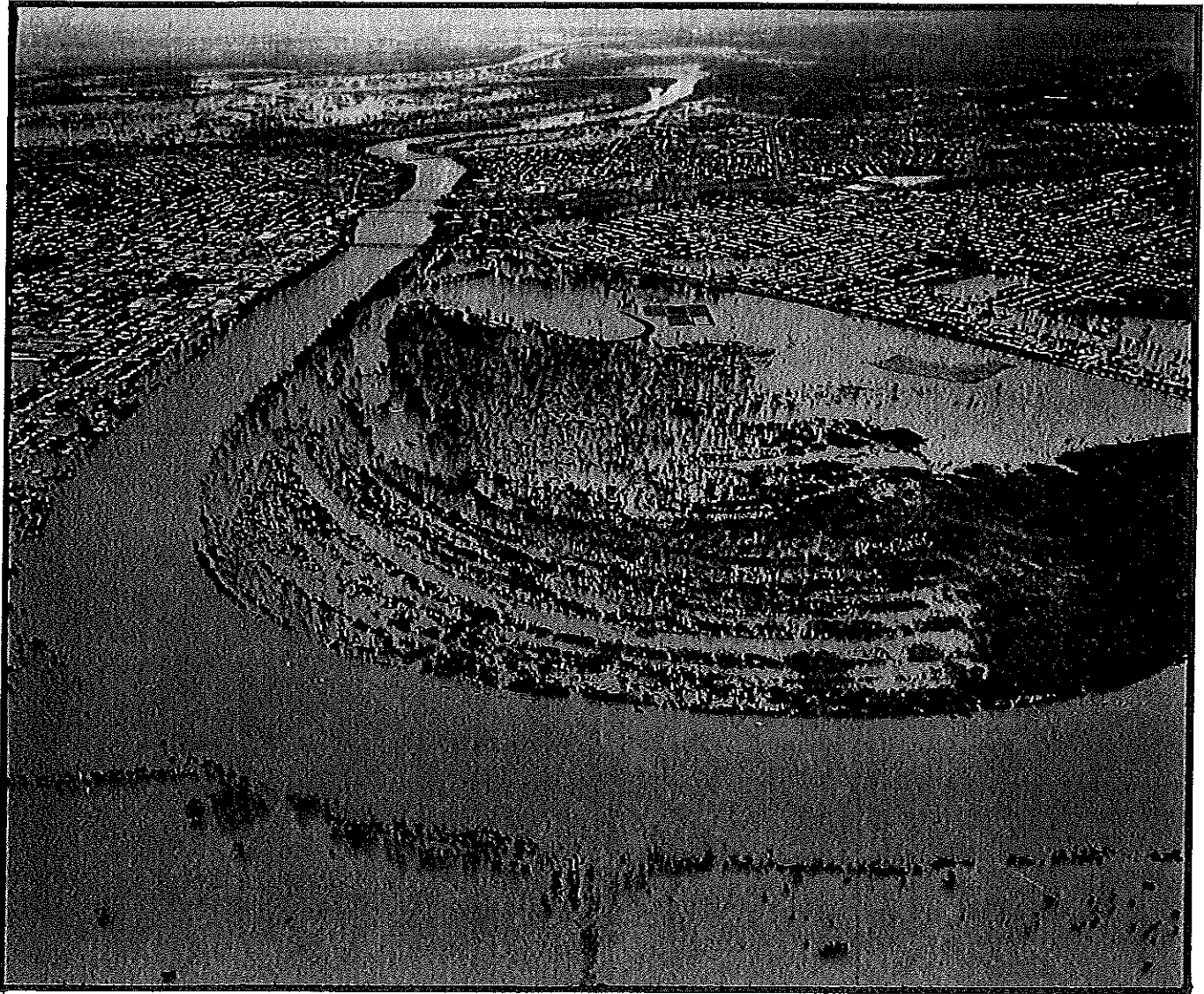


**WATER RESOURCES COMMISSION**



**ROCKHAMPTON FLOOD MANAGEMENT STUDY**

**PHASE 2 REPORT**

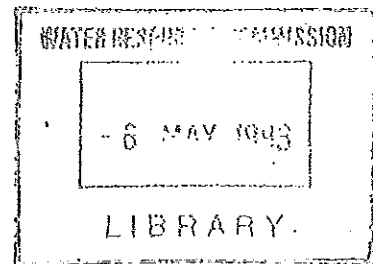
**VOLUME 3  
APPENDICES**



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Vol 3**

**NOVEMBER 1992**



**WATER RESOURCES COMMISSION**

**ROCKHAMPTON FLOOD MANAGEMENT STUDY**

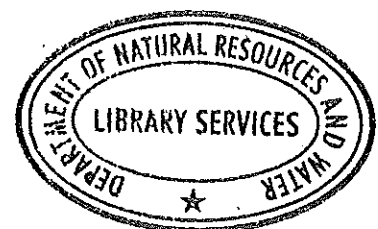
**PHASE 2 REPORT**

**VOLUME 3  
APPENDICES**

**CMS&F**

**CAMP SCOTT FURPHY PTY LTD  
ACN 004 939 548**

**NOVEMBER 1992**



# **ROCKHAMPTON FLOOD MANAGEMENT STUDY**

## **PHASE 2 REPORT**

**VOLUME 1      EXECUTIVE SUMMARY**

**VOLUME 2      REPORT**

**VOLUME 3      APPENDICES**

# ROCKHAMPTON FLOOD MANAGEMENT STUDY

## PHASE 2

### VOLUME 3 – APPENDICES

#### TABLE OF CONTENTS

- B COMMUNITY CONSULTATION
- G COST ESTIMATES
- J HYDRAULIC MODEL STUDY – SUMMARY OF RESULTS FOR FLOOD MITIGATION OPTIONS
- K FLOOD LIABLE LAND DEVELOPMENT GUIDELINES
- L STATEMENT OF DEPARTMENT OF TRANSPORT

NOTE: Appendices unchanged from Phase 1 not included.

APPENDIX B

**APPENDIX B**  
**COMMUNITY CONSULTATION**

B5 Agenda and Notes from Public Meetings May 1992 (Phase 2)

B5 Agenda and Notes from  
Public Meetings May 1992  
(Phase 2)

# ROCKHAMPTON FLOOD MANAGEMENT STUDY

## PUBLIC CONSULTATION MAY 1992

### Notes from Public Meeting

The Caves Hall 7.30 pm 5 May 1992

6 attendees (+ 5 apologies for absence)

#### 2. Measures for Immediate Implementation

There was discussion regarding the adequacy of DOT proposals for the Alligator Creek crossing upgrade. Residents understood that the design would increase flood level in Alligator Creek by 0.1 m. DS stated he did not have full design information but understood this to be based on 50 year ARI flow in Alligator Creek, but unaware of tailwater conditions assumed. DS undertook to request details from DOT in regard to design assumptions, design criteria, bridge length, embankment height.

Proposals for flood warning upgrade, recorded message service, flood markers were well received. The following suggestions were made (Peter Baggett) in regard to giving a good service in this regard:

- recording service to include Tartus, Riverslea, The Gap, Yaamba and Rockhampton to be useful to communities u/s of Rockhampton;
- the information should be run continuously, so that if missed first time round, a caller can wait and get a repeat;
- the information should be updated as frequently as necessary depending on conditions according to a classification system (eg. 3 levels of alert).

The central control of all river functions was raised – DS referred to discussion regarding better coordination of functions in the report. Peter Baggett suggested that each November 1st, that a stockpile of sand and sandbags be brought in to a central location – for subsequent flood use if necessary – if not required could be used up over remainder of year for other purposes.

#### 3. Items for consideration in Phase 2

General discussion regarding Yeppen crossing and need to upgrade was expressed.

Levees were not discussed in detail as they did not affect Livingstone Shire residents directly.

The question of source material was raised, and one suggestion was made that material dredged from the river may be suitable. DS suggested this may be too low strength, but this would be looked into.



DS pointed out whilst flood maps would be prepared for urban area, this would not be possible for the rural area as there were no contour plans available on which to base maps. However, the hydraulic model would now be extended to Yaamba, enabling estimated flood levels for a range of flood magnitudes to be given.

4. Discounted Options

General agreement that these were not worth pursuing.

5. Other Issues

No points raised.

6. Other Business

Mr Baggett requested a longer period to read display material/report prior to meetings, and that the Executive Summary at least, be made more widely available.

Glenda Mather in summing up stated the necessity of taking a long term view in formulating proposals, as that part of what was now required was to put right past mistakes.

# ROCKHAMPTON FLOOD MANAGEMENT STUDY

## PUBLIC CONSULTATION MAY 1992

### Notes from Public Meeting

Rockhampton City Hall 7.30 pm 6 May 1992

16 attendees

#### 2. Discussion on Measures for Immediate Implementation

Bruce Highway upgrade at Alligator Creek supported.

Upgrading of flood warning system, flood markers, flood preparedness leaflets etc. well received. In response to a question that these would include the area upstream of the barrage, DS said they would. Regarding density of marking, DS suggested 4 per city block in urban area, probably less in rural residential areas.

Yeppen crossing – DS explained need to both increase bridge length and height and explained funding situation.

Mr Bailey suggested that costs may be reduced by using pipe-jacking or other techniques to increase waterway area to avoid need for total reconstruction.

#### 3. Discussion on Flood Mitigation Options to be considered in detail in Phase 2

There was considerable discussion regarding levees–

landowners who may be affected were concerned re stock access and stock watering.

Resumption needs to be addressed, DS & Mr Carpenter agreed there was a possibility that easements would be used to reduce need for resumptions.

DS stressed that alignments not fixed – discussions will be held with those landowners who may be affected.

The problems of local drainage within levees was raised and it was agreed this could be a problem – siting levees away from developed areas to allow for some storage, and pumping if necessary were discussed.

The source of levee material was raised – DS stated this is part of Phase 2 studies.

Comments were made in regard to high velocity of flow in Port Curtis area d/s of Yeppen bridge, so levee in this area would need considerable protection.

The same concept applies along the river – DS said that retaining wall may be required as part of system along river bank when space was limited and/or velocities high.

The necessity to ramp both the highway and railway over levee near Jellicoe Street

was discussed and it was agreed that this would be required.

The need for a flood gate on the main drain and flap valves on storm water outfalls was discussed.

Ms Dawson raised the possibility of using prisoners for levee construction as a means of reducing costs. DS said cost estimates would be based on typical contract rates, but this possibility could be explored by the community at the appropriate time.

The effect of the levees on flow distribution, flood levels and velocities was discussed by a number of persons. DS stated that this was one of the major parts of the Phase 2 study, and these effects would be studied in detail by using the hydraulic model currently being set up. The question of the High Bank (Pink Lily) was raised – DS stated that stabilisation was recommended, model would be used to set control level.

The effect of increasing the height of the levees and the airport would also be studied, as would the effect of the proposed runway extension. The rebuilding of levees to their pre-flood condition was raised and Mr Carpenter pointed out that this was done using National Disaster Relief Funds which are not available for any purpose other than for reinstatement of damaged works.

The positive effect of levee protection in raising property values was discussed, as was the possibility of re-zoning and relocation of planning controls behind the levee. DS pointed out that residents protected by a levee need to be aware of the levee of protection afforded and not lulled into a false sense of security.

The need for upgrading Yeppen Crossing to reduce indirect losses was stressed by a number of persons, and it was pointed out that business losses were, in part, passed on to individuals in loss of earnings etc. This was seen as the top priority by at least some of the attendees.

In discussing the Yeppen Crossing, it was asked whose responsibility it was. DS stated that he believed DOT to be the responsible authority.

The flood mapping proposal was explained and did not receive any adverse comment.

#### 4. Discounted Flood Mitigation Options

Mr Bailey disagreed with the discounting of the major Pink Lily – Yeppen – Midgee floodway. DS outlined large size of channel which would be required. Mr Bailey was invited to submit his proposals to DS who undertook to further look into this.

No reaction to other discounted options.

#### 5. Other Identified Issues

There was some discussion regarding Scrubby Creek – DS pointed out that the Phase 1 report makes a number of suggestions in this regard, but cannot be done within current study.

## 6. Other Business

Ms Dawson asked if it would be possible to get input from the public, say a few nominated persons, when results of model studies are known. DS stated that this had been suggested to the Steering Committee early in Phase 1 but had not been taken up. DS suggested Ms Dawson write to Mr McKenna as Chairman of the Steering Committee in this regard.

DS outlined timetable for remainder of study – there would be a further round of public meetings once Phase 2 had been completed – prior to completion of the final report.

In response to a question, DS outlined the possibility for funding under FWRAP; the likely lead time; the need to compete with other Federal State priorities; and that the initiation of any such application for funding would have to come from Council.

Mr Carpenter was asked for feedback on Councils response. Mr Carpenter replied that Council was awaiting the Final Report before proceeding.

# ROCKHAMPTON FLOOD MANAGEMENT STUDY

## PUBLIC CONSULTATION MAY 1992

### Notes from Public Meeting

Gracemere Community Centre 7.30 pm 7 May 1992

31 attendees

#### 2. Discussion on Measures for Immediate Implementation

Mr Besch asked for flood warning station at Yaamba to be upgraded to telephone telemetry and incorporated into recorded message system.

#### 3. Flood Mitigation Options to be considered in detail in Phase 2

A request was made to include consideration of the impact of the Capricorn Highway on flood levels as well as Yeppen Crossing. DS agreed that model studies would look at this. A number of points were raised in regard to the Capricorn Highway.

- it was pointed out that closure of the Capricorn Highway between Gracemere and the Bruce Highway was not so critical as the Bruce Highway Crossing as there is an alternative access route;
- the question was raised that if the Capricorn Highway was designed as a low level crossing subject to flooding, why is it raised above the surrounding ground level. Several speakers suggested that either adequate cross drainage (culvert) capacity be installed, or the road be lowered;
- several speakers believed that this section of the Capricorn Highway caused flood levels to increase on the upstream side;
- one speaker noted that the Capricorn Highway may be widened to 4 lane and that the existing road reserve accommodates this.

In regard to Yeppen Crossing, there appeared to be a general view that increasing bridge length to lessen the impact on flood levels would be beneficial. DS explained that if this is recommended, it will require a combination of additional waterway area and increased road height, and that hydraulic model studies will determine the requirements.

Following a discussion of costs and possible funding for the above, Bill Johnson asked whether it was possible that the Department of Defence would contribute to funding. DS said he would follow this up.

6. Other Business

Bill Johnson, in summing up his view of the report and meeting said:

- there is a general consensus of opinion from those attending the meeting that the proposals (levees) will have an adverse impact on people in the Fairybower area;
- he regarded the Phase 1 report as unsatisfactory in that it did not mention problems caused by the Capricorn Highway, that Scrubby Creek was not going to be further investigated, and that there was insufficient emphasis regarding the Fairybower/Gracemere area. On a show of hands 4 persons agreed with this view.

APPENDIX G

**APPENDIX G**  
**COST ESTIMATES**













FLOOD MITIGATION OPTION A2  
 LÉVEE PORT CURTIS, DEPOT HILL & LOWER CBD  
 DESIGN CRITERIA - 1000yr ARI + 0.6m freeboard

SEPTEMBER 1992

COST ESTIMATE

ITEM DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
1.0 CLEARING AND GRUBBING	ha	35.8	1000.00	35800
2.0 STRIP TOPSOIL 150 mm TO STOCKPILE WITHIN 500 m	m3	40415	3.00	121245
3.0 BASE PREPARATION	m2	269450	0.70	188615
4.0 EXCAVATE FROM BORROW PIT AND DEPOSIT AS FILL WITHIN 5 km INCLUDING COMPACTION	m3	548320	8.00	4386560
5.0 TRIMMING	m2	276635	1.00	276635
6.0 SPREAD TOPSOIL FROM STOCKPILE WITHIN 500 m	m3	40415	3.50	141452.5
7.0 GRASSING	m2	276635	0.30	82990.5
8.0 EASEMENT ACQUISITION (PROV.)	ha	35.8	7500.00	268500
9.0 ROADWORKS				
9.1 Major crossings	No.	1	150000.00	150000
9.2 Minor crossings	No.	4	50000.00	200000
10.0 RAILWAY CROSSINGS	Item			300000
11.0 FLOOD GATE (MAIN DRAIN)	Item			125000
12.0 RETAINING WALL				
12.1 Reinforced concrete wall	m2	2800	200.00	560000
12.2 Reinforced concrete footing	m	1500	140.00	210000
13.0 STORMWATER DRAINAGE (PROV.)	Item			500000
14.0 TRAFFIC AND RAIL DISRUPTION (PROV.)	Item			200000
15.0 SPILLWAYS (PROV.)	Item			600000
SUBTOTAL				8346798
PRELIMINARIES 10%				834680
ENGINEERING 10%				834680
SUBTOTAL				10016158
CONTINGENCY 10%				1001616
TOTAL				11017773

FLOOD MITIGATION OPTION A3  
 LEVEE ROCKHAMPTON AIRPORT  
 DESIGN CRITERIA - 100yr ARI + 0.6m freeboard

SEPTEMBER 1992

COST ESTIMATE

ITEM DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
1.0 CLEARING AND GRUBBING	ha	25.5	1000.00	25500
2.0 STRIP TOPSOIL 150 mm TO STOCKPILE WITHIN 500 m	m3	26835	3.00	80505
3.0 BASE PREPARATION	m2	178900	0.70	125230
4.0 EXCAVATE FROM BORROW PIT AND DEPOSIT AS FILL WITHIN 5 km INCLUDING COMPACTION	m3	273380	8.00	2187040
5.0 TRIMMING	m2	183500	1.00	183500
6.0 SPREAD TOPSOIL FROM STOCKPILE WITHIN 500 m	m3	26835	3.50	93922.5
7.0 GRASSING	m2	183500	0.30	55050
8.0 EASEMENT ACQUISITION (PROV.)	ha	25.5	7500.00	191250
9.0 ROADWORKS				
9.1 Major crossings	No.	-	100000.00	-
9.2 Minor crossings	No.	1	25000.00	25000
10.0 RAILWAY CROSSINGS	Item			-
11.0 FLOOD GATE	Item			-
12.0 RETAINING WALL				
12.1 Reinforced concrete wall	m2	-	200.00	-
12.2 Reinforced concrete footing	m	-	140.00	-
13.0 STORMWATER DRAINAGE (PROV.)	Item			-
14.0 TRAFFIC AND RAIL DISRUPTION (PROV.)	Item			-
15.0 RAISE EXISTING HOUSES (PROV.)	No.	10	20000.00	200000
16.0 SPILLWAYS (PROV.)	Item			100000
SUBTOTAL				3266998
PRELIMINARIES 10%				326700
ENGINEERING 10%				326700
SUBTOTAL				3920397
CONTINGENCY 10%				392040
TOTAL				4312437













**FLOOD MITIGATION OPTION A1  
LEVEE DEPOT HILL & LOWER CBD**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 1000yr ARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbing (m)	Clearing & grubbing (m2)	Stripping (m)	Stripping (m2)
0		13.00	10.82	0.00	0.0		0.0		0.00		0.00	
	100					2088.6		1342.1		1808.0		1308.0
100		8.00	10.77	2.77	41.8		26.8		36.16		26.16	
	100					7488.3		3488.2		4396.0		3396.0
200		6.00	10.72	4.72	108.0		42.9		51.76		41.76	
	200					21021.9		8469.0		10240.0		8240.0
400		6.00	10.58	4.58	102.2		41.8		50.64		40.64	
	2600					209071.2		95517.4		118976.0		92976.0
3000		6.00	9.36	3.36	58.6		31.7		40.88		30.88	
	1400					82037.8		44390.2		57232.0		43232.0
4400		6.00	9.36	3.36	58.6		31.7		40.88		30.88	
	950					47304.7		27693.4		36480.0		26980.0
5350		7.00	9.74	2.74	41.0		26.6		35.92		25.92	
	250					7507.6		5617.9		7980.0		5480.0
5600		8.00	9.74	1.74	19.1		18.3		27.92		17.92	
	400					5390.2		6102.4		9968.0		5968.0
6000		9.00	9.99	0.99	7.9		12.2		21.92		11.92	
	300					2364.1		3649.1		6576.0		3576.0
6300		9.00	9.99	0.99	7.9		12.2		21.92		11.92	
	700					7623.0		9784.5		16576.0		9576.0
7000		9.00	10.43	1.43	13.9		15.8		25.44		15.44	
					TOTAL	391897		206054		270232		200732

**FLOOD MITIGATION OPTION A2  
LEVEE PORT CURTIS, DEPOT HILL & LOWER CBD**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 1000yr ARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbing (m)	Clearing & grubbing (m2)	Stripping (m)	Stripping (m2)
400		13.00	10.82	0.00	0.0		0.0		0.00		0.00	
	100					2154.5		1362.7		1828.0		1328.0
500		8.00	10.82	2.82	43.1		27.3		36.56		26.56	
	160					12423.9		5680.1		7129.6		5529.6
660		6.00	10.82	4.82	112.2		43.7		52.56		42.56	
	100					11010.2		4333.4		5216.0		4216.0
760		6.00	10.72	4.72	108.0		42.9		51.76		41.76	
	220					23124.1		9315.9		11264.0		9064.0
980		6.00	10.58	4.58	102.2		41.8		50.64		40.64	
	4320					347379.8		158705.8		197683.2		154483.2
5300		6.00	9.36	3.36	58.6		31.7		40.88		30.88	
	1400					82037.8		44390.2		57232.0		43232.0
6700		6.00	9.36	3.36	58.6		31.7		40.88		30.88	
	950					47304.7		27693.4		36480.0		26980.0
7650		7.00	9.74	2.74	41.0		26.6		35.92		25.92	
	250					7507.6		5617.9		7980.0		5480.0
7900		8.00	9.74	1.74	19.1		18.3		27.92		17.92	
	400					5390.2		6102.4		9968.0		5968.0
8300		9.00	9.99	0.99	7.9		12.2		21.92		11.92	
	300					2364.1		3649.1		6576.0		3576.0
8600		9.00	9.99	0.99	7.9		12.2		21.92		11.92	
	700					7623.0		9784.5		16576.0		9576.0
9300		9.00	10.43	1.43	13.9		15.8		25.44		15.44	
					TOTAL	548320		276635		357933		269433



**FLOOD MITIGATION OPTION A2  
LEVEE PORT CURTIS, DEPOT HILL & LOWER CBD**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 200yrARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbing (m)	Clearing & grubbing (m2)	Stripping (m)	Stripping (m2)
400		13.00	10.18	0.00	0.0		0.0		0.00		0.00	
	100					1386.1		1098.7		1571.8		1071.8
500		8.00	10.18	2.18	27.7		22.0	4835.1	31.44	6309.9	21.44	4709.9
	160					9145.3						
660		6.00	10.18	4.18	86.6		38.5	3763.5	47.44	4663.0	37.44	3663.0
	100					8290.2						
760		6.00	9.98	3.98	79.2		36.8	7843.9	45.82	9835.9	35.82	7635.9
	220					16361.7						
980		6.00	9.70	3.70	69.5		34.5	133398.8	43.59	173131.8	33.59	129931.8
	4320					243265.1						
5300		6.00	8.82	2.82	43.1		27.3	38156.0	36.56	51184.0	26.56	37184.0
	1400					60325.4						
6700		6.00	8.82	2.82	43.1		27.3	23188.9	36.56	32110.0	26.56	22610.0
	950					33134.7						
7650		7.00	9.13	2.13	26.7		21.6	4360.3	31.04	6760.0	21.04	4260.0
	250					4536.9						
7900		8.00	9.13	1.13	9.6		13.3	4040.9	23.04	7968.0	13.04	3968.0
	400					2303.5						
8300		9.00	9.35	0.35	1.9		6.9		16.80		6.80	
TOTAL						378749		220686		293534		215034

**FLOOD MITIGATION OPTION A3  
LEVEE ROCKHAMPTON AIRPORT**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 200yrARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbing (m)	Clearing & grubbing (m2)	Stripping (m)	Stripping (m2)
0		11.00	11.16	0.16	0.7		5.3		15.27		5.27	
	340					125.1		902.6		2596.0		896.0
340		12.00	11.16	0.00	0.0		0.0	7512.0	0.00	9817.6	0.00	7317.6
	500					13136.8						
840		8.00	11.16	3.16	52.5		30.0	10560.6	39.27	13281.1	29.27	10281.1
	300					22189.9						
1140		7.00	11.41	4.41	95.4		40.4	8117.5	49.27	9696.7	39.27	7896.7
	180					21709.9						
1320		6.00	11.56	5.56	145.8		49.8	11807.6	58.47	14288.5	48.47	11488.5
	280					30149.8						
1600		8.00	11.70	3.70	69.5		34.5	21170.7	43.59	26610.2	33.59	20610.2
	600					43669.8						
2200		8.00	11.89	3.89	76.0		36.1	10704.8	45.11	13623.4	35.11	10423.4
	320					21029.0						
2520		9.00	12.25	3.25	55.4		30.8	18317.0	40.04	24347.7	30.04	17847.7
	650					30248.9						
3170		10.00	12.61	2.61	37.7		25.5	59669.4	34.88	83490.0	24.88	58190.0
	2530					81677.0						
5700		10.50	12.64	2.14	26.9		21.6	16911.3	31.12	22984.0	21.12	16484.0
	650					26207.5						
6350		8.00	11.20	3.20	53.8		30.4	16214.4	39.60	21296.0	29.60	15796.0
	550					27830.4						
6900		8.00	10.98	2.98	47.4		28.6	35717.1	37.84	47300.0	27.84	34800.0
	1250					59302.0						
7600		8.00	10.98	2.98	47.4		28.6		37.84		27.84	
TOTAL						377276		217605		289331		212031

