (1 in 500) AEP in intensity.

Figure 2.3 (3 sheets) of the *Bogan Gate FRMS* report shows the indicate extent and depth of inundation at Bogan Gate for a design flood with an AEP of 1% (1 in 100), while **Figure 2.4** (3 sheets) shows similar information for the Probable Maximum Flood (**PMF**). **Appendix B** of the *Bogan Gate FRMS* report show similar information for floods with AEPs of 20% (1 in 5), 10% (1 in 10), 5% (1 in 20), 2% (1 in 50), 0.5% (1 in 200) and 0.2% (1 in 500).

The *Bogan Gate Flood Study* found that while no buildings in the Village Centre would be inundated above-floor level in a 1% AEP flood event, flood damages of about $0.03 Million would still be incurred during a flood of this magnitude. During a PMF event, 24 dwellings and one public building would experience above-floor inundation, resulting in flood damages totalling about $5.39 Million.

For a discount rate of 5% pa and an economic life of 30 years, the *Net Present Worth* of damages for all flood events up to the 1% AEP is effectively zero at Bogan Gate, while for all floods up to the PMF it is only about $0.1 Million.

S4 Flood Risk and Development Controls

An approach which uses the concepts of *flood hazard* and *hydraulic categorisation,* and is aimed at imposing a graded set of controls over development according to the flood risk has been recommended for incorporation into *Parkes Shire DCP 2021*. The delineation of flood planning constraint categories is based on the proximity to flow paths, depths and velocities of flow, the rate of rise of floodwaters and ease of evacuation from the floodplain in the event of a flood emergency.

Figure C1.1 in **Appendix C** of this report is an extract from the *Flood Planning Map* relating to the study area. The extent of the Flood Planning Area (**FPA**) (the area subject to flood related development controls) has been defined as follows:

- In areas subject to Main Stream Flooding, the FPA is based on the traditional definition of the area that lies at or below by the 1% AEP plus 0.5 m freeboard.
- In areas subject to Major Overland Flow, the FPA is defined as areas where depths of inundation exceed 0.1 m in a 1% AEP event, and where identifiable floodways are present in shallower flow.

Figure C1.1 in **Appendix C** shows the extent of the ***Special Flood Considerations Zone***, it being the area of land that lies between the FPA and PMF where the flood hazard vulnerability condition in a PMF is H3 or greater and therefore where flood related development controls would apply to future development should Council decide to adopt the optional clause 5.22 in *Parkes LEP 2012*.

Figure C1.2 in **Appendix C** is an extract of the *Flood Planning Constraint Category Map* for the study area which shows the subdivision of the floodplain into four categories which have been used as the basis for developing the graded set of planning controls.

Minimum habitable floor level (**MHFL**) requirements would be imposed on future development of properties that are identified as lying either partially or wholly within the extent of the FPA shown on **Figure C1.1**. The MHFLs for residential land use types is the level of the 1% AEP flood event plus freeboard, whereas for commercial and industrial land use types the MHFL is to be as close to the 1% AEP flood level plus freeboard as practical, but no lower than the 5% AEP flood level plus freeboard. In situations where the MHFL is below the 1% AEP flood level plus freeboard, a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard.[1]

S5 The Flood Risk Management Plan

Chapter 5 of this report presents the *Bogan Gate FRMP*, with the recommended works and measures summarised in **Table S1** at the end of this Summary. The recommended works and measures have been given a provisional priority ranking, confirmed by the Flood Risk Management Committee (**FRMC**), according to a range of criteria, details of which are set out in **Section 4** of this report.

The *Bogan Gate FRMP* comprises three "non-structural" management measures which could be implemented by Council and NSW State Emergency Service (**NSW SES**) using existing data and without requiring Government funding. The measures are as follows:

- **Measure 1** – Council to consider the inclusion of the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, noting that it would apply to land that lies between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations.
- **Measure 2** - The application of a graded set of planning controls for future development that recognise the location of the development within the floodplain; to be applied through the update of *Parkes Shire DCP 2021*. Suggested wording for inclusion in *Parkes Shire DCP 2021* is set out in Appendix C of this report.
- **Measure 3** - Improvements in the NSW SES emergency planning, including use of the flood related information contained in this study to update the *Parkes Shire Local Flood Plan* (NSW SES, 2024). Information in this report which would be of assistance to NSW SES includes data on the nature and extent of flooding, details of which could be used to update Volume 2 of the *Parkes Shire Local Flood Plan*.

[1] Freeboard is equal to 0.5 m for development being assessed in areas affected by Main Stream Flooding and 0.3 m for development being assessed in areas affected by Major Overland Flow.

- **Measure 4** - Council should take advantage of the information on flooding presented in this report, including the flood mapping, to inform occupiers of the floodplain of the flood risk. This could be achieved through the preparation of a *Flood Information Brochure* which could be prepared by Council with the assistance of NSW SES containing both general and site-specific data and distributed with rate notices.

In addition to the above measures, *Bogan Gate FRMP* includes the investigation, design and implementation of an integrated severe weather/thunderstorm and flood warning system for Bogan Gate, noting that this would require Government Funding (**Measures 5** and **6**). As water levels in the various watercourses that run to the north of Bogan Gate rise relatively quickly in response to intense rainfall (commonly referred to as "flash flooding"), there is merit in implementing an effective location-based messaging system which warns both residents and business owners of the potential for flood producing rain to result in the closure of the road network surrounding the village.

Bogan Gate FRMP includes the investigation and possible implementation by the relevant road and railway authorities of the following flood modification measures:

- The possible raising of Henry Parkes Way at the location of several low-level causeways that are located between Parkes and Bogan Gate (**Measures 7** and **8**).
- The possible upgrade of existing transverse drainage that is located along Henry Parkes Way and the Orange-Broken Hill Railway west of Bogan Gate in combination with any third-party related flood mitigation measures (**Measures 9** and **10**). **Figure 3.6** (3 sheets) is an example of the scale of the impact that the implementation of such works could have on flood behaviour on the broader Gunningbland Creek floodplain west of Bogan Gate for design floods with AEPs of 20%, 5% and 1%.

Based on the outcomes of the community consultation process it was concluded that there is merit in developing and implementing a vegetation management plan for Gunningbland Creek at Bogan Gate, especially in relation to the clearing of vegetation/debris at the Henry Parkes Way and Orange-Broken Hill Railway bridge crossings of the watercourse (Estimated Cost - $0.25 Million) (**Measure 11**).

S6 Timing and Funding of Bogan Gate FRMP Measures

The total estimated cost to implement the measures set out in the *Bogan Gate FRMP* is **$0.60 Million**, exclusive of both local and statement government agency costs. The timing of the measures will depend on Council's overall budgetary commitments and the availability of both Local, State and Commonwealth Government funds.

Assistance for funding qualifying projects included in the *Bogan Gate FRMP* may be available upon application under Commonwealth and State funded floodplain management programs, currently administered by the NSW Department of Climate Change, Energy, the Environment and Water.

S7 Council Action Plan

1. Council to consider updating *Parkes LEP 2012* to include the NSW Government's *Special Flood Considerations* clause 5.22 (**Measure 1** of *Bogan Gate FRMP*).
2. Council to update *Parkes Shire DCP 2021* to incorporate the suggested form of wording set out in **Appendix C** of this report (**Measure 2** of *Bogan Gate FRMP*).

3. NSW SES to update the *Parkes Shire Local Flood Plan* using information on flooding patterns, peak flood levels, times of rise of floodwaters and flood prone areas identified in this report (**Measure 3** of *Bogan Gate FRMP*).
4. Council to inform residents of the flood risk, based on the information presented in *Bogan Gate FRMS* (e.g. displays of flood mapping at Council offices, preparation of *Flood Information Brochure* for distribution with rate notices, etc) (**Measure 4** of *Bogan Gate FRMP*).
5. Council to commission the investigation and design of a severe weather/thunderstorm and flood warning system for Bogan Gate, followed by its implementation (**Measures 5** and **6** of *Bogan Gate FRMP*).
6. Transport for NSW to commission an investigation into the feasibility of raising the existing causeways that are located along Henry Parkes Way where it runs between Parkes and Bogan Gate and subject to its findings, implement the necessary upgrade requirements (**Measures 7** and **8** of *Bogan Gate FRMP*).
7. The relevant rail authority in consultation with Transport for NSW to commission a joint investigation into the feasibility of upgrading the existing transverse drainage that is located along Henry Parkes Way and the Orange-Broken Hill Railway west of Bogan Gate and subject to its findings, implement the necessary upgrade/flood mitigation requirements (**Measures 9** and **10** of *Bogan Gate FRMP*).
8. Council to develop and implement a *Vegetation Management Plan* for Gunningbland Creek at Bogan Gate (**Measure 11** of *Bogan Gate FRMP*).

TABLE S1
RECOMMENDED MEASURES FOR INCLUSION IN BOGAN GATE FLOOD RISK MANAGEMENT PLAN

Measure	Required Funding	Features of the Measure	Priority
1. Update of *Parkes LEP 2012*	Council staff costs	➢ Council to consider including the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*. The optional clause applies to land that lies between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. ➢ While the inclusion of the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* would have limited impact on future development within Bogan Gate, it may have relevance to other urban centres in the LGA such as at Parkes. For this reason, the flood mapping and recommended set of flood related development controls that form part of the present study assume that Council includes the optional clause in *Parkes LEP 2012*. This approach ensures consistency with other study areas where the adoption of the optional clause has more relevance.	**Medium Priority**: this measure is designed to mitigate the flood risk to future sensitive and hazardous type development and has a medium priority. It does not require Government funding.
2. Incorporate recommended approach to managing future development on flood prone land in *Parkes Shire DCP 2021*.	Council staff costs	➢ Graded set of flood controls based on the type of development and their location within the floodplain, defined as land inundated by the PMF. ➢ Floodplain divided into four zones based on the assessed flood hazard and hydraulic categorisation. ➢ The minimum floor levels for all land use types is the level of the 1% AEP flood event plus 0.5 m freeboard in the case of areas affected by Main Stream Flooding and plus 0.3 m freeboard in areas affected by Major Overland Flow. ➢ Additional controls applied to development that is located on land which lies above the Flood Planning Level.	**High Priority**: this measure is designed to mitigate the flood risk to future development and has a high priority for inclusion in *Bogan Gate FRMP*. It does not require Government funding.
3. Ensure flood data in *Bogan Gate FRMS* are available to the NSW SES for improvement of flood emergency planning.	NSW SES costs	➢ NSW SES should update the *Parkes Shire Local Flood Plan* using information on flooding patterns, times of rise of floodwaters and flood prone areas identified in this report.	**High Priority**: this measure would improve emergency response procedures and has a high priority. It does not require Government funding.
4. Implement flood awareness and education program	Council staff costs	➢ Council to inform residents of the flood risk, based on the information presented in *Bogan Gate FRMS*. (e.g. displays of flood mapping at Council offices, preparation of *Flood Information Brochure* for distribution with rate notices, etc).	**Medium Priority**: this measure would improve the flood awareness of the community and has a medium priority given the relatively minor impact flooding has on existing development in the village. It does not require Government funding.
5. Investigate and design an integrated severe weather/thunderstorm and flood warning system for Bogan Gate	$0.05 Million	➢ Liaison with the Bureau of Meteorology and NSW SES to determine the most appropriate set of measures which would provide the maximum warning time of impending severe weather or thunderstorms, as well as actual rising water levels in Gunningbland Creek to the north of the village. ➢ Implementation of an integrated severe weather/thunderstorm and flood warning system, which may as a minimum comprise the following: ➢ A telemetered water level at the location of The Bogan Way bridge crossing of Gunningbland Creek which has pre-determined alert levels. ➢ Upgrade of the daily read *Bogan Gate Post Office* (GS50004) and *Trundle (Long Street)* (GS 50036) rain gauges to telemetered rain gauges, noting that these gauges, in combination with BoMs *Goonumbla (Coradgery)* (GS 50016) Flood Warning Network rain gauge (refer **Figure 2.1** for location) would provide real time data on the likely intensity and depth of rain falling in the Gunningbland Creek catchment upstream of Bogan Gate. ➢ A location-based text messaging service that alerts subscribers to: a) the issuing of a Severe Weather or Thunderstorm Warning from BoM; and b) the exceedance of the aforementioned pre-determined alert levels on the Gunningbland Creek water level recorder.	**High Priority**: this measure would improve the reaction time of the community to potential and actual flooding in parts of Bogan Gate and its surrounding road network.
6. Implement integrated severe weather/thunderstorm and flood warning system for Bogan Gate	$0.30 Million		

Cont'd Over

TABLE S1 (Cont'd)
RECOMMENDED MEASURES FOR INCLUSION IN BOGAN GATE FLOOD RISK MANAGEMENT PLAN

Measure	Required Funding	Features of the Measure	Priority
7. Commission feasibility study into the raising Henry Parkes Way at the location of several low-level crossing that are located along the road between Parkes and Bogan Gate.	Transport for NSW costs	➢ The development of detailed hydrologic and hydraulic models of the catchments which drain to the existing transverse drainage that are located along Henry Parkes Way where it runs between Parkes and Bogan Gate. ➢ The assessment of the level of flood immunity that could be achieved by the raising of Henry Parkes Way, including an assessment of the associated third-party related impacts. ➢ Liaison with Council and affected land holders. ➢ Preparation of preliminary cost estimates of the works required to achieve varying degrees of flood immunity. ➢ Recommend a preferred approach to improving the hydrologic standard of Henry Parkes Way where it runs between Parkes and Bogan Gate.	**Medium Priority**: this measure would significantly improve the hydrologic standard of Henry Parkes Way where it runs between Parkes and Bogan Gate
8. Design and implement the required upgrade requirements identified by the abovementioned feasibility study.		➢ Subject to the findings of the abovementioned feasibility study, prepare detailed designs of the necessary upgrade requirements ➢ Construct the necessary upgrade requirements.	
9. Commission feasibility study into the upgrade of the existing transverse drainage that is located along Henry Parkes Way and the Orange-Broken Hill Railway west of Bogan Gate.	Relevant Rail Authority and Transport for NSW costs	➢ The assessment of the transverse drainage upgrade and third-party impact related flood mitigation requirements using the flood models that were developed as part of the *Bogan Gate Flood Study*. ➢ Liaison with Council and affected land holders. ➢ Preparation of preliminary cost estimates of the preferred set of works.	**Medium Priority**: this measure would: a) reduce the cost of flood damages that are experienced to rail infrastructure as a result of floods on Gunningbland Creek; b) reduce the time that the Orange-Broken Hill Railway is closed for freight and passenger movements during and immediately after major flood events; c) reduce the flood damages within the rural properties that are located both to the north and south of the road and rail corridors, noting that the almost instantaneous failure of the rail embankment during floods can result in damaging flooding being experienced on the downstream side of the railway line; and d) reduce the risk to life of both people and livestock.
10. Design and implement the required upgrade and third-party impact related flood mitigation requirements identified by the abovementioned feasibility study.		➢ Subject to the findings of the abovementioned feasibility study, prepare detailed designs of the preferred transverse drainage upgrade and third-party impact related flood mitigation requirements ➢ Construct the necessary upgrade and flood mitigation requirements.	
11. Develop and implement a *Vegetation Management Plan* for Gunningbland Creek at Bogan Gate	$0.25 Million	➢ The *Vegetation Management Plan* will identify the areas along Gunningbland Creek that require regular maintenance. It will also describe the scope of any rehabilitation works that would be required following the completion of any inbank works. ➢ The required funding would permit the development of the *Vegetation Management Plan*, the removal of dense vegetation/debris from the inbank area of the watercourse and the implementation of a regular maintenance program over a five-year period.	**Medium Priority**: this measure would reduce the risk of a blockage being experienced at the major road/rail crossings.
TOTAL	**$0.60 Million**		

1 INTRODUCTION

1.1 Study Background

Parkes Shire Council (**Council**) commissioned the preparation of a flood risk management study and plan for the village of Bogan Gate in accordance with the New South Wales Government's *Flood Prone Land Policy* (***Bogan Gate FRMS&P***). **Figure 1.1** shows that the village is located about 42 km to the west of Parkes and lies with the Gunningbland Creek catchment.

The *Bogan Gate Flood Risk Management Study (**Bogan Gate FRMS**)* reviewed baseline flooding conditions and the economic impacts of flooding that were assessed as part of the recently completed *Bogan Gate Flood Study* (Lyall & Associates, 2024). It also assessed the feasibility of potential measures which are aimed at reducing the impact of flooding on both existing and future development in the village. This process allowed the formulation of a flood risk management plan for Bogan Gate (***Bogan Gate FRMP***).

The *Bogan Gate FRMS&P* focuses on the village and its immediate environs that are affected by the following two types of flooding:

- **Main Stream Flooding** which occurs when floodwater surcharges the inbank area of Gunningbland Creek, Blowclear Creek, Botfields Creek and their tributaries. Main Stream Flooding is typically characterised by relatively deep and fast flowing floodwater but can include shallower and slower moving floodwater on the overbank of the aforementioned creeks.
- **Major Overland Flow**, which is experienced during periods of heavy rain and is generally characterised by relatively shallow and slow-moving floodwater that is conveyed overland in an uncontrolled manner toward the abovementioned watercourses.

1.2 Background Information

The following documents were used in the preparation of this report.

- *Bogan Gate Flood Study* (Lyall & Associates, 2024) (***Bogan Gate Flood Study***)
- *Flood Risk Management Manual* (New South Wales Government (**NSWG**), 2023) (***FRMM***)
- *Parkes Local Environmental Plan, 2012* (***Parkes LEP 2012***)
- *Parkes Shire Development Control Plan 2021 (**Parkes Shire DCP 2021**)*
- *Parkes Shire Local Flood Plan* (NSW State Emergency Service (**NSW SES**), 2024)

1.3 Overview of Bogan Gate FRMS&P Report

The results of the *Bogan Gate FRMS* and the *Bogan Gate FRMP* are set out in this report. The contents of each Chapter of the report are briefly outlined below:

- **Chapter 2**, **Baseline Flooding Conditions**. This Chapter includes a description of the existing drainage system at Bogan Gate, as well as the nature of flood behaviour in the study area based on the findings of the *Bogan Gate Flood Study*. The Chapter also summarises the economic impacts of flooding on existing urban development, reviews Council's flood planning controls and management measures, as well as NSW SESs flood emergency planning.

- **Chapter 3**, **Potential Flood Risk Management Measures**. This Chapter reviews the feasibility of flood risk management measures for their possible inclusion in the *Bogan Gate FRMP*, noting that the measures are investigated at the strategic level of detail.
- **Chapter 4**, **Selection of Flood Risk Management Measures**. This Chapter assesses the feasibility of potential flood risk management strategies using a multi-objective scoring procedure which was developed in consultation with the Flood Risk Management Committee (**FRMC**) and outlines the preferred strategy.
- **Chapter 5, Bogan Gate Flood Risk Management Plan** presents the *Bogan Gate FRMP* which comprises a number of non-structural measures which are aimed at increasing the flood awareness of the community and ensuring that future development is undertaken in accordance with the local flood risk.
- **Chapter 6** contains a glossary of terms used in the study.
- **Chapter 7** contains a list of References.

Three technical appendices provide further information on the study results:

- **Appendix A – Photographs Showing Historic Flood Behaviour at Bogan Gate** which have been taken from the *Bogan Gate Flood Study*.
- **Appendix B** - **Figures Showing Design Flood Behaviour at Bogan Gate** which have also been taken from the *Bogan Gate Flood Study*.
- **Appendix C** – **Suggested Wording for Inclusion in Parkes Shire Development Control Plan** presents guidelines for the control of future urban development in flood prone areas in the village. .

Figures referred to in this document are contained in a companion Volume 2 document that is A3 in size.

1.4 Community Consultation

A *Community Newsletter and Questionnaire* was disseminated to residents and business owners at the commencement of the *Bogan Gate Flood Study* which sort to identify information on historic flooding in the village. Respondents to the *Community Questionnaire* identified a number of notably intense storm events dating back to 1992, the most notable of which occurred on 1-2 March 2012 and 14 November 2022. **Appendix A** of this report contains copies of several photos that show flooding that was experienced in and around the village in November 2005, December 2010, March 2012, June 2016, September 2016, May 2022 and November 2022.

Respondents to the *Community Questionnaire* also highlighted that several holders of *RU1-Primary Production* zoned land that lies on the northern (upstream) side of the Orange-Broken Hill Railway Line to the west of Bogan Gate have petitioned both local and state government representatives over the past 60+ years regarding the impact that the rail embankment has on flood behaviour and seeking improvements to the hydraulic capacity of its transverse drainage.

The draft *Bogan Gate FRMS&P* report was placed on public exhibition for a period of 28 days, during which time Council staff undertook a public information session in the village. Several written submissions were supportive of the study and its findings, as well as the public information session that was conducted by Council staff. Based on comments made in one written response, a recommendation has been incorporated in the *Bogan Gate FRMP* for Council to develop a

Vegetation Management Plan for Gunningbland Creek, especially in relation to the clearing of vegetation/debris at the Henry Parkes Way and Orange-Broken Hill Railway bridge crossings. While another written submission advocated the inclusion of "**Bogan Gate Potential Flood Modification Measure 1**" or "**BG_PFMM1**") in the *Bogan Gate FRMP*, Council advised that these measures would form part of future stormwater drainage improvements that would be conducted outside of the NSW floodplain management program.

1.5 Flood Frequency and Terminology

In this report, the frequency of floods is referred to in terms of their Annual Exceedance Probability (**AEP**). The frequency of floods may also be referred to in terms of their Average Recurrence Interval (**ARI**). The approximate correspondence between these two systems is:

Annual Exceedance Probability (AEP) (%)	Average Recurrence Interval (ARI) (years)
0.2	500
0.5	200
1	100
2	50
5	20
10	10
20	5

The AEP of a flood represents the percentage chance of its being equalled or exceeded in any one year. Thus a 1% AEP flood, which is equivalent to a 100 year ARI, has a 1% chance of being equalled or exceeded in any one year and would be experienced, on the average, once in 100 years; similarly, a 20 year ARI flood has a 5% chance of exceedance, and so on.

The 1% AEP flood (plus freeboard) is usually used to define the Flood Planning Level (**FPL**) and Flood Planning Area (**FPA**) for the application of flood related controls over residential and commercial/industrial development. While a 1% AEP flood is a major flood event, it does not define the upper limit of possible flooding. Over the course of a human lifetime of, say 70 years, there is a 50 per cent chance that a flood at least as big as a 1% AEP event will be experienced. Accordingly, a knowledge of flooding patterns in the event of larger flood events up to the Probable Maximum Flood (**PMF**), the largest flood that could reasonably be expected to occur, is required for land use and emergency management planning purposes. In the *Bogan Gate Flood Study*, flooding patterns in the study area have been assessed for design floods ranging between 20% AEP event and the PMF.

2 BASELINE FLOODING CONDITIONS

2.1 Physical Setting

The village of Bogan Gate has a population of about 290 and is located about 37 km to the west of Parkes in the Parkes Shire Council LGA. The village is located on Henry Parkes Way at the junction of the Orange-Broken Hill and Tottenham railway lines and comprises a combination of land that is zoned *RU5-Village, R5–Large Lot Residential* and *RE1- Public Recreation* (denoted herein as the "Village Centre"). Natural surface levels within the Village Centre vary between a low of about RL 232 m AHD and a high of about RL 241 m AHD.

2.2 Existing Drainage System

The Village Centre lies a short distance to the south of the confluence of Blowclear Creek and Gunningbland Creek, the latter which drains in a westerly direction toward Goobang Creek. **Figure 2.1** shows the extent of both the Blowclear Creek and Gunningbland Creek catchments at their confluence, as well as the additional area that contributes to flow in Gunningbland Creek between its confluence with Blowclear Creek and where it crosses the Orange Broken Hill Railway Line.

Figure 2.1 shows that the headwaters of Gunningbland Creek and Browclear Creek are each located approximately 25 km to the north-east and north of Bogan Gate, respectively. The inbank area of Gunningbland Creek generally comprises an incised 5-10 m wide by 1.5 m deep channel which has a grade of about 0.1% where it runs between the Village Centre and the location where it crosses beneath Henry Parkes Way, while the inbank area of Blowclear Creek is ill-defined where it runs between Blow Clear Road and its confluence with Gunningbland Creek.

The existing stormwater drainage system in the village (refer **Figure 2.2** (2 sheets) for layout) generally comprises piped and culvert crossings beneath the roads and railway, as well as grass lined table drains that convey overland flow toward the main arm of Gunningbland Creek. **Figure 2.2**, sheet 2 also shows the alignment of a network of rural levees/embankments that have been constructed on the Gunningbland Creek floodplain in the vicinity of the village.

2.3 Flood History

Respondents to the *Community Questionnaire* that was disseminated at the commencement of the *Bogan Gate Flood Study* identified a number of notably intense storm events that have been experienced in the study area, the dates of which are as follows:

- January 1992
- November 2005
- December 2010
- March 2012
- December 2012
- February 2016
- September 2016
- April 2020
- January 2021
- November 2021
- May 2022
- November 2022.

Respondents to the *Community Questionnaire* also provided information on flooding that occurred on a number of these occasions, the most notable of which occurred on 1-2 March 2012 and 14 November 2022 and approximated storms that occur once every 10 years on the average. **Appendix A** of this report contains copies of several photos that show flooding that was experienced in and around the village in November 2005, December 2010, March 2012, June 2016, September 2016, May 2022 and November 2022.

2.4 Design Flood Behaviour

Figures 2.3 and **2.4** (3 sheets each) show the nature of flooding at Bogan Gate for the 1% AEP and PMF events, respectively, while **Figures B1.1** to **B1.6** (3 sheets each) of **Appendix B** show similar information for the 20%, 10%, 5%, 2%, 0.5% and 0.2% AEP flood events. These diagrams show the indicative extent and depth of inundation along Gunningbland Creek and its associated tributaries, as well as along the Major Overland Flow paths for the range of design flood events.

Note that as per the requirements of the 2019 edition of *Australian Rainfall and Runoff* (Geoscience Australia, 2019) (**ARR 2019**), the results of the design flood modelling include probability neutral blockage factors that have been applied to existing hydraulic structures, details of which are set out in the *Bogan Gate Flood Study*.

In order to create realistic results which remove most of the anomalies caused by inaccuracies in the LiDAR survey data, a filter was applied to remove depths of inundation over the natural surface less than 0.1 m. This has the effect of removing the very shallow depths which are more prone to be artefacts of the model, but at the same time giving a reasonable representation of the various overland flow paths. The depth grids shown on the figures have also been trimmed to the building polygons, as experience has shown that property owners incorrectly associate depths of above-ground inundation at the location of buildings with depths of above-floor inundation.

Figure 2.5 is a longitudinal section along a 10.5 km length of the Orange-Broken Hill Railway Line and the adjacent Henry Parkes Way where they run between Olive Grove Lane and Overland Road, while **Figure 2.6** shows the time of rise of floodwaters at selected road and rail crossings throughout the study area, noting that time zero on the stage hydrographs represents the onset of flood producing rain (refer **Figures 2.3** and **2.4** for location of each individual stage hydrograph).

The key features of Main Stream Flooding along Gunningbland Creek as identified in the *Bogan Gate Flood Study* are as follows:

i. Floodwater surcharges both banks of the watercourse during flood events more frequent than 20% AEP along its entire reach.

ii. Floodwater surcharges the left (southern) bank of the watercourse immediately upstream of The Bogan Way:

   a. inundates the low lying undeveloped land in the Village Centre that is bounded by Lagoon Street to the west, Marta Lane to the north, Monomie Street to the east and Bogan Street to the south during a 20% AEP event;

   b. commences to inundate residentially developed allotments in Hutton Street and Lachlan Street in a 10% AEP flood event;

   c. backs up a grass-lined drain that runs along the Lister Lane paper road reserve as far south as Lachlan Street in a 5% AEP flood event; and

   d. inundates existing residentially developed allotments that are located to the north of Lachlan Street to a maximum depth of about 0.4 m in a 5% AEP flood event.

iii. Henry Parkes Way and Orange-Broken Hill Railway embankments are generally elevated about 1 m and 1-1.5 m above adjacent natural surface levels. As a result, floodwater that surcharges the banks of the watercourse downstream of the Tottenham Railway line generally flows in a westerly direction through the rural land that is located on the northern side of Henry Parkes Way where it temporarily ponds on the eastern side of a hillock that is located in the vicinity of Cronin Lane.

iv. Both the Tottenham and Orange-Broken Hill railway line crossings are overtopped by floodwater generally between 9-12 hours after the onset of flood producing rain, while the road crossings are generally inundated in less than 9 hours.

In regards Main Stream Flooding on the tributary arms of Gunningbland Creek, the *Bogan Gate Flood Study* found that:

a) the inbank area of Blowclear Creek is not defined to the north of Blowclear Road and as a result, floodwater flows in a southerly direction through rural land where it overtops the road at multiple locations between Five Chain Lane and Mercadool Lane in flood events as frequent as 20% AEP; and

b) floodwater surcharges the banks of Botfields Creek along its entire reach in flood events more frequent than 20% AEP.

The key features of Major Overland Flow as identified in the *Bogan Gate Flood Study* are as follows:

i. Major Overland Flow has a negligible impact on the Village Centre.

ii. As there is no formal kerb and gutter and/or piped drainage system in the Village Centre, stormwater runoff generally ponds in the road reserves for extended periods of time after the cessation of rainfall events.

iii. The existing grass-lined drain that runs in a northerly direction from the northern end of Lester Lane is of limited capacity and has a minimal grade. It is therefore unable to efficiently drain local stormwater runoff from the portion of the Village Centre that lies to the east of The Bogan Way.

2.5 Existing Flood Mitigation Measures

There are no formal flood mitigation measures present in the village of Bogan Gate.

2.6 Economic Impacts of Flooding

The economic consequences of floods are discussed in **Appendix I** of the *Bogan Gate Flood Study*, which assessed flood damages to residential, commercial/industrial property and public buildings in areas affected by both Main Stream Flooding and Major Overland Flow in the village. The assessment was relied on the procedures set out in *Flood Risk Management Guideline MM01 – Flood Risk Management Measures* (DPE, 2023) and the associated *NSW Flood Risk Management Tool DT01* to estimate both the tangible and intangible damages resulting from flooding at Bogan Gate.

Table 2.1 over the page sets out the number of properties that are flood affected in the Village Centre, as well as the estimated damages which would occur for floods of varying magnitude.

While no buildings in the Village Centre would be inundated above-floor level in a 1% AEP flood event, flood damages of about $0.03 Million would still be incurred during a flood of this magnitude. During a PMF event, 24 dwellings and one public building would experience above-floor inundation, resulting in flood damages totalling about $5.39 Million.

For a discount rate of 5% pa and an economic life of 30 years, the *Net Present Worth* of damages for all flood events up to the 1% AEP is effectively zero, while for all floods up to the PMF it is only about $0.1 Million.

TABLE 2.1
SUMMARY OF FLOOD DAMAGES

Design Flood Event (% AEP)	Number of Properties						Total Damage ($ Million)
	Residential		Commercial/ Industrial		Public		
	Flood Affected	Flood Above Floor Level	Flood Affected	Flood Above Floor Level	Flood Affected	Flood Above Floor Level	
20	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
5	2	0	0	0	0	0	0.01
2	5	0	0	0	0	0	0.02
1	6	0	0	0	0	0	0.03
0.5	6	0	0	0	0	0	0.03
0.2	6	1	0	0	0	0	0.05
PMF	38	24	1	1	1	1	5.39

2.7 Impact of Flooding on Vulnerable Development and Critical Infrastructure

Figure 2.7 (3 sheets) shows the location of vulnerable development and critical infrastructure relative to the extent of inundation resulting from the assessed design storm events, while **Table 2.2** over the page sets out the frequency of floods which would impact this type of development/ infrastructure.[2] **Figure 2.6** also provides flood data relating to the frequency, depth and duration of overtopping of the road and rail crossings identified in **Table 2.2** and on **Figure 2.7**.

Community Assets

The electricity substation that is located on the northern side of Henry parks Way immediately to the east of the Village Centre is subject to relative shallow Major Overland Flow during storms more intense than about 5% AEP, while both telecommunication towers are only impacted by a PMF, and only then by relatively shallow depths.

While the Bogan Gate Memorial Hall that is located at the intersection of Hutton and Lachlan streets is only impacted by the PMF, it would be subject to backwater flooding from Gunningbland Creek to depths approaching 1 m during an extreme flood event.

The Bogan Way heading northern (refer locations H01, H07A, H07B and H09) and Henry Parkes Way, Tubby Lee Road and Leafy tank Road heading west (refer locations H03, H08 and H05A) of the Village Centre are inundated by floodwater during events as frequent as 20% AEP. As shown on **Figure 2.6** (2 sheets), with the exception of The Bogan Way, the affected roads would first become inundated around 9 hours after the onset of flood producing rain and remain inundated for more than 24 hours.

[2] Critical infrastructure has been split into two categories; community assets and emergency services.

TABLE 2.2
IMPACT OF FLOODING ON VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE LOCATED IN THE STUDY AREA[1,2]

Type	Development/Structure	Location Identifier[1]	20% AEP	10% AEP	5%AEP	2% AEP	1% AEP	0.50%	0.20%	PMF
Community Assets	Electricity Substation	-	NF	NF	NF	F	F	F	F	F
	Telecommunications Tower	TT1	NF	NF	NF	NF	NF	NF	NF	F
	Telecommunications Tower	TT2	NF	NF	NF	NF	NF	NF	NF	F
	Community Hall (Bogan Gate Memorial Hall)		NF	NF	NF	NF	NF	NF	NF	F
	Major Road Crossing (The Bogan Way)	H01	F	F	F	F	F	F	F	F
	Major Rail Crossing (Tottenham Railway Line)	H02A	NF	NF	F	F	F	F	F	F
	Major Road Crossing (Bogan Gate Tottenham Railway)	H02B	NF	F	F	F	F	F	F	F
	Major Road Crossing (Tubby Lee Road)	H03	F	F	F	F	F	F	F	F
	Major Road Crossing (Henry Parkes Way)	H04A	NF	NF	NF	NF	NF	NF	NF	NF
	Major Rail Crossing (Orange Broken Hill Railway)	H04B	NF	NF	NF	NF	NF	NF	NF	NF
	Major Road Crossing (Henry Parkes Way)	H05A	F	F	F	F	F	F	F	F
	Major Rail Crossing (Orange Broken Hill Railway)	H05B	NF	NF	F	F	F	F	F	F
	Major Rail Crossing (Bogan Gate Tottenham Railway)	H06	NF	NF	NF	F	F	F	F	F
	Major Road Crossing (The Bogan Way)	H07A	F	F	F	F	F	F	F	F
	Major Road Crossing (The Bogan Way/Bogan Gate Tottenham Railway)	H07B	F	F	F	F	F	F	F	F
	Major Road Crossing (Leafy Tank Road)	H08	F	F	F	F	F	F	F	F
	Major Road Crossing (The Bogan Way)	H09	F	F	F	F	F	F	F	F
Emergency Services	Rural Fire Service (Bogan Gate RFB)	RFB1	NF	NF	NF	NF	NF	NF	NF	NF
Vulnerable Development	Educational Facility (Bogan Gate Public School)	-	NF	NF	NF	NF	NF	NF	NF	NF

1. Refer **Figure 2.7** (3 sheets) for location of vulnerable development and critical infrastructure.
2. "NF" = Infrastructure not impacted by flooding.
   "F" = Infrastructure impacted by flooding.

Emergency Services

The Bogan Gate Rural Fire Brigade shed is located on the southern side of Station Street within the Village Centre on flood free land.

Vulnerable Development

The Bogan Gate Public School is located at the intersection of Jackson Street and Bogan Street on flood free land.

2.8 Potential Impacts of a Change in Hydraulic Roughness

An analysis was undertaken as part of the *Bogan Gate Flood Study* to assess the sensitivity of flood behaviour to potential changes in hydraulic roughness. **Figure 2.8** shows the impact that a 20% increase in the "best estimate" hydraulic roughness values in the hydraulic model would have on a 1% AEP flood event.

The investigation found that increases in peak 1% AEP flood levels in the areas subject to Main Stream Flooding are generally in the range 20 to 100 mm, with increases of up to 200 mm shown to occur in the vicinity of the Tottenham Railway line crossing of the Gunningbland Creek floodplain. The investigation also found that Increases in peak flood levels in areas subject to Major Overland Flow are generally in the range 10 to 20 mm.

2.9 Potential Impacts of a Partial Blockage of Hydraulic Structures

As mentioned in **Section 2.4** of this report, as per the requirements of ARR 2019, the results of the design flood modelling include probability neutral blockage factors that have been applied to existing hydraulic structures, details of which are set out in the *Bogan Gate Flood Study*. **Figure 2.9** shows that the removal of the probability neutral blockage factors has a negligible effect on flood behaviour at the 1% AEP level of flooding.

2.10 Potential Impacts of Future Climate Change

DCCEEW currently recommends that the advice set out in Section 3.7.4 of *Floodplain Risk Management Guide - Incorporating 2016 Australian Rainfall and Runoff in studies* (Office of Environment and Heritage (**OEH**), 2019) be used as the basis for examining climate change in projects undertaken under the State Floodplain Management Program and the FRMM. The guideline recommends that until more work is completed in relation to the climate change impacts on rainfall intensities, sensitivity analyses should be undertaken based on increases in rainfall intensities ranging between 10 and 30 per cent.[3]

On current projections the increase in rainfalls within the service life of developments or flood management measures is likely to be around 10 per cent, with the higher value of 30 per cent representing an upper limit which may apply near the end of the century. Under present day climatic conditions, increasing the 1% AEP design rainfall intensities by 10 per cent would produce about a 0.5% AEP flood; and increasing those rainfalls by 30 per cent would produce about a 0.2% AEP event.

[3] While ARR 2019 updated the advice in relation to the impact that climate change will have on the BoM, 2016 design rainfall intensities, as well as initial and continuing losses for design flood estimation in late 2024, due to the timing of its release, the advice set out in OEH, 2019 has been adopted for undertaking the present study.

For the purpose of the *Bogan Gate Flood Study*, the impact 10% and 30% increases in design 1% AEP rainfall intensities would have on flood behaviour was assessed by comparing the peak flood levels which were derived from the flood modelling for design events with AEPs of 1%, 0.5% and 0.2%.

Figure 2.10 shows that a 10% increase in 1% AEP rainfall intensities would result in increases in peak flood levels of between 50 and 200 mm along Gunningbland Creek and its tributaries, while depths of Major Overland Flow would generally be increased by between 10 to 50 mm.

Figure 2.11 shows that a 30% increase in 1% AEP rainfall intensities would result in increases in peak flood levels of between 100 and 300 mm along Gunningbland Creek and its tributaries, while depths of Major Overland Flow would generally be increased up to 100 mm.

Figure 2.12 shows that the extent of land that would be inundated by floodwater should 1% AEP rainfall intensities increase by up to 30% is negligible on the northern side of the Orange-Broken Hill Railway due to the relatively steep sided nature of the floodplain in this area, while the extent of land that would be inundated increases on the southern side of the rail corridor due to its relatively flat nature.

2.11 Flood Hazard Vulnerability and Hydraulic Categorisation of the Floodplain

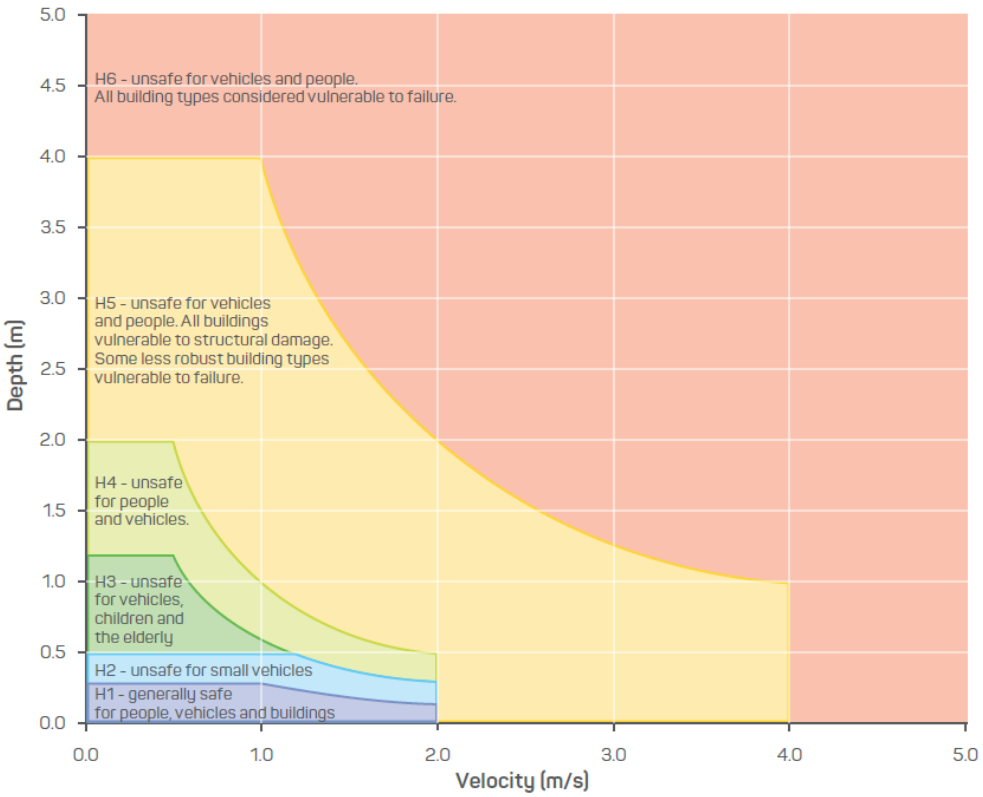
2.11.1 General

According to the FRMM, in order to achieve effective and responsible flood risk management, it is necessary to divide the floodplain into areas that reflect:

1. The impact of flooding on people, as well as existing and future development. To examine this impact it is necessary to divide the floodplain into *"flood hazard vulnerability"* categories, which are provisionally assessed on the basis of the velocity and depth of flow. This task was undertaken as part of the *Bogan Gate Flood Study* where the floodplain was divided into six flood hazard vulnerability zones. **Section 2.11.2** below provides details of the procedure and its outcomes.
2. The impact of future development activity on flood behaviour. Development in active flow paths (i.e. *"floodways"*) has the potential to adversely re-direct flows towards adjacent properties. Examination of this impact requires the division of flood prone land into various *"hydraulic categories"* to assess those parts which are effective for the conveyance of flow, where development may affect local flooding patterns. Hydraulic categorisation of the floodplain was also undertaken as part of the *Bogan Gate Flood Study*. **Section 2.11.3** below summarises the procedure and its outcomes.

2.11.2 Flood Hazard Vulnerability Categorisation

Flood hazard categories may be assigned to flood affected areas in accordance with the definitions contained in ARR 2019. Flood prone areas may be classified into six hazard categories based on the depth of inundation and flow velocity that relate to the vulnerability of the community when interacting with floodwater as shown in the illustration over the page which has been taken from ARR 2019.



Figures 2.13 and **2.14** (3 sheets each) show the *Flood Hazard Vulnerability Classification* based on the procedures set out in ARR 2019 for the 1% AEP and PMF events at Bogan Gate, respectively.

The *Bogan Gate Flood Study* found that the majority of the Village Centre is classified as H1 and H2 in flood events up to 0.2% AEP, with H3 type flooding conditions shown to be present in the low lying land that is located on the northern side of Bogan Street. The *Bogan Gate Flood Study* also found that in flood events up to 0.2% AEP, there are generally no areas classified as H6, while areas classified as H5 are generally limited to the inbank area of Gunningbland Creek, Blowclear Creek and Botfields Creek.

2.11.3 Hydraulic Categorisation of the Floodplain

According to the FRMM, the floodplain may be subdivided into the following three hydraulic categories:

- Floodways;
- Flood storage; and
- Flood fringe.

Floodways are those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with obvious naturally defined channels. Floodways are the areas that, even if only partially blocked, would cause a significant re-distribution of flow, or a significant increase in flood level which may in turn adversely affect other areas. They are often, but not necessarily, areas with deeper flow or areas where higher velocities occur.

Flood storage areas are those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood. If the capacity of a flood storage area is substantially reduced by, for example, the construction of levees or by landfill, flood levels in nearby areas may rise and the peak discharge downstream may be increased. Substantial reduction of the capacity of a flood storage area can also cause a significant redistribution of flood flows.

Flood fringe is the remaining area of land affected by flooding, after floodway and flood storage areas have been defined. Development in flood fringe areas would not have any significant effect on the pattern of flood flows and/or flood levels.

Flood Risk Management Guideline FB02 Floodway Function offers guidance in relation to two alternative procedures for identifying the portion of the floodplain that functions as floodways, flood storage and flood fringe areas.

The indicator technique set out in *Howells et al, 2003* was used as part of the *Bogan Gate Flood Study* to identify the preliminary extent of the floodway based on velocity of flow and depth. Based on the findings of a trial and error process, the following criteria were adopted for identifying those areas which operate as a "floodway" in a 1% AEP event:

- Velocity x Depth greater than 0.25 m^2/s **and** Velocity greater than 0.25 m/s; or
- Velocity greater than 1 m/s.

Manual assessment and cleaning of the raw model output data was then undertaken as recommended in *Flood Risk Management Guideline FB02 Floodway Function*.

Flood storage areas were identified as those areas which do not operate as floodways in a 1% AEP event but where the depth of inundation exceeds 300 mm, while the remainder of the flood affected area was classified as flood fringe.

Figures 2.15 to **2.16** (3 sheets each) show the division of the floodplain into floodway, flood storage and flood fringe areas for the 1% AEP and PMF events, respectively.

Sheet 2 of **Figures 2.15** and **2.16** show that the main floodway on Gunningbland Creek generally runs along the northern side of Henry Parkes Way between Tubby Lees Road and Cronin Lane before crossing to the southern side of the Orange-Broken Hill Railway where it rejoins the main arm of the creek. A floodway zone is also shown to be contained within the inbank area along the 5.5 km reach of Gunningbland Creek immediately downstream (south) of the Orange-Broken Hill Railway Line in flood events up to 0.2% AEP.

In addition to the above, a floodway is present in the minor drainage line that runs to the north of Lachlan Street, east of Hutton Street during a 1% AEP flood event, while several streets in the village function as a floodway during a PMF event.

Flood storage areas are confined to the major ponding areas which are located on the upstream side of the road and railway embankments, as well as in the local farm dams that have been constructed to capture surface runoff in different parts of the study area.

2.12 Environmental Considerations

While **Figures 2.17** shows that there is no environmentally zoned land in the immediate vicinity of Bogan Gate, the inbank area of Gunningbland Creek and its major tributaries, as well as their overbank vegetation do have significant environmental value. This is highlighted by identification of areas of significant environmental value on the *Terrestrial Biodiversity* and *Watercourse* maps contained in *Parkes LEP 2012*, extracts of which are shown in the illustrations over the page.

Illustration showing the extent of land identified as "biodiversity" on the "Terrestrial Biodiversity Map" contained in Parkes LEP 2012.

Illustration showing the extent of land identified as "watercourse" on the "Watercourse Map contained in Parkes LEP 2012.

It is noted that both areas identified as "Biodiversity" and "Watercourse" extend south into the Village Centre generally as far as Bogan Street. It is also noted that area identified as "Watercourse" within the northern portion of the Village Centre does not generally align with the flood affected shown on **Figure 2.3**, sheet 3. Further discussion on the potential impacts that Council must consider when assessing a development application in these two areas is contained in **Section 2.13.2** of this report.

2.13 Council's Existing Planning Instruments and Policies

2.13.1 General

The *Parkes LEP 2012* is the principal statutory planning document used by Council for controlling development by defining zoning provisions, establishing permissibility of land use and regulating the extent of development in the Parkes Shire Council local government area.

The *Parkes Shire Development Control Plan 2021* (***Parkes Shire DCP 2021***) supplements the *Parkes LEP 2012* by providing general information and detailed guidelines which relate to the decision making process.

2.13.2 Parkes Local Environmental Plan 2012

Figures 2.17 shows the zonings that are incorporated in *Parkes LEP 2012* in the immediate vicinity of Bogan Gate. The southern portion of the Village Centre principally comprises land that is zoned *RU5-Village*, with two small pockets of land that are zoned *RE1-Public Recreation* located wither side of Edol Street, while the northern portion is zoned *R5-Large Lot Residential*. The land surrounding the Village Centre is principally zoned RU1-Primary Production, with the exception of the rail corridors which are zoned *SP2-Infrastructure* and the large parcel of land which lies immediately to its north which is zoned *RE2-Private Recreation*.

Clause 5.21 of *Parkes LEP 2012* entitled "*Flood planning*" outlines its objectives in regard to development of land that is located within the extent of the FPA. Clause 5.21 was inserted into *Parkes LEP 2012* by the NSW Government on 14 July 2021 and replaced clause 6.6 which was repealed at the time. Unlike the wording in repealed clause 6.6, the FPL is not defined in clause 5.21.

Clause 5.21 states that development consent must not be granted unless the consent authority is satisfied that the development:

(a) is compatible with the flood function and behaviour on the land, and

(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and

(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and

(d) incorporates appropriate measures to manage risk to life in the event of a flood, and

(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

It also states that in deciding whether to grant development consent on land to which this clause applies, the consent authority must consider the following matters:

(a) the impact of the development on projected changes to flood behaviour as a result of climate change,

(b) the intended design and scale of buildings resulting from the development,

(c) whether the development incorporates measures to minimise the risk to life and ensure the safe evacuation of people in the event of a flood,

(d) the potential to modify, relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion.

While the heading of clause 5.22 entitled "*Special flood considerations"* was inserted in *Parkes LEP 2012* by the NSW Government on 14 July 2021, Council is awaiting the outcomes of the present study prior to making a decision on its possible inclusion. It is noted that the new clause forms part of the updated *NSW Flood Prone Land Package* and has the following objectives:

- in relation to development with particular evacuation or emergency response issues (e.g. schools, group homes, residential care facilities, hospitals, etc.) to enable evacuation of land which lies above the FPL; and
- to protect the operational capacity of emergency response facilities and critical infrastructure during extreme flood events.

The new clause applies to land that lies outside the FPA but within the extent of the PMF.

As mentioned in **Section 2.12**, Council must give consideration to the impact that a proposed development would have on areas identified as "Watercourse" and "Biodiversity", noting that both these areas affect the northern portion of the Village Centre.

Clause 6.2 of *Parkes LEP 2012* entitled "*Terrestrial biodiversity*" applies to land identified as "Biodiversity" on the *Terrestrial Biodiversity Map*. It states that before determining a development application for development on land to which this clause applies, the consent authority must consider:

(a) whether the development is likely to have—

(i) any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and

(ii) any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and

(iii) any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and

(iv) any adverse impact on the habitat elements providing connectivity on the land, and

(b) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

It also states that development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or

(b) if that impact cannot be reasonably avoided by adopting feasible alternatives—the development is designed, sited and will be managed to minimise that impact, or

(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

Clause 6.4 of *Parkes LEP 2012* entitled "*Riparian lands and watercourses*" applies to land identified as "Watercourse" on the *Watercourse Map* and all land that lies within 40 metres of the top of bank of each watercourse identified as "Watercourse" on that map. It states that before determining a development application for development on land to which this clause applies, the consent authority must consider:

(a) whether or not the development is likely to have any adverse impact on the following—

(i) the water quality and flows within the watercourse,

(ii) aquatic and riparian species, habitats and ecosystems of the watercourse,

(iii) the stability of the bed and banks of the watercourse,

(iv) the free passage of fish and other aquatic organisms within or along the watercourse,

(v) any future rehabilitation of the watercourse and riparian areas, and

(vi) whether or not the development is likely to increase water extraction from the watercourse, and

(b) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

It also states that development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or

(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or

(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

The above requirements highlight that in addition to flood related constraints, the land which lies to the north of Bogan Street is also potentially constrained by environmental type considerations.

2.13.3 Flood Related Development Controls

Part B2.5 of *Parkes Shire DCP 2021* entitled "*Stormwater Design and Management*" sets out the controls that apply to new residential subdivisions that are proposed within the LGA. The stated objective of the chapter is:

> *"To ensure stormwater from residential subdivisions is properly drained to a legal point of discharge without causing adverse impacts on public drainage infrastructure, downslope properties or the quality of receiving waters."*

The standards that are to be applied to new subdivision development are as follows:

a. All stormwater generated by any subdivision development must be drained to a legal point of discharge.

b. Stormwater drainage systems are designed using the Australian Rainfall and Runoff 2019 major and minor event philosophy, where the minor system shall be capable of carrying the controlling flows from frequent runoff events, while the major system shall provide safe, well-defined overland flow paths for rare and extreme storm runoff events.

c. *Stormwater volumes and characteristics are estimated in accordance with Australian Rainfall and Runoff 2019 by a suitably qualified engineer.*

d. *Subdivision development takes into account the stormwater management requirements of the whole site / stormwater drainage system, including stormwater from upslope areas in the catchment that is based on a fully developed scenario.*

e. *Existing stormwater management infrastructure abutting the subdivision development, including road drainage and drainage reserves are upgraded / replaced where they do not meet the requirements of the Parkes Shire Council Engineering Design Minimum Standards for Subdivision and Development 2021 and AUS-SPEC #2 Stormwater Drainage.*

f. *Subdivisions that are shown as requiring onsite stormwater detention under the Parkes Urban Area Stormwater Management Plan 2019 are designed so that post-development runoff rates from the new subdivision are equal to or less than pre-development runoff rates for the 1% AEP.*

g. *Subdivisions are designed to accommodate all stormwater in the 20% AEP via underground drainage infrastructure.*

h. *Subdivisions are designed to accommodate all stormwater above the 20% AEP up to the 1% AEP via roads and drainage reserves.*

i. *All residential lots in subdivisions must be free of flooding in the 100 ARI.*

j. *Subdivisions are provided with all necessary stormwater management infrastructure required to address a) to i) above, and in accordance with Parkes Shire Council Engineering Design Minimum Standards for Subdivision and Development 2021 and AUS-SPEC #2 Stormwater Drainage.*

k. *Easements to drain stormwater are provided over all pipelines, pits, overland flow paths and channels (other than natural water courses).*

l. *Subdivisions that cannot drain stormwater to a legal point of discharge via gravity must be supported by a site specific stormwater management system that is designed by a suitably qualified engineer.*

Part C7.4 of *Parkes Shire DCP 2021* entitled "*Fencing*" sets out the controls that apply to new fencing that is proposed as ancillary type development. The stated objective of the chapter is:

> *"To ensure fencing that requires consent does not create adverse impacts on streetscape, residential amenity, public utilities or access."*

The standards that are to be applied to new fencing are as follows:

a. *Fencing must be constructed of masonry, timber or low reflective painted metal materials to manufacturer's specifications.*

b. *Fencing must not incorporate barbed or razor wire in its construction or be electrified or topped with sharp edged materials.*

c. *Entrance gates in fencing shall not open outwards onto a public road reserve.*

d. *Fencing must be designed so as not to restrict / redirect the flow of any floodwater or overland drainage flow-path within a legal drainage easement.*

e. *Fencing complies with the maximum height standards in the following table:* [Not reproduced in this report]

It is noticeable that the flood related controls that are set out in *Parkes Shire DCP 2021* only related to new subdivisions and ancillary type development in the form of new fencing, and therefore do not extend to the control of other types of development such as new single dwellings, commercial/industrial buildings and sensitive type development such as aged and child care type facilities. As a result, Council is constrained in its ability to impose suitable controls on new development that is located within the extent of the flood planning area as required by Clause 5.21 of *Parkes LEP 2012*.

2.14 Flood Warning and Flood Preparedness

The NSW SES is nominated as the principal combat and response agency for flood emergencies in NSW. NSW SES is responsible for the issuing of relevant warnings (in collaboration with BoM), as well as ensuring that the community is aware of the flood threat and how to mitigate its impact.

The *Parkes Shire Local Flood Plan* which is dated February 2024 covers preparedness measures, the conduct of response operations and the coordination of immediate recovery measures for all levels of flooding within the Parkes Shire LGA. *Parkes Shire Local Flood Plan* is administered by the Parkes Unit Commander who controls flood operations within the Parkes Shire LGA. NSW SES maintains a local headquarters at 1the corner of Clark and Alluvial streets in Parkes.

Volume 1 of *Parkes Shire Local Flood Plan* entitled '*Parkes Shire Flood Emergency Sub Plan*' includes sections on flood preparedness, response and recovery. Volume 1 follows the standard NSW SES template and is divided into the following sections:

- ***Chapter 1 - Outline and Scope****;* this section of the document introduces the roles and responsibilities for agencies, functional areas and organisations in relation to flooding within the Parkes Shire. It also emphasises the importance of reviewing and maintaining the currency of the *Parkes Shire Local Flood Plan*.
- ***Chapter 2 - Overview of NSW Flood Hazard and Risk***, makes reference to Volume 2 of the *Parkes Shire Local Flood Plan* which outlines the existing hazard and flood risk in the Parkes Shire. It also lists the declared dams that are located either in or upstream of the Parkes Shire LGA.
- ***Chapter 3 - Preparation****;* this section of the document deals with activities required to ensure the *Parkes Shire Local Flood Plan* functions during the occurrence of the flood emergency. It also devotes considerable attention to flood alertness and emergency response.
- ***Response***; this section states response operations will commence:
    a. On receipt of a Bureau Severe Weather Warning or Thunderstorm Warning that includes heavy rain or storm surge; or
    b. On the receipt of a Bureau Flood Watch or Flood Warning; or
    c. On receipt warnings for flash flood; or
    d. On receipt of a dam failure alert; or
    e. When other evidence leads to an expectation of flooding.

    The response strategies to be employed by NSW SES and Council are listed in Chapter 5 of the *Parkes Shire Local Flood Plan* and include information provision and warning, property protection, evacuation, rescue, and resupply.

- ***Recovery Operations**;* involving measures to ensure the long term welfare for people who have been evacuated, recovery operations to restore services and clean up and de-briefing of emergency management personnel to review the effectiveness of the *Parkes Shire Local Flood Plan.*

Volume 2 of the *Parkes Shire Local Flood Plan* deals with the existing flood hazard and risk in the Parkes Shire LGA. Section 1.6 of Volume 2 states that records show a history of flooding, in what is now the Parkes Shire LGA, at Trundle and Bogan Gate with the most significant in 1930, 1952, 1973, 1976, 1990, 1992, 1998, 2005, 2012 and 2016. It also states that:

a) in September 2016, a large number of roads were impacted by overland and flash flooding including Narromine-Tullamore Road, Bogan Gate-Trundle Road, Bogan Way, Peak Hill-Tullamore Road, Eugowra Road, Henry Parkes (Orange) Road, Newell Highway and 202 local roads;

b) in extreme flood events residences at Tichborne (10 kilometres south of Parkes on the Newell Highway (HW17)), Bogan Gate and rural properties west of Tullamore may become flooded.

Section 2.3 of Volume 2 deals with the specific flood threat at both Trundle and Bogan Gate. Information on both villages is set out under the following headings, noting that only information relating to Bogan Gate has been reproduced below:

2.3.1 Community Overview

Bogan Gate is a small rural community with a population of 307. It lies about 36 kilometres west of Parkes and 24 kilometres southeast of Trundle. It is situated adjacent to the main Sydney – Broken Hill railway.

2.3.2 Characteristics of Flooding

Bogan Gate experiences flash flooding from local creeks, including Gunningbland Creek.

2.3.3 Flood Behaviour

[No Bogan Gate specific information provided]

2.3.4 Classification of Floodplain

[No Bogan Gate specific information provided]

2.3.5 Inundation

Bogan Gate residences may become flooded in an extreme event.

2.3.6 Isolation

In Bogan Gate, six properties on and near The Common next to the Gunningbland creek, north of Leafy Tank Road, Footshill Lane and The Bogan Way, were isolated in 1990 with residents requiring emergency accommodation for three days. Isolation generally occurs for one to three days.

Road closures shown in Section 2.6 combined with those in the Bogan River Catchment area can mean that Trundle can be isolated for periods up to one week and Bogan Gate for 24-36 hours.

2.3.7 Flood Mitigation Systems

[No Bogan Gate specific information provided]

2.3.8 Dams

There are no prescribed dams near Trundle or Bogan Gate.

2.3.9 At Risk Facilities

[No Bogan Gate specific information provided]

2.3.10 Other Considerations

[No Bogan Gate specific information provided]

Section 2.6 of Volume 2 deals with road closures within the Parkes Shire LGA. The following road closure information is given in relation to Bogan Gate:

- ***Henry Parkes Way (MR61)*** *- Gunningbland Creek approx. 6 kilometres west of Bogan Gate. Can be cut for up to four days by the Gunningbland Creek - Restricts access between Bogan Gate and Condobolin.*
- ***Henry Parkes Way (MR61)*** *- Approx. 3 kilometres East of Bogan Gate. Can be cut for up to four days by the Gunningbland Creek.*
- ***The Bogan Way (MR350)*** *- Approx. 1.5 kilometres North of Bogan Gate. Can be cut for up to four days by the Gunningbland Creek. Restricts access between Bogan Gate and Trundle.*

Section 2.7 of Volume 2 provides the following summary of isolated communities and properties within the Parkes Shire LGA:

Town / Area (River Basin)	Population/ Dwellings	Flood Affect Classification	Approximate period isolation	Days								NOTES
				1	2	3	4	5	6	7	8	
Trundle	666 persons / 337 dwellings	High Flood island at 1% AEP, Low Flood Island in extreme	6 – 7 days									Resupply by rotary aircraft as roads closed and no suitable airstrip in town vicinity
Bogan Gate	307 persons /160 dwellings	High Flood island	1 – 2 days									Resupply by rotary aircraft

Note: Periods of isolation are a guide only. Liaison with the Local Controller and communities/residents involved is essential during periods of potential and actual isolation.

While Annex 2 of Volume 2 lists the facilities at risk of flooding and/or isolation in the Lachlan Valley, there are no listings for Bogan Gate (for example the Bogan Gate Public School is not included in the list).

Volume 3 of the *Parkes Shire Local Flood Plan* deals with NSW SES response arrangements for the Parkes Shire and is set out as follows:

- **Chapter 1: Flood Warning Systems and Arrangements**, which deals with dissemination options for NSW SES flood information and warning products, as well as gauges monitored by NSW SES within the LGA.
- **Chapter 2: SES Locality Response Arrangements**, which deals with NSW SES flood response arrangements by individual sector within the LGA. It is noted that the village of Bogan Gate is not assigned a sector within the *Parkes Shire Local Flood Plan*.
- **Chapter 3: SES Dam Failure Arrangements**, which is not applicable to the Parkes Shire LGA.
- **Chapter 4: SES Caravan Park Arrangements**, which deals with arrangements for the evacuation of flood liable caravan parks within the LGA, as well as specific arrangements for individual parks likely to be affected by flooding. It is noted that no caravan parks are presently located within the village of Bogan Gate.

3 POTENTIAL FLOOD RISK MANAGEMENT MEASURES

3.1 Range of Available Measures

A variety of flood risk management measures can be implemented to reduce flood damages. They may be divided into three categories, as follows:

Flood modification measures change the behaviour of floods in regard to discharges and water surface levels to reduce flood risk. This can be done by the construction of levees, detention basins, channel improvements and upgrades of both transverse and longitudinal drainage systems. Such measures are also known as "structural" options as they involve the construction of engineering works. Vegetation management is also classified as a flood modification measure.

Property modification measures reduce risk to properties through appropriate land use zoning, specifying minimum floor levels for new developments, voluntary purchase of residential property in high hazard areas, or raising existing residences in the less hazardous areas. Such options are largely planning (i.e. "non-structural") measures, as they are aimed at ensuring that the use of floodplains and the design of buildings are consistent with flood risk. Property modification measures could comprise a mix of structural and non-structural methods of damage minimisation to individual properties.

Response modification measures change the response of flood affected communities to the flood risk by increasing flood awareness, implementation of a flood warning system and the development of an emergency response plan for property evacuation.

3.2 Outline of Chapter

A range of potential flood risk management measures were examined at the strategic level of detail and where appropriate, tested for feasibility on a range of assessment criteria in **Chapter 4**. Following consideration of the results by the FRMC, selected measures were included in the *Bogan Gate FRMP*, details of which are set out in **Chapter 5**.

The potential flood modifications which were assessed as part of this study comprised the minor stormwater drainage improvements, improvements to the hydrologic standard of Henry Parkes Way where it runs between Parkes and Bogan Gate and the removal/reduction in the blocking effects of both Henry Parkes Way and the Orange-Broken Hill Railway embankments, details of which are set out in **Section 3.3** of this Chapter.

The property modification measures considered as part of this study include controls over future development, voluntary purchase of residential properties and house raising (refer **Section 3.4** of this Chapter for details). Response modification measures, such as improvements to the severe weather/flood warning system, emergency planning and responses, and public awareness programs have also been considered, details on which are set out in **Section 3.5** of this Chapter.

3.3 Flood Modification Measures

3.3.1 Stormwater Drainage Improvements

Following discussions with the TWG, it was identified that Major Overland Flow discharging to the Village Centre in its south-east corner has historically caused issues within the local community. An assessment was therefore undertaken whereby a widened/regraded channel was run from the outlet of the existing transverse drainage structure on Station Street, north to the main arm of Gunningbland Creek, in combination with an earth bund which would run along its western side adjacent to the Village Centre (denoted herein as "**Bogan Gate Potential Flood Modification Measure 1**" or "**BG_PFMM1**")).

The left hand side of **Figure 3.1**, sheet 1 shows the layout of the assessed channel and earth bund arrangement, while the right hand side of sheet1 and both sides of sheet 2 show the impact that the implementation of the works would have on floods with AEPs of 20%, 5% and 1%.

While the proposed channel and bund arrangement would prevent nuisance flooding from being experienced in the south-east corner of the Village Centre, the area is not currently subject to damaging type flooding, so the measure would provide limited benefit in terms of reducing flood damages in existing residential development. Based on this finding, the assessed channel and earth bund arrangement has not been included in *Bogan Gate FRMP*.

3.3.2 Road and Rail Transverse Drainage Upgrades

3.3.2.1 Improving Vehicular Access Between Urban Centres

While outside of the study area, Council advised that Henry Parkes Way is cut between Parkes and Bogan Gate at the location of three major creek crossings, whereby the existing causeways are at times inundated to depths exceeding 1 m. The Bogan Way is also inundated by floodwater immediately to the north of the village, thereby preventing vehicular access to the nearby village of Trundle.

It is noted that hospitals are located at both Parkes and Trundle, so access to medical facilities immediately following a flood event would currently be prevented until such time as floodwater in the creek systems which cross both Henry Parkes Way and The Bogan Way recedes.

While the extent to which The Bogan Way is inundated by floodwater from Gunningbland Creek and its major tributaries means that increasing its hydrologic standard would be cost prohibitive, there would be merit in investigating whether it would be feasible to raise Henry Parkes Way at the location of the aforementioned causeways, thereby improving its hydrologic standard and at the same time reducing the flood risk at the designated creek crossings.

Based on the above, the *Bogan Gate FRMP* includes a recommendation for Transport for NSW to undertake an investigation into the feasibility of raising Henry Parks Way to improve its hydrologic standard where it runs between Parkes and Bogan Gate. While subject to the findings of the feasibility study, the *Bogan Gate FRMP* includes the upgrade of Henry Parkes Way to improve its hydrologic standard where it runs between Parkes and Bogan Gate (been denoted herein as "**Bogan Gate Potential Flood Modification Measure 2**" or "**BG_PFMM2**").

3.3.2.2 Reducing Backwater/Blocking Effects of Road/Rail Embankments

Village Centre

While the Bogan Gate-Tottenham Railway embankment and to a lesser extent The Bogan Way embankment result in elevated water levels being experienced in the northern portion of the Village Centre, there is currently no existing development that experiences above-floor inundation up to the 1% AEP level of flooding as a result of these effects.

Given the significant costs that would be associated with providing sufficient waterway area to remove/reduce these backwater effects, combined with the limited impact that this type of flooding has on existing development at Bogan Gate, the upgrade of the existing road/rail transverse drainage immediately to the north of the village has not been included in *Bogan Gate FRMP*.

Rural Land West of the Village Centre

While not the primary focus of the *Bogan Gate FRMS&P*, several rural landowners have over the past 60+ years petitioned both local and state government representatives regarding improvements to the conveyance capacity of the transverse drainage that is located along the Broken Hill-Orange Railway and Henry Parkes Way where it runs to the west of Bogan Gate.

The Secretary of the Gunningbland Creek Flood Improvement Committee wrote to the Hon Anthony Albanese MP, the then Shadow Minister for Infrastructure in October 2016 following an in-person meeting to discuss flooding in Gunningbland Creek, west of Bogan Gate. The letter states that the railway was raised in the 1950s which resulted in floods occurring within a few years. The letter lists a number of issues in relation to the railway and its impact on flood behaviour, an abbreviated version of which is provided below:

i. *The height of the railway embankment (up to 1.5 m) creates a levee effect and forces floodwater westward, against the natural flow of the Gunningbland Creek.*

ii. *Where floodwater from the Gunningbland Creek first hits the henry Parkes Way and the railway line, the flood mitigation infrastructure is ineffective and the floodwater has to travel 4.9 km before it is able to pass through the railway bridge at Carlachy. As the Carlachy bridge is overwhelmed during a flood, the water has to travel another 4.4 km before it reaches the railway culverts at the Monomie siding, a total of 9.3 km.*

iii. *Due to the volume of floodwater and the inadequate flood mitigation infrastructure, the railway line, which is required to be open 24 hours, seven days a week, is eventually washed away. This is akin to pulling a plug out of a bath and creates a strong destructive current of water for residents and landowners both north and south of the railway line.*

iv. *Floods occur on average once every 5-10 years devastating local residents and landowners, and also washing away the railway line*

The letter also lists the following impacts relating to the impact that the railway has on flood behaviour:

i. *each flood results in loss of livestock, crop destruction, topsoil eroded and washed away, fences continually demolished and ion the 2005 and 2012 flood residents upstream experienced inundation inside their homes when levees were breached and carpets and furniture destroyed;*

ii. *the damage from floods to residents and landowners results in significant repair bills, loss of livelihood and takes a substantial emotional toll on already strained residents and landowners; and*

iii. *the railway line is washed away and is closed to freight and passenger trains, including the Indian Pacific.*

The letter goes on to state that while residents and landowners on the northern side of the railway line acknowledge that some floodwaters from Gunningbland Creek will have to pass through their properties, in order to mitigate the damage caused by flooding exacerbated by its height, the Gunningbland Creek Flood Improvement Committee recommend that 1 km long viaduct comprising both bridge and culvert structures be installed extending 500 m either side of the existing railway bridge at Carlachy.

As part of the present study, the structure of the TUFLOW hydraulic model was modified by removing both the Henry Parkes Way and Orange-Broken Hill Railway embankments over a 1 km length centred on the existing railway bridge at Carlachy. Natural surface levels were also lowered on the southern (downstream) side of the railway line to remove the blocking effects of an existing

dam that is located on railway land. The scope of the assessed measures has been denoted herein as "**Bogan Gate Potential Flood Modification Measure 3**" or "**BG_PFMM3**".

Figure 3.2 (3 sheets) shows the impact that the implementation of BG_PFMM3 would have on flood behaviour on the broader Gunningbland Creek floodplain west of Bogan Gate for design floods with AEPs of 20%, 5% and 1%, while **Figures 3.3**, **3.4** and **3.5** show the flooding patterns in the vicinity of the existing Carlachy railway bridge under pre- and post-BG_PFMM3 conditions for design floods with AEPs of 20%, 5% and 1%, respectively.

The key findings of the assessment were as follows:

i. The implementation of BG_PFMM3 would only have a minimum impact in terms of reducing both the extent and depth of inundation on the northern (upstream) side of the road and rail corridors for all floods up to 1% AEP in magnitude.

ii. The implementation of BG_PFMM3 would result in an increase in both the extent and depth of inundation experienced on rural land that is located to the south (downstream) of the road and railway corridors for all floods up to 1% AEP in magnitude.

iii. While the section of road and rail embankment which runs to the east of the existing Carlachy railway bridge diverts a portion of the total flow across the Gunningbland Creek floodplain in a westerly direction, the general fall of the floodplain and also its main conveyance path lies to the north of the inbank area of the watercourse, resulting in the majority of the floodwater bypassing the larger waterway area that would be associated with BG_PFMM3. One of the key reasons for this is the presence of relatively higher ground either side of the inbank area of Gunningbland Creek as it approaches the existing road and rail crossings, as indicated by the shallower nature of the floodwater shown on **Figures 3.3**, **3.4** and **3.5** in this area.

   For example, by inspection of the peak flows set out in **Table 3.1**, the majority of the flow is maintained on the northern side of the road and rail corridors immediately to the west of the assessed works.

TABLE 3.1
COMPARISON OF PEAK FLOWS[1,2]
(m^3/s)

Condition	Northern (Upstream) Side of Road and Rail Corridors			Southern (Downstream) Side of Road and Rail Corridors		
	20% AEP	5% AEP	1% AEP	20% AEP	5% AEP	1% AEP
Present Day	112	248	409	35	63	113
Post-BG_PFMM3	99 [-13]	209 [-39]	338 [-71]	46 [+11]	101 [+38]	188 [+75]
Post-BG_PFMM4	87 [-25]	173 [-75]	252 [-157]	57 [+22]	134 [+71]	274 [+161]

1. The reference point for comparing peak flows is located immediately to the west of the assessed measures.
2. A positive value in [ ] represents an increase in peak flow attributable to the assessed measure, while conversely a negative value represents a reduction in peak when compared to present day conditions.

Based on the above findings, there is limited merit in providing a 1 km long viaduct type structure centred on the existing Carlachy railway bridge and as a result, BG_PFMM3 has not been included in *Bogan Gate FRMP*.

To highlight the extent to which the Henry Parkes Way and Orange-Broken Hill Railway embankments influence flood behaviour where they run across the full width of the Gunningbland

Creek floodplain, the structure of the TUFLOW hydraulic model was further modified by removing both the road and rail embankments where they run between Olive Grove Lane and Overland Road, a distance of over 10.5 km. The scope of the assessed measures has been denoted herein as "**Bogan Gate Potential Flood Modification Measure 4**" or "**BG_PFMM4**".

Figure 3.6 (3 sheets) shows the impact that the implementation of BG_PFMM4 would have on flood behaviour on the broader Gunningbland Creek floodplain west of Bogan Gate for design floods with AEPs of 20%, 5% and 1%.

The key findings of the assessment were as follows:

i. The implementation of BG_PFMM4 would result in a greater reduction in the extent and depth of inundation that would be experienced on the northern (upstream) side of the road and rail corridors when compared to BG_PFMM3 for all floods up to 1% AEP in magnitude.

ii. The implementation of BG_PFMM4 would result in a greater increase in the extent and depth of inundation that would be experienced on the southern (downstream) side of the road and rail corridors when compared to BG_PFMM3 for all floods up to 1% AEP in magnitude.

iii. By inspection of the peak flows set out in **Table 3.1**, more than half the total flow which presently discharges in a westerly direction would remain on the northern side of the road and rail corridors immediately to the west of the existing Carlachy railway bridge.

While not assessed as part of the present study, based on the results of the assessment, the greatest reduction in peak flood levels on the northern (upstream) side of the road and rail corridors could possibly be achieved by providing two separate viaduct structures further to the east and west of the existing Carlachy railway bridge, noting that there is existing rail infrastructure in the form of silos and grain storage facilities that are located to the east of the existing crossing which would be adversely impacted by these works.

It is noted that the provision of additional waterway area to the east and west of the existing Carlachy railway bridge in combination with any third-party related flood mitigation measures (e.g. in relation to any affected rail infrastructure) would have the benefit of:

a) Reducing the cost of flood damages that are experienced to rail infrastructure as a result of floods on Gunningbland Creek.

b) Reducing the time that the Orange-Broken Hill Railway is closed for freight and passenger movements during and immediately after major flood events.

c) Reducing the flood damages within the rural properties that are located both to the north and south of the road and rail corridors, noting that the almost instantaneous failure of the rail embankment during floods can result in damaging flooding being experienced on the downstream side of the railway line.

d) Reducing the risk to life of both people and livestock.

While not the primary focus of the *Bogan Gate FRMS&P*, the present investigation has identified that there is merit in investigating the upgrade requirements of the existing transverse drainage to the east and west of the existing Carlachy railway bridge in combination with any third-party related flood mitigation measures (e.g. in relation to any affected rail infrastructure), noting that the costs associated with such an investigation and any future upgrade of the road and rail infrastructure would need to be covered by other State and/or Federal Government funding programs other than the NSW Government's Floodplain Management Program. The scope of the assessed measures has been denoted herein as "**Bogan Gate Potential Flood Modification Measure 5**" or "**BG_PFMM5**".

Based on the above, the investigation and possible upgrade of the existing transverse drainage that is located along the Henry Parkes Way and the Orange-Broken Hill Railway west of Bogan Gate in combination with any third-party related flood mitigation measures by the relevant rail authority has been included in *Bogan Gate FRMP*.

3.3.3 Vegetation Management

Based on the outcomes of the community consultation process, it was concluded that there is merit in developing and implementing a vegetation management plan for Gunningbland Creek at Bogan Gate, especially in relation to the clearing of vegetation/debris at the Henry Parkes Way and Orange-Broken Hill Railway bridge crossings of the watercourse. It is therefore recommended that a vegetation management plan be prepared which has the aim of:

a) seeks to remove any trees that may have collapsed into their inbank area and would then act to exacerbate flooding conditions in existing urban development;

b) includes regular inspections of major hydraulic structures, as well as following major flood events to ascertain the need for any remedial actions such as removing any vegetation or debris that may impeded or slow the passage of floodwater.

3.4 Property Modification Measures

3.4.1 Controls over Future Development

3.4.1.1 Current Government Policy

The NSW Government has recently implemented reforms of the *NSW Flood Prone Land Package*. As part of the reform, the wording in the flood planning clause of all NSW Councils was updated on 14 July 2021. As part of the reform, Council will need to nominate the FPL or levels that it wishes to define the FPA and make alternative arrangements for making flood planning maps publicly available where previously solely reliant on LEP flood overlay maps. While the reforms also included an optional clause 5.22 titled "*special flood considerations"* which applies to land that lies between the FPA and the extent of the PMF, Council chose not to include it in *Parkes LEP 2012* at the time.

3.4.1.2 Considerations for Setting Freeboard Requirements

Selection of the FPL for an area is an important and fundamental decision as the standard is the reference point for the preparation of flood risk management plans. It is based on the adoption of the peak level reached by a particular flood plus an appropriate allowance for freeboard. It involves balancing social, economic and ecological considerations against the consequences of flooding, with a view to minimising the potential for property damage and the risk to life and limb. If the adopted FPL is too low, new development in areas outside the FPA (particularly where the difference in level is not great) may be inundated relatively frequently and damage to associated public services will be greater. Alternatively, adoption of an excessively high FPL will subject land that is rarely flooded to unwarranted controls. Councils are responsible for determining the appropriate FPLs within their local government area.

Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest and basement entrance levels, etc. As set out in *Flood Risk Management Guideline FB01 – Understanding and Managing Flood Risk* (DPE, 2023), design variables that are typically incorporated in the derivation of freeboard typically comprise the following:

- uncertainties in the design flood level estimates due to the confidence limits associated with the design peak flow estimates, inaccuracies in the LiDAR survey data and possible variations in key parameters such as hydraulic roughness;
- local factors that can result in differences in water levels across the floodplain; and
- increases in peak flood levels due to wave action.

Depending on the design life of a structure, potential increases in peak flood levels associated with future climate change may also need to be taken into consideration when assessing an appropriate freeboard.

Table 3.2 provides a summary of a joint probability analysis which was undertaken to assess the freeboard allowance which should be incorporated in the FPL for areas at Bogan Gate that are affected by Main Stream Flooding, noting the methodology for deriving the various components of the freeboard allowance is based on the approach set out in Public Works, 2010.

TABLE 3.2
SUMMARY OF FREEBOARD ANALYSIS
AREAS AFFECTED BY MAIN STREAM FLOODING

Design Variable	Probability of Occurrence/Level of Certainty	Maximum Allowance (m)	Joint Probability Allowance (m)
Wave Action	50%	0.20(1)	0.10
Uncertainties in Peak 1% AEP Flood Level Estimate			
- LiDAR survey data	100%	0.15	0.15
- Peak flow estimate	50%	0.20(2)	0.10
Future Climate Change	50%	0.20(2)	0.10
	TOTAL		**0.45**

1. Based on vehicle driven wave action
2. Based on the difference between peak 1% and 0.5% AEP flood levels on Gunningbland Creek at Bogan Gate.

The maximum allowance for uncertainties in the peak 1% AEP flood level estimate is comprised of the following

- inaccuracies in the LiDAR survey data; and
- provision for a 10% increase in the best-estimate peak 1% AEP flow derived by comparison with the increase in peak flood levels associated with a 0.5% AEP flood event.

In regards the potential impacts of future climate change on flood behaviour at Bogan Gate, the *ARR Data Hub* previously gave the following interim climate change factors for Representative Concentration Pathways (**RCPs**) of 4.5 and 8.5 in the years 2050 and 2090:[4]

Year	RCP 4.5	RCP 8.5
2050	6.3%	8.8%
2090	9.2%	20.2%

[4] While the climate change factors in the *ARR Data Hub* were updated in late 2024, the current study has been prepared in accordance with DCCEEWs current advice in relation to the approach that is to be adopted for assessing the potential impacts on climate change on flood behaviour.

A flood with an AEP of 0.5% is commonly considered to be analogous to a flood that would result from a 10% increase in 1% AEP rainfall intensities. By comparison with the interim climate change factors, the adoption of the 0.5% AEP would provide a reasonable indicator of the potential for future climate change to impact peak 1% AEP flood levels at Bogan Gate.

Based on the joint probability analysis set out in **Table 3.2** the adoption of the traditional value of 0.5 m for setting the FPL in areas affected by Main Stream Flooding would provide a reasonable level of flood protection to future development at Bogan Gate.

While the flood range in the major watercourses which traverse the study area is such that the traditional 0.5 m freeboard is appropriate for setting the FPL, its adoption in areas affected by Major Overland Flow would lead to the FPA extending onto land which would not experience damaging or hazardous flooding during a 1% AEP storm event, even allowing for all the variables which comprise freeboard.

Considerable reduction in the number of properties in Major Overland Flow areas classified as "flood affected" would result by the adoption of a threshold depth of inundation under 1% AEP conditions of 0.1 m as the criterion for defining area which would be subject to the majority of flood related development controls, compared with the traditional approach. Properties with depths of inundation 0.1 m or greater, or in a floodway (i.e. traversed by significant overland flows which may in some cases be less than 0.1 m in depth) would therefore be considered to lie within the FPA. Properties with depths of inundation under 1% AEP non-floodway conditions of less than 0.1 m would be classified as "Local Drainage" and, as such would be subject to controls such as the Building Code of Australia (**BCA**) requirements, rather than attracting a flood affectation notice. This approach is supported by the FRMM and would not adversely impact on Council's duty of care in regard to management of flood prone lands. The proposed categorisation of the floodplain, terminology and controls are shown on **Table 3.3**.

TABLE 3.3
PROPOSED CATEGORISATION OF THE FLOODPLAIN

Category	Proposed Terminology used to define inundation in the *Bogan Gate FRMS&P* report	Are Development Controls Required?	Is Section S10.7 Notification Warranted?
Main Stream Flooding	"Main Stream Flooding"	Yes	Yes
Local Overland Flooding - Local Drainage - Major Drainage	 "Local Drainage" "Major Overland Flow"	 No (ref. footnote 1). Yes (ref. footnote 2).	 No (ref footnote 1) Yes (ref footnote 3)

1. Inundation in Local Drainage areas is accommodated by the minimum floor level requirement of 0.15 m above finished surface level contained in the BCA and does not warrant a flood affectation notice in S10.7 Planning Certificates.
2. These are the deeper flooded areas with higher flow velocities. Development controls are specified in **Appendix C**.
3. Depth and velocity of inundation in Major Overland Flow areas are sufficient to warrant a flood affectation notice in S10.7 Planning Certificates. Inundation is classified as "flooding".

Figure C1.1 in **Appendix C** is an extract from the *Flood Planning Map* for Bogan Gate. The figure includes areas subject to both Main Stream Flooding and Major Overland Flow. The extent of the FPA (the area subject to flood related development controls) is shown in a solid mauve (Main Stream Flooding) and green (Major Overland Flow) colour in **Figure C1.1**, and has been defined as follows:

- In areas subject to Main Stream Flooding, the FPA is based on the traditional definition of the area that lies at or below by the 1% AEP plus 0.5 m freeboard.

- In areas subject to Major Overland Flow, the FPA is defined as areas where depths of inundation exceed 0.1 m in a 1% AEP event, and where identifiable floodways are present in shallower flow.

Section 3.5.1.4 sets out the recommended approach to managing future development that is located within the extent of the FPA.

3.4.1.3 Special Flood Considerations

As previously mentioned, in July 2021 Council chose not to adopt the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*. The objectives of the optional clause are:

a) to enable the safe occupation and evacuation of people subject to flooding;

b) to ensure development on land is compatible with the land's flood behaviour in the event of a flood;

c) to avoid adverse or cumulative impacts on flood behaviour;

d) to protect the operational capacity of emergency response facilities and critical infrastructure during flood events; and

e) to avoid adverse effects of hazardous development on the environment during flood events.

The optional clause in its current form applies to:

a) for sensitive and hazardous development, land between the flood planning area and the probable maximum flood, or as otherwise defined in an adopted flood risk management study and plan that has been prepared in accordance with the Flood Risk Management Manual, and

b) for development that is not sensitive and hazardous development, land the consent authority considers to be land that, in the event of a flood, may:

   i. cause a particular risk to life, and

   ii. require the evacuation of people or other safety considerations.

While the clause applies to <u>all</u> land that lies between the FPA and the extent of the PMF, Council is only required to apply flood affectation notices to S10.7 certificates where it considers flood related controls need to be applied to specific types of development.

By inspection of **Figure 2.14**,sheet 3, there is a significant amount of land within the village that is subject to H1 and H2 type flooding conditions where the flood risk would be so low that it would not be reasonable to apply flood related controls to future development, even were it to be classified as sensitive or hazardous in nature. Based on this finding, there is merit in reducing the extent of land to which the requirements of clause 5.22 apply to only land that is subject to H3 or greater flood hazard vulnerability conditions during a PMF event.

Based on this understanding, **Figure C1.1** shows the extent of land that lies between the FPA and PMF where the flood hazard vulnerability condition in a PMF is H3 or greater and therefore where flood related development controls should be applied to future development in accordance with the requirements of clause 5.22 (denoted thereon as the *Special Flood Considerations Zone).).*

Note that prior to making the decision to include the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, it is recommended that Council obtain legal advice to confirm that the above approach of pre-determining the extent of land to which the requirements of the clause apply is legally binding.

3.4.1.4 Proposed Planning Controls for Bogan Gate

While *Parkes DCP 2021* deals with subdivision type development at Bogan Gate, it is limited in its scope and is not consistent with current best flood risk management practice. As a result, it is recommended that Council review and update *Parkes DCP 2021* based on the findings of the present study, as well as the suggested wording that is set out in **Appendix C** of this report.

Schedules 2A and **2B** in **Appendix C** set out the graded set of flood related planning controls which have been developed for areas that are subject to Main Stream Flooding and Major Overland Flow, respectively, while **Figure C1.1** in **Appendix C** shows the areas where the graded set of flood related planning controls set out in **Schedules 2A** and **2B** apply in Bogan Gate.

Minimum habitable floor level (**MHFL**) requirements would be imposed on future development of properties that are identified as lying either partially or wholly within the extent of the FPA shown on **Figure C1.1**. The MHFLs for residential land use types is the level of the 1% AEP flood event plus freeboard, whereas for commercial and industrial land use types the MHFL is to be as close to the 1% AEP flood level plus freeboard as practical, but no lower than the 5% AEP flood level plus freeboard. In situations where the MHFL is below the 1% AEP flood level plus freeboard, a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard.[5]

For areas outside the FPA shown on **Figure C1.1** and assuming Council adopts the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, the MHFL for essential community facilities and utilities which are critical for flood response and recovery, as well as sensitive uses and facilities is the level of the PMF.

Figure C1.2 in **Appendix C** is an extract of the *Flood Planning Constraint Category Map* for the Parkes Shire LGA which respectively show the subdivision of the floodplain at Bogan Gate into the following four categories which have been used as the basis for developing the graded set of planning controls:

- **Flood Planning Constraint Category 1 (FPCC 1)**, which comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding.
- **Flood Planning Constraint Category 2 (FPCC 2)**, which comprises areas which lie within the extent of the FPA where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
- **Flood Planning Constraint Category 3 (FPCC 3)**, which comprises areas which lie within the extent of the FPA but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in **Appendix C** of this report.
- **Flood Planning Constraint Category 4 (FPCC 4)**, which comprises areas that lie between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of

[5] Freeboard is equal to 0.5 m for development being assessed in areas affected by Main Stream Flooding and 0.3 m for development being assessed in areas affected by Major Overland Flow.

a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on **Figure C1.1**.

The derivation of the four FPCCs firstly involved the derivation of a number of sub-regions which were based on the nature of flooding at Bogan Gate, the sub-categories of which are set out in **Table 3.4**. These sub-regions were then combined, with the resulting extents further refined in order to improve the area over which each FPCC applied.

TABLE 3.4
KEY ELEMENTS COMPRISING FLOOD PLANNING CONSTRAINT CATEGORIES

Flooding	FPCC	Sub-category	Constraint
Main Stream Flooding	1	a	1% AEP Main Stream Flooding Floodway
		b	1% AEP MSF Flood Hazard Vulnerability Classification H6
	2	a	1% AEP MSF Flood Storage
		b	1% AEP MSF Flood Hazard Vulnerability Classification H5
		c	0.2% AEP MSF Flood Hazard Vulnerability Classification H5 and H6
		d	1% AEP Flood Emergency Response Classification (Low Flood Island)
		e	1% AEP Flood Emergency Response Classification (Low Flood Island)
		f	0.2% AEP Main Stream Flooding Floodway
	3	-	Flood Planning Area
	4	-	PMF Flood Hazard Vulnerability Classification H3-H6
Major Overland Flow	1	-	1% AEP Floodway AND Flood Hazard Vulnerability Classification H4 - H6
	2	a	1% AEP Floodway AND Flood Hazard Vulnerability Classification H1 - H3
		b	1% AEP Flood Storage Area
		c	0.2% AEP Flood Hazard Vulnerability Classification H5 and H6
	3	-	Flood Planning Area
	4	-	PMF Flood Hazard Vulnerability Classification H3-H6

3.4.1.5 Revision of Parkes LEP 2012

While Council chose not to adopt the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* in July 2021, there is merit in doing so, if not in direct relation to future development within the Village Centre, then possibly in relation to other urban centres within the LGA.

Special flood considerations

(1) The objectives of this clause are as follows—

(a) to enable the safe occupation and evacuation of people subject to flooding,

(b) to ensure development on land is compatible with the land's flood behaviour in the event of a flood,

(c) to avoid adverse or cumulative impacts on flood behaviour,

(d) to protect the operational capacity of emergency response facilities and critical infrastructure during flood events,

(e) to avoid adverse effects of hazardous development on the environment during flood events.

(2) This clause applies to—

(a) for sensitive and hazardous development—land between the flood planning area and the probable maximum flood, and

(b) for development that is not sensitive and hazardous development—land the consent authority considers to be land that, in the event of a flood, may—

(i) cause a particular risk to life, and

(ii) require the evacuation of people or other safety considerations.

(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development—

(a) will not affect the safe occupation and efficient evacuation of people in the event of a flood, and

(b) incorporates appropriate measures to manage risk to life in the event of a flood, and

(c) will not adversely affect the environment in the event of a flood.

(4) A word or expression used in this clause has the same meaning as it has in the Considering Flooding in Land Use Planning Guideline unless it is otherwise defined in this clause.

(5) In this clause—

***Considering Flooding in Land Use Planning Guideline**—see clause 5.21(5).*

***flood planning area**—see clause 5.21(5).*

***Flood Risk Management Manual**—see clause 5.21(5).*

***probable maximum flood** has the same meaning as it has in the Flood Risk Management Manual.*

***sensitive and hazardous development** means development for the following purposes—*

(a) [list land uses]

Direction— Only the following land uses are permitted to be included in the list—

(a) boarding houses,

(b) caravan parks,

(c) correctional centres,

(d) early education and care facilities,

(e) eco-tourist facilities,

(f) educational establishments,

(g) emergency services facilities,

(h) group homes,

(i) hazardous industries,

(j) hazardous storage establishments,

(k) hospitals,

(l) hostels,

(m) information and education facilities,

(n) respite day care centres,

(o) seniors housing,

(p) sewerage systems,

(q) tourist and visitor accommodation,

(r) water supply systems

The steps involved in Council amending *Parkes LEP 2012* following the finalisation and adoption of *Bogan Gate FRMS&P* are:

1. Council Planning Staff consider the conclusions of *Bogan Gate FRMS&P* and suggested amendments to *Parkes LEP 2012*.
2. Council resolves to amend *Parkes LEP 2012* in accordance with *Bogan Gate FRMS&P.*
3. Council prepares a Planning Proposal in accordance with NSW Planning and Environment Guidelines. Planning Proposal submitted to NSW Planning and Environment in accordance with section 3.33 of the EP&A Act, 1979.
4. Planning Proposal considered by the Department of Planning and determination made in accordance with section 3.34(2) of the EP&A Act, 1979 as follows:
   (a) whether the matter should proceed (with or without variation),
   (b) whether the matter should be resubmitted for any reason (including for further studies or other information, or for the revision of the planning proposal),
   (c) community consultation required before consideration is given to the making of the proposed instrument (the community consultation requirements),
   (d) any consultation required with State or Commonwealth public authorities that will or may be adversely affected by the proposed instrument,
   (e) whether a public hearing is to be held into the matter by the Planning Assessment Commission or other specified person or body,
   (f) the times within which the various stages of the procedure for the making of the proposed instrument are to be completed.
5. Planning Proposal exhibited for public comment.

6. Planning Proposal reviewed following public submissions and submissions from relevant State and Commonwealth authorities.
7. Final Local Environmental Plan with proposed amendments drafted.
8. Amending Local Environmental Plan made by the Minister and gazetted.

3.4.2 Potential Voluntary House Purchase Scheme

Removal of housing from high hazard floodway areas in the floodplain is generally accepted as a cost-effective means of correcting previous decisions to build in such areas. The voluntary purchase of residential property in hazardous areas has been part of the NSW Government's Floodplain Management Program for over 20 years, with the recently released *Guideline for the voluntary purchase scheme* (DCCEEW, 2024a) setting out the key eligibility criteria and funding requirements should a council wish to incorporate such a scheme into one of its flood risk management plans.[6]

Voluntary purchase is a recognised and effective flood risk management measure for existing residential properties in areas where:

- there are highly hazardous flood conditions from riverine or overland flooding and the principal objective is to remove people living in the properties and reduce the risk to life of residents and potential rescuers
- a property is located within a floodway and the removal of a building may be part of a floodway clearance program that aims to reduce significant impacts on flood behaviour elsewhere in the floodplain, by enabling the floodway to more effectively perform its flow conveyance function
- purchase of a property enables other flood mitigation works (such as channel improvements or levee construction) to be implemented because the property will impede construction or may be adversely affected by the works with impacts notable to be offset.

Prior to progressing to the purchase of a property that has been identified as being eligible under the scheme, it would first be necessary to undertake a scoping study, especially if the intention is for a council to apply for NSW Government grant funding. The study would involve discussions with each eligible and agreeable property owner, as well as a detailed assessment of each property to determine a priority order and costing for each.

Following the completion of the scoping study, the subject owner is notified that Council is prepared to purchase the property when the owner is ready to sell. Ultimately, the purchase price of the property is determined by independent valuers and the Valuer General, and by negotiation between Council and the owners, noting that valuations are not reduced due to the flood affected nature of the site.

After purchase, land is subsequently cleared and the site re-developed and re-zoned for public open space or some other flood compatible use. A further criterion applied by State Government agencies in assessing eligibility for funding is that the property must be in a high hazard floodway area, that is, in the path of flowing floodwaters where the depth and velocity at the peak of the flood are such that life could be threatened, damage of property is likely and evacuation difficult.

[6] State government funding is only available for properties where the buildings were approved and constructed prior to 1986 when the original Floodplain Development Manual was gazetted. Properties built after this date should have been constructed in accordance with the principles in the manual.

Assessment Outcome

As there are no residential properties located in high hazard floodway areas at Bogan Gate, the inclusion of a voluntary house purchase scheme in *Bogan Gate FRMP* is not an option that is available to Council.

3.4.3 Potential Voluntary House Raising Scheme

Voluntary house raising is recognised as an effective floodplain risk management measure for both riverine and overland flood conditions. It is generally undertaken to:

a) reduce the frequency of exposure to flood damage of the house and its contents and reduce the frequency of household disruption and associated trauma and anxiety; or

b) as a compensatory measure where flood mitigation works adversely affect a house, which is generally considered part of the mitigation work rather than a separate VHR scheme.

Voluntary house raising can be an effective strategy for existing properties in low flood hazard areas where mitigation works to reduce flood risk to properties are impractical or uneconomic, noting that it must form part of a broader floodplain risk management strategy for an area rather than as a stand-alone option, as it does not deal with issues such as risk to life. The recently released *Guideline for voluntary house raising schemes* (DCCEEW, 2024b) sets out the key eligibility criteria and funding requirements should a council wish to incorporate such a scheme into one of its flood risk management plans.

State government funding is only available for properties where the buildings were approved and constructed prior to 1986 when the original Floodplain Development Manual was gazetted, noting that houses built after this date should have been constructed in accordance with the principles in the manual.

Following the adoption of a voluntary house raising scheme as part of a flood risk management plan, the next step is for a council to undertake a scoping study, especially if the intention is to apply for NSW Government grant funding. The study is to include discussions with each eligible and agreeable property owner, as well as a detailed assessment of each property to determine a priority order and costing for each. Following the completion of the scoping study, the subject owner is notified that Council is prepared to cover the cost of raising the existing house to the FPL or higher.

Assessment Outcome

As there are no residential properties at Bogan Gate that are subject to above-floor inundation for all floods up to 1% AEP level of flooding, the inclusion of a voluntary house raising scheme in *Bogan Gate FRMP* is not an option that is available to Council.

3.5 Response Modification Measures

3.5.1 Flood and Severe Weather/Thunderstorm Warning Systems

An effective flood warning system has three key components, i.e. a flood forecasting system, a flood warning broadcast system and a response/evacuation plan. All systems need to be underpinned by an appropriate public flood awareness program.

Presently warnings regarding the potential for flooding to occur at Bogan Gate are limited to BoMs Severe Thunderstorm Warning and Severe Weather Warnings for Flash Flooding alert services which are publicly available via the internet via the following links or on smart phones via free Apps such as Hazards Near Me which is linked to the Australian Warning System:

- http://www.bom.gov.au/nsw/warnings/
- https://hazardwatch.gov.au/

As the closure of roads due to flooding are of concern to the Bogan Gate community, there is merit in implementing an effective location-based messaging system which warns both residents and business owners of the potential for flood producing rain to be experienced over Bogan Gate, as well as potential road closures due to rising water levels in Gunningbland Creek.

While Council would first need to commission an investigation to assess the feasibility of implementing such a scheme at Bogan Gate, it is envisaged that it would comprise the following as a minimum:

- A telemetered water level at the location of The Bogan Way bridge crossing of Gunningbland Creek which has pre-determined alert levels.
- Upgrade of the daily read *Bogan Gate Post Office* (GS50004) and *Trundle (Long Street)* (GS 50036) rain gauges to telemetered rain gauges, noting that these gauges, in combination with BoMs *Goonumbla (Coradgery)* (GS 50016) Flood Warning Network rain gauge (refer **Figure 2.1** for location) would provide real time data on the likely intensity and depth of rain falling in the Gunningbland Creek catchment upstream of Bogan Gate.
- A location-based text messaging service that alerts subscribers to:
  a) the issuing of a Severe Weather or Thunderstorm Warning from BoM; and
  b) the exceedance of the aforementioned pre-determined alert levels on the Gunningbland Creek water level recorder.

While The Bogan Way is also inundated by floodwater that originates from Blowclear and Botfields creeks, the monitoring of water levels in Gunningbland Creek would at the very least provide the Bogan Gate community with a clear indication that elevated water levels are being experienced in the creek systems that lie to the north of the Village Centre and that caution needs to be taken when considering travel arrangements. It would also alert the community, as well as emergency services of the potential for the northern portion of the Village Centre to be inundated by floodwater originating from Gunningbland Creek.

The cost to investigate and design an integrated severe weather/thunderstorm and flood warning system for Bogan Gate is estimated to be about $50,000, whilst its implementation is estimated to cost about $300,000.

3.5.2 Improved Emergency Planning and Response

As mentioned in **Section 2.14**, the *Parkes Shire Local Flood Plan* provides detailed information regarding preparedness measures, conduct of response operations and coordination of immediate recovery measures for all levels of flooding.

NSW SES should ensure information contained in this report on the impacts of flooding on urban development, as well as recommendations regarding flood warning and community education are used to update Volume 2 of the *Parkes Shire Local Flood Plan*. Volume 2 should include the following sections:

1 – The Flood Threat includes the following sub-sections:

1.2 Land Forms and River Systems – ref. **Sections 2.1** and **2.2** of this report for information on these topics.

1.5 Characteristics of Flooding – Indicative extents of inundation for the 1% AEP and PMF events and the typical times of rise of floodwaters at key locations on the major watercourses are shown on **Figures 2.3**, **2.4** and **2.6**. The location of vulnerable development and critical infrastructure relative to the flood extents is shown on **Figure 2.7**.

1.6 Flood History – Recent flood experience at Bogan Gate is discussed in **Section 2.3** of the report.

1.8 Extreme Flood Events – The PMF was modelled and the indicative extent and depth of inundation presented on **Figure 2.4**.

2 – Effects on the Community

Information on the properties affected by the 1% AEP design flood are included in this report (**Figure 2.3**). As floor level data used in this assessment were estimated from the LiDAR survey and "drive by" survey they are indicative only. While fit for use in estimating the economic impacts of design floods, the data should not be used to provide specific details of the degree of flood affectation of individual properties.

Figure 2.6 shows stage hydrographs at road and rail crossings of various watercourses and drainage lines at Bogan Gate, the locations of which are shown on **Figures 2.3**, **2.4** and **2.4** and **2.7**.

Figure 2.7 shows the location of vulnerable development and critical infrastructure at Bogan Gate relative to the flood extents of the 20, 10, 5, 2, 1, 0.5 and 0.2% AEP flood events, as well as the PMF. Refer **Section 2.7** for details of affected infrastructure.

Figures 3.7, **3.8** and **3.9** show the flood emergency response planning classifications for the 5% AEP, 1% AEP and PMF events, respectively, based on the definitions set out in the *Flood Risk Management Guideline EM01 – Support for Emergency Management Planning*.

In regards the above, the Village Centre is generally classified as ***Rising Road Access*** for all floods up to 1% AEP in magnitude, with the eastern portion gradually changing to a ***Low Flood Island*** which increasing flood magnitude. The illustrations below are taken from *Flood Risk Management Guideline EM01 – Support for Emergency Management Planning* describing the nature of these two classifications.

Low flood island. The flood island is lower than the limit of flooding for the event being considered (Figure 8 and Figure 9 show a low flood island in the PMF). During a flood event the area initially becomes isolated by floodwater, terrain, development or infrastructure. If floodwater continues to rise after it is isolated, the land on the island will eventually be completely inundated by floodwaters. Evacuation of the community will be required prior to evacuation routes being closed as people left stranded on the island may drown.

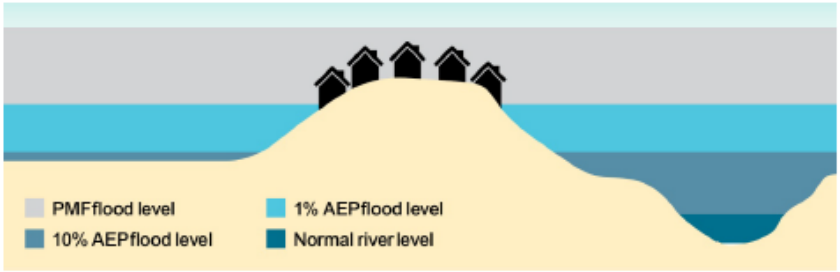


Figure 8 **Low flood island**

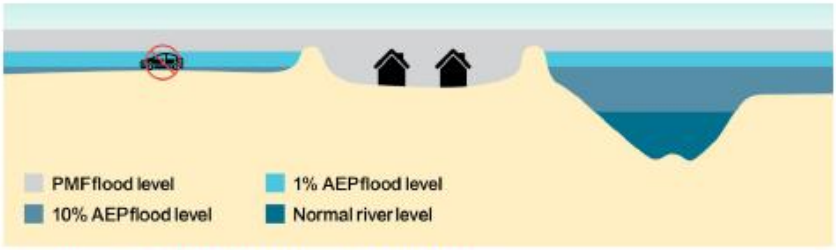


Figure 9 **Low flood island created by a ring levee**

Areas with rising road access are those areas where access roads rise steadily uphill and away from the rising floodwaters (Figure 12 and Figure 13). The community will not be completely isolated before inundation reaches its maximum extent, even in the PMF. Evacuation can take place by vehicle or on foot along the road as floodwater advances. People should not be trapped unless they delay their evacuation from their homes, for example, people living in 2-storey homes may initially decide to stay but reconsider after water surrounds them.

These communities contain low-lying areas from which people will be progressively evacuated to higher ground as the level of inundation increases. This inundation could be caused either by direct flooding from the river system or by localised flooding from creeks.

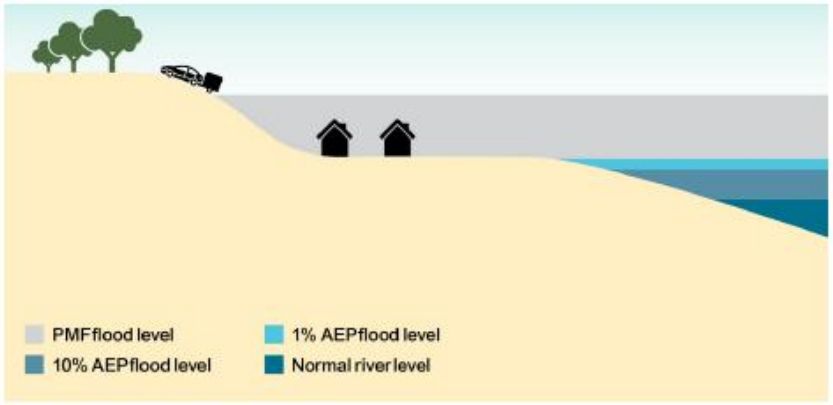


Figure 12 **Area with rising road access**

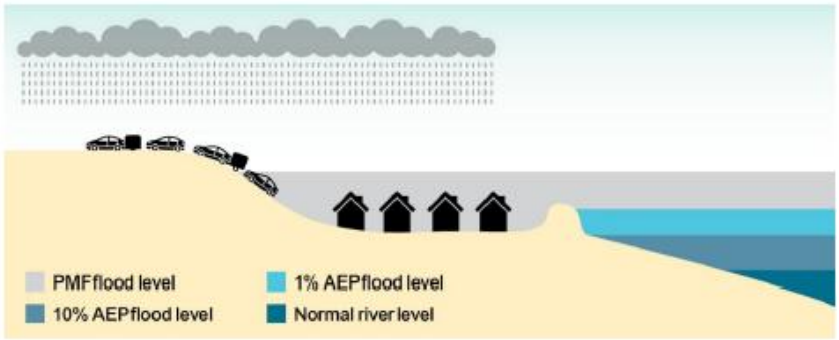


Figure 13 **Area protected by a levee with rising road access**

3.5.3 Public Awareness Programs

Community awareness and appreciation of the existing flood hazards in the floodplain would promote proper land use and development in flood affected areas. A well-informed community would be more receptive to requirements for flood proofing of buildings and general building and development controls imposed by Council. Council should also take advantage of the information on flooding presented in this report, including the flood mapping, to inform occupiers of the floodplains of the flood risk.

One aspect of a community's preparedness for flooding is the "flood awareness" of individuals. This includes awareness of the flood threat in their area and how to protect themselves against it. The overall level of flood awareness within the community tends to reduce with time, as memories fade and as residents move into and out of the floodplain. The ability to access free location-based severe weather and thunderstorm warnings via the internet or smart phone via would therefore represent a major opportunity for improving flood warning and preparedness times for people living at Bogan Gate.
Means by which community awareness of flood risks can be maintained or may be increased include:

- displays at Council offices using the information contained in the present study and photographs of historic flooding in the area;
- talks by NSW SES officers with participation by Council and longstanding residents with first-hand experience of flooding in the area; and
- preparation of a Flood Information Brochure which could be prepared by Council with the assistance of NSW SES containing both general and site-specific data and distributed with rate notices.

The community should also be made aware that a flood greater than historic levels or the flood planning level can, and will, occur at some time in the future.

4 SELECTION OF FLOOD RISK MANAGEMENT MEASURES

4.1 Background

The FRMM requires a Council to develop a Flood Risk Management Plan based on balancing the merits of social, environmental and economic considerations which are relevant to the community. This chapter sets out a range of factors which need to be taken into consideration when selecting the mix of works and measures that should be included in *Bogan Gate FRMP*.

Due to differing priorities, individual communities need to establish their own set of considerations in which to assess the merits of different measures. The considerations adopted by a community must, however, recognise the State Government's requirements for flood risk management as set out in FRMM and other relevant policies. A further consideration is that some elements of *Bogan Gate FRMP* may be eligible for subsidy from State and Federal Government sources and the requirements for such funding must, therefore, be taken into account.

Typically, State and Federal Government funding is given on the basis of merit, as judged by a range of criteria:

- The magnitude of damage to property caused by flooding and the effectiveness of the measure in mitigating damage and reducing the flood risk to the community.
- Community involvement in the preparation of the Flood Risk Management Plan and acceptance of the measure.
- The technical feasibility of the measure (relevant to structural works).
- Conformance of the measure with Council's planning objectives.
- Impacts of the measure on the environment.
- The economic justification, as measured by the benefit/cost ratio of the measure.
- The financial feasibility as gauged by Council's ability to meet its commitment to fund its part of the cost.
- The performance of the measure in the event of a flood greater than the design event.
- Conformance of the measure with Government Policies (e.g. FRMM and Catchment Management objectives).

4.2 Ranking of Measures

A suggested approach to assessing the merits of various measures is to use a subjective scoring system. The chief merits of such a system are that it allows comparisons to be made between alternatives using a common "currency". In addition, it makes the assessment of alternatives "transparent" (i.e. all important factors are included in the analysis). The system does not, however, provide an absolute "right" answer as to what should be included in *Bogan Gate FRMP* and what should be left out. Rather, it provides a method by which Council can re-examine the measures and if necessary, debate the relative scoring given to aspects of *Bogan Gate FRMP*.

Each measure is given a score according to how well the measure meets the considerations discussed above. In order to keep the scoring simple, the following system is proposed:

+2	Measure rates very highly
+1	Measure rates well
0	Measure is neutral
- 1	Measure rates poorly
- 2	Measure rates very poorly

The scores are added to get a total for each measure.

Based on considerations outlined in this chapter, **Table 4.1** presents a suggested scoring matrix for the measures reviewed in **Chapter 3**, noting that the green shading indicates that the measure has merit and could be considered for inclusion in *Bogan Gate FRMP*. The scoring has also been used as the basis for prioritising the components of *Bogan Gate FRMP*.

4.3 Summary

Table 4.1 indicates that there are good reasons to consider including the following elements into *Bogan Gate FRMP*:

- Improved planning controls through the development of a flood related development control plan or policy.
- Incorporation of the catchment specific information on flooding impacts contained in this study in NSW SES Response Planning and Flood Awareness documentation for Bogan Gate.
- Improved public awareness of flood risk in the community.
- The investigation, design and implementation of an integrated severe weather/ thunderstorm and flood warning system for Bogan Gate.
- The investigation, design and upgrade of one or more existing causeways that are located along Henry Parkes Way where it runs between Parkes and Bogan Gate to improve its hydrologic standard (i.e. the works that have been denoted herein as "**Bogan Gate Potential Flood Modification Measure 2**" or "**BG_PFMM2**").
- The investigation and possible upgrade of the existing transverse drainage that is located along the Henry Parkes Way and the Orange-Broken Hill Railway west of Bogan Gate in combination with any third-party related flood mitigation measures (i.e. the works that have been denoted herein as "**Bogan Gate Potential Flood Modification Measure 5**" or "**BG_PFMM5**").
- Development and implementation of a *Vegetation Management Plan* for Gunningbland Creek at Bogan Gate.

TABLE 4.1
ASSESSMENT OF POTENTIAL FLOOD RISK MANAGEMENT MEASURES FOR INCLUSION IN BOGAN GATE FLOOD RISK MANAGEMENT PLAN

Measure	Impact on Flooding/ Reduction in Flood Risk	Community Acceptance	Technical Feasibility	Planning Objectives	Environ. Impacts	Economic Justification	Financial Feasibility	Extreme Flood	Government Policies and TCM Objectives	Score
Flood Modification										
Implementation of measures comprising BG_PFMM1	+1	+1	+1	+1	0	-1	-1	0	0	+2
Implementation of measures comprising BG_PFMM2	+1	+2	+1	+2	0	+1	-1	0	+2	+8
Implementation of measures comprising BG_PFMM3	+1	+2	+1	0	0	-1	-1	+1	+1	+4
Implementation of measures comprising BG_PFMM4	+2	+2	-1	+1	0	-2	-2	+2	+1	+3
Implementation of measures comprising BG_PFMM5	+2	+2	+1	+1	0	+1	-1	+1	+1	+8
Vegetation Management Plan	+1	+2	+1	+1	+1	+1	+1	0	+1	+9
Property Modification										
Inclusion of *Special Flood Considerations* clause in *Parkes LEP 2012*	+1	+2	+2	+1	0	0	0	+2	+2	+10
Controls over Future Development (via update of *Parkes Shire DCP 2021*)	+2	+2	+2	+2	0	0	0	+1	+2	+12
Voluntary Purchase of Scheme	-2	-2	+2	-2	0	-2	-2	+2	-2	-8
Voluntary House Raising Scheme	-2	-2	+2	-2	0	-2	-2	+2	-2	-8
Response Modification										
Severe Weather/Thunderstorm and Flood Warning System	+1	+2	+2	+1	0	+1	+1	0	+1	+9
Improved Emergency Planning and Response	+2	+1	+2	+2	0	0	0	+2	+2	+11
Public Awareness Programs	+2	+1	+2	+2	0	0	0	+1	+2	+10

5 BOGAN GATE FLOOD RISK MANAGEMENT PLAN

5.1 The Flood Risk Management Process

The *Bogan Gate Flood Risk Management Study (**Bogan Gate FRMS**)* and *Bogan Gate Flood Risk Management Plan* (***Bogan Gate FRMP***) have been prepared as part of a Government program to mitigate the impacts of major floods and reduce the hazards in the floodplain. The *Bogan Gate FRMP* which is set out in this Chapter has been prepared as part of the Flood Risk Management Process in accordance with NSW Government's Flood Prone Land Policy.

The *Bogan Gate FRMS* reviewed baseline flooding conditions and the economic impacts of flooding that were assessed as part of the recently completed *Bogan Gate Flood Study* (Lyall & Associates, 2024). The findings of the *Bogan Gate Flood Study* formed the basis of the preparation of both the *Bogan Gate FRMS* and the *Bogan Gate FRMP*.

5.2 Purpose of the Plan

The overall objectives of the *Bogan Gate FRMS* were to assess the impacts of flooding, review policies and measures for management of flood affected land and to develop *Bogan Gate FRMP* which:

- Sets out the recommended program of works and measures aimed at reducing over time, the social, environmental and economic impacts of flooding and establishes a program and funding mechanism for the *Bogan Gate FRMP*.
- Proposes amendments to Parkes Shire Council's (**Council's**) existing policies to ensure that the future development of flood affected land in the study area is undertaken so as to be compatible with the flood hazard and risk.
- Ensures the *Bogan Gate FRMP* is consistent with NSW State Emergency Services (**NSW SESs**) local emergency response planning procedures.
- Ensures that the *Bogan Gate FRMP* has the support of the community.

5.3 The Study Area

The study area for the *Bogan Gate FRMP* principally applies to the urbanised areas at Bogan Gate (denoted herein as the "**Village Centre**"). The study deals with the following two types of flooding:

- **Main Stream Flooding**, which occurs when floodwater surcharges the inbank area of Gunningbland Creek, Blowclear Creek, Botfields Creek and their tributaries. Main Stream Flooding is typically characterised by relatively deep and fast flowing floodwater but can include shallower and slower moving floodwater on the overbank of the aforementioned creeks.
- **Major Overland Flow**, which is experienced during periods of heavy rain and is generally characterised by relatively shallow and slow-moving floodwater that is conveyed overland in an uncontrolled manner toward the abovementioned watercourses.

Figure 1.1 is a location plan, while **Figure 2.1** shows the extent of both the Gunningbland Creek and Blowclear Creek catchments at their confluence, as well as the additional area that contributes to flow in Gunningbland Creek between its confluence with Blowclear Creek and where it crosses the Orange Broken Hill Railway Line. **Figures 2.2** (3 sheets) shows the key features of the existing stormwater drainage system at Bogan Gate. Also shown on **Figure 2.2** is the extent of the "Village Centre", the southern and northern portions of which are principally zoned *RU5-Village* and *R5-Large Lot Residential*, respectively.

5.4 Community Consultation

The Community Consultation process provided valuable direction over the course of the investigations, bringing together views from key Council staff, other departments and agencies, and importantly, the views of the community gained through:

- The delivery of a *Community Newsletter and Questionnaire* to residents and business owners at the commencement of the *Bogan Gate Flood Study* which sort to identify information on historic flooding in Bogan Gate.
- The public exhibition of the draft *Bogan Gate FRMS* and *Bogan Gate FRMP*.
- Public meetings held by Council representatives.

Meetings were also held with the Flood Risk Management Committee to discuss the findings of *Bogan Gate FRMS* and also the recommended set of measures set out in the *Bogan Gate FRMP*.

Respondents to the *Community Questionnaire* that was disseminated at the commencement of the *Bogan Gate Flood Study* identified a number of notably intense storm events dating back to 1992 and provided flood related information relating to a number of these, the most notable be events that occurred on 1-2 March 2012 and 14 November 2022 and approximated storms that occur once every 10 years on the average. **Appendix A** of the *Bogan Gate FRMS* report contains copies of several photos that show flooding that was experienced in and around the village in November 2005, December 2010, March 2012, June 2016, September 2016, May 2022 and November 2022.

