Flood Risk Management Policy

Public Exhibition Submission

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 1_Attachment 1

SUBMISSION FORM - Flood Risk Management Policy Form Submission

There has been a submission of the form SUBMISSION FORM - Flood Risk Management Policy through your Your Voice Camden website.

What is the nature of your submission?
Object

Use this space to record your submission:
Pp 10-11 of the policy in regards to concessional development in the case of development within the Camden Heritage Conservation precinct. I am opposed to such concessional allowances.
As a resident of Mitchell St Camden I am directly aware of the value of the heritage precinct and the social, psychological, environmental and financial impact of flooding.
The heritage precinct is a focal point for the Camden LGA and MacArthur region broadly. It has enormous cultural and community value and once impacted it can never be retrieved. Maintaining its unique heritage profile is an important investment for now and into the future.
I am concerned that climate change will result in ever increasing incursion from floods both in frequency and area. The recent floods have had catastrophic consequences for businesses and residents in our community. Greater development combined with increased flood activity will create immeasurable hardship and loss. During floods, Camden has only one functional exit route which becomes seriously clogged during floods. The pressure on this exit and the risk to safe and timely evacuation is highly concerning.

Are you making a submission on behalf of a public agency, organisation or community group?
No

Organisation:

N/A

First Name

Last Name

Email:

Phone:

Street Address:

Postal Address:

To view all of this form's submissions, visit **https://yourvoice.camden.nsw.gov.au/index.php/dashboard/reports/forms_new/data/129**

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 2_Attachment 1

Dear Maria and Floodplain team,

Thank you for your time yesterday and explanations which I have passed on to our membership.

Also thank you for extending the submission date to Monday, much appreciated.

Feedback from CRAG was swift and I have summarised below the main points fed back so far.

Many have expressed difficulty in getting their heads around the great number of documents and how they interconnect and asked why there are two submissions, one for policy and one for plans. Also that the mapping needs to be of higher resolution so that property boundaries in relation to flood ways and flood levels can be established. It is difficult to make a submission when there are so many exhibition documents and how they are used to inform the draft policy is not explained.

They go on to say that we need the opportunity to attend an information session so that questions can be answered and that a full overarching explanation of what the changes entail and mean going forward can be provided.

An information session would be appreciated, but if that is not possible given the timeframe, a number of people are asking for at least a meeting with Planners so that specific questions can be answered. Could this be arranged for tomorrow or Friday? If so that would be much appreciated.

Kind regards

cc CRAG Membership

Feedback so far as follows:

- The Heritage Conservation Area clause is not acceptable as it is really an invitation to demolish cottages and other fabric and replace them with inappropriate constructions that do not tell the story of Camden in NSW and Australian history. It is a listed conservation area, not an area for redevelopment. The first two concession categories with perhaps some tweaking are sufficient and would help protect heritage, lives and properties. We do not want a repeat of Lismore. It is foolhardy to increase development

on the floodplain. Government is talking about buybacks in Lismore, Windsor etc. This is not consistent with the argument that land cannot be sterilised, yet this Policy permits more building in flood prone areas of Camden. The 1840 Macarthur town is contributory as a cultural centre, a small area of the Municipality and is very important to the community as it stands. It does not need to be overdeveloped or redeveloped to be useful. In fact that would destroy its point of difference and economic advantage. The question of who benefits by the special clause needs to be answered.

- Residents of the conservation area, many in the flood areas, need to be reassured that their homes and environment will not be destroyed by the concessional clause. They invested in good faith, relying on the planning instruments, that the area would be conserved not redeveloped. More recently the 2018 CTC Urban Design Framework also recommended that residential be included in the zoning so that the vibrancy of the town and foot traffic would be enhanced. The 2020 Local Strategic Planning Statement which aligns with the WCD Plan also has as a priority that *Local Priority L2 Celebrating and respecting Camden's proud heritage. These initiatives will ensure that Camden's valued heritage is protected from the impacts of development and can continue to be celebrated by the community.* (p. 45). We do not believe from the information to hand that the special clause is consistent with what the community wants or other Council policy.
- Residents, particularly those in Alpha Rd want to understand more about the levee options, and the likelihood of them being considered and what would be the effect of displaced floodwaters on other properties.
- How evacuation is to be managed is a big issue and needs to be explained. It seems the only evacuation centre on the Camden side of the river even being considered is Camden High School. Which would be completely cut off in a PMF, and limited access in any flood event, either to get there from Camden, or to get out to anywhere else. There is no suggestion of an evacuation centre in Camden township - where many people would be, and there are services, food and supplies, and a hospital. This is unsafe and unacceptable. Next closest would be Mawarra and Spring Farm PS, but they would be needed for people in those areas in a major event. And no good if the bypass is closed, which as experience tells us in any case becomes clogged and not everyone can necessarily reach Narellan in good time.
- There is confusion about how the effects of climate change are incorporated into the policy. Again we do not want a repeat of Lismore. The Policy at 2.4 was noted:
  Addressing Climate Change Impacts

  Potential impacts from climate change were assessed by modelling the flood behaviour arising from increase in rainfall intensities through the flood risk management process

  as identified in Council's up-to-date Flood Study/Plan. The results showed that the Nepean River catchment is prone to large flood level increases as a result of the

  increased rainfall intensities from climate change. Under the climate change scenario, the flood levels increased by up to and over 1.5m within the catchment.

  Is this incorporated into the mapping and would this increase the concessional areas? It is not clear given the mapping is dated 2019. Again it is expressed that it is foolhardy to develop the floodplain, especially when there is ample flood free land in the LGA.

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 3_Attachment 1

Camden 1-11storicaf Society Inc.

P.O. fox566 Camden, WSW 2570. Phone 024655 3400 AB9V 84 182 869 026
We6: www.camdenhistog.org.au EmaiC secretag@camdenhistoiy.org.au

17 August 2022

Floodplain Management Team
Camden Council
PO Box 183
CAMDEN NSW 2570
floodplains@camden.nsw.gov.au
cc: mail@camden.nsw.gov.au

RE: Floodplain Management Exhibition

Thank you for the opportunity to comment on this exhibition. The Camden Historical Society wishes to note their concern regarding potential development in flood prone areas of Camden Township, and we object to the inclusion of any wide-ranging concessional development clause for the Camden Heritage Conservation Area.

It is unclear from the documents provided what is intended by "concessional" development in Camden Township and the Heritage Conservation Area. While we support any work to preserve historic buildings and places, and minor alterations to enable their adaptive reuse, we cannot support any new development within the more flood prone areas of Camden township. It is clear from the flood studies that all of Edward and Exeter Streets, most of Elizabeth Street, and parts of Mitchell and Argyle Streets, are all highly flood prone (exceeding 5%AEP and including high risk areas). There should not be any new constructions or substantial additions allowed in these areas.

We disagree that *"The Town Centre is a region of active redevelopment"* as stated in section 9.13 of *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek (Final Draft Report) 20 September 2019.* There should be (by definition) limited redevelopment in the Heritage Conservation Area. There have only been a handful of approvals for redevelopment in the Heritage Conservation Area, and we would argue that many of these should not have been approved in any case.

We do not agree that there should be any high-density development in either the Heritage Conservation Area or flood prone areas. *(Concessionai development is only permitted in areas located outside the floodways mapped in Figure 2... In the case of development within the Camden heritage Conservation Precinct: (i) All Commercial and Industrial, Low, Medium and High-Density Residential developments (as categorised in this policy) located only within the Camden Heritage Conservation Precinct)* - (from *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek: Appendix E — Development Controls (Final Draft Report))*

The reason Camden has remained such a remarkably intact and historic rural town is **rhiP** to the surrounding flood plain, and the *flood* prone nature of the northern part of the town. This has restricted much of the development in the Edward and Exeter Street areas to rural industries, and ensured open fields surround the town on three sides. This is an important part of Camden's heritage and its history.

We ask for deletion of the concessional clause for the Camden Heritage Conservation Area, and that any clause in the flood management plans permitting new development in the flood prone **areas** of the Camden Heritage Conservation Area be removed.

Yours sincerely
Hon Secretary

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 4_Attachment 1

Dear Floodplain management team

I would like to register my objection to this draft policy currently on exhibition. We have seen first hand this year that flooding is a significant issue for Camden, and that landuse and emergency planning need to be carefully considered and gain community support.

This draft Floodplain Management Policy has been poorly communicated to community and the information provided is highly technical and complex. Without a planning background it is very difficult to sift through the disjointed information provided in order to assess the policy impact on individual properties. My key concerns are:

* the maps provided are of poor resolution and do not give sufficient detail down to the individual property level

* no supporting or other information can be found regarding this policy on councils website.

* I live in the Heritage Conservation Area and would like to know why this has been identified for special treatment, and in particular the confusing detail around ‘concessional development’ and what this might mean for the future character of this town.

* It appears that some commercial development in known floodway areas could be approved under this policy, which is a serious concern.

* For the concessional development categories, residential is included but does that mean people living in the HCA can add significantly to those homes or rebuild them, as they could not under the 2006 policy?

Before this policy can be approved and endorsed, I strongly recommend that council review and improve the communication regarding this draft policy and provide more ‘user friendly’ information and summary information sessions, that focus on what the key policy objectives are and their impact on the community and future development.

Could you please keep me informed regarding developments with this important policy.

Yours sincerely

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 5_Attachment 1

Camden Council
70 Central Avenue
Oran Park NSW 2570

17/08/2022
Our Ref: 320-22

Attn: Floodplain Management Team
floodplains@camden.nsw.gov.au

Dear Sir/Madam,

Re: Feedback on draft Flood Risk Management Policy & Upper South Creek Flood Study

This letter has been prepared to address Council's request for feedback on the draft Flood Risk Management Policy (P1.0046.x) & Camden Council Public Exhibition Document 2022 – Review of Upper South Creek Flood Study (Draft Report) currently on public exhibition (from 21 July to 18 August 2022). Please refer to the below return responses from Craig & Rhodes (shown in blue) providing comment and requesting further clarification on matters related to the draft Council Policies and studies (excerpts from the Policy and study shown in *italics*).

Flood Risk Management Policy

Part 1 – Policy Introduction

3. Objective

The specific objectives of the Policy are to:

Provide a mechanism for the responsible control of development on flood prone land.

Craig & Rhodes Comment:

Can it be clarified if this comment refers only to developable habitable land? (i.e., residential, commercial areas, etc). or does it also include sports fields, parks, and recreational areas? – Our assumption is that it does include these recreational areas.

4. Scope

The Policy applies to flood prone land identified in Council's most up-to-date flood studies and plans including any that are not currently identified on Council's Flood Information Maps.

Craig & Rhodes Comment:

Craig & Rhodes has recently been involved in the preparation of a now approved Water Cycle Management study completed in the Lowes Creek Maryland area. This study was undertaken during the rezoning phase of the Lowes Creek Maryland precinct. This study does not appear to have been included in the current iteration of the Upper South Creek flood model presented on exhibition, as it was prepared after 2018.

We understand by this statement that the revised Flood Risk Management Policy applies to Council's most up-to-date flood studies. Can you confirm if the Lowes Creek Maryland rezoning report/study is to be included in Councils most up-to-date flood studies and plans? And at what point will an approved study become included in Council's updated study and plans?

Additionally, will the approval of a submission, like the Lowes Creek Maryland study undertaken by Craig & Rhodes be upheld and remain satisfactory to Council following the adoption of this Floodplain Risk Management Policy?

6. Definitions

Floodway areas

Craig & Rhodes Comment:

The term floodway is utilised in the FRM policy document to define where permissible development types are allowed (i.e., Item 7.3.6 Commercial and Industrial, 7.3.7 Concessional Development), however it seems the definition is quite ambiguous. The policy refers to a floodway where "significant volume of water flows during floods, often aligned with naturally defined channels". How is this defined after the completion of land development activities that might reshape a natural floodway? Is the floodway related to the top of bank of a formed channel? Could the definition be more prescriptive to allow for more certainty on what constitutes a floodway? How is this defined when an existing floodway requires rehabilitation or reconstruction?

7 General Information

7.1 Section 10.7 Planning Certificates

In areas where Council holds flood related information, the Section 10.7 planning certificate shall indicate whether the land is affected by flooding and subject to flood related development controls or not, based on Council's up-to-date flood studies and plans with additional information provided where appropriate.

Craig & Rhodes Comment:

Can Council confirm which flood level will be utilised to indicate whether the land is affected by flooding on the Section 10.7 Planning Certificates (i.e., 1% AEP flood level, 1% AEP Flood level + Freeboard, PMF flood level)?

Part 2 – Upper South Creek: Development Controls

2. Flood Mapping

Due to ongoing development in this catchment, flood behaviour will potentially be subject to changes with the development. Accordingly, flood mapping will be reviewed and updated frequently.

Based on Council's future frequent revisions of flood studies and/or flood risk management studies and plans the flood mapping will be updated in Council's website, following the standard floodplain risk management process including public exhibition of the revised Studies and/or Plans.

Craig & Rhodes Comment:

How often does Council intend on updating their flood model and flood mapping to incorporate proposed development changes in the catchment? Are we expecting that with each approved rezoning or DA application that utilises the USC Regional Model, a model update will be incorporated into Councils base model and shared for public use? How will Council manage the data provided to them with each development submission? Or does Council propose updates at regular intervals in the

future? What happens when the base case changes due to model updates – do existing studies need to be revisited, or will they remain approved?

2.4 Addressing Climate Change Impact

Climate change impacts have been assessed. The flood level increases at 1% AEP event are approximately 100 mm in average. It is considered that the climate change impacts of flood level increase up to 100mm at 1% AEP can be accommodated in current freeboard.

Craig & Rhodes Comment:

We request confirmation that freeboard requirements will remain as 500mm above the 1% AEP for mainstream flooding, and that there will be no further change to design requirements for climate change impacts.

Appendix 2 – Upper South Creek Development Controls

1.2.3 Structural Soundness

A structural engineering report is to be provided to ensure the structures can withstand floodwater forces including debris and buoyancy up to the 1% AEP plus freeboard or the PMF whichever is higher, where a flood refuge or evacuation access is proposed.

Craig & Rhodes Comment:

Can Council better define what constitutes a 'structure'?, We assume this is predominantly referring to buildings, however it could refer to a culvert headwall?, a short concrete retaining wall? Public Art? A fence? Request to better define the term 'structure' in the policy. Additionally, could a structural design certificate with a signed statement ensuring compliance with the policy be provided in lieu of a full structural engineering report for this matter?

Item 1.2.4 – Flood Affectation

1) *Engineering report required to certify that development will not increase flood affectation elsewhere, having regard to a) loss of flood storage, b) changes in flood levels, flows and velocities upstream, downstream, and adjacent to the site, c) cumulative impact of multiple development in the vicinity, d) negligible impact to flood hazard. A flood impact and risk assessment report is to be prepared based on flood modelling, where precinct developments are proposed or where sub-divisions increase the intensity of land use in the floodplain*

Craig & Rhodes Comment:

Can Council provide acknowledgement that development that occurs in accordance with an endorsed strategy (i.e., approved Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (May 2022)) requires no further assessment?

2) *No importation of fill within any part of 1% AEP floodplain. Floodplain filling is only permitted in the 1% AEP floodplain fringe, and flood storage with zero net filling, where flood modelling is conducted to demonstrate there is no adverse flood impacts elsewhere / off site.*

Craig & Rhodes Comment:

Within the Lowes Creek Maryland site precinct, the 1% AEP floodplain is expansive on due to large farm dams. To develop Maryland in accordance with the approved concept and currently endorsed flood modelling, filling in this 1% AEP floodplain will be required (online basins are reshaping the floodway). Can Council confirm that development that occurs in accordance with an endorsed strategy (i.e., approved Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (May 2022)) requires no further assessment?

This control is also slightly ambiguous – it states no importation of fill is allowed within any part of the 1% AEP floodplain, and the next part says filling is permitted in flood plan fringe (still part of floodplain)? Please clarify.

4) *Removal of farm dams is only permitted where the removal does not cause adverse flood impacts off-site. Demonstration of no adverse impacts to flood levels, peak flows, flood velocity and redirection of flow is required by flood modelling.*

Craig & Rhodes Comment:

Can Council confirm that the removal of farm dams that occurs in accordance with an endorsed strategy (i.e., approved Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (May 2022)) requires no further assessment?

1D/2D Upper South Creek Regional Flood Model and User Guide

Note For the above controls 1 to 4, it is required to use Council's 1D/2D Upper South Creek Regional Flood Model and User Guide prepared as part of Council's up-to-date flood studies / plans. The Regional Flood Model and User Guide are to be provided by Council.

Craig & Rhodes Comment:

Can Council confirm that the 1D/2D Upper South Creek Regional Flood Model and User Guide will be freely available for use? What are the requirements to obtain the modelling files? Will there be a requirement to sign a user agreement? What cost will there be to obtain the model? Will data submitted to Council for assessment be made available to other parties?

Camden Council Public Exhibition Document 2022 – Review of Upper South Creek (USC) Flood Study (Draft Report)

2.3 Precinct Development

The Lowes Creek and Maryland (Part Precinct) are in the planning phase

Craig & Rhodes Comment:

It is noted in the exhibited documentation that the Lowes Creek and Maryland (Part Precinct) were in the planning phase at the time the USC Flood Study was commenced. This appears to be the reasoning the endorsed Lowes Creek Maryland Water Cycle Management Strategy Addendum results

(Criag & Rhodes/Storm, 2022) have not been adopted in the study. Can Council provide acknowledgement that development that occurs in accordance with an endorsed strategy (i.e., approved Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (May 2022)) requires no further assessment?

3.1.3 Other Studies

A number of other hydrologic and water cycle management studies were reviewed that relate to the planned development of specific precincts

Craig & Rhodes Comment:

It is noted in the exhibited documentation that the Lowes Creek Maryland Water Cycle Management Strategy Addendum study (Craig & Rhodes/Storm, 2022) was not included in the exhibited study. Can Council provide acknowledgement that development that occurs in accordance with an endorsed strategy such as the Lowes Creek Maryland study requires no further assessment?

We trust the above responses and requests for clarification address Camden Council's will be reviewed by Council in relation to the exhibited documents. Please contact me directly if you have any questions in relation to the above.

Yours faithfully,

Engineering Manager
BEng (Hons) Dip Eng Prac MIEAust CPEng NER

Craig & Rhodes Pty Ltd

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 6_Attachment 1,2,3&4

The report's other recommendations include:

- Investing in resilience measures, including infrastructure projects to improve disaster resilience and adaptation of individual homes
- Direct subsidies for insurance and/or resilience measures for vulnerable households
- Better building standards, improved land use and planning, and avoiding development in high-risk areas such as flood zones
- Relocating people and buildings if mitigation and adaptation is not an option
- Better information on the impacts of climate change, including a public database with insurance affordability, exposure and vulnerability data
- Consulting closely with First Nations Australians on nature-based solutions to adaptation and mitigation.

Good morning,

As this is a huge document for the average person to understand, I have approached this from the perspective of a long time concerned resident.

Please note the attached document are notes from the NSW Flood Report re the Lismore Floods as reported in the news.

As well, last night I heard the **NSW Premier state "No more building on Flood Plains, it ends now".**

In relation to any development on Flood Plains in the Camden LGA, I don't believe it could be put more succinctly.

The below areas are very confusing and inconclusive.

There are 3 categories of concessional development in 7.3.7

- **Concessional development in the case of commercial and residential (low, medium or high density) development:**
- **Concessional development in the case of other development:**
- **Concessional development in the case of development within the Camden Heritage Conservation Precinct:** a) All Commercial and Industrial, Low, Medium and High-Density Residential developments (as categorised in this policy) located only within the Camden Heritage Conservation Precinct shown in Figure 3 of the Appendix 1.

