

21 July 2021

The General Manager  
Yass Valley Council  
PO Box 6  
YASS NSW 2582

Attention: Ms Kellie Jones

**RE: Murrumbateman, Bowning, Bookham and Binalong Flood Study – Addendum Report**

Dear Madam,

This letter forms an addendum to the *Murrumbateman, Bowning, Bookham and Binalong Flood Study (Four Villages Flood Study)* (Lyall & Associates, 2020) and deals with the development of flood planning constraint category mapping for the four villages. This addendum report also deals with the preparation of similar flood mapping for the villages of Gundaroo and Sutton.

## 1. Background

Following the completion of the *Four Villages Flood Study*, Yass Valley Council (**Council**) commissioned Lyall & Associates to prepare the *Yass Floodplain Risk Management Study and Plan (Yass FRMS&P)*, a draft of which will be placed on public exhibition alongside this addendum report. The scope of the *Yass FRMS&P* included the development of an approach to best manage future development on the floodplain at Yass. The approach, details of which are set out in Appendix E of the draft *Yass FRMS&P* report, included the development of a series of maps which enable Council to apply a specific set of flood related controls to future development based on the existing flood risk and the proposed land use.

Following a review of the approach set out in the *Yass FRMS&P*, both Council and the Department of Planning, Industry and Environment (**DPIE**) determined that it was necessary to develop a similar approach for the villages of Murrumbateman, Bowning, Bookham, Binalong, Gundaroo and Sutton (**the six villages**) so that a consistent set of flood related planning controls can be applied to future development in the local government area.

The flood mapping that has been developed as part of this addendum report relies on the results of detailed flood modelling that was undertaken as part of the *Four Villages Flood Study*, as well as similar flood modelling that was undertaken as part of the *Gundaroo Flood Study* (WMAwater, 2016a) and the *Sutton Flood Study* (WMAwater, 2016b). In order to compile the necessary flood mapping for the villages of Gundaroo and Sutton, it was necessary to run the flood models that were developed as part of the respective flood studies for a storm which has an Annual Exceedance Probability (**AEP**) of 0.2% (1 in 500).

Similar to Yass, the six villages are affected by the following two types of flooding:

- **Main Stream Flooding**, which occurs when floodwater surcharges the inbank area of the existing river and creek systems. Main Stream Flooding is typically characterised by relatively deep and fast flowing floodwater, but may be shallower and slower moving in flood fringe areas.
- **Major Overland Flow** which occurs during storms which result in the surcharge of the existing stormwater drainage system. It is also present in the upper reaches of the study catchments.

The following sections of this addendum report set out the methodology which was adopted for developing the flood mapping for the six villages, noting that is consistent with the methodology which is set out in the *Yass FRMS&P*. **Table 1** below lists the figures that are included in a separate A3 volume (**Volume 2**) which forms part of this addendum report and should be referred to when reading the following discussion.

**TABLE 1**  
**LIST OF FIGURES BOUND IN VOLUME 2 OF ADDENDUM REPORT**

Village	Annexure	Figure No.	Figure Title
Murrumbateman	A	A1	Extract of Yass Valley Flood Planning Area Map at Murrumbateman
		A2	Extract of Yass Valley Flood Planning Constraint Category Map at Murrumbateman
Bowning	B	B1	Extract of Yass Valley Flood Planning Area Map at Bowning
		B2	Extract of Yass Valley Flood Planning Constraint Category Map at Bowning
Bookham	C	C1	Extract of Yass Valley Flood Planning Area Map at Bookham
		C2	Extract of Yass Valley Flood Planning Constraint Category Map at Bookham
Binalong	D	D1	Extract of Yass Valley Flood Planning Area Map at Binalong
		D2	Extract of Yass Valley Flood Planning Constraint Category Map at Binalong
Gundaroo	E	E1	Gundaroo Flood Hazard Vulnerability Classification – 1% AEP
		E2	Gundaroo Flood Hazard Vulnerability Classification – 0.2% AEP
		E3	Gundaroo Flood Hazard Vulnerability Classification – PMF
		E4	Gundaroo Hydraulic Categorisation of Floodplain – 1% AEP
		E5	Gundaroo Flood Emergency Response Classification – 1% AEP
		E6	Extract of Yass Valley Flood Planning Area Map at Gundaroo
		E7	Extract of Yass Valley Flood Planning Constraint Category Map at Gundaroo
Sutton	F	F1	Sutton Flood Hazard Vulnerability Classification – 1% AEP
		F2	Sutton Flood Hazard Vulnerability Classification – 0.2% AEP
		F3	Sutton Flood Hazard Vulnerability Classification – PMF
		F4	Sutton Hydraulic Categorisation of Floodplain – 1% AEP
		F5	Sutton Flood Emergency Response Classification – 1% AEP
		F6	Extract of Yass Valley Flood Planning Area Map at Sutton
		F7	Extract of Yass Valley Flood Planning Constraint Category Map at Sutton

