City of Ipswich

IPSWICH CITY

LOCAL DISASTER

MANAGEMENT PLAN

QFCI JM

Date: 20/05/11

Exhibit Number: 448

CLAYTON UTZ

Sydney Melbourne Brisbane Perth Canberra Darwin Hong Kong

#1567503
File 5362771

RECEIVED
30 MAR 2011
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Confidential

By hand

30 March 2011

Ms Jane Moynihan
Executive Director
Queensland Floods Commission of Inquiry
GPO Box 1738
Brisbane QLD 4001

Our ref 12223/80116890

Dear Ms Moynihan

Ipswich City Council - Requirement to Provide Information

We confirm that we act on behalf of the Ipswich City Council in connection with the Queensland Floods Commission of Inquiry. We also refer to our letter dated 18 March 2011 and to our subsequent email dated 25 March 2011.

As indicated, we now enclose an index which identifies each of the documents previously disclosed to the Commission on 18 March 2011. This index identifies the details of each document contained in each relevant folder as physically produced to the Commission.

We also enclose with this letter a copy of the current Ipswich City Local Disaster Management Plan.

We are also reviewing additional Council documents and will provide you with an update by the end of this week as to whether we have identified any additional documents within the terms of your original document request.

Please do not hesitate to contact the writer if you have any questions in relation to the above issues.

Yours sincerely

Clayton Utz

Barry Dunphy, Partner

[redacted]

Mark Waller, Partner

[redacted]

DOCUMENTS BY FOLDER INDEXED IN THE ORDER AS PHYSICALLY PROVIDED TO THE COMMISSION				
VOLUME 1: REPORTS				
No.	**Disclosure Request Paragraph**	**Date**	**Author**	**Title**
1	6	7 March 2011	KBR	Debbing Creek and Bundamba Creek Catchments Flood Studies Progress Report to February 2011
2	6	7 March 2011	KBR	Debbing Creek and Bundamba Creeks Flood Studies and FRMP Ripley Road Draining Review
3	6	21 December 2010	KBR	Reduction of Flood Vulnerability for the Albert/Lower James Street Area, Goodna- Final Report
4	6	December 2010	Sargent Consulting	Planning Study for Flood Mitigation at Ripley- Final Report
5	6	19 September 2007	City Design Brisbane City Council	Brisbane Valley Flood Damage Minimisation Study Feasibility and Final Report
6	6	September 2009	Sargent Consulting	Flood Modelling Study for Goodna STP Technical Brief
7	6	22 January 2010	SKM	Ipswich City Infrastructure Project Rosewood STP Flood Impact Report
8	6	September 2004	KBR & Queensland Risk Management Consultants	Bremer River Catchment Flood Risk Management Study- Final Report
9	6	23 October 2009	SKM	Ipswich City Infrastructure Project Bundamba STP Flood Impact Report
10	6	December 2009	GHD	Ipswich City Infrastructure Project Report for Goodna STP Upgrade (with Appendix B attachment)
11	6	December 2009	GHD	Ipswich City Infrastructure Project Report for Goodna STP Upgrade
12	6	18 January 2010	SKM	Ipswich City Infrastructure Project Warrill Creek STP- Flood Impact Report
VOLUME 2A & 2B: REPORTS				
13	1	27 September 2002	Halliburton KBR	Ipswich Rivers Flood Studies Phase 3- Final Report

14	1	8 May 2002	Halliburton KBR	Ipswich Rivers Flood Studies Lower Bremer River Flooding Report (Attached to Ipswich Rivers Flood Studies Phase 3- Final Report above)
15	2	December 2006	Sargent Consulting	Ipswich Rivers Flood Study Rationalisation Project- Phase 3 Re-estimation of Design Flood Levels Final Report
16	2	January 2006	Sargent Consulting	Ipswich Rivers Flood Study Rationalisation Project-Phase 3- "Monte Carlo" Analysis of Design Flows Final Report
17	2	30 May 2001	Brown & Root	Mike 11 Conversion
18	2	22 October 2003	Sargent Consulting	Review of the Implications for Flood Levels in Ipswich of the Updated Estimates of Brisbane River Design Discharges (September 2003)
19	2	9 December 2003	SKM	Ipswich Rivers Flood Studies- Further Investigations
20	2	19 December 2002	Fisher Stewart & Sargent Consulting	Composite Mapping for 20 Year ARI Review and Recommendations
21	2		Sargent Consulting	Ipswich Rivers Flood Study Rationalisation Project- Hydrology Component - Re-estimation of Design Flows for Events other than 100 Year ARI
22	4	May 2010	MWH	Bundamba Creek Local Waterway Management Plan
VOLUME 3: BUREAU OF METEOROLOGY (BOM) EMAILS				
23	10,12,13	7 December 2010 - 22 February 2011	Aifs Operational Manager (BOM)	Bundle of BOM emails to ICC dated between 7 December 2010 and 22 February 2011
VOLUME 4 : MAPS - LDMG MINUTES - ICC SITREPS (PREPARED FOR LDMG)				
MAPS				
24	10, 13	10 February 2011		City of Ipswich Regional Map: Disaster Event Queensland Flooding and Tropical Cyclones Tasha and Anthony November 2010 - February 2011
25	10, 13	10 February 2011		City of Ipswich Regional Map: Disaster event Queensland Flooding and Tropical Cyclones Tasha and Anthony November 2010 - February 2011- Early Release Indicative Regional Flood Extent 12 January, 2011- version 1
26	10, 13			Map: Ipswich Historic Storm- Max 5 Hr Accumulation 10/01/2011 5:20PM

27	10, 13			Map: Ipswich Historic Storm- Max 5 Hr Accumulation 11/01/2011 1:15PM
28	10, 13			Map: Ipswich Historic Storm- Max 5 Hr Accumulation 11/01/2011 7:10PM
29	10, 13			Map: Ipswich Historic Storm- Max 5 Hr Accumulation 13/01/2011 12:55AM
30	10, 13			Hydrograph Comparison 1974 and 2011 Ipswich Alert
31	10, 13	21 January 2011		Map: Early Release Indicative Regional Flood Extent January 12, 2011 (Version 1.0)
32	10, 13			OV5 (Flood Line 1 in 100 & Drainage Assessment Area) vs 2011
33	10, 13			1974 vs OV5 Flood Line 1 in 100 vs 2011
34	10, 13			OV5 Flood Line 1 in 100 vs 2011
35	10, 13			1974 vs 2011
36	10, 13	8 March 2011		Current Flood Studies & Flood Risk Management Plans
LDMG MINUTES				
37	22	2 February 2010		Minutes of meeting – ICC Local Disaster Management Group Attached: Attendance List 14:00 - 16:00
38	22	10 November 2009		Minutes of meeting – ICC Local Disaster Management Group Attached: Attendance List 14:00 - 16:00
39	22	20 May 2010		Minutes of meeting – ICC Local Disaster Management Group Attached: Attendance List; South West Region District Community Recovery Committee/s Report; BIO 164 Emergency Management Twitter Pilot Framework and Guidelines 14:00 - 16:00
40	22	3 August 2010		Minutes of meeting – ICC Local Disaster Management Group Attached: Attendance List; Executive Officers Report- Local Disaster Management Group agency Report 14:00 - 16:00
41	22	3 August 2010		Minutes of meeting – ICC Local Disaster Management Group Attached: Attendance List 14:00 - 16:00
42	22	26 October 2010		Minutes of meeting – ICC Local Disaster Management Group Attached: Attendance List 14:00 - 16:00

43	22	23 December 2010		Minutes of meeting – ICC Local Disaster Management Group Attached: Ipswich City SITREP; Ipswich LDMG Contact List 8:00
44	22	27 December 2010		Minutes of meeting – ICC Local Disaster Management Group 13:30
45	22	28 December 2010		Minutes of meeting – ICC Local Disaster Management Group Attached: Update from SEQ Water; Weather Update from Daryl Hickey 7:30
46	22	10 January 2011		Minutes of meeting – ICC Local Disaster Management Group 8:30
47	22	10 January 2011		Minutes of meeting – ICC Local Disaster Management Group 15:00
48	22	11 January 2011		Minutes of meeting – ICC Local Disaster Management Group 8:00
49	22	11 January 2011		Minutes of meeting – ICC Local Disaster Management Group 14:00
50	22	11 January 2011		Minutes of meeting – ICC Local Disaster Management Group 18:00
51	22	12 January 2011		Minutes of meeting – ICC Local Disaster Management Group 8:00
52	22	12 January 2011		Minutes of meeting – ICC Local Disaster Management Group 15:00
53	22	13 January 2011		Minutes of meeting – ICC Local Disaster Management Group 8:00
54	22	13 January 2011		Minutes of meeting – ICC Local Disaster Management Group 15:00
55	22	14 January 2011		Minutes of meeting – ICC Local Disaster Management Group 9:00
56	22	14 January 2011		Minutes of meeting – ICC Local Disaster Management Group 15:00
57	22	17 January 2011		Minutes of meeting – ICC Local Disaster Management Group 9:00
58	22	19 January 2011		Minutes of meeting – ICC Local Disaster Management Group 9:00
59	22	21 January 2011		Minutes of meeting – ICC Local Disaster Management Group 9:00

60	22	28 January 2011		Minutes of meeting – ICC Local Disaster Management Group 9:00
			SITREPS	
61	23	11 January 2011	(ENG - K Tillack)	Situation Report No.1: 14:00
62	23	11 January 2011	(ENG - K Tillack)	Situation Report No. 2: 12:15
63	23	12 January 2011	(ENG - K Tillack)	Situation Report No. 3: 07:00
64	23	12 January 2011	(ENG - K Tillack)	Situation Report No. 4: 22:00
65	23	12 January 2011	(ENG - K Tillack)	Situation Report No. 4: 22:00
66	23	13 January 2011	(ENG - K Tillack)	Situation Report No. 5: 12:00
67	23	13 January 2011	(ENG - K Tillack)	Situation Report No. 6: 17:00
68	23	14 January 2011	(ENG - K Tillack)	Situation Report No. 7: 10:00
69	23	14 January 2011	(ENG - K Tillack)	Situation Report No. 8: 19:30
70	23	15 January 2011	(ENG - K Tillack)	Situation Report No. 9: 08:30
71	23	28 December 2010	(ENG - K Tillack)	Situation Report No. 10: 09:00
72	23	15 January 2011	(ENG - K Tillack)	Situation Report No. 10: 17:00
73	23	16 January 2011	(ENG - K Tillack)	Situation Report No. 11: 09:00
74	23	16 January 2011	(ENG - K Tillack)	Situation Report No. 12: 17:00
75	23	17 January 2011	(ENG - K Tillack)	Situation Report No. 13: 16:00
76	23	17 January 2011	(ENG - K Tillack)	Situation Report No. 14: 16:00

77	23	18 January 2011	(ENG - K Tillack)	Situation Report No. 15: 11:00
78	23	18 January 2011	(ENG - K Tillack)	Situation Report No. 16: 16:30
79	23	19 January 2011	(ENG - K Tillack)	Situation Report No. 17: 10:30
80	23	19 January 2011	(ENG - K Tillack)	Situation Report No. 18: 16:00
81	23	20 January 2011	(ENG - K Tillack)	Situation Report No.19: 07:00 Attachment: Energex Power Restoration Update
82	23	20 January 2011	(ENG - K Tillack)	Situation Report No. 20: 16:00
83	23	21 January 2011	(ENG - K Tillack)	Situation Report No. 21: 16:30
84	23	24 January 2011	(ENG - K Tillack)	Situation Report No.22: 09:00
85	23	24 January 2011	(ENG - K Tillack)	Situation Report No. 23: 12:00
86	23	24 January 2011	(ENG - K Tillack)	Situation Report No.24: 15:30
87	23	25 January 2011	(ENG - K Tillack)	Situation Report No. 25: 10:00
88	23	25 January 2011	(ENG - K Tillack)	Situation Report No.26: 15:00
89	23	27 January 2011	(ENG - K Tillack)	Situation Report No. 27: 10:00
90	23	28 January 2011	(ENG - K Tillack)	Situation Report No. 28: 14:00
91	23	31 January 2011	(ENG - K Tillack)	Situation Report No. 29 16:00
92	23	4 February 2011	(ENG - K Tillack)	Situation Report No. 30: 12:00
93	23	4 February 2011	(ENG - K Tillack)	Situation Report No. 30: 12:00
94	23	23 December 2010 - 28 December	(ENG - K Tillack)	Bundle of Situation Report No.1 - 9 for the period 23 December 2010 - 28 December 2010

		2010		
			VOLUME 5 ICC EMAILS	
95	4	20 May 2010	Gregory Rogenkamp	Email attaching Ipswich City Council Integrated Water Management Principles and Objectives
96	10	15 February 2011	Peter Dowdle	Email attaching the Draft Current Flood Studies and Risk Management Plans map
97	18	9 March 2011	Quentin Underwood	Email re review of Q100/1974/2001 flood lines (missing attachment)
98	2	25 March - 30 March 2010		Email trail re modelling outcomes
99	7	7 March 2011	Frank Fornasier	Email re Goodna STP Spoil Heaps
100	5	9 March 2011	Quentin Underwood	Email re Blockage issues QR & DMRT
101	4	13 October 2010	Quentin Underwood	Email re slumping of river banks
102	2	29 January 2010	Frank Fornasier	Email re Rosewood and Warrill Creek STP flood studies
103	5	9 March 2011	Wilton Boyd	Email re QR Rail and Effect on Flood Flows in Study Area
104	10	3 March - 9 March 2011		Email trail re status of hydraulics assets 2011 flood damage
105	11	12 January 2011	Rasitha Perera	Email re Stream Heights
106	10	10 January 2011	Daryl Hickey	Email re Colleges Crossing prediction and BOM advice
107	11	12 January 2011	Daryl Hickey	Email re Stream Heights
108	11	20 January 2011	Daryl Hickey	Email re Stream Heights
109	11,12	20 December 2010	Daryl Hickey	Email re Enviromon calibration details
110	11,12	20 December	Daryl Hickey	Email re Enviromon calibration details

		2010		
111	11,12	22 December 2010	Daryl Hickey	Email re Enviromon calibration details
112	11,12	17 - 21 December 2010		Email trail re Flood level information
113	11,12	22 December 2010	Daryl Hickey	Email re readings and predictions
114	11	10 January 2011	Daryl Hickey	Email trail re gauges
115	10	27 December 2010		Email trail re gauge height and prediction
116	11,12	26 December 2010	Daryl Hickey	Email re catchment update
117	11,12	26 December 2010	Daryl Hickey	Email re catchment update
118	11,12	26 December 2010	Daryl Hickey	Email re catchment update
119	11,12	26 December 2010	Daryl Hickey	Email re catchment update
120	11,12	26 December 2010	Daryl Hickey	Email re catchment update
121	11,12	25 December 2010	Daryl Hickey	Email re catchment update
122	11,12	25 December 2010	Daryl Hickey	Email re catchment update
123	11,12	9 January 2011	Daryl Hickey	Email re stream heights
124	11,12	9 January	Daryl Hickey	Email re stream heights

		2011		
125	11,12	9 January 2011	Daryl Hickey	Email re stream heights
126	11,12	9 January 2011	Daryl Hickey	Email re stream heights
127	11,12	8 January 2011	Daryl Hickey	Email re catchment update
128	11,12	8 January 2011	Daryl Hickey	Email re Stream Heights
129	11,12	7 January 2011	Daryl Hickey	Email re Stream Heights
130	11, 12	7 January 2011	Daryl Hickey	Email re catchment update and stream heights
131	11,12	7 January 2011	Andrew Teece	Email re stream heights
132	11,12	7 January 2011	Andrew Teece	Email re stream heights
133	11,12	6 January 2011	Daryl Hickey	Email re catchment update and stream heights
134	11,12	6 January 2011	Andrew Teece	Email re catchment update and stream heights
135	11,12	6 January 2011	Andrew Teece	Email re catchment update and stream heights
136	11,12	29 December 2010	Andrew Teece	Email re catchment update and stream heights
137	12	28 December 2010	Daryl Hickey	Email re catchment update
138	12	25 December 2010	Daryl Hickey	Email re catchment update
139	12	25 December 2010	Daryl Hickey	Email re catchment update
140	12	25 December 2010	Daryl Hickey	Email re catchment update

141	12	24 December 2010	Daryl Hickey	Email re catchment update
142	12	24 December 2010	Daryl Hickey	Email re catchment update
143	12	27 December 2010		Email trail re Bremer river peak
144	11,12	28 December 2010	Andrew Teece	Email re catchment update and stream gauges
145	12	27 December 2010	Daryl Hickey	Email catchment update
146	12	27 December 2010	Daryl Hickey	Email catchment update
147	12	27 December 2010	Daryl Hickey	Email catchment update
148	12	27 December 2010		Email trail re catchment updates
149	12	27 December 2010	Daryl Hickey	Email catchment update
150	12	26 December 2010	Daryl Hickey	Email catchment update
151	11,12	3 June 2010 -4 June 2010		Email trail re calibration of the Ripley gauge
152	11,12	3 June 2010 -4 June 2010		Email trail re calibration of the Ripley gauge
153	11,12	6 January 2011	Andrew Teece	Email re catchment update and stream heights
154	11,12	7 January 2011		Email re catchment update and stream heights