**FLOOD MITIGATION OPTION A2  
LEVEE PORT CURTIS, DEPOT HILL & LOWER CBD**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 500yrARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbing (m)	Clearing & grubbing (m2)	Stripping (m)	Stripping (m2)
400		13.00	10.63	0.00	0.0		0.0		0.00		0.00	
500	100	8.00	10.63	2.63	38.1	1906.4	25.7	1283.4	35.02	1751.0	25.02	1251.0
660	160	6.00	10.63	4.63	104.2	11383.7	42.2	5426.2	51.02	6883.3	41.02	5283.3
760	100	6.00	10.52	4.52	99.6	10189.7	41.2	4169.8	50.12	5057.3	40.12	4057.3
980	220	6.00	10.33	4.33	92.2	21098.2	39.7	8900.4	48.61	10861.0	38.61	8661.0
5300	4320	6.00	9.25	3.25	55.3	318441.3		152229.4	40.00	191400.2	30.00	148200.2
6700	1400	6.00	9.25	3.25	55.3	77350.0	30.8	43120.3	40.00	56000.0	30.00	42000.0
7650	950	6.00	9.25	3.25	55.3	43792.9	30.8	26635.8	40.00	56000.0	30.00	42000.0
7900	250	7.00	9.58	2.58	36.9	6656.4	25.3	5288.0	34.64	35454.0	24.64	25954.0
8300	400	8.00	9.58	1.58	16.3	4455.0	17.0	5558.2	26.64	7660.0	16.64	5160.0
		9.00	9.82	0.82	6.0		10.8		20.56	9440.0	10.56	5440.0
					TOTAL	495274		252612		324507		246007

**FLOOD MITIGATION OPTION A3  
LEVEE ROCKHAMPTON AIRPORT**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 500yrARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbing (m)	Clearing & grubbing (m2)	Stripping (m)	Stripping (m2)
0		11.00	11.82	0.82	6.0		10.8		20.60		10.60	
340	340	12.00	11.82	0.00	0.0	1022.7	0.0	1835.7	0.00	3501.2	0.00	1801.2
840	500	8.00	11.82	3.82	73.8	18450.4	35.5	8884.2	44.60	11148.8	34.60	8648.8
1140	300	7.00	11.82	4.82	123.3	29564.6	45.8	12207.2	44.60	14878.6	44.60	11878.6
1320	180	7.00	12.07	5.07	123.3	27284.9	45.8	9105.5	54.60	10655.1	44.60	8855.1
1600	280	6.00	12.22	6.22	179.9	38292.8	55.3	13344.4	63.80	15779.5	53.80	12979.5
2200	600	8.00	12.36	4.36	93.6	58451.2	40.0	24463.9	48.92	15779.5	38.92	12979.5
2520	320	8.00	12.55	4.55	101.2	28218.5	41.6	12387.2	50.44	29805.1	40.44	23805.1
3170	650	9.00	12.86	3.86	75.2	42389.1	35.9	21665.7	44.91	15255.6	34.91	12055.6
5700	2530	10.00	13.25	3.25	55.3	123396.2	30.8	73126.0	40.00	27596.4	30.00	21096.4
6350	650	10.50	13.29	2.79	42.3	36902.6	27.0	20127.3	36.32	96544.8	26.32	71244.8
6900	550	8.00	11.75	3.75	71.3	37183.7	34.9	18708.9	44.00	26104.0	34.00	19604.0
7600	1250	8.00	11.53	3.53	64.0	79954.5	33.1	41386.4	42.24	23716.0	32.24	18216.0
		8.00	11.53	3.53	64.0		33.1		42.24	52800.0	32.24	40300.0
					TOTAL	521111		257242		327785		250485



**FLOOD MITIGATION OPTION A3  
LEVEE ROCKHAMPTON AIRPORT**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 1000yr ARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbling (m)	Clearing & grubbling (m2)	Stripping (m)	Stripping (m2)
0		11.00	11.83	0.83	6.1		10.8		20.64		10.64	
340	340	12.00	11.83	0.00	0.0	1032.9	0.0	1843.5	0.00	3508.8	0.00	1808.8
840	500	8.00	11.83	3.83	74.0	18498.9	35.6	8895.7	44.64	11160.0	34.64	8660.0
1140	300	7.00	12.13	5.13	125.8	29967.5	46.3	12282.9	44.64	14952.0	34.64	11952.0
1320	180	6.00	12.31	6.31	184.5	27926.3	56.0	9210.3	55.04	10756.8	45.04	8956.8
1600	280	8.00	12.48	4.48	98.2	39578.8	56.0	13576.7	64.48	16004.8	54.48	13204.8
2200	600	8.00	12.68	4.68	106.3	61359.4	40.9	25060.6	49.84	30384.0	39.84	24384.0
2520	320	8.00	12.68	4.68	106.3	30691.1	42.6	12930.2	51.44	15782.4	41.44	12582.4
3170	650	9.00	13.15	4.15	85.5	48467.8	38.2	23155.7	47.20	29042.0	37.20	22542.0
5700	2530	10.00	13.52	3.52	63.6	141937.0	33.0	78341.7	42.16	101604.8	32.16	76304.8
6350	650	10.50	13.52	3.02	48.6	43325.5	28.9	21762.1	38.16	27690.0	28.16	21190.0
6900	550	8.00	12.13	4.13	84.7	43845.3	38.1	20296.3	47.04	25256.0	37.04	19756.0
7600	1250	8.00	11.85	3.85	74.7	93362.5	35.7	44684.9	44.80	56000.0	34.80	43500.0
		8.00	11.85	3.85	74.7		35.7		44.80		34.80	
					TOTAL	579993		272041		342142		264842

**FLOOD MITIGATION OPTION A5  
LEVEE SPLITTERS CREEK**

Top Width (m): 4  
 Side Slope (1 in H): 4  
 Design Criteria: 1000yr ARI + 0.6m freeboard  
 Date: 11-09-92

Chainage (m)	Distance (m)	Existing Level (mAHD)	Design Level (mAHD)	Height (m)	Fill Area (m2)	Fill Volume (m3)	Grassed Area (m)	Grassed Area (m2)	Clearing & grubbling (m)	Clearing & grubbling (m2)	Stripping (m)	Stripping (m2)
0		17.80	10.43	0.00	0.0		0.0		0.00		0.00	
160	160	13.20	10.43	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00	0.0
480	320	11.47	9.99	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00	0.0
830	350	10.70	10.59	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00	0.0
1100	270	10.70	10.59	0.00	0.0	170.6	6.1	820.8	0.00	2162.4	0.00	812.4
1400	300	10.80	11.05	0.25	1.3	1511.4	6.1	2830.8	16.02	5782.2	6.02	2782.2
1670	270	10.50	11.57	1.07	8.8	6341.0	12.8	5193.5	22.53	7770.6	12.53	5070.6
1910	240	9.40	12.03	2.63	38.2	6456.5	25.7	5085.2	35.03	7362.1	25.03	4962.1
2170	260	10.90	12.44	1.54	15.6	3871.8	16.7	4240.3	26.32	6744.7	16.32	4144.7
2420	250	10.90	12.35	1.45	14.1	2308.3	15.9	3164.2	25.56	5599.6	15.56	3099.6
2660	240	11.60	12.25	0.65	4.3	1432.3	9.4	2564.2	19.23	4916.3	9.23	2516.3
2890	230	11.20	12.17	0.97	7.6	1912.6	12.0	2864.0	21.73	5105.9	11.73	2805.9
3130	240	11.00	12.08	1.08	9.0	2874.7	12.9	3511.8	22.66	5835.6	12.66	3435.6
3330	200	10.50	12.00	1.50	14.9	4810.3	16.3	4031.3	25.97	5934.8	15.97	3934.8
3530	200	9.50	11.92	2.42	33.2	6938.2	24.0	4900.7	33.38	6778.3	23.38	4778.3
		9.30	11.85	2.55	36.2		25.0		34.40		24.40	
					TOTAL	38628		39207		63992		38342

FLOOD MITIGATION OPTION B4 + B1  
 RAISE ROAD/RAIL TO BRIDGE LEVEL + BRIDGE DUPLICATION

SEPTEMBER 1992

COST ESTIMATE

ITEM DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
<b>A. BRUCE HIGHWAY</b>				
1.0 TRAFFIC CONTROL AND DIVERSION WORKS	Item			550000
2.0 SCARIFY EXISTING PAVEMENT	m2	27250	2.00	54500
3.0 EMBANKMENT	m3	33750	8.00	270000
4.0 PAVEMENT 10m WIDE				
4.1 Subbase 100mm thick	m2	27250	4.25	115813
4.2 Base 300mm thick	m2	27250	13.50	367875
4.3 Two coat seal	m2	27250	5.50	149875
5.0 ROAD FURNITURE INCL. LINEMARKING (PROV.)	Item			30000
6.0 LANDSCAPING (PROV.)	Item			20000
7.0 BULK EXCAVATION	m3	22000	6.00	132000
8.0 DUPLICATE BRIDGES	m	420	10000.00	4200000
9.0 RECONSTRUCT ROUNDABOUT AND REGRADE PART CAPRICORN HWY (PROV.)	Item			400000
<b>B. NORTH COAST RAILWAY</b>				
1.0 PROVISION FOR RAIL DIVERSION/ DISRUPTION	Item			500000
2.0 EARTHWORKS TO FORMATION LEVELS	m3	22600	8.00	180800
3.0 BALLAST				
3.1 Remove and stockpile	m3	3320	4.00	13280
3.2 Place stockpiled material	m3	2820	6.00	16920
3.3 Place new material (Provisional)	m3	500	45.00	22500
4.0 SLEEPERS AND RAIL TRACK	m	2730	215.00	586950
5.0 REGRADE RAIL (PROV.)	m	200	100	20000
6.0 ELECTRIFICATION MODIFICATION				
6.1 Raise overhead masts > 600mm	m	2730	30.00	81900
7.0 BULK EXCAVATION	m3	14000	6.00	84000
8.0 DUPLICATE BRIDGES	m	420	10000.00	4200000
9.0 STRENGTHEN PIERS AT YEPPEN2 AND YEPPEN3 BRIDGES	No.	15	30000.00	450000
SUBTOTAL				12446413
PRELIMINARIES 10%				1244641
ENGINEERING 10%				1244641
SUBTOTAL				14935695
CONTINGENCY 10%				1493570
TOTAL				16429265

FLOOD MITIGATION OPTION B4 + B6

RAISE ROAD/RAIL TO BRIDGE LEVEL + LOWERING WATERWAY INVERT

SEPTEMBER 1992

COST ESTIMATE

ITEM DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
<b>A. BRUCE HIGHWAY</b>				
1.0 TRAFFIC CONTROL AND DIVERSION WORKS	Item			550000
2.0 SCARIFY EXISTING PAVEMENT	m2	27250	2.00	54500
3.0 EMBANKMENT	m3	33750	8.00	270000
4.0 PAVEMENT 10m WIDE				
4.1 Subbase 100mm thick	m2	27250	4.25	115813
4.2 Base 300mm thick	m2	27250	13.50	367875
4.3 Two coat seal	m2	27250	5.50	149875
5.0 ROAD FURNITURE INCL LINEMARKING (PROV.)	Item			30000
6.0 LANDSCAPING (PROV.)	Item			20000
7.0 BULK EXCAVATION	m3	66000	6.00	396000
8.0 SCOUR PROTECTION (PROV.)	m2	33000	50.00	1650000
9.0 RECONSTRUCT ROUNDABOUT AND REGRADE PART CAPRICORN HWY (PROV.)	Item			400000
<b>B. NORTH COAST RAILWAY</b>				
1.0 PROVISION FOR RAIL DMERSION/ DISRUPTION	Item			500000
2.0 EARTHWORKS TO FORMATION LEVELS	m3	22600	8.00	180800
3.0 BALLAST				
3.1 Remove and stockpile	m3	3320	4.00	13280
3.2 Place stockpiled material	m3	2820	6.00	16920
3.3 Place new material (Provisional)	m3	500	45.00	22500
4.0 SLEEPERS AND RAIL TRACK	m	2730	215.00	586950
5.0 REGRADE RAIL (PROV.)	m	200	100	20000
8.0 ELECTRIFICATION MODIFICATION				
8.1 Raise overhead masts > 600mm	m	2730	30.00	81900
9.0 BULK EXCAVATION	m3	66000	6.00	396000
10.0 SCOUR PROTECTION (PROV.)	m2	33000	50.00	1650000
11.0 STRENGTHEN PIERS	No.	40	50000.00	2000000
12.0 DRAINAGE OPEN CHANNEL	m	3000	115.00	345000
SUBTOTAL				9817413
PRELIMINARIES 10%				981741
ENGINEERING 10%				981741
SUBTOTAL				11780895
CONTINGENCY 10%				1178090
TOTAL				12958985

TABLE 9-10

Flood Mitigation by Location - Residential (as revised in Phase 2)  
(Values in Thousands of Dollars)

Location No	South of River										North of River					TOTAL
	10	11	12	13	14	15	16	17	18	20	21	22	23	24	25	
Location	Crescent Lagoon	Gladstone Road	Port Curtis	Central CBD	Lower CBD	Depot Hill	D/S Barrage	Pink Lily	U/S Barrage	D/S Barrage	D/S Barrage-Watercourse	Splitters Creek	Moores Creek	Lakes Ck Road	Lakes Ck Road	
Mean Annual Direct Damage - existing conditions	6.5	5.0	12.1	7.6	32.1	6.5	3.8	10.0	0.3	3.2	2.6	16.8	5.3	14.8	3.0	129
Mean Annual Direct Damage - with flood mitigation																
a) Levees to																
7.84 m AHD (2% AEP)	6.2	3.6	7.0	7.1	24.6	6.0	3.5	4.1	0.3	2.2	1.7	9.0	4.1	14.4	2.8	96.5
8.21 m AHD (1% AEP)	5.6	2.6	5.3	6.7	20.0	4.9	3.1	2.6	0.3	1.6	1.2	6.5	3.6	11.9	2.5	78.5
8.59 m AHD (0.5% AEP)	4.3	2.0	3.7	5.9	14.3	3.5	2.5	1.6	0.3	1.1	1.0	4.7	2.9	9.4	2.2	59.5
9.04 m AHD (0.2% AEP)	2.6	1.3	1.8	4.4	7.7	2.0	1.6	0.8	0.3	0.7	0.7	2.9	1.9	6.8	1.5	37
9.23 m AHD (0.1% AEP)	1.8	1.0	1.0	3.6	4.9	1.3	1.1	0.5	0.3	0.5	0.6	2.1	1.4	5.4	1.2	26.5
Raise all unraised houses by																
2 m	2.0	4.7	11.3	5.6	24.8	6.1	1.5	2.3	0.1	1.1	0.6	4.9	3.3	5.1	0.7	74.3
3 m	1.7	4.6	11.3	5.5	24.4	6.0	1.3	1.6	0.1	1.0	0.5	3.8	3.1	4.5	0.5	70
Raise all houses (including those already raised) by																
1 m	3.1	4.8	9.2	5.5	25.8	6.1	2.0	6.0	0.2	1.6	1.4	10.1	3.7	8.3	1.5	89.3
2 m	1.0	3.0	4.9	3.0	14.1	3.9	0.8	1.8	0.1	0.3	0.5	2.9	1.7	3.5	0.6	42.1
Clear all houses floor level below level of																
2% AEP (number)	5.8	1.5	45	6.5	19.0	5.0	3.0	0.9	0.3	1.3	0.7	5.0	3.1	10.0	2.5	69.4
1% AEP (number)	3.6	1.4	1.8	5.7	9.4	2.1	2.1	0.6	0.3	0.6	0.7	2.7	2.3	6.7	2.0	42.1
	(20)	(10)	(32)	(10)	(100)	(25)	(8)	(16)	(0)	(9)	(4)	(32)	(12)	(48)	(5)	(331)

TABLE 9-11

Flood Mitigation by Location - Commercial (as revised in Phase 2)  
(Values in Thousands of Dollars)

Location No	South of River										North of River					TOTAL
	10	11	12	13	14	15	16	17	18	20	21	22	23	24	25	
Location	Crescent Lagoon	Gladstone Road	Port Curtis	Central CBD	Lower CBD	Depot Hill	D/S Barrage	Pink Lily	U/S Barrage	D/S Barrage	D/S Barrage--Watercourse	Splitters Creek	Moore's Creek	Lakes Ck Road	Lakes Ck Road	
Mean Annual Direct Damage -- existing conditions	40.7	233	30.4	84.3	138.4	21.7	7.4	1.5	2.3	13.2	0.1	13.1	27.8	15.1	5.1	634
Mean Annual Direct Damage -- with flood mitigation																
a) Levees to																
7.84 m AHD (2% AEP)	38.6	95.6	25.1	81.0	108.5	14.9	2.0	1.0	2.3	9.6	0.1	7.5	15.1	14.4	5.1	421
8.21 m AHD (1% AEP)	34.5	61.8	21.2	72.3	92.6	9.3	1.1	0.7	2.3	7.6	0.1	6.4	9.2	12.6	4.9	336
8.59 m AHD (0.5% AEP)	27.5	37.1	45.3	59.3	72.5	5.1	0.6	0.4	2.0	4.6	0.1	4.0	7.1	10.3	4.2	250
9.04 m AHD (0.2% AEP)	19.0	17.7	7.7	44.5	48.9	2.5	0.2	0.2	1.6	1.8	0.1	2.4	3.6	7.6	2.9	161
9.23 m AHD (0.1% AEP)	13.0	12.5	6.2	38.4	39.8	1.6	0.1	0.1	1.4	1.4	0.1	1.6	2.1	5.6	2.4	126
Clear all properties floor level below level of																
2% AEP (number)	30.0 (52)	11.0 (69)	18.2 (8)	46.1 (10)	64.3 (21)	0.14 (3)	0.2 (1)	0 (1)	2.3 (0)	0 (3)	0.1 (0)	1.8 (1)	2.1 (3)	9.2 (2)	5.1 (0)	191 (64)
1% AEP (number)	20.3 (7)	5.6 (15)	0.2 (9)	41.2 (23)	35.1 (48)	0.14 (3)	0 (2)	0 (1)	1.2 (1)	0 (3)	0.1 (0)	1.2 (2)	1.5 (4)	7.6 (17)	3.1 (4)	117 (139)

APPENDIX J

**APPENDIX J**  
**HYDRAULIC MODEL STUDY**  
**SUMMARY OF RESULTS FOR FLOOD MITIGATION OPTIONS**

TABLE J-1

Summary of Peak Flood Levels for Flood Mitigation Options  
Option A1 - Levee Depot Hill - Lower CBD (not Port Curtis)

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.85	0.01
	near Water Treatment Works	144.78	10.86	11.32	10.87	0.01	11.33	0.01
	Barrage	149.27	9.49	9.91	9.51	0.02	9.92	0.01
	d/s Barrage	149.47	9.17	9.60	9.18	0.01	9.62	0.02
		150.17	8.55	8.96	8.58	0.03	8.99	0.03
	Railway Bridge	150.67	8.35	8.74	8.38	0.03	8.77	0.03
	Fitzroy Street Bridge	151.57	8.03	8.40	8.06	0.03	8.44	0.04
	City Flood Gauge	152.57	7.84	8.21	7.87	0.03	8.25	0.04
	Gavial Creek	154.27	7.58	7.94	7.62	0.04	7.98	0.04
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.85	0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.41	0.00
	Lotus Lagoon	4.56	10.99	11.38	11.00	0.01	11.38	0.00
	Nine Mile Road	6.63	10.55	10.95	10.55	0.00	10.96	0.01
	Start FP SCRUBBY	11.0	9.43	9.89	9.44	0.01	9.90	0.01
	Junction with AP-STH	13.0	9.15	9.60	9.15	0.00	9.61	0.01
	u/s Yeppen Crossing	13.6	8.64	9.00	8.64	0.00	9.01	0.01
	d/s Bruce Highway	13.84	8.39	8.71	8.39	0.00	8.72	0.01
	d/s Yeppen Crossing	14.0	8.10	8.36	8.10	0.00	8.37	0.01
	Old Burnett Highway	15.15	7.96	8.22	7.96	0.00	8.23	0.01
	Old Bruce Highway	16.98	7.18	7.47	7.16	-0.02	7.46	-0.01
	J/w FP GAVIAL	19.04	7.08	7.38	7.06	-0.02	7.37	-0.01
FP SCRUBBY	Start	0	9.43	9.89	9.44	0.01	9.90	0.01
	d/s Capricorn Highway	1.3	9.00	9.46	9.00	0.00	9.47	0.01
	u/s Bruce Highway	4.0	8.63	8.99	8.63	0.00	9.00	0.01
	d/s Railway	4.3	8.10	8.37	8.10	0.00	8.38	0.01
	J/w FP MAIN	5.15	7.96	8.22	7.96	0.00	8.23	0.01
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.64	0.00	9.01	0.05
	Port Curtis Junction	0.91	8.37	8.76	8.47	0.10	8.78	0.02
	Depot Hill	2.1	7.67	8.19	7.75	0.08	8.28	0.09
	Gavial Creek	4.2	7.56	7.91	7.60	0.04	7.96	0.05
FP LION	J/w FP MAIN	0	10.55	10.95	10.55	0.00	10.96	0.01
	J/w AP STH	2.2	10.43	10.90	10.44	0.01	10.91	0.01
	J/w AP NTH	3.35	10.25	10.86	10.25	0.00	10.87	0.01
	Fitzroy River	5.3	9.49	9.91	9.51	0.02	9.92	0.01
Airport North	J/w FP LION	0	10.25	10.86	10.25	0.00	10.87	0.01
	New Terminal	1.54	9.61	10.15	9.62	0.01	10.15	0.00
	J/w AP STH	2.6	9.16	9.61	9.16	0.00	9.62	0.01
Airport South	J/w FP LION	0	10.43	10.90	10.44	0.01	10.91	0.01
	Opposite Terminal	1.3	9.61	10.15	9.62	0.01	10.16	0.01
	J/w AP NTH	2.3	9.16	9.61	9.16	0.00	9.62	0.01
	J/w FP MAIN	3.0	9.15	9.60	9.15	0.00	9.61	0.01
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.06	0.03	8.44	0.04
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.04	0.03	8.42	0.03
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.28	0.02	7.64	0.03
	J/w Fitzroy River	2.93	7.21	7.54	7.24	0.03	7.57	0.03
Gavial Creek	Fitzroy River	0	7.58	7.94	7.62	0.04	7.98	0.04
	J/w FP CURTIS	1.03	7.56	7.92	7.60	0.04	7.96	0.04
	J/w FP MAIN	4.21	7.08	7.38	7.06	-0.02	7.36	-0.02
	Edinda Lane	6.06	6.43	6.65	6.42	-0.01	6.65	0.00
Splitters Creek		1.1	9.51	9.92	9.52	0.01	9.94	0.02
		2.1	9.50	9.91	9.51	0.01	9.93	0.02
Yeppen	Yeppen bridges m <sup>3</sup> /s		2495	2650	2505	10	2650	0
	overflow m <sup>3</sup> /s		1415	2605	1460	45	2625	20
	Time of Submergence days		11.6	12.67	11.1	-0.50	12.67	0



TABLE J-2

Summary of Peak Flood Levels for Flood Mitigation Options  
Option A2 - Levee Port Curtis - Depot Hill - CBD

