
**FLOODPLAIN MANAGEMENT COMMITTEE
TO BE HELD IN THE COUNCIL CHAMBERS ON
THURSDAY, 8 OCTOBER 2026 AT 2:00 PM**

- 1 Apologies
- 2 Confirmation of Minutes
- 3 Business Arising
- 4 Declarations of Interest
- 5 Items of Business
- CL01 p7 Review of Lake Wyangan Flood Study
- CL02 p25 Correspondence
- 6 p34 Outstanding Action Report
- 7 General Business
- 8 Next Meeting

DISTRIBUTION LIST

Councillor Scott Groat (Chair), Laurie Testoni (Councillor - Alternate), Michael Borg (NSW SES), Joseph Dal Broi (Community Representative), John Kerrigan (Community Representative), Steve Manwaring (DCCEEW), Steve Mortlock (Community Representative), Ema Munro (Community Representative), Ian Parisotto (Community Representative), Craig Ronan (NSW SES), Paul Rossetto (Community Representative), Josh Stanbury (NSW SES)

General Manager, Scott Grant; Director Utilities, Graham Gordon; Water & Wastewater Manager, Durgananda Chaudhary; Graduate Stormwater & Flood Engineer, Anthony Portolesi and Minute Secretary, Leanne Austin

If you are unable to attend this meeting please notify the Minute Secretary prior to commencement of the meeting by email or by telephoning Council on 1300 176 077.

This Committee meeting may be attended remotely and recorded by audio or audio-visual means for administrative purposes. No other recording is permitted.

Acknowledgement of Country

Griffith City Council acknowledges the Wiradjuri people as the traditional owners and custodians of the land and waters, and their deep knowledge embedded within the Aboriginal community.

Council further pays respect to the local Wiradjuri Elders, past, present and those emerging, for whom we acknowledge have responsibilities for the continuation of cultural, spiritual and educational practices of the local Wiradjuri people.

**FLOODPLAIN MANAGEMENT COMMITTEE
HELD IN THE COUNCIL CHAMBERS ON
THURSDAY, 11 JUNE 2026 COMMENCING AT 2:00 PM**

PRESENT

Mayor, Councillor Doug Curran, Councillor Scott Groat (Chair), Councillor Laurie Testoni (Councillor - Alternate), Josh Stanbury (NSW SES), Michael Borg (NSW SES), Joseph Dal Broi (Community Representative), John Kerrigan (Community Representative), Steve Manwaring (DCCEEW via Zoom), Steve Mortlock (Community Representative), Ian Parisotto (Community Representative), Paul Rossetto (Community Representative), Daniel Williams, Torrent Consulting (via Zoom)

Representatives from Murrumbidgee Irrigation (MI) by Invitation:

Philip Holliday, Chief Executive Officer, Andrew Pasquetti, Chief Operating Officer, Chris Palmer, Manager Water Delivery

STAFF

General Manager, Scott Grant, Director Utilities, Graham Gordon, Water and Wastewater Manager, Durgananda Chaudhary, Graduate Stormwater & Flood Engineer, Anthony Portolesi, Minute Taker, Leanne Austin

1 APOLOGIES

An apology was received from Lindsay Golsby-Smith (MI).

2 CONFIRMATION OF MINUTES

Mr Parisotto suggested the Committee consider amendments to the Minutes in relation to statements he made regarding CL04 Correspondence from Committee Members.

Mr Grant raised a Point of Order, noting to the Committee that minutes are not intended to serve as a verbatim transcript of meeting discussions. Instead, the minutes should reflect the Committee's intent and clearly record any actions or recommendations arising from those discussions.

RECOMMENDED on the motion of John Kerrigan and Michael Borg that the minutes of the previous meeting held on 5 March 2026, having first been circulated amongst all members, be confirmed.

3 BUSINESS ARISING

Nil.

4 DECLARATIONS OF INTEREST

Pecuniary Interests

Members making a pecuniary interest declaration are required to leave the meeting during consideration of the matter and not return until the matter is resolved.

Ian Parisotto
Reason - Exit Ramp at EMR.

Significant Non-Pecuniary Interests

Members making a significant non-pecuniary interest declaration are required to leave the meeting during consideration of the matter and not return until the matter is resolved.

Less Than Significant Non-Pecuniary Interests

Members making a less than significant non-pecuniary interest declaration may stay in the meeting and participate in the debate and vote on the matter.

Paul Rossetto
Reason – Representing 1,500 residents of Yenda & District severely impacted in 2012 Flood.

5 ITEMS OF BUSINESS

CL01 PRESENTATION BY MURRUMBIDGEE IRRIGATION (MI)

Mr Pasquetti provided an overview of MI's role, capabilities and coordination during flood events.

The presentation referenced the 2012 flood event, learnings and improvements implemented since that time. Key points included:

- Enhanced coordination and collaboration between MI, Griffith City Council, SES and other agencies with clearer roles and responsibilities.
- Improved flood planning, response frameworks and defined emergency breaching protocols which provide more information and assist with informed decision making.
- Introduction of more resilient and remotely operated infrastructure upstream and downstream (Floodgates at East Mirrool Regulator). Able to go from fully open to fully closed in a short time, increased resistance to pressure, stronger level of control and responsiveness in flood conditions.
- Greater system capacity and controls.
- Increased use of Bureau of Meteorology (BOM) forecasting, monitoring and early activation to support decision-making.

MI outlined its operational role during flood events, including monitoring, activation of internal procedures, supporting agencies through infrastructure operations and providing technical expertise.

Mirrool Creek is subject to ongoing maintenance by MI, including inspections, vegetation management and access track works, although there are some constraints due to environmental approval requirements. MI advised that it continues to carry out vegetation and drainage management across its network. Main Drain J is undergoing regular maintenance, with a more structured maintenance program in development.

MI noted the breaching protocol is Council-endorsed, with MI responsible for operational implementation. The Committee raised concerns regarding the ability to safely control a breach, timeframes for implementation under rapid flood onset conditions and operator safety during breach execution. MI confirmed reliance on forecasting, preparation and established procedures, noting variability depending on conditions. Internal procedures are in place to support safe and controlled execution, including planning, risk assessment and early deployment of equipment.

Other factors raised included:

- Consideration of additional infrastructure solutions (additional gates, increased cross-flow capacity) rather than reliance on temporary breaching.
- Opportunities to improve infrastructure capacity at East Mirrool Regulator and the broader network.
- Vegetation, siltation and flow restrictions at various locations (Widgelli Crossing, McNamara Road, Benerembah) impacting flood movement.
- Request for further investigation into drainage constraints and potential improvements.
- Maintenance responsibility for siphons (confirmed as MI) as well as the condition and life expectancy of siphons with further inspections planned.
- Status of pipeline repairs and canal works.

Discussion was held regarding funding constraints and opportunities for joint funding between MI and Council. MI indicated willingness to collaborate but noted limitations due to funding criteria and availability as well as competing priorities.

Actions:

- MI advised they would provide mapping/visual information of drainage channels and infrastructure (taken on notice).
- MI to investigate concerns regarding vegetation, siltation and flow restrictions in identified areas.
- MI to provide further information on the inspections of the existing siphons at the EMR once carried out.

Representatives from MI left the meeting at 2:50 pm.

CL02 LAKE WYANGAN FLOOD STUDY - RESPONSE TO SUBMISSIONS

Mr Williams provided an overview of the submissions received and progress of the Lake Wyangan Flood Study. A high level response has been prepared for Council.

- More detail will be added regarding irrigation history and its impact on flood behaviour.
- Data limitations were identified including lack of contemporary elevation data across the catchment and existing datasets pre-dating significant landform changes.
- Moving forward, consultants will use modelling to develop options not reliant on exact terrain accuracy.
- Data sets include LiDAR data (currently available but at low resolution), consultants are trying to source raw data and MI photogrammetry dataset. Challenges are that the data is not contemporary and may not cover the Lake Wyangan area required.

The next stage will focus on testing flood mitigation options and developing feasible, cost-effective solutions. The consultants will update the Flood Study document to incorporate responses the community has raised and provide formal responses to submissions.

Community consultation will be undertaken during the next stage of the process to present initial mitigation options, inviting community input and co-designing of potential solutions.

Discussion was held regarding significant runoff observed in the upper and mid catchments with water flowing through old creek beds. This suggests that rainfall data may not have been fully captured due to the limited rain gauge network.

Mr Gordon advised the Committee could advocate to the Bureau of Meteorology to provide more rain gauge stations so the modelling is more effective.

Multiple scenarios will be modelled in the Floodplain Risk Management Study and Plan considering performance, cost and impact. The Committee will then prioritise projects dependant on available funding.