Lastly, I would like to know how Council intend to clear up and fix the large scale destruction of the river bank and the loss of big healthy trees which were holding the river bank. Along with preservation of any trees and river bank that are in danger of further collapse (see above photos). Many facilities well used by the public are still closed in Camden ie: The Llewellyn Davis Walk Way and the Equestrian Centre to name a few.

No more building on Flood Plains.

Kind regards

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 7_Attachment 1

18th August 2022
General Manager
Camden Council
PO Box 183
CAMDEN NSW 2570

RE: Floodplain Management Exhibition

Thank you for the opportunity to comment on this exhibition. We wish to lodge our concern regarding potential development in flood prone areas of Camden Township, and we object to the inclusion of any wide-ranging concessional development clause for the Camden Heritage Conservation Area. We ask for deletion of the concessional clause for the Camden Heritage Conservation Area, and that any clause in the flood management plans permitting new development in the flood prone areas of the Camden Heritage Conservation Area be removed.

It is unclear from the documents provided what is intended by "concessional" development in Camden Township and the Heritage Conservation Area. While we support any work to preserve historic buildings and places, and minor alterations to enable their adaptive reuse, we cannot support any new development within the more flood prone areas of Camden township. It is clear from the flood studies that all of Edward and Exeter Streets, most of Elizabeth Street, and parts of Mitchell and Argyle Streets, are all highly flood prone (exceeding 5%AEP and including high risk areas). There should not be any new constructions or substantial additions allowed in these areas. We support the recent statements by the NSW State Government that the time for allowing development in flood prone areas should end.

We disagree that "*The Town Centre is a region of active redevelopment*" as stated in section 9.13 of *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek (Final Draft Report) 20 September 2019.* There should be (by definition) limited redevelopment in the Heritage Conservation Area. There have only been a handful of approvals for redevelopment in the Heritage Conservation Area, and we would argue that many of these should not have been approved in any case.

We do not agree that there should be any high-density development in either the Heritage Conservation Area or flood prone areas.

The reason Camden has remained such a remarkably intact and historic rural town is due to the surrounding flood plain, and the flood prone nature of the northern part of the town. This has restricted much of the development in the Edward and Elizabeth Street areas to rural industries, and ensured open fields surround the town on three sides. This is part of Camden's heritage and its history. We have spent many years trying to preserve the historic character of the town and do not want that work undone.

Yours sincerely,

Flood Risk Management Policy

Public Exhibition Submission

3_Submission 8_Attachment 1

FLOOD RISK MANAGEMENT POLICY

P1.0046.x

Table of Contents

PART 1 – POLICY INTRODUCTION

1 BACKGROUND

1.1. The Flood Risk Management Policy (the Policy) establishes flood risk management planning and development procedures for all flood prone land within the Camden Local Government Area (LGA). Flood prone land is land that is susceptible to flooding by the Probable Maximum Flood (PMF) event.

1.2. The Policy has regard to the requirements of the New South Wales Government Floodplain Development Manual (FDM).

Commented [AL1]: I don't believe there is a need to specify versions. I have amended the relevant definition to reflect this.

1.3. The primary method of Flood Risk Management in the Camden LGA is through the floodplain risk management process as outlined in the FDM. The floodplain risk management process guides land use planning and application of development controls on flood prone lands as set out in this policy.

1.4. Camden LGA has two major catchments. They are the Upper South Creek Catchment and the Nepean River Catchment. These catchments drain to South Creek and Nepean River respectively and are shown in Figure 1 of Appendix 1.

1.5. Each of the two catchments are unique in its flood behaviour and so two different approaches have been adopted to account for the differences. Therefore, the Policy includes two separate sections which are specific to each catchment.

1.6. Narellan Creek Catchment is a sub catchment of Nepean River, and Narellan Creek is the major tributary of Nepean River in Camden LGA, as shown in Figure 2 of Appendix 1.

1.7. This Policy replaces the Camden Council Flood Risk Management Policy adopted on 10 April 2006.

2 PURPOSE

2.1. The purpose of this Policy is to ensure the risk to life and property from flooding due to development is minimised in a manner consistent with the NSW Flood Prone Land Policy and the FDM.

2.2. Camden Council (Council) has a duty of care to ensure that the development of flood affected properties is carried out in a reasonable and responsible manner and encourage the use of land which is compatible with the indicated flood hazard.

2.3. The development of an individual property needs to be balanced against the broader community expectations and physical constraints of the land. Council, through the development control process, seeks to manage development on flood prone land that minimises financial loss and personal risk to the community.

3 OBJECTIVE

The specific objectives of the Policy are to:

- Provide a mechanism for the responsible control of development on flood prone land;
- Ensure the safety of people and property from flood risk;
- Provide a detailed and user-friendly guide for flood prone lands for the preparation and assessment of development applications lodged under either the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* or the *Camden Local Environmental Plan 2010* (LEP); and
- To ensure a sustainable and holistic catchment wide approach is taken to development on flood prone land within the Upper South Creek Catchment and the Nepean River Catchment within the Camden LGA.

4 SCOPE

4.1. This Policy applies to all flood prone land in the Upper South Creek Catchment and the Nepean River Catchment within the Camden LGA. The Policy applies to all types of flooding, including mainstream flooding, major drainage and local overland flow paths.

4.2. The Policy applies to flood prone land identified in Council's most up-to-date flood studies and plans including any that are not currently identified on Council's Flood Information Maps.

5 ABBREVIATIONS

AEP	Annual Exceedance Probability
AIDR	Australian Institute for Disaster Resilience
DCP	Development Control Plan
FDM	Floodplain Development Manual
FPL	Flood Planning Levels
FRMP	Floodplain Risk Management Plan
FRMS	Floodplain Risk Management Study
FRMSP	Floodplain Risk Management Study and Plan
LEP	Local Environment Plan
LGA	Local Government Area
m	Metre
m^3	Cubic Metre
m/s	Metres per second
NSW	New South Wales
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
SES	State Emergency Service

Commented [AL2]: These abbreviations should only be included in this table if used in the Policy. I could not locate any reference to FRMP, FRMS or FRMS&P, for example.

6 DEFINITIONS

The following definitions are applicable to this Policy. Additional definitions relating to specific catchments can be found in the corresponding sections.

The following general definitions are only applicable to a catchment if a catchment specific definition has not been determined or not provided in the corresponding sections.

Term	Definition
Annual Exceedance Probability (AEP)	The probability of an event occurring or being exceeded within a year, usually expressed as a percentage. For example, a 1% AEP flood has a 1% or 1 in 100 chance of occurring in any year.
Adverse flood impacts	Adverse flood impacts mean: • Increase in peak flood level • Increase in flood velocity • Increase in peak flows • Increase in hydraulic hazard • Increase in duration of flooding • Increase in duration access is cut • Decrease in warning or evacuation time
Catchment	The area draining to a site. It always relates to a particular location and may include the catchments of tributary streams as well as the mainstream.
Consent authority	The council, government agency or person having the function to determine a development application for land use under the *Environmental Planning and Assessment Act 1979* (EPA Act),.
Design flood	A significant event to be considered in the design process; various works within the floodplain may have different design events e.g., some roads may be designed to be overtopped in the 1% AEP flood event.
Development	The erection of a building or the carrying out of work; or the use of land or of a building or work; or the subdivision of land.
Discharge	The rate of flow of water measured in terms of volume per unit time, for example, cubic metres per second (m^3/s). Discharge is different from the speed or velocity of flow, which is a measure of how fast the water is moving for example, metres per second (m/s).
Effective warning time	The time available after receiving advice of an impending flood and before the floodwaters prevent appropriate flood response actions being undertaken. The

	effective warning time is typically used to move farm equipment, move stock, raise furniture, evacuate people and transport their possessions. In the urban context the effective warning time is typically used to raise or remove valuable goods and equipment and hazardous materials, and to evacuate people.
Emergency management	A range of measures to manage risks to communities and the environment. In the flood context it may include measures to prevent, prepare for, respond to and recover from flooding.
Engineer	A person with an Engineering qualification in an appropriate discipline obtained from a university and included in the National Engineering Register, administered by Engineers Australia.
Farm dam	Refers to above ground basins or informal storage facilities (detention bunds) located in the floodplain that temporarily, or permanently, store water.
Flood	Relatively high stream flow which overtops the natural or artificial banks in any part of a stream or river and/or local overland flooding associated with major drainage before entering a watercourse.
Flood compatible material	Those materials used in building which are resistant to damage when inundated. A list of flood compatible materials is provided in this Policy at Schedule 1 to Appendix 5.
Flood Emergency Management Response Plan (FERP)	A flood response strategy plan describes agreed roles, responsibilities, functions, strategies and management arrangements for all floods, in line with SES Camden Local Flood Plan and as explained in the FDM.
Flood fringe areas	The remaining area of land affected by flooding, after floodway and flood storage areas have been defined.
Flood planning area	The area of land below the FPL and thus subject to flood related development controls.
Flood Planning Levels (FPL)	Are the combinations of flood levels (derived from significant historical flood events or floods of specific AEPs) and freeboards selected for floodplain risk management purposes as determined in floodplain risk management studies and incorporated in floodplain risk management plans.
Flood prone land	Land susceptible to flooding by the PMF event. Flood prone land is synonymous with flood liable land. The term covers the whole of the floodplain.
Flood proofing	A combination of measures incorporated in the design, construction and alteration of individual buildings or structures, subject to flooding, to reduce or eliminate flood damages.
Flood storage areas	Those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood. The extent and behaviour of flood storage areas may change with flood severity, and loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation.

	Hence, it is necessary to investigate a range of flood sizes before defining flood storage areas.
Floodplain	Area of land which is subject to inundation by floods up to and including the PMF event, that is flood prone land.
Floodplain Development Manual	Supports the Flood Prone Land Policy and guides Councils through the floodplain risk management process. The manual, as amended from time to time, helps councils develop and implement local floodplain risk management plans and outlines the technical assistance provided by the NSW Government.
Floodway areas	Those areas where a significant volume of water flows during floods and are often aligned with naturally defined channels. They are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, which may in turn adversely affect other areas. They are often, but not necessarily, areas of deeper flow or areas where higher velocities occur.
Freeboard	A factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. It is usually expressed as the difference between the adopted flood planning level and the flood used to determine the flood planning level. Freeboard provides a factor of safety to compensate for uncertainties in the estimation of flood levels across the floodplain, such as wave action, localised hydraulic behaviour and other effects such as climate change. Freeboard may be included in the flood planning level.
Habitable Floor Area	Residential (low, medium or high density): the floor area of a living or working area, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom.
Hazard	**FDM 2005 Classification** A source of potential harm or a situation with a potential to cause loss. In relation to this Policy the hazard is flooding which has the potential to cause damage to the community. **High Hazard:** Flood conditions that pose a possible danger to personal safety; evacuation by trucks difficult; able-bodied adults would have difficulty wading to safety; potential for significant structural damage to buildings. **Low Hazard:** Flood conditions such that should it be necessary, people and their possessions could be evacuated by trucks; able-bodied adults would have little difficulty wading to safety. **AIDR Classification** Flood hazard for flood events of different scales is classified into 6 categories. These are H1 to H6, which range from least to most hazardous conditions. Categories H1 to H4 are equivalent to low hazard and H4 to H6 equivalent to high hazard in the FDM 2005.

Hazardous Material	Solids, liquids, or gases that can harm people, other living organisms, property, or the environment. These may include materials that are radioactive, flammable, explosive, corrosive, oxidizing, asphyxiating, bio-hazardous, toxic, pathogenic, or allergenic. Also included are physical conditions such as compressed gases and liquids or hot materials, including all goods containing such materials or chemicals, or may have other characteristics that render them hazardous in specific circumstances.
Local drainage	Smaller scale problems in urban area. They are outside the definition of major drainage.
Local overland flooding	Inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.
Mainstream flooding	Inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam. Mainstream flooding generally excludes watercourses constructed with pipes or artificial channels considered as stormwater channels.
Major drainage	Councils have discretion in determining whether urban drainage problems are associated with major or local drainage. For the purposes of this Policy major drainage involves: - the floodplains of original watercourses (which may now be piped, channelised or diverted), or sloping areas where overland flows develop along alternative paths once system capacity is exceeded; and/or - water depths generally in excess of 0.3m in the 1% AEP Event. These conditions may result in danger to personal safety and property damage to both premises and vehicles; and/or - major overland flow paths through developed areas outside of defined drainage reserves; and/or - the potential to affect a number of buildings along the major flow path.
Management plan	A document including, as appropriate, both written and diagrammatic information describing how a particular area of land is to be used and managed to achieve defined objectives. It may also include description and discussion of various issues, special features and values of the area, the specific management measures which are to apply and the means and timing by which the plan will be implemented.
Merit approach	The merit approach weighs social, economic, ecological and cultural impacts of land use options for different flood prone areas. It also considers potential flood damage, hazard and behaviour implications, as well as environmental protection and the well-being of the rivers and floodplains. The merit approach operates at two levels. At the strategic level it allows for the consideration of social, economic, ecological, cultural and flooding issues to determine strategies for the management of future flood risk. At a specific level,

	allowable under the floodplain risk management plan, local flood risk management policy and Environmental Planning Instruments.
Minor additions	An addition or alteration to an existing dwelling (residential / non-residential) of not more than 10% or 30m^2 (whichever is the lesser) of the habitable floor area that comply with the definitions of concessional development.
Non-Habitable Floor Area	Residential (low, medium or high density): Any area that does not classify as Habitable Area. See definition of Habitable Area. Industrial or Commercial: An area other than an area used to store valuable goods, materials and equipment, and hazardous materials susceptible to flood damage in the event of a flood.
Overland Flow	The local runoff, travelling through properties and/or roads, before it discharges into a stream, river, estuary, lake or dam.
Peak discharge	The maximum discharge occurring during a flood event.
Probability	A statistical measure of the expected chance of flooding (see AEP).
Probable Maximum Flood (PMF)	The largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation. 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.
Probable Maximum Precipitation (PMP)	The PMP is the greatest depth of precipitation for a given duration meteorologically possible over a given size storm area at a particular location at a particular time of the year, with no allowance made for long-term climatic trends (World Meteorological Organisation, 1986). It is the primary input to PMF estimation.
Risk	The chance of something happening that will have an impact. It is measured in terms of consequences and likelihood. In the context of the FDM, it is the likelihood of consequences arising from the interaction of floods, communities and the environment.
Runoff	The amount of rainfall that actually ends up as stream or pipe flow, also known as rainfall excess.

7 GENERAL INFORMATION

General flooding information is available via Council's website. This includes access to various documents including this Policy, the FDM, Flood Studies and maps, Frequently Asked Questions (FAQs) and other useful information.

Council also provides specific services regarding flood information for properties which can be obtained online or through the Customer Service Section of Council.

7.1 Section 10.7 Planning Certificates

All Councils have statutory responsibility for land use planning and management under the EPA Act for their LGA. Property information provided on planning certificates issued by Councils under section 10.7 of the EPA Act facilitates awareness of constraints and restrictions on the land.

In areas where Council holds flood related information, the section 10.7 planning certificate shall indicate whether the land is affected by flooding and subject to flood related development controls or not, based on Council's up-to-date flood studies and plans with additional information provided where appropriate.

7.2 Flood Certificates

For further flood related information or restrictions for a property a Flood Certificate can be obtained from Council. This certificate provides a more detailed set of information such as flood levels, FPLs, velocities, depths, hydraulic categories and hazard categories, etc. (subject to information availability).

7.3 Land Use Categories

Different land uses experience different risks from flooding. Consequently, land uses have been grouped into major land use categories based on their sensitivity to flood risks as follows.

7.3.1 Critical Infrastructure

Includes emergency services facilities such as: health services facilities; administration buildings or public administration buildings that may be important for the notification or evacuation of the community during flood events (e.g., SES Headquarters, Police Stations, Ambulance Stations, Evacuation Centres).

7.3.2 Sensitive Uses and Facilities

Includes community facilities that would provide services to sensitive persons such as children and seniors during floods or if inundated would unreasonably affect the ability of the community to return to normal activities after flood events. May include seniors housing; childcare centres; aged care centres; schools; liquid fuel depots; public utilities (including electricity generating works and utility installations).

7.3.3 Precinct Planning and Land Subdivision

Refers to the subdivision of land for the purpose of urban development. This definition also encompasses the subdivision of land in Urban Release Areas

7.3.4 Low Density Residential

Includes dwelling houses, rural workers' dwellings, secondary dwellings, exhibition home, exhibition village, home-based childcare, home business, home industry, home occupation and caravan parks (approved long-term sites).

7.3.5 Medium and High Density Residential

Includes dual occupancies, attached dwellings, boarding houses, multi dwelling housing, residential flat buildings, semi-detached dwellings, shop top housing, hostels, and community facilities.

7.3.6 Commercial and Industrial

Commercial and industrial development is only permitted in areas located outside the floodways mapped as shown at Council's website, www.

7.3.7 Concessional Development

Concessional development is only permitted in areas located outside the floodways mapped as shown at Council's website, www.

Concessional development is listed under following three categories.

Concessional development in the case of commercial and residential (low, medium or high density) development:

- A single habitable addition or alteration only to an existing dwelling of not more than 10% or 30 m^2 (whichever is the lesser) of the habitable floor area which existed at the date of commencement of this policy. No further habitable additions are permitted as concessional development, and further development must comply with the applicable controls for relevant land use categorisation. No additions are permitted, as concessional development, if a one-off addition has been approved under any previous policy; or

where multiple land uses are proposed.

- The construction of a single non-habitable outbuilding only with a maximum floor area of 30 m^2. No further non-habitable outbuildings are permitted as concessional development, further development must comply with the applicable controls for relevant land use categorisation. No additions are permitted if a one-off addition has been approved under any previous policy; or

- Rebuilding a dwelling that substantially reduces the extent of flood affectation to the rebuilt building; and

Concessional development in the case of other development:

- Rebuilding of a development which substantially reduces the extent of flood risks to the rebuilt development; or
- A change of use which does not increase flood risk having regard to property damage and personal safety; and
- A subdivision that does not involve the creation of new allotments with potential for further development.

Concessional development in the case of development within the Camden Heritage Conservation Precinct:

- All Commercial and Industrial, Low, Medium and High-Density Residential developments (as categorised in this Policy) located only within the Camden Heritage Conservation Precinct shown in Figure 3 of Appendix 1.

7.3.8 Rural and Recreation

Reference to the construction of farm sheds and non-habitable outbuildings. Includes animal boarding establishment; agricultural facility; biosolid waste application; biosolids treatment facility; caravan park (with no approved long term sites and no "annuals") short term sites, camping grounds; environmental facility; environmental protection works; information facility; horticulture; kiosk; landscape and garden supplies; recreation area; recreation facility; research station; water recreation structure; water recycling facility and water storage facility and flood mitigation works.

Commented [AL3]: This should be briefly explained.

PART 2 - UPPER SOUTH CREEK: DEVELOPMENT CONTROLS

8 LAND TO WHICH PART 2 APPLIES

Part 2 of this Policy applies to any development for which consent is required that is located on land affected by flooding (flood prone land) within the Upper South Creek Catchment as identified in Council's up-to-date Flood Study/Plan.

Commented [AL4]: Earlier in the Policy this was referred to as 'Council's up-to-date flood studies and plans'. Suggest keeping the terminology consistent throughout.

9 FLOOD MAPPING

Due to ongoing development in this Catchment, flood behaviour will potentially be subject to changes with the development. Accordingly, flood mapping will be reviewed and updated frequently.

Based on Council's future frequent revisions of flood studies and/or flood risk management studies and plans, the flood mapping will be updated at Council's website following the standard floodplain risk management process, including public exhibition of the revised Studies and/or Plans.

9.1 Flood Behaviour (Extents, Levels, Depths and Velocities)

The extent of inundation, flood levels, flood depths and velocities for a range of flood events for the Upper South Creek Catchment mainstream flooding and overland flooding as identified in Council's up-to-date Flood Study/Plan are available at Council's website:

(https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/).