155	11,12	7 January 2011	Andrew Teece	Email re catchment update and stream heights
156	11,12	7 January 2011	Andrew Teece	Email re catchment update and stream heights
157	11,12	10 January 2011		Email trail re stream heights
158	11,12	10 January 2011		Email re stream heights
159	11,12	10 January 2011	Andrew Teece	Email re catchment update and stream heights
160	11,12	11 January 2011	Andrew Teece	Email re catchment update and stream heights
161	11,12	11 January 2011	Andrew Teece	Email re catchment update and stream heights
162	11,12	11 January 2011	Andrew Teece	Email re catchment update and stream heights
163	11,12	12 January 2011		Email re catchment update and stream heights
164	11,12	12 January 2011	Andrew Teece	Email re catchment update and stream heights
165	11,12	12 January 2011	Andrew Teece	Email re catchment update and stream heights
166	11	12 January 2011	Daryl Hickey	Email re stream heights
167	11,12	13 January 2011	Andrew Teece	Email re catchment update and stream heights
168	11,12	13 January 2011	Andrew Teece	Email re catchment update and stream heights
169	11,12	6 January 2011	Daryl Hickey	Email re catchment update and stream heights
170	11,12	6 January 2011	Andrew Teece	Email re catchment update and stream heights
171	11,12	28 December 2010		Email re catchment update and stream heights
172	11	10 January 2011		Email trail re water levels

173	11	11 January 2011		Email trail re water levels
174	11	11 January 2011		Email trail re water levels
175	11	11 January 2011		Email trail re water levels
176	11	11 January 2011		Email trail re water levels
177	11	11 January 2011		Email trail re water levels
178	11	11 January 2011		Email trail re water levels
179	11	11 January 2011		Email trail re water levels
180	11	11 January 2011		Email trail re water levels
181	11	11 January 2011		Email trail re water levels
182	11	11 January 2011		Email trail re water levels
183	11	11 January 2011		Email trail re water levels
184	11	12 January 2011		Email trail re water levels
185	11	12 January 2011		Email trail re water levels
186	11	12 January 2011		Email trail re water levels
187	11	12 January 2011		Email trail re water levels
188	11	12 January 2011		Email trail re water levels
189	11	12 January 2011		Email trail re water levels
190	11	12 January 2011		Email trail re water levels

191	11	12 January 2011		Email trail re water levels
192	11	12 January 2011		Email trail re water levels
193	11	12 January 2011		Email trail re water levels
194	11	12 January 2011		Email trail re water levels
195	11	12 January 2011		Email trail re water levels
196	11	12 January 2011		Email trail re water levels
197	11	12 January 2011		Email trail re water levels
198	11	12 January 2011		Email trail re water levels
199	11	12 January 2011		Email trail re water levels
200	11	12 January 2011		Email trail re water levels
201	11	12 January 2011		Email trail re water levels
VOLUME 6A & 6B: LDMG CONTACT LIST - AFFECTED ROADS LIST - ENVIROMON ALERTS - ICC MINUTES - SEQWATER EMAILS - MISCELLANEOUS DOCUMENTS				
LDMG CONTACT LIST				
202	21			Ipswich Local Disaster Management Group Contact List
AFFECTED ROADS LIST				
203	10,13	29 January 2011		List of Roads Within Indicative Flood Extent (Alphabetical Listing by Road Name)
204	10,13	29 January 2011		List of Roads Within Indicative Flood Extent (Listing by Suburb)
ENVIROMON ALERT				
205	11,12			Bundle of Enviromon Alerts for various dates between 19 January 2011 and 15 February 2011
ICC MINUTES				

206	16	24 May 2010	(FCS – V. Lukritz)	Council Resolution re Land Acquisitions – Junction Road Flood Immunity Enhancement Project – Division 5 and Clem Street Bikeway – Division 6 – Report by Coordinator (Transport Planning and Operations) is attached
207	16	10 June 2010	(FCS – V. Lukritz)	Council Resolution re Tuflow Pilot Study and East Ipswich Flooding, Division 5 – Report by Principal Engineer (Hydraulics) is attached
208	16	20 July 2010	(FCS – V. Lukritz)	Council Resolution re Western Ipswich Area Storm Behaviour Study – Report by Principal Engineer (Hydraulics) is attached
209	16	17 August 2010	(FCS – V. Lukritz)	Council Resolution re Storm water drainage issues , 199 Brisbane Terrace, Goodna Division 2 – Report by Principal Engineer (Hydraulics) is attached
210	16	17 August 2010	(FCS – V. Lukritz)	Council Resolution re Application for National Disaster Resilience Program – Report by Business Support Manager is attached
211	16	12 October 2010	(FCS – V. Lukritz)	Council Resolution re Natural Disaster Relief and Recovery Arrangements Funding – Report by Acting Infrastructure Planning and Operations Manager is attached
212	16	7 December 2010	(FCS – V. Lukritz)	Council Resolution re Applications for National Disaster Resilience Program – Report by Business Support Manager is attached
213	16	31 January 2011	(FCS – V. Lukritz)	Council Resolution re Situation Report – Jan 2011 Floods – Situation report is attached
214	16	31 January 2011	(FCS – V. Lukritz)	Council Resolution re Insurance Claim, Property at Redbank Plains – Report by Chief Financial Officer is attached
215	16	31 January 2011	(FCS – V. Lukritz)	Council Resolution re Business Recovery Centre – Jan 2011 Flood Event – Report by Economic Development Manager is attached
216	16	31 January 2011	(FCS – V. Lukritz)	Council Resolution re Flood Recovery Package – Planning and Development Approval Processes and Fees – Report by City Planner is attached
217	16	22 February 2011	(FCS – V. Lukritz)	Council Resolution re Council support to community groups for flood recovery fund raising events for the Ipswich flood appeal – Report by Marketing Manager is attached
SEQ UPDATE EMAILS				
218	8	5:33pm 06-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1800 06/01/2011 (ENG – T. Trace)
219	8	6:07am 07-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0600 07/01/2011 (ENG – T. Trace)

220	8	3:28pm 07-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Wivenhoe Operations (ENG – T. Trace)
221	8	5:57pm 07-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1800 07/01/2011 (ENG – T. Trace)
222	8	6:32am 08-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 0600 08/01/2011 (ENG – T. Trace)
223	8	12:16pm 08-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1200 08/01/2011 (ENG – T. Trace)
224	8	5:53pm 08-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1800 08/01/2011 (ENG – T. Trace)
225	8	5:51pm 09-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1700 09/01/2011 (ENG – T. Trace)
226	8	6:15am 09-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0600 09/01/2011 (ENG – T. Trace)
227	8	9:04pm 09-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 2100 09/01/2011 (ENG – T. Trace)
228	8	1:01am 10-Jan-11		Email trail between Duty Engineer at UQ and T. Trace of Council re Situation Report 2100 9/01/2011
229	8	1:14am 10-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0100 10/01/2011 (ENG – T. Trace)
230	8	12:16pm 10-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 1200 10/01/2011 (ENG – T. Trace)
231	8	6:30am 10-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0600 10/01/2011 (ENG – T. Trace)
232	8	2:58pm 10-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 1200 10/01/2011 (ENG – T. Trace)
233	8	6:43pm 10-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 1800 10/01/2011 (ENG – T. Trace)

234	8	11:56pm 10-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0000 11/01/2011 (ENG – T. Trace)
235	8	6:12am 11-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0600 11/01/2011 (ENG – T. Trace)
236	8	6:00pm 11-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1800 12/01/2011 (ENG – T. Trace)
237	8	5:49am 12-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 0600 12/01/2011 (ENG – T. Trace)
238	8	7:57am 12-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 0800 12/01/2011 (ENG – T. Trace)
239	8	5:45am 13-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 0600 13/01/2011 (ENG – T. Trace)
240	8	5:35am 14-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0600 14/01/2011 (ENG – T. Trace)
241	8	3:17pm 12-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1500 12/01/2011 (ENG – T. Trace)
242	8	5:45am 14-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0600 14/01/2011 (ENG – T. Trace)
243	8	6:36am 15-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 0630 15/01/2011 (ENG – T. Trace)
244	8	6:09am 16-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 0600 16/01/2011 (ENG – T. Trace)
245	8	4:56pm 17-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1700 16/01/2011 (ENG – T. Trace)
246	8	6:17am 18-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 0615 18/01/2011 (ENG – T. Trace)
247	8	5:40pm 18-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1800 18/01/2011 (ENG – T. Trace)

248	8	3:07pm 20-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1500 20/01/2011 (ENG – T. Trace)
249	8	1:45pm 19-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re Situation Report 1345 19/01/2011 (ENG – T. Trace)
250	8	5:28am 19-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0600 19/01/2011 (ENG – T. Trace)
251	8	9:24am 20-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0930 20/01/2011 (ENG – T. Trace)
252	8	9:45am 20-Jan-11		Email from Duty Engineer at UQ to T. Trace of Council re FOC Situation Report 0930 20/01/2011 (ENG – T. Trace)
MISCELLANEOUS DOCUMENTS				
253	6	31 August 2010	Ross Drabble	Natural Disaster Resilience Program - Queensland 2010-2011 Application form completed by ICC
254	6	6 October 2000	Waterways Program Urban Management Division Brisbane City Council	Brisbane River Flood Study Technical Workshop Background Paper
255	15		John Adams (City Planner ICC)	A Sense of Deja'vu - The 2011 Ipswich Flood
256	2,7	20 February 2006	GHD	Minutes of Meeting of Ipswich Rivers Flood Rationalisation Study Stakeholders- Presentation of Monte Carlo Simulation Study to Stakeholders
257	2, 7	20 February 2006	GHD	Minutes of Meeting of Ipswich Rivers Flood Rationalisation Study Stakeholders- Presentation of Monte Carlo Simulation Study to Stakeholders (final)
258	2,7			Agenda for the Stakeholder Workshop on Ipswich Rivers Flood Rationalisation Study
259	2,7	7 February 2006	Ravi Raveenthiran	Invitation to the Stakeholder Workshop on Ipswich rivers Flood Rationalisation Study
260	2	9 February 2005	Ipswich Rivers Improvement	Minutes of the First Study Advisory Group Meeting- Natural Disaster Risk Management Studies Program- Ipswich Rivers Flood

			Trust	Rationalisation Study
261	2	25 May 2005	Ipswich Rivers Improvement Trust	Agenda of the second meeting of the Study Advisory Group- Natural Disaster Risk Management Studies Program- Ipswich Rivers Flood Rationalisation Study
262	2		Ipswich Rivers Improvement Trust	Final Submission- Natural Disaster Risk Management Studies Programme Application Form 2003/04
263	2	16 November 2007	Deputy Works Manager	Memorandum re Ipswich Rivers Flood Study Rationalisation Project
264	2	18 September 2006	Deputy Works Manager- Andrew Underwood	Memorandum re Ipswich Rivers Flood Study Rationalisation Project
265	10,13			Map of Ipswich Region
266	2		Sargent Consulting	Section of Flood Modelling Study for Goodna STP Scoping Study Final Report
267	6	2 March 2011	KBR	Draft Report re Drainage in Ripley Township
268	21			Attendance Sheet for January 2011 Event
269	10			Flood Affected Areas - Planning and Development Options Analysis and Review (Draft)
270	19	24 March 2000		Disaster Recovery Plan
271	10	13 January 2011	PB	Report arising from Emergency Inspection of Marburg Detention Basin on 13 January 2011.
272	4	June 2004	Fiachra Kearney	Rehabilitation and Management Plan Stewartdale Property including Bundamba Wetlands and surrounding Spring Mountain Reserve Buffer

IPSWICH CITY COUNCIL
LOCAL DISASTER MANAGEMENT PLAN

PART 1 MAIN PLAN and ANNEXURES

IPSWICH CITY LOCAL DISASTER MANAGEMENT PLAN

PRELIMINARIES

P 1.01 FOREWORD

Many hours of meticulous work have gone into formulating this Local Disaster Management Plan.

While no-one wants to think about worst case scenarios as a result of floods, fires or other natural disasters, local government plays an important role in the restoration of services while working in partnership with the State Emergency Service, Police, Ambulance, Queensland Fire and Rescue Service, other State Government agencies and utility companies.

On behalf of all Councillors, I want to congratulate members of the Local Disaster Management Group on completing a comprehensive plan that will assist in the smooth running of restoring services and ensuring public safety.

The delivery of assistance in a timely and efficient manner and the dissemination of information to the public will be critical to reducing loss of life and property.

[redacted]

Chairperson
Ipswich City Local Disaster Management Group

Dated: 16/6/08

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P1.03 AUTHORISATION

CONTROLLED COPY NUMBER .....

The Ipswich City Local Disaster Management Plan, version number 1.00, Dated November 2006, has been prepared by the Ipswich City Local Disaster Management Group, in accordance with Section 57(1), of the *Disaster Management Act 2003.*

[redacted]

Executive Officer
Ipswich City Local Disaster Management Group

Dated: 16/6/08

The Ipswich City Local Disaster Management Plan, version number 1.00, dated November 2006, has been reviewed by the Executive Officer, Ipswich District Disaster Management Group, in accordance with Section 28 (c), of the *Disaster Management Act, 2003.*

[redacted]

Executive Officer
Ipswich District Disaster Management Group

Dated: 16/6/08

The Ipswich City Local Disaster Management Plan, version number1.00, dated November 2006 was adopted by the Ipswich City Council on 15 November 2006, Works Committee No. 2006(11) of 6 November 2006 – Item 24.01, in accordance with Section 80 (1) (b) of the *Disaster Management Act 2003.*

The Ipswich City Local Disaster Management Plan is hereby approved for distribution.

[redacted]

Chairperson
Ipswich City Local Disaster Management Group

Dated: 16/6/08

P1.04 AMENDMENTS

P1.04.01 PLAN AMENDMENTS

Amendments to this plan must be authorised by the Ipswich City Local Group and brief detail of the amendment recorded in the amendment list register.

Amendments of a minor nature, i.e. names, addresses, telephone numbers etc. will be handled administratively by the Executive Officer of the Ipswich City Local Group and ratified at the next Local Group meeting.

Proposals for amendment or addition to the Ipswich City Local Disaster Management Plan are to be forwarded to:

The Executive Officer
Ipswich City Local Disaster Management Group
Ipswich City Council
PO Box 191
IPSWICH QLD. 4304.

P 1.04.02 REVIEW/REVISION/EXERCISE PLAN

The initial version of the plan must be approved by the Executive Officer, Ipswich City Local Group, Executive Officer Ipswich District Disaster Group and the Ipswich City Council.

This plan is to be reviewed, in accordance with Section 59 of the *Disaster Management Act 2003*, at least once annually and revised as determined by either practical or table top exercises, activations or perceived changes in requirements.

The review may also be undertaken by a sub-committee/working group/groups established by the Ipswich City Local Group.

Each version and/or revision will be dated and given a sequential number and this number will be placed on the document in the footer.

The Executive Officer will amend the original documentation on

(a) request and approval of the Ipswich City Local Group; or
(b) request of a Lead or Support Agency.

The Executive Officer will submit the reviewed plan to the Ipswich City Local Group for ratification and approval. Once approved the Executive Officer will forward the reviewed plan to the Executive Officer, Ipswich District Group who will review the plan or amended plan in accordance with Section 28 (c) *Disaster Management Act 2003.*

After review by the Executive Officer, Ipswich District Group, the Executive Officer of the Ipswich City Local Group will forward the plan to the Ipswich City Council for approval and adoption. Once adopted by Council, controlled copies of the plan will be distributed to the relevant agencies as per the distribution list.

Amended copies will then be distributed as per the controlled copy distribution list.

To ensure the Ipswich City Local Disaster Management Plan remains current, holders of the plan should insert amendments to the plan as soon as they are received. When an amendment is inserted into the plan, the amendment should be recorded in the Amendment/Revision Register (A) below.
The Ipswich City Local Group shall ensure that a disaster management exercise is undertaken to:

(a) annually to test the plan or parts of the plan;
(b) assess the level of staff training and performance; and
(c) provide valuable on the job training to the participants.

Multi-skilling of the staff should be part of the staff development process.

Exercises may take any of the following forms:

(a) table top exercise to test the plan or parts of the plan and to provide experience for Ipswich City Local Group members;
(b) field exercises to provide practical experience to members of the Local Group;
(c) a combination of (a) and (b);
(d) tests, questionnaires or any other appropriate technique.

A register of exercises/tests of the plan shall be kept indicating type of exercise/test, section of the plan exercised or tested, date of exercise/test, participants, lessons learnt, actions to be taken etc.

A suitable format for an exercise/test register is shown in the Plan Exercise Register (B) below.

P 1.04.03 **SHORT TITLES**

The following short titles have been used in this plan:

FULL TITLE	SHORT TITLES
Ipswich City Local Disaster Management Group	Ipswich City Local Group
Ipswich District Disaster Management Group	Ipswich District Group
State Disaster Management Group	State Group

(A) AMENDMENT/REVISION REGISTER

REVISION NUMBER	REVISION DATE	AMENDMENT REVISION DESCRIPTION	SIGNATURE
Draft 1.0	22.12.2005	Initial Draft	GHD
Draft 1.1	10.05.2006	Corrected Draft – Font size, typos, short titles for Disaster Management Groups	KTG Engineering
Version 1.00	November 2006	Layout revised	KTG Engineering
Version 1.00	14.11.2006	Adopted by LDMG	
Version 1.00	15.11.2006	Adopted by Council	
Version 1.00	14.02.2007	Reviewed by DDMG	
Version 1.1	June 2008	Replace Annexure A Replace Annexure N. Replace parts Annexure Q (EAP Rosewood Detention Basin – Pages 1–8 and 11–15 and EAP Marburg Detention Basin – Pages 1–10 and 13–18). Replace pages 1&2 and 7–12 in Preliminaries Section	

P 1.04.04 CONTROLLED COPY DISTRIBUTION

The Ipswich City Local Disaster Management Plan is a document within the Council's Corporate Information System (reference library).