## 2. Freeboard Considerations

Unlike flooding on the Yass River at Yass, an inspection of the design water surface profiles that are presented in the three flood study reports highlights that the flood range along the main arms of the watercourses which traverse the six villages is relatively narrow for storm events with AEPs of between 1% (1 in 100) and 0.2% (1 in 500) in intensity. The studies also show that the uncertainty in the peak 1% (1 in 100) AEP flood level estimate is also not as great as that on the Yass River at Yass. As a result, the traditional 0.5 metres freeboard is considered appropriate for deriving the *Flood Planning Level (FPL)* in areas affected by Main Stream Flooding.<sup>1</sup> For the same reasons, a 0.5 metres freeboard has also been applied to peak 1% (1 in 100) AEP flood levels for setting the minimum habitable floor level in future development that is located in an area that is subject to Main Stream Flooding.

Similar to the approach set out in the *Yass FRMS&P*, the extent of the *Flood Planning Area (FPA)* in areas affected by Major Overland Flow has been defined as areas where the depth of inundation would exceed 0.1 metres in a 1% (1 in 100) AEP storm event. Similar to the approach adopted in the *Yass FRMS&P*, a 0.3 metres freeboard has been applied to peak 1% (1 in 100) AEP flood levels for setting the minimum habitable floor level in future development that is located in an area that is subject to Major Overland Flow.

**Volume 2** of this addendum report contains extracts from the *Yass Valley Flood Planning Area Map* showing the extent of the Main Stream Flooding and Major Overland Flow FPAs at the six villages. Also shown on the extracts is the extent of the Main Stream Flooding and Major Overland Flow Outer Floodplain, which is defined as the area of land which lies between the extent of the FPA and the Probable Maximum Flood (**PMF**).

## 3. Flood Planning Constraint Category Mapping

As mentioned, Appendix E of the *Yass FRMS&P* sets out the proposed approach to managing future development on the floodplain at Yass. In order to apply the same approach at the six villages, it was necessary to develop a set of maps which enable appropriate flood related development controls to be applied to future development based on the existing flood risk and the proposed land use. Similar to the approach that was adopted at Yass, the floodplain at the six villages was divided into the following four categories:

- **Flood Planning Constraint Category 1 (FPCC 1)**, which comprises areas where factors such as the depth and velocity of flow, time of rise, and evacuation problems mean that the land is unsuitable for most types of development. The majority of new development types are excluded from this zone due to its potential impact on flood behaviour and the hazardous nature of flooding.
- **Flood Planning Constraint Category 2 (FPCC 2)**, which comprises areas which lie within the extent of the FPA where the existing flood risk warrants careful consideration and the application of significant flood related controls on future development.
- **Flood Planning Constraint Category 3 (FPCC 3)**, which comprises areas which lie within the extent of the FPA but outside areas designated FPCC1 and FPCC2. Areas designated FPCC3 are more suitable for new development and expansion of existing development provided it is carried out in accordance with the controls set out in Appendix E of the *Yass FRMS&P*.