The above information for a specific development is available from Council as part of a flood information report.

9.2 Flood Risk Precincts

The Flood Risk Precincts are determined through the flood risk management process as identified in Council's up-to-date Flood Study/Plan. The Flood Risk Precinct Map defines High, Medium and Low Flood Risk Precincts as well as overland flow paths. The Flood Risk Precincts map can be used to identify the flood risk precinct for individual properties within the Study Area. This map is to be used in the preparation and assessment of development in the Catchment.

The Flood Risk Precinct Map is available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/).

The above information for a specific development is available from Council as part of the flood information report.

9.3 Hydraulic Categories

The hydraulic categories are determined through the flood risk management process as identified in Council's up-to-date Flood Study/Plan. The hydraulic categories map defines floodways, flood storage areas and flood fringe area and is available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/).

This mapping is available from Council as part of the flood information report for a specific development.

9.4 Addressing Climate Change Impacts

Climate change impacts have been assessed. The flood level increases at 1% AEP event are approximately 100mm in average. It is considered that the climate change impacts of flood level increase up to 100mm at 1% AEP can be accommodated in current freeboard.

9.5 Flood Planning Area Mainstream

The FPA for mainstream flooding is determined through the flood risk management process and based on the 1% AEP design flood event as identified in Council's up-to-date Flood Study/Plan.

A freeboard as identified in Council's up-to-date Flood Study/Plan above the 1% AEP flood level applies to mainstream flooding.

The Flood Planning Area Map for Mainstream flooding is available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/).

9.6 Flood Planning Area Overland Flow

The FPA for areas affected by 1% AEP flooding outside the mainstream flooding extent is determined through the flood risk management process as identified in Council's up-to-date Flood Study/Plan.

A freeboard as identified in Council's up-to-date Flood Study/Plan above the 1% AEP flood level applies to the overland flow path.

The FPA Map for Overland Flow is available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/).

10

10.1 The Development Control Matrix

The Development Control Matrix for the Upper South Creek Catchment provides a correlation of the land use categories, applicable controls, and risk management

measures to be followed in the preparation and assessment of development in the Catchment.

The Development Control Matrix and relevant development controls are given in Appendix 2 and available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/

PART 3 – NEPEAN RIVER: DEVELOPMENT CONTROLS

11 LAND TO WHICH PART 3 APPLIES

Part 3 of this Policy applies to any development for which consent is required that is located on land affected by flooding (flood-prone land) within the Nepean River Catchment including its tributaries located within the Camden LGA, as identified in Council's up-to-date Flood Study/Plan.

12 FLOOD MAPPING

12.1 Flood Behaviour (Extents, Levels, Depths and Velocities)

The extent of inundation, flood levels, flood depths and velocities for a range of flood events for the Nepean River Catchment mainstream flooding and overland flooding as identified in Council's up-to-date Flood Study/plan are available at Council's website:

(https://www.camden.nsw.gov.au/environment/flood-information/nepean-river-catchment/)

The above information for a specific development is available from Council as part of the flood information report.

12.2 Hydraulic Categories

The hydraulic categories are determined through the flood risk management process as identified in Council's up-to-date Flood Study/Plan. The hydraulic categories map defines floodways, flood storage areas and flood fringe area.

The Flood Hydraulic Categories Maps are available at Council's website:

(https://www.camden.nsw.gov.au/environment/flood-information/nepean-river-catchment/).

This mapping is available from Council's flood information report for a specific development.

12.3 Flood Risk Precincts Mapping

The Flood Risk Precinct maps for the Nepean River catchment mainstream flooding and overland flow are determined through the flood risk management process as identified in Council's up-to-date Flood Study/Plan.

The Flood Risk Precinct maps are available at Council's website:

(https://www.camden.nsw.gov.au/environment/flood-information/nepean-river-catchment/)

This mapping is available from Council's flood information report for a specific development.

12.4 Addressing Climate Change Impacts

Potential impacts from climate change were assessed by modelling the flood behaviour arising from increase in rainfall intensities through the flood risk management process as identified in Council's up-to-date Flood Study/Plan. The results showed that the Nepean River catchment is prone to large flood level increases as a result of the increased rainfall intensities from climate change. Under the climate change scenario, the flood levels increased by up to and over 1.5m within the catchment.

12.5 Flood Risk Mapping considering Climate change for Zone B

Based on the significance of climate change impacts, the mainstream floodplain up to the 1% AEP has been classified as Zone A and Zone B, as identified in Council's up-to-date Flood Study/Plan.

The extent of Zone A and Zone B are mapped and available at Council's website:

(https://www.camden.nsw.gov.au/environment/flood-information/nepean-river-catchment/)

For Zone A, Flood Risk Precinct maps for current conditions should be used for development. The Flood Risk Precinct maps for current conditions are provided in Council's up-to-date Flood Study / Plan, available at:

(https://www.camden.nsw.gov.au/environment/flood-information/nepean-river-catchment/).

For Zone B, climate change should be considered in development using Flood Risk Precinct maps for the climate change scenario as provided in Council's up-to-date Flood Study/Plan, available at:

(https://www.camden.nsw.gov.au/environment/flood-information/nepean-river-catchment/)

This mapping is available from Council's flood information report for a specific development.

12.6 Flood Planning Area Mainstream

The FPA for mainstream flooding is determined through the flood risk management process and based on the 1% AEP event as identified in Council's up-to-date Flood Study/Plan.

The FPA Maps for Mainstream flooding are available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/).

A freeboard as identified in Council's up-to-date Flood Study/Plan above the 1% AEP flood level applies to mainstream flooding.

For Zone A, a freeboard as identified in Council's up-to-date Flood Study/Plan above the 1% AEP flood level applies to mainstream flooding.

For Zone B, a freeboard as identified in Council's up-to-date Flood Study/Plan above the climate change 1% AEP flood level applies to mainstream flooding.

12.7 Flood Planning Area Overland Flow

The FPA for areas affected by 1% AEP flooding outside the mainstream flooding extent is determined through the flood risk management process as identified in Council's up-to-date Flood Study/Plan.

A freeboard as identified in Council's up-to-date Flood Study/Plan above the 1% AEP flood level applies for the overland flow paths in High Flood Risk Precinct.

The FPA Maps for Overland Flow are available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/).

13 FLOOD RISK MANAGEMENT DEVELOPMENT CONTROLS

The Development Control Matrix

The Development Control Matrix for the Nepean River Catchment including Narellan Creek provides a correlation of the land use categories, applicable controls, and risk management measures to be followed in the preparation and assessment of development in the Catchment.

The Development Control Matrix and relevant development controls are given in Appendix 3 and available at Council's website:

https://www.camden.nsw.gov.au/environment/flood-information/upper-sout-creek/

APPENDICES

APPENDIX 1 – FIGURES

Figures 1, 2 and 3 are available at Council's website: www.

Commented [AL5]: Web link to be updated.

APPENDIX 2 – UPPER SOUTH CREEK DEVELOPMENT CONTROLS

1 FLOOD RISK MANAGEMENT DEVELOPMENT CONTROLS

1.1 Floodplain Development Control Matrix

The Floodplain Development Control Matrix for Upper South Creek given in Matrix 1, below, provides a correlation of the land use categories, applicable controls, and risk management measures to be followed in the preparation and assessment of development in the Catchment. The numbers in the matrix refer to those included in the Development Controls below.

Freeboard

Freeboard means 500 mm above the 1% AEP flood level for the mainstream Low to High Flood Risk Precincts and 300 mm for the Overland Flow Precinct.

Development Controls

Floor Levels

1) FPL for habitable floor levels is the 1% AEP flood level plus freeboard.
2) FPL for non-habitable floor levels is the 1% AEP flood level with no freeboard.
3) FPL for sensitive uses is the PMF flood level with no freeboard.
4) Where garages, sheds and minor additions are proposed, floor levels lower than the above FPLs may be considered in cases that comply with the definitions of concessional development. The highest practical floor level is to be designed in all cases, except in the case of minor additions where the existing floor level is to be maintained at a minimum.

Building components

1) Any part of a building, services, foundations and/or sub-structure located below the applicable FPL is to be constructed of flood compatible materials.
2) Parts of a structure/building and its services, foundations and/or sub-structure are to be constructed of flood compatible materials below the 1% AEP flood level.
3) All parts of a sensitive uses building are to be constructed of flood compatible materials below the level of the PMF.

Note: Refer to Schedule 1 of Appendix 5 for flood compatible materials. Schedule 2 of Appendix 5, concerning electrical and mechanical equipment installations, applies to all buildings.

1.2.3 Structural Soundness

1) A structural engineering report is to be provided to ensure the structures can withstand floodwater forces including debris and buoyancy up to the 1% AEP plus freeboard or the PMF whichever is higher, where a flood refuge or evacuation access is proposed.

2) Applicant to demonstrate that the structure can withstand floodwater forces including debris and buoyancy up to the 1% AEP plus freeboard. An engineer's report will be required.

3) Applicant to demonstrate that the structure can withstand floodwater forces including debris and buoyancy up to the PMF. An engineer's report will be required.

1.2.4 Flood Affectation

1) Engineering report required to certify that development will not increase flood affectation elsewhere, having regard to: a) loss of flood storage; b) changes in flood levels, flows and velocities upstream, downstream and adjacent to the site; c) cumulative impact of multiple development in the vicinity; and d) negligible impact to flood hazard. A flood impact and risk assessment report is to be prepared based on flood modelling, where precinct developments are proposed or where subdivisions increase the intensity of land use in the floodplain.

2) No importation of fill within any part of the 1% AEP floodplain. Floodplain filling is only permitted in the 1% AEP floodplain fringe, and flood storage with zero net filling, where flood modelling is conducted to demonstrate there is no adverse flood impacts elsewhere / off site.

3) The flood impact of the development is to be considered having regard to: a) loss of flood storage; b) changes in flood levels, flows and velocities upstream, downstream and adjacent to the site; c) cumulative impact of multiple development in the vicinity; and d) negligible impact to flood hazard as a result of development. A flood impact and risk assessment report is to be prepared based on flood modelling.

4) Removal of farm dams is only permitted where the removal does not cause adverse flood impacts off-site. Demonstration of no adverse impacts to flood levels, peak flows, flood velocity and redirection of flow is required by flood modelling. This applies for single lots greater than 10 hectares or single lots of all sizes where multiple single lot developments are proposed.

Note: For the above controls 1 to 4, it is required to use Council's 1D/2D Upper South Creek Regional Flood Model and User Guide prepared as part of Council's up-to-date flood studies / plans. The Regional Flood Model and User Guide are to be provided by Council. The User Guide facilitates the assessment of flood impacts and risk of the development. The flood impact and risk assessment report is to be prepared by an engineer.

1.2.5 Emergency Management

1) Appropriate methods of reaching safety from flood waters during the PMF are to be demonstrated for habitable buildings in accordance with the Local Flood Plan or SES flood emergency management plan for the area. An engineer's report will be required.

2) Engineer's report is to be provided in accordance with Local Flood Plan or SES flood emergency management plan for the area demonstrating that permanent, failsafe, maintenance free measures are incorporated into the development so the occupants can either take refuge or evacuate from floodwaters in the case of events up to the PMF. A report is to be prepared by a suitably qualified engineer having regard to safe warning time, rate of rise and safe velocity and depth thresholds for evacuation by pedestrians and vehicles where evacuation is proposed.

3) A FERP is to be developed by the business director/manager, in conjunction with Council and the SES, with adequate documentation (signs) of the plan to be displayed around the premises. The FERP is to be updated every 2 years.

4) If the property is affected by the 1% AEP flood level, reliable access to a flood free refuge is to be provided for pedestrians and vehicles.

1.2.6 Car Parking

1) Where basement car parking is proposed, the entry level is to be the 1% AEP plus freeboard or the PMF whichever is higher.

2) Where basement car parking is proposed, the entry level is to be the 1% AEP plus freeboard. If the level of the PMF is higher than the proposed entry level, a FREP is to be provided to manage flood risk in the car park.

3) Above ground car parks and garages are to be at a minimum level of 150mm below the 1% AEP flood level.

4) Above ground car parking including carports are to be at the highest level practical and not more than 300mm below the 1% AEP flood level. Enclosed garages are to be at the highest level practical and not more than 300mm below the 1% AEP.

1.2.7 Management and Design

1) Provision of adequate emergency response information and advice to residents, employees, attendants, guests and /or visitors.

2) Applicant to demonstrate that potential development as a consequence of the subdivision can be undertaken in accordance with Council's Flood Risk Management Policy.

3) Applicant to demonstrate that storage is available for goods above the 1% AEP level plus freeboard.

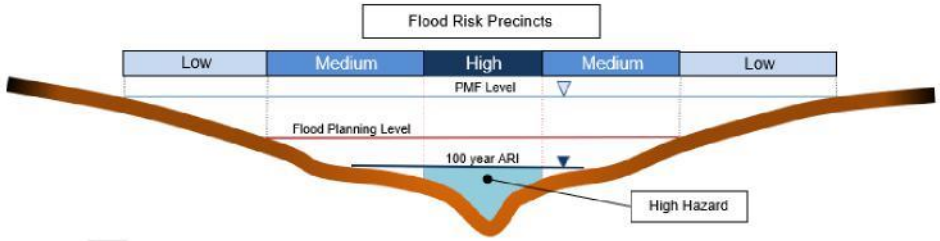
4) Applicant to demonstrate that storage is available for goods above the level of the PMF.

All development must provide for suitable storage of valuable goods, and goods susceptible to flood damage, above the FPL. This can be on or off site. Where storage is proposed off site, it must be demonstrated that relocation of valuable goods can be realistically achieved in the lead up to and during flood events with reference to the amount of warning time prior to floods, availability of flood free routes of travel and methods of transport required.

Matrix 1- Upper South Creek Development Control Matrix

	Flood Risk Precincts																													
	High Flood Risk								Medium Flood Risk								Low Flood Risk								Overland Flow					
	Critical Infrastructure and Facilities	Sensitive Uses and Facilities	Land Subdivision	Low Density Residential	Medium to High Density Residential	Commercial and Industrial Uses	Concessional Development	Rural & Recreation	Critical Infrastructure	Sensitive Uses and Facilities	Land Subdivision	Low Density Residential	Medium to High Density Res.	Commercial and Industrial Uses	Concessional Development	Rural & Recreation	Critical Infrastructure	Sensitive Uses and Facilities	Land Subdivision	Low Density Residential	Medium to High Density Res.	Commercial and Industrial	Concessional Development	Rural & Recreation	Critical Infrastructure and Facilities	Sensitive Uses and Facilities	Land Subdivision	Low Density Residential	Medium to High Density Residential	Commercial and Industrial Uses	Concessional Development	Rural & Recreation
Floor Level								1,2				1,2	1,2	2	1, 4	1,2		3										1,2	1,2	1,2	4	1,2
Building Components								2				1	1	1	2	2		3										1	1	1	2	2
Structural Soundness								1				2	1	1	2	2		3										2	1	1	2	2
Flood Affectation								1, 4			1,2, 4	2, 3,4	1,2, 4	1,2, 4	2,3	2, 3,4		3	1			3	3	3			1,2, 4	2, 3,4	1,2, 4	1,2, 4	2,3	2, 3,4
Emergency Management								1,4			2,4	1,4	2,4	2,3	1,4	1,4		1	1,2			1,3	1	1,3			1	1,4	2,4	2,3, 4	1,4	1,4
Car Parking								2,3				3	1,3	1,3	2,4	2,3		2				2	2	2				3	2,3	2,3	2,4	2,3
Management & Design								1			2		1	1,3, 5	1	1		1,4				1,3, 5	1	1			2		1	1,3, 5	1	1

Colour Legend
- Unsuitable land use- requires performance based assessment
- No Controls
- 1,2 Flood related controls apply



APPENDIX 3 – NEPEAN RIVER DEVELOPMENT CONTROLS

1 FLOODPLAIN RISK MANAGEMENT DEVELOPMENT CONTROLS

1.1 Floodplain Development Controls Matrix

The Floodplain Development Control Matrix provides a correlation of the land use categories, applicable controls and risk management measures to be followed in the preparation and assessment of development in the Nepean River catchment and its tributaries. The numbers in the matrix refer to the requirements listed in the Development Controls below.

The Floodplain Development Controls Matrix for mainstream and the Floodplain Development Controls Matrix for overland flow are given in Matrix 2 and Matrix 3, below, respectively.

1.2 Flood Planning Level

For Zone A and Zone B:

Mainstream flooding - A freeboard of 500mm above the 1% AEP flood level applies to mainstream flooding Low to High Flood Risk Precincts.

Overland Flow Paths - A freeboard of 500mm above the 1% AEP flood level applies for the overland flow paths in High Flood Risk Precincts.

For Zone B (Greenfield Developments):

Mainstream flooding - A freeboard of 500mm above the climate change 1% AEP flood level (i.e., 1% AEP level plus 10% rainfall increase) applies to mainstream flooding Low to High Flood Risk Precincts, using Flood Risk Precinct maps for the climate change scenario.

Overland Flow Paths - A freeboard of 500mm above the 1% AEP flood level applies for the overland flow paths in the High Flood Risk Precincts.

1.3 Development Controls

1.3.1 Floor Levels

1) Habitable floor levels are to be no lower than the applicable FPL.
2) Non-habitable floor levels are to be no lower than the applicable 1% AEP flood level with no freeboard.
3) Habitable floor levels are no lower than the PMF level with no freeboard.
4) Where garages, sheds and minor additions are proposed, floor levels lower than the above (1.3.1. 1 and 2) may be considered in cases that comply with the definitions of concessional development. The highest practical floor level is to be designed in all cases, except in the case of minor additions where the existing floor level is to be maintained at a minimum.

1) If the development proposes the retention of an existing commercial, industrial or residential building in the Camden Heritage Conservation Precinct, for this development, non-habitable floor levels are to be no lower than the applicable 1% AEP flood level with no freeboard. Where this is not possible, floor levels should be as high as practical with consideration of the environs / adjacent development. The non-habitable floor levels are to be no lower than the floor level of the existing structure. The applicant must demonstrate why a non-habitable floor level at or higher than the 1% AEP floor level cannot be achieved.

2) Non-habitable floor levels are to be at the applicable 1% AEP flood level with no freeboard. Where this is not possible, floor levels should be as high as practical with consideration of the environs / adjacent development. The applicant must demonstrate why a non-habitable floor level at or higher than the 1% AEP floor level cannot be achieved.

1.3.2 Building Components

1) Any part of a building, services, foundations and/or sub-structure located below the applicable FPL is to be constructed of flood compatible materials.

2) All parts of a sensitive uses building are to be constructed of flood compatible materials below the level of the PMF.

Note: Refer to Schedule 1 of Appendix 5 for flood compatible materials. Schedule 2 of Appendix 5, concerning electrical and mechanical equipment installations, applies to all buildings.

1.3.3 Structural Soundness

1) A structural engineering report is to be provided that demonstrates the structure(s) can withstand floodwater forces including debris and buoyancy up to the applicable FPL.

2) Applicant to demonstrate that the structure can withstand floodwater forces including debris and buoyancy up to the applicable FPL. An engineer's report will be required.

3) A structural engineering report is to be provided that demonstrates the structure(s) can withstand floodwater forces including debris and buoyancy up to the PMF.

1.3.4 Flood Affectation

An engineering report is to be submitted that demonstrates that development is outside the floodway and will not increase the flood affectation outside of the development site, having regard to: a) loss of flood storage; b) any significant changes in flood levels, peak flows and velocities upstream, downstream and adjacent to the site; and c) any significant impacts on flood hazards.

Consideration should be also given to the cumulative impact of multiple developments in the vicinity if applicable.

In addition, compensatory flood storage for any loss of flood storage is to be provided in a flood storage area.

A site-specific flood impact and risk assessment report must be prepared using either the appropriate Council flood model for the relevant catchment, or an alternative proposed 2D model, agreed with the Council.