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.48	-0.01	9.87	-0.04
	d/s Barrage	149.47	9.17	9.60	9.15	-0.02	9.56	-0.04
		150.17	8.55	8.96	8.53	-0.02	8.90	-0.06
	Railway Bridge	150.67	8.35	8.74	8.33	-0.02	8.67	-0.07
	Fitzroy Street Bridge	151.57	8.03	8.40	7.99	-0.04	8.32	-0.08
	City Flood Gauge	152.57	7.84	8.21	7.80	-0.04	8.12	-0.09
	Gavial Creek	154.27	7.58	7.94	7.54	-0.04	7.83	-0.11
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.05	0.01	11.42	0.01
	Lotus Lagoon	4.56	10.99	11.38	11.00	0.01	11.39	0.01
	Nine Mile Road	6.63	10.55	10.95	10.57	0.02	11.09	0.14
	Start FP SCRUBBY	11.0	9.43	9.89	9.56	0.13	10.08	0.19
	Junction with AP-STH	13.0	9.15	9.60	9.33	0.18	9.85	0.25
	u/s Yeppen Crossing	13.6	8.64	9.00	8.94	0.30	9.42	0.42
	d/s Bruce Highway	13.84	8.39	8.71	8.83	0.44	9.35	0.64
	d/s Yeppen Crossing	14.0	8.10	8.36	8.71	0.61	9.26	0.90
	Old Burnett Highway	15.15	7.96	8.22	8.53	0.57	9.04	0.82
	Old Bruce Highway	16.98	7.18	7.47	7.33	0.15	7.67	0.20
	J/w FP GAVIAL	19.04	7.08	7.38	7.10	0.02	7.43	0.05
	FP SCRUBBY	Start	0	9.43	9.89	9.56	0.13	10.08
d/s Capricorn Highway		1.3	9.00	9.46	9.23	0.23	9.77	0.31
u/s Bruce Highway		4.0	8.63	8.99	8.93	0.30	9.41	0.42
d/s Railway		4.3	8.10	8.37	8.71	0.61	9.26	0.89
J/w FP MAIN		5.15	7.96	8.22	8.53	0.57	9.04	0.82
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96				
	Port Curtis Junction	0.91	8.37	8.76				
	Depot Hill	2.1	7.67	8.19				
	Gavial Creek	4.2	7.56	7.91				
FP LION	J/w FP MAIN	0	10.55	10.95	10.56	0.01	11.00	0.05
	J/w AP STH	2.2	10.43	10.90	10.44	0.01	10.95	0.05
	J/w AP NTH	3.35	10.25	10.86	10.25	0.00	10.90	0.04
	Fitzroy River	5.3	9.49	9.91	9.47	-0.02	9.87	-0.04
Airport North	J/w FP LION	0	10.25	10.86	10.25	0.00	10.90	0.04
	New Terminal	1.54	9.61	10.15	9.68	0.07	10.29	0.14
	J/w AP STH	2.6	9.16	9.61	9.28	0.12	9.86	0.25
Airport South	J/w FP LION	0	10.43	10.90	10.44	0.01	10.95	0.05
	Opposite Terminal	1.3	9.61	10.15	9.68	0.07	10.29	0.14
	J/w AP NTH	2.3	9.16	9.61	9.28	0.12	9.86	0.25
	J/w FP MAIN	3.0	9.15	9.60	9.27	0.12	9.85	0.25
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	7.99	-0.04	8.32	-0.08
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.98	-0.03	8.31	-0.08
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.52	-0.09
	J/w Fitzroy River	2.93	7.21	7.54	7.18	-0.03	7.46	-0.08
Gavial Creek	Fitzroy River	0	7.58	7.94	7.54	-0.04	7.83	-0.11
	J/w FP CURTIS	1.03	7.56	7.92	7.452	-0.10	7.81	-0.11
	J/w FP MAIN	4.21	7.08	7.38	7.10	0.02	7.43	0.05
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.68	0.03
Yeppen	Time of Submergence days		11.6	12.67	11.05	-0.55	12.25	-0.42

TABLE J-3

Summary of Peak Flood Levels for Flood Mitigation Options  
Option A3 - Levees to existing airport

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of .					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.28	0.02	12.72	0.03
	start of FP2	139.2	11.48	11.90	11.50	0.02	11.96	0.06
	start of FP Main	140.1	11.42	11.84	11.45	0.03	11.90	0.06
	near Water Treatment Works	144.78	10.86	11.32	10.89	0.03	11.39	0.07
	Barrage	149.27	9.49	9.91	9.53	0.04	9.98	0.07
	d/s Barrage	149.47	9.17	9.60	9.20	0.03	9.67	0.07
		150.17	8.55	8.96	8.58	0.03	9.01	0.05
	Railway Bridge	150.67	8.35	8.74	8.38	0.03	8.79	0.05
	Fitzroy Street Bridge	151.57	8.03	8.40	8.04	0.01	8.43	0.03
	City Flood Gauge	152.57	7.84	8.21	7.85	0.01	8.23	0.02
	Gavial Creek	154.27	7.58	7.94	7.59	0.01	7.95	0.01
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.45	0.03	11.90	0.06
	Rockhampton-Ridgelsands Road	1.75	11.04	11.41	11.09	0.05	11.52	0.11
	Lotus Lagoon	4.56	10.99	11.38	11.05	0.06	11.49	0.11
	Nine Mile Road	6.63	10.55	10.95	10.66	0.11	11.14	0.19
	Start FP SCRUBBY	11.0	9.43	9.89	9.45	0.02	9.88	-0.01
	Junction with AP-STH	13.0	9.15	9.60	9.05	-0.10	9.45	-0.15
	u/s Yeppen Crossing	13.6	8.64	9.00	8.60	-0.04	8.92	-0.08
	d/s Bruce Highway	13.84	8.39	8.71	8.36	-0.03	8.65	-0.06
	d/s Yeppen Crossing	14.0	8.10	8.36	8.07	-0.03	8.32	-0.04
	Old Burnett Highway	15.15	7.96	8.22	8.94	0.98	8.18	-0.04
	Old Bruce Highway	16.98	7.18	7.47	7.17	-0.01	7.46	-0.01
	J/w FP GAVIAL	19.04	7.08	7.38	7.08	0.00	7.37	-0.01
FP SCRUBBY	Start	0	9.43	9.89	9.45	0.02	9.88	-0.01
	d/s Capricorn Highway	1.3	9.00	9.46	8.99	-0.01	9.43	-0.03
	u/s Bruce Highway	4.0	8.63	8.99	8.59	-0.04	8.93	-0.06
	d/s Railway	4.3	8.10	8.37	8.08	-0.02	8.33	-0.04
	J/w FP MAIN	5.15	7.96	8.22	7.94	-0.02	8.18	-0.04
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.60	-0.04	8.93	-0.03
	Port Curtis Junction	0.91	8.37	8.76	8.51	0.14	8.70	-0.06
	Depot Hill	2.1	7.67	8.19	7.66	-0.01	8.17	-0.02
	Gavial Creek	4.2	7.56	7.91	7.57	0.01	7.93	0.02
FP LION	J/w FP MAIN	0	10.55	10.95	10.66	0.11	11.14	0.19
	J/w AP STH	2.2	10.43	10.90	10.72	0.29	11.45	0.55
	J/w AP NTH	3.35	10.25	10.86	10.62	0.37	11.44	0.58
	Fitzroy River	5.3	9.49	9.91	9.53	0.04	9.98	0.07
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.04	0.01	8.43	0.03
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.03	0.02	8.42	0.03
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.26	0.00	7.62	0.01
	J/w Fitzroy River	2.93	7.21	7.54	7.22	0.01	7.55	0.01
Gavial Creek	Fitzroy River	0	7.58	7.94	7.59	0.01	7.95	0.01
	J/w FP CURTIS	1.03	7.56	7.92	7.57	0.01	7.93	0.01
	J/w FP MAIN	4.21	7.08	7.38	7.08	0.00	7.37	-0.01
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.65	0.00
Splitters Creek		1.1	9.51	9.92			10.00	
		2.1	9.50	9.91			9.99	
Floodplain Flows	Yeppen m <sup>3</sup> /s		3910	5255	3880	-30	4537	-718
	Lion Creek m <sup>3</sup> /s		247	356	336	89	560	204

TABLE J-4

**Summary of Peak Flood Levels for Flood Mitigation Options  
Option A4 – Airport Levees and extended runway**

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.28	0.00	12.73	0.04
	start of FP2	139.2	11.48	11.90	11.50	0.02	11.96	0.06
	start of FP Main	140.1	11.42	11.84	11.45	0.03	11.90	0.06
	near Water Treatment Works	144.78	10.86	11.32	10.89	0.03	11.39	0.07
	Barrage	149.27	9.49	9.91	9.53	0.04	9.98	0.07
	d/s Barrage	149.47	9.17	9.60	9.20	0.03	9.68	0.08
		150.17	8.55	8.96	8.58	0.03	9.01	0.05
	Railway Bridge	150.67	8.35	8.74	8.38	0.03	8.79	0.05
	Fitzroy Street Bridge	151.57	8.03	8.40	8.04	0.01	8.44	0.04
	City Flood Gauge	152.67	7.84	8.21	7.85	0.01	8.23	0.02
	Gavial Creek	154.27	7.58	7.94	7.59	0.01	7.95	0.01
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.45	0.03	11.90	0.06
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.09	0.05	11.52	0.11
	Lotus Lagoon	4.56	10.99	11.38	11.05	0.06	11.49	0.11
	Nine Mile Road	6.63	10.55	10.95	10.66	0.11	11.14	0.19
	Start FP SCRUBBY	11.0	9.43	9.89	9.45	0.02	9.88	-0.01
	Junction with AP-STH	13.0	9.15	9.60	9.05	-0.10	9.45	-0.15
	u/s Yeppen Crossing	13.6	8.64	9.00	8.60	-0.04	8.93	-0.07
	d/s Bruce Highway	13.84	8.39	8.71	8.36	-0.03	8.65	-0.06
	d/s Yeppen Crossing	14.0	8.10	8.36	8.07	-0.03	8.31	-0.05
	Old Burnett Highway	15.15	7.96	8.22	7.94	-0.02	8.18	-0.04
	Old Bruce Highway	16.98	7.18	7.47	7.17	-0.01	7.46	-0.01
	J/w FP GAVIAL	19.04	7.08	7.38	7.08	0.00	7.37	-0.01
FP SCRUBBY	Start	0	9.43	9.89	9.45	0.02	9.88	-0.01
	d/s Capricorn Highway	1.3	9.00	9.46	8.99	-0.01	9.43	-0.03
	u/s Bruce Highway	4.0	8.63	8.99	8.59	-0.04	8.93	-0.06
	d/s Railway	4.3	8.10	8.37	8.08	-0.02	8.32	-0.05
	J/w FP MAIN	5.15	7.96	8.22	7.94	-0.02	8.18	-0.04
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.60	-0.04	8.93	-0.03
	Port Curtis Junction	0.91	8.37	8.76	8.51	0.14	8.70	-0.06
	Depot Hill	2.1	7.67	8.19	7.66	-0.01	8.16	-0.03
	Gavial Creek	4.2	7.56	7.91	7.57	0.01	7.93	0.02
FP LION	J/w FP MAIN	0	10.55	10.95	10.66	0.11	11.14	0.19
	J/w AP STH	2.2	10.43	10.90	10.72	0.29	11.45	0.55
	J/w AP NTH	3.35	10.25	10.86	10.62	0.37	11.44	0.58
	Fitzroy River	5.3	9.49	9.91	9.53	0.04	9.98	0.07
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.04	0.01	8.44	0.04
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.03	0.02	8.42	0.03
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.26	0.00	7.62	0.01
	J/w Fitzroy River	2.93	7.21	7.54	7.22	0.01	7.55	0.01
Gavial Creek	Fitzroy River	0	7.58	7.94	7.59	0.01	7.95	0.01
	J/w FP CURTIS	1.03	7.56	7.92	7.57	0.01	7.93	0.01
	J/w FP MAIN	4.21	7.08	7.38	7.08	0.00	7.37	-0.01
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.65	0.00
Splitters Creek		1.1	9.51	9.92	9.55	0.04	10.00	0.08
		2.1	9.50	9.91	9.54	0.04	9.99	0.08

TABLE J-5

Summary of Peak Flood Levels for Flood Mitigation Options  
Option A5 - Splitters Creek Levee

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.85	0.01
	near Water Treatment Works	144.78	10.86	11.32	10.87	0.01	11.33	0.01
	Barrage	149.27	9.49	9.91	9.49	0.00	9.90	-0.01
	d/s Barrage	149.47	9.17	9.60	9.16	-0.01	9.60	0.00
		150.17	8.55	8.96	8.55	0.00	8.96	0.00
	Railway Bridge	150.67	8.35	8.74	8.35	0.00	8.74	0.00
	Fitzroy Street Bridge	151.57	8.03	8.40	8.02	-0.01	8.40	0.00
	City Flood Gauge	152.57	7.84	8.21	7.84	0.00	8.21	0.00
	Gavial Creek	154.27	7.58	7.94	7.58	0.00	7.94	0.00
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.85	0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.41	0.00
	Lotus Lagoon	4.56	10.99	11.38	11.00	0.01	11.38	0.00
	Nine Mile Road	6.63	10.55	10.95	10.55	0.00	10.96	0.01
	Start FP SCRUBBY	11.0	9.43	9.89	9.44	0.01	9.89	0.00
	Junction with AP-STH	13.0	9.15	9.60	9.15	0.00	9.60	0.00
	u/s Yeppen Crossing	13.6	8.64	9.00	8.64	0.00	9.00	0.00
	d/s Bruce Highway	13.84	8.39	8.71	8.39	0.00	8.71	0.00
	d/s Yeppen Crossing	14.0	8.10	8.36	8.10	0.00	8.36	0.00
	Old Burnett Highway	15.15	7.96	8.22	7.96	0.00	8.22	0.00
	Old Bruce Highway	16.98	7.18	7.47	7.18	0.00	7.47	0.00
	J/w FP GAVIAL	19.04	7.08	7.38	7.08	0.00	7.38	0.00
FP SCRUBBY	Start	0	9.43	9.89	9.44	0.01	9.89	0.00
	d/s Capricorn Highway	1.3	9.00	9.46	9.00	0.00	9.47	0.01
	u/s Bruce Highway	4.0	8.63	8.99	8.63	0.00	8.99	0.00
	d/s Railway	4.3	8.10	8.37	8.10	0.00	8.37	0.00
	J/w FP MAIN	5.15	7.96	8.22	7.96	0.00	8.22	0.00
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.64	0.00	9.00	0.04
	Port Curtis Junction	0.91	8.37	8.76	8.44	0.07	8.76	0.00
	Depot Hill	2.1	7.67	8.19	7.67	0.00	8.19	0.00
	Gavial Creek	4.2	7.56	7.91	7.56	0.00	7.92	0.01
FP LION	J/w FP MAIN	0	10.55	10.95	10.55	0.00	10.96	0.01
	J/w AP STH	2.2	10.43	10.90	10.44	0.01	10.90	0.00
	J/w AP NTH	3.35	10.25	10.86	10.25	0.00	10.86	0.00
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.90	-0.01
Airport North	J/w FP LION	0	10.25	10.86	10.25	0.00	10.86	0.00
	New Terminal	1.54	9.61	10.15	9.62	0.01	10.15	0.00
	J/w AP STH	2.6	9.16	9.61	9.16	0.00	9.61	0.00
Airport South	J/w FP LION	0	10.43	10.90	10.44	0.01	10.90	0.00
	Opposite Terminal	1.3	9.61	10.15	9.62	0.01	10.15	0.00
	J/w AP NTH	2.3	9.16	9.61	9.16	0.00	9.61	0.00
	J/w FP MAIN	3.0	9.15	9.60	9.15	0.00	9.60	0.00
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.02	-0.01	8.40	0.00
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.01	0.00	8.39	0.00
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.26	0.00	7.60	-0.01
	J/w Fitzroy River	2.93	7.21	7.54	7.21	0.00	7.54	0.00
Gavial Creek	Fitzroy River	0	7.58	7.94	7.58	0.00	7.94	0.00
	J/w FP CURTIS	1.03	7.56	7.92	7.56	0.00	7.92	0.00
	J/w FP MAIN	4.21	7.08	7.38	7.08	0.00	7.38	0.00
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.65	0.00
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				

TABLE J-6

Summary of Peak Flood Levels for Flood Mitigation Options  
Option B1 - Yeppen Crossing - double bridge widths

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.49	0.00	9.89	-0.02
	d/s Barrage	149.47	9.17	9.60	9.16	-0.01	9.59	-0.01
		150.17	8.55	8.96	8.54	-0.01	8.94	-0.02
	Railway Bridge	150.67	8.35	8.74	8.34	-0.01	8.73	-0.01
	Fitzroy Street Bridge	151.57	8.03	8.40	8.01	-0.02	8.38	-0.02
	City Flood Gauge	152.57	7.84	8.21	7.83	-0.01	8.19	-0.02
	Gavial Creek	154.27	7.58	7.94	7.57	-0.01	7.92	-0.02
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgelsands Road	1.75	11.04	11.41	11.03	-0.01	11.40	-0.01
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.36	-0.02
	Nine Mile Road	6.63	10.55	10.95	10.53	-0.02	10.93	-0.02
	Start FP SCRUBBY	11.0	9.43	9.89	9.35	-0.08	9.79	-0.10
	Junction with AP-STH	13.0	9.15	9.60	9.01	-0.14	9.45	-0.15
	u/s Yeppen Crossing	13.6	8.64	9.00	8.37	-0.27	8.71	-0.29
	d/s Bruce Highway	13.84	8.39	8.71	8.26	-0.13	8.57	-0.14
	d/s Yeppen Crossing	14.0	8.10	8.36	8.15	0.05	8.44	0.08
	Old Burnett Highway	15.15	7.96	8.22	8.01	0.05	8.29	0.07
	Old Bruce Highway	16.98	7.18	7.47	7.26	0.08	7.54	0.07
J/w FP GAVIAL	19.04	7.08	7.38	7.09	0.01	7.39	0.01	
FP SCRUBBY	Start	0	9.43	9.89	9.35	-0.08	9.79	-0.10
	d/s Capricorn Highway	1.3	9.00	9.46	8.8	-0.20	9.27	-0.19
	u/s Bruce Highway	4.0	8.63	8.99	8.35	-0.28	8.70	-0.29
	d/s Railway	4.3	8.10	8.37	8.15	0.05	8.45	0.08
	J/w FP MAIN	5.15	7.96	8.22	8.01	0.05	8.29	0.07
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.37	-0.27	8.71	-0.25
	Port Curtis Junction	0.91	8.37	8.76	7.71	-0.66	8.51	-0.25
	Depot Hill	2.1	7.67	8.19	7.61	-0.06	8.09	-0.10
	Gavial Creek	4.2	7.56	7.91	7.55	-0.01	7.90	-0.01
FP LION	J/w FP MAIN	0	10.55	10.95	10.53	-0.02	11.93	0.98
	J/w AP STH	2.2	10.43	10.90	10.42	-0.01	11.87	0.97
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	11.83	0.97
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.89	-0.02
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.83	-0.03
	New Terminal	1.54	9.61	10.15	9.53	-0.08	10.07	-0.08
	J/w AP STH	2.6	9.16	9.61	9.02	-0.14	9.47	-0.14
Airport South	J/w FP LION	0	10.43	10.90	10.42	-0.01	10.87	-0.03
	Opposite Terminal	1.3	9.61	10.15	9.53	-0.08	10.07	-0.08
	J/w AP NTH	2.3	9.16	9.61	9.02	-0.14	9.47	-0.14
	J/w FP MAIN	3.0	9.15	9.60	9.01	-0.14	9.45	-0.15
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.01	-0.02	8.38	-0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.0	-0.01	8.37	-0.02
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.25	-0.01	7.59	-0.02
	J/w Fitzroy River	2.93	7.21	7.54	7.20	-0.01	7.53	-0.01
Gavial Creek	Fitzroy River	0	7.58	7.94	7.57	-0.01	7.92	-0.02
	J/w FP CURTIS	1.03	7.56	7.92	7.55	-0.01	7.90	-0.02
	J/w FP MAIN	4.21	7.08	7.38	7.09	0.01	7.39	0.01
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.38	-0.27
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				
Floodplain Flows	Yeppen (bridge) m <sup>3</sup> /s		2495	2650	3180	685	3614	964
	(overflow) m <sup>3</sup> /s		1415	2605	735	-680	1710	-895
	Time of Submergence (d)		11.6	12.65	9.75	-1.85	11.95	-0.7

TABLE J-7

Summary of Peak Flood Levels for Flood Mitigation Options  
Option B3 - Yeppen Crossing raise road/rail levels by 0.5 m

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.9	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.85	0.01
	near Water Treatment Works	144.78	10.86	11.32	10.87	0.01	11.33	0.01
	Barrage	149.27	9.49	9.91	9.49	0.00	9.90	-0.01
	d/s Barrage	149.47	9.17	9.60	9.16	-0.01	9.59	-0.01
		150.17	8.55	8.96	8.55	0.00	8.94	-0.02
	Railway Bridge	150.67	8.35	8.74	8.35	0.00	8.73	-0.01
	Fitzroy Street Bridge	151.57	8.03	8.40	8.02	-0.01	8.38	-0.02
	City Flood Gauge	152.57	7.84	8.21	7.83	-0.01	8.19	-0.02
	Gavial Creek	154.27	7.58	7.94	7.57	-0.01	7.91	-0.03
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.43	-0.26	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.85	0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.05	0.01	11.42	0.01
	Lotus Lagoon	4.56	10.99	11.38	11.00	0.01	11.39	0.01
	Nine Mile Road	6.63	10.55	10.95	10.57	0.02	11.01	0.06
	Start FP SCRUBBY	11.0	9.43	9.89	9.57	0.14	10.09	0.20
	Junction with AP-STH	13.0	9.15	9.60	9.34	0.19	9.86	0.26
	u/s Yeppen Crossing	13.6	8.64	9.00	8.95	0.31	9.42	0.42
	d/s Bruce Highway	13.84	8.39	8.71	8.58	0.19	8.99	0.28
	d/s Yeppen Crossing	14.0	8.10	8.36	8.14	0.04	8.47	0.11
	Old Burnett Highway	15.15	7.96	8.22	8.0	0.04	8.31	0.09
	Old Bruce Highway	16.98	7.18	7.47	7.26	0.08	7.55	0.08
J/w FP GAVIAL	19.04	7.08	7.38	7.09	0.01	7.39	0.01	
FP SCRUBBY	Start	0	9.43	9.89	9.57	0.14	10.09	0.20
	d/s Capricorn Highway	1.3	9.00	9.46	9.24	0.24	9.78	0.32
	u/s Bruce Highway	4.0	8.63	8.99	8.95	0.32	9.42	0.43
	d/s Railway	4.3	8.10	8.37	8.14	0.04	8.48	0.11
	J/w FP MAIN	5.15	7.96	8.22	8.00	0.04	8.31	0.09
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.95	0.31	9.41	0.45
	Port Curtis Junction	0.91	8.37	8.76	7.99	-0.38	8.25	-0.51
	Depot Hill	2.1	7.67	8.19	7.61	-0.06	8.04	-0.15
	Gavial Creek	4.2	7.56	7.91	7.55	-0.01	7.89	-0.02
FP LION	J/w FP MAIN	0	10.55	10.95	10.57	0.02	11.01	0.06
	J/w AP STH	2.2	10.43	10.90	10.46	0.03	10.96	0.06
	J/w AP NTH	3.35	10.25	10.86	10.27	0.02	10.92	0.06
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.90	-0.01
Airport North	J/w FP LION	0	10.25	10.86	10.27	0.02	10.92	0.06
	New Terminal	1.54	9.61	10.15	9.74	0.13	10.30	0.15
	J/w AP STH	2.6	9.16	9.61	9.35	0.19	9.87	0.26
Airport South	J/w FP LION	0	10.43	10.90	10.46	0.03	10.96	0.06
	Opposite Terminal	1.3	9.61	10.15	9.74	0.13	10.30	0.15
	J/w AP NTH	2.3	9.16	9.61	9.35	0.19	9.87	0.26
	J/w FP MAIN	3.0	9.15	9.60	9.34	0.19	9.86	0.26
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.02	-0.01	8.38	-0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.00	-0.01	8.37	-0.02
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.25	-0.01	7.58	-0.03
	J/w Fitzroy River	2.93	7.21	7.54	7.20	-0.01	7.52	-0.02
Gavial Creek	Fitzroy River	0	7.58	7.94	7.57	-0.01	7.91	-0.03
	J/w FP CURTIS	1.03	7.56	7.92	7.55	-0.01	7.89	-0.03
	J/w FP MAIN	4.21	7.08	7.38	7.09	0.01	7.39	0.01
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.66	0.01
Splitters Creek		1.1	9.51	9.92	9.51	0.00	9.92	0.00
		2.1	9.50	9.91	9.50	0.00	9.91	0.00
Peak Flows at	Yeppen Bridges m³/s		2495	2650	3044	530.00	3235	585.00
	Yeppen Overflow m³/s		1415	2605	883	-530.00	1980	-625.00
	Time of Submergence		11.6 d	12.67 d	8.75 d	-2.85 d	11.25 d	-1.4 d