Potential scenarios to be considered include:

- Diverting water away from Lake Wyangan (towards Tharbogang Swamp area).
- Formalising drainage through farmland.
- Controlling flows into Lake Wyangan via infrastructure.

Mr Williams left the meeting at 3:08 pm.

Mr Gordon explained that housing developments have been designed based on flood modelling and elevation analysis. New flood planning levels will be incorporated into planning controls and development requirements based on the outcomes of this study process.

CL03 CORRESPONDENCE FROM COMMITTEE MEMBERS

Mr Parisotto requested his letter dated 15 March 2026, addressed to the Floodplain Management Committee, be forwarded to the SES Deputy Commissioner of Operations.

Mr Grant stated his concerns about the content of the letter and raised the issue that Mr Parisotto had a pecuniary conflict of interest in the matter which prohibited him from participating in the debate on this matter. Members of the Committee were reminded that it is a requirement that if a member has a pecuniary interest they are required to not participate in the debate and leave the room.

Mr Grant further stated that the letter was a personal view and had not been endorsed by the Committee.

Mr Stanbury advised he would forward the letter from Mr Parisotto as a personal comment not on behalf of the Committee.

Michael Borg left the meeting at 3.23 pm.

Mr Rossetto referred to correspondence provided by him dated 14 May 2026 and moved a motion that Council commission a geotechnical soil survey of the entire proposed site of Council's endorsed emergency breaching protocol.

Mr Rossetto moved a Point of Order requesting that the Chair ask for a seconder for the motion before allowing Mr Gordon to respond.

Paul Rossetto and John Kerrigan MOVED the MOTION that Council commission a geotechnical soil survey of the entire proposed site of Council's endorsed emergency breaching protocol.

Mr Gordon stated it was not Council's role to interfere with MI infrastructure. Council is the flood authority however MI the owner of the supply channel and is responsible for undertaking a risk assessment and plan to conduct the required breach safely and reinstate the supply channel once there is no more flooding risk.

Mr Rossetto disagreed and asked what the Director was afraid of. The Chair raised a Point of Order. Mr Rossetto objected and continued to debate at which time the Mayor reminded Mr Rossetto that the Chair had the floor.

Mr Rossetto left the meeting at 3:31 pm. He then returned a short time later and tendered his resignation. Mr Rossetto left the meeting at 3:32 pm and did not return.

The Committee discussed the need to prioritise projects based on what will most likely affect the community, aiming to reduce flooding for the greatest number of people first, while still respecting agricultural impacts.

Discussion took place regarding the estimated cost of a geotechnical soil survey and that MI would have to agree to this request.

A vote on the motion was PUT and LOST.

Councillor Testoni suggested MI may have already tested or may be planning to test the channel soil to ensure its integrity as part of their infrastructure assessment.

RECOMMENDED on the motion of John Kerrigan and Steven Mortlock that the Committee ask MI if they have already, or if they have not, would they intend or want to perform geotechnical testing in that area to confirm structural integrity.

6 OUTSTANDING ACTION REPORT

The report was noted.

7 GENERAL BUSINESS

Mr Gordon advised that the funding application had been submitted for Stage 3 Yoogali Levee and Council is awaiting the outcome.

8 NEXT MEETING

The next meeting of the Floodplain Management Committee is to be held on Thursday, 3 September 2026 at 2:00 pm.

There being no further business the meeting terminated at 3:42 pm.

CLAUSE CL01**TITLE** Review of Lake Wyangan Flood Study**FROM** Durgananda Chaudhary, Water & Wastewater Manager**TRIM REF** 26/114006

SUMMARY

Council adopted the *Lake Wyangan Flood Study* in 2012 and the *Lake Wyangan Floodplain Risk Management Study and Plan* in 2013. Consistent with the NSW Floodplain Development Manual (2005), these documents require periodic review following significant flood events and changes in land use. Following recent flooding, substantial land use changes, and the approval of the Lake Wyangan Pipeline Project, Council secured NSW Government funding in December 2023 and engaged Torrent Consulting Pty Ltd to review both documents.

The updated *Lake Wyangan Flood Study* was endorsed by Council on 24 March 2026 for public exhibition for a period of 42 days. Six submissions were received during the exhibition period, and the relevant issues raised were considered and incorporated into the final report.

The final *Lake Wyangan Flood Study* is now presented to the Committee for endorsement and recommendation to Council for adoption.

RECOMMENDATION

The Committee endorse the Lake Wyangan Flood Study and recommend to Council for adoption.

REPORT

Council adopted the *Lake Wyangan Flood Study* in 2012 and the *Lake Wyangan Floodplain Risk Management Study and Plan* in 2013. In accordance with the NSW Floodplain Development Manual (2005), floodplain management documents require periodic review, particularly following significant flood events and changes in land use.

Significant land use changes within the Lake Wyangan catchment over the past decade, the October 2022 flood event, and the approval of the Lake Wyangan Pipeline Project highlighted the need to reassess existing flood management arrangements and consider additional mitigation measures.

In December 2023, Council secured funding under the NSW State Floodplain Management Program and resolved to provide a one-third co-contribution from the Floodplain and Drainage Mitigation Reserves. Following a Request for Quotation (RFQ) process, Torrent Consulting Pty Ltd was engaged in May 2024 to undertake a review of the *Lake Wyangan Flood Study* and *Floodplain Risk Management Study and Plan*.

The updated *Lake Wyangan Flood Study* was presented to Council on 24 March 2026 and endorsed for public exhibition for a period of 42 days. During the exhibition period, six submissions were received. The issues raised in these submissions were considered and incorporated into the final report where appropriate.

The final *Lake Wyangan Flood Study* is now presented to the Committee for endorsement and recommendation to Council for adoption.

A summary of the submissions received during the public exhibition period, together with Council's responses, is attached for information. This was previously presented to the Committee on 11 June 2026.

LINK TO STRATEGIC PLAN

This item links to Council's Strategic Plan item 7.4 Reduce the risk and impacts of natural disasters on our community.

ATTACHMENTS

- (a) Lake Wyangan Flood Study Review - Submissions and Responses [↓](#) 9
- (b) Lake Wyangan Flood Study (under separate cover)

Review of the Lake Wyangan Flood Study Summary of Submissions and Council Responses

Submission 1

Of greatest concern is the degree of accuracy of the mapped "flood fringe". Significant rasterisation is clearly evident, indicating the hydraulic model is struggling to reflect local topography. If Council does not confidently understand which data layers might be used by insurers, then I suggest a more conservative digital filtering of data on the flood fringe. This rasterization seems to be mostly associated with modelling of sheet flooding at less than 10cm depth and does not reflect observed topographic variation. Table 7.4...incorrect units, should be m AHD

Response 1

The flood function mapping will be reviewed and updated prior to finalisation in the subsequent Floodplain Risk Management Study. However, we will consider updating the mapping provided in this report. It would be prudent to remove the mapping from the coarse area of the modelling (i.e. the hydrological modelling of surface runoff). The adoption of an alternate depth cut off for the mapping will also be considered.

Submission 2

As a member of the Lake Wyangan catchment committee, I would like to see a couple of improvements around the lake storage facilities. Firstly, the road between the north and south lakes needs the dip taken out of it which will increase storage capacity of both lakes and this will also assist in better management of the salt and algae issues as the deeper the water the less effect they will have. There is also 2 pumps that need upgrading to newer and bigger capacity units to assist in moving the water of the 2 lakes.

Response 2

The raising of Jones Road and additional pump capacity will be assessed within the subsequent Floodplain Risk Management Study.

Submission 3

DCCEEW comments on the Review of the Lake Wyangan Flood Study and FRMS&P Update – Flood Study – Draft for Public Exhibition.

Section	Paragraph/ Sentence	Comments
Generally,		Comparisons between the previous flood study and this new modelling has not been completed. Suggest that at least the flood extents are compared for the major 1% AEP event. There seems to be several key deliverables missing from this flood study phase report required by the Project Brief: • Model parameter sensitivity assessments • Flood Emergency Response Classification of Communities These deliverables need to be included in the revised flood study within the overarching FRMS&P report.
General		Rainstorm is a term I haven't seen used before – assume this means there were high winds etc. at the time of the rainfall event? Be consistent with capitilisation i.e. north/North Lake Wyangan.
General – figures		Ensure consistent naming and symbology of key features (i.e. Lake View Branch Canal – Figure 1.1. vs Figure 4-4).
S1.3		Include words about the FRM framework supporting implementation of the FRMPs.
S2.2.2		This section could benefit from sub-headings for each event.
S2.2.2	Figures 2-2 and 2-3	Label exactly what is being presented here also where is the rainfall and soil conditions recorded from. Suggest including lake level where available.
S2.2.2	Figures 2-6 and 2-7	Use figures such as these in validation of model extents in later sections.
S2.2.3	Figure 2-8	Note in the figure that rainfall is derived from 2 BOM gauges (use IDs). Also, that storage volume increase is for Lake Wyangan and Tharbogang Swamp in title.
S2.2.4	4 th para	Reference the NSW Government gridded dataset.
S2.2.5	1 st Para	How did the DEM's line up vertically at the boundary? Any step? Was any validation of the LiDAR's accuracy using surveyed ground levels completed?
S2.2.5	4 th Para	How is the MI DEM data going to be used once it is provided? Too late to update this flood study before public exhibition.
S2.2.5	Figure 2-10	Include source of data.
S3.1	2 nd Para	Suggest you include the Griffith FRM Committee in this list of groups that were consulted with.
S3.2	2 nd para	Comment about if this has been included in the model.
S3.2	4 th para	Would be good to show these suggestions on a figure.
S.4.1	1 st para, first sentence	Suggest explaining that in this particular case the catchment is better suited to rain on grid modelling.
S4.1	3 rd para	Is this developed by Torrent or utilised by Torrent? Also include reference to paper in reference list and include reference for NSW Government gridded dataset.