1) The development must be outside the floodway and flood impact of the development is to be considered having regard to: a) loss of flood storage; b) any significant changes in flood levels, peak flows and velocities upstream, downstream and adjacent to the site; and c) any significant impacts on flood hazards.

In addition, compensatory flood storage for any loss of flood storage is to be provided in a flood storage area.

An engineering report on flood impact and risk assessment is to be submitted.

1.3.5 Emergency Management

1) Appropriate methods of reaching safety from floodwaters during the PMF are to be demonstrated with reference to the emergency management strategy for the wider Nepean River floodplain. An engineer's report is required.

2) A FERP is to be developed by the business director/manager or property owner/manager, with consideration of the SES Camden Local Flood Plan and the emergency management strategy for the wider Nepean River floodplain. The FERP is to be updated every 2 years. The FERP is to be supported by signage which describes how to respond to a flood, and which is displayed prominently around the premises.

3) Council may consider the impacts of cumulative increases in the number of persons at risk as a result of the development and the impact this may have on evacuation capacity. An assessment of the impact of the evacuation capacity may be required to ensure that the additional persons on the site as a result of the development are able to be appropriately and safely evacuated during floods.

1.3.6 Car Parking

1) Where basement car parking is proposed, the entry crest level is to be no lower than the applicable FPL. If the level of the PMF is higher than the proposed entry crest level, a FERP is to be provided that demonstrates how flood risk in the car park will be managed.

2) The level of above-ground car parking and of garages are to be no lower than 150mm below the applicable 1% AEP flood level.

3) In cases where Requirement 2 is not achievable, above-ground car parking including carports and garages are to be set at the highest level practical. The exit from the car park should be located at the highest access point on the site boundary.

4) Above-ground car parking including carports and garages are to be set at the highest level practical.

1.3.7 Management and Design

1) Adequate emergency response information and advice is to be provided to residents, employees, attendants, guests and /or visitors at all times.

2) Applicant to demonstrate that any development resulting from a subdivision can be undertaken in accordance with Camden Council's Flood Risk Management Policy.

3) Applicant to demonstrate that hazardous storage is available for goods above the applicable FPL.

4) Applicant to demonstrate that hazardous and emergency storage is available for goods above the level of the PMF.

5) Ground levels for new release subdivisions should be higher than the applicable 1% AEP flood level. A flood impact assessment is to be submitted that demonstrates that any flood impacts on any adjoining properties are negligible.

6) Floodplain mapping is to be updated for the precinct development in the form of flood extents, flood levels, flood depths, flood velocities, provisional hazards, hydraulic categories and the extents of the flood planning area. Flood risk precincts are to be amended to reflect the development scenario using the same method as was used to delineate the flood risk precincts.

7) If the land subdivision changes from precinct planning, floodplain mapping is to be updated for the precinct development in the form of flood extents, flood levels, flood depths, flood velocities, provisional hazards, hydraulic categories and the extent of the flood planning area. Flood risk precincts are to be amended to reflect the development scenario using the same method as was used to delineate the flood risk precincts.

8) All development must provide for suitable storage of valuable goods, and goods susceptible to flood damage, above the FPL. This can be on or off site. Where storage is proposed off site, it must be demonstrated that relocation of valuable goods can be realistically achieved in the lead up to and during flood events with reference to the amount of warning time prior to floods, availability of flood free routes of travel and methods of transport required.

Matrix 2 - Nepean River Catchment - Mainstream Flooding

Floodplain Development Controls Matrix Mainstream Flooding		Floor Level	Building Components	Structural Soundness	Flood Affectation	Emergency Management	Car Parking	Management & Design
Flood Risk Precincts – High Flood Risk	Critical Infrastructure and Facilities							
	Sensitive Uses and Facilities							
	Precinct Planning & Land Subdivision							
	Low Density Residential							
	Medium and High Density Residential							
	Commercial and Industrial Uses							
	Concessional Development	1,4,5	1	1	1	1,2,3	1,4	1,3
	Rural & Recreation	1,6	1	1	1	1	1,4	1,3
Flood Risk Precincts – Medium Flood Risk	Critical Infrastructure							
	Sensitive Uses and Facilities							
	Precinct Planning & Land Subdivision				1	1,3		2,5,6,7
	Low Density Residential	1,2	1	1	2	1	1,2,3	
	Medium and High Density Residential	1,2	1	1	1	1,2	1,2,3	1
	Commercial and Industrial Uses	2	1	1	1	1,2,3	1,2,3	1,3,8
	Concessional Development	1,4,5	1	1	2	1,2,3	1,4	1, 3
	Rural & Recreation	1,6	1	2	2	1,2	1,4	1,3
Flood Risk Precincts – Low Flood Risk	Critical Infrastructure							
	Sensitive Uses and Facilities	3	2	3	2	1	1	1,4
	Precinct Planning & Land Subdivision				1	1		2,6,7
	Low Density Residential					1		
	Medium and High Density Residential					1, 2		1
	Commercial and Industrial					1,2,3	1	1, 8
	Concessional Development					1,2,3		1
	Rural & Recreation					1,2	1	1

Colour Legend

- Unsuitable land use
- No Controls
- 1,2 Flood related controls apply
- Engineers report may not be required
- Based on development type excluding low density residential

Matrix 3 – Nepean River Catchment - Overland Flow

Floodplain Development Controls Matrix Overland Flooding			Floor Level	Building Components	Structural Soundness	Flood Affectation	Emergency Management	Car Parking	Management & Design
Flood Risk Precincts	High Flood Risk	Critical Infrastructure and Facilities							
		Sensitive Uses and Facilities							
		Precinct Planning & Land Subdivision							
		Low Density Residential							
		Medium and High Density Residential							
		Commercial and Industrial Uses							
		Concessional Development	1,4,5	1	1	1	1,2	1,4	1,3
		Rural & Recreation	1,6	1	1	1	1	1,4	1,3
	Low Flood Risk	Critical Infrastructure							
		Sensitive Uses and Facilities							
		Precinct Planning & Land Subdivision				1	1,3		2,5,6,7
		Low Density Residential	1,2	1	1	2	1	1,2,3	
		Medium and High Density Residential	1,2	1	1	1	1,2	1,2,3	1
		Commercial and Industrial Uses	2	1	1	1	1,2,3	1,2,3	1,3, 8
		Concessional Development	1,4,5	1	1	2	1,2	1,4	1,3
		Rural & Recreation	1,6	1	2	2	1,2	1,4	1,3

Colour Legend

- Unsuitable land use
- No Controls
- 1,2 — Flood related controls apply
- Engineers report may not be required
- Based on development type excluding low density residential

APPENDIX 4 – GENERAL NOTES

1. FENCING

All fencing on land below the 1% AEP flood level must be of a form that:

- does not result in the undesirable obstruction of the free flow of floodwaters; and
- does not become unsafe during floods and potentially become moving debris which threatens the integrity of structures or the safety of people.

No fencing will be allowed across, over or through watercourses, drainage easements and overland flow paths.

2. ON-SITE SEWAGE MANAGEMENT

On sites where required, on-site sewage management systems must be installed and operated to comply with Council's Sewage Management Policy. A copy of the Sewage Management Policy is available on Council's web site.

Council has prescribed performance standards when determining applications for approval to install, construct, alter or operate sewage management systems. The *Local Government (General) Regulation 2021* specifies the minimum standards.

No portion of the sewage management system (i.e., treatment tanks, electrical pumps etc.) is permitted to be below the 1% AEP flood level. No portion of the irrigation area, absorption or evapo-transpiration area is permitted to be located below the 5% AEP flood level or within 100 metres of a permanent water course (river, stream, lake) or 40 metres of other waters (farm dams, intermittent waterways and drainage channels).

APPENDIX 5 – SCHEDULES

SCHEDULE 1 – FLOOD COMPATIBLE MATERIALS

To prevent or minimise structural damage from flooding, developments should be designed to withstand inundation, debris and buoyancy forces. Particular methods of construction and certain types of materials are better able to withstand inundation better than others. Suggested flood compatible materials are provided in this schedule.

Building Component	Flood Compatible Material
Flooring and Sub-Floor Structure	• Pier and beam constructions; • Suspended reinforced concrete slab.
Floor Coverings	• Clay tiles; • Concrete, precast or insitu; • Epoxy, formed in place; • Mastic flooring, formed in place; • Silicone floors formed in place; • Vinyl sheets or tiles with chemical set adhesives; • Ceramic tiles, fixed with mortar or chemical set adhesive; • Asphalt tiles, fixed with water resistant adhesive; • Removable rubber backed carpet.
Doors	• Solid panel with water proof adhesives; • Flush door with marine ply filled with closed cell foam; • Painted metal constriction; • Aluminium or galvanised steel frame.
Wall and Ceiling Linings	• Brick, face or glazed; • Clay tile glazed in waterproof mortar; • Concrete; • Concrete block; • Steel and 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.
Windows	• Aluminium frame with stainless steel rollers or similar corrosion and water resistant material.
Insulation	• Foam, closed cell types.
Nails, Bolts, Hinges and Fittings	• Galvanised, stainless steel, brass, nylon; • Removable pin hinges.

SCHEDULE 2 - REQUIREMENTS FOR ELECTRICAL AND MECHANICAL EQUIPMENT / HEATING AND AIR CONDITIONING

Special consideration should be given to the design and siting of electrical and mechanical equipment installations in all cases of development on flood prone land. All electrical installations must comply with the requirements noted in the relevant development control matrix, and of the utility service provider, e.g., Endeavour Energy. Further guidelines are provided in the table below. All electrical equipment is required to be at or above the FPL.

Commented (AL6]: Just wondering whether we need to name a specific provider? If not, I propose the reference be deleted.

Type	Requirements
Electrical and Mechanical Equipment	For dwelling constructed on land to which this Policy applies, the electrical and mechanical materials, equipment and installation should conform to the following requirements.
Heating and Air Conditioning System	Heating and air conditioning systems should, to the maximum extent possible, be installed in areas and spaces above the flood planning level. When this not is feasible, every precaution should be taken to minimise the damage caused by submersion according to the following guidelines.
Main Power Supply	Subject to the approval of the relevant authority, incoming electricity mains, service equipment and meters must be located at or above the flood planning level. Means must be available to easily disconnect the building from the main power supply.
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.
Wiring	All wiring, power outlets, switches, etc, should, to the maximum extent possible, be located 1m above the flood planning level. All electrical wiring installed below the flood planning level should be suitable for continuous submergence in water and should contain no fibrous components. Only submersible type splices should be used below the flood planning level. All conduits located below the relevant flood planning level should be installed so that they will be self-draining if subject to flooding.
Installation	The heating equipment and fuel storage tanks should be mounted on 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 an elevation above the flood planning level.
Equipment	All equipment installed below or partially below the flood planning level should be capable of disconnection by a single plug and socket assembly.
Ducting	All ducting located below the flood planning level should be provided with openings for drainage and cleaning. Self-draining may be achieved by constructing the ducting on a suitable grade. Where ducting must pass through a watertight wall or floor below the flood planning level, the ducting

Commented (AL7]: Rephrase this.

	should be protected by a closure assembly operated from above the flood planning level.
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.
Services	The provision of and connection to all public utility services must comply with the requirements of the relevant service authority.

APPENDIX 6 – SUPPORTING DOCUMENTS

The following documents have been referred to in this policy document:

Supporting Documents	Access Link
Floodplain Development Manual: The management of flood liable land, NSW Government, April 2005 or applicable version	Click Here
Australian Rainfall and Runoff, Institution of Engineers, Australia, 1987	
Australian Rainfall and Runoff, 2019	Click Here
Australian Disaster Resilience Handbook 7, Australian Institute of Disaster Resilience	Click Here
Camden Local Environmental Plan 2010	Click Here
State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (SEPP)	Click Here
Camden Development Control Plan, Camden Council, 2019	Click Here
The Camden Growth Areas Development Control Plan	
Upper South Creek Floodplain Risk Management Study and Plan, Cardno, 2019	Click Here
Review of Upper South Creek Flood Study in the Context of Ongoing Development, WMA Water, 2022	
Nepean River Floodplain Risk Management Study and Plan including Narellan Creek, Cardno, 2020	
Narellan Creek Flood Study, Public Works, 2017	
Camden Local Flood Plan	Click Here

Commented (AL8]: Please list these in alphabetical order.

Commented (AL9]: I couldn't see where the Australian Rainfall and Runoff documents were referenced. If these and any other documents were not referenced, consider whether they need to be included here, and if they do, perhaps the first sentence on the page should be revised accordingly.

* * *

RELEVANT LEGISLATIVE INSTRUMENTS:	*Local Government Act 1993* *Local Government (General) Regulation 2021* *Camden Local Environmental Plan 2010* *Environmental Planning and Assessment Act 1979* *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*
RELATED POLICIES, PLANS AND PROCEDURES:	NSW Floodplain Development Manual NSW Flood Prone Land Policy
RESPONSIBLE DIRECTOR:	Community Assets
APPROVAL:	Council

Commented [AL10]: Please list the instruments in alphabetical order.

HISTORY:

Version	Approved by	Changes made	Date	EDMS Number
1	Approved by Council ORD88/06	Original Version	10/04/2006	15/220972
2	Council/ELG	TBC	TBC	

Flood Risk Management Policy

Public Exhibition Submission

3_Submission 9_Attachment 1

MARYLAND
ESTATE DEVELOPMENTS

19 August 2022

Shop 406, 326 Camden Valley Way, Narellan NSW 2567 | PO Box 1010 Narellan, NSW 2567 | T: 02 9098 5710 E: info@marylandestate.com.au

The General Manager
Camden Council
70 Central Avenue
Oran Park, NSW 2570

By email: mail@camden.nsw.gov.au
floodplains@camden.nsw.gov.au

Att: Floodplain Management Team

Re: Floodplain Risk Management Plans & Policy

Dear Team Member,

Thank you for the opportunity to provide comments on the updated Flood Risk Management studies and Policy. This submission is made by Maryland Estate Developments on behalf of Maryland Pastoral Partnership, the owners of the Maryland site. The Maryland site is located within the [owes Creek Maryland Precinct.

Our key concern is that these documents do not reference/recognise the Council approved [owes Creek Maryland Precinct Watercycle Management Strategy Report (Addendum) prepared by Storm/Craig & Rhodes. Without this, it could be interpreted that there is a requirement to submit further strategy assessments. This would undermine the significant collaboration and agreement that has already been undertaken with Council on this issue.

As a result, we request that the Flood Risk Management studies, particularly the Upper South Creek Flood Study, and Policy is changed to reference/recognise the approved [owes Creek Maryland Precinct Watercycle Management Strategy Report (Addendum) prepared by Storm/Craig & Rhodes.

Background

The [owes Creek Maryland Precinct was rezoned in July 2021 and is located within the Upper South Creek Flood Study area. Supporting documentation for the rezoning included a Water Cycle Management Plan for the [owes Creek Maryland Precinct dated 26 September 2018 undertaken by Cardno. Following discussions with Council on this document, it was agreed to model and submit an addendum report incorporating the user guidelines into the Upper South Creek model contained by Council. This was undertaken by Storm/Craig & Rhodes and resulted in Council approving the [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum). Due to the detailed input and outcomes from this modelling exercise, it is our understanding that it was agreed with Council that no further

strategy assessment is required. Further, that the minor design flood events not covered in the Addendum could be dealt with at DA stage.

Flood Risk Management Policy P1.0046.x
The comment "Councils most up-to-date flood studies and plans" is made several times throughout the Policy. This includes approved strategies such as the [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum). As a result, this report and others should be referenced/recognised in the Policy or at a minimum a date provided so it is clear what reports are included in "Councils most up-to-date flood studies and plans".

Part 1 Section 7.1 provides details on Section 10.7 Planning Certificates, however, it does not provide any guidance on the flood level required on land before it appears on a planning certificate. We request that Council confirm this level.

In Part 1 Section 7.3.6 and 7.3.7 the Policy refers to mapped floodways. The approved [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum) alters this mapping. Without referencing/recognising this, the Policy will prevent the development of rezoned land. The Policy should account for changes in floodways mapped due to the approved Addendum.

Part 2 Section 2.4 refers to "Addressing Climate Change Impacts". We request that Council confirm that no design changes are required to approved strategies.

Appendix 2 Upper South Creek Development Controls - Item 1.2.4 & 1.2.5 sets out the following development controls:

- an engineering report or flood impact and risk assessment report is required to certify that development will not increase flood affectation elsewhere and show compliance with the [ocal Flood Plan or SES flood emergency management for the area.
- no importation of fill is permissible within any part of 1% AEP floodplain
- the removal of farm dams is not permissible without demonstrating no adverse impacts to flooding

Without referencing/recognising the approved [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum), the Policy requires:

- further strategy assessment on our land,
- prevents the importation of fill required to develop our land in accordance with the rezoning
- prevents the removal of farm dams on our site unless further assessments are undertaken.

The approved Addendum has addressed these issues. The Policy should reference/recognise this Addendum to prevent the above requirements and acknowledge our understanding of the agreement with Council that no further strategy assessment is required.

Review of the Upper South Creek Flooding Study in the Context of Ongoing Development (Draft Report)

It is recognised that the Flooding Study needs to establish a baseline and according to the study this is site topography in the study area as at November 2018. As a result, no other Flooding Study approved by Council since this date has been referenced in this document. This includes the approved Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum) prepared by Storm/Craig & Rhodes. It is critical that the Upper South Creek Flooding Study references/recognises this Addendum as it validates it and gives it status within Council. Further, this provides a cross-reference for the Policy to define the statement "up-to-date flood studies and plans".

Should you require clarification on any of the above or further information, please do not hesitate to contact the undersigned.

Yours sincerely

Maryland Estate Developments

Senior Development Manager

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 10_Attachment 1

Narellan. 2567

To Whom it may concern,

I believe that Camden Council needs to postpone finalising and adopting floodplain risk management policies and plans until the plans regarding Warragamba Dam are finalised and can be taken into consideration.

Yours Faithfully,

21.8.22

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 11_Attachment 1

SUBMISSION FORM - Nepean River Floodplain Risk Management Study and Plan Form Submission

There has been a submission of the form SUBMISSION FORM - Nepean River Floodplain Risk Management Study and Plan through your Your Voice Camden website.

What is the nature of your submission?
Object

Use this space to record your submission:
I would like to lodge my submission in objection to:
Concessional development in the case of development within the Camden Heritage Conservation Precinct:

a) All Commercial and Industrial, Low, Medium and High-Density Residential developments (as categorised in this policy) located only within the Camden

Heritage Conservation Precinct shown in Figure 3 of the Appendix 1.
this concessional clause at 7.3.7 (pp. 10-11) of the Policy should be deleted.

Are you making a submission on behalf of a public agency, organisation or community group?
No

First Name

Last Name

Phone:

Street Address:

Postal Address:

To view all of this form's submissions, visit https://yourvoice.camden.nsw.gov.au/index.php/dashboard/reports/forms_new/data/130

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 12_Attachment 1

Narellan. 2567

To Whom it may concern,

I believe that Camden Council needs to postpone finalising and adopting floodplain risk management policies and plans because it is vital that such an important Australian heritage area such as Camden should be protected from inappropriate development.

Heritage that is not valued is lost forever. We are indebted to future generations to ensure that Australia's history is preserved.

More consultation re heritage is needed.

Yours Faithfully,

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 13_Attachment 1

General Manager,
Camden Council
70 Central Avenue,
Oran Park NSW 2570

Re: Flood Risk Management Policy

Thank you for the opportunity to comment on the proposed Flood Risk Management Policy and associated documents. I live in South Camden, so observations and comments are limited to the Nepean River Catchment.

