COOTAMUNDRA GUNDAGAI **REGIONAL COUNCIL**

GUNDAGAI FLOODPLAIN RISK MANAGEMENT STUDY AND PLAN FINAL REPORT

VOLUME 2

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DECEMBER 2018

















SES Notes

NANGUS JUNEE ROAD

This map displays the peak flood envelope due to Murrumbidgee River and Jones Creek flooding. It is unlikely that these events will occur concurrently. Accordingly, the displayed flood extent is larger than that which would occur for a Murrumbidgee River only flood event of the same magnitude.

100 200

400

600

The 0.2 EY is also known as the 1 in 5 year flood event. The Murrumbidgee River peak flow in such an event is 112 GL/day and a peak stage of 9.12 m is achieved on the Gundagai stream gauge.









SES Notes

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This map displays the peak flood envelope due to Murrumbidgee River and Jones Creek flooding. It is unlikely that these events will occur concurrently. Accordingly, the displayed flood extent is larger than that which would occur for a Murrumbidgee River only flood event of the same magnitude.

The 10% AEP Event is also known as the 1 in 10 year flood event. The Murrumbidgee River peak flow in such an event is 225 GL/day and a peak stage of 10.08 m is achieved on the Gundagai stream gauge.

100 200

400









SES Notes

NANGUS JUNEE ROAD

This map displays the peak flood envelope due to Murrumbidgee River and Jones Creek flooding. It is unlikely that these events will occur concurrently. Accordingly, the displayed flood extent is larger than that which would occur for a Murrumbidgee River only flood event of the same magnitude.

100 200

400

600

The 5% AEP Event is also known as the 1 in 20 year flood event. The Murrumbidgee River peak flow in such an event is 328 GL/day and a peak stage of 10.8 m is achieved on the Gundagai stream gauge.







0

0.5

roMan\RenortFigures\Figure08_2AEP_d_merged.m

SES Notes

NANGUS JUNEE ROAD

This map displays the peak flood envelope due to Murrumbidgee River and Jones Creek flooding. It is unlikely that these events will occur concurrently. Accordingly, the displayed flood extent is larger than that which would occur for a Murrumbidgee River only flood event of the same magnitude.

The 2% AEP Event is also known as the 1 in 50 year flood event. The Murrumbidgee River peak flow in such an event is 449 GL/day and a peak stage of 11.52 m is achieved on the Gundagai stream gauge.

100 200

400











BRUNGLE RC

SES Notes

NANGUS JUNEE ROAD

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This map displays the peak flood envelope due to Murrumbidgee River and Jones Creek flooding. It is unlikely that these events will occur concurrently. Accordingly, the displayed flood extent is larger than that which would occur for a Murrumbidgee River only flood event of the same magnitude.

The 1% AEP Event is also known as the 1 in 100 year flood event. The Murrumbidgee River peak flow in such an event is 527 GL/day and a peak stage of 11.93 m is achieved on the Gundagai stream gauge.

100 200

400

600

N⁄



- P		
	Cadastre	
0	Sensitivity Analysis Locations	
Depth (m)		
	0 - 0.5	
	0.5 - 1.0	
	1.0 - 1.5	
	1.5 - 2.0	
	2.0 - 2.5	
	2.5 - 3.0	
	> 3.0	
1	15 2 25	
1		









0

0.5

SES Notes

NANGUS JUNEE ROAD

This map displays the peak flood envelope due to Murrumbidgee River and Jones Creek flooding. It is unlikely that these events will occur concurrently. Accordingly, the displayed flood extent is larger than that which would occur for a Murrumbidgee River only flood event of the same magnitude.

The 0.2% AEP Event is also known as the 1 in 500 year flood event. The Murrumbidgee River peak flow in such an event is 743 GL/day and a peak stage of 12.96 m is achieved on the Gundagai stream gauge.

100 200

400











SES Notes

NANGUS JUNEE ROAD

This map displays the peak flood envelope due to Murrumbidgee River and Jones Creek flooding. It is unlikely that these events will occur concurrently. Accordingly, the displayed flood extent is larger than that which would occur for a Murrumbidgee River only flood event of the same magnitude.

0 100 200

400

600

The PMF Event is also known as the Probable Maximum flood event. The Murrumbidgee River peak flow in such an event is 2583 GL/day and a peak stage of 19.84 m is achieved on the Gundagai stream gauge.