TABLE J-8

**Summary of Peak Flood Levels for Flood Mitigation Options  
Option B4 - Yeppen Crossing raise to bridge levels**

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.85	0.01
	near Water Treatment Works	144.78	10.86	11.32	10.87	0.01	11.33	0.01
	Barrage	149.27	9.49	9.91	9.50	0.01	9.91	0.00
	d/s Barrage	149.47	9.17	9.60	9.16	-0.01	9.60	0.00
		150.17	8.55	8.96	8.55	0.00	8.96	0.00
	Railway Bridge	150.67	8.35	8.74	8.35	0.00	8.74	0.00
	Fitzroy Street Bridge	151.57	8.03	8.40	8.02	-0.01	8.40	0.00
	City Flood Gauge	152.67	7.84	8.21	7.83	-0.01	8.20	-0.01
	Gawal Creek	154.27	7.58	7.94	7.57	-0.01	7.93	-0.01
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.85	0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.05	0.01	11.42	0.01
	Lotus Lagoon	4.56	10.99	11.38	11.01	0.02	11.39	0.01
	Nine Mile Road	6.63	10.55	10.95	10.58	0.03	10.99	0.04
	Start FP SCRUBBY	11.0	9.43	9.89	9.60	0.17	10.03	0.14
	Junction with AP-STH	13.0	9.15	9.60	9.39	0.24	9.79	0.19
	u/s Yeppen Crossing	13.6	8.64	9.00	9.02	0.38	9.31	0.31
	d/s Bruce Highway	13.84	8.39	8.71	8.61	0.22	8.89	0.18
	d/s Yeppen Crossing	14.0	8.10	8.36	8.13	0.03	8.40	0.04
	Old Burnett Highway	15.15	7.96	8.22	7.99	0.03	8.25	0.03
	Old Bruce Highway	16.98	7.18	7.47	7.18	0.00	7.48	0.01
J/w FP GAWIAL	19.04	7.08	7.38	7.09	0.01	7.38	0.00	
FP SCRUBBY	Start	0	9.43	9.89	9.60	0.17	10.03	0.14
	d/s Capricorn Highway	1.3	9.00	9.46	9.29	0.29	9.69	0.23
	u/s Bruce Highway	4.0	8.63	8.99	9.01	0.38	9.30	0.31
	d/s Railway	4.3	8.10	8.37	8.13	0.03	8.41	0.04
	J/w FP MAIN	5.15	7.96	8.22	7.99	0.03	8.25	0.03
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	9.02	0.38	9.31	0.35
	Port Curtis Junction	0.91	8.37	8.76	8.02	-0.35	8.52	-0.24
	Depot Hill	2.1	7.67	8.19	7.63	-0.04	8.13	-0.06
	Gawal Creek	4.2	7.56	7.91	7.55	-0.01	7.91	0.00
FP LION	J/w FP MAIN	0	10.55	10.95	10.58	0.03	10.99	0.04
	J/w AP STH	2.2	10.43	10.90	10.47	0.04	10.94	0.04
	J/w AP NTH	3.35	10.25	10.86	10.28	0.03	10.90	0.04
	Fitzroy River	5.3	9.49	9.91	9.50	0.01	9.91	0.00
Airport North	J/w FP LION	0	10.25	10.86	10.28	0.03	10.90	0.04
	New Terminal	1.54	9.61	10.15	9.63	0.02	10.25	0.10
	J/w AP STH	2.6	9.16	9.61	9.39	0.23	9.80	0.19
Airport South	J/w FP LION	0	10.43	10.90	10.47	0.04	10.94	0.04
	Opposite Terminal	1.3	9.61	10.15	9.77	0.16	10.26	0.11
	J/w AP NTH	2.3	9.16	9.61	9.39	0.23	9.80	0.19
	J/w FP MAIN	3.0	9.15	9.60	9.39	0.24	9.79	0.19
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.02	-0.01	8.40	0.00
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.00	-0.01	8.39	0.00
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.25	-0.01	7.60	-0.01
	J/w Fitzroy River	2.93	7.21	7.54	7.21	0.00	7.54	0.00
Gawal Creek	Fitzroy River	0	7.58	7.94	7.57	-0.01	7.93	-0.01
	J/w FP CURTIS	1.03	7.56	7.92	7.55	-0.01	7.91	-0.01
	J/w FP MAIN	4.21	7.08	7.38	7.09	0.01	7.38	0.00
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.66	0.01
Splitters Creek		1.1	9.51	9.92	9.51	0.00	9.93	0.01
		2.1	9.50	9.91	9.50	0.00	9.91	0.00
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3170	675.00	3220	570.00
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	720	-695.00	2030	-575.00
	Time of Submergence		11.6 d	12.67 d	7.67 d	-4 d	9.63 d	-3 d

TABLE J-9

Summary of Peak Flood Levels for Flood Mitigation Options  
Option B5 - Yeppen Crossing - combination of options B1 and B4

Flow Path	Location	Chalnage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.49	0.00	9.89	-0.02
	d/s Barrage	149.47	9.17	9.60	9.15	-0.02	9.58	-0.02
		150.17	8.55	8.96	8.54	-0.01	8.94	-0.02
	Railway Bridge	150.67	8.35	8.74	8.34	-0.01	8.72	-0.02
	Fitzroy Street Bridge	151.57	8.03	8.40	8.01	-0.02	8.38	-0.02
	City Flood Gauge	152.57	7.84	8.21	7.82	-0.02	8.18	-0.03
	Gavial Creek	154.27	7.58	7.94	7.56	-0.02	7.91	-0.03
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgetands Road	1.75	11.04	11.41	11.04	0.00	11.40	-0.01
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.37	-0.01
	Nine Mile Road	6.63	10.55	10.95	10.53	-0.02	10.95	0.00
	Start FP SCRUBBY	11.0	9.43	9.89	9.38	-0.05	9.87	-0.02
	Junction with AP-STH	13.0	9.15	9.60	9.06	-0.09	9.57	-0.03
	u/s Yeppen Crossing	13.6	8.64	9.00	8.47	-0.17	8.95	-0.05
	d/s Bruce Highway	13.84	8.39	8.71	8.33	-0.06	8.70	-0.01
	d/s Yeppen Crossing	14.0	8.10	8.36	8.16	0.06	8.48	0.12
	Old Burnett Highway	15.15	7.96	8.22	8.02	0.06	8.32	0.10
	Old Bruce Highway	16.98	7.18	7.47	7.19	0.01	7.55	0.08
J/w FP GAVIAL	19.04	7.08	7.38	7.09	-0.01	7.39	0.01	
FP SCRUBBY	Start	0	9.43	9.89	9.39	-0.04	9.87	-0.02
	d/s Capricorn Highway	1.3	9.00	9.46	8.88	-0.12	9.43	-0.03
	u/s Bruce Highway	4.0	8.63	8.99	8.46	-0.17	8.95	-0.04
	d/s Railway	4.3	8.10	8.37	8.16	0.06	8.48	0.11
	J/w FP MAIN	5.15	7.96	8.22	8.02	0.06	8.32	0.10
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.47	-0.17	8.95	-0.01
	Port Curtis Junction	0.91	8.37	8.76	7.59	-0.78	8.13	-0.63
	Depot Hill	2.1	7.67	8.19	7.59	-0.08	8.04	-0.15
	Gavial Creek	4.2	7.56	7.91	7.54	-0.02	7.89	-0.02
FP LION	J/w FP MAIN	0	10.55	10.95	10.53	-0.02	10.95	0.00
	J/w AP STH	2.2	10.43	10.90	10.42	-0.01	10.89	-0.01
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	10.85	-0.01
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.89	-0.02
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.85	-0.01
	New Terminal	1.54	9.61	10.15	9.56	-0.05	10.13	-0.02
	J/w AP STH	2.6	9.16	9.61	9.07	-0.09	9.59	-0.02
Airport South	J/w FP LION	0	10.43	10.90	10.42	-0.01	10.89	-0.01
	Opposite Terminal	1.3	9.61	10.15	9.56	-0.05	10.13	-0.02
	J/w AP NTH	2.3	9.16	9.61	9.07	-0.09	9.59	-0.02
	J/w FP MAIN	3.0	9.15	9.60	9.06	-0.09	9.57	-0.03
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.01	-0.02	8.38	-0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.00	-0.01	8.36	-0.03
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.25	-0.01	7.58	-0.03
	J/w Fitzroy River	2.93	7.21	7.54	7.20	-0.01	7.52	-0.02
Gavial Creek	Fitzroy River	0	7.58	7.94	7.56	-0.02	7.91	-0.03
	J/w FP CURTIS	1.03	7.56	7.92	7.54	-0.02	7.89	-0.03
	J/w FP MAIN	4.21	7.08	7.38	7.09	0.01	7.39	0.01
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.66	0.01
Splitters Creek		1.1	9.51	9.92	9.50	-0.01	9.91	-0.01
		2.1	9.50	9.91	9.49	-0.01	9.90	-0.01
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3870	1,375.00	4720	2,070.00
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415.00	520	2,085.00
	Time of Submergence		11.6 d	12.67 d	0	-11.60 d	6.82 d	-5.85 d



TABLE J-9a

**Summary of Peak Flood Levels for Flood Mitigation Options  
Option B5a – Yeppen Crossing – combination of options B1, B4 and F3**

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.68	-0.01
	start of FP2	139.2	11.48	11.90	11.47	-0.01	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.41	-0.01	11.83	-0.01
	near Water Treatment Works	144.78	10.86	11.32	10.85	-0.01	11.31	-0.01
	Barrage	149.27	9.49	9.91	9.47	-0.02	9.88	-0.03
	d/s Barrage	149.47	9.17	9.60	9.14	-0.03	9.57	-0.03
		150.17	8.55	8.96	8.52	-0.03	8.92	-0.04
	Railway Bridge	150.67	8.35	8.74	8.32	-0.03	8.70	-0.04
	Fitzroy Street Bridge	151.57	8.03	8.40	7.99	-0.04	8.35	-0.05
	City Flood Gauge	152.57	7.84	8.21	7.80	-0.04	8.16	-0.05
	Gavial Creek	154.27	7.58	7.94	7.54	-0.04	7.88	-0.06
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.41	-0.01	11.83	-0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.03	-0.01	11.40	-0.01
	Lotus Lagoon	4.55	10.99	11.38	10.98	-0.01	11.36	-0.02
	Nine Mile Road	6.63	10.55	10.95	10.52	-0.03	10.93	-0.02
	Start FP SCRUBBY	11.0	9.43	9.89	9.32	-0.11	9.83	-0.06
	Junction with AP-STH	13.0	9.15	9.60	8.97	-0.18	9.51	-0.09
	u/s Yeppen Crossing	13.6	8.64	9.00	8.28	-0.36	8.84	-0.16
	d/s Bruce Highway	13.84	8.39	8.71	8.12	-0.27	8.56	-0.15
	d/s Yeppen Crossing	14.0	8.10	8.36	7.95	-0.15	8.30	-0.06
	Old Burnett Highway	15.15	7.96	8.22	7.74	-0.22	8.07	-0.15
	Old Bruce Highway	16.98	7.18	7.47	7.24	0.06	7.54	0.07
J/w FP GAVIAL	19.04	7.08	7.38	7.11	-0.03	7.42	0.04	
FP SCRUBBY	Start	0	9.43	9.89	9.32	-0.11	9.83	-0.06
	d/s Capricorn Highway	1.3	9.00	9.46	8.73	-0.27	9.35	-0.11
	u/s Bruce Highway	4.0	8.63	8.99	8.25	-0.38	8.83	-0.16
	d/s Railway	4.3	8.10	8.37	7.95	-0.15	8.30	-0.07
	J/w FP MAIN	5.15	7.96	8.22	7.74	-0.22	8.07	-0.15
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.28	-0.36	8.84	-0.12
	Port Curtis Junction	0.91	8.37	8.76	7.54	-0.83	7.98	-0.78
	Depot Hill	2.1	7.67	8.19	7.54	-0.13	7.94	-0.25
	Gavial Creek	4.2	7.56	7.91	7.52	-0.04	7.86	-0.05
FP LION	J/w FP MAIN	0	10.55	10.95	10.52	-0.03	10.93	-0.02
	J/w AP STH	2.2	10.43	10.90	10.41	-0.02	10.88	-0.02
	J/w AP NTH	3.35	10.25	10.86	10.22	-0.03	10.83	-0.03
	Fitzroy River	5.3	9.49	9.91	9.47	-0.02	9.88	-0.03
Airport North	J/w FP LION	0	10.25	10.86	10.22	-0.03	10.83	-0.03
	New Terminal	1.54	9.61	10.15	9.50	-0.11	10.10	-0.05
	J/w AP STH	2.6	9.16	9.61	8.98	-0.18	9.52	-0.09
Airport South	J/w FP LION	0	10.43	10.90	10.41	-0.02	10.88	-0.02
	Opposite Terminal	1.3	9.61	10.15	9.50	-0.11	10.10	-0.05
	J/w AP NTH	2.3	9.16	9.61	8.98	-0.18	9.52	-0.09
	J/w FP MAIN	3.0	9.15	9.60	8.97	-0.18	9.51	-0.09
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	7.99	-0.04	8.35	-0.05
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.97	-0.04	8.34	-0.05
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.55	-0.06
	J/w Fitzroy River	2.93	7.21	7.54	7.18	-0.03	7.50	-0.04
Gavial Creek	Fitzroy River	0	7.58	7.94	7.54	-0.04	7.88	-0.06
	J/w FP CURTIS	1.03	7.56	7.92	7.52	-0.04	7.86	-0.06
	J/w FP MAIN	4.21	7.08	7.38	7.11	0.03	7.41	0.03
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.67	0.02
Splitters Creek		1.1	9.51	9.92	9.49	-0.02	9.90	-0.02
		2.1	9.50	9.91	9.48	-0.02	9.89	-0.02
Peak Flows at	Yeppen Bridges m³/s		2495	2650	3905	1,410.00	5065	2,415.00
	Yeppen Overflow m³/s		1415	2605	0	-1,415.00	215	-2,390.00
	Time of Submergence		11.6 d	12.67 d	0	-11.60 d	3.0 d	-9.67 d

TABLE J-10

Summary of Peak Flood Levels for Flood Mitigation Options  
Option B6 - Lower Invert Levels Yeppen bridges by 2 m

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yeamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.49	0.00	9.90	-0.01
	d/s Barrage	149.47	9.17	9.60	9.16	-0.01	9.59	-0.01
		150.17	8.55	8.96	8.55	0.00	8.95	-0.01
	Railway Bridge	150.67	8.35	8.74	8.35	0.00	8.74	0.00
	Fitzroy Street Bridge	151.57	8.03	8.40	8.02	-0.01	8.40	0.00
	City Flood Gauge	152.57	7.84	8.21	7.84	0.00	8.20	-0.01
	Gavial Creek	154.27	7.58	7.94	7.58	0.00	7.93	-0.01
	Edinda Lane	165.02	6.10	6.38	6.10	0.00	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.40	-0.01
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.37	-0.01
	Nine Mile Road	6.63	10.55	10.95	10.53	-0.02	10.94	-0.01
	Start FP SCRUBBY	11.0	9.43	9.89	9.36	-0.07	9.81	-0.08
	Junction with AP-STH	13.0	9.15	9.60	9.04	-0.11	9.49	-0.11
	u/s Yeppen Crossing	13.6	8.64	9.00	8.43	-0.21	8.78	-0.22
	d/s Bruce Highway	13.84	8.39	8.71	8.30	-0.09	8.64	-0.07
	d/s Yeppen Crossing	14.0	8.10	8.36	8.15	0.05	8.39	0.03
	Old Burnett Highway	15.15	7.96	8.22	8.01	0.05	8.24	0.02
	Old Bruce Highway	16.98	7.18	7.47	7.19	0.01	7.48	0.01
	J/w FP GAVIAL	19.04	7.08	7.38	7.09	0.01	7.38	0.00
FP SCRUBBY	Start	0	9.43	9.89	9.36	-0.07	9.81	-0.08
	d/s Capricorn Highway	1.3	9.00	9.46	8.84	-0.16	9.32	-0.14
	u/s Bruce Highway	4.0	8.63	8.99	8.41	-0.22	8.77	-0.22
	d/s Railway	4.3	8.10	8.37	8.15	0.05	8.40	0.03
	J/w FP MAIN	5.15	7.96	8.22	8.01	0.05	8.24	0.02
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.43	-0.21	8.78	-0.18
	Port Curtis Junction	0.91	8.37	8.76	8.15	-0.22	8.58	-0.18
	Depot Hill	2.1	7.67	8.19	7.64	-0.03	8.14	-0.05
	Gavial Creek	4.2	7.56	7.91	7.56	0.00	7.91	0.00
FP LION	J/w FP MAIN	0	10.55	10.95	10.53	-0.02	10.94	-0.01
	J/w AP STH	2.2	10.43	10.90	10.42	-0.01	10.88	-0.02
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	10.84	-0.02
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.90	-0.01
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.84	-0.02
	New Terminal	1.54	9.61	10.15	9.55	-0.06	10.09	-0.06
	J/w AP STH	2.6	9.16	9.61	9.05	-0.11	9.50	-0.11
Airport South	J/w FP LION	0	10.43	10.90	10.42	-0.01	10.88	-0.02
	Opposite Terminal	1.3	9.61	10.15	9.55	-0.06	10.09	-0.06
	J/w AP NTH	2.3	9.16	9.61	9.05	-0.11	9.50	-0.11
	J/w FP MAIN	3.0	9.15	9.60	9.04	-0.11	9.49	-0.11
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.02	-0.01	8.39	-0.01
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.01	0.00	8.38	-0.01
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.25	-0.01	7.60	-0.01
	J/w Fitzroy River	2.93	7.21	7.54	7.21	0.00	7.54	0.00
Gavial Creek	Fitzroy River	0	7.58	7.94	7.58	0.00	7.93	-0.01
	J/w FP CURTIS	1.03	7.56	7.92	7.56	0.00	7.91	-0.01
	J/w FP MAIN	4.21	7.08	7.38	7.09	0.01	7.38	0.00
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.66	0.01
Splitters Creek		1.1	9.51	9.92	9.51	0.00	9.91	-0.01
		2.1	9.50	9.91	9.50	0.00	9.90	-0.01
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3075	580	3350	700
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	955	-460	2070	-535
	Time of Submergence		11.6 d	12.67 d	10.1	-1.5000	11.4 d	-1.27

TABLE J-11

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option B7 – Yeppen Crossing – combination of options B4 and B6

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.49	0.00	9.90	-0.01
	d/s Barrage	149.47	9.17	9.60	9.16	-0.01	9.59	-0.01
		150.17	8.55	8.96	8.54	-0.01	8.94	-0.02
	Railway Bridge	150.67	8.35	8.74	8.34	-0.01	8.73	-0.01
	Fitzroy Street Bridge	151.57	8.03	8.40	8.01	-0.02	8.38	-0.02
	City Flood Gauge	152.57	7.84	8.21	7.82	-0.02	8.19	-0.02
	Gawal Creek	154.27	7.58	7.94	7.56	-0.02	7.91	-0.03
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgelys Road	1.75	11.04	11.41	11.04	0.00	11.41	0.00
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.38	0.00
	Nine Mile Road	6.63	10.55	10.95	10.54	-0.01	10.97	0.02
	Start FP SCRUBBY	11.0	9.43	9.89	9.42	-0.01	9.95	0.06
	Junction with AP-STH	13.0	9.15	9.60	9.13	-0.02	9.68	0.08
	u/s Yeppen Crossing	13.6	8.64	9.00	8.61	-0.03	9.14	0.14
	d/s Bruce Highway	13.84	8.39	8.71	8.40	0.01	8.84	0.13
	d/s Yeppen Crossing	14.0	8.10	8.36	8.16	0.06	8.46	0.10
	Old Burnett Highway	15.15	7.96	8.22	8.02	0.06	8.30	0.08
	Old Bruce Highway	16.98	7.18	7.47	7.27	0.09	7.50	0.03
	J/w FP GAWAL	19.04	7.08	7.38	7.09	-0.01	7.39	0.01
FP SCRUBBY	Start	0	9.43	9.89	9.42	-0.01	9.95	0.06
	d/s Capricorn Highway	1.3	9.00	9.46	8.98	-0.02	9.56	0.10
	u/s Bruce Highway	4.0	8.63	8.99	8.60	-0.03	9.13	0.14
	d/s Railway	4.3	8.10	8.37	8.16	0.06	8.46	0.09
	J/w FP MAIN	5.15	7.96	8.22	8.02	0.06	8.32	0.10
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.61	-0.03	9.14	0.18
	Port Curtis Junction	0.91	8.37	8.76	7.59	-0.78	8.31	-0.45
	Depot Hill	2.1	7.67	8.19	7.59	-0.08	8.07	-0.12
	Gawal Creek	4.2	7.56	7.91	7.54	-0.02	7.89	-0.02
FP LION	J/w FP MAIN	0	10.55	10.95	10.54	-0.01	10.97	0.02
	J/w AP STH	2.2	10.43	10.90	10.43	0.00	10.91	0.01
	J/w AP NTH	3.35	10.25	10.86	10.24	-0.01	10.87	0.01
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.90	-0.01
Airport North	J/w FP LION	0	10.25	10.86	10.24	-0.01	10.87	0.01
	New Terminal	1.54	9.61	10.15	9.60	-0.01	10.19	0.04
	J/w AP STH	2.6	9.16	9.61	9.14	-0.02	9.69	0.08
Airport South	J/w FP LION	0	10.43	10.90	10.43	0.00	10.91	0.01
	Opposite Terminal	1.3	9.61	10.15	9.60	-0.01	10.19	0.04
	J/w AP NTH	2.3	9.16	9.61	9.14	-0.02	9.69	0.08
	J/w FP MAIN	3.0	9.15	9.60	9.13	-0.02	9.68	0.08
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.01	-0.02	8.38	-0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.00	-0.01	8.36	-0.03
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.25	-0.01	7.58	-0.03
	J/w Fitzroy River	2.93	7.21	7.54	7.20	-0.01	7.52	-0.02
Gawal Creek	Fitzroy River	0	7.58	7.94	7.56	-0.02	7.91	-0.03
	J/w FP CURTIS	1.03	7.56	7.92	7.54	-0.02	7.89	-0.03
	J/w FP MAIN	4.21	7.08	7.38	7.09	0.01	7.39	0.01
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.66	0.01
Splitters Creek		1.1	9.51	9.92	9.50	-0.01	9.92	0.00
		2.1	9.50	9.91	9.49	-0.01	9.90	-0.01
Peak Flows at	Yeppen Bridges m³/s		2495	2650	3865	1,370	4390	1,740
	Yeppen Overflow m³/s		1415	2605	0	-1,415	910	-1,695
	Time of Submergence		11.6 d	12.67 d	0	-11.6 d	8.0d	-4.57 d

TABLE J-12

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option B8 – B7 + removing Old Burnett Highway Bridge & old railway embankment

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.68	-0.01
	start of FP2	139.2	11.48	11.90	11.47	-0.01	11.88	-0.02
	start of FP Main	140.1	11.42	11.84	11.41	-0.01	11.83	-0.01
	near Water Treatment Works	144.78	10.86	11.32	10.85	-0.01	11.30	-0.02
	Barrage	149.27	9.49	9.91	9.46	-0.03	9.86	-0.05
	d/s Barrage	149.47	9.17	9.60	9.12	-0.05	9.54	-0.06
		150.17	8.55	8.96	8.50	-0.05	8.89	-0.07
	Railway Bridge	150.67	8.35	8.74	8.30	-0.05	8.67	-0.07
	Fitzroy Street Bridge	151.57	8.03	8.40	7.96	-0.07	8.31	-0.09
	City Flood Gauge	152.57	7.84	8.21	7.77	-0.07	8.11	-0.10
	Gavial Creek	154.27	7.58	7.94	7.50	-0.08	7.83	-0.11
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.41	-0.01	11.83	-0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.03	-0.01	11.40	-0.01
	Lotus Lagoon	4.56	10.99	11.38	10.98	-0.01	11.36	-0.02
	Nine Mile Road	6.63	10.55	10.95	10.51	-0.04	10.93	-0.02
	Start FP SCRUBBY	11.0	9.43	9.89	9.29	-0.14	9.84	-0.05
	Junction with AP-STH	13.0	9.15	9.60	8.91	-0.24	9.52	-0.08
	u/s Yeppen Crossing	13.6	8.64	9.00	8.23	-0.41	8.91	-0.09
	d/s Bruce Highway	13.84	8.39	8.71	8.01	-0.38	8.62	-0.09
	d/s Yeppen Crossing	14.0	8.10	8.36	7.76	-0.34	8.11	-0.25
	Old Burnett Highway	15.15	7.96	8.22	7.53	-0.43	7.87	-0.35
	Old Bruce Highway	16.98	7.18	7.47	7.16	-0.02	7.44	-0.03
J/w FP GAVIAL	19.04	7.08	7.38	7.05	-0.03	7.35	-0.03	
FP SCRUBBY	Start	0	9.43	9.89	9.29	-0.14	9.84	-0.05
	d/s Capricorn Highway	1.3	9.00	9.46	8.68	-0.32	9.39	-0.07
	u/s Bruce Highway	4.0	8.63	8.99	8.19	-0.44	8.91	-0.08
	d/s Railway	4.3	8.10	8.37	7.76	-0.34	8.12	-0.25
	J/w FP MAIN	5.15	7.96	8.22	7.53	-0.43	7.87	-0.35
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.23	-0.41	8.91	-0.05
	Port Curtis Junction	0.91	8.37	8.76	7.49	-0.88	8.00	-0.76
	Depot Hill	2.1	7.67	8.19	7.49	-0.18	7.87	-0.32
	Gavial Creek	4.2	7.56	7.91	7.48	-0.08	7.87	-0.04
FP LION	J/w FP MAIN	0	10.55	10.95	10.51	-0.04	10.93	-0.02
	J/w AP STH	2.2	10.43	10.90	10.40	-0.03	10.88	-0.02
	J/w AP NTH	3.35	10.25	10.86	10.21	-0.04	10.83	-0.03
	Fitzroy River	5.3	9.49	9.91	9.46	-0.03	9.86	-0.05
Airport North	J/w FP LION	0	10.25	10.86	10.21	-0.04	10.83	-0.03
	New Terminal	1.54	9.61	10.15	9.46	-0.15	9.90	-0.25
	J/w AP STH	2.6	9.16	9.61	8.92	-0.24	9.53	-0.08
Airport South	J/w FP LION	0	10.43	10.90	10.40	-0.03	10.88	-0.02
	Opposite Terminal	1.3	9.61	10.15	9.46	-0.15	10.10	-0.05
	J/w AP NTH	2.3	9.16	9.61	8.92	-0.24	9.53	-0.08
	J/w FP MAIN	3.0	9.15	9.60	8.91	-0.24	9.52	-0.08
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	7.96	-0.07	8.31	-0.09
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.94	-0.07	8.30	-0.09
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.20	-0.06	7.51	-0.10
	J/w Fitzroy River	2.93	7.21	7.54	7.15	-0.06	7.46	-0.08
Gavial Creek	Fitzroy River	0	7.58	7.94	7.50	-0.08	7.83	-0.11
	J/w FP CURTIS	1.03	7.56	7.92	7.48	-0.08	7.81	-0.11
	J/w FP MAIN	4.21	7.08	7.38	7.05	-0.03	7.35	-0.03
	Edinda Lane	6.06	6.43	6.65	6.46	0.03	6.68	0.03
Splitters Creek		1.1	9.51	9.92	9.47	-0.04		
		2.1	9.50	9.91	9.47	-0.03		
Peak Flows at	Yeppen Bridges m³/s		2495	2650	3860	1,365	4,975	2,325
	Yeppen Overflow m³/s		1415	2605	0	-1,415	855	-1,750
	Time of Submergence		11.6 d	12.67 d	0		3.67d	-9. d