The association of a concessional area with the Camden Town Centre Heritage Conservation Area (HCA) is puzzling. The HCA boundaries are not related to flooding, nor do all parts of the HCA have the same flood risk. Some parts of the HCA are above the PMF, others are below all AEPs, and some are floodways. The NSW Flood Manual explicitly states there should be no new development below the 1% AEP. Perhaps the concession should be changed to areas above the 5% AEP or deleted for consistency with the NSW Flood Manual.

The Camden Town Centre Conservation Area is not a place of active redevelopment. Over recent years only a handful of development consents permit demolition and reconstruction. Most of the approved work is yet to start. The major development is on the old high school site. Despite their current zoning, most of the outlying buildings are residences.

Granting concessional status to the HCA but not other similar areas creates an equity issue and a perception of bias. Why is the HCA different from other areas like Little St or Pindari Ave?

Deleting the HCA concessional development clause would not sterilise the area as the remaining concessions still allow redevelopment. In addition, the Camden Local Environment Plan (CLEP) mandates a 7m height limit for large areas of the HCA. The Camden Local Planning Panel noted technical problems with the flood policy and the CLEP in the minutes of their 15 March 2022 and asked the Council for control changes.

The Department of Planning, Industry and Environment states the defined flood event is selected by Council for floodplain risk management purposes[1]. The NSW Floodplain Development Manual identifies the 1% AEP, or an equivalent historic flood, as an appropriate starting point for determining the DFE for development controls. According to the SES, from the 1790s to August 2021, there have been over 130 moderate to major floods in the valley. Perhaps there should be no development in these areas and assistance for property owners to move. Perhaps the Policy could be improved if there was discussion and justification for defining concessional areas and their treatment. The Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek, identifies only 200-300 houses with floor level inundation at the 1% AEP (page 8). It would seem

[1] https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/Considering+flooding+in+land+use+planning+guideline+-+July+2021.pdf

possible to substantially reduce damage with a few well-chosen purchases and strictly applied development controls.

The Nepean River Floodplain Risk Management Study and Plan notes (page 69) that Council does not have a formal climate change policy. The authors of the Policy and Plans have chosen their own standards and projections for climate change. The standards adopted and the reasons for their adoption are not obvious from their content. A Climate Change Policy, formally adopted by Council, would be better and ensure consistency and accountability in the flood management documents. In these times, I suggest a formal Camden Council Climate Change Policy is a prerequisite for these reports.

During the exhibition, the 2022 NSW Independent Flood inquiry[2] released its findings. There are many recommendations which seem relevant L- flood risk management, N – landholders can access information on previous disasters, O – risk-based approach to calculating flood planning level, P – disaster adaption plans for all towns, Q – floodplains as assets, R – simplify the planning system disaster provisions, S- housing and rehousing issues, T- caravan parks and manufactured home estates, U – roads and landslips, V – environment, and W – essential serviced and floodplain infrastructure.

The executive summary discusses preparedness, climate variability and a need to change how we consider floods and floodplains. The summary notes the failure of the 'rinse and repeat' approach to floodplain planning and advocates the need for a cultural shift. The summary suggests a closer connection between risk management and development outcomes.

The Policy would be enhanced if there was a statement of how the Council intends to respond to the recommendations of the 2022 NSW Independent Flood inquiry.

The format and content of the Flood Risk Management Policy are different to those adopted by other councils. Other councils[3] seem to focus on risk identification, response measures and mitigation. They tend not to contain specific controls but place them in their Local Environment Plan and Development Control Plans. Camden's Flood Risk Management Policy lacks discussion of risk identification, response measures and mitigation. Instead, it contains actual development controls. The format adopted by the other councils seems more effective and simpler to use. There is no obvious advantage in creating a new planning instrument and a unique set of definitions (see later).

We live in a time where there is general agreement the climate is changing. According to the CSIRO,[4] we can expect less rain but more intense extreme rainfall events. The climate change in Australia website[5] states that short-duration, extreme rainfall events are often associated with flash flooding. These changes in intensity bring increased risk to communities. Heavy rainfall events are typically caused by weather systems such as thunderstorms, cyclones, and east coast lows. These circumstances triggered the last series of floods in Camden.

It seems my area is particularly vulnerable to rainfall increases. In section 2.4, the proposed Flood Risk Management Policy states:

---

[2] https://www.nsw.gov.au/nsw-government/projects-and-initiatives/floodinquiry

[3] https://www.cityofsydney.nsw.gov.au/floodplain-management-plans/floodplain-catchment-sydney-city https://datrack.hawkesbury.nsw.gov.au/masterviewui/user/dwsubject/default.aspx?page=found&1=flood%20policy

[4] https://www.csiro.au/en/research/environmental-impacts/climate-change/climate-change-information

[5] https://www.climatechangeinaustralia.gov.au/en/changing-climate/climate-trends/australian-trends/

Potential impacts from climate change were assessed by modelling the flood behaviour arising from increase in rainfall intensities through the flood risk management process as identified in Council's up-to-date Flood Study/Plan. The results showed that the Nepean River catchment is prone to large flood level increases as a result of the increased rainfall intensities from climate change. Under the climate change scenario, the flood levels increased by up to and over 1.5m within the catchment.

The Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek draft final report, shows the modelling is based on a 10% rainfall increase. Such an increase raises flood levels in the Camden CBD by 0.5m to 0.75m. The report then states the freeboard (0.5m) will absorb the increase and, in the best-case scenario (table 9-6), will provide protection (%1 AEP + freeboard) of floor levels until 2030.

None of the documents discusses the adoption of a 10% rainfall increase. Science suggests the atmosphere can hold about 7% more moisture per 1°C. There is a wide range of forecasts ranging from 1.1°C to 5.4°C. These forecasts suggest modelling based on a 10% increase is conservative. At a more technical level, the modelling is not validated against the latest version of ARR Guidelines (ARR 2019).

The current Flood Management Plan was adopted in 2006 and has lasted for 16 years. If the life of the new plan is similar, we can expect it to last until 2038. Therefore, the 1% AEP will exceed the current FPL during the Policy's life. The draft policy would be better if the increase was highlighted and communicated to the community.

In flood time, from South Camden, the only access to emergency services is via the Macarthur Bridge. This is a single-span bridge with a single lane in each direction. Should it be congested, blocked, or closed, there is no access for emergency services to central Camden, south Camden, or parts further west. The relocation of the police, fire services, and emergency shelters to the Narellan side of the bridge and the downgrading of the Camden Hospital is a problem. Especially if the bridge is closed when the flood level reaches 14m as proposed in the SES's Camden Local Flood Plan. The development of the old High School site, Carrington, and the proposal for the redevelopment of the Stock Yards to include a hotel and shop top housing only add to the problem. During the last set of floods and the previous bushfires, the traffic was backed up for several kilometres on my side of the bridge.

The Policy does not use the same land use descriptions and definitions as the Camden Local Environment Plan (CLEP). Instead, the Policy seems to adopt its own inconsistent, imprecise, and confusing definitions. For example, the plan places seniors housing in Sensitive Uses and Facilities. However, Sensitive Uses and Facilities are not listed in the HCA concessional area, effectively barring seniors housing development on the old Camden High School site.

Another example is 7.3.8 Rural & Recreation, which includes "Information facility". This use is not described in the plans and not defined in the CLEP. I have an ICT background and an "Information facility" means the massive data centres constructed by Microsoft and Amazon. Similarly, there is the term "recreation facility" this use is not defined in the CLEP. Although the CLEP contains a recreation area, recreation facility (indoor), recreation facility (major), and recreation facility (outdoor), each carries a different risk. The distinction is more than academic. The recent flood damage to the softball fields at the entrance to Camden illustrates the risks and costs associated with flooding and recreation spaces. It suggests more expensive facilities associated with anything

other than a recreation area (CLEP definition) should be above the 1% AEP. Precision in planning documents is important.

The Policy's matrices specify specific controls for different places and risk levels. However, there is no discussion or justification. Of particular concern is the lack of the requirement to consider the impact of cumulative development in all instances (Point 3 of 1.3.5 Emergency Management).

There is no discussion of special flood considerations in areas between the FPA and the PMF and land that may cause a particular risk of life and other safety considerations. The omission is disturbing as the Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek demonstrates a significant residual flood risk even if buildings are constructed above the FPL (see page 34).

The Policy does not incorporate the changes recommended in the Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek on page 61. For example, a 600mm freeboard and the need to demonstrate reliable, safe flood access.

Here is a summary of the issues I have raised with the Policy and supporting documents:

- No Climate Change Policy.
- Impact of the 2022 NSW Independent Flood inquiry on the Policy.
- Different formant and focus to other Council's Flood Risk Management Policies.
- Rather than relying on existing planning instruments, the Policy introduces specific controls and unique definitions.
- There is no justification for using a 10% rainfall increase in the climate change modelling.
- The models use ARR 2016 and not ARR 2019.
- The projected increase of the 1% AEP will exceed the current FPL within the Policy's life. Yet there is no policy for managing or communicating the problem.
- Both Nepean River Catchment matrices do not require consideration of cumulative development in all instances.
- Congestion and blockage of evacuation routes.
- Concessions for areas subject to frequent flooding at low water levels (i.e. 5% AEP)
- The Camden Local Planning Panel requested precinct-specific design control for the HCA.
- Concessional status of the HCA and the apparent disregard for equity and flood risk management.
- The use of unique land use descriptions is inconsistent with the definitions in the Camden Local Environment Plan.
- Lack of discussion of special flood considerations in areas between the FPL and the PMF.
- Adoption of the Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek recommendations.

Yours Faithfully

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 14_Attachment 1

22nd August 2022

The General Manager
Camden Council
PO Box 183
Camden NSW 2570

By email: mail@camden.nsw.gov.au
floodplains@camden.nsw.gov.au

RE: FLOODPLAIN RISK MANAGEMENT PLANS & POLICY

This cover letter has been prepared to accompany the submission appended to this letter as prepared by the Maryland Estate Developments.

Given the collaborative precinct wide work was done for the Lowes Creek Maryland Precinct, Vitocco Enterprises supports the submission made by Maryland Estate Developments.

We look forward to engaging with Council further on this policy should it be required.

Yours sincerely,

Senior Development Manager

Vitocco
PO Box 228
Narellan NSW 2567 Australia
P + 61 2 4774 8875

Annexure A:

Vitocco

PO Box 228
Narellan NSW 2567 Australia
P + 61 2 4774 8875

MARYLAND
ESTATE DEVELOPMENTS

17 August 2022

Shop 406, 326 Camden Valley Way, Narellan NSW 2567 | PO Box 1010 Narellan, NSW 2567 | T: 02 9098 5710 E: info@marylandestate.com.au

The General Manager
Camden Council
70 Central Avenue
Oran Park, NSW 2570

By email: mail@camden.nsw.gov.au
floodplains@camden.nsw.gov.au

Att: Floodplain Management Team

Re: Floodplain Risk Management Plans & Policy

Dear Team Member,

Thank you for the opportunity to provide comments on the updated Flood Risk Management studies and Policy. This submission is made by Maryland Estate Developments on behalf of Maryland Pastoral Partnership, the owners of the Maryland site. The Maryland site is located within the [owes Creek Maryland Precinct.

Our key concern is that these documents do not reference/recognise the Council approved [owes Creek Maryland Precinct Watercycle Management Strategy Report (Addendum) prepared by Storm/Craig & Rhodes. Without this, it could be interpreted that there is a requirement to submit further strategy assessments. This would undermine the significant collaboration and agreement that has already been undertaken with Council on this issue.

As a result, we request that the Flood Risk Management studies, particularly the Upper South Creek Flood Study, and Policy is changed to reference/recognise the approved [owes Creek Maryland Precinct Watercycle Management Strategy Report (Addendum) prepared by Storm/Craig & Rhodes.

Background

The [owes Creek Maryland Precinct was rezoned in July 2021 and is located within the Upper South Creek Flood Study area. Supporting documentation for the rezoning included a Water Cycle Management Plan for the [owes Creek Maryland Precinct dated 26 September 2018 undertaken by Cardno. Following discussions with Council on this document, it was agreed to model and submit an addendum report incorporating the user guidelines into the Upper South Creek model contained by Council. This was undertaken by Storm/Craig & Rhodes and resulted in Council approving the [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum). Due to the detailed input and outcomes from this modelling exercise, it is our understanding that it was agreed with Council that no further

strategy assessment is required. Further, that the minor design flood events not covered in the Addendum could be dealt with at DA stage.

Flood Risk Management Policy P1.0046.x
The comment "Councils most up-to-date flood studies and plans" is made several times throughout the Policy. This includes approved strategies such as the [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum). As a result, this report and others should be referenced/recognised in the Policy or at a minimum a date provided so it is clear what reports are included in "Councils most up-to-date flood studies and plans".

Part 1 Section 7.1 provides details on Section 10.7 Planning Certificates, however, it does not provide any guidance on the flood level required on land before it appears on a planning certificate. We request that Council confirm this level.

In Part 1 Section 7.3.6 and 7.3.7 the Policy refers to mapped floodways. The approved [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum) alters this mapping. Without referencing/recognising this, the Policy will prevent the development of rezoned land. The Policy should account for changes in floodways mapped due to the approved Addendum.

Part 2 Section 2.4 refers to "Addressing Climate Change Impacts". We request that Council confirm that no design changes are required to approved strategies.

Appendix 2 Upper South Creek Development Controls - Item 1.2.4 & 1.2.5 sets out the following development controls:

- an engineering report or flood impact and risk assessment report is required to certify that development will not increase flood affectation elsewhere and show compliance with the [ocal Flood Plan or SES flood emergency management for the area.
- no importation of fill is permissible within any part of 1% AEP floodplain
- the removal of farm dams is not permissible without demonstrating no adverse impacts to flooding

Without referencing/recognising the approved [owes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum), the Policy requires:

- further strategy assessment on our land,
- prevents the importation of fill required to develop our land in accordance with the rezoning
- prevents the removal of farm dams on our site unless further assessments are undertaken.

The approved Addendum has addressed these issues. The Policy should reference/recognise this Addendum to prevent the above requirements and acknowledge our understanding of the agreement with Council that no further strategy assessment is required.

Review of the Upper South Creek Flooding Study in the Context of Ongoing Development (Draft Report)

It is recognised that the Flooding Study needs to establish a baseline and according to the study this is site topography in the study area as at November 2018. As a result, no other Flooding Study approved by Council since this date has been referenced in this document. This includes the approved Lowes Creek Maryland Precinct Water Cycle Management Strategy Report (Addendum) prepared by Storm/Craig & Rhodes. It is critical that the Upper South Creek Flooding Study references/recognises this Addendum as it validates it and gives it status within Council. Further, this provides a cross-reference for the Policy to define the statement "up-to-date flood studies and plans".

Should you require clarification on any of the above or further information, please do not hesitate to contact the undersigned.

Yours sincerely

Maryland Estate Developments

Senior Development Manager

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 15_Attachment 1

26 Arndell St
Camden

NSW 2570

Camden Council
John Street
Camden 2570
Re Floodplain Management Exhibition
Thank you for the opportunity to comment on this exhibition. This is a personal submission, not on behalf of any organisation.
I cannot support any plans for new development in flood prone areas.
It is vital that any changes to our flood prone areas are intended to improve conditions for existing development, not add development that will increase flood risks.
Under 'Recommended Changes to Flood Risk Management Policy' there are many clauses relating to development which indicate criteria that are needed for new development such as buildings that withstand floods, safe flood free access and safe access to community facilities. This totally disregards the increase in services that development would mean for Police and SES and the stress and financial factors for owners.
Camden has had many flood events and will continue to do so. It is our responsibility to ensure people do not in the future have to go through the problems recent floods have created. No development should be allowed in areas classified as ‘High Hazard’ which will increase the need for additional services.

Yours Sincerely

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 16_Attachment 1

SUBMISSION FORM - Flood Risk Management Policy Form Submission

There has been a submission of the form SUBMISSION FORM - Flood Risk Management Policy through your Your Voice Camden website.

What is the nature of your submission?

Object

Use this space to record your submission:

Considering the past few months of floods and given the release of the NSW Flood Enquiry Report and particularly the Premier’s response that we "cannot keep developing in areas that are at high risk of flooding. We've been doing that for the last 100 years. It has to stop, and today it does." Surely your exhibition needs to be withdrawn? I understand there will be a process that needs to be followed, however in these unprecedented times, surely processes can be changed.

Safe evacuation should be a priority for council and considering another flood is predicted in September I'm flummixed as to why that isn't included in this exhibition.

I object particularly to the concessional clause at 7.3.7 (pp. 10-11). How can you even consider such a thing in our Heritage Conservation Area considering the impact of water flood flows on residences and businesses in that area and this includes my own property. This clause needs to be deleted. The clause is not only dangerous but also a recipe for the loss of the HCA, a precious window into colonial history and a major community asset that is used for community events, recreation and one that attracts visitors and with additional tourism potential. Such concessional development would include demolition of fabric and cannot comply with the height limit of 7m, it's human scale, fine grain characteristics and the significance of Camden as set out in the HCA listing.

Employ experts with real lived experience to help write policies that help residents and businesses. Don't rely on people who have no real lived experience.

Are you making a submission on behalf of a public agency, organisation or community group?

No

First Name

Last Name

Email:

Phone:

Street Address:

Postal Address:

To view all of this form's submissions, visit https://yourvoice.camden.nsw.gov.au/index.php/dashboard/reports/forms_new/data/129

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 17_Attachment 1

The General Manager/Flood Plains Review Team

Camden Council

Central Avenue

Oran Park

Re Exhibition

Flood Risk Management Policy

Nepean River Flood Plain Risk Management Study and Plan

1. I write to suggest that the present documents are inadequate and need updating re the NSW Government's Policy announced on 17 August 2022. In addition there is a need to thoroughly engage the local community, particularly in light of the experiences in the four floods experienced in Camden so far this year.

2. These matters are of particular concern:

a) On 17 August the NSW Premier stated 'we cannot keep developing in areas that are at high risk of floods.....We've been doing that for the last 100 years. It has to stop, and today it does.' Any Camden Council Flood Plain Management document has to take this statement into account. Therefore there should be no more structural development of any sort of flood affected land in and around Camden.

b) This means the 'Concessional Development' clause pertaining to the Historic Conservation Area (HCA) needs to be immediately removed. Why it was ever included in the first place is open to speculation. Many community members believe it was included to allow further unsuitable development in the HCA.

c) The Draft Flood Policy is not based on up to date information. It does not take into account community knowledge and views based on the four floods Camden has experienced so far in 2022.These views must be taken into account to ensure that genuine and extensive community consultation has taken place.

d) There is a belief that the Draft Flood Policy underestimates the potential effects of Climate Change. The Nepean River catchment area is now prone to large flood level increases as a result of increased rainfall intensities as a result of Climate Change. This raises the following questions:

(i) Is the potential flood impact from climate change captured by the 10% adjustment and covered by the FPL freeboard?

(ii) Is the potential flood impact from climate change incorporated into mapping?

In conclusion, any Flood Plain Management Policy should be based on one principle – the NSW Premier's declaration of 17 August 2022 quoted above. That is, there should be no further development on flood affected land anywhere in the Camden LGA. Flood affected land should be used for agricultural and recreational purposes only. This will enable Camden Council to tell potential developers there is nothing to be gained by buying cheap flood affected land in the HCA, or elsewhere, with the idea of submitting DA's that breach the current building restrictions. The final Flood Plain Management Policy needs to remove any ambiguity on this matter.

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 18_Attachment 1

Camden Council

The General Manager 4655 8899

Dear Sir.

Camden Council is relying on the 2005 flood manuals word **sterilisation**, to pass DA's that now under NSW government 2022 regulations which are now prohibited eg. **Building in a floodway!**

These new 2022 regulations were introduced in answer to three large floods in a short period, causing huge damage and heartache to a large number of residents.

The 2005 flood policy.

FOREWORD

The primary objective of the NSW Government's Flood Prone Land Policy is to reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone property, and to reduce private and public losses resulting from floods. At the same time, the policy recognises the benefits flowing from the use, occupation and development of flood prone land.