S4.1	5 th para	Here be clear about what these models are named and the intent of each model – suggest sub headings. Also suggest not referring to TUFLOW as a hydrologic model (especially when you are showing hydraulic results of this model later on) as technically it is not a hydrologic model in the sense that that is understood by industry. Suggest firstly explain what TUFLOW is (2D hydrodynamic model, etc.) then that it is being used to determine flow hydrographs using the rainfall on grid functionality. It would be great to have a figure showing how these 3 models fit together.
4.2		As per previous comment, suggest not referring to the TUFLOW model as 'principally a hydrological model' – TUFLOW is a fully 2D hydrodynamic model that is being used in this case for hydrological inputs (it also seems to be being used to understand the catchment hydraulics?)
4.2.1	5 th -7 th para	A lot of this detail is or should be in s2.2.5 – and no need to repeat. Also why is photogrammetric data now dated 2016-17? Include all topographic data on Figure 2-11.
4.2.2.	Figure 4-3	The primary almond drain isn't shown here – how is this modelled?
4.2.3		Include a figure of how you have represented roughness spatially (catchment wide and locally).
4.2.3	1 st para	At what depth was standard roughness then being applied? What was the 'very high roughness' used for shallow depths? Is this assumption accurate for all land use types (bare earth, roads?) more information required.
4.2.4		Show how the soil types and therefore losses are represented spatially in the model in a figure. Include a table of the Green-ampt parameters used for different land uses (also include % impervious).
4.3		Same comments here with regard to referring to TUFLOW as a hydrologic model as for the LW/TS catchment modelling section. Include more information on model boundaries.
4.3.1	1 st para	Typo – 'Figure Figure'
4.3.1	Figure 4-4	Sub-catchment outlet makes it sound like there is some kind of outlet structure here – suggest renaming.
4.4		In intro include information as to how this modelling is different to the hydrological modelling described earlier. Also how were buildings represented in this model. Include a section on inflow and 'downstream' boundaries.
S4.4.1	3 rd Para	Figure 4-5 shows that not all roads have been enforced in the hydraulic model. Suggest a including a comment to explain why.
S4.4.1	Last para, last sentence	Will be addressed in the FRMS?
S4.4.2		Include details of any significant infrastructure/culverts (along Druitt Rd?).
S4.4.3		Show this representation on a figure- so no value for roads?
S5.1	5 th para	Couldn't the catchment/soil be prewetted? i.e. effectively assume zero losses to replicate this?

S5.2	2 nd para	Daily read gauges still give temporal data– just at a daily scale. 'Griffith Airport gauge is the only sub-daily read gauge,...'
S5.2	3 rd para	This paragraph contradicts your later assertion in the design estimates, that the rainfall is higher in the upper catchment than the lower catchment?
S5.2	Sensitivity testing	Show the results for the soil infiltration rates too. What are the implications of this for the design runs?
S.5.3	1 st para	Comparison to 2016 event here is not necessary/confuses the actual validation.
	Figure 5-4	Title 'Water Balance Spreadsheet Results for Lake Wyangan 2022 Event'
S5.4	Figure 5-6	Include what the modelled flood event is in Title.
S5.5	8 th para and Figure 5-7	What is the modelled flood event in this figure?
S5.5	9 th para and Figure 5-8	As for previous comment – what modelled flood event is being shown?
S5.5	10 th para - Figure 5-9	Label or circle the areas you are talking about here in the figure.
S5.5	Last para	How and why is this being estimated? Is it being used?
S6.1.1	1 st para, 2 nd sentence	Show data to back up this claim – although this seems plausible, data shown in earlier sections seems to contradict this? Also likely not enough information to determine scaling factors? What are the zone areas based on?
S6.1.2		What was the base ARF factor the adjustments were based on (what duration was used)? And what was the basis for the variation in Table 6-1? ARF is to account for rainfall variation not catchment characteristics (accounted for in other modelling factors).
S6.1.2	Table 6-1	Include area of zone.
S6.1.3	3 rd sentence	Typo "patter" should be changed to 'pattern'.
S6.3		When you say the PMF results are "excessive" what does this mean? Too much flow, volume or levels? Given these are terminal lakes systems I would expect that the PMF would result in very full lakes inundating wide areas. Also given the low relief in the lower catchment I would expect the PMF to cover wide areas upstream from the lakes as well. Include details as to what method was used to derive the PMF.
S7.1		Describe flood behaviour in the catchment – not just for PMF – flow paths, roads that are cut off, etc.
S7.1	1 st Para	What were the starting lake levels for these design simulations?
S7.1	Tables 7-1 and 7-2	Comparisons of these design lake levels with the actual lake levels reached in the past floods would be useful and provide some context. Also assume there should be a footnote inserted that explains the derivation of the PMF* Is there a reason why the level in Tharbogang Swamp is higher than Lake Wyangan in the 0.2% event for near term design levels and 0.5 and 0.2% in the long term? (otherwise, levels are lower).

S7.1	Last Para	Trimming the extent/depth maps by 50mm seems excessive. Why was this depth chosen? It would be good to see the results for the whole catchment to understand the flooding mechanisms across the catchment.
S7.2		Update formatting to be consistent with rest of report.
S7.2	2nd sentence	Figure 7-2 should be moved up to be located within this Section. Formatting error.
S7.2.1	Last sentence	Formatting error. Consider moving Tables 7-3 & 7-4 to immediately below text in this section. Again not sure trimming by 50mm is appropriate. Need to justify.
S7.2.2	1 st Para – last sentence	Move Figure 7-3 up to be within this section.
S7.2.2.	Table 7-4	Depth of flooding is typically more useful for road crossings. Site 5- typo (also Table 7-3).
S7.2.2	Table 7-5	This table is not referred to in the text.
S7.2.3	Generally	Looking at the flood function mapping for the 1% AEP event (Figure A-18 and Figure B-18) most of the main flow paths leading towards the lakes are not shown as floodways. Suggest the floodway definition criteria needs re-examining. Floodways are not to be determined just by velocity and depth criteria but need to define areas that convey flow. Natural drainage paths should be flagged.
	3 rd Para-1 st sentence	Needs rewording.
	3 rd Para – 2 nd dot point	0.5m.
S8	1 st Para-1 st sentence	Suggest insert 'area' after "rural".
	Last Para	The correct term is 'Flood Risk Management' stage of this study.
All Flood Function Figures in Appendix A		Floodways are noncontinuous and do not seem extensive enough.
Figures In Appendix A		Make it clear in figure title that these figures relate to the Lake Wyangan/Tharbogang Swamp Catchment. Also, would be good to see whole catchment figures.
Figures in Appendix B		Make it clear these figures relate to the local catchment.

Response 3

We will go through the individual comments from DCCEEW, update the report where required, or otherwise respond accordingly.

Submission 4

I have read the Lake Wyangan Flood Study several times.

The paragraph on Climate Change is alarming and if adhered to, its recommendations will require a significant change in the management of Lake Wyangan water levels towards a flood mitigation mechanism requiring greater allowance for air space.

I thoroughly enjoyed the challenge of understanding the details provided but developed several general questions which I searched for but couldn't find answers.

Topography'- the extent of the catchment. Why the Liday survey area was smaller than the catchment map?

Does the Airport property drain into the lower catchment?

Observations while reading the Introduction of the Study

Interestingly, there is no definition of 'air space' in Glossary and Abbreviations list

Are housing blocks too close to the lake flood fringe?

Has the Oct/Nov 2022 Lake Wyangan flood set a new DFE (Defined Flood Event) level?

If a new DFE is required, at what level should the new FPL (Flood Planning Level) be set?