TABLE J-13

**Summary of Peak Flood Levels for Flood Mitigation Options**  
**Option B9 – Yeppen Crossing – combination of options B4 and B6 + 200 m wide channel d/s + removal Old Burnett Highway bridge & old railway embankment**

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.25	-0.01	12.68	-0.01
	start of FP2	139.2	11.48	11.90	11.47	-0.01	11.88	-0.02
	start of FP Main	140.1	11.42	11.84	11.41	-0.01	11.83	-0.01
	near Water Treatment Works	144.78	10.86	11.32	10.84	-0.02	11.30	-0.02
	Barrage	149.27	9.49	9.91	9.45	-0.04	9.86	-0.05
	d/s Barrage	149.47	9.17	9.60	9.11	-0.06	9.54	-0.06
		150.17	8.55	8.96	8.48	-0.07	8.88	-0.08
	Railway Bridge	150.67	8.35	8.74	8.28	-0.07	8.66	-0.08
	Fitzroy Street Bridge	151.57	8.03	8.40	7.94	-0.09	8.30	-0.10
	City Flood Gauge	152.57	7.84	8.21	7.75	-0.09	8.10	-0.11
	Gavial Creek	154.27	7.58	7.94	7.49	-0.09	7.82	-0.12
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.41	-0.01	11.83	-0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.02	-0.02	11.39	-0.02
	Lotus Lagoon	4.56	10.99	11.38	10.97	-0.02	11.36	-0.02
	Nine Mile Road	6.63	10.55	10.95	10.51	-0.04	10.93	-0.02
	Start FP SCRUBBY	11.0	9.43	9.89	9.29	-0.14	9.83	-0.06
	Junction with AP-STH	13.0	9.15	9.60	8.90	-0.25	9.51	-0.09
	u/s Yeppen Crossing	13.6	8.64	9.00	8.21	-0.43	8.90	-0.10
	d/s Bruce Highway	13.84	8.39	8.71	7.99	-0.40	8.61	-0.10
	d/s Yeppen Crossing	14.0	8.10	8.36	7.73	-0.37	8.09	-0.27
	Old Burnett Highway	15.15	7.96	8.22	7.50	-0.46	7.85	-0.37
	Old Bruce Highway	16.98	7.18	7.47	7.12	-0.06	7.45	-0.02
J/w FP GAVIAL	19.04	7.08	7.38	7.01	-0.07	7.32	-0.06	
FP SCRUBBY	Start	0	9.43	9.89	9.29	-0.14	9.83	-0.06
	d/s Capricorn Highway	1.3	9.00	9.46	8.66	-0.34	9.38	-0.08
	u/s Bruce Highway	4.0	8.63	8.99	8.16	-0.47	8.90	-0.09
	d/s Railway	4.3	8.10	8.37	7.73	-0.37	8.10	-0.27
	J/w FP MAIN	5.15	7.96	8.22	7.50	-0.46	7.85	-0.37
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.21	-0.43	8.90	-0.06
	Port Curtis Junction	0.91	8.37	8.76	7.47	-0.90	7.98	-0.78
	Depot Hill	2.1	7.67	8.19	7.47	-0.20	7.85	-0.34
	Gavial Creek	4.2	7.56	7.91	7.46	-0.10	7.80	-0.11
FP LION	J/w FP MAIN	0	10.55	10.95	10.51	-0.04	10.93	-0.02
	J/w AP STH	2.2	10.43	10.90	10.40	-0.03	10.87	-0.03
	J/w AP NTH	3.35	10.25	10.86	10.21	-0.04	10.82	-0.04
	Fitzroy River	5.3	9.49	9.91	9.45	-0.04	9.86	-0.05
Airport North	J/w FP LION	0	10.25	10.86	10.21	-0.04	10.82	-0.04
	New Terminal	1.54	9.61	10.15	9.45	-0.16	10.10	-0.05
	J/w AP STH	2.6	9.16	9.61	8.91	-0.25	9.52	-0.09
Airport South	J/w FP LION	0	10.43	10.90	10.40	-0.03	10.87	-0.03
	Opposite Terminal	1.3	9.61	10.15	9.45	-0.16	10.10	-0.05
	J/w AP NTH	2.3	9.16	9.61	8.91	-0.25	9.52	-0.09
	J/w FP MAIN	3.0	9.15	9.60	8.90	-0.25	9.51	-0.09
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	7.94	-0.09	8.30	-0.10
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.93	-0.08	8.29	-0.10
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.19	-0.07	7.50	-0.11
	J/w Fitzroy River	2.93	7.21	7.54	7.14	-0.07	7.45	-0.09
Gavial Creek	Fitzroy River	0	7.58	7.94	7.49	-0.09	7.81	-0.13
	J/w FP CURTIS	1.03	7.56	7.92	7.46	-0.10	7.80	-0.12
	J/w FP MAIN	4.21	7.08	7.38	7.01	-0.07	7.32	-0.06
	Edinda Lane	6.06	6.43	6.65	6.37	-0.06	6.62	-0.03
Splitters Creek		1.1	9.51	9.92	9.50	-0.01	9.88	-0.04
		2.1	9.50	9.91	9.49	-0.01	9.86	-0.05
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3865	1,370	5065	2,415
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	375	-2,230
	Time of Submergence		11.6 d	12.67 d	0	-11.6 d	3.25 d	-9.42 d

TABLE J-14

Summary of Peak Flood Levels for Flood Mitigation Options  
Option D1 - Raise breakout threshold at Pink Lily by 1.0 m

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.96	0.03	18.53	0.01
	u/s Pink Lily	134.0	12.26	12.69	12.59	0.33	12.82	0.13
	start of FP2	139.2	11.48	11.90	12.00	0.52	12.11	0.21
	start of FP Main	140.1	11.42	11.84	11.94	0.52	12.06	0.22
	near Water Treatment Works	144.78	10.86	11.32	11.36	0.50	11.53	0.21
	Barrage	149.27	9.49	9.91	9.81	0.32	10.03	0.12
	d/s Barrage	149.47	9.17	9.60	9.47	0.30	9.72	0.12
		150.17	8.55	8.96	8.77	0.22	9.05	0.09
	Railway Bridge	150.67	8.35	8.74	8.54	0.19	8.82	0.08
	Fitzroy Street Bridge	151.57	8.03	8.40	8.16	0.13	8.46	0.06
	City Flood Gauge	152.67	7.84	8.21	7.94	0.10	8.25	0.04
	Gavial Creek	154.27	7.58	7.94	7.68	0.10	7.96	0.02
	Edirnda Lane	165.02	6.10	6.38	6.10	0.00	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.94	0.52	12.06	0.22
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	10.88	-0.16	11.31	-0.10
	Lotus Lagoon	4.56	10.99	11.38	10.78	-0.21	11.27	-0.11
	Nine Mile Road	6.63	10.55	10.95	10.34	-0.21	10.84	-0.11
	Start FP SCRUBBY	11.0	9.43	9.89	9.20	-0.23	9.77	-0.12
	Junction with AP-STH	13.0	9.15	9.60	8.89	-0.26	9.48	-0.12
	u/s Yeppen Crossing	13.6	8.64	9.00	8.42	-0.22	8.91	-0.09
	d/s Bruce Highway	13.84	8.39	8.71	8.19	-0.20	8.63	-0.08
	d/s Yeppen Crossing	14.0	8.10	8.36	7.93	-0.17	8.30	-0.06
	Old Burnett Highway	15.15	7.96	8.22	7.81	-0.15	8.16	-0.06
	Old Bruce Highway	16.98	7.18	7.47	7.14	-0.04	7.46	-0.01
	J/w FP GAVIAL	19.04	7.68	7.38	7.06	-0.02	7.38	0.00
	FP SCRUBBY	Start	0	9.43	9.89	9.20	-0.23	9.77
d/s Capricorn Highway		1.3	9.00	9.46	8.74	-0.26	9.34	-0.12
u/s Bruce Highway		4.0	8.63	8.99	8.41	-0.22	8.90	-0.09
d/s Railway		4.3	8.10	8.37	7.93	-0.17	8.30	-0.07
J/w FP MAIN		5.15	7.96	8.22	7.81	-0.15	8.16	-0.06
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.42	-0.22	8.91	-0.05
	Port Curtis Junction	0.91	8.37	8.76	8.17	-0.20	8.68	-0.08
	Depot Hill	2.1	7.67	8.19	7.67	0.00	8.16	-0.03
	Gavial Creek	4.2	7.56	7.91	7.62	0.06	7.94	0.03
FP LION	J/w FP MAIN	0	10.55	10.95	10.34	-0.21	10.84	-0.11
	J/w AP STH	2.2	10.43	10.90	10.24	-0.19	10.77	-0.13
	J/w AP NTH	3.35	10.25	10.86	10.08	-0.17	10.71	-0.15
	Fitzroy River	5.3	9.49	9.91	9.81	0.32	10.03	0.12
Airport North	J/w FP LION	0	10.25	10.86	10.08	-0.17	10.71	-0.15
	New Terminal	1.54	9.61	10.15	9.17	-0.44	10.01	-0.14
	J/w AP STH	2.6	9.16	9.61	8.89	-0.27	9.49	-0.12
Airport South	J/w FP LION	0	10.43	10.90	10.24	-0.19	10.77	-0.13
	Opposite Terminal	1.3	9.61	10.15	9.17	-0.44	10.01	-0.14
	J/w AP NTH	2.3	9.16	9.61	8.89	-0.27	9.49	-0.12
	J/w FP MAIN	3.0	9.15	9.60	8.89	-0.26	9.48	-0.12
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.16	0.13	8.46	0.06
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.15	0.14	8.44	0.05
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.31	0.05	7.63	0.02
	J/w Fitzroy River	2.93	7.21	7.54	7.26	0.05	7.56	0.02
Gavial Creek	Fitzroy River	0	7.58	7.94	7.64	0.06	7.96	0.02
	J/w FP CURTIS	1.03	7.56	7.92	7.62	0.06	7.94	0.02
	J/w FP MAIN	4.21	7.08	7.38	7.06	-0.02	7.37	-0.01
	Edirnda Lane	6.06	6.43	6.65	6.42	-0.01	6.38	-0.27
Splitters Creek		1.1	9.51	9.92	9.83	0.32	10.05	0.13
		2.1	9.50	9.91	9.82	0.32	10.03	0.12
Peak Flows at	Barrage m <sup>3</sup> /s		10260	11080	11275	1015	11525	445
	Floodplain Pink Lily m <sup>3</sup> /s		4130	5605	3670	-560	5230	-375
	Floodplain Yeppen m <sup>3</sup> /s		3910	5255	3350	-560	4860	-395

TABLE J-15

Summary of Peak Flood Levels for Flood Mitigation Options  
Option D2 - Prevent Pink Lily Breakout at 2% AEP

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	18.04	0.11	18.67	0.15
	U/s Pink Lily	134.0	12.26	12.69	13.56	1.30	14.35	1.66
	start of FP2	139.2	11.48	11.90	13.27	1.79	14.09	2.19
	start of FP Main	140.1	11.42	11.84	13.24	1.82	14.06	2.22
	near Water Treatment Works	144.78	10.86	11.32	12.60	1.74	13.40	2.08
	Barrage	149.27	9.49	9.91	10.63	1.14	11.26	1.35
	d/s Barrage	149.47	9.17	9.60	10.31	1.14	10.96	1.36
		150.17	8.55	8.96	9.44	0.89	9.99	1.03
	Railway Bridge	150.67	8.35	8.74	9.11	0.76	9.60	0.86
	Fitzroy Street Bridge	151.57	8.03	8.40	8.62	0.59	9.05	0.65
	City Flood Gauge	152.57	7.84	8.21	8.33	0.49	8.72	0.51
	Gavial Creek	154.27	7.58	7.94	7.89	0.31	8.21	0.27
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.37	-0.01
	173.00	5.43	5.69	5.42	-0.01	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	13.24	1.82	14.06	2.22
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	8.84	-2.20	9.07	-2.34
	Lotus Lagoon	4.56	10.99	11.38	8.84	-2.15	9.07	-2.31
	Nine Mile Road	6.63	10.55	10.95	8.84	-1.71	9.03	-1.92
	Start FP SCRUBBY	11.0	9.43	9.89	7.22	-2.21	7.90	-1.99
	Junction with AP-STH	13.0	9.15	9.60	7.14	-2.01	7.83	-1.77
	U/s Yeppen Crossing	13.6	8.64	9.00	7.07	-1.57	7.71	-1.29
	d/s Bruce Highway	13.84	8.39	8.71	7.02	-1.37	7.57	-1.14
	d/s Yeppen Crossing	14.0	8.10	8.36	6.99	-1.11	7.46	-0.90
	Old Burnett Highway	15.15	7.96	8.22	6.97	-0.99	7.41	-0.81
	Old Bruce Highway	16.98	7.18	7.47	6.91	-0.27	7.25	-0.22
J/w FP GAVIAL	19.04	7.08	7.38	6.90	-0.18	7.23	-0.15	
FP SCRUBBY	Start	0	9.43	9.89	7.22	-2.21	7.90	-1.99
	d/s Capricorn Highway	1.3	9.00	9.46	6.98	-2.02	7.47	-1.99
	U/s Bruce Highway	4.0	8.63	8.99	6.98	-1.65	7.46	-1.53
	d/s Railway	4.3	8.10	8.37	6.98	-1.12	7.45	-0.92
	J/w FP MAIN	5.15	7.96	8.22	6.97	-0.99	7.41	-0.81
FP CURTIS	U/s Bruce Highway	0.69	8.64	8.96	7.07	-1.57	7.71	-1.25
	Port Curtis Junction	0.91	8.37	8.76	7.83	-0.54	8.11	-0.65
	Depot Hill	2.1	7.67	8.19	7.83	0.16	8.11	-0.08
	Gavial Creek	4.2	7.56	7.91	7.84	0.28	8.14	0.23
FP LION	J/w FP MAIN	0	10.55	10.95	8.84	-1.71	9.03	-1.92
	J/w AP STH	2.2	10.43	10.90	9.38	-1.05	9.57	-1.33
	J/w AP NTH	3.35	10.25	10.86	10.11	-0.14	10.43	-0.43
	Fitzroy River	5.3	9.49	9.91	10.63	1.14	11.26	1.35
Airport North	J/w FP LION	0	10.25	10.86	10.11	-0.14	10.43	-0.43
	New Terminal	1.54	9.61	10.15	7.80	-1.81	8.57	-1.58
	J/w AP STH	2.6	9.16	9.61	7.14	-2.02	7.84	-1.77
Airport South	J/w FP LION	0	10.43	10.90	9.38	-1.05	9.57	-1.33
	Opposite Terminal	1.3	9.61	10.15	7.43	-2.18	8.57	-1.58
	J/w AP NTH	2.3	9.16	9.61	7.14	-2.02	7.84	-1.77
	J/w FP MAIN	3.0	9.15	9.60	7.14	-2.01	7.83	-1.77
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.62	0.59	9.05	0.65
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.60	0.59	9.02	0.63
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.59	0.33	7.99	0.38
	J/w Fitzroy River	2.93	7.21	7.54	7.46	0.25	7.77	0.23
Gavial Creek	Fitzroy River	0	7.58	7.94	7.89	0.31	8.21	0.27
	J/w FP CURTIS	1.03	7.56	7.92	7.84	0.28	8.14	0.22
	J/w FP MAIN	4.21	7.08	7.38	6.90	-0.18	7.23	-0.15
	Edinda Lane	6.06	6.43	6.65	6.33	-0.10	6.37	-0.28
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				
	Flows at Yeppen m³/s		3,910	5,205	245	-3,665	735	-4,470
	Time of Submergence		11.6 d	12.7 d	0 d	-11.6 d	0 d	12.7 d

TABLE J-16

Summary of Peak Flood Levels for Flood Mitigation Options  
Option D3 - Raise breakout threshold at Pink Lily by 2.5 m

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	18.00	0.07	18.58	0.06
	U/s Pink Lily	134.0	12.26	12.69	13.09	0.83	13.49	0.80
	start of FP2	139.2	11.48	11.90	12.70	1.22	13.05	1.15
	start of FP Main	140.1	11.42	11.84	12.65	1.23	13.01	1.17
	near Water Treatment Works	144.78	10.86	11.32	11.99	1.13	12.33	1.01
	Barrage	149.27	9.49	9.91	10.20	0.71	10.46	0.55
	d/s Barrage	149.47	9.17	9.60	9.86	0.69	10.15	0.55
		150.17	8.55	8.96	9.08	0.53	9.36	0.40
	Railway Bridge	150.67	8.35	8.74	8.80	0.45	9.08	0.34
	Fitzroy Street Bridge	151.57	8.03	8.40	8.36	0.33	8.65	0.25
	City Flood Gauge	152.57	7.84	8.21	8.11	0.27	8.40	0.19
	Gavial Creek	154.27	7.58	7.94	7.74	0.16	8.03	0.09
	Edinda Lane	165.02	6.10	6.38	6.10	0.00	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	12.65	1.23	13.01	1.17
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	10.19	-0.91	10.91	-0.50
	Lotus Lagoon	4.56	10.99	11.38	9.91	-1.08	10.72	-0.66
	Nine Mile Road	6.63	10.55	10.95	9.57	-0.98	10.33	-0.62
	Start FP SCRUBBY	11.0	9.43	9.89	8.53	-0.90	9.25	-0.64
	Junction with AP-STH	13.0	9.15	9.60	8.25	-0.90	8.98	-0.62
	U/s Yeppen Crossing	13.6	8.64	9.00	7.93	-0.71	8.51	-0.49
	d/s Bruce Highway	13.84	8.39	8.71	7.74	-0.65	8.30	-0.41
	d/s Yeppen Crossing	14.0	8.10	8.36	7.55	-0.55	8.06	-0.30
	Old Burnett Highway	15.15	7.96	8.22	7.47	-0.49	7.95	-0.27
	Old Bruce Highway	16.98	7.18	7.47	7.07	-0.11	7.42	-0.05
	J/w FP GAVIAL	19.04	7.08	7.38	7.00	-0.08	7.33	-0.05
FP SCRUBBY	Start	0	9.43	9.89	8.53	-0.90	9.25	-0.64
	d/s Capricorn Highway	1.3	9.00	9.46	7.84	-1.16	8.82	-0.64
	U/s Bruce Highway	4.0	8.63	8.99	7.69	-0.94	8.50	-0.49
	d/s Railway	4.3	8.10	8.37	7.55	-0.55	8.06	-0.31
	J/w FP MAIN	5.15	7.96	8.22	7.47	-0.49	7.95	-0.27
FP CURTIS	U/s Bruce Highway	0.69	8.64	8.96	7.93	-0.71	8.51	-0.45
	Port Curtis Junction	0.91	8.37	8.76	7.70	-0.67	8.33	-0.43
	Depot Hill	2.1	7.67	8.19	7.69	0.02	8.04	-0.15
	Gavial Creek	4.2	7.56	7.91	7.70	0.14	8.00	0.09
FP LION	J/w FP MAIN	0	10.55	10.95	9.57	-0.98	10.33	-0.62
	J/w AP STH	2.2	10.43	10.90	9.59	-0.84	10.33	-0.57
	J/w AP NTH	3.35	10.25	10.86	9.94	-0.31	10.38	-0.48
	Fitzroy River	5.3	9.49	9.91	10.20	0.71	10.46	0.55
Airport North	J/w FP LION	0	10.25	10.86	9.94	-0.31	10.38	-0.48
	New Terminal	1.54	9.61	10.15	8.41	-1.20	9.45	-0.70
	J/w AP STH	2.6	9.16	9.61	8.25	-0.91	8.99	-0.62
Airport South	J/w FP LION	0	10.43	10.90	9.59	-0.84	10.33	-0.57
	Opposite Terminal	1.3	9.61	10.15	8.42	-1.19	9.45	-0.70
	J/w AP NTH	2.3	9.16	9.61	8.25	-0.91	8.99	-0.62
	J/w FP MAIN	3.0	9.15	9.60	8.25	-0.90	8.98	-0.62
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.36	0.33	8.65	0.25
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.35	0.34	8.63	0.24
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.42	0.16	7.72	0.11
	J/w Fitzroy River	2.93	7.21	7.54	7.34	0.13	7.62	0.08
Gavial Creek	Fitzroy River	0	7.58	7.94	7.74	0.16	8.03	0.09
	J/w FP CURTIS	1.03	7.56	7.92	7.70	0.14	8.00	0.08
	J/w FP MAIN	4.21	7.08	7.38	7.00	-0.08	7.33	-0.05
	Edinda Lane	6.06	6.43	6.65	6.38	-0.05	6.63	-0.02
Splitters Creek		1.1	9.51	9.92	10.50	0.99	10.80	0.88
		2.1	9.50	9.91	10.26	0.76	10.53	0.62
Peak Flows at	Barrage m <sup>3</sup> /s		10260	11080	12510	2,250	12970	1,890
	Floodplain Pink Lily m <sup>3</sup> /s		4130	5605	1520	-2,610	2945	2,660
	Floodplain Yeppen m <sup>3</sup> /s		3910	5255	1650	-2,260	3365	-1,890
	Time of Submergence Yeppen		11.6 d	12.6 d	6.5 d	-5.1 d	9.0 d	-3.6 d



TABLE J-17

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option D4 - Raise breakout threshold at Gavial Creek to 10 m AHD

Flow Path	Location	Chalnage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.75	-0.18		
	u/s Pink Lily	134.0	12.26	12.69	12.18	-0.08		
	start of FP2	139.2	11.48	11.90	11.44	-0.04		
	start of FP Main	140.1	11.42	11.84	11.39	-0.03		
	near Water Treatment Works	144.78	10.86	11.32	10.89	0.03		
	Barrage	149.27	9.49	9.91	9.72	0.23		
	d/s Barrage	149.47	9.17	9.60	9.48	0.31		
		150.17	8.55	8.96	9.00	0.45		
	Railway Bridge	150.67	8.35	8.74	8.84	0.49		
	Fitzroy Street Bridge	151.57	8.03	8.40	8.60	0.57		
	City Flood Gauge	152.67	7.84	8.21	8.47	0.63		
	Gavial Creek	154.27	7.58	7.94	8.29	0.71		
	Edinda Lane	165.02	6.10	6.38	5.93	-0.17		
	173.00	5.43	5.69	5.22	-0.21			
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.39	-0.03		
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.00	-0.04		
	Lotus Lagoon	4.56	10.99	11.38	10.95	-0.04		
	Nine Mile Road	6.63	10.55	10.95	10.50	-0.05		
	Start FP SCRUBBY	11.0	9.43	9.89	9.37	-0.06		
	Junction with AP-STH	13.0	9.15	9.60	9.08	-0.07		
	u/s Yeppen Crossing	13.6	8.64	9.00	8.56	-0.08		
	d/s Bruce Highway	13.84	8.39	8.71	8.30	-0.09		
	d/s Yeppen Crossing	14.0	8.10	8.36	8.01	-0.09		
	Old Burnett Highway	15.15	7.96	8.22	7.86	-0.10		
	Old Bruce Highway	16.98	7.18	7.47	6.92	-0.26		
J/w FP GAVIAL	19.04	7.08	7.38	6.46	-0.62			
FP SCRUBBY	Start	0	9.43	9.89	9.37	-0.06		
	d/s Capricorn Highway	1.3	9.00	9.46	8.92	-0.08		
	u/s Bruce Highway	4.0	8.63	8.99	8.55	-0.08		
	d/s Railway	4.3	8.10	8.37	8.01	-0.09		
	J/w FP MAIN	5.15	7.96	8.22	7.86	-0.10		
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.56	-0.08		
	Port Curtis Junction	0.91	8.37	8.76	8.29	-0.08		
	Depot Hill	2.1	7.67	8.19	6.81	-0.86		
	Gavial Creek	4.2	7.56	7.91	6.50	-1.06		
FP LION	J/w FP MAIN	0	10.55	10.95	10.50	-0.05		
	J/w AP STH	2.2	10.43	10.90	10.40	-0.03		
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02		
	Fitzroy River	5.3	9.49	9.91	9.72	0.23		
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02		
	New Terminal	1.54	9.61	10.15	9.53	-0.08		
	J/w AP STH	2.6	9.16	9.61	9.09	-0.07		
Airport South	J/w FP LION	0	10.43	10.90	10.40	-0.03		
	Opposite Terminal	1.3	9.61	10.15	9.53	-0.08		
	J/w AP NTH	2.3	9.16	9.61	9.09	-0.07		
	J/w FP MAIN	3.0	9.15	9.60	9.08	-0.07		
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.60	0.57		
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.59	0.58		
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.82	0.56		
	J/w Fitzroy River	2.93	7.21	7.54	7.75	0.54		
Gavial Creek	Fitzroy River	0	7.58	7.94	8.29	0.71		
	J/w FP CURTIS	1.03	7.56	7.92	6.50	-1.06		
	J/w FP MAIN	4.21	7.08	7.38	6.46	-0.62		
	Edinda Lane	6.06	6.43	6.65	6.06	-0.37		
Splitters Creek		1.1	9.51	9.92	9.74	0.23		
		2.1	9.50	9.91	9.73	0.23		