Each copy of the plan shall be sequentially numbered and the controlled copy number issued recorded against the appropriate personnel in the table below.

A copy of the plan upon completion and/or as amended shall be distributed to the designated persons listed in the following table:-

RECIPIENT	CONTROLLED COPY NUMBE
CHAIRPERSON - IPSWICH CITY LOCAL DISASTER MANAGEMENT GROUP 45 Roderick Street, Ipswich, 4305 PO Box 191, Ipswich, QLD 4305	1
EXECUTIVE OFFICER, IPSWICH CITY LOCAL DISASTER MANAGEMENT GROUP 45 Roderick Street, Ipswich, 4305 PO Box 191, Ipswich, QLD 4305	2
IPSWICH DISTRICT DISASTER CO-COORDINATOR – QUEENSLAND POLICE 300–320 Warwick Road, Yamanto, 4305 PO Box 382, Ipswich, QLD 4305	3
CHIEF OPERATING OFFICER (ENGINEERING SERVICES), IPSWICH CITY COUNCIL 45 Roderick Street, Ipswich, 4305 PO Box 191, Ipswich, QLD 4305	4
LOCAL CONTROLLER (IPSWICH), STATE EMERGENCY SERVICE 54 Thorn Street, Ipswich, 4305 PO Box 205, Ipswich, QLD 4305	5
AREA DIRECTOR (SOUTH EAST AREA OFFICE) – EMERGENCY MANAGEMENT QUEENSLAND 2 Brigade Drive, Eagleby, 4207 PO Box 5128, Eagleby, QLD 4207	6
DIRECTOR EMERGENCY DEPARTMENT, IPSWICH HOSPITAL 81 East Street, Ipswich, 4305 PO Box 73, Ipswich, QLD 4305	7
AREA DIRECTOR - IPSWICH DISTRICT, QUEENSLAND FIRE AND RESCUE SERVICE (URBAN) 101 Limestone Street, Ipswich, 4305 PO Box 138, Ipswich, QLD 4305	8
AREA DIRECTOR RURAL OPERATIONS - QUEENSLAND FIRE AND RESCUE SERVICE 99 Limestone Street, Ipswich, QLD 4305	9
AREA MANAGER - IPSWICH DISTRICT, QUEENSLAND AMBULANCE SERVICE 27 Downs Street, North Ipswich, 4305 PO Box 408, Ipswich, QLD 4305	10
MANAGER EMERGENCY PREPAREDNESS SYSTEMS – DEPARTMENT OF PRIMARY INDUSTRIES & FISHERIES 80 Ann Street, Brisbane, 4000 GPO Box 1429, Brisbane, QLD 4001	11
PRINCIPAL ADVISOR EMERGENCY MANAGEMENT RISK UNIT – QUEENSLAND RAIL 305 Edward Street, Brisbane, 4000 GPO Box 2692, Brisbane, QLD 4001	12
OCCUPATIONAL HEALTH & SAFETY OFFICER - BORAL ENERGY LTD GPO Box 484, Brisbane, QLD 4001	13
TEAM LEADER – TELSTRA IPSWICH Locked Bag 3733, Brisbane, QLD 9008	14
WESTERN DISTRIBUTION SERVICES MANAGER – ENERGEX GPO Box 1461, Brisbane, QLD 4001	15

RECIPIENT	CONTROLLED COPY NUMBER
BASE COMMANDER, ROYAL AUSTRALIAN AIR FORCE RAAF Base, Amberley, QLD 4306	16
HEALTH, PARKS & RECREATION DEPARTMENT – IPSWICH CITY COUNCIL 45 Roderick Street, Ipswich, 4305 PO Box 191, Ipswich, QLD 4305	17
COMMUNITY DEVELOPMENT MANAGER – IPSWICH CITY COUNCIL 45 Roderick Street, Ipswich, 4305 PO Box 191, Ipswich QLD 4305	18

P 1.04.05 AVAILABILITY OF COPIES OF THE PLAN

Copies of the plan shall be made available for inspection free of charge at the office of the Ipswich City Council in accordance with Section 60(1) of the *Disaster Management Act 2003.*

Copies of the plan shall be made available for purchase upon payment of the prescribed fee set out in the Council's schedule of fees and charges, in accordance with Section 60(3) of the *Disaster Management Act 2003.*

P 1.04.06 DEFINITIONS

All Hazards Approach: The all-hazards approach recognises that although counter measures will often vary with specific hazards, it is desirable to establish a single set of management arrangements capable of encompassing all hazards.

Coordination Centre: A centre established at State, District Disaster or local level as a centre of communication and coordination during disaster response and recovery operations.

Consequences: The outcome of an event or situation expressed qualitatively or quantitatively, being a loss, injury, disadvantage, or gain.

Disaster: A disaster is a serious disruption in a community, caused by the impact of an event that requires a significant coordinated response by the State and local and other entities to help the community recover from the disruption.

District Disaster Coordinator: A District Disaster Coordinator appointed under Section 25(1) (a) of the Disaster Management Act, 2003.

Disaster Management: Disaster management means arrangements about managing the potential adverse effects of an event, including, for example, arrangements for mitigating, preventing, preparing for, responding to and recovery from a disaster.

District Disaster Management Group: A group formed in accordance with Section 22 of the Disaster Management Act 2003, with functions as defined in Section 23 of the Act and a membership as defined in Section 24 of the Act.

Disaster Operations: Disaster operations means activities undertaken before, during or after an event happens to help reduce loss of human life, illness or injury to humans, property loss or damage, or damage to the environment, including, for example, activities to mitigate the adverse effects of the event.

Disaster Response Capability: Disaster response capability for a local government, means the ability to provide equipment and a suitable number of persons, using the resources available to the local government, to effectively deal with, or help another entity to deal with, an emergency situation or a disaster in the local government's area.

Hazard/Threat: A source of potential harm, or a situation with a potential to cause loss.

Emergency Animal Disease: An animal disease that does occurs infrequently within Australia that can or does initiate an emergency response to contain/control the disease.

Event: An event means any of the following:

(a) cyclone, earthquake, flood, storm tide, tornado, tsunami, volcanic eruption or other natural happening;
(b) an explosion or fire, a chemical, fuel or oil spill, or gas leak;
(c) an infestation, plague or epidemic; E.G. example of epidemic – a prevalence of foot-and mouth disease.
(d) a failure of, or disruption to, an essential service or infrastructure;
(e) an attack against the State;
(f) another event similar to an event mentioned in paragraph (a) to (e);

An event may be natural or caused by human acts or omissions.

Exotic Animal Disease: Animal disease that is exotic to Australia – that is, it does not occur normally in Australia. Note that most exotic animal diseases are emergency animal diseases, but not necessarily visa versa.

Ipswich City Local Disaster Management Group: A Group appointed in accordance with Sections 29 and 33 of the *Disaster Management Act 2003* and known as, Ipswich City Local Group or the Local Group. The functions of the Group are spelt out in Section 30 of the *Act*.

Lead Agency: The, agency or organisation in control of a specific threat when the plan is implemented - the lead (or primary) response agency.

Local Disaster Management Plan: A plan prepared by the local government in accordance with Sections 57 to 60, inclusive, of the Disaster Management Act, 2003. Known as the Ipswich City Local Disaster Management Plan.

Mitigation: Measures taken in advance of a disaster aimed at decreasing or eliminating its impact on society and the environment.

Risk: The chance of something happening that may have an impact on the safety and wellbeing of your community. It includes risk as an opportunity as well as a threat and is measured in terms of consequences and likelihood.

Serious Disruption: Serious disruption means:

(a) loss of human life, or illness or injury to humans; or
(b) widespread or severe property loss or damage; or
(c) widespread or severe damage to the environment.

Support Agency: The agency or organisations which support the lead agency when the local disaster management plan is implemented.

Terrorist Act: A terrorist act is an act or threat, intended to advance a political, ideological or religious cause by coercing or intimidating an Australian or foreign government or the public, by causing serious harm to people or property, creating a serious risk of health and safety to the public, disrupting trade, critical infrastructure or electronic systems. (Commonwealth Criminal Act 1995).

SECTION 1 INTRODUCTION

01.01 AUTHORITY

The Ipswich City Local Disaster Management Plan is prepared for the City of Ipswich under the provisions of Section 57(1) of the *Disaster Management Act, 2003.*

01.02 AIM

The purpose of the Ipswich City Local Disaster Management Plan is to minimise the effects of and co-ordinate the response by Council, Departments, Agencies and Authorities, to a disaster or major emergency affecting the residents, property and infrastructure within the local government area of the City of Ipswich.

01.03 OBJECTIVES

The key objectives of the Ipswich City Local Disaster Management Plan are to:

(a) detail the disaster management structure for the Ipswich City Local Group;
(b) list the agreed roles and responsibilities, under this plan, of the various agencies that have been designated to have lead agency and/or support agency roles in the plan;
(c) describe the likely effects of identified threats to the community and property in the area;
(d) provide a concept of operations;
(e) provide functional and threat specific plans and standing operating procedures to address specific threats;
(f) incorporate findings of the various risk management studies, including mitigation strategies, into Council's corporate governance documents and operational procedures.

01.04 STATE STRATEGIC POLICY FRAMEWORK FOR DISASTER MANAGEMENT

The Queensland disaster management system is a whole-of-Government system that requires a commitment from all levels of Government to deliver an all hazards, comprehensive framework that responds to the needs of the community.

An "all hazards approach" means one set of disaster management arrangements capable of dealing with all hazards – natural and manmade.

A "comprehensive approach" encompasses the PPRR principles of – prevention, preparedness, response and recovery – and it involves all levels of government and the community.

The primary focus of the whole-of-Government disaster management system in Queensland is to mitigate the effects of disasters, wherever possible or practical, while preparing to respond when disasters occur.

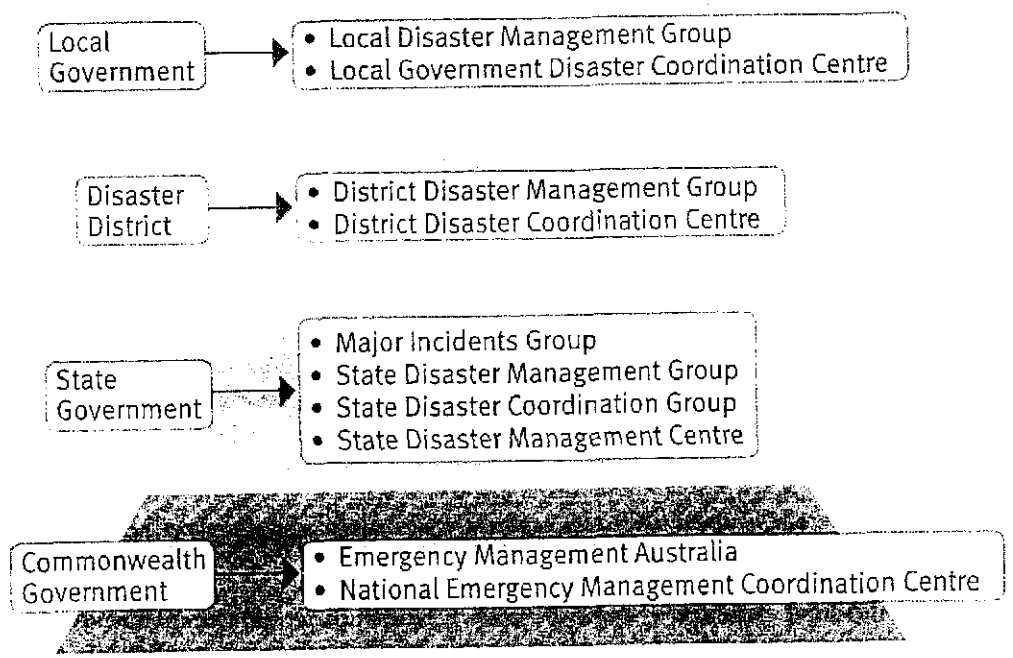
Disaster management arrangements have been developed with a focus on the local community, which is represented by the local government for the area.

For its part local government is responsible for:

- providing public works and services to support its community;
- developing and implementing disaster mitigation strategies; and
- developing and maintaining a disaster management plan that encompasses the PPRR principles.

The Queensland disaster management system is based on disaster management legislation contained in the *Disaster Management Act 2003.* Acts such as the *Fire and Rescue Services Act 1990, Public Safety Preservation Act 1986, Terrorism (Commonwealth Powers) Act 2002*, may have effect in times of disaster and provide additional powers in specific circumstances when dealing with a disaster.

The disaster management system in Queensland can be shown diagrammatically as follows:



01.05 IPSWICH CITY COUNCIL

The contents of this document constitute the Ipswich City Local Disaster Management Plan for the local government area of the City of Ipswich. The format and production of this document was carried out by the Ipswich City Local Group and complies with the requirements of the *Disaster Management, Act 2003.*

The area administered by this plan consists of some 1 207 square kilometers, being the local government area of the City of Ipswich. The area has a wide variety of lifestyles and developments ranging from high density residential areas to rural areas and major commercial and industrial developments. Natural and manmade features transverse the area. Annex (A) contains a map of the area.

The area is subject to the impact of natural hazards particularly floods, severe weather/storms and bushfires. Impact from other natural hazard such as earthquake and landslide are unlikely but possible.

With an ever increasing urban population the community is increasingly exposed to manmade and technological hazards such as transport accidents (road, rail and air), hazardous materials, infrastructure failure, industrial accident, terrorism etc. Dam failure flooding, although unlikely is a potential threat.

The Ipswich City Local Group has produced this plan to co-ordinate and utilise all local resources to combat a range of possible threats to the area.

01.05.01 DISASTER MANAGEMENT POLICY

Council's approach to disaster management is not stated in a policy statement but is enshrined in the Council's Corporate Vision and Mission for the area and reflected in a Core Corporate Outcome Theme of Council, namely, Community Life.

The Ipswich City Local Disaster Management Plan has not been allocated a policy document number but is included in the Council's library of Corporate Documents.

In accordance with Section 29 of the *Disaster Management Act 2003,* Ipswich City Council has established a Local Disaster Management Group, titled, the Ipswich City Local Group.

Ipswich City Council has addressed the functions of a local government, as defined in Section 80(1) of the *Disaster Management Act 2003,* by:

(a) ensuring it has a disaster response capability through the establishment and maintenance of the State Emergency Service, Ipswich Unit;
(b) adoption of the Ipswich City Local Disaster Management Plan; and
(c) provision of arrangements in the Ipswich City Local Disaster Management Plan to promptly provide the Ipswich District Disaster Coordinator with information of the event or disaster.

01.05.02 INTEGRATION WITH COUNCIL'S CORPORATE, STRATEGIC AND OPERATIONAL PLANNING PROCESS

The Ipswich City Local Disaster Management Plan was developed following a number of Risk Management Studies which addressed the impact of a range of threats/hazards on the area. A number of mitigation strategies were developed for subsequent adoption by Council. These mitigation strategies will be progressively addressed in the yearly operational plans of Council.

The Core Corporate Outcome Theme, Community Life, is supported in the yearly operational plan by Core Operations, Specific Projects and an appropriate budget funding. Disaster Planning and Mitigation is one of a number of Core Operations contributing to Community Life in the area.

Disaster planning and mitigation are reflected in the Council's Strategic Plan by appropriate codes, strategy options/actions and preferred scheme strategies.

01.06 LOCAL DISASTER MANAGEMENT GROUP (IPSWICH CITY LOCAL GROUP)

A. The membership of the Ipswich City Local Group, in accordance with Section 33 of the *Disaster Management Act 2003*, is as follows:

(a) Representative – 2 Councilors Ipswich City Council.
(b) Officer-in-Charge - Queensland Police Service (Ipswich).
(c) Chief Operating Officer (Engineering Services) - Ipswich City Council.
(d) Local Controller - State Emergency Service (Ipswich).
(e) Area Director (South East District Office) – Counter Disaster & Rescue Services
(f) Area Director - Queensland Fire and Rescue Service (Ipswich).
(g) Area Manager - Queensland Ambulance Service (Ipswich).
(h) Deputy Director of Clinical Services - Ipswich Hospital.
(i) District Inspector - Queensland Fire and Rescue Service - Rural Fire Division.

Note - Refer Annex (B) for current contact detail of personnel.

B. The Executive Officer shall forward detail of membership of the Ipswich City Local Group to the Executive Officer of the State Group and the Ipswich District Group in accordance with Section 37(a) (b) of the *Disaster Management Act 2003*.