4\Arc\ArcMap\ReportFigures\Figure 14_02%AEP_F



FIGURE 15 5% AEP EVENT GUNDAGAI (AEMI)



FIGURE 16 PROVISIONAL HYDRAULIC HAZARD 1% AEP EVENT GUNDAGAI (AEMI)

	Cadastre			
	Hazard			
	H1 - Generally safe for people, vehicles and buildings			
	H2 - Unsafe for small vehicles			
	H3 - Unsafe for all vehicles, children and the elderly			
	H4 - Unsafe for all people and all vehicles			
	H5 - Unsafe for all people and all vehicles. Buildings require special engineering design and construction			
40	H6 - Unsafe for all people and all vehicles. All building types considered vulnerable to failure			
0 0.250.5	1 1.5 2 2.5			



FIGURE 17 PROVISIONAL HYDRAULIC HAZARD 0.2% AEP EVENT GUNDAGAI (AEMI)





FIGURE 18 PROPERTIES FIRST FLOODED OVER FLOOR



Study Area					
First Flooded Floor					
O 0.2 EY					
10% AEP					
5% AEP					
2% AEP					
1% AEP					
0.2% AEP					
PMF					
Not Flooded					
Commercial					
 Residential 					
1					

2

km





FIGURE F5 OPTION FM03 - OTWAY STREET BRIDGE UPGRADE 0.2 EY PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

Contraction of the second		Proposed	Bridge	Upgrade	
Se le la	Impact (m)				
and the second	<-0.3				
and the second second		-0.3 to -0.2	2		
A Service of the serv		-0.2 to -0.	1		
a starsti		-0.1 to -0.05			
In Robert	-0.05 to -0.01				
A States	Minimal Impact				
		0.01 to 0.0)5		
A. Marchart		0.05 to 0.7	1		
Agen IC		0.1 to 0.2			
		0.2 to 0.3			
1. 4° ".		>0.3			
		No Longe	r Floode	ed	
		Newly Flo	oded		
0.250.5	1	1.5	2	2.5 km	

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FIGURE F6 OPTION FM04 - LOWER MIDDLETON DRIVE 5% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

	Acres	Sector Property in		A CONTRACTOR	Theory Party in 1			
		Lowere	d Section o	f Middleto	n Drive			
In	Impact (m)							
		<-0.3						
		-0.3 to -	0.2					
		-0.2 to -	0.1					
		-0.1 to -	0.05					
		-0.05 to	-0.01					
		Minima	l Impact					
		0.01 to	0.05					
		0.05 to	0.1					
1		0.1 to 0	.2					
1.0		0.2 to 0	.3					
		>0.3						
		No Long	ger Floode	d				
		Newly F	looded					
50.	5	1	1.5	2	2.5			
	-	•			km			

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FIGURE F7 OPTION FM04 - LOWER MIDDLETON DRIVE 1% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

	Lowered Section of Middleton Drive							
Imp	Impact (m)							
	<-0.3							
	-0.3 to -0.2							
	-0.2 to -0.1							
	-0.1 to -0.05							
	-0.05 to -0.01							
] Minimal Impact							
	0.01 to 0.05							
	0.05 to 0.1							
·	0.1 to 0.2							
ŝ	0.2 to 0.3							
a	>0.3							
	No Longer Flooded							
	Newly Flooded							
50.5	1 1.5 2 2.5							
	KIII							

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FIGURE F9 OPTION FM05 - INSTALL CULVERT THROUGH MIDDLETON DRIVE 10% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

0 0.250.5

FIGURE F10A OPTION FM06 - SHERIDAN LANE CAUSEWAY UPGRADE 0.2 EY PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

FIGURE F10B OPTION FM06 - SHERIDAN LANE CAUSEWAY UPGRADE 0.2 EY PEAK FLOOD LEVEL IMPACT JONES CREEK

FIGURE F11A OPTION FM07 - FULL SHERIDAN LANE LEVEE 5% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

0 0.250.5

FIGURE F12A OPTION FM07 - FULL SHERIDAN LANE LEVEE 1% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

0 0.250.5

FIGURE F13 OPTION FM08 - TEMPORARY LOCALISED SHERIDAN LANE LEVEE 5% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

FIGURE F14 OPTION FM09 - VEGETATION MANAGEMENT 5% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

10 million 1					
10.22	Vegetation Management Regions				
13.	Impact (m)				
All and	<-0.3				
Streets -	-0.3 to -0.2				
	-0.2 to -0.1				
~	-0.1 to -0.05				
	-0.05 to -0.01				
The state	Minimal Impact				
June 1	0.01 to 0.05				
	0.05 to 0.1				
	0.1 to 0.2				
	0.2 to 0.3				
Te	>0.3				
-	No Longer Flooded				
5	Newly Flooded				
State States					
0 0.250.5	5 1 1.5 2 2.5				
	km				

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FIGURE F15 OPTION FM09 - VEGETATION MANAGEMENT 1% AEP PEAK FLOOD LEVEL IMPACT MURRUMBIDGEE RIVER

	Sauce View - 1	Statistics.		the state of the	and the second se	
all'ent	\bigotimes	Vege	tation Man	agemen	t Regions	
The second	Impact (m)					
A		<-0.3	i			
Mar Con		-0.3 t	o -0.2			
		-0.2 t	o -0.1			
-		-0.1 t	o -0.05			
		-0.05	to -0.01			
The second		Minin	nal Impact			
		0.01	to 0.05			
		0.05	to 0.1			
		0.1 to	0.2			
		0.2 to	0.3			
The		>0.3				
		No Lo	onger Floo	ded		
		Newl	y Flooded			
0 0 250 5		1	15	2	2.5	
0.200.0	,		1.0	_	km	
	M. Sugar	CONTRACTOR OF THE	A STREET MARKET	And I wanted where the second		

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