Respondents to the *Community Questionnaire* also highlighted that several holders of *RU1-Primary Production* zoned land that lies on the northern (upstream) side of the Orange-Broken Hill Railway Line to the west of Bogan Gate have petitioned both local and state government representatives over the past 60+ years regarding the impact that the rail embankment has on flood behaviour and seeking improvements to the hydraulic capacity of its transverse drainage.

5.5 Existing Flood Behaviour

While the inbank area of Gunningbland Creek and its major tributaries where they run in a westerly direction to the north of Village Centre is of limited capacity, thereby resulting in the relatively frequent inundation of the adjacent road network, only the central portion of the Village Centre is impacted by Main Stream Flooding. Further to this, floodwater originating from Gunningbland Creek generally only inundates land within the Village Centre that is presently undeveloped for all floods with Annual Exceedance Probabilities (**AEPs**) up to 0.2% (1 in 500).

While parts of the Village Centre are affected by Major Overland Flow, the resulting depths of inundation are relatively shallow for all storms up to 0.2% (1 in 500) AEP in intensity.

Figure 2.3 (3 sheets) of the *Bogan Gate FRMS* report shows the indicate extent and depth of inundation at Bogan Gate for a design flood with an AEP of 1%, while **Figure 2.4** (3 sheets) shows similar information for the Probable Maximum Flood (**PMF**). **Appendix B** of the *Bogan Gate FRMS* report show similar information for floods with AEPs of 20%, 10%, 5%, 2%, 0.5% and 0.2%.

Figure 2.5 of the *Bogan Gate FRMS* report is a longitudinal section along a 10.5 km length of the Orange-Broken Hill Railway Line and the adjacent Henry Parkes Way where they run between Olive Grove Lane and Overland Road, while **Figure 2.6** shows the time of rise of floodwaters at selected road and rail crossings throughout the study area, noting that time zero on the stage hydrographs represents the onset of flood producing rain (refer **Figures 2.3** and **2.4** for location of each individual stage hydrograph).

5.6 Existing Flood Mitigation Measures

There are no formal flood mitigation measures present in the village of Bogan Gate.

5.7 Economic Impacts of Flooding

Table 5.1 shows the number of properties that would be flooded to above-floor level and the damages experienced in residential and commercial/industrial development, as well as public buildings at Bogan Gate.

TABLE 5.1
ECONOMIC IMPACTS OF FLOODING IN VILLAGE CENTRE

Design Flood Event (% AEP)	Properties Flooded Above-Floor Level						Total Flood Damages
	Residential		Commercial/Industrial		Public		
	No.	$ Million	No.	$ Million	No.	$ Million	$ Million
20%	0	0	0	0	0	0	0
10%	0	0	0	0	0	0	0
5%	0	0.01	0	0	0	0	0.01
2%	0	0.02	0	0	0	0	0.02
1%	0	0.03	0	0	0	0	0.03
0.5%	0	0.03	0	0	0	0	0.03
0.2%	1	0.05	0	0	0	0	0.05
PMF	24	5.21	1	0.1	1	0.08	5.39

While no buildings in the Village Centre would be inundated above-floor level in a 1% AEP flood event, flood damages of about $0.03 Million would still be incurred during a flood of this magnitude. During a PMF event, 24 dwellings and one public building would experience above-floor inundation, resulting in flood damages totalling about $5.39 Million.

For a discount rate of 5% pa and an economic life of 30 years, the *Net Present Worth* of damages for all flood events up to the 1% AEP is effectively zero, while for all floods up to the PMF it is about $0.1 Million. Therefore, one or more schemes costing up to this latter amount could be economically justified if they eliminated damages in the study area for all possible flood events. While schemes costing more than this value would have a benefit/cost ratio less than 1, they may still be justified according to a multi-objective approach which considers other criteria in addition to economic feasibility.

5.8 Structure of Bogan Gate Flood Risk Management Plan

A summary of *Bogan Gate FRMP* proposed for the study area along with broad funding requirements for the recommended measures are shown in **Table S1** at the commencement of the *Bogan Gate FRMS* report. The measures will over time achieve the objectives of reducing the flood risk to existing and future development for the full range of floods.

Bogan Gate FRMP is based on the following mix of measures which have been given a provisional priority ranking according to a range of economic, social, environmental and other criteria that are set out in **Table 4.1** of the *Bogan Gate FRMS* report:

- **Measure 1** – Consider the inclusion of the optional *special flood considerations* clause 5.22 in the *Parkes LEP 2012*.
- **Measure 2** – Improvements to planning and development controls for future development in flood prone areas via updates of *Parkes Shire DCP 2021.*
- **Measure 3** – Improvements to emergency response planning.
- **Measure 4** – Increase public awareness of the risks of flooding in the community.
- **Measure 5** – Investigation and design of an integrated severe weather/thunderstorm and flood warning system for Bogan Gate.
- **Measure 6** – Implementation of an integrated severe weather/thunderstorm and flood warning system for Bogan Gate.
- **Measure 7** – Investigation into the feasibility of raising sections of Henry Parkes Way where it runs between Parkes and Bogan Gate so as to improve its hydrologic standard (denoted as "**Bogan Gate Potential Flood Modification Measure 2**" or "**BG_PFMM2**" in *Bogan Gate FRMS*).
- **Measure 8** – Depending on the findings of **Measure 7**, the design and implementation of the works associated with BG_PFMM2.
- **Measure 9** – Investigation into the feasibility of possibly upgrading the existing transverse drainage that is located along the Henry Parkes Way and the Orange-Broken Hill Railway west of Bogan Gate in combination with any third-party related flood mitigation measures (denoted as "**Bogan Gate Potential Flood Modification Measure 5**" or "**BG_PFMM5**" in *Bogan Gate FRMS*).
- **Measure 10** – Depending on the findings of **Measure 9**, the design and implementation of the works associated with BG_PFMM5.
- **Measure 11** - Development and implementation of a *Vegetation Management Plan* for Gunningbland Creek at Bogan Gate

5.9 Planning and Development Controls

The results of *Bogan Gate FRMS* indicate that an important measure for Council to adopt in the floodplain would be strong flood risk management planning applied consistently by all of its branches.

5.9.1 Revision of Parkes Local Environmental Plan 2012

Clause 5.21 of *Parkes LEP 2012* entitled "Flood planning" outlines its objectives in regard to development of land which lies within the Flood Planning Area (**FPA**). The wording in the flood planning clause was updated on 14 July 2021 as part of recent reforms that have been implemented by the NSW Government.

While the wording of the *Flood planning* clause was automatically updated on 14 July 2021, Council chose not to include the optional *special flood considerations* clause 5.22 that also formed part of the recent reform package in *Parkes LEP 2012*. The objectives of the optional clause are:

a) to enable the safe occupation and evacuation of people subject to flooding;

b) to ensure development on land is compatible with the land's flood behaviour in the event of a flood;

c) to avoid adverse or cumulative impacts on flood behaviour;

d) to protect the operational capacity of emergency response facilities and critical infrastructure during flood events; and

e) to avoid adverse effects of hazardous development on the environment during flood events.

The optional clause in its current form applies to:

a) for sensitive and hazardous development, land between the flood planning area and the probable maximum flood, or as otherwise defined in an adopted flood risk management study and plan that has been prepared in accordance with the Flood Risk Management Manual, and

b) for development that is not sensitive and hazardous development, land the consent authority considers to be land that, in the event of a flood, may:

   iii. cause a particular risk to life, and

   iv. require the evacuation of people or other safety considerations.

While the clause applies to all land that lies between the FPA and the extent of the PMF, Council is only required to apply flood affectation notices to S10.7 certificates where it considers flood related controls need to be applied to specific types of development.

By inspection of **Figure 2.14**,sheet 3, there is a significant amount of land within the village that is subject to H1 and H2 type flooding conditions where the flood risk would be so low that it would not be reasonable to apply flood related controls to future development, even were it to be classified as sensitive or hazardous in nature. Based on this finding, there is merit in reducing the extent of land to which the requirements of clause 5.22 apply to only land that is subject to H3 or greater flood hazard vulnerability conditions during a PMF event.

Based on this understanding, **Figure C1.1** in **Appendix C** shows the extent of the ***Special Flood Considerations Zone***, it being the area of land that lies between the FPA and PMF where the flood hazard vulnerability condition in a PMF is H3 or greater and therefore where flood related development controls should be applied to future development in accordance with the requirements of clause 5.22.

Based on the findings of the *Bogan Gate FRMS*, it is recommended that Council consider including the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* (**Measure 1**).[7]

5.10 Parkes Shire Development Control Plan 2021

The recommended approach to managing future development in the study area uses the concepts of *flood hazard* and *hydraulic categorisation* to develop controls for future development in flood prone land (**Measure 2**). **Figure C1.1** in **Appendix C** of the *Bogan Gate FRMS* report are extracts from the *Flood Planning Map* relating to the study area. The extent of the FPA has been defined as follows:

[7] Note that prior to making the decision to include the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, it is recommended that Council obtain legal advice to confirm that the above approach of pre-determining the extent of land to which the requirements of the clause apply is legally binding.

- In areas subject to Main Stream Flooding, the FPA is based on the traditional definition of the area inundated by the 1% AEP plus 0.5 m freeboard.
- In areas subject to Major Overland Flow, the FPA is defined as areas where depths of inundation exceed 0.1 m in a 1% AEP event, and where identifiable floodways are present in shallower flow.

It is proposed that properties that are located either partially or wholly within the extent of the FPA would be subject to S10.7 flood affectation notification and planning controls graded according to flood hazard and hydraulic categorisation. **Schedules 2A** and **2B** in **Appendix C** set out the graded set of flood related planning controls which apply to development in areas that are affected by Main Stream Flooding and Major Overland Flow, respectively. **Figure C1.1** shows the areas where the graded set of flood related planning controls set out in **Schedules 2A** and **2B** apply to Bogan Gate.

Minimum habitable floor level (**MHFL**) requirements would be imposed on future development of properties that are identified as lying either partially or wholly within the extent of the FPA shown on **Figure C1.1**. The MHFLs for residential land use types is the level of the 1% AEP flood event plus freeboard, whereas for commercial and industrial land use types the MHFL is to be as close to the 1% AEP flood level plus freeboard as practical, but no lower than the 5% AEP flood level plus freeboard. In situations where the MHFL is below the 1% AEP flood level plus freeboard, a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard.[8]

Figure C1.2 in **Appendix C** of the *Bogan Gate FRMS* report are extracts of the *Flood Planning Constraint Category Map* relating to the study area. The figures show the subdivision of the floodplain into the following four categories which have been used as the basis for developing the graded set of planning controls:

- **Flood Planning Constraint Category 1 (FPCC 1)**, which comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding.
- **Flood Planning Constraint Category 2 (FPCC 2)**, which comprises areas which lie within the extent of the FPA where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
- **Flood Planning Constraint Category 3 (FPCC 3)**, which comprises areas which lie within the extent of the FPA but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this DCP.
- **Flood Planning Constraint Category 4 (FPCC 4)**, which comprises areas that lie between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on **Figure C1.1**.

[8] Freeboard is equal to 0.5 m for development being assessed in areas affected by Main Stream Flooding and 0.3 m for development being assessed in areas affected by Major Overland Flow.

5.11 Improvements to Emergency Response Planning and Community Awareness

Two measures are proposed in *Bogan Gate FRMP* to improve emergency response planning and community awareness to the threat posed by flooding.

Measure 3 involves the update by NSW SES of the *Parkes Shire Local Flood Plan* using information on flooding patterns, times of rise of floodwaters and flood prone areas identified in the *Bogan Gate FRMP* report. Figures have been prepared showing indicative extents of flooding, high hazard areas, expected rates of rise of floodwaters in key areas and locations where flooding problems would be expected. **Section 3.5.2** references the locations of key data within the *Bogan Gate FRMS* report.

Council should also take advantage of the information on flooding presented in this report, including the flood mapping, to inform occupiers of the floodplain of the flood risk (included as **Measure 4** of *Bogan Gate FRMP*). Council should also advise residents of the web sites and smart phone Apps that provide real-time Severe Thunderstorm Warning and Severe Weather Warnings for Flash Flooding alerts.

This information could be included in a *Flood Information Brochure* to be prepared by Council with the assistance of NSW SES containing both general and site-specific data and distributed with the rate notices. The community should also be made aware that a flood greater than historic levels or the planning level can, and will, occur at some time in the future. *Bogan Gate FRMP* should be publicised and exhibited at community gathering places to make residents aware of the measures being proposed.

5.12 Implementation of Severe Weather/Thunderstorm and Flood Warning System

Measure 5 comprises the investigation and design of an integrated severe weather/thunderstorm and flood warning system for Bogan Gate, while **Measure 6** involves its implementation. As several roads immediately to the north of Bogan Gate are frequently inundated by floodwater, there is merit in implementing an effective location-based messaging system that warns both residents and business owners of the potential for flood producing rain to be experienced in the upper reaches of the Gunningbland Creek catchment, as well as the potential for road closures to occur due to them being inundated by floodwater. The cost to investigate and design the system is estimated to be about $50,000, whilst its implementation is estimated to cost about $300,000.

5.13 Flood Modification Measures

While there was insufficient merit associated with the upgrade of the local stormwater drainage system in the south-east corner of the Village Centre for it to be included in *Bogan Gate FRMP*, the *Bogan Gate FRMS* found that there is merit in Transport for NSW investigating the feasibility of upgrading several existing causeways that are located along Henry Parkes Way where it runs between Parkes and Bogan Gate so as to improve its hydrologic standard (denoted as "**Bogan Gate Potential Flood Modification Measure 2**" or "**BG_PFMM2**" in *Bogan Gate FRMS* and included as **Measure 7** in *Bogan Gate FRMP*). Subject to the findings of the feasibility study, *Bogan Gate FRMP* includes the design and upgrade of Henry Parkes Way at one or more of the existing causeways (**Measure 8**).

The *Bogan Gate FRMS* also found that there is merit in the relevant rail authority investigating the feasibility of possibly upgrading the existing transverse drainage that is located along the Henry Parkes Way and the Orange-Broken Hill Railway west of Bogan Gate in combination with any third-party related flood mitigation measures (denoted as "**Bogan Gate Potential Flood Modification Measure 5**" or "**BG_PFMM5**" in *Bogan Gate FRMS* and included as **Measure 9** in *Bogan Gate FRMP*). Subject to the findings of the feasibility study, *Bogan Gate FRMP* includes the design and upgrade of Henry Parkes Way at one or more of the existing causeways (**Measure 10**).

Based on the outcomes of the community consultation process it was concluded that there is merit in developing and implementing a vegetation management plan for Gunningbland Creek at Bogan Gate, especially in relation to the clearing of vegetation/debris at the Henry Parkes Way and Orange-Broken Hill Railway bridge crossings of the watercourse (**Measure 11**).

5.14 Implementation Program

The steps in progressing the flood risk management process from this point onwards are:

1. Consider public comment, modify the document if and as required, and submit to Council.
2. Council adopts *Bogan Gate FRMP*.
3. Assistance for funding qualifying projects included in *Bogan Gate FRMP* may be available upon application under the Commonwealth and State funded floodplain management programs, currently administered by the Department of Climate Change, Energy, the Environment and Water.
4. As funds become available from Government agencies and/or Council's own resources, implement the measures in accordance with the established priorities.

Bogan Gate FRMP should be regarded as a dynamic instrument requiring review and modification over time. The catalysts for change could include new flood events and experiences, legislative change, alterations in the availability of funding, reviews of Council's planning strategies and importantly, the outcome of some of the studies proposed in this report as part of *Bogan Gate FRMP*. In any event, a thorough review every ten years is warranted to ensure the ongoing relevance of *Bogan Gate FRMP*.

6 GLOSSARY OF TERMS

TERM	DEFINITION
Annual Exceedance Probability (AEP)	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, for a flood magnitude having five per cent AEP, there is a five per cent probability that there would be floods of greater magnitude each year.
Australian Height Datum (AHD)	A common national surface level datum corresponding approximately to mean sea level.
Floodplain	Area of land which is subject to inundation by floods up to and including the Probable Maximum Flood (**PMF**) event, that is, flood prone land.
Flood Planning Area	The area of land that is shown to be in the Flood Planning Area on the *Flood Planning Map*.
Flood Planning Map	The *Flood Planning Map* shows the extent of land on which flood related development controls apply in a given area, noting that other areas may exist which are not mapped but where flood related development controls apply.
Flood Planning Constraint Category 1 (FPCC 1)	Comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding
Flood Planning Constraint Category 2 (FPCC 2)	Comprises areas which lie below the *Flood Planning Level* where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
Flood Planning Constraint Category 3 (FPCC 3)	Comprises areas which lie below the *Flood Planning Level* but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this document.
Flood Planning Constraint Category 4 (FPCC 4)	Comprises areas that lie between the extent of the FPA and the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on the *Flood Planning Map*.
Flood Planning Level (FPL)	Flood levels selected for planning purposes, as determined by the relevant adopted flood risk management study and plan, or as part of a site specific study In the absence of an adopted flood risk management study and plan for a particular location, the FPL is defined as the peak 1% AEP flood level plus the addition of a 0.5 m freeboard.

TERM	DEFINITION
Flood Prone/Flood Liable Land	Land susceptible to flooding by the PMF. Flood Prone land is synonymous with Flood Liable land.
Floodway	Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.
Flood Storage Area	Those parts of the floodplain that may be important for the temporary storage of floodwaters during the passage of a flood. Loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation.
Freeboard	Provides reasonable certainty that the risk exposure selected in deciding a particular flood chosen as the basis for the *Flood Planning Level* is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the *Flood Planning Level*.
Habitable Room	In a residential situation: a living or working area, such as a lounge room, dining room, kitchen, bedroom or workroom. In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.
Local Drainage	Land on an overland flow path where the depth of inundation during the 1% AEP storm event is less than 0.1 m.
Main Stream Flooding	The covering of normally dry land by water that has escaped or been released from the normal confines of any lake, river, creek or other natural watercourse (whether or not altered or modified) or any reservoir, canal or dam.
Major Overland Flow	Where the depth of overland flow during the 1% AEP storm event is greater than 0.1 m.
Probable Maximum Flood (PMF)	The largest flood that could conceivably occur at a particular location. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain.
Special Flood Considerations Zone	Comprises the area where the flood risk is considered to be high enough to require additional controls to be applied to certain types of development that is located on land which lies outside the FPA. This area is identical to the FPCC4 affected land shown on the *Flood Planning Constraint Category Map*.

7 REFERENCES

DCCEEW (Department of Climate Change, Energy, the Environment and Water, NSW), 2024a ***"Guideline for the voluntary house purchase scheme"***

DCCEEW (Department of Climate Change, Energy, the Environment and Water, NSW), 2024b ***"Guideline for voluntary house raising schemes"***

DPE (Department of Planning and Environment), 2023 **"*Flood Risk Management Guideline FB01 – Understanding and Managing Flood Risk*"**

Geoscience Australia, 2019. ***"Australian Rainfall and Runoff: A Guide to Flood Estimation, Commonwealth of Australia"***

Howells et al, 2004. **"*Defining the Floodway - Can One Size Fit All?*"** FMA NSW Annual Conference, Coffs Harbour, February 2004.

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NSWG (New South Wales Government), 2023. ***"Flood Risk Management Manual"***

NSW SES (New South Wales State Emergency Service), 2024. ***"Parkes Shire Local Flood Plan"***

PW (Public Works), 2010. ***"Wagga Wagga Levee Upgrade – Flood Freeboard"***

OEH (Office of Environment and Heritage), 2019. ***"Floodplain Risk Management Guide - Incorporating 2016 Australian Rainfall and Runoff in studies"***

APPENDIX A
PHOTOGRAPHS SHOWING OBSERVED FLOOD BEHAVIOUR AT BOGAN GATE

NOVEMBER 2005

Plate A1.1 – Looking north across flooded rural properties on the northern side of Henry Parkes Way.

Plate A1.2 – Looking north across flooded rural properties on the northern side of Henry Parkes Way.

Plate A1.3 – Looking north across flooded rural properties on the northern side of Henry Parkes Way.

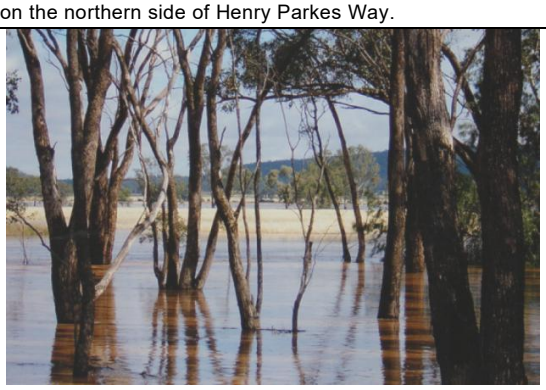


Plate A1.4 – Flooding in the vicinity of the Myalls Homestead.

Plate A1.5 – Flooding in the vicinity of the Myalls Homestead.

Plate A1.6 – Flooding in the vicinity of the Myalls Homestead.

NOVEMBER 2005

Plate A1.7 – Flooding in the vicinity of the Myalls Homestead.

Plate A1.8 – Flooding in the vicinity of the Myalls Homestead).

Plate A1.9 – Flooding in the vicinity of the Myalls Homestead.

Plate A1.10 – Looking north from Henry Parkes Road towards the Bogan Gate Golf Club.

Plate A1.11 – Looking west along Henry Parkes Way.

Plate A1.12 – Looking west along Henry Parkes Way.

NOVEMBER 2005	
Plate A1.13 – Looking west along Henry Parkes Way.	**Plate A1.14** – Flooding in the vicinity of the intersection of Tubby Lees Road and Henry Parkes Way.

DECEMBER 2010	
Plate A2.1 – Flooding in the vicinity of the Bogan Gate Golf Club clubhouse.	**Plate A2.2** – Flooding in the vicinity of the Bogan Gate Golf Club.
Plate A2.3 – Flooding in the vicinity of the Bogan Gate Golf Club.	**Plate A2.4** – Flooding in the vicinity of the Bogan Gate Golf Club.
Plate A2.5 – Flooding in the vicinity of the Bogan Gate Golf Club.	**Plate A2.6** – Flooding in the vicinity of the Bogan Gate Golf Club.

DECEMBER 2010	
Plate A2.7 – Flooding in the vicinity of the Bogan Gate Golf Club.	**Plate A2.8** – Flooding in the vicinity of the Bogan Gate Golf Club.

MARCH 2012	
Plate A3.1 – Flooding in the vicinity of the Neirawang homestead.	**Plate A3.2** – Flooding in the vicinity of the Neirawang homestead.
Plate A3.3 – Flooding in the vicinity of the Neirawang homestead.	**Plate A3.4** – Flooding in the vicinity of the Neirawang homestead.

JUNE 2016	
Plate A4.1 – Flooding in the vicinity of the 8th fairway of the Bogan Gate Golf Club.	**Plate A4.2** – Flooding in the vicinity of the old bridge adjacent to the 4th fairway of the Bogan Gate Golf Club.
Plate A4.3 – Flooding in the vicinity of the 8th fairway of the Bogan Gate Golf Club.	**Plate A4.4** – Flooding in the vicinity of the 8th fairway of the Bogan Gate Golf Club.
Plate A4.5 – Flooding in the vicinity of the 6th fairway of the Bogan Gate Golf Club.	**Plate A4.6** – Flooding in the vicinity of the 6th fairway of the Bogan Gate Golf Club.

SEPTEMBER 2016

Plate A5.1 – Flooding in the vicinity of the 6th fairway of the Bogan Gate Golf Club.

MAY 2022

Plate A6.1 – Flooding in the vicinity of the Neirawang homestead.

Plate A6.2 – Flooding in the vicinity of the Neirawang homestead.

Plate A6.3 – Flooding in the vicinity of the Neirawang homestead.

Plate A6.4 – Flooding in the vicinity of the Neirawang homestead.

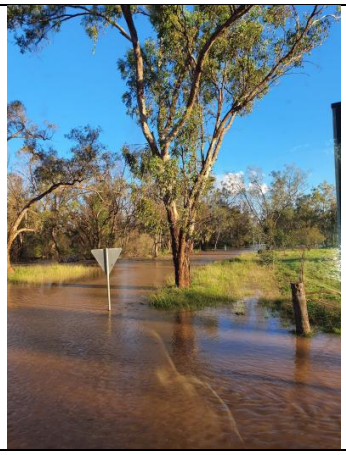
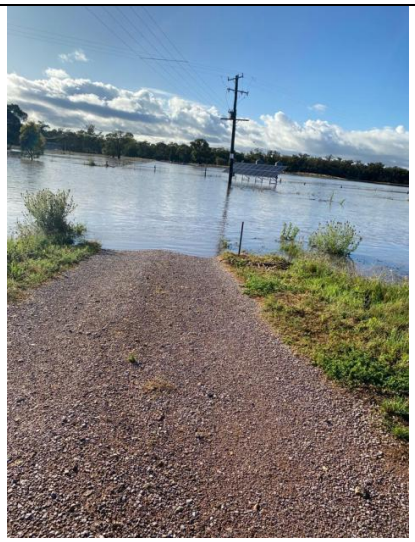


Plate A6.5 – Flooding in the vicinity of Cudgelbar Lane.

Plate A6.6 – Flooding in the vicinity of Cudgelbar Lane.

MAY 2022	
Plate A6.7 – Floodwater inundating the Tubby Lees Road causeway crossing of Gunningbland Creek.	**Plate A6.8** – Floodwater inundating the Tubby Lees Road causeway crossing of Gunningbland Creek.
Plate A6.9 – Flooding in the vicinity of Foothills Lane.	**Plate A6.10** – Flooding in the vicinity of Foothills Lane.
Plate A6.11 – Flooding in Foothills Lane.	**Plate A6.12** – Flooding in Foothills Lane.

NOVEMBER 2022	
Plate A7.1 – The Bogan Way in the vicinity of the Kadina homestead 1	**Plate A7.2** – The Bogan Way in the vicinity of the Kadina homestead 1
Plate A7.3 – The Bogan Way in the vicinity of the Kadina homestead 1	**Plate A7.4** – Flooding in the vicinity of the Myalls homestead.

NOVEMBER 2022	
	
Plate A7.5 – Flooding in the vicinity of the Myalls homestead.	**Plate A7.6** – Flooding in the vicinity of the Myalls homestead.

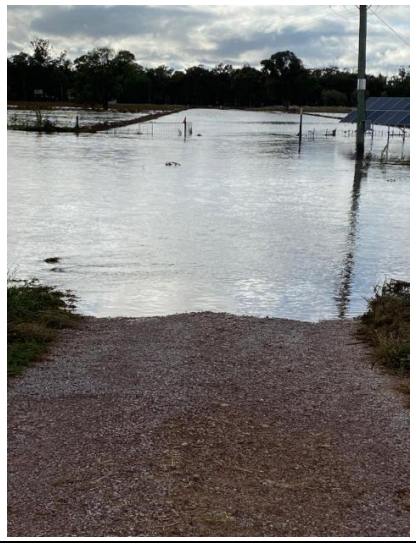



Plate A7.7 – Flooding in the vicinity of the Myalls homestead.	**Plate A7.8** – Flooding in the vicinity of the Myalls homestead.

NOVEMBER 2022	

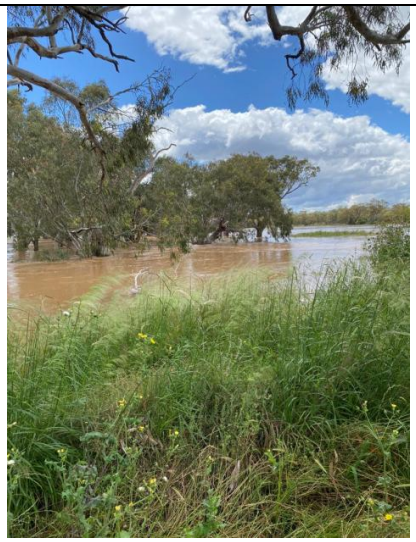
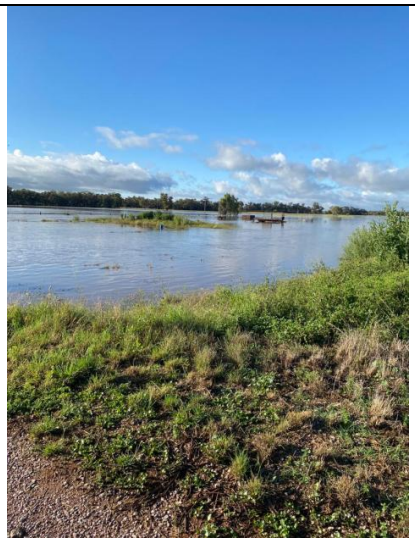

	

Plate A7.9 – Flooding in the vicinity of the Myalls homestead.	**Plate A7.10** – Flooding in the vicinity of the Myalls homestead.

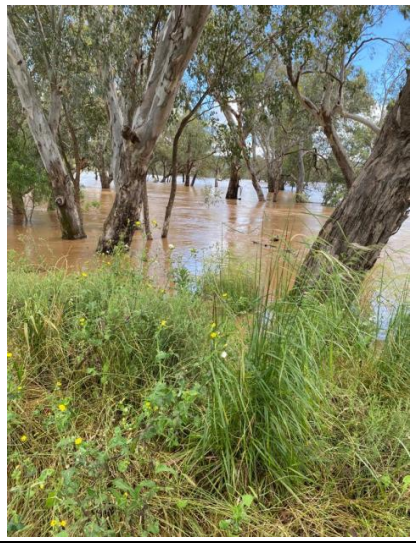
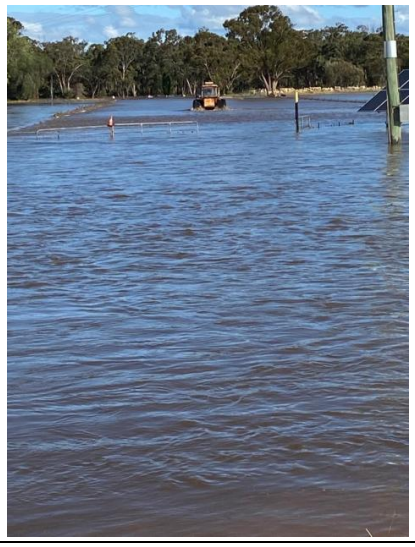

	

Plate A7.11 – Flooding in the vicinity of the Myalls homestead.	**Plate A7.12** – Flooding in the vicinity of the Myalls homestead.

NOVEMBER 2022	
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NOVEMBER 2022	
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APPENDIX B

FIGURES SHOWING DESIGN FLOOD BEHAVIOUR AT BOGAN GATE

(BOUND IN VOLUME 2)

APPENDIX C

SUGGESTED WORDING FOR INCLUSION IN PARKES SHIRE DEVELOPMENT CONTROL PLAN

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C1.1 Extract of Parkes Shire Flood Planning Map at Bogan Gate

C1.2 Extract of Parkes Shire Flood Planning Constraint Category Map at Bogan Gate

C1.1 Introduction

This section of the DCP sets out specific controls to guide development of flood liable land. The approach to managing future development that is subject to flooding supports the findings of a series of location specific flood risk management studies and plans that have been prepared as part of the NSW Government's program to mitigate the impact of major floods and reduce the associated hazards in the floodplain.

C1.2 Objectives in Relation to Flood Risk Management

a) To minimise the potential impact of development and other activity upon the aesthetic, recreational and ecological value of the waterway corridors.

b) To increase public awareness of the hazard and extent of land affected by all potential floods, including floods greater than the 1% Annual Exceedance Probability (AEP) flood and to ensure essential services and land uses are planned in recognition of all potential floods.

c) To inform the community of Council's controls and policy for the use and development of flood prone land.

d) To reduce the risk to human life and damage to property caused by flooding through controlling development on land affected by potential floods.

e) To provide detailed controls for the assessment of applications lodged in accordance with the *Environmental Planning and Assessment Act 1979* on land affected by potential floods.

f) To provide different guidelines, for the use and development of land subject to all potential floods in the floodplain, which reflect the probability of the flood occurring and the potential hazard within different areas.

g) To apply a "merit-based approach" to all development decisions which takes account of social, economic and ecological considerations.

h) To control development and other activity within each of the individual floodplains within the LGA having regard to the characteristics and level of information available for each of the floodplains, in particular the availability of flood risk management studies and plans prepared in accordance with the *Flood Risk Management Manual*, issued by the NSW Government.

i) To deal equitably and consistently with applications for development on land affected by potential floods, in accordance with the principles contained in the *Flood Risk Management Manual*.

C1.3 Procedure for Determining What Controls Apply to Proposed Development

The procedure Council will apply for determining the specific controls applying to proposed development in flood liable areas is set out below. Upon enquiry by a prospective applicant, Council will make an initial assessment of the flood affectation and flood levels at the site using the following procedure:

- Assess whether the development is located on flood liable land from the **Flood Planning Map**.
- Determine which set of prescriptive flood related planning controls apply to the development from the **Flood Planning Map** (i.e. Main Stream Flooding or Major Overland Flow).
- Identify the category of the development from **Schedule1: Land Use Categories.**

- Determine the appropriate flood level at the site from the results of the location specific flood or flood risk management study.
- Determine which part of the floodplain the development is located in from the **Flood Planning Constraint Category Map**.
- Confirm that the development conforms with the relevant performance criteria, as well as the prescriptive controls set out in either **Schedule 2A** for Main Stream Flooding affected areas and **Schedule 2B** for Major Overland Flow affected areas.

With the benefit of this initial information from Council, the applicant will:

- Prepare the documentation to support the Development Application according to the requirements of **Section C1.9**.

A survey plan showing natural surface levels over the site will be required as part of the Development Application documentation. Provision of this plan by the applicant at the initial enquiry stage will assist Council in providing flood related information.

C1.4 Land Use Categories

The policy recognises twelve different types of land use for which a graded set of flood related controls apply. They are included in **Schedule 1: Land Use Categories**.

C1.5 Flood Planning Constraint Categories

For those floodplains where Council has adopted a flood or flood risk management study, the identified flood liable land has been divided into the following four *Flood Planning Constraint Categories* (**FPCCs**):

- **Flood Planning Constraint Category 1 (FPCC 1)**, which comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding.
- **Flood Planning Constraint Category 2 (FPCC 2)**, which comprises areas which lie within the extent of the *Flood Planning Area* where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
- **Flood Planning Constraint Category 3 (FPCC 3)**, which comprises areas which lie within the extent of the *Flood Planning Area* but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this DCP.
- **Flood Planning Constraint Category 4 (FPCC 4)**, which comprises areas that lie between the extent of the *Flood Planning Area* and the Probable Maximum Flood (**PMF**) where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on the **Flood Planning Map**.

C1.6 Development Controls

The development controls have been graded relative to the severity and frequency of potential floods, having regard to the FPCCs determined by the relevant Flood Risk Management Study and Plan or, if no such study or plan exists, Council's interim considerations.

The objectives of the development controls are:

a) To require developments with high sensitivity to flood risk to be designed so that they are subject to minimal risk.

b) To allow development with a lower sensitivity to the flood hazard to be located within the floodplain, provided the risk of harm and damage to property is minimised.

c) To minimise the intensification of the high flood risk areas, and if possible, allow for their conversion to natural waterway corridors.

d) To ensure design and siting controls required to address the flood hazard do not result in unreasonable social, economic or environmental impacts.

e) To minimise the risk to life by ensuring the provision of reliable access from areas affected by flooding.

f) To minimise the damage to property arising from flooding.

g) To ensure the proposed development does not expose existing development to increased risks associated with flooding.

The performance criteria which are to be applied when assessing a proposed development are:

a) The proposed development should not result in any increase in risk to human life, or in a significant increase in economic or social costs as a result of flooding.

b) The proposal should only be permitted where effective warning time and reliable access is available to an area free of risk from flooding, consistent with any relevant Flood Plan or flood evacuation strategy.

c) Development should not increase the potential for damage or risk to other properties either individually or in combination with the cumulative impact of development that is likely to occur in the same floodplain.

d) Procedures would be in place, if necessary, (such as warning systems, signage or evacuation drills) so that people are aware of the need to evacuate and are capable of identifying the appropriate evacuation route.

e) Development should not result in impacts upon the amenity of an area by way of unacceptable overshadowing of adjoining properties, privacy impacts (e.g. by unsympathetic house–raising) or by being incompatible with the streetscape or character of the locality.

The prescriptive controls which apply to development that is proposed on land affected by Main Stream Flooding and Major Overland Flow are set out in **Schedules 2A** and **2B**, respectively.

C1.7 Proposals to Modify Flood Planning Constraint Categories

In certain situations it may be feasible to modify existing flood behaviour through engineering works which in turn would enable the extent of the FPCCs to be modified at a particular location. Proposals to modify an FPCC at a particular location would need to be supported by a detailed flooding investigation, further details of which are set out in **Section C1.9** below. Proposals would also need to demonstrate consistency with the flood related objectives and performance criteria of both the *Parkes Local Environmental Plan 2012* and the DCP.

C1.8 Special Requirements for Fencing

The objectives are:

a) To ensure that fencing does not result in the obstruction of the free flow of floodwater.

b) To ensure that fencing does not become unsafe during floods so as to threaten the integrity of structures or the safety of people.

c) To ensure fencing is to be constructed in a manner which does not increase flood damage or risk on surrounding land.

The performance criteria which are to be applied when assessing proposed fencing are:

a) Fencing is to be constructed in a manner that does not affect the flow of floodwater so as to detrimentally increase flood affection on surrounding land.

b) Fencing must be certified by an engineer specialising in hydraulic engineering stating that the proposed fencing would be constructed to withstand the force of floodwater, or collapse in a controlled manner to prevent the impediment of floodwater.

The prescriptive controls which apply to any proposed fencing on land designated FPCC 1 and FPCC 2 are:

a) An applicant will need to demonstrate that the fence (new or replacement fence) would not create an impediment to the flow of floodwater. Fences must satisfy the following:

- comprise pool/louvre type fencing or a collapsible hinged type fence structure;
- be configured so as to allow floodwaters to equalise on both sides of the fence; and
- be configured so as to minimise entrapment of flood debris.

C1.9 Explanatory Notes on Lodging Applications

The following steps must be followed in the lodgement of a development application:

a) Check the proposal is permissible in the zoning of the land by reference to any applicable environmental planning instruments.

b) Consider any other relevant planning controls of Council (e.g. controls in any other relevant part of the DCP).

c) Check whether the property is located either partially or wholly within the Flood Planning Area or Special Flood Considerations Zone, as defined on the **Flood Planning Map**.

d) Determine which set of prescriptive flood related planning controls apply to the development from the **Flood Planning Map**.

e) Determine which FPCC applies to the developable portion of the property by reference to the **Flood Planning Constraint Category Map**. Enquire with Council regarding existing flood risk mapping or whether a site–specific assessment may be warranted. A property may be located in more than one FPCC and the assessment must consider the controls that apply in each.

f) Determine the land use category relevant to the development proposal, by firstly confirming how it is defined by the relevant environmental planning instrument and secondly by ascertaining the land use category from **Schedule 1: Land Use Categories**.

g) Assess and document how the proposal will achieve the performance criteria for proposed development and associated fencing set out in **Sections C1.6** and **C1.8**.

h) Check if the proposal will satisfy the prescriptive controls for different land use categories in different FPCCs, as specified in either **Schedule 2A** or **Schedule 2B**.

i) If the proposal does not comply with the prescriptive controls, determine whether the performance criteria are nonetheless achieved.

j) Illustrations provided in this plan to demonstrate the intent of development controls are diagrammatic only. Proposals should satisfy all relevant controls contained in this plan and associated legislation.

k) The assistance of Council staff or an experienced engineer or planner may be required at various steps in the process to ensure that the flood risk management related requirements of this Plan are addressed.

Note that compliance with all the requirements of this DCP does not guarantee that an application will be approved.

Information required with an application is as follows:

a) Applications must include information which addresses all relevant controls.

b) Applications for alterations and additions (see either **Schedule 2A** or **Schedule 2B**) to an existing dwelling on flood liable land must be accompanied by documentation from a registered surveyor confirming existing floor levels.

c) Development applications must be accompanied by a survey plan showing:
   i. The position of the existing building(s) and/or proposed building(s);
   ii. The existing ground levels to Australian Height Datum around the perimeter of the existing and/or proposed building(s) and contours of the site; and
   iii. The existing and/or proposed floor levels to Australian Height Datum.

d) Applications for earthworks, filling of land or subdivision shall be accompanied by a survey plan (with a contour interval of 0.25 m) showing relative levels to Australian Height Datum.

e) Where an existing catchment based flood study is not available, a flood study using a fully dynamic one or two dimensional computer model may be required. For smaller developments an existing suitable flood study may be used if available (e.g. it contains sufficient local detail), or otherwise a flood study prepared in a manner consistent with the latest edition of *Australian Rainfall and Runoff* and the *Flood Risk Management Manual*, will be required and the following information must be submitted in plan form:
   i. water surface contours;
   ii. velocity vectors;
   iii. velocity and depth product contours;
   iv. delineation of flood risk precincts relevant to individual floodplains; and
   v. show both existing and proposed flood profiles for the full range of events for total development including all structures and works (such as revegetation/ enhancements).

   This information is required for both pre–developed and post–developed scenarios.

f) Where the controls for a particular development proposal require an assessment of structural soundness during potential floods, the following impacts must be addressed:

   i. hydrostatic pressure;

   ii. hydrodynamic pressure;

   iii. impact of debris; and

   iv. buoyancy forces.

   Foundations need to be included in the structural analysis.

C1.10 Glossary of Terms

TERM	DEFINITION
Annual Exceedance Probability (AEP)	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, for a flood magnitude having five per cent AEP, there is a five per cent probability that there would be floods of greater magnitude each year.
Australian Height Datum (AHD)	A common national surface level datum corresponding approximately to mean sea level.
Floodplain	Area of land which is subject to inundation by floods up to and including the Probable Maximum Flood (**PMF**) event, that is, flood prone land.
Flood Planning Area	The area of land that is shown to be in the Flood Planning Area on the *Flood Planning Map*.
Flood Planning Map	The *Flood Planning Map* shows the extent of land on which flood related development controls apply in a given area, noting that other areas may exist which are not mapped but where flood related development controls apply.
Flood Planning Constraint Category 1 (FPCC 1)	Comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding
Flood Planning Constraint Category 2 (FPCC 2)	Comprises areas which lie below the *Flood Planning Level* where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
Flood Planning Constraint Category 3 (FPCC 3)	Comprises areas which lie below the *Flood Planning Level* but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this document.
Flood Planning Constraint Category 4 (FPCC 4)	Comprises areas that lie between the extent of the *Flood Planning Area* and the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on the *Flood Planning Map*.
Flood Planning Level (FPL)	Flood levels selected for planning purposes, as determined by the relevant adopted flood risk management study and plan, or as part of a site specific study In the absence of an adopted flood risk management study and plan for a particular location, the FPL is defined as the peak 1% AEP flood level plus the addition of a 0.5 m freeboard.

TERM	DEFINITION
Flood Prone/Flood Liable Land	Land susceptible to flooding by the PMF. Flood Prone land is synonymous with Flood Liable land.
Floodway	Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.
Flood Storage Area	Those parts of the floodplain that may be important for the temporary storage of floodwaters during the passage of a flood. Loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation.
Freeboard	Provides reasonable certainty that the risk exposure selected in deciding a particular flood chosen as the basis for the *Flood Planning Level* is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the *Flood Planning Level*.
Habitable Room	In a residential situation: a living or working area, such as a lounge room, dining room, kitchen, bedroom or workroom. In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.
Local Drainage	Land on an overland flow path where the depth of inundation during the 1% AEP storm event is less than 0.1 m.
Main Stream Flooding	The covering of normally dry land by water that has escaped or been released from the normal confines of any lake, river, creek or other natural watercourse (whether or not altered or modified) or any reservoir, canal or dam.
Major Overland Flow	Where the depth of overland flow during the 1% AEP storm event is greater than 0.1 m.
Probable Maximum Flood (PMF)	The largest flood that could conceivably occur at a particular location. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain.
Special Flood Considerations Zone	Comprises the area where the flood risk is considered to be high enough to require additional controls to be applied to certain types of development that is located on land which lies outside the FPA. This area is identical to the FPCC4 affected land shown on the *Flood Planning Constraint Category Map*.

SCHEDULE 1
LAND USE CATEGORIES

Land Use Category	Subdivision	LEP Land Uses
Critical Uses and Facilities	*Community facilities which may provide an important contribution to the notification or evacuation of the community during flood events.*	Health services facility; Electricity generating works; Emergency services facility.
Sensitive Uses and Facilities	*Uses which involve vulnerable members of the community;* *Uses which may cause pollution of a watercourse or town water supply;* *Uses, which if affected, would significantly affect the ability of community to return to normal after flood event;*	Bio-solids treatment facility; Cemeteries; Child care centre; Correctional centre; Heavy industrial storage establishment; Heavy industries; Highway service centre; Group home; Passenger transport facilities; Respite day care centre; Schools; Seniors housing; Service Stations; Sewage treatment plant; Veterinary hospital; Waste or resource management facility; Water treatment facility.
Subdivision	*Subdivision of land which involves* *the creation of new allotments, with* *potential for further development;*	Camping grounds; Caravan parks; Eco-tourist facilities; Home business/ child care/occupations; Residential accommodation (excluding Group Home and Seniors housing); Tourist and visitor accommodation.
Residential		Attached dwellings Dwelling houses Multi dwelling housing Residential flat buildings Semi-detached dwellings Shop top housing
Commercial and Industrial		Amusement centre; Commercial premises (excluding Market); Crematorium; Depots; Entertainment facility; Freight transport facilities; Function centre; General industries; Industrial retail outlet; Industrial training facility; Light industries; Mortuaries;

		Place of public worship; Public administration building; Recreation facility (indoor & major); Registered club; Research station; Restricted premises; Sex services premises; Storage premises; Transport depots; Truck depots; Warehouse or distribution centre; Wholesale suppliers; Vehicle body repair workshops; Vehicle repair stations;
Recreation and Non-Urban		Agriculture (excluding intensive livestock agriculture); Animal boarding and training establishment; Boat sheds; Charter & tourism boating facilities; Car park; Community facility; Extractive industry; Forestry; Jetties; Market; Open cut mining; Recreation area; Recreation facility (outdoor).
Alterations and additions		i. An addition to existing premises of not more than 10% of the floor area which existed at the date of commencement of this DCP; ii. Rebuilding of a development which substantially reduces the extent of flood effects to the existing development; iii. A change of use which does not increase flood risk having regard to property damage and personal safety; or iv. Subdivision which does not involve the creation of new allotments with potential for further development.

SCHEDULE 2A
PRESCRIPTIVE FLOOD RELATED DEVELOPMENT CONTROLS – MAIN STREAM FLOODING

Planning considerations	Flood Planning Constraint Category 1 (FPCC 1)							Flood Planning Constraint Category 2 (FPCC 2)							Flood Planning Constraint Category 3 (FPCC 3)							Flood Planning Constraint Category 4 (FPCC 4)						
	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions
Minimum Habitable Floor Level						A1	A2 A4				A2	A5	A1	A2 A4				A2	A5	A1	A2 A4	A3	A3					
Building Components						B1	B1				B1	B1	B1	B1				B1	B1	B1	B1	B2	B2					
Structural Soundness						C1	C1				C1	C1	C1	C1				C1	C1	C1	C1	C2	C2					
Flood Affectation						D1	D1			D1	D1	D1	D1	D2			D1	D1	D1	D1	D2							
Emergency Response						E4	E2 or E3			E4 E5	E3 E4	E3 E4	E4	E2 or E3			E4 E5	E2 E4	E2 E4	E4	E2 or E3	E2 or E3	E2 E4	E4 E5				
Management and Design						F2 F3	F2 F3			F1	F2	F2 F3 F4	F2 F3	F2 F3			F1	F2	F2 F3 F4	F2	F2 F3	F2 F3	F2 F3 F4	F1				
Stormwater						G2	G2			G1 G2	G1 G2	G1 G2	G2	G2			G1 G2	G1 G2	G1 G2	G2	G2	G1	G1					
Parking and Driveway Access						H2 H4 H6 H7	H6 H7 H8			H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8			H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8	H3	H3					

	Not Relevant		Unsuitable Land Use

SCHEDULE 2B
PRESCRIPTIVE FLOOD RELATED DEVELOPMENT CONTROLS – MAJOR OVERLAND FLOW

Planning considerations	Flood Planning Constraint Category 1 (FPCC 1)							Flood Planning Constraint Category 2 (FPCC 2)							Flood Planning Constraint Category 3 (FPCC 3)							Flood Planning Constraint Category 4 (FPCC 4)						
	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions
Minimum Habitable Floor Level						A1	A2 A4				A2	A5	A1	A2 A4	A3	A3		A2	A5	A1	A2 A4	A3	A3					
Building Components						B1	B1				B1	B1	B1	B1	B2	B2		B1	B1	B1	B1	B2	B2					
Structural Soundness						C1	C1				C1	C1	C1	C1	C2	C2		C1	C1	C1	C1	C2	C2					
Flood Affectation						D1	D1			D1	D1	D1	D1	D2														
Emergency Response						E1	E1			E5					E2 or E3	E2 E4	E5					E2 or E3	E2 E4					
Management and Design						F2	F2			F1 F3	F2	F2 F4	F2	F2	F2 F3	F2 F3 F4	F1 F3		F4			F2 F3	F2 F3 F4					
Stormwater						G2				G1	G1	G1	G2		G1	G1	G1	G1	G1	G2		G1	G1					
Parking and Driveway Access						H2 H4 H6 H7	H6 H7 H8			H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8	H1 H3 H5 H6	H1 H3 H5 H6	H1 H3 H5 H6	H1 H3 H5 H6	H1 H3 H5 H6	H2 H4 H6	H6 H	H3	H3					

	Not Relevant		Unsuitable Land Use

Prescriptive controls for associated planning considerations under each FPCC		
Minimum Habitable Floor Level **A1** Habitable floor levels to be set no lower than the 5% AEP flood level plus freeboard(1) unless justified by site specific assessment. **A2** Habitable floor levels to be set no lower than the 1% AEP flood level plus freeboard(1). **A3** Habitable floor levels to be set no lower than the PMF flood level. **A4** Habitable floor levels to be as close to the Minimum Habitable Floor Level as practical and no lower than the existing floor level when undertaking concessional development. **A5** Habitable floor levels to be as close to the 1% AEP flood level plus freeboard(1) as practical, but no lower than the 5% AEP flood level plus freeboard(1). In situations where the habitable floor level is set below the 1% AEP flood level plus freeboard(1), a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard(1).	**Building Components & Method** **B1** All structures to have flood compatible building components below the 1% AEP flood level plus freeboard(1) (refer **Schedules 3A** and **3B**). **B2** All structures to have flood compatible building components below the 1% AEP flood plus freeboard(1) or the PMF level, whichever is the highest (refer **Schedules 3A** and **3B**).	**Structural Soundness** **C1** Engineers report to certify that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard(1). **C2** Applicant to demonstrate that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard(1) or a PMF, whichever is the greatest.
Flood Affectation **D1** Flood Impact and Risk Assessment required to certify that the development will not increase flood affectation elsewhere or the flood risk to both occupiers of the proposed development and others. The impact of the development on flooding elsewhere to be considered.	**Emergency Response** **E1** Reliable egress for pedestrians and vehicles required during a 1% AEP flood. **E2** Reliable egress for pedestrians and vehicles required during a PMF. **E3** Reliable egress for pedestrians or vehicles is required from the building, commencing at a minimum level equal to the lowest habitable floor level to an area of refuge above the PMF level, or a minimum of 20 m^2 of the dwelling to be above the PMF level. **E4** The development is to be consistent with any relevant flood evacuation strategy or similar plan. **E5** Applicant to demonstrate that there is rising road egress/access from all allotments internal to the subdivision to land which lies above the PMF.	**Management and Design** **F1** Applicant to demonstrate that potential development as a consequence of a subdivision or development proposal can be undertaken in accordance with the controls set out in this Development Control Plan. **F2** Flood Safe Plan (home or business or farm houses) to address safety and property damage issues (including goods storage and stock management) considering the full range of flood risk. **F3** Site Emergency Response Flood Plan required considering the full range of flood risk **F4** No external storage of materials below the Minimum Habitable Floor Level which may cause pollution or be potentially hazardous during any flood.
Stormwater **G1** Engineers report required to certify that the development will not affect stormwater drainage. **G2** The impact of the development on local overland flooding to be considered.	**Parking and Driveway Access** **H1** The minimum surface level of open car parking spaces or carports shall be as high as practical, but no lower than the 5% AEP flood or the level of the crest of the road at the location where the site has access. In the case of garages, minimum surface level shall be as high as practical but no lower than the 5% AEP flood. **H2** The minimum surface level of open car parking spaces, carports or garages shall be as high as practical. **H3** Garages capable of accommodating more than three motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods up to the 1% AEP flood plus freeboard(1). **H4** The driveway providing access between the road and parking space shall be as high as practical and generally rising in the egress direction. **H5** The level of the driveway providing access between the road and parking space shall be no lower than 0.3 m below the 1% AEP flood or such that the depth of inundation during a 1% AEP flood is not greater than either the depth at the road or the depth at the car parking space. A lesser standard may be accepted for single detached dwelling houses where it can be demonstrated that risk to human life would not be compromised. **H6** Enclosed car parking and car parking areas accommodating more than three vehicles (other than on Rural zoned land), with a floor level below the 5% AEP flood or more than 0.8 m below the 1% AEP flood level, shall have adequate warning systems, signage and exits. **H7** Restraints or vehicle barriers to be provided to prevent floating vehicles leaving the site during a 1% AEP flood. **H8** Driveway and parking space levels to be no lower than the design ground/floor levels. Where this is not practical, a lower level may be considered. In these circumstances, the level is to be as high as practical, and, when undertaking concessional development, no lower than existing levels.	

1. Unless stated otherwise in an adopted location specific Flood Risk Management Study and Plan, freeboard is equal to 0.5 m for development being assessed under Schedule 2A and 0.3 m for development being assessed under Schedule 2B.

DRAFT REPORT FOR PUBLIC EXHIBITION

SCHEDULE 3A
GENERAL BUILDING MATTERS

Electrical and Mechanical Equipment

For dwellings constructed on land to which this policy applies, the electrical and mechanical materials, equipment and installation should conform to the following requirements.

Main Power Supply

Subject to the approval of the relevant authority the incoming main commercial power service equipment, including all metering equipment, shall be located above the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. Means shall be available to easily isolate the dwelling from the main power supply.

Wiring

All wiring, power outlets, switches, etc, should be, to the maximum extent possible, located above the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. All electrical wiring installed below this level should be suitable for continuous underwater immersion and should contain no fibrous components. Earth leakage circuit breakers (core balance relays) must be installed. Only submersible type splices should be used below the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. All conduits located below the relevant designated flood level should be so installed that they will be self-draining if subjected to flooding.

Equipment

All equipment installed below or partially below the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B** should be capable of disconnection by a single plug and socket assembly.

Reconnection

Should any electrical device and/or part of the wiring be flooded it should be thoroughly cleaned or replaced and checked by an approved electrical contractor before reconnection.

Heating and Air Conditioning Systems

Where viable, heating and air conditioning systems should be installed in areas and spaces of the house above the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. When this is not feasible, every precaution should be taken to minimise the damage caused by submersion according to the following guidelines:

i) Fuel

Heating systems using gas or oil as a fuel should have a manually operated valve located in the fuel supply line to enable fuel cut-off.

ii) Installation

The heating equipment and fuel storage tanks should be mounted on and securely anchored to a foundation pad of sufficient mass to overcome buoyancy and prevent movement that could damage the fuel supply line. All storage tanks should be vented to the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**.

iii) Ducting

All ductwork located below the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B** should be provided with openings for drainage and cleaning. Self-draining may be achieved by constructing the ductwork on a suitable grade. Where ductwork must pass through a watertight wall or floor below the relevant flood level, a closure assembly operated from above the relevant elevation set out under B1 or B2 of **Schedules 2A** and **2B** should protect the ductwork.

Sewer

All sewer connections to properties in flood prone areas are to be fitted with reflux valves.

SCHEDULE 3B
FLOOD COMPATIBLE MATERIALS

Building Component	Flood Compatible Material	Building Component	Flood Compatible Material
Flooring and Sub Floor Structure	• Concrete slab-on-ground monolith construction. Note: clay filling is not permitted beneath slab-on-ground construction which could be inundated. • Pier and beam construction or • Suspended reinforced concrete slab	**Doors**	• Solid panel with waterproof adhesives • Flush door with marine ply filled with closed cell foam • Painted material construction • Aluminium or galvanised steel frame
Floor Covering	• Clay tiles • Concrete, precast or in situ • Concrete tiles • Epoxy formed-in-place • Mastic flooring, formed-in-place • Rubber sheets or tiles with chemical set adhesive • Silicone floors formed-in-place • Vinyl sheets or tiles with chemical-set adhesive • Ceramic tiles, fixed with mortar or chemical set adhesive • Asphalt tiles, fixed with water resistant adhesive • Removable rubber-backed carpet	**Wall and Ceiling Linings**	• Brick, face or glazed • Clay tile glazed in waterproof mortar • Concrete • Concrete block • Steel with waterproof applications • Stone natural solid or veneer, waterproof grout • Glass blocks • Glass • Plastic sheeting or wall with waterproof adhesive
Wall Structure	Solid brickwork, blockwork, reinforced, concrete or mass concrete	**Insulation**	• Foam or closed cell types
Windows	Aluminium frame with stainless steel or brass rollers	**Nails, Bolts, Hinges and Fittings**	• Galvanised • Removable pin hinges

Lyall & Associates

Parkes Shire Council

PARKES SHIRE COUNCIL

BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN

OCTOBER 2025

VOLUME 2 – FIGURES

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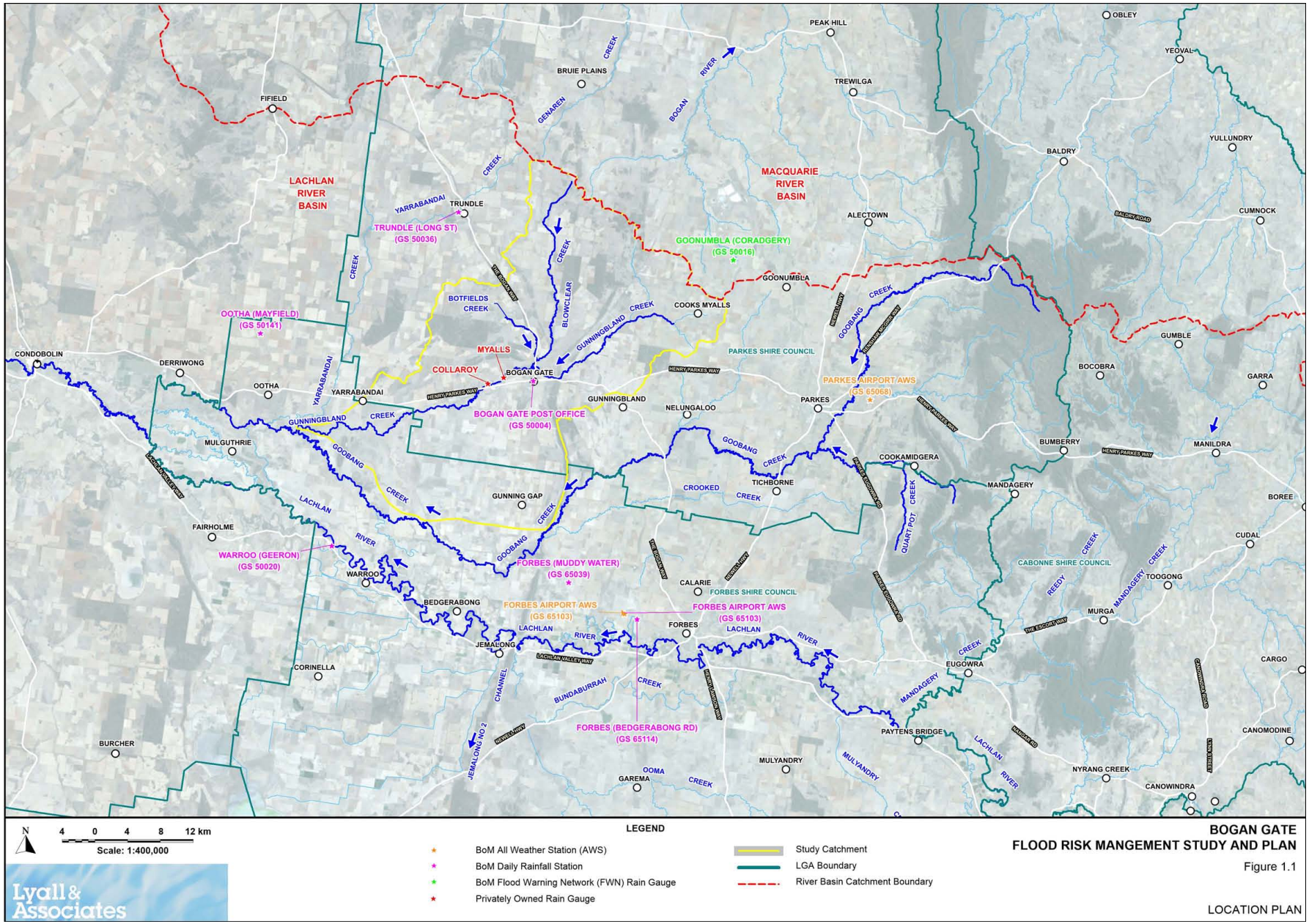
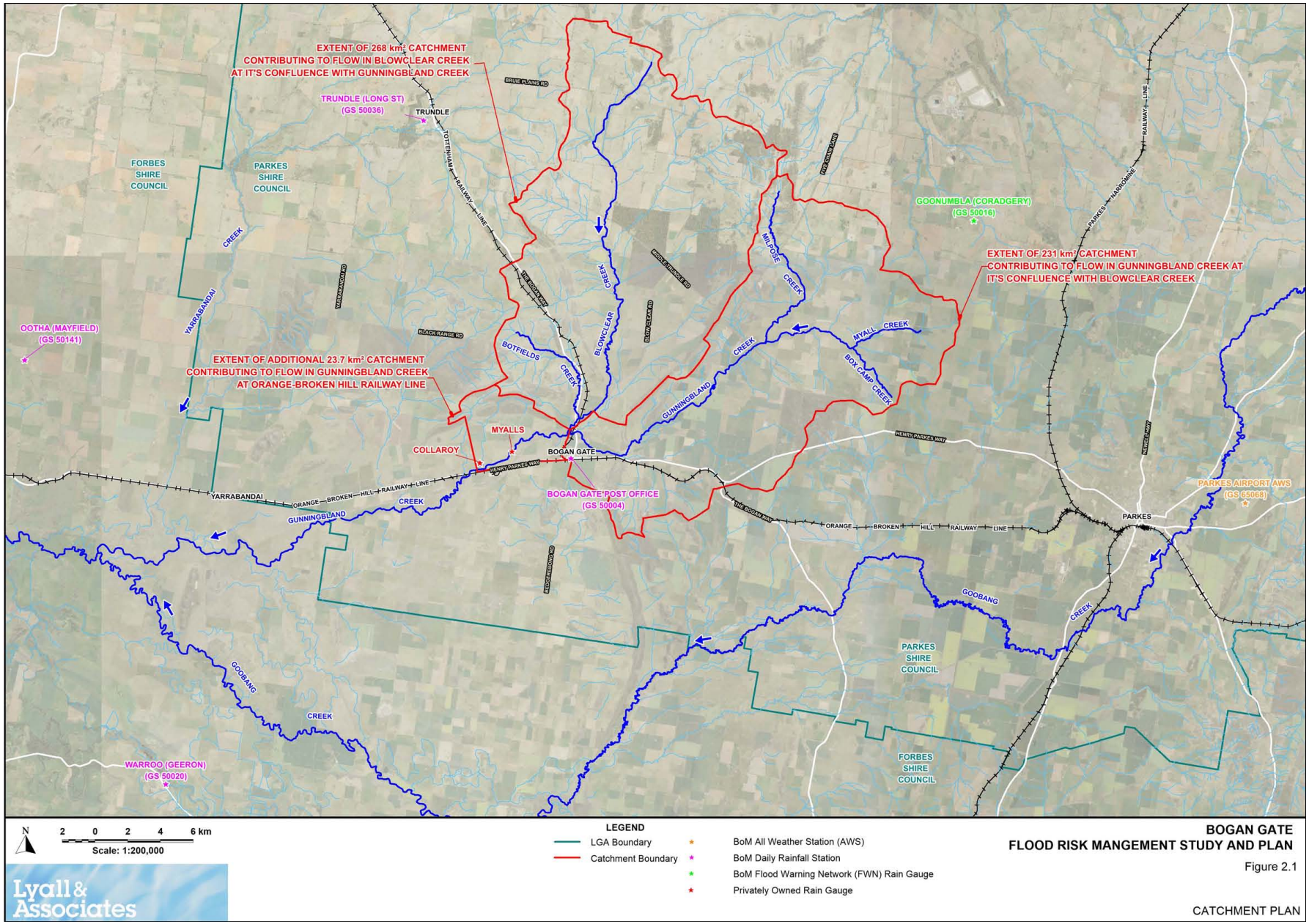
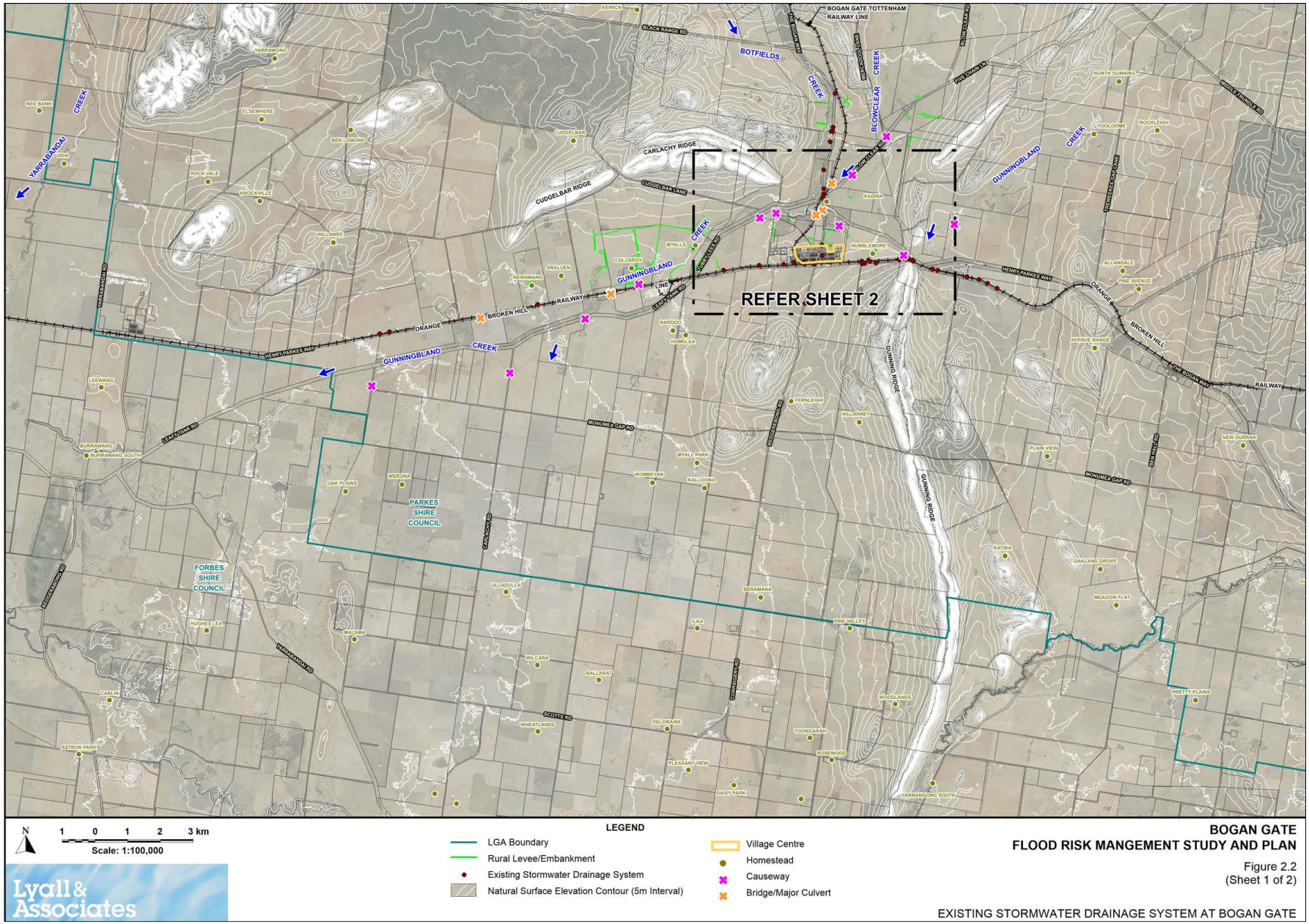
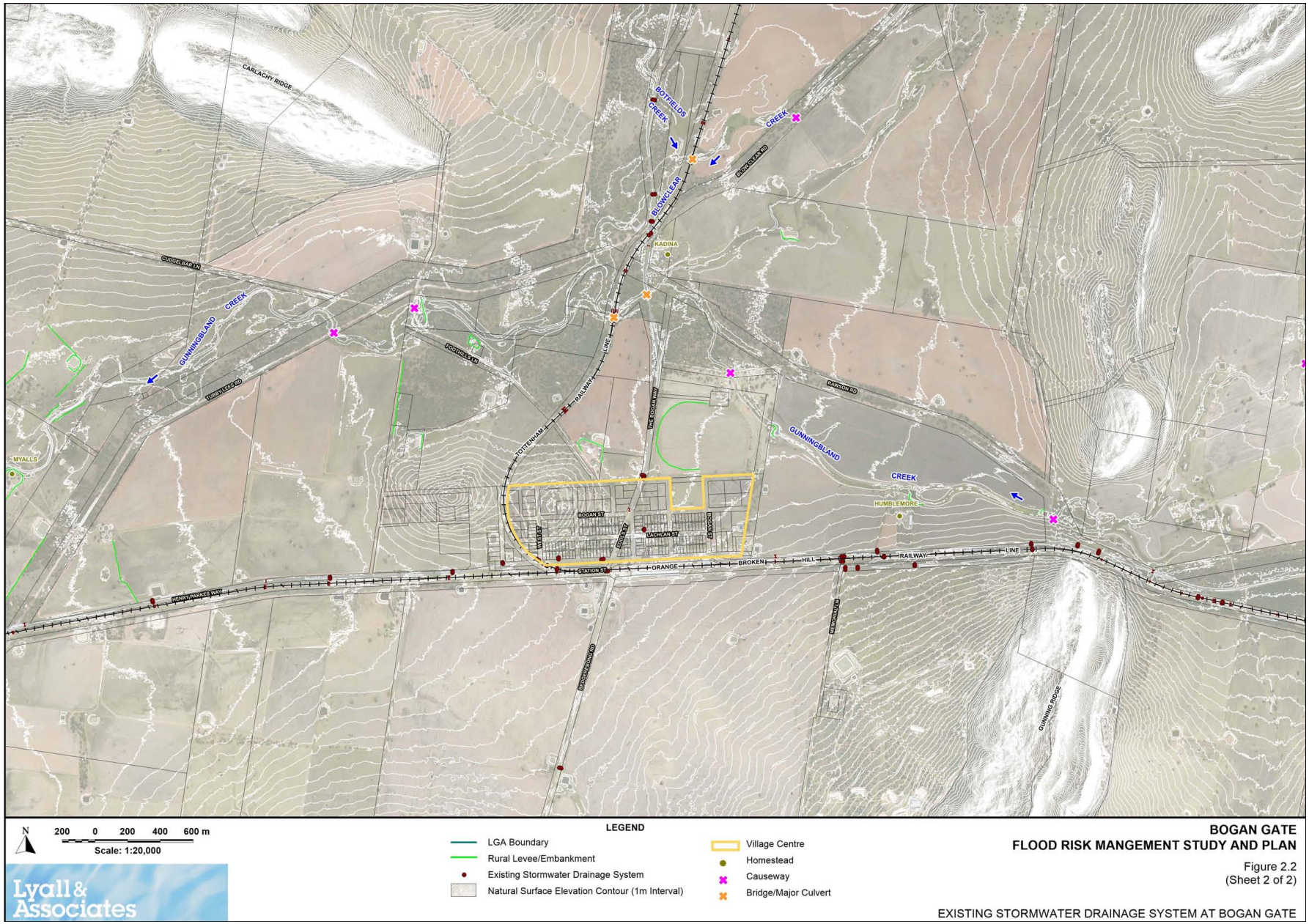
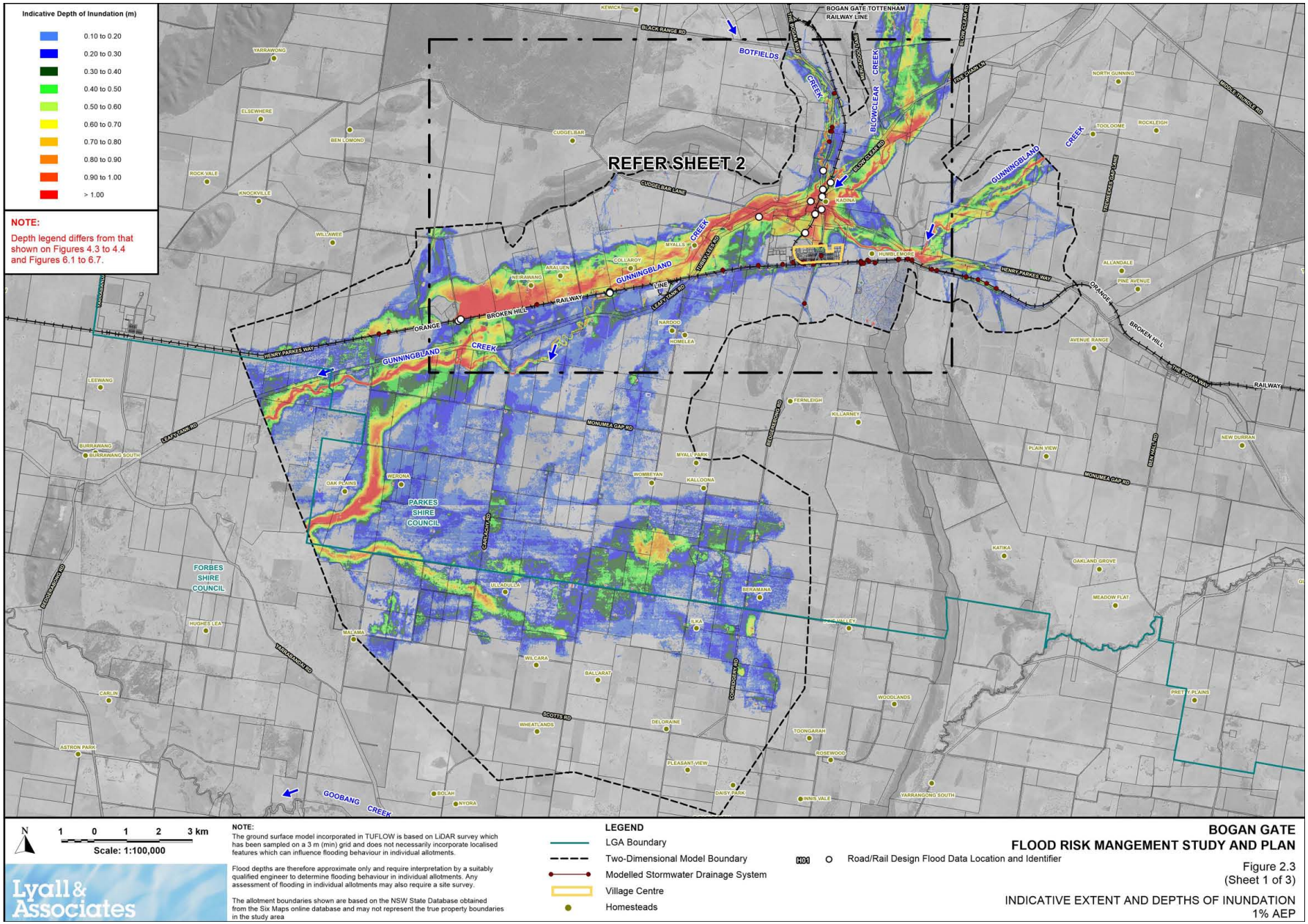
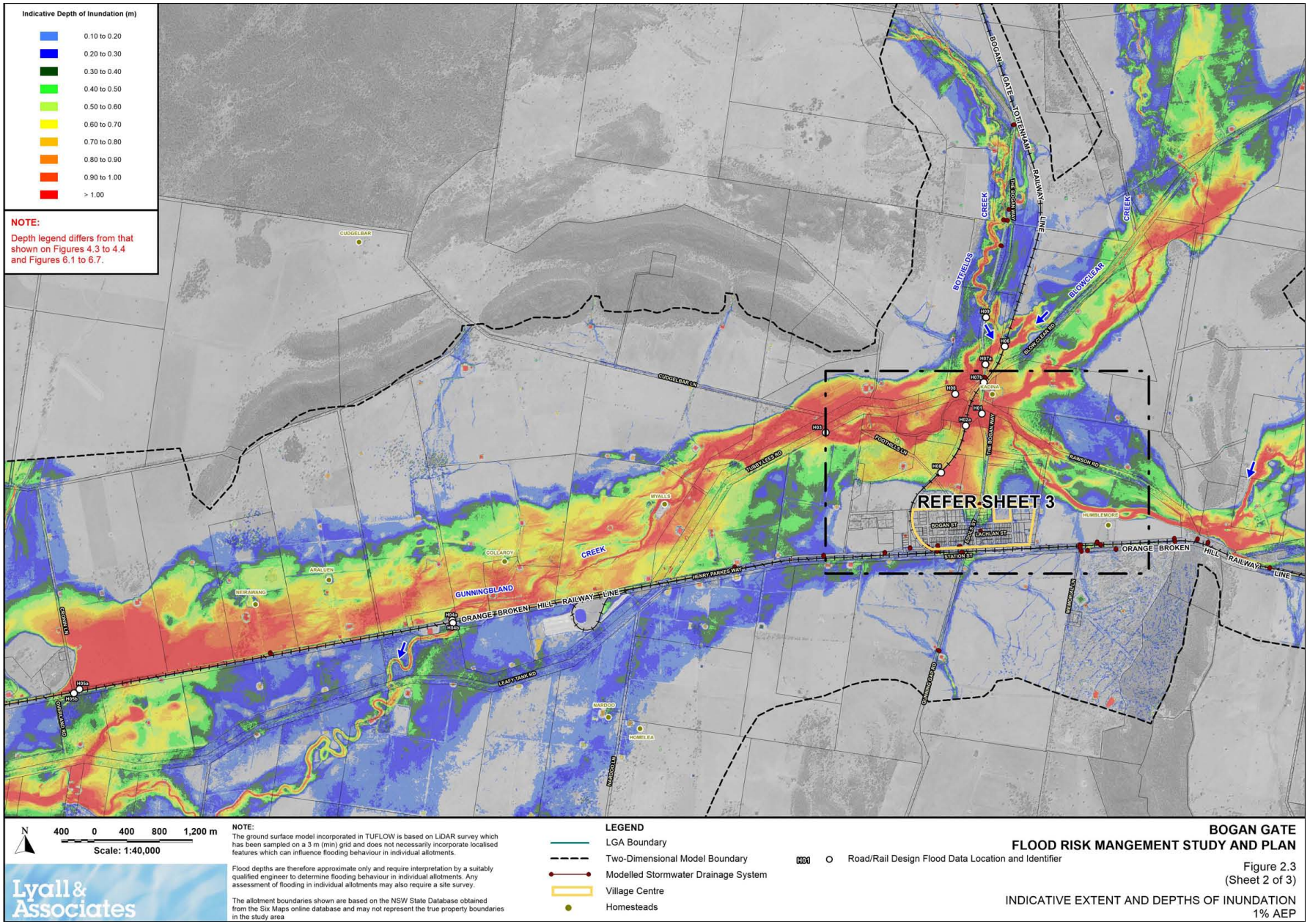

LACHLAN RIVER BASIN
MACQUARIE RIVER BASIN
PARKES SHIRE COUNCIL
CABONNE SHIRE COUNCIL
FORBES SHIRE COUNCIL
PEAK HILL
OBLEY
YEOVAL
TREWILGA
BRUIE PLAINS
FIFIELD
BALDRY
YULLUNDRY
ALECTOWN
CUMNOCK
GOONUMBLA
GOONUMBLA (CORADGERY) (GS 50016)
COOKS MYALLS
GUMBLE
BOCOBRA
GARRA
TRUNDLE
TRUNDLE (LONG ST) (GS 50036)
OOTHA (MAYFIELD) (GS 50141)
CONDOBOLIN
DERRIWONG
OOTHA
YARRABANDAI
MYALLS
COLLAROY
BOGAN GATE
BOGAN GATE POST OFFICE (GS 50004)
PARKES AIRPORT AWS (GS 65068)
PARKES
GUNNINGBLAND
NELUNGALOO
MULGUTHRIE
BUMBERRY
MANILDRA
COOKAMIDGERA
TICHBORNE
MANDAGERY
BOREE
CUDAL
GUNNING GAP
FAIRHOLME
WARROO (GEERON) (GS 50020)
WARROO
FORBES (MUDDY WATER) (GS 65039)
CALARIE
TOOGONG
MURGA
BEDGERABONG
FORBES AIRPORT AWS (GS 65103)
FORBES
JEMALONG
EUGOWRA
CARGO
CORINELLA
BUNDABURRAH
PAYTENS BRIDGE
CANOMODINE
BURCHER
FORBES (BEDGERABONG RD) (GS 65114)
MULYANDRY
NYRANG CREEK
CANOWINDRA
OOMA
GAREMA
BLOWCLEAR CREEK
GOOBANG CREEK
GUNNINGBLAND CREEK
YARRABANDAI CREEK
BOGAN RIVER
LACHLAN RIVER
CROOKED CREEK
QUARTPOT CREEK
MANDAGERY CREEK
REEDY CREEK
BUNDABURRAH CREEK
JEMALONG CHANNEL
HENRY PARKES WAY
LACHLAN VALLEY WAY
THE ESCORT WAY
N
4 0 4 8 12 km
Scale: 1:400,000
LEGEND
BoM All Weather Station (AWS)
BoM Daily Rainfall Station
BoM Flood Warning Network (FWN) Rain Gauge
Privately Owned Rain Gauge
Study Catchment
LGA Boundary
River Basin Catchment Boundary
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 1.1
LOCATION PLAN


EXTENT OF 268 km² CATCHMENT CONTRIBUTING TO FLOW IN BLOWCLEAR CREEK AT IT'S CONFLUENCE WITH GUNNINGBLAND CREEK
EXTENT OF 231 km² CATCHMENT CONTRIBUTING TO FLOW IN GUNNINGBLAND CREEK AT IT'S CONFLUENCE WITH BLOWCLEAR CREEK
EXTENT OF ADDITIONAL 23.7 km² CATCHMENT CONTRIBUTING TO FLOW IN GUNNINGBLAND CREEK AT ORANGE-BROKEN HILL RAILWAY LINE
TRUNDLE (LONG ST) (GS 50036)
TRUNDLE
GOONUMBLA (CORADGERY) (GS 50016)
OOTHA (MAYFIELD) (GS 50141)
MYALLS
COLLAROY
BOGAN GATE
BOGAN GATE POST OFFICE (GS 50004)
PARKES AIRPORT AWS (GS 65068)
PARKES
WARROO (GEERON) (GS 50020)
FORBES SHIRE COUNCIL
PARKES SHIRE COUNCIL
BLOWCLEAR CREEK
BOTFIELDS CREEK
MILPOSE CREEK
MYALL CREEK
BOX CAMP CREEK
GUNNINGBLAND CREEK
YARRABANDAI CREEK
GOOBANG CREEK
BRUIE PLAINS RD
TOTTENHAM RAILWAY LINE
THE BOGAN WAY
HENRY PARKES WAY
ORANGE BROKEN HILL RAILWAY LINE
N
2 0 2 4 6 km
Scale: 1:200,000
LEGEND
LGA Boundary
Catchment Boundary
BoM All Weather Station (AWS)
BoM Daily Rainfall Station
BoM Flood Warning Network (FWN) Rain Gauge
Privately Owned Rain Gauge
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.1
CATCHMENT PLAN


REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
CARLACHY RIDGE
CUDGELBAR RIDGE
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
GUNNING RIDGE
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
N
1 0 1 2 3 km
Scale: 1:100,000
LEGEND
LGA Boundary
Rural Levee/Embankment
Existing Stormwater Drainage System
Natural Surface Elevation Contour (5m Interval)
Village Centre
Homestead
Causeway
Bridge/Major Culvert
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.2
(Sheet 1 of 2)
EXISTING STORMWATER DRAINAGE SYSTEM AT BOGAN GATE


CARLACHY RIDGE
BOTFIELDS CREEK
CREEK
BLOWCLEAR
BLOWCLEAR RD
KADINA
GUDGELBAR LN
GUNNINGBLAND CREEK
LINDYATES RD
FOOTHILL LN
TOTTENHAM
RAILWAY LINE
THE BOGAN WAY
RAWSON RD
GUNNINGBLAND CREEK
MYALLS
HUMBLEMORE
BOGAN ST
MARSH ST
FORREST ST
LACHLAN ST
BOGAN ST
BROKEN HILL RAILWAY LINE
ORANGE
STATION ST
HENRY PARKES WAY
BERGENBRONG RD
LAWRENCE ST
GUNNING RIDGE
N
200 0 200 400 600 m
Scale: 1:20,000
Lyall & Associates
LEGEND
LGA Boundary
Rural Levee/Embankment
Existing Stormwater Drainage System
Natural Surface Elevation Contour (1m Interval)
Village Centre
Homestead
Causeway
Bridge/Major Culvert
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.2
(Sheet 2 of 2)
EXISTING STORMWATER DRAINAGE SYSTEM AT BOGAN GATE


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
NOTE:
Depth legend differs from that shown on Figures 4.3 to 4.4 and Figures 6.1 to 6.7.
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
HDI
Road/Rail Design Flood Data Location and Identifier
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.3
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
1% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
NOTE:
Depth legend differs from that shown on Figures 4.3 to 4.4 and Figures 6.1 to 6.7.
REFER SHEET 3
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS CREEK
BLOWCLEAR CREEK
BLOWCLEAR RD
CUDGELBAR LN
KADINA
THE BOGAN WAY
RAWSON RD
FOOTHILLS LN
TULLYALLEN RD
MYALLS
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
GUNNINGBLAND
COLLAROY
CREEK
ARALUEN
NEIRAWANG
GASKINS LN
LEADVTANK RD
NASDOO
HOMELEA
NAMOOKA
GUNNINGBLAND RD
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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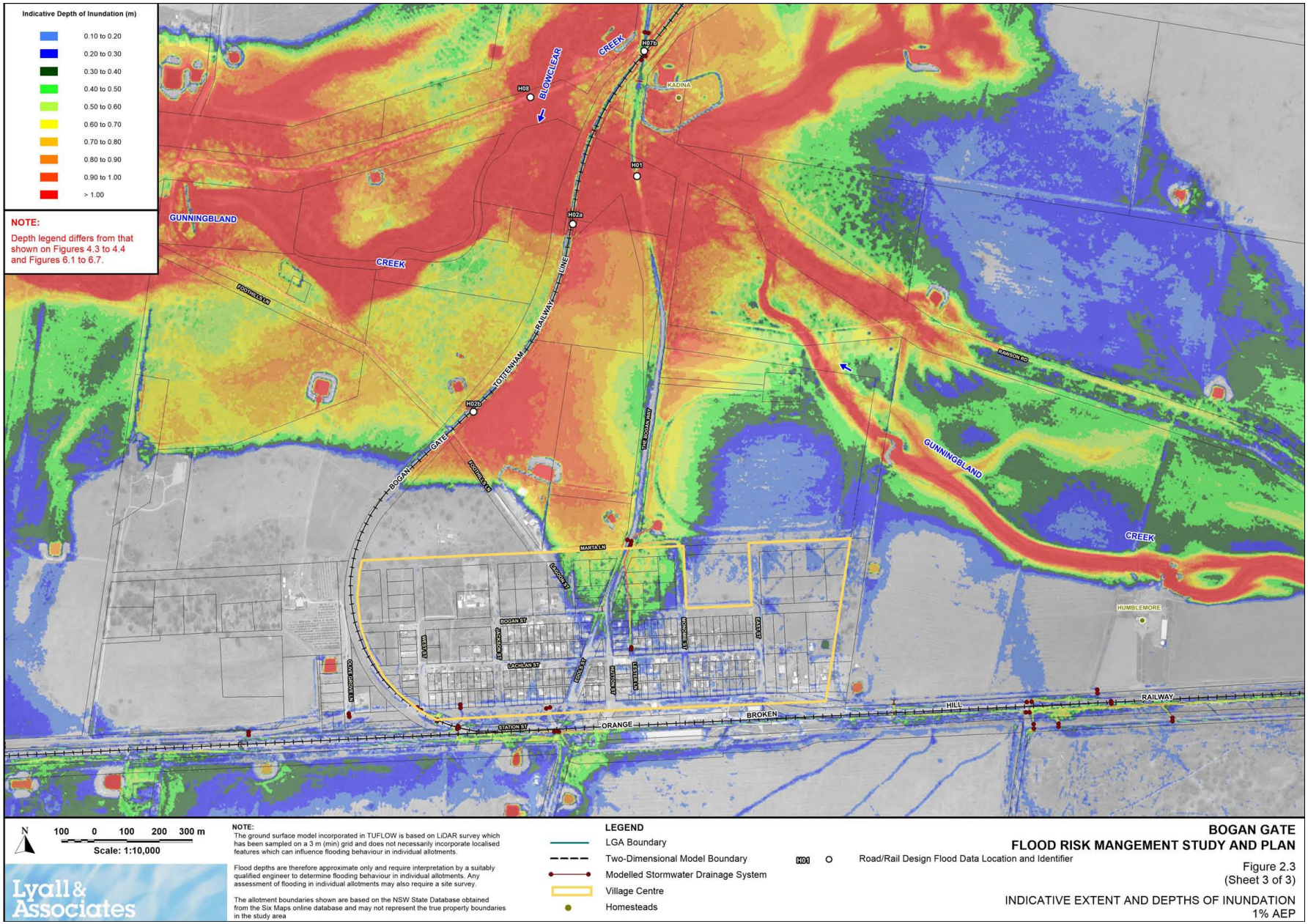
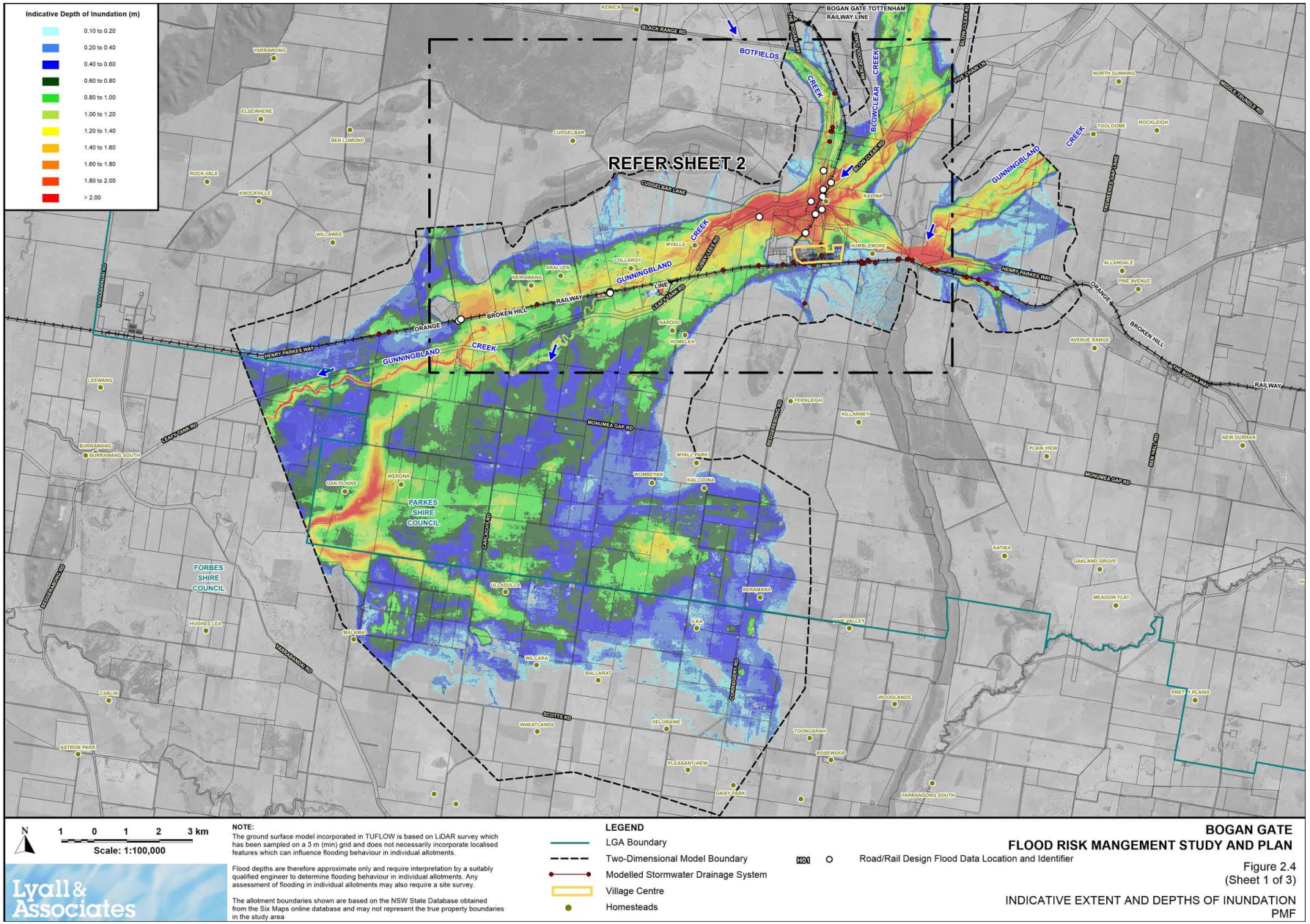
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
H01 Road/Rail Design Flood Data Location and Identifier
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.3
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
1% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
NOTE:
Depth legend differs from that shown on Figures 4.3 to 4.4 and Figures 6.1 to 6.7.
GUNNINGBLAND
CREEK
BLOWCLEAR
H08
H07b
KADINA
H01
H02a
H02b
TOTTENHAM
RAILWAY LINE
FOOTHILLS LN
GATE
BOGAN
THE BOGAN WAY
RAWSON RD
MARTA LN
MACQUARIE ST
BOGAN ST
LACHLAN ST
WESLEY
JACKSON
CLARENDON
EASTLEY
HUMBLEMORE
RAILWAY
HILL
BROKEN
ORANGE
STATION ST
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
H01
Road/Rail Design Flood Data Location and Identifier
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.3
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
1% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.40
0.40 to 0.60
0.60 to 0.80
0.80 to 1.00
1.00 to 1.20
1.20 to 1.40
1.40 to 1.60
1.60 to 1.80
1.80 to 2.00
> 2.00
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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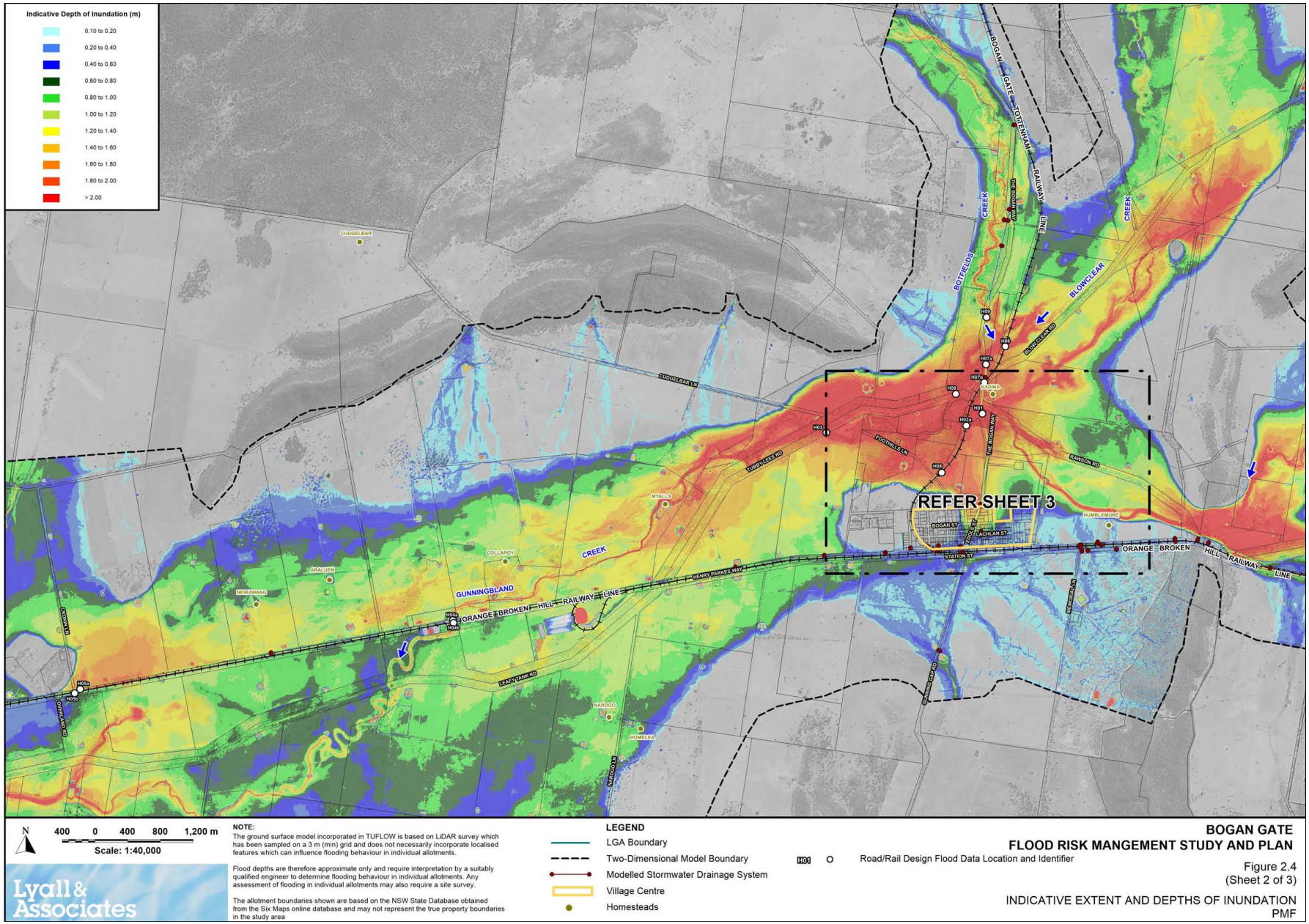
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
HDI
Road/Rail Design Flood Data Location and Identifier
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.4
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
PMF


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.40
0.40 to 0.60
0.60 to 0.80
0.80 to 1.00
1.00 to 1.20
1.20 to 1.40
1.40 to 1.60
1.60 to 1.80
1.80 to 2.00
> 2.00
REFER SHEET 3
BOGAN GATE
TOTTENHAM
RAILWAY LINE
BOTFIELDS CREEK
BLOWCLEAR
BLOWCLEAR RD
CUDGELBAR
CUDGELBAR LN
KADINA
FOOTHILLS LN
TURVALES RD
RAWSON RD
MYALLS
COLLAROY
CREEK
ARALUEN
NEIRAWANG
GUNNINGBLAND
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
LEARY TANK RD
NARDOO
HOMELEA
NAMOORA
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY LINE
H01
H02
H03
H04
H05
H06
H07
H07a
H08
H09
H09a
H09b
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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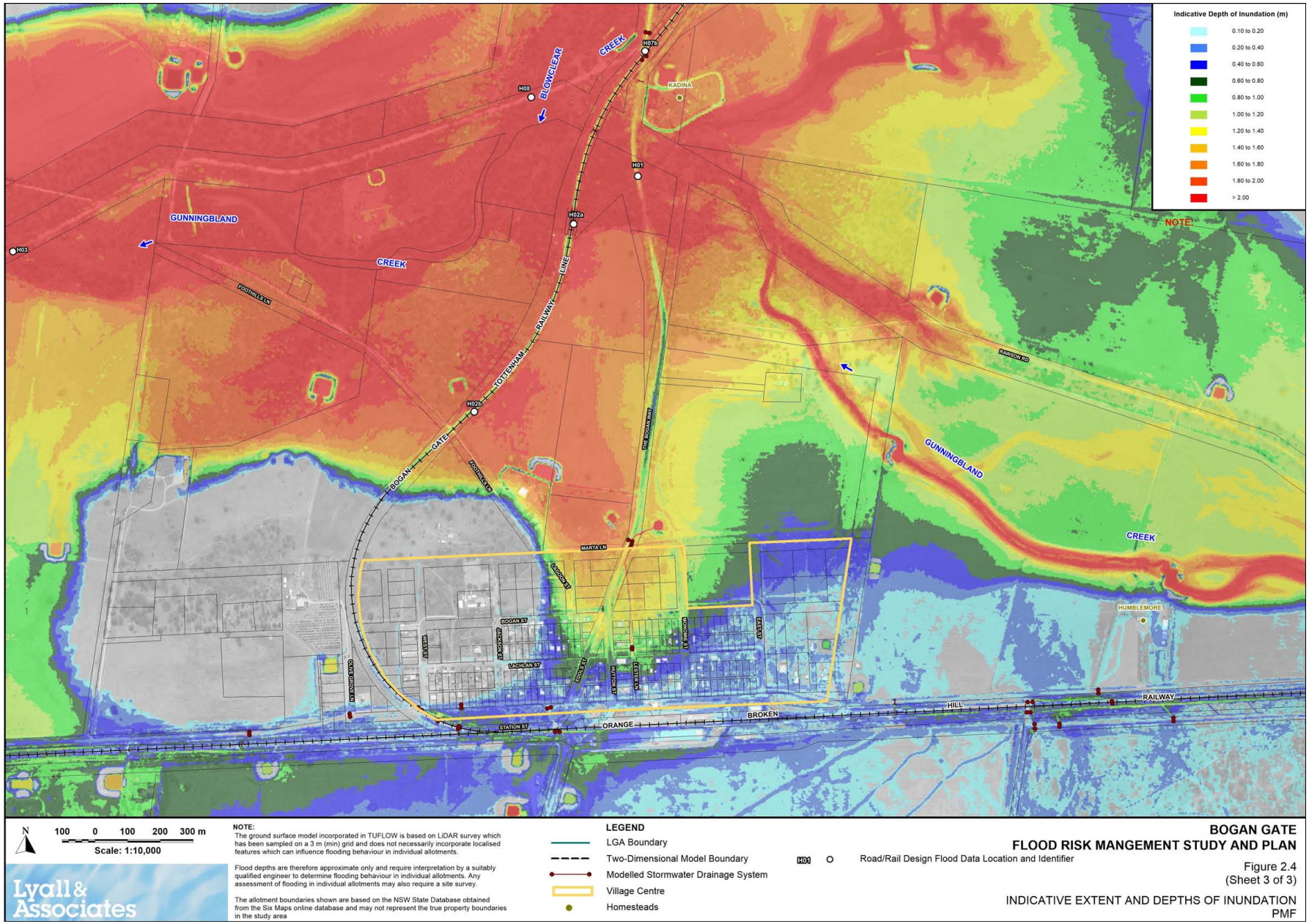
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
H01
Road/Rail Design Flood Data Location and Identifier
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.4
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
PMF


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.40
0.40 to 0.60
0.60 to 0.80
0.80 to 1.00
1.00 to 1.20
1.20 to 1.40
1.40 to 1.60
1.60 to 1.80
1.80 to 2.00
> 2.00
NOTE:
BLOWCLEAR CREEK
KADINA
GUNNINGBLAND
CREEK
TOTTENHAM - RAILWAY LINE
BOGAN - GATE
THE BOGAN WAY
RAWSON RD
GUNNINGBLAND
CREEK
HUMBLEMORE
MARTA LN
BOGAN ST
LACHLAN ST
STATION ST
ORANGE - BROKEN HILL RAILWAY
H01
H02a
H02b
H02c
H03
H07b
H08
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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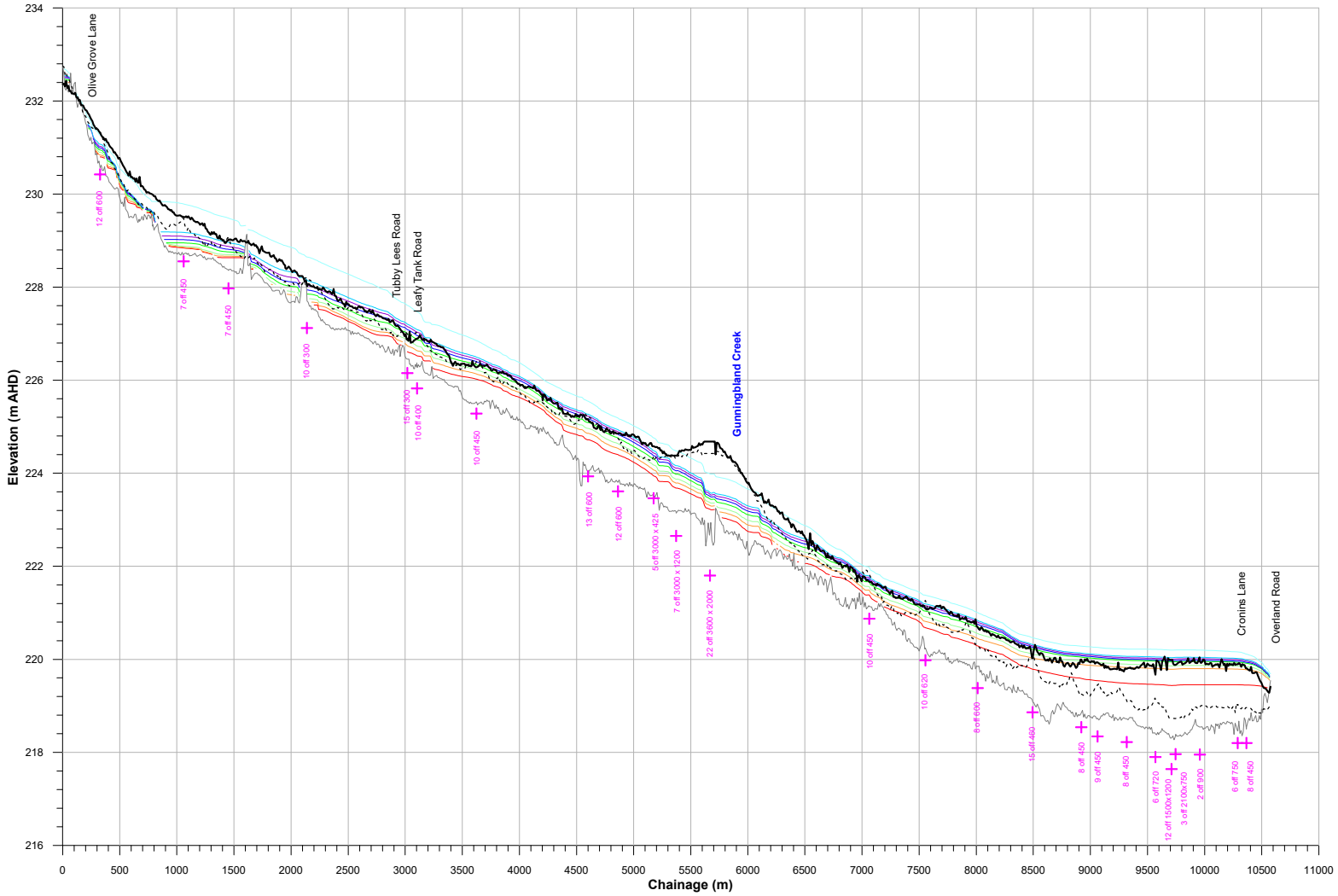
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
H01
Road/Rail Design Flood Data Location and Identifier
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.4
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
PMF

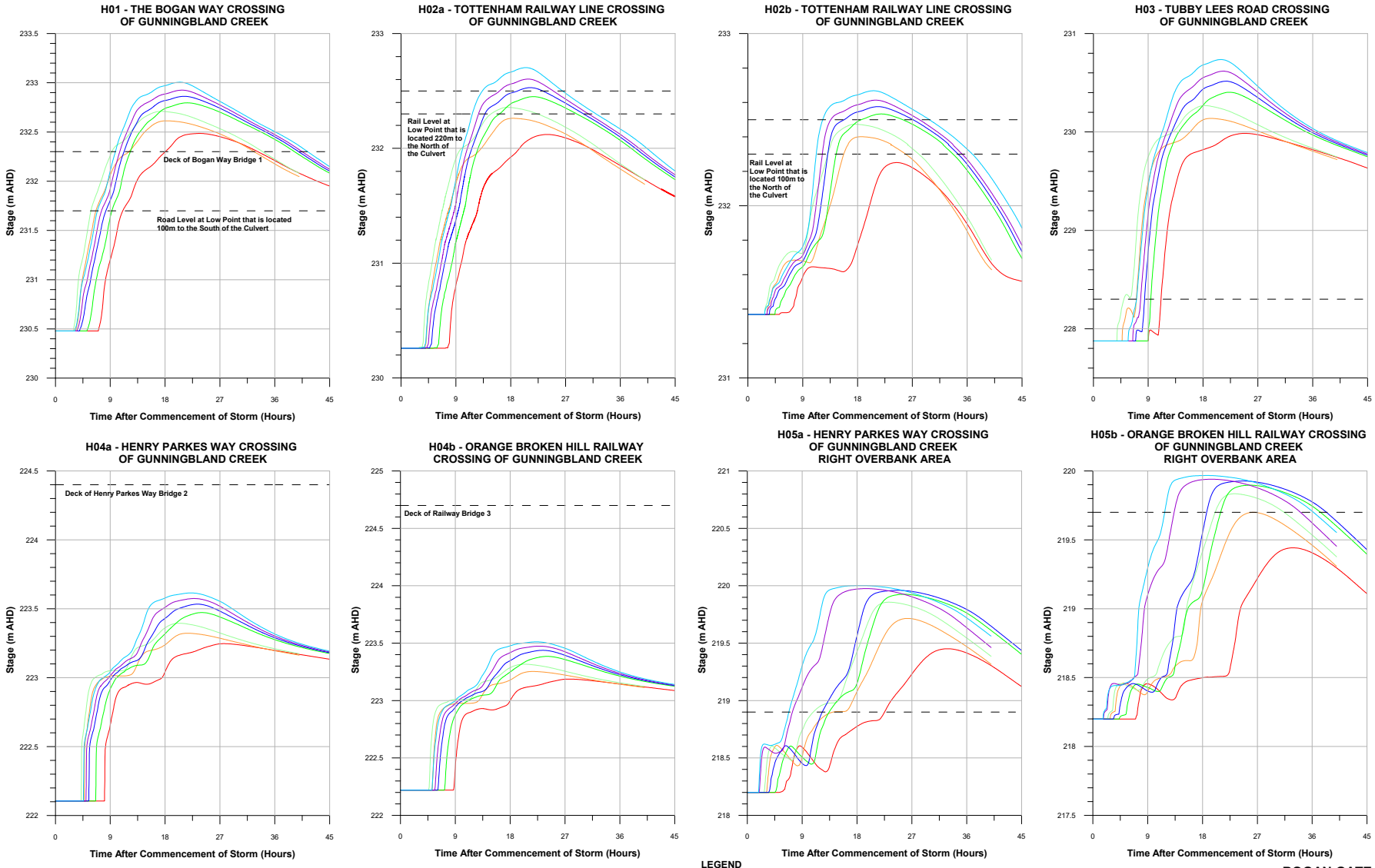


Lyall & Associates

BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN

Figure 2.5

LONGITUDINAL SECTION ALONG ORANGE - BROKEN HILL RAILWAY LINE
BETWEEN OLIVE GROVE LAND AND OVERLAND ROAD - DESIGN STORM EVENTS



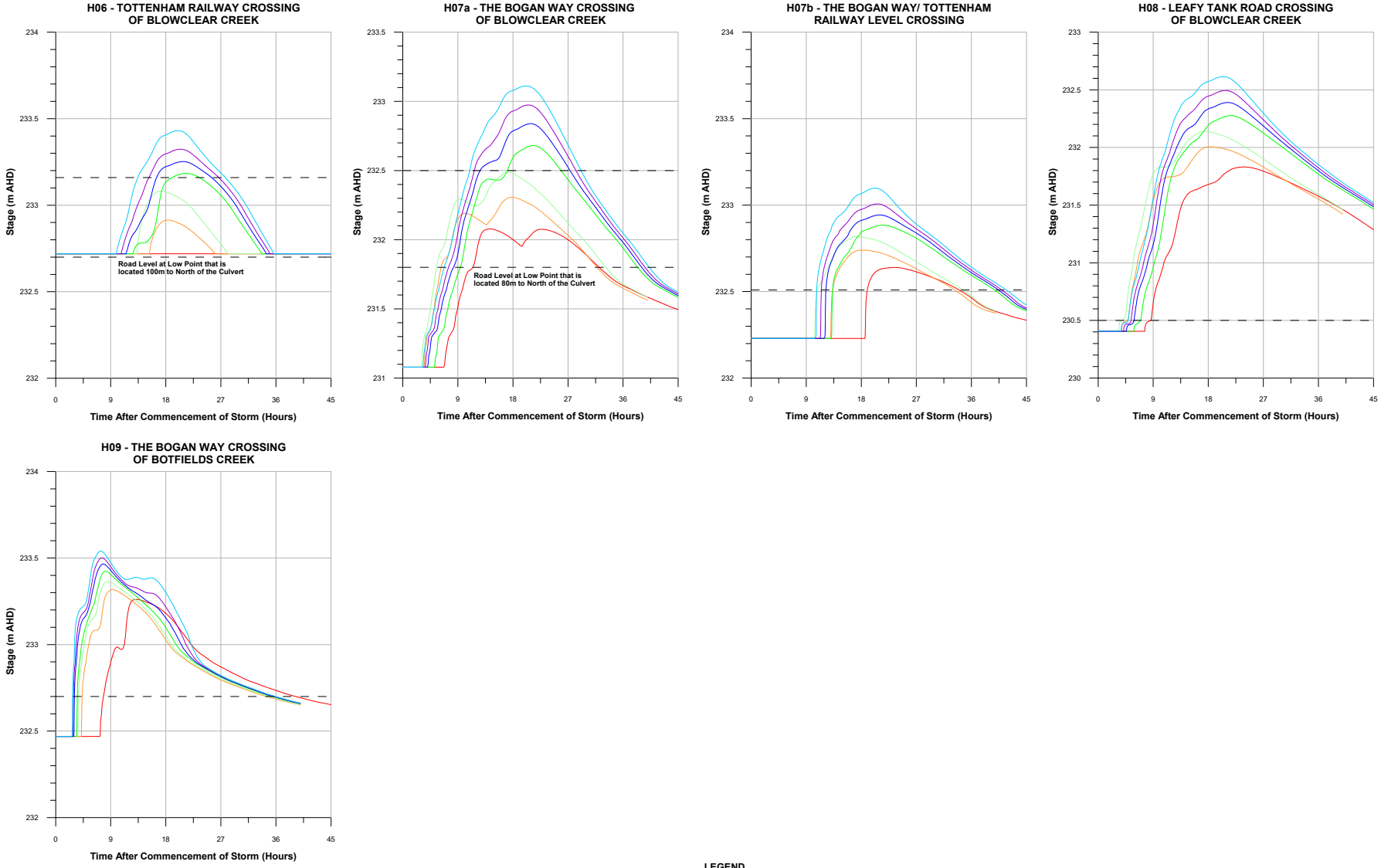
Lyall & Associates

NOTES:

Refer **Figures 2.3** to **2.4** for Peak Flood Level Locations.

BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.6
(Sheet 1 of 2)

TIME OF RISE OF FLOODWATERS



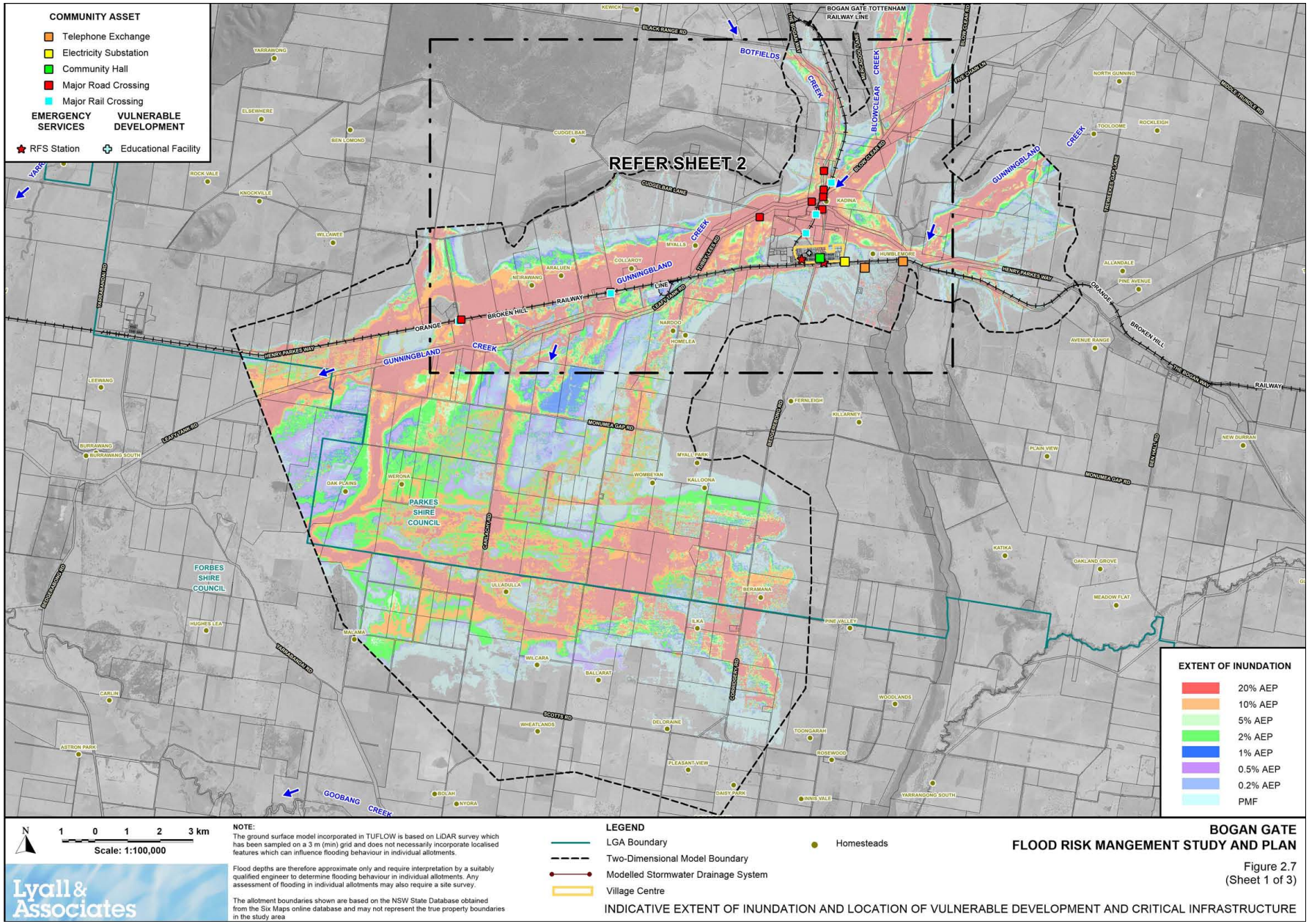
Lyall & Associates

NOTES:

Refer **Figures 2.3** and **2.4** for Peak Flood Level Locations.

BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.6
(Sheet 2 of 2)

TIME OF RISE OF FLOODWATERS


COMMUNITY ASSET
Telephone Exchange
Electricity Substation
Community Hall
Major Road Crossing
Major Rail Crossing
EMERGENCY SERVICES
VULNERABLE DEVELOPMENT
RFS Station
Educational Facility
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLOWCLEAR CREEK
GUNNINGBLAND CREEK
GUNNINGBLAND LINE
BROKEN HILL RAILWAY
ORANGE
HENRY PARKES WAY
MONUMEA GAP RD
GOOBANG CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
EXTENT OF INUNDATION
20% AEP
10% AEP
5% AEP
2% AEP
1% AEP
0.5% AEP
0.2% AEP
PMF
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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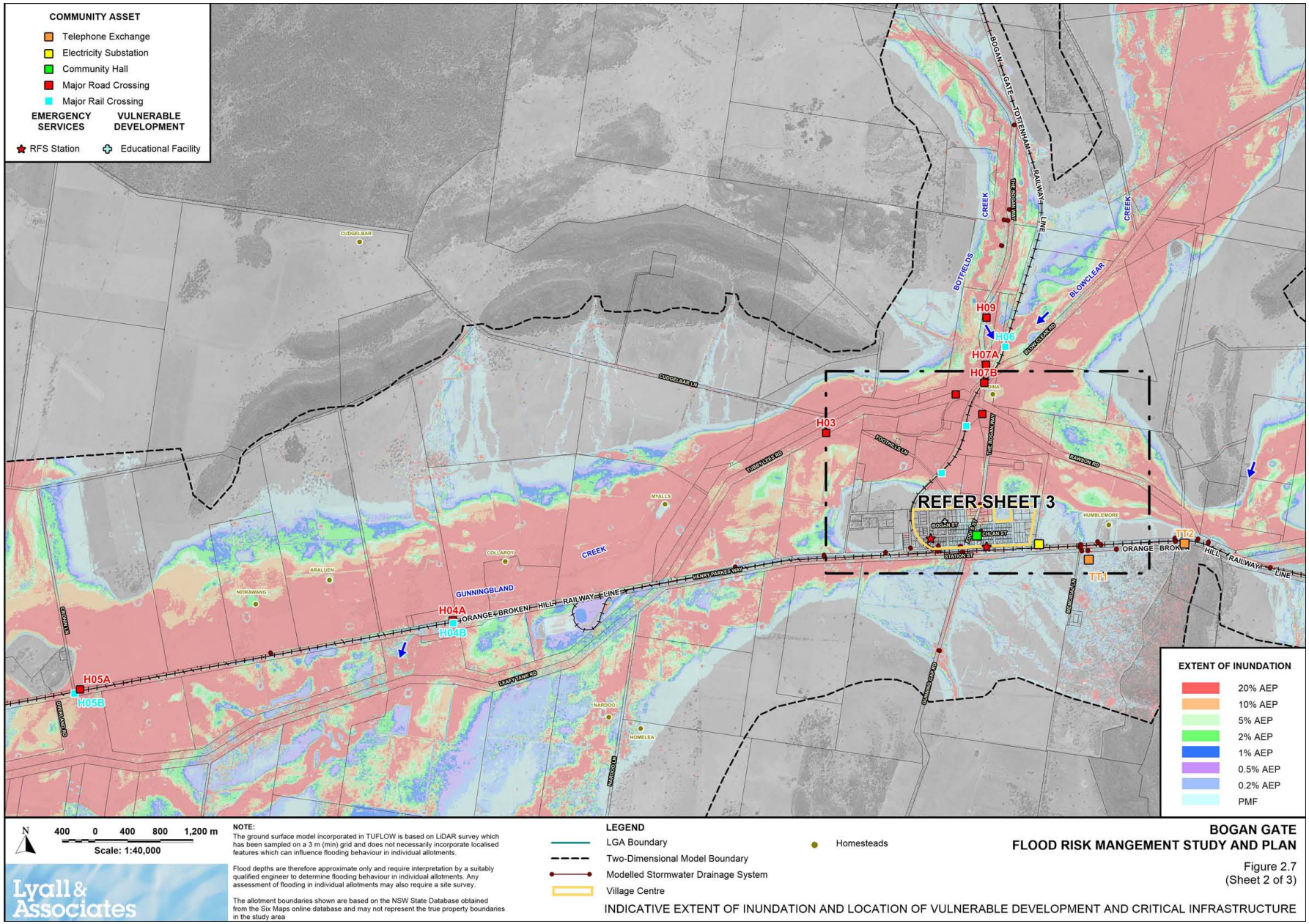
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
INDICATIVE EXTENT OF INUNDATION AND LOCATION OF VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.7
(Sheet 1 of 3)


COMMUNITY ASSET
Telephone Exchange
Electricity Substation
Community Hall
Major Road Crossing
Major Rail Crossing
EMERGENCY SERVICES
VULNERABLE DEVELOPMENT
RFS Station
Educational Facility
REFER SHEET 3
H01
H02
H03
H04A
H04B
H05A
H05B
H06
H07A
H07B
H08
H09
TT1
TT2
GUNNINGBLAND
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTHFELDS CREEK
BLOWCLEAR CREEK
CUDGELBAR
MYALLS
COLLAROY
ARALUEN
NEIRAWANG
NARDOO
HOMELEA
HUMBLEMORE
EXTENT OF INUNDATION
20% AEP
10% AEP
5% AEP
2% AEP
1% AEP
0.5% AEP
0.2% AEP
PMF
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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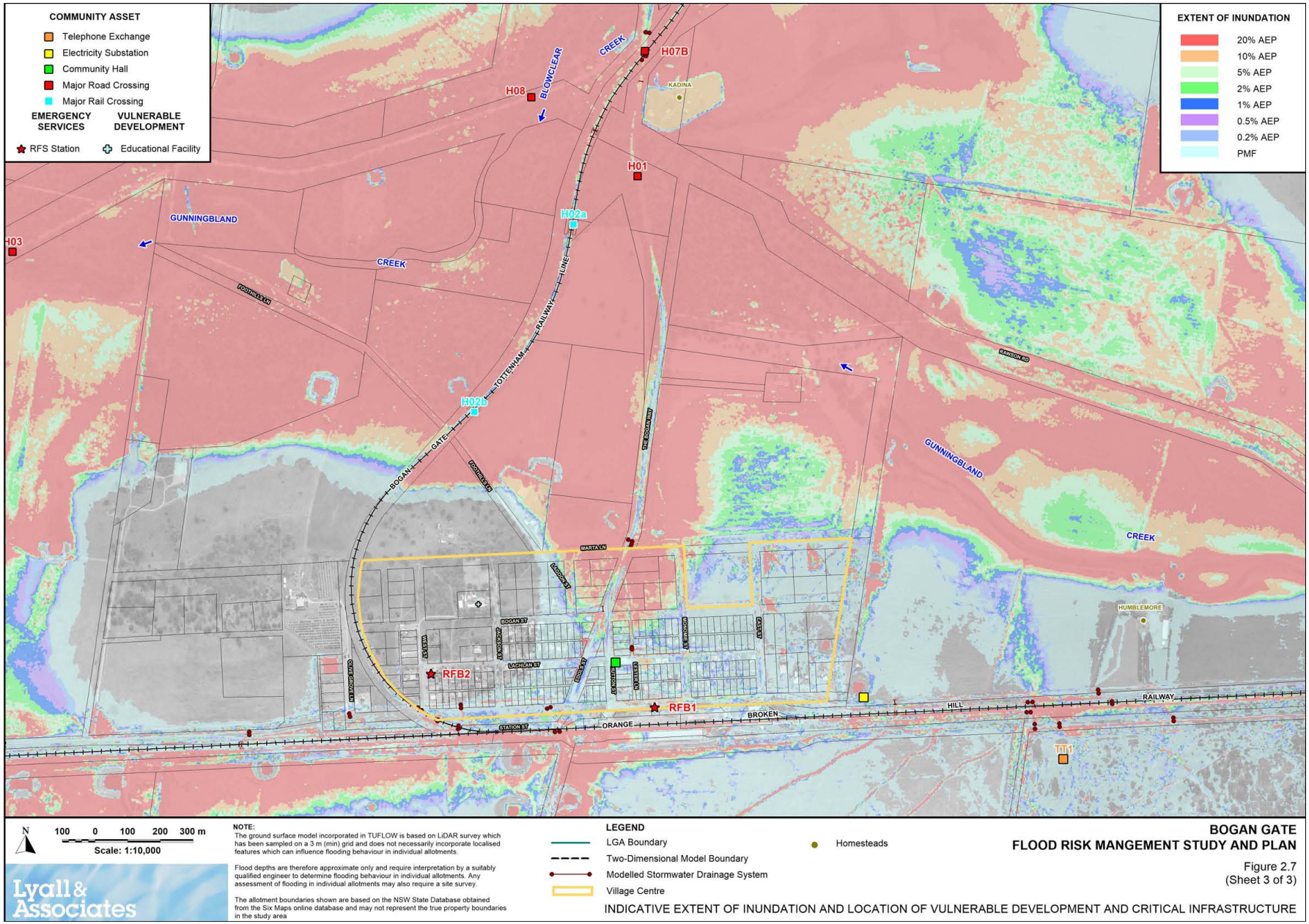
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.7
(Sheet 2 of 3)
INDICATIVE EXTENT OF INUNDATION AND LOCATION OF VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE


COMMUNITY ASSET
Telephone Exchange
Electricity Substation
Community Hall
Major Road Crossing
Major Rail Crossing
EMERGENCY SERVICES
VULNERABLE DEVELOPMENT
RFS Station
Educational Facility
EXTENT OF INUNDATION
20% AEP
10% AEP
5% AEP
2% AEP
1% AEP
0.5% AEP
0.2% AEP
PMF
H01
H02a
H02b
H03
H07B
H08
RFB1
RFB2
TT1
KADINA
HUMBLEMORE
GUNNINGBLAND
CREEK
BLOWCLEAR
TOTTENHAM
RAILWAY LINE
BOGAN GATE
ORANGE
BROKEN HILL
RAILWAY
STATION ST
MARTIN LN
FOOTHILLS RD
RANDON RD
THE BOGAN WAY
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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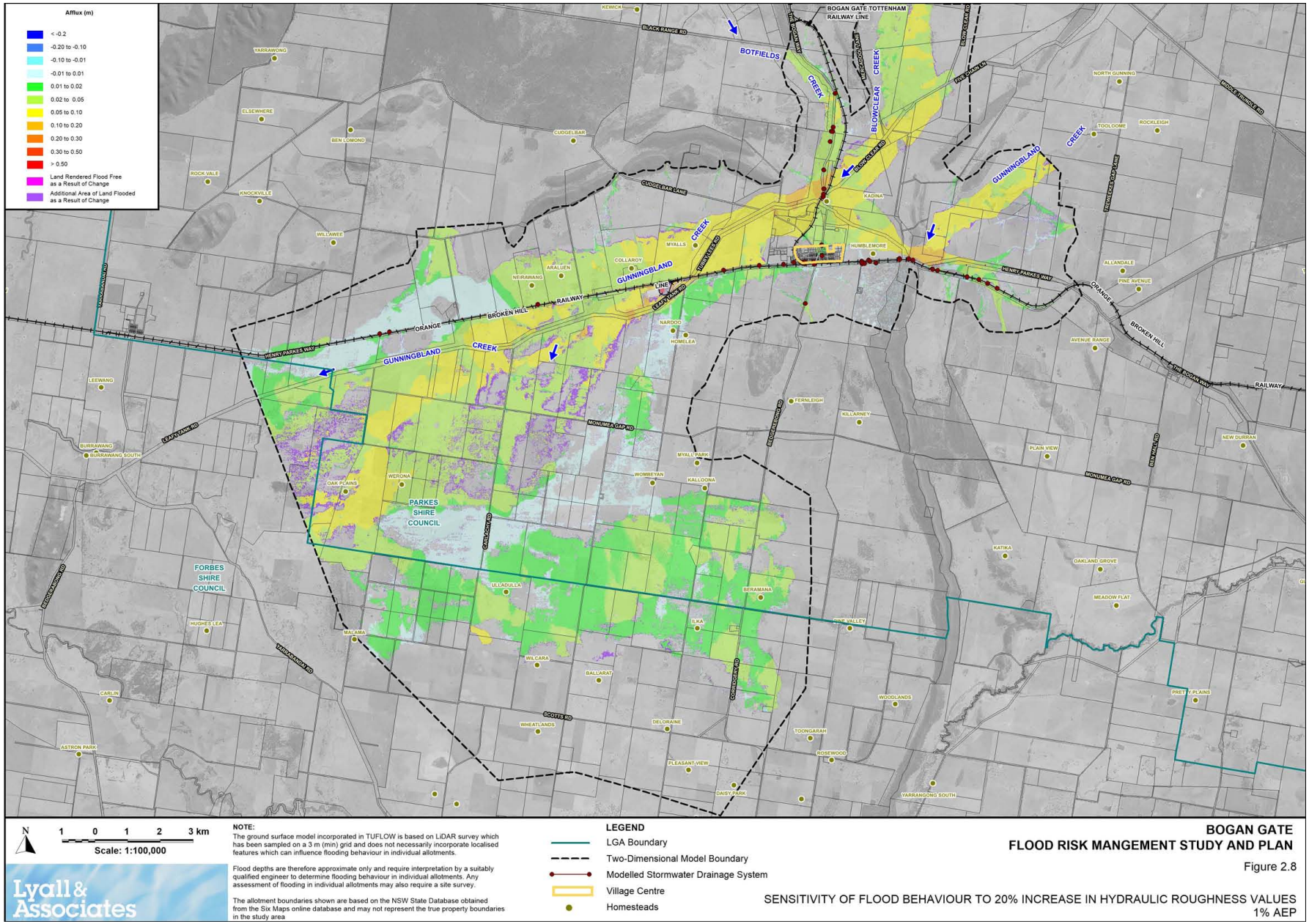
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.7
(Sheet 3 of 3)
INDICATIVE EXTENT OF INUNDATION AND LOCATION OF VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE


Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLOWCLEAR CREEK
GUNNINGBLAND CREEK
ORANGE BROKEN HILL RAILWAY
HENRY PARKES WAY
MONUMEA GAP RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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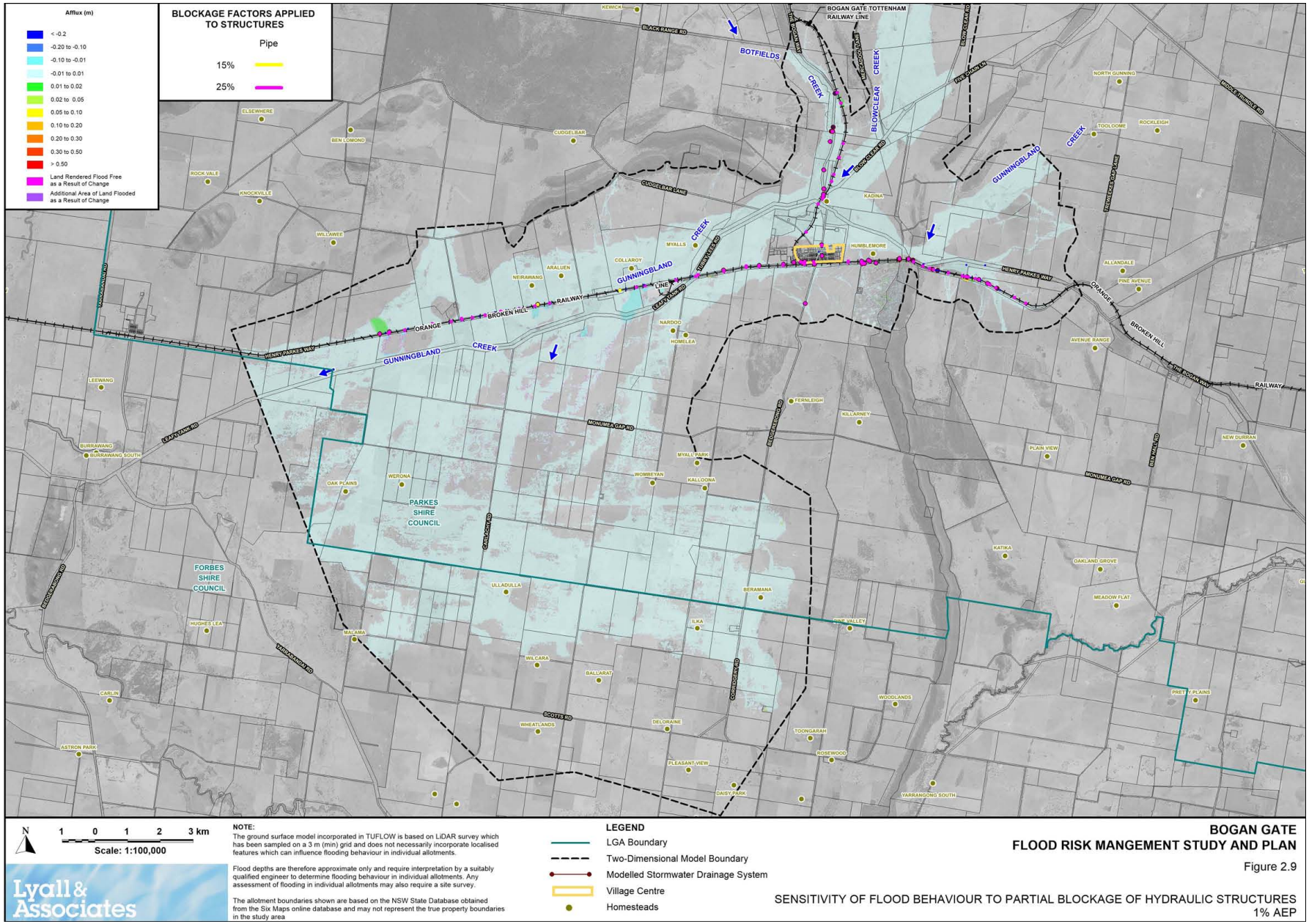
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.8
SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
1% AEP


Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BLOCKAGE FACTORS APPLIED TO STRUCTURES
Pipe
15%
25%
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLACK RANGE RD
GUNNINGBLAND CREEK
BLOWCLEAR
GUNNINGBLAND
HENRY PARKES WAY
ORANGE
BROKEN HILL
RAILWAY
MONUMEA GAP RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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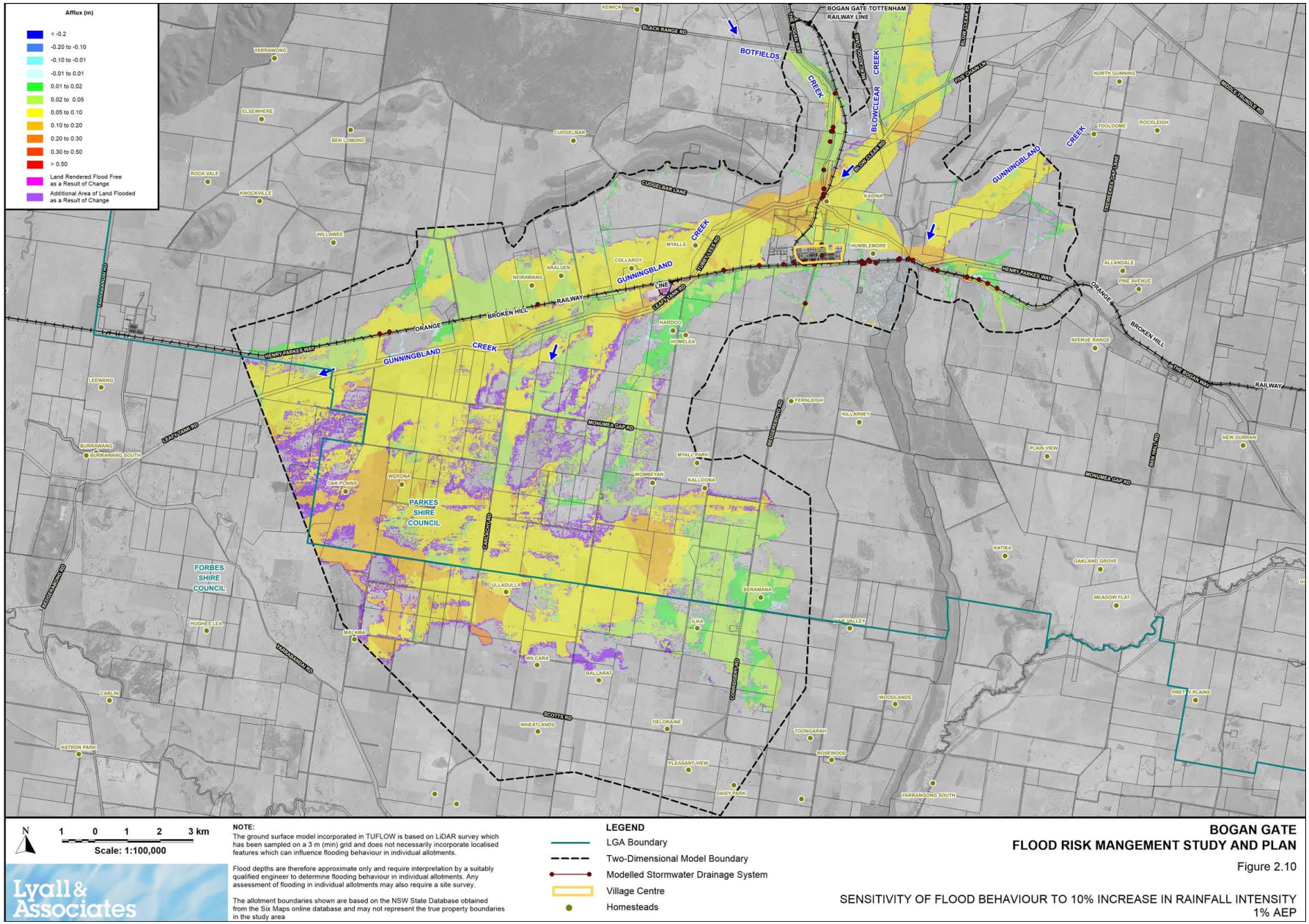
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.9
SENSITIVITY OF FLOOD BEHAVIOUR TO PARTIAL BLOCKAGE OF HYDRAULIC STRUCTURES
1% AEP


Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLOWCLEAR CREEK
GUNNINGBLAND CREEK
GUNNINGBLAND
HENRY PARKES WAY
ORANGE BROKEN HILL RAILWAY LINE
MONUMEA GAP RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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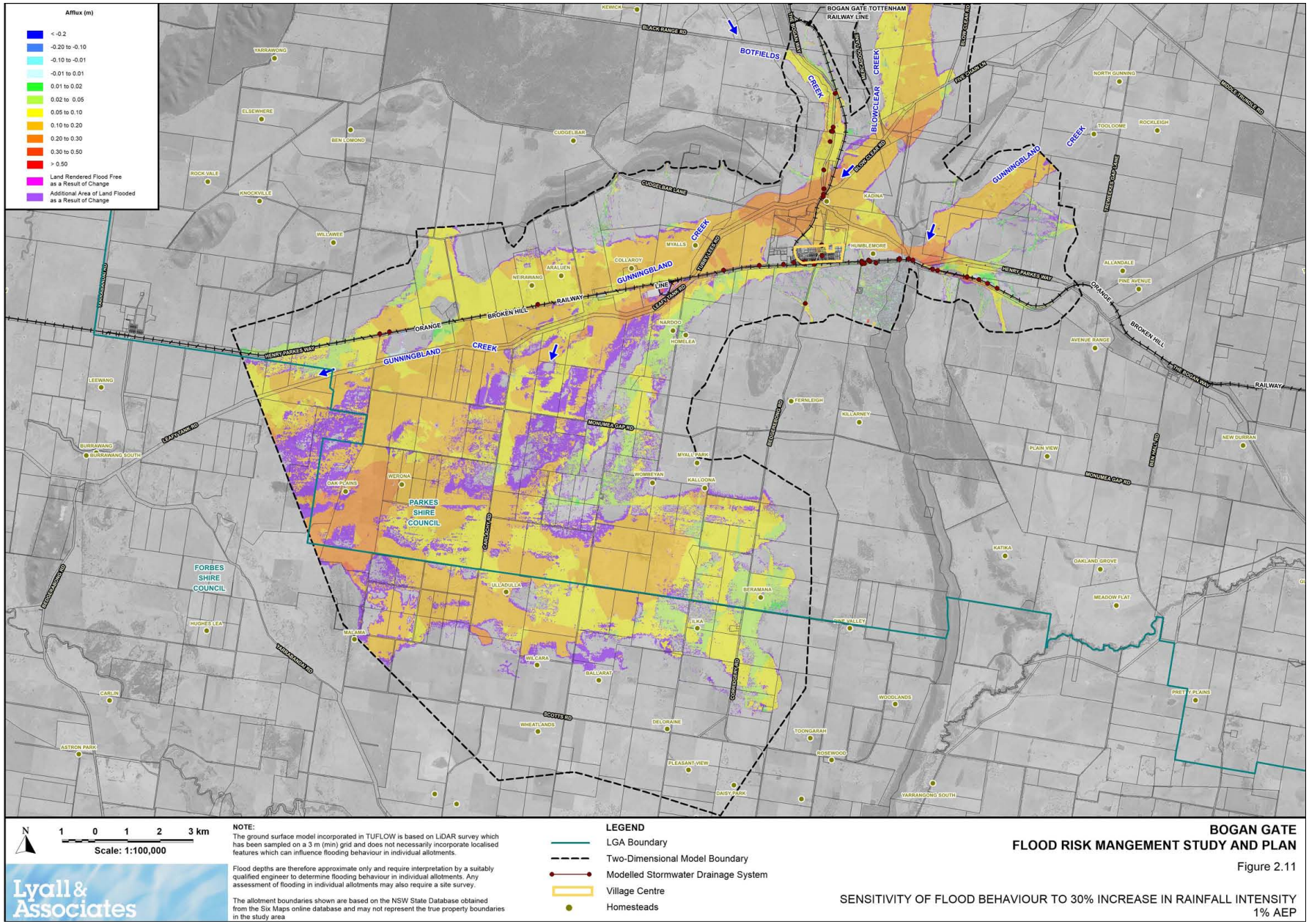
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.10
SENSITIVITY OF FLOOD BEHAVIOUR TO 10% INCREASE IN RAINFALL INTENSITY
1% AEP


Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLOWCLEAR CREEK
GUNNINGBLAND CREEK
GUNNINGBLAND
BROKEN HILL RAILWAY LINE
ORANGE
HENRY PARKES WAY
MONUMEA GAP RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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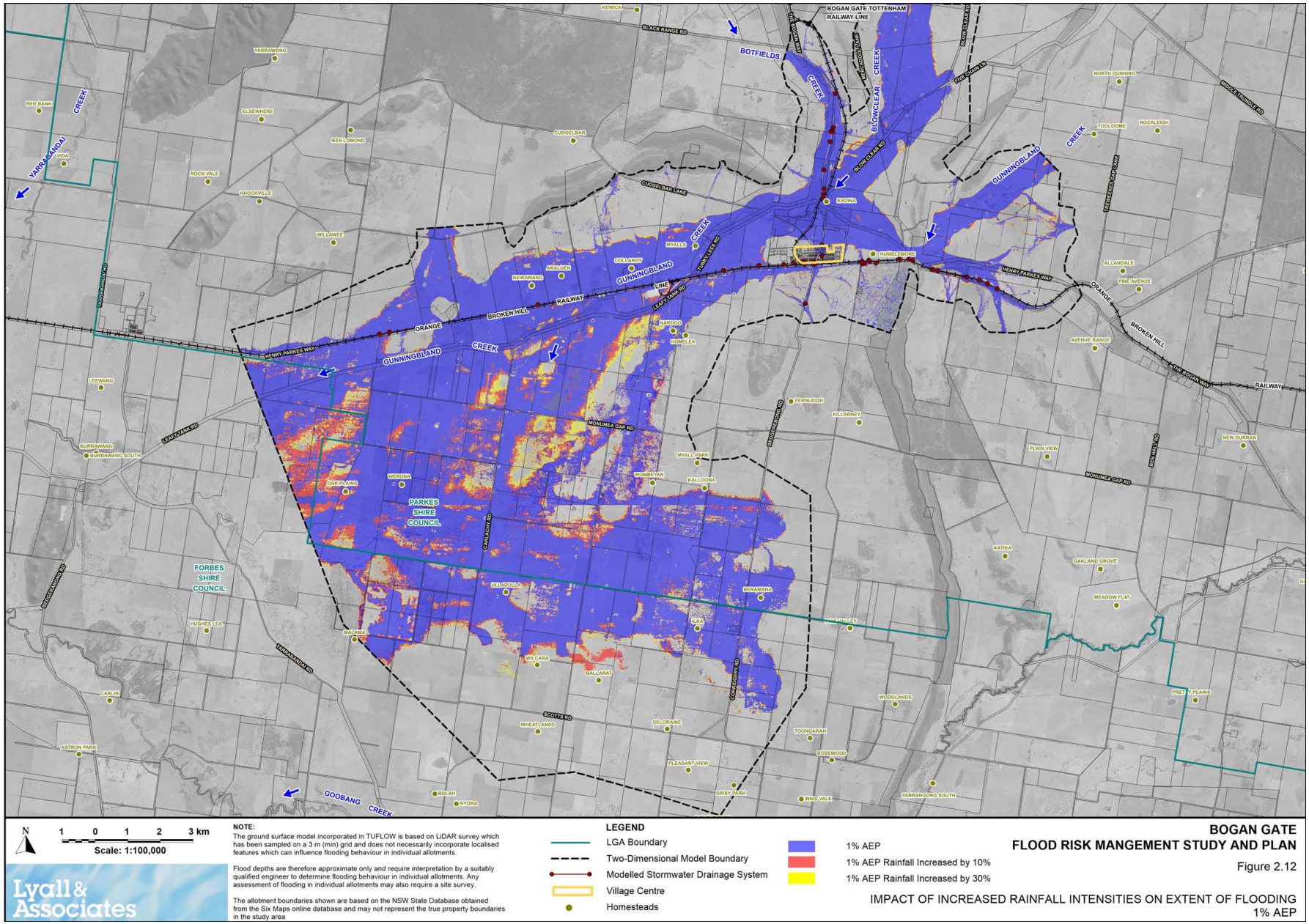
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.11
SENSITIVITY OF FLOOD BEHAVIOUR TO 30% INCREASE IN RAINFALL INTENSITY
1% AEP


BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLACK RANGE RD
YARRAWONG
RED BANK
CREEK
YARRAGANDAI
ELSEWHERE
BEN LOMOND
CUDGELBAR
ROCK VALE
KNOCKVILLE
WILLAWEE
CUDGELBAR LANE
MYALLS
COLLAROY
GUNNINGBLAND
NEIRAWANG
ARALUEN
LINE
RAILWAY
BROKEN HILL
ORANGE
HENRY PARKES WAY
LEAFY TANK RD
NARDOO
ROMELEA
LEEWANG
BURRAWANG
BURRAWANG SOUTH
LEAFY TANK RD
OAK PLAINS
WEROMA
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
HUGHES LEA
MALAMA
YARRAMANDRA RD
CARLIN
ASTRON PARK
GOOBANG CREEK
BOLAH
NYORA
WILGARA
BALLARAT
SCOTTS RD
WHEATLANDS
DELORAINE
PLEASANT VIEW
DAISY PARK
ULLADULLA
WOMBEYAN
KALLOONA
MYALL PARK
MONUMEA GAP RD
CAMPACHOO RD
COBBORA RD
FERNLEIGH
KILLARNEY
BERAMARA
ELMA
KADINA
BLOWCLEAR RD
HUMBLEMORE
NORTH GUNNING
TOOLOOME
ROCKLEIGH
MIDDLE REMOND RD
ALLANDALE
PINE AVENUE
AVENUE RANGE
THE BROKEN WAY
NEW DURRAN
PLAIN VIEW
BENHAM RD
KATIKA
OAKLAND GROVE
MEADOW FLAT
WOODLANDS
PRETTY PLAINS
TOONGARAH
ROSEWOOD
INNIS VALE
YARRANGONG SOUTH
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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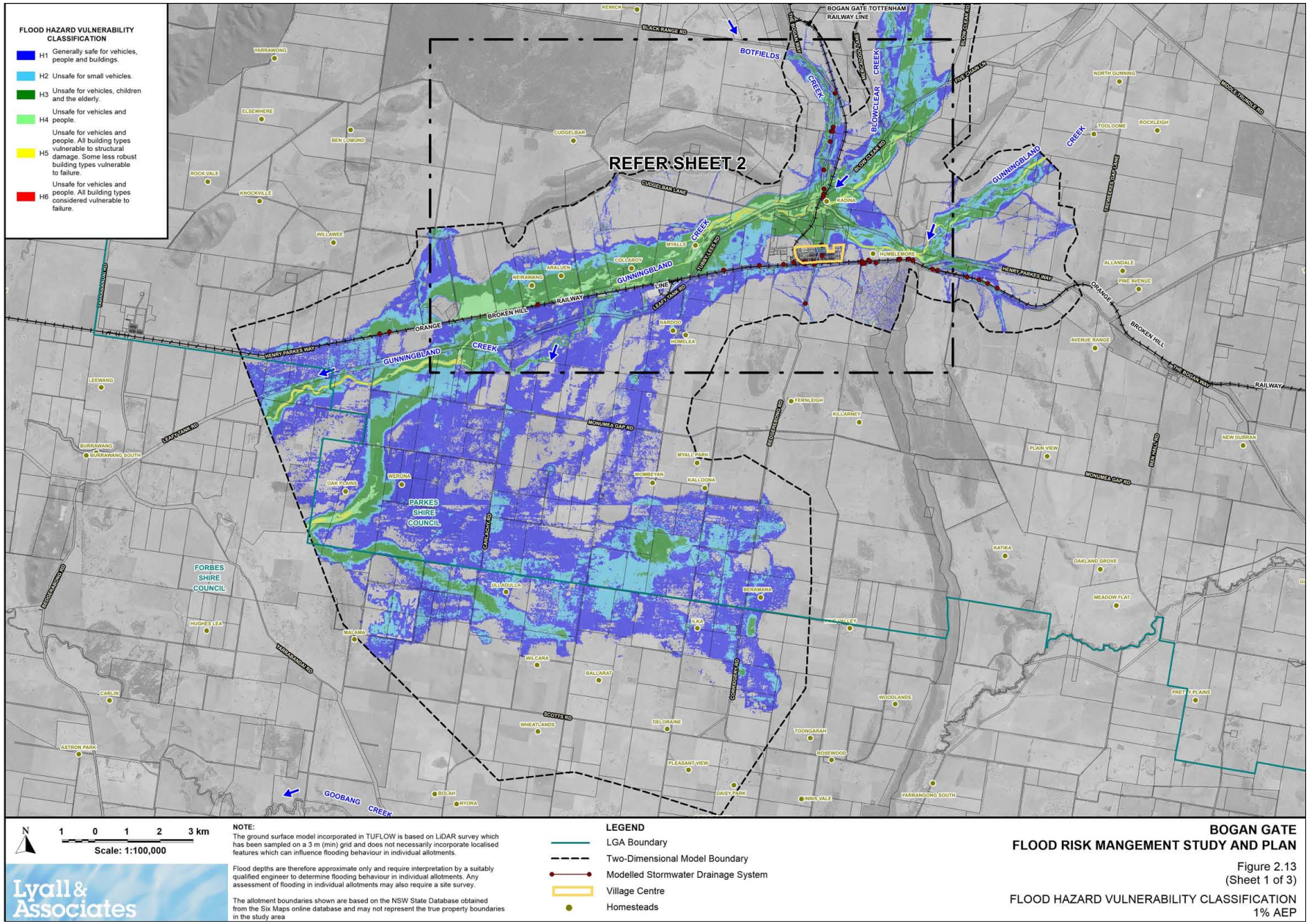
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
1% AEP
1% AEP Rainfall Increased by 10%
1% AEP Rainfall Increased by 30%
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.12
IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
1% AEP


FLOOD HAZARD VULNERABILITY CLASSIFICATION
H1 Generally safe for vehicles, people and 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 building types vulnerable to structural damage. Some less robust building types vulnerable to failure.
H6 Unsafe for vehicles and people. All building types considered vulnerable to failure.
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLOWCLEAR CREEK
GUNNINGBLAND CREEK
GUNNINGBLAND
HENRY PARKES WAY
ORANGE
BROKEN HILL
RAILWAY
MONUMEA GAP RD
LEAFYTANK RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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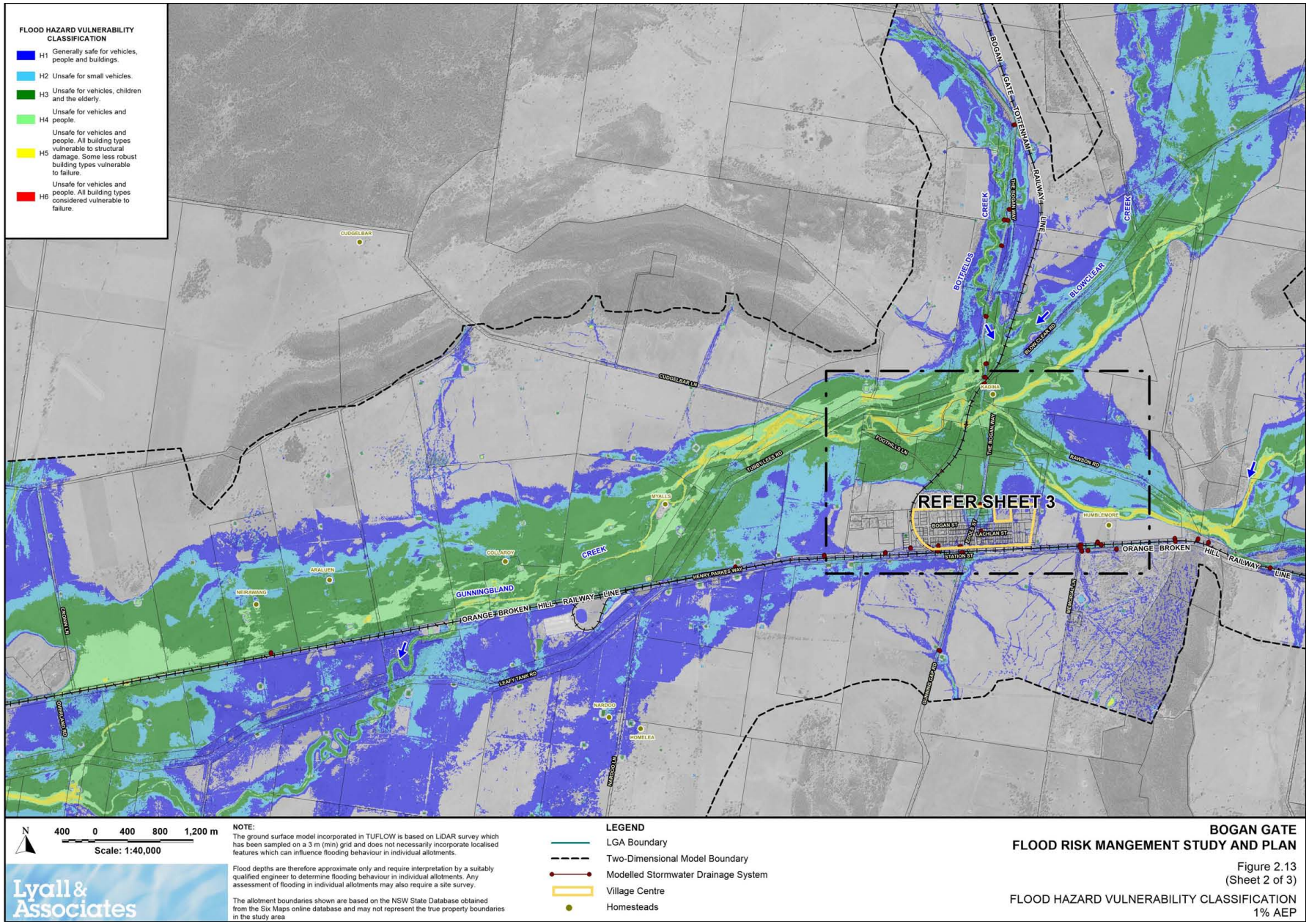
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.13
(Sheet 1 of 3)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
1% AEP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H6 Unsafe for vehicles and people. All building types considered vulnerable to failure.
REFER SHEET 3
CUDGELBAR
KADINA
MYALLS
COLLAROY
ARALUEN
NEIRAWANG
NARDOO
HOMELEA
HUMBLEMORE
BOGAN GATE
TOTTENHAM
RAILWAY LINE
BOTFIELDS
BLOWCLEAR
CREEK
GUNNINGBLAND
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
STATION ST
BOGAN ST
LACHLAN ST
CUDGELBAR LN
FOOTHILLS LN
THURVALEES RD
RAWSON RD
GROWN LN
OVERLAND RD
LEADY TANK RD
GUNNINGBLAND RD
HENDRON LN
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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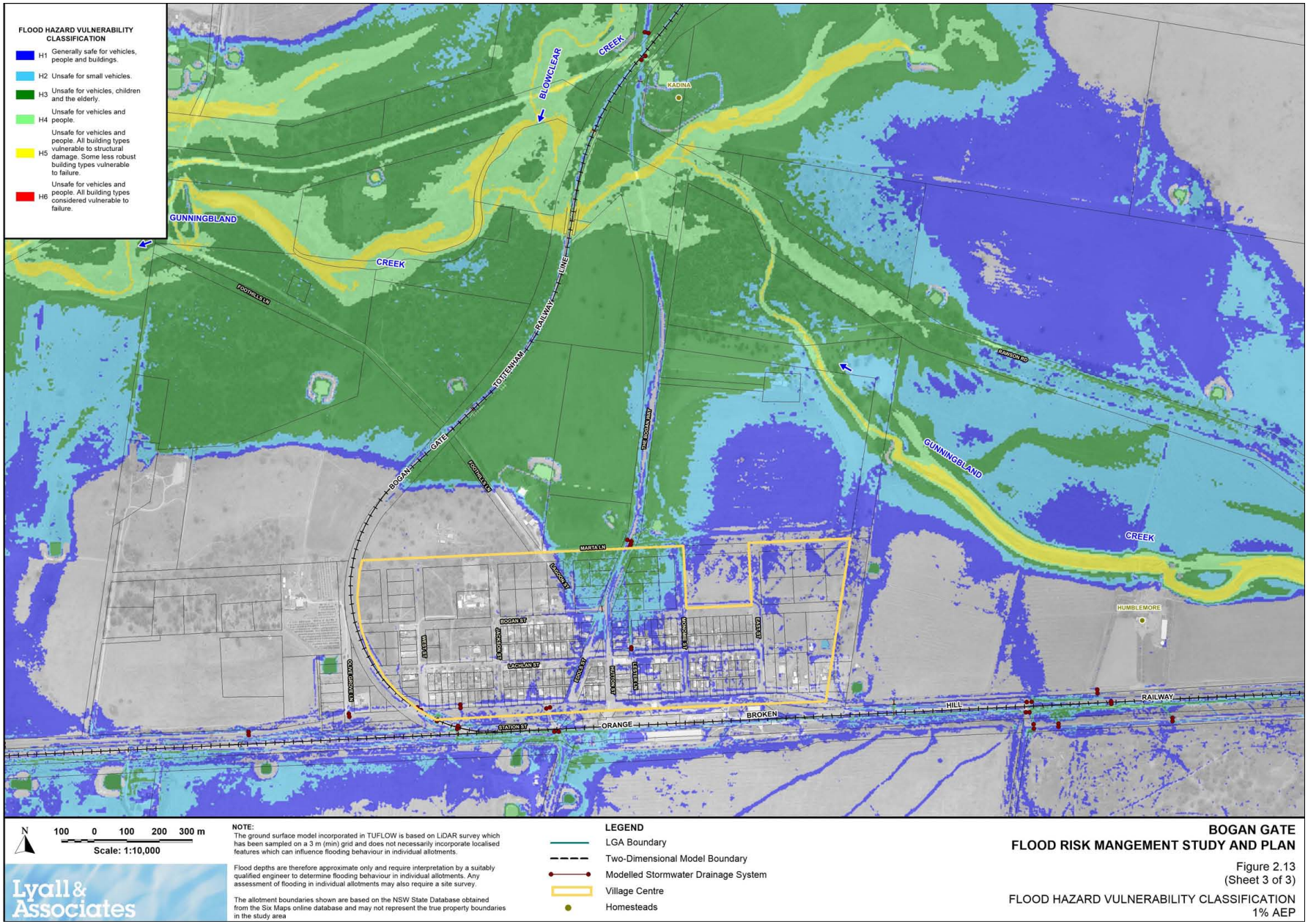
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.13
(Sheet 2 of 3)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
1% AEP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H6 Unsafe for vehicles and people. All building types considered vulnerable to failure.
GUNNINGBLAND
CREEK
BLOWCLEAR
KADINA
FOOTHILLS LN
TOTTENHAM
RAILWAY LINE
GATE
BOGAN
THE BOGAN WAY
RAWSON RD
MARTA LN
LACHLAN ST
BOGAN ST
WEST ST
EAST ST
HUMBLEMORE
STATION ST
ORANGE
BROKEN HILL
RAILWAY
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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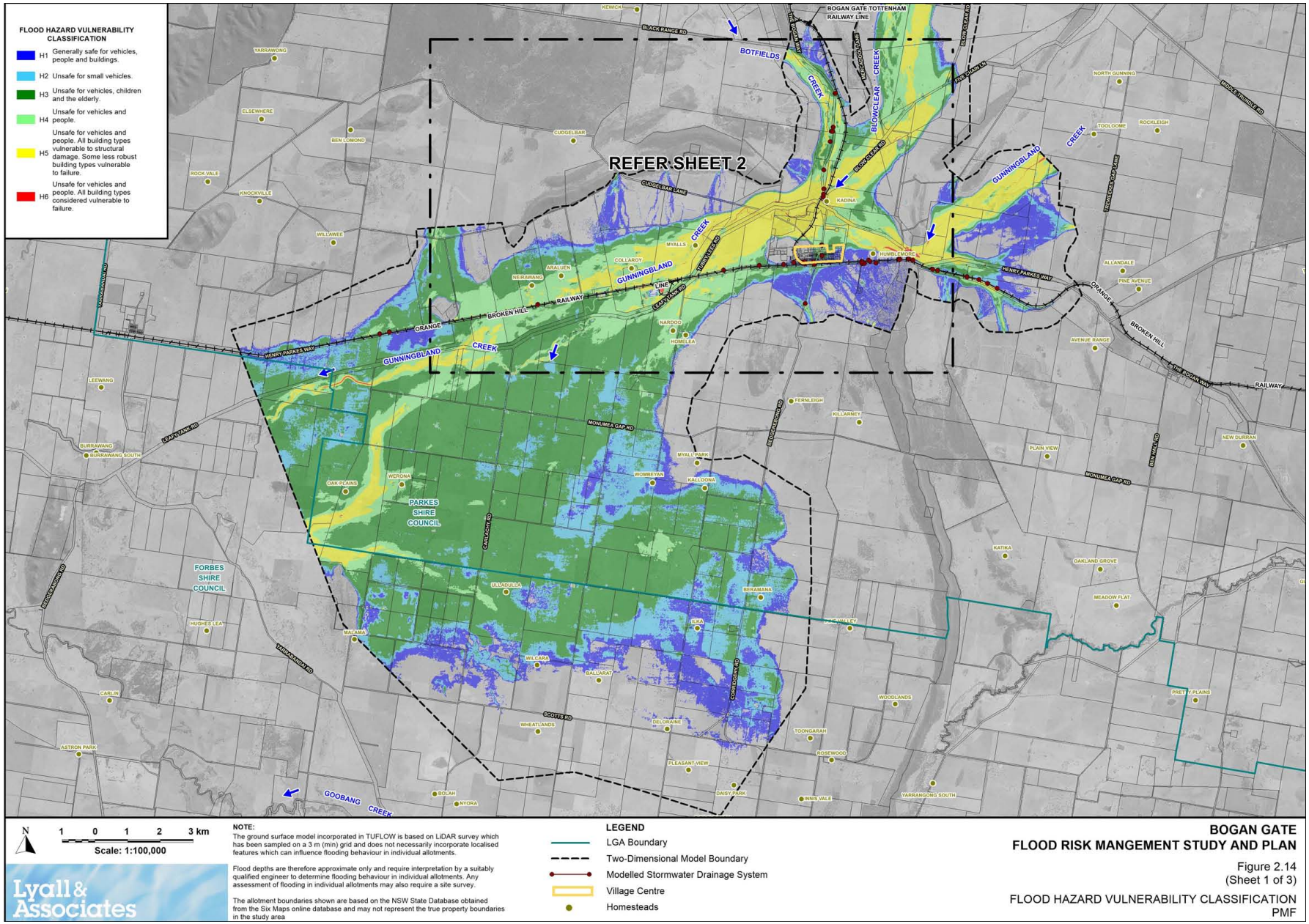
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.13
(Sheet 3 of 3)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
1% AEP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REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND CREEK
BLOWCLEAR CREEK
BLOWCLEAR RD
GUNNINGBLAND
HENRY PARKES WAY
ORANGE
BROKEN HILL
RAILWAY
MONUMEA GAP RD
LEAPVALE RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
SCOTTS RD
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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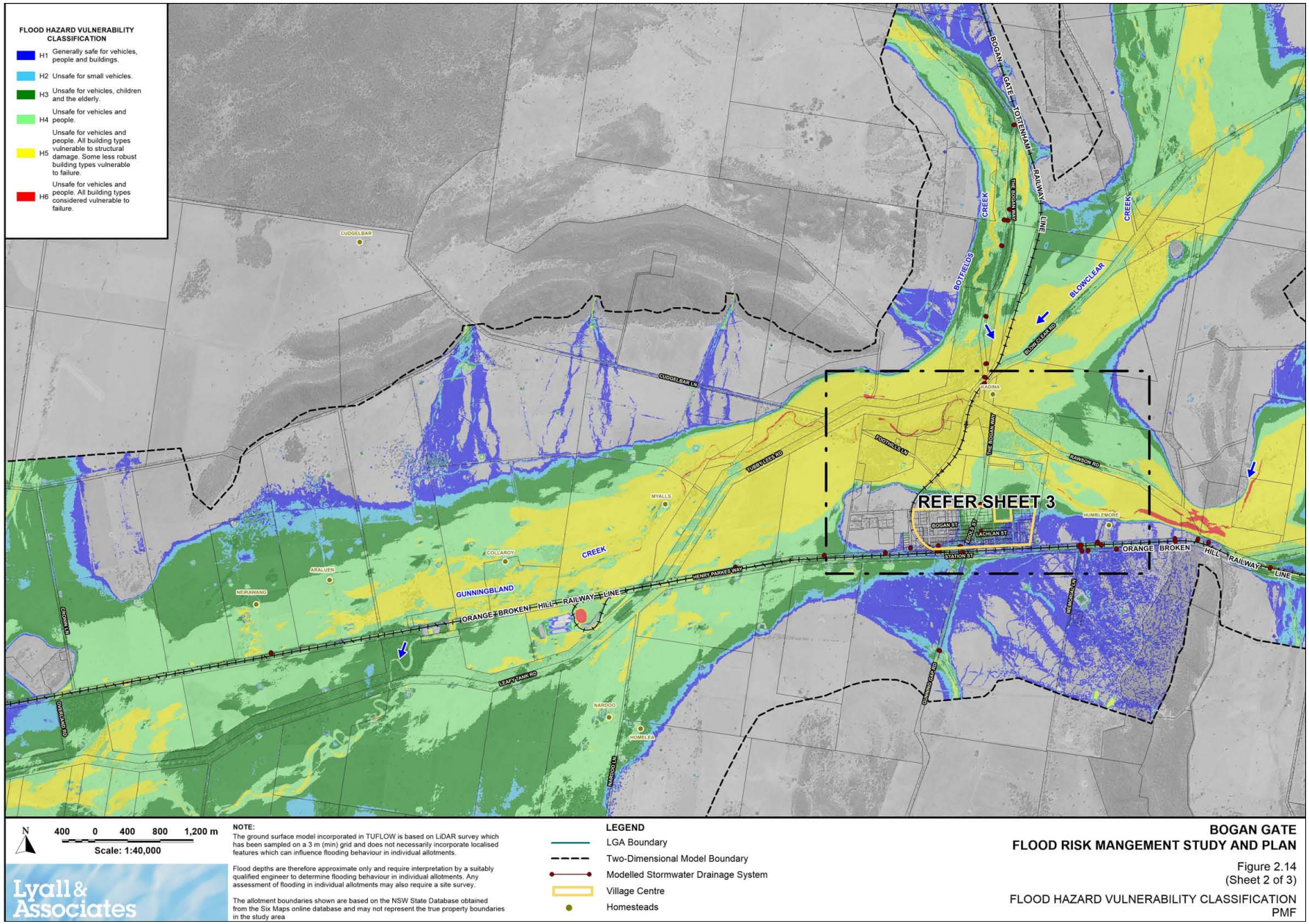
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.14
(Sheet 1 of 3)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
PMF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REFER SHEET 3
CUDGELBAR
BOGAN GATE
TOTTENHAM
RAILWAY LINE
BOTFIELDS CREEK
BLOWCLEAR
BLOWCLEAR RD
KADINA
CUDGELBAR LN
THUNDERBOLTS WAY
FOOTBALLS LN
RAWSON RD
MYALLS
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY LINE
COLLAROY
CREEK
ARALUEN
NEIRAWANG
HENRY PARKES WAY
GUNNINGBLAND
ORANGE BROKEN HILL RAILWAY LINE
CROWN LN
LEARY TANK RD
NARDOO
HOMELEA
NYNGAN
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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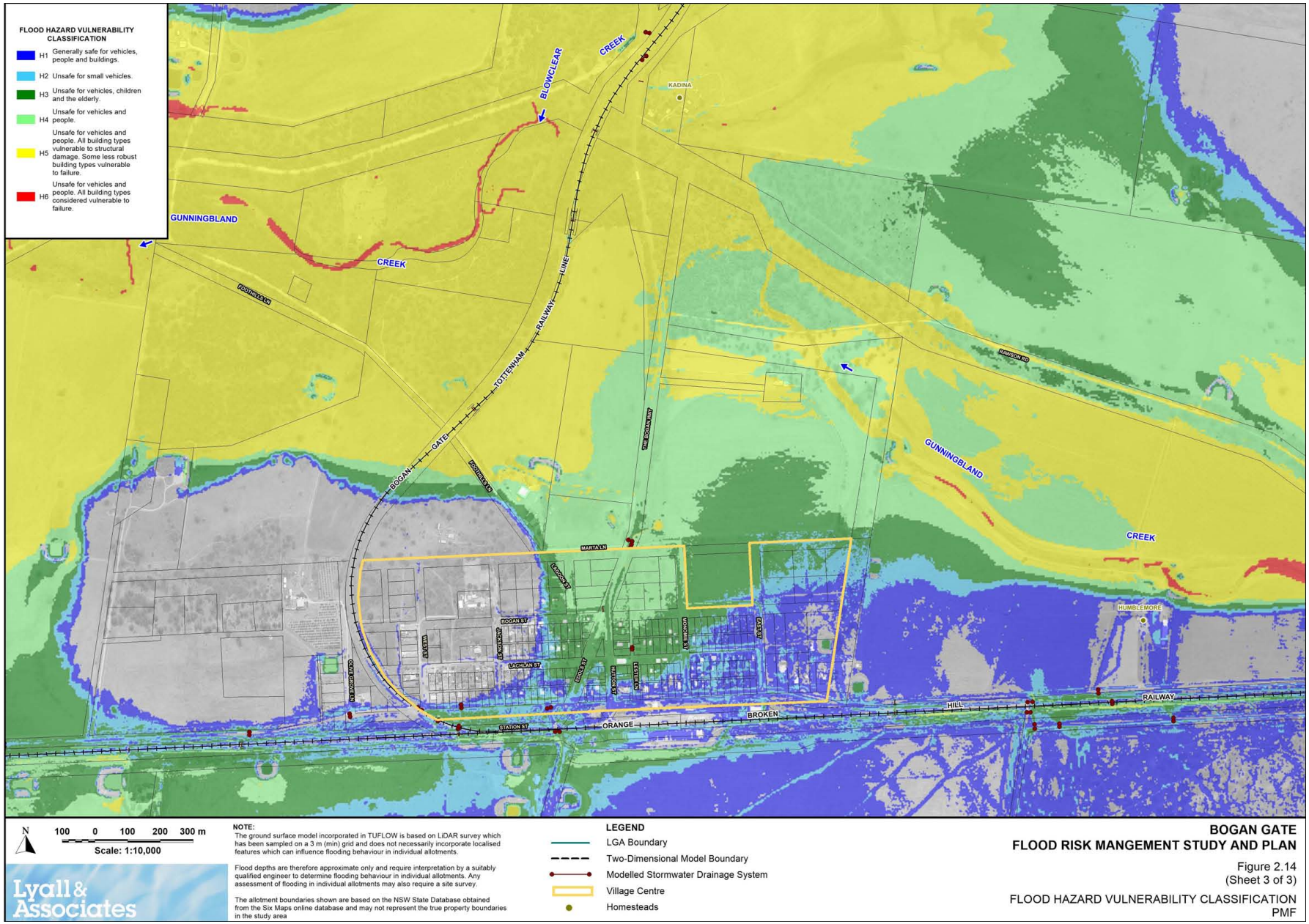
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.14
(Sheet 2 of 3)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
PMF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GUNNINGBLAND
CREEK
BLOWCLEAR
KADINA
TOTTENHAM
RAILWAY LINE
BOGAN GATE
FOOTHILLS LN
THE BOGAN WAY
PAWSON RD
MARTA LN
LACHLAN ST
BOGAN ST
WESLEY
JACKSON
HUMBLEMORE
RAILWAY
BROKEN HILL
ORANGE
STATION ST
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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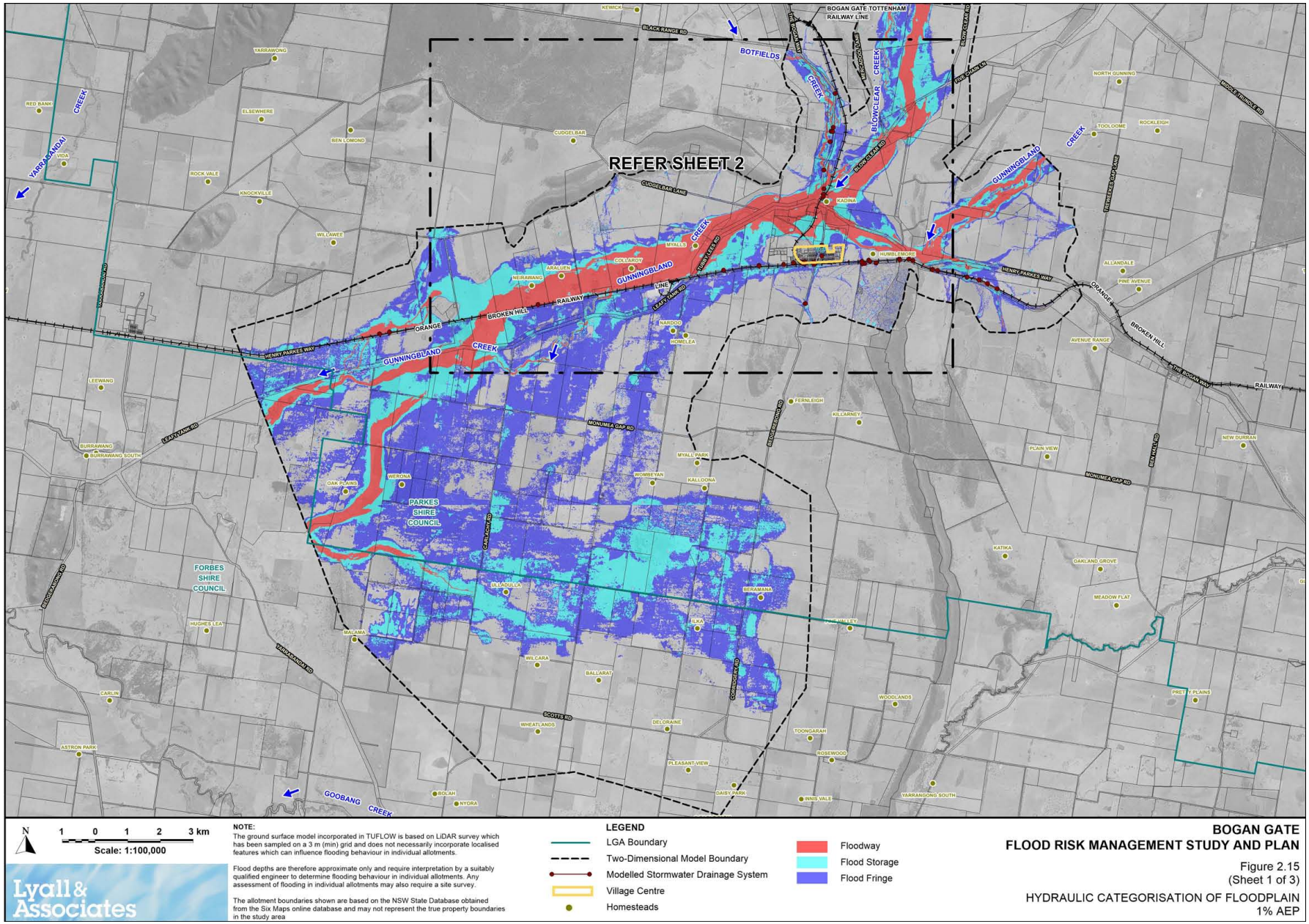
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.14
(Sheet 3 of 3)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
PMF


REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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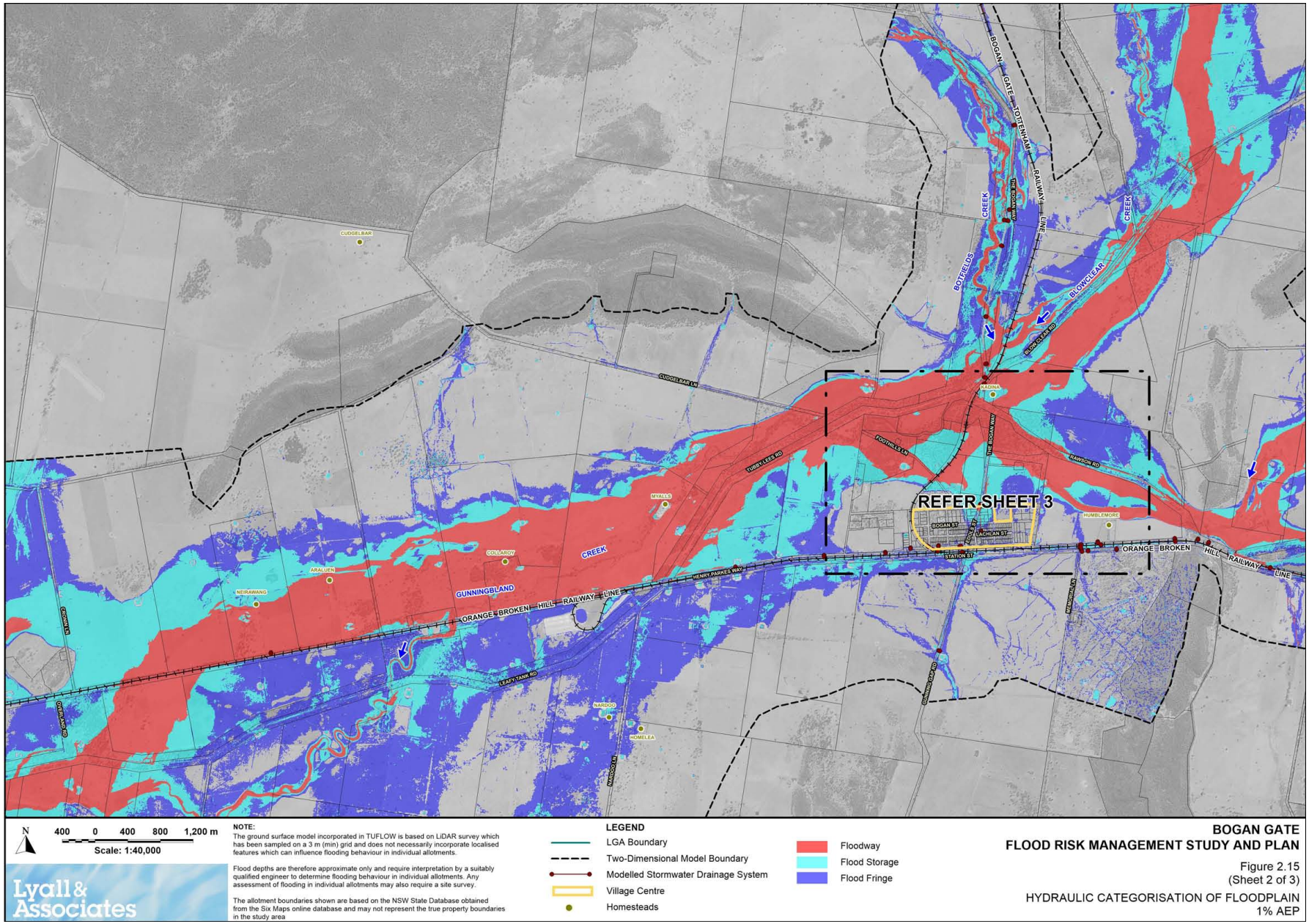
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Floodway
Flood Storage
Flood Fringe
Lyall & Associates
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 2.15
(Sheet 1 of 3)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
1% AEP


REFER SHEET 3
CUDGELBAR
CUDGELBAR LN
BOGAN GATE-TOTTENHAM RAILWAY LINE
BOTTFIELDS CREEK
BLOWCLEAR
BLOWCLEAR RD
KADINA
FOOTHILLS LN
THE BOGAN WAY
RAWSON RD
TURVILLES RD
MYALLS
CREEK
COLLAROY
ARALUEN
NEIRAWANG
GUNNINGBLAND
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
LEADY TANK RD
NARDOO
HOMELEA
NARDOO CK
GUNNING CREEK RD
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
TOMS ST
HENRYKA LN
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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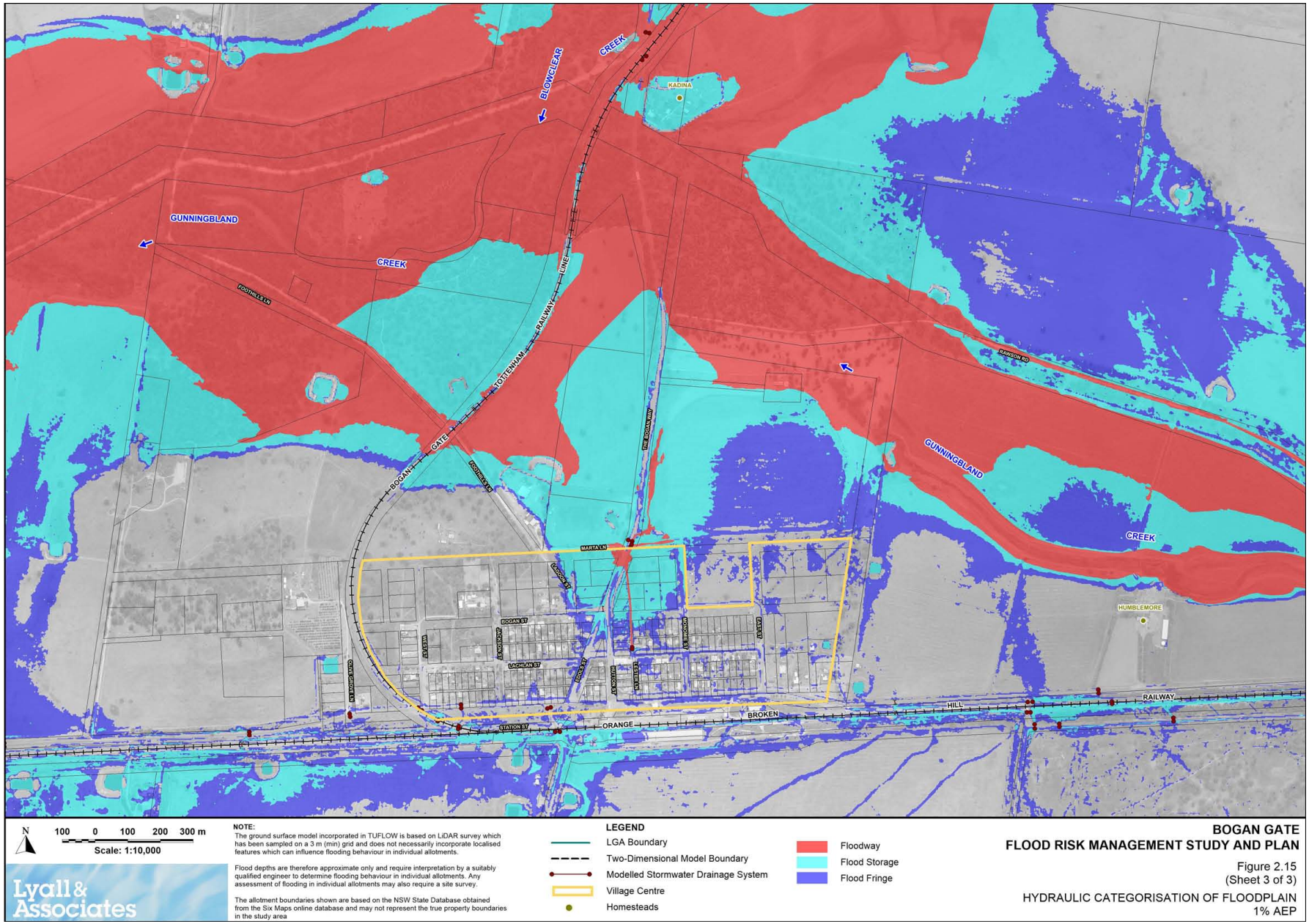
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Floodway
Flood Storage
Flood Fringe
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 2.15
(Sheet 2 of 3)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
1% AEP


BLOWCLEAR CREEK
KADINA
GUNNINGBLAND CREEK
FOOTHILLS LN
TOTTENHAM RAILWAY LINE
BOGAN GATE
THE BOGAN WAY
RANKIN RD
GUNNINGBLAND CREEK
MARTA LN
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE
BROKEN HILL
RAILWAY
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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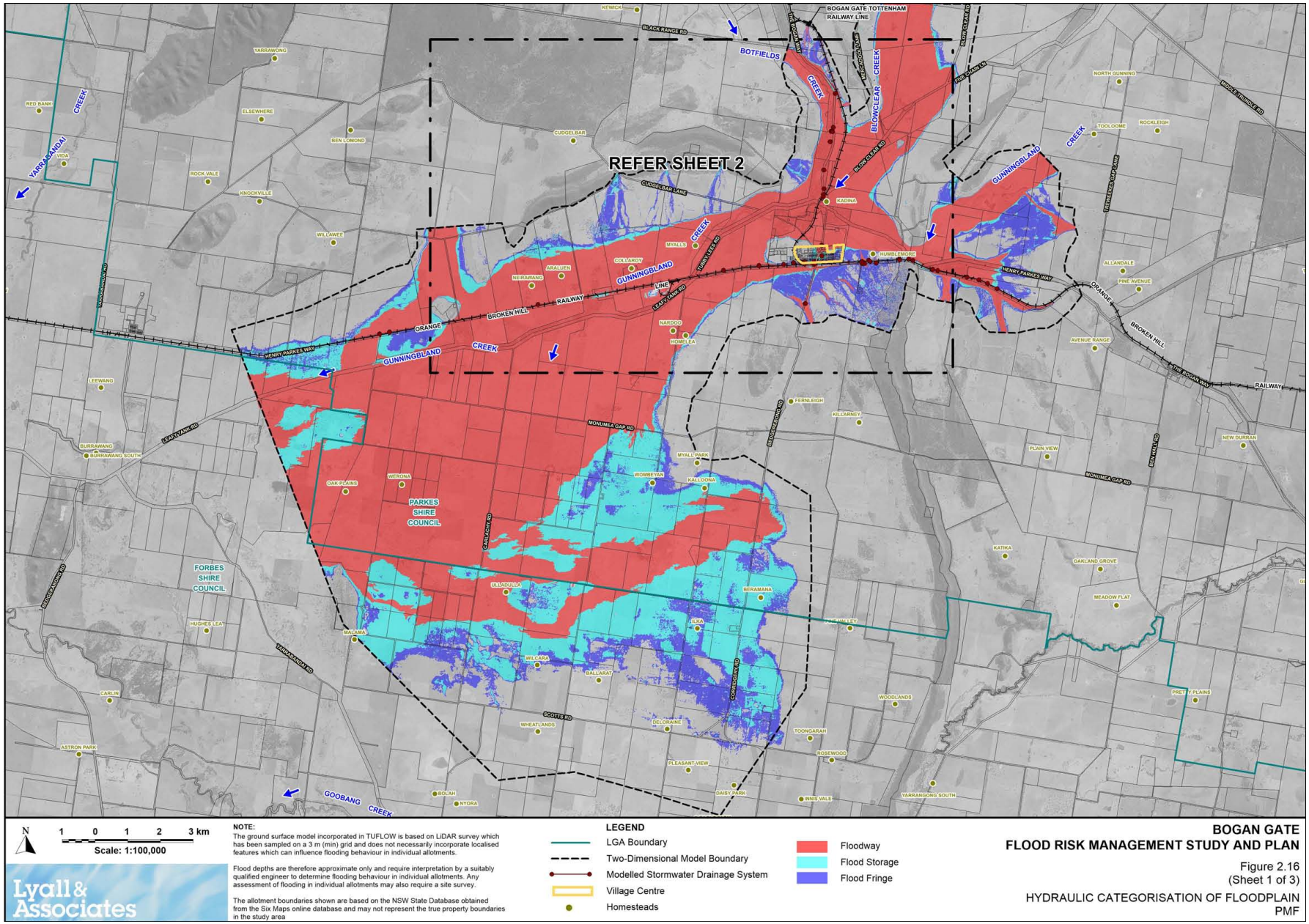
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Floodway
Flood Storage
Flood Fringe
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 2.15
(Sheet 3 of 3)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
1% AEP


REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
BLOWCLEAR CREEK
GUNNINGBLAND
GUNNINGBLAND CREEK
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
MONUMEA GAP RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
YARRAGANDAI CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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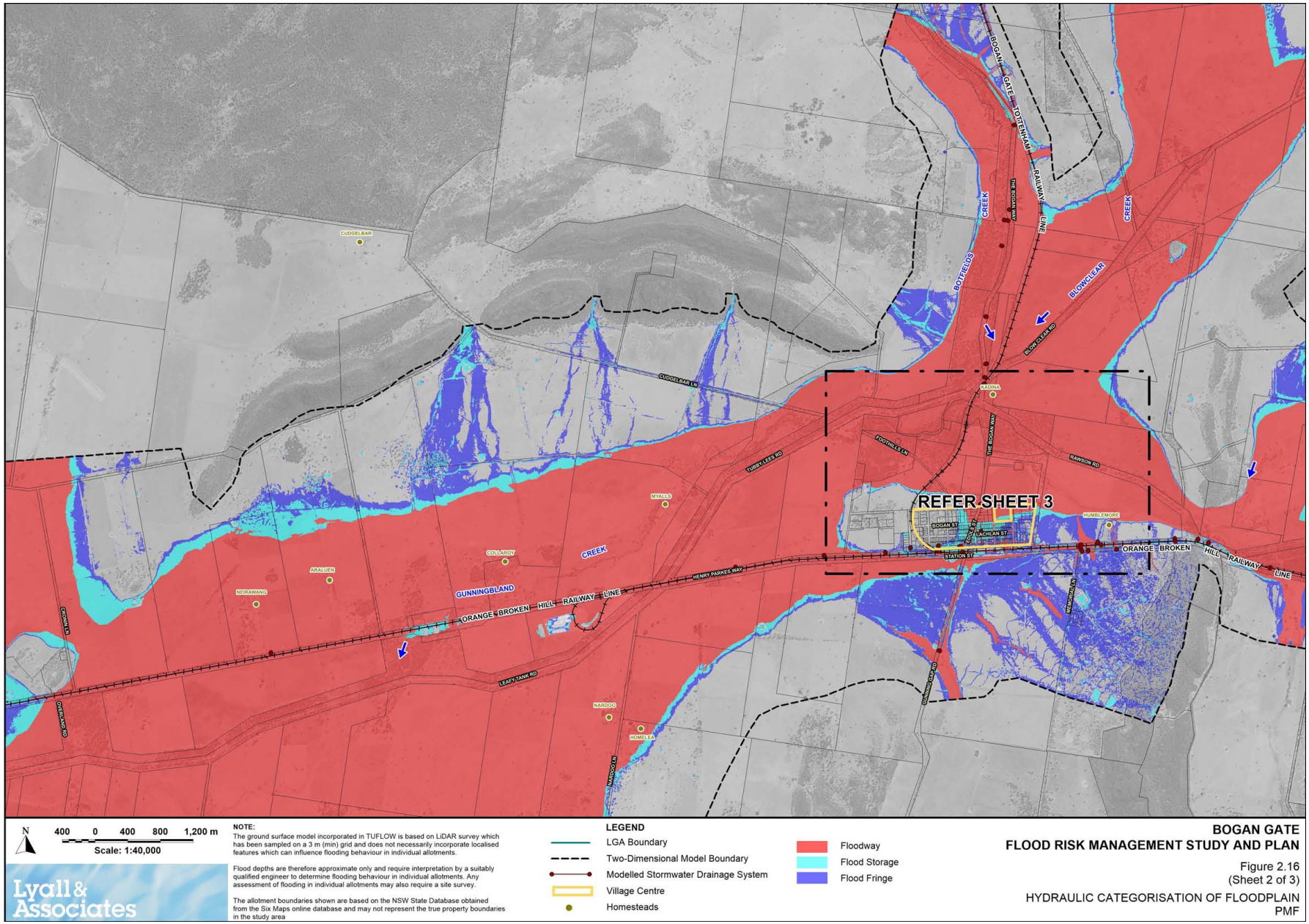
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Floodway
Flood Storage
Flood Fringe
Lyall & Associates
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 2.16
(Sheet 1 of 3)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
PMF


REFER SHEET 3
CUDGELBAR
CUDGELBAR LN
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTTFIELDS CREEK
THE BOGAN WAY
BLOW CLEAR
BLOW CLEAR RD
KADINA
FOOTHILLS LN
TUDEY LEES RD
RAWSON RD
MYALLO
COLLAROY
CREEK
ARALUEN
NEIRAWANG
GUNNINGBLAND
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
BOGAN ST
LACHLAN ST
STATION ST
HUMBLEMORE
MEMORIAL LN
GUNNINGBAR RD
CROWN ST
QUEENSLAND RD
LEAFY TANK RD
NARDOO
HOMELEA
NAMOOKA
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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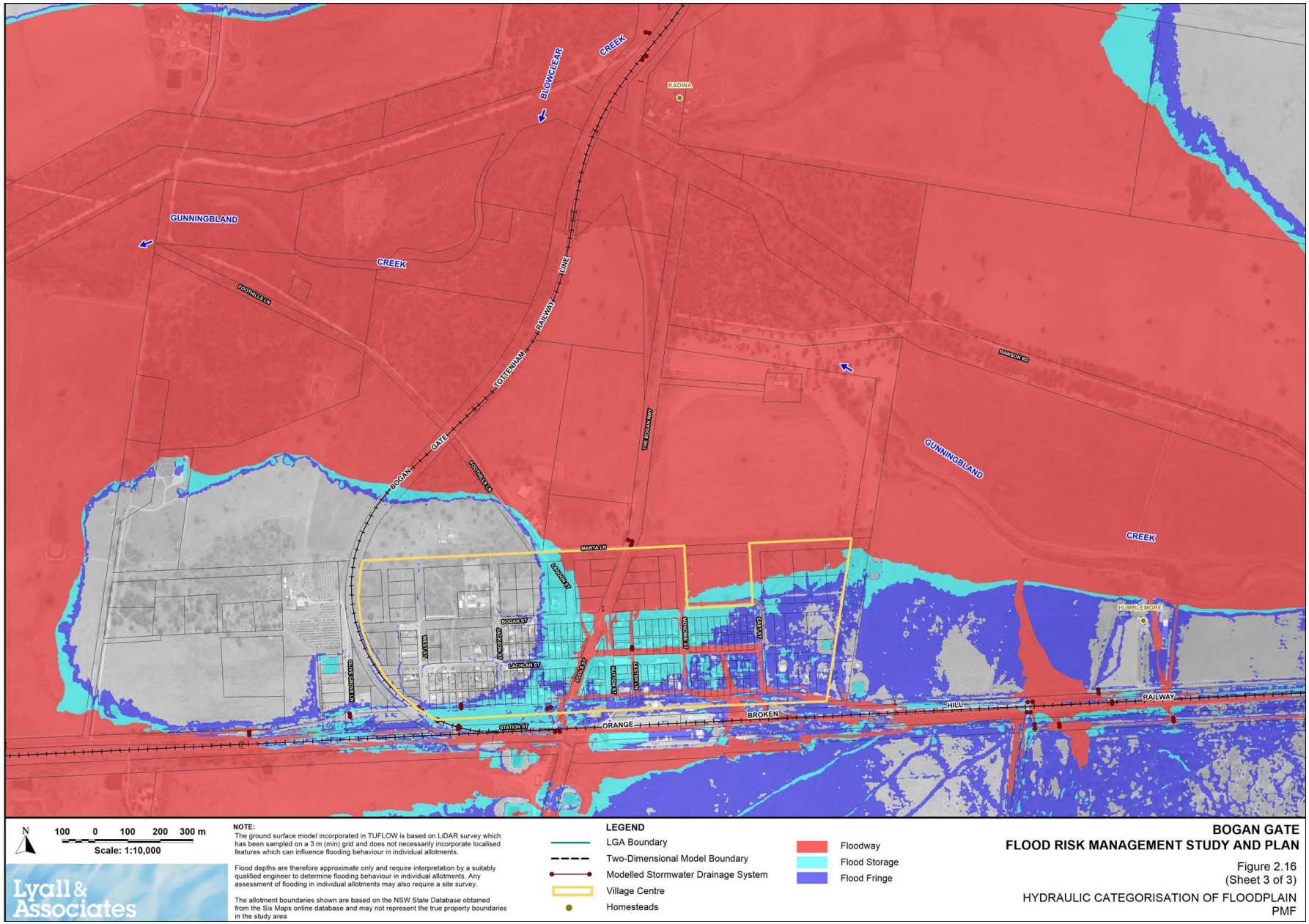
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Floodway
Flood Storage
Flood Fringe
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 2.16
(Sheet 2 of 3)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
PMF


BLOWCLEAR CREEK
KADINA
GUNNINGBLAND
CREEK
FOOTHILLS LN
TOTTENHAM RAILWAY LINE
BOGAN GATE
THE BOGAN WAY
RAWSON RD
GUNNINGBLAND
CREEK
MARTA LN
MADDEN ST
BOGAN ST
PARKES WAY
WEST ST
LACHLAN ST
OLD BOGAN GATE LN
BOGAN ST
MORRIS ST
WESTERN LN
MORRIS ST
EAST ST
HUMBLEMORE
RAILWAY
HILL
BROKEN
ORANGE
STATION ST
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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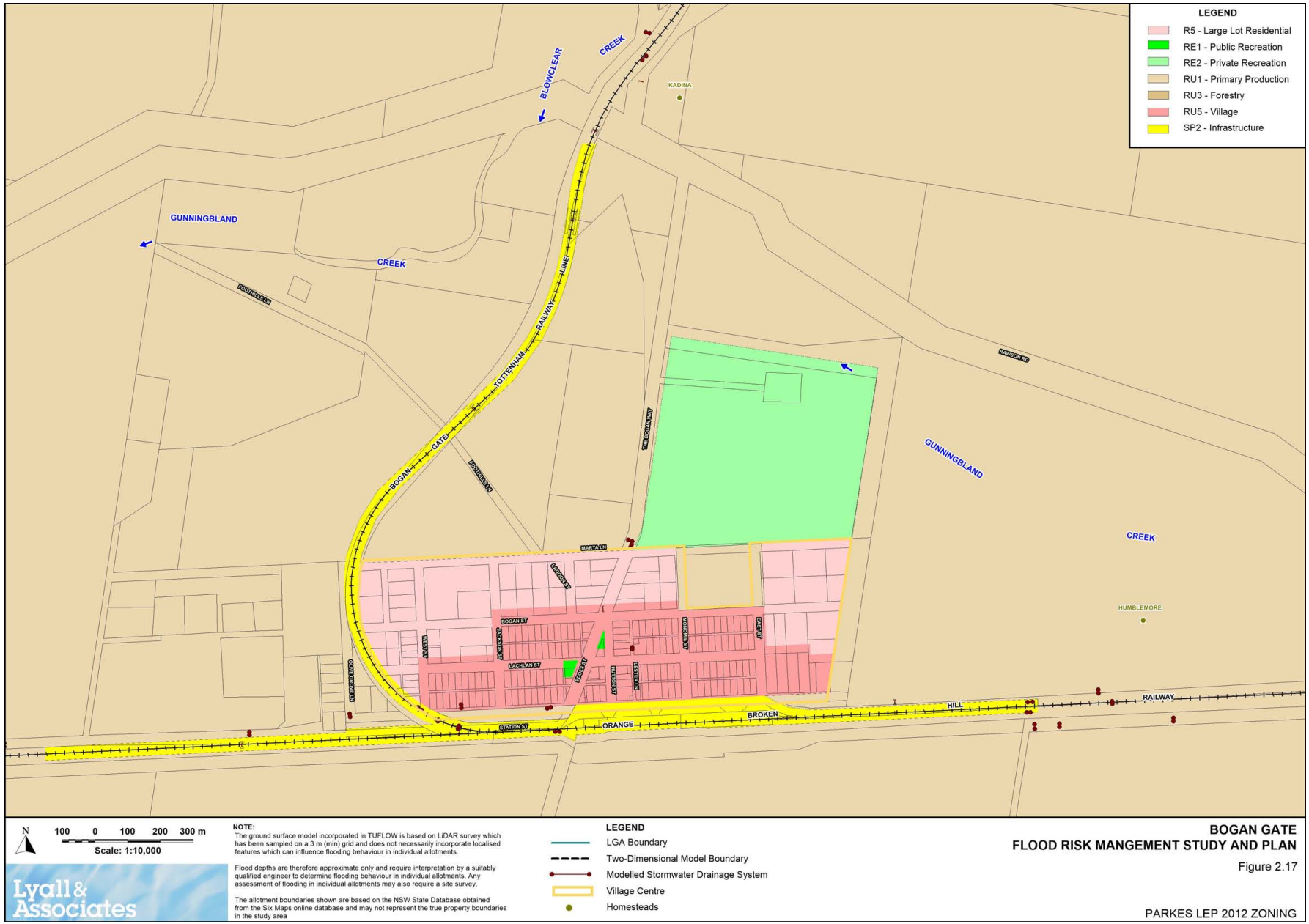
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Floodway
Flood Storage
Flood Fringe
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 2.16
(Sheet 3 of 3)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
PMF


LEGEND
R5 - Large Lot Residential
RE1 - Public Recreation
RE2 - Private Recreation
RU1 - Primary Production
RU3 - Forestry
RU5 - Village
SP2 - Infrastructure
BLOWCLEAR
CREEK
KADINA
GUNNINGBLAND
CREEK
FORTHLEAN
TOTTENHAM
RAILWAY LINE
BOGAN GATE
FORTHLEAN RD
THE BOGAN WAY
RAMORNIE RD
GUNNINGBLAND
CREEK
HUMBLEMORE
MARTA LN
BOGAN ST
LACHLAN ST
ORANGE
BROKEN HILL
RAILWAY
STATION ST
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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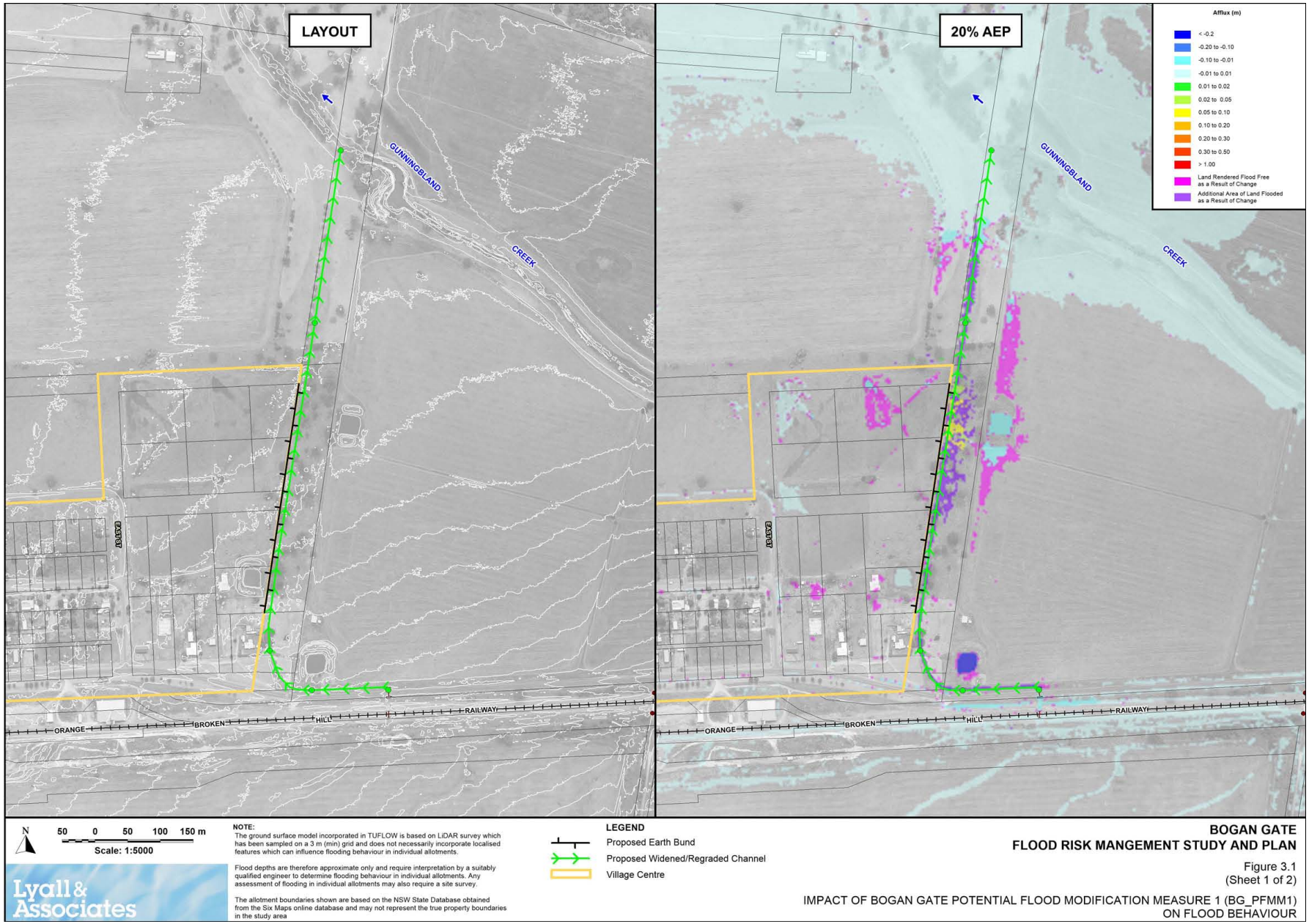
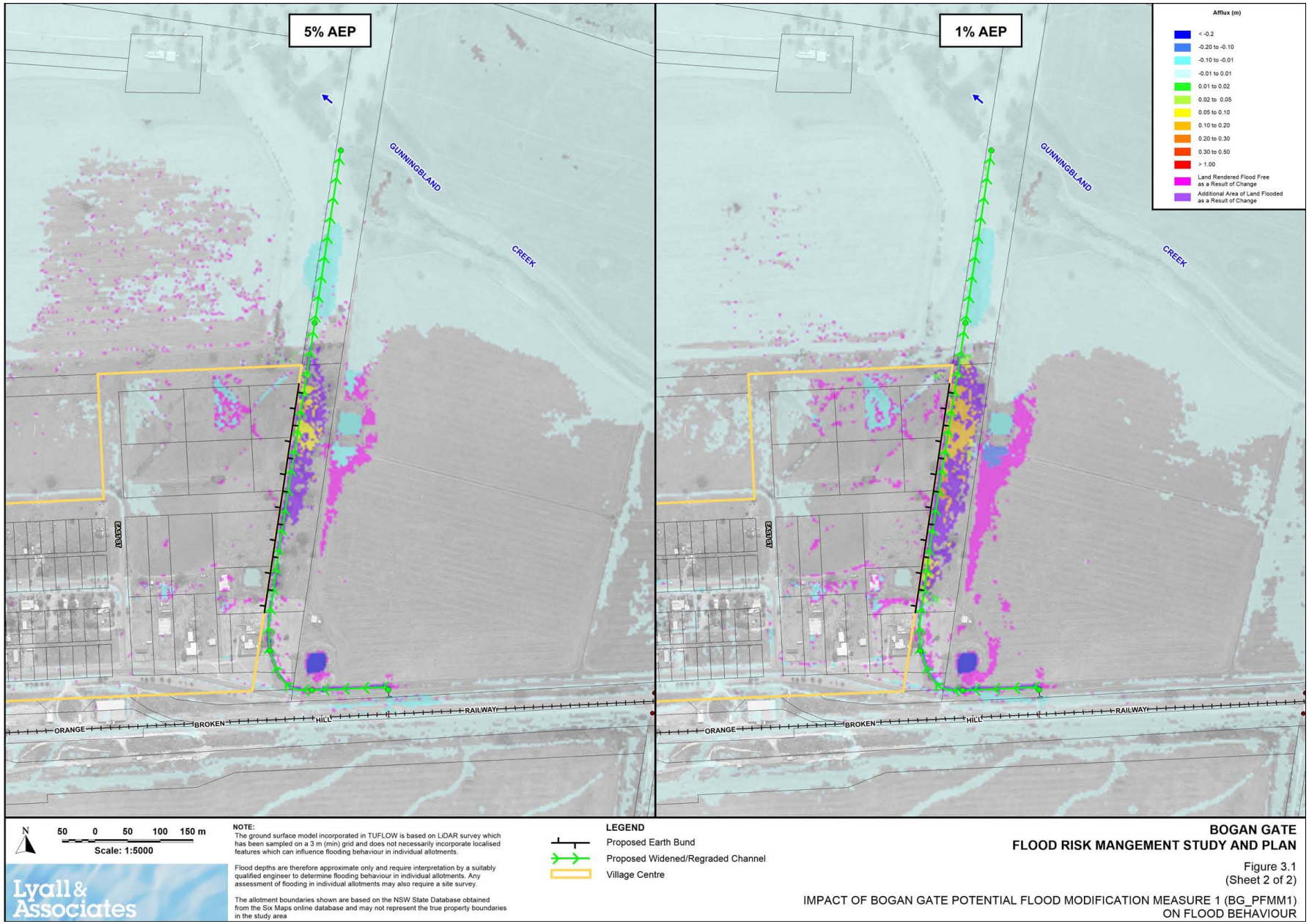
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.17
PARKES LEP 2012 ZONING


LAYOUT
20% AEP
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
GUNNINGBLAND
CREEK
EAST ST
ORANGE
BROKEN
HILL
RAILWAY
N
50 0 50 100 150 m
Scale: 1:5000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
Proposed Earth Bund
Proposed Widened/Regraded Channel
Village Centre
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.1
(Sheet 1 of 2)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 1 (BG_PFMM1) ON FLOOD BEHAVIOUR


5% AEP
1% AEP
GUNNINGBLAND
CREEK
EASTST
ORANGE
BROKEN
HILL
RAILWAY
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
N
50 0 50 100 150 m
Scale: 1:5000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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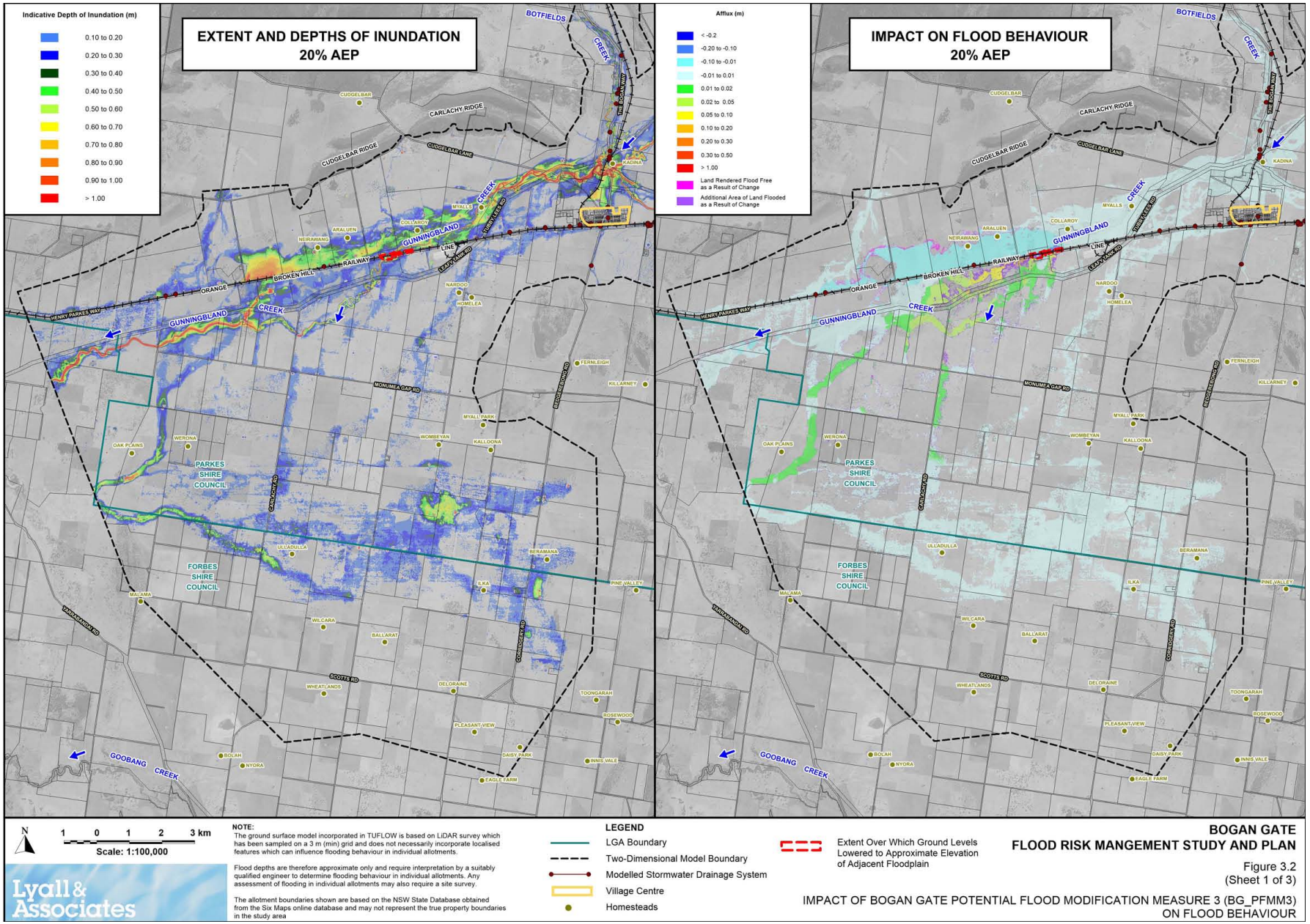
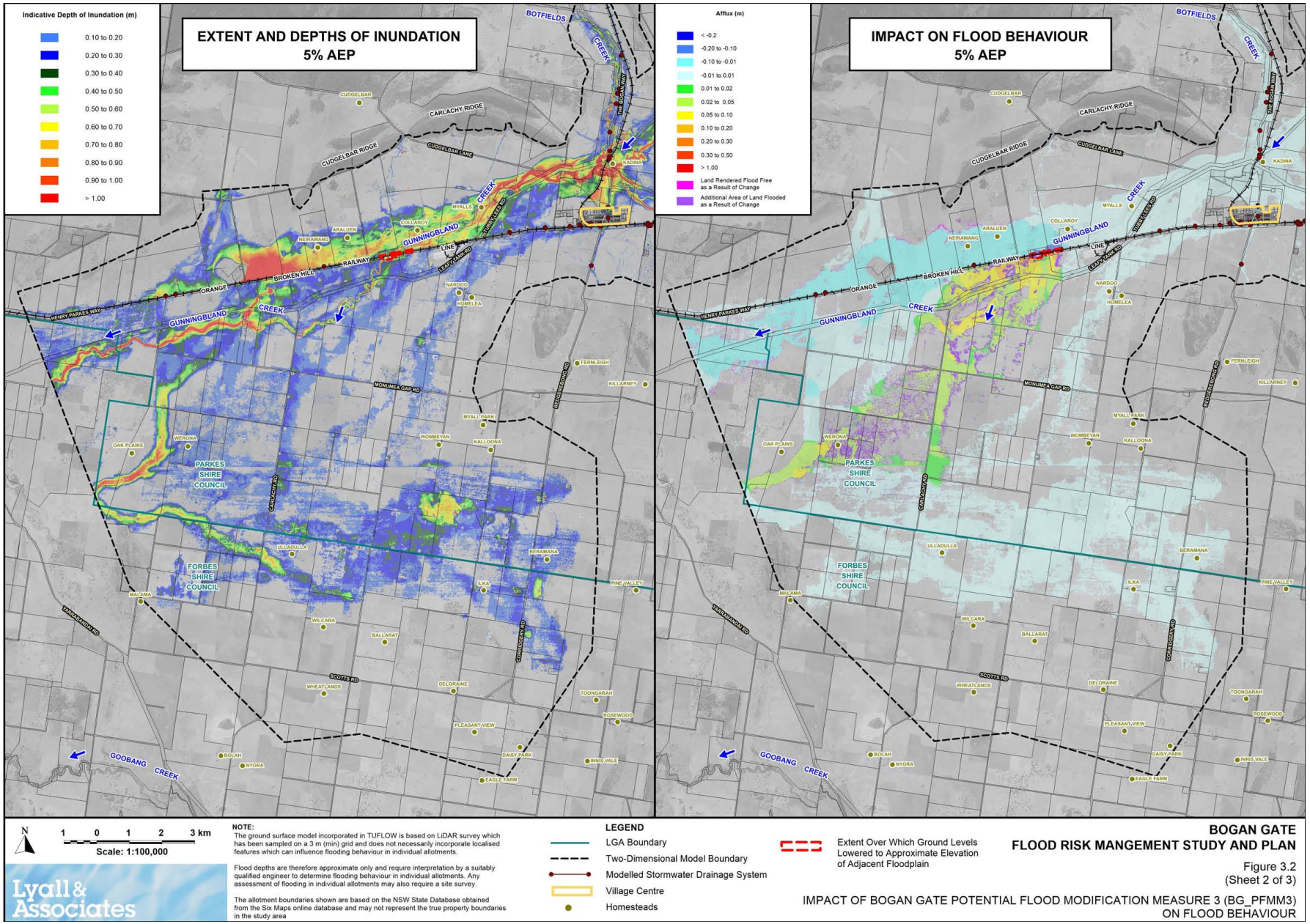
LEGEND
Proposed Earth Bund
Proposed Widened/Regraded Channel
Village Centre
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.1
(Sheet 2 of 2)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 1 (BG_PFMM1) ON FLOOD BEHAVIOUR


EXTENT AND DEPTHS OF INUNDATION
20% AEP
Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
IMPACT ON FLOOD BEHAVIOUR
20% AEP
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOTFIELDS
CREEK
CUDGELBAR
CARLACHY RIDGE
CUDGELBAR RIDGE
CUDGELBAR LANE
KADINA
MYALLS
COLLAROY
NEIRAWANG
ARALUEN
GUNNINGBLAND
LINE
RAILWAY
BROKEN HILL
ORANGE
HENRY PARKES WAY
NARDOO
HOMELEA
FERNLEIGH
KILLARNEY
MONUMEA GAP RD
MYALL PARK
WOMBEYAN
KALLOONA
OAK PLAINS
WERONA
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
ULLADULLA
BERAMANA
ILKA
PINE VALLEY
MALAMA
WILGARA
BALLARAT
SCOTTS RD
WHEATLANDS
DELORAINE
TOONGARAH
ROSEWOOD
PLEASANT VIEW
DAISY PARK
INNISVALE
EAGLE FARM
BOLAH
NYORA
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.2
(Sheet 1 of 3)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 3 (BG_PFMM3) ON FLOOD BEHAVIOUR


EXTENT AND DEPTHS OF INUNDATION
5% AEP
Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
IMPACT ON FLOOD BEHAVIOUR
5% AEP
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOTFIELDS
CREEK
CUDGELBAR
CARLACHY RIDGE
CUDGELBAR RIDGE
CUDGELBAR LANE
KADINA
MYALLS
COLLAROY
NEIRAWANG
ARALUEN
GUNNINGBLAND
LINE
RAILWAY
BROKEN HILL
ORANGE
HENRY PARKES WAY
NARDOO
HOMELEA
FERNLEIGH
KILLARNEY
MONUMEA GAP RD
MYALL PARK
WOMBEYAN
KALLOONA
OAK PLAINS
WERONA
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
ULLADULLA
BERAMANA
ILKA
PINE VALLEY
MALAMA
WILCARA
BALLARAT
SCOTTS RD
WHEATLANDS
DELORAINE
TOONGARAH
ROSEWOOD
PLEASANT VIEW
DAISY PARK
INNISVALE
EAGLE FARM
BOLAH
NYORA
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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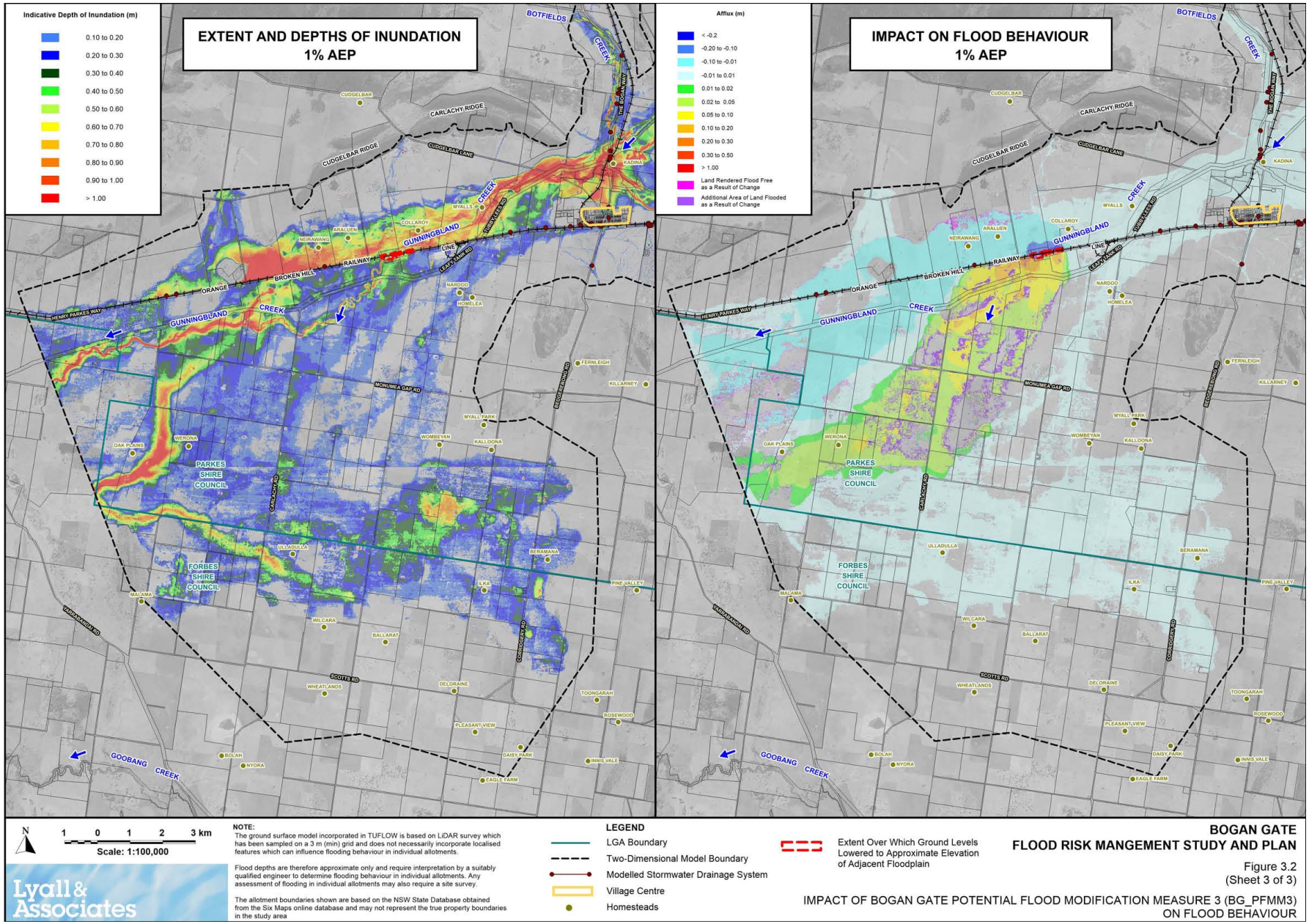
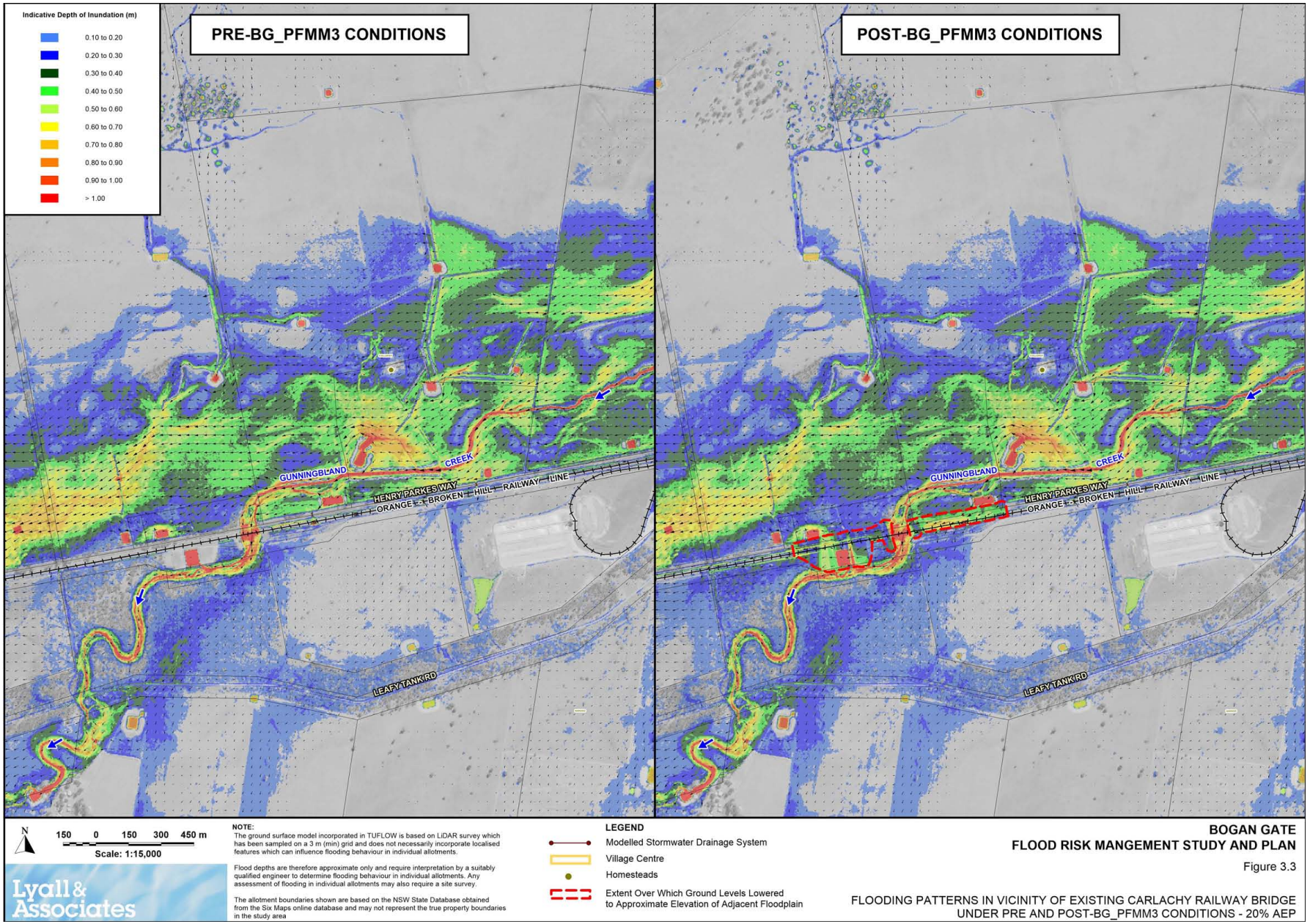
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.2
(Sheet 2 of 3)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 3 (BG_PFMM3) ON FLOOD BEHAVIOUR


EXTENT AND DEPTHS OF INUNDATION
1% AEP
Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
IMPACT ON FLOOD BEHAVIOUR
1% AEP
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOTFIELDS CREEK
CUDGELBAR
CARLACHY RIDGE
CUDGELBAR RIDGE
CUDGELBAR LANE
KADINA
MYALLS
COLLAROY
NEIRAWANG
ARALUEN
GUNNINGBLAND
LINE
RAILWAY
BROKEN HILL
ORANGE
HENRY PARKES WAY
NARDOO
HOMELEA
FERNLEIGH
KILLARNEY
MONUMEA GAP RD
MYALL PARK
WOMBEYAN
KALLOONA
OAK PLAINS
WERONA
PARKES SHIRE COUNCIL
ULLADULLA
BERAMANA
FORBES SHIRE COUNCIL
ILKA
PINE VALLEY
MALAMA
WILCARA
BALLARAT
SCOTTS RD
WHEATLANDS
DELORAINE
TOONGARAH
ROSEWOOD
PLEASANT VIEW
DAISY PARK
INNISVALE
BOLAH
NYORA
EAGLE FARM
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.2
(Sheet 3 of 3)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 3 (BG_PFMM3) ON FLOOD BEHAVIOUR