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<sup>1</sup> The Main Stream Flooding FPL at the six villages has been set equal to the peak 1% (1 in 100) AEP flood level plus a freeboard allowance of 0.5 metres. The Main Stream Flooding Flood Planning Area (**FPA**) is the area which lies at or below the Main Stream Flooding FPL.

- **Flood Planning Constraint Category 4 (FPCC 4)**, which comprises the area which lies between the extent of the FPA and the PMF. Flood related controls in areas designated FPCC4 are typically limited to flood evacuation and emergency response, although additional controls apply to essential community facilities and utilities that are critical for response and recovery, as well as community hospitals, residential care facilities and group homes.<sup>2</sup>

The derivation of the four FPCCs firstly involved the derivation of a number of sub-regions which were based on the nature of flooding at the six villages, the sub-categories of which are set out in **Table 2** over.<sup>3</sup> These sub-regions were then combined, with the resulting extents further refined in order to improve the area over which each FPCC applied. **Volume 2** of this addendum report contains extracts of the *Yass Valley Flood Planning Constraint Category Map* which show the subdivision of the floodplain at the six villages into the four FPCCs.

A *Special Flood Consideration Zone* has also been included which relates to areas where the flood risk is considered to be high enough to require additional controls to be applied to future development that is located on land which lies between the Main Stream Flooding FPA and the PMF. The *Special Flood Consideration Zone*, the extent of which is shown on extracts of the *Yass Valley Flood Planning Area and Flood Planning Constraint Category Maps* for each village, has been defined as the extent of land where the flood hazard vulnerability classification for the PMF is H3 or higher, noting that the resulting extent was further refined in order to improve its definition in a number of places. The additional controls in this area relate to the safe and timely evacuation of people who would be occupying the floodplain at the time of a flood event and only apply in areas that are subject to Main Stream Flooding and categorised as FPCC4.

#### **4. Village Specific Flood Related Development Controls**

While the flood range at Yass is significantly greater than in the six villages, especially for the PMF event, the *Yass FRMS&P* recommended the design and implementation of an integrated flood warning system for the Yass Valley which would provide sufficient warning to enable people housed in sensitive use type development to be evacuated from the floodplain in a safe and orderly manner. While the implementation of this measure would permit development of this type to be built on the floodplain at Yass, the same warning time is not available at the six villages. As a result, it is necessary to adopt a slightly different set of controls to future development of this type.

**Schedules 2A and 2B** in **Annexure A** of this letter set out the prescriptive controls which apply to development that is affected by Main Stream Flooding and Major Overland Flow, respectively in the six villages.

Based on the above, it will be necessary to incorporate two sets of schedules in the Development Control Plan that Council is presently in the process of preparing, one set that relates to future development in Yass and the other set which relates to future development in the six villages.

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<sup>2</sup> Note that for the reasons set out in **Section 4** of this letter this definition differs from the definition given in the *Yass FRMS&P* for FPCC 4.

<sup>3</sup> It is noted that it was necessary to prepare additional flood mapping for the villages of Gundaroo and Sutton in order to derive several of the sub-categories set out in **Table 2**. **Volume 2** of this addendum report contains several figures showing the flood hazard vulnerability and flood emergency response classification, as well as the hydraulic categorisation of the floodplain at the two villages as derived as part of this addendum report. The methodology that was adopted for deriving the information that is shown on these figures is set out in the *Yass FRMS&P*.