The letter 'v' missing in the word imperious dot point 3-page s3 probably should say 'impervious'.

Section 2.2.7 Data Gaps and Recommendations

On page 21 "Lake level records at a daily or sub daily (rather than weekly) interval would be beneficial if improved model input data become available."

Are the in-lake buoys operational again?

Section 3.3 Site Inspection

With a new Council term and new Floodplain Management Committee members endorsed halfway through this Lake Wyangan Flood Study they missed the site inspection. Another site inspection visit would enhance new FMC members understanding of the site.

Section 4.4.2 Drainage Infrastructure

Dot point 4-page s3 mentions Drainage infrastructure key drainage channels and structures but not individual Murrumbidgee Irrigation drainage inlets and more importantly whether additional unauthorized drainage points have been added?

Section 5.5 Satellite Imagery Observations

Page 48 "The extensive implementation of almond agriculture and realignment of the Lake View Branch Canal following the 2016 flood event has altered the extent of flooding, as evidenced in the Sentinel 2022 imagery".

- In what way has almond agriculture and realignment of the Lake View Canal altered the extent of flooding? The differing scale from Figure 1-1 which outlines the Lake View Branch canal (red) the Lake View Drain (light blue) and Natural Drainage (dark blue) is difficult to discern in the Figure 5-9. Figure 5-8 is much better.
- What is apparent are the Natural Drainage floodway from the central catchment finding their way around the west of almond orchards, through the almond orchards

6

and the eastern side of the Lake View Branch Canal.

- Apart from the flood paths mentioned above and all the almond storage dams full of water there doesn't appear to be a lot of water in the orchards.

Appendix B Modelled Flood Function

Looking at the 2040 Modelled 1% AEP map around half of the new almond orchards are inundated and being very susceptible to flooding, the trees will probably not survive in the first instance and will probably succumb to phytophthora root diseases by the second year.

Section 7 Design Flood Results

Page 57 "The storage level in Lake Wyangan was very low prior to the March 2012 event but was above normal operating level prior to the Oct-Nov 2022 event."

- Why was the Lake Wyangan storage level above normal operating level prior to the Oct-Nov 2022 event?

The Flood Study goes on to say that

"The extensive increase in almond farming in the Dickie Road area will also have directed a greater proportion of catchment runoff into Lake Wyangan rather than Tharbogang Swamp during the more recent of the two events".

The Flood Study does not discuss:

- Figure 1-1 provides a very interesting observation according to Strahler stream ordering system in that if it were not for agricultural irrigation development in the Dickie Road location and the attenuation the irrigation infrastructure provides Lake Wyangan, an endorheic basin, would be a recipient to a Level 3 (Third Order) Creek albeit still ephemeral. The historical and natural layout of the land needs consideration & understanding.
- The flood design of the Murrumbidgee Irrigation Drainage Network and any mention of Murrumbidgee Irrigation's Drainage network rules?
- if any of the MI drainage network services the new agricultural developments?
- if any attenuation, by bundy banks or levees, drains & in recycling dams, of excessive rainfall on new developed properties exists?
- the ability of new large scale agricultural developments to recycle and store rainfall runoff and to what extent?
- What level of attenuation is provided by horticultural developments with rows running across gradients? As in a couple of the photos provided.

8. Conclusions

The Conclusion omits

- Natural floodways from the Central Catchment
- Accurate Lake Wyangan water levels prior to excessive rainfall events.
- Recognition of the role 'air space' plays especially in an endorheic system.

Therefore, it goes without saying "if not all the facts are present in the initial flood study any risk management plan later will not be as effective as possible or cost Council a lot more money in alternate flood mitigation measures.

Thank You for this opportunity to contribute to the Lake Wyangan Flood Study.

Response 4

The climate change implications are indeed significant. There have been recent updated guidelines released (ARR 4.2), which recommends increased rainfall intensities above and beyond those that have previously been assumed. DCCEEW is yet to adopt a formal position on these guidelines, so the situation is still in a state of flux. The treatment of climate change in this study is currently aligned with ARR 4.2 under the expectation that they will ultimately be formally adopted by DCCEEW. The LiDAR survey area does not cover the entire catchment area because it was not flown specifically for this study and is a pre-existing dataset.

The airport does drain into Lake Wyangan.

The term 'air space' is not included in the Glossary, as it is not used within the document. The operational levels, storage capacity and freeboard will be assessed in further detail within the subsequent Flood Risk Management Study.

An appropriate DFE and FPL will be a key focus of the subsequent Flood Risk Management Study. This will then identify any housing blocks that are at too low an elevation (a better indicator of risk than proximity), with localised raising of ground surface levels being a potential mitigation option.

The report will be updated to better describe and identify key Murrumbidgee Irrigation drainage assets.

Options to improve the clarity of the satellite imagery figures will be considered, such as including some of the key features shown in Figure 1-1. However, this may obscure some of the important detail visible in the figures, but it is agreed that some additional spatial context of infrastructure would be helpful in interpretation. The extent of water in the satellite imagery can be more difficult to discern within the broader orchard extents than the cleared earth sections. Also, the dates of the satellite imagery do not capture the maximum extent of flooding experienced during the events.

The water level in North Lake Wyangan was only a little higher than the target operating level (~106.3 m AHD as opposed to 106.2 m AHD). This can still be considered as being within the typical range of storage levels. The report text will be amended to clarify this.

The report will be updated to expand upon the historic, current and potential future hydrological function of the catchment. Additional context related to the water balance will be provided as appropriate. Whilst infrastructure does provide a degree of attenuation of the flood waters, this only delays the water entering the terminal storage areas. There might be some additional evaporation loss because of this though.

The data paucity is a significant factor in the ability to estimate accurate runoff volumes and resultant flood levels in Lake Wyangan. This will be a key consideration when considering and assessing potential mitigation options in the subsequent Flood Risk Management Study. Sensitivity tests will be undertaken and the implications of the inherent uncertainty on the performance of any mitigation options will be included in the assessment. The identification of robust mitigation measures that will perform well over a full range of potential flood conditions is the intended outcome of the next stage of the study.

Submission 5

What is the document that has been put on public exhibition?

To a member of the community, the documentation provided by the GCC is confusing. On

the Griffith City Council (GCC) cover sheet authored by Graham Gordon, Director Utilities, the document put on public exhibition is described as "Review of Lake Wyangan Flood Study". A further description is "Draft Lake Wyangan Flood Study". Another description is "Review of Lake Wyangan Flood Study and Floodplain Risk Management Plan". The header on the GCC document is 'CL04 Attachment (a) Review of the Lake Wyangan Flood Study and FRMS&P update'.

I have been through the material on the GCC website and cannot find a Floodplain Risk Management Plan or an FRMS&P update. I am therefore providing a submission in relation what I believe is the Draft Lake Wyangan Flood Study. Greater clarity and consistency by the Council and its consultants would be helpful.

The study amounts to a visual and verbal fog

The Draft Study is presented in tiny font that is not black but grey. It is extremely difficult to read. The so called Executive Summary is verbose, extending over 5 pages. It does not contain a summary that succinctly addresses the nature of the catchment under review and how it has changed. All I took from this summary is that the authors want to distance themselves from its findings, stating on p. 22 that modelling the catchment flood hydrology was 'extremely challenging' and listing numerous aspects including a paucity of data. I am none the wiser having read the Executive Summary.

Like the Executive Summary, the Conclusions section on p. 93 does not contain any conclusions. Like the Executive Summary, it is more of a description of the investigative process than the substance of what has been discovered. Again, I am none the wiser having read the Conclusions section.

The presentation of the document is inadequate, and invites the question of whether this is a box ticking exercise to tap into funding rather than an exercise of due diligence by the GCC, in turn enabling due diligence in the assessment of funding applications by GCC.

Important references and information have been excluded

I was unable to derive a clear picture of the status of the catchment from the Draft Report. I undertook a simple online search for relevant information. I discovered a comprehensive study of the catchment undertaken in 2003 by Charles Sturt University entitled "Lake Wyangan Catchment Environmental Status Report [Lake Wyangan Environmental Status Report](#)". I also found a 2019 Murrumbidgee Irrigation report entitled "Lake Wyangan Modernisation Final Project Report" [lake-wyangan-final-project-report.pdf](#). The CSU report refers to detailed soil information developed by an organisation called ERIC and held by MI. Why hasn't this information been built on?

The CSU report provides information relevant to flood risk assessment such as how much irrigation water is applied in the area and how. I cannot find the equivalent information in the Draft Report. Nor can I find a simple diagram of channels as was included in the CSU report. The Draft Report focusses on rainfall when a major hydrological input into the catchment is irrigation water.

The CSU report also provides an estimate of the capacity of Lake Wyangan (split between north and south). I have been unable to find such a figure in the Draft Report.