C. The function of the Ipswich City Local Group is defined in Section 30 of the *Disaster Management Act 2003.*, as:

(i) to ensure that disaster management and disaster operations in the area are consistent with the State Group's strategic policy framework for disaster management of the State;
(ii) to develop effective disaster management, and regularly review and assess the disaster management;
(iii) to help the Ipswich City Council to prepare a local disaster management plan;
(iv) to identify, and provide advice to the Ipswich District Disaster Management Group about, support services required by the Ipswich City Local Group to facilitate disaster management and disaster operations in the area;
(v) to ensure the community is aware of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster;
(vi) to manage disaster operations in the area under policies and procedures decided by the State Group;
(vii) to provide reports and make recommendations to the Ipswich District Group about matters relating to disaster operations;
(viii) to identify, and coordinate the use of, resources that may be used for disaster operations in the area;
(ix) to establish and review communications systems in the Ipswich City Local Group, and with the Ipswich District Group and other local groups in the disaster district, for use when a disaster happens;
(x) to ensure information about a disaster in the area is promptly given to the Ipswich District Group;
(xi) to perform other functions given to the Group under the *Disaster Management Act 2003*; and
(xii) to perform a function incidental to a function mentioned in (i) to xii) above.

D. The Chairperson of the Ipswich City Local Group shall be a member of the Group and shall be a Councilor of the Ipswich City Council.

E. The Deputy Chairperson of the Group shall be a member of the Group;

F. The Executive Officer shall be an officer of Ipswich City Council.

G. Membership of the Ipswich City Local Group shall mean and include the person acting in the capacity of any of the members in (A) (a) to (e) above, or the delegate of the member as the case may be.

H. The Ipswich City Local Group may co-opt additional members, or the assistance of individuals or organisations, as the circumstances may require, in accordance with Section 33 (3) of the *Disaster Management Act 2003.*

These additional members may include, for example:

Telstra
Energex
RAAF

These additional members may take part in meetings and provide advice etc. but they do not have voting rights.

I. The Ipswich City Local Group shall appoint a person to represent it on the Ipswich District Group in accordance with Part 2, Division 2, Subdivision 2, Sections 24 (1) (c) (ii) of the *Act* and shall, as soon as practicable after the appointment, inform the Executive Officer of the State Group and the Ipswich District Disaster Coordinator, of the appointment, in accordance with Section (6) of the *Act*.

J. Meetings of the Ipswich City Local Group shall be held quarterly (February, May, August and November) with an annual meeting held in November prior to the summer storm season. Reports of the meetings shall be compiled in accordance with the pro-forma in Annex (P) and forwarded to the Ipswich City Council and the Ipswich District Disaster Coordinator.

K. A number of sub-committees have been established to develop and review aspects of the response to individual hazards/threats;

Membership of the sub-committees is as follows:

Natural and Non-Natural Hazard/Threat Arrangements:

Flood, Storm, Cyclone - *Chief Operating Officer* (Engineering Services) Ipswich City Council - **Chairperson**;	
	Officer-in-charge Ipswich Police District;
	Ipswich Local Controller State Emergency Service.
Fire – Urban	Queensland Fire and Rescue Service– Area Director;
	Officer-in-charge Ipswich Police District;
	Ipswich Local Controller State Emergency Service;
	Queensland Fire and Rescue Service/Rural – Regional Inspector;
	Representative Queensland Ambulance Service.

Transport Accident (Road) - Officer-in-charge Ipswich Police District - **Chairperson**;
Ipswich Local Controller State Emergency Service;
Queensland Fire and Rescue Service – District Commander;
Representative Queensland Ambulance Service.

Hazardous Materials — Queensland Fire and Rescue Service – District Commander - **Chairperson**;
Officer-in-charge Ipswich Police District;
Ipswich Local Controller State Emergency Service;
Representative Queensland Ambulance Service.

Municipal Services Threat
Chief Operating Officer (Engineering Services) Ipswich City Council – **Chairperson**;
Manager Ipswich Water;

Gas Accident — To be determined

Oil Accident — To be determined

Fire – Rural — Rural Fire Operations Delegate (District Inspector) – **Chairperson**;
Deputy Group officers;
Ipswich Local Controller State Emergency Service;
Ipswich City Council;

Functional Arrangements

Community Support — Community Services and Cultural Services Manager Ipswich City Council - **Chairperson**;
;
Ipswich Local Controller State Emergency Service;
Representative Queensland Police Service – Ipswich;
Representative St John's Ambulance;
Representative Salvation Army;
Representative Lifeline;
Representative Red Cross;
Representative Ministers Fraternal.

Communication Coordination - Representative Queensland Police Service;
Representative Q Rail;
Representative Queensland Fire and Rescue Service;
Representative Queensland Ambulance Service;
Representative State Emergency Service –Ipswich;
Representative Ipswich City Council;
Representative Department of Defence;
Representative Telstra;
Representative Queensland Department of Transport;
Representative Queensland Department of Main Roads;
Representative W.I.C.E.N.

Transport Coordination - Representative Ipswich City Council – **Chairperson;**
Representative Q Rail;
Representative Queensland Ambulance Service;

Representative Department of Defence;
Representative Queensland Department of Transport;
Representative Queensland Department of Main Roads;
Representative District Bus Companies;
Representative District Haulage Companies.

Threat Specific Arrangements:

Health – *Infectious Diseases* –
Head of Population Health Unit for District – **Chairperson;**.
Director of Medical Services, Ipswich General Hospital;
Representative - Queensland Ambulance Service;
Ipswich Local Controller - State Emergency Service;
Ipswich City Council representative.

Emergency Animal Disease -
Representative Department of primary Industry & Fisheries – **Chairperson;**
Ipswich Police;
Ipswich city Council representative;
Ipswich Local Controller - State Emergency Service;

Counter Terrorism - Ipswich Police – **Chairperson;**
Ipswich city Council representative;
Ipswich Local Controller - State Emergency Service;

01.07 ROLES AND RESPONSIBILITIES OF MEMBERS OF THE IPSWICH CITY LOCAL GROUP

Members of the Ipswich City Local Group have the following roles and responsibilities:

(a) to support the Chairperson in executing the functions of the Ipswich City Local Group as detailed above;

(b) to represent their agency;

(c) to provide expertise and advice relative to their agency; and

(d) to attend meetings of the Ipswich City Local Group and furnish a report.

(e) to be members of sub-plan working groups, led by the appropriate Lead Agency, to review and update sub-plans at least annually. The Lead Agent is to provide a copy of any updated plan to the Executive officer of the Ipswich City Local Group for inclusion in the Ipswich City Local Plan. If the plan does not require an update then the Lead Agency is to formally report the fact to the Executive Officer.

During activation periods:

(a) to attend meetings of the Ipswich City Local Group;

(b) to assist the chairperson to coordinate the prevention, preparation, response and recovery activities associated with the disaster event; and

(c) to commit the agencies resources, as required, in support of efforts to combat the disaster event.

01.08 ROLES AND RESPONSIBILITIES – NATURAL & NON-NATURAL HAZARDS

To provide for effective disaster management operations, a number of Lead and Support Agencies have been identified.

Detail is contained in Section 7.00 Sub/Operational Plans.

Flood Coordination Centre Arrangements are detailed in Annex Q.

01.09 REVIEW AND TESTING (EXERCISES)

The Ipswich City Local Disaster Management Plan shall be reviewed by the Ipswich City Local Group as outlined in Section P 1.04.02 of this plan.

The review may be undertaken by a working group/groups established by the Ipswich Local Group.

After adoption by Council the Executive Officer Ipswich Local Group shall distribute the amended plan as per Section P 1.04.03.

Section P 1.04.03 (A) and (B) contain tables to record the review of the plan and exercises undertaken.

SECTION 2 DISASTER RISK MANAGEMENT

02.01 COMMUNITY CONTEXT

02.01.01 DESCRIPTION OF AREA

The area covered by this plan consists of the local government area of the City of Ipswich which covers 1 207 km^2. This area is generally bounded by the City of Brisbane to the North and North-East, the City of Logan to the South-East, the Shires of Beaudesert and Boonah to the South, the Shire of Laidley to the West and the Shire of Esk to the West and North-West. The area lies predominantly in the Bremer River catchment which is a sub-catchment of the Brisbane River catchment and consists of a number of undulating floodplains and valleys with hills with elevations up to approximately 300 m. The latter are associated with the southern end of the D'Aguilar Range, the Little Liverpool Range and the foothills of the Dugandan Range. Natural vegetation types in the area are the most diverse in South East Queensland and include *rainforest, dry vine forest, soft-wood forest,* open forest, woodland, heathland, wetlands and grasslands.

A map of the area defined above is shown in Annex (A).

02.01.02 CLIMATE AND WEATHER

The climate is described as moist sub-tropical with a seasonal rainfall pattern, the heaviest rainfall occurring in the summer months and usually associated with cyclones or summer storms. The average rainfall is 876 mm per annum.

The temperatures rarely exceed 35^0 C or go below 10^0 C, with the highest recorded being 44.3^0C and the lowest -4.9^0C.

02.01.03 RESIDENT POPULATION

The residents of the area include all persons within the area of the City of Ipswich shown by the boundaries on the aforementioned map. The total population of this area was 135 000 as at March 2000 and is predicted to increase to between 189 000 and 200 000 persons by 2016. The majority of the population (81%) lives in the urban areas of the City. 8.7% of the population is over age 65 and 3.2% is under the age of 14 years. Residents are drawn from 115 countries of origin and a total of 84 different languages are spoken in the home. The largest non-English speaking background group is the Samoan population. In addition to indigenous Australian Aboriginal groups other ethnic groupings within the area include Laotian, Tongan, Vietnamese, Latin America, Filipino, Malaysian, Dutch and German.

02.01.04 COMMUNITY CAPACITY

The community is well supported by service and sporting clubs as well as a myriad of special interest and hobby groups.
All of these would rally to support the community in time of need.

Despite being a producer and exporter of food (meat, vegetables and dairy products) the area is not self sufficient and relies heavily on outside sources of supply for energy, material requirements and a large percentage of its food. This situation clearly places restraints on the community's resilience.

02.01.05 INDUSTRY

The areas industrial base was once heavily centred on the coal mining industry and the railway workshops. It is now diversified and covers a range of industries including coal, railway workshops, live stock slaughtering, meat processing, hardboard and aluminum manufacturing, power generation, clay-paver production, heavy engineering manufacturing, defence etc. There is a strong service industry supporting the above industries and there is a diverse retail sector spread across the area including major retail shopping centres at Springfield, Goodna, Redbank Plains, Redbank, Booval, Yamanto, Brassall and Karalee.

02.01.06 PUBLIC BUILDINGS, SPACES, AND EVENTS

The area is well serviced by public building including the Council Administration complex, Civic Hall, Art Gallery, Court House, many regional offices of State Government Departments, swimming pools, race course, motor sport precinct, primary, secondary and tertiary colleges, private schools, churches etc.

Ipswich is well known for its cultural and social activities which include the Jacaranda Festival, Ipswich Festival, Ipswich Cup, Winter-national Drag races, V8 Super Car races, air display. Ipswich Show, Ivory Rock Conference Centre, etc.

02.01.07 CRITICAL INFRASTRUCTURE

Critical infrastructure is that which is required during the response and recovery stages of an event.

They include hospitals, police, emergency services - fire, ambulance, state emergency service, schools and community facilities (used as temporary shelter), Ipswich City Council Administration, government services and storage /distribution facilities for food distribution.

Because of its location Ipswich is reliant on road and rail access to outside areas such as Brisbane in the event that resources are required to be brought into the area. The Ipswich Motorway provides the link to Brisbane, the Warrego Highway to Toowoomba and the Cunningham Highway to Warrick.

The western railway line links Ipswich to Brisbane and to Toowoomba and points west.

The AGSO Cities Study of 2001 identified the following critical infrastructure vulnerable to flooding:

FACILITY	FLOOD IMPACT (LOCATION)
Power Supply – Sub-stations/transformers	1 at 5% to 1% AEP (Yamanto) Several at PMF (Yamanto, 4 Swanbank, Amberley, Ipswich, North Ipswich, Kholo)
Telephone Exchange	1 at 1% AEP (Ipswich) 3 at PMF (Ipswich, Booval, Brassall)
Oil/Fuel Depot	2 at 1% AEP (Bundamba, Wulkuraka) 3 at PMF (Bundamba, Wulkuraka West Ipswich)
Fire Station Ambulance Station Police Station	PMF only (Redbank, Ipswich) PMF only (Goodna)

The AGSO Cities Study 2001 identified 113 sections of road being subject to flooding in a 20 year ARI event: including the following sections of critical road:

Ipswich Motorway at Goodna, Woogaroo and Six Mile Creeks,
Brisbane Road Bundamba;
Warrick Road at Deebing Creek;
Warrego Highway at Bremer River, Sandy Creek (North) and Iron Pot Creek crossings;
Cunningham Highway at Warrill Purga, Deebing and Bundamba Creek crossings.

02.01.08 ESSENTIAL SERVICES

Water supply, sewerage and sewerage treatment, power and communications are services required by the community and their restoration after an event is essential to the recovery of the community. Maintenance of power and communications during an event is essential to all responding agencies in order that they can adequately perform their functions.

Potable water is obtained from the Brisbane City Council treatment facility at Mount Crosby via four trunk mains and is distributed to 26 service reservoirs and towers owned and operated by Ipswich City Council. A network of trunk and distribution, mains together with pump stations, owned and operated by Ipswich City Council, reticulate the water to properties within the area. Ipswich City Council operates a small water treatment plant on Warrill Creek which serves some of the southern suburbs.

The majority of the residential areas of the City are serviced by the sewerage reticulation network. The network consists of asbestos cement (AC), poly-vinyl-chloride (PVC) and vitreous clay (VC) pipe and 62 pump stations. Sewerage is treated by Council at 4 treatment plants located at Bundamba, Carole Park, Goodna and Rosewood.

Bulk power is sourced from the Queensland electricity grid operated by Powerlink which is fed to the Blackwall Switching Station via a series of high voltage transmission lines. Energex operates the reticulation network consisting of 15 sub-stations and approximately 200 km of high and low voltage reticulation lines the bulk of which is located above ground. New housing estates may have its electricity reticulation network underground.

02.01.09 HAZARDOUS SITES

The industrial base serving the area includes many establishments that may be considered to contain hazardous material and/or processes. These include- Australian Meat Holdings, Bradkin Engineering, CSIRO Division of Tropical Animal Science, RAAF Base Amberley, Bremer Industrial Park, Swanbank Enterprise Park, Redbank/Carol Park/Wulkuraka industrial estates, Swanbank Paper, Pacific Petroleum etc. Major shopping centres and other food storage facilities around the City can also be considered hazardous due to the large amounts of ammonia used for refrigeration.

The area is traversed by the Moonie Oil and Roma Gas lines that operate under very high pressure. Several regulation/monitoring stations are located on these lines within the area.

02.02 THE THREATS

02.02.01 CYCLONE AND EAST COAST LOW

Cyclone damage is always a possibility although remote. Severe flooding should always be expected in the event of a cyclone dumping a large quantity of water in the catchment areas. There is also the potential for damage to structures due to the severe winds generated by the systems. The Queensland cyclone season is usually from November to March and the long term average occurrence is 1.2 events within 500 km of Brisbane each year. The most significant cyclone to hit the region was cyclone *Wanda* in January 1974 which resulted in near record floods in the Brisbane and Bremer River systems.

East coast lows are the winter equivalent of the summer cyclone and occur along the east coast of Australia between 25^0S and 40^0S during the winter months of May to August. These systems develop rapidly and are capable of providing damaging storm force winds over a wide area and contribute to significant flooding of the river systems. The long term average annual occurrence of these systems is 2.5 storms per year.

02.02.02 STORM

Storms can occur at any time, although they mainly occur between the months of October and April with approximately 30% in any one year occurring in each of the months of November and December. An average of 20 severe storms occurs each year in the area and generally features a south west approach to Ipswich. The risk of severe damage (wind damage and flooding) is mainly confined to the built up areas, although severe damage to crops and rural infrastructure could occur in the rural areas. Storms are typically short lived (up to an hour), are limited in size (about 10 km in diameter) but can travel large distances in a short period of time. Storms can be accompanied by thunder, lightning, hail, severe winds and heavy rain.

CATEGORY	STRONGEST GUST KM/H	TYPICAL EFFECTS
1	Less than 125	Negligible house damage. Damage to some crops, trees and caravans. Craft may drag moorings.
2	125 - 170	Minor house damage. Significant damage to signs, trees and caravans. Heavy damage to some crops. Risk of power failure. Small craft may break moorings.
3	170 - 225	Some roof and structural damage. Some caravans destroyed. Power failure likely.
4	225 - 280	Significant roofing loss and structural damage. Many caravans destroyed and blown away. Dangerous airborne debris and widespread power failure.

CATEGORY	STRONGEST GUST KM/H	TYPICAL EFFECTS
5	More than 280	Extremely dangerous with widespread destruction.

02.02.03 FLOOD

With the existence of two major watercourses, the Bremer and Brisbane Rivers, through the area there is a significant potential for devastation by flooding. Western, Warrill, Purga, Franklin Vale and Bundamba Creeks are the major tributaries of the Bremer River and they together with the Bremer River can result in flash flooding of residential areas. The Warrill Creek accounts for approximately 66% of the total Bremer River catchment. The Bremer River which drains an area of 2 056 sq.km, joins the Brisbane River at Riverview. Black Snake, Six Mile, Goodna and Woogaroo Creeks are the main tributaries of the Brisbane River within Council's area. Flash flooding in the Goodna area can occur from Woogaroo Creek. Significant flooding in the Brisbane River can result in backwater flooding of the Bremer River, Bundamba, Six Mile, Goodna and Woogaroo Creeks. The main areas in which flood operations will be required are the residential, commercial and industrial areas adjacent to the creeks and rivers, although flooding of irrigation pumps and the isolation of livestock and residences could occur in the rural areas.