TABLE J-18a

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option F3 – Reduce tailwater at Yeppen by removing old railway  
 embankments and old Burnett Highway Bridge

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yeamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	11.86	1.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.48	-0.01	9.89	-0.02
	d/s Barrage	149.47	9.17	9.60	9.15	-0.02	9.58	-0.02
		150.17	8.55	8.96	8.53	-0.02	8.94	-0.02
	Railway Bridge	150.67	8.35	8.74	8.53	0.18	8.72	-0.02
	Fitzroy Street Bridge	151.57	8.03	8.40	8.00	-0.03	8.38	-0.02
	City Flood Gauge	152.57	7.84	8.21	7.81	-0.03	8.18	-0.03
	Gavial Creek	154.27	7.58	7.94	7.55	-0.03	7.91	-0.03
	Edinda Lane	165.02	6.10	6.38	6.10	0.00	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.40	-0.01
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.37	-0.01
	Nine Mile Road	6.63	10.55	10.95	10.54	-0.01	10.95	0.00
	Start FP SCRUBBY	11.0	9.43	9.89	9.41	-0.02	9.86	-0.03
	Junction with AP-STH	13.0	9.15	9.60	9.11	-0.04	9.56	-0.04
	u/s Yeppen Crossing	13.6	8.64	9.00	8.58	-0.06	8.93	-0.07
	d/s Bruce Highway	13.84	8.39	8.71	8.27	-0.12	8.59	-0.12
	d/s Yeppen Crossing	14.0	8.10	8.36	7.92	-0.18	8.19	-0.17
	Old Burnett Highway	15.15	7.96	8.22	7.72	-0.24	7.99	-0.23
	Old Bruce Highway	16.98	7.18	7.47	7.21	0.03	7.47	0.00
	J/w FP GAVIAL	19.04	7.08	7.38	7.10	-0.02	7.35	-0.03
FP SCRUBBY	Start	0	9.43	9.89	9.41	-0.02	9.86	-0.03
	d/s Capricorn Highway	1.3	9.00	9.46	8.95	-0.05	9.42	-0.04
	u/s Bruce Highway	4.0	8.63	8.99	8.57	-0.06	8.93	-0.06
	d/s Railway	4.3	8.10	8.37	7.92	-0.18	8.20	-0.17
	J/w FP MAIN	5.15	7.96	8.22	7.72	-0.24	7.99	-0.23
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.98	8.58	-0.06	8.93	-0.05
	Port Curtis Junction	0.91	8.37	8.76	8.84	0.47	8.68	-0.08
	Depot Hill	2.1	7.67	8.19	7.57	-0.10	8.07	-0.12
	Gavial Creek	4.2	7.56	7.91	7.53	-0.03	7.89	-0.02
FP LION	J/w FP MAIN	0	10.55	10.95	10.54	-0.01	10.95	0.00
	J/w AP STH	2.2	10.43	10.90	10.43	0.00	10.89	-0.01
	J/w AP NTH	3.35	10.25	10.86	10.24	-0.01	10.85	-0.01
	Fitzroy River	5.3	9.49	9.91	9.48	-0.01	9.89	-0.02
Airport North	J/w FP LION	0	10.25	10.86	10.24	-0.01	10.85	-0.01
	New Terminal	1.54	9.61	10.15	9.58	-0.03	10.12	-0.03
	J/w AP STH	2.6	9.16	9.61	9.12	-0.04	9.57	-0.04
Airport South	J/w FP LION	0	10.43	10.90	10.43	0.00	10.89	-0.01
	Opposite Terminal	1.3	9.61	10.15	9.58	-0.03	10.13	-0.02
	J/w AP NTH	2.3	9.16	9.61	9.12	-0.04	9.57	-0.04
	J/w FP MAIN	3.0	9.15	9.60	9.11	-0.04	9.56	-0.04
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.00	-0.03	8.38	-0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.98	-0.03	8.36	-0.03
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.58	-0.03
	J/w Fitzroy River	2.93	7.21	7.54	7.19	-0.02	7.52	-0.02
Gavial Creek	Fitzroy River	0	7.58	7.94	7.55	-0.03	7.91	-0.03
	J/w FP CURTIS	1.03	7.56	7.92	7.53	-0.03	7.89	-0.03
	J/w FP MAIN	4.21	7.08	7.38	7.10	0.02	7.39	0.01
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.66	0.01
Splitters Creek		1.1	9.51	9.92	9.50	-0.01	9.91	-0.01
		2.1	9.50	9.91	9.49	-0.01	9.90	-0.01
Flows at Yeppen	Bridges m³/s		2495	2650			2905	255
	Overflow m³/s		1415	2605			2380	-225
	Time of Submergence (days)		11.6 d	12.67 d			12.63 d	-0.04 d

TABLE J-18b

Summary of Peak Flood Levels for Flood Mitigation Options  
Option F4 - Enlarge channel d/s Yeppen Crossing

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.83	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.68	-0.01
	start of FP2	139.2	11.48	11.90	11.47	-0.01	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.41	-0.01	11.83	-0.01
	near Water Treatment Works	144.78	10.86	11.32	10.85	-0.01	11.31	-0.01
	Barrage	149.27	9.49	9.91	9.47	-0.02	9.87	-0.04
	d/s Barrage	149.47	9.17	9.60	9.13	-0.04	9.56	-0.04
		150.17	8.55	8.96	8.50	-0.05	8.91	-0.05
	Railway Bridge	150.67	8.35	8.74	8.30	-0.05	8.69	-0.05
	Fitzroy Street Bridge	151.57	8.03	8.40	7.97	-0.06	8.34	-0.06
	City Flood Gauge	152.57	7.84	8.21	7.78	-0.06	8.14	-0.07
	Gavial Creek	154.27	7.58	7.94	7.51	-0.07	7.86	-0.08
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.41	-0.01	11.83	-0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.03	-0.01	11.40	-0.01
	Lotus Lagoon	4.56	10.99	11.38	10.98	-0.01	11.36	-0.02
	Nine Mile Road	6.63	10.55	10.95	10.53	-0.02	10.94	-0.01
	Start FP SCRUBBY	11.0	9.43	9.89	9.39	-0.04	9.85	-0.04
	Junction with AP-STH	13.0	9.15	9.60	9.08	-0.07	9.55	-0.05
	u/s Yeppen Crossing	13.6	8.64	9.00	8.53	-0.11	8.91	-0.09
	d/s Bruce Highway	13.84	8.39	8.71	8.20	-0.19	8.55	-0.16
	d/s Yeppen Crossing	14.0	8.10	8.36	7.82	-0.28	8.13	-0.23
	Old Burnett Highway	15.15	7.96	8.22	7.64	-0.32	7.95	-0.27
	Old Bruce Highway	16.98	7.18	7.47	7.11	-0.07	7.44	-0.03
J/w FP GAVIAL	19.04	7.08	7.38	7.04	-0.04	7.33	-0.05	
FP SCRUBBY	Start	0	9.43	9.89	9.39	-0.04	9.85	-0.04
	d/s Capricorn Highway	1.3	9.00	9.46	8.91	-0.09	9.40	-0.06
	u/s Bruce Highway	4.0	8.63	8.99	8.52	-0.11	8.90	-0.09
	d/s Railway	4.3	8.10	8.37	7.82	-0.28	8.13	-0.24
	J/w FP MAIN	5.15	7.96	8.22	7.64	-0.32	7.95	-0.27
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.53	-0.11	8.91	-0.05
	Port Curtis Junction	0.91	8.37	8.76	7.69	-0.68	8.65	-0.11
	Depot Hill	2.1	7.67	8.19	7.51	-0.16	8.02	-0.17
	Gavial Creek	4.2	7.56	7.91	7.49	-0.07	7.84	-0.07
FP LION	J/w FP MAIN	0	10.55	10.95	10.53	-0.02	10.94	-0.01
	J/w AP STH	2.2	10.43	10.90	10.42	-0.01	10.88	-0.02
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	10.84	-0.02
	Fitzroy River	5.3	9.49	9.91	9.47	-0.02	9.87	-0.04
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.84	-0.02
	New Terminal	1.54	9.61	10.15	9.56	-0.05	10.11	-0.04
	J/w AP STH	2.6	9.16	9.61	9.09	-0.07	9.56	-0.05
Airport South	J/w FP LION	0	10.43	10.90	10.42	-0.01	10.88	-0.02
	Opposite Terminal	1.3	9.61	10.15	9.56	-0.05	10.11	-0.04
	J/w AP NTH	2.3	9.16	9.61	9.09	-0.07	9.56	-0.05
	J/w FP MAIN	3.0	9.15	9.60	9.08	-0.07	9.55	-0.05
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	7.97	-0.06	8.34	-0.06
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.95	-0.06	8.33	-0.06
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.21	-0.05	7.54	-0.07
	J/w Fitzroy River	2.93	7.21	7.54	7.16	-0.05	7.48	-0.06
Gavial Creek	Fitzroy River	0	7.58	7.94	7.51	-0.07	7.86	-0.08
	J/w FP CURTIS	1.03	7.56	7.92	7.49	-0.07	7.84	-0.08
	J/w FP MAIN	4.21	7.08	7.38	7.04	-0.04	7.33	-0.05
	Edinda Lane	6.06	6.43	6.65	6.45	0.02	6.67	0.02
Splitters Creek		1.1	9.51	9.92	9.48	-0.03	9.89	-0.03
		2.1	9.50	9.91	9.47	-0.03	9.88	-0.03
Flows at Yeppen	Bridges m <sup>3</sup> /s		2495	2650	2925	430	3005	355
	Overflow m <sup>3</sup> /s		1415	2605	995	-420	2290	-315
	Time of Submergence		11.6 d	12.67 d	10.8 d	-0.8 d	12.00 d	-0.67 d

TABLE J-19

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option E1 - Major Floodway + Levees Pink Lily

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.94	0.01	18.53	0.01
	w/s Pink Lily	134.0	12.26	12.69	12.34	0.08	12.89	0.20
	start of FP2	139.2	11.48	11.90	11.69	0.21	12.29	0.39
	start of FP Main	140.1	11.42	11.84	11.65	0.23	12.26	0.42
	near Water Treatment Works	144.78	10.86	11.32	11.06	0.20	11.68	0.36
	Barrage	149.27	9.49	9.91	9.56	0.07	10.04	0.13
	d/s Barrage	149.47	9.17	9.60	9.22	0.05	9.72	0.12
		150.17	8.55	8.96	8.57	0.02	9.02	0.06
	Railway Bridge	150.67	8.35	8.74	8.36	0.01	8.77	0.03
	Fitzroy Street Bridge	151.57	8.03	8.40	8.01	-0.02	8.39	-0.01
	City Flood Gauge	162.57	7.84	8.21	7.82	-0.02	8.17	-0.04
	Gavial Creek	154.27	7.58	7.94	7.54	-0.04	7.86	-0.08
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
Floodway	J/w Fitzroy River	0.0			11.76		12.34	
		2.5			11.40		11.96	
		5.0			11.05		11.60	
		7.5			10.68		11.21	
		10.0			10.27		10.78	
		12.5			9.81		10.29	
		15.0			9.25		9.69	
	J/w FP GAVIAL	19.0			7.10		7.41	
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.01	-0.02	8.39	-0.01
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.00	-0.01	8.38	-0.01
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.55	-0.06
	J/w Fitzroy River	2.93	7.21	7.54	7.18	-0.03	7.48	-0.06
Gavial Creek	Fitzroy River	0	7.58	7.94	7.54	-0.04	7.86	-0.08
	J/w FP CURTIS	1.03	7.56	7.92	7.51	-0.05	7.83	-0.09
	J/w FP MAIN	4.21	7.08	7.38	7.10	0.02	7.41	0.03
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.67	0.02
Splitters Creek		1.1	9.51	9.92	9.56	0.05	10.04	0.12
		2.1	9.50	9.91	9.56	0.06	10.04	0.13
Peak Flow	City Reach m <sup>3</sup> /s		10,260	11,080	10,560	300	11,740	660
	Floodway m <sup>3</sup> /s				3,570		4,580	

TABLE J-20

**Summary of Peak Flood Levels for Flood Mitigation Options  
Option M1 - Max effect of Landfill ie. delete Lakes Creek Flow Path**

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.87	0.01	11.33	0.01
	Barrage	149.27	9.49	9.91	9.50	0.01	9.91	0.00
	d/s Barrage	149.47	9.17	9.60	9.17	0.00	9.61	0.01
		150.17	8.55	8.96	8.56	0.01	8.97	0.01
	Railway Bridge	150.67	8.35	8.74	8.36	0.01	8.75	0.01
	Fitzroy Street Bridge	151.57	8.03	8.40	8.03	0.00	8.41	0.01
	City Flood Gauge	152.57	7.84	8.21	7.85	0.01	8.22	0.01
	Gavial Creek	154.27	7.58	7.94	7.59	0.01	7.94	0.00
	Edinda Lane	165.02	6.10	6.38	6.10	0.00	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.41	0.00
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.38	0.00
	Nine Mile Road	6.63	10.55	10.95	10.55	0.00	10.95	0.00
	Start FP SCRUBBY	11.0	9.43	9.89	9.43	0.00	9.89	0.00
	Junction with AP-STH	13.0	9.15	9.60	9.15	0.00	9.60	0.00
	u/s Yeppen Crossing	13.6	8.64	9.00	8.64	0.00	9.00	0.00
	d/s Bruce Highway	13.84	8.39	8.71	8.39	0.00	8.71	0.00
	d/s Yeppen Crossing	14.0	8.10	8.36	8.10	0.00	8.36	0.00
	Old Burnett Highway	15.15	7.96	8.22	7.96	0.00	8.22	0.00
	Old Bruce Highway	16.98	7.18	7.47	7.18	0.00	7.47	0.00
J/w FP GAVIAL	19.04	7.08	7.38	7.08	0.00	7.38	0.00	
FP SCRUBBY	Start	0	9.43	9.89	9.43	0.00	9.89	0.00
	d/s Capricorn Highway	1.3	9.00	9.46	9.00	0.00	9.46	0.00
	u/s Bruce Highway	4.0	8.63	8.99	8.63	0.00	8.99	0.00
	d/s Railway	4.3	8.10	8.37	8.10	0.00	8.37	0.00
	J/w FP MAIN	5.15	7.96	8.22	7.96	0.00	8.22	0.00
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.64	0.00	8.96	0.00
	Port Curtis Junction	0.91	8.37	8.76	8.37	0.00	8.76	0.00
	Depot Hill	2.1	7.67	8.19	7.67	0.00	8.19	0.00
	Gavial Creek	4.2	7.56	7.91	7.56	0.00	7.91	0.00
FP LION	J/w FP MAIN	0	10.55	10.95	10.55	0.00	10.95	0.00
	J/w AP STH	2.2	10.43	10.90	10.43	0.00	10.90	0.00
	J/w AP NTH	3.35	10.25	10.86	10.25	0.00	10.86	0.00
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.91	0.00
Airport North	J/w FP LION	0	10.25	10.86	10.25	0.00	10.86	0.00
	New Terminal	1.54	9.61	10.15	9.61	0.00	10.15	0.00
	J/w AP STH	2.6	9.16	9.61	9.16	0.00	9.61	0.00
Airport South	J/w FP LION	0	10.43	10.90	10.43	0.00	10.90	0.00
	Opposite Terminal	1.3	9.61	10.15	9.61	0.00	10.15	0.00
	J/w AP NTH	2.3	9.16	9.61	9.16	0.00	9.61	0.00
	J/w FP MAIN	3.0	9.15	9.60	9.15	0.00	9.60	0.00
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40				
	Lakes Creek Road (STW)	1.0	8.01	8.39				
	Lakes Creek Road (Landfill)	2.0	7.26	7.61				
	J/w Fitzroy River	2.93	7.21	7.54				
Gavial Creek	Fitzroy River	0	7.58	7.94	7.58	0.00	7.94	0.00
	J/w FP CURTIS	1.03	7.56	7.92	7.56	0.00	7.92	0.00
	J/w FP MAIN	4.21	7.08	7.38	7.08	0.00	7.38	0.00
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.65	0.00
Splitters Creek		1.1	9.51	9.92	9.51	0.00	9.92	0.00
		2.1	9.50	9.91	9.50	0.00	9.91	0.00

TABLE J-22

Summary of Peak Flood Levels for Flood Mitigation Options  
Option M3 – Lower Capricorn Highway by 1.0 m

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.49	0.00	9.90	-0.01
	d/s Barrage	149.47	9.17	9.60	9.16	-0.01	9.60	0.00
		150.17	8.55	8.96	8.55	0.00	8.96	0.00
	Railway Bridge	150.67	8.35	8.74	8.35	0.00	8.74	0.00
	Fitzroy Street Bridge	151.57	8.03	8.40	8.02	-0.01	8.40	0.00
	City Flood Gauge	152.57	7.84	8.21	7.84	0.00	8.21	0.00
	Gavial Creek	154.27	7.58	7.94	7.58	0.00	7.94	0.00
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.41	0.00
	Lobus Lagoon	4.56	10.99	11.38	10.99	0.00	11.37	-0.01
	Nine Mile Road	6.63	10.55	10.95	10.53	-0.02	10.95	0.00
	Start FP SCRUBBY	11.0	9.43	9.89	9.32	-0.11	9.89	0.00
	Junction with AP-STH	13.0	9.15	9.60	9.08	-0.07	9.60	0.00
	u/s Yeppen Crossing	13.6	8.64	9.00	8.64	0.00	9.00	0.00
	d/s Bruce Highway	13.84	8.39	8.71	8.39	0.00	8.71	0.00
	d/s Yeppen Crossing	14.0	8.10	8.36	8.10	0.00	8.37	0.01
	Old Burnett Highway	15.15	7.96	8.22	7.96	0.00	8.22	0.00
	Old Bruce Highway	16.98	7.18	7.47	7.18	0.00	7.47	0.00
	J/w FP GAVIAL	19.04	7.08	7.38	7.08	0.00	7.38	0.00
FP SCRUBBY	Start	0	9.43	9.89	9.32	-0.11	9.89	0.00
	d/s Capricorn Highway	1.3	9.00	9.46	9.06	0.06	9.47	0.01
	u/s Bruce Highway	4.0	8.63	8.99	8.63	0.00	8.99	0.00
	d/s Railway	4.3	8.10	8.37	8.10	0.00	8.37	0.00
	J/w FP MAIN	5.15	7.96	8.22	7.96	0.00	8.22	0.00
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.64	0.00	8.96	0.00
	Port Curtis Junction	0.91	8.37	8.76	8.37	0.00	8.76	0.00
	Depot Hill	2.1	7.67	8.19	7.67	0.00	8.19	0.00
	Gavial Creek	4.2	7.56	7.91	7.56	0.00	7.91	0.00
FP LION	J/w FP MAIN	0	10.55	10.95	10.53	-0.02	10.95	0.00
	J/w AP STH	2.2	10.43	10.90	10.42	-0.01	10.90	0.00
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	10.86	0.00
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.91	0.00
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.86	0.00
	New Terminal	1.54	9.61	10.15	9.56	-0.05	10.15	0.00
	J/w AP STH	2.6	9.16	9.61	9.08	-0.08	9.61	0.00
Airport South	J/w FP LION	0	10.43	10.90	10.42	-0.01	10.90	0.00
	Opposite Terminal	1.3	9.61	10.15	9.56	-0.05	10.15	0.00
	J/w AP NTH	2.3	9.16	9.61	9.08	-0.08	9.61	0.00
	J/w FP MAIN	3.0	9.15	9.60	9.08	-0.07	9.60	0.00
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.02	-0.01	8.40	0.00
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.01	0.00	8.39	0.00
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.26	0.00	7.61	0.00
	J/w Fitzroy River	2.93	7.21	7.54	7.21	0.00	7.54	0.00
Gavial Creek	Fitzroy River	0	7.58	7.94	7.58	0.00	7.94	0.00
	J/w FP CURTIS	1.03	7.56	7.92	7.56	0.00	7.92	0.00
	J/w FP MAIN	4.21	7.08	7.38	7.08	0.00	7.38	0.00
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.65	0.00
Splitters Creek		1.1	9.51	9.92	9.51	0.00	9.92	0.00
		2.1	9.50	9.91	9.50	0.00	9.91	0.00

TABLE J-23

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option C1 – B8 + A2 (upgrade Yeppen + Port Curtis–CBD Levee)

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.41	-0.01	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.31	-0.01
	Barrage	149.27	9.49	9.91	9.48	-0.01	9.87	-0.04
	d/s Barrage	149.47	9.17	9.60	9.14	-0.03	9.55	-0.05
		150.17	8.55	8.96	8.52	-0.03	8.89	-0.07
	Railway Bridge	150.67	8.35	8.74	8.32	-0.03	8.67	-0.07
	Fitzroy Street Bridge	151.57	8.03	8.40	7.99	-0.04	8.32	-0.08
	City Flood Gauge	152.57	7.84	8.21	7.80	-0.04	8.12	-0.09
	Gavial Creek	154.27	7.58	7.94	7.54	-0.04	7.83	-0.11
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.41	-0.01	11.84	0.00
	Rockhampton–Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.41	0.00
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.38	0.00
	Nine Mile Road	6.63	10.55	10.95	10.54	-0.01	10.97	0.02
	Start FP SCRUBBY	11.0	9.43	9.89	9.41	-0.02	9.98	0.09
	Junction with AP–STH	13.0	9.15	9.60	9.10	-0.05	9.71	0.11
	u/s Yeppen Crossing	13.6	8.64	9.00	8.61	-0.03	9.24	0.24
	d/s Bruce Highway	13.84	8.39	8.71	8.41	0.02	9.00	0.29
	d/s Yeppen Crossing	14.0	8.10	8.36	8.17	0.07	8.68	0.32
	Old Burnett Highway	15.15	7.96	8.22	7.90	-0.06	8.36	0.14
	Old Bruce Highway	16.98	7.18	7.47	7.27	0.09	7.63	0.16
J/w FP GAVIAL	19.04	7.08	7.38	7.11	0.03	7.43	0.05	
FP SCRUBBY	Start	0	9.43	9.89	9.41	-0.02	9.98	0.09
	d/s Capricorn Highway	1.3	9.00	9.46	8.97	-0.03	9.62	0.16
	u/s Bruce Highway	4.0	8.63	8.99	8.60	-0.03	9.23	0.24
	d/s Railway	4.3	8.10	8.37	8.16	0.06	8.68	0.31
	J/w FP MAIN	5.15	7.96	8.22	7.90	-0.06	8.36	0.14
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96				
	Port Curtis Junction	0.91	8.37	8.76				
	Depot Hill	2.1	7.67	8.19				
	Gavial Creek	4.2	7.56	7.91				
FP LION	J/w FP MAIN	0	10.55	10.95	10.54	-0.01	10.97	0.02
	J/w AP STH	2.2	10.43	10.90	10.42	-0.01	10.91	0.01
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	10.87	0.01
	Fitzroy River	5.3	9.49	9.91	9.48	-0.01	9.87	-0.04
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.87	0.01
	New Terminal	1.54	9.61	10.15	9.58	-0.03	10.21	0.06
	J/w AP STH	2.6	9.16	9.61	9.11	-0.05	9.72	0.11
Airport South	J/w FP LION	0	10.43	10.90	10.42	-0.01	10.91	0.01
	Opposite Terminal	1.3	9.61	10.15	9.58	-0.03	10.21	0.06
	J/w AP NTH	2.3	9.16	9.61	9.11	-0.05	9.72	0.11
	J/w FP MAIN	3.0	9.15	9.60	9.10	-0.05	9.71	0.11
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	7.99	-0.04	8.32	-0.08
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.97	-0.04	8.31	-0.08
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.52	-0.09
	J/w Fitzroy River	2.93	7.21	7.54	7.18	-0.03	7.46	-0.08
Gavial Creek	Fitzroy River	0	7.58	7.94	7.54	-0.04	7.83	-0.11
	J/w FP CURTIS	1.03	7.56	7.92	7.52	-0.04	7.81	-0.11
	J/w FP MAIN	4.21	7.08	7.38	7.11	0.03	7.43	0.05
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.68	0.03
Splitters Creek		1.1	9.51	9.92	9.49	-0.02	9.89	-0.03
		2.1	9.50	9.91	9.48	-0.02	9.88	-0.03
Peak Flows at	Yeppen Bridges m³/s		2495	2650	3860		4,110	
	Yeppen Overflow m³/s		1415	2605	0		1,510	
	Time of Submergence		11.6 d	12.67 d	0	-11.6 d	8.0d	-4.67 d

TABLE J-24

Summary of Peak Flood Levels for Flood Mitigation Options  
Option C2 as C1 + Airport Levee + Splitters Creek Levee