The Draft Report includes a vast amount of detail about aspects of modelling, however basic data enabling decision makers to get a perspective on the catchment is missing.

Furthermore, there is massive intervention in the catchment going on at present, including the construction of large drains, and this information does not appear to be incorporated into the study. Nor is detailed information about changing landuse. A LiDAR survey several years old will necessarily be incomplete to a material extent. Section

2.2.5 on Topographic and Land Use Data refers to detailed information held by MI which

9

has not been included. These information exclusions beg the question of why GCC has released an incomplete study, especially given the significance of flooding in this catchment.

Lake Wyangan Catchment management is funding driven not sustainability driven

The Lake Wyangan Catchment has been documented as being a closed catchment in numerous studies including the Draft Report. Extremely salty and contaminated water drains off the catchment already, producing diabolical and unacceptable outcomes in Lake Wyangan which have been well documented. The outcomes include extremely high pH and salinity and the proliferation of harmful bacteria.

Under these circumstances, the further development of the Catchment was and is not sustainable. The practice of GCC exporting its pollution and flood water is not in line with ecological sustainability (an object of the NSW Water Management Act 2000) and it is anticompetitive, damaging the viability of downstream landholders whilst conferring an advantage on landholders in the catchment. It is questionable as to whether GCC and its catchment development partner MI have exercised a duty of care in relation to the management of the Lake Wyangan catchment.

Suggestions to improve the Draft Report and catchment outcomes

The Griffith community is suffering as a result of buybacks, including both the rural and urban communities. The rapidly increasing costs of living and costs of irrigation farming are having a major detrimental impact.

GCC appears to be funding driven rather than focussing on what is in the best interests of the community it serves. The Draft Lake Wyangan Flood Study requires a different mindset and much more work to get the detail right and complete, and to communicate the substance of the findings to the Councillors, Council staff and the community.

It is unacceptable for GCC to impose further costs on the community, including individual landholders and businesses, as a result of flooding brought about by poor planning. The costs of mitigating floods should fall upon the beneficiaries of development in the catchment, and can include retention basins and the like.

The conclusion I have drawn from reading the Draft Report and other material is that Lake Wyangan should be returned to an ephemeral wetland, thereby enabling the retention of flood water in the catchment as is natural. To the extent that water from the lakes is reused, it could be assessed and treated to remove specific ions and other contaminants, and used as raw water to irrigate sporting fields and other urban infrastructure.

Response 5

We will review the report to ensure consistency in the Title of the study, ensuring that it is referenced as being the Review of the Lake Wyangan Flood Study and Flood Risk Management Study and Plan Update, that this document forms the Review of the Lake Wyangan Flood Study and the Flood Risk Management Study and Plan Update is forthcoming.

The report font (Arial 10 pt) is a standard and acceptable option for modern corporate report formats. The use of grey over black text is to reduce eye fatigue. However, it is a shade on the light side of an ideal contrast ratio, so we will alter it to a darker shade of grey.

The reference to the data paucity and challenges associated with modelling the catchment flood hydrology is not to distance ourselves from the findings, it is to acknowledge the inherent uncertainty and associated limitations, which it is important to be clear about. The Flood Study report is typically a technical document that describes the methodologies and results of the modelling process. This is reflected in both the Executive Summary and

Conclusions. The subsequent Flood Risk Management Study and Plan documents will provide the content that is perceived as being absent.

The report will be updated to expand upon the historic, current and potential future hydrological function of the catchment. However, environmental and water quality issues are beyond the scope of works covered in the food study. Additional context related to the water balance will be provided as appropriate.

The detailed photogrammetric dataset was not forthcoming from MI and it is probably not a dataset which the contacts we liaised with are familiar. However, this dataset pre-dates 2015 and whilst it could provide improved data resolution in some parts of the catchment, it is still not contemporary with regards to recent catchment modifications.

Submission 6

Submission on Draft Review of the Lake Wyangan Flood Study Our client: Rombola Family Farms Pty Ltd

We act for Rombola Family Farms Pty Ltd (ABN 94 605 093 294), the occupier of the land described as Lot 23 DP 756052, Lots 3, 15, 112, 113 and 114 DP 756060, Lot 1 DP 1200180, Lots 1-2 DP 1258394 and Lot 159 DP 751730 (Client's Property).

Our Client's Property lies within the model extent of the Draft Review of the Lake Wyangan Flood Study dated 17 March 2026 prepared by Torrent Consulting Pty Ltd (Draft Flood Study) for Griffith City Council (Council).

Summary of submission

We are instructed to put forward a submission to Council regarding the Draft Flood Study summarised as follows:

- (a) The Draft Flood Study should clearly and consistently distinguish privately owned drainage infrastructure and avoid any implication that such infrastructure forms part of a public or shared flood mitigation system.
- (b) The Draft Flood Study should more clearly and consistently articulate the hydraulic and functional role of the east-west drainage channel (see **Annexure B** – circled in green) (**East-West Drain**) located on the Client's Property and its interaction with the broader drainage network and catchments.
- (c) The Draft Flood Study should identify limitations in the underlying terrain data and modelling, and caution against reliance on outputs in affected areas unless and until the model is updated using current surface data.
- (d) The Draft Flood Study should reconcile material inconsistencies between observed flood behaviour and modelled results, particularly in the Kubank Estate locality.
- (e) The Draft Flood Study should reconsider or appropriately qualify any conclusions attributing changes in flood behaviour to the East-West Drain.
- (f) The Draft Flood Study should clearly state the basis for conclusions drawn in the Kubank Estate locality and appropriately qualify reliance on mapping outputs for planning or regulatory purposes pending validation.

The above matters are elaborated in detail below.

1 Background

Our Client's Property is located within the Lake View Drain catchment and is wholly captured by the model extent of the Draft Flood Study. An approximate plan showing the location of our Client's Property within the Draft Flood Study area, highlighted in yellow, is shown at Annexure A.

Our Client's Property has been progressively developed and operated by our client as an almond farming enterprise since approximately 2014. As part of those operations, in or around 2017-2018, our client has constructed and continues to maintain internal drainage infrastructure, including an East-West Drain, to manage irrigation and on-farm water movement.

Recent flood events have had a material impact on our Client's Property, including the loss and subsequent replanting of a substantial number of trees. The interaction between local drainage infrastructure, catchment behaviour and flood modelling is therefore of direct importance to our client.

2 Submission

2.1 Identification and description of drainage infrastructure

The Draft Flood Study does not consistently identify or describe drainage infrastructure within the catchment and does not clearly distinguish between public and private drainage assets.

In particular, the East-West Drain (see Annexure B – circled in green) located on our Client's Property is inconsistently described throughout the Draft Flood Study. For example:

- Figure 4-1 (page 54) identifies this channel as the "Primary almond drain";
- Section 4.2.2 (Drainage Infrastructure) refers to a "primary drainage channel servicing the extensive almond growing area"; and
- Other parts of the Draft Flood Study refer more broadly to "Lake View Drain," at times in a manner that appears to encompass both the public drainage system and the East-West Drain on the client's land.

Further inconsistency is apparent when comparing Figure 1-1 (page 30), which depicts the Lake View Drain extending north from Lake Wyangan, without including the East-West Drain, with subsequent figures and narrative that appear to treat the systems collectively.

This inconsistency in terminology and mapping creates ambiguity as to the status, ownership and function of the East-West Drain.

The Draft Flood Study should therefore be updated to adopt a consistent naming convention for the East-West Drain and explicitly distinguish private drainage infrastructure from public assets in both text and mapping.

2.2 Representation of Catchment interaction and flow behaviour

The Draft Flood Study indicates that the East-West Drain influences catchment behaviour, including the redistribution of flows between the Tharbogang Swamp catchment and the Lake Wyangan catchment.

Figure 4-1 (page 54) shows the boundary between these catchments, with the East-West Drain (shown in pink) forming part of that dividing line. The same figure identifies the East-West Drain as the "Primary almond drain," indicating a role in intercepting

12

and conveying flows.

This behaviour is also reflected in the model outputs. For example:

- Figure A-18 (page 113) illustrates flows being conveyed eastward along the East–West Drain, with localised overtopping where capacity is exceeded, resulting in redistribution of water to the south;
- Areas of reduced flood affectation immediately south of the East–West Drain suggest that overland flows are being intercepted and redirected along the channel; and
- localised overtopping is observed where flow capacity is exceeded, resulting in redistribution of water to the south.

However, while these interactions appear to be captured in the modelling, they are not clearly or consistently articulated in the text of the Draft Flood Study. The use of differing descriptors for the same drainage features including “Lake View Drain”, “primary drainage channel” and “primary almond drain”, obscures the relationship between these systems and the role of the East–West drain within the broader catchment and may lead to misinterpretation of the Study’s findings.