Significant floods have occurred in the Bremer River at Ipswich on 31 occasions, exceeding the town gauge reading of 7.00 (Minor Flood), 25 events exceeding the town gauge reading of 9.00 m (Moderate Flood) and 20 events exceeding the town gauge reading of 11.70 m (major Flood). The largest flood in Ipswich occurred in February 1893 (town gauge reading of 24.5 m) closely followed by the January 1974 flood with a gauge reading of 20.7 m. Note the David Trumpy Bridge deck level is 24.90 m.

The NDRMS reports identified that approximately:

- 2 300 persons were at risk in a 20 year ARI flood event;
- 5 800 persons were at risk in a 50 year ARI flood event;
- 9 300 persons were at risk in a 100 year ARI flood event; and
- 54 000 persons were at risk in a PMF flood event.

Flooding as a result of the failure of Wivenhoe and Moogerah Dams could occur within the area. Emergency Action Plans (EAP) exist for both dams, detailing various failure modes and the resulting impact on downstream areas. Provision is made in the EAPs to advise the Local Disaster Managements Groups of impending failure situations and the likely impacts.

Annex (Q) contains copies of the EAPs for Moogerah and Wivenhoe Dams and for the Marburg and Rosewood Detention Basins.

A map indicating the watercourses and the location of rainfall and flood gauges is shown at Annex (G) and (H).

Flood risk maps for various ARI events are shown in Annex (D) (E) and (F).

02.02.04 FIRE

Fire is always a potential for disaster whether it be in the urban or rural area. The densely developed areas including industrial, commercial and residential areas are the most prone areas, although the rural and bushland areas are also possible threat areas.

The bushfire season extends from mid to late winter through to early summer. Seasonal conditions can exacerbate the bushfire situation especially if a relative wet summer/autumn period which produces good vegetation growth is followed by a cold dry winter and warm spring. This can result in abundant quantities of fully cured vegetation – fire fuels - especially if the cycle occurs over several years. Natural bushland in the following areas are prone to bushfire - Camira, Carole Park, Pine Mountain, Kholo, Marburg Range, Ripley Valley, Walloon and Springfield. Grassland fires are possible in most rural areas depending on seasonal conditions.

Land management practices in rural areas in the form of hazard reduction burns and fire breaks usually ensures that fuels do not accumulate to significant levels. The same cannot be said for large scale rural residential subdivisions where the desire is to retain the land in its natural state.

The effects of fire are building damage in residential areas and live stock and rural infrastructure in rural areas.

A risk map prepared by the Queensland Fire and Rescue Service – Rural Fire Division is shown in Annex (I).

02.02.05 TRANSPORT ACCIDENT

(a) **Air Accident.** An aircraft accident is a possibility with flight paths of aircraft from the Amberley Air Base Brisbane International Airport and Archerfield Airport frequently passing over the City. The accident could be caused by either defence or civilian aircraft. The effect of a large aircraft impacting within the area might extend all emergency services beyond their capacity.

(b) **Road Accident.** Road accidents of a size or complexity to involve the Counter-Disaster Committee would probably involve large transport vehicles. The possibility exists due to the large volume of industrial traffic in the City and the existence of two major highways (Cunningham and Warrego) that transverse the area. This type of accident could affect the local population and/or property. Accidents are common on the Ipswich Motorway (Cunningham Highway) around the Goodna and Redbank areas which cause major traffic delays.

(c) **Rail Accident.** A rail accident is a possibility in the area or areas fringing the main railway line. A serious rail accident could overtax emergency services in the area. The railway line that passes through the Council area serves the South West of Queensland and is electrified from Brisbane to Rosewood.

(d) **Water Accident.** Although unlikely, a major accident could occur on the Bremer or Brisbane Rivers or on a lake or dam within the area.

02.02.06 EMERGENCY ANIMAL AND PLANT DISEASES

There is a possibility of the introduction and spread of emergency diseases through movement of live stock and crops through the area. These diseases could include Foot and Mouth, Anthrax, Brucellosis, Rabies, Newcastle disease, Screw worm fly, African swine fever, Avian influenza (strain H5N1) etc., which could cause a major health risk in the area if an outbreak occurred. The primary concern is with the Zoonotic Risk, that is, diseases that are transmissible to people from animals together with the economic risks to the community.

02.02.07 EPIDEMICS

The outbreak of any infectious disease throughout the City could cause the normal response system within the area to be taxed and may involve isolation and quarantine of numbers of people for a protracted period.

Increasing population density in the Ipswich Local Authority area will increase the risk of disease outbreak, Epidemics of disease or illness result in -

(1) Cost to the individual in terms of value placed on good health.
(2) Direct costs to treatment agencies within the community.
(3) Indirect costs to society in terms of care given by family members and carers.
(4) Loss of productivity in the community through lost days of work.
(5) A need to quarantine or temporary relocate persons or animals, either for their treatment or safety.
(6) Temporary or permanent loss of facilities acting as disease vectors.
(7) Increased load on waste disposal, hazardous material and decontamination services including the storage and interment of the deceased.

Epidemics of communicable diseases are of low probability. However, the following hierarchy indicates broad probabilities:

- Communicable diseases commonly found in the general population eg meningitis, food-borne illness, influenza, and water-borne diseases.
- Setting - specific disease outbreaks eg prisons, childcare centres, schools, event-specific.
- Outbreaks in marginalised groups e.g. IV drug users, vaccination refusers.
- Emerging infectious diseases eg zoonoses, morbilli virus, lyssa virus, haemorrhagic fevers.
- Biological assault eg biological weapons, terrorist threat.

02.02.08 HAZARDOUS MATERIALS ACCIDENT

There is a potential for emergencies and disaster through the storage, transport, use and discharge of toxic and flammable substances and gases. The effects of this type of disaster could include severe chemical and/or thermal burns to large numbers of people requiring extensive medical treatment and/or the evacuation of people from within the disaster area, contaminated areas or damaged buildings.

02.02.09 OIL/GAS ACCIDENT

The area is crossed by the Moonie Oil Pipeline, and high pressure Gas Mains, all of which could cause a disaster should they be broken or fail.

Both low and high pressure gas reticulation lines run throughout the older areas of the City. A potential danger from leaking gas exists.

02.02.10 MUNICIPAL SERVICES THREAT

Municipal services include:

Water supply – Treated water is received via 4 major gravity trunk mains from the Mt. Crosby Water Treatment Facility owned and operated by the Brisbane City Council. The water is reticulated throughout the City and surrounding townships via a complex system of reservoirs, trunk supply and trunk reticulation main. A small treatment plant located on Warrill Creek and operated by Ipswich City Council can supply water to the southern suburbs of the City.

The loss of reticulated water supply could be disastrous. Minor accidents could occur due to exposure of persons to the fracture of a large high pressure water main in a built up area.

Major incidents could result in overtaxing the emergency response resources of the City, particularly if they occur in conjunction with other events such as fire or earthquake.

Sewerage - Four (4) major waste water treatment plants located at Bundamba, Rosewood, Goodna and Carol Park treat the domestic and industrial effluent from the City and some surrounding townships. Treated effluent is discharged into the Bremer and Brisbane Rivers. Minor accidents could occur due to exposure of persons to poisonous sewer gases

Roadways, Bridges, Stormwater – Approximately 1 632 km of roadways and numerous bridges and major culverts service the area.

Disruption of roadways and bridges due to earthquakes or flooding would create traffic congestion and may affect the ability of emergency service agencies to respond to an emergency. Disruption would also occur to the traveling public, bus and rail networks and commercial transports.

Refuse disposal – Domestic and industrial refuse is disposed of by land-fill at the Barclay Street tip site in, New Chum.

A recycling station is located at the Riverview Refuse transfer Station.

A pathological waste disposal system and incineration is operated by Council.

02.02.11 EARTHQUAKE

Unlikely but possible in this area. The effects of this type of disaster could include building damage and severe chemical and/or thermal burns to large numbers of people requiring extensive medical treatment and/or the evacuation of people from within the disaster area, contaminated areas or damaged buildings. An event of magnitude 4.3 ML^3 was recorded in Ipswich on 26 February 1918 (no detail of damage) and there have been a number of events recorded in the surrounding districts over the years (4.8 ML^3 on 1/5/1913, 70 km NW of Brisbane; 4.4 ML^3 on 17/11/1960 at Mt Glorious; 4.0 ML^3 on 14/8/1988 at Gatton).

"Felt Maps" for past earthquake events felt in the area are shown in Annex (K).

02.02.12 LANDSLIDE

Unlikely but possible in developed and rural hilly areas of the City. The effects of this type of disaster include damage to buildings and infrastructure.

Landslide damage is most likely to be confined to those areas of the City containing the Marburg formation and Walloon Coal Measures.

Landslides have been observed along the banks of the Bremer and Brisbane Rivers after floods.

A landslide risk map is shown at Annex (J).

02.03 DISASTER MANAGEMENT

02.03.01 STUDIES

A number of studies have been undertaken of the Ipswich City Council area to determine the impact of natural hazards on the population, environment and infrastructure of the area.

The following studies are of relevance:

South East Queensland Cities Project, AGSO 2001;
Ipswich City Council Cities Project, AGSO 2001;
NDRMS Stages 1, 2 and 3, Fisher Stewart, August 2002;
NDRMS, Flood Risk Study, QRMC/KBR, September 2004;

Relevant information from these studies has been incorporated into the following Council corporate governance documentation:

Ipswich City Council Corporate Plan, 2002 - 2007;
Ipswich City Council Operational Plan;
Ipswich City Council Strategic Plan;
Ipswich City Local Disaster Management Plan.

02.03.02 IPSWICH CITY COUNCIL CORPORATE PLAN 2002-2007 AND OPERATIONAL PLAN 2005-2006

The Corporate Plan enunciates a vision and mission for the City which embraces the concept of the "well being and safety of the community".

The Operational Plan provides for a program titled "Counter Disaster" which has the objective of "To minimize the effects of disasters or major emergencies in Ipswich".

02.03.03 RISK REGISTER

The risk studies listed in 05.08 above were carried out in accordance with AS/NZS 4360: *Risk Management*, 1999 and the Department of Emergency Services publications, *Disaster Risk Management*, Zamecka and Buchannan and various Guidelines.

Risks associated with the identified natural hazards were catagorised into two categories, namely acceptable and unacceptable and a level of risk was allocated to each element (people, buildings, environment, business, lifelines and critical facilities) associated with each hazard.

Acceptable risks were identified as those associated with earthquake and landslide.

Unacceptable risks were identified as those associated with flooding, severe wind and bushfire.

The following table summarises the broad risks:

NATURAL HAZARD	LIKELIHOOD (IN AVERAGE LIFETIME)	CONSEQUENCES	LEVEL OF RISK				
			PEOPLE	BUILDINGS	BUSINESS	LIFELINES	CRITICAL FACILITIES
FLOOD ARI 20	ALMOST CERTAIN	MODERATE	HIGH	HIGH	HIGH	MODERATE	MODERATE
FLOOD ARI 100	POSSIBLE	MAJOR	HIGH	HIGH	HIGH	HIGH	HIGH
FLOOD PMF	RARE	CATASTROPHIC	LOW	LOW	LOW	LOW	LOW
SEVERE STORM inc. CYCLONE	POSSIBLE	MINOR	MODERATE	MODERATE	MODERATE	MODERATE	LOW
BUSHFIRE	POSSIBLE	MODERATE	HIGH	HIGH	HIGH	MODERATE	MODERATE
EARTHQUAKE	POSSIBLE	MAJOR	HIGH	HIGH	HIGH	MODERATE	MODERATE
LANDSLIDE	LIKELY	INSIGNIFICANT	LOW	LOW	LOW	LOW	LOW

02.03.04 RISK TREATMENT REGISTER

The risk studies identified mitigation strategies for each natural hazard. A complete schedule of the strategies are shown in Annex (R) .

02.04 REVIEW OF RISK MANAGEMENT RECORD AND RISK TREATMENT STRATEGIES

The suggested risk treatment strategies contained in the Natural Disaster Risk Management Study, are detailed in Annex (R).

The strategies in Annex (R) need to be reviewed at least annually and updated as a result of the occurrence of natural hazard events or significant changes in land tenure within the Shire, by the Executive Officer, Ipswich City Local group.

02.05 RISK MANAGEMENT AND TOWN PLANNING DEVELOPMENT

In approving development applications, the Council should ensure that the development is not adversely impacted upon by natural hazards and does not subject the future occupants, critical infrastructure or essential services to unacceptable levels of risk.

NOTE: Risk treatment strategies are a recognised form of preparation and prevention against the adverse impacts of natural hazards.

SECTION 3 PREVENTION

03.01 INTRODUCTION

1. Prevention refers to the regulatory and physical measures taken to ensure that emergencies are prevented or their effects mitigated. (Australian Emergency Management Glossary, Manual 3).

2. Prevention measures can be both structural and non-structural and include:

   Engineering works, planning controls and land use planning, warning systems and regulations;

3. *State Planning Policy 1/03, Mitigating The Adverse Impact of Flood, Bushfire and Landslide*, sets out the State's interest in ensuring that the natural hazards of flood, bushfire and landslide are adequately considered when making decisions about development.

4. Ipswich City Council in recent years has undertaken several risk assessment studies as outlined in this plan in Section 2 – Disaster Risk Management. The implementation of the mitigation strategies outlined in those studies is considered a prevention measure and will assist in mitigating the impact of the hazard. Details of the recommended mitigation strategies are contained in Annex (R)

03.02 BUILDING CODES, BUILDING REGULATIONS AND BEST PRACTICE

The diligent application of building codes and regulations and the attending Australian Standards goes a long way towards mitigating the impact of natural disasters. It must be appreciated that there will always be extreme events which will result in impacts greater than that designed into structures by adherence to the codes.

Codes, Regulations and Standards that are applicable in the disaster management context of building construction and land development include:

Building Code of Australia 1990;
Building Act and Regulations;
Standard Building By Laws;
Australian Standard AS 3959, Construction in Bushfire-Prone Areas;
Australian Standard DR 8971, Building in Bushfire-Prone Areas;
Australian Standard AS 1170.4 1993, Minimum Design Loads on Structures Pt 4 Earthquake Loads;
Australian Standard AS/NZS 1170.2.2002, Structural Design Actions Pt 2 Wind Actions;
Australian Standard AS 1170.2 – 1989, SAA Loading Code Pt 2 Wind Loads;
Australian Standard AS 4055, Wind Loads for Housing;
Codes developed under Council Town Planning Scheme;
Best Practice Principles and Guidelines – Floodplain Management in Australia, SCARM Report No. 73.

03.03 LEGISLATION

The following pieces of legislation may have relevance:

Ambulance Services Act 1991;
Commonwealth Quarantine Act 1908 and Regulations;
Dangerous Goods Safety Management Act 2001;
Disaster Management Act 2003;
Exotic Diseases in Animals Act 1981;
Fire and Rescue Act 1990;
Gas Pipelines Access (Queensland) Act 1998;
Integrated Planning Act 1997;
Liquid Fuel Supply Act 1984;
Local Government Act 1993;
Local Government Finance Standard;
Petroleum Act 1923;
Public Safety Preservation Act 1986;
Terrorism (Commonwealth Powers) Act 2002;
The Terrorism (Commonwealth Powers) Act 2002;
The Terrorism (Community Safety) Act 2004;
State Planning Policy 1/03 – Mitigating the Adverse Impacts of Flood, Bushfire and Landslide.
Stock Act 1915, Apiaries Act 1982, Fisheries Act 1994 and subordinate legislation.

03.03 PUBLIC EDUCATION

03.03.01 GENERAL

Public Education and Public Information are two (2) separate functions within the context of the Ipswich City Local Disaster Management Plan.

03.03.02 PUBLIC EDUCATION

Public education is addressed through the awareness programs conducted by the State Emergency Service, the Media, Local Authorities and several statutory services, through the State Group.
At the commencement of the storm/cyclone season, the Bureau of Meteorology in conjunction with local governments and the Department of Emergency Services undertake a series of public forums and displays covering cyclones, severe weather and flooding.

The Rural Fire Division of the Queensland Fire and Rescue Service, at the beginning of the bushfire season, undertakes public awareness campaigns to alert the community to the potential dangers for the forthcoming season.

A range of brochures are available, from the Department of Emergency Services, for distribution to the public addressing preparedness against the impact of all of the natural hazards and some technological hazards

03.03.03 PUBLIC INFORMATION

Public information is that information which is passed on to the public prior to, during, and after a disaster, such as warnings and directions. Information of a general nature, not associated with an event which has activated this plan, may be issued by the Lead Agencies, Police, Queensland Fire and Rescue Service and statutory bodies such as the Bureau of Meteorology.