**TABLE 2  
KEY ELEMENTS COMPRISING FLOOD PLANNING CONSTRAINT CATEGORIES**

<b>Flooding</b>	<b>FPCC</b>	<b>Sub-category</b>	<b>Constraint</b>
Main Stream Flooding	1	a	1% AEP Main Stream Flooding Floodway
		b	1% AEP Main Stream Flooding Flood Hazard Vulnerability Classification H6
	2	a	1% AEP Main Stream Flooding Flood Storage
		b	1% AEP Main Stream Flooding Flood Hazard Vulnerability Classification H5
		c	0.2% AEP Main Stream Flooding Flood Hazard Vulnerability Classification H5 and H6
		d	1% AEP Flood Emergency Response Classification (Flooded - Isolated - Submerged)
		e	1% AEP Flood Emergency Response Classification (Flooded - Isolated - Elevated)
	3	-	Flood Planning Area
	4	-	Extent of PMF
Major Overland Flow	1	-	1% AEP Floodway AND Flood Hazard Vulnerability Classification H4 - H6
	2	a	1% AEP Floodway AND Flood Hazard Vulnerability Classification H1 - H3
		b	1% AEP Flood Storage Area
		c	0.2% AEP Flood Hazard Vulnerability Classification H5 and H6
		d	1% AEP Flood Emergency Response Classification (Flooded - Isolated - Submerged)
		e	1% AEP Flood Emergency Response Classification (Flooded - Isolated - Elevated)
	3	-	Flood Planning Area
	4	-	Extent of PMF

We trust that the information set out in this addendum report will assist Council in better managing the flood risk at the six villages. However, please do not hesitate to contact the undersigned should you wish to discuss any aspect of this addendum report.

Yours faithfully

**Lyll & Associates Consulting Water Engineers**

**Scott Button  
Principal**

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## **ANNEXURE A**

**SCHEDULE 2A**

**PRESCRIPTIVE FLOOD RELATED DEVELOPMENT CONTROLS – MAIN STREAM FLOODING AT SIX VILLAGES**

Planning considerations	Flood Planning Constraint Category 1 (FPCC 1)						Flood Planning Constraint Category 2 (FPCC 2)						Flood Planning Constraint Category 3 (FPCC 3)						Flood Planning Constraint Category 4 (FPCC 4)											
	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions		
Minimum Habitable Floor Level						A1	A2 A4				A2	A5	A1	A2 A4				A2	A5	A1	A2 A4	A3	A3							
Building Components						B2	B2				B2	B2	B2	B2				B2	B2	B2	B2	B3	B3							
Structural Soundness						C2	C2				C2	C2	C3	C2				C2	C2	C3	C2	C4	C4							
Flood Affection						D1	D1				D1	D1	D1	D2				D1	D1	D1	D1	D2								
Emergency Response						E4	E2 or E3				E4 E5	E3 E4	E3 E4	E4	E2 or E3				E4 E5	E2 E4	E2 E4	E4	E2 or E3	E2 E4	E4 E5	E2 E4	E2 E4		E2 E4	
Management and Design						F2 F3	F2 F3				F1	F2	F2 F3 F4	F2 F3	F2 F3				F1	F2	F2 F3 F4	F2	F2 F3	F2 F3 F4	F1	F2	F2 F3 F4	F2	F2	
Stormwater							G2				G1 G2	G1 G2	G1 G2		G2				G1 G2	G1 G2	G1 G2		G2	G1	G1	G1		G1		
Parking and Driveway Access						H2 H4 H6 H7	H6 H7 H8				H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8				H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8	H3	H3					
	Not Relevant			Unsuitable Land Use			Control only applies to development that is proposed on land which lies within the extent of the "Special Flood Considerations Zone" as defined on the Flood Planning and Flood Planning Constraint Category Maps																							