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.27	0.01	12.73	0.04
	start of FP2	139.2	11.48	11.90	11.50	0.02	11.96	0.06
	start of FP Main	140.1	11.42	11.84	11.44	0.02	11.91	0.07
	near Water Treatment Works	144.78	10.86	11.32	10.89	0.03	11.39	0.07
	Barrage	149.27	9.49	9.91	9.51	0.02	9.94	0.03
	d/s Barrage	149.47	9.17	9.60	9.17	0.00	9.63	0.03
		150.17	8.55	8.96	8.55	0.00	8.95	-0.01
	Railway Bridge	150.67	8.35	8.74	8.34	-0.01	8.72	-0.02
	Fitzroy Street Bridge	151.57	8.03	8.40	8.01	-0.02	8.36	-0.04
	City Flood Gauge	152.57	7.84	8.21	7.82	-0.02	8.15	-0.06
	Gavial Creek	154.27	7.58	7.94	7.55	-0.03	7.86	-0.08
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.44	0.02	11.91	0.07
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.09	0.05	11.53	0.12
	Lotus Lagoon	4.56	10.99	11.38	11.05	0.06	11.50	0.12
	Nine Mile Road	6.63	10.55	10.95	10.66	0.11	11.16	0.21
	Start FP SCRUBBY	11.0	9.43	9.89	9.43	0.00	9.97	0.08
	Junction with AP-STH	13.0	9.15	9.60	9.0	-0.15	9.58	-0.02
	u/s Yeppen Crossing	13.6	8.64	9.00	8.55	-0.09	9.17	0.17
	d/s Bruce Highway	13.84	8.39	8.71	8.36	-0.03	8.93	0.22
	d/s Yeppen Crossing	14.0	8.10	8.36	8.13	0.03	8.60	0.24
	Old Burnett Highway	15.15	7.96	8.22	7.87	-0.09	8.29	0.07
	Old Bruce Highway	16.98	7.18	7.47	7.25	0.07	7.60	0.13
	J/w FP GAVIAL	19.04	7.08	7.38	7.10	0.02	7.41	0.03
FP SCRUBBY	Start	0	9.43	9.89	9.43	0.00	9.97	0.08
	d/s Capricorn Highway	1.3	9.00	9.46	8.95	-0.05	9.59	0.13
	u/s Bruce Highway	4.0	8.63	8.99	8.54	-0.09	9.17	0.18
	d/s Railway	4.3	8.10	8.37	8.13	0.03	8.60	0.23
	J/w FP MAIN	5.15	7.96	8.22	7.87	-0.09	8.29	0.07
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96				
	Port Curtis Junction	0.91	8.37	8.76				
	Depot Hill	2.1	7.67	8.19				
	Gavial Creek	4.2	7.56	7.91				
FP LION	J/w FP MAIN	0	10.55	10.95	10.66	0.11	11.16	0.21
	J/w AP STH	2.2	10.43	10.90	10.71	0.28	11.46	0.56
	J/w AP NTH	3.35	10.25	10.86	10.61	0.36	11.45	0.59
	Fitzroy River	5.3	9.49	9.91	9.51	0.02	9.94	0.03
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.01	-0.02	8.36	-0.04
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.99	-0.02	8.34	-0.05
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.54	-0.07
	J/w Fitzroy River	2.93	7.21	7.54	7.19	-0.02	7.48	-0.06
Gavial Creek	Fitzroy River	0	7.58	7.94	7.55	-0.03	7.86	-0.08
	J/w FP CURTIS	1.03	7.56	7.92	7.53	-0.03	7.83	-0.09
	J/w FP MAIN	4.21	7.08	7.38	7.10	0.02	7.41	0.03
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.67	0.02
Splitters Creek		1.1	9.51	9.92				-9.92
		2.1	9.50	9.91				-9.91
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3760	1,265	4,065	1,415
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	1,225	-1,380
	Time of Submergence		11.6 d	12.67 d	0	-11.6 d	7.8 d	-4.9 d



TABLE J-25

Summary of Peak Flood Levels for Flood Mitigation Options  
Option C3 – as B8 + Levee Depot Hill – CBD (not Port Curtis)

Flow Path	Location	Chalnage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.86	0.00	11.32	0.00
	Barrage	149.27	9.49	9.91	9.49	0.00	9.90	-0.01
	d/s Barrage	149.47	9.17	9.60	9.17	0.00	9.59	-0.01
		150.17	8.55	8.96	8.54	-0.01	8.95	-0.01
	Railway Bridge	150.67	8.35	8.74	8.35	0.00	8.73	-0.01
	Fitzroy Street Bridge	151.57	8.03	8.40	8.02	-0.01	8.39	-0.01
	City Flood Gauge	152.57	7.84	8.21	7.83	-0.01	8.20	-0.01
	Gavial Creek	154.27	7.58	7.94	7.57	-0.01	7.92	-0.02
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.03	-0.01	11.41	0.00
	Lotus Lagoon	4.56	10.99	11.38	10.98	-0.01	11.37	-0.01
	Nine Mile Road	6.63	10.55	10.95	10.53	-0.02	10.95	0.00
	Start FP SCRUBBY	11.0	9.43	9.89	9.34	-0.09	9.88	-0.01
	Junction with AP-STH	13.0	9.15	9.60	9.00	-0.15	9.58	-0.02
	u/s Yeppen Crossing	13.6	8.64	9.00	8.40	-0.24	9.00	0.00
	d/s Bruce Highway	13.84	8.39	8.71	8.20	-0.19	8.74	0.03
	d/s Yeppen Crossing	14.0	8.10	8.36	7.95	-0.15	8.25	-0.11
	Old Burnett Highway	15.15	7.96	8.22	7.73	-0.23	8.03	-0.19
	Old Bruce Highway	16.98	7.18	7.47	7.23	0.05	7.53	0.06
	J/w FP GAVIAL	19.04	7.08	7.38	7.09	0.01	7.39	0.01
FP SCRUBBY	Start	0	9.43	9.89	9.34	-0.09	9.88	-0.01
	d/s Capricorn Highway	1.3	9.00	9.46	8.82	-0.18	9.46	0.00
	u/s Bruce Highway	4.0	8.63	8.99	8.39	-0.24	9.00	0.01
	d/s Railway	4.3	8.10	8.37	7.95	-0.15	8.26	-0.11
	J/w FP MAIN	5.15	7.96	8.22	7.73	-0.23	8.03	-0.19
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.40	-0.24	9.00	0.04
	Port Curtis Junction	0.91	8.37	8.76	7.57	-0.80	8.17	-0.59
	Depot Hill	2.1	7.67	8.19	7.57	-0.10	8.04	-0.15
	Gavial Creek	4.2	7.56	7.91	7.55	-0.01	7.90	-0.01
FP LION	J/w FP MAIN	0	10.55	10.95	10.53	-0.02	10.95	0.00
	J/w AP STH	2.2	10.43	10.90	10.42	-0.01	10.90	0.00
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	10.85	-0.01
	Fitzroy River	5.3	9.49	9.91	9.49	0.00	9.90	-0.01
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.85	-0.01
	New Terminal	1.54	9.61	10.15	9.34	-0.27	10.14	-0.01
	J/w AP STH	2.6	9.16	9.61	9.01	-0.15	9.59	-0.02
Airport South	J/w FP LION	0	10.43	10.90	10.42	-0.01	10.90	0.00
	Opposite Terminal	1.3	9.61	10.15	9.52	-0.09	10.14	-0.01
	J/w AP NTH	2.3	9.16	9.61	9.01	-0.15	9.59	-0.02
	J/w FP MAIN	3.0	9.15	9.60	9.00	-0.15	9.58	-0.02
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.02	-0.01	8.39	-0.01
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.00	-0.01	8.38	-0.01
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.25	-0.01	7.59	-0.02
	J/w Fitzroy River	2.93	7.21	7.54	7.20	-0.01	7.53	-0.01
Gavial Creek	Fitzroy River	0	7.58	7.94	7.57	-0.01	7.92	-0.02
	J/w FP CURTIS	1.03	7.56	7.92	7.55	-0.01	7.90	-0.02
	J/w FP MAIN	4.21	7.08	7.38	7.09	0.01	7.38	0.00
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.66	0.01
Splitters Creek		1.1	9.51	9.92	9.50	-0.01	9.92	0.00
		2.1	9.50	9.91	9.49	-0.01	9.91	0.00
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3865	1,370	4,665	2,015
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	670	-1,935
	Time of Submergence		11.6 d	12.67 d	0	-11.6d	7.0 d	-5.67 d

TABLE J-26

Summary of Peak Flood Levels for Flood Mitigation Options  
Option C4 - as C3 + levees airport - Splitters Ck

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yeamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.28	0.02	12.73	0.04
	start of FP2	139.2	11.48	11.90	11.51	0.03	11.96	0.06
	start of FP Main	140.1	11.42	11.84	11.45	0.03	11.91	0.07
	near Water Treatment Works	144.78	10.86	11.32	10.90	0.04	11.40	0.08
	Barrage	149.27	9.49	9.91	9.52	0.03	9.97	0.06
	d/s Barrage	149.47	9.17	9.60	9.19	0.02	9.66	0.06
		150.17	8.55	8.96	8.57	0.02	9.00	0.04
	Railway Bridge	150.67	8.95	8.74	8.37	0.02	8.78	0.04
	Fitzroy Street Bridge	151.57	8.03	8.40	8.03	0.00	8.42	0.02
	City Flood Gauge	152.57	7.84	8.21	7.85	0.01	8.22	0.01
	Gavial Creek	154.27	7.58	7.94	7.58	0.00	7.94	0.00
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.45	0.03	11.91	0.07
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.09	0.05	11.53	0.12
	Lotus Lagoon	4.56	10.99	11.38	11.04	0.05	11.50	0.12
	Nine Mile Road	6.63	10.55	10.95	10.65	0.10	11.14	0.19
	Start FP SCRUBBY	11.0	9.43	9.89	9.37	-0.06	9.88	-0.01
	Junction with AP-STH	13.0	9.15	9.60	8.88	-0.27	9.43	-0.17
	u/s Yeppen Crossing	13.6	8.64	9.00	8.34	-0.30	8.94	-0.06
	d/s Bruce Highway	13.84	8.39	8.71	8.15	-0.24	8.68	-0.03
	d/s Yeppen Crossing	14.0	8.10	8.36	7.91	-0.19	8.21	-0.15
	Old Burnell Highway	15.15	7.96	8.22	7.70	-0.26	8.00	-0.22
	Old Bruce Highway	16.98	7.18	7.47	7.22	0.04	7.51	0.04
	J/w FP GAVIAL	19.04	7.08	7.38	7.08	-0.00	7.38	0.00
	FP SCRUBBY	Start	0	9.43	9.89	9.37	-0.06	9.88
d/s Capricorn Highway		1.3	9.00	9.46	8.81	-0.19	9.43	-0.03
u/s Bruce Highway		4.0	8.63	8.99	8.33	-0.30	8.93	-0.06
d/s Railway		4.3	8.10	8.37	7.91	-0.19	8.21	-0.16
J/w FP MAIN		5.15	7.96	8.22	7.70	-0.26	8.00	-0.22
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.34	-0.30	8.94	-0.02
	Port Curtis Junction	0.91	8.37	8.76	7.58	-0.79	8.12	-0.64
	Depot Hill	2.1	7.67	8.19	7.58	-0.09	8.03	-0.16
	Gavial Creek	4.2	7.56	7.91	7.56	0.00	7.91	0.00
FP LION	J/w FP MAIN	0	10.55	10.95	10.65	0.10	11.14	0.19
	J/w AP STH	2.2	10.43	10.90	10.71	0.28	11.46	0.56
	J/w AP NTH	3.35	10.25	10.86	10.61	0.36	10.45	-0.41
	Fitzroy River	5.3	9.49	9.91	9.52	0.03	9.97	0.06
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.03	0.00	8.42	0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.02	0.01	8.41	0.02
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.26	0.00	7.61	0.00
	J/w Fitzroy River	2.93	7.21	7.54	7.21	0.00	7.54	0.00
Gavial Creek	Fitzroy River	0	7.58	7.94	7.58	0.00	7.94	0.00
	J/w FP CURTIS	1.03	7.56	7.92	7.56	0.00	7.92	0.00
	J/w FP MAIN	4.21	7.08	7.38	7.08	0.00	7.37	-0.01
	Edinda Lane	6.06	6.43	6.65	6.43	0.00	6.65	0.00
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3880	1,385	4,610	1,960
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	490	-2,115
	Time of Submergence		11.6 d	12.67 d	0		6.5 d	-6.17 d

TABLE J-27

Summary of Peak Flood Levels for Flood Mitigation Options  
Option C5 - C2 + Raise breakout control level by 1.25 m

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.95	0.02	18.54	0.02
	u/s Pink Lily	134.0	12.26	12.69	12.57	0.31	12.91	0.22
	start of FP2	139.2	11.48	11.90	11.98	0.50	12.24	0.34
	start of FP Main	140.1	11.42	11.84	11.93	0.51	12.19	0.35
	near Water Treatment Works	144.78	10.86	11.32	11.36	0.50	11.66	0.34
	Barrage	149.27	9.49	9.91	9.81	0.32	10.12	0.21
	d/s Barrage	149.47	9.17	9.60	9.47	0.30	9.90	0.30
		150.17	8.55	8.96	8.78	0.23	9.09	0.13
	Railway Bridge	150.67	8.35	8.74	8.55	0.20	8.94	0.20
	Fitzroy Street Bridge	151.57	8.03	8.40	8.17	0.14	8.45	0.05
	City Flood Gauge	152.57	7.84	8.21	7.96	0.12	8.23	0.02
	Gawal Creek	154.27	7.58	7.94	7.65	0.07	7.91	-0.03
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.93	0.51	12.19	0.35
	Rockhampton-Ridglands Road	1.75	11.04	11.41	10.80	-0.24	11.36	-0.05
	Lotus Lagoon	4.56	10.99	11.38	10.68	-0.31	11.29	-0.09
	Nine Mile Road	6.63	10.55	10.95	10.27	-0.28	10.95	0.00
	Start FP SCRUBBY	11.0	9.43	9.89	9.03	-0.40	9.76	-0.13
	Junction with AP-STH	13.0	9.15	9.60	8.58	-0.57	9.37	-0.23
	u/s Yeppen Crossing	13.6	8.64	9.00	8.11	-0.53	8.98	-0.02
	d/s Bruce Highway	13.84	8.39	8.71	8.78	-0.41	8.79	0.08
	d/s Yeppen Crossing	14.0	8.10	8.36	7.82	-0.28	8.45	0.09
	Old Burnett Highway	15.15	7.96	8.22	7.62	-0.34	8.17	-0.05
	Old Bruce Highway	16.98	7.18	7.47	7.15	-0.03	7.55	0.08
	J/w FP GAWIAL	19.04	7.08	7.38	7.04	-0.04	7.39	0.01
FP SCRUBBY	Start	0	9.43	9.89	9.03	-0.40	9.76	-0.13
	d/s Capricorn Highway	1.3	9.00	9.46	8.42	-0.58	9.37	-0.09
	u/s Bruce Highway	4.0	8.63	8.99	8.05	-0.58	8.98	-0.01
	d/s Railway	4.3	8.10	8.37	7.62	-0.48	8.44	0.07
	J/w FP MAIN	5.15	7.96	8.22	7.62	-0.34	8.17	-0.05
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96				
	Port Curtis Junction	0.91	8.37	8.76				
	Depot Hill	2.1	7.67	8.19				
	Gawal Creek	4.2	7.56	7.91				
FP LION	J/w FP MAIN	0	10.55	10.95	10.27	-0.28	10.95	0.00
	J/w AP STH	2.2	10.43	10.90	10.27	-0.16	11.25	0.35
	J/w AP NTH	3.35	10.25	10.86	10.09	-0.16	11.24	0.38
	Fitzroy River	5.3	9.49	9.91	9.81	0.32	10.12	0.21
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.17	0.14	8.45	0.05
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.16	0.15	8.44	0.05
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.32	0.06	7.60	-0.01
	J/w Fitzroy River	2.93	7.21	7.54	7.27	0.06	7.52	-0.02
Gawal Creek	Fitzroy River	0	7.58	7.94	7.65	0.07	7.91	-0.03
	J/w FP CURTIS	1.03	7.56	7.92	7.62	0.06	7.98	0.06
	J/w FP MAIN	4.21	7.08	7.38	7.04	-0.04	7.39	0.01
	Edinda Lane	6.06	6.43	6.65	6.41	-0.02	6.66	0.01
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	2935	440	3,975	1,325
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	555	-2,050
	Time of Submergence		11.6 d	12.6 d	0	-11.6 d	3.9 d	-8.7 d

TABLE J-28

**Summary of Peak Flood Levels for Flood Mitigation Options  
Option C6 - Yeppen Upgrade as B5 + Levee Depot Hill - CBD (as A1)**

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yeamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.69	0.00
	start of FP2	139.2	11.48	11.90	11.48	0.00	11.90	0.00
	start of FP Main	140.1	11.42	11.84	11.42	0.00	11.84	0.00
	near Water Treatment Works	144.78	10.86	11.32	10.87	0.01	11.33	0.01
	Barrage	149.27	9.49	9.91	9.50	0.01	9.91	0.00
	d/s Barrage	149.47	9.17	9.60	9.17	0.00	9.61	0.01
		150.17	8.55	8.96	8.56	0.01	8.97	0.01
	Railway Bridge	150.67	8.35	8.74	8.37	0.02	8.76	0.02
	Fitzroy Street Bridge	151.57	8.03	8.40	8.04	0.01	8.42	0.02
	City Flood Gauge	152.57	7.84	8.21	7.86	0.02	8.23	0.02
	Gavial Creek	154.27	7.58	7.94	7.60	0.02	7.96	0.02
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.42	0.00	11.84	0.00
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.04	0.00	11.41	0.00
	Lotus Lagoon	4.56	10.99	11.38	10.99	0.00	11.37	-0.01
	Nine Mile Road	6.63	10.55	10.95	10.54	-0.01	10.95	0.00
	Start FP SCRUBBY	11.0	9.43	9.89	9.38	-0.05	9.87	-0.02
	Junction with AP-STH	13.0	9.15	9.60	9.06	-0.09	9.57	-0.03
	u/s Yeppen Crossing	13.6	8.64	9.00	8.48	-0.16	8.93	-0.07
	d/s Bruce Highway	13.84	8.39	8.71	8.33	-0.06	8.67	-0.04
	d/s Yeppen Crossing	14.0	8.10	8.36	8.16	0.06	8.45	0.09
	Old Burnett Highway	15.15	7.96	8.22	8.02	0.06	8.29	0.07
	Old Bruce Highway	16.98	7.18	7.47	7.18	0.00	7.53	0.06
	J/w FP GAVIAL	19.04	7.08	7.38	7.08	0.00	7.37	-0.01
FP SCRUBBY	Start	0	9.43	9.89	9.38	-0.05	9.87	-0.02
	d/s Capricorn Highway	1.3	9.00	9.46	8.88	-0.12	9.42	-0.04
	u/s Bruce Highway	4.0	8.63	8.99	8.47	-0.16	8.92	-0.07
	d/s Railway	4.3	8.10	8.37	8.16	0.06	8.45	0.08
	J/w FP MAIN	5.15	7.96	8.22	8.02	0.06	8.29	0.07
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.48	-0.16	8.93	-0.03
	Port Curtis Junction	0.91	8.37	8.76	7.64	-0.73	8.22	-0.54
	Depot Hill	2.1	7.67	8.19	7.64	-0.03	8.16	-0.03
	Gavial Creek	4.2	7.56	7.91	7.58	0.02	7.94	0.03
FP LION	J/w FP MAIN	0	10.55	10.95	10.54	-0.01	10.95	0.00
	J/w AP STH	2.2	10.43	10.90	10.43	0.00	10.90	0.00
	J/w AP NTH	3.35	10.25	10.86	10.24	-0.01	10.85	-0.01
	Fitzroy River	5.3	9.49	9.91	9.50	0.01	9.91	0.00
Airport North	J/w FP LION	0	10.25	10.86	10.24	-0.01	10.85	-0.01
	New Terminal	1.54	9.61	10.15	9.56	-0.05	10.13	-0.02
	J/w AP STH	2.6	9.16	9.61	9.07	-0.09	9.58	-0.03
Airport South	J/w FP LION	0	10.43	10.90	10.43	0.00	10.90	0.00
	Opposite Terminal	1.3	9.61	10.15	9.57	-0.04	10.13	-0.02
	J/w AP NTH	2.3	9.16	9.61	9.07	-0.09	9.58	-0.03
	J/w FP MAIN	3.0	9.15	9.60	9.06	-0.09	9.57	-0.03
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.04	0.01	8.42	0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.03	0.02	8.41	0.02
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.27	0.01	7.62	0.01
	J/w Fitzroy River	2.93	7.21	7.54	7.23	0.02	7.56	0.02
Gavial Creek	Fitzroy River	0	7.58	7.94	7.60	0.02	7.95	0.01
	J/w FP CURTIS	1.03	7.56	7.92	7.58	0.02	7.94	0.02
	J/w FP MAIN	4.21	7.08	7.38	7.07	-0.01	7.37	-0.01
	Edinda Lane	6.06	6.43	6.65	6.42	-0.01	6.65	0.00
Splitters Creek		1.1	9.51	9.92	9.51	0.00	9.93	0.01
		2.1	9.50	9.91	9.51	0.01	9.92	0.01
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3885	1,390	4,185	1,535
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	455	-2,150
	Time of Submergence		11.6 d	12.67 d	0	-11.6 d	6.9 d	-5.77 d

TABLE J-29

Summary of Peak Flood Levels for Flood Mitigation Options  
Option C7 - as C6 + Airport and Splitters Creek Levees

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.28	0.02	12.73	0.04
	start of FP2	139.2	11.48	11.90	11.51	0.03	11.96	0.06
	start of FP Main	140.1	11.42	11.84	11.45	0.03	11.91	0.07
	near Water Treatment Works	144.78	10.86	11.32	10.90	0.04	11.40	0.08
	Barrage	149.27	9.49	9.91	9.53	0.04	9.99	0.08
	d/s Barrage	149.47	9.17	9.60	9.20	0.03	9.68	0.08
		150.17	8.55	8.96	8.58	0.03	9.02	0.06
	Railway Bridge	150.67	8.35	8.74	8.39	0.04	8.80	0.06
	Fitzroy Street Bridge	151.57	8.03	8.40	8.05	0.02	8.45	0.05
	City Flood Gauge	152.57	7.84	8.21	7.87	0.03	8.25	0.04
	Gavial Creek	154.27	7.58	7.94	7.61	0.03	7.97	0.03
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
	173.00	5.43	5.69	5.43	0.00	5.69	0.00	
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.45	0.03	11.91	0.07
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.09	0.05	11.52	0.11
	Lotus Lagoon	4.56	10.99	11.38	11.05	0.06	11.50	0.12
	Nine Mile Road	6.63	10.55	10.95	10.66	0.11	11.14	0.19
	Start FP SCRUBBY	11.0	9.43	9.89	9.41	-0.02	9.87	-0.02
	Junction with AP-STH	13.0	9.15	9.60	8.97	-0.18	9.41	-0.19
	u/s Yeppen Crossing	13.6	8.64	9.00	8.44	-0.20	8.87	-0.13
	d/s Bruce Highway	13.84	8.39	8.71	8.29	-0.10	8.62	-0.09
	d/s Yeppen Crossing	14.0	8.10	8.36	8.14	0.04	8.39	0.03
	Old Burnett Highway	15.15	7.96	8.22	8.00	0.04	8.24	0.02
	Old Bruce Highway	16.98	7.18	7.47	7.25	0.07	7.46	-0.01
J/w FP GAVIAL	19.04	7.08	7.38	7.08	0.00	7.37	-0.01	
FP SCRUBBY	Start	0	9.43	9.89	9.41	-0.02	9.87	-0.02
	d/s Capricorn Highway	1.3	9.00	9.46	8.88	-0.12	9.39	-0.07
	u/s Bruce Highway	4.0	8.63	8.99	8.43	-0.20	8.86	-0.13
	d/s Railway	4.3	8.10	8.37	8.14	0.04	8.40	0.03
	J/w FP MAIN	5.15	7.96	8.22	8.00	0.04	8.24	0.02
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96	8.44	-0.20	8.87	-0.09
	Port Curtis Junction	0.91	8.37	8.76	7.64	-0.73	8.17	-0.59
	Depot Hill	2.1	7.67	8.19	7.64	-0.03	8.14	-0.05
	Gavial Creek	4.2	7.56	7.91	7.58	0.02	7.95	0.04
FP LION	J/w FP MAIN	0	10.55	10.95	10.66	0.11	11.14	0.19
	J/w AP STH	2.2	10.43	10.90	10.72	0.29	11.46	0.56
	J/w AP NTH	3.35	10.25	10.86	10.62	0.37	11.45	0.59
	Fitzroy River	5.3	9.49	9.91	9.53	0.04	9.99	0.08
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.05	0.02	8.45	0.05
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.04	0.03	8.44	0.05
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.27	0.01	7.64	0.03
	J/w Fitzroy River	2.93	7.21	7.54	7.23	0.02	7.57	0.03
Gavial Creek	Fitzroy River	0	7.58	7.94	7.61	0.03	7.97	0.03
	J/w FP CURTIS	1.03	7.56	7.92	7.58	0.02	7.95	0.03
	J/w FP MAIN	4.21	7.08	7.38	7.07	-0.01	7.36	-0.02
	Edinda Lane	6.06	6.43	6.65	6.42	-0.01	6.65	0.00
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				
Peak Flows at	Yeppen Bridges m³/s		2495	2650	3780	1,285	4,710	2,060
	Yeppen Overflow m³/s		1415	2605	0	-1,415	285	-2,320
	Time of Submergence		11.6 d	12.67 d	0	-11.6 d	6.4 d	-6.2 d