Issues that may be addressed include:

- fire safety both urban and rural, establish fire breaks, fire fighting water supplies;
- flood safety – do not drive into flood roadways, do not wade of play in flood waters, use of building materials in flood-prone areas;
- storm safety – remove loose rubbish from yards, secure outdoor furniture, avoid unnecessary use of phones during thunderstorms, do not shelter under trees in a thunderstorm etc;

All facets of the media are used to disseminate the information including, radio, TV and the printed media.

03.04 INSURANCE INCENTIVES/DISINCENTIVES

The Council of Australian Government (COAG) in its report on Disaster Management in Australia drew attention to the need for insurance to be more readily made available to the community as a means of assisting it to recovery from the impact of an event. Currently flood insurance is generally not available or if so then at exorbitant premiums.

COAG has the expectation that local governments will make available to the insurance industry and the public, information on flooding in its area and that the insurance industry in turn will provide insurance cover at reasonable premiums.
The outcome of this expectation would be a lowering of hardship claims by the community.

Exorbitant premiums and the availability of hardship funding under the NDRA arrangements act as a disincentive for the community to take some ownership of the situation and take out insurance.

03.05 LAND-USE MANAGEMENT INITIATIVES

Land-use management initiatives have been introduced and implemented by Council in an effort to minimize the impact of disasters. These initiatives include:

- construction and maintenance of drainage/flood retention basins to reduce the impact of flooding;

- town planning - land-use planning initiatives, in the form of development constraint overlays for drainage, slope and bushfire, included in the Ipswich Planning Scheme. These provide guidance in the form of performance criteria and acceptable solutions for land development.

- application of the State Planning Policy 1/03, *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide.*

SECTION 4 PREPAREDNESS

04.01 Introduction

Preparedness is having arrangements to ensure that, should an emergency occur, all those resources and services which are needed to cope with the effects can be efficiently mobilised and deployed. (Australian Emergency Management Glossary, Manual 3).

Preparedness is also about measures that seek to reduce harm caused by a hazard by reducing the community vulnerability and includes measures such as:

- community awareness programs;
- effective information management - collection of historical data of events;
- an up to-date local disaster management plan;
- regular maintenance programs.

The Ipswich City Local Group will encourage an all agency, all hazard ethos within the Group with all members of the Group being encouraged to take the approach, by providing advice and guidance to the Group on specific hazards.

The Ipswich City Local Group will identify and review resources annually to maximise response capability. Additionally the Ipswich City Local Group will establish and maintain relationships with Lead and Support Agencies, local community groups, local volunteer service groups, the Ipswich District Disaster Group and the State Emergency Service, (Ipswich City Unit) to build an ethos of ownership and partnership with the members of the Groups to increase its overall disaster management capability.

The Ipswich City Local Group will establish and maintain emergency evacuation centres and develop operational guidelines for their establishment and operation.

The Ipswich City Local Group will establish an emergency communications capability and document procedures for its use in an operational plan.

04.01.01 IPSWICH CITY COORDINATION CENTRE

The Ipswich City Coordination Centre is located in the "Presentation Room" on level 3 of the Ipswich Global Information Centre, South Street, Ipswich.

The Executive Officer Ipswich City Local Group will be responsible for:

(a) the activation of the Ipswich City Coordination Centre;
(b) operation of the Ipswich City Coordination Centre;
(c) staffing at the required levels;
(d) training of staff; and
(e) if warranted, provision of a field mobile Coordination Centre.

Each Lead and Support agency will establish its own Coordination Centre and operate the centres in accordance with the Agency's standard operating procedures to control its own resources. Relevant contact numbers of organisations are shown in Annex (B) A liaison officer from each Support Agency will be stationed at the Ipswich City Coordination Centre if required.

Refer to Annex (M) for a set of Standard Operating Procedures (SOP) for the Ipswich City Coordination Centre.

All requests for assistance beyond the resources of the Lead Agency or Support Agency must be referred to the Ipswich City Local Group for action. If the Ipswich City Local Group cannot meet the request from within resources at its command then it will refer the request to the Ipswich District Disaster Coordinator. All requests must be passed to the relevant Coordination Centre Supervisors to avoid duplication or misunderstandings.

04.01.02 OTHER COORDINATION CENTRE LOCATIONS

Some Lead Agencies operate their own coordination centres or have nominated alternative centre locations.

Ipswich City Coordination Centre (*Alternative*)– **TO BE DETERMINED**;

Heath – Infectious Diseases – Ipswich Health Plaza and Public Health unit 33 Smiths Rd, Goodna;

Queensland Fire and Rescue Service – Rural Operations – Fire incident command centre at the Marburg Rural Fire Station;

Queensland Fire and Rescue Service – Urban Operations – AFCOM in Brisbane or FIRECOM in Southport;

Ipswich SES Unit – Thorn Street Depot Ipswich;

Lead Agencies may also establish Field Coordination Centres at the site of a disaster event, e.g. transport accident, exotic animal disease disasters, and oil and gas disasters. The Lead Agency responsible for the disaster response will assess the need for a field coordination centre and advise the Chairperson or delegate of the Ipswich City Local Group of their action. Provision of field coordination centre facilities will be the responsibility of the relevant Lead or Support Agency.

04.01.03 STAFFING

Ipswich City Council will supply staff as required to fulfill functions such as, Administration Officer, Plotting Officers, Telephone Operators, Media liaison Officers, Communications Officers and any other staff members as required by the Chairperson or delegate of the Ipswich City Local Group.

The following are some of the training courses available to staff and disaster management personnel:

Disaster Management Arrangements;
Disaster Coordination Centre Module 1;
Introduction to Evacuation Management;
Introduction to Disaster Risk Management;
Emergency Management Australia Courses.

Training of staff including those manning the Ipswich City Coordination Centre shall be the responsibility of the Executive Officer Ipswich City Local Group. A record of training undertaken is shown in Annex (L).

04.01.03 RESOURCES

The following resources are available for the Ipswich City Coordination Centre as required:

MAPS AND CHARTS	Local District Satellite Detail Plans Aerial Photographs
WHITEBOARDS	
TELEVISION SET AND VIDEO	
OVERHEAD PROJECTOR AND SCREEN	
OFFICE EQUIPMENT	
TWO WAY RADIO	Council Base Station
RADIOS	Transistor type with spare batteries
COMPUTERS	Word processing and database capability
MOBILE PHONE	Recharging unit/spare batteries
POWER SUPPLY	Emergency supply Auxiliary for air conditioning
FIRST AID KIT	
KITCHEN FACILITIES	
PROTECTIVE CLOTHING	Hard hats/overalls/jackets/raincoats as required

04.01.04 WELFARE OF COORDINATION CENTRE STAFF

Provision has been made in the SOP for short term welfare of Ipswich City Coordination Centre staff in the Ipswich City Coordination Centre SOP.

04.01.05 EXPENDITURE APPROVALS

In most instances, activation of the Ipswich City Local Disaster Management Plan will involve expenditure of funds to cover costs in providing the necessary resources.

The Executive Officer must approve all expenditure. All expenses should be referred to the Executive Officer for submission to the Chairperson, Ipswich City Local Group

04.01.06 REFERENCE DOCUMENTS AVAILABLE AT IPSWICH CITY COORDINATION CENTRE

Ipswich City Local Disaster Management Plan
Ipswich District Disaster Management Plan
Ipswich City Council After Hours Emergency Service Information Manual

- Staff contact numbers
- Other authority contact numbers
- Two way radio contacts
- Operational procedures

Ipswich City Council Flood Procedure Manual
State Counter Disaster Plan
Emergency Action Plan – Moogerah Dam
Emergency Action Plan – Rosewood Detention Basin
Emergency Action Plan – Wivenhoe & Somerset Dam
Manual of Operational Procedures for Flood Mitigation for Wivenhoe and Somerset Dam
QVet Plan
Natural Disaster Relief Arrangements in Queensland
Standard Operating Procedures (SOPs)
Situation Report (SITREP) Pro-Formats

04.02 WARNING SYSTEMS AND PUBLIC EDUCATION

04.02.01 WARNINGS - RECEIPT

Warnings of a natural disaster (e.g. cyclones, floods etc.) will be issued in the first instance by the Bureau of Meteorology to the Officer in Charge, Queensland Police Service Ipswich, Chairperson, Ipswich City Local Group as well as media agencies.

The Officer in Charge, Queensland Police Service Ipswich will ensure the information is forwarded to the Chairperson or delegate, Ipswich City Local Group.

Immediate and Short term warning advice relating to very high or extreme bush fire danger is issued by the Bureau of Meteorology to Rural Fire Operations who in turn advises the Chairperson, Ipswich City Local Group.

A serious threat of bush fire that poses an immediate threat to the Council area will be advised by the District Inspector, QFRS to the Chairperson, Ipswich City Local Group who in liaison with the District Inspector, QFRS will advise the public of the threat.

In the event of a disaster for which a warning would not be issued by the Bureau of Meteorology, the designated Agency is to advise the Chairperson or delegate of the Ipswich City Local Group.

04.02.02 WARNINGS - DISTRIBUTION

Upon implementation of this plan all public warnings will be distributed through the Ipswich City Coordination Centre upon recommendation of the Lead Agency and on the authorisation of the Chairperson, or delegate of the Ipswich City Local Group.

04.02.03 GENERAL

In the context of preparedness Public Education and Public Information are two (2) separate functions within the context of the Ipswich City Local Disaster Management Plan.

04.02.04 PUBLIC EDUCATION

The public need to be:

(a) able to recognise the various warning signals that may be issued by disaster managers and be educated and understand how to react to the signal.
(b) educated on hazard awareness, family/property protection planning and emergency self-help.

"SEWS" Signal (Standard Emergency Warning System) is used in all emergencies, not just cyclones.

The 'Amber Alert" signal is used for abducted children.

The Ipswich City Local Group should:
(a) ensure that the local radio stations have copies of the signals and understand who authorizes their use and when they are to be used;
(b) develop, deliver and distribute appropriate educational material relating to warning signals, hazard awareness, family/property protection planning and emergency self-help.

04.02.05 PUBLIC INFORMATION

Public Information is that information which is passed on to the public prior to, during, and after a disaster, such as warnings and directions. The Media has the responsibility for the dissemination of disaster management information to the public as directed by the chairperson, or delegate of the Ipswich City Local Group.

The following information should be made available to the public:

- source of information;
- nature of the threat;
- timing of expected impact;
- area likely to be affected;
- persons likely to be affected;
- how to prepare for the likely impact;
- safety precautions to take;
- how and where to get assistance for – personal, livestock, animals;
- contact phone numbers;
- time of next information release.

04.03 RESPONSE CAPABILITY

The Ipswich City Local Group's response capability is achieved by the activation of the Ipswich City Local Disaster Management Plan and through the resources that can be placed at its disposal either via the various Lead and Support Agencies, the staff and resources of the departments of the Ipswich City Council and through the State Emergency Service, Ipswich City Unit which has been established and maintained by the Council. In the event that the resources available to the Ipswich City Local Group are insufficient to deal with the threat then the Ipswich City Local Disaster Management Plan provides a mechanism for the resources to be sought from the Ipswich District Group and through that Group from the State Group, if necessary.

The broad response and resource capability in terms of human, equipment, medical and financial resources of the Ipswich City Local Group, Lead Agencies and Support Agencies together with an indication of the potential shortfall in resource capability is outlined in Annex (C).

Lead and Support Agencies are to develop and maintain document list of their response capability, including any potential shortfall and for forward a copy to the Ipswich City Local Group.

The Ipswich City Local Group shall maintain a consolidated listing of the response capabilities and shortfalls and forward copies to the Ipswich District Disaster Coordinator.

The response capability of the Ipswich City Local Group can also be assessed through exercises such as:

Discussions – Agency sponsored, hypothetical and table top;
Functional exercises;
Field exercises.

SECTION 5 RESPONSE

05.01 ACTIVATION IPSWICH CITY LOCAL DISASTER MANAGEMENT GROUP

05.01.01 AUTHORITY

A. The authority to activate the organisation is vested in the Chairperson, or delegate of the Ipswich City Local Group.

B. The Chairperson or delegate can implement the Ipswich City Local Disaster Management Plan on receipt of:

(a) a warning of an impending threat which in the opinion of the Chairperson or delegate, would require a co-ordinated community response; or

(b) a request from a Lead Agency for assistance under the Ipswich City Local Disaster Management Plan, based on intelligence gathered by the lead Agency or based on the threat having reached a predetermined trigger point.

C. The above procedures for activating the Ipswich City Local Group are to be followed for major events.

D. For threats/hazards/incidents which do not require activation of the Ipswich City Local Group, either the Chairperson of the Ipswich City Local Group on advice from the Lead Agency, or the Lead Agency responsible for the control of the disaster or emergency may activate the Agency's response plan and approach the support organisations for assistance. If the initial activation of the plan is generated from within the Lead Agency then the Lead Agency must advise the Chairperson of the Ipswich City Local Group of the activation and follow the procedures for activation, reporting etc. as laid out in the Agency's Standard Operating Procedures.

The Chairperson of the Ipswich City Local Group will inform the Ipswich District Disaster Coordinator of the activation.

Control of the response will be the responsibility of the relevant Lead Agency.

If the disaster or emergency escalates to a point where the Lead Agency and its Support Agencies resources are insufficient to adequately respond to the event then the Lead Agency shall inform the Chairperson of the Ipswich City Local Group, who in turn will activate the Ipswich City Local Group and inform the Ipswich District Disaster Coordinator of the activation.

E If it is obvious or suspected that a threat of and event, or an event, is the result of a terrorist act or threat, then the Ipswich City Local Group shall be advised and the provisions of Section 5.15 Threat Escalation shall be followed and the Ipswich District Disaster Coordinator shall be immediately notified.

F An Activation Flow Chart for the activation of the organisation is shown as Annex (T).

05.01.02 CONCEPT AND PROCESS

The concept is based on three phases of alert, standby and activation. Should the threat be of an emergent nature the three phases may be implemented on the receipt of the initial warning. The three phases are detailed below:

ALERT

(a) Chairperson or delegate or the Executive Officer, Ipswich City Local Group, receives advice:

(i) of an impending threat from:
- a Lead Agency;
- a warning agency.

(ii) from a Lead Agency that assistance or support may be required.

(b) Chairperson or delegate advises Executive Officer, Ipswich City Local Group.

(c) Executive Officer, Ipswich City Local Group, informs relevant Lead / Support Agencies.

(d) Executive Officer advises Ipswich District Disaster Coordinator of the warning / request received and that the Ipswich City Local Group has been placed on alert.

STANDBY

(a) Chairperson, or delegate implements Ipswich City Local Disaster Management Plan and authorises the Executive Officer to activate the Ipswich City Coordination Centre to minimum staff level.

(b) Executive Officer informs relevant Lead and Support Agencies; and

(d) Executive Officer places Liaison Officers, as required, on stand-by to report to the Ipswich City Coordination Centre.

(e) Executive Officer places Coordination centre staff on stand-by to attend the Coordination Centre.

(f) Executive Officer advises the Ipswich District Disaster Coordinator of the action to place the Coodination Centre on stand-by.

ACTIVATE

(a) Lead Agency advises Executive Officer, Ipswich City Local Group, assistance is required.

(b) Executive Officer escalates Ipswich City Coordination Centre to required staff level.

(c) Executive Officer advises Liaison Officers of respective Agencies to respond and report to the Coordination Centre.

(d) Executive Officer advises Ipswich District Disaster Coordinator that the Coordination Centre has been activated.

The response will be in accordance with the appropriate Agency plan.

An activation flow chart is shown in Annex (T).

STAND-DOWN

The Executive Officer of the Lead Agency will advise the Executive Officer of the Ipswich City Local Group that all tasks associated with the activation have been performed and that an on-site preliminary debrief has occurred.

The Executive Officer Ipswich City Local Group will recall all participating agencies and prepare to close down the Ipswich City Coordination Centre. The Ipswich City Coordination Centre will close down after all agencies have notified of their stand-down and the Chairperson of the Ipswich City Local Group has conducted a pre-stand-down debrief.

Final debriefs of the event will be conducted in accordance with Clause 05.12

05.02 WARNINGS - RECEIPT

Warnings of a natural disaster (e.g. cyclones, floods etc.) will be issued in the first instance by the Bureau of Meteorology to the Officer in Charge, Queensland Police Service Ipswich, Chairperson Ipswich City Local Group as well as media agencies.

The Officer in Charge, Queensland Police Service Ipswich will ensure the information is forwarded to the Chairperson or delegate of the Ipswich City Local Group.

In the event of a disaster for which a warning would not be issued by the Bureau of Meteorology, the designated Agency is to advise the Chairperson or delegate of the Ipswich City Local Group.

05.03 WARNINGS - DISTRIBUTION

Upon implementation of the Ipswich City Local Disaster Management Plan all public warnings will be distributed through the Ipswich City Coordination Centre upon recommendation of the Lead Agency and on the authorisation of the Chairperson, or delegate of the Ipswich City Local Group.

Consideration of the needs of the hearing impaired and those whose first language is not English must be taken into account when issuing warnings and information.

05.04 PUBLIC INFORMATION

When the Ipswich City Local Disaster Management Plan is activated the Media Liaison Officer is the official source of public and media information. All outside media enquires are to be directed to the Media officer for the attention of the Chairperson or Delegate.

The distribution, to the public, of contacts or telephone numbers for disaster information will be the responsibility and at the discretion of the Chairperson or delegate of the Ipswich City Local Group.

All facets of the media are used to disseminate the information including, radio, TV, printed media, door knocks and mobile public address systems.