**SCHEDULE 2B**

**PRESCRIPTIVE FLOOD RELATED DEVELOPMENT CONTROLS – MAJOR OVERLAND FLOW AT SIX VILLAGES**

Planning considerations	Flood Planning Constraint Category 1 (FPCC 1)						Flood Planning Constraint Category 2 (FPCC 2)					Flood Planning Constraint Category 3 (FPCC 3)					Flood Planning Constraint Category 4 (FPCC 4)														
	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions	Critical Uses and Facilities	Sensitive Uses and Facilities	Subdivision	Residential	Commercial and Industrial	Recreational and Non-Urban	Alterations and Additions			
Minimum Habitable Floor Level						A1	A2 A4				A2	A5	A1	A2 A4	A3	A3		A2	A5	A1	A2 A4	A3	A3								
Building Components						B1	B1				B1	B1	B1	B1	B3	B3		B1	B1	B1	B1	B3	B3								
Structural Soundness						C1	C1				C1	C1	C1	C1	C4	C4		C1	C1	C1	C1	C4	C4								
Flood Affection						D1	D1				D1	D1	D1	D2																	
Emergency Response						E1	E1				E5				E2 or E3	E2 E4	E5					E2 or E3	E2 E4	E5							
Management and Design						F2	F2				F1 F3	F2	F2 F4	F2	F2 F3	F2 F3 F4	F1 F3		F4			F2 F3	F2 F3 F4	F1 F3							
Stormwater											G1	G1	G1		G1	G1	G1	G1		G1			G1	G1	G1						
Parking and Driveway Access						H2 H4 H6 H7	H6 H7 H8				H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H1 H3 H5 H6 H7	H2 H4 H6 H7	H6 H7 H8			H1 H3 H5 H6	H1 H3 H5 H6	H1 H3 H5 H6	H2 H4 H6	H6 H8	H3	H3							
	Not Relevant			Unsuitable Land Use																											