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PRE-BG_PFMM3 CONDITIONS
POST-BG_PFMM3 CONDITIONS
GUNNINGBLAND
CREEK
HENRY PARKES WAY
ORANGE - BROKEN HILL RAILWAY LINE
LEAFY TANK RD
N
150 0 150 300 450 m
Scale: 1:15,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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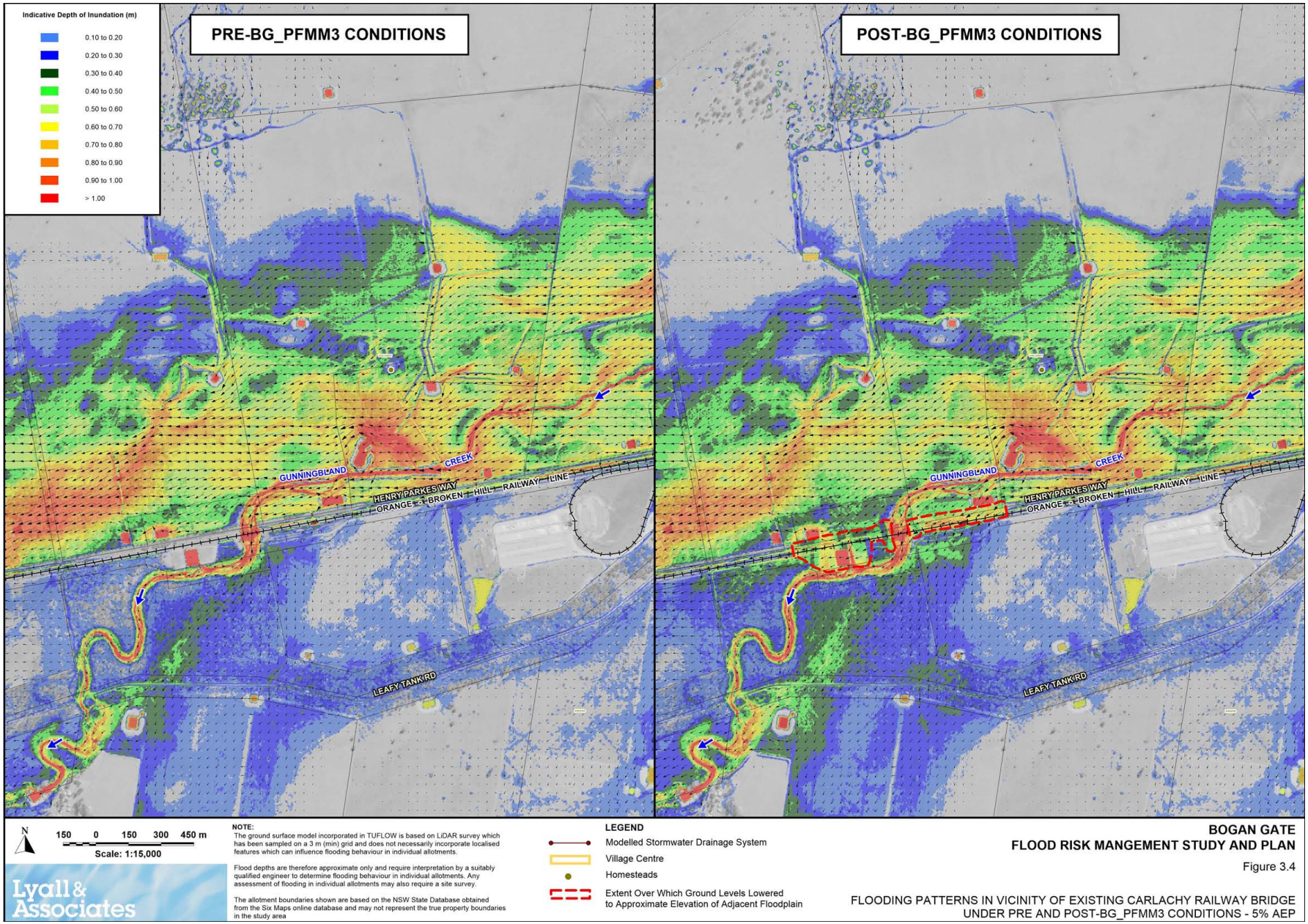
Lyall & Associates
LEGEND
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.3
FLOODING PATTERNS IN VICINITY OF EXISTING CARLACHY RAILWAY BRIDGE
UNDER PRE AND POST-BG_PFMM3 CONDITIONS - 20% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PRE-BG_PFMM3 CONDITIONS
POST-BG_PFMM3 CONDITIONS
GUNNINGBLAND CREEK
HENRY PARKES WAY
ORANGE - BROKEN HILL RAILWAY LINE
LEAFY TANK RD
N
150 0 150 300 450 m
Scale: 1:15,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
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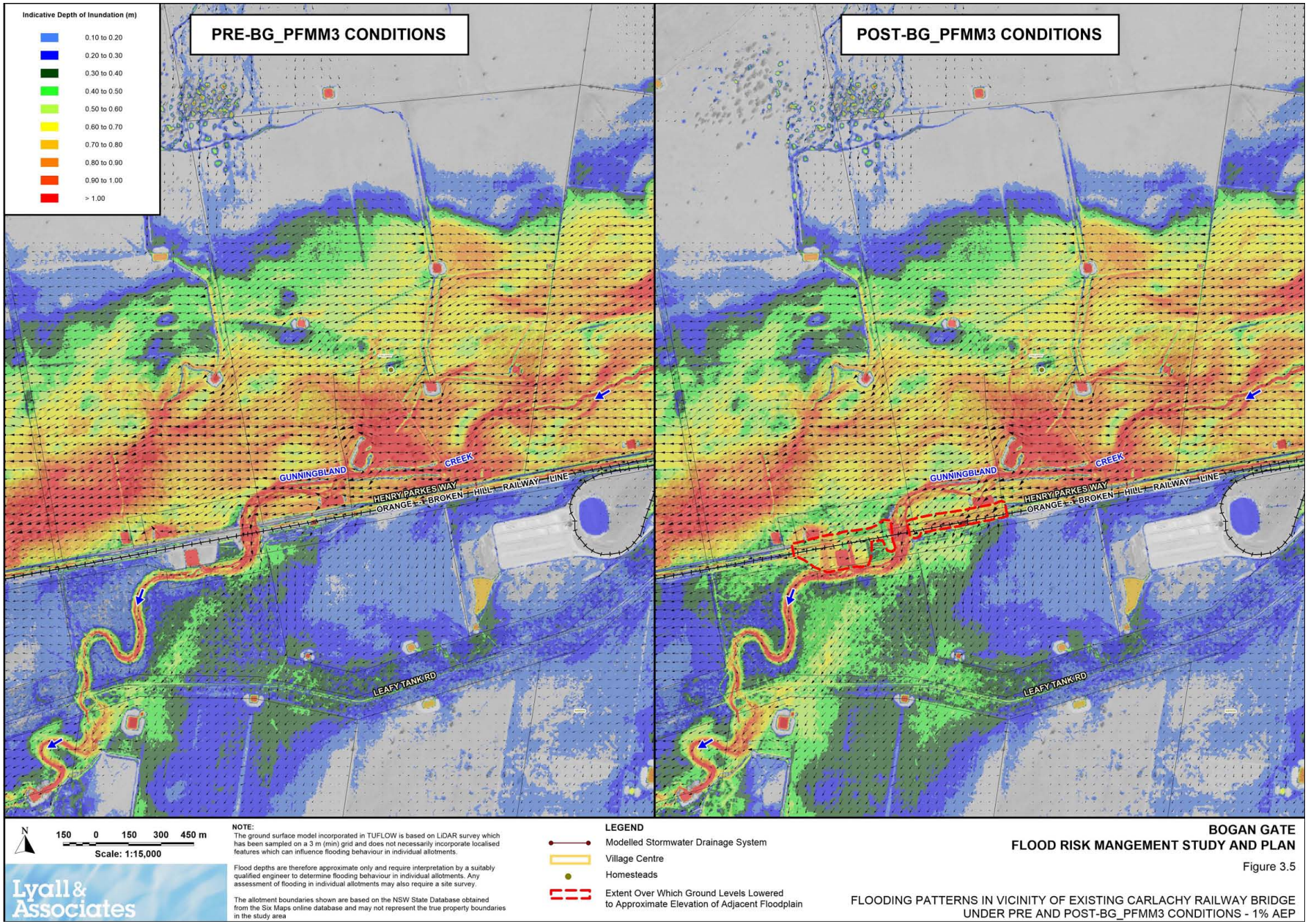
Lyall & Associates
LEGEND
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.4
FLOODING PATTERNS IN VICINITY OF EXISTING CARLACHY RAILWAY BRIDGE UNDER PRE AND POST-BG_PFMM3 CONDITIONS - 5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PRE-BG_PFMM3 CONDITIONS
POST-BG_PFMM3 CONDITIONS
GUNNINGBLAND CREEK
HENRY PARKES WAY
ORANGE - BROKEN HILL RAILWAY LINE
LEAFY TANK RD
N
150 0 150 300 450 m
Scale: 1:15,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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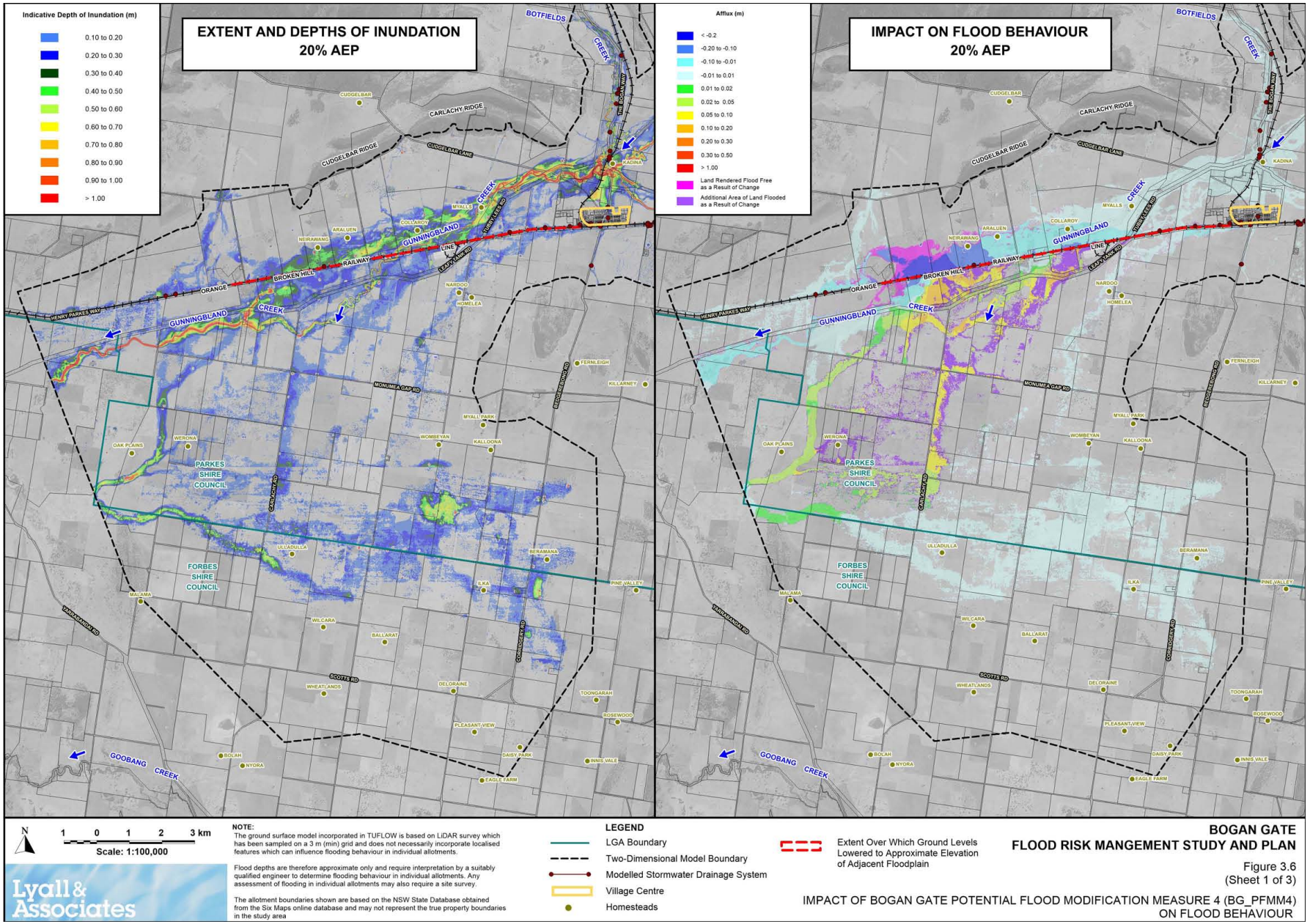
LEGEND
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.5
FLOODING PATTERNS IN VICINITY OF EXISTING CARLACHY RAILWAY BRIDGE UNDER PRE AND POST-BG_PFMM3 CONDITIONS - 1% AEP


EXTENT AND DEPTHS OF INUNDATION
20% AEP
Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
IMPACT ON FLOOD BEHAVIOUR
20% AEP
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOTFIELDS
CREEK
CUDGELBAR
CARLACHY RIDGE
CUDGELBAR RIDGE
CUDGELBAR LANE
KADINA
MYALLS
COLLAROY
NEIRAWANG
ARALUEN
GUNNINGBLAND
LINE
RAILWAY
ORANGE
BROKEN HILL
LEADVILLE RD
NARDOO
HOMELEA
HENRY PARKES WAY
MONUMEA GAP RD
FERNLEIGH
KILLARNEY
MYALL PARK
WOMBEYAN
KALLOONA
OAK PLAINS
WERONA
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
ULLADULLA
BERAMANA
ILKA
PINE VALLEY
MALAMA
WILCARA
BALLARAT
SCOTTS RD
WHEATLANDS
DELORAINE
TOONGARAH
ROSEWOOD
PLEASANT VIEW
DAISY PARK
INNISVALE
EAGLE FARM
BOLAH
NYORA
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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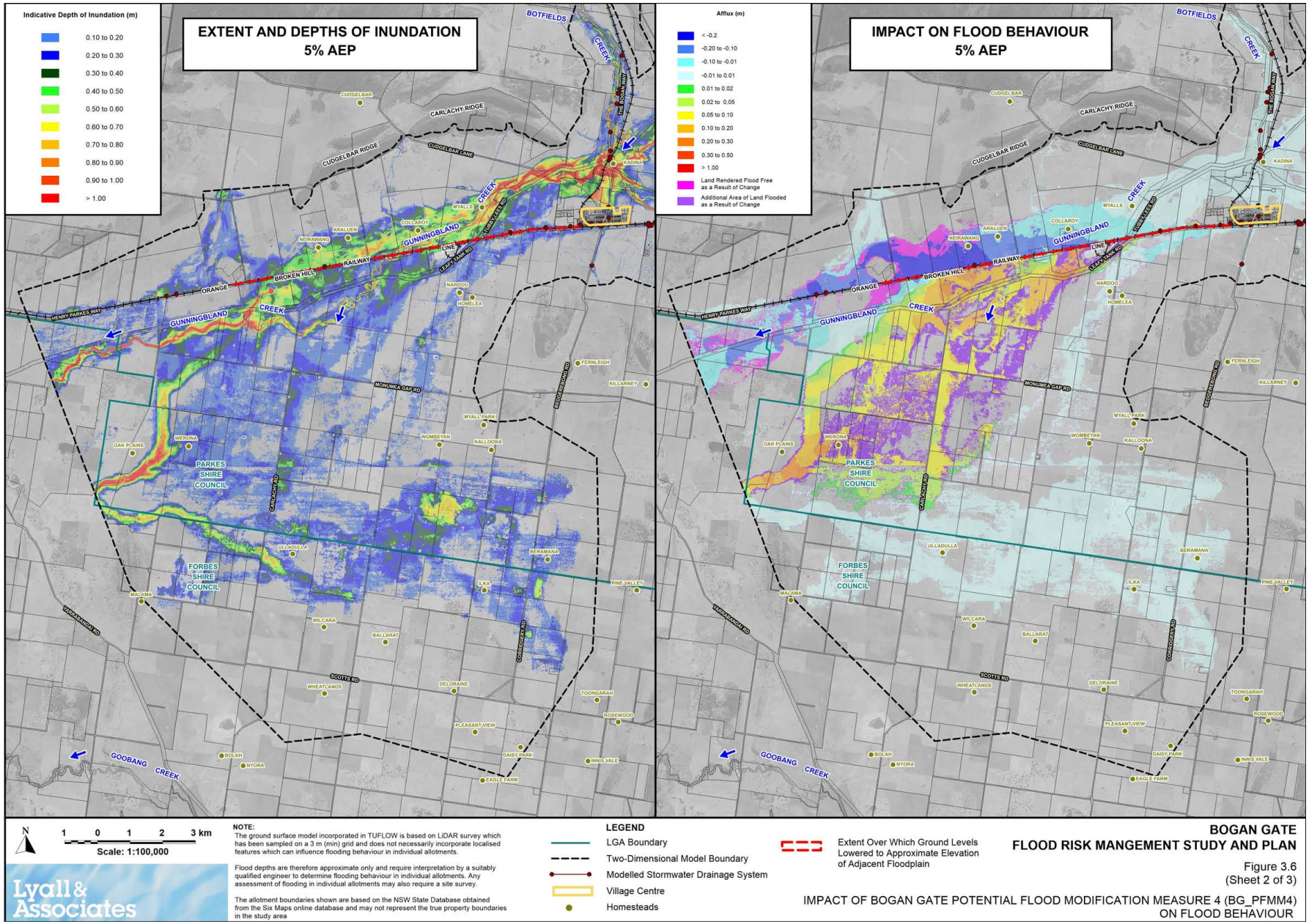
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.6
(Sheet 1 of 3)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 4 (BG_PFMM4) ON FLOOD BEHAVIOUR


EXTENT AND DEPTHS OF INUNDATION
5% AEP
Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
IMPACT ON FLOOD BEHAVIOUR
5% AEP
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOTFIELDS
CREEK
CUDGELBAR
CARLACHY RIDGE
CUDGELBAR RIDGE
CUDGELBAR LANE
KADINA
MYALLS
COLLAROY
NEIRAWANG
ARALUEN
GUNNINGBLAND
LINE
RAILWAY
BROKEN HILL
ORANGE
LEASYLARK RD
NARDOO
HOMELEA
HENRY PARKES WAY
FERNLEIGH
KILLARNEY
MONUMEA GAP RD
MYALL PARK
WOMBEYAN
KALLOONA
OAK PLAINS
WERONA
PARKES SHIRE COUNCIL
CARCOAR RD
ULLADULLA
BERAMANA
FORBES SHIRE COUNCIL
ILKA
PINE VALLEY
MALAMA
WILGARA
BALLARAT
GOOBANG CREEK
SCOTTS RD
WHEATLANDS
DELORAINE
TOONGARAH
ROSEWOOD
PLEASANT VIEW
BOLAH
NYORA
DAISY PARK
INNISVALE
EAGLE FARM
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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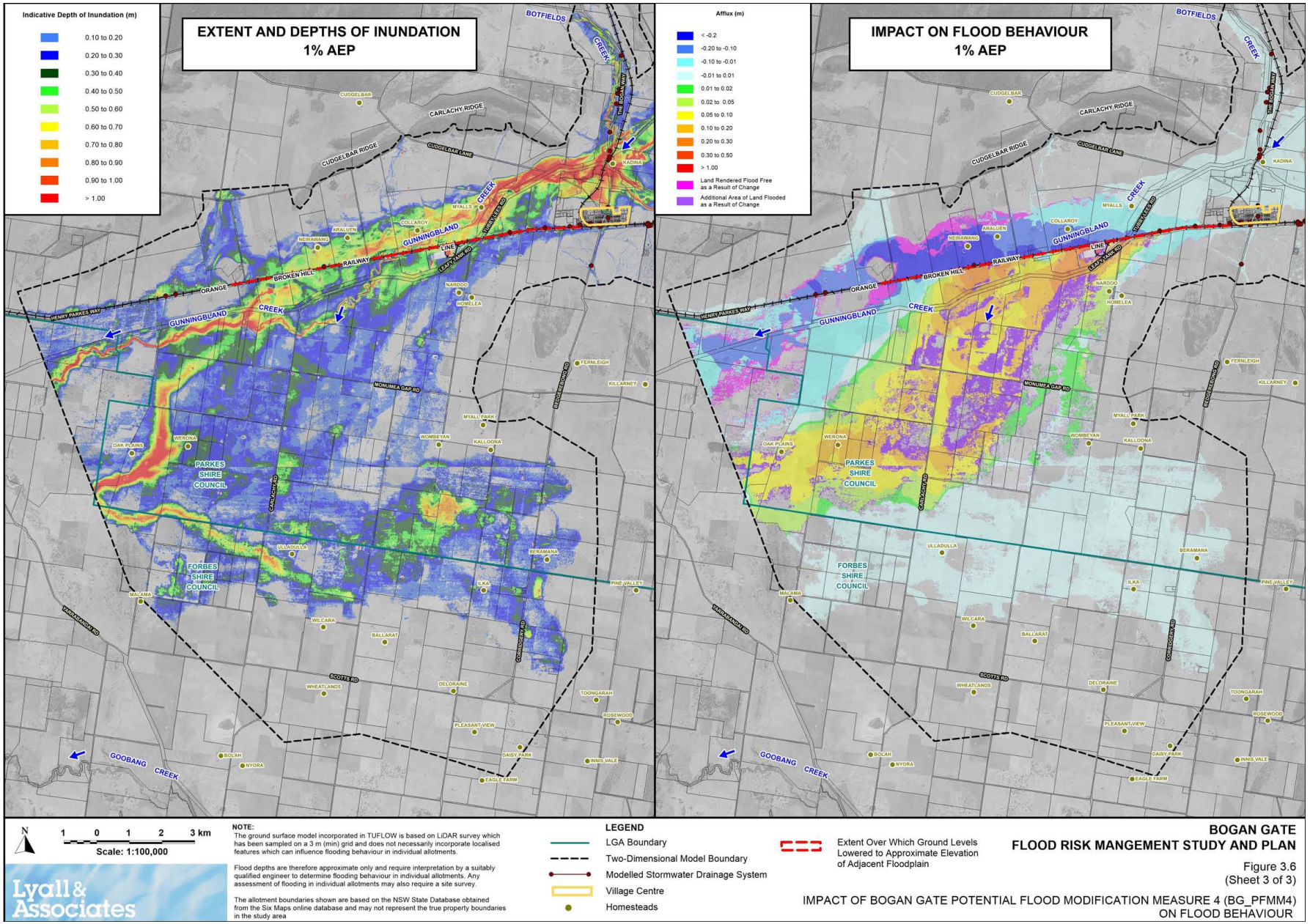
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.6
(Sheet 2 of 3)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 4 (BG_PFMM4) ON FLOOD BEHAVIOUR


EXTENT AND DEPTHS OF INUNDATION
1% AEP
Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
IMPACT ON FLOOD BEHAVIOUR
1% AEP
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 1.00
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
BOTFIELDS
CREEK
CUDGELBAR
CARLACHY RIDGE
CUDGELBAR RIDGE
CUDGELBAR LANE
KADINA
MYALLS
COLLAROY
NEIRAWANG
ARALUEN
GUNNINGBLAND
LINE
RAILWAY
BROKEN HILL
ORANGE
LEADY MINE RD
NARDOO
HOMELEA
HENRY PARKES WAY
GUNNINGBLAND CREEK
FERNLEIGH
KILLARNEY
MONUMEA GAP RD
MYALL PARK
WOMBEYAN
KALLOONA
OAK PLAINS
WERONA
PARKES SHIRE COUNCIL
CARLALONG RD
ULLADULLA
BERAMANA
FORBES SHIRE COUNCIL
ILKA
PINE VALLEY
MALAMA
WILCARA
BALLARAT
SCOTTS RD
WHEATLANDS
DELORAINE
TOONGARAH
ROSEWOOD
PLEASANT VIEW
DAISY PARK
INNISVALE
BOLAH
NYORA
EAGLE FARM
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
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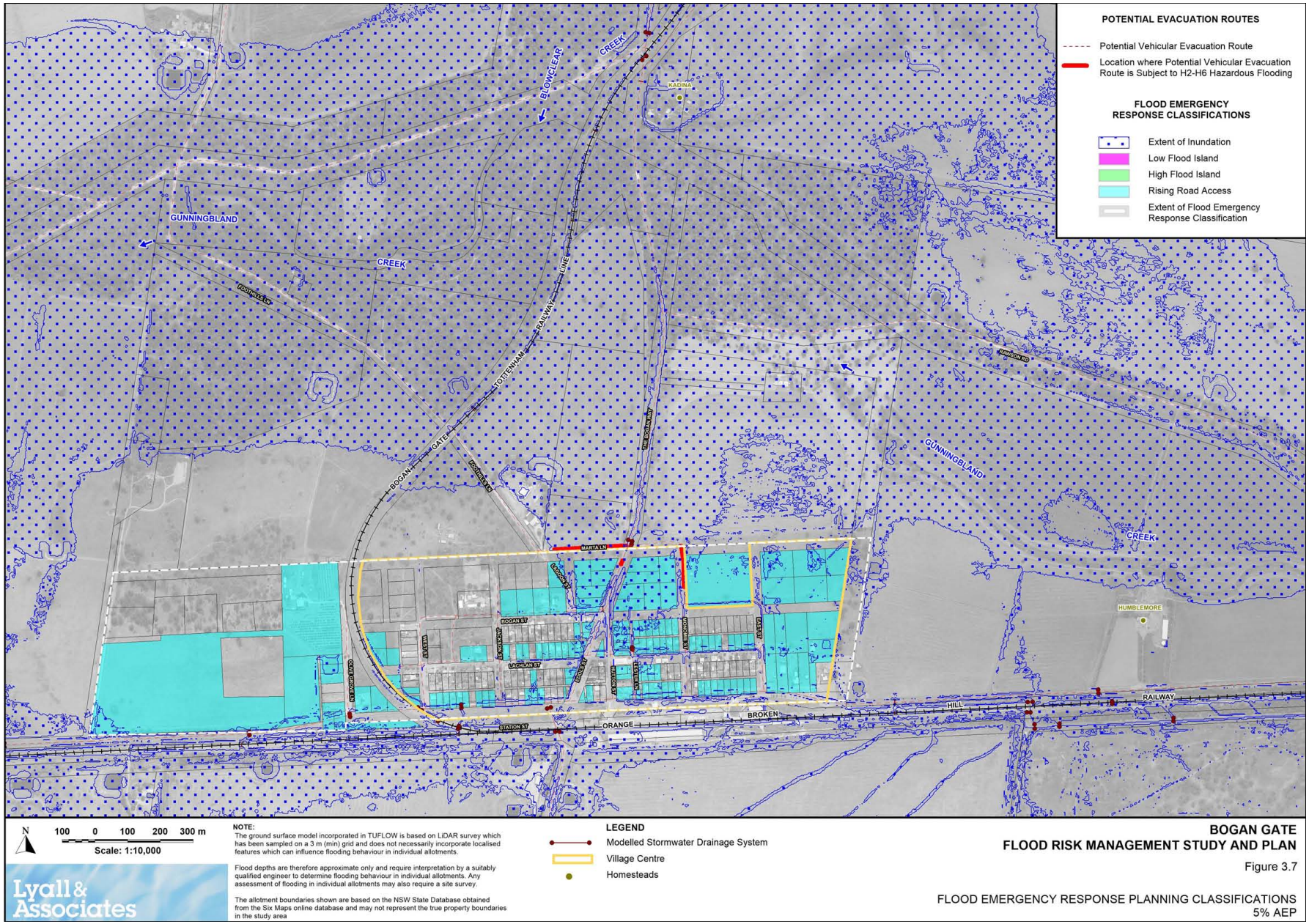
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Extent Over Which Ground Levels Lowered to Approximate Elevation of Adjacent Floodplain
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.6
(Sheet 3 of 3)
IMPACT OF BOGAN GATE POTENTIAL FLOOD MODIFICATION MEASURE 4 (BG_PFMM4) ON FLOOD BEHAVIOUR


POTENTIAL EVACUATION ROUTES
Potential Vehicular Evacuation Route
Location where Potential Vehicular Evacuation Route is Subject to H2-H6 Hazardous Flooding
FLOOD EMERGENCY RESPONSE CLASSIFICATIONS
Extent of Inundation
Low Flood Island
High Flood Island
Rising Road Access
Extent of Flood Emergency Response Classification
GUNNINGBLAND
CREEK
BLOWCLEAR
KADINA
TOTTENHAM RAILWAY LINE
BOGAN GATE
MARTIN ST
BOGAN ST
LACHLAN ST
STATION ST
ORANGE
BROKEN HILL
RAILWAY
HUMBLEMORE
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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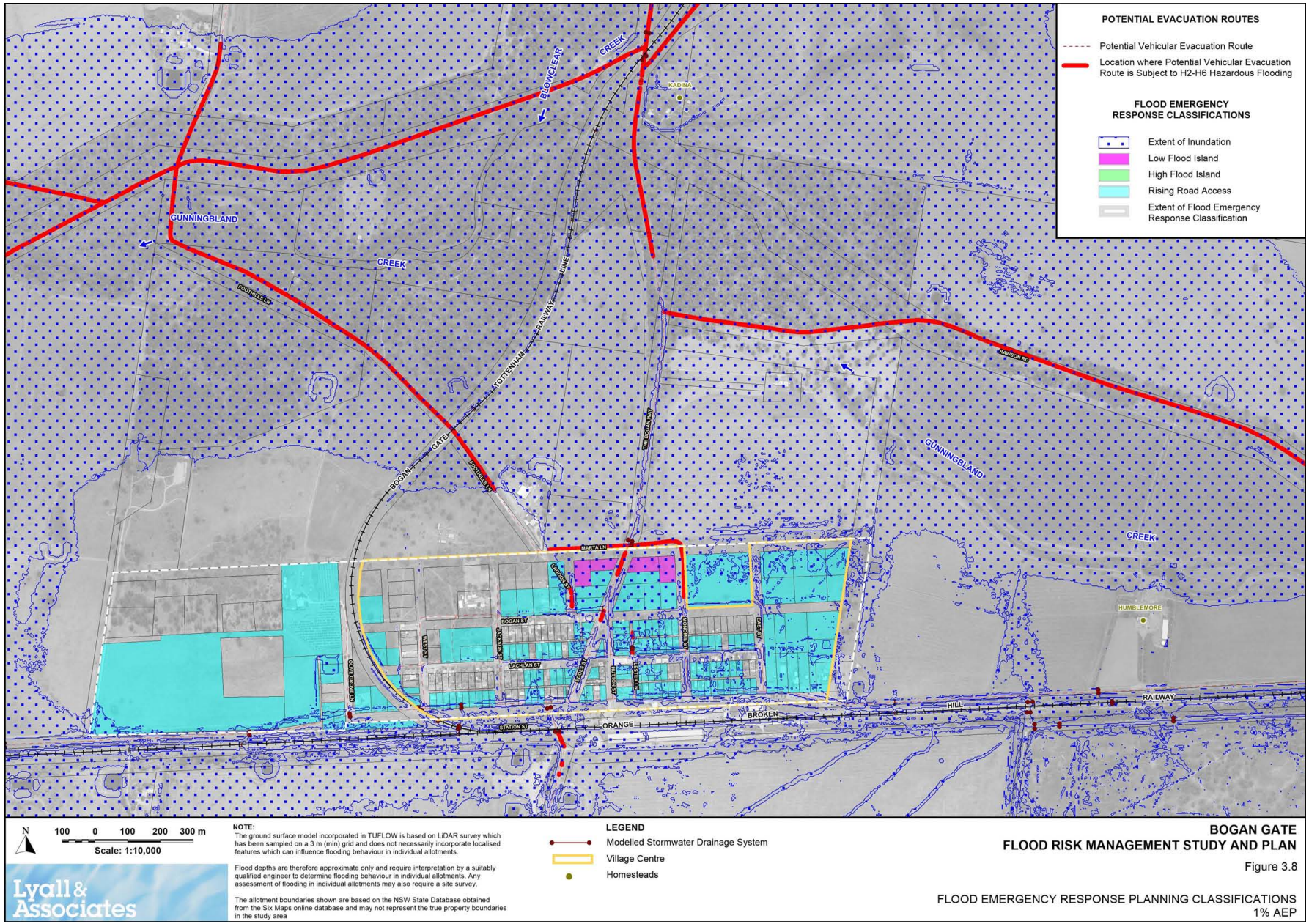
Lyall & Associates
LEGEND
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.7
FLOOD EMERGENCY RESPONSE PLANNING CLASSIFICATIONS
5% AEP


POTENTIAL EVACUATION ROUTES
Potential Vehicular Evacuation Route
Location where Potential Vehicular Evacuation Route is Subject to H2-H6 Hazardous Flooding
FLOOD EMERGENCY RESPONSE CLASSIFICATIONS
Extent of Inundation
Low Flood Island
High Flood Island
Rising Road Access
Extent of Flood Emergency Response Classification
GUNNINGBLAND
CREEK
BLOWCLEAR
KADINA
FOOTHILLS LN
TOTTENHAM RAILWAY LINE
BOGAN GATE
MARTIN ST
BOGAN ST
FACTORY ST
STATION ST
ORANGE
BROKEN HILL
RAILWAY
HUMBLEMORE
RANKIN RD
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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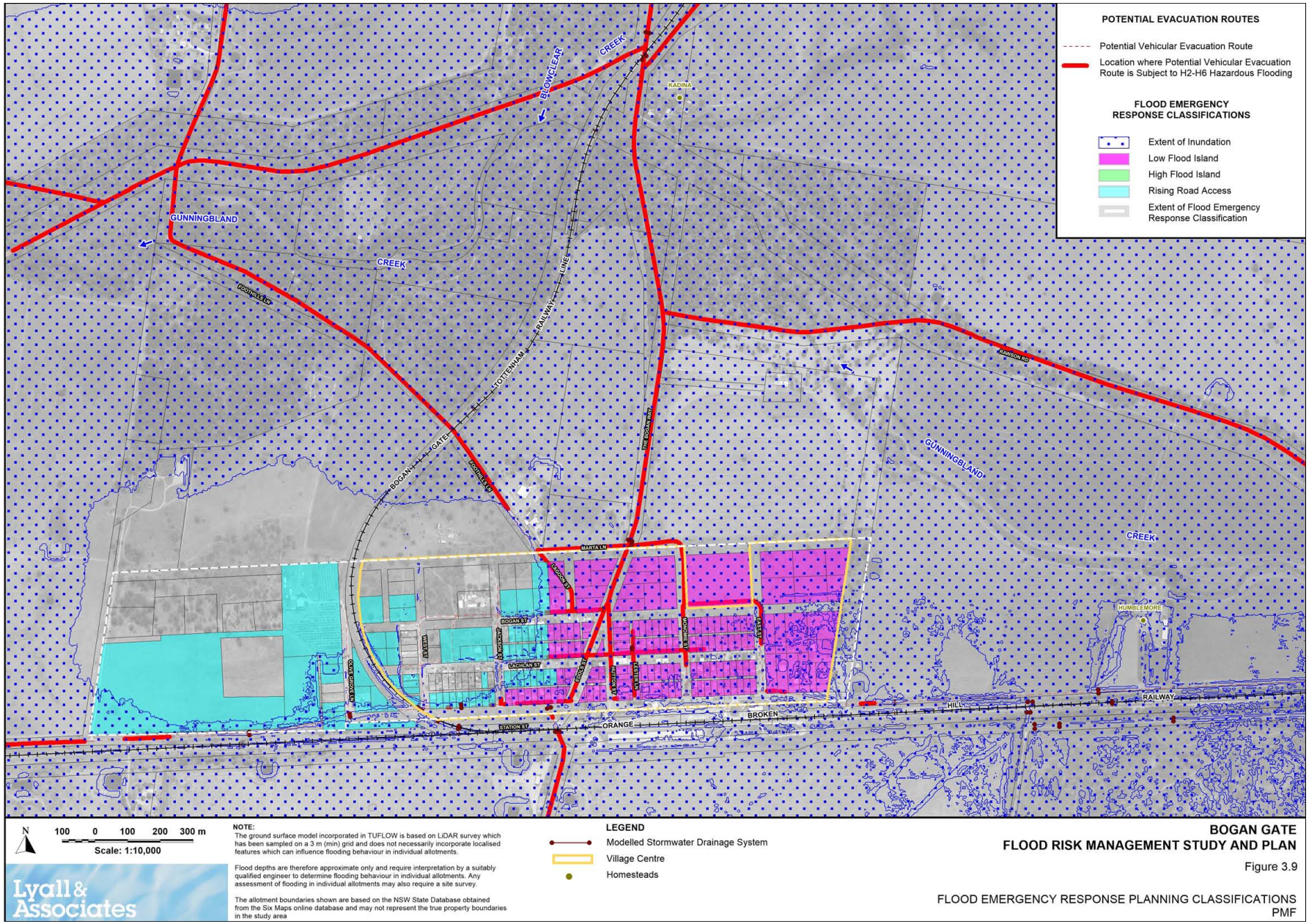
LEGEND
Modelled Stormwater Drainage System
Village Centre
Homesteads
Lyall & Associates
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.8
FLOOD EMERGENCY RESPONSE PLANNING CLASSIFICATIONS
1% AEP


POTENTIAL EVACUATION ROUTES
Potential Vehicular Evacuation Route
Location where Potential Vehicular Evacuation Route is Subject to H2-H6 Hazardous Flooding
FLOOD EMERGENCY RESPONSE CLASSIFICATIONS
Extent of Inundation
Low Flood Island
High Flood Island
Rising Road Access
Extent of Flood Emergency Response Classification
GUNNINGBLAND
CREEK
BLOWCLEAR
KADINA
TOTTENHAM
RAILWAY LINE
FOOTHILL LN
BOGAN GATE
MARTA LN
BOGAN ST
EASTLAND ST
ORANGE
BROKEN HILL
RAILWAY
HUMBLEMORE
RAWSON RD
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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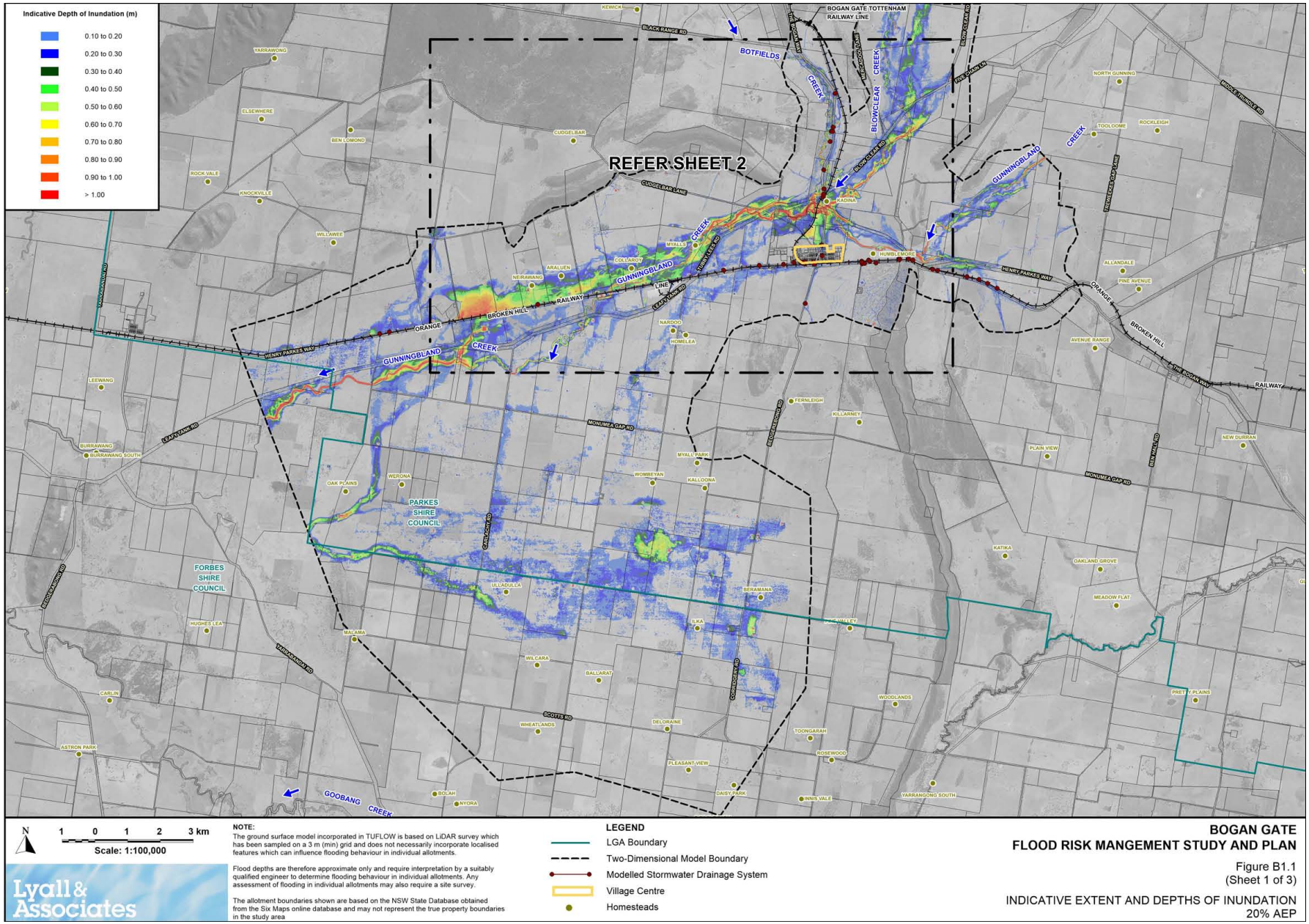
LEGEND
Modelled Stormwater Drainage System
Village Centre
Homesteads
Lyall & Associates
BOGAN GATE
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.9
FLOOD EMERGENCY RESPONSE PLANNING CLASSIFICATIONS
PMF

APPENDIX B

ADDITIONAL FIGURES SHOWING DESIGN FLOOD BEHAVIOUR AT BOGAN GATE

LIST OF FIGURES (APPENDIX B)

B1.1 Indicative Extent and Depths of Inundation – 20% AEP (3 Sheets)
B1.2 Indicative Extent and Depths of Inundation – 10% AEP (3 Sheets)
B1.3 Indicative Extent and Depths of Inundation – 5% AEP (3 Sheets)
B1.4 Indicative Extent and Depths of Inundation – 2% AEP (3 Sheets)
B1.5 Indicative Extent and Depths of Inundation – 0.5% AEP (3 Sheets)
B1.6 Indicative Extent and Depths of Inundation – 0.2% AEP (3 Sheets)


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 2
BOTFIELDS
BOGAN GATE TOTTENHAM RAILWAY LINE
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
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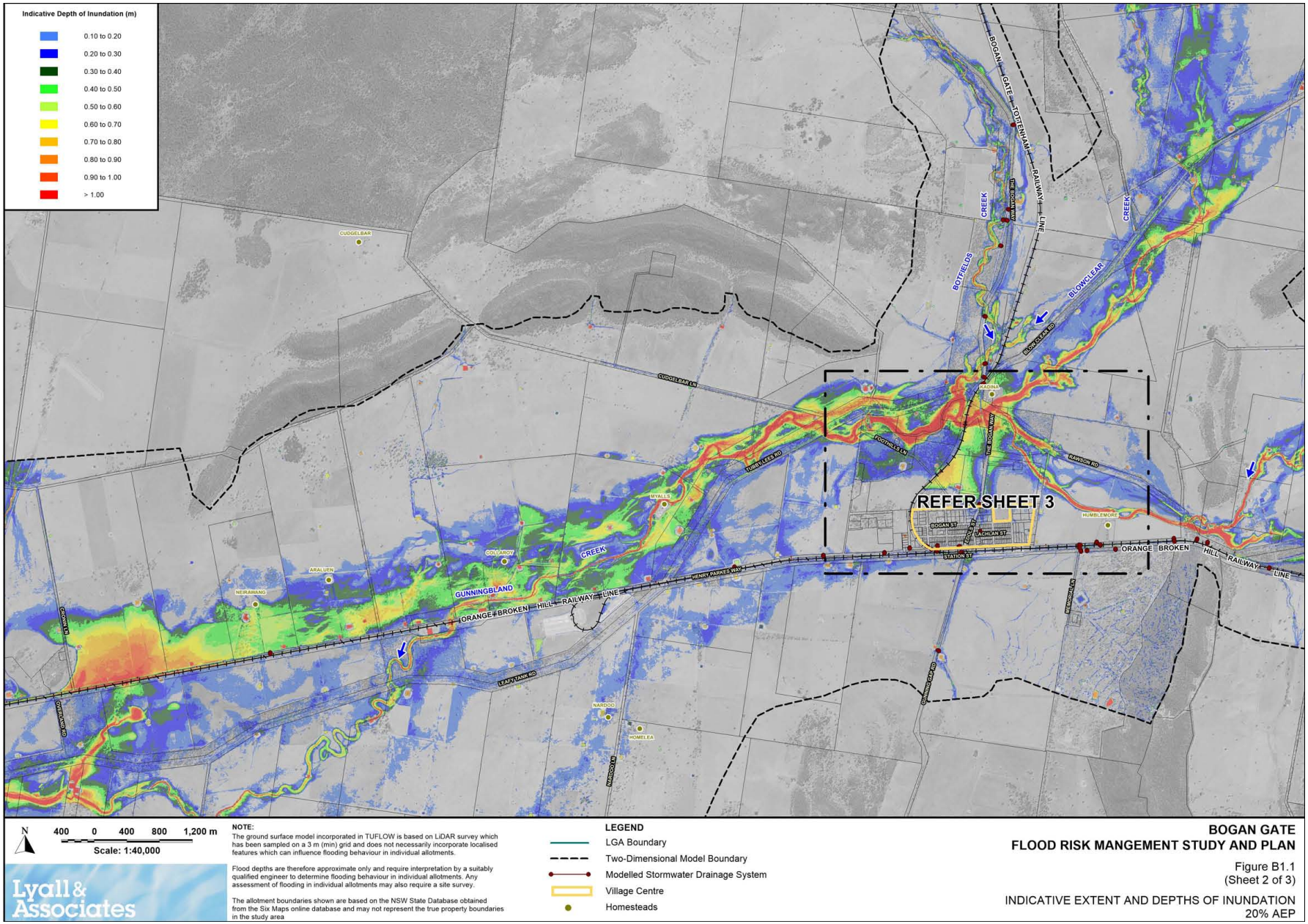
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.1
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
20% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 3
CUDGELBAR
BOGAN GATE-TOTTENHAM RAILWAY LINE
BOTFIELDS CREEK
BLOWCLEAR CREEK
BLOWCLEAR RD
CUDGELBAR LN
KADINA
FOOTHILLS LN
TURN VALES RD
RAWSON RD
MYALLS
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY LINE
COLLAROY
ARALUEN
NEIRAWANG
GUNNINGBLAND CREEK
HENRY PARKES WAY
GOOLMA LN
LEADVILLE RD
NARDOO
HOMELEA
NARDOO LN
GUNNINGBLAND RD
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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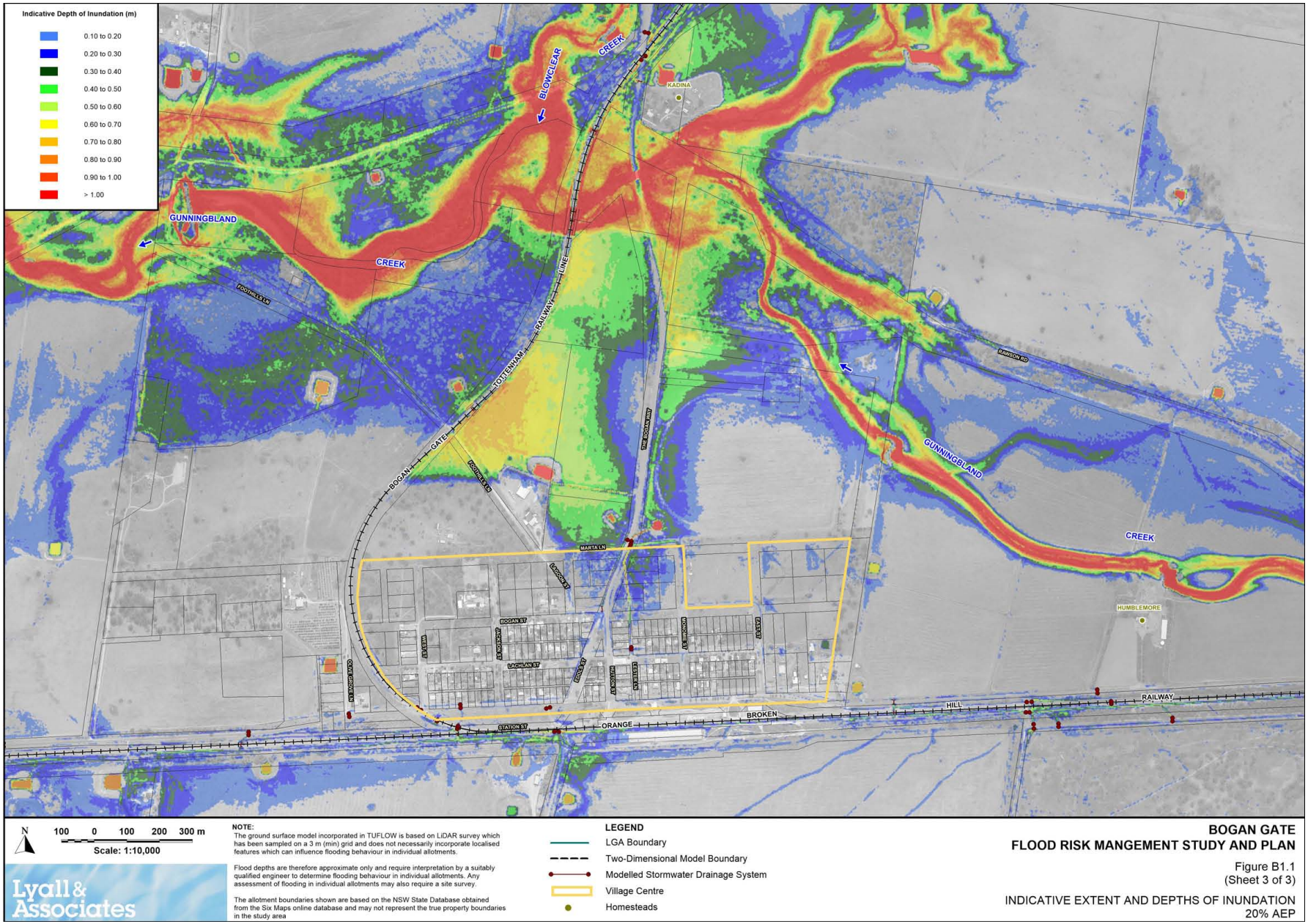
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.1
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
20% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
GUNNINGBLAND
CREEK
BLOWCLEAR
KADINA
RAILWAY LINE
TOTTENHAM
GATE
BOGAN
FOOTHILLS LN
THE BOGAN WAY
RAWSON RD
MARTA LN
MACQUOID ST
BOGAN ST
LACHLAN ST
HUMBLEMORE
RAILWAY
BROKEN HILL
ORANGE
STATION ST
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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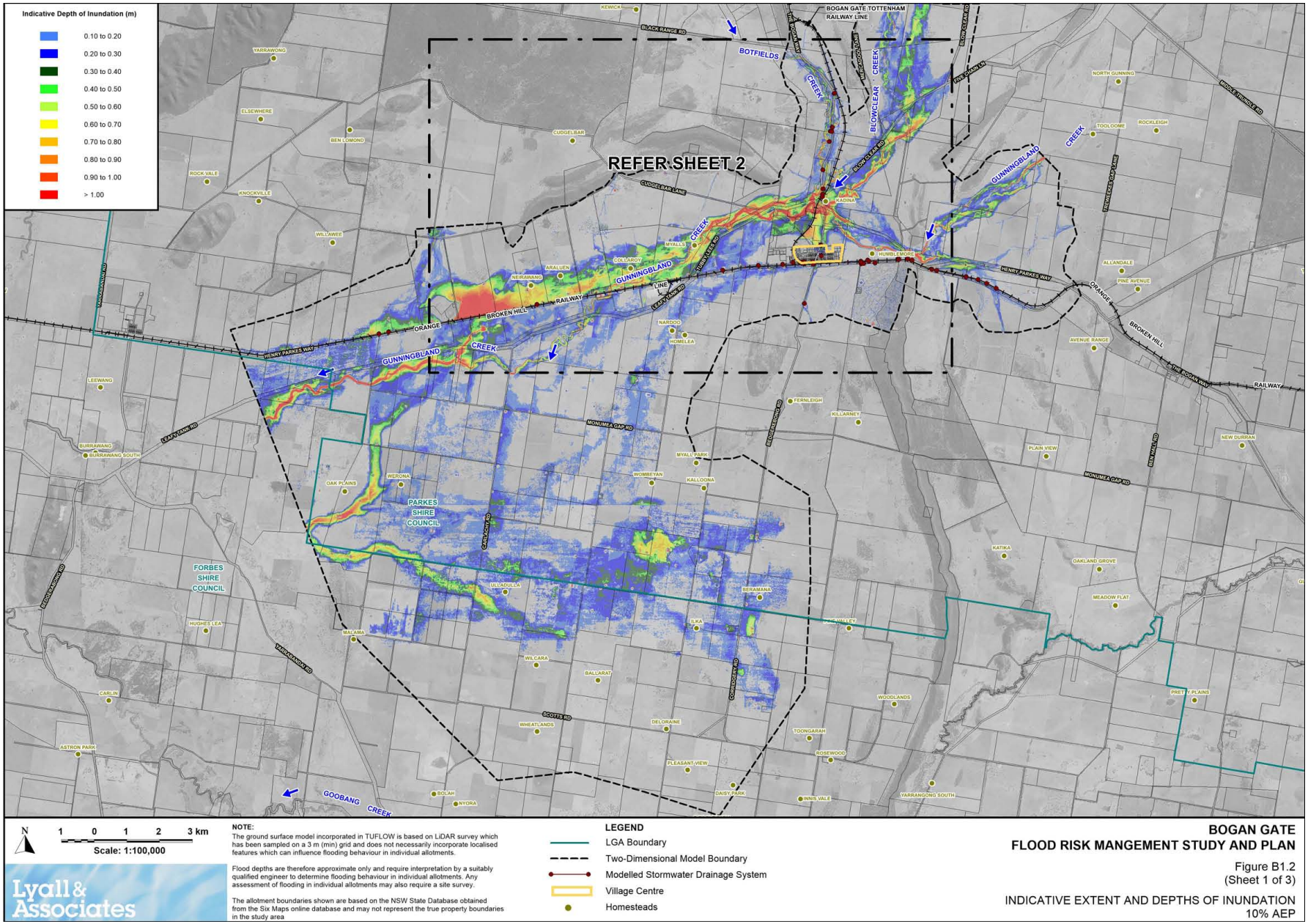
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.1
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
20% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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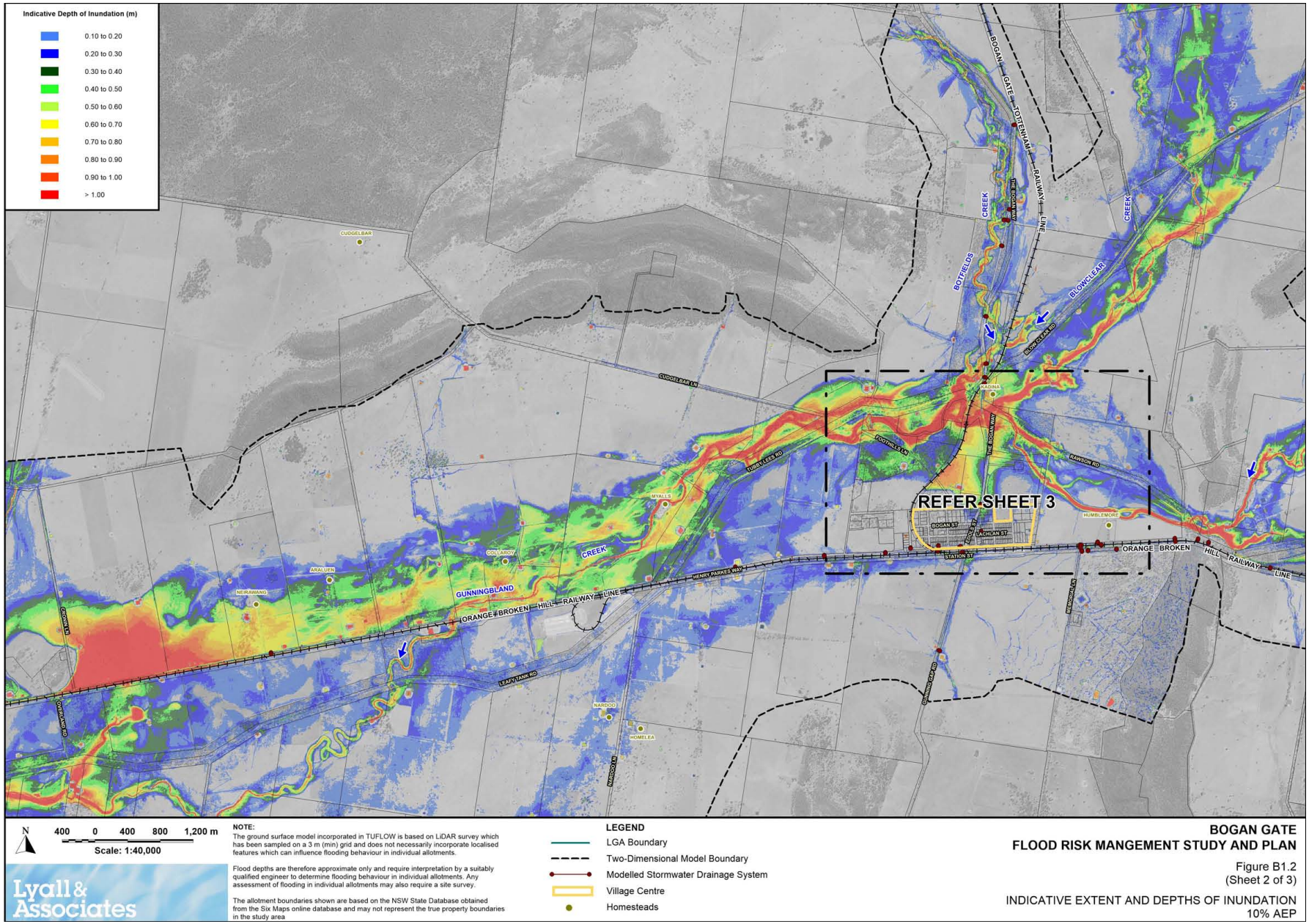
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.2
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
10% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 3
CUDGELBAR
KADINA
MYALLS
COLLAROY
ARALUEN
NEIRAWANG
GUNNINGBLAND
HUMBLEMORE
NARDOO
HOMELEA
BOGAN GATE-TOTTENHAM RAILWAY LINE
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
BOTFIELDS CREEK
BLOWCLEAR CREEK
CREEK
BOGAN ST
ACHLAN ST
STATION ST
CUDGELBAR LN
TUBWALES RD
FOOTHILLS LN
RAWSON RD
LEADVILLE RD
GUNNINGBLAND RD
NARDOO LN
HENRYKA LN
CROWN LN
ONSLOW RD
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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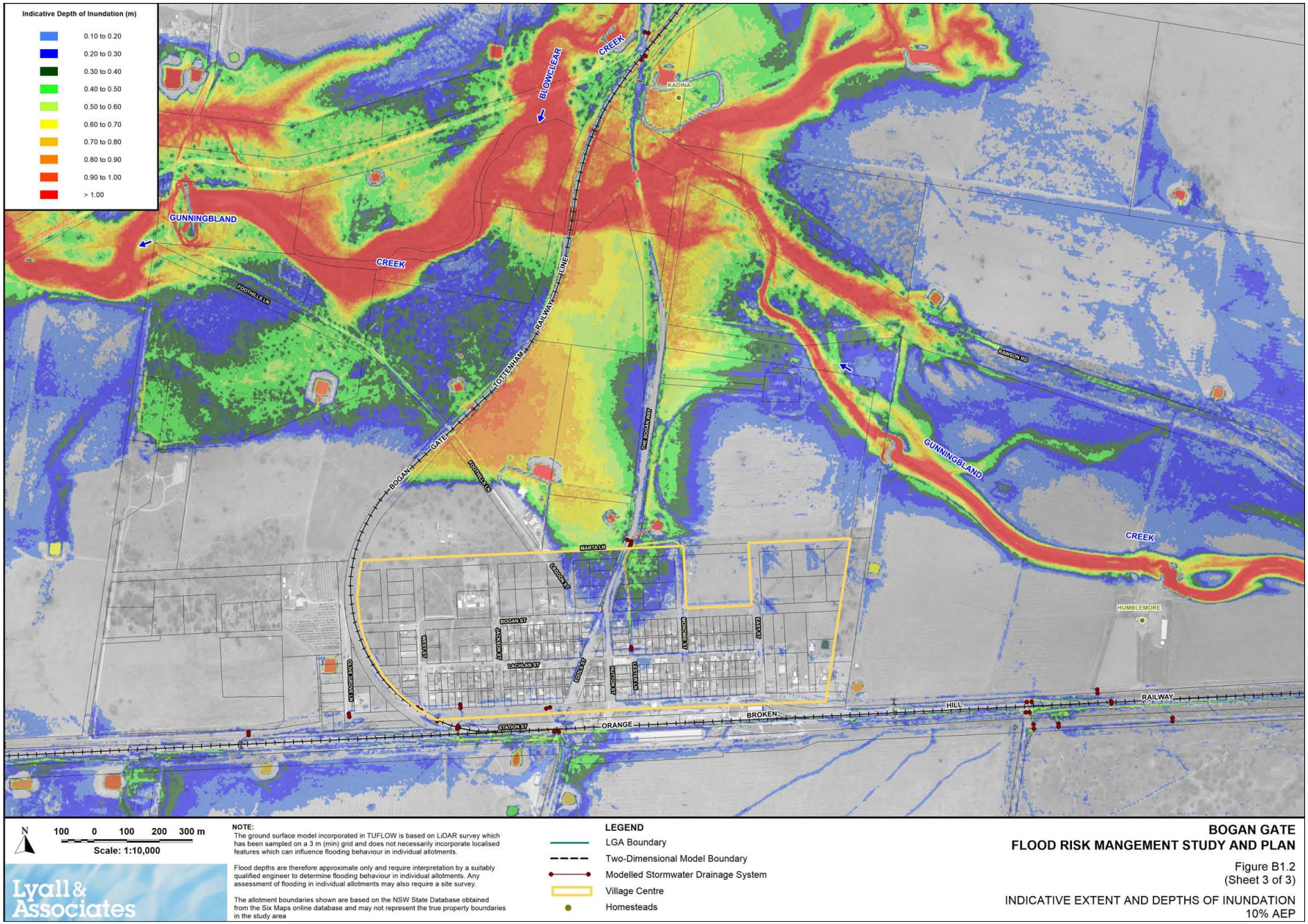
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.2
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
10% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
BLOWCLEAR CREEK
KADINA
GUNNINGBLAND CREEK
FOOTHILLS LN
RAILWAY LINE
TOTTENHAM GATE
BOGAN WAY
RAWSON RD
GUNNINGBLAND CREEK
HUMBLEMORE
MARTA LN
MACQUARIE ST
BOGAN ST
WEST ST
ARGYLE ST
LACHLAN ST
DARLING ST
WATSON ST
EAST ST
NEWTON ST
OLD BOGAN WAY
STATION ST
ORANGE BROKEN HILL RAILWAY
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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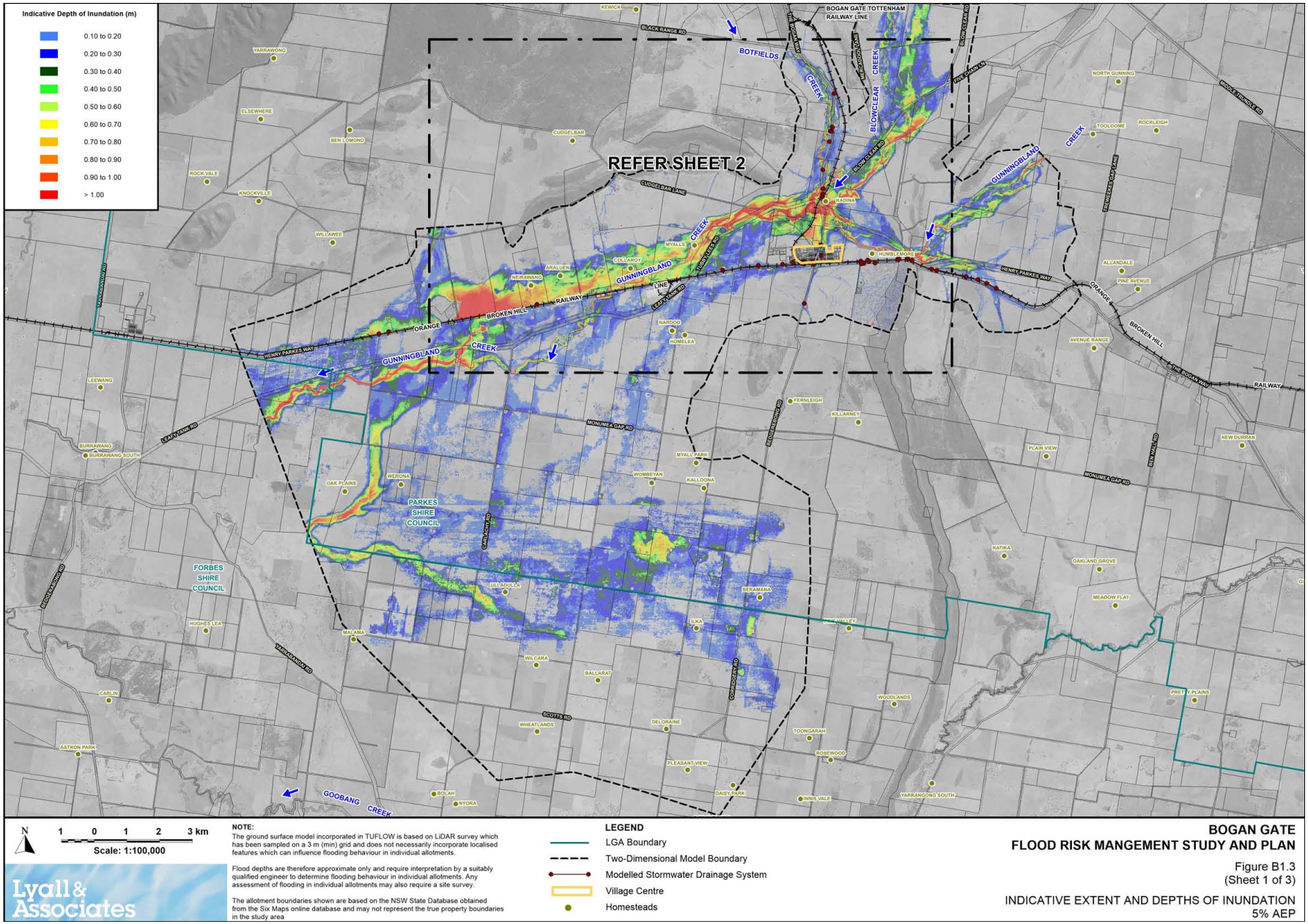
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.2
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
10% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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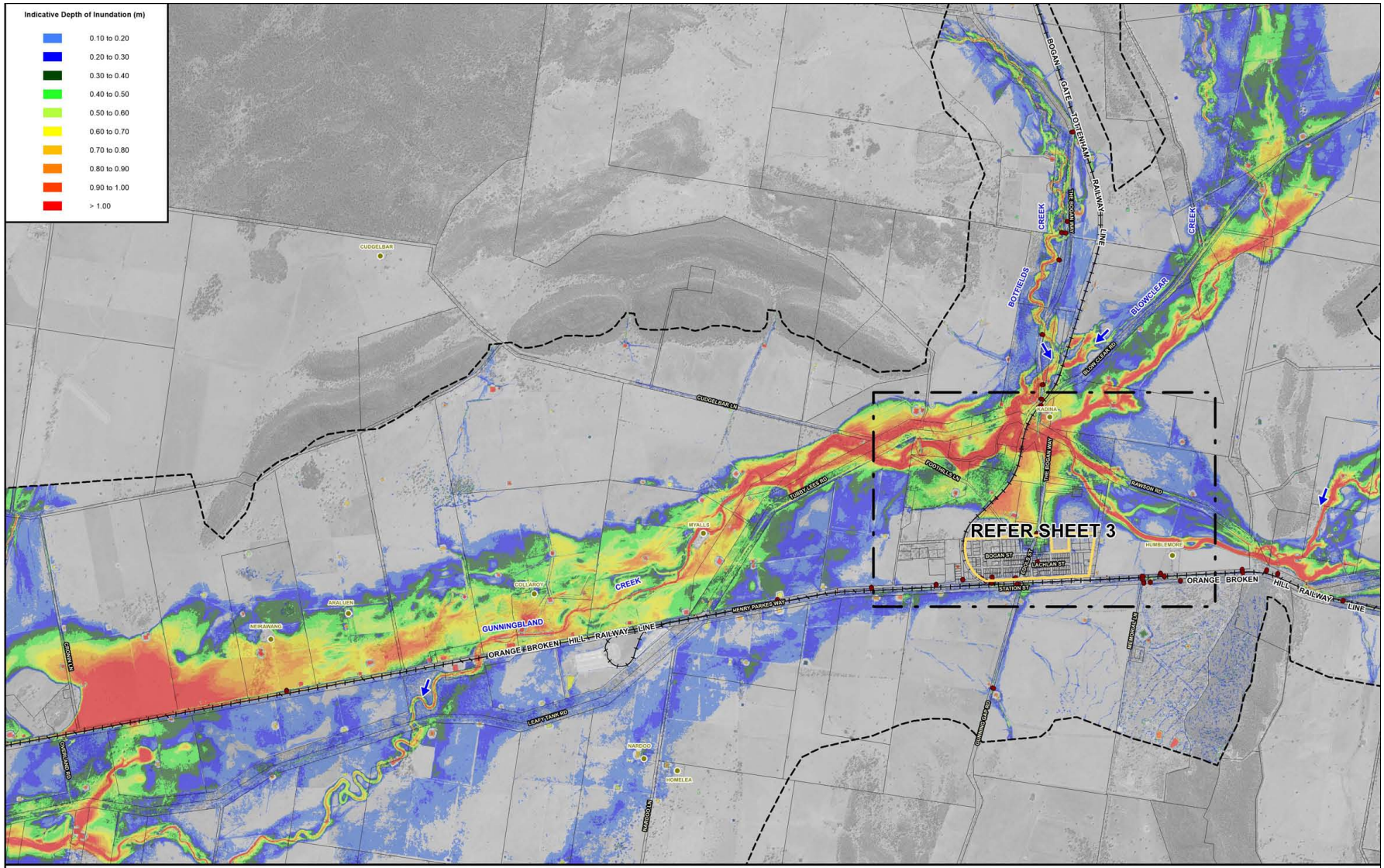
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.3
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 3
CUDGELBAR
CUDGELBAR LN
BOGAN GATE-TOTTENHAM RAILWAY LINE
BOTFIELDS CREEK
BLOWCLEAR CREEK
BLOWCLEAR RD
KADINA
FOOTBALLS LN
TUBWALLAS RD
RAWSON RD
HUMBLEMORE
MYALLS
COLLAROY
CREEK
ARALUEN
NEIRAWANG
GUNNINGBLAND
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
BOGAN ST
LACHLAN ST
STATION ST
GOOLMA LN
LEADVILLE RD
NARDOO
HOMELEA
GUNNINGBLAND RD
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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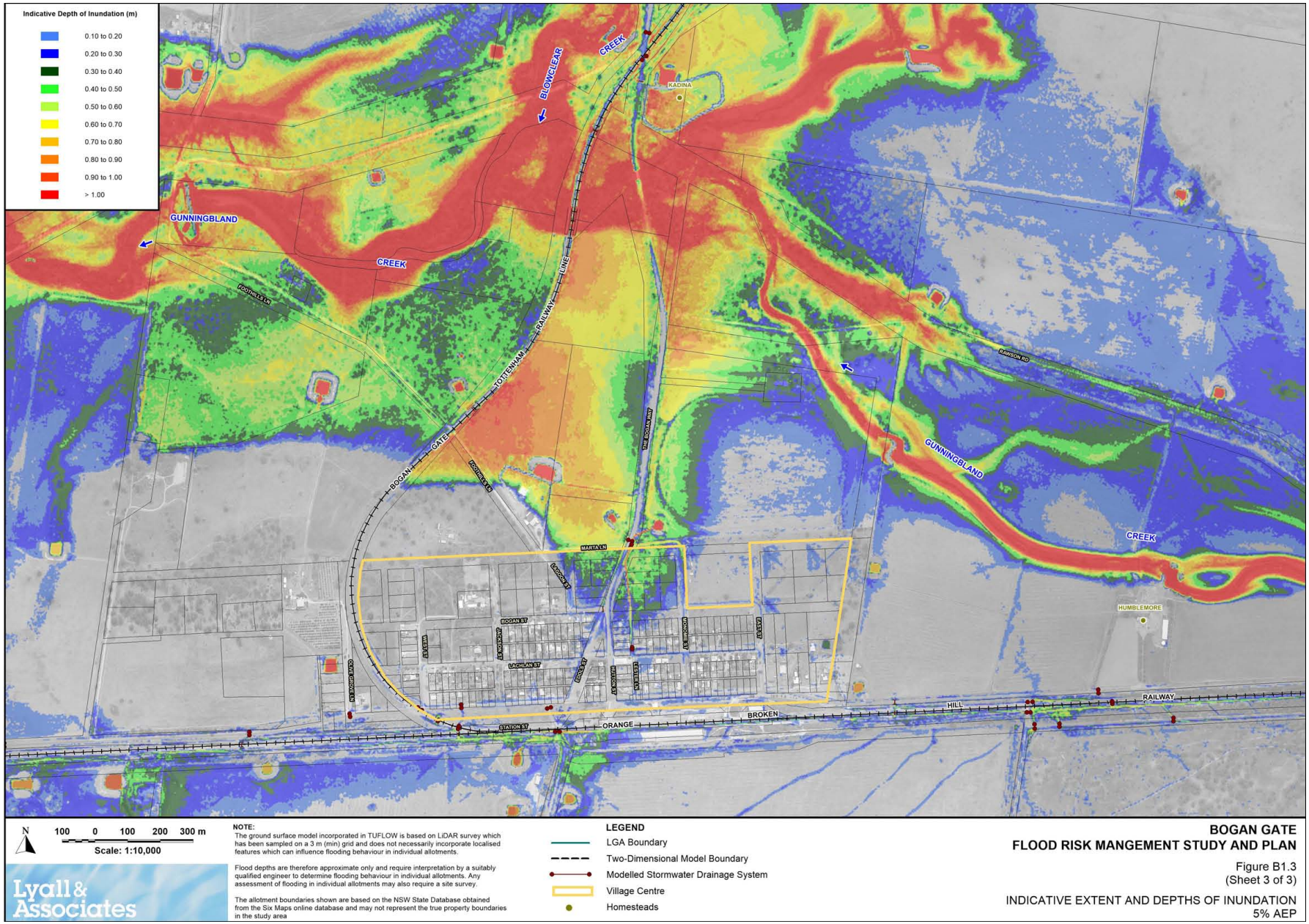
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.3
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
GUNNINGBLAND
CREEK
BLOWCLEAR
CREEK
KADINA
RAILWAY LINE
TOTTENHAM
GATE
BOGAN
FOOTHILLS LN
THE BOGAN WAY
RAWSON RD
GUNNINGBLAND
CREEK
HUMBLEMORE
MARTA LN
BOGAN ST
LACHLAN ST
STATION ST
ORANGE
BROKEN HILL
RAILWAY
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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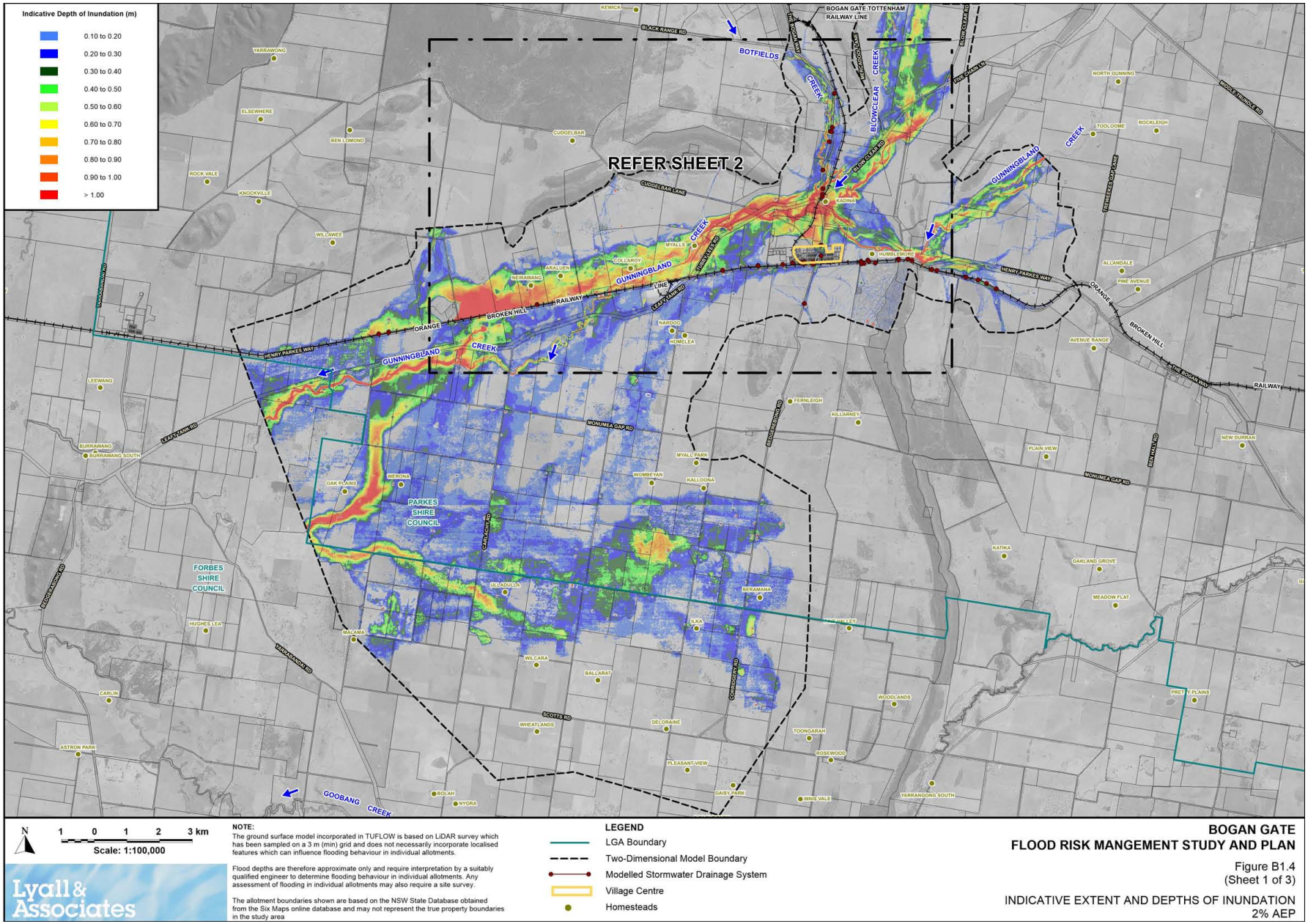
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
Lyall & Associates
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.3
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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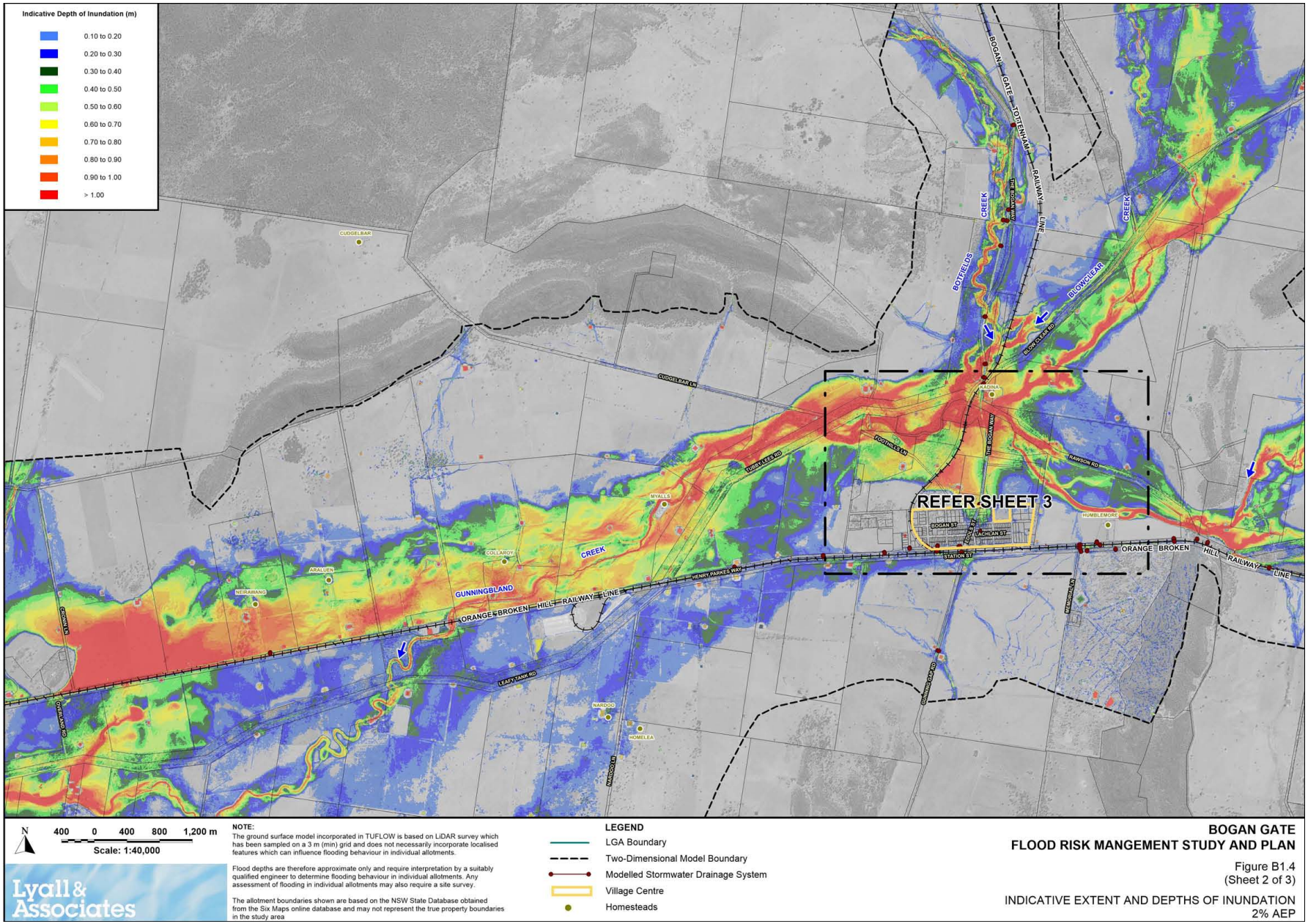
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.4
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 3
CUDGELBAR
CUDGELBAR LN
BOTTFIELDS
BOGAN GATE TOTTENHAM RAILWAY LINE
BOGAN RIVER
BOGAN CREEK
BLOWCLEAR
BLOWCLEAR RD
KADINA
FOOTHILLS LA
TUDOR LEES RD
RAWSON RD
HUMBLEMORE
BOGAN ST
TAYLOR ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY LINE
HENRY PARKES WAY
MYALLS
COLLAROY
CREEK
ARALUEN
NEIRAWANG
GUNNINGBLAND
GOOLMA LN
OUTLAND RD
LEADY TANK RD
NARDOO
HOMELEA
NARDOO LN
GUNNINGBLAND RD
HAWKINS LN
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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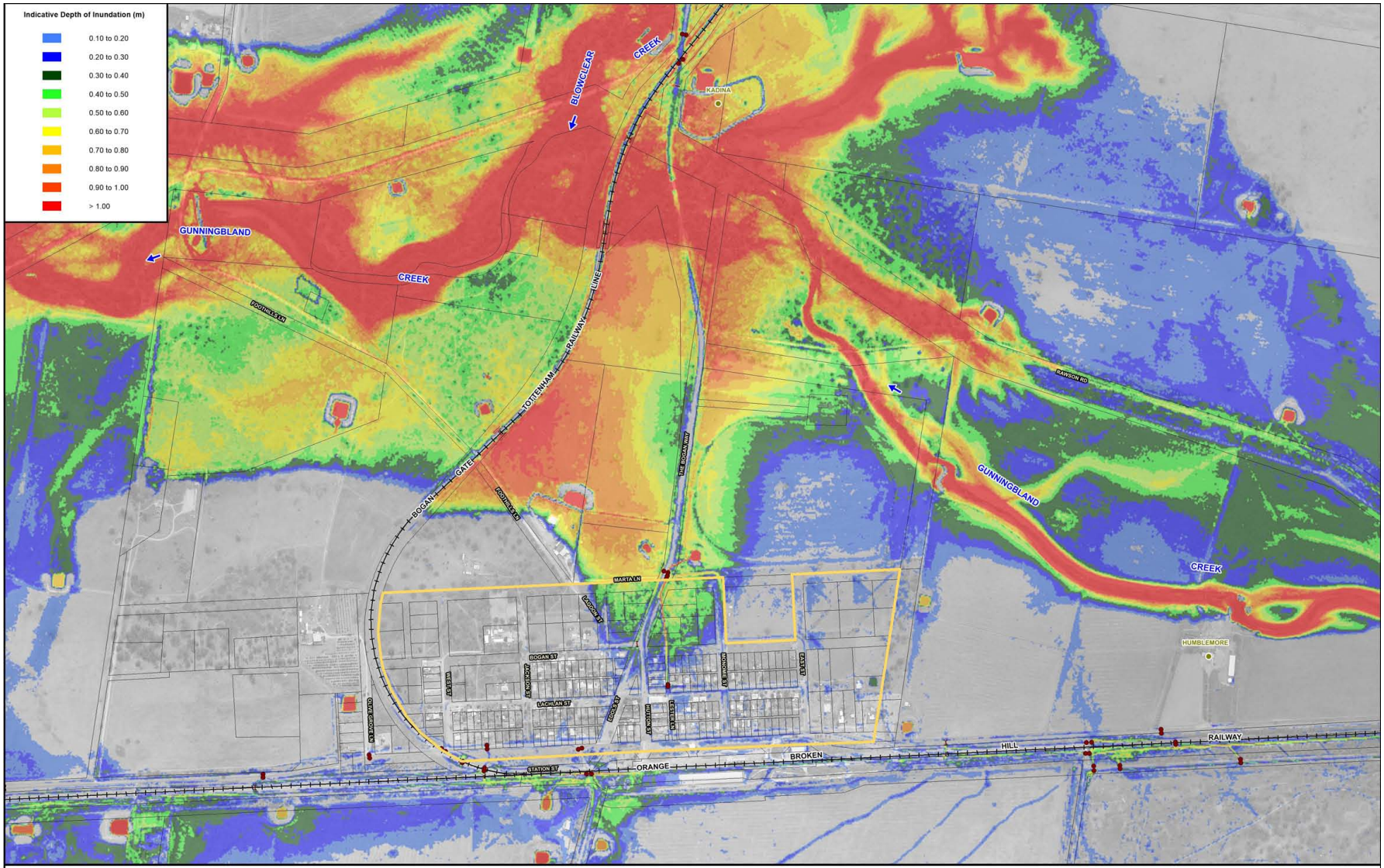
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.4
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
GUNNINGBLAND
CREEK
BLOWCLEAR
KADINA
RAILWAY LINE
TOTTENHAM
BOGAN GATE
MARTA LN
HUMBLEMORE
ORANGE
BROKEN HILL
RAILWAY
STATION ST
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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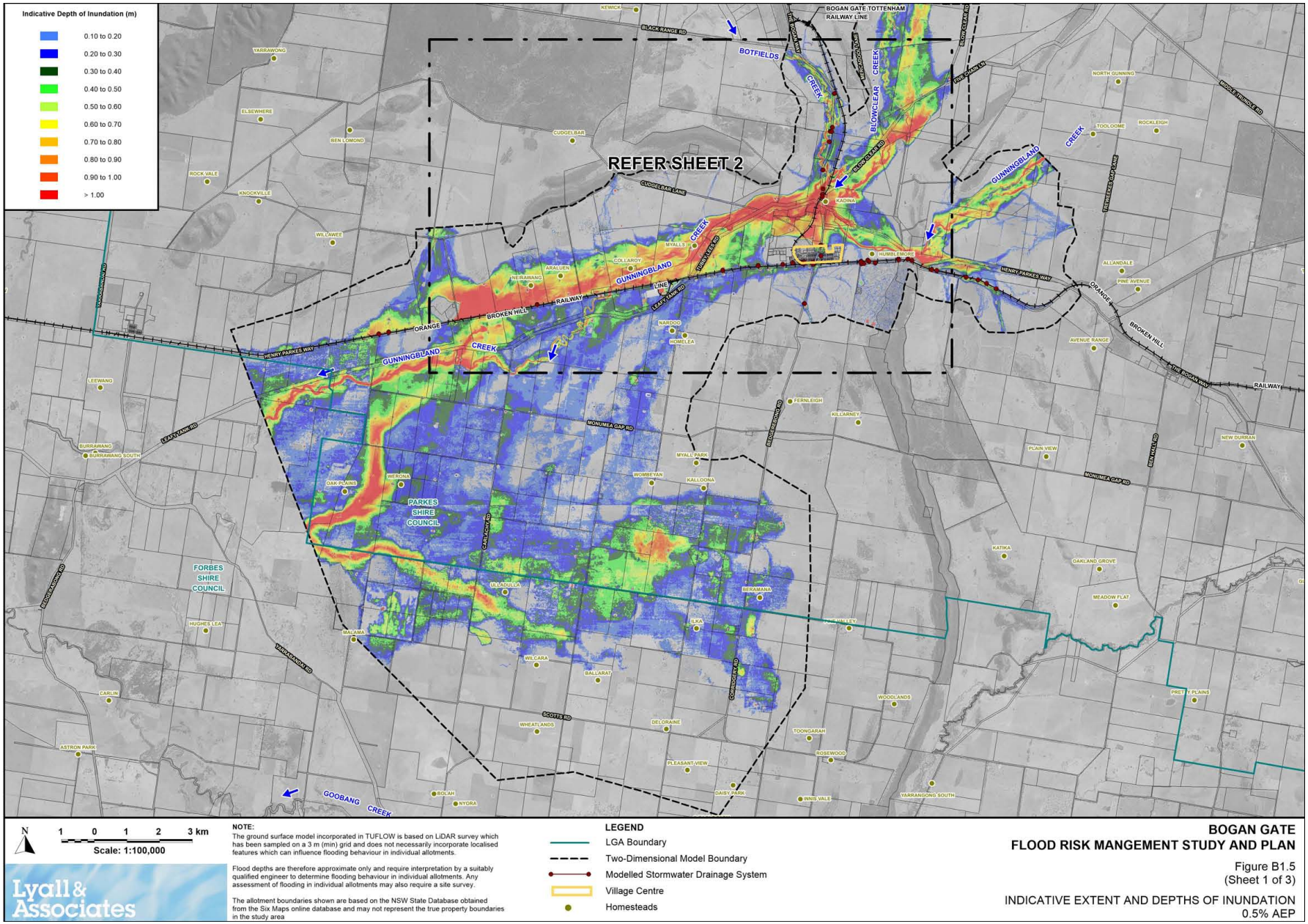
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.4
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
ORANGE
HENRY PARKES WAY
RAILWAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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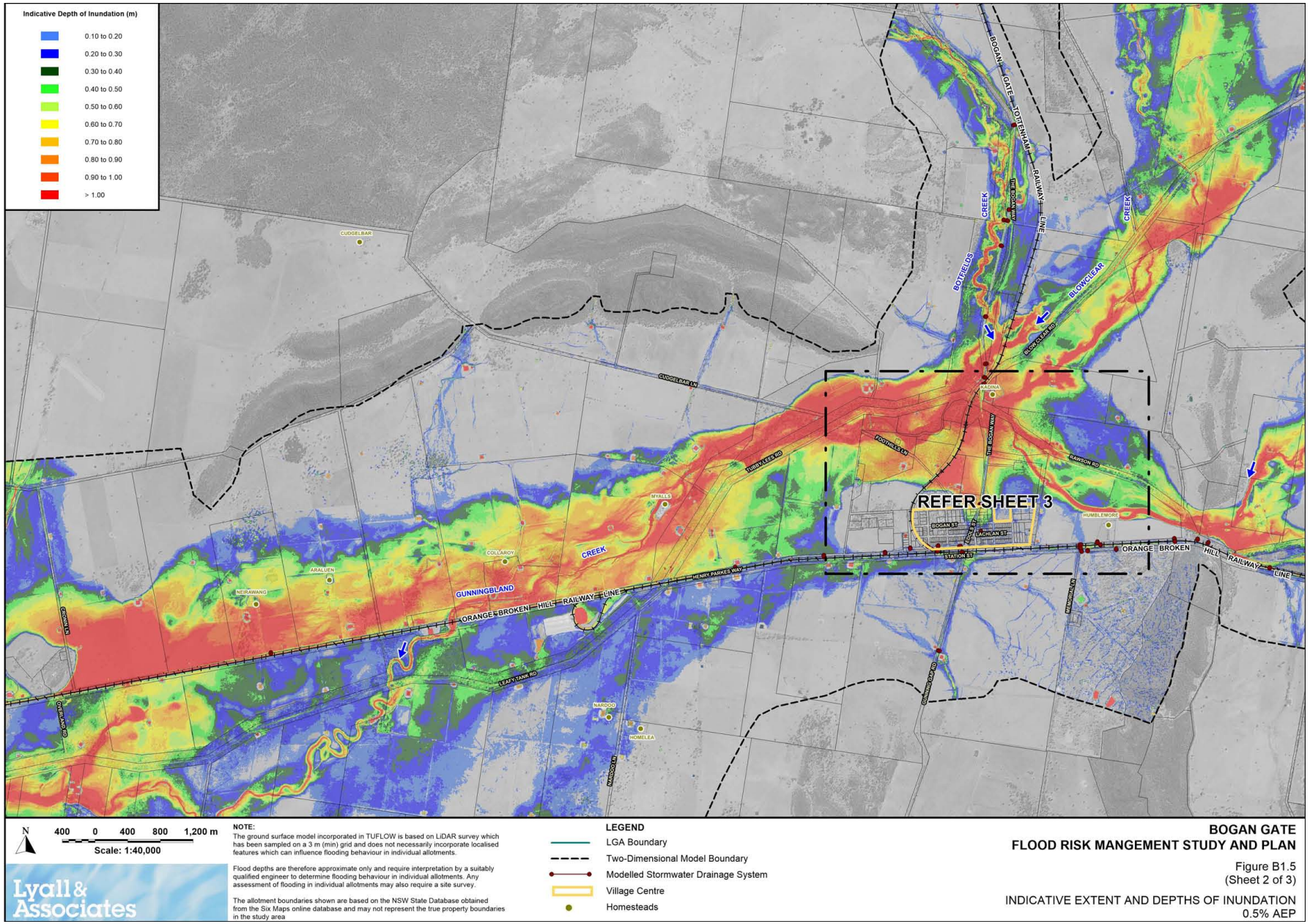
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.5
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 3
BOGAN GATE
TOTTENHAM
RAILWAY LINE
BOTTFIELDS CREEK
BLOW CLEAR CREEK
BLOW CLEAR RD
CUDGELBAR
CUDGELBAR LN
KADINA
THE BOGAN WAY
FOOTHILLS LN
TUSKY LEES RD
RAWSON RD
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY LINE
MYALLS
COLLAROY
CREEK
ARALUEN
NEIRAWANG
GUNNINGBLAND
HENRY PARKES WAY
GOOLMA LN
LEADY TANK RD
OUTLAND RD
NARDOO
HOMELEA
NARDOO LN
GUNNINGBLAND RD
HENRYMA LN
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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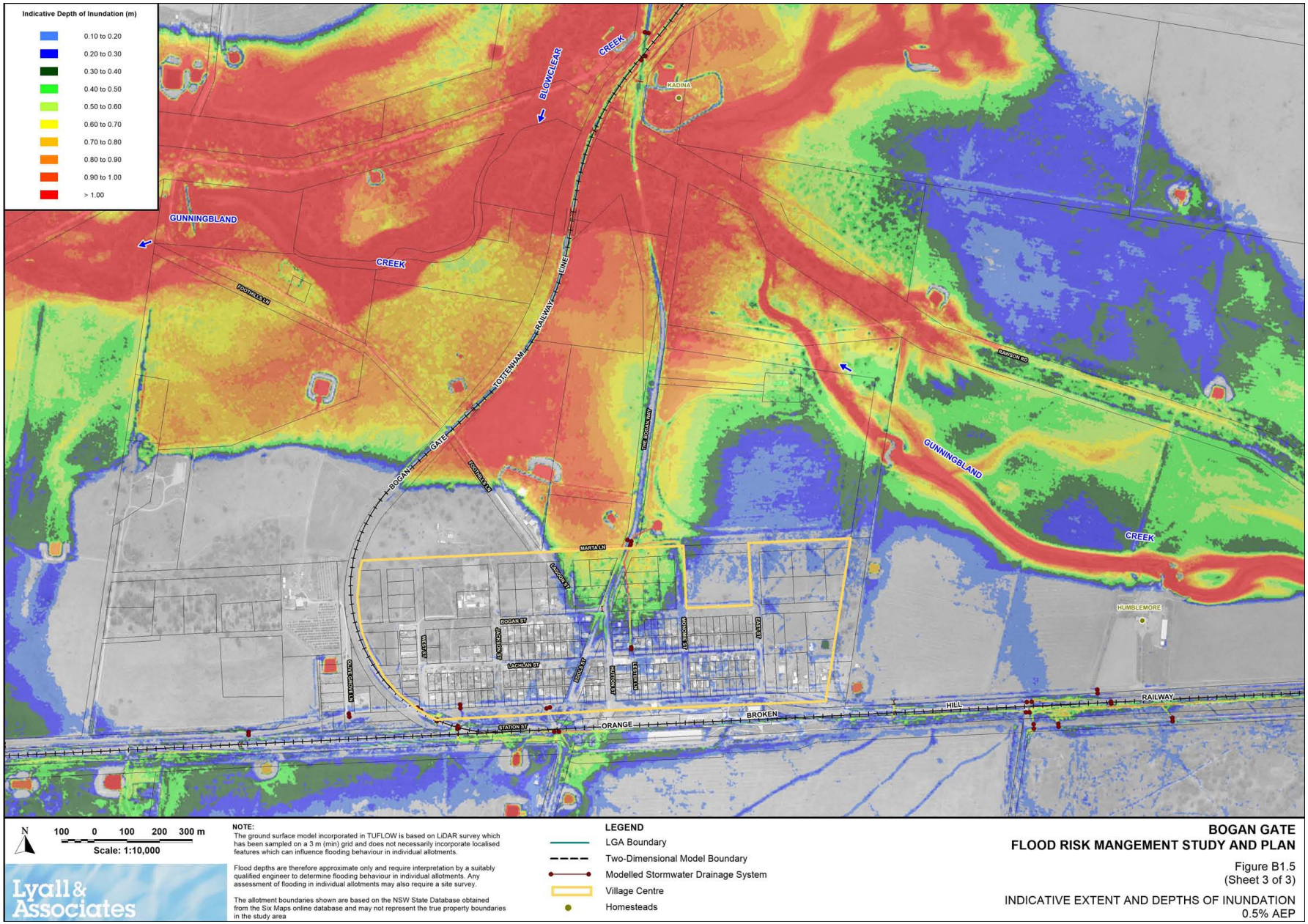
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.5
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
BLOWCLEAR CREEK
KADINA
GUNNINGBLAND CREEK
FOOTHILLS LN
TOTTENHAM RAILWAY LINE
BOGAN GATE
THE BOGAN WAY
RAWSON RD
GUNNINGBLAND CREEK
MARTA LN
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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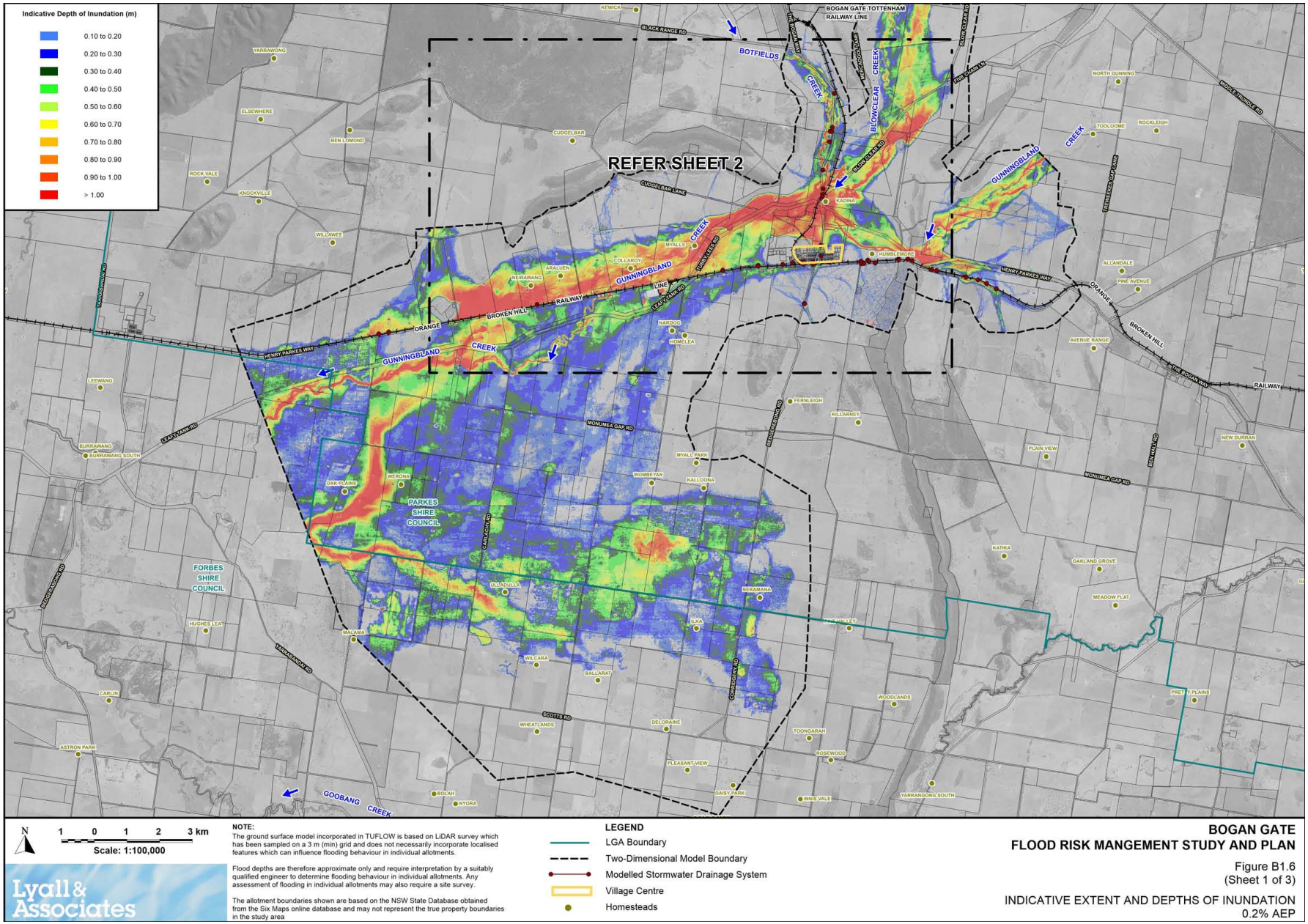
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.5
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 2
BOGAN GATE TOTTENHAM RAILWAY LINE
BOTFIELDS
GUNNINGBLAND
BROKEN HILL
RAILWAY
ORANGE
HENRY PARKES WAY
CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
GOOBANG CREEK
N
1 0 1 2 3 km
Scale: 1:100,000
NOTE:
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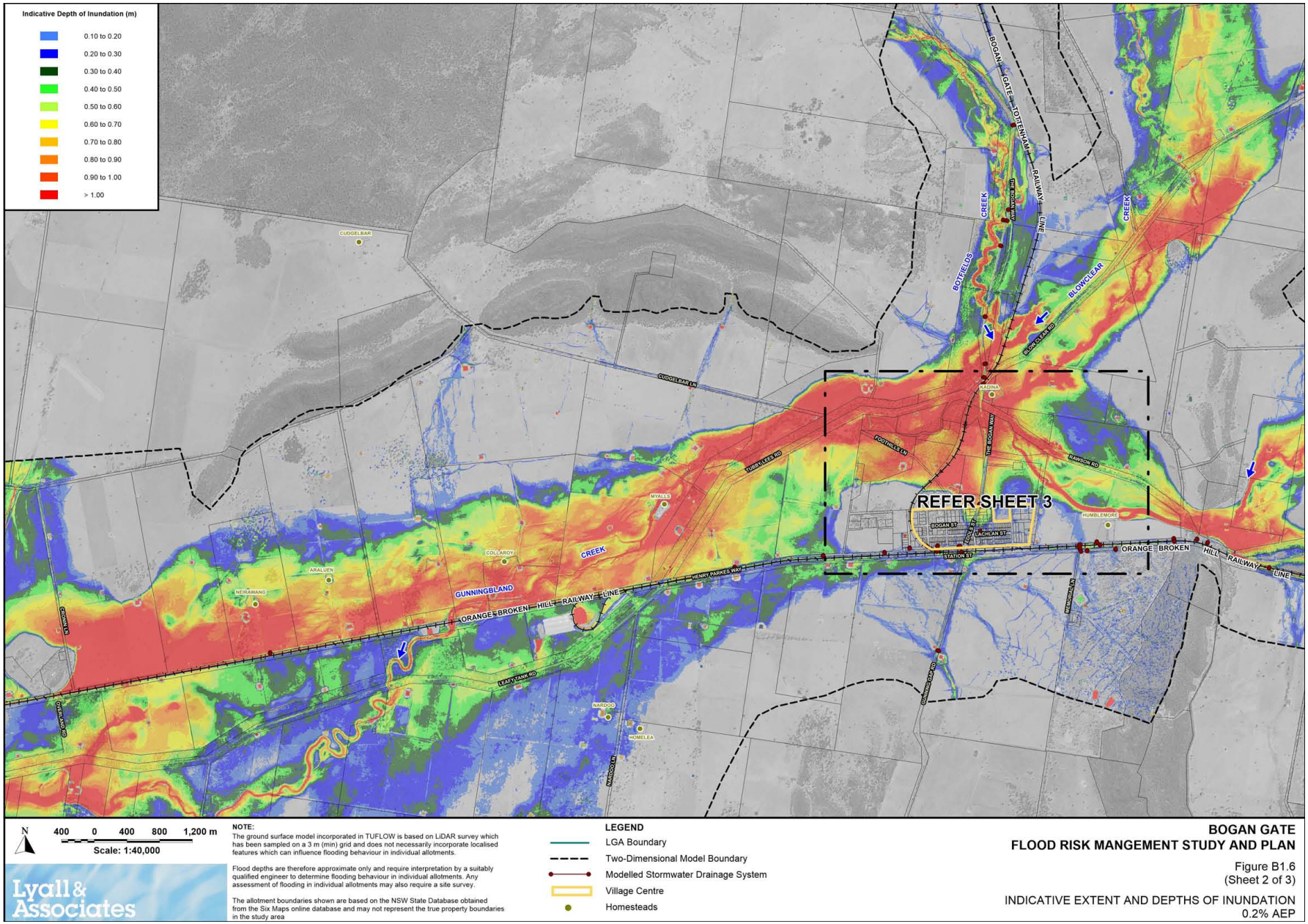
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.6
(Sheet 1 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
REFER SHEET 3
CUDGELBAR
BOGAN GATE-TOTTENHAM RAILWAY LINE
BOTTFIELDS CREEK
BLOWCLEAR CREEK
BLOWCLEAR RD
CUDGELBAR LN
KADINA
FOOTHILLS LN
TURN FLEES RD
THE BOGAN WAY
RAWSON RD
HUMBLEMORE
BOGAN ST
LACHLAN ST
STATION ST
ORANGE BROKEN HILL RAILWAY LINE
MYALLS
COLLAROY
ARALUEN
NEIRAWANG
CREEK
GUNNINGBLAND
HENRY PARKES WAY
GOOLMA LN
OUTLAND RD
LEARY TANK RD
NARDOO
HOMELEA
NARDOO LN
GUNNINGBLAND RD
HENRYMA LN
N
400 0 400 800 1,200 m
Scale: 1:40,000
NOTE:
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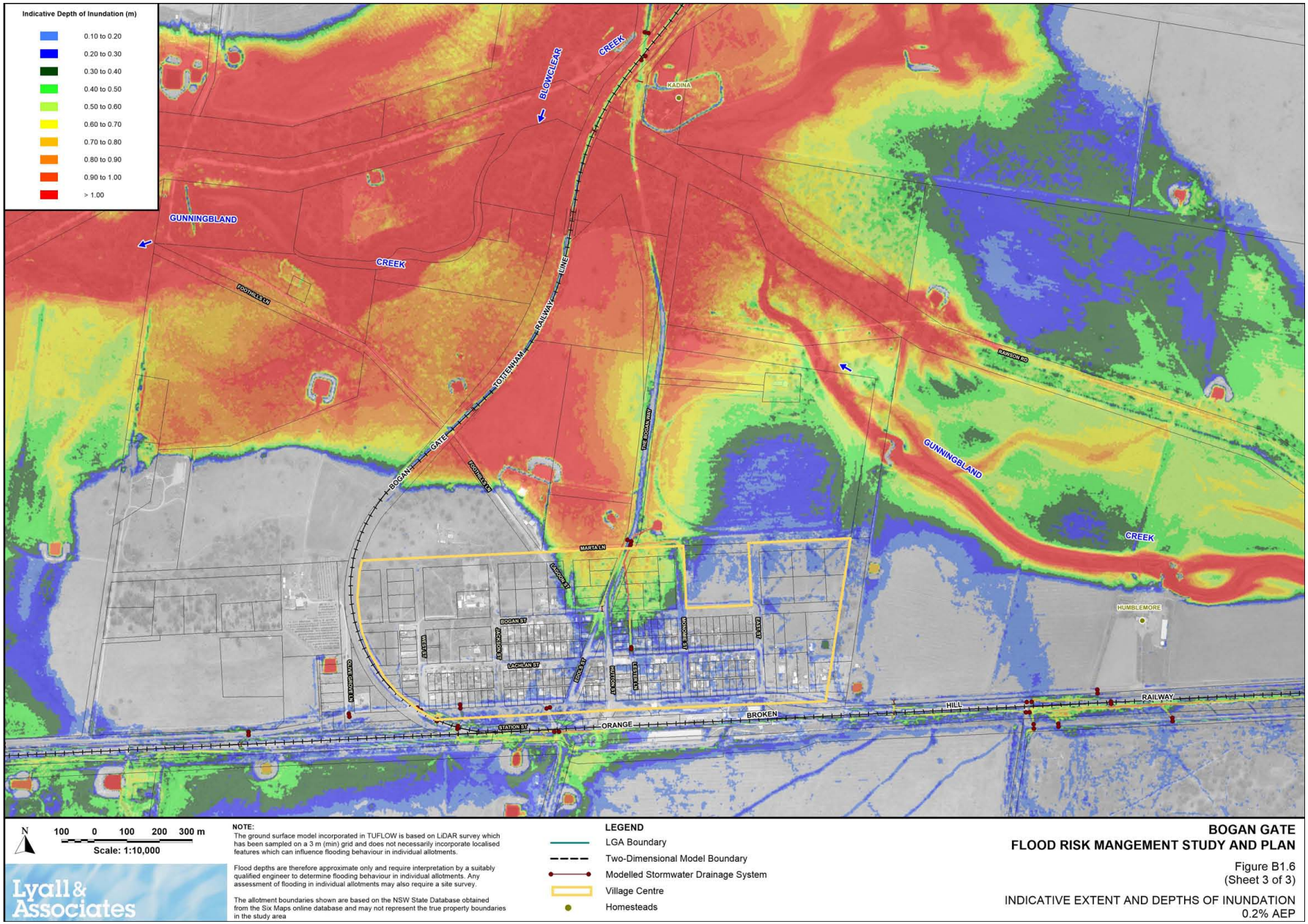
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.6
(Sheet 2 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
BLOWCLEAR CREEK
KADINA
GUNNINGBLAND CREEK
FOOTHILLS LN
TOTTENHAM RAILWAY LINE
RAWSON RD
GUNNINGBLAND CREEK
BOGAN GATE
THE BOGAN WAY
MARTA LN
HUMBLEMORE
BOGAN ST
WEST ST
JACKSON ST
LACHLAN ST
BOOLAROO ST
MURRAY ST
EAST ST
OLD BOGAN GATE LN
STATION ST
ORANGE
BROKEN HILL
RAILWAY
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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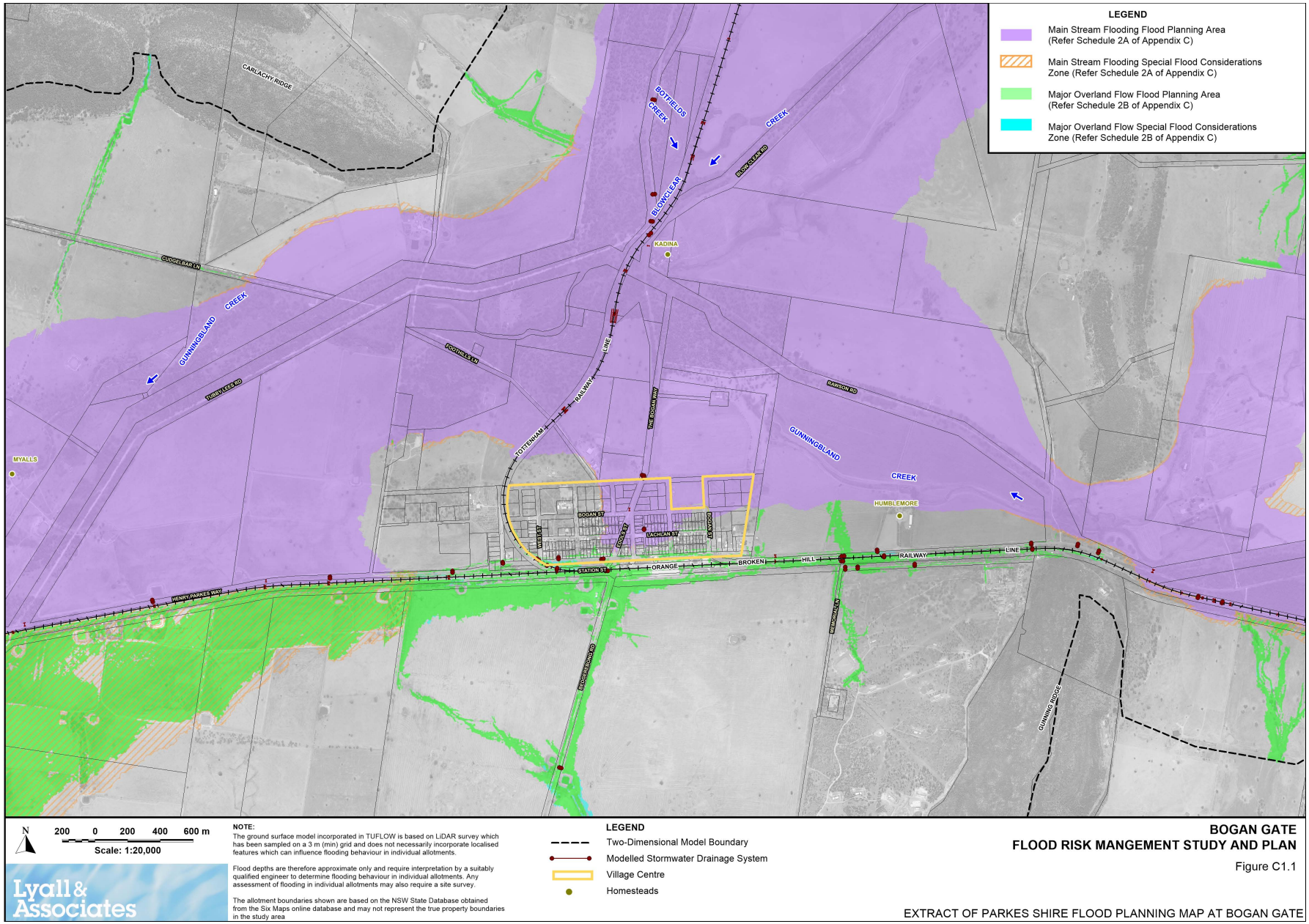
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.6
(Sheet 3 of 3)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.2% AEP

APPENDIX C

SUGGESTED WORDING FOR INCLUSION IN
PARKES SHIRE DEVELOPMENT CONTROL PLAN

LIST OF FIGURES (APPENDIX C)

C1.1 Extract of Parkes Shire Flood Planning Map at Bogan Gate
C1.2 Extract of Parkes Shire Flood Planning Constraint Category Map at Bogan Gate


LEGEND
Main Stream Flooding Flood Planning Area (Refer Schedule 2A of Appendix C)
Main Stream Flooding Special Flood Considerations Zone (Refer Schedule 2A of Appendix C)
Major Overland Flow Flood Planning Area (Refer Schedule 2B of Appendix C)
Major Overland Flow Special Flood Considerations Zone (Refer Schedule 2B of Appendix C)
CARLACHY RIDGE
BOTTFIELDS CREEK
BLOWCLEAR CREEK
BLOWCLEAR RD
KADINA
CUDGELBAR LN
GUNNINGBLAND CREEK
FOOTHILLS LN
LINDSAYLEES RD
TOTTENHAM RAILWAY LINE
THE BOGAN WAY
RAWSON RD
MYALLS
BOGAN ST
MASLIN ST
ROCKS ST
LACHLAN ST
DOOLEY ST
HUMBLEMORE
ORANGE BROKEN HILL RAILWAY LINE
STATION ST
HENRY PARKES WAY
MEMORIAL LN
GUNNING BRIDGE
N
200 0 200 400 600 m
Scale: 1:20,000
NOTE:
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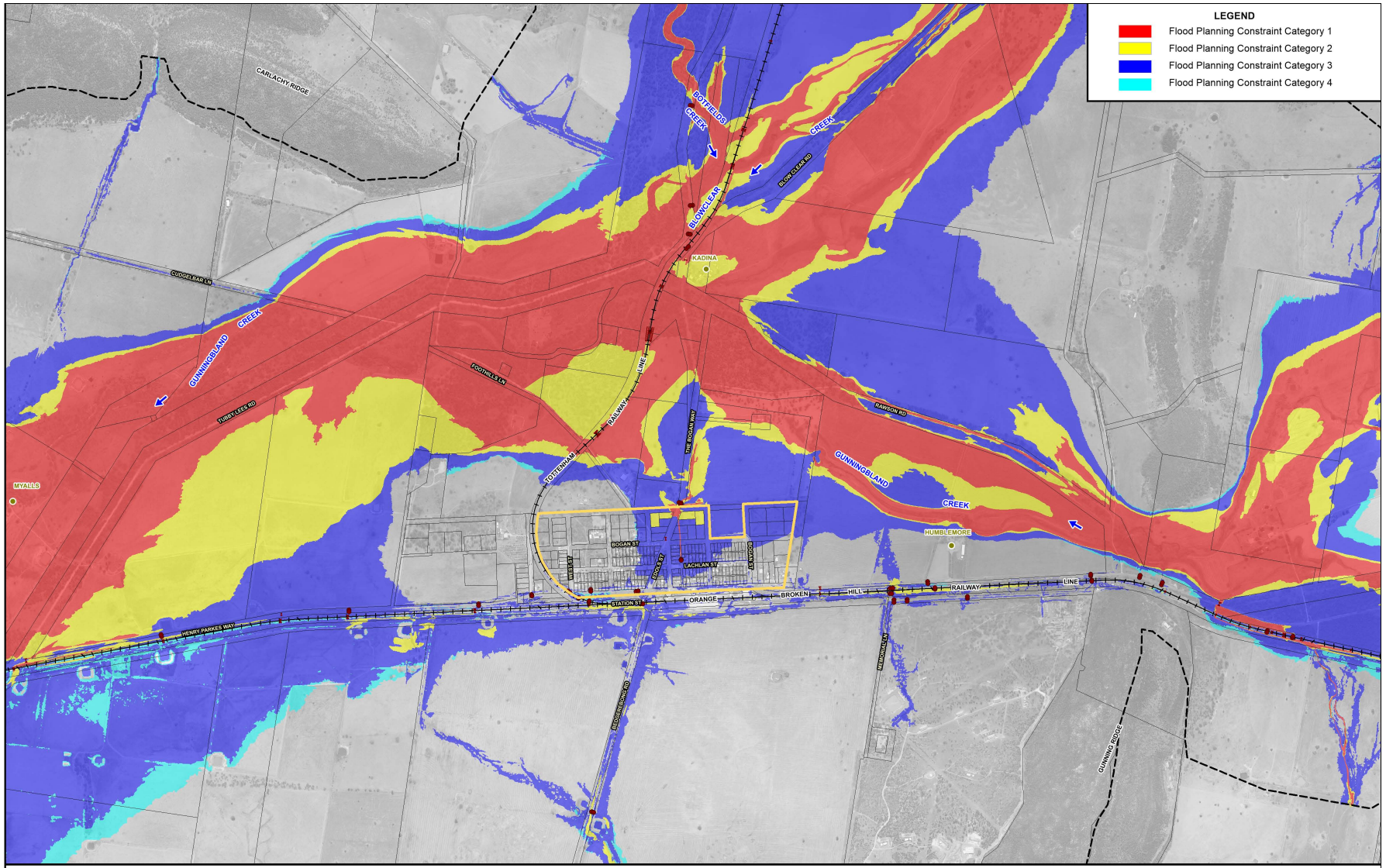
Lyall & Associates
LEGEND
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure C1.1
EXTRACT OF PARKES SHIRE FLOOD PLANNING MAP AT BOGAN GATE


LEGEND
Flood Planning Constraint Category 1
Flood Planning Constraint Category 2
Flood Planning Constraint Category 3
Flood Planning Constraint Category 4
CARLACHY RIDGE
ROTHFIELDS CREEK
BLOWCLEAR CREEK
BLOWN CLEAR RD
KADINA
CUDGELBAR LN
GUNNINGBLAND CREEK
FOOTHILLS LN
TUBBY LEES RD
MYALLS
TOTTENHAM
RAILWAY LINE
THE BOGAN WAY
RAWSON RD
GUNNINGBLAND CREEK
HUMBLEMORE
BOGAN ST
LACHLAN ST
DOCK ST
BISSET ST
BROOKE ST
ORANGE
BROKEN HILL
RAILWAY LINE
STATION ST
HENRY PARKES WAY
MEMORIAL LN
DEGEARS CROSSING RD
GUNNING BRIDGE
N
200 0 200 400 600 m
Scale: 1:20,000
NOTE:
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Lyall & Associates
LEGEND
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Village Centre
Homesteads
BOGAN GATE
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure C1.2
EXTRACT OF PARKES SHIRE FLOOD PLANNING CONSTRAINT CATEGORY MAP AT BOGAN GATE

15.3 ADOPTION: COOKAMIDGERA FLOOD RISK MITIGATION STUDY AND PLAN

IP&R Linkage: **Pillar:** Environment

Goal: Our built environment is functional, sustainable and meets the needs of our growing community.