The policy promotes the use of a merit approach which balances social, economic, environmental and flood risk parameters to determine whether particular development or use of the floodplain is appropriate and sustainable.

In this way the policy avoids the unnecessary sterilisation of flood prone land. Equally it ensures that flood prone land is not the subject of uncontrolled development inconsistent with its exposure to flooding.

The policy highlights that primary responsibility for floodplain risk management rests with councils, which are provided with financial and technical support by the State Government.

Focus area 3: Biodiversity and Conservation

3.1 Conservation Zones

Objective

The objective of this direction is to protect and conserve environmentally sensitive areas.

Application

This direction applies to all relevant planning authorities when preparing a planning proposal.

Direction 4.1

(1) A planning proposal must include provisions that give effect to and are consistent with:

(a) the NSW Flood Prone Land Policy,

(b) the principles of the Floodplain Development Manual 2005,

(c) the Considering flooding in land use planning guideline 2021, and

(d) any adopted flood study and/or floodplain risk management plan prepared in accordance with the principles of the Floodplain Development Manual 2005 and adopted by the relevant council.

(2) A planning proposal must not rezone land within the flood planning area from Recreation, Rural,
Special Purpose or Conservation Zones to a Residential, Business, Industrial or Special Purpose
Zones.

(3) A planning proposal must not contain provisions that apply to the flood planning area which:

(a) permit development in floodway areas,

(b) permit development that will result in significant flood impacts to other properties,

(c) permit development for the purposes of residential accommodation in high hazard areas,

(d) permit a significant increase in the development and/or dwelling density of that land,

(e) permit development for the purpose of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals, residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate,

(f) permit development to be carried out without development consent except for the purposes of exempt development or agriculture. Dams, drainage canals, levees, still require development consent,

(g) are likely to result in a significantly increased requirement for government spending on emergency management services,

(4) A planning proposal must not contain provisions that apply to areas between the flood planning area and probable maximum flood to which Special Flood Considerations apply which:

(a) permit development in floodway areas,

We where victims of flooding in 1964, and 1972 when farming on the flood plain at Theresa Park, only succeeded when working above the floods!

Regards

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 19_Attachment 1

The General Manager / Flood Plains Team
Camden Council
Oran Park

August 26, 2022

Re: 2022 Exhibition
Flood Risk Management Policy
Nepean River Floodplain Risk Management Study and Plan

(Mainly as pertaining to the township of Camden)

The exhibition was of minimal help in understanding Council's respect for or care for the community of Camden, a town designed with floodplain virtually surrounding the town, accustomed to floods and benefitting from the 'rural idyll' of agricultural pursuits using those flood plains. This setting is integral to the value of Camden as a unique historical resource and attraction for the entire Sydney region and beyond. (The economic benefit of preserving these essential elements of the town has been recognised in past planning documents and heritage listings.) Camden Council should be arguing for the preservation of the historic town of Camden as distinctly different to the broadbrush of politically driven 'development'. Camden Council should be representing this difference and promoting the landscape retention benefits for state and national well-being, not meekly complying with ill-informed dictates of state policy.

During many floods all access/exit routes to the town area are cut by water, leaving only the Camden South exit to the Old Hume Highway and the Macarthur Bridge for travel into and out of the town. This area becomes exceptionally congested...yet no recognition of the hours of congestion even without further town development is recognised in the policy documents. Where is there evidence of our local council actually representing us to the state authorities? Using flood plains for rural pursuits, for rural education, for bush 'schooling', for orienteering and community passive recreation offers long term future positives that immediate individual profit-seeking could only destroy. Previous flood policy has prevented further residential development (even extra bedrooms) in the heritage conservation / flood affected area, yet this new proposed policy seems to leave room for anything to be possible. The vision of the implications in evacuations is horrific.

The exhibition documents seem quite out of place given the recent 4 floods this year. The State Premier has stated that we must not have further flood plain development. The explanation from council representatives that a new flood policy is much overdue, does not make it acceptable to rush the process now

by ignoring new conditions and understanding drawn from our most recent multiple floods.

I especially ask the Flood Plains Review Team and Council to consider the following points:

1. **Need to delay** settling on any new flood policy until it is brought in line with the Premier's recent declaration that we cannot keep developing in areas that are at high risk of flooding. **Recent experience must inform any new policy.**

2. The **'Concessional Development' clause pertaining specifically to the Heritage Conservation Area must be removed.** It is a slap in the face to the teams of people who have worked with highly skilled consultants to identify what is to be valued and preserved for all time. To include this clause, specifically, is to say that our Council and Council Employees have not taken the trouble, nor been offered the training, to understand and appreciate the town and people who they represent or for whom they work. * I understand how, on first glance, much of the area might seem unworthy of preservation, but perusal of the past assessments is an eye-opener. The suggestions of those past assessments as to how discreet changes can be made to suit changing purposes, but, essentially the restricted footprints of the buildings, preservation of green space and restricted heights are essential. There is much room for community dialogue on this matter. It is the 'quaintness' and authenticity of the town that brings tour groups, families, and individuals to the area, and has been the attraction for a huge proportion of the residents who have selected Camden as their home.

3. The concept that the land would be 'sterilised' (emotive, negative term) by not being built upon is hugely problematic. Even this week our city-based media have been featuring a desperate need for young people to experience real nature, to have bush experiences, to learn about growing plants and nurturing animals. Camden has always had the advantage of being accessible to the city. This does not seem to be the time to be destroying our natural advantage for the short term gain of uninformed property developers who grab cheap land and seek to flaunt the limitations that made it cheap in the first place.

4. The proposed policy does not seem to provide a realistic assessment of the **safety impact** of more intense development in the Heritage Conservation Area. Given the extreme limitations in regard to getting in or out of Camden in flood times, and the hours of delays experienced recently, what indemnity is Council taking on by increasing the numbers of people needing to access alternative accommodation and/or storage in surrounding areas? Historically,

the flood level has been higher yet again, and has affected the commercial centre. The thought of ignoring Camden's geographic limitations defies belief. As stated before, those very limitations can be seen as the town's greatest asset. To ignore them courts disaster and the incredulity of future assessors.

5. The climate change data used should be questioned. The 10% figure seems arbitrary and not consistent with recent or predicted lived experience. **Decisions related to increased risk in flood prone areas and increased interference with waterflow at such times should not be made on the basis of such flimsy 'data'.** Lismore experiences can only be described as unimaginable in the light of any current climate change data beyond that of increased intensity and unpredicability. Can council provide a **forum** with climate change scientists who would be prepared to support increasing the exposure to flooding for more people and property?

6. A policy with as much import as this should have involved extensive **community consultation**—face to face discussion, not just a difficult to follow assembly of written papers with no prior exposure to the thought processes or principles upon which is was being developed. Hand in hand rather than top down would be much appreciated, and would bring to council a wealth of lived experience, including that of some very knowledgable professionals. Most of council and council employees these days do not live in Camden and only a few took the opportunity to observe the full-scale flood effects this year. The community experience is essential.

* For starters: Camden Town Centre Urban Design Framework, Camden LEP and DCP, which have all involved extension community consultation.

Yours Sincerely,

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 20_Attachment 1

Camden Residents' Action group

Incorporated

Camden – Still a Country Town

Website: http://www.crag.org.au/
Face Book: https://www.facebook.com/CRAG-Camden-Residents-Action-Group-Inc-1805705173088888/

PO Box 188
Camden NSW 2570
Email: admin@crag.org.au
Phone: 0415 617 368

The General Manager
Camden Council
70 Central Ave, Oran Park 2570
PO Box 183, Camden 2570
Email:
floodplains@camden.nsw.gov.au
mail@camden.nsw.gov.au
cc Councillors

26 August 2022

Dear Floodplain Team,

Re: 2022 Exhibition
Flood Risk Management Policy
Nepean ~~River Floodplain Risk Management Study and~~ Plan

The above exhibition on *Your Voice* is of intense interest, with ramifications into the future for the community. Floodplain management is of topical concern and foremost in minds given recent and unusual flood events.

The exhibition includes numerous documents under separate categories of policy and studies, many of which are technical. Their content involves complex interrelationships between community welfare and land use planning based on Flood Planning Levels (FPLs) predicated on the concept or value judgement that floodplain land must not be "sterilised." This presumption is no longer valid.

The 2022 NSW Inquiry[1] into lack of preparedness for recent flood events consulted with stakeholders through 144 meetings and received 1,494 submissions. The people of NSW have shared their stories.

[1] NSW Government 2022 *NSW Flood Inquiry* Available at https://www.nsw.gov.au/nsw-government/projects-and-initiatives/floodinquiry

The findings of the Inquiry and its 28 recommendations, all accepted by the NSW Government, are unambiguous. People agree with the NSW Government's response to the Inquiry as announced by the Premier, that building on the floodplain stops now[2].

The inquiry also made clear, that floodplains are never necessarily "sterilised" as there are many land uses that are of benefit to the community and environment.

This exhibition raises many questions about protection of life, livelihoods, homes and private and public assets. Advice from the Floodplain Team was that outstanding questions should be raised in submissions and that they would be answered in its review of submissions and report on Camden's floodplain management and policy.

These questions and our comments follow.

THE HCA CONCESSIONAL DEVELOPMENT CLAUSE MUST BE DELETED

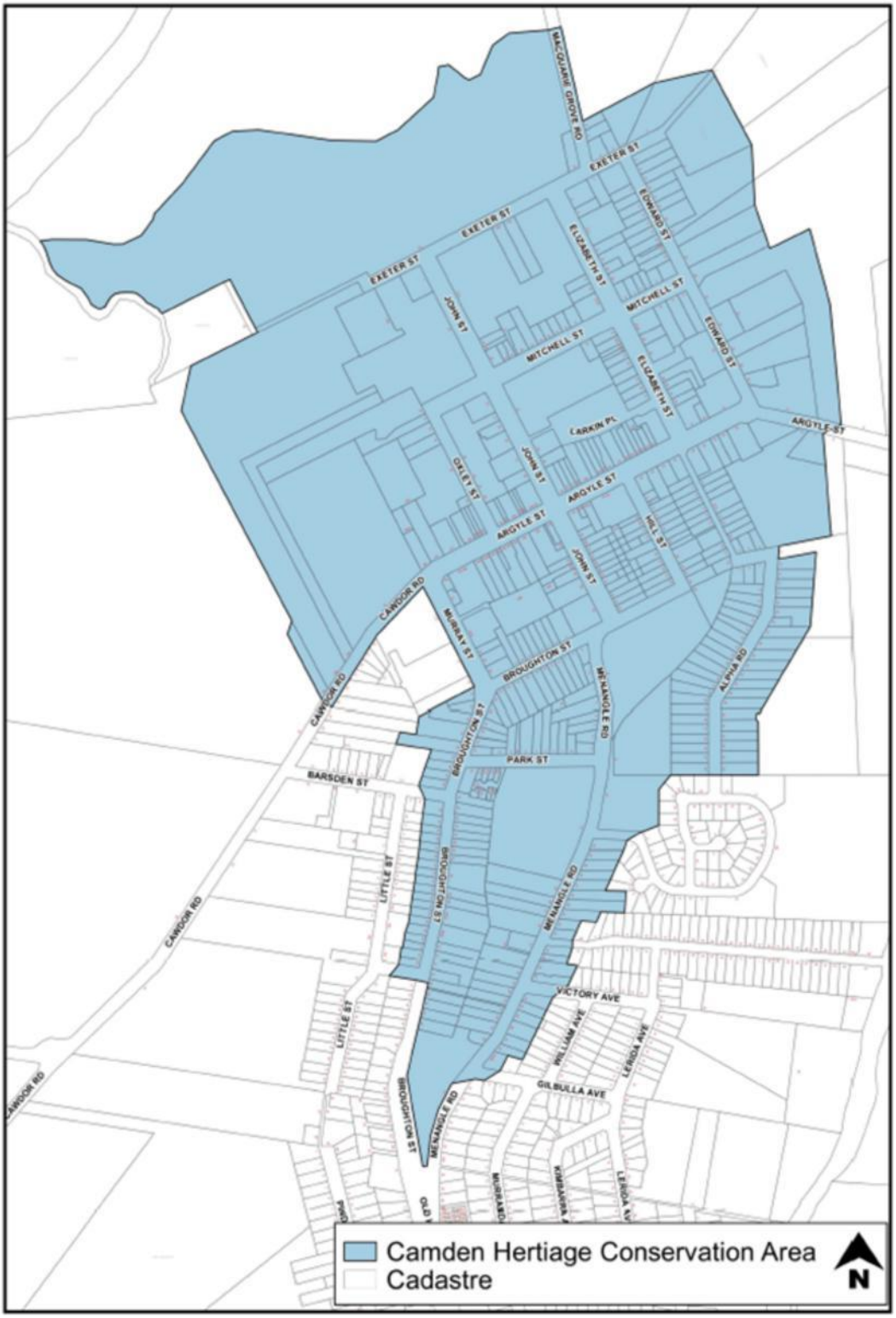
Despite having asked the question a number of times, we are at a complete loss as to why the following extraordinary clause concerning the Heritage Conservation Area (HCA), without any explanation, has been included in the draft Flood Risk Management Policy (draft Policy) (7.3.7, pp 10-11):

> ***Concessional development in the case of development within the Camden Heritage Conservation Precinct: All Commercial and Industrial, Low, Medium and High-Density Residential developments (as categorised in this policy) located only within the Camden Heritage Conservation Precinct shown in Figure 3 of the Appendix 1*** (copied in below).

The development matrices (pp 28-29) contained in Appendix 3 of the draft Policy show the categories of flood risk and the applicable development controls numbered 1 to 7 (pp 24-27). Concessional development is allowed in the flood areas, including high risk areas.

As shown in the mapping, much of the Heritage Conservation Area is flood prone and much is categorised as high flood risk. Although many facilities within the HCA are sensitive in that they are used by children and seniors and are needed for the community to return to normal activities after flood events, it seems the draft Policy is to allow significant development as concessional as long as it is outside any floodway.

[2] ABC 17 August 2022 *NSW 2022 Flood Inquiry report recommends flood zone buy backs, changes to disaster response* Available at https://www.abc.net.au/news/2022-08-17/nsw-independent-flood-inquiry-report-made-public/101331288



Source: Camden Council 2022 *draft Flood Risk Management Policy Appendix 1 Figure 3 Extent of Camden Heritage Conservation Precinct for the purpose of Development Control Matrix*

There are three categories of concessional development in the draft Policy (7.3.7):

- ***Concessional development in the case of commercial and residential (low, medium or high density) development:***
- ***Concessional development in the case of other development:***
- ***Concessional development in the case of development within the Camden Heritage Conservation Precinct:*** *a) All Commercial and Industrial, Low, Medium and High-Density Residential developments (as categorised in this policy) located only within the Camden Heritage Conservation Precinct shown in Figure 3 of the Appendix 1* (copied in below).

The first two categories, which in any case would capture the HCA, cover small additions, rebuilds or changes to existing building in a flood area etc. They do not allow large additions or new developments. That makes sense.

(1) Why is the specifically defined small precinct of the HCA different to other flood prone areas?

The verbal answer from Council staff, that the NSW Government does not allow Camden Council to sterilise land, does not explain the discrimination.

(2) Why are developers of other flood prone areas subject to limitations but not would-be developers in the HCA?

Another reason for the special HCA category given by the Floodplain Team was that it prevented the need for merit-based approvals under the draft Policy, which the 2006 Policy allowed. We well know this from experience, for example with DA approvals in the HCA for development of 20 Elizabeth Street and 19 Edward Street. These DAs involve demolition of extant HCA fabric, noted as significant in the HCA listing, and replacement with new developments that are over-height and non-reflective of Camden's history and detrimental to its sense of place.

These DA approvals also bring more people and equipment into areas of high flood risk, as do the HCA approvals of the major addition to the Milk factory and the new build at 11 Mitchell Street which also inexplicably allows more residents into the high-risk area in contradiction to the 2006 Policy. They are non-compliant developments according to the LEP and DCP. Landlords and tenants will not be able to afford insurance. Evacuation routes will be further stressed. They were highly contentious DAs with many objections being lodged by the community.

(3) How could these DA approvals be justified as merit-based, even under the HCA concessional development clause?

What the HCA clause means in practical terms in relation to other contradictory Council policies is not explained. Nor is/are its architect(s) identified in the documentation. No cost/benefit analysis is presented. With no supporting documentation it seemingly comes out of thin air.

The HCA is precious, highly valued by the community and visitors and well documented to be of irreplaceable and high heritage significance in the story of colonial NSW and Australia. As the clause reads it would seem to necessarily result in the destruction of the cultural and heritage significance of the HCA. The community has been consulted many times about Camden's heritage. The answers over decades have always been that it must be conserved, as reflected in its heritage listing and Camden Council policies.

(4) Why should this HCA concessional clause, despite the flood risk and loss of heritage, make the DA process easier for developers and DA assessors, at the expense of what the community values?

Clearly, especially in the wake of frequent and unprecedented flooding this year in NSW, including Camden, it is foolhardy (and insensitive) to encourage development through concessions which can only reduce people's safety, make evacuation routes more congested, increase flood damage and cumulative impacts and increase the difficulty of applying development controls as developers push the envelope.

Increased stress on the provision and management of emergency services and the public purse is obvious and of wide community and political interest.

The community was not consulted about this clause and the conclusion must be that the cultural and social aspirations of the community and its support for the protection of the HCA have been ignored, or as could be interpreted, treated with contempt. The earmarking of the HCA, a well-loved community asset with a very special sense of place and long and deep community connections, for concessional development without explanation is disrespectful and utterly unacceptable to the community. It is disturbing that it is presented in this undemocratic way without any explanation. It is not a good look. It does not pass the pub test.

(5) Why wasn't the community consulted on this HCA clause?

(6) Why, when the community has long identified with Camden's history, expressed its high esteem for the HCA and enjoyed its open country town characteristics and agricultural heritage, has this clause been dropped into the draft Policy without any preamble or reasoning?

(7) Who benefits from this HCA concessional clause?

It is extraordinary that the clause allowing concessional development in the HCA is not consistent with other Council policies, including the 2020 Local Strategic Planning Statement (LSPS) which aligns with the strategic directions of the Western City District (WCD) Plan within the NSW plans for greater Sydney.

For instance, the LSPS states:

Camden Town Centre was established as part of the agricultural expansion of the early settlement of Sydney, being one of Sydney's oldest towns. The local community holds the Camden Town Centre in high regard for its attractive streets, beautiful heritage buildings, and rural village feel. (p. 14)

Tourism is thriving, with Camden capitalising on its heritage and rural values and offering a strong local food scene, cultural festivals and events... Heritage sites are protected and promoted, helping to engage the community on the importance of Camden in Australia's European and Indigenous history. (p. 22)

Local Priority L2 Celebrating and respecting Camden's proud heritage. These initiatives will ensure that Camden's valued heritage is protected from the impacts of development and can continue to be celebrated by the community. (p. 45)

These statements are consistent with community views, Camden Town Centre Urban Design Framework, Camden LEP and DCP, and other Council policies. The community is usually consulted on policy and strategy.

The HCA clause is NOT consistent as it sends a signal to developers that undeveloped floodplain is up for grabs and that demolition and replacement of HCA fabric with constructions of inappropriate scale and modern design is concessionally allowable and even encouraged.

(8) Why is the HCA concessional clause treated in isolation, without reference to, consideration of, and in contradiction to LEP provisions (including the 7m height limit), DCP and all other Council policies?