Given the importance of these interactions to flood behaviour, the Draft Flood Study should more clearly and consistently describe the role of the East–West Drain and its interaction with the surrounding drainage network and catchments.

2.3 Reliability of modelling and terrain data inputs

A significant limitation of the Draft Flood Study arises from the underlying terrain data used in the hydraulic modelling.

Section 2.2.5 and Figure 4-2 (page 55) indicate that the model is based on a combination of data sources, including:

- 2021 LiDAR data for the southern portion of the catchment; and
- photogrammetry dating from approximately 2016 for other areas, including the locality of the Kubank Estate.

The use of 2016 terrain data is material because it predates the:

- construction of The East–West Drain on our Client’s Property (circa 2017–2018);
- the construction of the rectangular dam near the junction with the Lake View Drain (circa 2020–2022) – see **Annexure C**; and
- apparent reshaping of surrounding land within the catchment between 2016 and 2022.

While the model appears to have been modified to include the East–West Drain, the Draft Flood Study does not explain how other features (including the rectangular dam and subsequent landform changes) have been incorporated into the terrain model.

This creates a material risk that the model outputs are driven by outdated surface conditions and do not reflect current topography in key areas of the catchment.

The Draft Flood Study should therefore clearly identify these limitations, caution against reliance on modelling outputs in affected areas, and be updated using current terrain data across the

13

relevant parts of the catchment.

2.4 Consistency with observed 2022 flood behaviour

There are material discrepancies between the modelled flood extents presented in the Draft Flood Study and observed flood behaviour during the October 2022 event.

Figures 2-6 (page 39) and 5-9 (page 78) indicate that in the vicinity of the Lake View Drain near the intersection of West Road and Kubank Road floodwaters were largely contained within the Lake View Drain and limited sheet flow was observed in adjacent paddocks.

By contrast, the model results shown in Figure A-4 depict:

- significant depths of water escaping from the East–West Drain to the west of its junction with the Lake View Drain; and
- substantial overland flow paths extending westward and crossing West Road south of the Kubank Road intersection.

These features are not reflected in the observed flood imagery and represent a material divergence between the modelled and observed flood behaviour.

Although the Draft Flood Study recognises limitations in reproducing the October 2022 event and notes the influence of antecedent rainfall conditions, it does not reconcile or explain these inconsistencies in the Kubank Estate locality.

In those circumstances, Council should require the Draft Flood Study to reconcile the inconsistencies between observed flood behaviour and the modelled results in this locality and to appropriately qualify reliance on the Figure A-4 mapping pending further validation.

2.5 Attribution of Flood Behaviour

Section 5.5 of the Draft Flood Study attributes changes in flood behaviour in the vicinity of the Kubank Estate, including differences observed between the 2012 and 2022 flood events, in part to the construction of the East–West Drain.

However, the modelling and comparative analysis presented in the Draft Flood Study do not conclusively support that attribution. A comparison of Figure A-4 (modelled flood extents), Figure 5-9 (2012 flood imagery); and Figures 2-6 and 5-9 (2022 imagery), indicates that the modelled flood extents are more closely aligned with the 2012 event than with the observed 2022 flood behaviour.

In particular, the spatial extent and distribution of flows in Figure A-4 closely resemble those shown in the 2012 imagery, whereas the observed 2022 behaviour differs materially, including flows associated with the rectangular dam and apparent downstream landform changes.

This raises questions as to whether the model is driven by underlying terrain data reflecting earlier conditions, rather than current landform and surface conditions.

In our view, the available information suggests that changes in flood behaviour are more likely attributable to alterations in landform or surface conditions within the catchment, which are not captured in the terrain model.

In those circumstances, the conclusions in Section 5.5 attributing changes in flooding to the East–West Drain are not supported by the modelling presented and should be reconsidered or qualified.

2.6 Reliability of Modelling outcomes

More broadly, the issues identified above give rise to concerns regarding the reliability of the Draft Flood Study in the vicinity of the Kubank Estate and surrounding areas.

In particular, the model appears to rely on terrain data that does not reflect current surface conditions, there are material inconsistencies between modelled results and observed flood behaviour and key conclusions regarding causation are drawn notwithstanding acknowledged limitations in the modelling.

In the absence of an updated terrain model reflecting current conditions and validation against observed flood events, the Draft Flood Study does not provide a reliable basis for assessing flood behaviour or attributing causation in these areas.

Accordingly, the Draft Flood Study should:

- clearly identify and disclose these limitations;
- caution against reliance on mapping outputs for planning or regulatory purposes in affected areas; and
- be updated using current terrain data before any conclusions as to flood behaviour or causation are relied upon.

Conclusion

For the reasons set out above, the Draft Flood Study requires further review and amendment to:

- (a) clarify the status and role of drainage infrastructure;
- (b) ensure consistency in terminology and mapping;
- (c) address limitations in the underlying terrain data; and
- (d) reconsider conclusions regarding flood behaviour and causation, particularly in the Kubank Estate locality.

Until such matters are addressed, the mapping and conclusions of the Draft Flood Study should not be finalised and more importantly should not be relied upon for planning or decision making in the affected areas.

We trust that our client's concerns will be adequately considered as part of Council's assessment of the Draft Flood Study and to undertake a global review of this study prior to finalisation.

Response 6

The report will be updated to clearly and consistently distinguish privately owned drainage infrastructure.

The report will be updated to more clearly and consistently articulate the hydraulic and functional role of the east-west drainage channel and its interaction with the broader drainage network and catchments.

The report will be updated to better identify the limitations in the modelling and the use of the available terrain data.

The report will be updated to reconcile any material inconsistencies between observed flood behaviour and the modelled results.

The report will be updated to appropriately qualify any conclusions attributing changes

in flood behaviour to the East-West Drain.

The ongoing changes in the catchment that modify the terrain and potentially impact the flood flow patterns is a challenge that needs to be addressed. The acquisition of current terrain data throughout the catchment is not feasible within the scope and timeframe of this study. This principal area for which the modelled flood behaviour will be used for flood planning purposes is within the local catchment areas draining directly to Lake Wyangan.

The Dickie Road, Lake View Drain, Kubank Estate and Tharbogang Swamp flood flow path is less of a focus for flood planning but needs to be considered in the subsequent Flood Risk Management Study stage in terms of potential flood mitigation options. This is expected to look at opportunities to better drain catchment runoff via Lake View Drain and into Lake Wyangan, to alleviate flooding in locations such as the Kubank Estate. This will then need to be countered by diverting flows heading to Lake Wyangan into Tharbogang Swamp in flood rare enough to threaten existing and future development around Lake Wyangan.

The data paucity is a significant factor in the ability to estimate accurate runoff volumes and resultant flood levels in Lake Wyangan. This will be a key consideration when considering and assessing potential mitigation options in the subsequent Flood Risk Management Study. Sensitivity tests will be undertaken and the implications of the inherent uncertainty on the performance of any mitigation options will be included in the assessment. The identification of robust mitigation measures that will perform well over a full range of potential flood conditions is the intended outcome of the next stage of the study.

The flood mitigation options that are ultimately recommended in the subsequent Flood Risk Management Study stage are expected to be of a nature that their function is not reliant upon the exact results being produced by the modelling. They will be tested to ensure that they perform adequately despite any assumptions or limitations. Beyond the subsequent Flood Risk Management Study, any recommended physical works would need to go through a feasibility study process prior to design and construction. This feasibility study is an appropriate stage at which to acquire any additional terrain data that is pertinent to the subsequent development of a design solution.

CLAUSE **CL02**

TITLE **Correspondence**

FROM **Leanne Austin, Governance Manager**

TRIM REF **26/77523**

SUMMARY

Correspondence received from Committee members is attached.

RECOMMENDATION

The Committee note the information.

REPORT

Refer to attachments.

LINK TO STRATEGIC PLAN

This report has no relevance to the Council's Strategic Plan.

ATTACHMENTS

- | | | |
|-----|---|----|
| (a) | Correspondence received from Ian Parisotto at the FMC Meeting held 11 June 2026 ↓ | 26 |
| (b) | Correspondence received from Ian Parisotto on 31 August 2026 ↓ | 29 |
| (c) | Correspondence received from Ian Parisotto on 31 August 2026 (2) ↓ | 31 |

Minutes of Floodplain Management Committee 05 March 2026

RECOMMENDED on the motion of John Kerrigan and Paul Rossetto that:

- (a) The report be noted.
- (b) Council invite Murrumbidgee Irrigation to attend the next Committee meeting to respond to questions on notice and provide the Committee with an overview of its flood emergency management system and network capabilities.