Consideration of the needs of the hearing impaired and those whose first language is not English must be taken into account when issuing information.

The Chairperson or Delegate is to arrange for media briefings and interviews with key personnel.

The information released would be an upgrade of the information previously released during the "preparedness phase" and may include:

- source of information;
- nature of the threat;
- timing of expected impact;
- area to be affected;
- persons to be affected;
- evacuation procedures;
- safety precautions to take;
- how and where to get assistance for – personal, livestock, animals;
- need to heed information/advice from authorised personnel;
- contact phone numbers;
- time of next information release.

05.05 PREPARED MEDIA RELEASES

Prepared media releases are to be held for all sections of the Media for severe weather/cyclone operations.

For other types of disasters, specific information is prepared for release relating to the disaster. This advice is to be provided by the Chairperson, or delegate of the Ipswich City Local Group.

All operational media releases are to be prepared by and distributed through the Lead Agency upon authorisation by the Chairperson or delegate of the Ipswich City Local Group.

Releases referring to a particular Agency's involvement are to be issued by that Agency through the Lead Agency.

05.06 MEDIA OFFICER

The Chairperson, or delegate of the Ipswich City Local Group shall appoint a Media Liaison Officer who will be activated when a potential disaster situation becomes evident.

The Media Liaison Officer will be located at the Ipswich City Council Administration Building, 50 South Street, Ipswich.

See Ipswich City Coordination Centre SOP, Annex (M), for duty statement.

05.07 RELEASE OF INFORMATION

No information is to be released to the electronic/print media without the prior authorisation of the Chairperson, or delegate of the Ipswich City Local Group.

05.08 INTERVIEWS

Interviews shall be processed through the Media Liaison Officer, who will consolidate and forward requests to the Chairperson, or delegate for action.

05.09 SITUATION REPORTING (SITREPS)

All Lead Agencies are to submit regular SITREPS to the Executive Officer, Ipswich City Local Group, at the Ipswich City Coordination Centre.

The Executive Officer, Ipswich City Local Group is to collate SITREPS received and supply regular situation reports to the Chairperson or delegate of the Ipswich City Local Group, and also to the Executive Officer Ipswich District Group and the Area Director, South East Area at intervals determined by the progress of the disaster and as required by the Area Director CDRS and Ipswich *District Disaster Coordinator.* SITREPS are usually required twice daily or if there is any significant change in the situation or operations.

Annex (O) contains an example of a SITREP Pro-Forma for use in the Ipswich City Coordination Centre.

Note: Ipswich City Council as a member of the South East Queensland Disaster Management Advisory Group (SEQDMAG) is trialing a computer based program titled Joint Incident Response System (JIRS) which if adopted may supersede the need to develop SITREPS for the DDC and EMQ.

05.10 ACCESSING SUPPORT

05.10.01 REQUESTS FOR ASSISTANCE

Any requests for assistance or requests for additional resources from Lead and/or Support Agencies are to be forwarded to and co-ordinated by the Chairperson or delegate of the Ipswich City Local Group.

If the request cannot be met from resources available to the Ipswich City Local Group then the Executive Officer of the Ipswich City Local Group shall forward such requests to the Ipswich District Disaster Coordinator for action. A broad scope of the resource capability of Lead and Support Agencies is detailed in Annex??? "Agency Capability and Resources"

In the case of an urban or rural fire the incident commander, because of operational requirements, will request AFCOM, Brisbane or Firecom, Southport to provide additional fire fighting resources owned by the Service. Requests for non-service owned assistance will be made to AFCOM or Firecom who in turn will forward the request to the Ipswich City Local Group.

05.10.02 FINANCIAL ASSISTANCE TO LOCAL GOVERNMENT

(a) Commonwealth/State Natural Disaster Relief Arrangements (NDRA).

The prime mechanism utilised by the State Government for providing financial assistance to communities affected by natural disasters is the Commonwealth/State Natural Disaster Relief Arrangements (NDRA), together with a pre-agreed package of relief measures. These arrangements provide a cost sharing formula between the State and Commonwealth Governments for the provision of financial assistance in the event of an "Eligible Natural Disaster".

NOTE: Eligible disasters do not include disasters where poor environmental planning, commercial development, personal intervention or accidents are a significant contributing factors to the event. Social, environmental and technological disasters are ineligible.

Assistance for each disaster event is available where estimated total State expenditure on eligible damage exceeds $240 000. In 2005/2006 Ipswich City Council is required to contribute 25% towards eligible restoration works up to a maximum contribution of $488 000.

For isolated disaster events that do not reach the State expenditure threshold level of $240 000, State funded Disaster Relief Arrangements (SDRA) apply to relief measures for community response and assistance to individuals.

(b) State Disaster Relief Arrangements (SDRA).

The purpose of SDRA is to address personal hardship and community response needs for disaster events that fall under the state's NDRA activation threshold of $240 000. SDRA relief measures for personal hardship and community response activities are the same relief measures that are activated under NDRA, only the funding source differs.

As a State funded assistance package, SDRA is not subject to the Commonwealth imposed event eligibility provisions or the activation threshold ($240 000) that exists under NDRA. As consequence, SDRA is able to address a wider range of disaster events and circumstances where personal hardship exists.

Protection, emergency repairs and restoration of State and Local Government assets is not covered by SDRA.

The restoration of Public Assets Relief Measure requires NDRA to be activated.

Refer to Annex (S) for a copy of the NDRA and SDRA guidelines.

05.11 CONFERENCES

Should damage or disruption be of such an extent that operations are to continue over a number of days the policy of daily meetings with Officers-in-Charge of Lead Support Agencies will be implemented by the Chairperson or delegate of the Ipswich Local Group, to the for the purpose of co-ordinating effort and establishing priorities.

The Chairperson of the Lead Agency will hold daily meetings of all relevant Support Agencies for the purpose of co-ordinating effort and establishing priorities.

05.12 CONCLUSION OF OPERATIONS AND DEBRIEF

Acting on advice from the Lead Agency the Executive Officer is to co-ordinate a recall of participating organizations, conduct a pre close-down debrief and close down the Ipswich City Coordination Centre.

Members of participating agencies are to be debriefed by their respective Officers in Charge prior to their stand down.

A full operational debrief involving Officers-in-Charge of the Lead Agency and Support Agencies and the members of the Ipswich Local Group is to be conducted by the Chairperson or delegate of the Ipswich City Local Group within fourteen (14) days of completion of the activation.

A report of the debrief shall be prepared by the Executive Officer of the Ipswich City Local Group and a copy forwarded to the Ipswich District Disaster Coordinator and the Ipswich City Council.

05.13 COMMUNICATIONS

05.13.01 GENERAL

For major activations as per the relative plans, each Lead Agency will be required to send a Liaison Officer to the Ipswich City Coordination Centre. They should have their own means of communication to their respective Agencies.

05.13.02 AVAILABLE RESOURCES

The under mentioned communication systems should be available for the conduct of disaster management operations.

(a) Conventional Telstra facilities. Additional telephones and facilities may be made available by Telstra during the conduct of operations.

(b) State Emergency Service Radio Net - (ultra high frequency systems).

(c) Queensland Police Radio Net - (high frequency and very high frequency systems).

(d) Individual Lead and Support Agency Radio Nets - (high frequency, very high frequency and ultra high frequency systems).

(e) Electronic Media - Radio and TV stations - for dissemination of public information as per Section 11.00 below.

(f) Helicopters using loud speaker facilities.

Considerable control will be needed to prevent over saturation of these facilities.

05.13.03 COMMUNICATIONS NETWORK

Further information is contained in the Communications Co-ordination Plan. Lead and Support Agencies have their own internal radio networks which will be connected to the Ipswich City Coordination Centre by a Liaison Officer from each Agency who is stationed at the Ipswich City Coordination Centre.

Allocation of radio frequencies and call signs within the various Agencies network will be in accordance with the individual Agency Standing Orders or Standing Operating Procedures.

The Ipswich City Coordination Centre has Telstra land lines connected. However, additional lines may be installed by Telstra in an emergency.

Radio and Television Stations may be used for announcements to the public and disaster management personnel.

05.14 SUB/OPERATIONAL PLANS

The following arrangements have been developed by the Ipswich Local Disaster Management Group in liaison with the various Lead and Support Agencies.

05.14.01 NATURAL & NON-NATURAL HAZARDS PLANS:

Arrangements to address the support that will be required by a community affected by a range of natural and non-natural hazards:

Flood;
Storms incl. cyclone;
Fire – Urban;
Fire – Rural;
Transport accident – Road/Rail/Water;
Transport accident – Air - Civil;
Transport accident – Air - Defence;
Hazardous Materials;
Oil/Gas;
Public Works and Engineering (Municipal Services Threat);
Earthquake;
Landslide.

05.14.02 FUNCTIONAL PLANS

Arrangements to address functional support that will require a functional coordinated expertise and resources to support the disaster affected community:

Evacuation;
Evacuation Centre Management;
Communication Coordination;
Transport Coordination;
Flood Control Centre Operations;
Community Service – Welfare;
Community Services - Recovery;
Impact Assessment;
Public Health.

05.14.03 THREAT SPECIFIC PLANS

To address specific threats/hazards that have been allocated to a Government Agency by nature of their legislated Lead Agency role and which will require the support of the Ipswich City Local Group:

Emergency Animal Disease;
Health – Infectious Disease;
Counter Terrorism.

05.15 THREAT ESCALATION

The Ipswich City Local Group, Lead and Support Agencies must be aware of the potential for the threat being addressed to escalate:

(a) to a point where the resources of the Lead and Support Agency are insufficient to adequately respond in which case the Lead Agency shall advise the Ipswich City Local Group of the situation and of the resources required.

If the Ipswich City Local Group cannot meet the request then the Executive Officer of the Ipswich Local Group will advise the Ipswich District Disaster Coordinator of the escalation and request the supply of the additional resources; or

(b) it becomes obvious or it is suspected that the trigger for the threat is a terrorism act or threat or an organisation claims responsibility for the threat as a terrorist act.

In this situation the Ipswich City Local Group shall be immediately informed of the situation and it in turn will immediately advise the Ipswich District Disaster Coordinator. It will be necessary to preserve the threat site so that forensic evidence may be collected. Further control of the event will pass to the Counter Terrorism Response Agency.

05.16 IMPACT ASSESSMENT

05.16.01 INTRODUCTION

Assessment is defined as the organised process of collecting information after an emergency or disaster and processing it in order to estimate actual or expected casualties and damage and the needs of the affected community for response, recovery and future prevention and preparedness assistance.

The purpose of post-disaster assessment is to provide the Ipswich City Local Group with a source of comprehensive, standardised information on the impact of a hazard. This information can be used to set priorities and make management decisions relating to the response to an emergency or disaster and to the initial steps leading to recovery.

Post-disaster assessment is a key process in the response and recovery stages of the emergency management continuum. Immediately after a hazard has affected a community, there is a need to identify what the impact has been and what needs to be done to ensure the safety of life and property and to return the community to normality.

It is the task of the Ipswich City Local Group to assess the overall impact of the hazard, identify and prioritise needs and to manage available resources to meet those needs as effectively as possible.

These processes require information. In the early stages of an emergency or disaster, information may be scarce or it may be overwhelming. It will almost certainly be confused, fragmented, conflicting, biased, inappropriate, inaccurate or wrong. The availability of information and its quality will improve with time. Early decisions, made on the basis of limited information, can then be refined or changed if necessary.

The Ipswich City Local Group will be supported in the assessment by all members of the Group and it will allocate to separate assessment teams and / or Lead and Support Agencies the tasks to be performed.

0.5.16.02 TYPES OF ASSESSMENT

The two basic types of assessments are:

- impact assessments; and
- needs assessments.

Both types of assessment can be conducted concurrently.

0.5.16.03 IMPACT ASSESSMENTS

Impact assessments examine the ways in which the hazard has affected the community or communities.

The type of information that needs to be processed during impact assessments will vary with the hazard, the severity of the impact, the complexity of the community and the area to be assessed. It will also vary according to the amount and accuracy of **baseline information** with which it can be compared.

When compiling impact assessment information casualty reports, where possible, should list adults and children separately.

The information gathered can include:

- the area affected, by geographical location and size (with breakdowns into areas of severity if appropriate);
- the major causes of casualties and damage;
- human effects and casualties including the number of:
  - people affected;
  - dead (and whether deaths are continuing);
  - injuries and types (major or minor) and illnesses; people missing;
  - people who have had to evacuate or have been displaced and the places to which they have moved; and
  - people homeless or requiring shelter or evacuation.

- damage including:
  - details of the homes destroyed or damaged;
  - details of the key community buildings destroyed or damaged;
  - details of other buildings destroyed or damaged, including commercial premises and suppliers of basic necessities to the community;
  - to lifelines and other key infrastructure;
  - that to transport systems;
  - that to agriculture and food supply systems; and
  - that to key local economic resources such as industrial premises;
- identification of secondary hazards that may pose a threat in the immediate future;
- sources, availability and purity of water for drinking and other purposes;
- environmental health and sanitation threats;
- availability of food supplies at family and community level;
- available medical staff, facilities and supplies within the affected area and their activities;
- resources that have survived the disaster and might be usable in the response;
- the capacity of local government and emergency management structures to manage the local response and recovery; and
- government, community and other organisations operating in the area and their activities.

0.5.16.04 NEEDS ASSESSMENTS

Needs assessments deal with the type, amount and priorities of assistance needed by an affected community after a disaster or emergency. Their purpose is to identify:

- needs of the affected community or communities to save and sustain life and reduce the risk of further damage and provide an indication of their urgency;
- needs that can be met from within the affected community and those that can only be met with outside assistance; and
- specialised needs of the affected community for recovery, the resources available to meet those needs from within the community and the external assistance that may be needed.

The information that should be sought during a **needs assessment** immediately after a disaster may include the personnel, resource and equipment requirements for:

- search and rescue;
- medical evacuation;
- evacuation of survivors;
- medical and health support;
- environmental health;

- water supply and purification;
- shelter (including clothing, furniture etc);
- human (and animal) food (including storage, cooking, delivery etc); restoration of lifelines; and
- delivery of assistance.

Refer to Annex V for a sample assessment survey report forms.

Refer to 8.07 Operational Check List – Impact Assessment.

0.5.17 RESPONSE AGENCIES

To ensure the provision of effective support during disaster management operations, a number of Agencies have been identified and have accepted as having a Lead and or Support role for the nominated threat / hazard as detailed below:

General responsibilities are covered in more detail at the commencement of Part 2 Sub/Operational Plans.

Threat OR PLAN	Lead Agency	Support Agency
Flood / Cyclone/ Storm Damage	**Ipswich City Council**	State Emergency Service Queensland Police Service Energex Telstra Queensland Ambulance Service Queensland Fire & Rescue Service Department of Main Roads
Major Transport Accident (Road, Rail Water)	**Queensland Police Service**	Queensland Ambulance Service State Emergency Service Queensland Fire & Rescue Service Energex Department of Main Roads Queensland Rail Ipswich City Council Ipswich Hospital Royal Australian Air Force Amberley Chem Unit – RACE (Response Advice for Chemical Emergency) Department of Primary Industries & Fisheries

Threat OR PLAN	Lead Agency	Support Agency
Major Transport Accident (Air Civil)	**Queensland Police Service**	Queensland Ambulance Service State Emergency Service Queensland Fire & Rescue Service Energex Ipswich City Council Ipswich Hospital Royal Australian Air Force Amberley Chem Unit – RACE (Response Advice for Chemical Emergency) Civil Aviation Authority (CAA) Bureau of Air Safety Investigation
Major Transport Accident (AIR DEFENCE)	**Royal Australian Air Force Amberley**	Queensland Police Service Queensland Ambulance Service State Emergency Service Queensland Fire & Rescue Service Energex Ipswich City Council Ipswich Hospital Chem Unit – RACE (Response Advice for Chemical Emergency)
Fire Rural	**Queensland Fire & Rescue Service**	Queensland Police Service Queensland Ambulance Service State Emergency Service Energex Ipswich City Council Queensland National Parks & Wildlife Service Chem Unit – RACE (Response Advice for Chemical Emergency) Queensland Fire and Rescue Service (Urban)
Fire Urban	**Queensland Fire & Rescue Service**	Queensland Police Service Queensland Ambulance Service State Emergency Service Energex Ipswich City Council Chem Unit – RACE (Response Advice for Chemical Emergency) Queensland Fire and Rescue Service (Rural)
Emergency Animal/Plant Disease	**Department Primary Industry and Fisheries**	Queensland Police Service Ipswich City Council State Emergency Service Queensland Fire & Rescue Service (Rural)

Threat OR PLAN	Lead Agency	Support Agency
Hazardous Material Accident	**Queensland Fire & Rescue Service**	Queensland Police Service Ipswich City Council State Emergency Service Queensland Ambulance Service Energex Chem Unit – RACE (Response Advice for Chemical Emergency) Queensland Transport Environmental Protection Agency
Epidemic	**Queensland Health**	Queensland Police Service Queensland Ambulance Service State Emergency Service Ipswich City Council
Earthquake	**Ipswich City Council**	State Emergency Service Queensland Police Service Energex Telstra Queensland Ambulance Service Queensland Fire & Rescue Service Department of Admin Services (Q-Built) Ipswich Hospital Government Undertaker
Landslide	**Ipswich City Council**	State Emergency Service Queensland Police Service Energex Telstra Queensland Ambulance Service Queensland Fire & Rescue Service Department of Admin Services (Q-Built) Ipswich Hospital Government Undertaker
Terrorism	**Queensland Police Service**	Ipswich City Council. Queensland Ambulance Service State Emergency Service Queensland Fire & Rescue Service Energex Telstra
Oil Accident	**Queensland Fire and Rescue Service**	Oil Line Owner/Operator Queensland Police Service Ipswich City Council Chem Unit – RACE (Response Advice for Chemical Emergency) Environmental Protection Agency State Emergency Service Ipswich Hospital Queensland Ambulance Service

Threat OR PLAN	Lead Agency	Support Agency
Gas Accident	**Queensland Fire and Rescue Service**	Gas Line Owner/Operator Queensland Police Service Ipswich City Council Chem Unit – RACE (Response Advice for Chemical Emergency) Environmental Protection Agency State Emergency Service Ipswich Hospital Queensland Ambulance Service
Public works and Engineering (Municipal Services)	**Ipswich City Council**	State Emergency Service Queensland Police Service Energex Telstra Queensland Ambulance Service Queensland Fire & Rescue Service Ipswich Hospital
Evacuation	**Ipswich City Council**	Queensland Police Service State Emergency Service Red Cross Department of Transport
Evacuation Centre Management	**Ipswich City Council**	Ipswich City Council State Emergency Service
Communication	**Ipswich City Council**	State Emergency Service WICEN Telstra Other Communication Providers
Community Support - Welfare	**Ipswich City Council**	Queensland Police Service Queensland Ambulance Life Line Ipswich & West Moreton Mission Australia
Transport	**Ipswich City Council**	Department of Transport Main Roads Australian Defence Force
Financial Management	**Ipswich City Council**	All Lead & Support Agencies
Public Health	**Ipswich City Council**	West Moreton Public Health Unit (Population Health Unit Queensland Police Service Ipswich City Council Environmental Protection Agency Queensland Fire and Rescue Service
Oil/Gas	**Queensland Fire and Rescue Service**	Facility Owner Ipswich City Council Queensland Police State Emergency Service

SECTION 6 RECOVERY

The primary aim of recovery is to assist the affected community to regain a proper level of functioning following a disaster, both initially and long term.