We note that *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek*[3] addresses the need for land and its availability and states

.... it is important that available land be used in an appropriate, sustainable way, in order to meet the needs of both the growing population, as well as ecosystem health and services. Whilst the flood extent from the Nepean River covers a relatively large area, there is still substantial flood free areas available for development. Given the significant risks posed by flooding along the Nepean River, it is not recommended that flood controls be softened to allow additional development. (9.7)

[3] Cardno 20 September 2019 *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek* (Final Draft Report) Available at https://hdp-au-prod-app-cam-matters-files.s3.ap-southeast-2.amazonaws.com/7716/5821/3637/22_146637_02_-_Nepean_River_FRMSP_Report.PDF

Yet this HCA concessional development clause does allow additional development and does put more people and property at risk. It not only softens the flood controls it promotes additional development in a small defined area that is highly flood prone.

(9) What is the reason that overrides the principle of not putting more people and property at risk?

The same *Risk Management Study & Plan* addresses social and heritage issues and states: *Heritage issues are also a concern in the Study Area, with historic regions of the Camden Town Centre having been constructed well below the 1% AEP flood level. The Town Centre is a region of active redevelopment, and the FPL and planning controls adopted have the potential to significantly impact the type and style of this redevelopment. Council is desirous to retain the existing scale and street frontages in the Town Centre, which would result in lots experiencing large over-floor flood depths in both the 1% AEP and the PMF. The final selection of the FPL will need to balance the social and heritage needs in the Camden Town Centre, against Council's responsibility to protect its residents from flooding risks.* (9.13)

We dispute that the old town is under active redevelopment unless referring to the special and contentious case of the development for the 'sensitive' use of seniors' living on the old Camden High School site. The answer of course is that this development was and still is highly questionable. Recent flooding events have clearly shown why placing a large number of more vulnerable citizens in harm's way and congested evacuation routes is irresponsible.

The HCA is a tiny area within a large LGA, that by definition is to be conserved, not redeveloped. There should be no "concession".

As noted above, the main reason for the clause that we have been offered is that the NSW Government does not allow floodplain land to be "sterilised". Clearly that view has changed in the wake of the Report on the 2022 Flood Inquiry, the NSW Government's response and the Premier's comments.

The NSW Government response to the independent Inquiry's findings is unambiguous. It supports all 28 recommendations, either in full (6) or in principle (22). The NSW Premier stated: *we cannot keep developing in areas that are at high risk of floods... We've been doing that for the last 100 years.* ***It has to stop, and <u>today</u> it does.*** [4]

(10) Why would Council expect the community to accept this HCA clause in the wake of the Camden floods and the Lismore catastrophe?

(11) Why wouldn't the community take the words of the Premier at their face value, that floodplain development stops on 17 August 2022?

[4] ABC 17 August 2022 *NSW 2022 Flood Inquiry report recommends flood zone buy backs, changes to disaster response* Available at https://www.abc.net.au/news/2022-08-17/nsw-independent-flood-inquiry-report-made-public/101331288

The response that we received from Council staff was that it would take time for the NSW Government to issue new directives although all recommendations were accepted. It could take years and meanwhile the directive was that land could not be sterilised.

(12) Why, in the wake of the successive Camden floods this year, with more predicted and the damage, disruption and personal anguish[5] that they have caused, should the community accept this tortured logic?

(13) What vested interest does this HCA concessional clause serve?

In any case, using floodplains for agriculture, recreation and the environment is not "sterilising" them but using them for the benefit of the whole community.

Developers purchase cheaper land with flooding (and heritage) constraints in the HCA, believing they can jump the planning hurdles, gain a DA approval and make windfall gains. This has proven to be possible, particularly if the owner quickly sells the site with a DA intact (11 Mitchell Street) or otherwise quickly moves on during a dry spell; the result is potential private gain at the expense of amenity, irreplaceable heritage and problems for others into the future. The longer-term mechanisms of the economy and financial systems mean that ROIs in floodplain development equalise with those of similar investments in flood-free land, but without the un-costed human toll on mental health and well-being. There is ample flood-free land in the Municipality. At a macro level the public cost of evacuations and recovery is wasteful, not productive. Even from a neo-liberalist view this HCA clause cannot be explained or justified.

The real and human cost of floodplain development is borne by everyday people including the subsequent and possibly unsuspecting occupiers of the new or overly redeveloped premises, including through loss of income and high insurance.

(0) What is the economic imperative behind the HCA concessional clause? Please explain.

Planning Circular PS 21-006, included in NSW's finalised flood-prone land package[6] which came into effect on 14 July 2021, lists key issues in land-use planning and reducing risk to life, property damage and other flood impacts on existing and future occupants of flood prone land including:

- *safety of people including evacuation considerations;*
- *management of flood risk, to reduce flood damage to public and private property and Infrastructure;*
- *management of the impacts of development, including cumulative impacts of development*
- *application of development controls;*
- *management of the impacts of development on emergency services.*

[5] A Current Affair 22 February 2022 *Camden locals flee as floodwaters force evacuation* Available at https://9now.nine.com.au/a-current-affair/nsw-floods-camden-locals-receive-evacuation-order/28c4399e-b932-4c01-8cc9-d634b2208349

6 NSW Government *Keeping our communities safe* Available at https://www.planning.nsw.gov.au/flooding

(0) How are the above key issues in land use planning addressed by or consistent with the HCA concessional development clause which encourages development and more occupants in a high flood risk area?

It is foolhardy at best to develop floodplains. NSW Planning Circular PS 21-006 reiterates that NSW Government's Flood Prone Land Policy is that councils are primarily responsible for managing flood risk and are protected from liability (under s733 of the LGA Act) if they have followed NSW policy as set out in NSW Floodplain Development Manual (referred to in the introduction of Camden's draft Policy).

Concessionally allowing development in particular flood areas, including high risk areas, whilst not allowing it in similarly risky areas is counter-intuitive and legally reckless.

Allowing the rivers to take their natural course and respecting their strength is wise, and prevents tragedies like Lismore. In a vast country like Australia, with its weather extremes, it is madness to do otherwise.

The first two concessional categories work equally well for the HCA and are consistent with heritage conservation as espoused by Council and as expected by the community.

(1) Why would Camden Council, as a result of the discriminatory HCA concessional clause, leave itself potentially legally liable and certainly accountable for approving development in a high risk setting that results in property damage and evacuation difficulties?

THE HCA CONCESSIONAL DEVELOPMENT CLAUSE IS DISCRIMINATORY AND INDEFENSIBLE AND <u>MUST BE DELETED</u>.

HCA 2022 FLOODING

Recently approved development Argyle St

Elizabeth St towards Exeter St
Approved (unbuilt) seniors living and recently approved (unbuilt) no. 20 redevelopment

Edward St towards Argyle St

Corner Exeter St and John St opposite approved and built seniors living

Recently approved (unbuilt including residential)
11 Mitchell St and towards Edward St

Approved (unbuilt) large addition Milk Factory Corner Edward St and Argyle St

DRAFT FLOOD RISK MANAGEMENT POLICY IS NOT BASED ON UP-TO-DATE INFORMATION

As the exhibition preamble states, Camden's Flood Risk Management Policy[7] needed to be updated to reflect changed requirements, which presumably are those commencing on 14 July 2021 as covered in NSW Planning Circular, PS 21-006, guidelines and other accompanying documents[8].

We note that Camden's Policy has not been updated since 2006. No doubt this creates a sense of urgency in complying with the 2021 requirements. According to the NSW Flood Manual (2005, 2.7; 2022, 4.6) reviews are necessary every five years and, importantly, after an event that is not consistent with risk management plans.

The 2012 Terms of Reference of Camden's Flood Risk Management Committee are consistent with the NSW Flood Manual although the community representatives, number and minutes of meetings are not available at the time of writing. It is not clear how the Committee has provided a forum for technical, social, economic and ecological issues or achieved its main objective of assisting Council in the review, development and implementation of floodplain risk management plans.

The recent successive floods in Camden would be expected to be a major agenda item for the Committee. This series of flood events were/are not consistent with management plans, were certainly not predicted, resulted in significant damage to infrastructure and untold losses to property and income, rescues of livestock, mental anguish and fear that Camden would go the way of Lismore.

The community considers that the Report of the independent expert NSW Flood Inquiry[9], released on 17 August 2022, into the 2022 catastrophic flood events across NSW, is completely relevant to Camden. The NSW events included Camden as referenced in the Inquiry. Camden has experienced unusual frequent flooding[10], with the latest event last month (July 2022)[11] and flooding is forecast to continue. NSW Government declared natural disasters in many LGAs including Camden.

---

[7] Camden Council 2006 *Flood Risk Management Policy 3.19* Available at https://www.camden.nsw.gov.au/assets/pdfs/Council/Policies/Flood-Risk-Management.pdf

[8] NSW Government *Keeping our communities safe* Available at https://www.planning.nsw.gov.au/flooding

[9] NSW Government 2022 *NSW Flood Inquiry* Available at https://www.nsw.gov.au/nsw-government/projects-and-initiatives/floodinquiry

Available at https://youtu.be/zFqRaQ2qq3E

[10] 7 NEWS 8 April 2022 *NSW Flood Nightmare: Camden homes and businesses flooded for a THIRD time in 2022*

[11] Kayla Osborne and Jess Layt 5 July 2022 Devastation *returns to Camden in fourth flood of year* The Rural Available at https://www.therural.com.au/story/7806624/devastation-returns-in-fourth-flood-of-year/

We cannot be confident that the studies and mapping included in this Exhibition are up to date. The cover pages of the documentation, upon which the draft Policy is based, are headed up as 2022, when the effective report dates are earlier and prior to the floods of 2021 and to date of 2022. For instance

- *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek (Final Draft Report)* is dated 20 September 2019;
- *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek: Appendix A – June 2016 Event Assessment (Final Draft Report)* is dated 7 April 2017;
- *Appendix B: Nepean River FRMSP Flood Behaviour* is dated 24 September 2020;
- *Appendix C – Arr 2016 Assessment (Final Draft Report)* is dated 8 August 2019 and other appendices D to J are dated mainly August 2019

No explanation has been provided in the exhibition as to how the latest frequent flood events have been factored into the draft Policy. It was good luck not good management that Camden experienced successive moderate floods, not a major flood or potentially a flood event like Lismore's. A major flood this year is considered likely in Camden.

We also cannot find any documentation to show that the local community was interviewed and consulted to provide valuable lived experience data, of which there is a wealth within the Camden community, and which would have provided another level of assurance that the modelling was based on all available evidence.

(17) Why doesn't the exhibition include all available and up-to date information and/or explain how it has been collected and used to inform flood policy and floodplain management?

CLIMATE CHANGE HAS NOT BEEN PROPERLY CONSIDERED

We must question the scientific foundation of the assumptions used to account for climate change and its extreme weather events in the documentation.

We note that the data of the studies did not predict the recent and unusual floods.

Final Draft Risk Management Study and Plan (20 September 2019, 9.11) notes that Council does not have a formal climate change policy. It provides no explanation for the blanket adjustment in climate effects of 10%.

It is unlikely that Mother Nature is aware of that neatly rounded percentage constraint on rainfall and flooding events over Camden.

This study (9.11) also states: *Under the 10% rainfall increase, levels increased by 0.5m to 0.75m at Camden CBD, with levels increasing downstream to over 1.5 at the confluence of Bringelly Creek.*

The freeboard requirement in the HCA, most of Camden's CBD is 0.5m, certainly not 0.75m.

(18) Again, we ask, how is the HCA/CBD concessional development clause reasonable and who benefits?

(19) How is the flood risk in the HCA/CBD managed?

The LGA's usual FPL freeboard of 0.5m, in a worst-case scenario could be subsumed by 2030 (Table 9.6) based on the unexplained 10% climate change effect.

In seeking answers to our question on how climate change was modelled we were also told that the FPL freeboard would accommodate increased flood levels. As is clear from the discussion (9.11), this answer is wishful thinking not an adaptation to climate change based on any scientific risk assessment or modelling.

(20) How is this responsibly preparing for the future of climate change on the floodplain?

The draft Policy creates extra confusion about how Camden Council intends to adapt to climate change. For instance:

Addressing Climate Change Impacts
Potential impacts from climate change were assessed by modelling the flood behaviour arising from increase in rainfall intensities through the flood risk management process as identified in Council's up-to-date Flood Study/Plan. The results showed that the Nepean River catchment is prone to large flood level increases as a result of the increased rainfall intensities from climate change. Under the climate change scenario, the flood levels increased by up to and over 1.5m within the catchment. (Part 3, 2.4)

(21) Is this potential flood impact from climate change captured by the 10% adjustment and accommodated by the FPL freeboard?

(22) Is and how is potential flood impact from climate change incorporated into the mapping?

(23) Is the additional risk of flooding from climate change already incorporated into areas subject to concessional development, or can those risky areas be expected to expand?

(24) As the climate change impacts do not seem to be modelled scientifically what are the risks that development will be approved on areas that were not previously mapped as flood affected (as occurred in Lismore this year)?

The lack of explanation and assurance in the documentation must lead us to conclude that the draft Policy is quite possibly based on questionable data and mapping, is not faithfully complying with the NSW directive that climate change must be considered and is putting the community at unnecessary risk.

LACK OF EXPLANATION and COMMUNITY ENGAGEMENT

Unfortunately, no clarification is included in the exhibition about how the large amount of detail in the studies, including maps, informed the draft Policy. The exhibition does not explain in direct understandable terms how the policy and studies interrelate. They are presented in different windows with their own facilities for comment, which makes comment difficult.

(25) Why wasn't an overarching explanation provided in the Exhibition, in plain English, as to what the practical effects of findings of the studies were and their implications for the update of the policy and floodplain management?

The exhibition provided Camden Council's telephone number for enquiries and attempts to reach the Floodplain Team through the switchboard were not always successful.

CRAG received questions from both members and non-members about what the draft Policy and revised floodplain management means in practical terms for residents and businesses. The great number of documents and level of detail, much of it technical, was difficult to navigate and raised as many questions as it answered. People, including the many who were personally affected by the recent floods, remain not only confused and overwhelmed by the detail of the exhibition but are understandably concerned about how the draft Policy addresses unsafe conditions and mitigates property damage and the congestion experienced in evacuation of large numbers of households and businesses[12].

Answers to common questions of why the HCA development concession does not account for floodplain risk, and how evacuation of Camden's HCA/CBD is to be managed given choke points and early closure of roads and bridges were not apparent. Residents of the HCA have questions about how their homes and environment will be affected by the HCA concessional development clause and fear the worst.

Residents and other businesses, including in Camden's HCA/CBD, have questions about potential mitigation strategies including possible levees and if and how they will redirect floodwaters to other properties. People have questions about the cadastral mapping resolution made available which is not sufficient to determine floodway boundaries and risks to individual properties.

How evacuation of the floodplain is to be managed is a common question, especially given the road closures and traffic congestion, already experienced four times this year. The only evacuation centre on the Camden side of the river under consideration is Camden High School to which access is limited during a flood and completely cut off in a PMF.

[12] Channel 9 February 2022 *Camden locals flee as floodwaters force evacuation* A Current Affair Available at https://9now.nine.com.au/a-current-affair/nsw-floods-camden-locals-receive-evacuation-order/28c4399e-b932-4c01-8cc9-d634b2208349

Yet a centre in Camden township which has many residents, including many seniors, and where there is a hospital, food and other services is not under consideration. In any case the Narellan centre made available this year is impractical as there is only one lane over the Macarthur bridge, which quickly becomes backed up, and even that would potentially be closed in a major flood.

We consider that what people needed in this exhibition and the answers that they would seek are foreseeable and the documentation should have easily provided them.

It was commonly expressed that it is a reasonable expectation that the exhibition be accompanied or preceded by public consultation, information and question and answer sessions.

Our understanding from reading the NSW Floodplain Manual (2005, 2022) is that the process of flood risk management includes engagement with the community.

(26) Why wasn't the community afforded information and question and answer sessions and otherwise engaged prior to the exhibition?

On 17 August 2022, CRAG requested a meeting with the Floodplain Team and/or Planners involved so that an overarching explanation of the findings of the studies and how they informed the draft Policy could be provided and questions answered and disseminated (Appendix). As this was not possible a Councillor was approached and a meeting was then arranged on 19 August 2022 with a Director and Manager, which was much appreciated. At this meeting the submission period was extended to 11.59pm Friday 26 August 2022. The Manager took notes of the questions and issues raised to be submitted to the Floodplain Team.

We understand that there is some urgency in complying with the 2021 NSW requirements, particularly as the Camden Flood Risk Management Policy has not been updated since 2006. But unusual flood events also trigger the need for review[13].

The community certainly expects that recent NSW flood events, including those that Camden has endured, be recognised and factored into how the floodplain is managed. Lived experience should inform policy.

We also submit that providing the opportunity for the community to recount their lived experiences is a prerequisite of maintaining faith with the community. No accommodation was made to consult the many Camden residents and businesses who have long dealt with flood behaviour and recovery. They can provide extremely valuable information about issues with evacuations and what is different with the recent series of floods, coming after a long drought period that has seen so much new development and increased traffic congestion.

[13] NSW 2005 Floodplain Development Manual, 2.7

The community finds it insensitive that the exhibition makes no reference the very recent and potentially ongoing difficult period of flooding and that answers to their recent problems were not found.

(27) Why is there no reference to recent and unusual flood events?

(28) Why wasn't the community consulted and why weren't the recent experiences of the 2022 flood events included in the data collected and used to inform policy?

In conclusion, the draft Policy is unclear and raises many questions. It should of course be a source of unmistakable intent and direction that the community accepts and understands.

Instead, it is apparently dismissive of the community's views and Camden Council policy on conservation of Camden's unique heritage. The HCA concessional development clause is inexplicable and indefensible. IT MUST BE DELETED.

Lack of consistency with the NSW Government response to the 2022 flooding events, including in Camden, makes no sense to the community. It does not meet community expectations that a major and definitive change in government direction is ignored.

There has been no attempt to engage the community which is directly affected by the draft Policy.

Very importantly the draft Policy does not sufficiently address safe and timely evacuation of Camden's floodplain, including Camden HCA/CBD which contains many sensitive uses including schools and senior's living.

The studies and mapping do not show how they are based on up-to-date data. They also do not incorporate long-lived and first-hand experience as valuable information on changes in flood patterns and behaviour, real-life evacuation issues and how they may be resolved.

The studies also do not explain logically, in accordance with climate science, how FPLs and concessional development are consistent with predicted climate change. It seems that Camden Council does not have a formal climate change policy. The climate change approach is out of step with societal expectations and the unexplained 10% blanket adjustment is disturbing.

It is not apparent how the studies relate to the draft Policy. The very practical issues that Camden faces are somehow lost or unaddressed in their overwhelming amount of detail. It follows that the community cannot have confidence in the draft Policy.

Camden's Flood Risk Management Policy needs to readily understood by the community. It needs to be informed by lived experience and solve problems that residents and businesses have encountered this year. It must reference recent unusual events. Community engagement is required, as well as the opportunity to have questions answered. This is essential for people to feel respected and to accept the Policy as being in the best public interest of protecting lives and property.

We trust that our questions throughout this submission will, as promised[14], be answered as explanations provided and actions taken and not by assertions.

However, given their number (28) and fundamental nature we must conclude and submit that the Exhibition as it stands can only be withdrawn.

Camden's Flood Risk Management Policy must be reformulated to exclude the HCA concessional development clause, be based on current information and be understandable and acceptable to the community.

Yours sincerely

President

[14] See Appendix

From: Flood Plains <Floodplains@camden.nsw.gov.au>
Sent: Thursday, 18 August 2022 1:16 PM
To: Flood Plains
Cc: admin@crag.org.au
Subject: RE: Floodplain management exhibition and request

Dear Glenda
Thank you for your email.
Please submit all your concerns as a submission. We will address them. If required, a meeting will be arranged later.
If maps are not clear, please call 'Floodplain Management Team' of the Council, they will direct you to maps.

The flood related development controls are outcomes of 'Floodplain Risk Management Study and Plans (FRMSP)'. For Nepean River it is in public exhibition. The Upper South Creek FRMSP was adopted by the Council in 2019 (after public exhibition). Part of it was further reviewed under the updated Upper South Creek Flood Study (currently in public exhibition).