Business Arising

CL04 CORRESPONDENCE FROM COMMITTEE MEMBERS

- 1/ Mr Parisotto enquired about Council's responsibility under the breaching protocols to pay for and restore infrastructure. Mr Gordon responded that when major natural disasters occur, they are generally recognised by the State / Federal Government and funding is provided to assist with the cost of repairs. However, in minor flood events where an emergency is not declared, Council is required to meet the cost of any necessary repairs for actions undertaken as the flood authority.
- 2/ Mr Gordon further noted that each flood event is different; however, Council is working with MI to ensure planned procedures are in place that can assist with cost effective quick repairs.
- 3/ Mr Rossetto stated that in the Executive Summary document he previously provided to the Committee, he had referred to a drainage channel behind the southern bank which requires further consideration.
- 4/ Councillor Groat suggested that the correspondence provided by Committee members be forwarded to MI for consideration.
- 5/ Mr Parisotto referred to information presented by Consultants at the September 2017 Committee meeting and requested a copy of the presentation. Mr Gordon responded that it was unlikely Council had retained a copy of the presentation provided by the consultants; however, the data presented would be included in the Mirrool Creek Flood Study 2015.
- 6/ Mr Parisotto also requested a copy of the 2004 Light Detection and Ranging (LiDAR) survey and enquired why an updated LiDAR survey was not undertaken in 2015. Mr Gordon advised that this matter had been addressed at the 6 March 2025 Committee meeting and explained that the LiDAR survey information consists of a dataset that forms the basis of information used for flood studies. When a further flood study is undertaken following the completion of flood mitigation measures, the latest LiDAR information will be considered when preparing the new flood study.
- 7/ Discussion took place about the effect of works implemented by MI on the North Merribee Channel. Councillor Groat suggested that the realignment of the North Merribee Channel would actually improve the flow of floodwaters. Mr Gordon agreed, stating that allowing the water to move through more quickly would reduce the build-up and make it easier to manage. He added that the gauge at the EMR assists in monitoring water levels and determining appropriate actions in accordance with the breaching protocols.

RECOMMENDED on the motion of Paul Rossetto and John Kerrigan that the information be received and forwarded to Murrumbidgee Irrigation for consideration in their presentation to the Committee.

6 OUTSTANDING ACTION REPORT

Mr Stanbury tabled a response from the Deputy Commission Operations and advised the

Business Arising

11-06-2026

I like to amend the minutes of March 2026 FMC meeting

CL04 - Correspondence From Committee Members

1st paragraph – “Mr Parisotto enquired about Council’s responsibility under the breaching protocols to pay for and restore infrastructure.”

The question is... If GCC breaches the Canal Banks **before**, a natural disaster declaration, is GCC eligible for funding by the State/Federal Government?

- (Does anyone have an answer?)

5th paragraph – “Mr Parisotto referred to information presented by Consultants at the September 2017 Committee meeting and requested a copy of the presentation.”

The presentation by Consultants Sept 2017 is supportive and critical information, re – my letter about Historical Flood Events, showing the **frequency** of larger flood events that occurred in the Mirrool Creek Catchment – and quote “Ms Jones stated that looking at all the data as presented that larger flood events stood out and it appeared that there is not a lot of border line events with Mr Williams agreeing that this is the case.”

- (There is no mention of why I wanted the presentation.)

6th paragraph – “Mr Parisotto also requested a copy of the 2004 Light Detection and Ranging (LIDAR) survey and enquired why an updated LIDAR survey was not undertaken in 2015.”

The information I requested about the 2004 Lidar Survey, was that everything I was told by Brett Stonestreet and Graham Gordon in our earlier meetings of 2025 was that the 2004 Lidar Survey was used as a reference point and that when a new survey was completed by GCC we can compare what was there then and what is there now. So my question was that I wanted to compare the information from the 2004 Lidar Survey to the NMC realignment. The answer from Mr Gordon was that he does not know where the 2004 Lidar Survey is.

What I was trying to achieve was to compare, the topographic modelling of the landscape back then (2004) to what is physically there now.

It is also protocol that this information be updated every 5 years and my concerns are, that without updated information, for the 2015 Flood Study, and certainly for the 2024 NMC realignment we have no modelling on downstream flow effects, especially when in **March 2024**, GCC objected to the granting of an application – levee works to Water NSW **within this very floodway**. In that objection, Council stated and quote “Council is concerned that any additional works or modifications to the existing bank heights and locations of levees may have **significant impacts** from flood waters in our Local Government Area.” and then in **April 2024, only one month later** GCC endorsed the NMC realignment.

~~_____~~

I have repeatedly raised these concerns in our meetings and never once have they been acknowledged or recorded in the minutes.

- (Has GCC ever done a survey of Mirrool Creek or the Floodway?)

7th paragraph – “Discussion took place about the effect of works implemented by MI on the North Merribee Channel. Councillor Groat suggested that the realignment of the North Merribee Channel would actually improve the flow of floodwaters. Mr Gordon agreed, stating that allowing the water to move through more quickly would reduce the build-up and make it easier to manage.”

Allowing the water to move more quickly is effectively reducing the time frame, to make a decision, and to enact the breaching protocols **to less than 16 hours**, as per the Emergency Breaching Protocols document on page 11.

With no updated data, it is questionable, whether there is enough time, to safely enact the protocols, when we have another 2012 flood event.

Sure every flood event is different... different rainfall events... changing landscape... but one thing is for certain, that all the flood water from the Mirrool Creek Catchment ends up at the EMR and GCC adoption of the NMC realignment has changed the landscape.

Without updated modelling GCC has **not considered the negative impacts** they have created downstream at the EMR.

If allowing the water to move through more quickly would reduce the build up and make it easier to manage then the same should apply downstream at the EMR to have the proper infrastructure in place to allow the flood water to move more quickly through the Main Canal.

Ian Parisotto

I recommend that these amendments to the minutes be noted.

I also recommend downstream impact modelling of the NMC realignment be undertaken as suggested by Steve Manwaring, DEECCW in the FMC meeting, February 2024.

Ian Parisotto

31st August 2026

The General Manager
Mr Scott Grant
Griffith City Council

Cc: Councillor Scott Groat
Chairman – Floodplain Management Committee

Subject – Amendments to the 11 June 2026 FMC minutes

Dear Mr Grant

The “verbatim transcript” that was never recorded in the 11 June FMC meeting are;

- If GCC breaches the Canal Banks before a natural disaster declaration, is GCC eligible for funding by the State/Federal Governments?
- The presentation by Consultants Sept 2017 “Ms Jones stated that looking at all the data as presented that larger flood events stood out and it appeared that there is not a lot of border line events with Mr Williams agreeing that this is the case.” Critical information re – my letter about historical flood events.

North Merribee Channel Realignment

- **February 2024** “Mr Manwaring DCCEEW suggested that the proposed changes should be modelled to understand the flow on effects.” No downstream impact study done, especially for those larger flood events.
- **March 2024** GCC lodged objections to eight levee works applications (within this very floodway) with Water NSW citing “Council is concerned that any additional works or modifications to the existing bank heights and locations of levees may have significant impacts from flood waters in our LGA.”
- **April 2024** Griffith City Council provided written endorsement to Murrumbidgee Irrigation for works proposed on the North Merribee Channel.”

These have been repeatedly brought to the Committee’s notice for inclusion in the minutes. These are important facts which have continually not been included in the minutes.

Failure to consider downstream negative impacts has left the EMR increasingly vulnerable. The risks are known, documented and repeatedly demonstrated. The lack of preparation is therefore not a matter of uncertainty, but a matter of governance.

As per the Flood Risk Management Manual

“1.5 Limited Legal indemnity

Section 733 of the Local Government Act 1993 provides local councils and statutory bodies representing the Crown, and their employees, with limited legal indemnity for certain advice given, or things done or not done, relating to the likelihood of flooding or the extent of flooding.

The Act also provides that a council that acts in accordance with the manual relating to the management of flood liable land (this manual) is taken to have acted in good faith in relation to advice given, or things done or not done to the likelihood of flooding or extent of flooding.

It should be noted that the indemnity offered by s 733 is limited. A council or statutory body may not be indemnified in respect of advice, or a thing done or not done, despite being in accordance with this manual, if it is not done in good faith.

A Flood Risk Management study provides the basis for examining and recommending management measures. It aims to identify, quantify and weigh the relevant risks to the community and the potential for different options to manage these risks, **considering any negative impacts they may create."**

Yours Sincerely

Ian Parisotto

Private and Community Representative

Ian Parisotto

31st August 2026

The General Manager
Mr Scott Grant
Griffith City Council

Cc: Councillor Scott Groat
Chairman – Floodplain Management Committee

Subject – EMR Emergency Breaching Protocols

Dear Mr Grant

As per the minutes of the FMC meeting 11 June 2026, “The committee discussed the need to priorities projects on what will affect the community, aiming to reduce flooding for the greatest number of people first, while still respecting agricultural impacts.”