Strategy: Improve our existing stormwater management systems with measures to reduce the impact of intense rainfall events.

Author: **Kylie Trueber, Risk and Emergency Management Coordinator**

Authoriser: **Andrew Francis, Director Infrastructure and Sustainability**

Annexures:
A. Cookamidgera Flood Risk Mitigation Plan and Study ⇩
B. Cookamidgera Flood Risk Mitigation Study and Plan - Figures ⇩

RECOMMENDATION

That Council:

1. Adopt the Cookamidgera Flood Risk Mitigation Study and Plan and place it on Council's web site.

BACKGROUND

Cookamidgera properties are routinely affected by flooding, extreme events have caused significant land and property damage and required emergency accommodation and SES operations to house displaced residents and provide support for those isolated. A flood study and floodplain risk management study are being delivered for the Cookamidgera catchment area and Cookamidgera township to quantify the risk and determine options that may be implemented to reduce the impact of flood water on those communities. This will include assessment of the Sydney to Perth trunk railway line and parallel local road network to determine the impact of these on flood characteristics and mitigation measures to reduce flood afflux due to these structures. It will also identify "dry areas" for use during flood events and inform SES planning for managing isolated properties during flood events.

ISSUES AND COMMENTARY

The Council Floodplain Management Committee, the Project Manager from Public Works and representative from the funding body DCCEEW have reviewed the Flood Risk Management Study and Plan provided from the consultant and are all in agreeance that the study is acceptable to put up to Council for adoption.

LEGISLATIVE AND POLICY CONTEXT

There are no legislative or policy considerations for Council associated with this report.

FINANCIAL IMPLICATIONS

Once this report has been adopted by Council, the final milestone payment from the funding body will be able to be processed and the funding deed will be finalised.

RISK IMPLICATIONS

Should this study not be adopted by Council, the risk of the project being completed as per the funding deed, will mean the finalisation not being completed as per the funding deed, requiring

monies granted to be handed back to the funding body, and the risk that the next round of applications could be impacted.

COMMUNITY CONSULTATION

Community consultation for this report has occurred from (and including) 8.28am Tuesday 29 July 2025 to 5pm Monday 25 August 2025.

Council staff attended the Cookamidgera Hall one evening (Tuesday 12 August 2025 5.30pm to 7.30pm) during the exhibition, with a total of 0 residents in attendance.

The Draft Study was communicated by way of the Floodplain Committee, Council Official Facebook posts, Parkes Champion Post and radio 2PK (Mayor update).

Lyall & Associates

Parkes Shire Council

PARKES SHIRE COUNCIL

COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN

OCTOBER 2025

VOLUME 1 – REPORT

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FOREWORD

NSW Government's Flood Policy

The NSW Government's Flood Policy is directed at providing solutions to existing flooding problems in developed areas and to ensuring that new development is compatible with the flood hazard and does not create additional flooding problems in other areas.

Under the Policy, the management of flood liable land remains the responsibility of local government. The State subsidises flood mitigation works to alleviate existing problems and provides specialist technical advice to assist councils in the discharge of their flood risk management responsibilities.

The Policy provides for technical and financial support by the Government through the flood risk management process shown below.

Presentation of Study Results

The results of the recently completed *Cookamidgera Flood Study* (Lyall & Associates, 2024) have been used as the basis for preparing the *Cookamidgera Flood Risk Management Study and Plan*. The *Cookamidgera Flood Risk Management Study and Plan* have been prepared under the guidance of the Flood Risk Management Committee comprising representatives from Parkes Shire Council, the NSW Department of Climate Change, Energy, the Environment and Water, the NSW State Emergency Service and community representatives.

ACKNOWLEDGEMENT

Parkes Shire Council has prepared this document with financial assistance from the NSW Government through its Floodplain Management Program. This document does not necessarily represent the opinions of the NSW Government or the Department of Climate Change, Energy, the Environment and Water.

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ABBREVIATIONS

AEP	Annual Exceedance Probability (%)
AHD	Australian Height Datum
ARI	Average Recurrence Interval (years)
ARR 2019	Australian Rainfall and Runoff (2019 Edition)
BoM	Bureau of Meteorology
Council	Parkes Shire Council
DECC	Department of Environment and Climate Change
DCCEEW	Department of Climate Change, Energy, the Environment and Water
FRMM	Flood Risk Management Manual, 2023
FRMC	Flood Risk Management Committee
FPL	Flood Planning Level
FPA	Flood Planning Area
FRMS	Flood Risk Management Study
FRMP	Flood Risk Management Plan
FRMS&P	Flood Risk Management Study and Plan
LEP	Local Environmental Plan
LiDAR	Light Detection and Ranging (survey)
MHFL	Minimum Habitable Floor Level
NSWG	New South Wales Government
NSW SES	New South Wales State Emergency Service
PMF	Probable Maximum Flood
TCM	Total Catchment Management
TWG	Technical Working Group
VP	Voluntary Purchase

SUMMARY

S1 Study Objectives

Parkes Shire Council (**Council**) commissioned the preparation of a *Flood Risk Management Study and Plan* for the village of Cookamidgera (***Cookamidgera FRMS&P***). The overall objectives of the *Cookamidgera Flood Risk Management Study* (***Cookamidgera FRMS***) were to assess the impacts of flooding, review existing Council policies as they relate to development of land in flood liable areas, consider measures for the management of flood affected land and to develop the *Cookamidgera Flood Risk Management Plan* (***Cookamidgera FRMP***) which:

i) Proposes modifications to existing Council policies to ensure that the development of flood affected land is undertaken so as to be compatible with the flood hazard and risk.

ii) Sets out the recommended program of works and measures which are aimed at reducing over time, the social, environmental and economic impacts of flooding.

iii) Provides a program for implementation of the proposed works and measures.

The study area for the *Cookamidgera FRMS&P* applies to areas within the village and its immediate environs that are affected by the following two types of flooding:

- **Main Stream Flooding**, which occurs when floodwater surcharges the inbank area of Quart Pot Creek and Flagstone Creek (also known as Bartleys Creek). Main Stream Flooding is typically characterised by relatively deep and fast flowing floodwater but can include shallower and slower moving floodwater on the overbank of the aforementioned creeks.
- **Major Overland Flow**, which is experienced during periods of heavy rain and is generally characterised by relatively shallow and slow-moving floodwater that is conveyed overland in an uncontrolled manner toward the abovementioned watercourses and other major drainage lines.

Figures 1.1 and **2.1** bound in **Volume 2** of this report show the extent of the 180 km^2 Flagstone Creek catchment at its confluence with Goobang Creek, while **Figure 2.2** (2 sheets) shows the key features of the existing stormwater drainage system in the vicinity of the urbanised parts of Cookamidgera. Also shown on **Figure 2.2** is the extent of the "Village Centre", land internal to which is zoned *RU5-Village*.

S2 Study Activities

The activities undertaken in this present study included:

1. Review of available data and the undertaking of a consultation program to ensure that the Cookamidgera community were informed of the objectives, progress and outcomes over the course of the study (**Chapter 1** and **Appendix A**).
2. Review of historic flooding at Cookamidgera, as well as flooding patterns that are presented in the *Cookamidgera Flood Study* for flood events up to the Probable Maximum Flood (**PMF**). (**Chapter 2** and **Appendix B**).
3. Review of the economic impacts of flooding that are presented in the *Cookamidgera Flood Study*, including the numbers of affected properties and estimation of flood damages (**Chapter 2**).
4. Review of current flood related planning controls for Cookamidgera and their compatibility with flooding conditions (**Chapter 2**).

5. Strategic review of potential flood risk management measures aimed at reducing flood damages and recommended inclusions/updates to both the *Parkes Local Environmental Plan 2012* (***Parkes LEP 2012***) and the *Parkes Shire Development Control Plan 2021* (***Parkes Shire DCP 2021***) (**Chapter 3** and **Appendix C**).
6. Ranking of works and measures using a multi-objective scoring system which took into account economic, financial, environmental and planning considerations (**Chapter 4**).
7. Preparation of the *Cookamidgera FRMP* (**Chapter 5**).

S3 Summary of Flood Impacts

Figure 2.3 (2 sheets) of the *Cookamidgera FRMS* report shows the indicate extent and depth of inundation at Cookamidgera for a design flood with an AEP of 1% (1 in 100), while **Figure 2.4** (2 sheets) shows similar information for the Probable Maximum Flood (**PMF**). **Appendix B** of the *Cookamidgera FRMS* report show similar information for floods with AEPs of 20% (1 in 5), 10% (1 in 10), 5% (1 in 20), 2% (1 in 50), 0.5% (1 in 200) and 0.2% (1 in 500).

Flooding in the urbanised parts of the village (denoted herein as the "**Village Centre**") originates from the following two primary sources:

a) as a result of floodwater which surcharges the right (northern) bank of Flagstone Creek to the east (upstream) of the Trigg Hill Road crossing; and

b) as a result of Major Overland Flow which discharges in a westerly direction through the northern portion of the Village Centre.

While floodwater originating from these two sources inundates both existing development and roadways shortly after the onset of flood producing rain, access into the Village Centre via Flagstone Street is effectively cut once flow is experienced in the watercourse that runs in a westerly direction along the northern side of the Orange-Broken Hill Railway. Floodwater can also inundate both private property and the road network for periods of over 12 hours.

The *Cookamidgera FRMS* found that two dwellings would be above-floor inundated in a 1% AEP flood event, resulting in flood damages totalling about $0.27 Million, while during a PMF event, a total of 22 dwellings and one public building would be above-floor inundated, resulting in flood damages totalling about $5.92 Million.

For a discount rate of 5% pa and an economic life of 30 years, the *Net Present Worth* of damages for all flood events up to the 1% AEP is about $0.07 Million, while for all floods up to the PMF it is only about $0.21 Million. Therefore, one or more schemes costing up to these two amounts could be economically justified if they eliminated all flood related damages in the study area at the two different levels of flooding. While schemes costing more than this value would have a benefit/cost ratio less than 1, they may still be justified according to a multi-objective approach which considers other criteria in addition to economic feasibility.

S4 Flood Risk and Development Controls

An approach which uses the concepts of *flood hazard* and *hydraulic categorisation,* and is aimed at imposing a graded set of controls over development according to the flood risk has been recommended for incorporation into *Parkes Shire DCP 2021*. The delineation of flood planning constraint categories is based on the proximity to flow paths, depths and velocities of flow, the rate of rise of floodwaters and ease of evacuation from the floodplain in the event of a flood emergency.

Figure C1.1 in **Appendix C** of this report is an extract from the *Flood Planning Map* relating to the study area. The extent of the Flood Planning Area (**FPA**) (the area subject to flood related development controls) has been defined as follows:

- In areas subject to Main Stream Flooding, the FPA is based on the traditional definition of the area that lies at or below by the 1% AEP plus 0.5 m freeboard.
- In areas subject to Major Overland Flow, the FPA is defined as areas where depths of inundation exceed 0.1 m in a 1% AEP event, and where identifiable floodways are present in shallower flow.

Figure C1.1 in **Appendix C** shows the extent of the ***Special Flood Considerations Zone***, it being the area of land that lies between the FPA and PMF where the flood hazard vulnerability condition in a PMF is H3 or greater and therefore where flood related development controls would apply to future development should Council decide to adopt the optional clause 5.22 in *Parkes LEP 2012*.

Figure C1.2 in **Appendix C** is an extract of the *Flood Planning Constraint Category Map* for the study area which shows the subdivision of the floodplain into four categories which have been used as the basis for developing the graded set of planning controls.

Minimum habitable floor level (**MHFL**) requirements would be imposed on future development of properties that are identified as lying either partially or wholly within the extent of the FPA shown on **Figure C1.1**. The MHFLs for residential land use types is the level of the 1% AEP flood event plus freeboard, whereas for commercial and industrial land use types the MHFL is to be as close to the 1% AEP flood level plus freeboard as practical, but no lower than the 5% AEP flood level plus freeboard. In situations where the MHFL is below the 1% AEP flood level plus freeboard, a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard.[1]

S5 The Flood Risk Management Plan

Chapter 5 of this report presents the *Cookamidgera FRMP*, with the recommended works and measures summarised in **Table S1** at the end of this Summary. The recommended works and measures have been given a provisional priority ranking, confirmed by the Flood Risk Management Committee (**FRMC**), according to a range of criteria, details of which are set out in **Section 4** of this report.

The *Cookamidgera FRMP* comprises three “non-structural” management measures which could be implemented by Council and NSW State Emergency Service (**NSW SES**) using existing data and without requiring Government funding. The measures are as follows:

- **Measure 1** – Council to consider the inclusion of the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, noting that it would apply to land that lies between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations..

[1] Freeboard is equal to 0.5 m for development being assessed in areas affected by Main Stream Flooding and 0.3 m for development being assessed in areas affected by Major Overland Flow.

- **Measure 2** - The application of a graded set of planning controls for future development that recognise the location of the development within the floodplain; to be applied through the update of *Parkes Shire DCP 2021*. Suggested wording for inclusion in *Parkes Shire DCP 2021* is set out in Appendix C of this report.
- **Measure 3** - Improvements in the NSW SES emergency planning, including use of the flood related information contained in this study to update the *Parkes Shire Local Flood Plan* (NSW SES, 2024). Information in this report which would be of assistance to NSW SES includes data on the nature and extent of flooding, details of which could be used to update Volume 2 of the *Parkes Shire Local Flood Plan*.
- **Measure 4** - Council should take advantage of the information on flooding presented in this report, including the flood mapping, to inform occupiers of the floodplain of the flood risk. This could be achieved through the preparation of a *Flood Information Brochure* which could be prepared by Council with the assistance of NSW SES containing both general and site-specific data and distributed with rate notices.

In addition to the above measures, the *Cookamidgera FRMP* includes the investigation, design and construction of the following set of flood modification measures (denoted Potential Flood Modification Measure (**PFMM**) 6 in *Cookamidgera FRMS*), noting that this would require Government Funding (**Measures 5** and **6**):

- Construction of an engineered earthen embankment approximately 560 m in length and on average 1 m in height running along the right (northern) bank of Flagstone Creek upstream of its crossing of Trigg Hill Road.
- Construction of on engineered earthen embankment around the existing farm dam that is located 500 m to the east of the village centre, as well as a 200 m channel extending south to an overbank flood runner of Flagstone Creek.
- Construction of a grassed swale/channel along the eastern side of Flagstone Street, extending west to the location of an existing dam that is located in the rail corridor.
- Construction of new transverse drainage structures beneath both Flagstone Street and the adjacent unsealed access road (each presently assessed as 2 off 3 m wide by 1.2 m high reinforced concrete box culverts).
- Lowering of the spillway associated with the existing dam that is located in the rail corridor (current assessment assumes a spillway elevation of RL 343.7 m AHD).
- Widening and regrading of the watercourse that runs along the northern side of the rail corridor from where it crosses Cooka Hills Road to where it crosses the Orange-Broken Hill Railway, an overall length of about 550 m (current assessment assumes a 12 m base width).
- Installation of 3 off 3.6 m wide by 0.9 m high reinforced box culverts on Flagstone Street.
- Raising Flagstone Street by about 0.2 m to an elevation of RL 345.7 m AHD.
- Lowering of natural surface levels either side of Flagstone Street to facilitate the installation of the reinforced concrete box culverts and associated inlet/outlet headwall/scour protection works.

Measure 5 also includes the obtaining of more detailed field survey along the right (northern) bank of Flagstone Creek downstream of Trigg Hill Road in an endeavour to determine the exact location where a written submission that was received during the public exhibition period of the draft *Cookamidgera FRMS&P* report stated that flow surcharges the creek and enters the village.

Figure 3.6 (2 sheets) bound in **Volume 2** of this report shows the key features comprising PFMM6, as well as the impact that their implementation would have on floods with AEPs of 20%, 5% and 1%.

While the implementation of the works associated with PFMM6 cannot be justified purely on economic grounds (i.e. because the benefit/cost ratio of the works is less than 0.1), they would reduce the existing flood risk within the Cookamidgera community by:

a) significantly reducing both the extent and depth of inundation that is currently experienced within the Village Centre;

b) removing the above-floor inundation that is currently experienced in two dwellings up to the 1% AEP level of flooding; and

c) significantly improve the ability of people to be able to travel between the village and Parkes during times of freshes and floods.

S6 Timing and Funding of Cookamidgera FRMP Measures

The total estimated cost to implement the measures set out in the *Cookamidgera FRMP* is **$2.1 Million**, exclusive of both local and statement government agency costs. The timing of the measures will depend on Council's overall budgetary commitments and the availability of both Local, State and Commonwealth Government funds.

Assistance for funding qualifying projects included in the *Cookamidgera FRMP* may be available upon application under Commonwealth and State funded floodplain management programs, currently administered by the NSW Department of Climate Change, Energy, the Environment and Water.

S7 Council Action Plan

1. Council to consider updating *Parkes LEP 2012* to include the NSW Government's *Special Flood Considerations* clause 5.22 (**Measure 1** of *Cookamidgera FRMP*).

2. Council to update *Parkes Shire DCP 2021* to incorporate the suggested form of wording set out in **Appendix C** of this report (**Measure 2** of *Cookamidgera FRMP*).

3. NSW SES to update the *Parkes Shire Local Flood Plan* using information on flooding patterns, peak flood levels, times of rise of floodwaters and flood prone areas identified in this report (**Measure 3** of the *Cookamidgera FRMP*).

4. Council to inform residents of the flood risk, based on the information presented in the *Cookamidgera FRMS* (e.g. displays of flood mapping at Council offices, preparation of *Flood Information Brochure* for distribution with rate notices, etc) (**Measure 4** of the *Cookamidgera FRMP*).

5. Council to commission an investigation into the feasibility of implementing the full scope of measures comprising PFMM6, as well as the preparation of a preliminary concept design of the preferred set of measures (**Measure 5** of the *Cookamidgera FRMP*).

6. Subject to a favourable outcome of Measure 5, Council to commission the detailed design and construction of the preferred set of measures comprising PFMM6 (**Measure 6** the *Cookamidgera FRMP*).

TABLE S1
RECOMMENDED MEASURES FOR INCLUSION IN COOKAMIDGERA FLOOD RISK MANAGEMENT PLAN

Measure	Required Funding	Features of the Measure	Priority
1. Update of *Parkes LEP 2012*	Council staff costs	➢ Council to consider including the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*. The optional clause applies to land that lies between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. ➢ While the inclusion of the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* would have limited, if any, impact on future development within Cookamidgera, it may have relevance to other urban centres in the LGA such as at Parkes. For this reason, the flood mapping and recommended set of flood related development controls that form part of the present study assume that Council includes the optional clause in *Parkes LEP 2012*. This approach ensures consistency with other study areas where the adoption of the optional clause has more relevance.	**Medium Priority**: this measure is designed to mitigate the flood risk to future sensitive and hazardous type development and has a medium priority. It does not require Government funding.
2. Incorporate recommended approach to managing future development on flood prone land in *Parkes Shire DCP 2021*.	Council staff costs	➢ Graded set of flood controls based on the type of development and their location within the floodplain, defined as land inundated by the PMF. ➢ Floodplain divided into four zones based on the assessed flood hazard and hydraulic categorisation. ➢ The minimum floor levels for all land use types is the level of the 1% AEP flood event plus 0.5 m freeboard in the case of areas affected by Main Stream Flooding and plus 0.3 m freeboard in areas affected by Major Overland Flow. ➢ Additional controls applied to development that is located on land which lies above the Flood Planning Level.	**High Priority**: this measure is designed to mitigate the flood risk to future development and has a high priority for inclusion in the *Cookamidgera FRMP*. It does not require Government funding.
3. Ensure flood data presented in the *Cookamidgera FRMS* are available to the NSW SES for improvement of flood emergency planning.	NSW SES costs	➢ NSW SES should update the *Parkes Shire Local Flood Plan* using information on flooding patterns, times of rise of floodwaters and flood prone areas identified in this report.	**High Priority**: this measure would improve emergency response procedures and has a high priority. It does not require Government funding.
4. Implement flood awareness and education program	Council staff costs	➢ Council to inform residents of the flood risk, based on the information presented in the *Cookamidgera FRMS*. (e.g. displays of flood mapping at Council offices, preparation of *Flood Information Brochure* for distribution with rate notices, etc).	**Medium Priority**: this measure would improve the flood awareness of the community and has a medium priority given the relatively minor impact flooding has on existing development in the village. It does not require Government funding.
5. Investigate feasibility of implementing works comprising PFMM6 and prepare preliminary concept design	$0.3 Million	➢ Liaise with affected land owners and relevant rail authority to gain in-principle agreement to construct works and also create easements for access (where required). ➢ Underground utilities search ➢ Geotechnical investigation to assess foundation conditions ➢ Hydraulic modelling to confirm sizes of the key elements of individual elements of the measure ➢ Prepare preliminary concept design and cost estimate ➢ Cost-benefit analysis to confirm the economics of the scheme ➢ Prepare a submission for Council and Government funding for detailed design and construction ➢ Obtain more detailed field survey along the right (northern) bank of Flagstone Creek downstream of Trigg Hill Road to determine the exact location where a written submission that was received during the public exhibition period of the draft *Cookamidgera FRMS&P* report stated that flow surcharges the creek and enters the village as additional levee works may be required in this area.	**High Priority**: this measure would significantly reduce the flood risk within the Cookamidgera community.
6. Prepare detailed design and construct preferred set of measures comprising PFMM6	$1.8 Million	➢ Tasks involved are as follows: o Prepare detailed design and documentation o Prepare a submission for Council and Government funding. ➢ Construct preferred set of measures.	
TOTAL	**$2.1 Million**		

1 INTRODUCTION

1.1 Study Background

Parkes Shire Council (**Council**) commissioned the preparation of a flood risk management study and plan for the village of Cookamidgera in accordance with the New South Wales Government's *Flood Prone Land Policy* (***Cookamidgera FRMS&P***). **Figure 1.1** shows that the village is located about 16 km to the southeast of Parkes and lies with the Flagstone Creek catchment.

The *Cookamidgera Flood Risk Management Study (**Cookamidgera FRMS**)* reviewed baseline flooding conditions and the economic impacts of flooding that were assessed as part of the recently completed *Cookamidgera Flood Study* (Lyall & Associates, 2024). It also assessed the feasibility of potential measures which are aimed at reducing the impact of flooding on both existing and future development in the village. This process allowed the formulation of a flood risk management plan for Cookamidgera (***Cookamidgera FRMP***).

The *Cookamidgera FRMS&P* focuses on the village and its immediate environs that are affected by the following two types of flooding:

- **Main Stream Flooding**, which occurs when floodwater surcharges the inbank area of Quart Pot Creek and Flagstone Creek (also known as Bartleys Creek). Main Stream Flooding is typically characterised by relatively deep and fast flowing floodwater but can include shallower and slower moving floodwater on the overbank of the aforementioned creeks.
- **Major Overland Flow**, which is experienced during periods of heavy rain and is generally characterised by relatively shallow and slow-moving floodwater that is conveyed overland in an uncontrolled manner toward the abovementioned watercourses and other major drainage lines.

1.2 Background Information

The following documents were used in the preparation of this report.

- *Cookamidgera Flood Study* (Lyall & Associates, 2024) (***Cookamidgera Flood Study***)
- *Flood Risk Management Manual* (New South Wales Government (**NSWG**), 2023) (***FRMM***)
- *Parkes Local Environmental Plan, 2012* (***Parkes LEP 2012***)
- *Forbes Local Environmental Plan, 2013* (***Forbes LEP 2013***)
- *Parkes Shire Development Control Plan 2021 (**Parkes Shire DCP 2021**)*
- *Parkes Shire Local Flood Plan* (NSW State Emergency Service (**NSW SES**), 2024)

1.3 Overview of Cookamidgera FRMS&P Report

The results of the *Cookamidgera FRMS* and the *Cookamidgera FRMP* are set out in this report. The contents of each Chapter of the report are briefly outlined below:

- **Chapter 2**, **Baseline Flooding Conditions**. This Chapter includes a description of the existing drainage system at Cookamidgera, as well as the nature of flood behaviour in the study area based on the findings of the *Cookamidgera Flood Study*. The Chapter also summarises the economic impacts of flooding on existing urban development, reviews Council's flood planning controls and management measures, as well as NSW SESs flood emergency planning.

- **Chapter 3**, **Potential Flood Risk Management Measures**. This Chapter reviews the feasibility of flood risk management measures for their possible inclusion in the *Cookamidgera FRMP*, noting that the measures are investigated at the strategic level of detail.
- **Chapter 4**, **Selection of Flood Risk Management Measures**. This Chapter assesses the feasibility of potential flood risk management strategies using a multi-objective scoring procedure which was developed in consultation with the Flood Risk Management Committee (**FRMC**) and outlines the preferred strategy.
- **Chapter 5, Cookamidgera Flood Risk Management Plan** presents the *Cookamidgera FRMP* which comprises a number of non-structural measures which are aimed at increasing the flood awareness of the community and ensuring that future development is undertaken in accordance with the local flood risk.
- **Chapter 6** contains a glossary of terms used in the study.
- **Chapter 7** contains a list of References.

Three technical appendices provide further information on the study results:

- **Appendix A – Photographs Showing Historic Flood Behaviour at Cookamidgera** which have been taken from the *Cookamidgera Flood Study*.
- **Appendix B** - **Figures Showing Design Flood Behaviour at Cookamidgera** which have also been taken from the *Cookamidgera Flood Study*.
- **Appendix C** – **Suggested Wording for Inclusion in Parkes Shire Development Control Plan** presents guidelines for the control of future urban development in flood prone areas in the village.

Figures referred to in this document are contained in a companion Volume 2 document that is A3 in size.

1.4 Community Consultation

A *Community Newsletter and Questionnaire* was disseminated to residents and business owners at the commencement of the *Cookamidgera Flood Study* which sort to identify information on historic flooding in in the village. Respondents to the *Community Questionnaire* identified a number of notable flood events dating back to 1952, with photographic evidence provided for flooding that was experienced in the village on 23 March 2017 and 14 November 2022, copies of which are contained in **Appendix A** of this report.

The draft *Cookamidgera FRMS&P* report was placed on public exhibition for a period of 28 days, during which time Council staff undertook a public information session in the village. One written submission was received by the closing date of the public exhibition period questioning the absence of the flow which the respondent says breaks out of Flagstone Creek to the north of Trigg Hill Road. Based on this observation, it is recommended as part of **Measure 5** of the *Cookamidgera FRMP* that more detailed field survey be obtained in this area and that further discussions be undertaken with landowners in this area to confirm the exact location where floodwater is said to surcharge the creek and enter the village as additional levee works may be required in this area.

1.5 Flood Frequency and Terminology

In this report, the frequency of floods is referred to in terms of their Annual Exceedance Probability (**AEP**). The frequency of floods may also be referred to in terms of their Average Recurrence Interval (**ARI**). The approximate correspondence between these two systems is shown over the page.

The AEP of a flood represents the percentage chance of its being equalled or exceeded in any one year. Thus a 1% AEP flood, which is equivalent to a 100 year ARI, has a 1% chance of being equalled or exceeded in any one year and would be experienced, on the average, once in 100 years; similarly, a 20 year ARI flood has a 5% chance of exceedance, and so on.

Annual Exceedance Probability (AEP) (%)	Average Recurrence Interval (ARI) (years)
0.2	500
0.5	200
1	100
2	50
5	20
10	10
20	5

The 1% AEP flood (plus freeboard) is usually used to define the Flood Planning Level (**FPL**) and Flood Planning Area (**FPA**) for the application of flood related controls over residential and commercial/industrial development. While a 1% AEP flood is a major flood event, it does not define the upper limit of possible flooding. Over the course of a human lifetime of, say 70 years, there is a 50 per cent chance that a flood at least as big as a 1% AEP event will be experienced. Accordingly, a knowledge of flooding patterns in the event of larger flood events up to the Probable Maximum Flood (**PMF**), the largest flood that could reasonably be expected to occur, is required for land use and emergency management planning purposes. In the *Cookamidgera Flood Study*, flooding patterns in the study area have been assessed for design floods ranging between 20% AEP event and the PMF.

2 BASELINE FLOODING CONDITIONS

2.1 Physical Setting

The village of Cookamidgera has a population of about 150 and is located on the right (northern) overbank of Flagstone Creek about 17 km to the south-east of Parkes in the Parkes Shire Council Local Government Area. The urbanised parts of the village are located on the southern side of the Orange-Broken Hill railway line on land that is zoned *RU5-Village* (denoted herein as the "**Village Centre**").

Figure 2.1 shows that Flagstone Creek flows in a westerly direction through Cookamidgera where it discharges to Goobang Creek approximately 12 km to the west of the village. **Figure 2.1** also shows the alignment of Quart Pot Creek which is a tributary of Flagstone Creek. Flagstone Creek and Quart Pot Creek have catchment areas of 37 km^2 and 55 km^2, respectively at their confluence, while Flagstone Creek has a total catchment area of about 180 km^2 where it joins Goobang Creek.

There are three road crossings of Flagstone Creek in the study area; two low level culvert and causeway crossings along Trig Hill Road and one higher level bridge crossing at the Parkes Eugowra Road.

There are two road crossings of Quart Pot Creek in the study area; one low level culvert and causeway crossing of at Trig Hill Road and one higher level road crossing at Coonambro Way.

2.2 Existing Drainage System

The inbank area of Flagstone Creek generally comprises an incised 5 m wide by 1.5-3 m deep channel which has a grade of about 0.7% where it runs between the upstream (eastern) side of the Village Centre and its confluence with Quart Pot Creek. While the inbank area of the creek is generally about 10 m wide and up to 4 m deep downstream of the confluence, there is a 1.3 km section in the vicinity of the eastern end of Wybara Lane where the width increases to a maximum of about 30 m.

Quart Pot Creek generally runs in a northerly direction through the study area and discharges to Flagstone Creek approximately 1.2 km downstream (west) of the village. Quart Pot Creek generally comprises a 5 m wide by 1 m deep channel which has a grade of about 0.3% where it runs through the study area.

The existing stormwater drainage system in the village, the layout of which is shown on **Figure 2.2** (2 sheets) generally comprises piped and culvert crossings beneath the roads and railway, and grass lined table drains that convey overland flow towards Flagstone Creek and its tributaries.

A network of earth bunds and dams have been constructed immediately to the north of the village between 1986 and 1990 as part of what was called "the Cookamidgera Project". The aim of the Cookamidgera Project was to reduce the uncontrolled transportation of sediment from eroded drainage lines so as to reduce the impact that it has on Council and community owned assets and land. Background to the Cookamidgera Project is set out in Appendix B of the *Cookamidgera Flood Study* report.

2.3 Flood History

Respondents to the *Community Questionnaire* that was disseminated at the commencement of the *Cookamidgera Flood Study* identified a number of notably intense storm events that have been experienced in the study area, the dates of which are as follows:

- 1952 (specific date not mentioned);
- 1986 (specific date not mentioned);
- 7 November 2005;
- 6 January 2006;
- 3 November 2007;
- December 2010;
- February 2016;
- 23 March 2017;
- January 2020;
- January 2021; and
- 14 November 2022.

Respondents to the *Community Questionnaire* also provided descriptions of the patterns of overland flow in the vicinity of their properties, as well as photographic evidence of flooding that was experienced in the village on 23 March 2017 and 14 November 2022, copies of which are contained in **Appendix A** of this report.

It is understood that a flood that occurred in 1952 is considered the flood of record at Cookamidgera, although there is no information on flood behaviour during this event.

2.4 Design Flood Behaviour

Figures 2.3 and **2.4** (2 sheets each) show the nature of flooding at Cookamidgera for the 1% AEP and PMF events, respectively, while **Figures B1.1** to **B1.6** (2 sheets each) of **Appendix B** show similar information for the 20%, 10%, 5%, 2%, 0.5% and 0.2% AEP flood events. These diagrams show the indicative extent and depth of inundation along Flagstone Creek and its associated tributaries, as well as along the Major Overland Flow paths for the range of design flood events.

Note that as per the requirements of the 2019 edition of *Australian Rainfall and Runoff* (Geoscience Australia, 2019) (**ARR 2019**), the results of the design flood modelling include probability neutral blockage factors that have been applied to existing hydraulic structures, details of which are set out in the *Cookamidgera Flood Study*.

In order to create realistic results which remove most of the anomalies caused by inaccuracies in the LiDAR survey data, a filter was applied to remove depths of inundation over the natural surface less than 0.1 m. This has the effect of removing the very shallow depths which are more prone to be artefacts of the model, but at the same time giving a reasonable representation of the various overland flow paths. The depth grids shown on the figures have also been trimmed to the building polygons, as experience has shown that property owners incorrectly associate depths of above-ground inundation at the location of buildings with depths of above-floor inundation.

Figure 2.5 shows the time of rise of floodwaters at selected road and rail crossings throughout the study area, noting that time zero on the stage hydrographs represents the onset of flood producing rain (refer **Figures 2.3** and **2.4** for location of each individual stage hydrograph).

The key features of Main Stream Flooding along Flagstone Creek as identified in the *Cookamidgera Flood Study* are as follows:

i. Floodwater surcharges Flagstone Creek in flood events as frequent as 20% AEP at the following locations:
    a. along its left bank immediately upstream of Trigg Hill Road where it then flows in a westerly direction across rural land before discharging to Quart Pot Creek downstream of Trigg Hill Road;
    b. along its left and right bank in the vicinity of its confluence with Quart Pot Creek;
    c. along its left and right bank upstream of the western Trigg Hill Road crossing of Flagstone Creek; and
    d. along its left bank on the upstream side of the Parkes Eugowra Road bridge crossing.

ii. Floodwater commences to surcharge the banks of Flagstone Creek in a 10% AEP at the following locations:
    a. along its right bank upstream of Trigg Hill Road, where the resulting surcharge flow discharges in a north-westerly direction towards the intersection of Flagstone Street and Haynes Street, before continuing along Flagstone Stone Street where it rejoins flow in the main arm of the watercourse to the west of the Village Centre. It is noted that floodwater does not surcharge the right bank of Flagstone Creek upstream of this location in flood events up to 0.2% AEP in magnitude.
    b. along its left bank approximately 600 m to the north-west of Trigg Hill Road, where the resulting surcharge flow discharges in a north-westerly direction across rural land before rejoining flow in the main arm of the watercourse upstream of its confluence with Quart Pot Creek.

iii. The road crossings of Flagstone Creek commence to become inundated as follows:
    a. The Trigg Hill Road crossings (refer Road Stage Hydrograph Location and Identifier (**RSHLI**) H01 and H02) in flood events more frequent that 20% AEP flood.
    b. While the Parkes Eugowra Road bridge crossing of Flagstone Creek will remain flood free for events up to 0.2% AEP, the low point in the road that is located approximately 600 m to the north of the bridge (refer RSHLI H03) will be inundated in flood events as frequent as 20% AEP.

iv. The peak PMF flow in Flagstone Creek is about nine times the corresponding peak 1% AEP flow.

v. Existing development within the extent of the Village Centre is inundated to depths of up to 1.4 m in a PMF event.

The key features of Main Stream Flooding along Quart Pot Creek as identified in the *Cookamidgera Flood Study* are as follows:

i. While Quart Pot Creek surcharges its banks in flood events more frequent that 20% AEP, floodwater generally flows in a northerly direction parallel to the watercourse on its immediate overbank area.

ii. The Coonambro Way (refer RSHLI H04) and Trigg Hill Road (refer RSHLI H05) crossings of Quart Pot Creek are inundated in flood events more frequent than 20% AEP.

iii. The peak PMF flow in Quart Pot Creek is about nine times the corresponding peak 1% AEP flow.

The key features of Major Overland Flow as identified in the *Cookamidgera Flood Study* are as follows:

i. Runoff from a catchment that is located in the south-eastern corner of the Cookamidgera Project discharges through two drainage structures that are located beneath the Orange-Broken Hill Railway at the eastern end of McLennan Lane, where it continues in a westerly direction and discharges to the Village Centre to the east of Haynes Street.

   The key features of Major Overland Flow along this flow path are as follows:

   a. Major Overland Flow that discharges to the Village Centre from the east in a 20% AEP flood event generally flows in a north-westerly direction along Railway Street and the natural low point that is located to its north.

   b. Major Overland Flow that discharges to the Village Centre from the east combines with floodwater that surcharges the right bank of Flagstone Creek upstream of Trigg Hill Road in flood events as frequent as 10% AEP.

ii. Runoff from the remainder of the Cookamidgera Project is directed towards the intersection of Cooka Hills Road and McLennan Lane via the network of earth bunds and dams that were constructed in the 1980s, before discharging to the Village Centre along its northern boundary in the vicinity of the low level rail crossing.

iii. Major Overland Flow that discharges to the Village Centre from the north and east combine in the vicinity of the low point in Flagstone Street that is located approximately 50 m to the south of the low level railway crossing. It then flows in a westerly direction where it discharges to Flagstone Creek to the west of the Village Centre.

iv. Peak PMF flow in areas subject to Major Overland Flow are up to 12 times the corresponding peak 1% AEP flow.

2.5 Existing Flood Mitigation Measures

There are no formal flood mitigation measures present in the village of Cookamidgera.

2.6 Economic Impacts of Flooding

The economic consequences of floods are discussed in **Appendix I** of the *Cookamidgera Flood Study*, which assessed flood damages to residential, commercial/industrial property and public buildings in areas affected by both Main Stream Flooding and Major Overland Flow in the village. The assessment relied on the procedures set out in *Flood Risk Management Guideline MM01 – Flood Risk Management Measures* (DPE, 2023) and the associated *NSW Flood Risk Management Tool DT01* to estimate both the tangible and intangible damages resulting from flooding at Cookamidgera.

Table 2.1 over the page sets out the number of properties that are flood affected in the Village Centre, as well as the estimated damages which would occur for floods of varying magnitude.

Two dwellings would be above-floor inundated in a 1% AEP flood event, resulting in flood damages totalling about $0.27 Million. During a PMF event, 22 dwellings and one public building would be above-floor inundated, resulting in flood damages totalling about $5.92 Million.

For a discount rate of 5% pa and an economic life of 30 years, the *Net Present Worth* of damages for all flood events up to the 1% AEP is about $0.07 Million, while for all floods up to the PMF it is only about $0.21 Million.

TABLE 2.1
SUMMARY OF FLOOD DAMAGES

Design Flood Event (% AEP)	Number of Properties						Total Damage ($ Million)
	Residential		Commercial/ Industrial		Public		
	Flood Affected	Flood Above Floor Level	Flood Affected	Flood Above Floor Level	Flood Affected	Flood Above Floor Level	
20	1	0	0	0	0	0	0
10	3	0	0	0	0	0	0
5	6	0	0	0	0	0	0.02
2	8	1	0	0	0	0	0.08
1	11	2	0	0	0	0	0.27
0.5	13	3	0	0	0	0	0.38
0.2	16	3	0	0	0	0	0.50
PMF	26	22	0	0	1	1	5.92

2.7 Impact of Flooding on Vulnerable Development and Critical Infrastructure

Figure 2.6 (2 sheets) shows the location of vulnerable development and critical infrastructure relative to the extent of inundation resulting from the assessed design storm events, while **Table 2.2** over the page sets out the frequency of floods which would impact this type of development/ infrastructure.[2] **Figure 2.5** also provides flood data relating to the frequency, depth and duration of overtopping of the road and rail crossings identified in **Table 2.2** and on **Figure 2.6**.

Community Assets

The Cookamidgera Memorial Hall that is located on land that generally remains flood free, with the exception that during a PMF event depths of inundation would vary between 0.3 m (southern side of building) and 1 m (northern side of building).

All nine road crossings in the study area are inundated during storms as frequent as 20% AEP. Furthermore, the road crossings are inundated within 1-2 hours following the onset of flood producing rain and generally remain inundated for a period of up to about 12 hours. The exception is the Trigg Hill Road crossing of Flagstone Creek near its intersection with the Parkes-Eugowra Road, where the duration of inundation exceeds 24 hours. It is noted that egress from the village to the north towards Parkes via Flagstone Street is cut once flow is experienced in the watercourse that runs in a westerly direction along the northern side of the rail corridor.

Emergency Services

There are no emergency service facilities in Cookamidgera.

Vulnerable Development

There is no vulnerable development presently located in Cookamidgera.

[2] Critical infrastructure has been split into two categories; community assets and emergency services.

TABLE 2.2
IMPACT OF FLOODING ON VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE LOCATED IN THE STUDY AREA[1,2]

Type	Development/Structure	Location Identifier[1]	20% AEP	10% AEP	5%AEP	2% AEP	1% AEP	0.50%	0.20%	PMF
Community Assets	Community Hall	-	NF	NF	NF	NF	NF	NF	NF	F
	Major Road Crossing (Trigg Hill Road)	H01	F	F	F	F	F	F	F	F
	Major Road Crossing (Trigg Hill Road)	H02	F	F	F	F	F	F	F	F
	Major Road Crossing (Parkes Eugowra Road)	H03	F	F	F	F	F	F	F	F
	Major Road Crossing (Coonambro Way)	H04	F	F	F	F	F	F	F	F
	Major Road Crossing (Trigg Hill Road)	H05	F	F	F	F	F	F	F	F
	Major Road Crossing (Railway Street)	H06	F	F	F	F	F	F	F	F
	Major Road Crossing (Cooka Hill Road)	H07	F	F	F	F	F	F	F	F
	Major Road Crossing (Cooka Hill Road)	H08	F	F	F	F	F	F	F	F
	Major Road Crossing (Flagstone Street)	H09	F	F	F	F	F	F	F	F

1. Refer **Figure 2.6** (2 sheets) for location of vulnerable development and critical infrastructure.
2. "NF" = Infrastructure not impacted by flooding.
   "F" = Infrastructure impacted by flooding.

2.8 Potential Impacts of a Change in Hydraulic Roughness

An analysis was undertaken as part of the *Cookamidgera Flood Study* to assess the sensitivity of flood behaviour to potential changes in hydraulic roughness. **Figure 2.7** shows the impact that a 20% increase in the "best estimate" hydraulic roughness values in the hydraulic model would have on a 1% AEP flood event.

The investigation found that increases in peak 1% AEP flood levels in the areas subject to Main Stream Flooding are generally in the range 50 to 200 mm, while increases in peak flood levels in those parts of the Village Centre that are subject to Major Overland Flow are generally in the range 10 to 50 mm.

2.9 Potential Impacts of a Partial Blockage of Hydraulic Structures

As mentioned in **Section 2.4** of this report, as per the requirements of ARR 2019, the results of the design flood modelling include probability neutral blockage factors that have been applied to existing hydraulic structures, details of which are set out in the *Cookamidgera Flood Study*. **Figure 2.8** shows that the removal of the probability neutral blockage factors has a negligible effect on flood behaviour at the 1% AEP level of flooding.

2.10 Potential Impacts of Future Climate Change

DCCEEW currently recommends that the advice set out in Section 3.7.4 of *Floodplain Risk Management Guide - Incorporating 2016 Australian Rainfall and Runoff in studies* (Office of Environment and Heritage (**OEH**), 2019) be used as the basis for examining climate change in projects undertaken under the State Floodplain Management Program and the FRMM. The guideline recommends that until more work is completed in relation to the climate change impacts on rainfall intensities, sensitivity analyses should be undertaken based on increases in rainfall intensities ranging between 10 and 30 per cent.[3]

On current projections the increase in rainfalls within the service life of developments or flood management measures is likely to be around 10 per cent, with the higher value of 30 per cent representing an upper limit which may apply near the end of the century. Under present day climatic conditions, increasing the 1% AEP design rainfall intensities by 10 per cent would produce about a 0.5% AEP flood; and increasing those rainfalls by 30 per cent would produce about a 0.2% AEP event.

For the purpose of the *Cookamidgera Flood Study*, the impact 10% and 30% increases in design 1% AEP rainfall intensities would have on flooding behaviour was assessed by comparing the peak flood levels which were derived from the flood modelling for design events with AEP's of 1%, 0.5% and 0.2%.

Figure 2.9 shows that a 10% increase in 1% AEP rainfall intensities would result in increases in peak flood levels of between 50 and 200 mm along Flagstone and Quart Pot creeks, while depths of Major Overland Flow would generally be increased by between 10 to 50 mm.

Figure 2.10 shows that a 30% increase in 1% AEP rainfall intensities would result in increases in peak flood levels of between 100 and 300 mm along Flagstone and Quart Pot creeks, while depths of Major Overland Flow would generally be increased up to 200 mm.

[3] While ARR 2019 updated the advice in relation to the impact that climate change will have on the BoM, 2016 design rainfall intensities, as well as initial and continuing losses for design flood estimation in late 2024, due to the timing of its release, the advice set out in OEH, 2019 has been adopted for undertaking the present study.

Figure 2.11 shows that the extent of land that would be inundated by floodwater should 1% AEP rainfall intensities increase by up to 30% is negligible due to the relatively steep sided nature of the floodplain adjacent to the relatively flat overbank areas. Furthermore, no new flow paths are formed should 1% AEP rainfall intensities increase by up to 30%.

2.11 Flood Hazard Vulnerability and Hydraulic Categorisation of the Floodplain

2.11.1 General

According to the FRMM, in order to achieve effective and responsible flood risk management, it is necessary to divide the floodplain into areas that reflect:

1. The impact of flooding on people, as well as existing and future development. To examine this impact it is necessary to divide the floodplain into *"flood hazard vulnerability"* categories, which are provisionally assessed on the basis of the velocity and depth of flow. This task was undertaken as part of the *Cookamidgera Flood Study* where the floodplain was divided six flood hazard vulnerability zones. **Section 2.11.2** below provides details of the procedure and its outcomes.
2. The impact of future development activity on flood behaviour. Development in active flow paths (i.e. *"floodways"*) has the potential to adversely re-direct flows towards adjacent properties. Examination of this impact requires the division of flood prone land into various *"hydraulic categories"* to assess those parts which are effective for the conveyance of flow, where development may affect local flooding patterns. Hydraulic categorisation of the floodplain was also undertaken as part of the *Cookamidgera Flood Study*. **Section 2.11.3** below summarises the procedure and its outcomes.

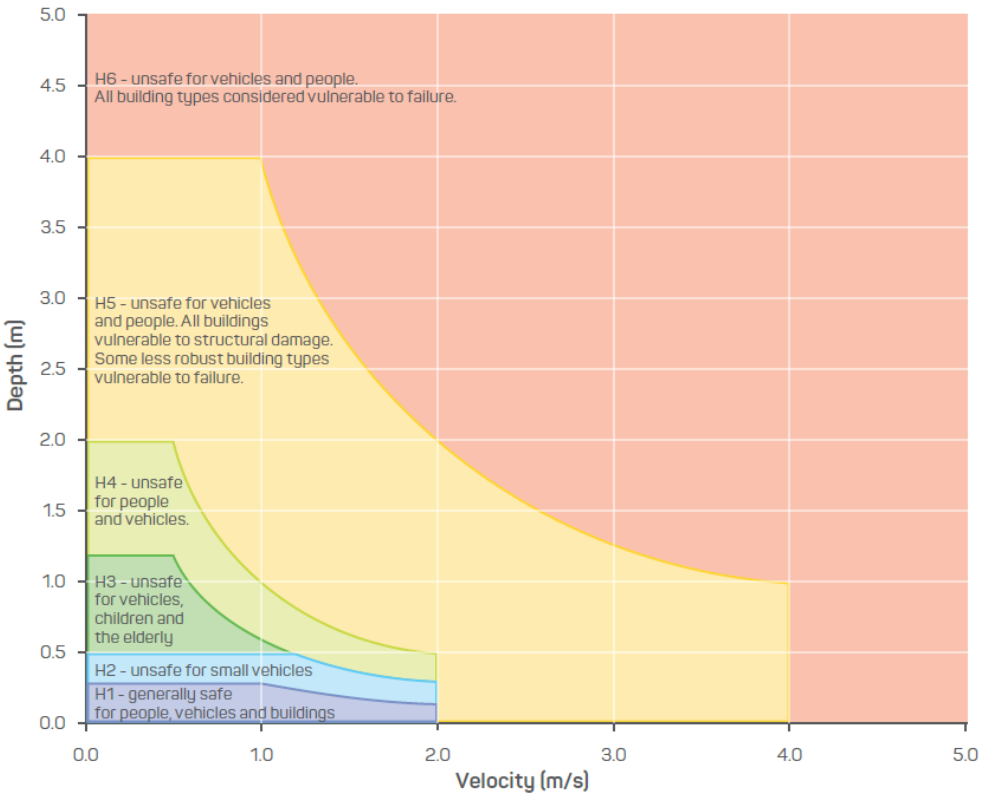
2.11.2 Flood Hazard Vulnerability Categorisation

Flood hazard categories may be assigned to flood affected areas in accordance with the definitions contained in ARR 2019. Flood prone areas may be classified into six hazard categories based on the depth of inundation and flow velocity that relate to the vulnerability of the community when interacting with floodwater as shown in the illustration over the page which has been taken from ARR 2019.

Figures 2.12 and **2.13** (2 sheets each) show the *Flood Hazard Vulnerability Classification* based on the procedures set out in ARR 2019 for the 1% AEP and PMF events at Cookamidgera, respectively.

The *Cookamidgera Flood Study* found that the majority of the Village Centre is classified as H1 and H2 in a 5% AEP flood event, with isolated pockets of H3 to H5 present along the Major Overland Flow path that runs in a westerly direction to the north of Railway Street and in the road reserve in the vicinity of the intersection of Haynes Street and Flagstone Street. The *Cookamidgera Flood Study* also found that:

a) the extent of land classified as H1 and H2 in the Village Centre increases in for storms up to 0.2% AEP in intensity;
b) the width of the H5 and H6 hazard zones increases significantly during a PMF event, mainly along the alignment of Flagstone Creek and Quart Pot Creek; and
c) the hazard category in the majority of the Village Centre increases to H5 during a PMF flood.



2.11.3 Hydraulic Categorisation of the Floodplain

According to the FRMM, the floodplain may be subdivided into the following three hydraulic categories:

- Floodways;
- Flood storage; and
- Flood fringe.

Floodways are those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with obvious naturally defined channels. Floodways are the areas that, even if only partially blocked, would cause a significant re-distribution of flow, or a significant increase in flood level which may in turn adversely affect other areas. They are often, but not necessarily, areas with deeper flow or areas where higher velocities occur.

Flood storage areas are those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood. If the capacity of a flood storage area is substantially reduced by, for example, the construction of levees or by landfill, flood levels in nearby areas may rise and the peak discharge downstream may be increased. Substantial reduction of the capacity of a flood storage area can also cause a significant redistribution of flood flows.

Flood fringe is the remaining area of land affected by flooding, after floodway and flood storage areas have been defined. Development in flood fringe areas would not have any significant effect on the pattern of flood flows and/or flood levels.

Flood Risk Management Guideline FB02 Floodway Function offers guidance in relation to two alternative procedures for identifying the portion of the floodplain that functions as floodways, flood storage and flood fringe areas.

The indicator technique set out in *Howells et al, 2003* was used as part of the *Cookamidgera Flood Study* to identify the preliminary extent of the floodway based on velocity of flow and depth. Based on the findings of a trial and error process, the following criteria were adopted for identifying those areas which operate as a "floodway" in a 1% AEP event:

- Velocity x Depth greater than 0.25 m^2/s **and** Velocity greater than 0.25 m/s; or
- Velocity greater than 1 m/s.

Manual assessment and cleaning of the raw model output data was then undertaken as recommended in *Flood Risk Management Guideline FB02 Floodway Function*.

Flood storage areas were identified as those areas which do not operate as floodways in a 1% AEP event but where the depth of inundation exceeds 300 mm, while the remainder of the flood affected area was classified as flood fringe.

Figures 2.14 to **2.15** (2 sheets each) show the division of the floodplain into floodway, flood storage and flood fringe areas for the 1% AEP and PMF events, respectively.

As the hydraulic capacity of the watercourses is not large enough to convey the flow in a 5% AEP flood, their overbank areas also function as a floodway. As the ground levels rise relatively steeply at the edge of the floodplain, the majority of the floodplain along Quart Pot Creek and the lower reaches of Flagstone Creek are classified as floodway at a number of locations.

A floodway is located along the natural low point that is present in the Village Centre on the northern side of Railway Street during a 5% AEP flood, while floodways commence to operate along Railway Street and Flagstone Street in a 1% AEP flood.

Flood storage areas are confined to the major ponding areas which are located on the upstream side of the road and railway embankments, as well as in the local farm dams that have been constructed to capture surface runoff in different parts of the study area.

2.12 Environmental Considerations

While **Figures 2.16** shows that there is no environmentally zoned land in the immediate vicinity of Cookamidgera, the inbank area of Flagstone Creek, as well as its immediate overbank vegetation do have significant environmental value. This is highlighted by identification of areas of significant environmental value on the *Terrestrial Biodiversity* and *Watercourse* maps contained in both *Parkes LEP 2012* and *Forbes LEP 2013*, extracts of which are shown in the illustrations over the page.

It is noted that both areas identified as "Biodiversity" and "Watercourse" extend a short distance into the Village Centre along its southern boundary. Further discussion on the potential impacts that Council must consider when assessing a development application in these two areas is contained in **Section 2.13.2** of this report.

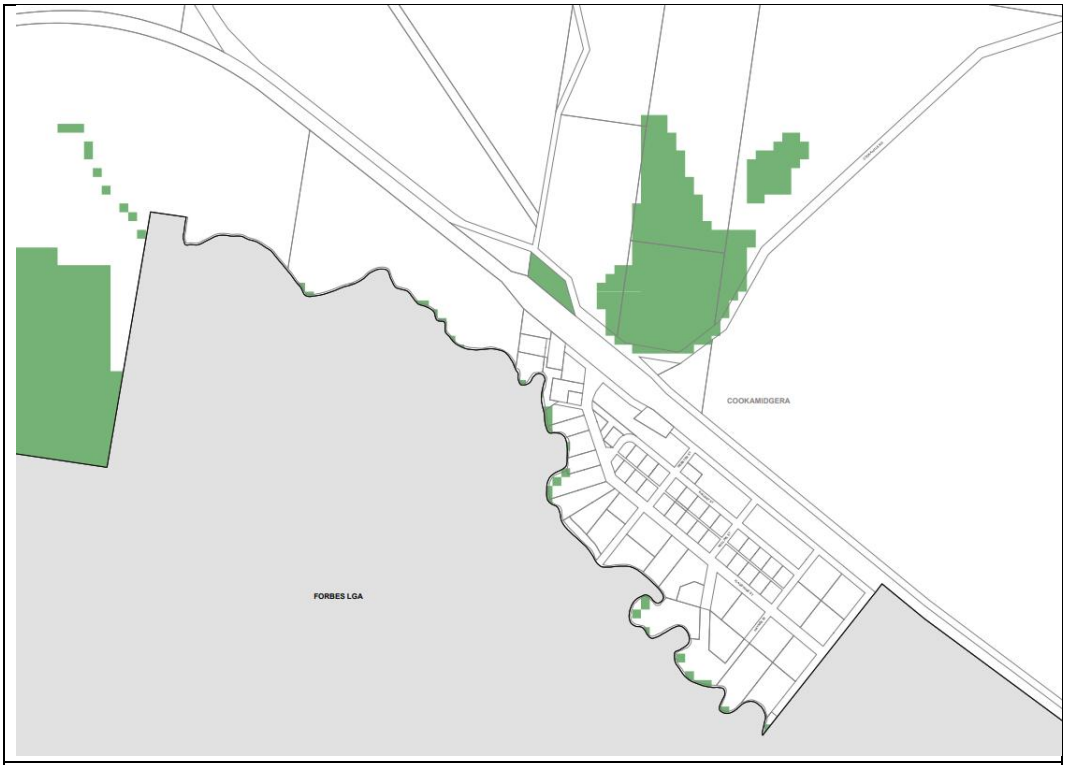


Illustration showing the extent of land identified as "biodiversity" on the "Terrestrial Biodiversity Map" contained in Parkes LEP 2012.

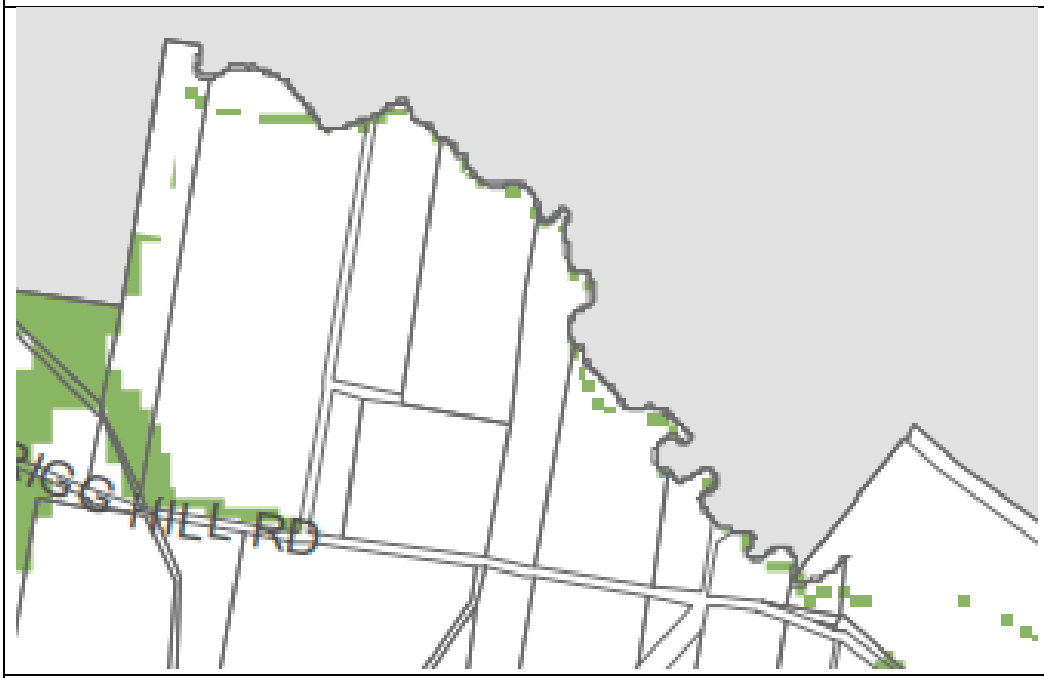


Illustration showing the extent of land identified as "biodiversity" on the "Terrestrial Biodiversity Map" contained in Forbes LEP 2013.

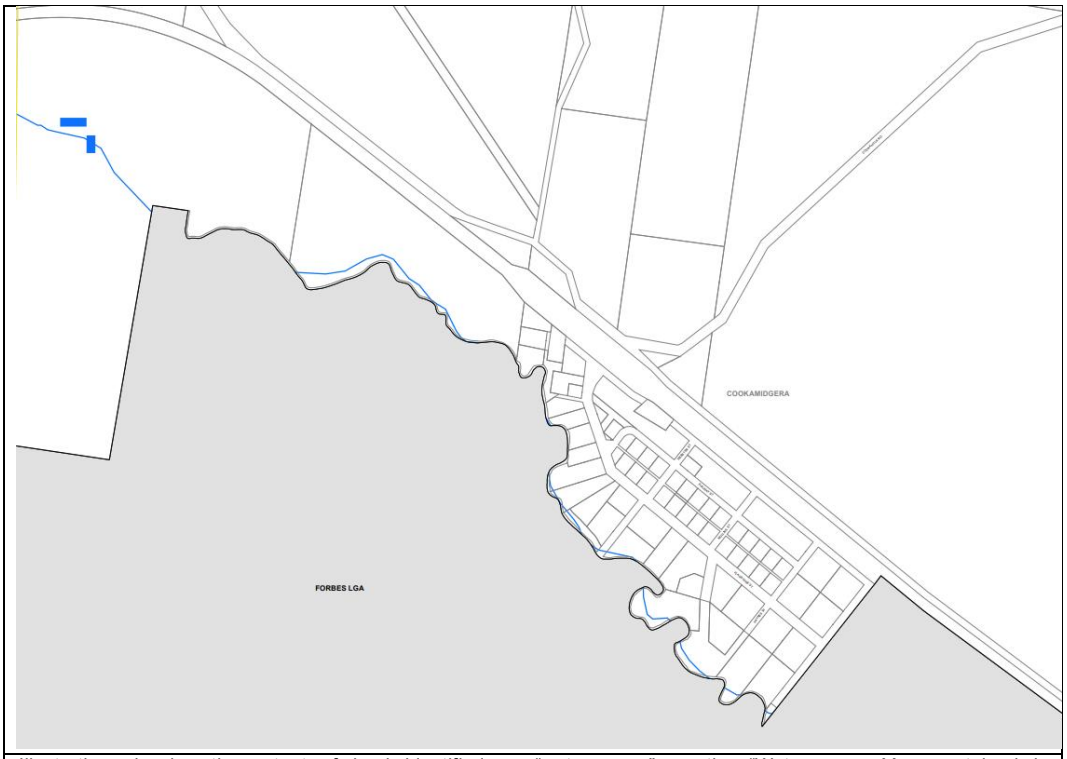


Illustration showing the extent of land identified as "watercourse" on the "Watercourse Map contained in Parkes LEP 2012.

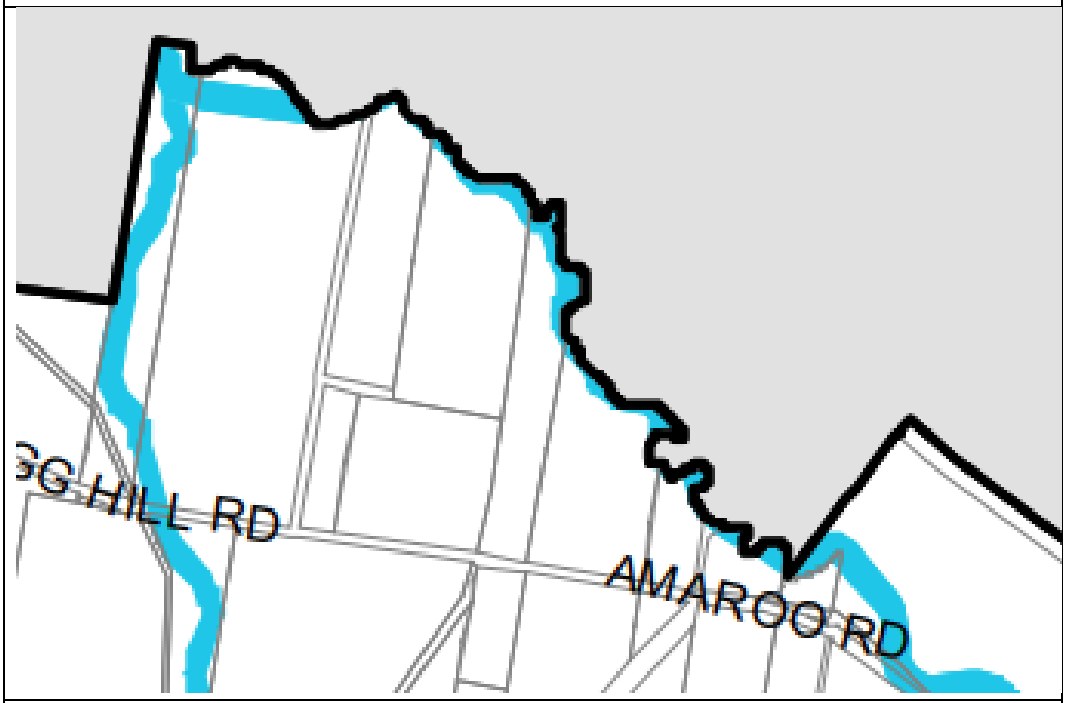


Illustration showing the extent of land identified as "watercourse" on the "Watercourse Map contained in Forbes LEP 2013.

2.13 Council's Existing Planning Instruments and Policies

2.13.1 General

The *Parkes LEP 2012* is the principal statutory planning document used by Council for controlling development by defining zoning provisions, establishing permissibility of land use and regulating the extent of development in the Parkes Shire Council local government area.

The *Parkes Shire Development Control Plan 2021* (***Parkes Shire DCP 2021***) supplements the *Parkes LEP 2012* by providing general information and detailed guidelines which relate to the decision making process.

2.13.2 Parkes Local Environmental Plan 2012

Figures 2.16 shows the zonings that are incorporated in *Parkes LEP 2012* in the immediate vicinity of Cookamidgera. The Village Centre comprises land that is zoned *RU5-Village*, while the land surrounding it is principally zoned *RU1-Primary Production*, with the exception of the adjacent rail corridor that is zoned *SP2-Infrastructure*.

Clause 5.21 of *Parkes LEP 2012* entitled "*Flood planning*" outlines its objectives in regard to development of land that is located within the extent of the FPA. Clause 5.21 was inserted into *Parkes LEP 2012* by the NSW Government on 14 July 2021 and replaced clause 6.6 which was repealed at the time. Unlike the wording in repealed clause 6.6, the FPL is not defined in clause 5.21.

Clause 5.21 states that development consent must not be granted unless the consent authority is satisfied that the development:

(a) is compatible with the flood function and behaviour on the land, and

(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and

(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and

(d) incorporates appropriate measures to manage risk to life in the event of a flood, and

(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.

It also states that in deciding whether to grant development consent on land to which this clause applies, the consent authority must consider the following matters:

(a) the impact of the development on projected changes to flood behaviour as a result of climate change,

(b) the intended design and scale of buildings resulting from the development,

(c) whether the development incorporates measures to minimise the risk to life and ensure the safe evacuation of people in the event of a flood,

(d) the potential to modify, relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion.

While the heading of clause 5.22 entitled "*Special flood considerations"* was inserted in *Parkes LEP 2012* by the NSW Government on 14 July 2021, Council is awaiting the outcomes of the present study prior to making a decision on its possible inclusion. It is noted that the new clause forms part of the updated *NSW Flood Prone Land Package* and has the following objectives:

- in relation to development with particular evacuation or emergency response issues (e.g. schools, group homes, residential care facilities, hospitals, etc.) to enable evacuation of land which lies above the FPL; and
- to protect the operational capacity of emergency response facilities and critical infrastructure during extreme flood events.

The new clause applies to land that lies outside the FPA but within the extent of the PMF.

As mentioned in **Section 2.12**, Council must give consideration to the impact that a proposed development would have on areas identified as "Watercourse" and "Biodiversity", noting that both these areas affect the northern portion of the Village Centre.

Clause 6.2 of *Parkes LEP 2012* entitled "*Terrestrial biodiversity*" applies to land identified as "Biodiversity" on the *Terrestrial Biodiversity Map*. It states that before determining a development application for development on land to which this clause applies, the consent authority must consider:

(a) whether the development is likely to have—

(i) any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and

(ii) any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and

(iii) any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and

(iv) any adverse impact on the habitat elements providing connectivity on the land, and

(b) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

It also states that development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or

(b) if that impact cannot be reasonably avoided by adopting feasible alternatives—the development is designed, sited and will be managed to minimise that impact, or

(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

Clause 6.4 of *Parkes LEP 2012* entitled "*Riparian lands and watercourses*" applies to land identified as "Watercourse" on the *Watercourse Map* and all land that lies within 40 metres of the top of bank of each watercourse identified as "Watercourse" on that map. It states that before determining a development application for development on land to which this clause applies, the consent authority must consider:

(a) whether or not the development is likely to have any adverse impact on the following—

(i) the water quality and flows within the watercourse,

(ii) aquatic and riparian species, habitats and ecosystems of the watercourse,

(iii) the stability of the bed and banks of the watercourse,

(iv) the free passage of fish and other aquatic organisms within or along the watercourse,

(v) any future rehabilitation of the watercourse and riparian areas, and

(vi) whether or not the development is likely to increase water extraction from the watercourse, and

(b) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

It also states that development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:

(a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or

(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or

(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

The above requirements highlight that in addition to flood related constraints, the land which lies along the northern side of Flagstone Creek is also potentially constrained by environmental type considerations.

2.13.3 Flood Related Development Controls

Part B2.5 of *Parkes Shire DCP 2021* entitled "*Stormwater Design and Management*" sets out the controls that apply to new residential subdivisions that are proposed within the LGA. The stated objective of the chapter is:

> *"To ensure stormwater from residential subdivisions is properly drained to a legal point of discharge without causing adverse impacts on public drainage infrastructure, downslope properties or the quality of receiving waters."*

The standards that are to be applied to new subdivision development are as follows:

a. All stormwater generated by any subdivision development must be drained to a legal point of discharge.

b. Stormwater drainage systems are designed using the Australian Rainfall and Runoff 2019 major and minor event philosophy, where the minor system shall be capable of carrying the controlling flows from frequent runoff events, while the major system shall provide safe, well-defined overland flow paths for rare and extreme storm runoff events.

c. Stormwater volumes and characteristics are estimated in accordance with Australian Rainfall and Runoff 2019 by a suitably qualified engineer.

d. *Subdivision development takes into account the stormwater management requirements of the whole site / stormwater drainage system, including stormwater from upslope areas in the catchment that is based on a fully developed scenario.*

e. *Existing stormwater management infrastructure abutting the subdivision development, including road drainage and drainage reserves are upgraded / replaced where they do not meet the requirements of the Parkes Shire Council Engineering Design Minimum Standards for Subdivision and Development 2021 and AUS-SPEC #2 Stormwater Drainage.*

f. *Subdivisions that are shown as requiring onsite stormwater detention under the Parkes Urban Area Stormwater Management Plan 2019 are designed so that post-development runoff rates from the new subdivision are equal to or less than pre-development runoff rates for the 1% AEP.*

g. *Subdivisions are designed to accommodate all stormwater in the 20% AEP via underground drainage infrastructure.*

h. *Subdivisions are designed to accommodate all stormwater above the 20% AEP up to the 1% AEP via roads and drainage reserves.*

i. *All residential lots in subdivisions must be free of flooding in the 100 ARI.*

j. *Subdivisions are provided with all necessary stormwater management infrastructure required to address a) to i) above, and in accordance with Parkes Shire Council Engineering Design Minimum Standards for Subdivision and Development 2021 and AUS-SPEC #2 Stormwater Drainage.*

k. *Easements to drain stormwater are provided over all pipelines, pits, overland flow paths and channels (other than natural water courses).*

l. *Subdivisions that cannot drain stormwater to a legal point of discharge via gravity must be supported by a site specific stormwater management system that is designed by a suitably qualified engineer.*

Part C7.4 of *Parkes Shire DCP 2021* entitled "*Fencing*" sets out the controls that apply to new fencing that is proposed as ancillary type development. The stated objective of the chapter is:

> *"To ensure fencing that requires consent does not create adverse impacts on streetscape, residential amenity, public utilities or access."*

The standards that are to be applied to new fencing are as follows:

a. *Fencing must be constructed of masonry, timber or low reflective painted metal materials to manufacturer's specifications.*

b. *Fencing must not incorporate barbed or razor wire in its construction or be electrified or topped with sharp edged materials.*

c. *Entrance gates in fencing shall not open outwards onto a public road reserve.*

d. *Fencing must be designed so as not to restrict / redirect the flow of any floodwater or overland drainage flow-path within a legal drainage easement.*

e. *Fencing complies with the maximum height standards in the following table:* [Not reproduced in this report]

It is noticeable that the flood related controls that are set out in *Parkes Shire DCP 2021* only related to new subdivisions and ancillary type development in the form of new fencing, and therefore do not extend to the control of other types of development such as new single dwellings, commercial/industrial buildings and sensitive type development such as aged and child care type facilities. As a result, Council is constrained in its ability to impose suitable controls on new development that is located within the extent of the flood planning area as required by Clause 5.21 of *Parkes LEP 2012*.

2.14 Flood Warning and Flood Preparedness

The NSW SES is nominated as the principal combat and response agency for flood emergencies in NSW. NSW SES is responsible for the issuing of relevant warnings (in collaboration with BoM), as well as ensuring that the community is aware of the flood threat and how to mitigate its impact.

The *Parkes Shire Local Flood Plan* which is dated February 2024 covers preparedness measures, the conduct of response operations and the coordination of immediate recovery measures for all levels of flooding within the Parkes Shire LGA. *Parkes Shire Local Flood Plan* is administered by the Parkes Unit Commander who controls flood operations within the Parkes Shire LGA. NSW SES maintains a local headquarters at the corner of Clark and Alluvial streets in Parkes.

Volume 1 of *Parkes Shire Local Flood Plan* entitled '*Parkes Shire Flood Emergency Sub Plan*' includes sections on flood preparedness, response and recovery. Volume 1 follows the standard NSW SES template and is divided into the following sections:

- ***Chapter 1 - Outline and Scope****;* this section of the document introduces the roles and responsibilities for agencies, functional areas and organisations in relation to flooding within the Parkes Shire. It also emphasises the importance of reviewing and maintaining the currency of the *Parkes Shire Local Flood Plan*.
- ***Chapter 2 - Overview of NSW Flood Hazard and Risk***, makes reference to Volume 2 of the *Parkes Shire Local Flood Plan* which outlines the existing hazard and flood risk in the Parkes Shire. It also lists the declared dams that are located either in or upstream of the Parkes Shire LGA.
- ***Chapter 3 - Preparation****;* this section of the document deals with activities required to ensure the *Parkes Shire Local Flood Plan* functions during the occurrence of the flood emergency. It also devotes considerable attention to flood alertness and emergency response.
- ***Response***; this section states response operations will commence:
    a. On receipt of a Bureau Severe Weather Warning or Thunderstorm Warning that includes heavy rain or storm surge; or
    b. On the receipt of a Bureau Flood Watch or Flood Warning; or
    c. On receipt warnings for flash flood; or
    d. On receipt of a dam failure alert; or
    e. When other evidence leads to an expectation of flooding.

    The response strategies to be employed by NSW SES and Council are listed in Chapter 5 of the *Parkes Shire Local Flood Plan* and include information provision and warning, property protection, evacuation, rescue, and resupply.

- ***Recovery Operations****;* involving measures to ensure the long term welfare for people who have been evacuated, recovery operations to restore services and clean up and de-briefing of emergency management personnel to review the effectiveness of the *Parkes Shire Local Flood Plan.*

Volume 2 of the *Parkes Shire Local Flood Plan* deals with the existing flood hazard and risk in the Parkes Shire LGA. Section 2.4 of Volume 2 deals with the specific flood threat at Cookamidgera. Information on the village is set out under the following headings, noting that only information relating to Cookamidgera has been reproduced below:

2.4.1 Community Overview

Cookamidgera is a locality of around 215 people, located approximately 13 kilometres to the south east of Parkes.

2.4.2 Characteristics of Flooding

Cookamidgera can be flooded as a result of runoff from the Cooka Hills to the east, as well as local flooding from rainfall and flash flooding of Bartleys Creek through the town (mainly urban runoff).

2.4.3 Flood Behaviour

Flooding can occur quickly and can be quite fast and deep, particularly along Trigg Hill Road. This area is ungauged.

2.4.4 Classification of Floodplain

Insufficent [sic] *information available.*

2.4.5 Inundation

At least one property on the intersection of Mullins Street and Flagstone Street is at risk of inundation.

2.4.6 Isolation

Cookamidgera can become isolated when Trigg Hill Road is cut at the causeway (Quart Pot Creek) between Eugowra Road and Cookamidgera; as well as when Cookamidgera Road and Cooka Hills Road are cut from local rainfall.

Haynes Street is at risk of being cut temporarily and the northern side of the Flagstone Street is also at risk of being cut at the culvert near the Cooka Hills Road intersection. This can further isolate rural residents to the north (approximately 15 properties) and east (<20 residents) of the town.

2.4.7 Flood Mitigation Systems

No known flood mitigation systems.

2.4.8 Dams

There are no prescribed dams near Cookamidgera.

2.4.9 At Risk Facilities

[No Cookamidgera specific information provided]

2.4.10 Other Considerations

No other considerations have been identified.

In Section 2.6 of Volume 2 which deals with road closures within the Parkes Shire LGA it is noted that Cookamidgera Road was closed in July 2016 due to local rainfalls of 53 mm.

While Annex 2 of Volume 2 lists the facilities at risk of flooding and/or isolation in the Lachlan Valley, there are no listings for Cookamidgera.

Volume 3 of the *Parkes Shire Local Flood Plan* deals with NSW SES response arrangements for the Parkes Shire and is set out as follows:

- **Chapter 1: Flood Warning Systems and Arrangements**, which deals with dissemination options for NSW SES flood information and warning products, as well as gauges monitored by NSW SES within the LGA.
- **Chapter 2: SES Locality Response Arrangements**, which deals with NSW SES flood response arrangements by individual sector within the LGA. It is noted that the village of Cookamidgera is not assigned a sector within the *Parkes Shire Local Flood Plan*.
- **Chapter 3: SES Dam Failure Arrangements**, which is not applicable to the Parkes Shire LGA.
- **Chapter 4: SES Caravan Park Arrangements**, which deals with arrangements for the evacuation of flood liable caravan parks within the LGA, as well as specific arrangements for individual parks likely to be affected by flooding. It is noted that no caravan parks are presently located within the village of Cookamidgera.

3 POTENTIAL FLOOD RISK MANAGEMENT MEASURES

3.1 Range of Available Measures

A variety of flood risk management measures can be implemented to reduce flood damages. They may be divided into three categories, as follows:

Flood modification measures change the behaviour of floods in regard to discharges and water surface levels to reduce flood risk. This can be done by the construction of levees, detention basins, channel improvements and upgrades of both transverse and longitudinal drainage systems. Such measures are also known as "structural" options as they involve the construction of engineering works. Vegetation management is also classified as a flood modification measure.

Property modification measures reduce risk to properties through appropriate land use zoning, specifying minimum floor levels for new developments, voluntary purchase of residential property in high hazard areas, or raising existing residences in the less hazardous areas. Such options are largely planning (i.e. "non-structural") measures, as they are aimed at ensuring that the use of floodplains and the design of buildings are consistent with flood risk. Property modification measures could comprise a mix of structural and non-structural methods of damage minimisation to individual properties.

Response modification measures change the response of flood affected communities to the flood risk by increasing flood awareness, implementation of a flood warning system and the development of an emergency response plan for property evacuation.

3.2 Outline of Chapter

A range of potential flood risk management measures were examined at the strategic level of detail and where appropriate, tested for feasibility on a range of assessment criteria in **Chapter 4**. Following consideration of the results by the FRMC, selected measures were included in the *Cookamidgera FRMP*, details of which are set out in **Chapter 5**.

The potential flood modifications which were assessed as part of this study comprised the channel and flood protection levee works, as well as improvements to the hydrologic standard of Flagstone Street on either side of the Orange-Broken Hill Railway level crossing, details of which are set out in **Section 3.3** of this Chapter.

The property modification measures considered as part of this study include controls over future development, voluntary purchase of residential properties and house raising (refer **Section 3.4** of this Chapter for details). Response modification measures, such as improvements to the severe weather/flood warning system, emergency planning and responses, and public awareness programs have also been considered, details on which are set out in **Section 3.5** of this Chapter.

3.3 Flood Modification Measures

Table 3.1 over the page sets out the key features of six potential flood modification measures (**PFMMs**) which were assessed as part of the present investigation. Also set out in **Table 3.1** are the advantages and disadvantages of each PFMM, as well as their indicative capital cost.

While the implementation of the works associated with PFMM6 cannot be justified purely on economic grounds (i.e. because the present worth value of damages saved as a result of the works would be less than $0.2 Million, resulting in a benefit cost ratio of less than 0.1), they would reduce the existing flood risk within the Cookamidgera community by:

TABLE 3.1
DETAILS OF ASSESSED POTENTIAL FLOOD MODIFICATION MEASURES

Potential Flood Modification Measure	Key Features	Advantages	Disadvantages	Indicative Capital Cost
PFMM1	➢ Construction of an engineered earthen embankment approximately 560 m in length and on average 1 m in height running along the right (northern) bank of Flagstone Creek upstream of its crossing of Trigg Hill Road. ➢ **Figure 3.1** (2 sheets) shows the key features comprising PFMM1, as well as the impact that their implementation would have on floods with AEPs of 20%, 5% and 1%.	➢ Prevents floodwater originating from Flagstone Creek impacting on existing development in the Village Centre for all floods up to 1% AEP in magnitude. ➢ Effectively removes flooding from existing development in the southern portion of the Village Centre for all floods up to 1% AEP in magnitude.	➢ Only has a minor impact on peak flood levels in existing development that is located in the northern portion of the Village Centre. ➢ Does not prevent flooding of existing development resulting from the major overland flow path that is present in the northern portion of the Village Centre. ➢ Does not result in a significant improvement in the hydrologic standard of Flagstone Street at the western end of the Village Centre. ➢ Increases both the depth and extent of inundation that would be experienced in privately owned land that lies between the Village Centre and Trigg Hill Road, noting that there are no buildings located in the affected area. ➢ Would require agreement with private land owners and the creation of an easement to facilitate access by Council for maintenance.	$0.6 Million
PFMM2	➢ Same as PFMM1. ➢ Construction of on engineered earthen embankment around the existing farm dam that is located 500 m to the east of the village centre, as well as a 200 m channel extending south to an overbank flood runner of Flagstone Creek. ➢ **Figure 3.2** (2 sheets) shows the key features comprising PFMM2, as well as the impact that their implementation would have on floods with AEPs of 20%, 5% and 1%.	➢ Same as PFMM1. ➢ Significantly reduces the extent and depth of inundation that is currently experienced in the northern portion of the Village Centre, with the resulting depths of inundation generally less than 0.3 m during storms up to 1% AEP in intensity.	➢ Does not result in a significant improvement in the hydrologic standard of Flagstone Street at the western end of the Village Centre. ➢ Increases both the depth and extent of inundation that would be experienced in privately owned land that lies between the Village Centre and Trigg Hill Road, noting that there are no buildings located in the affected area. ➢ Further to the above, the increases in both the depth and extent of inundation occurs within the adjacent LGA of Forbes Shire. ➢ Would require agreement with private land owners and the creation of an easement to facilitate access by Council for maintenance.	$0.8 Million
PFMM3	➢ Construction of a grassed swale/channel along the eastern side of Flagstone Street, extending west to the location of an existing dam that is located in the rail corridor. ➢ Construction of new transverse drainage structures beneath both Flagstone Street and the adjacent unsealed access road (each presently assessed as 2 off 3 m wide by 1.2 m high reinforced concrete box culverts). ➢ Lowering of the spillway associated with the existing dam that is located in the rail corridor by about 0.7 m over a 14 m length (current assessment assumes a spillway elevation of RL 343.7 m AHD). ➢ **Figure 3.3** (2 sheets) shows the key features comprising PFMM3, as well as the impact that their implementation would have on floods with AEPs of 20%, 5% and 1%.	➢ Removes flooding from existing development that is located on the western side of Flagstone Street for all floods up to 20% AEP magnitude. ➢ Significantly improves the hydrologic standard of Flagstone Street immediately to the south of the rail corridor for all floods up to 20% AEP magnitude.	➢ Flood mitigation benefits of the measure reduce with increasing flood magnitude. ➢ Requires works in the rail corridor.	$0.5 Million
PFMM4	➢ Widening and regrading the watercourse that runs along the northern side of the rail corridor from where it crosses Cooka Hills Road to where it crosses the Orange-Broken Hill Railway, an overall length of about 550 m (current assessment assumes a 12 m base width). ➢ Installation of 3 off 3.6 m wide by 0.9 m high reinforced box culverts on Flagstone Street. ➢ Raising Flagstone Street by about 0.2 m to an elevation of RL 345.7 m AHD. ➢ Lowering of natural surface levels either side of Flagstone Street to facilitate the installation of the reinforced concrete box culverts and associated inlet/outlet headwall/scour protection works. ➢ **Figure 3.4** (2 sheets) shows the key features comprising PFMM4, as well as the impact that their implementation would have on floods with AEPs of 20%, 5% and 1%.	➢ Increases the hydrologic standard of Flagstone Street on the northern side of the rail corridor to a minimum of 20% AEP. ➢ Reduces the magnitude of flow which surcharges the rail corridor and discharges to the Village Centre at its very western end.	➢ Increases both the end and depth of inundation existing immediately downstream of the existing railway culverts, albeit over a localised area.	$0.8 Million
PFMM5	➢ Same as PFMM1, PFMM3 and PFMM4. ➢ **Figure 3.5** (2 sheets) shows the key features comprising PFMM5, as well as the impact that their implementation would have on floods with AEPs of 20%, 5% and 1%.	➢ Same as PFMM1, PFMM3 and PFMM4.	➢ Same as PFMM1, PFMM3 and PFMM4.	$1.9 Million
PFMM6	➢ Same as PFMM2, PFMM3 and PFMM4. ➢ **Figure 3.6** (2 sheets) shows the key features comprising PFMM6, as well as the impact that their implementation would have on floods with AEPs of 20%, 5% and 1%.	➢ Same as PFMM2, PFMM3 and PFMM4.	➢ Same as PFMM2, PFMM3 and PFMM4.	$2.1 Million

a) significantly reducing both the extent and depth of inundation that is currently experienced within the Village Centre;

b) removing the above-floor inundation that is currently experienced in two dwellings up to the 1% AEP level of flooding

c) significantly improving the ability of people being able to travel between the village and Parkes during times of freshes and floods.

While subject to agreement with affected land owners and the relevant rail authority, it is recommended that Council seek to implement the full scope of works associated with PFMM6 given they maximise the flood mitigating benefits afforded to the Cookamidgera community.

3.4 Property Modification Measures

3.4.1 Controls over Future Development

3.4.1.1 Current Government Policy

The NSW Government has recently implemented reforms of the *NSW Flood Prone Land Package*. As part of the reform, the wording in the flood planning clause of all NSW Councils was updated on 14 July 2021. As part of the reform, Council will need to nominate the FPL or levels that it wishes to define the FPA and make alternative arrangements for making flood planning maps publicly available where previously solely reliant on LEP flood overlay maps. While the reforms also included an optional clause 5.22 titled *"special flood considerations"* which applies to land which lies between the FPA and the extent of the PMF, Council chose not to include it in *Parkes LEP 2012* at the time.

3.4.1.2 Considerations for Setting Freeboard Requirements

Selection of the FPL for an area is an important and fundamental decision as the standard is the reference point for the preparation of flood risk management plans. It is based on the adoption of the peak level reached by a particular flood plus an appropriate allowance for freeboard. It involves balancing social, economic and ecological considerations against the consequences of flooding, with a view to minimising the potential for property damage and the risk to life and limb. If the adopted FPL is too low, new development in areas outside the FPA (particularly where the difference in level is not great) may be inundated relatively frequently and damage to associated public services will be greater. Alternatively, adoption of an excessively high FPL will subject land that is rarely flooded to unwarranted controls. Councils are responsible for determining the appropriate FPLs within their local government area.

Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest and basement entrance levels, etc. As set out in *Flood Risk Management Guideline FB01 – Understanding and Managing Flood Risk* (DPE, 2023), design variables that are typically incorporated in the derivation of freeboard typically comprise the following:

- uncertainties in the design flood level estimates due to the confidence limits associated with the design peak flow estimates, inaccuracies in the LiDAR survey data and possible variations in key parameters such as hydraulic roughness;
- local factors that can result in differences in water levels across the floodplain; and
- increases in peak flood levels due to wave action.

Depending on the design life of a structure, potential increases in peak flood levels associated with future climate change may also need to be taken into consideration when assessing an appropriate freeboard.

Table 3.2 provides a summary of a joint probability analysis which was undertaken to assess the freeboard allowance which should be incorporated in the FPL for areas at Cookamidgera that are affected by Main Stream Flooding, noting the methodology for deriving the various components of the freeboard allowance is based on the approach set out in Public Works, 2010.

TABLE 3.2
SUMMARY OF FREEBOARD ANALYSIS
AREAS AFFECTED BY MAIN STREAM FLOODING

Design Variable	Probability of Occurrence/Level of Certainty	Maximum Allowance (m)	Joint Probability Allowance (m)
Wave Action	50%	0.20(1)	0.10
Uncertainties in Peak 1% AEP Flood Level Estimate			
- LiDAR survey data	100%	0.15	0.15
- Peak flow estimate	50%	0.20(2)	0.10
Future Climate Change	50%	0.20(2)	0.10
	TOTAL		**0.45**

1. Based on vehicle driven wave action
2. Based on the difference between peak 1% and 0.5% AEP flood levels on Gunningbland Creek at Cookamidgera.

The maximum allowance for uncertainties in the peak 1% AEP flood level estimate is comprised of the following

- inaccuracies in the LiDAR survey data; and
- provision for a 10% increase in the best-estimate peak 1% AEP flow derived by comparison with the increase in peak flood levels associated with a 0.5% AEP flood event.

In regards the potential impacts of future climate change on flood behaviour at Cookamidgera, the *ARR Data Hub* previously gave the following interim climate change factors for Representative Concentration Pathways (**RCPs**) of 4.5 and 8.5 in the years 2050 and 2090:[4]

Year	RCP 4.5	RCP 8.5
2050	6.3%	8.8%
2090	9.2%	20.2%

A flood with an AEP of 0.5% is commonly considered to be analogous to a flood that would result from a 10% increase in 1% AEP rainfall intensities. By comparison with the interim climate change factors, the adoption of the 0.5% AEP would provide a reasonable indicator of the potential for future climate change to impact peak 1% AEP flood levels at Cookamidgera.

Based on the joint probability analysis set out in **Table 3.2** the adoption of the traditional value of 0.5 m for setting the FPL in areas affected by Main Stream Flooding would provide a reasonable level of flood protection to future development at Cookamidgera.

[4] While the climate change factors in the *ARR Data Hub* were updated in late 2024, the current study has been prepared in accordance with DCCEEWs current advice in relation to the approach that is to be adopted for assessing the potential impacts on climate change on flood behaviour.

While the flood range in the major watercourses which traverse the study area is such that the traditional 0.5 m freeboard is appropriate for setting the FPL, its adoption in areas affected by Major Overland Flow would lead to the FPA extending onto land which would not experience damaging or hazardous flooding during a 1% AEP storm event, even allowing for all the variables which comprise freeboard.

Considerable reduction in the number of properties in Major Overland Flow areas classified as "flood affected" would result by the adoption of a threshold depth of inundation under 1% AEP conditions of 0.1 m as the criterion for defining area which would be subject to the majority of flood related development controls, compared with the traditional approach. Properties with depths of inundation 0.1 m or greater, or in a floodway (i.e. traversed by significant overland flows which may in some cases be less than 0.1 m in depth) would therefore be considered to lie within the FPA. Properties with depths of inundation under 1% AEP non-floodway conditions of less than 0.1 m would be classified as "Local Drainage" and, as such would be subject to controls such as the Building Code of Australia (**BCA**) requirements, rather than attracting a flood affectation notice. This approach is supported by the FRMM and would not adversely impact on Council's duty of care in regard to management of flood prone lands. The proposed categorisation of the floodplain, terminology and controls are shown on **Table 3.3**.

TABLE 3.3
PROPOSED CATEGORISATION OF THE FLOODPLAIN

Category	Proposed Terminology used to define inundation in the *Cookamidgera FRMS&P* report	Are Development Controls Required?	Is Section S10.7 Notification Warranted?
Main Stream Flooding	"Main Stream Flooding"	Yes	Yes
Local Overland Flooding - Local Drainage - Major Drainage	 "Local Drainage" "Major Overland Flow"	 No (ref. footnote 1). Yes (ref. footnote 2).	 No (ref footnote 1) Yes (ref footnote 3)

1. Inundation in Local Drainage areas is accommodated by the minimum floor level requirement of 0.15 m above finished surface level contained in the BCA and does not warrant a flood affectation notice in S10.7 Planning Certificates.
2. These are the deeper flooded areas with higher flow velocities. Development controls are specified in **Appendix C**.
3. Depth and velocity of inundation in Major Overland Flow areas are sufficient to warrant a flood affectation notice in S10.7 Planning Certificates. Inundation is classified as "flooding".

Figure C1.1 in **Appendix C** is an extract from the *Flood Planning Map* for Cookamidgera. The figure includes areas subject to both Main Stream Flooding and Major Overland Flow. The extent of the FPA (the area subject to flood related development controls) is shown in a solid mauve (Main Stream Flooding) and green (Major Overland Flow) colour in **Figure C1.1**, and has been defined as follows:

- In areas subject to Main Stream Flooding, the FPA is based on the traditional definition of the area that lies at or below by the 1% AEP plus 0.5 m freeboard.
- In areas subject to Major Overland Flow, the FPA is defined as areas where depths of inundation exceed 0.1 m in a 1% AEP event, and where identifiable floodways are present in shallower flow.

Section 3.5.1.4 sets out the recommended approach to managing future development that is located within the extent of the FPA.

3.4.1.3 Special Flood Considerations

As previously mentioned, in July 2021 Council chose not to adopt the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*. The objectives of the optional clause are:

a) to enable the safe occupation and evacuation of people subject to flooding;

b) to ensure development on land is compatible with the land's flood behaviour in the event of a flood;

c) to avoid adverse or cumulative impacts on flood behaviour;

d) to protect the operational capacity of emergency response facilities and critical infrastructure during flood events; and

e) to avoid adverse effects of hazardous development on the environment during flood events.

The optional clause in its current form applies to:

a) for sensitive and hazardous development, land between the flood planning area and the probable maximum flood, or as otherwise defined in an adopted flood risk management study and plan that has been prepared in accordance with the Flood Risk Management Manual, and

b) for development that is not sensitive and hazardous development, land the consent authority considers to be land that, in the event of a flood, may:

   i. cause a particular risk to life, and

   ii. require the evacuation of people or other safety considerations.

While the clause applies to all land that lies between the FPA and the extent of the PMF, Council is only required to apply flood affectation notices to S10.7 certificates where it considers flood related controls need to be applied to specific types of development.

While there is a significant amount of land within the Village Centre that is subject to H5 type flooding conditions during a PMF event (refer **Figure 2.13**,sheet 2), its limits are contained wholly within the extent of the FPA and therefore any future development would be subject to the requirements of clause 5.21 of *Parkes LEP 2012*.

While the adoption of the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* would have limited, if any, impact on future development within the Village Centre, the approach to defining the extent of land that lies between the FPA and PMF where flood related development controls would apply as part of the present study is the same as that presented in the *Bogan Gate Flood Risk Management Study and Plan* (Lyall & Associates, 2025),

Based on this understanding, **Figure C1.1** shows the extent of land that lies between the FPA and PMF where the flood hazard vulnerability condition in a PMF is H3 or greater and therefore where flood related development controls should be applied to future development in accordance with the requirements of clause 5.22 (denoted thereon as the *Special Flood Considerations Zone).*

Note that prior to making the decision to include the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, it is recommended that Council obtain legal advice to confirm that the above approach of pre-determining the extent of land to which the requirements of the clause apply is legally binding.

3.4.1.4 Proposed Planning Controls for Cookamidgera

While *Parkes DCP 2021* deals with subdivision type development at Cookamidgera, it is limited in its scope and is not consistent with current best flood risk management practice. As a result, it is recommended that Council review and update *Parkes DCP 2021* based on the findings of the present study, as well as the suggested wording that is set out in **Appendix C** of this report.

Schedules 2A and **2B** in **Appendix C** set out the graded set of flood related planning controls which have been developed for areas that are subject to Main Stream Flooding and Major Overland Flow, respectively, while **Figure C1.1** in **Appendix C** shows the areas where the graded set of flood related planning controls set out in **Schedules 2A** and **2B** apply in Cookamidgera.

Minimum habitable floor level (**MHFL**) requirements would be imposed on future development of properties that are identified as lying either partially or wholly within the extent of the FPA shown on **Figure C1.1**. The MHFLs for residential land use types is the level of the 1% AEP flood event plus freeboard, whereas for commercial and industrial land use types the MHFL is to be as close to the 1% AEP flood level plus freeboard as practical, but no lower than the 5% AEP flood level plus freeboard. In situations where the MHFL is below the 1% AEP flood level plus freeboard, a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard.[5]

For areas outside the FPA shown on **Figure C1.1** and assuming Council adopts the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, the MHFL for essential community facilities and utilities which are critical for flood response and recovery, as well as sensitive uses and facilities is the level of the PMF.

Figure C1.2 in **Appendix C** is an extract of the *Flood Planning Constraint Category Map* for the Parkes Shire LGA which respectively show the subdivision of the floodplain at Cookamidgera into the following four categories which have been used as the basis for developing the graded set of planning controls:

- **Flood Planning Constraint Category 1 (FPCC 1)**, which comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding.
- **Flood Planning Constraint Category 2 (FPCC 2)**, which comprises areas which lie within the extent of the FPA where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
- **Flood Planning Constraint Category 3 (FPCC 3)**, which comprises areas which lie within the extent of the FPA but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in **Appendix C** of this report.
- **Flood Planning Constraint Category 4 (FPCC 4)**, which comprises areas which lie between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the

[5] Freeboard is equal to 0.5 m for development being assessed in areas affected by Main Stream Flooding and 0.3 m for development being assessed in areas affected by Major Overland Flow.

event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on **Figure C1.1**.

The derivation of the four FPCCs firstly involved the derivation of a number of sub-regions which were based on the nature of flooding at Cookamidgera, the sub-categories of which are set out in **Table 3.4** These sub-regions were then combined, with the resulting extents further refined in order to improve the area over which each FPCC applied.

TABLE 3.4
KEY ELEMENTS COMPRISING FLOOD PLANNING CONSTRAINT CATEGORIES

Flooding	FPCC	Sub-category	Constraint
Main Stream Flooding	1	a	1% AEP Main Stream Flooding (MSF) Floodway
		b	1% AEP MSF Flood Hazard Vulnerability Classification H6
	2	a	1% AEP MSF Flood Storage
		b	1% AEP MSF Flood Hazard Vulnerability Classification H5
		c	0.2% AEP MSF Flood Hazard Vulnerability Classification H5 and H6
		d	1% AEP Flood Emergency Response Classification (Low Flood Island)
		e	1% AEP Flood Emergency Response Classification (Low Flood Island)
		f	0.2% AEP Main Stream Flooding (MSF) Floodway
	3	-	Flood Planning Area (1% AEP + 0.5 m)
	4	-	PMF Flood Hazard Vulnerability Classification H3-H6
Major Overland Flow	1	-	1% AEP Floodway AND Flood Hazard Vulnerability Classification H4 - H6
	2	a	1% AEP Floodway AND Flood Hazard Vulnerability Classification H1 - H3
		b	1% AEP Flood Storage Area
		c	0.2% AEP Flood Hazard Vulnerability Classification H5 and H6
	3	-	Flood Planning Area (1% AEP where depths greater than 100 mm)
	4	-	PMF Flood Hazard Vulnerability Classification H3-H6

3.4.1.5 Revision of Parkes LEP 2012

While Council chose not to adopt the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* in July 2021, there is merit in doing so, if not in direct relation to future development within the Village Centre, then possibly in relation to other urban centres within the LGA.

Special flood considerations

(1) The objectives of this clause are as follows—

(a) to enable the safe occupation and evacuation of people subject to flooding,

(b) to ensure development on land is compatible with the land's flood behaviour in the event of a flood,

(c) to avoid adverse or cumulative impacts on flood behaviour,

(d) to protect the operational capacity of emergency response facilities and critical infrastructure during flood events,

(e) to avoid adverse effects of hazardous development on the environment during flood events.

(2) This clause applies to—

(a) for sensitive and hazardous development—land between the flood planning area and the probable maximum flood, and

(b) for development that is not sensitive and hazardous development—land the consent authority considers to be land that, in the event of a flood, may—

(i) cause a particular risk to life, and

(ii) require the evacuation of people or other safety considerations.

(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development—

(a) will not affect the safe occupation and efficient evacuation of people in the event of a flood, and

(b) incorporates appropriate measures to manage risk to life in the event of a flood, and

(c) will not adversely affect the environment in the event of a flood.

(4) A word or expression used in this clause has the same meaning as it has in the Considering Flooding in Land Use Planning Guideline unless it is otherwise defined in this clause.

(5) In this clause—

***Considering Flooding in Land Use Planning Guideline**—see clause 5.21(5).*

***flood planning area**—see clause 5.21(5).*

***Flood Risk Management Manual**—see clause 5.21(5).*

***probable maximum flood** has the same meaning as it has in the Flood Risk Management Manual.*

***sensitive and hazardous development** means development for the following purposes—*

(a) [list land uses]

Direction— Only the following land uses are permitted to be included in the list—

(a) boarding houses,

(b) caravan parks,

(c) correctional centres,

(d) early education and care facilities,

(e) eco-tourist facilities,

(f) educational establishments,

(g) emergency services facilities,

(h) group homes,

(i) hazardous industries,

(j) hazardous storage establishments,

(k) hospitals,

(l) hostels,

(m) information and education facilities,

(n) respite day care centres,

(o) seniors housing,

(p) sewerage systems,

(q) tourist and visitor accommodation,

(r) water supply systems

The steps involved in Council amending *Parkes LEP 2012* following the finalisation and adoption of *Cookamidgera FRMS&P* are:

1. Council Planning Staff consider the conclusions of *Cookamidgera FRMS&P* and suggested amendments to *Parkes LEP 2012*.
2. Council resolves to amend *Parkes LEP 2012* in accordance with *Cookamidgera FRMS&P.*
3. Council prepares a Planning Proposal in accordance with NSW Planning and Environment Guidelines. Planning Proposal submitted to NSW Planning and Environment in accordance with section 3.33 of the EP&A Act, 1979.
4. Planning Proposal considered by Department of Planning and determination made in accordance with section 3.34(2) of the EP&A Act, 1979 as follows:
   (a) whether the matter should proceed (with or without variation),
   (b) whether the matter should be resubmitted for any reason (including for further studies or other information, or for the revision of the planning proposal),
   (c) community consultation required before consideration is given to the making of the proposed instrument (the community consultation requirements),
   (d) any consultation required with State or Commonwealth public authorities that will or may be adversely affected by the proposed instrument,
   (e) whether a public hearing is to be held into the matter by the Planning Assessment Commission or other specified person or body,
   (f) the times within which the various stages of the procedure for the making of the proposed instrument are to be completed.
5. Planning Proposal exhibited for public comment.

6. Planning Proposal reviewed following public submissions and submissions from relevant State and Commonwealth authorities.
7. Final Local Environmental Plan with proposed amendments drafted.
8. Amending Local Environmental Plan made by the Minister and gazetted.

3.4.2 Potential Voluntary House Purchase Scheme

Removal of housing from high hazard floodway areas in the floodplain is generally accepted as a cost-effective means of correcting previous decisions to build in such areas. The voluntary purchase of residential property in hazardous areas has been part of the NSW Government's Floodplain Management Program for over 20 years, with the recently released *Guideline for the voluntary purchase scheme* (DCCEEW, 2024a) setting out the key eligibility criteria and funding requirements should a council wish to incorporate such a scheme into one of its flood risk management plans.[6]

Voluntary purchase is a recognised and effective flood risk management measure for existing residential properties in areas where:

- there are highly hazardous flood conditions from riverine or overland flooding and the principal objective is to remove people living in the properties and reduce the risk to life of residents and potential rescuers
- a property is located within a floodway and the removal of a building may be part of a floodway clearance program that aims to reduce significant impacts on flood behaviour elsewhere in the floodplain, by enabling the floodway to more effectively perform its flow conveyance function
- purchase of a property enables other flood mitigation works (such as channel improvements or levee construction) to be implemented because the property will impede construction or may be adversely affected by the works with impacts notable to be offset.

Prior to progressing to the purchase of a property that has been identified as being eligible under the scheme, it would first be necessary to undertake a scoping study, especially if the intention is for a council to apply for NSW Government grant funding. The study would involve discussions with each eligible and agreeable property owner, as well as a detailed assessment of each property to determine a priority order and costing for each.

Following the completion of the scoping study, the subject owner is notified that Council is prepared to purchase the property when the owner is ready to sell. Ultimately, the purchase price of the property is determined by independent valuers and the Valuer General, and by negotiation between Council and the owners, noting that valuations are not reduced due to the flood affected nature of the site.

After purchase, land is subsequently cleared and the site re-developed and re-zoned for public open space or some other flood compatible use. A further criterion applied by State Government agencies in assessing eligibility for funding is that the property must be in a high hazard floodway area, that is, in the path of flowing floodwaters where the depth and velocity at the peak of the flood are such that life could be threatened, damage of property is likely and evacuation difficult.

[6] State government funding is only available for properties where the buildings were approved and constructed prior to 1986 when the original Floodplain Development Manual was gazetted. Properties built after this date should have been constructed in accordance with the principles in the manual.

Assessment Outcome

As there are no residential properties located in high hazard floodway areas at Cookamidgera, the inclusion of a voluntary house purchase scheme in the *Cookamidgera FRMP* is not an option that is available to Council.

3.4.3 Potential Voluntary House Raising Scheme

Voluntary house raising is recognised as an effective floodplain risk management measure for both riverine and overland flood conditions. It is generally undertaken to:

a) reduce the frequency of exposure to flood damage of the house and its contents and reduce the frequency of household disruption and associated trauma and anxiety; or

b) as a compensatory measure where flood mitigation works adversely affect a house, which is generally considered part of the mitigation work rather than a separate VHR scheme.

Voluntary house raising can be an effective strategy for existing properties in low flood hazard areas where mitigation works to reduce flood risk to properties are impractical or uneconomic, noting that it must form part of a broader floodplain risk management strategy for an area rather than as a stand-alone option, as it does not deal with issues such as risk to life. The recently released *Guideline for voluntary house raising schemes* (DCCEEW, 2024b) sets out the key eligibility criteria and funding requirements should a council wish to incorporate such a scheme into one of its flood risk management plans.

State government funding is only available for properties where the buildings were approved and constructed prior to 1986 when the original Floodplain Development Manual was gazetted, noting that houses built after this date should have been constructed in accordance with the principles in the manual.

Following the adoption of a voluntary house raising scheme as part of a flood risk management plan, the next step is for a council to undertake a scoping study, especially if the intention is to apply for NSW Government grant funding. The study is to include discussions with each eligible and agreeable property owner, as well as a detailed assessment of each property to determine a priority order and costing for each. Following the completion of the scoping study, the subject owner is notified that Council is prepared to cover the cost of raising the existing house to the FPL or higher.

Assessment Outcome

While there are two dwellings that would experience above-floor inundation in a 1% AEP flood event at Cookamidgera, the implementation of PFMM6 would remove prevent this from occurring. As the preference is for Council to implement the works associated with PFMM6, the option of implementing a voluntary house raising scheme at Cookamidgera has not been included in the *Cookamidgera FRMP*.

3.5 Response Modification Measures

3.5.1 Flood and Severe Weather/Thunderstorm Warning Systems

An effective flood warning system has three key components, i.e. a flood forecasting system, a flood warning broadcast system and a response/evacuation plan. All systems need to be underpinned by an appropriate public flood awareness program.

Presently warnings regarding the potential for flooding to occur at Cookamidgera are limited to BoMs *Severe Thunderstorm Warning* and *Severe Weather Warnings for Flash Flooding* alert services which are publicly available via the internet via the following links or on smart phones via free Apps such as Hazards Near Me which is linked to the Australian Warning System:

- http://www.bom.gov.au/nsw/warnings/
- https://hazardwatch.gov.au/

Due to the flashy nature of flooding combined with the non-hazardous nature of flooding in the Village Centre for floods up to 0.2% AEP in magnitude, there is limited benefit in installing a formal flood warning system at Cookamidgera. Furthermore, the implementation of the works associated with PFMM6 would not only reduce the impact that flooding has on existing development in the Village Centre, but it would also significantly improve the hydrologic standard of Flagstone Street at its western end, thereby reducing the disruption that flooding currently has on traffic movements between Cookamidgera and Parkes.

3.5.2 Improved Emergency Planning and Response

As mentioned in **Section 2.14**, the *Parkes Shire Local Flood Plan* provides detailed information regarding preparedness measures, conduct of response operations and coordination of immediate recovery measures for all levels of flooding.

NSW SES should ensure information contained in this report on the impacts of flooding on urban development, as well as recommendations regarding flood warning and community education are used to update Volume 2 of the *Parkes Shire Local Flood Plan*. Volume 2 should include the following sections:

1 – The Flood Threat includes the following sub-sections:

1.2 Land Forms and River Systems – ref. **Sections 2.1** and **2.2** of this report for information on these topics.

1.5 Characteristics of Flooding – Indicative extents of inundation for the 1% AEP and PMF events and the typical times of rise of floodwaters at key locations on the major watercourses are shown on **Figures 2.3**, **2.4** and **2.5**. The location of vulnerable development and critical infrastructure relative to the flood extents is shown on **Figure 2.6**.

1.6 Flood History – Recent flood experience at Cookamidgera is discussed in **Section 2.3** of the report.

1.8 Extreme Flood Events – The PMF was modelled and the indicative extent and depth of inundation presented on **Figure 2.4**.

2 – Effects on the Community

Information on the properties affected by the 1% AEP design flood are included in this report (**Figure 2.3**). As floor level data used in this assessment were estimated from the LiDAR survey and “drive by” survey they are indicative only. While fit for use in estimating the economic impacts of design floods, the data should not be used to provide specific details of the degree of flood affectation of individual properties.

Figure 2.5 shows stage hydrographs at road and rail crossings of various watercourses and drainage lines at Cookamidgera, the locations of which are shown on **Figures 2.3**, **2.4** and **2.4** and **2.6**.

Figure 2.6 shows the location of vulnerable development and critical infrastructure at Cookamidgera relative to the flood extents of the 20, 10, 5, 2, 1, 0.5 and 0.2% AEP flood events, as well as the PMF. Refer **Section 2.7** for details of affected infrastructure.

Figures 3.7, **3.8** and **3.9** show the flood emergency response planning classifications for the 5% AEP, 1% AEP and PMF events, respectively, based on the definitions set out in the *Flood Risk Management Guideline EM01 – Support for Emergency Management Planning*.

In regards the above, the Village Centre is generally classified as ***Rising Road Access*** for all floods up to about 5% AEP in magnitude, with areas of ***High*** and ***Low Flood Islands*** gradually increasing with flood magnitude. During a PMF event, the majority of the Village Centre is classified as a ***Low Flood Island***, with an area of ***High Flood Island*** located in its south-west corner. The illustrations below are taken from *Flood Risk Management Guideline EM01 – Support for Emergency Management Planning* describing the nature of these two classifications.

High flood island. The flood island has land higher than the limit of flooding for the event being considered (Figure 7 shows a high flood island in the PMF). During a flood these high islands are isolated from other areas of the community by floodwater, terrain, development, or infrastructure. However, there is an opportunity for people to retreat to higher ground within the island, and therefore, the direct risk to life is reduced. The area may require resupply by boat or air if not evacuated before the road is cut. If it is not possible to provide adequate support (such as community and medical facilities) during the period of isolation, evacuation will have to take place before isolation occurs. Isolation without these services is more likely to result in fatal decisions to cross floodwaters.

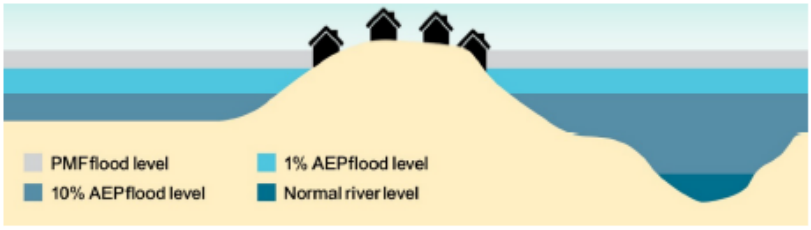


Figure 7 **High flood island**

Low flood island. The flood island is lower than the limit of flooding for the event being considered (Figure 8 and Figure 9 show a low flood island in the PMF). During a flood event the area initially becomes isolated by floodwater, terrain, development or infrastructure. If floodwater continues to rise after it is isolated, the land on the island will eventually be completely inundated by floodwaters. Evacuation of the community will be required prior to evacuation routes being closed as people left stranded on the island may drown.

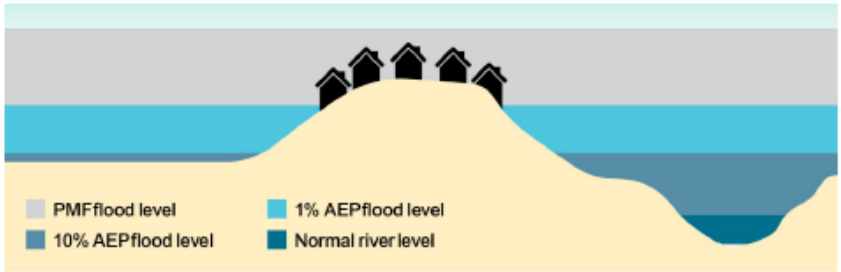


Figure 8 **Low flood island**

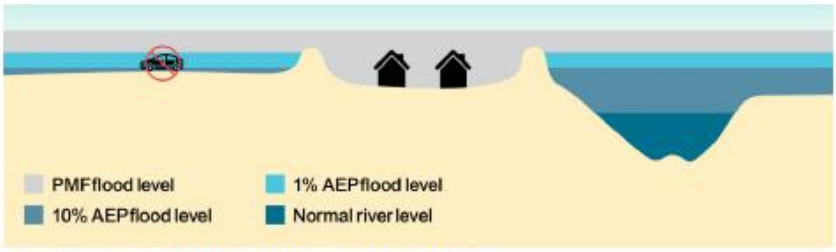


Figure 9 **Low flood island created by a ring levee**

Areas with rising road access are those areas where access roads rise steadily uphill and away from the rising floodwaters (Figure 12 and Figure 13). The community will not be completely isolated before inundation reaches its maximum extent, even in the PMF. Evacuation can take place by vehicle or on foot along the road as floodwater advances. People should not be trapped unless they delay their evacuation from their homes, for example, people living in 2-storey homes may initially decide to stay but reconsider after water surrounds them.

These communities contain low-lying areas from which people will be progressively evacuated to higher ground as the level of inundation increases. This inundation could be caused either by direct flooding from the river system or by localised flooding from creeks.

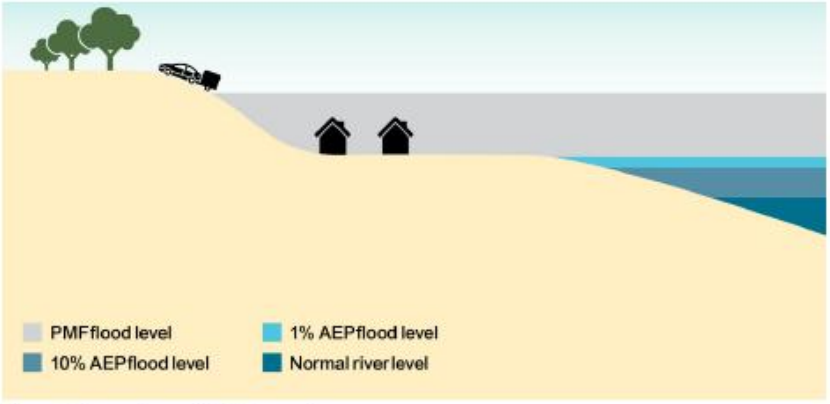


Figure 12 **Area with rising road access**

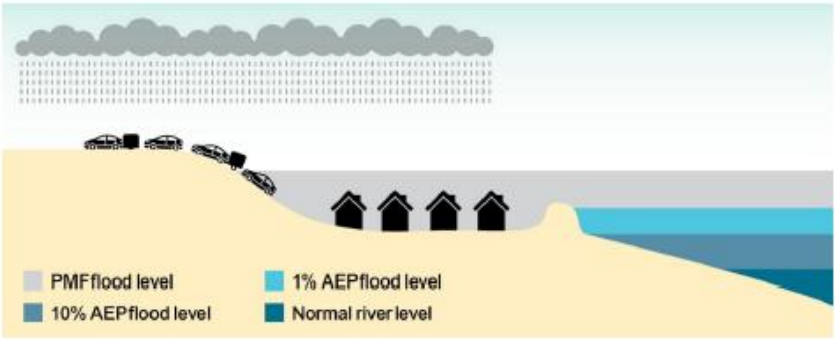


Figure 13 **Area protected by a levee with rising road access**

3.5.3 Public Awareness Programs

Community awareness and appreciation of the existing flood hazards in the floodplain would promote proper land use and development in flood affected areas. A well-informed community would be more receptive to requirements for flood proofing of buildings and general building and development controls imposed by Council. Council should also take advantage of the information on flooding presented in this report, including the flood mapping, to inform occupiers of the floodplains of the flood risk.

One aspect of a community's preparedness for flooding is the "flood awareness" of individuals. This includes awareness of the flood threat in their area and how to protect themselves against it. The overall level of flood awareness within the community tends to reduce with time, as memories fade and as residents move into and out of the floodplain. The ability to access free location-based severe weather and thunderstorm warnings via the internet or smart phone via would therefore represent a major opportunity for improving flood warning and preparedness times for people living at Cookamidgera.