Regards

Camden Council

70 Central Avenue, Oran Park, 2570
PO Box 183, Camden NSW 2570
(02) 4645 5091
Maria.Pinto@camden.nsw.gov.au
www.camden.nsw.gov.au

From:
Sent: Wednesday, 17 August 2022 11:54 AM
To: Flood Plains <Floodplains@camden.nsw.gov.au>
Cc: admin@crag.org.au
Subject: RE: Floodplain management exhibition and request

Warning - This email originates from an external organisation

Dear Floodplain team,

Thank you for your time yesterday and explanations which I have passed on to our membership.
Also thank you for extending the submission date to Monday, much appreciated.

Feedback from CRAG was swift and I have summarised below the main points fed back so far.
Many have expressed difficulty in getting their heads around the great number of documents and how they interconnect and asked why there are two submissions, one for policy and one for plans. Also that the mapping needs to be of higher resolution so that property boundaries in relation to flood ways and flood levels can be established. It is difficult to make a submission when there are so many exhibition documents and how they are used to inform the draft policy is not explained.

They go on to say that we need the opportunity to attend an information session so that questions can be answered and that a full overarching explanation of what the changes entail and mean going forward can be provided.

An information session would be appreciated, but if that is not possible given the timeframe, a number of people are asking for at least a meeting with Planners so that specific questions can be answered. Could this be arranged for tomorrow or Friday? If so that would be much appreciated.

Kind regards
cc CRAG Membership

Feedback so far as follows:

- The Heritage Conservation Area clause is not acceptable as it is really an invitation to demolish cottages and other fabric and replace them with inappropriate constructions that do not tell the story of Camden in NSW and Australian history. It is a listed conservation area, not an area for redevelopment. The first two concession categories with perhaps some tweaking are sufficient and would help protect heritage, lives and properties. We do not want a repeat of Lismore. It is foolhardy to increase development on the floodplain. Government is talking about buybacks in Lismore, Windsor etc. This is not consistent with the argument that land cannot be sterilised, yet this Policy permits more building in flood prone areas of Camden. The 1840 Macarthur town is contributory as a cultural centre, a small area of the Municipality and is very important to the community as it stands. It does not need to be overdeveloped or redeveloped to be useful. In fact that would destroy its point of difference and economic advantage. The question of who benefits by the special clause needs to be answered.
- Residents of the conservation area, many in the flood areas, need to be reassured that their homes and environment will not be destroyed by the concessional clause. They invested in good faith, relying on the planning instruments, that the area would be conserved not redeveloped. More recently the 2018 CTC Urban Design Framework also recommended that residential be included in the zoning so that the vibrancy of the town and foot traffic would be enhanced. The 2020 Local Strategic Planning Statement which aligns with the WCD Plan also has as a priority that *Local Priority L2 Celebrating and respecting Camden's proud heritage. These initiatives will ensure that Camden's valued heritage is protected from the impacts of development and can continue to be celebrated by the community.* (p. 45). We do not believe from the information to hand that the special clause is consistent with what the community wants or other Council policy.

- Residents, particularly those in Alpha Rd want to understand more about the levee options, and the likelihood of them being considered and what would be the effect of displaced floodwaters on other properties.
- How evacuation is to be managed is a big issue and needs to be explained. It seems the only evacuation centre on the Camden side of the river even being considered is Camden High School. Which would be completely cut off in a PMF, and limited access in any flood event, either to get there from Camden, or to get out to anywhere else. There is no suggestion of an evacuation centre in Camden township - where many people would be, and there are services, food and supplies, and a hospital. This is unsafe and unacceptable. Next closest would be Mawarra and Spring Farm PS, but they would be needed for people in those areas in a major event. And no good if the bypass is closed, which as experience tells us in any case becomes clogged and not everyone can necessarily reach Narellan in good time.
- There is confusion about how the effects of climate change are incorporated into the policy. Again we do not want a repeat of Lismore. The Policy at 2.4 was noted:
  Addressing Climate Change Impacts
  Potential impacts from climate change were assessed by modelling the flood behaviour arising from increase in rainfall intensities through the flood risk management process as identified in Council's up-to-date Flood Study/Plan. The results showed that the Nepean River catchment is prone to large flood level increases as a result of the
  increased rainfall intensities from climate change. Under the climate change scenario, the flood levels increased by up to and over 1.5m within the catchment.
  Is this incorporated into the mapping and would this increase the concessional areas? It is not clear given the mapping is dated 2019. Again it is expressed that it is foolhardy to develop the floodplain, especially when there is ample flood free land in the LGA.

From:
Sent: Tuesday, 16 August 2022 1:39 PM
To: 'floodplains@camden.nsw.gov.au' <floodplains@camden.nsw.gov.au>
Cc: 'admin@crag.org.au' <admin@crag.org.au>
Subject: Floodplain management exhibition

Dear Floodplain team,

Could you advise whether we will be able to discuss questions from our membership today and if so could you provide an approximate time, many thanks

President
Camden Residents' Action Group Inc
Cc CRAG Committee

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 21_Attachment 1

26th August 2022

Floodplain Management Team
Camden Council,
PO Box 183
Camden NSW 2570
mail@camden.nsw.gov.au
floodplains@camden.nsw.gov.au

RE: Floodplain Management Exhibition

Thank you for the opportunity to comment on this exhibition, and the extension of time to make a submission.

My comments relate to elements of the Nepean River Floodplain Risk Management Study and Plan and the updated revision of Council's Flood Risk Management Policy. I have not addressed the Upper South Creek Flood Study. Given the large volume of documents in this exhibition, I have not been able to address all aspects and I will not attempt to address the more technical elements. I appreciate the need for these studies to be updated as a priority, though obviously the recent floods and the response to the NSW Flood Inquiry will impact on the policies, and updated studies will be required.

My primary area of concern is the impacts within the township of Camden and surrounding areas. Like many locals I observed the recent 2022 flood events, and despite knowing the history of flooding, and seeing pictures, it was another thing to see the speed, scale, reach and impact of this series of moderate flood events.

We were particularly fortunate not to have a major event on at least two occasions. There was more heavy rain heading towards us when the flood was at its peak, which fortunately for this area moved towards the north and avoided the Camden area and its catchment. The experience around other areas of NSW this year tells us that floods can exceed previous records and major floods can occur multiple times a year.

I would like to see more local knowledge included in the flood policy. The volume and format of the documents may have made it difficult for many locals with firsthand experience to know how they could contribute. Community information sessions should have been held, and should be planned in the future, to allow locals to share their thoughts and experiences.

I am concerned about several aspects of the draft plan and policy, in particular: **Evacuation routes**

The nature of Camden's location, with wide stretches of flood plain and the loops of the Nepean River, make travel around the area very difficult during flood events. Most roads out of Camden rely on low level bridges to leave the area. In a moderate flood, the only access road for Camden, Camden South, all the areas to the west of Camden, and parts of Elderslie, becomes the Camden Bypass. During a flood emergency this makes evacuation difficult, hazardous, and time-consuming. In the days following it impacts the ability for everyone to travel to work, school, medical services, and access shopping and other services. Roads such as the bypass and Burragorang Rd are at a standstill, with short trips taking hours.

We accept that this is a consequence of living in this rural area, where the flood plains are the reason much of the area has remained rural and less populated. Options for high level roads and bridges are limited by the extent of the flood plain. Any further development in the area will add to the cumulative impact on evacuation routes, and this must be carefully considered.

Evacuation centres

One issue that was evident during this year's floods was the lack of a local emergency centre. Eventually one was set up in Narellan, but by then it was very difficult for anyone in a flood prone area to get there.

In the *Nepean River Floodplain Risk Management Study & Plan Including Narellan Creek (Final Draft Report)* potential evacuation centres are proposed. Many are some distance from the population that would need them.

What is needed is an evacuation shelter within Camden township. The only potential shelter identified south of the Nepean River is Camden High School. In my opinion (and I know the area well) this is a very unsuitable location. Cawdor Road to the north and south floods quickly and is cut off in even minor floods. The only way out is Burragorang Rd which is liable to flooding in major events, and in any flood event traffic in the area is often at a standstill and there is limited access. The Camden high school site would be completely cut off in a PMF, either to get there from Camden, or to get out to anywhere else. It is only accessible by vehicles, and not within walking distance of anyone needing to evacuate.

There must be a pre-planned evacuation centre in Camden township - where many people live and would be trying to evacuate from low lying areas in the town, and where there are services, food and supplies, and a hospital.

Flood mitigation measures

Among the mitigation measures considered are high levees at various places around the flood prone edges of Camden and Camden south. These would only mitigate less severe floods, provide a false sense of security, and encourage more properties in flood prone areas. Those that live in these locations often do so for the rural views across the flood

plains and have accepted the flood risk. I doubt they would want high mounds of dirt across their back fences.

It would make more sense to look at buy back schemes than to attempt to surround large areas of Camden and Camden South with expensive and unattractive levee banks in an attempt to mitigate floods for a small number of properties.

Flood warnings and emergency events

An improved system for flood warnings is needed. The earliest and most thorough and reliable information during this year's flood events was that which was shared by locals on social media. People did not know where to go for official information. Updates from council were mostly reposts from the SES page. Updates on road closures were sometimes delayed and unreliable. Locals asked to evacuate were unsure where to evacuate to, and in the early stages advised to go as far as Cabramatta. An improved information service from council during the flood event is necessary, so that a reliable and timely source of official local information is available both on social media and on the website.

Given how flood prone the Camden area is, very early official weather and flood warnings are essential so that animals, stock, equipment, and possessions can be moved as early as possible, to prevent these movements being conducted during the flood peak, when people are trying to evacuate. By the time evacuation orders are issued it is too late to move property and animals, and attempted removals and animal rescues place people in danger.

Flood gauges should be updated and reliable (the Camden weir gauge was out of action several times during recent flood events). The most accurate way to predict what would happen in terms of flooding during the recent flood events, was by looking at the gauge levels from Camden and upstream, and the rainfall in the catchment areas. Sharing this information more broadly would allow everyone to be more prepared. More local warning signs are required, as well as more updates from council after flood events and easier availability of flood data.

Loss of property

Any construction on highly flood prone land will suffer loss in flood events. It is not sustainable for small businesses such as restaurants and service stations to lose everything to flood multiple times, as has occurred this year. Even farms and sports fields lose buildings, valuable equipment, landscaping, soil, fencing, and crops, as well as damage to surfaces. There should be very minimal new development at all in these areas. The land is not sterilised because it is not developed into something. The flood plain has remained primarily farmland and undeveloped for hundreds of years because of the flood risk. No significant construction should be permitted below the 1% AEP level including commercial and industrial. There is no merit in developing these areas. There is no merit in allowing alternate floor levels for any new commercial and industrial only within the Camden CBD. Why should property loss in this area be of less importance than elsewhere?

It does not solve the problem to raise these constructions on stilts over the flood level, as there are still potential losses on ground level and damage to infrastructure including the

supports. And access issues would be a major problem from raised areas, if the only access is highly flood prone, especially if they are substantial constructions, or tall buildings. Such constructions are unacceptable in any case in heritage areas such as Camden township. Underground basement storage should not be allowed in highly flood prone areas, give the risk of substantial loss.

Concessional development in Camden Heritage Conservation Area

Given the above points, the well-known flood history of Camden, and the maps provided which indicate the extent of flooding within the historic centre of the township, there does not appear to be any logic in including a special clause for "concessional" development in Camden Township and its Heritage Conservation Area. It is unclear what is intended by this clause. The linked maps of floodways and high-risk areas for the Nepean are hard to read and it is impossible to see the detail for individual properties, but it is clear substantial areas of the HCA are high risk, and parts of the HCA are in floodways.

Obviously work to preserve and maintain historic buildings and heritage sites is needed regardless of flood risk. But only minor additions and improvements should be considered in flood prone areas, a contingency which is already covered by the first two concessional clauses.

NO substantial new development, especially residential of any type, can be supported in the high hazard flood prone areas of Camden. Much of the surrounding area and most access roads are inundated in a minor flood, and properties including homes and businesses are already impacted in a moderate flood. There should not be any new constructions or substantial additions allowed in these areas.

The area is NOT a region of active redevelopment. It is a Heritage Conservation Area. Some development and new buildings are permitted but there should be only small amounts of low scale infill in non-flood prone areas. It is not a choice between building either new flood prone buildings or building over the permitted height (over 7 metres) in the Heritage Conservation Area. The third option is to maintain current heritage and contributory buildings in flood prone areas, but do not allow further new development - for the sake of both heritage and flood safety.

The redevelopment of the old High School site is already much higher density than should likely have been permitted, and means many more people, (mostly seniors) are living in and surrounded by a flood zone. This development will place much more strain on evacuation centres and evacuation routes as it progresses. The inclusion of basement parking and storage in this development will lead to high losses when the area is flooded in a major flood. No further residential development should be allowed in any flood prone areas of Camden township.

Commercial and industrial development should not be permitted either. The heartbreaking losses local businesses suffered over the repeated floods of 2022 showed that these should not be constructed in high-risk flood zones. These developments can also bring people into

a high hazard area during a flood - people place themselves at risk attempting to remove goods and stock, and clog evacuation routes.

Camden is as it is because it is surrounded by flood plains. This has restricted development within and surrounding the town. It has been declared a conservation area because it has remained less developed, and still has many heritage buildings and retained its rural character. This land is not being “sterilised” because it is not developed. It is highly valued as it is, for its heritage, and as farmland and open space.

It is not acceptable, and it is not good policy, to include a clause that specifically appears to encourage new development, either residential or commercial/industrial, in a particularly flood prone area. The concessional clause for the Camden Heritage Conservation Area, should be removed from this flood policy.

Thank you again for the opportunity to comment on this policy.

Yours sincerely,

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 22_Attachment 1

General Manager

Camden Council

70 Central Avenue

Oran Park 2570

Email: floodplains@camden.nsw.gov.au

mail@camden.nsw.gov.au

26 August 2022

Dear General Manager

Re: 2022 Exhibition

Flood Risk Management Policy

Nepean River Flood plains Risk Management Study and plan

I am writing to oppose the above draft **Flood Risk Management Policy** in its current form.

The first obvious objection to the document is that the most recent data referred to dates back to 2019. This year Camden has experienced three floods of considerable impact, (though many locals refer to them as relatively small despite the amount of damage caused.) There is a further flood predicted and again based on local experience, the coming flood may indeed be larger and more damaging. In light of this I am astonished that a draft **Flood Risk Management Policy** is issued at this time rather than waiting for at least an interim report to be available as a relevant document of high import.

Such a report should include wide public involvement, noting both historical and recent experiences. The draft on Exhibition shows no evidence that there has been any consultation with the community at any stage in its development. No residents in the Camden CBD were consulted and this is a resource of great importance. The omission is striking. Many have vivid memories stretching back over a lifetime with a wealth of knowledge that is a valuable resource.

The NSW Government is now considering the report (*NSW Government Response to the NSW Independent Flood Inquiry)* specifically about the Lismore disaster but a report with important implications to any area effected by floods, including Camden.

In part the report states:

> *Of the 28 recommendations, the NSW Government has supported 6 recommendations and supported in principle 22 recommendations. Of those supported in principle, further work will be undertaken on implementation including consultation with key stakeholders. Further detail on the implementation of all 28 recommendations will be released later this year.*

One recommendation is:

> *19. Disaster Adaptation Plans for All Towns*

That, to establish realistic expectations of safe spaces to live and deliver much needed housing quickly, Government through NSWRA working with local government:

- *build a disaster adaptation plan for each city and town, with planning instruments discouraging (and in many cases forbidding) development in disaster-likely areas ...*

… These plans should be developed under the NSW Climate Change Adaptation Strategy.

It makes little sense to rush ahead and produce a document based on historic information that ignores recent events, and that may well be out of date when the State's plans are released. It would also help if Council developed a climate change policy, something that seems relevant when drafting a flood policy.

Sterilized Land

The dictionary offers several definitions, but perhaps the most relevant is *Unfruitful, unproductive*. To describe land that is not built upon as *sterile* is provocative. Tell that to farmers and gardeners and run the risk of ridicule. Green spaces are not only necessary but in an environ like Camden are essential to the character of the township. And this brings me to the most important objection in the whole policy: ***Concessional Development***. Three categories are nominated in the draft Policy (7.3.7). Of these it is the third where things are turned up-side down. An area defined as an HCA is by definition an area to be *Conserved.* This document, without explanation, ring fences it as the one area *for all categories of concessional development.*

This document was either hastily prepared or mischievously constructed. If it benefits anyone it is certainly not the town's folk. Indeed, its implications are decidedly deleterious. A new policy needs to be developed that is cognizant of local knowledge, consistent with NSW Government policies as they are developed and reflect and respect local needs, especially within the HCA.

Thank you

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 23_Attachment 1

Dear Floodplain Team,

Re: 2022 Exhibition

Flood Risk Management Policy

Nepean River Floodplain Risk Management Study and Plan

Unlike the above very lengthy and confusing draft documents, my endeavour in responding is to be brief and clear.

Why is the Camden community being invited to submit on a Flood Risk Management Policy that does not take into account the disastrous flood events of recent months. While cover pages of the documents are dated 2022 the information and studies they purport to rely on date no later than 2020.

Reviews of the Flood Risk Management Policy are required every 5 years. Camden's has not been updated since 2006. Council's assignment is already late by over 10 years: apply for an extension! The tardiness is Council's problem not the communities, yet we are being asked to decipher a plethora of data and information, often arcane, that is not current and then provide meaningful comment on policies derived from them; policies with grave implications for the community. The rush to exhibit now is indefensible.

As is so clearly appropriate and necessary, recent events are informing NSW Government policy-with the Report on the 2022 Flood Inquiry prompting the Premier to announce that "development in areas that are at a high risk of flood... has to stop, and today it does." Failure to incorporate the evidence of recent events in the policy making process, as in the instance of documents under consideration here, flagrantly invalidates that process.

Why were meaningful consultations with community members, many with a wealth of past and present lived experience of flood events and some with highly relevant professional expertise, not sought **prior to** draft policy formulation. Scepticism that this current exercise may be purely a 'tick a box' one is hardly surprising, devaluing community contribution and disrespecting the consultation process

The Heritage Conservation Area (HCA) concessional development clause, at 7.3.7 in the draft Flood Risk Management Policy, is totally inexplicable. In defiance of tireless community commitment to endeavour to preserve all that is valued in the HCA **and** of all of Council's instruments, guidelines and legislated provisions designed to protect the heritage listed town centre against inappropriate development, it alarmingly **singles out** the HCA precisely as being the Precinct in which **all manner** of concessional development may be considered. This will without question open the floodgates to inappropriate proposals, constituting a free pass to any developers

wishing to push the envelope, as unhappily they do all too frequently. It is an outrage that it's been deemed appropriate to include this clause in the draft policy and it must be deleted.

Indeed, the current Exhibition, deeply flawed with much potential to exacerbate harms rather than mitigate the impact of flood for Camden's treasured landscape and built environment and its people, must be withdrawn in its entirety and radically reformed to responsively and responsibly address flood risk.

Yours sincerely

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 24_Attachment 1

Question from Council's Internal staff and WMAwater

Flood Policy - structural soundness

The controls 1) and 2) say the same.

Control 1 – structural engineers report must be required

Control 2 – applicant demonstrate. Council / assessing engineer/ officer decides the adequacy and may request structural engineers report

It is bit subjective. Can it be a loophole?

Flood Risk Management Policy

Public Exhibition Submission

03_Submission 25_Attachment 1

Question from Council staff

Re Flood Policy, in Nepean River catchment for climate change apply for Zone B for greenfield development. When we say, 'greenfield development' does it include transport infrastructure (new roads and rail) or should we say 'greenfield development including future transport infrastructure'?