As a landholder who would be impacted by the adoption of the Emergency Breaching Protocol there has been no infrastructure implemented to reduce the impacts (considering any negative impacts they may create) from the torrent of water running through my farm. Also there is no consideration for the safety of the excavator and driver and the ability to repair the breach site as quickly and efficiently as possible to resume downstream water supply if the protocols are enacted.

The issues of concern (negative impacts) are;

- By ensuring that any potential breaching of the Main Canal is controllable by reducing the pot holing effect because of a drainage channel directly adjacent to the southern Canal bank.
- Inadequate flood mitigation design if Mirrool Creek flood event is greater than Emergency Breaching Protocol consultants BMT stated “maximum of 100m³/s (8640ML) per day before uncontrolled breaching occurs.”
- A rocked wall to prevent floodwater inundating Delaney Lane preserving the surface, (the excavator escape route) all the way back to Quinlan’s bridge, to help with accessing the site and to start repair works as quickly as possible.
- The rocked wall will also provide the excavator and operator a safe exit from the breached site as the southern Main Canal Bank is too narrow for the large machine to travel east along the embankment.
- The exit apron will direct floodwaters quickly and directly south into Mirrool Creek.
- Halse Road significantly inundated Peak flood depth over 1 meter – Emergency Breaching Protocol should have already been initiated because it is unsafe to do so.
- There is no room on the canal bank to store the excavated material for the post breaching recovery process, returning the excavated material and re-forming the canal embankment to the required standard.
- Stock piling of clay and soil (close by on reserve) for quick canal bank repatriation, so water supply can be reinstated as quickly and efficiently as possible, downstream of the EMR to the wider Griffith Local Government Area.

This is the 21st century where the NSW Government’s standard for a 1:100 ARI flooding event is permanent infrastructure, that would provide long-term cost savings and benefits to the community.

A short term simple solution is attached Figure C – 3 BMT WBM EMR Main Canal Siphon General Arrangement proposed in 2015 while longer term, incorporating permanent infrastructure is the desired outcome.

Yours Sincerely

Ian Parisotto

Private and Community Representative

TITLE Outstanding Action Report

TRIM REF 26/115094

RECOMMENDATION

The report be noted.

ATTACHMENTS

(a) Action Report - Floodplain Management Committee [↓](#) 35

ACTION REPORT**FLOODPLAIN MANAGEMENT COMMITTEE 23 SEPTEMBER 2026**

Date of Meeting	Agenda Item	Action	Action Officer	Comments
11 June 2026	CORRESPONDENCE FROM COMMITTEE MEMBERS	RECOMMENDED on the motion of John Kerrigan and Steven Mortlock that the Committee ask MI if they have already, or if they have not, would they intend or want to perform geotechnical testing in that area to confirm structural integrity.	Director Utilities	29/9/2026: Emailed request to MI.
5 March 2026	CL02 YOOGALI LEVEE STAGE 3	RECOMMENDED on the motion of John Kerrigan and Paul Rossetto that: (a) Council endorse the concept design for Yoogali Stage 3 Levee. (b) Council apply for funding in the 2026-27 funding round. (c) Council consider the budget bid for one third of the cost of the project in the 2026/27 budget.	Director Utilities	20/05/2026: Following Council's endorsement on 24 March 2026, an application seeking funding for two-thirds of the total project cost was formally submitted on 31 March 2026 under the DCCEEW 2026–27 funding round. Council will fund the remaining one-third of the project cost through allocation from the Drainage Reserve in the 2026-27 financial year. 29/9/2026: Waiting on response regarding funding application.
5 March 2026	CL01 REVIEW OF LAKE WYANGAN FLOOD STUDY	RECOMMENDED on the motion of John Kerrigan and Paul Rossetto that the report be noted and the Flood Study be presented to the 24 March 2026 Council Meeting for endorsement to be placed on public exhibition.	Director Utilities	24/03/2026: Council endorsed the Flood Study. On public exhibition to 8 May 2026. 12/06/2026: Report presented to Committee meeting 11 June 2026. 14/09/2026: Report presented to Committee meeting 8 October 2026.

9 October 2025	CL04 AGENDA ITEMS RECEIVED FROM COMMITTEE MEMBERS	Committee Recommendation: Item 1 – Upgrade Flood Gates Option RECOMMENDED on the motion of Paul Rossetto and John Kerrigan that the Floodplain Management Committee recommend to Griffith City Council the completion of the reinstatement of EMR flood gates option presented by consultants BMT WBM Griffith Main Drain J and Mirrool Creek Floodplain Risk Management Study Plan August 2015 C.2 EMR Flood Escape Upgrade C.2.1 Description of Works. • Construction of new flood relief structure at the East Mirrool Regulator as a replacement of the existing structure. The existing five bay and eight bay flood check in the northern and southern bank of the Main Canal is proposed to be replaced with a 9 bay 2.4 x 1.8m gated structure (or similar) on each bank. • Scour protection works at the structure inlets and outlets are provided to protect the receiving channel and downstream floodplain from excessive erosion. • Channel modification works are required both upstream and downstream of the structure to provide appropriate transition of flow to the existing channel/floodplain of Mirrool Creek. • Raising of strengthening of the right Northern Branch Canal (completed by MI).	Director Utilities	27/11/2025: Resolved at the Council Meeting held 28 October 2025. RESOLVED on the motion of Councillors Scott Groat and Mark Dal Bon that in relation to the Recommendations in CL04: Item 1: (a) Council obtains an estimation of costs for consultants to detail design the above 4 dots points in the Committee's recommendations. (b) Council explores funding options for the detail design through the State Government Floodplain Management Program. To be considered after costs presented to FMC meeting. (c) Once State Government flood funding sources are identified and applicable to the detailed design of the 4 dot points, Council consider, as part of future budget deliberations, the required matching funding. To be considered after costs presented to FMC meeting. RESOLVED on the motion of Councillors Scott Groat and Anne Napoli that the recommendations as detailed in the Minutes of the Floodplain Management Committee meeting held on 9 October 2025 be
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				adopted, with the inclusion of Councillor Groat's above amendment replacing the original recommendation in CL04 of the minutes. SMT Comment: The Terms of Reference of the Floodplain Management Committee do not permit the Committee to implement actions in areas over which Council has responsibility, or to commit or expend any Council funds that are not contained within an adopted budget or subsequent variation of a budget. Should Council choose to adopt the above recommendations of the Committee, this matter will need to be deliberated as part of the budget process.
9 October 2025	CL04 AGENDA ITEMS RECEIVED FROM COMMITTEE MEMBERS	Committee Recommendation: RECOMMENDED on the motion of Paul Rossetto and John Kerrigan that the Floodplain Management Committee recommends to Council that the reinstating of an attenuating levee at the flood design height of the North Merribee Channel banks recently levelled by Murrumbidgee Irrigation. Also, the reinstatement of a syphon through the attenuating levee as per 1978 Water Resources Commission Report 'Guidelines for Mirrool Creek Flood Plain Development Barellan to Yenda.'	Director Utilities	27/11/2025: Resolved at the Council Meeting held 28 October 2025. RESOLVED on the motion of Councillors Scott Groat and Mark Dal Bon that in relation to the Recommendations in CL04: Item 2: (a) Prior to reinstating an attenuating levee across the floodway, Council applies for funding from the State Government to conduct a review

		<i>Page 7 "Where the floodway crosses the North Meribee Supply Channel a syphon will be required to ensure that flood flows are unobstructed."</i> The installation of a syphon aims to slow flood flows of the upstream flood storage area immediately east and upstream of the North Meribee Channel realignment in accordance with the principles set forth in the NSW Floodplain Development Manual.	of the Griffith Main Drain J and Mirrool Creek Floodplain Risk Management Study and Plan once all stages of the Yoogali levee project are fully complete. (b) Council considers, as part of future budget deliberations, the required matching funding necessary to conduct a review of the Griffith Main Drain J and Mirrool Creek Floodplain Risk Management Study and Plan. To be considered once Yoogali Levee project fully complete. RESOLVED on the motion of Councillors Scott Groat and Anne Napoli that the recommendations as detailed in the Minutes of the Floodplain Management Committee meeting held on 9 October 2025 be adopted, with the inclusion of Councillor Groat's above amendment replacing the original recommendation in CL04 of the minutes. SMT Comment: The Terms of Reference of the Floodplain Management Committee do not permit the Committee to implement actions in areas over which Council has responsibility, or to commit or expend any Council funds that
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				are not contained within an adopted budget or subsequent variation of a budget. Should Council choose to adopt the above recommendations of the Committee, this matter will need to be deliberated as part of the budget process.
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