Prescriptive controls for associated planning considerations under each FPCC		
<p><b>Minimum Habitable Floor Level</b></p> <p><b>A1</b> Habitable floor levels to be set no lower than the 5% AEP flood level plus freeboard<sup>(1)</sup> unless justified by site specific assessment.</p> <p><b>A2</b> Habitable floor levels to be set no lower than the 1% AEP flood level plus freeboard<sup>(1)</sup>.</p> <p><b>A3</b> Habitable floor levels to be set no lower than the PMF envelope level.<sup>(2)</sup></p> <p><b>A4</b> Habitable floor levels to be as close to the Minimum Habitable Floor Level as practical and no lower than the existing floor level when undertaking concessional development.</p> <p><b>A5</b> Habitable floor levels to be as close to the 1% AEP flood level plus freeboard<sup>(1)</sup> as practical, but no lower than the 5% AEP flood level plus freeboard<sup>(1)</sup>. In situations where the habitable floor level is set below the 1% AEP flood level plus freeboard<sup>(1)</sup>, a mezzanine area equal to 30% of the total habitable floor area is to be provided, the elevation of which is to be set no lower than the 1% AEP flood level plus freeboard<sup>(1)</sup>.</p>	<p><b>Building Components &amp; Method</b></p> <p><b>B1</b> All structures to have flood compatible building components below the 1% AEP flood level plus freeboard<sup>(1)</sup> (refer <b>Schedules 3A</b> and <b>3B</b>).</p> <p><b>B2</b> All structures to have flood compatible building components below the 1% AEP flood level plus freeboard<sup>(1)</sup> or the 0.2% AEP flood level, whichever is the highest (refer <b>Schedules 3A</b> and <b>3B</b>).</p> <p><b>B3</b> All structures to have flood compatible building components below the 1% AEP flood plus freeboard<sup>(1)</sup> or the PMF envelope level<sup>(2)</sup>, whichever is the highest (refer <b>Schedules 3A</b> and <b>3B</b>).</p>	<p><b>Structural Soundness</b></p> <p><b>C1</b> Engineers report to certify that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard<sup>(1)</sup>.</p> <p><b>C2</b> Engineers report to certify that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard<sup>(1)</sup> or a 0.2% AEP flood, whichever is the greatest.</p> <p><b>C3</b> Applicant to demonstrate that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard<sup>(1)</sup> or a 0.2% AEP flood, whichever is the greatest, alternatively PMF if required to satisfy emergency response criteria (see below).</p> <p><b>C4</b> Applicant to demonstrate that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard<sup>(1)</sup> or a PMF, whichever is the greatest.</p>
<p><b>Flood Affection</b></p> <p><b>D1</b> Engineers report required to certify that the development will not increase flood affection elsewhere.</p> <p><b>D2</b> The impact of the development on flooding elsewhere to be considered.</p> <p><b>Note:</b> When assessing flood affection the following must be considered:</p> <ol style="list-style-type: none"> <li>1. Loss of storage in the floodplain (Only for development being assessed under Schedule 2A).</li> <li>2. Changes in flood levels and flow velocities caused by alteration of conveyance of flood waters.</li> <li>3. Impacts of urbanisation on peak flood flows and volumes.</li> </ol>	<p><b>Emergency Response</b></p> <p><b>E1</b> Reliable egress for pedestrians and vehicles required during a 1% AEP flood.</p> <p><b>E2</b> Reliable egress for pedestrians and vehicles required during a PMF.</p> <p><b>E3</b> Reliable egress for pedestrians or vehicles is required from the building, commencing at a minimum level equal to the lowest habitable floor level to an area of refuge above the PMF level, or a minimum of 20 m<sup>2</sup> of the dwelling to be above the PMF level.</p> <p><b>E4</b> The development is to be consistent with any relevant flood evacuation strategy or similar plan.</p> <p><b>E5</b> Applicant to demonstrate that there is rising road egress/access from all allotments internal to the subdivision to land which lies above the PMF.</p>	<p><b>Management and Design</b></p> <p><b>F1</b> Applicant to demonstrate that potential development as a consequence of a subdivision or development proposal can be undertaken in accord with this Plan.</p> <p><b>F2</b> Flood Safe Plan (home or business or farm houses) to address safety and property damage issues (including goods storage and stock management) considering the full range of flood risk.</p> <p><b>F3</b> Site Emergency Response Flood Plan required considering the full range of flood risk</p> <p><b>F4</b> No external storage of materials below the Minimum Habitable Floor Level which may cause pollution or be potentially hazardous during any flood.</p>
<p><b>Stormwater</b></p> <p><b>G1</b> Engineers report required to certify that the development will not affect stormwater drainage.</p> <p><b>G2</b> The impact of the development on local overland flooding to be considered.</p>	<p><b>Parking and Driveway Access</b></p> <p><b>H1</b> The minimum surface level of open car parking spaces or carports shall be as high as practical, but no lower than the 5% AEP flood or the level of the crest of the road at the location where the site has access. In the case of garages, minimum surface level shall be as high as practical but no lower than the 5% AEP flood.</p> <p><b>H2</b> The minimum surface level of open car parking spaces, carports or garages shall be as high as practical</p> <p><b>H3</b> Garages capable of accommodating more than three motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods up to the 1% AEP flood plus freeboard<sup>(1)</sup>.</p> <p><b>H4</b> The driveway providing access between the road and parking space shall be as high as practical and generally rising in the egress direction.</p> <p><b>H5</b> The level of the driveway providing access between the road and parking space shall be no lower than 0.3 m below the 1% AEP flood or such that the depth of inundation during a 1% AEP flood is not greater than either the depth at the road or the depth at the car parking space. A lesser standard may be accepted for single detached dwelling houses where it can be demonstrated that risk to human life would not be compromised.</p> <p><b>H6</b> Enclosed car parking and car parking areas accommodating more than three vehicles (other than on Rural zoned land), with a floor level below the 5% AEP flood or more than 0.8 m below the 1% AEP flood level, shall have adequate warning systems, signage and exits.</p> <p><b>H7</b> Restraints or vehicle barriers to be provided to prevent floating vehicles leaving the site during a 1% AEP flood.</p> <p><b>H8</b> Driveway and parking space levels to be no lower than the design ground/floor levels. Where this is not practical, a lower level may be considered. In these circumstances, the level is to be as high as practical, and, when undertaking concessional development, no lower than existing levels.</p> <p><b>H9</b> Flood related parking and access requirements to be advised by Council if necessary. Contact Council for advice as early as possible.</p>	

1. Unless stated otherwise in an adopted location specific Floodplain Risk Management Study and Plan, freeboard is equal to 0.5 m for development being assessed under Schedule 2A and 0.3 m for development being assessed under Schedule 2B.
2. Note that this is a combination of peak flood levels arising from both Main Stream Flooding and Major Overland Flow.