Means by which community awareness of flood risks can be maintained or may be increased include:

- displays at Council offices using the information contained in the present study and photographs of historic flooding in the area;
- talks by NSW SES officers with participation by Council and longstanding residents with first-hand experience of flooding in the area; and
- preparation of a Flood Information Brochure which could be prepared by Council with the assistance of NSW SES containing both general and site-specific data and distributed with rate notices.

The community should also be made aware that a flood greater than historic levels or the flood planning level can, and will, occur at some time in the future.

4 SELECTION OF FLOOD RISK MANAGEMENT MEASURES

4.1 Background

The FRMM requires a Council to develop a Flood Risk Management Plan based on balancing the merits of social, environmental and economic considerations which are relevant to the community. This chapter sets out a range of factors which need to be taken into consideration when selecting the mix of works and measures that should be included in the *Cookamidgera FRMP*.

Due to differing priorities, individual communities need to establish their own set of considerations in which to assess the merits of different measures. The considerations adopted by a community must, however, recognise the State Government's requirements for flood risk management as set out in FRMM and other relevant policies. A further consideration is that some elements of the *Cookamidgera FRMP* may be eligible for subsidy from State and Federal Government sources and the requirements for such funding must, therefore, be taken into account.

Typically, State and Federal Government funding is given on the basis of merit, as judged by a range of criteria:

- The magnitude of damage to property caused by flooding and the effectiveness of the measure in mitigating damage and reducing the flood risk to the community.
- Community involvement in the preparation of the Flood Risk Management Plan and acceptance of the measure.
- The technical feasibility of the measure (relevant to structural works).
- Conformance of the measure with Council's planning objectives.
- Impacts of the measure on the environment.
- The economic justification, as measured by the benefit/cost ratio of the measure.
- The financial feasibility as gauged by Council's ability to meet its commitment to fund its part of the cost.
- The performance of the measure in the event of a flood greater than the design event.
- Conformance of the measure with Government Policies (e.g. FRMM and Catchment Management objectives).

4.2 As Ranking of Measures

A suggested approach to assessing the merits of various measures is to use a subjective scoring system. The chief merits of such a system are that it allows comparisons to be made between alternatives using a common "currency". In addition, it makes the assessment of alternatives "transparent" (i.e. all important factors are included in the analysis). The system does not, however, provide an absolute "right" answer as to what should be included in the *Cookamidgera FRMP* and what should be left out. Rather, it provides a method by which Council can re-examine the measures and if necessary, debate the relative scoring given to aspects of the *Cookamidgera FRMP*.

Each measure is given a score according to how well the measure meets the considerations discussed above. In order to keep the scoring simple, the following system is proposed:

+2	Measure rates very highly
+1	Measure rates well
0	Measure is neutral
- 1	Measure rates poorly
- 2	Measure rates very poorly

The scores are added to get a total for each measure.

Based on considerations outlined in this chapter, **Table 4.1** presents a suggested scoring matrix for the measures reviewed in **Chapter 3**, noting that the green shading indicates that the measure has merit and could be considered for inclusion in *Cookamidgera FRMP*. The scoring has also been used as the basis for prioritising the components of the *Cookamidgera FRMP*.

4.3 Summary

Table 4.1 indicates that there are good reasons to consider including the following elements into the *Cookamidgera FRMP*:

- Improved planning controls through the development of a flood related development control plan or policy.
- Incorporation of the catchment specific information on flooding impacts contained in this study in NSW SES Response Planning and Flood Awareness documentation for Cookamidgera.
- Improved public awareness of flood risk in the community.
- Investigation into the feasibility of implementing the works associated with PFMM6 and the preparation of a preliminary concept design.
- Detailed design of works associated with PFMM6, as well as their implementation.

TABLE 4.1
ASSESSMENT OF POTENTIAL FLOOD RISK MANAGEMENT MEASURES FOR INCLUSION IN COOKAMIDGERA FLOOD RISK MANAGEMENT PLAN

Measure	Impact on Flooding/ Reduction in Flood Risk	Community Acceptance	Technical Feasibility	Planning Objectives	Environ. Impacts	Economic Justification	Financial Feasibility	Extreme Flood	Government Policies and TCM Objectives	Score
Flood Modification										
Implementation of works comprising PFMM1	+1	+1	+1	+1	0	-1	-1	0	0	+2
Implementation of works comprising PFMM2	+1	+2	+1	+2	0	+1	-1	0	+2	+8
Implementation of works comprising PFMM3	+1	+2	+1	0	0	-1	-1	+1	+1	+4
Implementation of works comprising PFMM4	+2	+2	-1	+1	0	-2	-2	+2	+1	+3
Implementation of works comprising PFMM5	+2	+2	+1	+1	0	+1	-1	+1	+1	+8
Implementation of works comprising PFMM6	+2	+2	+1	+2	0	+1	-1	+1	+2	+10
Property Modification										
Inclusion of the optional *Special Flood Considerations* clause in *Parkes LEP 2012*	+1	+2	+2	+1	0	0	0	+2	+2	+10
Controls over Future Development (via update of *Parkes Shire DCP 2021*)	+2	+2	+2	+2	0	0	0	+1	+2	+12
Voluntary Purchase of Scheme	-2	-2	+2	-2	0	-2	-2	+2	-2	-8
Voluntary House Raising Scheme	-2	-2	+2	-2	0	-2	-2	+2	-2	-8
Response Modification										
Severe Weather/Thunderstorm and Flood Warning System	+1	+2	+2	+1	0	+1	+1	0	+1	+9
Improved Emergency Planning and Response	+2	+1	+2	+2	0	0	0	+2	+2	+11
Public Awareness Programs	+2	+1	+2	+2	0	0	0	+1	+2	+10

5 COOKAMIDGERA FLOOD RISK MANAGEMENT PLAN

5.1 The Flood Risk Management Process

The *Cookamidgera Flood Risk Management Study (**Cookamidgera FRMS**)* and *Cookamidgera Flood Risk Management Plan* (***Cookamidgera FRMP***) have been prepared as part of a Government program to mitigate the impacts of major floods and reduce the hazards in the floodplain. The *Cookamidgera FRMP* which is set out in this Chapter has been prepared as part of the Flood Risk Management Process in accordance with NSW Government's Flood Prone Land Policy.

The *Cookamidgera FRMS* reviewed baseline flooding conditions and the economic impacts of flooding that were assessed as part of the recently completed *Cookamidgera Flood Study* (Lyall & Associates, 2024). The findings of the *Cookamidgera Flood Study* formed the basis of the preparation of both the *Cookamidgera FRMS* and the *Cookamidgera FRMP*.

5.2 Purpose of the Plan

The overall objectives of the *Cookamidgera FRMS* were to assess the impacts of flooding, review policies and measures for management of flood affected land and to develop the *Cookamidgera FRMP* which:

- Sets out the recommended program of works and measures aimed at reducing over time, the social, environmental and economic impacts of flooding and establishes a program and funding mechanism for the *Cookamidgera FRMP*.
- Proposes amendments to Parkes Shire Council's (**Council's**) existing policies to ensure that the future development of flood affected land in the study area is undertaken so as to be compatible with the flood hazard and risk.
- Ensures the *Cookamidgera FRMP* is consistent with NSW State Emergency Services (**NSW SESs**) local emergency response planning procedures.
- Ensures that the *Cookamidgera FRMP* has the support of the community.

5.3 The Study Area

The study area for the *Cookamidgera FRMP* principally applies to the urbanised areas at Cookamidgera (denoted herein as the "**Village Centre**"). The study deals with the following two types of flooding:

- **Main Stream Flooding**, which occurs when floodwater surcharges the inbank area of Quart Pot Creek and Flagstone Creek (also known as Bartleys Creek). Main Stream Flooding is typically characterised by relatively deep and fast flowing floodwater but can include shallower and slower moving floodwater on the overbank of the aforementioned creeks.
- **Major Overland Flow**, which is experienced during periods of heavy rain and is generally characterised by relatively shallow and slow-moving floodwater that is conveyed overland in an uncontrolled manner toward the abovementioned watercourses and other major drainage lines.

Figures 1.1 and **2.1** bound in **Volume 2** of this report show the extent of the 180 km^2 Flagstone Creek catchment at its confluence with Goobang Creek, while **Figure 2.2** (2 sheets) shows the key features of the existing stormwater drainage system in the vicinity of the urbanised parts of Cookamidgera. Also shown on **Figure 2.2** is the extent of the "Village Centre", land internal to which is zoned *RU5-Village*.

5.4 Community Consultation

The Community Consultation process provided valuable direction over the course of the investigations, bringing together views from key Council staff, other departments and agencies, and importantly, the views of the community gained through:

- The delivery of a *Community Newsletter and Questionnaire* to residents and business owners at the commencement of the *Cookamidgera Flood Study* which sort to identify information on historic flooding in Cookamidgera.
- The public exhibition of the draft *Cookamidgera FRMS* and *Cookamidgera FRMP*.
- Public meetings held by Council representatives.

Meetings were also held with the Flood Risk Management Committee to discuss the findings of the *Cookamidgera FRMS* and also the recommended set of measures set out in the *Cookamidgera FRMP*.

Respondents to the *Community Questionnaire* identified a number of notable flood events dating back to 1952, with photographic evidence provided for flooding that was experienced in the village on 23 March 2017 and 14 November 2022, copies of which are contained in **Appendix A** of the *Cookamidgera FRMS* report.

5.5 Existing Flood Behaviour

Figure 2.3 (2 sheets) of the *Cookamidgera FRMS* report shows the indicate extent and depth of inundation at Cookamidgera for a design flood with an AEP of 1%, while **Figure 2.4** (2 sheets) shows similar information for the Probable Maximum Flood (**PMF**). **Appendix B** of the *Cookamidgera FRMS* report show similar information for floods with AEPs of 20%, 10%, 5%, 2%, 0.5% and 0.2%.

Figure 2.5 of the *Cookamidgera FRMS* report shows the time of rise of floodwaters at selected road crossings throughout the study area, noting that time zero on the stage hydrographs represents the onset of flood producing rain (refer **Figures 2.3** and **2.4** for location of each individual stage hydrograph).

Flooding in the Village Centre originates from the following two primary sources:

c) as a result of floodwater which surcharges the right (northern) bank of Flagstone Creek to the east (upstream) of the Trigg Hill Road crossing; and

d) as a result of Major Overland Flow which discharges in a westerly direction through the northern portion of the Village Centre.

While floodwater originating from these two sources inundates both existing development and roadways shortly after the onset of flood producing rain, access into the Village Centre via Flagstone Street is effectively cut once flow is experienced in the watercourse that runs in a westerly direction along the northern side of the Orange-Broken Hill Railway. Floodwater can also inundate both private property and the road network for periods of over 12 hours.

5.6 Existing Flood Mitigation Measures

There are no formal flood mitigation measures present in the village of Cookamidgera.

5.7 Economic Impacts of Flooding

Table 5.1 shows the number of properties that would be flooded to above-floor level and the damages experienced in residential and commercial/industrial development, as well as public buildings at Cookamidgera.

TABLE 5.1
ECONOMIC IMPACTS OF FLOODING IN VILLAGE CENTRE

Design Flood Event (% AEP)	Properties Flooded Above-Floor Level						Total Flood Damages
	Residential		Commercial/Industrial		Public		
	No.	$ Million	No.	$ Million	No.	$ Million	$ Million
20%	0	0	0	0	0	0	0
10%	0	0	0	0	0	0	0
5%	0	0.02	0	0	0	0	0.02
2%	1	0.07	0	0	0	0	0.08
1%	2	0.27	0	0	0	0	0.27
0.5%	3	0.39	0	0	0	0	0.38
0.2%	3	0.50	0	0	0	0	0.50
PMF	22	5.90	0	0	1	0.02	5.92

Two dwellings would be above-floor inundated in a 1% AEP flood event, resulting in flood damages totalling about $0.27 Million, while during a PMF event, 22 dwellings and one public building would be above-floor inundated, resulting in flood damages totalling about $5.92 Million.

For a discount rate of 5% pa and an economic life of 30 years, the *Net Present Worth* of damages for all flood events up to the 1% AEP is about $0.07 Million, while for all floods up to the PMF it is only about $0.21 Million. Therefore, one or more schemes costing up to these two amounts could be economically justified if they eliminated all flood related damages in the study area at the two different levels of flooding. While schemes costing more than this value would have a benefit/cost ratio less than 1, they may still be justified according to a multi-objective approach which considers other criteria in addition to economic feasibility.

5.8 Structure of Cookamidgera Flood Risk Management Plan

A summary of the *Cookamidgera FRMP* proposed for the study area along with broad funding requirements for the recommended measures are shown in **Table S1** at the commencement of the *Cookamidgera FRMS* report. The measures will over time achieve the objectives of reducing the flood risk to existing and future development for the full range of floods.

The *Cookamidgera FRMP* is based on the following mix of measures which have been given a provisional priority ranking according to a range of economic, social, environmental and other criteria that are set out in **Table 4.1** of the *Cookamidgera FRMS* report:

- **Measure 1** – Consider the inclusion of the optional *special flood considerations* clause 5.22 in the *Parkes LEP 2012*.

- **Measure 2** – Improvements to planning and development controls for future development in flood prone areas via updates of *Parkes Shire DCP 2021.*
- **Measure 3** – Improvements to emergency response planning.
- **Measure 4** – Increase public awareness of the risks of flooding in the community.
- **Measure 5** – Investigation and preliminary concept design of works comprising Potential Flood Modification Measure (**PFMM**) 6.
- **Measure 6** – Detailed design and construction of works comprising PFMM6.

5.9 Planning and Development Controls

The results of the *Cookamidgera FRMS* indicate that an important measure for Council to adopt in the floodplain would be strong flood risk management planning applied consistently by all of its branches.

5.9.1 Revision of Parkes Local Environmental Plan 2012

Clause 5.21 of *Parkes LEP 2012* entitled "Flood planning" outlines its objectives in regard to development of land which lies within the Flood Planning Area (**FPA**). The wording in the flood planning clause was updated on 14 July 2021 as part of recent reforms that have been implemented by the NSW Government.

While the wording of the *Flood planning* clause was automatically updated on 14 July 2021, Council chose not to include the optional *special flood considerations* clause 5.22 that also formed part of the recent reform package in *Parkes LEP 2012*. The objectives of the optional clause are:

a) to enable the safe occupation and evacuation of people subject to flooding;

b) to ensure development on land is compatible with the land's flood behaviour in the event of a flood;

c) to avoid adverse or cumulative impacts on flood behaviour;

d) to protect the operational capacity of emergency response facilities and critical infrastructure during flood events; and

e) to avoid adverse effects of hazardous development on the environment during flood events.

The optional clause in its current form applies to:

a) for sensitive and hazardous development, land between the flood planning area and the probable maximum flood, or as otherwise defined in an adopted flood risk management study and plan that has been prepared in accordance with the Flood Risk Management Manual, and

b) for development that is not sensitive and hazardous development, land the consent authority considers to be land that, in the event of a flood, may:

   iii. cause a particular risk to life, and

   iv. require the evacuation of people or other safety considerations.

While the clause applies to <u>all</u> land that lies between the FPA and the extent of the PMF, Council is only required to apply flood affectation notices to S10.7 certificates where it considers flood related controls need to be applied to specific types of development.

While there is a significant amount of land within the Village Centre that is subject to H5 type flooding conditions during a PMF event (refer **Figure 2.13**,sheet 2), its limits are contained wholly within the extent of the FPA and therefore any future development would be subject to the requirements of clause 5.21 of *Parkes LEP 2012*.

While the adoption of the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* would have limited, if any, impact on future development within the Village Centre, the approach to defining the extent of land that lies between the FPA and PMF where flood related development controls would apply as presented in the *Cookamidgera FRMS* report is the same as that presented in the *Bogan Gate Flood Risk Management Study and Plan* (Lyall & Associates, 2025),

Based on this understanding, **Figure C1.1** in **Appendix C** shows the extent of the ***Special Flood Considerations Zone***, it being the area of land that lies between the FPA and PMF where the flood hazard vulnerability condition in a PMF is H3 or greater and therefore where flood related development controls should be applied to future development in accordance with the requirements of clause 5.22.

Based on the findings of the *Cookamidgera FRMS*, it is recommended that Council consider including the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012* (**Measure 1**).[7]

5.9.2 Parkes Shire Development Control Plan 2021

The recommended approach to managing future development in the study area uses the concepts of *flood hazard* and *hydraulic categorisation* to develop controls for future development in flood prone land (**Measure 2**). **Figure C1.1** in **Appendix C** of the *Cookamidgera FRMS* report are extracts from the *Flood Planning Map* relating to the study area. The extent of the FPA has been defined as follows:

- In areas subject to Main Stream Flooding, the FPA is based on the traditional definition of the area inundated by the 1% AEP plus 0.5 m freeboard.
- In areas subject to Major Overland Flow, the FPA is defined as areas where depths of inundation exceed 0.1 m in a 1% AEP event, and where identifiable floodways are present in shallower flow.

It is proposed that properties that are located either partially or wholly within the extent of the FPA would be subject to S10.7 flood affectation notification and planning controls graded according to flood hazard and hydraulic categorisation. **Schedules 2A** and **2B** in **Appendix C** set out the graded set of flood related planning controls which apply to development in areas that are affected by Main Stream Flooding and Major Overland Flow, respectively. **Figure C1.1** shows the areas where the graded set of flood related planning controls set out in **Schedules 2A** and **2B** apply to Cookamidgera.

Minimum habitable floor level (**MHFL**) requirements would be imposed on future development of properties that are identified as lying either partially or wholly within the extent of the FPA shown on **Figure C1.1**. The MHFLs for residential land use types is the level of the 1% AEP flood event plus freeboard, whereas for commercial and industrial land use types the MHFL is to be as close to the 1% AEP flood level plus freeboard as practical, but no lower than the 5% AEP flood level plus freeboard. In situations where the MHFL is below the 1% AEP flood level plus freeboard, a

[7] Note that prior to making the decision to include the optional *special flood considerations* clause 5.22 in *Parkes LEP 2012*, it is recommended that Council obtain legal advice to confirm that the above approach of pre-determining the extent of land to which the requirements of the clause apply is legally binding.

mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard.[8]

Figure C1.2 in **Appendix C** of the *Cookamidgera FRMS* report are extracts of the *Flood Planning Constraint Category Map* relating to the study area. The figures show the subdivision of the floodplain into the following four categories which have been used as the basis for developing the graded set of planning controls:

- **Flood Planning Constraint Category 1 (FPCC 1)**, which comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding.
- **Flood Planning Constraint Category 2 (FPCC 2)**, which comprises areas which lie within the extent of the FPA where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
- **Flood Planning Constraint Category 3 (FPCC 3)**, which comprises areas which lie within the extent of the FPA but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this DCP.
- **Flood Planning Constraint Category 4 (FPCC 4)**, which comprises areas that lie between the FPA and the extent of the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on **Figure C1.1**.

5.10 Improvements to Emergency Response Planning and Community Awareness

Two measures are proposed in the *Cookamidgera FRMP* to improve emergency response planning and community awareness to the threat posed by flooding.

Measure 3 involves the update by NSW SES of the *Parkes Shire Local Flood Plan* using information on flooding patterns, times of rise of floodwaters and flood prone areas identified in the *Cookamidgera FRMP* report. Figures have been prepared showing indicative extents of flooding, high hazard areas, expected rates of rise of floodwaters in key areas and locations where flooding problems would be expected. **Section 3.5.2** references the locations of key data within the *Cookamidgera FRMS* report.

Council should also take advantage of the information on flooding presented in this report, including the flood mapping, to inform occupiers of the floodplain of the flood risk (included as **Measure 4** of the *Cookamidgera FRMP*). Council should also advise residents of the web sites and smart phone Apps that currently provide real-time *Severe Thunderstorm Warning* and *Severe Weather Warnings for Flash Flooding* alerts.

[8] Freeboard is equal to 0.5 m for development being assessed in areas affected by Main Stream Flooding and 0.3 m for development being assessed in areas affected by Major Overland Flow.

This information could be included in a *Flood Information Brochure* to be prepared by Council with the assistance of NSW SES containing both general and site-specific data and distributed with the rate notices. The community should also be made aware that a flood greater than historic levels or the planning level can, and will, occur at some time in the future. The *Cookamidgera FRMP* should be publicised and exhibited at community gathering places to make residents aware of the measures being proposed.

5.11 Flood Modification Measures

The *Cookamidgera FRMS* found that there is significant merit in Council implementing the following set of flood modification measures which are collectively referred to as PFMM6:

- Construction of an engineered earthen embankment approximately 560 m in length and on average 1 m in height running along the right (northern) bank of Flagstone Creek upstream of its crossing of Trigg Hill Road.
- Construction of on engineered earthen embankment around the existing farm dam that is located 500 m to the east of the village centre, as well as a 200 m channel extending south to an overbank flood runner of Flagstone Creek.
- Construction of a grassed swale/channel along the eastern side of Flagstone Street, extending west to the location of an existing dam that is located in the rail corridor.
- Construction of new transverse drainage structures beneath both Flagstone Street and the adjacent unsealed access road (each presently assessed as 2 off 3 m wide by 1.2 m high reinforced concrete box culverts).
- Lowering of the spillway associated with the existing dam that is located in the rail corridor (current assessment assumes a spillway elevation of RL 343.7 m AHD).
- Widening and regrading of the watercourse that runs along the northern side of the rail corridor from where it crosses Cooka Hills Road to where it crosses the Orange-Broken Hill Railway, an overall length of about 550 m (current assessment assumes a 12 m base width).
- Installation of 3 off 3.6 m wide by 0.9 m high reinforced box culverts on Flagstone Street.
- Raising Flagstone Street by about 0.2 m to an elevation of RL 345.7 m AHD.
- Lowering of natural surface levels either side of Flagstone Street to facilitate the installation of the reinforced concrete box culverts and associated inlet/outlet headwall/scour protection works.

While the implementation of the works associated with PFMM6 cannot be justified purely on economic grounds (i.e. because the benefit cost ratio of the works is less than 0.1), they would reduce the existing flood risk within the Cookamidgera community by:

a) significantly reducing both the extent and depth of inundation that is currently experienced within the Village Centre;

b) removing the above-floor inundation that is currently experienced in two dwellings up to the 1% AEP level of flooding; and

c) significantly improve the ability of people to be able to travel between the village and Parkes during times of freshes and floods.

Based on this finding, **Measure 5** comprises the investigation into the feasibility of implementing the full scope of works comprising PFMM6, as well as the preparation of a preliminary concept design, while **Measure 6** comprises the detailed design of the preferred set of measures, as well as their construction.

Measure 5 also includes the obtaining of more detailed field survey along the right (northern) bank of Flagstone Creek downstream of Trigg Hill Road in an endeavour to determine the exact location where a written submission that was received during the public exhibition period of the draft *Cookamidgera FRMS&P* report stated that flow surcharges the creek and enters the village as additional levee works may be required in this area.

5.12 Implementation Program

The steps in progressing the flood risk management process from this point onwards are:

1. Consider public comment, modify the document if and as required, and submit to Council.
2. Council adopts the *Cookamidgera FRMP*.
3. Assistance for funding qualifying projects included in the *Cookamidgera FRMP* may be available upon application under the Commonwealth and State funded floodplain management programs, currently administered by the Department of Climate Change, Energy, the Environment and Water.
4. As funds become available from Government agencies and/or Council's own resources, implement the measures in accordance with the established priorities.

The *Cookamidgera FRMP* should be regarded as a dynamic instrument requiring review and modification over time. The catalysts for change could include new flood events and experiences, legislative change, alterations in the availability of funding, reviews of Council's planning strategies and importantly, the outcome of some of the studies proposed in this report as part of the *Cookamidgera FRMP*. In any event, a thorough review every ten years is warranted to ensure the ongoing relevance of the *Cookamidgera FRMP*.

6 GLOSSARY OF TERMS

TERM	DEFINITION
Annual Exceedance Probability (AEP)	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, for a flood magnitude having five per cent AEP, there is a five per cent probability that there would be floods of greater magnitude each year.
Australian Height Datum (AHD)	A common national surface level datum corresponding approximately to mean sea level.
Floodplain	Area of land which is subject to inundation by floods up to and including the Probable Maximum Flood (**PMF**) event, that is, flood prone land.
Flood Planning Area	The area of land that is shown to be in the Flood Planning Area on the *Flood Planning Map*.
Flood Planning Map	The *Flood Planning Map* shows the extent of land on which flood related development controls apply in a given area, noting that other areas may exist which are not mapped but where flood related development controls apply.
Flood Planning Constraint Category 1 (FPCC 1)	Comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding
Flood Planning Constraint Category 2 (FPCC 2)	Comprises areas which lie below the *Flood Planning Level* where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
Flood Planning Constraint Category 3 (FPCC 3)	Comprises areas which lie below the *Flood Planning Level* but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this document.
Flood Planning Constraint Category 4 (FPCC 4)	Comprises areas that lie between the extent of the FPA and the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on the *Flood Planning Map*.
Flood Planning Level (FPL)	Flood levels selected for planning purposes, as determined by the relevant adopted flood risk management study and plan, or as part of a site specific study In the absence of an adopted flood risk management study and plan for a particular location, the FPL is defined as the peak 1% AEP flood level plus the addition of a 0.5 m freeboard.

TERM	DEFINITION
Flood Prone/Flood Liable Land	Land susceptible to flooding by the PMF. Flood Prone land is synonymous with Flood Liable land.
Floodway	Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.
Flood Storage Area	Those parts of the floodplain that may be important for the temporary storage of floodwaters during the passage of a flood. Loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation.
Freeboard	Provides reasonable certainty that the risk exposure selected in deciding a particular flood chosen as the basis for the *Flood Planning Level* is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the *Flood Planning Level*.
Habitable Room	In a residential situation: a living or working area, such as a lounge room, dining room, kitchen, bedroom or workroom. In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.
Local Drainage	Land on an overland flow path where the depth of inundation during the 1% AEP storm event is less than 0.1 m.
Main Stream Flooding	The covering of normally dry land by water that has escaped or been released from the normal confines of any lake, river, creek or other natural watercourse (whether or not altered or modified) or any reservoir, canal or dam.
Major Overland Flow	Where the depth of overland flow during the 1% AEP storm event is greater than 0.1 m.
Probable Maximum Flood (PMF)	The largest flood that could conceivably occur at a particular location. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain.
Special Flood Considerations Zone	Comprises the area where the flood risk is considered to be high enough to require additional controls to be applied to certain types of development that is located on land which lies outside the FPA. This area is identical to the FPCC4 affected land shown on the *Flood Planning Constraint Category Map*.

7 REFERENCES

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APPENDIX A
PHOTOGRAPHS SHOWING OBSERVED FLOOD BEHAVIOUR AT COOKAMIDGERA

23 MARCH 2017	
Plate C1.1 - Looking south at Flagstone Street level crossing of the railway (*Photo taken at 08:17 hours*)	**Plate C1.2** - Looking south at Flagstone Street level crossing of the railway (*Photo taken at 08:17 hours*)
Plate C1.3 - Looking south at railway to the west of the Flagstone Street level (*Photo taken at 08:20 hours*)	**Plate C1.4** - Looking south at Flagstone Street level crossing of the railway (*Photo taken at 08:21 hours*)
Plate C1.5 – Looking west along northern (upstream) side of railway from Flagstone Street (*Photo taken at 08:34 hours*)	**Plate C1.6** – Looking west along southern (downstream) side of railway from Flagstone Street (*Photo taken at 08:21 hours*)

23 MARCH 2017

Plate C1.7 - Looking east along Flagstone Street at low point that is located approximately 50 m to the south of the railway (*Photo taken at 08:24 hours*)

Plate C1.8 – Looking south along channel on eastern side of Flagstone Street (*Photo taken at 08:38 hours*)

Plate C1.9 – Floodwater ponding on eastern side of Flagstone Street (*Photo taken at 08:40 hours*)

Plate C1.10 - Looking north along channel on eastern side of Flagstone Street (*Photo taken at 08:40 hours*)

Plate C1.11 – Upstream side of Trig Hill Road crossing of Flagstone Creek (*Photo taken at 08:46 hours*)

Plate C1.12 – Looking south along Trig Hill Road from its crossing of Flagstone Creek (*Photo taken at 08:51 hours*)

23 MARCH 2017	
Plate C1.13 - Looking south along Trig Hill Road from its crossing of Flagstone Creek (*Photo taken at 08:51 hours*)	**Plate C1.14** – Looking east along Railway Street from its intersection with Mullins Street (*Photo taken at 09:03 hours*)
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23 MARCH 2017	
Plate C1.19 – Flooding on the unnamed lane that runs parallel to the railway to its south (*Photo taken at 09:14 hours*)	**Plate C1.20** - Flooding on the unnamed lane that runs parallel to the railway to its south (*Photo taken at 09:14 hours*)
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14 NOVEMBER 2022

Plate C2.1 – Flooding in Flagstone Street adjacent to the low point that is located 50 m to the south of the railway (*Time unknown*)

Plate C2.2 – Flooding in Flagstone Street adjacent to the low point that is located 50 m to the south of the railway (*Time unknown*)

Plate C2.3 – Looking east along Flagstone Street adjacent to the low point that is located 50 m to the south of the railway (*Time unknown*)

Plate C2.4 – Flooding in the low point in Flagstone Street that is located 50 m to the south of the railway (*Time unknown*)

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Plate C2.5 – Looking west along Flagstone Street adjacent to the low point that is located 50 m to the south of the railway (*Time unknown*)	**Plate C2.6** – Flooding in the low point in Flagstone Street that is located 50 m to the south of the railway (*Time unknown*)

APPENDIX B

FIGURES SHOWING DESIGN FLOOD BEHAVIOUR AT COOKAMIDGERA

(BOUND IN VOLUME 2)

APPENDIX C

SUGGESTED WORDING FOR INCLUSION IN PARKES SHIRE DEVELOPMENT CONTROL PLAN

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C1.1 Extract of Parkes Shire Flood Planning Map at Cookamidgera

C1.2 Extract of Parkes Shire Flood Planning Constraint Category Map at Cookamidgera

C1.1 Introduction

This section of the DCP sets out specific controls to guide development of flood liable land. The approach to managing future development that is subject to flooding supports the findings of a series of location specific flood risk management studies and plans that have been prepared as part of the NSW Government's program to mitigate the impact of major floods and reduce the associated hazards in the floodplain.

C1.2 Objectives in Relation to Flood Risk Management

a) To minimise the potential impact of development and other activity upon the aesthetic, recreational and ecological value of the waterway corridors.

b) To increase public awareness of the hazard and extent of land affected by all potential floods, including floods greater than the 1% Annual Exceedance Probability (AEP) flood and to ensure essential services and land uses are planned in recognition of all potential floods.

c) To inform the community of Council's controls and policy for the use and development of flood prone land.

d) To reduce the risk to human life and damage to property caused by flooding through controlling development on land affected by potential floods.

e) To provide detailed controls for the assessment of applications lodged in accordance with the *Environmental Planning and Assessment Act 1979* on land affected by potential floods.

f) To provide different guidelines, for the use and development of land subject to all potential floods in the floodplain, which reflect the probability of the flood occurring and the potential hazard within different areas.

g) To apply a "merit-based approach" to all development decisions which takes account of social, economic and ecological considerations.

h) To control development and other activity within each of the individual floodplains within the LGA having regard to the characteristics and level of information available for each of the floodplains, in particular the availability of flood risk management studies and plans prepared in accordance with the *Flood Risk Management Manual*, issued by the NSW Government.

i) To deal equitably and consistently with applications for development on land affected by potential floods, in accordance with the principles contained in the *Flood Risk Management Manual*.

C1.3 Procedure for Determining What Controls Apply to Proposed Development

The procedure Council will apply for determining the specific controls applying to proposed development in flood liable areas is set out below. Upon enquiry by a prospective applicant, Council will make an initial assessment of the flood affectation and flood levels at the site using the following procedure:

- Assess whether the development is located on flood liable land from the **Flood Planning Map**.
- Determine which set of prescriptive flood related planning controls apply to the development from the **Flood Planning Map** (i.e. Main Stream Flooding or Major Overland Flow).
- Identify the category of the development from **Schedule1: Land Use Categories.**

- Determine the appropriate flood level at the site from the results of the location specific flood or flood risk management study.
- Determine which part of the floodplain the development is located in from the **Flood Planning Constraint Category Map**.
- Confirm that the development conforms with the relevant performance criteria, as well as the prescriptive controls set out in either **Schedule 2A** for Main Stream Flooding affected areas and **Schedule 2B** for Major Overland Flow affected areas.

With the benefit of this initial information from Council, the applicant will:

- Prepare the documentation to support the Development Application according to the requirements of **Section C1.9**.

A survey plan showing natural surface levels over the site will be required as part of the Development Application documentation. Provision of this plan by the applicant at the initial enquiry stage will assist Council in providing flood related information.

C1.4 Land Use Categories

The policy recognises twelve different types of land use for which a graded set of flood related controls apply. They are included in **Schedule 1: Land Use Categories**.

C1.5 Flood Planning Constraint Categories

For those floodplains where Council has adopted a flood or flood risk management study, the identified flood liable land has been divided into the following four *Flood Planning Constraint Categories* (**FPCCs**):

- **Flood Planning Constraint Category 1 (FPCC 1)**, which comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding.
- **Flood Planning Constraint Category 2 (FPCC 2)**, which comprises areas which lie within the extent of the *Flood Planning Area* where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
- **Flood Planning Constraint Category 3 (FPCC 3)**, which comprises areas which lie within the extent of the *Flood Planning Area* but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this DCP.
- **Flood Planning Constraint Category 4 (FPCC 4)**, which comprises areas that lie between the extent of the *Flood Planning Area* and the Probable Maximum Flood (**PMF**) where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on the **Flood Planning Map**.

C1.6 Development Controls

The development controls have been graded relative to the severity and frequency of potential floods, having regard to the FPCCs determined by the relevant Flood Risk Management Study and Plan or, if no such study or plan exists, Council's interim considerations.

The objectives of the development controls are:

a) To require developments with high sensitivity to flood risk to be designed so that they are subject to minimal risk.

b) To allow development with a lower sensitivity to the flood hazard to be located within the floodplain, provided the risk of harm and damage to property is minimised.

c) To minimise the intensification of the high flood risk areas, and if possible, allow for their conversion to natural waterway corridors.

d) To ensure design and siting controls required to address the flood hazard do not result in unreasonable social, economic or environmental impacts.

e) To minimise the risk to life by ensuring the provision of reliable access from areas affected by flooding.

f) To minimise the damage to property arising from flooding.

g) To ensure the proposed development does not expose existing development to increased risks associated with flooding.

The performance criteria which are to be applied when assessing a proposed development are:

a) The proposed development should not result in any increase in risk to human life, or in a significant increase in economic or social costs as a result of flooding.

b) The proposal should only be permitted where effective warning time and reliable access is available to an area free of risk from flooding, consistent with any relevant Flood Plan or flood evacuation strategy.

c) Development should not increase the potential for damage or risk to other properties either individually or in combination with the cumulative impact of development that is likely to occur in the same floodplain.

d) Procedures would be in place, if necessary, (such as warning systems, signage or evacuation drills) so that people are aware of the need to evacuate and are capable of identifying the appropriate evacuation route.

e) Development should not result in impacts upon the amenity of an area by way of unacceptable overshadowing of adjoining properties, privacy impacts (e.g. by unsympathetic house–raising) or by being incompatible with the streetscape or character of the locality.

The prescriptive controls which apply to development that is proposed on land affected by Main Stream Flooding and Major Overland Flow are set out in **Schedules 2A** and **2B**, respectively.

C1.7 Proposals to Modify Flood Planning Constraint Categories

In certain situations it may be feasible to modify existing flood behaviour through engineering works which in turn would enable the extent of the FPCCs to be modified at a particular location. Proposals to modify an FPCC at a particular location would need to be supported by a detailed flooding investigation, further details of which are set out in **Section C1.9** below. Proposals would also need to demonstrate consistency with the flood related objectives and performance criteria of both the *Parkes Local Environmental Plan 2012* and the DCP.

C1.8 Special Requirements for Fencing

The objectives are:

a) To ensure that fencing does not result in the obstruction of the free flow of floodwater.

b) To ensure that fencing does not become unsafe during floods so as to threaten the integrity of structures or the safety of people.

c) To ensure fencing is to be constructed in a manner which does not increase flood damage or risk on surrounding land.

The performance criteria which are to be applied when assessing proposed fencing are:

a) Fencing is to be constructed in a manner that does not affect the flow of floodwater so as to detrimentally increase flood affection on surrounding land.

b) Fencing must be certified by an engineer specialising in hydraulic engineering stating that the proposed fencing would be constructed to withstand the force of floodwater, or collapse in a controlled manner to prevent the impediment of floodwater.

The prescriptive controls which apply to any proposed fencing on land designated FPCC 1 and FPCC 2 are:

a) An applicant will need to demonstrate that the fence (new or replacement fence) would not create an impediment to the flow of floodwater. Fences must satisfy the following:

- comprise pool/louvre type fencing or a collapsible hinged type fence structure;
- be configured so as to allow floodwaters to equalise on both sides of the fence; and
- be configured so as to minimise entrapment of flood debris.

C1.9 Explanatory Notes on Lodging Applications

The following steps must be followed in the lodgement of a development application:

a) Check the proposal is permissible in the zoning of the land by reference to any applicable environmental planning instruments.

b) Consider any other relevant planning controls of Council (e.g. controls in any other relevant part of the DCP).

c) Check whether the property is located either partially or wholly within the Flood Planning Area or Special Flood Considerations Zone, as defined on the **Flood Planning Map**.

d) Determine which set of prescriptive flood related planning controls apply to the development from the **Flood Planning Map**.

e) Determine which FPCC applies to the developable portion of the property by reference to the **Flood Planning Constraint Category Map**. Enquire with Council regarding existing flood risk mapping or whether a site–specific assessment may be warranted. A property may be located in more than one FPCC and the assessment must consider the controls that apply in each.

f) Determine the land use category relevant to the development proposal, by firstly confirming how it is defined by the relevant environmental planning instrument and secondly by ascertaining the land use category from **Schedule 1: Land Use Categories**.

g) Assess and document how the proposal will achieve the performance criteria for proposed development and associated fencing set out in **Sections C1.6** and **C1.8**.

h) Check if the proposal will satisfy the prescriptive controls for different land use categories in different FPCCs, as specified in either **Schedule 2A** or **Schedule 2B**.

i) If the proposal does not comply with the prescriptive controls, determine whether the performance criteria are nonetheless achieved.

j) Illustrations provided in this plan to demonstrate the intent of development controls are diagrammatic only. Proposals should satisfy all relevant controls contained in this plan and associated legislation.

k) The assistance of Council staff or an experienced engineer or planner may be required at various steps in the process to ensure that the flood risk management related requirements of this Plan are addressed.

Note that compliance with all the requirements of this DCP does not guarantee that an application will be approved.

Information required with an application is as follows:

a) Applications must include information which addresses all relevant controls.

b) Applications for alterations and additions (see either **Schedule 2A** or **Schedule 2B**) to an existing dwelling on flood liable land must be accompanied by documentation from a registered surveyor confirming existing floor levels.

c) Development applications must be accompanied by a survey plan showing:
   i. The position of the existing building(s) and/or proposed building(s);
   ii. The existing ground levels to Australian Height Datum around the perimeter of the existing and/or proposed building(s) and contours of the site; and
   iii. The existing and/or proposed floor levels to Australian Height Datum.

d) Applications for earthworks, filling of land or subdivision shall be accompanied by a survey plan (with a contour interval of 0.25 m) showing relative levels to Australian Height Datum.

e) Where an existing catchment based flood study is not available, a flood study using a fully dynamic one or two dimensional computer model may be required. For smaller developments an existing suitable flood study may be used if available (e.g. it contains sufficient local detail), or otherwise a flood study prepared in a manner consistent with the latest edition of *Australian Rainfall and Runoff* and the *Flood Risk Management Manual*, will be required and the following information must be submitted in plan form:
   i. water surface contours;
   ii. velocity vectors;
   iii. velocity and depth product contours;
   iv. delineation of flood risk precincts relevant to individual floodplains; and
   v. show both existing and proposed flood profiles for the full range of events for total development including all structures and works (such as revegetation/ enhancements).

   This information is required for both pre–developed and post–developed scenarios.

f) Where the controls for a particular development proposal require an assessment of structural soundness during potential floods, the following impacts must be addressed:

   i. hydrostatic pressure;

   ii. hydrodynamic pressure;

   iii. impact of debris; and

   iv. buoyancy forces.

   Foundations need to be included in the structural analysis.

C1.10 Glossary of Terms

TERM	DEFINITION
Annual Exceedance Probability (AEP)	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, for a flood magnitude having five per cent AEP, there is a five per cent probability that there would be floods of greater magnitude each year.
Australian Height Datum (AHD)	A common national surface level datum corresponding approximately to mean sea level.
Floodplain	Area of land which is subject to inundation by floods up to and including the Probable Maximum Flood (**PMF**) event, that is, flood prone land.
Flood Planning Area	The area of land that is shown to be in the Flood Planning Area on the *Flood Planning Map*.
Flood Planning Map	The *Flood Planning Map* shows the extent of land on which flood related development controls apply in a given area, noting that other areas may exist which are not mapped but where flood related development controls apply.
Flood Planning Constraint Category 1 (FPCC 1)	Comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding
Flood Planning Constraint Category 2 (FPCC 2)	Comprises areas which lie below the *Flood Planning Level* where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
Flood Planning Constraint Category 3 (FPCC 3)	Comprises areas which lie below the *Flood Planning Level* but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in this document.
Flood Planning Constraint Category 4 (FPCC 4)	Comprises areas that lie between the extent of the *Flood Planning Area* and the PMF where Council considers flood related development controls need to be applied to sensitive and hazardous type development but can also include other types of development where Council considers that the land, in the event of a flood, may cause a particular risk to life, or require the evacuation of people or other safety considerations. This area is identical to the *Special Flood Considerations Zone* shown on the *Flood Planning Map*.
Flood Planning Level (FPL)	Flood levels selected for planning purposes, as determined by the relevant adopted flood risk management study and plan, or as part of a site specific study In the absence of an adopted flood risk management study and plan for a particular location, the FPL is defined as the peak 1% AEP flood level plus the addition of a 0.5 m freeboard.

TERM	DEFINITION
Flood Prone/Flood Liable Land	Land susceptible to flooding by the PMF. Flood Prone land is synonymous with Flood Liable land.
Floodway	Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.
Flood Storage Area	Those parts of the floodplain that may be important for the temporary storage of floodwaters during the passage of a flood. Loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation.
Freeboard	Provides reasonable certainty that the risk exposure selected in deciding a particular flood chosen as the basis for the *Flood Planning Level* is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the *Flood Planning Level*.
Habitable Room	In a residential situation: a living or working area, such as a lounge room, dining room, kitchen, bedroom or workroom. In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.
Local Drainage	Land on an overland flow path where the depth of inundation during the 1% AEP storm event is less than 0.1 m.
Main Stream Flooding	The covering of normally dry land by water that has escaped or been released from the normal confines of any lake, river, creek or other natural watercourse (whether or not altered or modified) or any reservoir, canal or dam.
Major Overland Flow	Where the depth of overland flow during the 1% AEP storm event is greater than 0.1 m.
Probable Maximum Flood (PMF)	The largest flood that could conceivably occur at a particular location. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain.
Special Flood Considerations Zone	Comprises the area where the flood risk is considered to be high enough to require additional controls to be applied to certain types of development that is located on land which lies outside the FPA. This area is identical to the FPCC4 affected land shown on the *Flood Planning Constraint Category Map*.

SCHEDULE 1
LAND USE CATEGORIES

Land Use Category	Subdivision	LEP Land Uses
Critical Uses and Facilities	*Community facilities which may provide an important contribution to the notification or evacuation of the community during flood events.*	Health services facility; Electricity generating works; Emergency services facility.
Sensitive Uses and Facilities	*Uses which involve vulnerable members of the community;* *Uses which may cause pollution of a watercourse or town water supply;* *Uses, which if affected, would significantly affect the ability of community to return to normal after flood event;*	Bio-solids treatment facility; Cemeteries; Child care centre; Correctional centre; Heavy industrial storage establishment; Heavy industries; Highway service centre; Group home; Passenger transport facilities; Respite day care centre; Schools; Seniors housing; Service Stations; Sewage treatment plant; Veterinary hospital; Waste or resource management facility; Water treatment facility.
Subdivision	*Subdivision of land which involves* *the creation of new allotments, with* *potential for further development;*	Camping grounds; Caravan parks; Eco-tourist facilities; Home business/ child care/occupations; Residential accommodation (excluding Group Home and Seniors housing); Tourist and visitor accommodation.
Residential		Attached dwellings Dwelling houses Multi dwelling housing Residential flat buildings Semi-detached dwellings Shop top housing
Commercial and Industrial		Amusement centre; Commercial premises (excluding Market); Crematorium; Depots; Entertainment facility; Freight transport facilities; Function centre; General industries; Industrial retail outlet; Industrial training facility; Light industries; Mortuaries;

		Place of public worship; Public administration building; Recreation facility (indoor & major); Registered club; Research station; Restricted premises; Sex services premises; Storage premises; Transport depots; Truck depots; Warehouse or distribution centre; Wholesale suppliers; Vehicle body repair workshops; Vehicle repair stations;
Recreation and Non-Urban		Agriculture (excluding intensive livestock agriculture); Animal boarding and training establishment; Boat sheds; Charter & tourism boating facilities; Car park; Community facility; Extractive industry; Forestry; Jetties; Market; Open cut mining; Recreation area; Recreation facility (outdoor).
Alterations and additions		i. An addition to existing premises of not more than 10% of the floor area which existed at the date of commencement of this DCP; ii. Rebuilding of a development which substantially reduces the extent of flood effects to the existing development; iii. A change of use which does not increase flood risk having regard to property damage and personal safety; or iv. Subdivision which does not involve the creation of new allotments with potential for further development.

SCHEDULE 2A
PRESCRIPTIVE FLOOD RELATED DEVELOPMENT CONTROLS – MAIN STREAM FLOODING

Planning considerations	Flood Planning Constraint Category 1 (FPCC 1)							Flood Planning Constraint Category 2 (FPCC 2)							Flood Planning Constraint Category 3 (FPCC 3)							Flood Planning Constraint Category 4 (FPCC 4)						
	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions
Minimum Habitable Floor Level						A1	A2 A4				A2	A5	A1	A2 A4				A2	A5	A1	A2 A4	A3	A3					
Building Components						B1	B1				B1	B1	B1	B1				B1	B1	B1	B1	B2	B2					
Structural Soundness						C1	C1				C1	C1	C1	C1				C1	C1	C1	C1	C2	C2					
Flood Affectation						D1	D1			D1	D1	D1	D1	D2			D1	D1	D1	D1	D2							
Emergency Response						E4	E2 or E3			E4 E5	E3 E4	E3 E4	E4	E2 or E3			E4 E5	E2 E4	E2 E4	E4	E2 or E3	E2 or E3	E2 E4	E4 E5				
Management and Design						F2 F3	F2 F3			F1	F2	F2 F3 F4	F2 F3	F2 F3			F1	F2	F2 F3 F4	F2	F2 F3	F2 F3	F2 F3 F4	F1				
Stormwater						G2	G2			G1 G2	G1 G2	G1 G2	G2	G2			G1 G2	G1 G2	G1 G2	G2	G2	G1	G1					
Parking and Driveway Access						H2 H4 H6 H7	H6 H7 H8			H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8			H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8	H3	H3					

	Not Relevant		Unsuitable Land Use

SCHEDULE 2B
PRESCRIPTIVE FLOOD RELATED DEVELOPMENT CONTROLS – MAJOR OVERLAND FLOW

Planning considerations	Flood Planning Constraint Category 1 (FPCC 1)							Flood Planning Constraint Category 2 (FPCC 2)							Flood Planning Constraint Category 3 (FPCC 3)							Flood Planning Constraint Category 4 (FPCC 4)						
	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions
Minimum Habitable Floor Level						A1	A2 A4				A2	A5	A1	A2 A4	A3	A3		A2	A5	A1	A2 A4	A3	A3					
Building Components						B1	B1				B1	B1	B1	B1	B2	B2		B1	B1	B1	B1	B2	B2					
Structural Soundness						C1	C1				C1	C1	C1	C1	C2	C2		C1	C1	C1	C1	C2	C2					
Flood Affectation						D1	D1			D1	D1	D1	D1	D2														
Emergency Response						E1	E1			E5					E2 or E3	E2 E4	E5					E2 or E3	E2 E4					
Management and Design						F2	F2			F1 F3	F2	F2 F4	F2	F2	F2 F3	F2 F3 F4	F1 F3		F4			F2 F3	F2 F3 F4					
Stormwater						G2				G1	G1	G1	G2		G1	G1	G1	G1	G1	G2		G1	G1					
Parking and Driveway Access						H2 H4 H6 H7	H6 H7 H8			H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8	H1 H3 H5 H6	H1 H3 H5 H6	H1 H3 H5 H6	H1 H3 H5 H6	H1 H3 H5 H6	H2 H4 H6	H6 H	H3	H3					

	Not Relevant		Unsuitable Land Use

Prescriptive controls for associated planning considerations under each FPCC		
Minimum Habitable Floor Level **A1** Habitable floor levels to be set no lower than the 5% AEP flood level plus freeboard[1] unless justified by site specific assessment. **A2** Habitable floor levels to be set no lower than the 1% AEP flood level plus freeboard[1]. **A3** Habitable floor levels to be set no lower than the PMF flood level. **A4** Habitable floor levels to be as close to the Minimum Habitable Floor Level as practical and no lower than the existing floor level when undertaking concessional development. **A5** Habitable floor levels to be as close to the 1% AEP flood level plus freeboard[1] as practical, but no lower than the 5% AEP flood level plus freeboard[1]. In situations where the habitable floor level is set below the 1% AEP flood level plus freeboard[1], a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard[1].	**Building Components & Method** **B1** All structures to have flood compatible building components below the 1% AEP flood level plus freeboard[1] (refer **Schedules 3A** and **3B**). **B2** All structures to have flood compatible building components below the 1% AEP flood plus freeboard[1] or the PMF level, whichever is the highest (refer **Schedules 3A** and **3B**).	**Structural Soundness** **C1** Engineers report to certify that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard[1]. **C2** Applicant to demonstrate that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard[1] or a PMF, whichever is the greatest.
Flood Affectation **D1** Flood Impact and Risk Assessment required to certify that the development will not increase flood affectation elsewhere or the flood risk to both occupiers of the proposed development and others. The impact of the development on flooding elsewhere to be considered.	**Emergency Response** **E1** Reliable egress for pedestrians and vehicles required during a 1% AEP flood. **E2** Reliable egress for pedestrians and vehicles required during a PMF. **E3** Reliable egress for pedestrians or vehicles is required from the building, commencing at a minimum level equal to the lowest habitable floor level to an area of refuge above the PMF level, or a minimum of 20 m^2 of the dwelling to be above the PMF level. **E4** The development is to be consistent with any relevant flood evacuation strategy or similar plan. **E5** Applicant to demonstrate that there is rising road egress/access from all allotments internal to the subdivision to land which lies above the PMF.	**Management and Design** **F1** Applicant to demonstrate that potential development as a consequence of a subdivision or development proposal can be undertaken in accordance with the controls set out in this Development Control Plan. **F2** Flood Safe Plan (home or business or farm houses) to address safety and property damage issues (including goods storage and stock management) considering the full range of flood risk. **F3** Site Emergency Response Flood Plan required considering the full range of flood risk **F4** No external storage of materials below the Minimum Habitable Floor Level which may cause pollution or be potentially hazardous during any flood.
Stormwater **G1** Engineers report required to certify that the development will not affect stormwater drainage. **G2** The impact of the development on local overland flooding to be considered.	**Parking and Driveway Access** **H1** The minimum surface level of open car parking spaces or carports shall be as high as practical, but no lower than the 5% AEP flood or the level of the crest of the road at the location where the site has access. In the case of garages, minimum surface level shall be as high as practical but no lower than the 5% AEP flood. **H2** The minimum surface level of open car parking spaces, carports or garages shall be as high as practical. **H3** Garages capable of accommodating more than three motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods up to the 1% AEP flood plus freeboard[1]. **H4** The driveway providing access between the road and parking space shall be as high as practical and generally rising in the egress direction. **H5** The level of the driveway providing access between the road and parking space shall be no lower than 0.3 m below the 1% AEP flood or such that the depth of inundation during a 1% AEP flood is not greater than either the depth at the road or the depth at the car parking space. A lesser standard may be accepted for single detached dwelling houses where it can be demonstrated that risk to human life would not be compromised. **H6** Enclosed car parking and car parking areas accommodating more than three vehicles (other than on Rural zoned land), with a floor level below the 5% AEP flood or more than 0.8 m below the 1% AEP flood level, shall have adequate warning systems, signage and exits. **H7** Restraints or vehicle barriers to be provided to prevent floating vehicles leaving the site during a 1% AEP flood. **H8** Driveway and parking space levels to be no lower than the design ground/floor levels. Where this is not practical, a lower level may be considered. In these circumstances, the level is to be as high as practical, and, when undertaking concessional development, no lower than existing levels.	

1. Unless stated otherwise in an adopted location specific Flood Risk Management Study and Plan, freeboard is equal to 0.5 m for development being assessed under Schedule 2A and 0.3 m for development being assessed under Schedule 2B.

SCHEDULE 3A
GENERAL BUILDING MATTERS

Electrical and Mechanical Equipment

For dwellings constructed on land to which this policy applies, the electrical and mechanical materials, equipment and installation should conform to the following requirements.

Main Power Supply

Subject to the approval of the relevant authority the incoming main commercial power service equipment, including all metering equipment, shall be located above the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. Means shall be available to easily isolate the dwelling from the main power supply.

Wiring

All wiring, power outlets, switches, etc, should be, to the maximum extent possible, located above the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. All electrical wiring installed below this level should be suitable for continuous underwater immersion and should contain no fibrous components. Earth leakage circuit breakers (core balance relays) must be installed. Only submersible type splices should be used below the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. All conduits located below the relevant designated flood level should be so installed that they will be self-draining if subjected to flooding.

Equipment

All equipment installed below or partially below the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B** should be capable of disconnection by a single plug and socket assembly.

Reconnection

Should any electrical device and/or part of the wiring be flooded it should be thoroughly cleaned or replaced and checked by an approved electrical contractor before reconnection.

Heating and Air Conditioning Systems

Where viable, heating and air conditioning systems should be installed in areas and spaces of the house above the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**. When this is not feasible, every precaution should be taken to minimise the damage caused by submersion according to the following guidelines:

i) Fuel

Heating systems using gas or oil as a fuel should have a manually operated valve located in the fuel supply line to enable fuel cut-off.

ii) Installation

The heating equipment and fuel storage tanks should be mounted on and securely anchored to a foundation pad of sufficient mass to overcome buoyancy and prevent movement that could damage the fuel supply line. All storage tanks should be vented to the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B**.

iii) Ducting

All ductwork located below the relevant elevation referred to in control B1 or B2 of **Schedules 2A** and **2B** should be provided with openings for drainage and cleaning. Self-draining may be achieved by constructing the ductwork on a suitable grade. Where ductwork must pass through a watertight wall or floor below the relevant flood level, a closure assembly operated from above the relevant elevation set out under B1 or B2 of **Schedules 2A** and **2B** should protect the ductwork.

Sewer

All sewer connections to properties in flood prone areas are to be fitted with reflux valves.

SCHEDULE 3B
FLOOD COMPATIBLE MATERIALS

Building Component	Flood Compatible Material	Building Component	Flood Compatible Material
Flooring and Sub Floor Structure	• Concrete slab-on-ground monolith construction. Note: clay filling is not permitted beneath slab-on-ground construction which could be inundated. • Pier and beam construction or • Suspended reinforced concrete slab	**Doors**	• Solid panel with waterproof adhesives • Flush door with marine ply filled with closed cell foam • Painted material construction • Aluminium or galvanised steel frame
Floor Covering	• Clay tiles • Concrete, precast or in situ • Concrete tiles • Epoxy formed-in-place • Mastic flooring, formed-in-place • Rubber sheets or tiles with chemical set adhesive • Silicone floors formed-in-place • Vinyl sheets or tiles with chemical-set adhesive • Ceramic tiles, fixed with mortar or chemical set adhesive • Asphalt tiles, fixed with water resistant adhesive • Removable rubber-backed carpet	**Wall and Ceiling Linings**	• Brick, face or glazed • Clay tile glazed in waterproof mortar • Concrete • Concrete block • Steel with waterproof applications • Stone natural solid or veneer, waterproof grout • Glass blocks • Glass • Plastic sheeting or wall with waterproof adhesive
Wall Structure	Solid brickwork, blockwork, reinforced, concrete or mass concrete	**Insulation**	• Foam or closed cell types
Windows	Aluminium frame with stainless steel or brass rollers	**Nails, Bolts, Hinges and Fittings**	• Galvanised • Removable pin hinges

Lyall & Associates

Parkes Shire Council

PARKES SHIRE COUNCIL

COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN

OCTOBER 2025

VOLUME 2 – FIGURES

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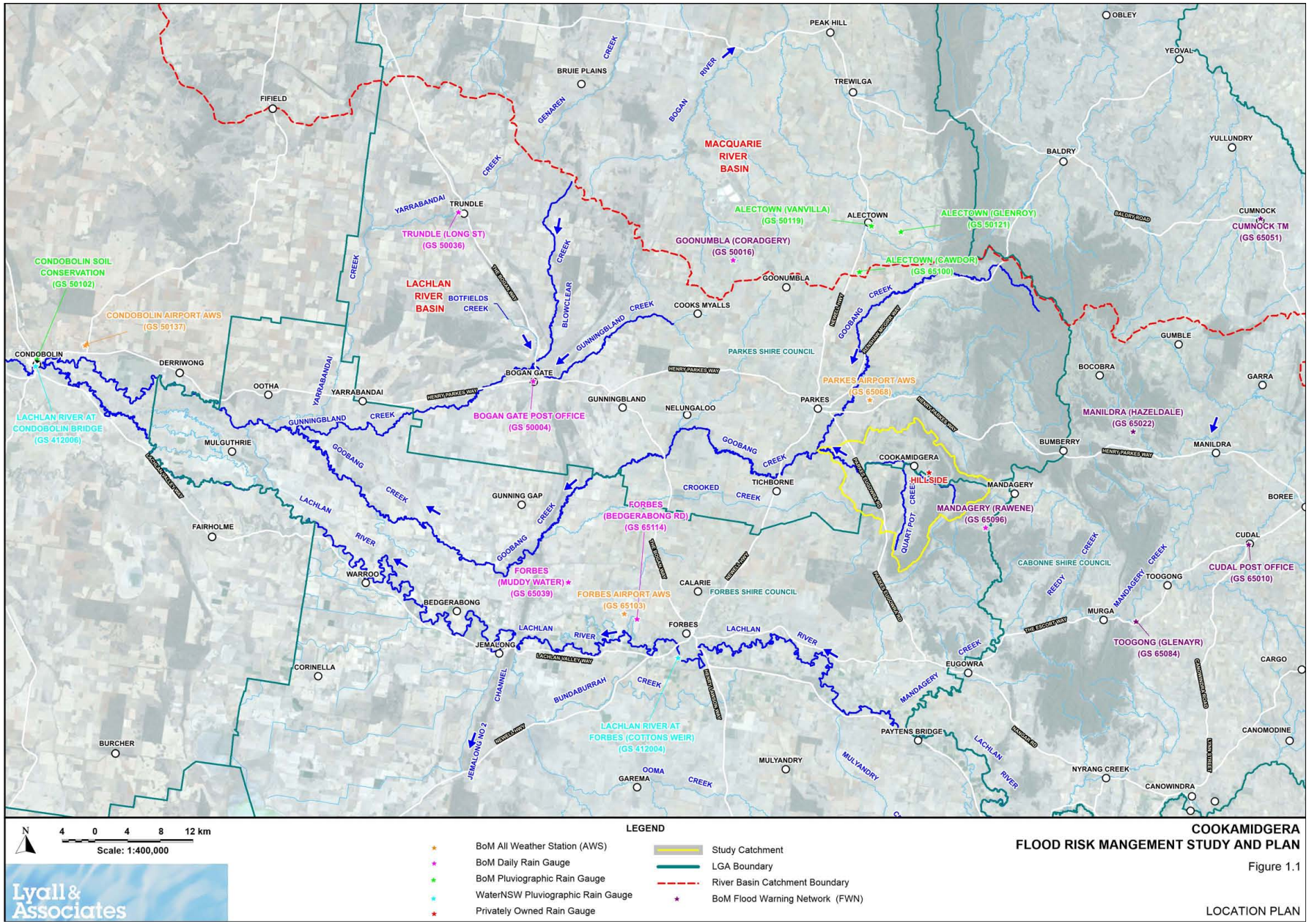
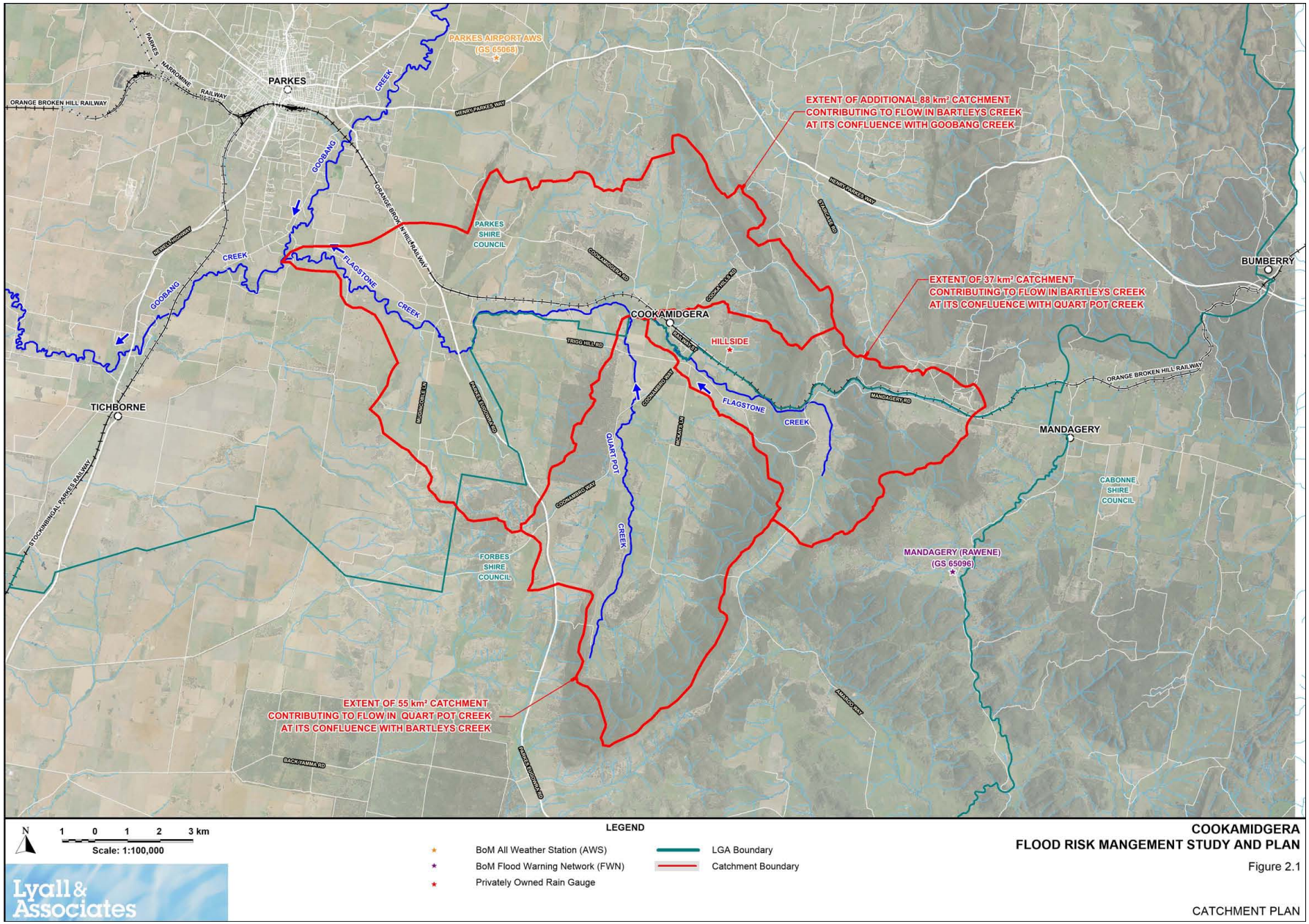
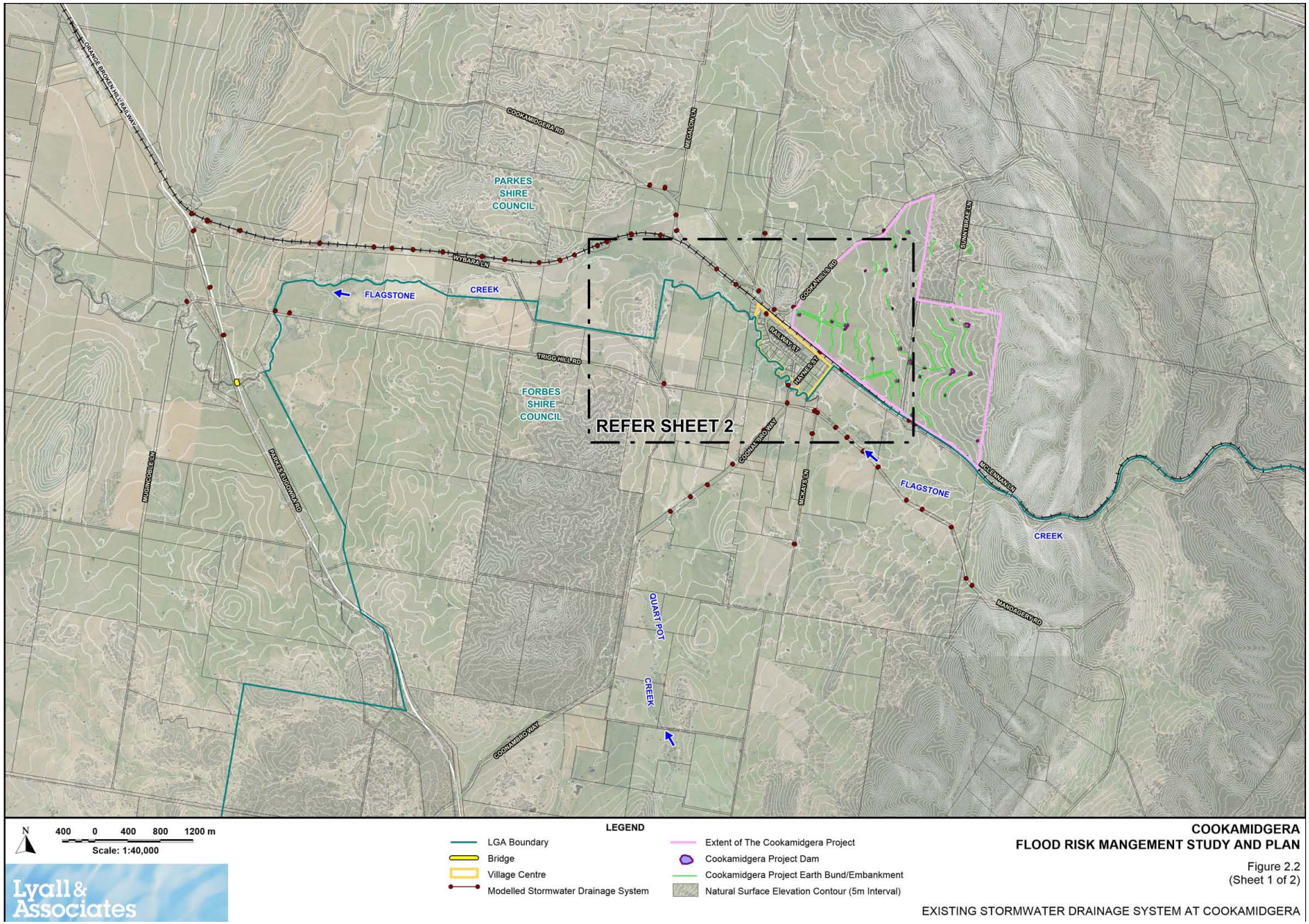
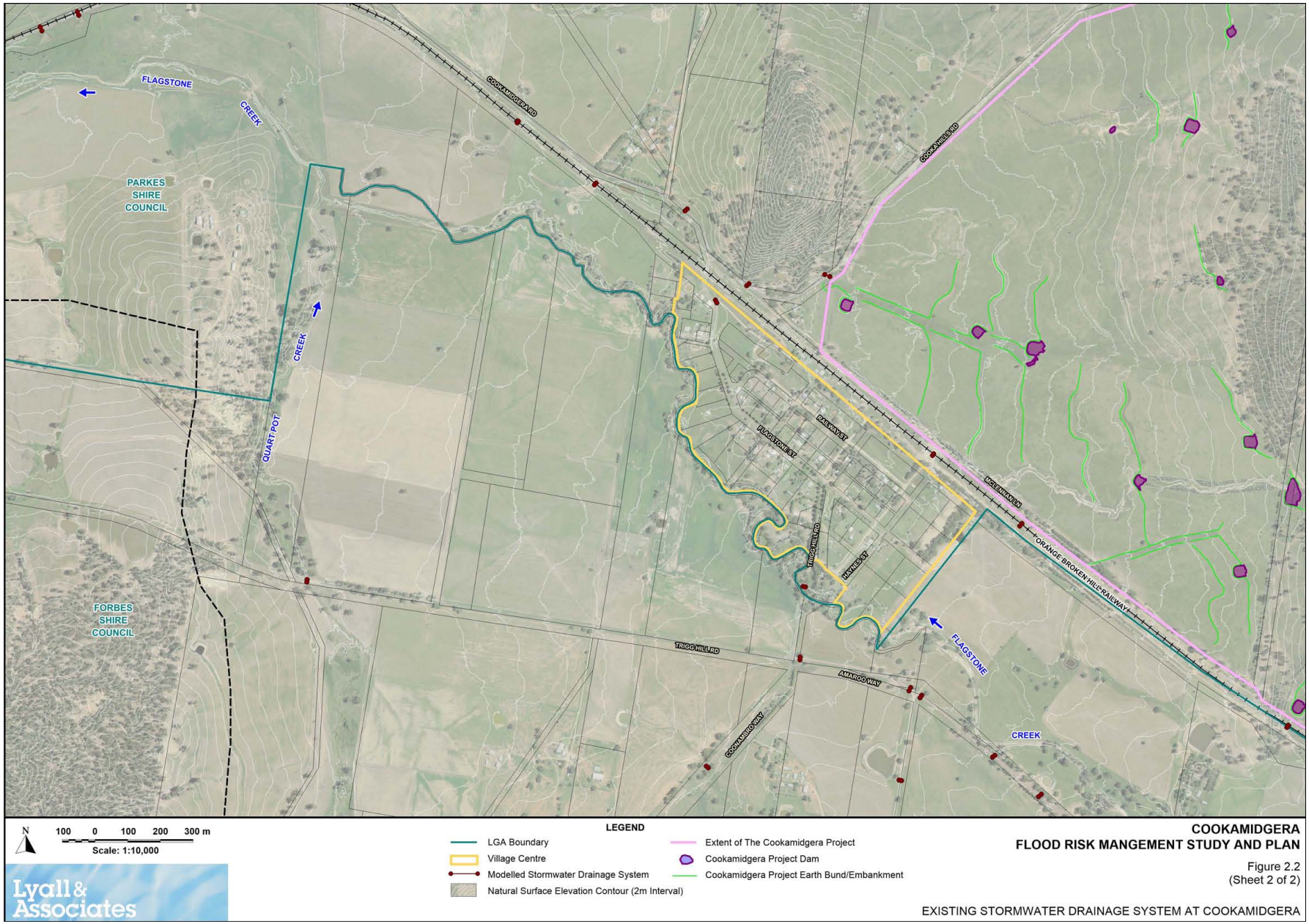
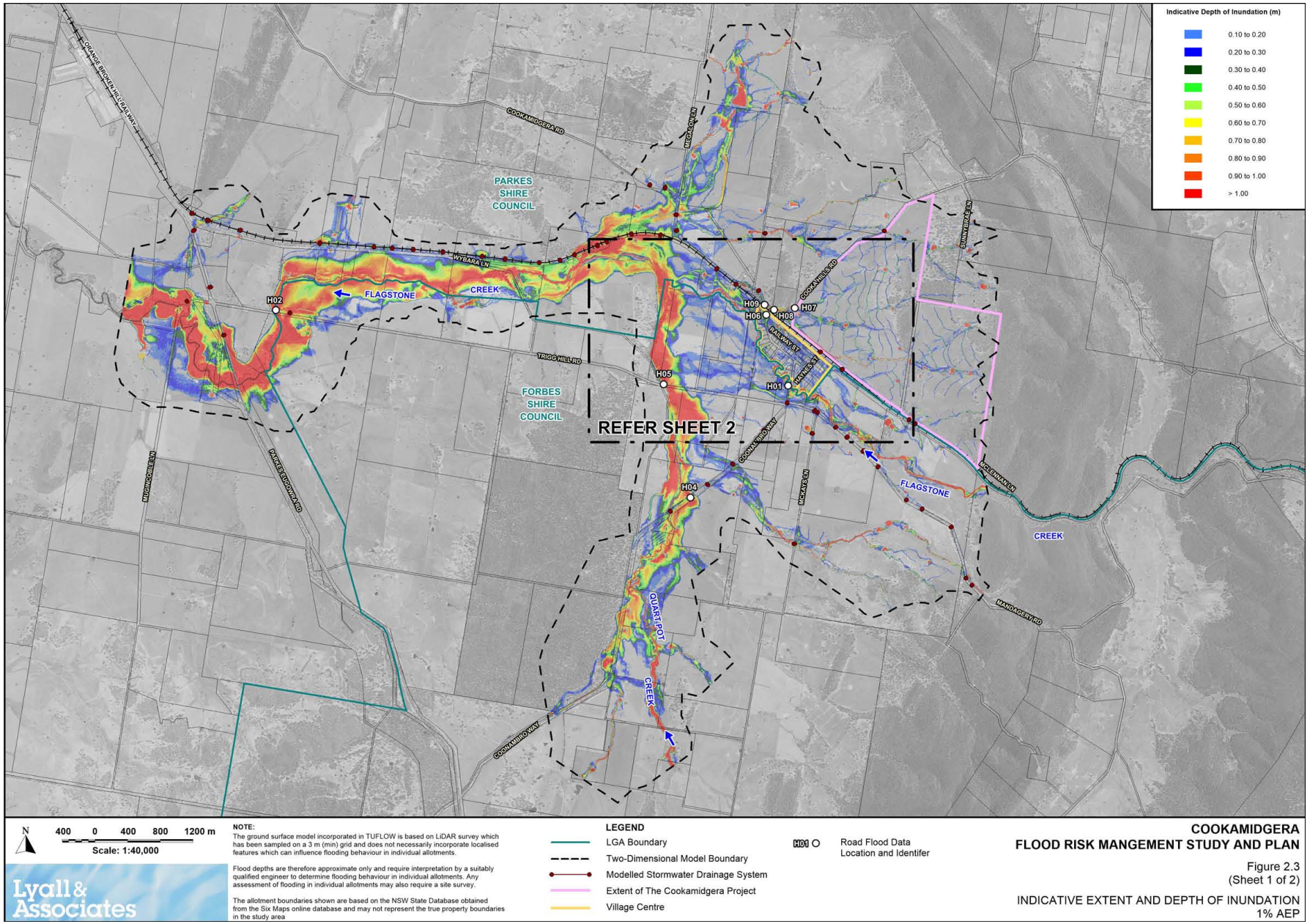
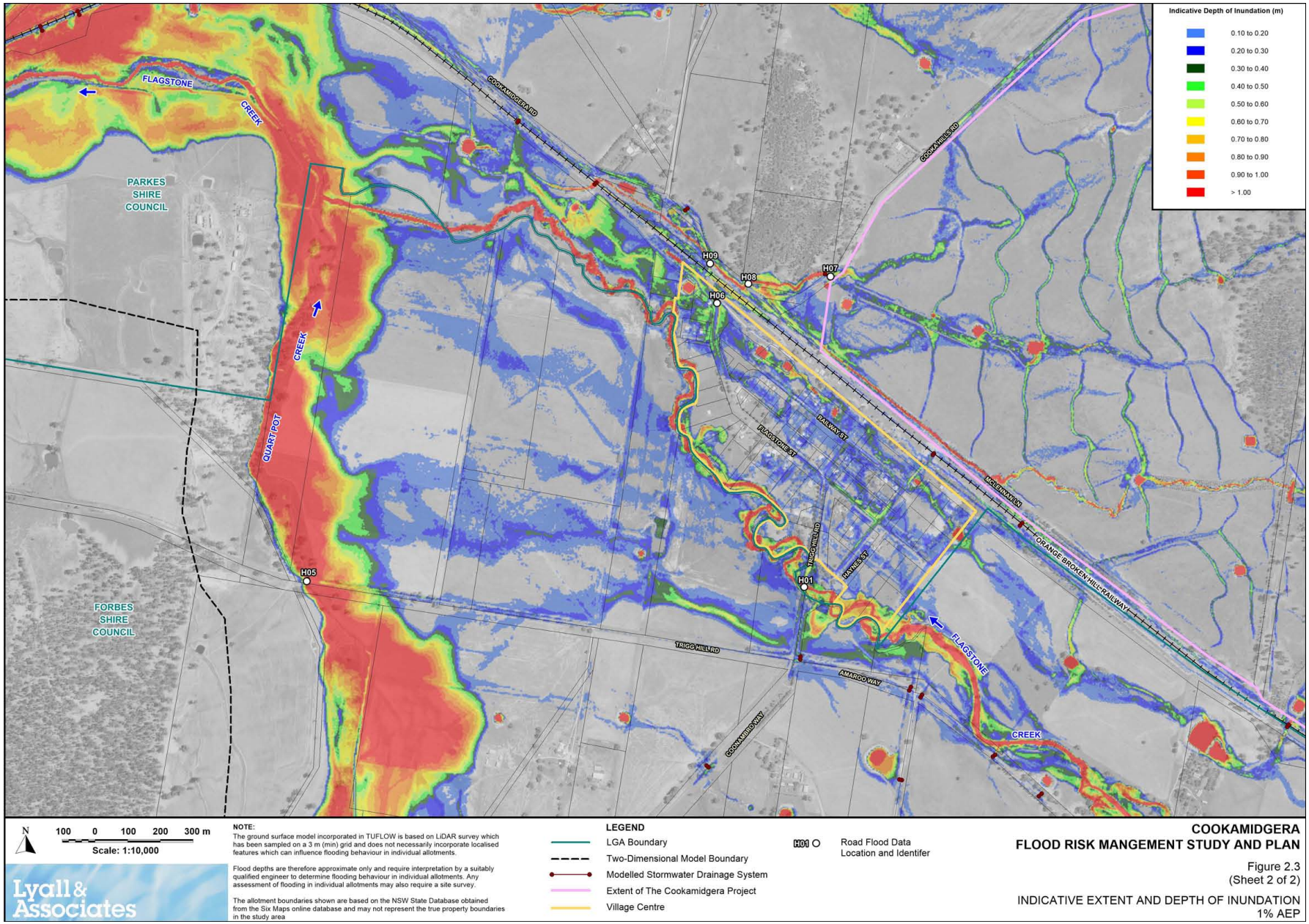

PEAK HILL
OBLEY
YEOVAL
BRUIE PLAINS
TREWILGA
FIFIELD
MACQUARIE RIVER BASIN
BALDRY
YULLUNDRY
TRUNDLE
ALECTOWN (VANVILLA) (GS 50119)
ALECTOWN
ALECTOWN (GLENROY) (GS 50121)
CUMNOCK
CUMNOCK TM (GS 65051)
TRUNDLE (LONG ST) (GS 50036)
GOONUMBLA (CORADGERY) (GS 50016)
ALECTOWN (CAWDOR) (GS 65100)
CONDOBOLIN SOIL CONSERVATION (GS 50102)
LACHLAN RIVER BASIN
BOTFIELDS CREEK
GOONUMBLA
COOKS MYALLS
CONDOBOLIN AIRPORT AWS (GS 50137)
GUMBLE
CONDOBOLIN
DERRIWONG
PARKES SHIRE COUNCIL
BOCOBRA
GARRA
BOGAN GATE
PARKES AIRPORT AWS (GS 65068)
OOTHA
YARRABANDAI
GUNNINGBLAND
NELUNGALOO
PARKES
MANILDRA (HAZELDALE) (GS 65022)
LACHLAN RIVER AT CONDOBOLIN BRIDGE (GS 412006)
BOGAN GATE POST OFFICE (GS 50004)
BUMBERRY
MANILDRA
MULGUTHRIE
COOKAMIDGERA
HILLSIDE
TICHBORNE
MANDAGERY
BOREE
GUNNING GAP
FORBES (BEDGERABONG RD) (GS 65114)
MANDAGERY (RAWENE) (GS 65096)
FAIRHOLME
CUDAL
CABONNE SHIRE COUNCIL
CUDAL POST OFFICE (GS 65010)
WARROO
FORBES (MUDDY WATER) (GS 65039)
CALARIE
FORBES SHIRE COUNCIL
TOOGONG
FORBES AIRPORT AWS (GS 65103)
BEDGERABONG
MURGA
FORBES
TOOGONG (GLENAYR) (GS 65084)
JEMALONG
EUGOWRA
CARGO
CORINELLA
PAYTENS BRIDGE
CANOMODINE
LACHLAN RIVER AT FORBES (COTTONS WEIR) (GS 412004)
BURCHER
MULYANDRY
NYRANG CREEK
GAREMA
CANOWINDRA
N
4 0 4 8 12 km
Scale: 1:400,000
LEGEND
BoM All Weather Station (AWS)
BoM Daily Rain Gauge
BoM Pluviographic Rain Gauge
WaterNSW Pluviographic Rain Gauge
Privately Owned Rain Gauge
Study Catchment
LGA Boundary
River Basin Catchment Boundary
BoM Flood Warning Network (FWN)
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 1.1
LOCATION PLAN

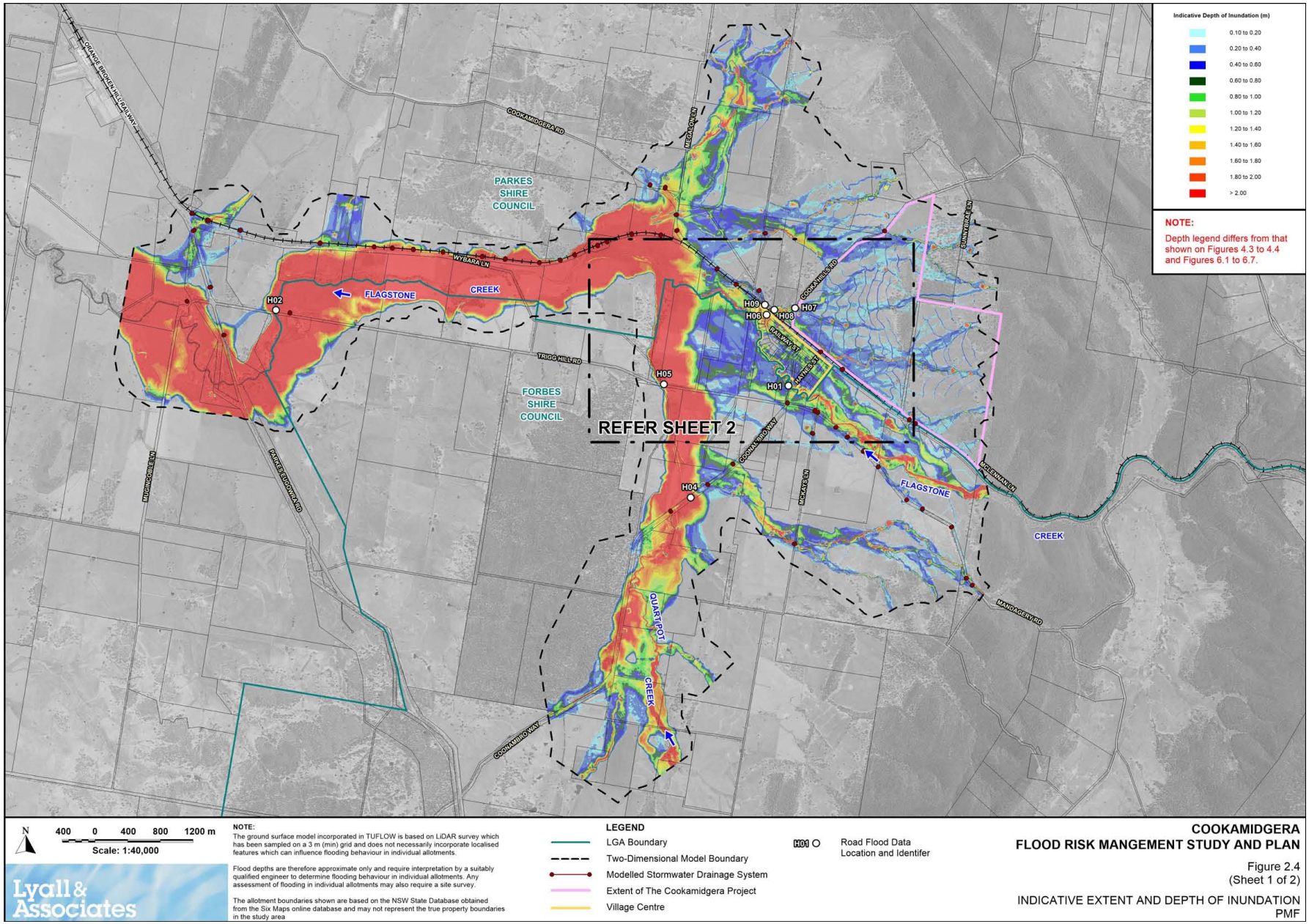

PARKES
PARKES AIRPORT AWS (GS 65068)
EXTENT OF ADDITIONAL 88 km² CATCHMENT CONTRIBUTING TO FLOW IN BARTLEYS CREEK AT ITS CONFLUENCE WITH GOOBANG CREEK
EXTENT OF 37 km² CATCHMENT CONTRIBUTING TO FLOW IN BARTLEYS CREEK AT ITS CONFLUENCE WITH QUART POT CREEK
EXTENT OF 55 km² CATCHMENT CONTRIBUTING TO FLOW IN QUART POT CREEK AT ITS CONFLUENCE WITH BARTLEYS CREEK
COOKAMIDGERA
HILLSIDE
BUMBERRY
TICHBORNE
MANDAGERY
MANDAGERY (RAWENE) (GS 65096)
GOOBANG CREEK
FLAGSTONE CREEK
QUART POT CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
CABONNE SHIRE COUNCIL
ORANGE BROKEN HILL RAILWAY
PARKES NARROMINE RAILWAY
STOCKINBINGAL PARKES RAILWAY
HENRY PARKES WAY
NEWELL HIGHWAY
COOKAMIDGERA RD
TRIGG HILL RD
MANDAGERY RD
COONOBIBBY WAY
BACK YAMMA RD
N
1 0 1 2 3 km
Scale: 1:100,000
LEGEND
BoM All Weather Station (AWS)
BoM Flood Warning Network (FWN)
Privately Owned Rain Gauge
LGA Boundary
Catchment Boundary
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.1
CATCHMENT PLAN

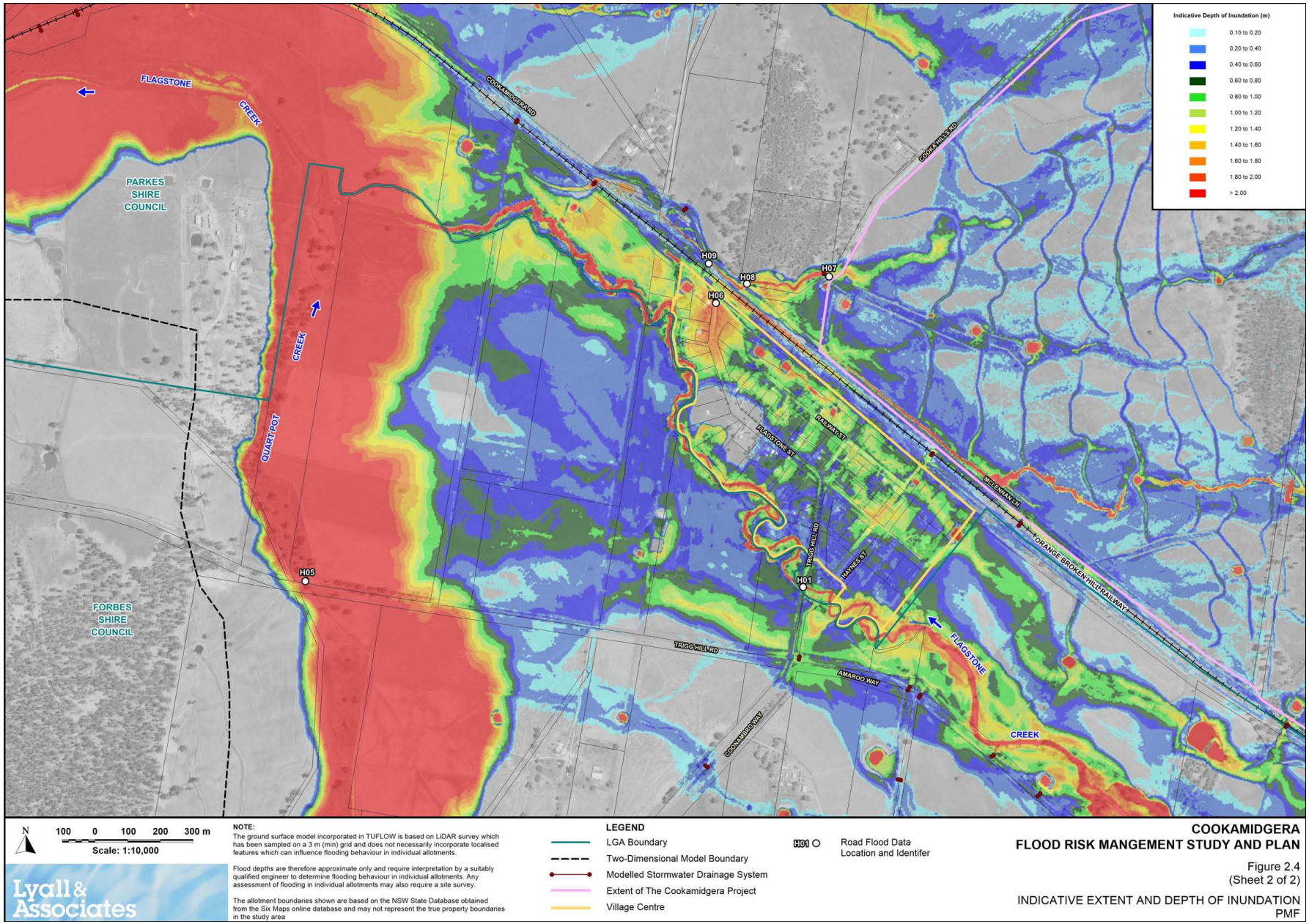

ORANGE-BROKEN HILL RAILWAY
COOKAMIDGERA RD
WEBALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
COOKA HILL RD
SUNNYBRAE LN
RAILWAY ST
HAYNES ST
TRIG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
COONAMBRO WAY
HIGHCROFT LN
PARKES BIDDON RD
MCKAYS LN
MORLEWANA LN
FLAGSTONE
CREEK
MANDAGERY RD
QUART POT
CREEK
COONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
Lyall & Associates
LEGEND
LGA Boundary
Bridge
Village Centre
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Cookamidgera Project Dam
Cookamidgera Project Earth Bund/Embankment
Natural Surface Elevation Contour (5m Interval)
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.2
(Sheet 1 of 2)
EXISTING STORMWATER DRAINAGE SYSTEM AT COOKAMIDGERA


FLAGSTONE
CREEK
PARKES SHIRE COUNCIL
COOKAMIDGERA RD
COOKAMIDGERA HILL RD
QUART POT
CREEK
FLAGSTONE ST
RAILWAY ST
HOLLEWAY LN
ORANGE BROKEN HILL RAILWAY
TRIGG HILL RD
HAYES ST
FORBES SHIRE COUNCIL
TRIGG HILL RD
FLAGSTONE
AMAROO WAY
COOKAMIDGERA WAY
CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
Lyall & Associates
LEGEND
LGA Boundary
Village Centre
Modelled Stormwater Drainage System
Natural Surface Elevation Contour (2m Interval)
Extent of The Cookamidgera Project
Cookamidgera Project Dam
Cookamidgera Project Earth Bund/Embankment
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.2
(Sheet 2 of 2)
EXISTING STORMWATER DRAINAGE SYSTEM AT COOKAMIDGERA


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE CREEK
H02
TRIGG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
H05
H09
H06
H08
H07
H01
COOKAMIDGERA HILL RD
SUNNYBRAE LN
RAILWAY ST
HAYNES ST
MIDGINGORE LN
PARKES BOGAN RD
COOMBARO WAY
H04
MEKANE LN
FLAGSTONE CREEK
QUARRY POT CREEK
MANDAGERY RD
COOMBARO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road Flood Data Location and Identifer
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.3
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTH OF INUNDATION
1% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
COOKAMIDGERA RD
COOKAMILL RD
RAILWAY ST
FLAGSTONE ST
MORENGANY LN
ORANGE BROKEN HILL RAILWAY
TRIGG HILL RD
HAYNES ST
AMAROO WAY
COOKAMIDGERA WAY
H01
H05
H06
H07
H08
H09
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road Flood Data Location and Identifer
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.3
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTH OF INUNDATION
1% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.40
0.40 to 0.60
0.60 to 0.80
0.80 to 1.00
1.00 to 1.20
1.20 to 1.40
1.40 to 1.60
1.60 to 1.80
1.80 to 2.00
> 2.00
NOTE:
Depth legend differs from that shown on Figures 4.3 to 4.4 and Figures 6.1 to 6.7.
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER SHEET 2
FLAGSTONE CREEK
QUARTPOT CREEK
COOKAMIDGERA RD
WYBARA LN
TRIGG HILL RD
COOKAMIDGERA HILL RD
SUNNYBRAE LN
RAILWAY ST
HAYNES ST
NEBALON LN
GOONAMBRO WAY
MIDGINGORE LN
PARKES BIGGOMAH RD
MERKINS LN
MANDAGERY RD
H01
H02
H04
H05
H06
H07
H08
H09
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road Flood Data Location and Identifer
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.4
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTH OF INUNDATION
PMF


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.40
0.40 to 0.60
0.60 to 0.80
0.80 to 1.00
1.00 to 1.20
1.20 to 1.40
1.40 to 1.60
1.60 to 1.80
1.80 to 2.00
> 2.00
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
COOKAMIDGERA RD
COOKAMIDGERA HILLS RD
RAILWAY ST
FLAGSTONE ST
MCGLYNN LN
TRIGG HILL RD
HAINES ST
ORANGE BROKEN HILL RAILWAY
AMAROO WAY
COOKAMIDGERA WAY
H01
H05
H06
H07
H08
H09
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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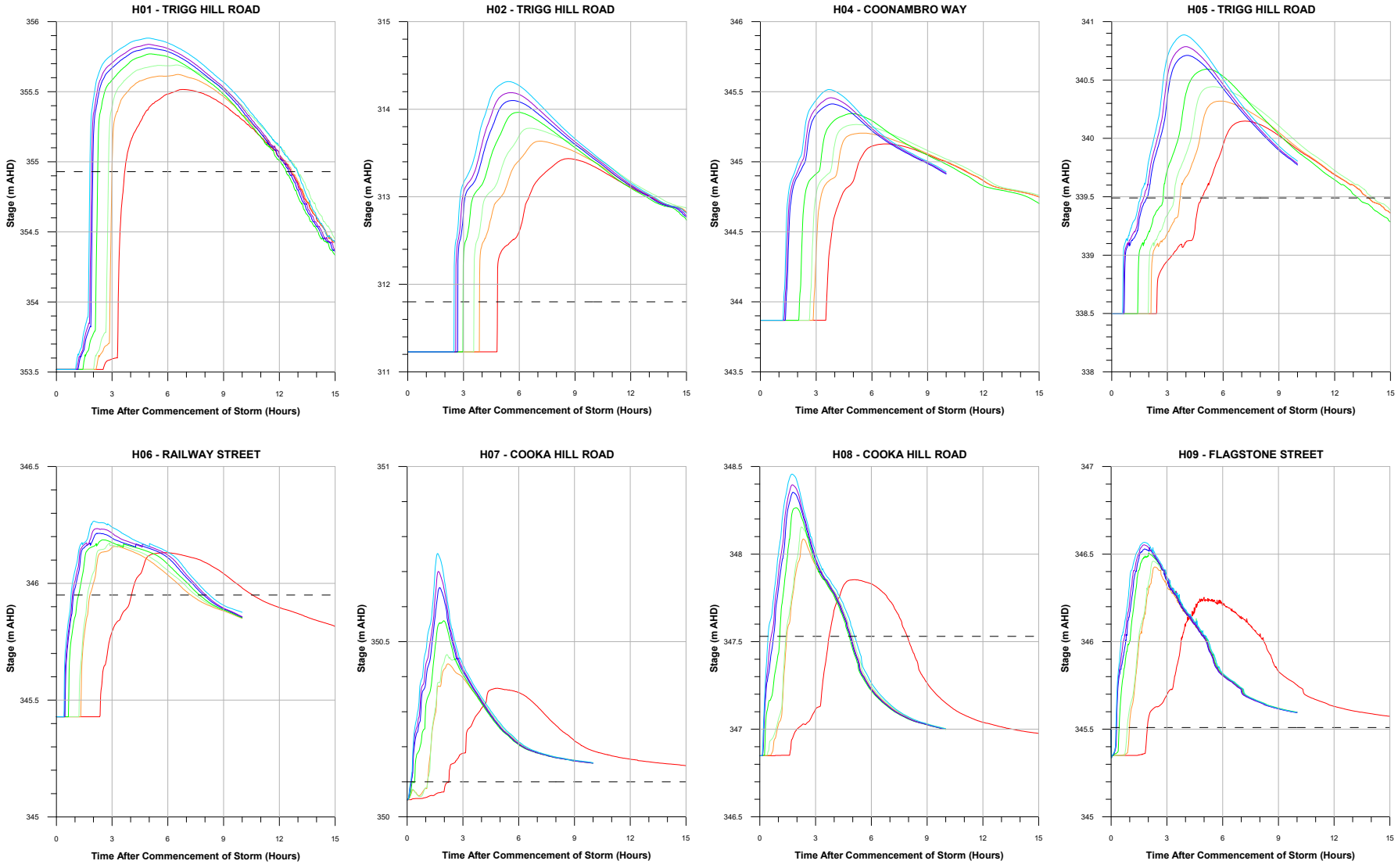
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road Flood Data Location and Identifer
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.4
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTH OF INUNDATION
PMF



Lyall & Associates

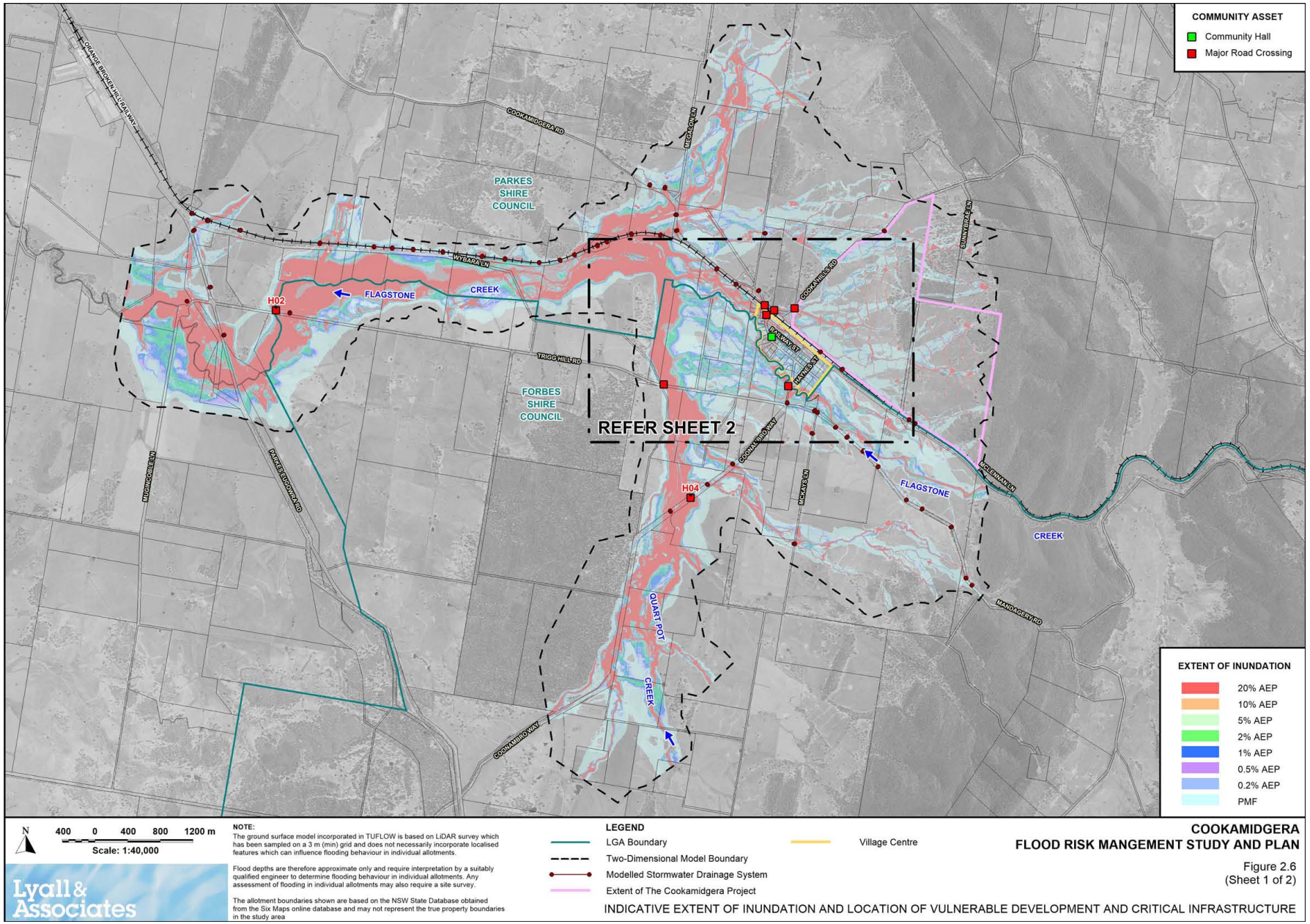
NOTES:

Refer **Figures 2.3** and **2.4** for Peak Flood Level Locations.

COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN

Figure 2.5

TIME OF RISE OF FLOODWATERS


COMMUNITY ASSET
Community Hall
Major Road Crossing
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
H02
TRIGG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
COOKAMIDGERA HILL RD
SUNNYSIDE LN
BYLWAY ST
HAYNES ST
COOMAMBRO WAY
MIDNIGHORSE LN
PARKES BOGAN RD
H04
MCKAYS LN
FLAGSTONE
CREEK
MOLONGLO LN
MANDAGERY RD
QUARTPOT
CREEK
COOMAMBRO WAY
EXTENT OF INUNDATION
20% AEP
10% AEP
5% AEP
2% AEP
1% AEP
0.5% AEP
0.2% AEP
PMF
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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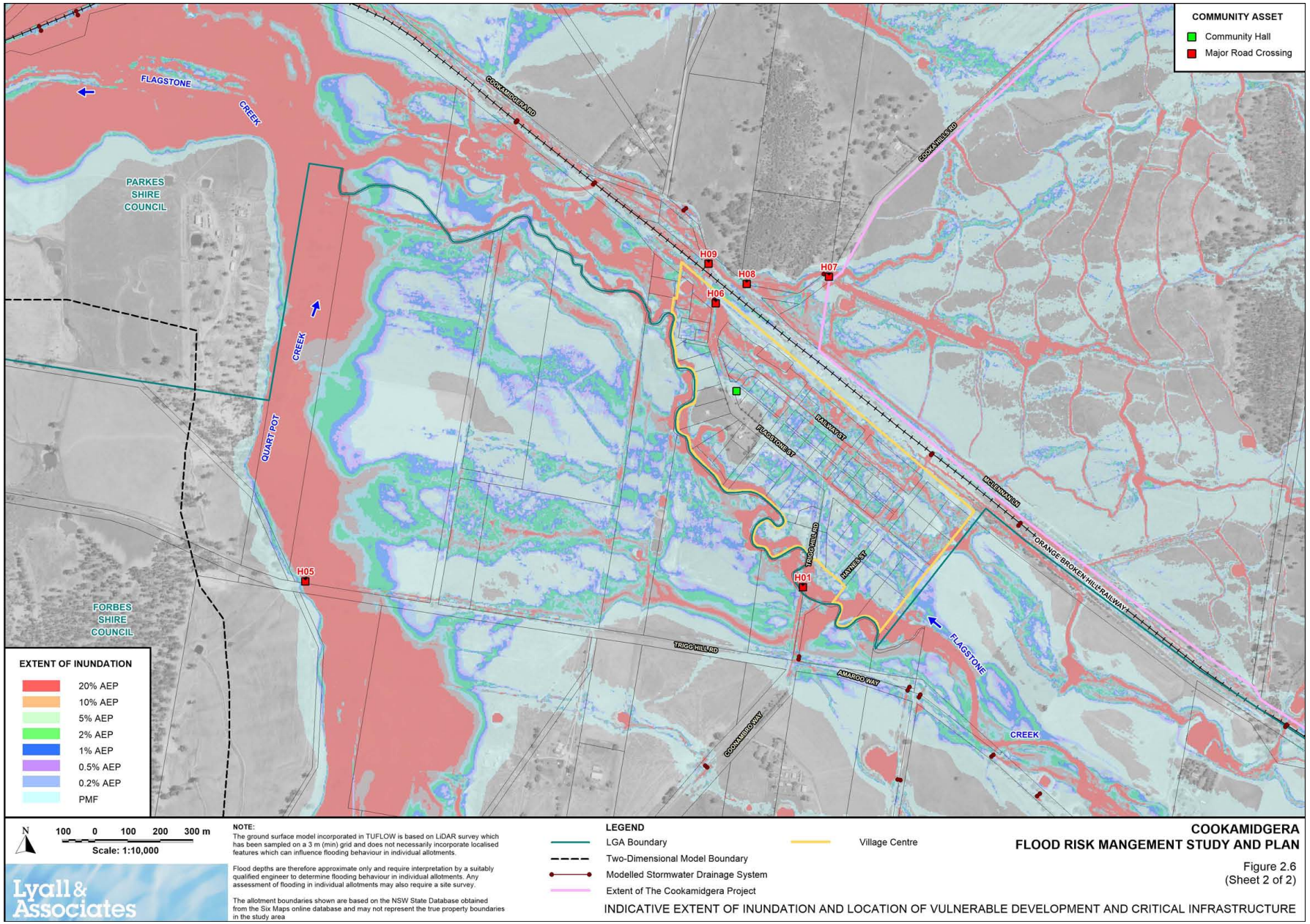
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
INDICATIVE EXTENT OF INUNDATION AND LOCATION OF VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.6
(Sheet 1 of 2)


COMMUNITY ASSET
Community Hall
Major Road Crossing
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUART POT CREEK
COOKAMIDGERA RD
COOKAHILLS RD
RAILWAY ST
FLAGSTONE ST
HANNELL ST
TRIGG HILL RD
AMARGO WAY
COOKAMIDGERA WAY
ORANGE BROKEN HILL RAILWAY
H01
H05
H06
H07
H08
H09
EXTENT OF INUNDATION
20% AEP
10% AEP
5% AEP
2% AEP
1% AEP
0.5% AEP
0.2% AEP
PMF
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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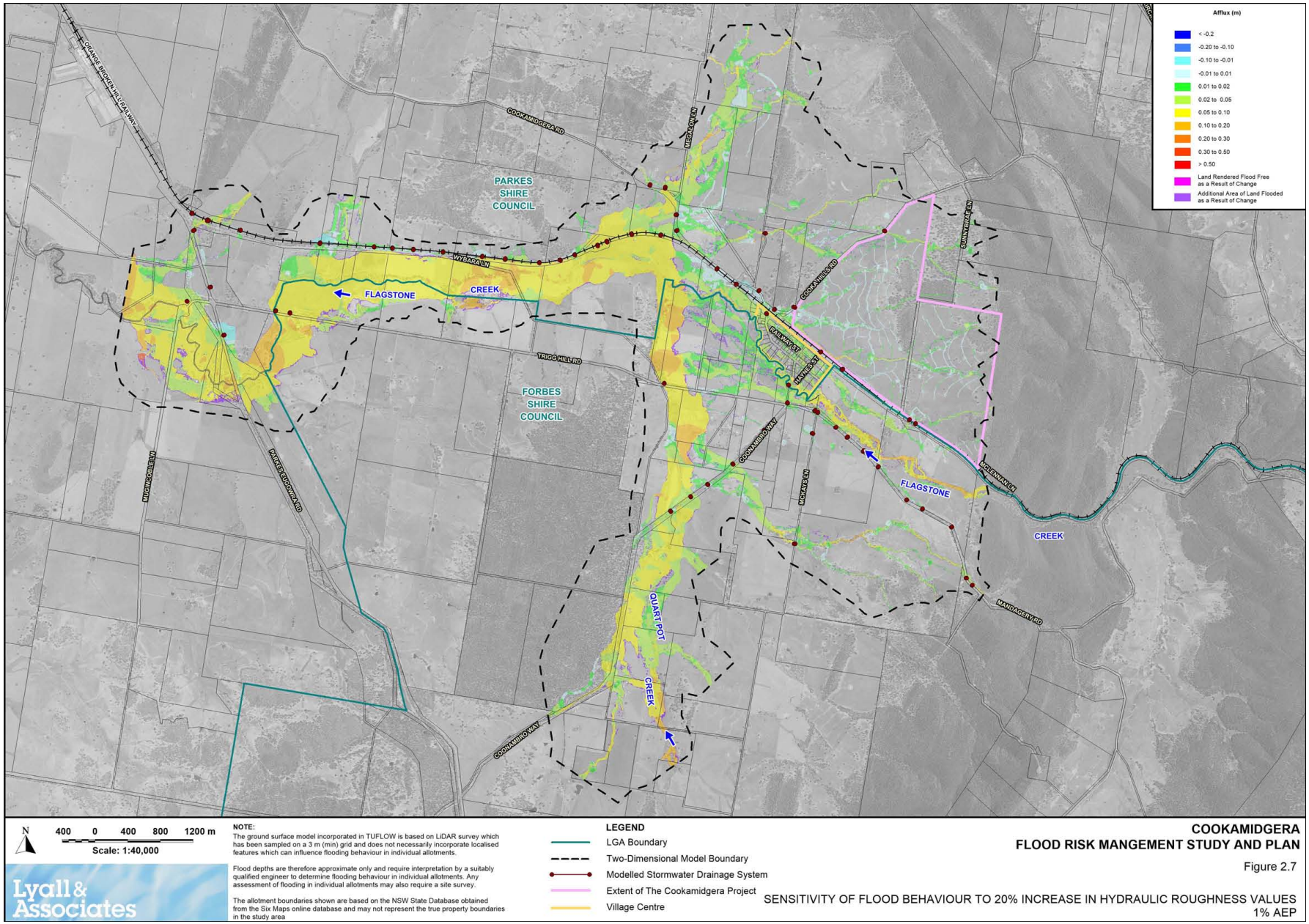
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.6
(Sheet 2 of 2)
INDICATIVE EXTENT OF INUNDATION AND LOCATION OF VULNERABLE DEVELOPMENT AND CRITICAL INFRASTRUCTURE


Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
SUNNYDALE LN
COOKAMIDGERA RD
RAILWAY ST
HAYNES ST
TRIGG HILL RD
FORBES SHIRE COUNCIL
COONAMBRO WAY
MIDGINGORE LN
PARKES BIGGOMAH RD
MCKAYS LN
FLAGSTONE
BOLENNAN LN
CREEK
QUARTPOT
CREEK
MANDAGERY RD
COONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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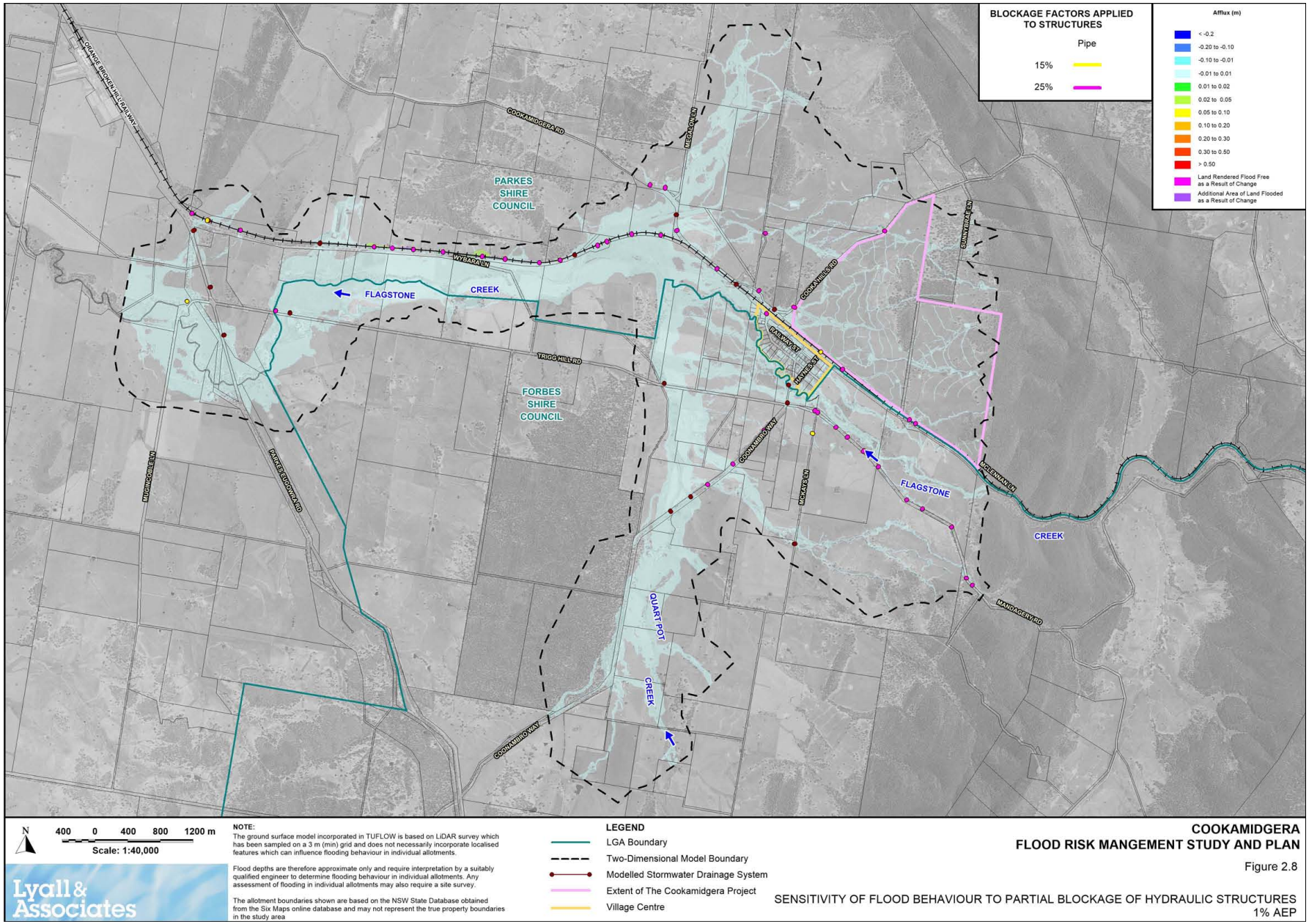
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.7
SENSITIVITY OF FLOOD BEHAVIOUR TO 20% INCREASE IN HYDRAULIC ROUGHNESS VALUES
1% AEP


BLOCKAGE FACTORS APPLIED TO STRUCTURES
Pipe
15%
25%
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
SUNNYSIDE LN
COOKAMIDGERA RD
RAILWAY ST
HAYNES ST
TRIGG HILL RD
FORBES SHIRE COUNCIL
MIDGINGORE LN
PARKES BOGAN RD
COONAMBRO WAY
MCKAYS LN
FLAGSTONE
BOLENNAN LN
CREEK
QUARTPOT
CREEK
MANDAGERY RD
COONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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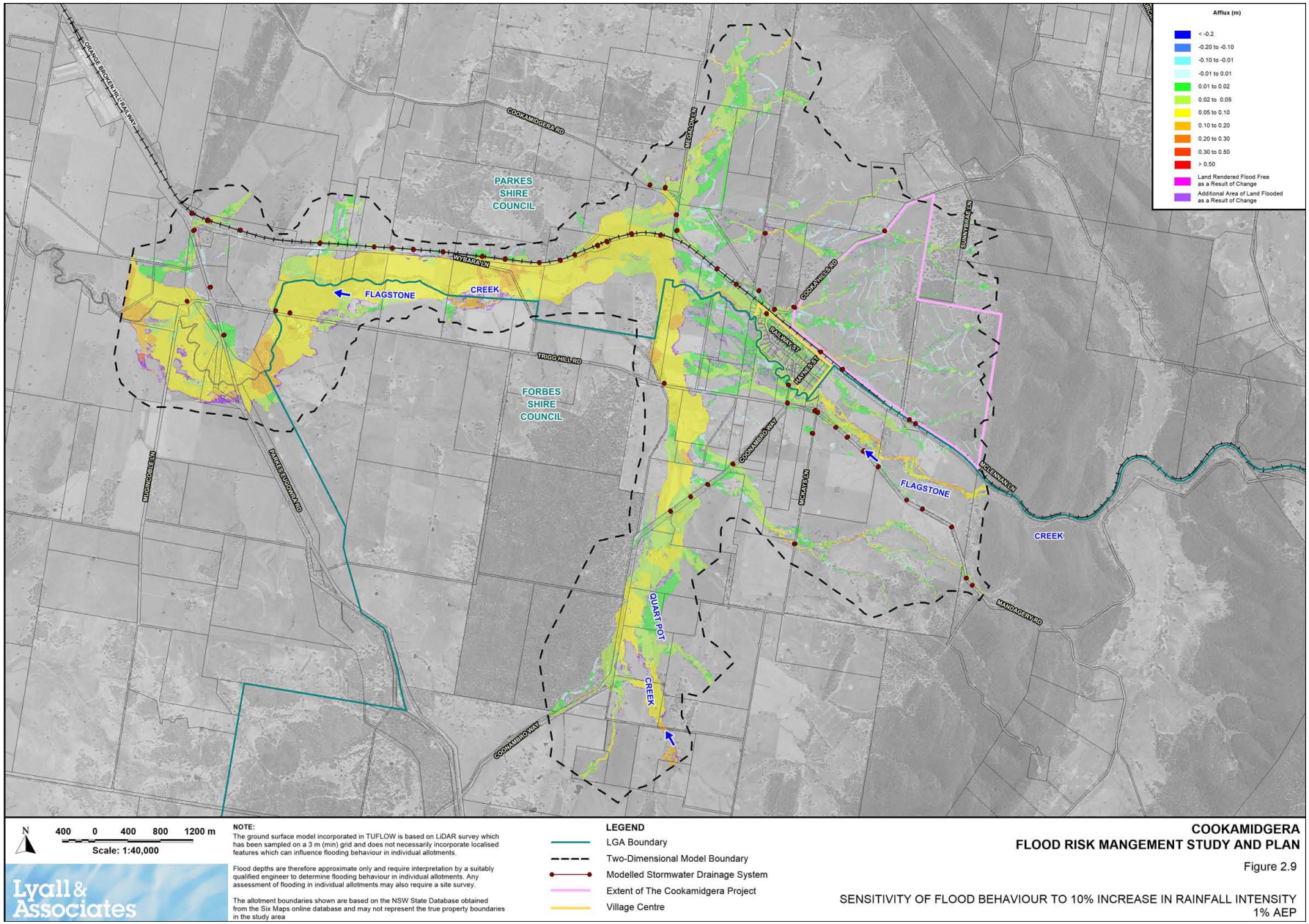
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.8
SENSITIVITY OF FLOOD BEHAVIOUR TO PARTIAL BLOCKAGE OF HYDRAULIC STRUCTURES
1% AEP


Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
SUNNYBRAE LN
COOKAMIDGERA RD
RAILWAY ST
HAYNES ST
TRIGG HILL RD
FORBES SHIRE COUNCIL
MIDGINGORE LN
PARKES BOGAN RD
COONAMBRO WAY
MCKAYS LN
FLAGSTONE
BOLENNAN LN
CREEK
QUARTPOT
CREEK
MANDAGERY RD
COONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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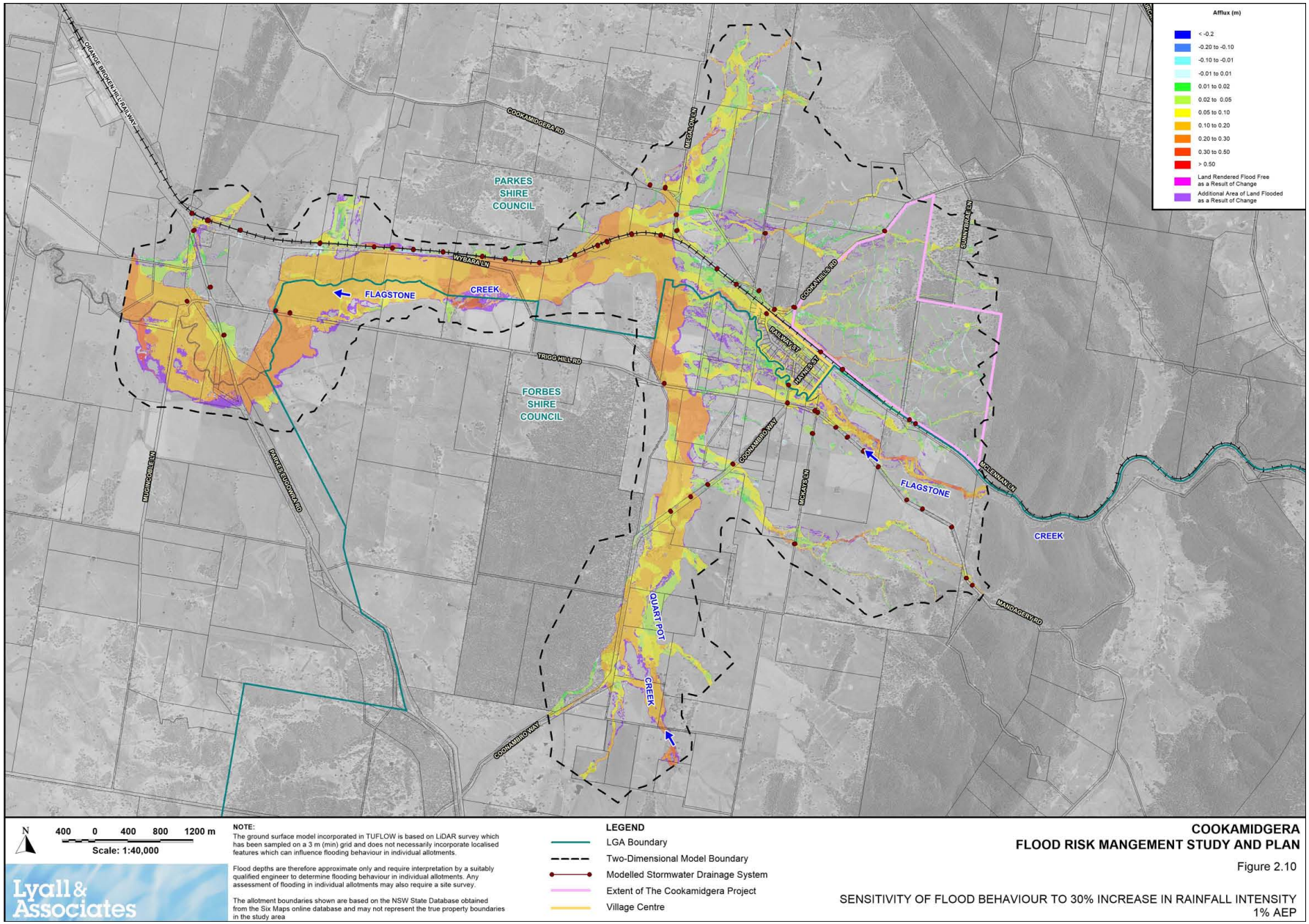
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.9
SENSITIVITY OF FLOOD BEHAVIOUR TO 10% INCREASE IN RAINFALL INTENSITY
1% AEP


Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
TRIGG HILL RD
FORBES SHIRE COUNCIL
COOKAMIDGERA HILL RD
SUNNYBRAE LN
RAILWAY ST
HAYNES ST
COONAMBRO WAY
MCKAYS LN
MIDGINGORE LN
PARKES BOGAN RD
FLAGSTONE
CREEK
MANDAGERY RD
QUARTPOT
CREEK
COONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
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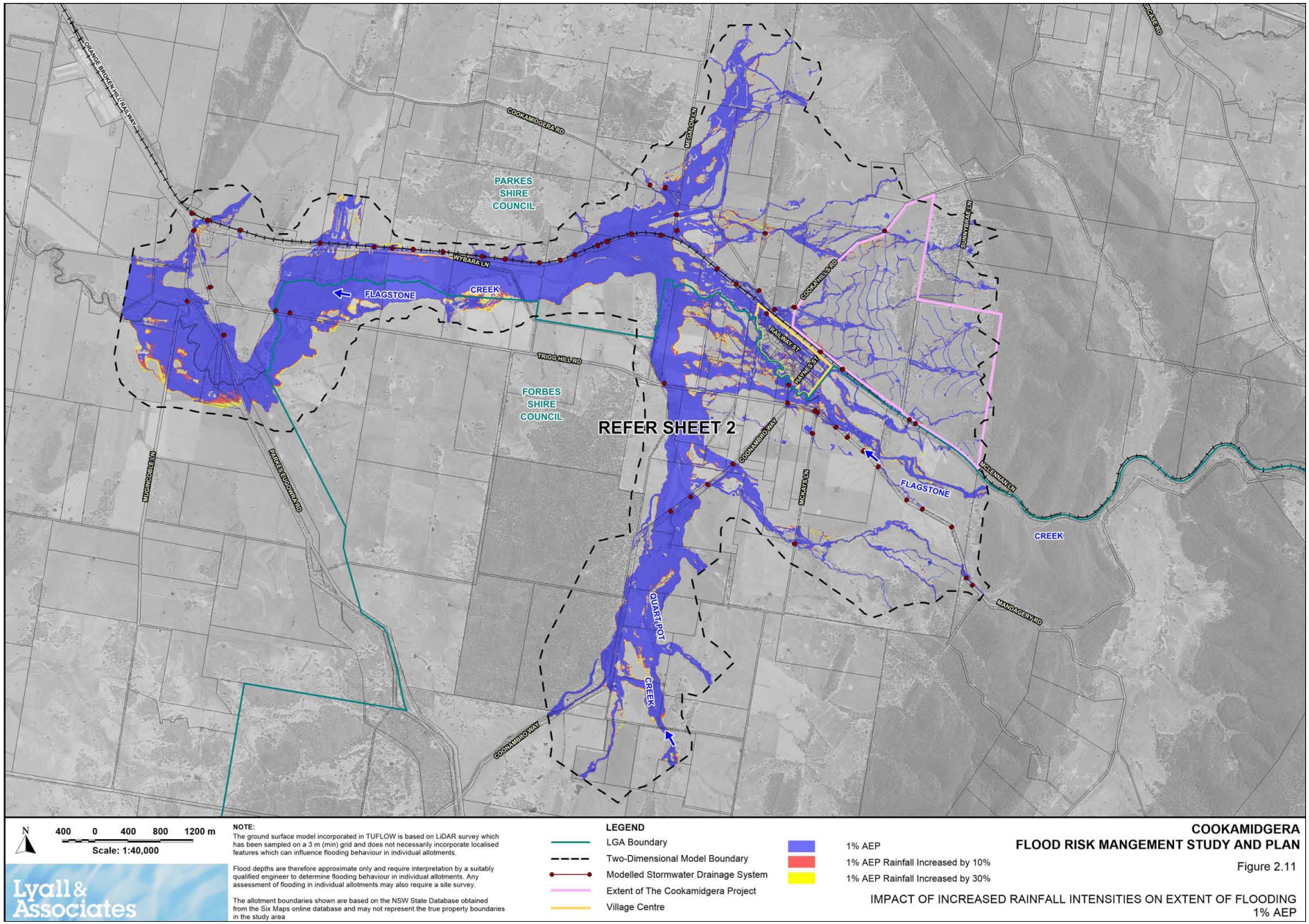
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.10
SENSITIVITY OF FLOOD BEHAVIOUR TO 30% INCREASE IN RAINFALL INTENSITY
1% AEP


ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
TRIGG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
MIDNIGHORSE LN
PARKES BOGAN RD
COOKAMIDGERA WAY
MCKAYS LN
COOKAMIDGERA HILL RD
SUNNYBRAE LN
BOGATS RD
RAILWAY ST
HAYNES ST
MOLONGLO LN
FLAGSTONE
CREEK
MANDAGERY RD
QUARRY POT
CREEK
COOKAMIDGERA WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
Lyall & Associates
NOTE:
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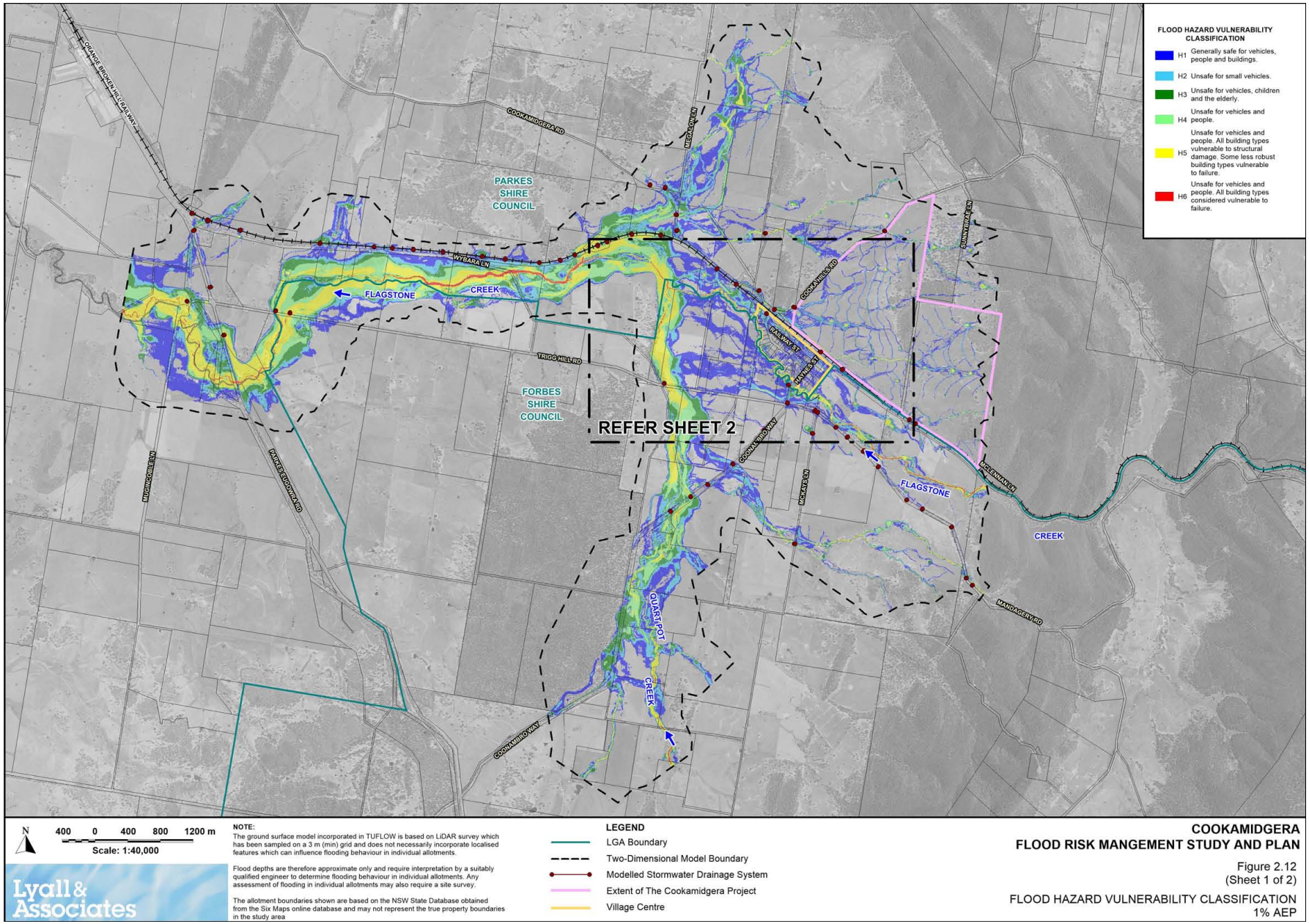
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
1% AEP
1% AEP Rainfall Increased by 10%
1% AEP Rainfall Increased by 30%
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.11
IMPACT OF INCREASED RAINFALL INTENSITIES ON EXTENT OF FLOODING
1% AEP


FLOOD HAZARD VULNERABILITY CLASSIFICATION
H1 Generally safe for vehicles, people and 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 building types vulnerable to structural damage. Some less robust building types vulnerable to failure.
H6 Unsafe for vehicles and people. All building types considered vulnerable to failure.
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
SUNNYBRAE LN
COOKAMIDGERA RD
RAILWAY ST
HAYNES ST
TRIGG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
COOMABRO WAY
MIDGINGORE LN
PARKES BOGNOVAR RD
MCKAYS LN
FLAGSTONE
DOLLENNAN LN
CREEK
MANDAGERY RD
QUARRIPOT
CREEK
COOMABRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
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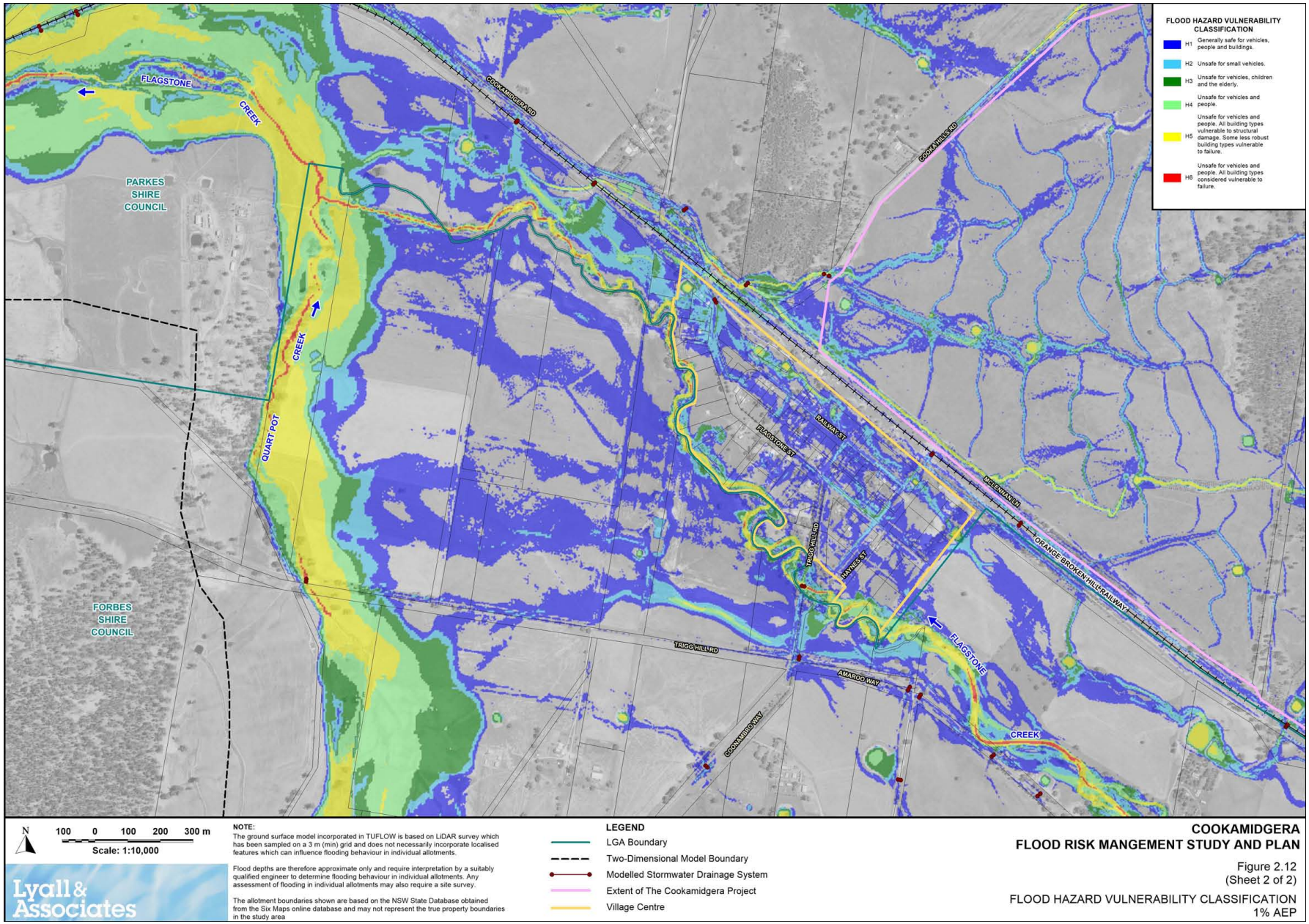
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.12
(Sheet 1 of 2)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
1% AEP


FLOOD HAZARD VULNERABILITY CLASSIFICATION
H1 Generally safe for vehicles, people and 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 building types vulnerable to structural damage. Some less robust building types vulnerable to failure.
H6 Unsafe for vehicles and people. All building types considered vulnerable to failure.
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUART POT CREEK
COOKAMIDGERA RD
COOKAMIDGERA HILLS RD
RAILWAY ST
FLAGSTONE ST
HOLEMAN LN
TRIGG HILL RD
HAYNES ST
ORANGE BROKEN HILL RAILWAY
AMARGO WAY
COOKAMIDGERA WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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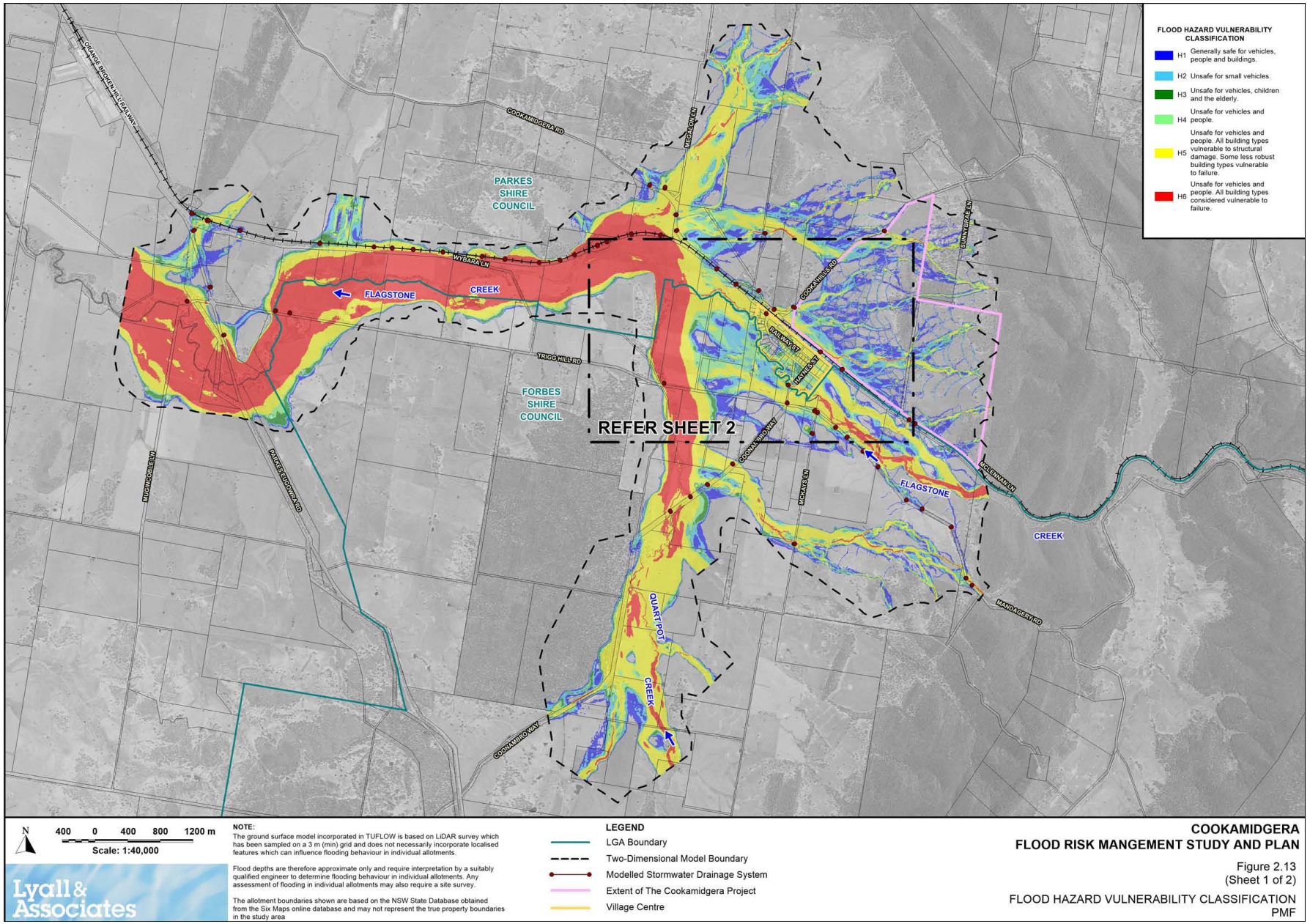
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.12
(Sheet 2 of 2)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
1% AEP


FLOOD HAZARD VULNERABILITY CLASSIFICATION
H1 Generally safe for vehicles, people and 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 building types vulnerable to structural damage. Some less robust building types vulnerable to failure.
H6 Unsafe for vehicles and people. All building types considered vulnerable to failure.
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
SUNNYBRAE LN
COOKAMIDGERA RD
RAILWAY ST
HAYNES ST
TRIGG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
GOONAMBRO WAY
MIDGINGORE LN
PARKES BOGAN RD
MCKAYS LN
FLAGSTONE
YOUENNAN LN
CREEK
MANDAGERY RD
QUARTPOT
CREEK
GOONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
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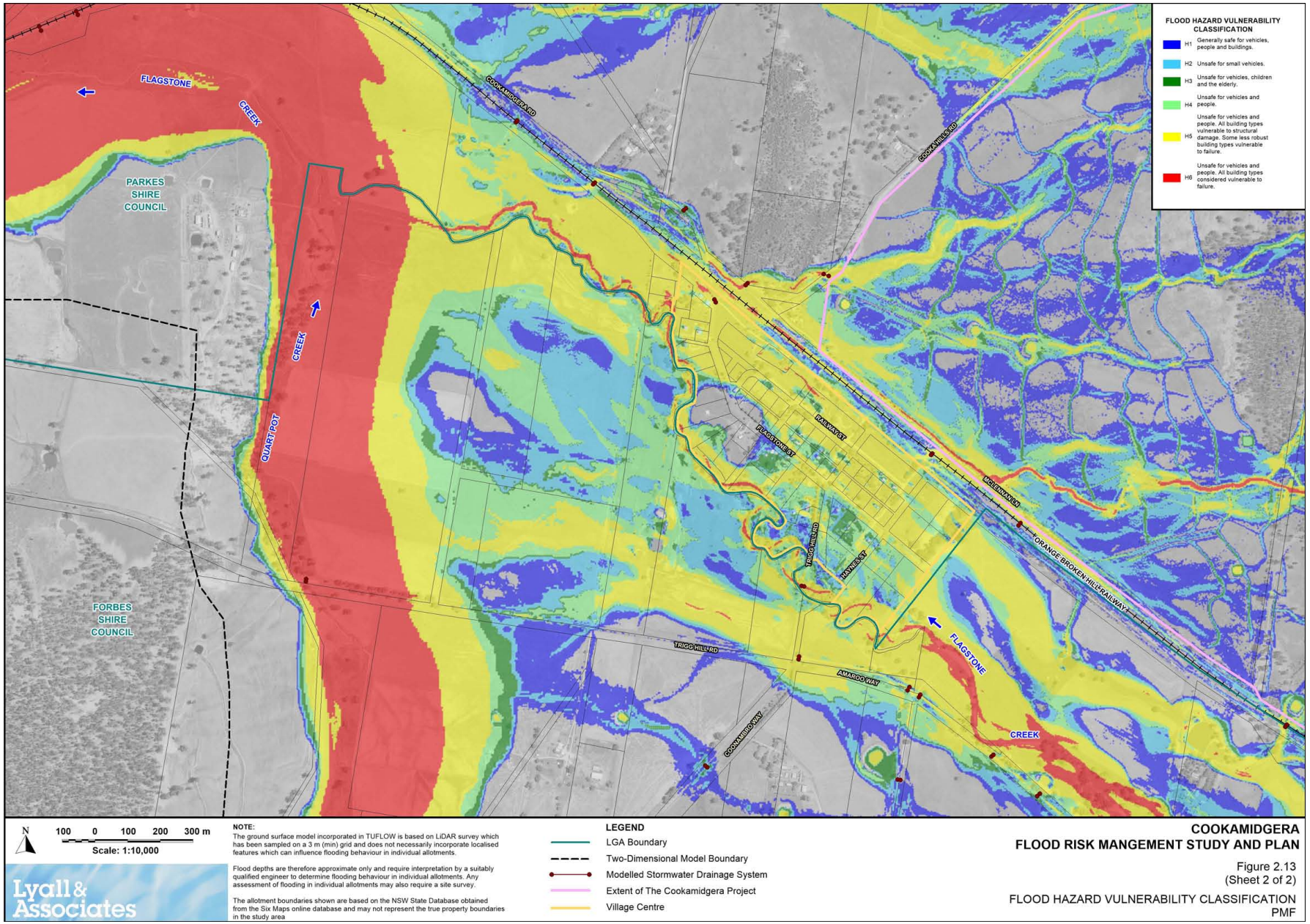
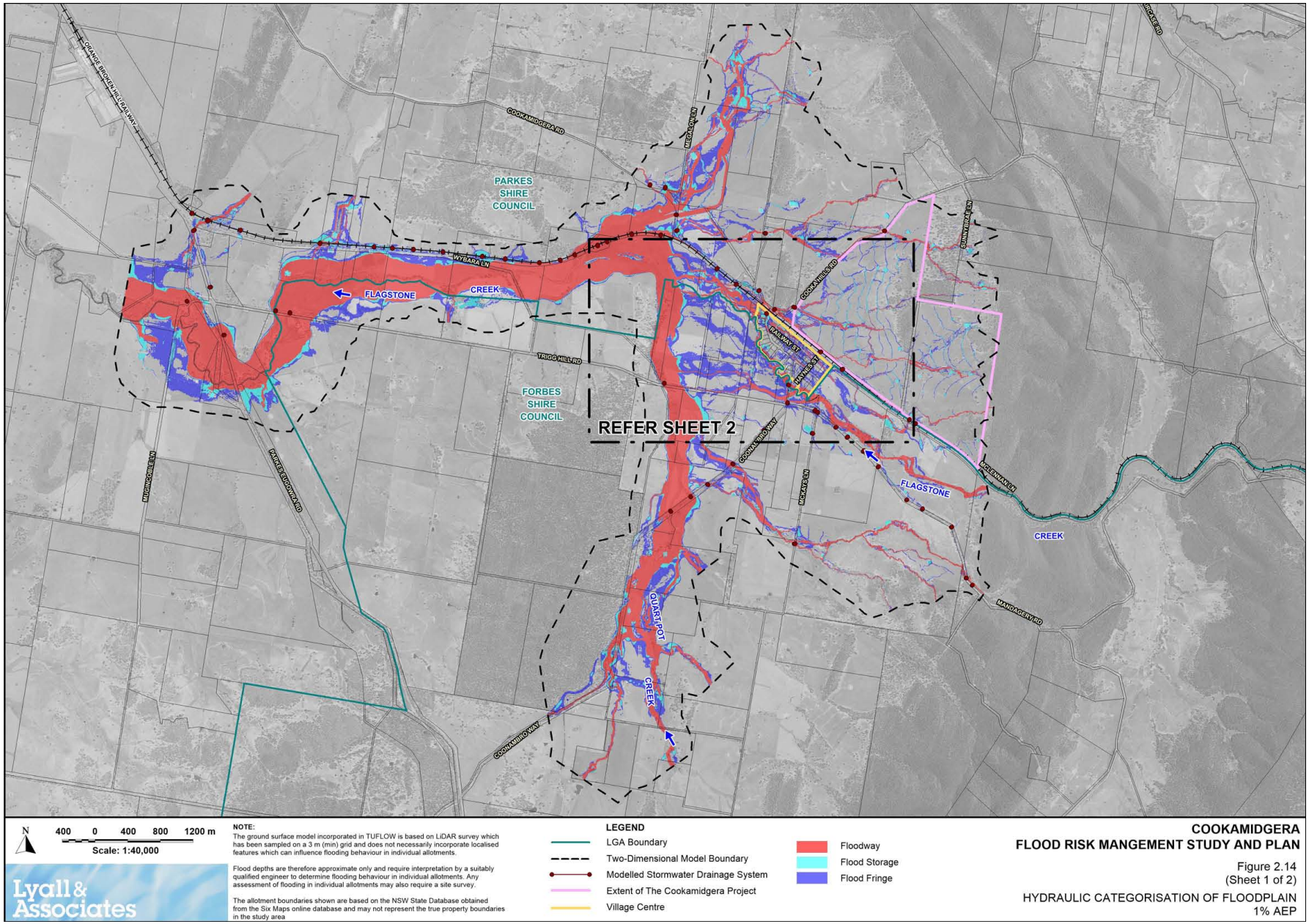
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.13
(Sheet 1 of 2)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
PMF


FLOOD HAZARD VULNERABILITY CLASSIFICATION
H1 Generally safe for vehicles, people and 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 building types vulnerable to structural damage. Some less robust building types vulnerable to failure.
H6 Unsafe for vehicles and people. All building types considered vulnerable to failure.
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
COOKAMIDGERA RD
COOKAMILES RD
FLAGSTONE ST
RAILWAY ST
HUGHENDEN
TRIGG HILL RD
HAYNES ST
ORANGE BROKEN HILL RAILWAY
AMARGO WAY
COOKAMIDGERA WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.13
(Sheet 2 of 2)
FLOOD HAZARD VULNERABILITY CLASSIFICATION
PMF


ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
TRIGG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
COOKAMIDGERA HILL RD
SUNNYSIDE LN
RAILWAY ST
HAYNES ST
GOONAMBRO WAY
MORANS LN
FLAGSTONE
CREEK
MIDGINGERIE LN
PARKES BOGWARA RD
QUARRIPOT
CREEK
GOONAMBRO WAY
MANDAGERY RD
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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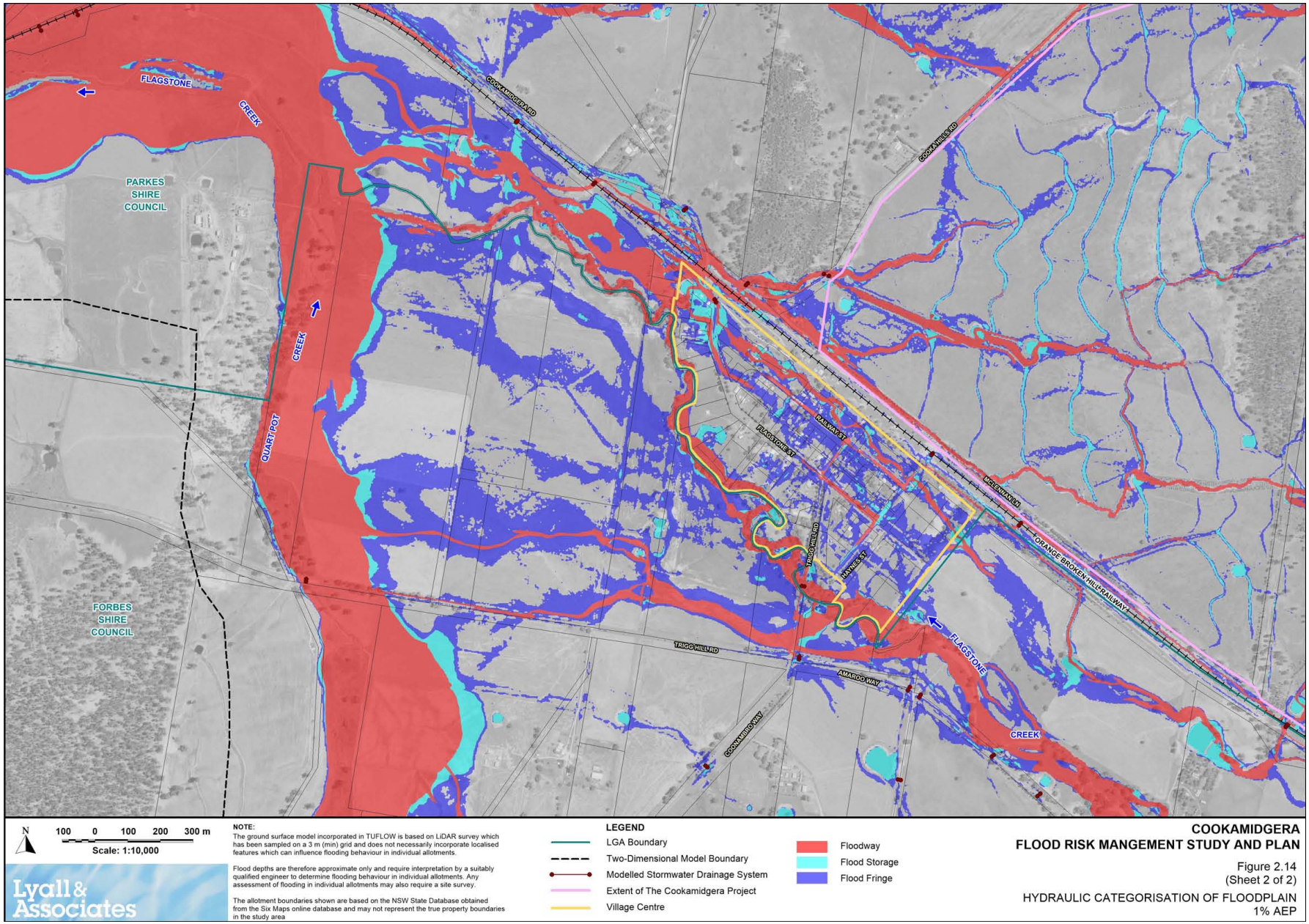
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Floodway
Flood Storage
Flood Fringe
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.14
(Sheet 1 of 2)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
1% AEP


FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
COOKAMIDGERA RD
COOKANILLS RD
QUARTPOT CREEK
RAILWAY ST
FLAGSTONE ST
MORISMANIUM
TRIGG HILL RD
HAYNES ST
ORANGE BROKEN HILL RAILWAYS
AMARGO WAY
COOKAMIDGE WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
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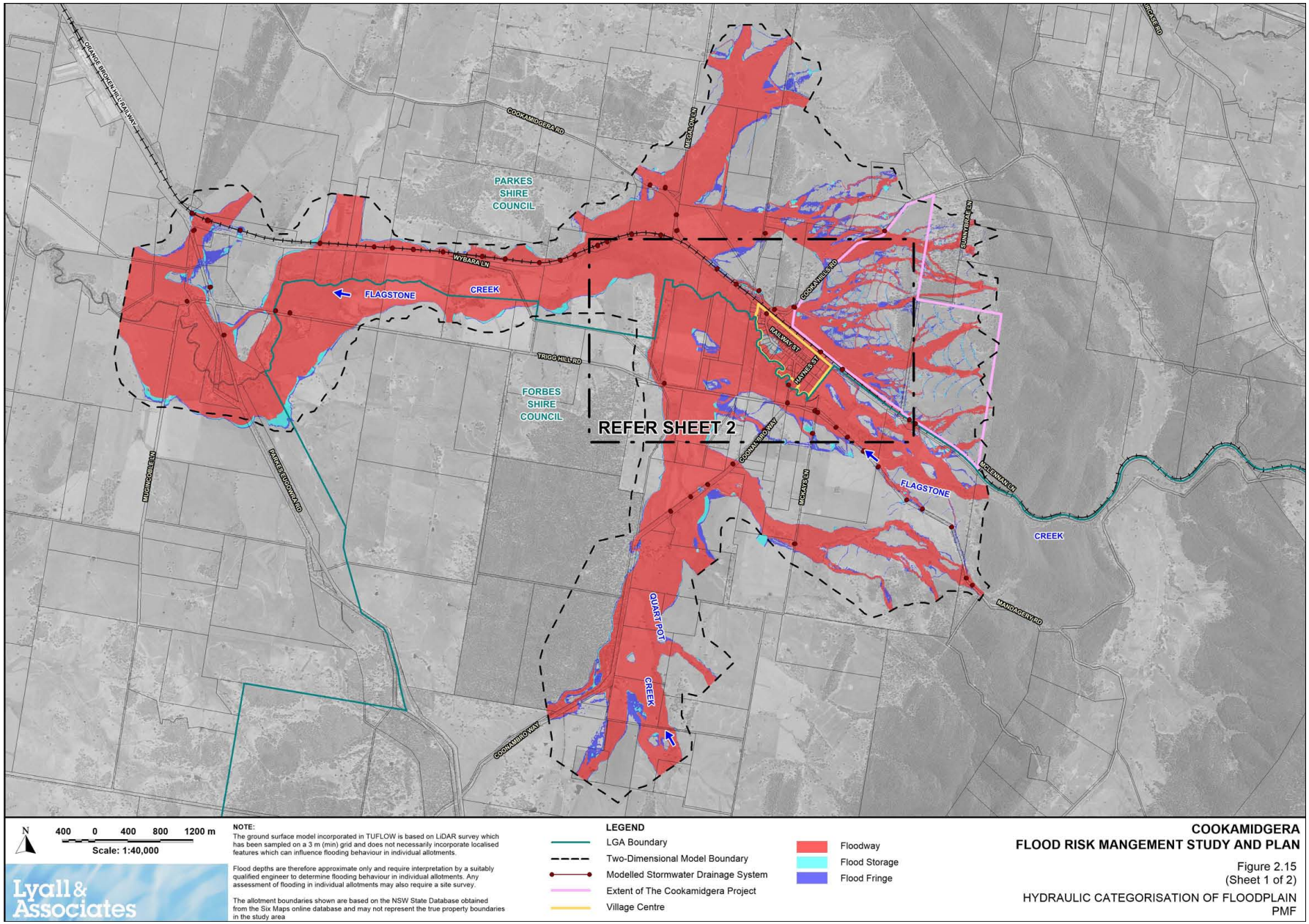
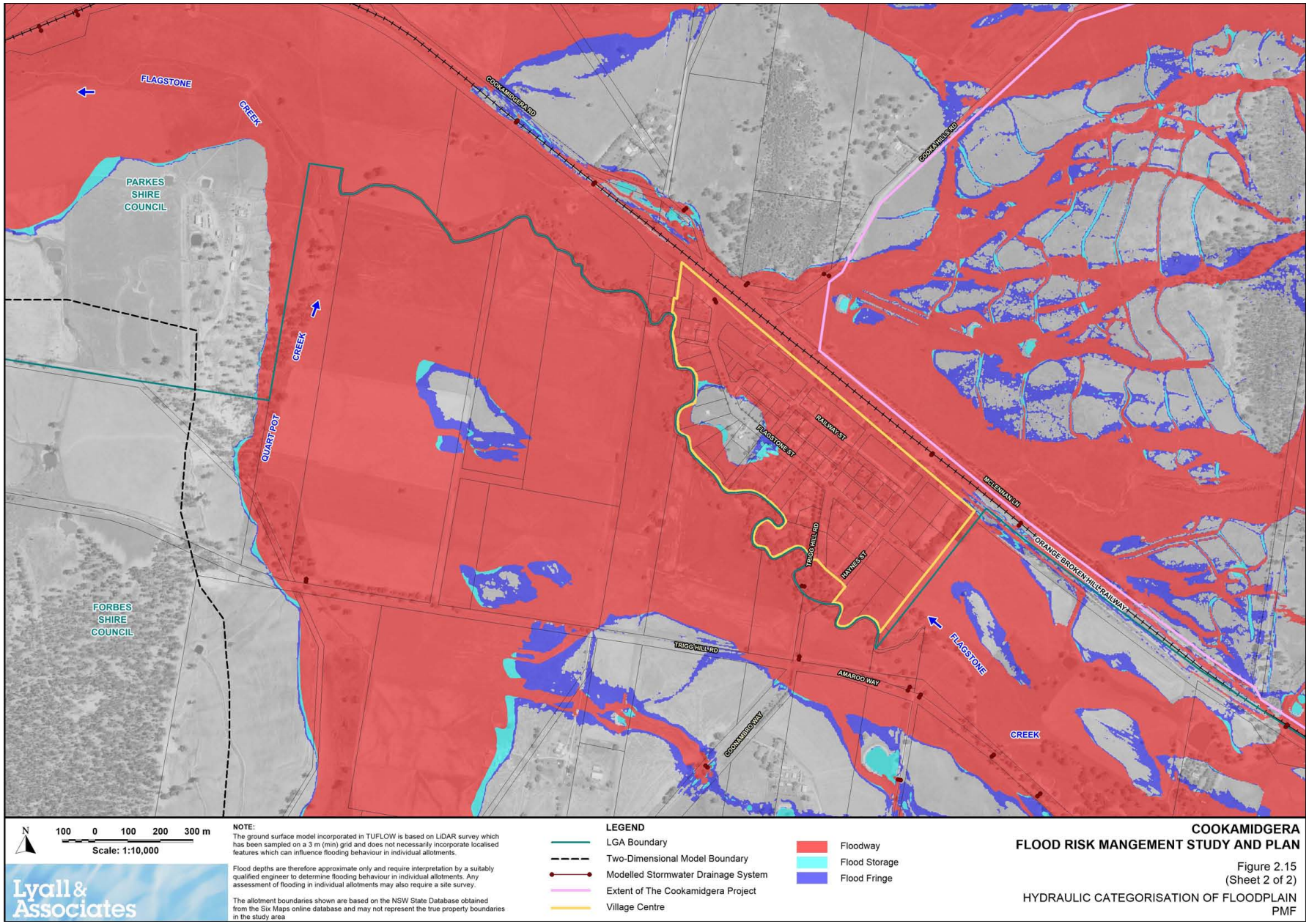
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Floodway
Flood Storage
Flood Fringe
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.14
(Sheet 2 of 2)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
1% AEP
Lyall & Associates


ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MEGALONG LN
BOGAN RD
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
SUNNYBRAE LN
COOKAMILLA RD
RAILWAY ST
HAYNES ST
TRIGG HILL RD
FORBES SHIRE COUNCIL
REFER SHEET 2
COOKAMIDGERA WAY
MIDGINGERIE LN
PARKES BOGAN RD
MCKAYS LN
FLAGSTONE
CREEK
MANDAGERY RD
QUARTPOT
CREEK
COONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
Lyall & Associates
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Floodway
Flood Storage
Flood Fringe
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.15
(Sheet 1 of 2)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
PMF


FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
COOKAMIDGERA RD
COOKAMIDGERA HILLS RD
RAILWAY ST
FLAGSTONE ST
MCLENNAN LN
TRIGG HILL RD
HAINES ST
ORANGE BROKEN HILL RAILWAY
AMAROO WAY
COOKAMIDGERA WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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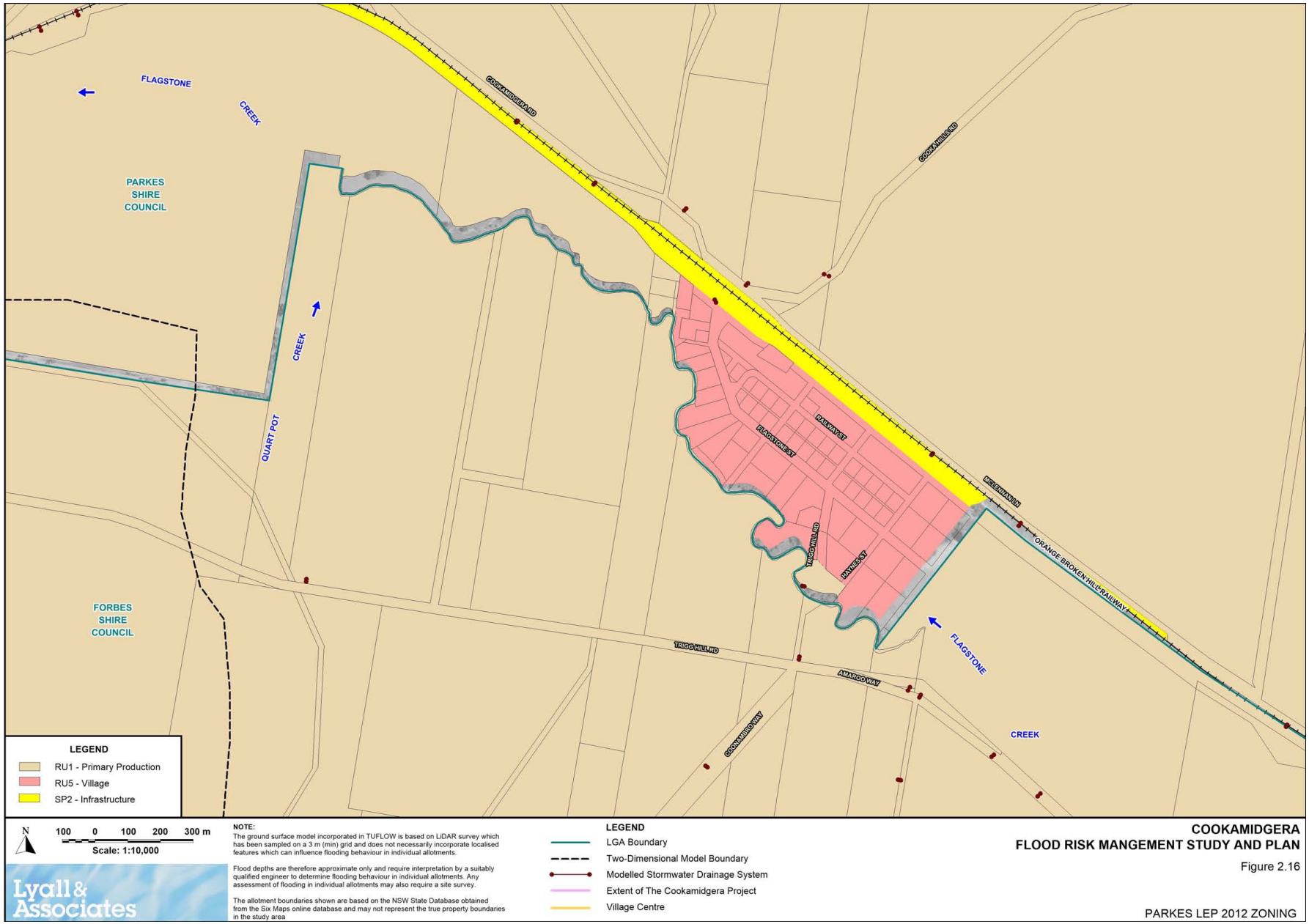
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Floodway
Flood Storage
Flood Fringe
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.15
(Sheet 2 of 2)
HYDRAULIC CATEGORISATION OF FLOODPLAIN
PMF


FLAGSTONE
CREEK
PARKES SHIRE COUNCIL
COOKAMIDGERA RD
COOKAMIDGE RD
QUART POT
CREEK
RAILWAY ST
FLAGSTONE ST
MCDERMOTT LN
TRIGG HILL RD
HAYES ST
ORANGE BROKEN HILL RAILWAY
FORBES SHIRE COUNCIL
TRIGG HILL RD
AMARGO WAY
FLAGSTONE
COOKAMIDGE WAY
CREEK
LEGEND
RU1 - Primary Production
RU5 - Village
SP2 - Infrastructure
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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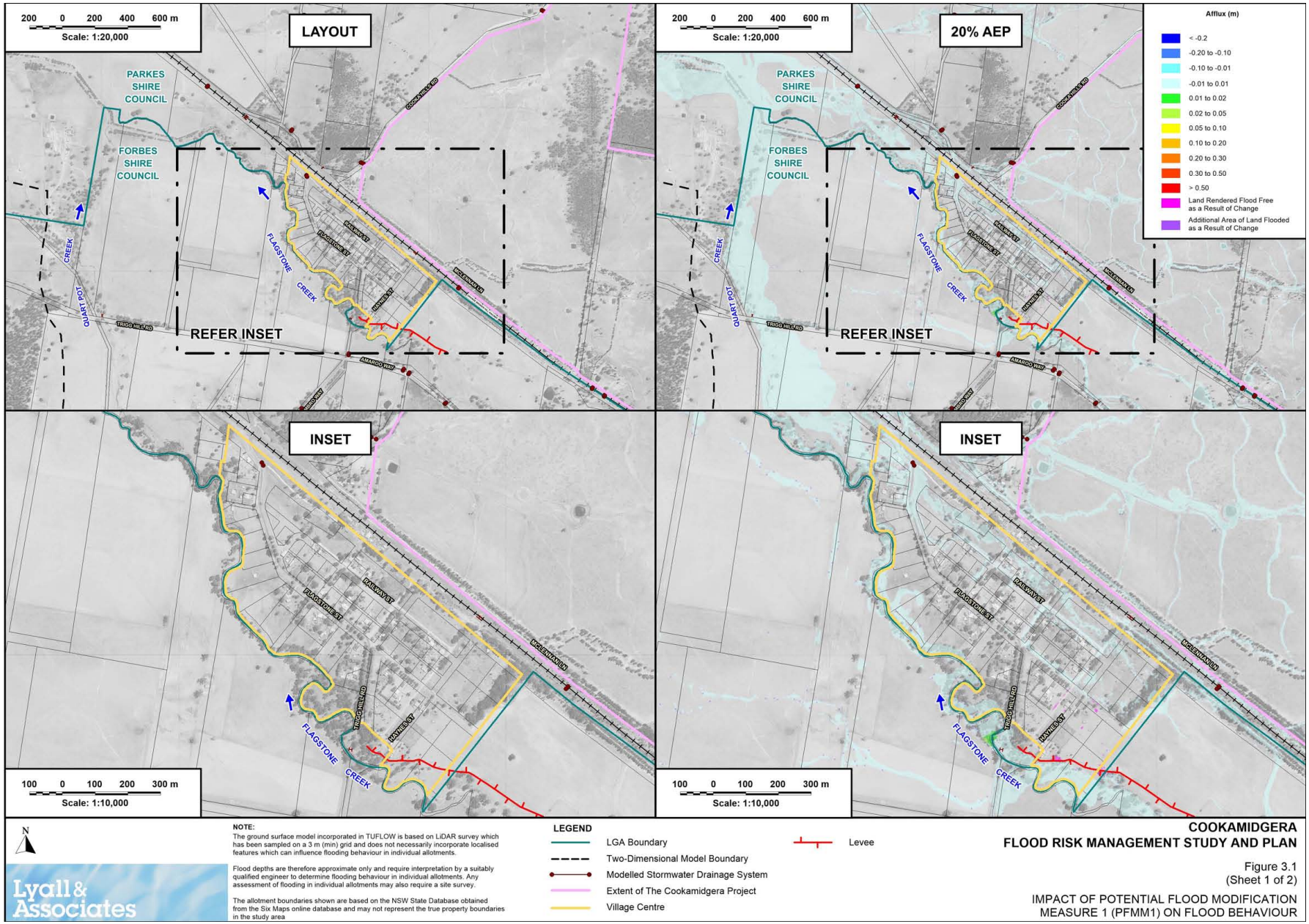
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 2.16
PARKES LEP 2012 ZONING


LAYOUT
20% AEP
INSET
INSET
REFER INSET
REFER INSET
Scale: 1:20,000
Scale: 1:10,000
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
RAILWAY ST
FLAGSTONE ST
HAINES ST
TRIG HILL RD
AMARGO WAY
MCGLINN LN
COOKAMIDGERA RD
QUART POT CREEK
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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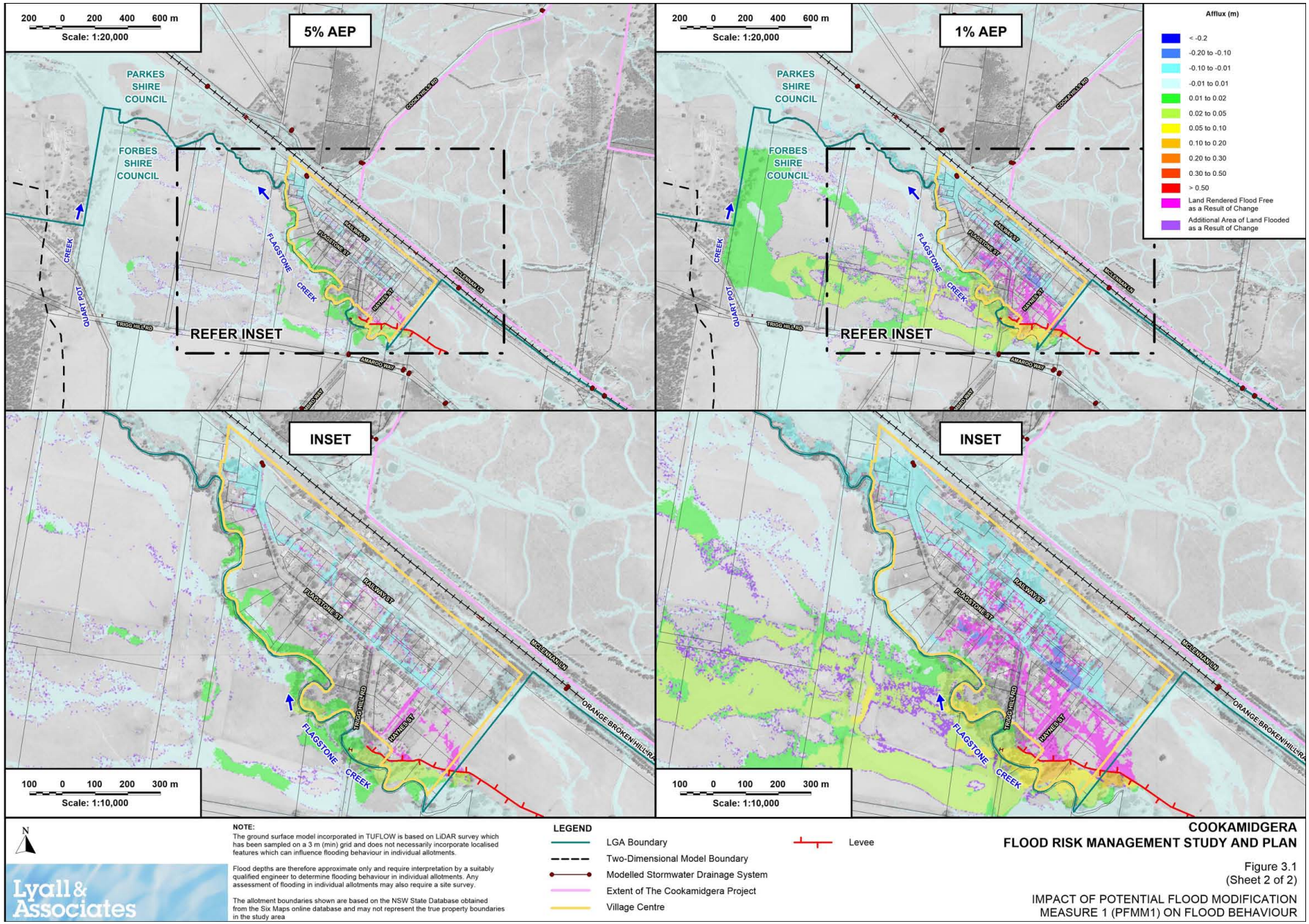
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.1
(Sheet 1 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 1 (PFMM1) ON FLOOD BEHAVIOUR


5% AEP
1% AEP
INSET
INSET
REFER INSET
REFER INSET
Scale: 1:20,000
Scale: 1:10,000
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
RAILWAY ST
FLAGSTONE ST
HAYNES ST
TRIG HILL RD
QUART POT CREEK
AMARGO WAY
MCGLINN WAY
COOKAMIDGERA RD
ORANGE-BROKENHILL HWY
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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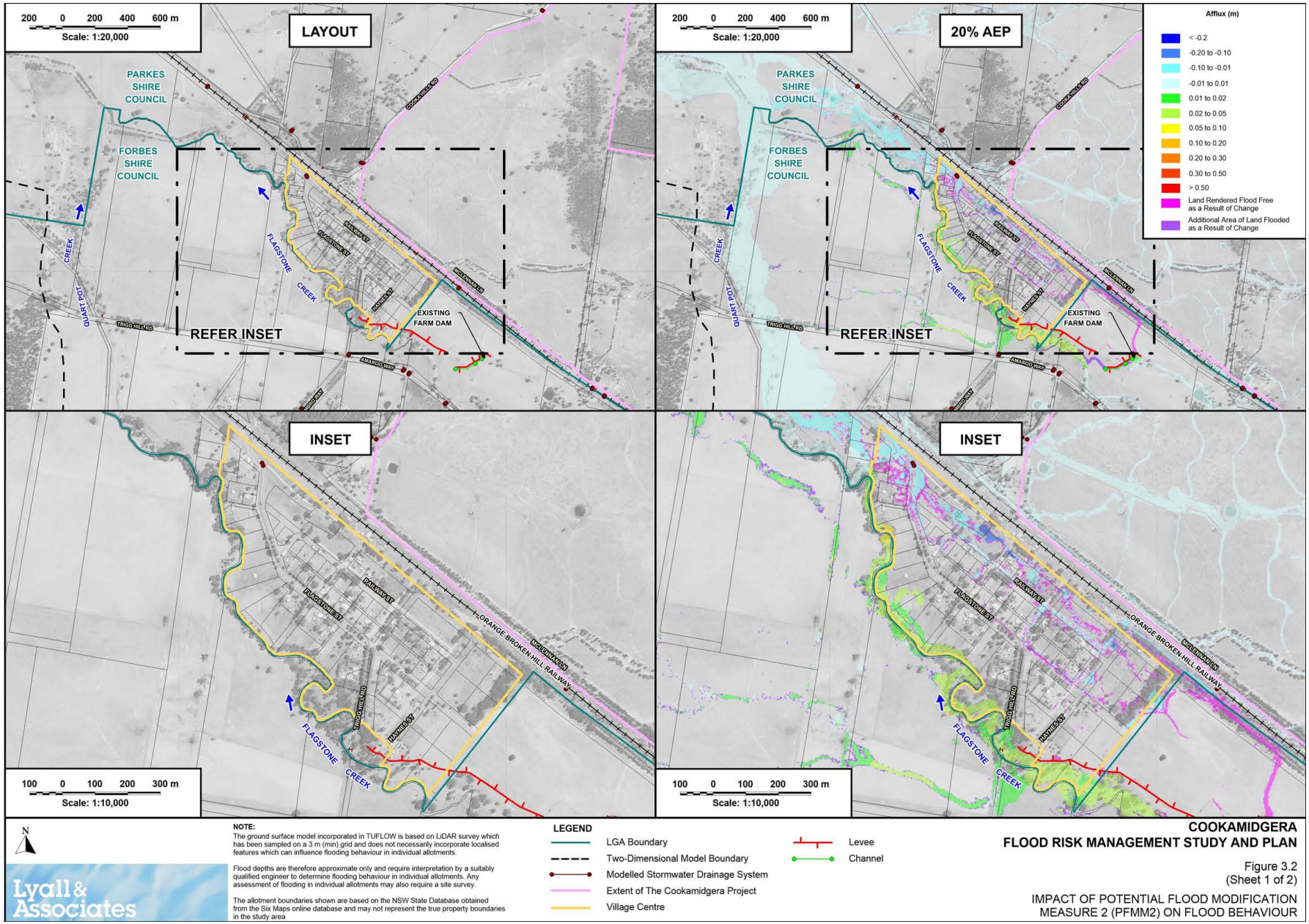
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.1
(Sheet 2 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 1 (PFMM1) ON FLOOD BEHAVIOUR


LAYOUT
20% AEP
INSET
INSET
200 0 200 400 600 m
Scale: 1:20,000
100 0 100 200 300 m
Scale: 1:10,000
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER INSET
EXISTING FARM DAM
FLAGSTONE CREEK
QUART POT CREEK
TRIGG HILL RD
RAILWAY ST
FLAGSTONE ST
HAYNES ST
AMAROO WAY
COOKAMIDGERA RD
ORANGE-BROKEN HILL RAILWAY
MOLONG RD
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
N
NOTE:
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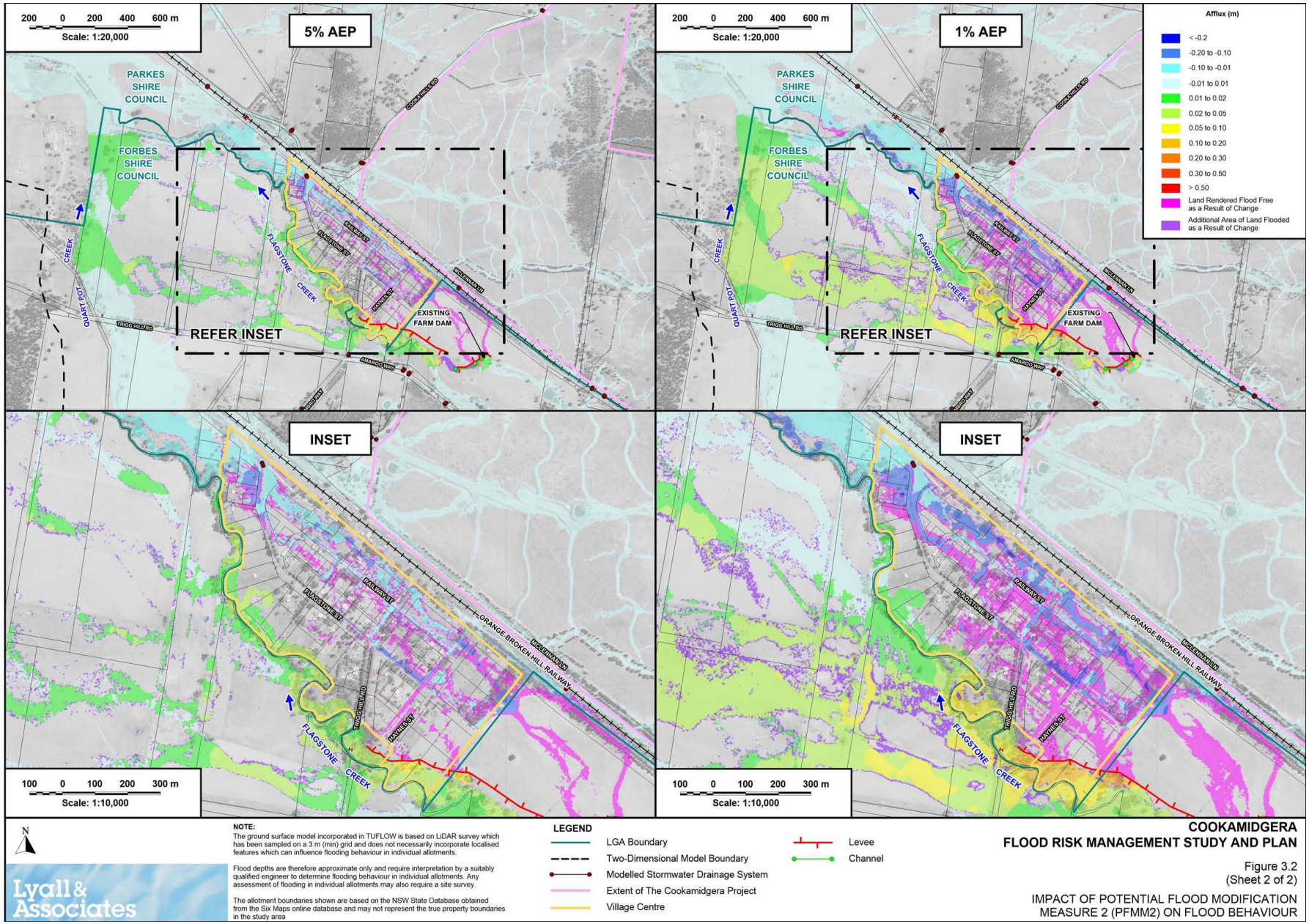
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Channel
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.2
(Sheet 1 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 2 (PFMM2) ON FLOOD BEHAVIOUR


5% AEP
1% AEP
INSET
INSET
REFER INSET
REFER INSET
Scale: 1:20,000
Scale: 1:10,000
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
QUART POT CREEK
EXISTING FARM DAM
RAILWAY ST
FLAGSTONE ST
HAINES ST
TRIGG HILL RD
AMARGO WAY
COOKAMIDGERA RD
MORRISONS LA
ORANGE-BROKEN HILL RAILWAY
NOTE:
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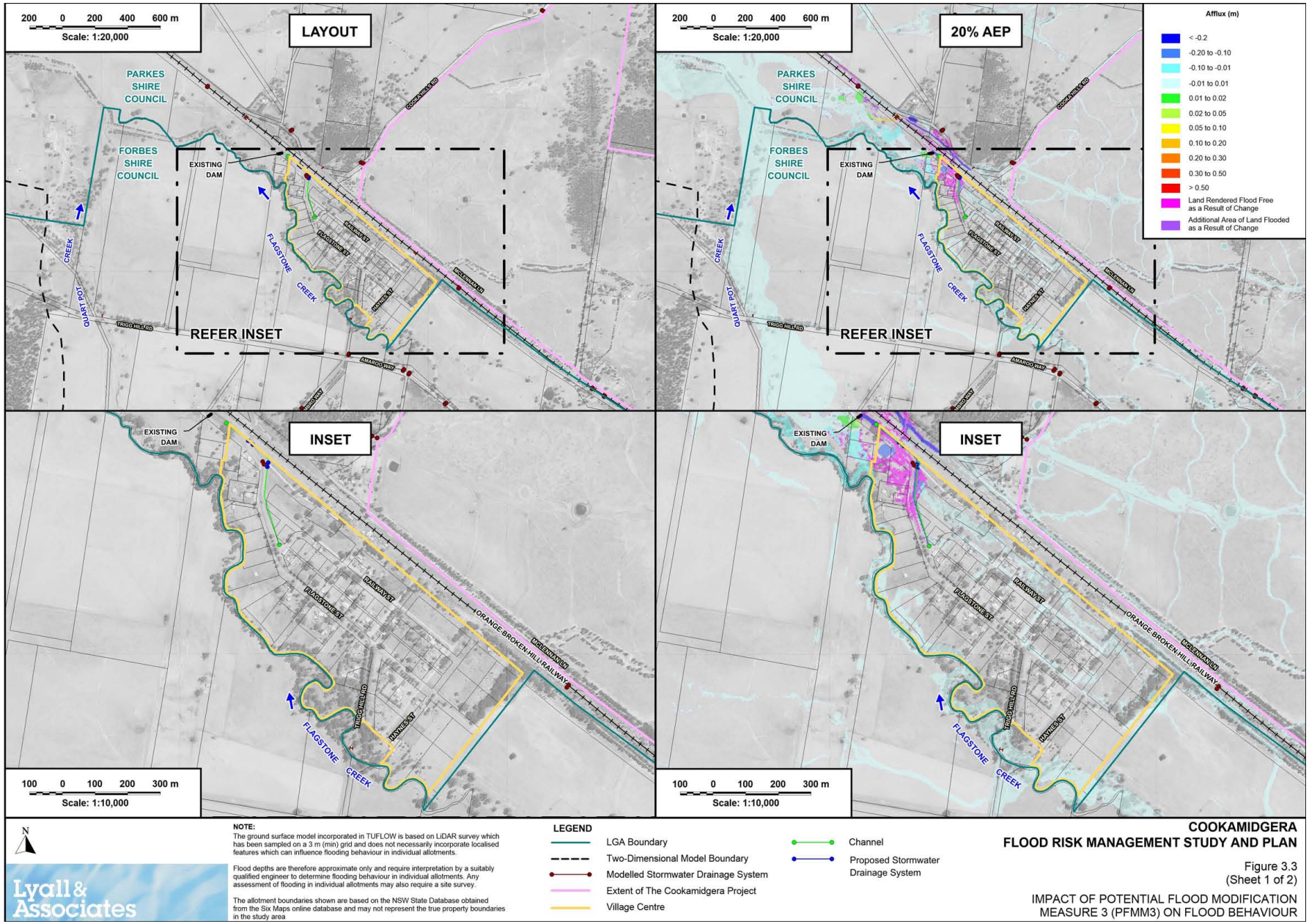
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Channel
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.2
(Sheet 2 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 2 (PFMM2) ON FLOOD BEHAVIOUR


LAYOUT
20% AEP
INSET
INSET
REFER INSET
REFER INSET
Scale: 1:20,000
Scale: 1:10,000
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
EXISTING DAM
FLAGSTONE CREEK
QUART POT CREEK
RAILWAY ST
FLAGSTONE ST
HAYNES ST
TRIGG HILL RD
AMAROO WAY
COOKAMIDGERA RD
ORANGE-BROKEN HILL RAILWAY
MCDERMAN RD
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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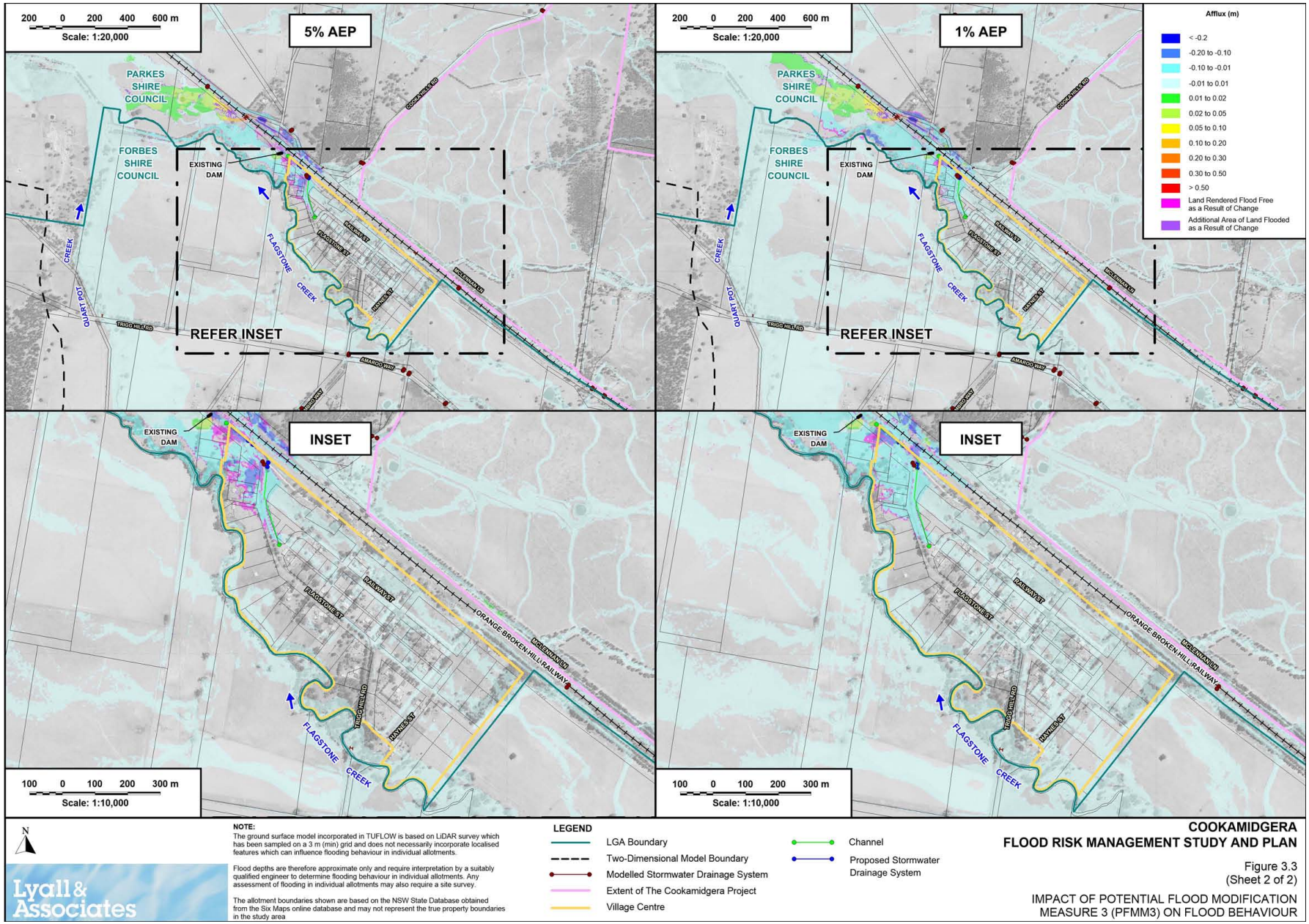
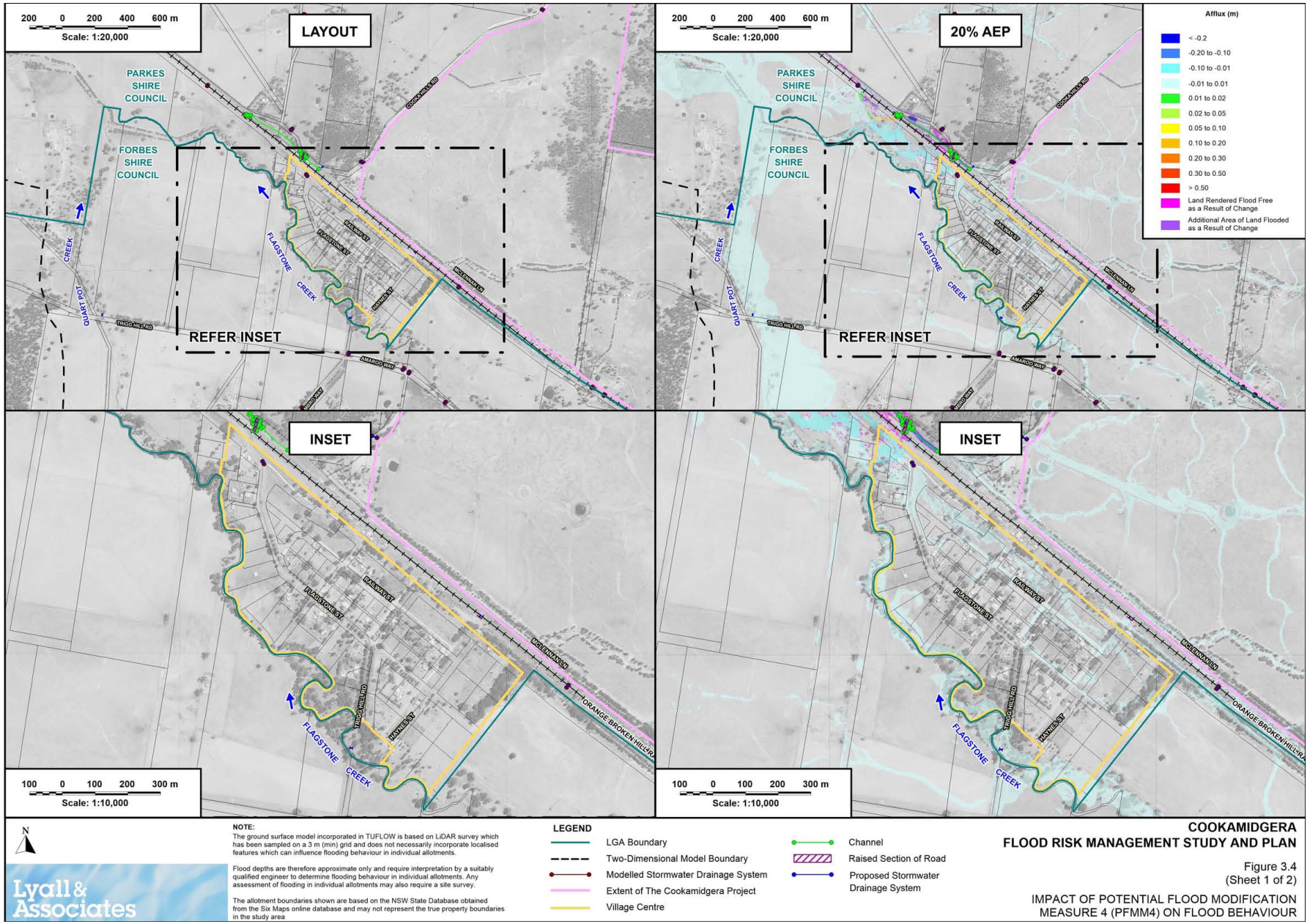
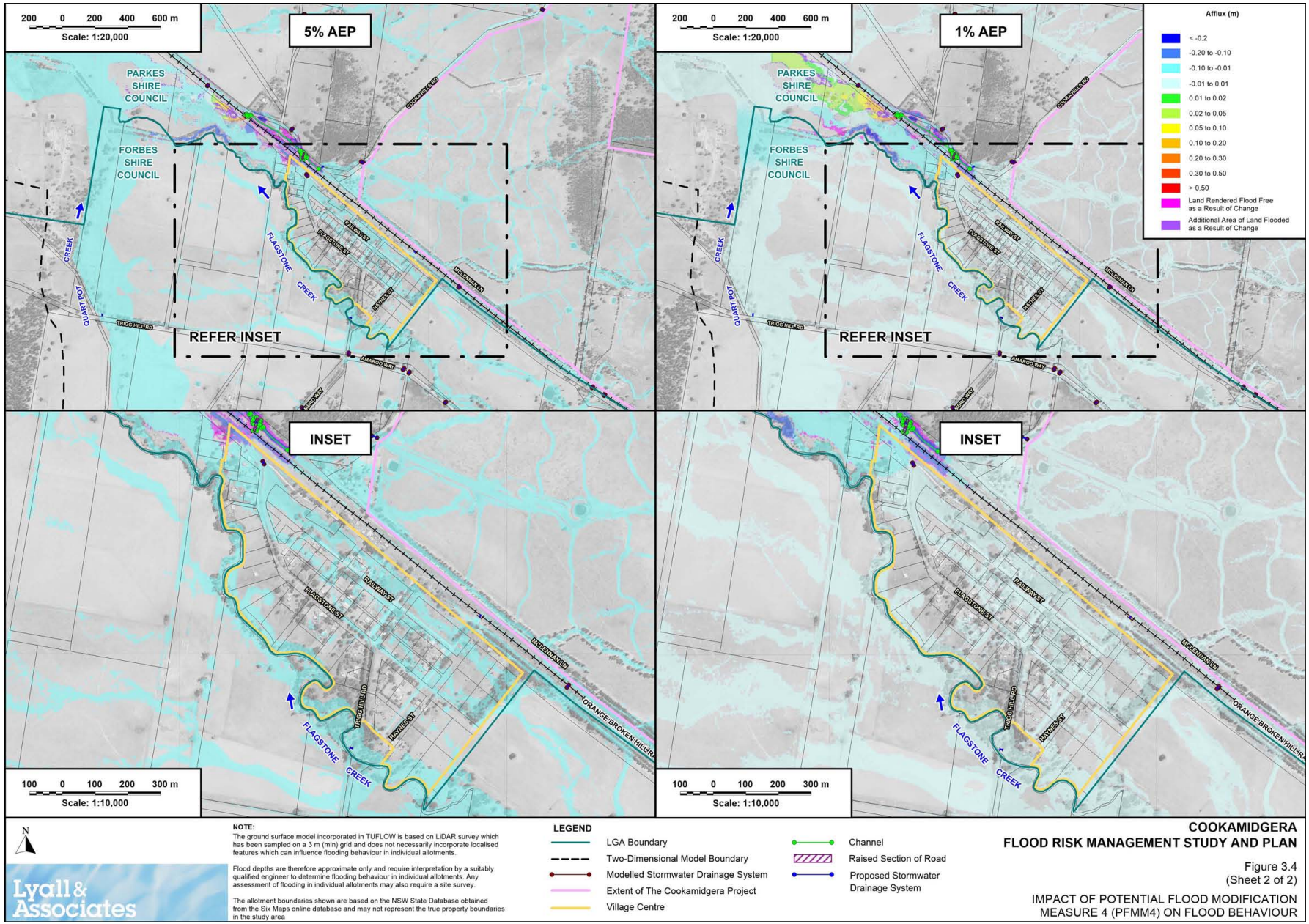
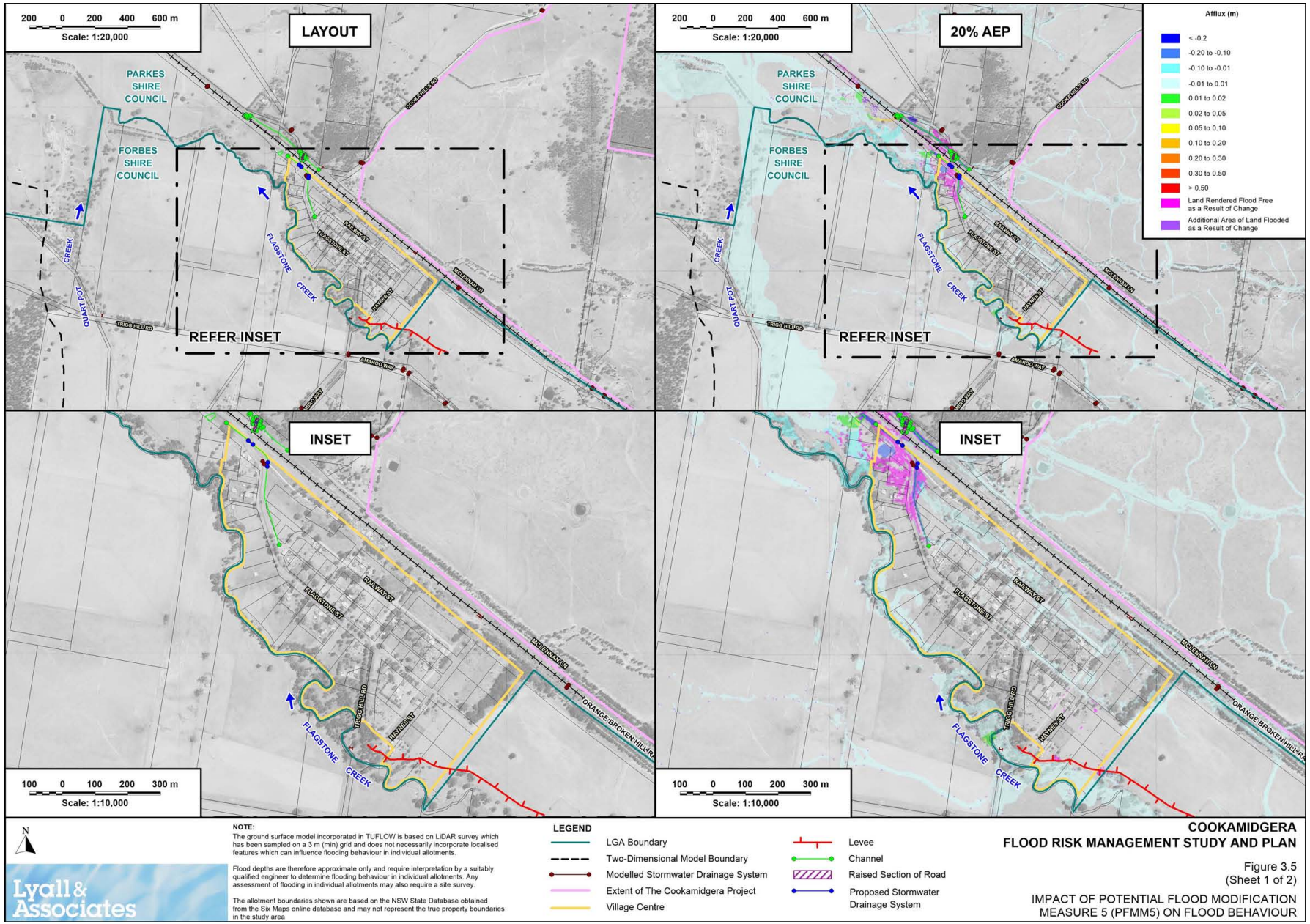
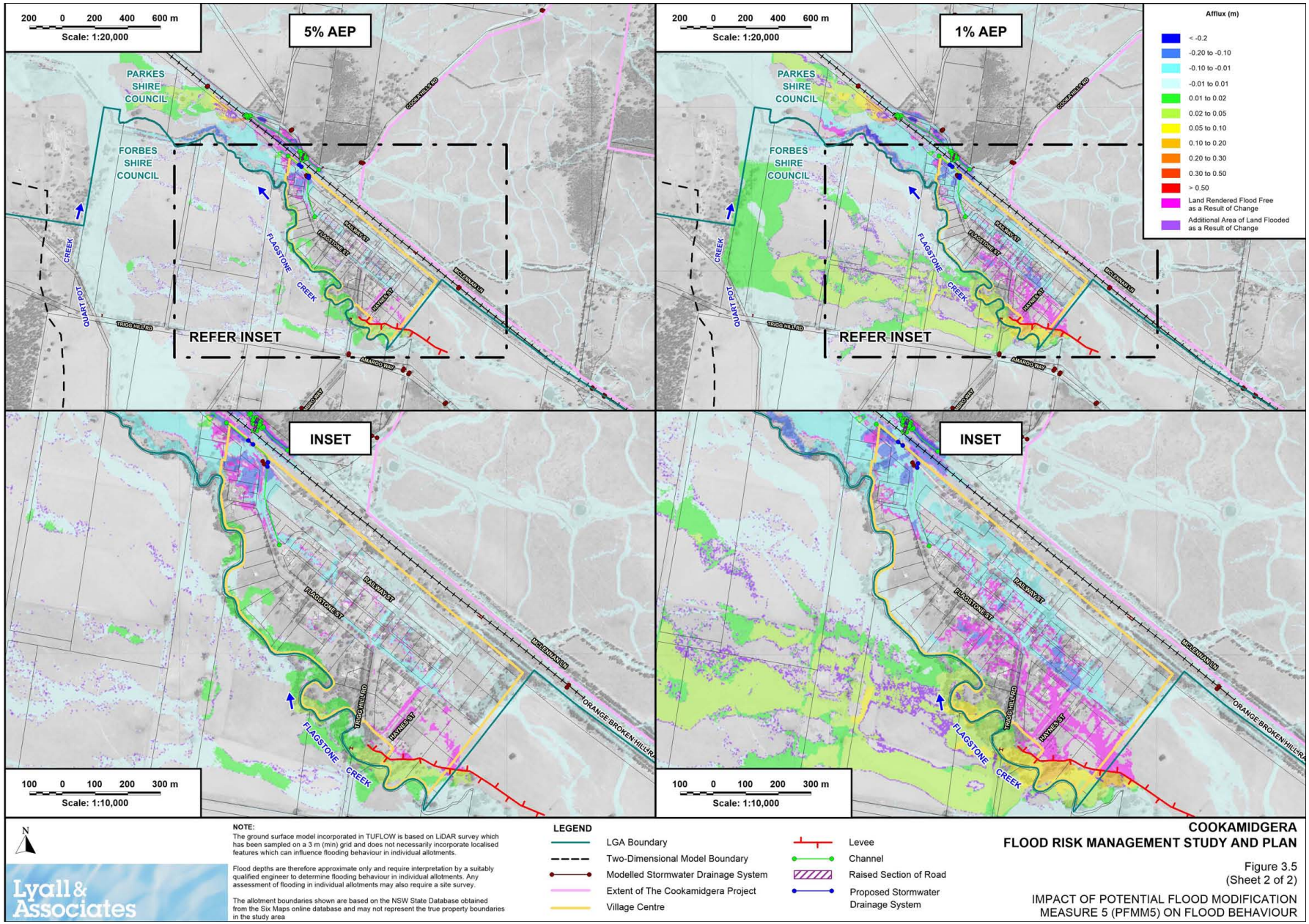
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Channel
Proposed Stormwater Drainage System
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.3
(Sheet 1 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 3 (PFMM3) ON FLOOD BEHAVIOUR

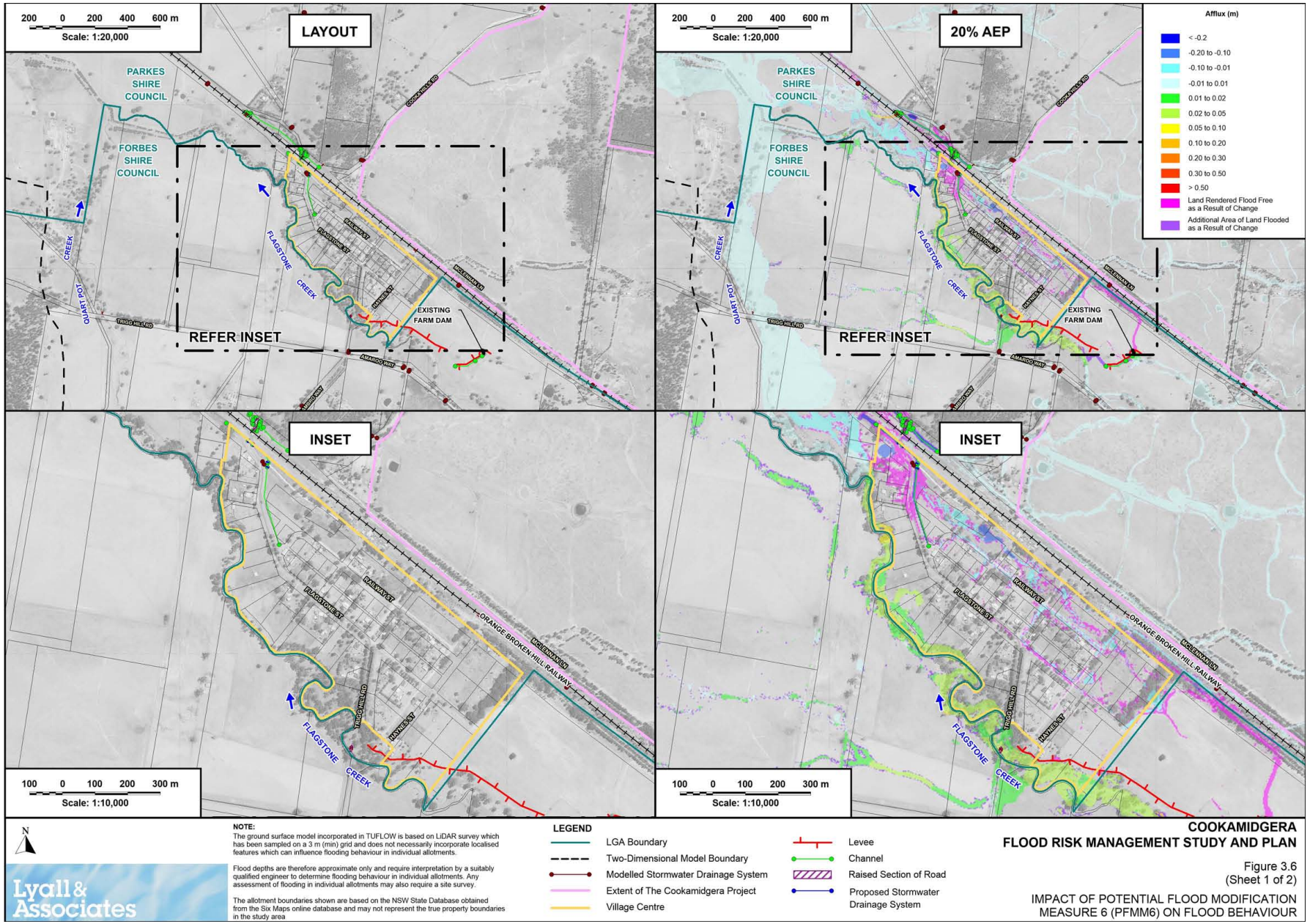

5% AEP
1% AEP
INSET
REFER INSET
Scale: 1:20,000
Scale: 1:10,000
200 0 200 400 600 m
100 0 100 200 300 m
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
EXISTING DAM
FLAGSTONE CREEK
QUART POT CREEK
RAILWAY ST
FLAGSTONE ST
HAYNES ST
TRIGG HILL RD
AMAROO WAY
COOKAMIDGERA RD
ORANGE BROKEN HILL RAILWAY
MCDERMOTT RD
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Channel
Proposed Stormwater Drainage System
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.3
(Sheet 2 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 3 (PFMM3) ON FLOOD BEHAVIOUR

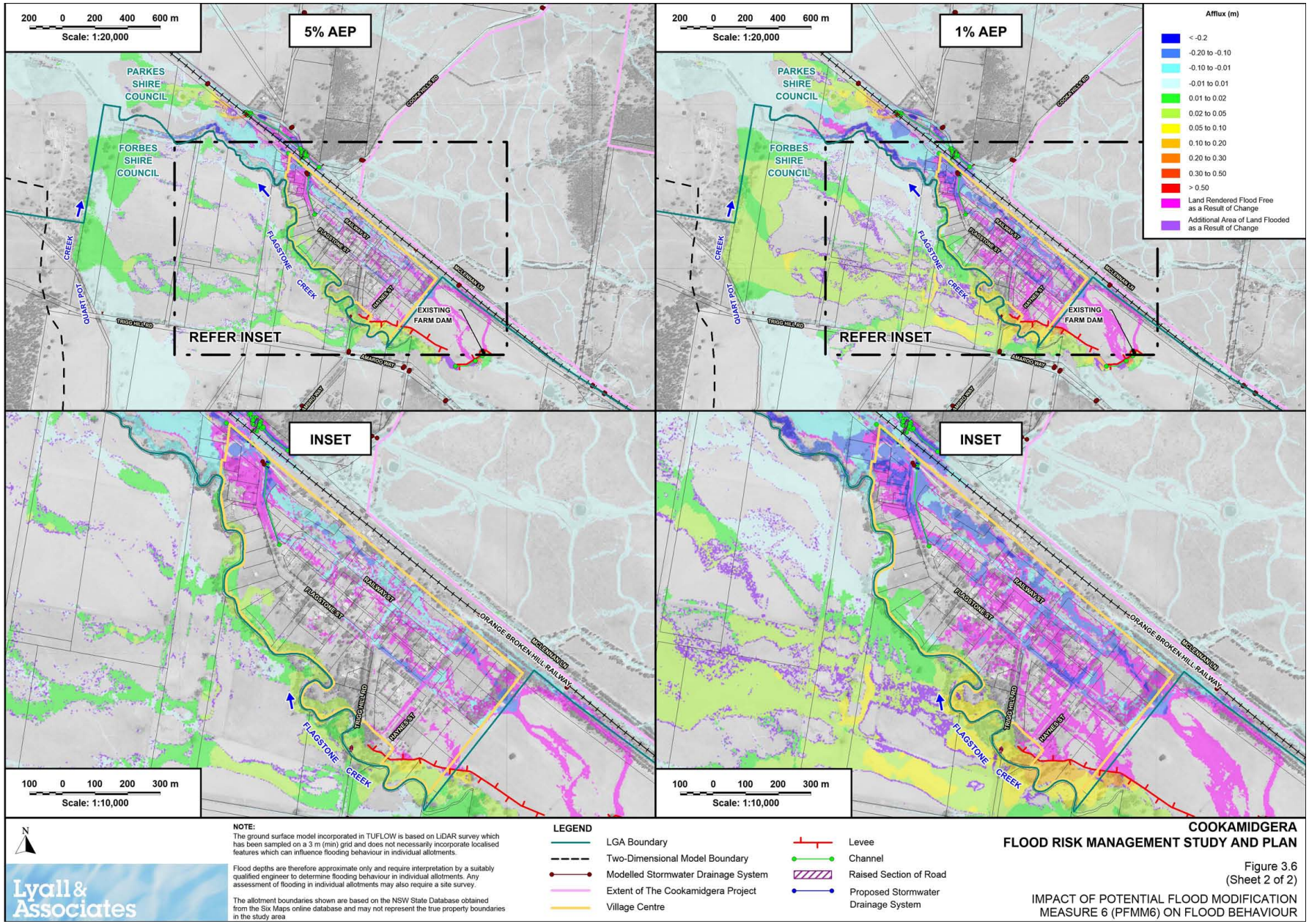

LAYOUT
Scale: 1:20,000
REFER INSET
20% AEP
Scale: 1:20,000
REFER INSET
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
INSET
Scale: 1:10,000
INSET
Scale: 1:10,000
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
QUART POT CREEK
RAILWAY ST
FLAGSTONE ST
HOWE ST
TRIGG HILL RD
MCGREGANON
AMARGO WAY
ORANGE BROKEN HILL RD
COOKAMIDGERA RD
HAYNES ST
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Channel
Raised Section of Road
Proposed Stormwater Drainage System
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.4
(Sheet 1 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 4 (PFMM4) ON FLOOD BEHAVIOUR

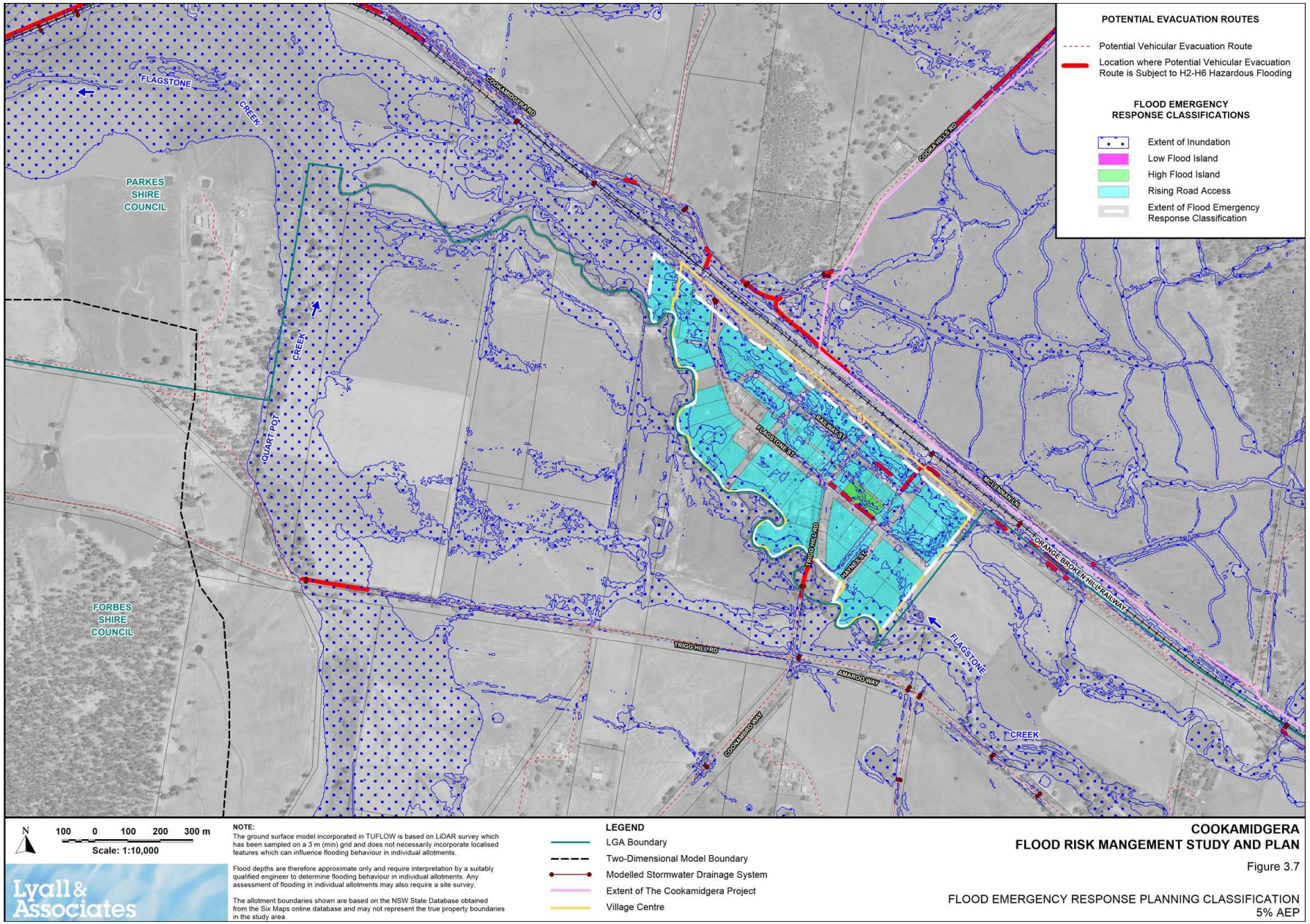

5% AEP
1% AEP
INSET
INSET
REFER INSET
REFER INSET
Scale: 1:20,000
Scale: 1:10,000
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
QUART POT CREEK
RAILWAY ST
FLAGSTONE ST
HAYNES ST
TRIGG HILL RD
MCGREGANON
ORANGE-BROKEN HILL HWY
COOKAMIDGERA RD
AMAROO WAY
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Channel
Raised Section of Road
Proposed Stormwater Drainage System
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.4
(Sheet 2 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 4 (PFMM4) ON FLOOD BEHAVIOUR

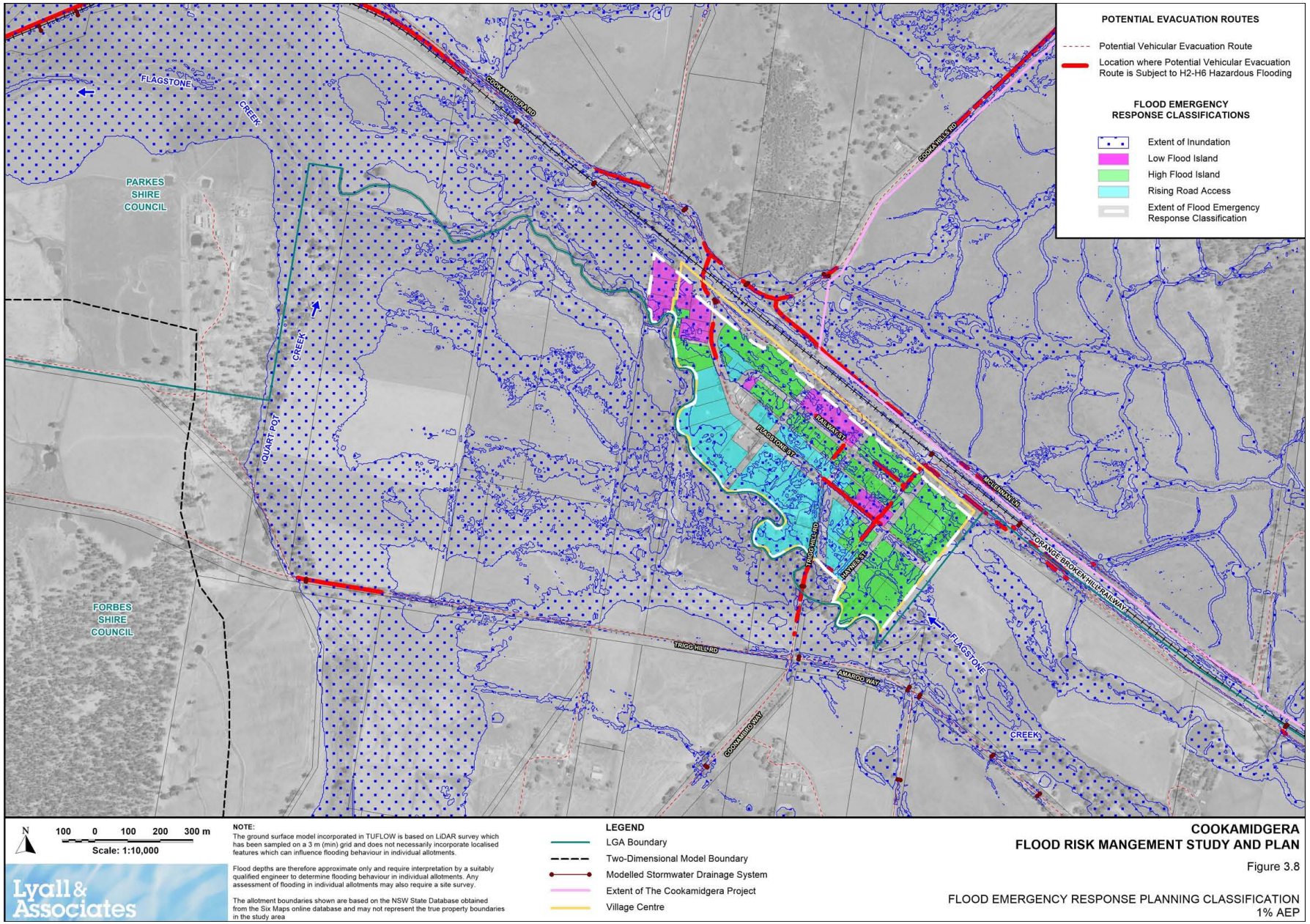

LAYOUT
20% AEP
INSET
INSET
REFER INSET
REFER INSET
Scale: 1:20,000
Scale: 1:20,000
Scale: 1:10,000
Scale: 1:10,000
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
RAILWAY ST
FLAGSTONE ST
HAYNES ST
TRIGG HILL RD
MCGLINN AVE
ORANGE BROKEN HILL RD
COOKAMIDGERA RD
QUART POT CREEK
AMAROO WAY
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Channel
Raised Section of Road
Proposed Stormwater Drainage System
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.5
(Sheet 1 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 5 (PFMM5) ON FLOOD BEHAVIOUR

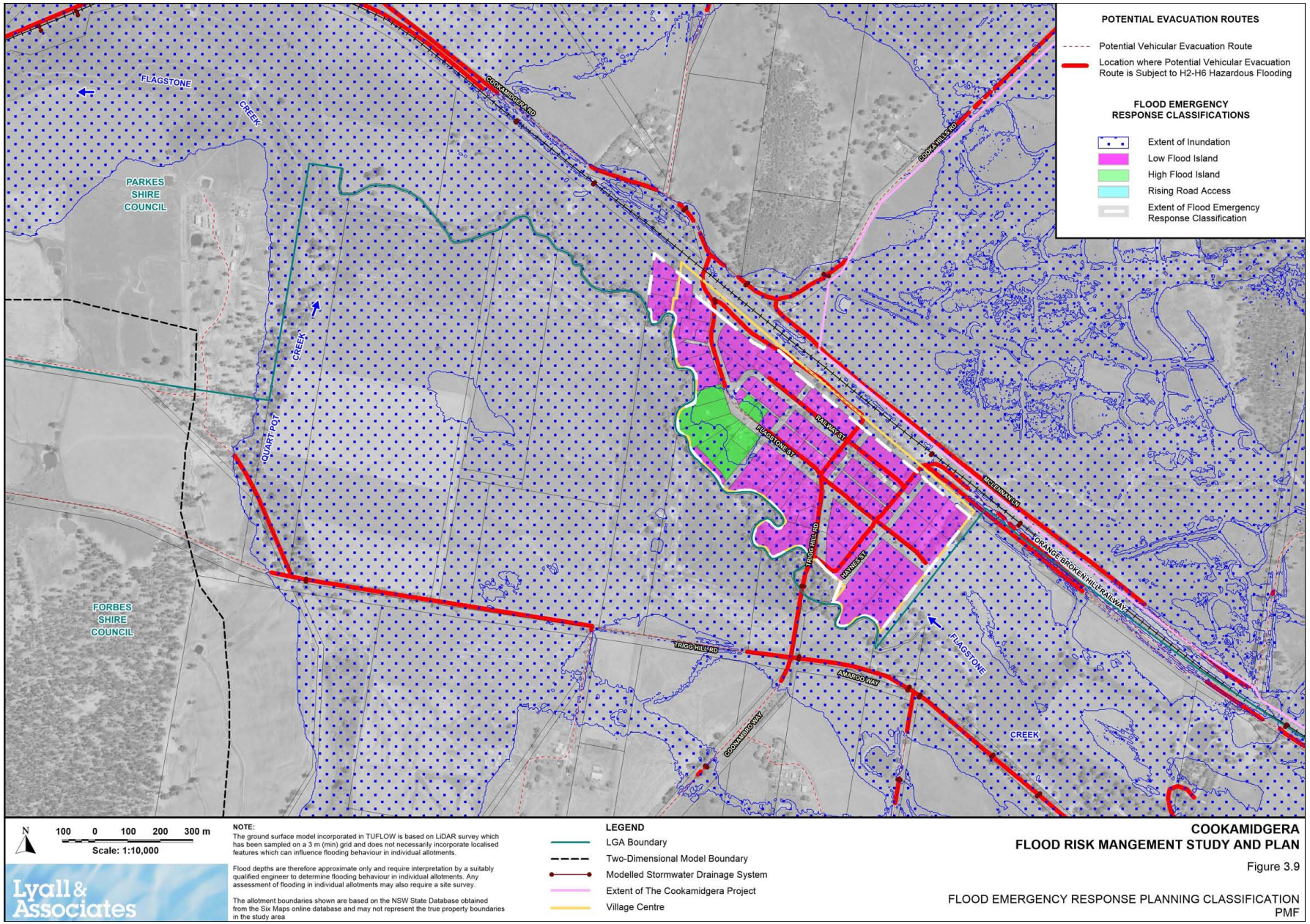

5% AEP
1% AEP
INSET
INSET
REFER INSET
REFER INSET
Scale: 1:20,000
Scale: 1:10,000
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
RAILWAY ST
HANNELL ST
TRIGG HILL RD
MCGLINN LN
ORANGE-BROKEN HILL HWY
COOKAMIDGERA RD
QUART POT CREEK
AMARGO WAY
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Channel
Raised Section of Road
Proposed Stormwater Drainage System
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.5
(Sheet 2 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 5 (PFMM5) ON FLOOD BEHAVIOUR


LAYOUT
20% AEP
INSET
INSET
Scale: 1:20,000
Scale: 1:10,000
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER INSET
EXISTING FARM DAM
FLAGSTONE CREEK
QUART POT CREEK
RAILWAY ST
FLAGSTONE ST
HAYNE ST
TRIGG HILL RD
MACKENNAN RD
AMARODO WAY
COOKAMIDGERA RD
ORANGE-BROKEN HILL RAILWAY
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Channel
Raised Section of Road
Proposed Stormwater Drainage System
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.6
(Sheet 1 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 6 (PFMM6) ON FLOOD BEHAVIOUR


5% AEP
1% AEP
INSET
INSET
REFER INSET
REFER INSET
EXISTING FARM DAM
Scale: 1:20,000
Scale: 1:10,000
Afflux (m)
< -0.2
-0.20 to -0.10
-0.10 to -0.01
-0.01 to 0.01
0.01 to 0.02
0.02 to 0.05
0.05 to 0.10
0.10 to 0.20
0.20 to 0.30
0.30 to 0.50
> 0.50
Land Rendered Flood Free as a Result of Change
Additional Area of Land Flooded as a Result of Change
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
FLAGSTONE CREEK
QUART POT CREEK
COOKAMIDGERA RD
MAIN WAY ST
FLAGSTONE ST
MAYNE ST
TRIGG HILL RD
MORRISONS LN
AMUNDSEN WAY
ORANGE-BROKEN HILL RAILWAY
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Levee
Channel
Raised Section of Road
Proposed Stormwater Drainage System
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANAGEMENT STUDY AND PLAN
Figure 3.6
(Sheet 2 of 2)
IMPACT OF POTENTIAL FLOOD MODIFICATION MEASURE 6 (PFMM6) ON FLOOD BEHAVIOUR


POTENTIAL EVACUATION ROUTES
Potential Vehicular Evacuation Route
Location where Potential Vehicular Evacuation Route is Subject to H2-H6 Hazardous Flooding
FLOOD EMERGENCY RESPONSE CLASSIFICATIONS
Extent of Inundation
Low Flood Island
High Flood Island
Rising Road Access
Extent of Flood Emergency Response Classification
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
COOKAMIDGERA RD
COOKS HILL RD
QUART POT CREEK
RAILWAY ST
FLAGSTONE ST
HOSKINS LN
TRIGG HILL RD
MAINE ST
ORANGE BROKEN HILL RAILWAY
AMARGO WAY
COOKAMIDGERA WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.7
FLOOD EMERGENCY RESPONSE PLANNING CLASSIFICATION
5% AEP


POTENTIAL EVACUATION ROUTES
Potential Vehicular Evacuation Route
Location where Potential Vehicular Evacuation Route is Subject to H2-H6 Hazardous Flooding
FLOOD EMERGENCY RESPONSE CLASSIFICATIONS
Extent of Inundation
Low Flood Island
High Flood Island
Rising Road Access
Extent of Flood Emergency Response Classification
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
COOKAMIDGERA RD
COOKAMIDGERA RD
QUART POT CREEK
QUART POT CREEK
RAILWAY ST
FLAGSTONE ST
HOSKINGTOWN
TRIGG HILL RD
JAMES ST
ORANGE-BROKEN HILL RAILWAY
TRIGG HILL RD
AMARGO WAY
COOKAMIDGERA WAY
FLAGSTONE CREEK
CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.8
FLOOD EMERGENCY RESPONSE PLANNING CLASSIFICATION
1% AEP

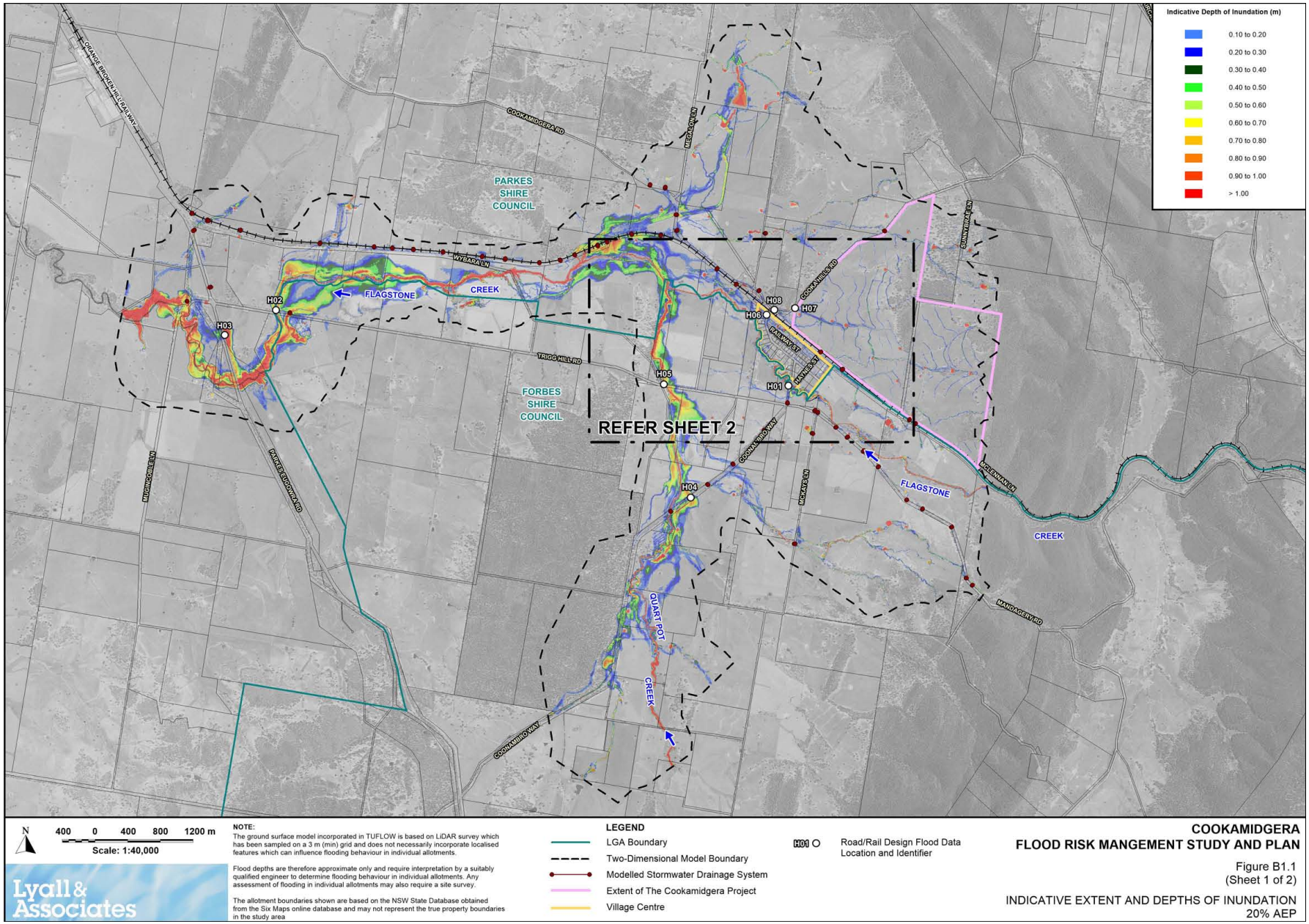

POTENTIAL EVACUATION ROUTES
Potential Vehicular Evacuation Route
Location where Potential Vehicular Evacuation Route is Subject to H2-H6 Hazardous Flooding
FLOOD EMERGENCY RESPONSE CLASSIFICATIONS
Extent of Inundation
Low Flood Island
High Flood Island
Rising Road Access
Extent of Flood Emergency Response Classification
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
COOKAMIDGERA RD
COOKAMIDGERA RD
QUART POT CREEK
QUART POT CREEK
FLAGSTONE ST
RAILWAY ST
HOBSHAW LN
TRIGG HILL RD
HAYES ST
ORANGE BROKEN HILL RAILWAY
TRIGG HILL RD
AMARGO WAY
COOKAMIDGERA WAY
FLAGSTONE CREEK
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure 3.9
FLOOD EMERGENCY RESPONSE PLANNING CLASSIFICATION
PMF