TABLE J-30

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option C8 – Upgrade Yeppen (as B5 + F3) + Port Curtis – CBD Levee (as A2)

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	w/s Pink Lily	134.0	12.26	12.69	12.26	0.00	12.68	-0.01
	start of FP2	139.2	11.48	11.90	11.47	-0.01	11.89	-0.01
	start of FP Main	140.1	11.42	11.84	11.41	-0.01	11.83	-0.01
	near Water Treatment Works	144.78	10.86	11.32	10.85	-0.01	11.30	-0.02
	Barrage	149.27	9.49	9.91	9.48	-0.01	9.86	-0.05
	d/s Barrage	149.47	9.17	9.60	9.14	-0.03	9.55	-0.05
		150.17	8.55	8.96	8.52	-0.03	8.89	-0.07
	Railway Bridge	150.67	8.35	8.74	8.32	-0.03	8.67	-0.07
	Fitzroy Street Bridge	151.57	8.03	8.40	7.99	-0.04	8.31	-0.09
	City Flood Gauge	152.57	7.84	8.21	7.80	-0.04	8.11	-0.10
	Gavial Creek	154.27	7.58	7.94	7.54	-0.04	7.83	-0.11
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.41	-0.01	11.83	-0.01
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	11.03	-0.01	11.40	-0.01
	Lotus Lagoon	4.56	10.99	11.38	10.98	-0.01	11.36	-0.02
	Nine Mile Road	6.63	10.55	10.95	10.53	-0.02	10.94	-0.01
	Start FP SCRUBBY	11.0	9.43	9.89	9.34	-0.09	9.88	-0.01
	Junction with AP-STH	13.0	9.15	9.60	9.00	-0.15	9.58	-0.02
	w/s Yeppen Crossing	13.6	8.64	9.00	8.36	-0.28	8.98	-0.02
	d/s Bruce Highway	13.84	8.39	8.71	8.21	-0.18	8.74	0.03
	d/s Yeppen Crossing	14.0	8.10	8.36	8.05	-0.05	8.52	0.16
	Old Burnett Highway	15.15	7.96	8.22	7.81	-0.15	8.25	0.03
	Old Bruce Highway	16.98	7.18	7.47	7.24	0.06	7.63	0.16
	J/w FP GAVIAL	19.04	7.08	7.38	7.11	0.03	7.43	0.05
FP SCRUBBY	Start	0	9.43	9.89	9.34	-0.09	9.88	-0.01
	d/s Capricorn Highway	1.3	9.00	9.46	8.80	-0.20	9.45	-0.01
	w/s Bruce Highway	4.0	8.63	8.99	8.34	-0.29	8.97	-0.02
	d/s Railway	4.3	8.10	8.37	8.04	-0.06	8.55	0.18
	J/w FP MAIN	5.15	7.96	8.22	7.81	-0.15	8.25	0.03
FP CURTIS	w/s Bruce Highway	0.69	8.64	8.96				
	Port Curtis Junction	0.91	8.37	8.76				
	Depot Hill	2.1	7.67	8.19				
	Gavial Creek	4.2	7.56	7.91				
FP LION	J/w FP MAIN	0	10.55	10.95	10.53	-0.02	10.94	-0.01
	J/w AP STH	2.2	10.43	10.90	10.41	-0.02	10.88	-0.02
	J/w AP NTH	3.35	10.25	10.86	10.23	-0.02	10.84	-0.02
	Fitzroy River	5.3	9.49	9.91	9.48	-0.01	9.86	-0.05
Airport North	J/w FP LION	0	10.25	10.86	10.23	-0.02	10.84	-0.02
	New Terminal	1.54	9.61	10.15	9.52	-0.09	10.13	-0.02
	J/w AP STH	2.6	9.16	9.61	9.01	-0.15	9.60	-0.01
Airport South	J/w FP LION	0	10.43	10.90	10.41	-0.02	10.98	0.08
	Opposite Terminal	1.3	9.61	10.15	9.52	-0.09	10.13	-0.02
	J/w AP NTH	2.3	9.16	9.61	9.01	-0.15	9.60	-0.01
	J/w FP MAIN	3.0	9.15	9.60	9.00	-0.15	9.58	-0.02
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	7.99	-0.04	8.31	-0.09
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.97	-0.04	8.30	-0.09
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.51	-0.10
	J/w Fitzroy River	2.93	7.21	7.54	7.18	-0.03	7.46	-0.08
Gavial Creek	Fitzroy River	0	7.58	7.94	7.53	-0.05	7.83	-0.11
	J/w FP CURTIS	1.03	7.56	7.92	7.52	-0.04	7.81	-0.11
	J/w FP MAIN	4.21	7.08	7.38	7.11	0.03	7.43	0.05
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.68	0.03
Splitters Creek		1.1	9.51	9.92	9.49	-0.02		
		2.1	9.50	9.91	9.48	-0.02		
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3870	1,375	4,680	2,030
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	550	-2,055
	Time of Submergence		11.6 d	12.6 d	0	-11.6 d	6.5 d	-6.1 d

TABLE J-30a

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option C8 – Upgrade Yeppen (as B5 + F3) + Port Curtis – CBD Levee (As A2)

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			0.5%	0.2%	0.5%	Difference	0.2%	Difference
Fitzroy River	Yaamba	100.0	19.14	19.88	19.14	0.00	19.88	0.00
	u/s Pink Lily	134.0	13.14	13.72	13.14	0.00	13.73	0.01
	start of FP2	139.2	12.32	12.87	12.31	-0.01	12.88	0.01
	start of FP Main	140.1	12.27	12.82	12.26	-0.01	12.83	0.01
	near Water Treatment Works	144.78	11.77	12.34	11.75	-0.02	12.34	0.00
	Barrage	149.27	10.35	10.90	10.30	-0.05	10.86	-0.04
	d/s Barrage	149.47	10.07	10.65	10.01	-0.06	10.59	-0.06
		150.17	9.39	9.91	9.30	-0.09	9.82	-0.09
	Railway Bridge	150.67	9.15	9.64	9.06	-0.09	9.53	-0.11
	Fitzroy Street Bridge	151.57	8.79	9.26	8.68	-0.11	9.13	-0.13
	City Flood Gauge	152.57	8.59	9.04	8.47	-0.12	8.89	-0.15
	Gavial Creek	154.27	8.30	8.73	8.16	-0.14	8.56	-0.17
	Edinda Lane	165.02	6.68	7.03	6.68	0.00	7.03	0.00
		173.00	5.97	6.30	5.97	0.00	6.30	0.00
FP MAIN	J/w Fitzroy River	0.0	12.27	12.82	12.26	-0.01	12.83	0.01
	Rockhampton-Ridgeland Road	1.75	11.75	12.24	11.75	0.00	12.28	0.04
	Lotus Lagoon	4.56	11.73	12.23	11.74	0.01	12.27	0.04
	Nine Mile Road	6.63	11.39	11.92	11.41	0.02	11.99	0.07
	Start FP SCRUBBY	11.0	10.35	10.87	10.47	0.12	11.08	0.21
	Junction with AP-STH	13.0	10.04	10.54	10.20	0.16	10.80	0.26
	u/s Yeppen Crossing	13.6	9.32	9.67	9.61	0.29	10.16	0.49
	d/s Bruce Highway	13.84	9.06	9.48	9.48	0.42	10.06	0.58
	d/s Yeppen Crossing	14.0	8.75	9.24	9.37	0.62	9.96	0.72
	Old Burnett Highway	15.15	8.60	9.07	9.14	0.54	9.70	0.63
	Old Bruce Highway	16.98	7.83	8.27	8.06	0.23	8.53	0.26
	J/w FP GAVIAL	19.04	7.72	8.13	7.78	0.06	8.21	0.08
FP SCRUBBY	Start	0	10.35	10.87	10.47	0.12	11.08	0.21
	d/s Capricorn Highway	1.3	9.91	10.40	10.10	0.19	10.72	0.32
	u/s Bruce Highway	4.0	9.31	9.66	9.60	0.29	10.15	0.49
	d/s Railway	4.3	8.77	9.27	9.37	0.60	9.97	0.70
	J/w FP MAIN	5.15	8.60	9.07	9.14	0.54	9.70	0.63
FP CURTIS	u/s Bruce Highway	0.69	9.32	9.67				
	Port Curtis Junction	0.91	9.10	9.49				
	Depot Hill	2.1	8.67	9.19				
	Gavial Creek	4.2	8.30	8.74				
FP LION	J/w FP MAIN	0	11.39	11.92	11.41	0.02	11.99	0.07
	J/w AP STH	2.2	11.45	12.09	11.48	0.03	12.14	0.05
	J/w AP NTH	3.35	11.45	12.09	11.48	0.03	12.14	0.05
	Fitzroy River	5.3	10.35	10.90	10.30	-0.05	10.86	-0.04
Airport North	J/w FP LION	0	11.45	12.09	11.48	0.03	12.14	0.05
	New Terminal	1.54	10.64	11.20	10.73	0.09	11.35	0.15
	J/w AP STH	2.6	10.05	10.55	10.21	0.16	10.81	0.26
Airport South	J/w FP LION	0	11.45	12.09	11.48	0.03	12.14	0.05
	Opposite Terminal	1.3	10.65	11.20	10.73	0.08	11.35	0.15
	J/w AP NTH	2.3	10.05	10.55	10.21	0.16	10.81	0.26
	J/w FP MAIN	3.0	10.04	10.54	10.20	0.16	10.80	0.26
Lakes Creek Road	near Fitzroy River Bridge	0	8.79	9.26	8.68	-0.11	9.13	-0.13
	Lakes Creek Road (STW)	1.0	8.77	9.22	8.66	-0.11	9.10	-0.12
	Lakes Creek Road (Landfill)	2.0	7.99	8.48	7.86	-0.13	8.32	-0.16
	J/w Fitzroy River	2.93	7.88	8.29	7.77	-0.11	8.15	-0.14
Gavial Creek	Fitzroy River	0	8.30	8.73	8.16	-0.14	8.56	-0.17
	J/w FP CURTIS	1.03	8.28	8.71	8.13	-0.15	8.53	-0.18
	J/w FP MAIN	4.21	7.72	8.13	7.78	0.06	8.20	0.07
	Edinda Lane	6.06	6.92	7.25	6.95	0.03	7.28	0.03
Splitters Creek		1.1	10.54	11.16				
		2.1	10.38	10.98				

TABLE J-31

Summary of Peak Flood Levels for Flood Mitigation Options  
Option C9 - As C8 + Airport Levee + Splitters Creek Levee

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.93	0.00	18.52	0.00
	u/s Pink Lily	134.0	12.26	12.69	12.27	0.01	12.72	0.03
	start of FP2	139.2	11.48	11.90	11.50	0.02	11.95	0.05
	start of FP Main	140.1	11.42	11.84	11.44	0.02	11.90	0.06
	near Water Treatment Works	144.78	10.86	11.32	10.89	0.03	11.38	0.06
	Barrage	149.27	9.49	9.91	9.51	0.02	9.94	0.03
	d/s Barrage	149.47	9.17	9.60	9.17	0.00	9.62	0.02
		150.17	8.55	8.96	8.55	0.00	8.95	-0.01
	Railway Bridge	150.67	8.35	8.74	8.35	0.00	8.74	0.00
	Fitzroy Street Bridge	151.57	8.03	8.40	8.01	-0.02	8.35	-0.05
	City Flood Gauge	162.57	7.84	8.21	7.82	-0.02	8.15	-0.06
	Gavial Creek	154.27	7.58	7.94	7.55	-0.03	7.85	-0.09
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.44	0.02	11.90	0.06
	Rockhampton-Ridgeltands Road	1.75	11.04	11.41	11.08	0.04	11.53	0.12
	Lotus Lagoon	4.56	10.99	11.38	11.04	0.05	11.49	0.11
	Nine Mile Road	6.63	10.55	10.95	10.65	0.10	11.13	0.18
	Start FP SCRUBBY	11.0	9.43	9.89	9.37	-0.06	9.87	-0.02
	Junction with AP-STH	13.0	9.15	9.60	8.90	-0.25	9.43	-0.17
	u/s Yeppen Crossing	13.6	8.64	9.00	8.31	-0.33	8.91	-0.09
	d/s Bruce Highway	13.84	8.39	8.71	8.17	-0.22	8.67	-0.04
	d/s Yeppen Crossing	14.0	8.10	8.36	8.01	-0.09	8.46	0.10
	Old Burnett Highway	15.15	7.96	8.22	7.79	-0.17	8.20	-0.02
	Old Bruce Highway	16.98	7.18	7.47	7.25	0.07	7.50	0.03
J/w FP GAVIAL	19.04	7.08	7.38	7.10	0.02	7.41	0.03	
FP SCRUBBY	Start	0	9.43	9.89	9.37	-0.06	9.87	-0.02
	d/s Capricorn Highway	1.3	9.00	9.46	8.79	-0.21	9.41	-0.05
	u/s Bruce Highway	4.0	8.63	8.99	8.30	-0.33	8.90	-0.09
	d/s Railway	4.3	8.10	8.37	8.01	-0.09	8.45	0.08
	J/w FP MAIN	5.15	7.96	8.22	7.79	-0.17	8.20	-0.02
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96				
	Port Curtis Junction	0.91	8.37	8.76				
	Depot Hill	2.1	7.67	8.19				
	Gavial Creek	4.2	7.56	7.91				
FP LION	J/w FP MAIN	0	10.55	10.95	10.65	0.10	11.13	0.18
	J/w AP STH	2.2	10.43	10.90	10.70	0.27	11.45	0.55
	J/w AP NTH	3.35	10.25	10.86	10.60	0.35	11.44	0.58
	Fitzroy River	5.3	9.49	9.91	9.51	0.02	9.94	0.03
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.01	-0.02	8.35	-0.05
	Lakes Creek Road (STW)	1.0	8.01	8.39	7.99	-0.02	8.34	-0.05
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.23	-0.03	7.54	-0.07
	J/w Fitzroy River	2.93	7.21	7.54	7.19	-0.02	7.48	-0.06
Gavial Creek	Fitzroy River	0	7.58	7.94	7.55	-0.03	7.85	-0.09
	J/w FP CURTIS	1.03	7.56	7.92	7.52	-0.04	7.83	-0.09
	J/w FP MAIN	4.21	7.08	7.38	7.10	0.02	7.41	0.03
	Edinda Lane	6.06	6.43	6.65	6.44	0.01	6.67	0.02
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				
Peak Flows at	Yeppen Bridges m <sup>3</sup> /s		2495	2650	3755	1,260	4,635	1,985
	Yeppen Overflow m <sup>3</sup> /s		1415	2605	0	-1,415	355	-2,250
	Time of Submergence		11.6 d	12.67 d	0	-11.6 d	3.5 d	-9.1 d



TABLE J-31a

Summary of Peak Flood Levels for Flood Mitigation Options  
 Option C9 - As C8 + Airport Levee + Splitters Creek Levee

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			0.5%	0.2%	0.5%	Difference	0.2%	Difference
Fitzroy River	Yaamba	100.0	19.14	19.88	19.15	0.01	19.89	0.01
	u/s Pink Lily	134.0	13.14	13.72	13.24	0.10	13.89	0.17
	start of FP2	139.2	12.32	12.87	12.48	0.16	13.12	0.25
	start of FP Main	140.1	12.27	12.82	12.43	0.16	13.08	0.26
	near Water Treatment Works	144.78	11.77	12.34	11.94	0.17	12.60	0.26
	Barrage	149.27	10.35	10.90	10.42	0.07	11.01	0.11
	d/s Barrage	149.47	10.07	10.65	10.13	0.06	10.75	0.10
		150.17	9.39	9.91	9.39	0.00	9.94	0.03
	Railway Bridge	150.67	9.15	9.64	9.13	-0.02	9.63	-0.01
	Fitzroy Street Bridge	151.57	8.79	9.26	8.74	-0.05	9.21	-0.05
	City Flood Gauge	152.57	8.59	9.04	8.52	-0.07	8.96	-0.08
	Gavial Creek	154.27	8.30	8.73	8.19	-0.11	8.60	-0.13
	Edinda Lane	165.02	6.68	7.03	6.68	0.00	7.03	0.00
		173.00	5.97	6.30	5.97	0.00	6.30	0.00
FP MAIN	J/w Fitzroy River	0.0	12.27	12.82	12.43	0.16	13.08	0.26
	Rockhampton-Ridgeland Road	1.75	11.75	12.24	12.05	0.30	12.69	0.45
	Lotus Lagoon	4.56	11.73	12.23	12.03	0.30	12.67	0.44
	Nine Mile Road	6.63	11.39	11.92	11.67	0.28	12.30	0.38
	Start FP SCRUBBY	11.0	10.35	10.87	10.43	0.08	11.03	0.16
	Junction with AP-STH	13.0	10.04	10.54	10.01	-0.03	10.57	0.03
	u/s Yeppen Crossing	13.6	9.32	9.67	9.51	0.19	10.03	0.36
	d/s Bruce Highway	13.84	9.06	9.48	9.38	0.32	9.93	0.45
	d/s Yeppen Crossing	14.0	8.75	9.24	9.26	0.51	9.84	0.60
	Old Burnett Highway	15.15	8.60	9.07	9.04	0.44	9.59	0.52
	Old Bruce Highway	16.98	7.83	8.27	8.02	0.19	8.48	0.21
	J/w FP GAVIAL	19.04	7.72	8.13	7.76	0.04	8.19	0.06
	FP SCRUBBY	Start	0	10.35	10.87	10.43	0.08	11.03
d/s Capricorn Highway		1.3	9.91	10.40	10.04	0.13	10.64	0.24
u/s Bruce Highway		4.0	9.31	9.66	9.51	0.20	10.03	0.37
d/s Railway		4.3	8.77	9.27	9.26	0.49	9.84	0.57
J/w FP MAIN		5.15	8.60	9.07	9.04	0.44	9.59	0.52
FP CURTIS	u/s Bruce Highway	0.69	9.32	9.67				
	Port Curtis Junction	0.91	9.10	9.49				
	Depot Hill	2.1	8.67	9.19				
	Gavial Creek	4.2	8.30	8.74				
FP LION	J/w FP MAIN	0	11.39	11.92	11.67	0.28	12.30	0.38
	J/w AP STH	2.2	11.45	12.09	12.02	0.57	12.67	0.58
	J/w AP NTH	3.35	11.45	12.09	12.01	0.56	12.61	0.52
	Fitzroy River	5.3	10.35	10.90	10.42	0.07	11.01	0.11
Airport North	J/w FP LION	0	11.45	12.09				
	New Terminal	1.54	10.64	11.20				
	J/w AP STH	2.6	10.05	10.55				
Airport South	J/w FP LION	0	11.45	12.09				
	Opposite Terminal	1.3	10.65	11.20				
	J/w AP NTH	2.3	10.05	10.55				
	J/w FP MAIN	3.0	10.04	10.54				
Lakes Creek Road	near Fitzroy River Bridge	0	8.79	9.26	8.74	-0.05	9.21	-0.05
	Lakes Creek Road (STW)	1.0	8.77	9.22	8.72	-0.05	9.17	-0.05
	Lakes Creek Road (Landfill)	2.0	7.99	8.48	7.90	-0.09	8.38	-0.10
	J/w Fitzroy River	2.93	7.88	8.29	7.80	-0.08	8.18	-0.11
Gavial Creek	Fitzroy River	0	8.30	8.73	8.19	-0.11	8.60	-0.13
	J/w FP CURTIS	1.03	8.28	8.71	8.16	-0.12	8.56	-0.15
	J/w FP MAIN	4.21	7.72	8.13	7.76	0.04	8.18	0.05
	Edinda Lane	6.06	6.92	7.25	6.68	-0.24	7.27	0.02
Splitters Creek		1.1	10.54	11.16				
		2.1	10.38	10.98				

TABLE J-32

**Summary of Peak Flood Levels for Flood Mitigation Options  
Option C10 - C9 + raise breakout control level by 1.25 m**

Flow Path	Location	Chainage km	Peak Flood Levels (m AHD) for AEP of					
			Existing Conditions		With Option			
			2%	1%	2%	Difference	1%	Difference
Fitzroy River	Yaamba	100.0	17.93	18.52	17.95	0.02	18.53	0.01
	u/s Pink Lily	134.0	12.26	12.69	12.53	0.27	12.85	0.16
	start of FP2	139.2	11.48	11.90	11.92	0.44	12.16	0.26
	start of FP Main	140.1	11.42	11.84	11.87	0.45	12.12	0.28
	near Water Treatment Works	144.78	10.86	11.32	11.30	0.44	11.59	0.27
	Barrage	149.27	9.49	9.91	9.77	0.28	10.07	0.16
	d/s Barrage	149.47	9.17	9.60	9.43	0.26	9.75	0.15
		150.17	8.55	8.96	8.75	0.20	9.05	0.09
	Railway Bridge	150.67	8.35	8.74	8.52	0.17	8.80	0.06
	Fitzroy Street Bridge	151.57	8.03	8.40	8.15	0.12	8.42	0.02
	City Flood Gauge	152.57	7.84	8.21	7.94	0.10	8.21	0.00
	Gavial Creek	154.27	7.58	7.94	7.64	0.06	7.90	-0.04
	Edinda Lane	165.02	6.10	6.38	6.09	-0.01	6.38	0.00
		173.00	5.43	5.69	5.43	0.00	5.69	0.00
FP MAIN	J/w Fitzroy River	0.0	11.42	11.84	11.87	0.45	12.12	0.28
	Rockhampton-Ridgeland Road	1.75	11.04	11.41	10.78	-0.26	11.37	-0.04
	Lotus Lagoon	4.56	10.99	11.38	10.74	-0.25	11.35	-0.03
	Nine Mile Road	6.63	10.55	10.95	10.33	-0.22	11.01	0.06
	Start FP SCRUBBY	11.0	9.43	9.89	9.12	-0.31	9.81	-0.08
	Junction with AP-STH	13.0	9.15	9.60	8.71	-0.44	9.42	-0.18
	u/s Yeppen Crossing	13.6	8.64	9.00	8.24	-0.40	8.99	-0.01
	d/s Bruce Highway	13.84	8.39	8.71	8.14	-0.25	8.81	0.10
	d/s Yeppen Crossing	14.0	8.10	8.36	8.05	-0.05	8.66	0.30
	Old Burnett Highway	15.15	7.96	8.22	7.91	-0.05	8.48	0.26
	Old Bruce Highway	16.98	7.18	7.47	7.21	0.03	7.60	0.13
	J/w FP GAVIAL	19.04	7.08	7.38	7.05	-0.03	7.40	0.02
	FP SCRUBBY	Start	0	9.43	9.89	9.12	-0.31	9.81
d/s Capricorn Highway		1.3	9.00	9.46	8.58	-0.42	9.41	-0.05
u/s Bruce Highway		4.0	8.63	8.99	8.22	-0.41	8.99	0.00
d/s Railway		4.3	8.10	8.37	8.04	-0.06	8.65	0.28
J/w FP MAIN		5.15	7.96	8.22	7.91	-0.05	8.65	0.43
FP CURTIS	u/s Bruce Highway	0.69	8.64	8.96				
	Port Curtis Junction	0.91	8.37	8.76				
	Depot Hill	2.1	7.67	8.19				
	Gavial Creek	4.2	7.56	7.91				
FP LION	J/w FP MAIN	0	10.55	10.95	10.33	-0.22	11.01	0.06
	J/w AP STH	2.2	10.43	10.90	10.33	-0.10	11.29	0.39
	J/w AP NTH	3.35	10.25	10.86	10.12	-0.13	11.27	0.41
	Fitzroy River	5.3	9.49	9.91	9.77	0.28	10.07	0.16
Airport North	J/w FP LION	0	10.25	10.86				
	New Terminal	1.54	9.61	10.15				
	J/w AP STH	2.6	9.16	9.61				
Airport South	J/w FP LION	0	10.43	10.90				
	Opposite Terminal	1.3	9.61	10.15				
	J/w AP NTH	2.3	9.16	9.61				
	J/w FP MAIN	3.0	9.15	9.60				
Lakes Creek Road	near Fitzroy River Bridge	0	8.03	8.40	8.15	0.12	8.42	0.02
	Lakes Creek Road (STW)	1.0	8.01	8.39	8.14	0.13	8.41	0.02
	Lakes Creek Road (Landfill)	2.0	7.26	7.61	7.30	0.04	7.58	-0.03
	J/w Fitzroy River	2.93	7.21	7.54	7.26	0.05	7.51	-0.03
Gavial Creek	Fitzroy River	0	7.58	7.94	7.64	0.06	7.90	-0.04
	J/w FP CURTIS	1.03	7.56	7.92	7.61	0.05	7.87	-0.05
	J/w FP MAIN	4.21	7.08	7.38	7.05	-0.03	7.40	0.02
	Edinda Lane	6.06	6.43	6.65	6.41	-0.02	6.65	0.00
Splitters Creek		1.1	9.51	9.92				
		2.1	9.50	9.91				
Peak Flows at	Yeppen Bldges m <sup>3</sup> /s		2495	2650			4,020	1,370
	Yeppen Overflow m <sup>3</sup> /s		1415	2605			580	-2,025
	Time of Submergence		11.6 d	12.67 d			5.4 d	-7.2 d