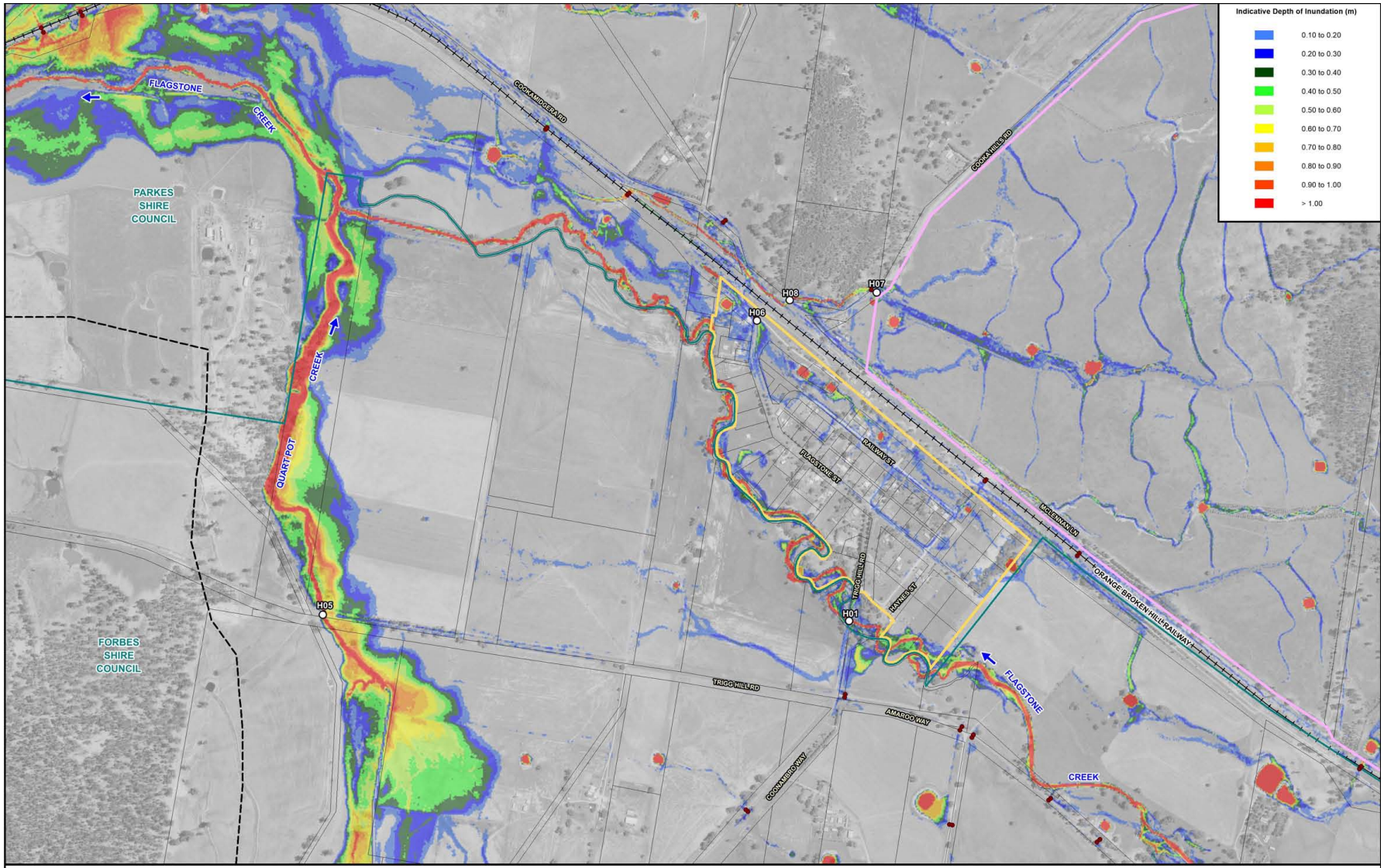
APPENDIX B

ADDITIONAL FIGURES SHOWING DESIGN FLOOD BEHAVIOUR AT COOKAMIDGERA

LIST OF FIGURES (APPENDIX B)

B1.1 Indicative Extent and Depth of Inundation – 20% AEP (2 Sheets)
B1.2 Indicative Extent and Depth of Inundation – 10% AEP (2 Sheets)
B1.3 Indicative Extent and Depth of Inundation – 5% AEP (2 Sheets)
B1.4 Indicative Extent and Depth of Inundation – 2% AEP (2 Sheets)
B1.5 Indicative Extent and Depth of Inundation – 0.5% AEP (2 Sheets)
B1.6 Indicative Extent and Depth of Inundation – 0.2% AEP (2 Sheets)


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
ORANGE BROKEN HILL RAILWAY
COOKAMIDGERA RD
MERALON LN
PARKES SHIRE COUNCIL
WYBARA LN
FLAGSTONE
CREEK
H02
H03
H08
H07
H06
COOKAMIDGERA HILLS RD
SUNNYBRAE LN
RAILWAY ST
RAWSON ST
TRIGG HILL RD
H05
H01
FORBES SHIRE COUNCIL
REFER SHEET 2
COOKAMIDGERA WAY
MIDGINGORE LN
PARKES BOGAN RD
MERANS LN
H04
FLAGSTONE
BOLENNAN LN
CREEK
MANDAGERY RD
QUARTPOT
CREEK
COONAMBRO WAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.1
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
20% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
FLAGSTONE CREEK
COOKAMIDGERA RD
COOKAMIDGE RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
H01
H05
H06
H07
H08
RAILWAY ST
FLAGSTONE ST
HAYNES ST
TRIGG HILL RD
ORANGE BROKEN HILL RAILWAY
AMARGO WAY
COOKAMIDGE WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
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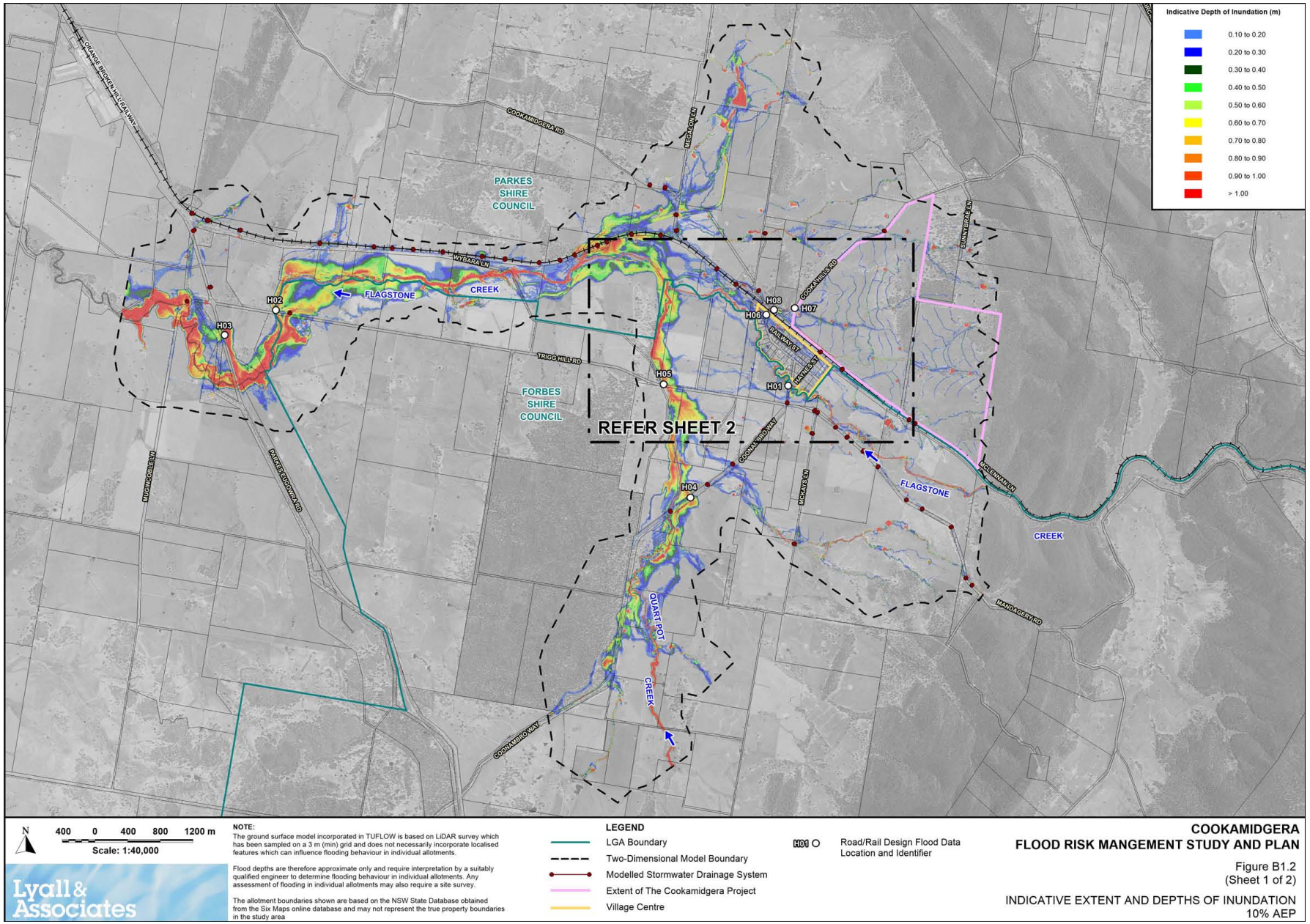
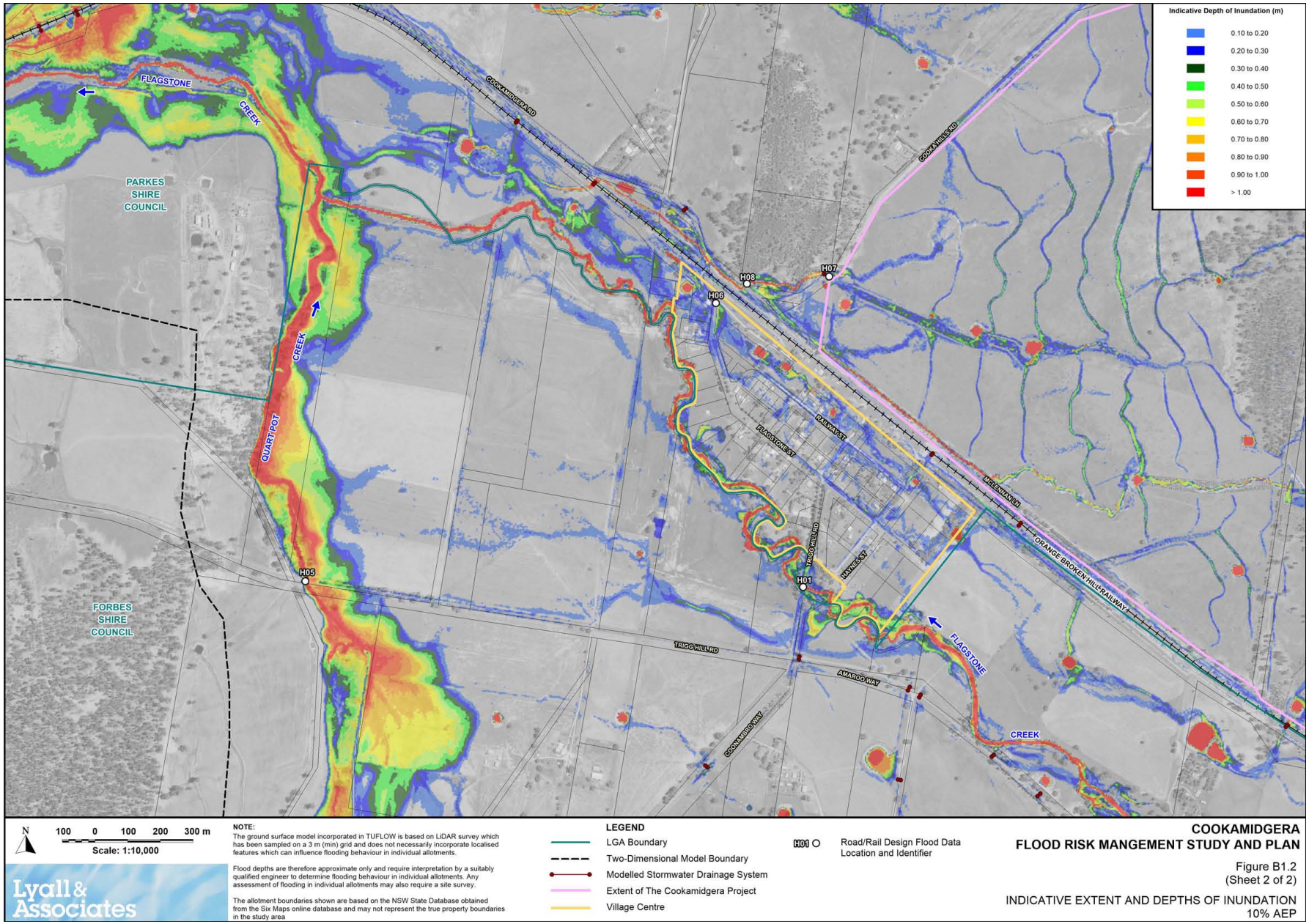
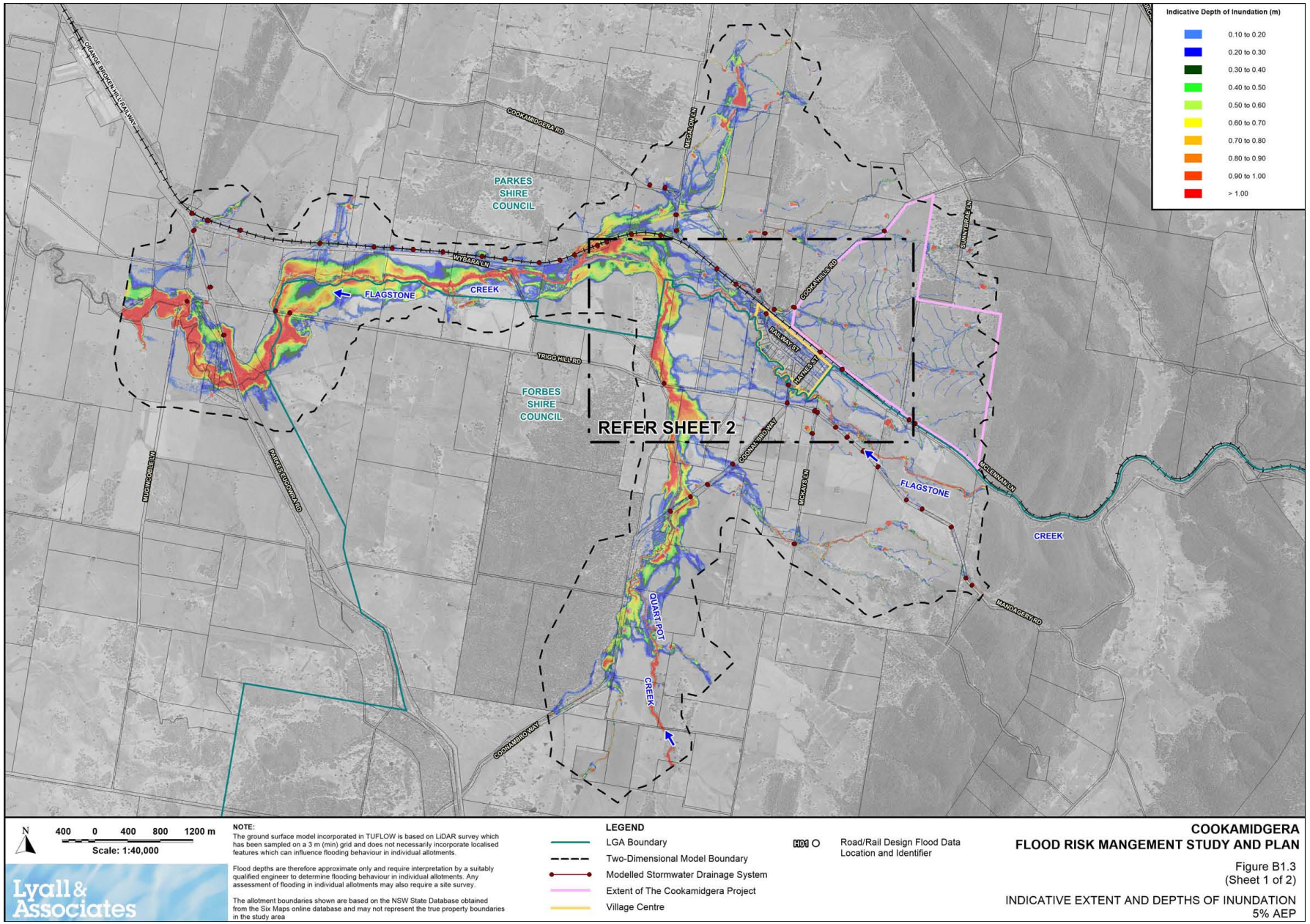
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.1
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
20% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER SHEET 2
FLAGSTONE CREEK
QUARRY POT CREEK
COOKAMIDGERA RD
WYBARA LN
TRIGG HILL RD
COOKAMIDGERA HILL RD
COOMABRO WAY
MANDAGERY RD
MIDNIGHORSE LN
MEKANE LN
SUNNYBRAE LN
H01
H02
H03
H04
H05
H06
H07
H08
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
Lyall & Associates
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.2
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
10% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
COOKAMIDGERA RD
COOKHILLS RD
RAILWAY ST
FLAGSTONE ST
HAYNES ST
TRIGG HILL RD
AMARGO WAY
COOKAMIDGO WAY
ORANGE BROKEN HILL RAILWAY
H01
H05
H06
H07
H08
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
The ground surface model incorporated in TUFLOW is based on LiDAR survey which has been sampled on a 3 m (min) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.
The allotment boundaries shown are based on the NSW State Database obtained from the Six Maps online database and may not represent the true property boundaries in the study area
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.2
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
10% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER SHEET 2
FLAGSTONE CREEK
FLAGSTONE CREEK
QUARRY POT CREEK
COOKAMIDGERA RD
WYBARA LN
TRIGG HILL RD
COOKAMIDGERA HILL RD
COOMABIRO WAY
MANDAGERY RD
MIDNOORIE LN
PARKES BOGNOVA RD
MEKANE LN
SUNNYBRAE LN
RAILWAY ST
RAYMISS ST
ORANGE BROKEN HILL RAILWAY
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
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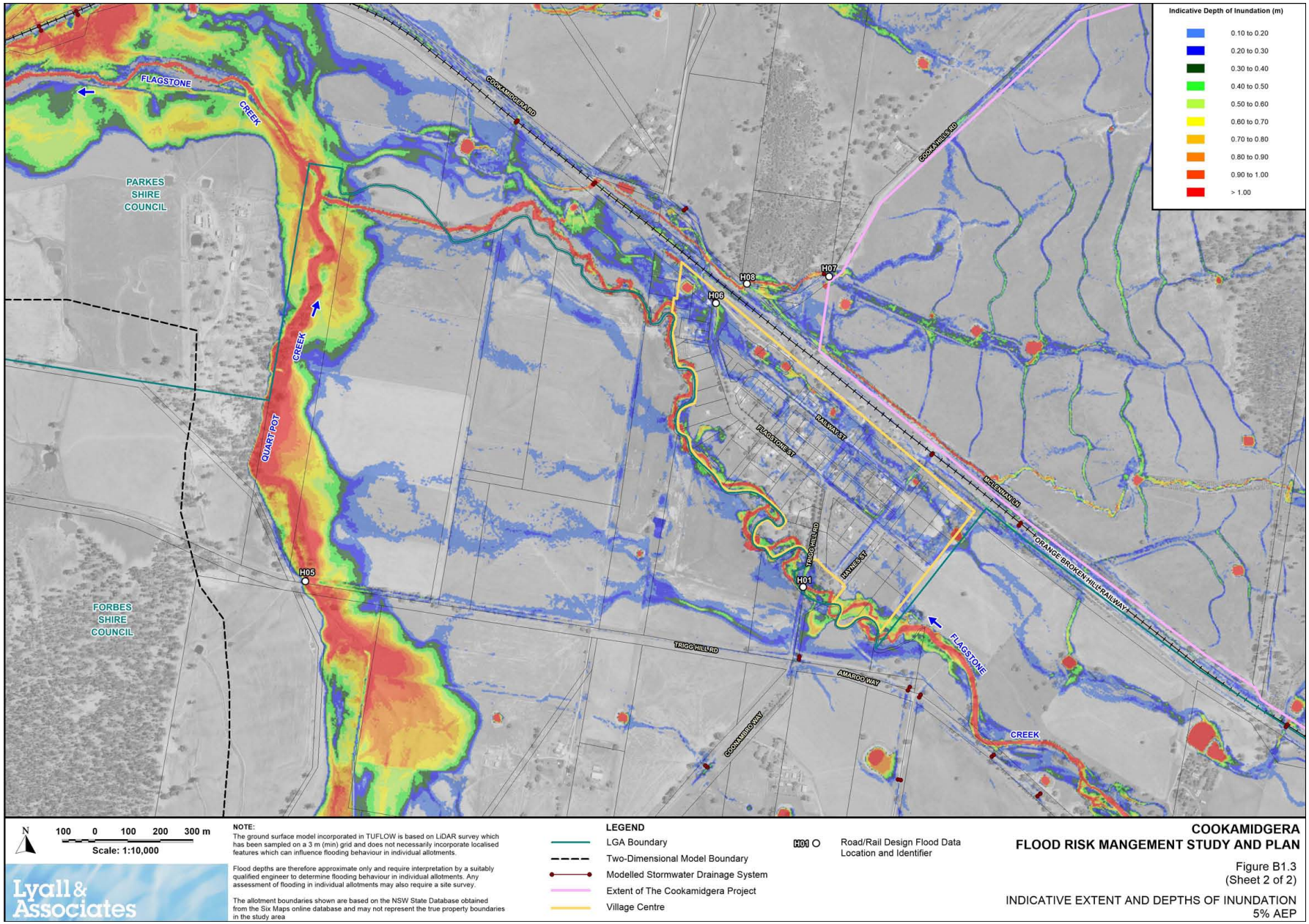
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.3
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
COOKAMIDGERA RD
COOKAMIDGE RD
H01
H05
H06
H07
H08
FLAGSTONE ST
RAILWAY ST
HOLLEMAN LN
ORANGE BROKEN HILL RAILWAY
HAYNES ST
TRIGG HILL RD
AMARGO WAY
COOKAMIDGE WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
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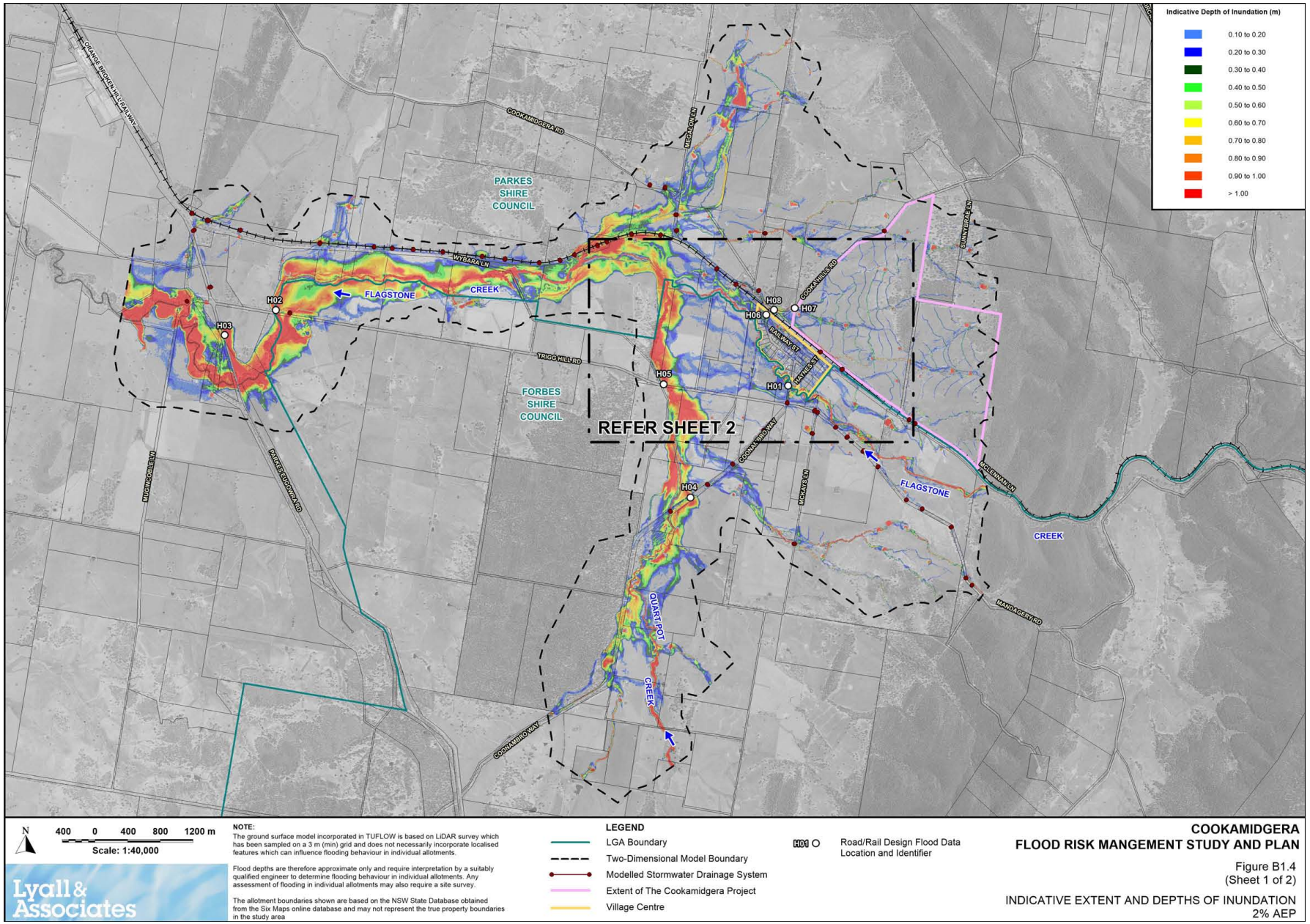
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.3
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER SHEET 2
FLAGSTONE CREEK
H01
H02
H03
H04
H05
H06
H07
H08
COOKAMIDGERA RD
WYBARA LN
TRIGG HILL RD
COOKAMIDGERA WAY
MANDAGERY RD
QUARRY POT CREEK
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
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Village Centre
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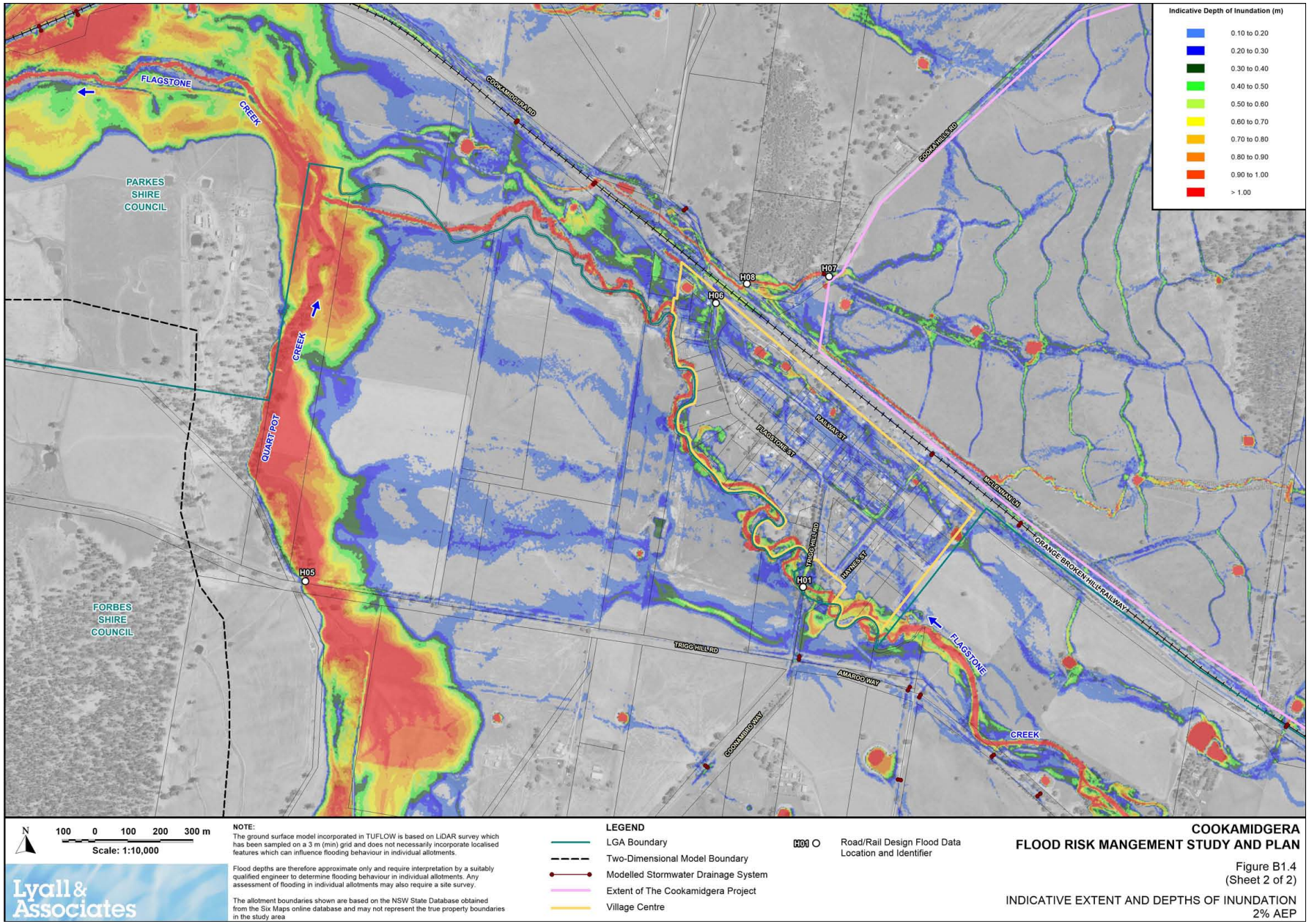
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.4
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
FLAGSTONE CREEK
COOKAMIDGERA RD
COOKAMILES RD
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
H01
H04
H05
H06
H07
H08
FLAGSTONE ST
RAILWAY ST
HOBSON AVE
TRIGG HILL RD
HAYES ST
ORANGE BROKEN HILL RAILWAY
AMARGO WAY
COOKAMIDGERA WAY
N
100 0 100 200 300 m
Scale: 1:10,000
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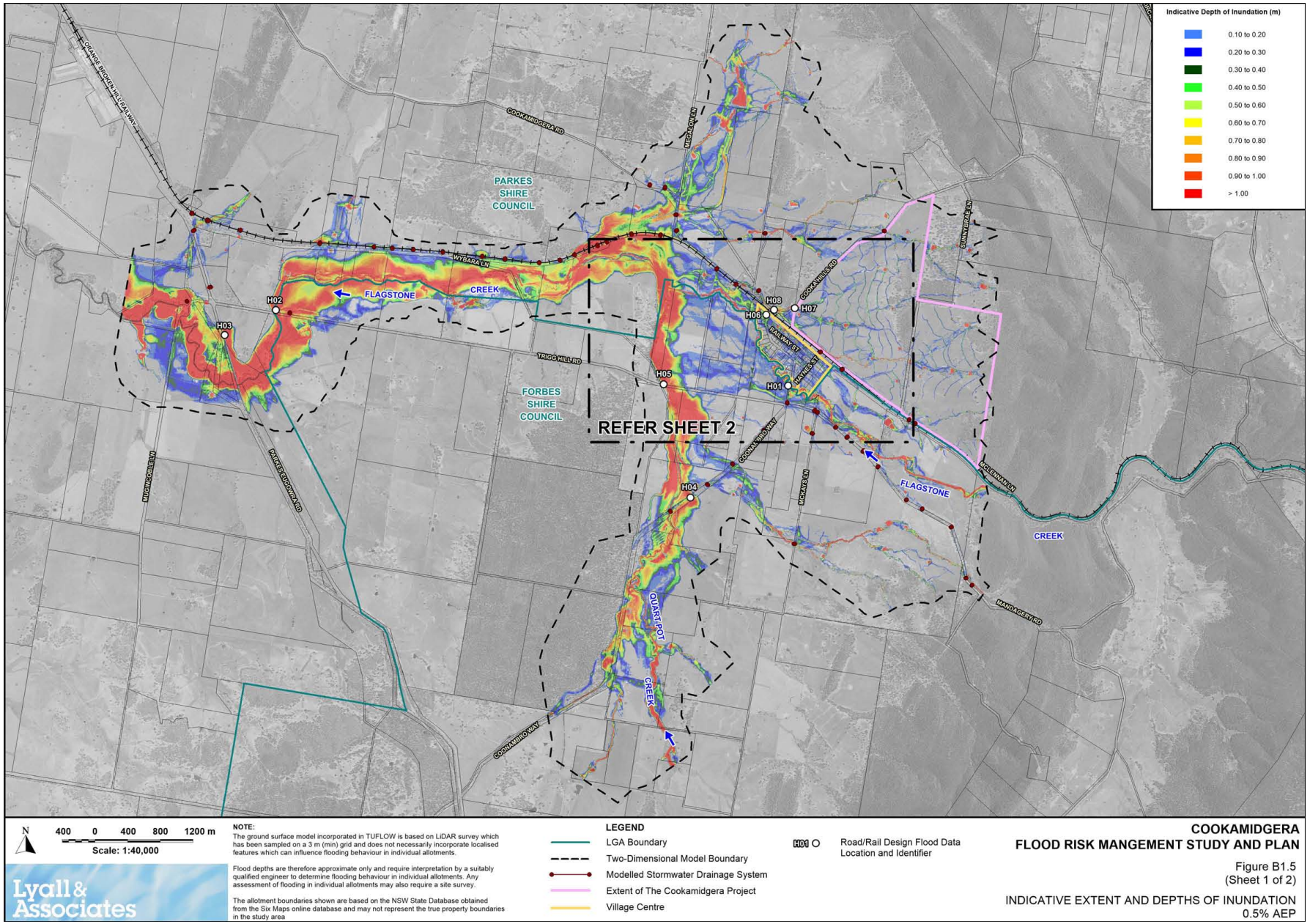
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.4
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER SHEET 2
FLAGSTONE CREEK
QUARRY POT CREEK
COOKAMIDGERA RD
WYBARA LN
TRIGG HILL RD
COOKAMIDGERA WAY
MANDAGERY RD
H01
H02
H03
H04
H05
H06
H07
H08
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
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LEGEND
LGA Boundary
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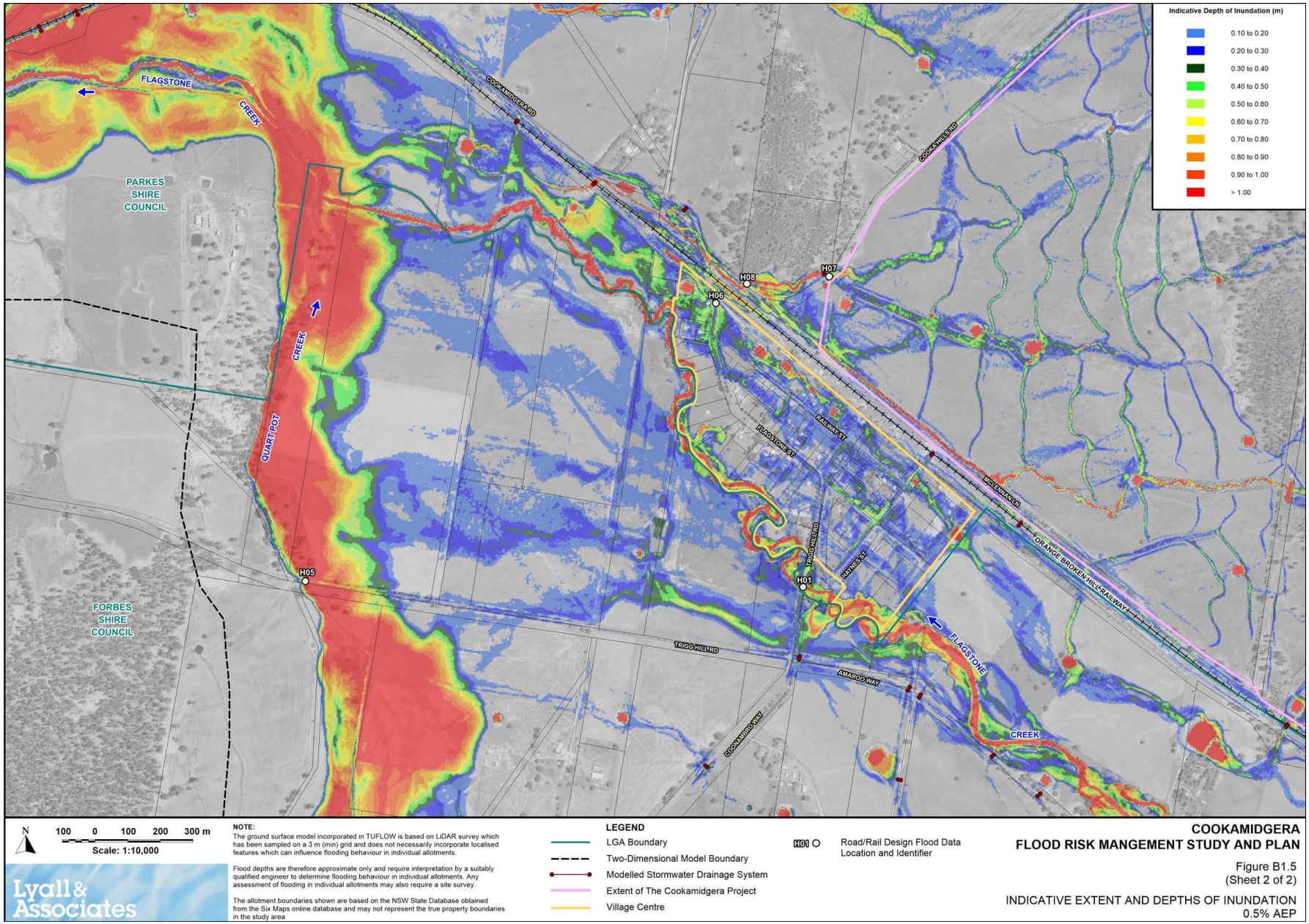
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.5
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUARTPOT CREEK
COOKAMIDGERA RD
COOKAMIDGE RD
H01
H05
H06
H07
H08
FLAGSTONE ST
RAILWAY ST
HENRY ST
TRIGG HILL RD
HANNES ST
ORANGE BROKEN HILL RAILWAY
AMARGO WAY
COOKAMIDGE WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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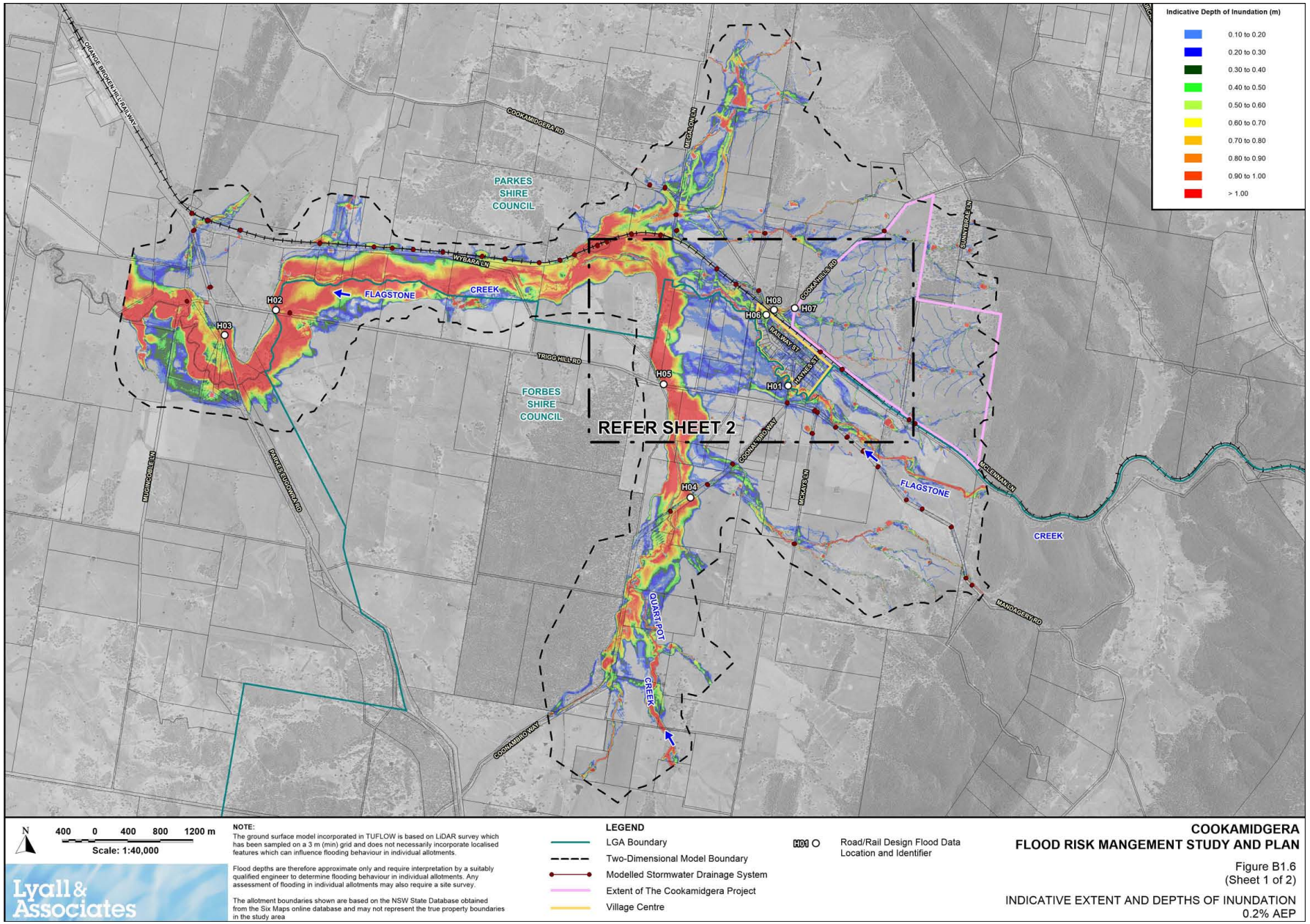
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.5
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.5% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
REFER SHEET 2
FLAGSTONE CREEK
H01
H02
H03
H04
H05
H06
H07
H08
COOKAMIDGERA RD
WYBARA LN
TRIGG HILL RD
COOKAMIDGERA WAY
MANDAGERY RD
QUARRIPOT CREEK
N
400 0 400 800 1200 m
Scale: 1:40,000
NOTE:
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LEGEND
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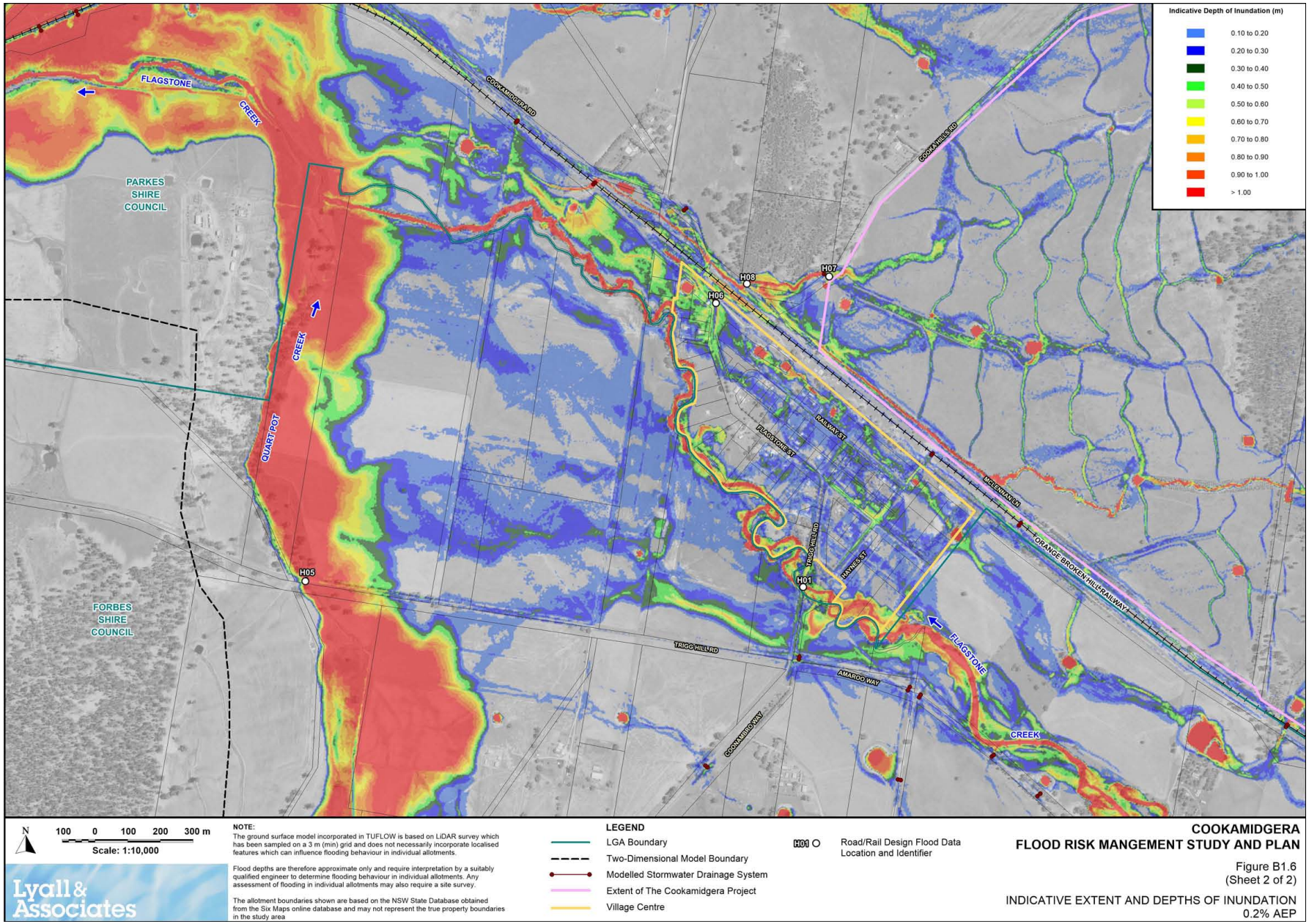
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.6
(Sheet 1 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.2% AEP


Indicative Depth of Inundation (m)
0.10 to 0.20
0.20 to 0.30
0.30 to 0.40
0.40 to 0.50
0.50 to 0.60
0.60 to 0.70
0.70 to 0.80
0.80 to 0.90
0.90 to 1.00
> 1.00
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
COOKAMIDGERA RD
COOKAMIDGERA HILLS RD
QUARTPOT CREEK
RAILWAY ST
FLAGSTONE ST
MCDERMAN LN
ORANGE BROKEN HILL RAILWAY
TRIGG HILL RD
HAYNES ST
AMARGO WAY
COOKAMIDGE WAY
H01
H05
H06
H07
H08
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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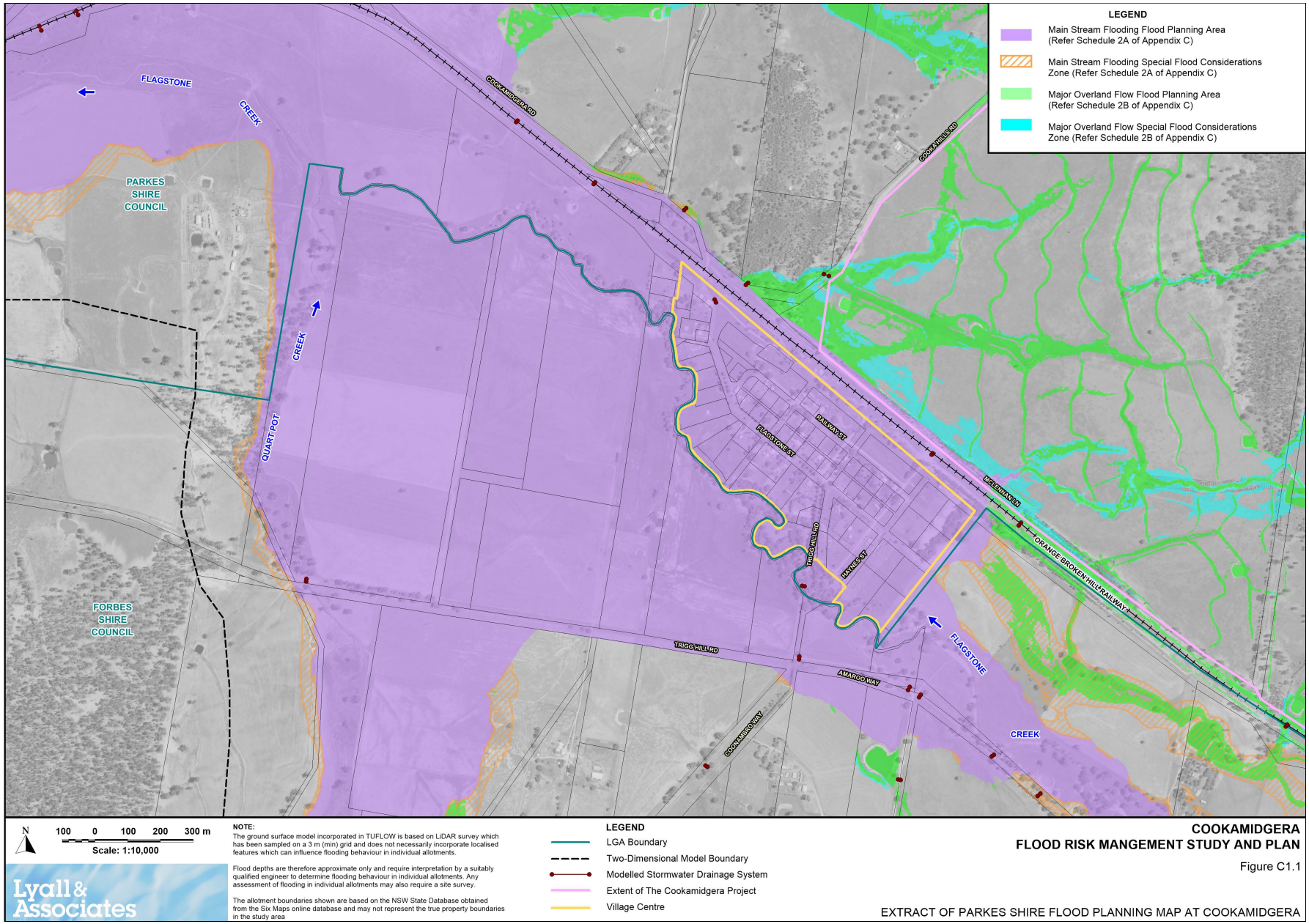
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
H01
Road/Rail Design Flood Data Location and Identifier
Lyall & Associates
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure B1.6
(Sheet 2 of 2)
INDICATIVE EXTENT AND DEPTHS OF INUNDATION
0.2% AEP

APPENDIX C

SUGGESTED WORDING FOR INCLUSION IN
PARKES SHIRE DEVELOPMENT CONTROL PLAN

LIST OF FIGURES (APPENDIX C)

C1.1 Extract of Parkes Shire Flood Planning Map at Cookamidgera
C1.2 Extract of Parkes Shire Flood Planning Constraint Category Map at Cookamidgera


LEGEND
Main Stream Flooding Flood Planning Area (Refer Schedule 2A of Appendix C)
Main Stream Flooding Special Flood Considerations Zone (Refer Schedule 2A of Appendix C)
Major Overland Flow Flood Planning Area (Refer Schedule 2B of Appendix C)
Major Overland Flow Special Flood Considerations Zone (Refer Schedule 2B of Appendix C)
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
QUART POT CREEK
COOKAMIDGERA RD
COOKAMIDGERA HILLS RD
FLAGSTONE ST
RAILWAY ST
MCLENNAN LN
TRIGG HILL RD
HAYNES ST
ORANGE BROKEN HILL RAILWAY
AMARGO WAY
COOKAMIDGE WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
NOTE:
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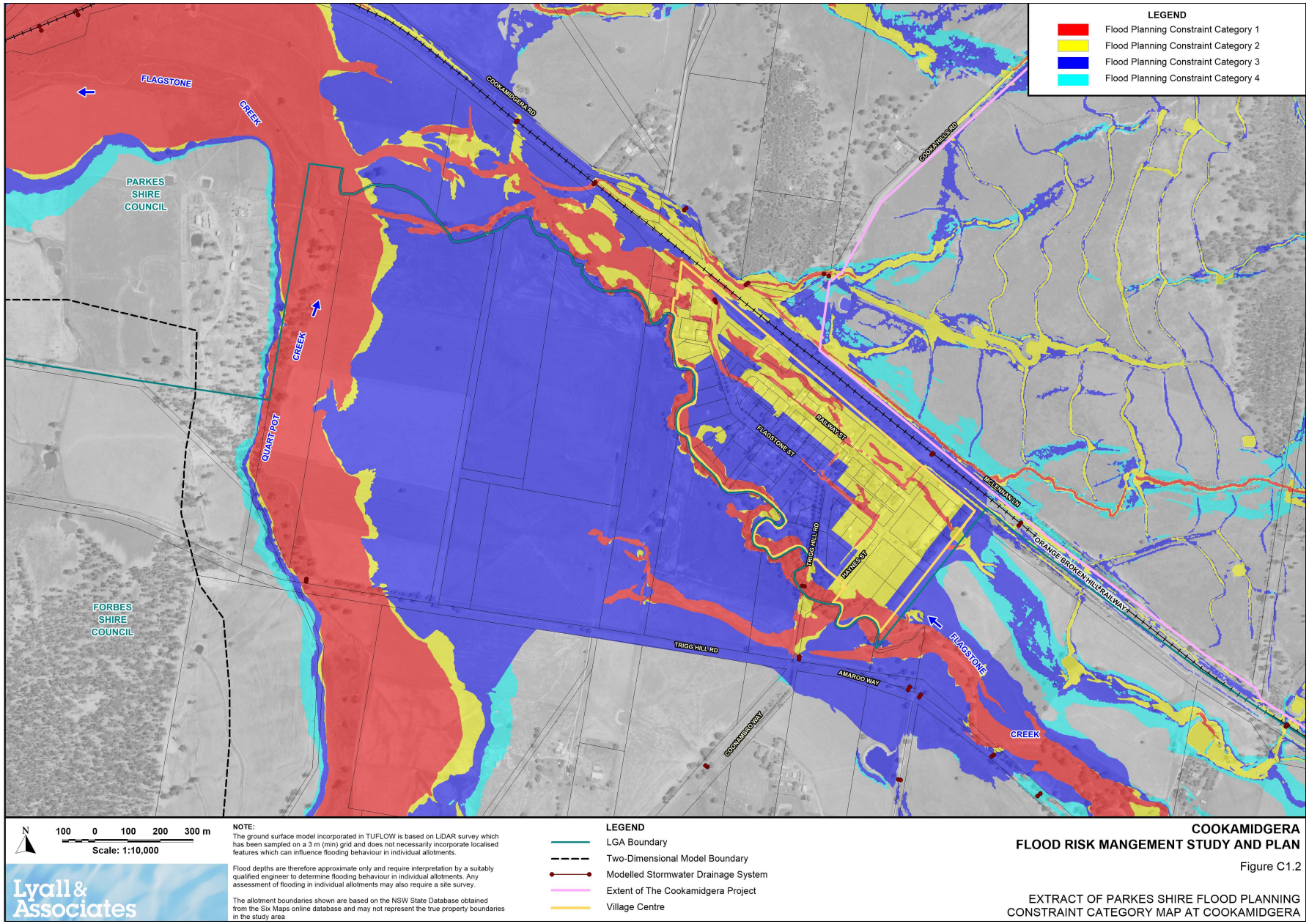
LEGEND
LGA Boundary
Two-Dimensional Model Boundary
Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure C1.1
EXTRACT OF PARKES SHIRE FLOOD PLANNING MAP AT COOKAMIDGERA


LEGEND
Flood Planning Constraint Category 1
Flood Planning Constraint Category 2
Flood Planning Constraint Category 3
Flood Planning Constraint Category 4
FLAGSTONE CREEK
PARKES SHIRE COUNCIL
FORBES SHIRE COUNCIL
COOKAMIDGERA RD
COOKAMIDGERA HILLS RD
QUARRY POT CREEK
RAILWAY ST
FLAGSTONE ST
HAYES ST
TRIGG HILL RD
HENRY MANN LN
ORANGE BROKEN HILL RAILWAY
AMAROO WAY
COOKAMIDGERA WAY
FLAGSTONE CREEK
N
100 0 100 200 300 m
Scale: 1:10,000
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Modelled Stormwater Drainage System
Extent of The Cookamidgera Project
Village Centre
COOKAMIDGERA
FLOOD RISK MANGEMENT STUDY AND PLAN
Figure C1.2
EXTRACT OF PARKES SHIRE FLOOD PLANNING CONSTRAINT CATEGORY MAP AT COOKAMIDGERA

16 REPORTS OF THE DIRECTOR OPERATIONS

16.1 MAJOR PROJECTS AND CURRENT WORKS - OPERATIONS

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Effectively collaborate, engage, and communicate with our community to inform decision making and promote services, projects and initiatives.

Author: **Kristine Thacker, Business Support Officer**

Authoriser: **Marisa Malherbe, Executive Manager Operations**

Annexures: **A. Operations - Major Projects & Current Works - October 2025** ⇩

RECOMMENDATION

That Council:

1. Receive and note the Operations Major Projects and Current Works Report for October 2025, appended at *Annexure A*.

BACKGROUND

A monthly status report of Major Projects and Current Works within Parkes Shire Council's Operations Department is tabled to keep Council abreast of projects being undertaken across the Parkes Shire.

ISSUES AND COMMENTARY

This report presents an update on the current major projects within the Parkes Shire being managed or undertaken by Council's Operations Department. The report outlines work that has been carried out over the past month and is provided for the information of Councillors.

The Major Projects and Current Works Report is appended at *Annexure A.*

LEGISLATIVE AND POLICY CONTEXT

There are no legislative or policy considerations for Council associated with this report.

FINANCIAL IMPLICATIONS

Projects have been allocated funding either from grants or Council funds as provided in the 2025/2026 Operational Budget.

RISK IMPLICATIONS

There are no risk implications for Council associated with this report.

COMMUNITY CONSULTATION

There are no community consultation requirements for Council associated with this report.

CONCLUSION

The Major Projects and Current Works Report, appended at *Annexure A*, provides Council with a briefing on major projects and works underway within the organisation's Operations Department. It is recommended that Council formally resolve to receive and note the report.

Operations
Major Project & Current Works – October 2025

Peak Hill Baldry Road – Stage 2

Due Date	Original Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
October 2026	$7,760,000	$34,502.79	$1,007,169	$14,856.82	$7,760,000

Description of the Project

The project involves widening and overlay of the existing unsealed pavement with bitumen sealing and improvements of longitudinal and cross drainage upgrades and other road safety related issues for approx. This is the next stage of the total project out of the original 15km we have 10.5km length remaining to provide access for Higher Productivity Vehicles.

Task Completed

- Survey verification for Stage 2 is ongoing to ensure the design aligns accurately with on-ground controls.
- A support letter to the Local Member has been drafted regarding the revocation of National Park land for the Peak Hill–Baldry Road Safety Upgrade to assist with the assessment of our submission. Design drawings were provided to illustrate the proposed road alignment and the extent of encroachment through the switchback area, assisting ongoing discussions with National Parks.
- Surface works around the large culvert structure have been completed to facilitate preloading, which will help minimise future settlement of the road surface.

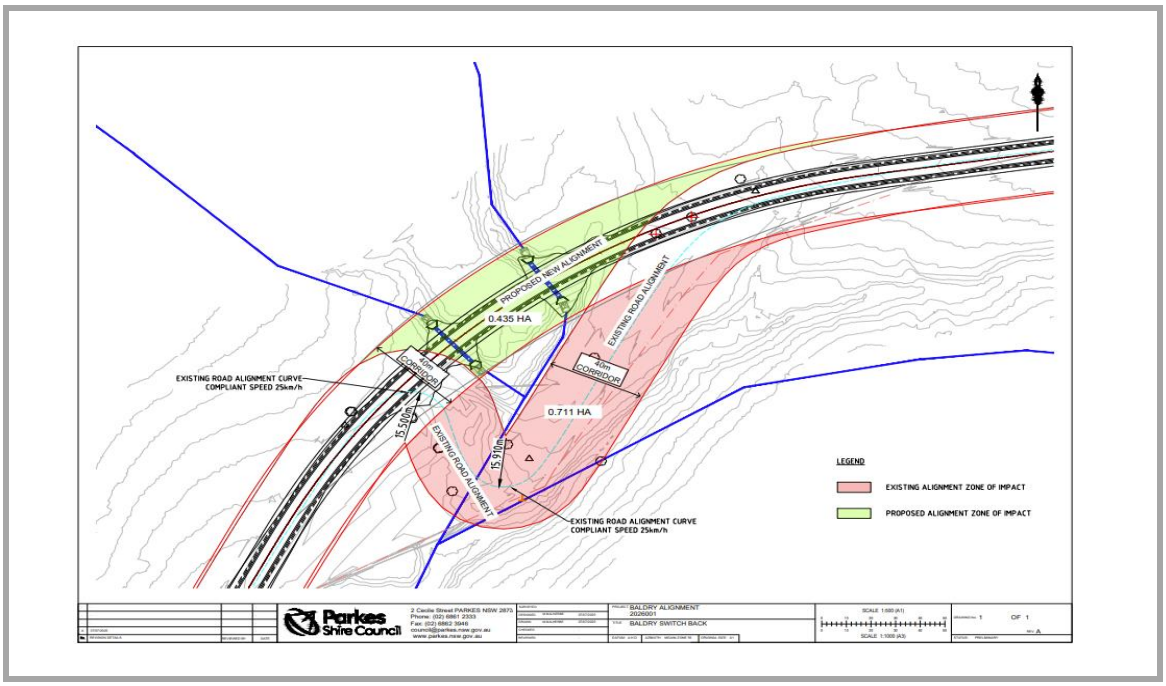
Tasks forecast to be completed (next steps: 1-3 months)

- PSC is Council is awaiting feedback from the funding body regarding the requested variation to construct a bridge for the switchback. This variation is intended to enable the construction of an 80 km/h road corridor and ensure the overall safety of the road corridor.
- The start of construction for Baldry Stage 2 has been delayed due to adjustments within the Capital Works Program. Works are now anticipated to commence earlier in the new year of 2026 as it's subject to operational priorities. However, due to the unresolved land acquisition PSC will only construct to the National Park boundary.
- Discussions continue with National Parks regarding the potential land acquisition needed for the switchback alignment.

Progress Photos

Operations
Major Project & Current Works – October 2025

Operations
Major Project & Current Works – October 2025



Operations
Major Project & Current Works – October 2025

Realignment and New Bridge at Graddle Creek, The McGrane Way

Due Date	Approved Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
August 2026	$8,143,655	$88,869	$379,616	$2,402,764	$8,143,655

Description of the Project

The works include construction of a bridge with a length of 45m with a width of 9m. The bridge will be constructed of prefabricated concrete sections to be assembled on site.

The bridge will remove the need to cross the creek on a low-level causeway. Road realignment on either side of the bridge will eliminate issues currently caused by the tight dog-leg turn where the crossing is currently located. Unbound granular pavement DGB 20 with 7/14mm seal will be laid 455m to the west of the bridge and 1420m to the east of the bridge. Road width will be 8.5m. AC 14 will be laid for approaches to the bridge. Bridge construction and road realignment confirmed to Australian roads guide and to bridge technology standards.

Task Completed (last month)

- Sign contract and return executed copy to contractor
- Install new boundary fence for new alignment – partial to stockproof paddocks
- Tree removal in preparation for construction of approaches
- Construct construction access along western approach to bridge
- Receive draft proposed bridge design
- Approval of proposed design
- Commencement of Bridge construction
- Removal of trees and vegetation in accordance with REF

Tasks forecast to be completed (next steps: 1-3 months)

- Finalisation of land acquisition
- Completion of bridge foundations
- Plank manufacture
- Construction of piers
- Completion of Abutments

Progress Photos

Excavation for western abutment footing.

Operations
Major Project & Current Works – October 2025

Progress Photos

Reinforcement cage for footing.

Reinforcement fot footing and columns boxed up and ready for concrete.

Operations
Major Project & Current Works – October 2025

Poured footing.

Operations
Major Project & Current Works – October 2025

New Facility for NSW SES Parkes Unit

Due Date	Approved Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
March 2026	$4,810,530	$538,317	$1,180,056	$2,661,540	$4,810,530

Description of the Project

The existing SES facility in Parkes, situated on the corner of Clarke and Alluvial streets is outdated, undersized for today's demands on the services and was also flood affected in recent natural disasters. The new proposed facility to be situated at lot 4 Boyd Circuit, Parkes will provide the SES the required headquarters to respond to any natural disasters in a timely manner

Task Completed

- On site installation of structural steel and lightweight frames

Tasks forecast to be completed (next steps: 1-3 months)

- Off site fabrication of main switchboard
- Off site fabrication of windows and doors
- Roofing and cladding

Progress Photos

Operations
Major Project & Current Works – October 2025

Operations
Major Project & Current Works – October 2025

Croaker Park Detention Basin

Due Date	Original Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
Dec 2025	$1,744,759 (Funded through R4R)	$505,002	$1,490,329	$126,211	$1,744,759

Description of the Project

This project involves the implementation of key flood mitigation measures aimed at reducing the impact of overland flow within the Parkes Central Business District (CBD), particularly along Main Street. The scope of works includes the following components:

Detention Basin Construction – "Croaker Basin":

- Construction of a new detention basin designed to capture and temporarily store stormwater runoff from the surrounding catchment.
- Integration of the basin with surrounding drainage systems to improve stormwater management capacity.

Surface Drainage Works:

- Construction of surface flow paths to intercept and direct overland flow into Croaker Basin.
- Works will extend to the entry points of North Parkes Oval and Pioneer Oval.
- Reprofiling and reshaping of the access road to Spicer Oval to support redirection of overland flow toward the basin.

These combined works aim to reduce flooding risk, improve public safety, and increase the resilience of Parkes CBD to future storm events.

Task Completed

- Service relocation in the intersections completed
- Hydroseeding at the basin
- Drainage surface works at Croaker basin
- Side road construction between Spicer and Pioneer Ovals

Tasks forecast to be completed (next steps: 1-3 months)

- Side road construction between Spicer and Pioneer Ovals
- Seal the access track after reshaping
- Intersections at Victoria and Clarinda works completed
- Road closure in place from 11th November to 12th December
- Reshape and asphalting of the intersection of Victoria and Clarinda Intersection

Operations
Major Project & Current Works – October 2025

Progress Photos

Operations
Major Project & Current Works – October 2025

Operations
Major Project & Current Works – October 2025

Victoria & Clarinda Street Intersection Upgrade

Due Date	Approved Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
31/12/25	$939,485 (Funded through R4R) $325,515 (funded through FAGS)	$37,230	$232,402	$50,625	$1,265,000

Description of the Project

This project involves the implementation of key flood mitigation measures aimed at reducing the impact of overland flow within the Parkes Central Business District (CBD), particularly along Main Street. The scope of works includes the following.

Stormwater Diversion Roadworks – Victoria Street:

- Roadworks along Victoria Street to redirect stormwater away from the Parkes CBD.
- Stormwater will be diverted eastward toward Bogan Street, reducing pressure on existing drainage within the CBD.
- Surface drainage improvements at the intersection of Victoria Street and Currajong Street.
- Additional drainage works at the intersection of Victoria Street and Clarinda Street to support the overall flood mitigation strategy.

These combined works aim to reduce flooding risk, improve public safety, and increase the resilience of Parkes CBD to future storm events.

Task Completed (last month)

- Profiling of the road surface has commenced with the subgrade to be stabilised in the coming week
- Last of the kerb works has been completed with the concrete infilled scheduled for mid-December.
- Driveway levels have been altered to allow for stormwater overland flow paths to stay within the road corridor, preventing flooding in private property.

Tasks forecast to be completed (next steps: 1-3 months)

- Road surface works at the intersection of Victoria and Clarinda Intersection, reducing the crown of the road to allow for stormwater to be restricted to the road corridor.
- Asphalt through the intersection and double coat seal on the approaches in Victoria Street.
- Verge shaping to restrict stormwater overland flow to remain in the road corridor, reducing the impact to private property

Operations
Major Project & Current Works – October 2025

Progress Photos

Operations
Major Project & Current Works – October 2025

Enabling Infrastructure for New Housing Development - Stage 1 Rose Street Parkes

Due Date	Approved Budget	Expenditure This Month	Total Expenditure To Date	Outstanding Commitments	Estimated Total When Works Complete
Dec 2025	$1,500,000	$127,812	$469,029	$303,546	$1,500,000

Description Of The Project

Stage 1 Current Project (Lots 12-15 and 26-30)

Deliver 9 lots on the with the existing infrastructure in the area along the frontages of rose street and Ainsworth Street

- Obtain da mod for stage 1 of the subdivision (lots 12-15 and 26-30)
- Complete detailed design and obtain subdivision works certificate
- Construct the OSD for the full subdivision if funding permits
- Upgrade any sewer or potable water to services for the all the lots
- Construct other utilities required e.g. power, lighting, NBN and inter-allotment drainage for stage 1
- Construct other retaining walls/ swales in future stages to direct flows to the OSD
- Construct footpaths and landscaping in accordance with urban design plan

Stage 2 – Future Works (Lots 1-11 and 16-21)

- Construct the new roads and infrastructure
- Construct remaining utilities to service the lots e.g. power, lighting, sewer, water, NBN and inter-allotment drainage
- Construct remaining retaining walls for stage 2
- Earthworks for remaining lots
- Footpaths and landscaping

Task Completed (Last Month)

- Casting of all required retaining wall components
- Issue SWC to planning for approval

Tasks Forecast To Be Completed (Next Steps: 1-3 Months)

- Refine draft construction program
- Contractor establishment and approval of management plans
- Bulk earthworks and tree removal
- Commence sewer pipe line works
- Commence retaining wall foundations and footings

Operations
Major Project & Current Works – October 2025

Progress Photos

Operations
Major Project & Current Works – October 2025

Operations
Major Project & Current Works – October 2025

Bogan Road Upgrade – Remote Roads Pilot Program

Due Date	Approved Budget	Expenditure this month	Total Expenditure to date	Outstanding Commitments	Estimated total when works complete
Dec 2025	$3,986,000	$103,006	$3,579,749	$60,885	$3,986,000

Description of the Project

Extension of seal for approximately 4kms including horizontal and vertical alignment improvements, upgrade of 3 causeways to improve freight efficiency and HML access and resheet 16kms unsealed road to improve drainage, horizontal and vertical alignment and pavement profile.

Task Completed (last month)

- Seal to the approach of the bridges and causeways
- Remove side track and opened causeway to traffic

Tasks forecast to be completed (next steps: 1-3 months)

- Re-sheeting on remainder 4km
- Table drain surface works

Progress Photos

16.2 REQUEST FOR EXTENSION OF CLEANING SERVICES CONTRACT

IP&R Linkage: **Pillar:** Leadership

Goal: Our Local Government is open, accountable and representative.

Strategy: Provide open and transparent decision-making and undertake the civic duties of Council with professionalism and integrity.

Author: **Sharon Ross, Manager Facilities**

Authoriser: **Marisa Malherbe, Executive Manager Operations**

Annexures: **A. Request of Extension of Contract for Cleaning Services - Strike Force Services Pty Ltd** ⇩

RECOMMENDATION

That Council:

1. Grant a two (2) year extension of the Provision of Cleaning Services Contract to Strike Force Services Pty Ltd, with the contract terminating on 1 January 2028.

BACKGROUND

At Council's Meeting of 21 February 2023, Council resolved to enter into a Contract for Cleaning Services with Strike Force Services Pty Ltd for a three (3) year period, with an option to extend for a further two (2) years.

The current term concludes in January 2026, and in accordance with the conditions of the existing contract, a formal written request has been received from the contractor to take up the optional extension.

Strike Force Services has continued to deliver consistent, high-quality cleaning services across Council facilities, including public amenities, community buildings, and high-traffic areas. Their demonstrated flexibility—such as expanding service provision for events like the Parkes Elvis Festival, ABBA Festival, and special cleaning operations in the CBD and Cooke Park precinct—has maintained Council's commitment to cleanliness, safety, and public amenity.

ISSUES AND COMMENTARY

Strike Force Services Pty Ltd have met all contractual obligations and consistently demonstrated professionalism, reliability, and adherence to Council's safety and environmental standards.

Their ISO Accreditation in Quality, Environmental, and Work Health and Safety Management Systems provides assurance of compliance with industry best practice and supports Council's objectives for responsible service delivery.

Given their proven performance, demonstrated capacity to scale services during peak events, and compliance with Council's contract requirements, the proposed extension offers continuity, service stability, and administrative efficiency without the need for a new tender process.

LEGISLATIVE AND POLICY CONTEXT

This contract extension is governed by the Local Government (General) Regulation 2021, specifically *Part 7 – Tendering* and aligns with the provisions that allow for contract extensions where such options are explicitly provided within the original contract.

In addition, the proposal aligns with Parkes Shire Council's Procurement Policy, which is guided by the following principles:

- Transparency and Accountability: Ensuring all procurement and contract management activities are conducted fairly, ethically, and with open competition where applicable.
- Value for Money: Achieving the best overall outcome for Council and the community, considering quality, reliability, sustainability, and cost over the life of the contract.
- Sustainability and Local Preference: Supporting local and regional suppliers where appropriate, in line with Council's economic development objectives, provided this offers value for money.
- Risk Management and Probity: Ensuring appropriate controls, due diligence, and compliance with the NSW Local Government Act 1993 and Regulations to mitigate financial and reputational risks.

The proposed extension has been assessed as compliant with Council's procurement thresholds and governance requirements, as the extension forms part of the originally tendered and Council-approved contract terms.

This action upholds Council's commitment to ethical conduct, transparency, and accountability as stated on the Parkes Shire Council website, ensuring procurement decisions are made in the best interests of the community.

FINANCIAL IMPLICATIONS

There are no additional financial implications beyond those provided for in the current contract. All existing conditions remain unchanged, including annual CPI adjustments. Budget allocations for cleaning services are incorporated within Council's operational budget for Facilities Management.

RISK IMPLICATIONS

There are minimal risks associated with extending the current contract. Strike Force Services maintains ISO-accredited systems for Safety, Quality, and Environmental Management, and their established familiarity with Council sites reduces onboarding, compliance, and performance risks.

Ongoing monitoring through Council's contract management processes ensures service standards and WHS compliance continue to be met.

Key risk mitigation strategies include:

- Regular performance reviews against agreed service levels
- Site inspections and reporting by Council officers
- Periodic WHS audits and contractor inductions

COMMUNITY CONSULTATION

There are no community consultation requirements associated with this report. Cleaning services are an internal operational function and do not require public exhibition.

Parkes Shire Council
2 Cecile St
Parkes NSW 2870

21st October 2025

To Whom It May Concern

We would like to formally request the 24 month extension to the cleaning services agreement dated 01.01.23 between Strike Force Services Pty Ltd and Parkes Shire Council.

Please confirm in writing if the extension has been approved with the new contract completion date of 01.01.2028.

Yours faithfully

[redacted]

Steve Edmonds
CEO
Strike Force Services

Address: 23 St Andrews St MAITLAND NSW 2320
Postal Address: PO BOX 93, MAITLAND NSW 2320
ABN: 43 118 457 604
Master Security Licence # 000103072
Email: reception@strikeforceservices.net

Ph: (02) 4933 8684
FAX: (02) 4934 8370

17 REPORTS OF THE DIRECTOR PLANNING AND COMMUNITY SERVICES

17.1 DA2025/0068 MOTEL ACCOMMODATION, 33-35 FORBES ROAD, PARKES

IP&R Linkage: **Pillar:** Environment

Goal: Our built environment is functional, sustainable and meets the needs of our growing community.

Strategy: Manage our built environment in line with the Local Environmental Plan (LEP) and relevant legislation.

Author: **Annalise Teale, Director Planning and Community Services**

Authoriser: **Kent Boyd PSM, General Manager**

Annexures:
- **A. Development Assessment Report DA2025-0068 33-35 Forbes Rd Motel (under separate cover)** ⇨
- **B. Plans- DA2025_0068 - 33-35 Forbes Road, Parkes (under separate cover)** ⇨

RECOMMENDATION

That:

1. Development Application No. DA2025/0068 is approved, subject to the conditions listed within this report.

SUMMARY

Applicant: R Frangi

Owner: Moparkes Pty Ltd, Star (NSW) Holdings Pty Ltd

Proposal: Erection of a single-story motel comprising 22 rooms and on-site managers facilities

Location: Lot 612 DP750152, 33-35 Forbes Road, Parkes

REPORT

Site and Background

- The subject land is located within the R1 General Residential zone under the *Parkes Local Environmental Plan 2012*, where Hotel or Motel Accommodation is permissible with consent.
- The site was previously occupied by a garden nursery and café.
- In 2023, Council approved the demolition of existing structures.
- In 2025, Council approved a child care centre on the eastern portion of the lot and a two-lot subdivision of the land (Lot 612 DP750152). The subdivision is yet to be registered.

Documentation Submitted

The application was accompanied by the following supporting documentation:

- Site, floor, elevation, and landscape plans
- Concept stormwater plan
- Statement of Environmental Effects

- Traffic and Parking Assessment
- Waste Management Plan
- Acoustic Report

Public Exhibition and Submissions

The development application was publicly exhibited and notified to adjoining landowners in accordance with Council's *Community Participation Plan*. No submissions or objections were received during the exhibition period.

Assessment

The proposal has been assessed in accordance with the provisions of the *Environmental Planning and Assessment Act 1979*, *Parkes Local Environmental Plan 2012*, and relevant *State Environmental Planning Policies (SEPPs)*.

The development is considered to:

- Be consistent with the objectives of the R1 General Residential zone;
- Provide appropriate access and parking arrangements from Medlyn Street;
- Be compatible with surrounding land uses, including the approved child care centre;
- Satisfactorily address amenity, traffic, and acoustic considerations.

A copy of the development assessment report can be viewed in Attachment A.

RECOMMENDED CONDITIONS OF CONSENT

That Development Application No. DA2025/0068 for the erection of a single-storey 22-room motel and on-site manager's facilities at Lot 612 DP750152, Medlyn Street, Parkes, be approved, subject to the conditions of consent outlined in this report.General Conditions

(MBW1.01) Approved Plans and Supporting Documentation

1. Development must be carried out in accordance with the following approved plans and documents, except where the conditions of this consent expressly require otherwise.

   a) The stamped approved Architectural Plans prepared by Black Ink Architecture, Sheets SK01 – SK18 (inclusive), dated 3 September 2025.
   b) The stamped approved Stormwater drainage concept plans prepared by M M Farah, Issue A, dated 18 August 2025.
   c) The stamped approved Landscape Plan prepared by Greenland Design Landscape Architects, Drawing Number 2987.GD.01, Issue A, dated 10 September 2025.
   d) The stamped approved Traffic and Parking Assessment prepared by RedSquare Traffic, Reference No. J10208RT1452-0825, Revision 1.1, dated 16 September 2025.
   e) The stamped approved Waste Management Plan prepared by RedSquare Traffic, Reference No. J10208RT1452-0825, Revision 1.1, dated 16 September 2025.
   f) The stamped approved Acoustic Report prepared by Octave Acoustics Revision 0, dated 16 September 2025.
   g) The approved stamped Statement of Environmental Effects prepared by Civic Town Planning, Issue 4, dated 18 September 2025.

   except as varied by the conditions listed herein or as marked in red on the approved plans. A current and approved copy of the approved stamped by Parkes Shire Council is to be maintained on site for constructional and reference purposes.

   In the event of any inconsistency with the approved plans and a condition of this consent, the condition prevails.

(Prescribed 4) Compliance with Building Code of Australia and insurance requirements under Home Building Act 1989

2. 1) It is a condition of a development consent for development that involves building work that the work must be carried out in accordance with the requirements of the Building Code of Australia.

2) It is a condition of a development consent for development that involves residential building work for which a contract of insurance is required under the Home Building Act 1989, Part 6 that a contract of insurance is in force before building work authorised to be carried out by the consent commences.

3) It is a condition of a development consent for a temporary structure used as an entertainment venue that the temporary structure must comply with Part B1 and NSW Part H102 in Volume 1 of the Building Code of Australia.

4) In subsection (1), a reference to the Building Code of Australia is a reference to the Building Code of Australia as in force on the day on which the application for the construction certificate was made.

5) In subsection (3), a reference to the Building Code of Australia is a reference to the Building Code of Australia as in force on the day on which the application for development consent was made.

6) This section does not apply—
   a) to the extent to which an exemption from a provision of the Building Code of Australia or a fire safety standard is in force under the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021, or
   b) to the erection of a temporary building, other than a temporary structure to which subsection (3) applies.

(Prescribed 6) Erection of Signs

3. 1) This section applies to a development consent for development involving building work, subdivision work or demolition work.

2) It is a condition of the development consent that a sign must be erected in a prominent position on a site on which building work, subdivision work or demolition work is being carried out—
   a) showing the name, address and telephone number of the principal certifier for the work, and
   b) showing the name of the principal contractor, if any, for the building work and a telephone number on which the principal contractor may be contacted outside working hours, and
   c) stating that unauthorised entry to the work site is prohibited.

3) The sign must be—
   a) maintained while the building work, subdivision work or demolition work is being carried out, and
   b) removed when the work has been completed.

4) This section does not apply in relation to—
   a) building work, subdivision work or demolition work carried out inside an existing building, if the work does not affect the external walls of the building, or

b) Crown building work certified to comply with the Building Code of Australia under the Act, Part 6.

(BW1.01) Obtaining a Construction Certificate

4. The Applicant is to obtain a Construction Certificate from either Council or an Accredited Principal Certifier, certifying that the proposed works are in accordance with the Building Code of Australia and applicable Council Standards prior to any building works commencing.

   - No building, engineering or excavation work is to be carried out in relation to this development until the necessary construction certificates have been obtained.
   - It is the responsibility of the Applicant to ensure that the development complies with the Building Code of Australia and applicable Council Standards in the case of building work. This may entail alterations to the proposal so that it complies with these standards.

(BW1.02) Obtaining an Occupation Certificate

5. Prior to the occupation or use of the development, an Occupation Certificate must be obtained from the Principal Certifier for the subject development.

Prior to the issue of a Construction Certificate

(BW2.03) - Section 7.12 Contributions

6. Pursuant to Section 7.12 of the Environmental Planning and Assessment Act 1979, the monetary contribution set out in the following table is to be paid to Parkes Shire Council prior to the issue of a Construction Certificate. The contribution is current as at the date of this consent and is levied in accordance with the Parkes Shire Section 94A Contributions Plan 2016, in force from 5 August 2016, which may be viewed during office hours at Council's Customer Service Centre, 2 Cecile Street, Parkes, or on Council's website www.parkes.nsw.gov.au. The contribution payable will be calculated in accordance with the contributions plan current at the time of payment and will be adjusted at the time of payment in accordance with the Consumer Price Index (CPI) (All Groups Index for Sydney) published by the Australian Bureau of Statistic (ABS). Contribution amounts will be adjusted by Council each quarter.

Contribution Type	Section 7.12
Proposed Cost of Development	$2,020,700.00
Levy %	1% above $200,000.00
Total Contribution	$18,207.00
Contribution Rate remains current until	Next CPI Quarterly Adjustment

(bespoke) Submit Engineering Detail for Stormwater Management

7. Prior to the issue of a Construction Certificate, a detailed stormwater management plan shall be prepared for the development in accordance with AS/NZS 3500.3:2015 – Part 3, Stormwater Drainage. The plan shall include the design considerations and calculations relating to the stormwater runoff on the site as well as all necessary stormwater infrastructure required to manage minor (5% AEP) event, without surcharge and demonstrate safe overland flow for a major (1% AEP) storm event to ensure habitable rooms are not inundated by stormwater. The engineering detail and supporting calculations shall be submitted for review and approval with the Construction Certificate application.

(Bespoke) Footings below zone of influence

8. The plans submitted with the Construction Certificate are to demonstrate that the footings of the building are located beneath the reticulated sewerage main along the southern property boundary and therefore outside the zone of influence.

Before Works Commence

(BW3.02) Notice of Commencement & Principal Certifier Appointment

9. The applicant is to submit to Parkes Shire Council, at least two (2) days prior to the commencement of any works, a 'Notice of Commencement of Building or Subdivision Works' and 'Appointment of Principal Certifier'.

10. *(EBW3.04) Obtaining a Section 305 Certificate*

Prior to the commencement of works, evidence of an approved Section 305 Water Management Act 2000 Application for water supply and sewerage management system works from Parkes Shire Council is to be provided to the Certifier.

Note: The applicant is advised that the development may be subject to developer charges pursuant to Division 5 of Part 2 of Chapter 6 of the Water Management Act 2000. These fees will be confirmed with the issue of a Section 305 Certificate and will be required to be paid in full prior to the issue of an occupation certificate in accordance with Section 64 of the Local Government Act 1993.

The current Section 64 developer charges per ET set out in Council's published fees and charges for 2024/ 2025 are:
Water = $14,605.50
Sewer = $5,715.00

This charge is reviewed each financial year. The current contribution rate is to be confirmed prior to payment.

(EBW3.01) Section 138 Approval

11. Prior to any work commencing within a public road reserve, the Applicant shall submit an Application under Section 138 of the Roads Act 1993 to carry out road works, including detailed engineering design drawings of intended works, sediment control plans, environmental management plans, work method statements and traffic control plans.

(BW3.01) Section 68 Approval

12. The Applicant is to obtain all relevant approvals to carry out sewerage work, to carry out stormwater drainage work and to carry out water supply work from Parkes Shire Council prior to commencing works and comply with any conditions of that permit. All work shall be carried out by a licensed plumber and drainer and to the requirements of the Plumbing Code of Australia.

During Works

(BW4.05) Clear Footways and Roadways During Construction

13. During construction, public footways and roadways adjacent to the site must be kept clear of obstructions unless separate written approval from Parkes Shire Council is obtained to occupy the public road reserve.

(BW4.09) Disposal of Waste

14. All building rubbish, demolition material and debris shall be disposed at an approved Parkes Shire Council Waste Facility.

(EBW4.10) Driveway Access

15. The applicant is to construct a new concrete driveway at the nominated location, from the edge of the bitumen to the property boundary, in accordance with the following Parkes Shire Council minimum standards:

    1. Driveway 6-9 metres wide
    2. Concrete slab shall be 150mm thick, 32MPa GP concrete, founded on 75mm of compacted gravel.
    3. Concrete slab shall be dowelled into the existing kerb and gutter using R12 Galvanised dowels (250 grade) spaced at 300mm centres, 400mm long and centrally placed.
    4. At grade of existing verge/footway (must be between +2% and +4% grade from top of kerb to boundary)
    5. Design levels of driveway to be submitted with Section 138 Permit for approval.

    All works must be completed prior to the issue of an Occupation Certificate.

(MBW4.03) Hours of work

16. Site work must only be carried out between the following times –

    Between 7:00 am and 6:00 pm on weekdays;

    Between 8:00 am and 1:00 pm on Saturdays;

    No work permitted on Sundays or Public Holidays.

    Site work is not to be carried out outside of these times except where there is an emergency, or for urgent work directed by a police officer or a public authority.

(BW4.06) Noise and Pollution Requirements

17. No nuisance or interference with the amenity of the area is to be created by reason of any process or operation on the premises causing the emission of noise, dust, smoke or any polluted discharge whatsoever.

(BW4.02) Provision of Toilets

18. Throughout the course of building operations on the land, toilet facilities are to be provided, at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out. Toilet facilities are to be provided at a rate of one toilet for every 20 persons or part of 20 persons employed at the site.

(BW4.03) Rubbish & Debris

19. All building rubbish and debris, including that which can be wind blown, shall be contained on site in a suitable container for disposal at an approved Parkes Shire Council Waste Landfill Depot. The container shall be erected on the building site prior to work commencing and shall be maintained for the term of the construction to the completion of the project.

    - No building rubbish or debris shall be placed or permitted to be placed on any adjoining public reserve, footway or road.
    - The waste container shall be regularly cleaned to ensure proper containment of the building wastes generated on the construction site.

Prior to the issue of an Occupation Certificate

(EBW5.01) Final inspection Record for Driveway Works

20. Prior to the Issue of any Occupation Certificate a Certificate of Completion is to be provided to the Principal Certifier confirming that all works and fees / contributions required for the provision of a layback, crossover and driveway have been completed in full to the satisfaction of Council's Director Operations.

(Bespoke) Removal of Existing Crossover and Verge Rehabilitation

21. The applicant is to remove the existing redundant layback and crossover on the Medlyn Street frontage and reconstruct the kerb and gutter in accordance with Parkes Shire Council's standard specification.

    The affected verge area is to be rehabilitated, including the construction or reinstatement of the concrete footpath in accordance with Parkes Shire Council's standard specification.

    Reason: To ensure the structural integrity and continuity of the footpath network.

(BBW5.01) Fire Safety Certificate

22. On completion of the building, the owner of the building is required to submit to the Principal Certifier a Fire Safety Certificate(s) with respect to each essential fire safety measure installed in association with the building — as listed on the Fire Safety Schedule attached to the Construction Certificate. Such certificate(s) must be submitted to the Principal Certifier prior to occupation or use of the subject building.

    Copies of the subject Fire Safety Certificate(s) must also be forwarded by the owner to Council (if not the appointed Principal Certifier) and the Commissioner of Fire and Rescue NSW and displayed within the subject building in a prominent position.

(EBW5.04) Issue Reticulated Water Compliance Certificate

23. Prior to the issue of an occupation certificate a Certificate of Compliance in accordance with Section 307 of the Water Management Act 2000 is to be obtained from Parkes Shire Council, certifying that all works, fees and charges, required in connection with the provision of the reticulated water supply to the development have been undertaken and complied with in full.

(EBW4.01) Stormwater Connection and Disposal

24. All roofed and paved areas shall be drained so that water from those areas is conveyed underground into the kerb inlet pit on the Medlyn Street frontage in accordance with the approved stormwater management plan and Australian Standard 3500, 'National Plumbing and Drainage'. Storm water disposal drains shall be connected to all roof gutter down pipes within 14 days of installation of the down pipes and/or the construction of hard standing areas, as may be appropriate, to discharge roof water and surface drainage to the approved method of disposal.

    Note: The outlet connection to the approved legal point of discharge shall not comprise rectangular hollow section (RHS) steel or other non-approved materials. A Council-approved pipe type and size shall be used for this connection.

(MBW5.06) Repair of infrastructure

25. Before the issue of an Occupation Certificate:

    1) any public infrastructure damaged as a result of the carrying out of work approved under this consent (including damage caused by, but not limited to, delivery vehicles, waste collection, contractors, sub-contractors, concreting vehicles) must be fully repaired to the written satisfaction of Council, and at no cost to Council; or

    2) if the works in (1) are not carried out to Council's satisfaction, Council may carry out the works required and the costs of any such works must be paid as directed by Council.

(Bespoke) Acoustic Fencing

26. Prior to the issue of an Occupation Certificate, a 1.8-metre-high acoustic fence is to be erected along the southern boundary in accordance with the stamped approved Acoustics Report prepared by Octave Acoustics, dated 16 September 2025.

    Reason: To ensure the development is constructed as approved.

(Bespoke) Landscaping

27. Prior to the issue of an Occupation Certificate, all landscaping shall be installed in accordance with the stamped and approved Landscape Plan, to the satisfaction of the Consent Authority. Notwithstanding the approved plan, no landscaping is to be installed along the southern boundary of the site to ensure there is no impact on the existing reticulated sewer main located beneath. All approved landscaping shall be maintained in a healthy and tidy condition at all times thereafter, with any damaged, diseased, or dead plants replaced promptly to the satisfaction of the Consent Authority.

    Reason: To ensure the amenity of the area is preserved.

(Bespoke)Replacement of Mature Street Tree

28. The applicant is to replace any street trees in Medlyn Street that are removed during the construction works with like for like, being a 300 litre Crepe Myrtle (Biloxi) or other tree approved by Council's Parks and Garden Coordinator. The replacement tree shall be supplied, planted, and maintained by Council. The applicant shall bear all costs associated with the replacement of the street tree, including the cost of the tree and installation. Prior to the issue of an Occupation Certificate, documentary evidence is to be provided that the applicant has made arrangements and paid fees associated with the mature street tree replacement.

Reason: To ensure the amenity of the area is preserved.

Ongoing Use

(BW6.14) Delivery Vehicles

29. All loading and unloading of delivery vehicles, is to take place off-street and must not inhibit the free flow of vehicles accessing the site or other premises in the area. Loading facilities, internal docks or goods handling areas are to be maintained free of obstruction for the sole use of delivery vehicles.

(BW6.15) Environmental Protection

30. There must be no interference with the amenity of the area by reason of the emission of any offensive noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash or dust, or otherwise as a result of the development as defined in the Protection of the Environment Operations Act 1997.

(BBW6.01) Fire Safety Statement

31. The owner of the building is required to submit to Council at least once in each period of 12 months following the completion of the building an Annual Fire Safety Statement(s) with respect to each essential fire safety measure associated with the building.

    Copies of the subject Annual Fire Safety Statements must also be forwarded by the owner to the Commissioner of the Fire and Rescue NSW and displayed within the subject building in a prominent position. In this regard Fire and Rescue NSW has requested that only electronic copies of the statement be forwarded, with their dedicated email address for such Statements being: afss@fire.nsw.gov.au

(MBW6.13) Signage during ongoing use

32. During ongoing use of the premises:

    1) signage of the building street number and building name (where applicable) must be clearly displayed
    2) advertising signs must not be placed or displayed on any public space (including the public footpath or street)
    3) any approved lighting of signs must comply with Australian Standard AS 4282:2019 - Control of the Obtrusive Effects of Outdoor Lighting
    4) no upward facing light sources can be displayed on signs on the premises.
    5) signs must only be illuminated when the premises are in operation and only during the operating hours approved under this consent

(BW6.16) Use of footpath

33. Nothing associated with the development or business is to be located on the footpath or adjoining public area, including the parking of vehicles, storage of goods, materials, waste or the like, without prior consent of Council.

(BW6.12) Vehicle Movement and Parking

34. All vehicles must enter and exit the site in a forward direction. There shall be no reversing of vehicles onto the public roadway system. All vehicles must be parked legally, and no vehicles are permitted to be parked over the public footpath.

(BW6.17) Waste Management

35. Adequate facilities shall be provided in a screened location within the premises for the separate storage of recyclable, non-recyclable and special waste material. Arrangements shall be made for the regular removal and disposal of those waste materials. The garbage and bin storage area shall be positioned in a location that is impervious to moisture, and capable of being easily cleaned.

(Bespoke) Ongoing Noise Management

36. The recommendations included in the stamped Acoustic Report prepared by Octave Acoustics, dated 16 September 2025 is to be enforced for the life of the development.

Reason: To minimise potential noise impacts from the development on adjoining properties.

CONCLUSION

The proposed motel development is suitable for the site and consistent with the strategic intent of the locality. The design and supporting documentation demonstrate that potential environmental and amenity impacts can be appropriately managed through conditions of consent.

17.2 OCTOBER 2025 BUILDING STATISTICS UPDATE

IP&R Linkage: **Pillar:** Environment

Goal: Our built environment is functional, sustainable and meets the needs of our growing community.

Strategy: Manage our built environment in line with the Local Environmental Plan (LEP) and relevant legislation.

Author: **Cordelia Moon, Development-Certificates Coordinator**

Authoriser: **Annalise Teale, Director Planning and Community Services**

Annexures: **Nil**

RECOMMENDATION

That Council:

1. Receive and note the October 2025 Building Statistics Report.

BACKGROUND

The Building Statistics Report is furnished to Council on a monthly basis and provides a snapshot of development activity in the Shire during that period.

ISSUES AND COMMENTARY

During the month of October 2025 there were thirteen (13) Development Applications received totalling $2,136 ,210.26 and eight (8) consents were issued. There was one (1) Complying Development Certificate received totalling $73,300.00 and four (4) Complying Development Certificate were issued.

The figures shown *Table 1* below are for Development Applications received during October 2025 with respect to the specified building types and a comparison to the October 2024 figures.

Table 1: Development Applications				
Development Category	October 2025		October 2024	
	No.	Estimated Value	No.	Estimated Value
Commercial	1	$456,500.00	3	$5,000.00
Community Facilities	1	$131,450.00	-	-
Industrial	-	-	-	-
Infrastructure	-	-	-	-
Tourist Development	-	-	1	$1,000.00
Single Dwelling-house	-	-	-	-
Residential Alterations and Additions inc. ancillary / outbuildings	9	$1,499,500.26	1	$12,200.00
Residential Other	-	-	-	-
Multi-Residential	-	-	-	-
Seniors Living	-	-	-	-
Subdivision only	1	$0.00	-	-
Secondary Dwelling	1	$48,760.00	1	$245,135.00
Other inc. demolition, earthworks, advertising structure	-	-	-	-
Mixed Development	-	-	-	-
Totals	**13**	**$2,136,210.26**	**6**	**$263,335.00**
FYTD Totals	**42**	**$9,949,558.03**	**35**	**$4,408,588.49**

Table 2, below, lists the Development Consents that were issued in the month of October 2025.

Table 2: Development Consents		
Application No.	**Address**	**Description**
DA2025/0043	31-37 Coronation Avenue, PARKES	Demolition, Subdivision & Erection of a new structure - Shed
DA2025/0056	36 Boyd Circuit, PARKES	Change of Use - Indoor Recreation Facility (Gym)
DA2025/0057	66 Jones Street, PARKES	Erection of a New Structure - Shed and Swimming Pool
DA2025/0058	90 Bogan Street, PARKES	Change of Use - Shed to Studio
DA2025/0059	64 Henderson Street, PARKES	Alterations or Additions to Existing Dwelling
DA2025/0061	45 Medlyn Street, PARKES	Erection of a New Structure – Shed
DA2025/0066	Farrer Street, PARKES	Dwelling - House & Shed
DA2025/0067	Tullamore Road, PEAK HILL	Dwelling - Manufactured Home

The figures shown in *Table 3*, below, are for Complying Development Certificates received during October 2025 with respect to the specified building types and a comparison to the October 2024 figures.

Table 3: Complying Development Certificates				
Development Category	October 2025		October 2024	
	No.	Estimated Value	No.	Estimated Value
Commercial	-	-	-	-
Community Facilities	-	-	-	-
Industrial	-	-	-	-
Infrastructure	-	-	-	-
Tourist Development	-	-	-	-
Single Dwelling-house	-	-	-	-
Residential Alterations and Additions inc. ancillary / outbuildings	1	$73,300.00	-	-
Residential Other			-	-
Multi-Residential	-	-	-	-
Seniors Living	-	-	-	-
Subdivision only	-	-	-	-
Secondary Dwelling	-	-	-	-
Other inc. demolition, earthworks, advertising structure	-	-	-	-
Totals	1	$73,300.00	0	$0.00
FYTD Totals	9	$5,619,056.00	2	$97,031.09

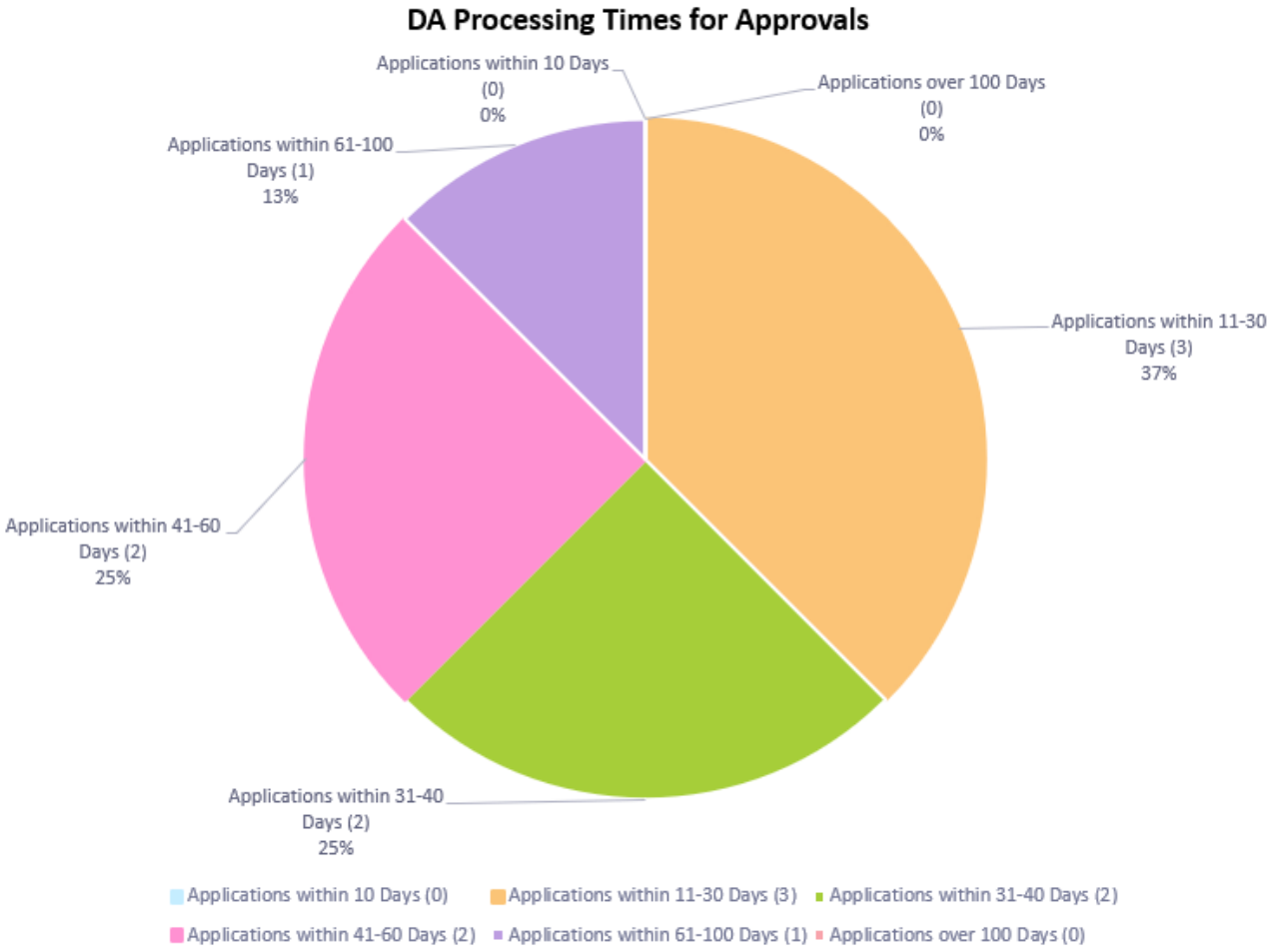
Table 4, below, provides a list of Complying Development Certificates which were issued in the month of October 2025.

Table 4: Complying Development Certificates			
Application No.	Address	Description	Certifying Authority
CDC2025/0016	37A Farrer Street, PARKES	Dwelling - House - Outbuilding - Shed - Swimming Pool & Child Restraint Barrier	Council
CDC2025/0017	15 Charles Rigg Avenue, PARKES	Swimming Pool & Child Restraint Barrier	Council
CDC2025/0018	School, 243 Back Trundle Road, PARKES	Demolition - Two Demountable Buildings	Council
CDC2025/0020	89 Woodward Street, PARKES	Swimming Pool & Child Restraint Barrier	Council

DA Processing Times for Approvals

The information shown in the pie chart below is Development Application approvals issued for the period 1 October 2025 to 31 October 2025. It should be noted that a total eight (8) Development Applications have been approved with an average of 44.77 days.

The average timeframe in which the internal referrals to the Technical Services and/or Infrastructure Departments were completed was 21.82 days.



Activation Precinct Certificate Determinations

There were no new Activation Precinct Certificate determinations.

LEGISLATIVE AND POLICY CONTEXT

There are no legislative or policy considerations for Council associated with this report.

FINANCIAL IMPLICATIONS

There are no financial implications for Council associated with this report.

RISK IMPLICATIONS

There are no risk implications for Council associated with this report.

COMMUNITY CONSULTATION

Where a Development Application or Modification Development Application is required to be publicly exhibited, the application was made available for inspection at the Parkes Shire Council Administration Centre commencing from the date on which the public notice was placed in the local newspaper. The application was also included on the Parkes Shire Council website.

For Development Applications requiring neighbour notification, written notification of the proposed development was provided to the owner(s) of land immediately adjoining or adjacent to the subject land (as shown on Council's Property and Rating System at the time of notification) including land that is separated from the subject land by watercourse, road, pathway, driveway, railway or similar thoroughfare.

Where more than one person is listed as the owner, written notification to one of the owners, is taken to be a notice to all of the registered owners.

CONCLUSION

During the month of October 2025 there were thirteen (13) Development Applications received totalling $2,136 ,210.26 and eight (8) consents were issued. There was one (1) Complying Development Certificate received totalling $73,300.00 and four (4) Complying Development Certificate were issued.

Parkes Shire Council

Development Activity Report

September 2025

Development Applications and Complying Development Certificates lodged and approved in the Parkes Shire.

LODGED

13 Development Applications

1 Complying Development Certificates

DETERMINED

8 Development Applications

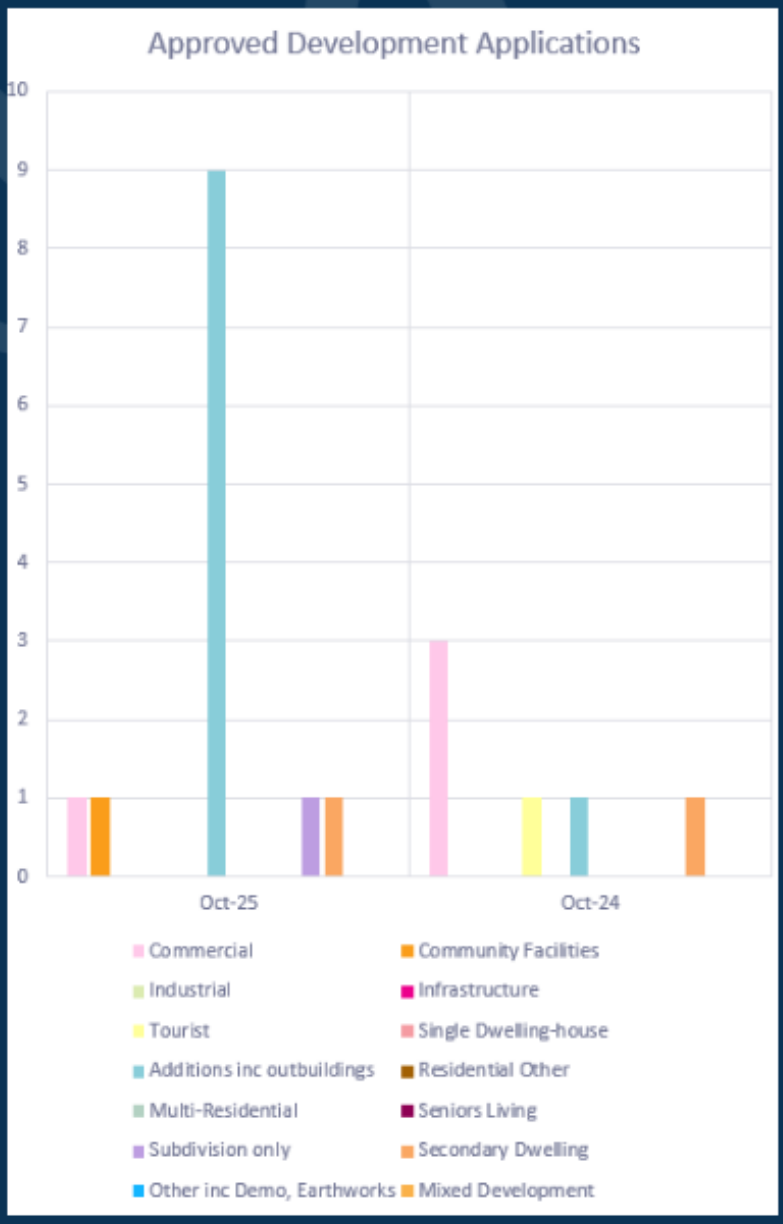
4 Complying Development Certificates

0 Private Certifier Complying Development Certificates

AVERAGE DEVELOPMENT APPLICATION PROCESSING TIME

THIS MONTH

44.77



VALUE OF APPLICATIONS RECEIVED

$2,209,510.26

18 NOTICES OF MOTION/QUESTIONS WITH NOTICE

18.1 RECOGNITION OF THE PARKES TRACTOR TREKKERS - BOURKE TO BIRDSVILLE CHARITY TREK

Councillor: **Cr Joy Paddison**

Annexures: **A. Councillors Report - Parkes Tractor Trekkers- Bourke to Birdsville Trek.** ⇩

MOTION

That Council:

1. Formally acknowledge and congratulate the Parkes Tractor Trekkers for their 2025 Bourke to Birdsville Charity Trek and the funds raised for the Prostate Cancer Foundation of Australia, with a brief presentation ceremony followed by afternoon tea prior to the upcoming Ordinary Council Meeting.
2. Authorise the Mayor and/or Councillors to present Certificates of Appreciation to the Tractor Trekker participants.
3. Promote this recognition through Council's media and communication channels

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BACKGROUND

In August of this year, a group of nine local men; Richard and Mitch Jefferay, Dave and Al O'Grady, Lindsay Wall, Brenton Trainor, Rodney Barnes, Troy Parker, and Daniel McIntyre, set out on a 1,300 km trek from Bourke to Birdsville on their 70-year-old Massey Ferguson tractors; 'Fergie's'.

Travelling at around 20 km per hour through some of the most remote and challenging parts of inland Australia, the group were driven by a shared goal of raising funds and awareness for prostate cancer.

Over 12 days they crossed three states, travelling through Louth, Wanaaring, Tibooburra and Innamincka.

Their story struck a chord with many, including cancer survivors, local businesses, and complete strangers, all who donated generously to help the team far exceed their original target of $100,000. By the end of the trek, the fundraising total had reached an extraordinary $254,236.

Council Recognition

It is proposed that Council formally recognise the Parkes Tractor Trekkers by presenting Certificates of Appreciation to participating members.

Each certificate could read as follows:

"In recognition of your outstanding contribution to community health and wellbeing through the 2025 Parkes Tractor Trekkers Bourke to Birdsville Charity Trek, raising vital funds and awareness for prostate cancer support for the Prostate Cancer Foundation of Australia"

OFFICER'S COMMENT

Author: **Kent Boyd PSM, General Manager**

Commentary:

Cr Paddison's full report is included as *Annexure A*.

Council could ask the ‘Trekkers’ to join them for afternoon tea at a future workshop or Council meeting. The cost to supply and prepare certificates together with some additional catering could be met from the current civic budget.

Parkes Shire Councillor Report

Title: Recognition of Parkes Tractor Trekkers – Bourke to Birdsville Charity Trek

Prepared by: Councillor Joy Paddison

Meeting Date: 18th November 2025

Purpose of Report

To acknowledge and commend the incredible efforts of the Parkes Tractor Trekkers, who recently completed an outback fundraising journey from Bourke to Birdsville, raising more than $250,000 for the Prostate Cancer Foundation of Australia and to recommend that Council formally recognise their contribution through the presentation of Certificates of Appreciation.

Background

In August of this year, a group of nine local men; Richard and Mitch Jefferay, Dave and Al O'Grady, Lindsay Wall, Brenton Trainor, Rodney Barnes, Troy Parker, and Daniel McIntyre, set out on a 1,300 km trek from Bourke to Birdsville on their 70-year-old Massey Ferguson tractors; 'Fergie's'.

Travelling at around 20 km per hour through some of the most remote and challenging parts of inland Australia, the group were driven by a shared goal of raising funds and awareness for prostate cancer.

Over 12 days they crossed three states, travelling through Louth, Wanaaring, Tibooburra and Innamincka.

Their story struck a chord with many, including cancer survivors, local businesses, and complete strangers, all who donated generously to help the team far exceed their original target of $100,000. By the end of the trek, the fundraising total had reached an extraordinary $254,236.

Highlights of the Trek

- The group met many supporters along the way, including John Montgomery, who stopped on a remote stretch of road to share his own cancer story and make a $500 donation.
- Along the way they discovered a small pop-up coffee stop called The Nest - Golden Egg Café, between Tibooburra and Cameron Corner.
- Their journey finished with a symbolic tractor climb up Big Red, the famous sand dune near Birdsville.
- Once in Birdsville, the trekkers met Glenn McGrath, who congratulated them for their effort and commitment to men's health.

Community Impact

The Parkes Tractor Trekkers' dedication demonstrates exceptional community leadership and compassion. Beyond the impressive fundraising total, their trek has helped open conversations about men's health encouraging early testing, awareness, and support for those affected by prostate cancer.

The group have continued to share their story at local events, including the Central West Car Club's Annual Show 'n' Shine, where the community had a chance to see the tractors still covered in red dust and hear first-hand about their experiences.

Council Recognition

It is proposed that Council formally recognise the Parkes Tractor Trekkers by presenting Certificates of Appreciation to participating members.

Each certificate could read as follows:
"In recognition of your outstanding contribution to community health and wellbeing through the 2025 Parkes Tractor Trekkers Bourke to Birdsville Charity Trek, raising vital funds and awareness for prostate cancer support for the Prostate Cancer Foundation of Australia"

Recommendation

That Council:

1. Formally acknowledge and congratulate the Parkes Tractor Trekkers for their 2025 Bourke to Birdsville Charity Trek and the funds raised for the Prostate Cancer Foundation of Australia, with a brief presentation ceremony followed by afternoon tea prior to the upcoming Ordinary Council Meeting
2. Authorise the Mayor and/or Councillors to present Certificates of Appreciation to the Tractor Trekker participants.
3. Promote this recognition through Council's media and communication channels.

End of Report

19 CONFIDENTIAL MATTERS

RECOMMENDATION

That Ordinary Council Meeting:

1. Moves into Closed Session to deal with the matters below, which are classified as confidential under section 10A(2) of *the Local Government Act 1993* for the reasons specified:

19.1 SALE OF COMMERCIAL PROPERTY - NEIGHBOURHOOD CENTRAL

This matter is considered to be confidential under Section 10A(2) - d(i) of the Local Government Act, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with commercial information of a confidential nature that would, if disclosed prejudice the commercial position of the person who supplied it.

Further it is considered that discussions of this matter in open Council would, on balance, be contrary to the public interest as it would prejudice Council's ability to secure the optimum outcome for the community.

19.2 ASPHALT SURFACE WORKS AT THE INTERSECTION OF VICTORIA & CLARINDA STREET (PSC2025/151)

This matter is considered to be confidential under Section 10A(2) - d(i) of the Local Government Act, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with commercial information of a confidential nature that would, if disclosed prejudice the commercial position of the person who supplied it.

Further it is considered that discussions of this matter in open Council would, on balance, be contrary to the public interest as it would prejudice Council's ability to secure the optimum outcome for the community.

2. Exclude the media and public from the meeting on the basis that the business to be considered is classified as confidential, pursuant to 10A(1), 10(2) and 10A(3) of the *Local Government Act 1993*.
3. Withhold reports and correspondence relevant to the subject business be withheld from the media and public as provided by section 11(2) of the *Local Government Act 1993*.
4. Make public resolutions made by the Council in Closed Session after the conclusion of the Closed Session, and record such resolutions in the minutes of the Council meeting.

BACKGROUND, ISSUES AND COMMENTARY

In accordance with section 10A(2) of the *Local Government Act 1993*, Council may close part of its meeting to deal with business of the following kind:

(a) Personnel matters concerning particular individuals (other than councillors).

(b) Personal hardship of any resident or ratepayer.

(c) Information that would, if disclosed, confer a commercial advantage on a person with whom Council is conducting (or proposes to conduct) business.

(d) Commercial information of a confidential nature that would, if disclosed:

(i) Prejudice the commercial position of a person who supplied it: or

(ii) Confer a commercial advantage on a competitor of Council;

(iii) Reveal a trade secret.

(e) Information that would, if disclosed, prejudice the maintenance of law.

(f) Matters affecting the security of Council, Councillors, Council staff and Council property.

(g) Advice concerning litigation, or advice that would otherwise be privileged from production in legal proceedings on the grounds of legal professional privilege.

(h) Information concerning the nature and location of a place or an item of Aboriginal significance on community land.

(i) Alleged contraventions of any Code of Conduct requirements applicable under section 440.

It is my opinion that the business listed in the recommendation is of a kind referred to in section 10A(2) of the *Local Government Act 1993* and, under the provisions of the Act and the *Local Government (General) Regulation 2021*, should be dealt with in a part of the meeting that is closed to members of the public and the media.

Pursuant to section 10A(4) of the Act and clauses 14.9–14.10 of Council's Code of Meeting Practice, members of the public may make representations to the meeting immediately after the motion to close part of the meeting is moved and seconded, as to whether that part of the meeting should be closed.

20 REPORT OF CONFIDENTIAL RESOLUTIONS

In accordance with clauses 14.22 and 14.23 of Council's Code of Meeting Practice, resolutions passed during a meeting, or a part of a meeting that is closed to the public must be made public by the Chairperson as soon as practicable. Such resolutions must be recorded in the publicly available minutes of the meeting.