Recovery is the coordinated process of supporting disaster affected communities in;

(a) reconstruction of the physical infrastructure; and
(b) restoration of emotional, social, economic and physical well-being through the provision of:

- information;
- personal support;
- resources;
- specialist counseling; and
- mental health services..

Planning for recover must commence as early as possible during the response phase of the event and continue after the response phase has concluded.

Initial short term recovery of the community will be addressed by the activation of the Welfare Functional Arrangements.

Long term recovery of the community will be affected by the activation of the Community Services Arrangements under the Chair of Department of Family Youth and Community Care.

Recovery of Council's infrastructure and corporate processes is addressed in the Business Continuity Plan currently under development.

Infrastructure, not the responsibility of Council, will be handled by the appropriate State Government Agency and/or utility undertaking.

The 4 stages of recovery are:

- community (including psychosocial; recovery)
- infrastructure (services and lifelines);
- economy (including financial and political considerations); and
- environment.

The application of recovery will depend upon the initial assessment conducted by the teams established in Section 5.16, Impact Assessment, and information gained from Lead and Support Agencies.

The Ipswich City Local Group shall be responsible for the coordination of the initial impact assessment information.

Activation

The recovery plan is activated in significant disaster events where the disruption to the community is such that the response capability of the existing statutory and community agencies are, or are perceived to be inadequate.

The Chairperson or delegate of the Ipswich City Local Group or the Executive Officer of the Ipswich City Local Group acting in consultation with the Chairperson of the Welfare Functional Plan Group and based on the assessment of the reports from teams undertaking the Impact Assessment (see Section 5.16) shall contact the Chairperson or delegate of the Community Services Recovery Functional Arrangements Group and request that the Community Services Recovery Functional Arrangements be activated.

The Chairperson or delegate, Ipswich City Local Group or the Executive Officer, Ipswich City Local Group shall brief the Chairperson or delegate, Community Services Functional Arrangements Group:

- on the extent of the disaster;
- detail collected by the Impact Assessment Teams; and
- any other matters referred to the Community Services Functional Group by the Ipswich City Local Group.

The Chairperson or delegate of the Ipswich City Local Group or the Executive Officer of the Ipswich City Local Group shall contact the Lead Agency of the Municipal Services disaster arrangements and brief the Chairperson:

- on the extent of the disaster;
- detail collected by the Impact Assessment Teams; and
- any other matters referred to the Community Services Functional Group by the Ipswich City Local Group; and advise the Chairperson that recovery of the Council's infrastructure should commence.

See Section 01.08 for detail of the Community Services Functional Recovery Arrangements.

ANNEXURES

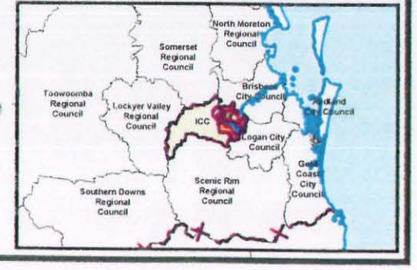
ANNEX (A) MAP OF LOCAL GOVERNMENT AREA

CITY OF IPSWICH
2008 DIVISION MAP

Pine Mountain
Marburg
Haigslea
Karrabin
Walloon
Thagoona
Rosewood
Amberley
Grandchester
Calvert
Willowbank
Ripley
Karalee
Barellan Point
Dinmore
Ebbw Vale
Bundamba
East Ipswich
Booval
Wulkuraka
Ipswich
Redbank
Goodna
Carole Park
Redbank Plains
Springfield
Cami

DIVISION 1
DIVISION 2
DIVISION 3
DIVISION 4
DIVISION 5
DIVISION 6
DIVISION 7
DIVISION 8
DIVISION 9
DIVISION 10

LOCALITY



IPSWICH LOCAL DISASTER MANAGEMENT GROUP – CONTACT LIST

Updated 21-11-2006

NAME	ORGANISATION	GROUP COMPOSITION	ADDRESS	CONTACT NUMBERS	E-MAIL ADDRESS
Mayor, Councillor Paul Pisasale	Ipswich City Council	Chairperson	[redacted] IPSWICH QLD 4305 PO Box 191 IPSWICH QLD 4305	Phone: A/H: Mobile: Fax (H): (W): [redacted]	[redacted]
Councillor Trevor Nardi	Ipswich City Council	Deputy Chairperson	[redacted] IPSWICH QLD 4305 PO Box 191 IPSWICH QLD 4305	Phone: A/H: Mobile: Fax (W): [redacted]	[redacted]
Andrew Underwood	Deputy Works Manager Ipswich City Council	Executive Officer	[redacted] IPSWICH QLD 4305 PO Box 191 IPSWICH QLD 4305 **Proxy** Ross Drabble Works Manager	Phone: Mobile: A/H: Fax: [redacted] Phone: Mobile: A/H: Fax: [redacted]	[redacted] [redacted]
Arie van den Ende	State Emergency Service Local Controller	Member	[redacted] IPSWICH QLD 4305 PO Box 205 IPSWICH QLD 4305	Phone: A/H: Mobile: Fax: [redacted]	[redacted]

NAME	ORGANISATION	GROUP COMPOSITION	ADDRESS	CONTACT NUMBERS	E-MAIL ADDRESS
Bernard Trembath	District Inspector Queensland Fire Service Rural Fire Division	Member	PO Box 4079 RACEVIEW QLD 4305 **Proxy:** Duty Officer	Phone: Mobile: Pager: *(Ask for D* Fax: Pager *(Ask for D*	
Leanne Stevens	Queensland Ambulance Service Area Manager	Member	NORTH IPSWICH QLD 4305 PO Box 408 IPSWICH QLD 4305 **Proxy** Jan Tooth Officer in Charge Ipswich Station South Eastern Region	Phone: Mobile: Fax: Phone: Mobile: Pager: Fax:	
Superintendent Peter Guild	Ipswich Police	Member	IPSWICH QLD 4305 PO Box 382 IPSWICH QLD 4305 **Proxy** Inspector Kevin Keillor Sergeant Leon Margetts Senior Sergeant Robbie Goodger	Phone: Mobile: Fax: Phone: Mobile: Fax: Phone: Mobile: Fax: Phone: Mobile: Fax:	

NAME	ORGANISATION	GROUP COMPOSITION	ADDRESS	CONTACT NUMBERS	E-MAIL ADDRESS
Bruce McCoist Greg Sherlock	Queensland Fire & Rescue Service Area Director	Member Comms Manager	[redacted] IPSWICH QLD 4305 PO Box 138 IPSWICH QLD 4305	Phone: A/H: Mobile: Pager: Fax: Phone: Firecom	[redacted]
Brian Scotney	Area Director South East Area Office Emergency Management Queensland	Member	[redacted] EAGLEBY QLD 4207 PO Box 5128 EAGLEBY QLD 4207 **Proxy** Henk van den Ende	Phone: A/H: Mobile: Fax: Fax A/H: Phone: Mobile:	[redacted]
Pam Lane	District Manager West Moreton Public Health Service District	Member	PO Box 73 IPSWICH QLD 4305 **Proxy** Des Larsen Senior Environment Health Officer	Phone: Mobile: Fax: Phone: Mobile: Fax:	[redacted]
Squadron Leader Darrell May	Royal Australian Air Force	Observer	RAAF Base AMBERLEY QLD 4306	Phone: Mobile: Fax:	[redacted]
Michael Argeros	Telstra Team Leader Ipswich	Observer	Locked Bag 3733 BRISBANE QLD 9008 **Proxy:** Jeff Dick Terry Hayden	Phone: Mobile: Fax: A/H: Mobile: Mobile:	[redacted]

NAME	ORGANISATION	GROUP COMPOSITION	ADDRESS	CONTACT NUMBERS	E-MAIL ADDRESS
Darryl Bell	Western Distribution Services Manager Energex	Observer	GPO Box 1461 BRISBANE QLD 4001 **Proxy** Russell Cross	Phone: Mobile: Fax: Mobile:	
Perry Jones	Department of Primary Industries & Fisheries District Biosecurity Inspector	Observer	PO Box 100 BOONAH QLD 4310 **Proxy:** Sandy Mackenzie	Phone: Mobile: Fax: A/H: Mobile:	
Ralph Carlisle	Queensland Emergency Services CHEM Unit	Observer	GPO Box 1425 BRISBANE QLD 4001	Phone: A/H: Fax:	
Glenn Murray (Operations Manager)	Emoleum	Emergency Contact For Main Roads		Phone: Mobile:	
Garry Baker (Area Supervisor/Co-ordinator)	Emoleum	Emergency Contact For Main Roads		Mobile:	

Annexure to
COMMUNITY SUPPORT SUB-PLAN
Updated August 2006
OPERATIONAL DETAILS

STATE EMERGENCY SERVICE – Local Controller

Contact:	**Arie Van den Ende**
Address:	[redacted] **Dinmore**
Office Phone:	[redacted]
Home Phone :	
Pager :	
Mobile :	
Fax:	
Email:	

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1. ADMINISTRATION OF COMMUNTITY SERVICES

Primary Task Agency:	Ipswich City Council Economic and Community Development Department Department
Contact:	Robyn Hargreaves
Address:	[redacted] Winston Glades
Office Phone:	
Mobile Phone:	
Fax:	
Home Phone	
Email:	[redacted]
Responsibility:	*To undertake the role of administering the services provided by the Community Recovery Plan*
Capacity:	*Substantial organisation structure and personnel.*
Assisting Agency:	Ipswich Community Aid
Contact:	Erik Jansink
Address:	[redacted] Baronia Heights
Office Phone:	[redacted]
Home Phone:	
Mobile:	
Email:	

Contact	Kerriann Brown
Phone:	[redacted] Flinders View
Mobile	
Responsibility	*To assist in the administration of the community recovery plan.*

PROVISION OF EMERGENCY ACCOMMODATION

Primary Task Agency:	**Co-ordinator Emergency Services**
Contact:	Arie Van den Ende
Address:	[redacted] Dinmore
Office Phone:	
Home Phone:	
Pager:	
Mobile:	
Responsibility	*To maintain a registrar of possible places suitable for temporary accommodation, including capacity and facilities, key holders and contact numbers. Ability to activate access and establishment of temporary accommodation facilities.*
Capacity	*Organisational structure sufficient to maintain registrars.*
Assisting Agencies:	**Ipswich City Council Economic and Community Development Department**
Contact:	Robyn Hargreaves
Address:	[redacted] Winston Glades
Office Phone:	
Mobile Phone:	
Home Phone	
Responsibility	*To support the maintenance of a registrar of possible places suitable for temporary accommodation, including capacity and facilities, key holders and contact numbers. Ability to support the activation and access and establishment of temporary accommodation facilities.*
Capacity	*Organisational structure sufficient to support the maintenance of registrars and co-ordination of access and use of accommodation facilities.*

Assisting Agencies: **Ipswich Tenancy Advocacy Services Inc**

Contact: Tim Jordan
Address: [redacted]
Sadliers Crossing
Office Phone: [redacted]
Home Phone
Mobile
Email:

Responsibility *To assist in the referral to emergency accommodation within the community recovery plan.*

2. PROVISION OF REGISTRATION SERVICES

Primary Task Agency: Ipswich Police Service

Contact: Snr Sgt Robbie Goodger
Address: Yamanto Police Station Warwick Rd, Ipswich
Office Phone: [redacted]
Email:

Contact: Sgt Leon Margetts
Address: Ipswich Police Station East Street
Office Phone: [redacted]
Email:

Responsibility *To undertake the registration of persons involved in a declared disaster.*

Capacity *Organisational structure and Personnel sufficient to undertake registration. Unable to provide and accurate capacity number of persons for service provision.*

Assisting Agencies: **Australian Red Cross Queensland**

Contact: Pam Heffernan (Disaster Coordinator)
Home Address: [redacted]
Tivoli
Office Address: Humanities Centre Roderick Street, Ipswich
Office Phone: [redacted]
Home Phone:

Contact: Maureen Johnston (President)
Home Address: TBA
Office Address: Humanities Centre Roderick Street, Ipswich
Office Phone: [redacted]

Home Phone: [redacted]

Responsibility *Comfort care of evacuees and registration of persons involved in a declared disaster.*

Capacity *Organisational structure sufficient to support the maintenance of registers and co-ordination of access and use of accommodation facilities.*

3. PROVISION OF FIRST AID

Primary Task Agency: **Queensland Ambulance Service**

Contact: Ms Leanne Stevens
Area Director
Address: [redacted]
Ipswich Q 4305
Email: [redacted]

Phone: [redacted]
Fax:
Mobile

Contact: Ms Jan Tooth
Officer in Charge
Address: [redacted]
Ipswich Q 4305
Email: [redacted]

Phone: [redacted]
Fax:
Mobile

Assisting Agency: **St John's Ambulance Australia (QLD)**

Contact: Ms Janette Schulte – Senior Cadet Officer Administration
Address: [redacted]
Office Phone:
Home Phone: [redacted]
Mobile:

Contact: Mr Chris Trotter – South Western Queensland Regional Superintendent
Mobile: [redacted]
Email:

Responsibility *The administration and provision of first aid treatment for persons requiring assistance.*

Capacity *The resources and capacity to provide first aid treatment for persons requiring assistance. Service provision*

4. PROVISION OF CATERING SERVICES

Primary Task Agency: **Salvation Army**

Contact: Major Rodney Walters
Address: [redacted] Bundamba Q 4304
Office Phone:
Home Phone:
Fax:
Mobile:
Email:

Contact: Captain Bruce Dobbie
Address: South Street Ipswich
Home Phone:
Fax:
Mobile:

Contact: Bill Park
Address:
Home Phone: [redacted]
Fax:
Mobile:

Responsibility *The administration and provision of emergency food for displaced persons and catering services for the Emergency Providers.*

Capacity *The resources and capacity to coordinate the provision of emergency food and catering services. Service provision capacity 200 persons.*

Assisting Agency **Ipswich Meals on Wheels**

Contact: Jane White
Address: [redacted] Ipswich
Office Phone:
Mobile:
Email: [redacted]

Responsibility *To assist in the co-ordination and provision of emergency food for displaced persons.*

Capacity *The resources and capacity to assist in the co-ordination and the provision of emergency food and catering services. Service provision capacity 300 persons.*

Assisting Agency	**Ipswich City Council Humanities Building or Civic Hall Kitchens**
Contact:	**Robyn Hargreaves/Gary Mears**
Address:	[redacted] **Winston Glades**
Office Phone:	[redacted] (Robyn Hargreaves)
	(Gary Mears
Mobile:	Robyn Hargreaves)
	(Gary Mears)
Responsibility	*To assist in the emergency food for displaced persons.*
Capacity	*The resources and capacity to assist in the co-ordination and the provision of catering services. Unable to provide an accurate capacity number of persons for service provision.*

5. PROVISION OF COUNSELLING/TRAUMA RESPONSE SERVICES

Primary Task Agency:	**Lifeline Ipswich & West Moreton**
Contact:	**Peter Sabel**
Address:	20 Roderick Street, Ipswich
Office Phone:	[redacted]
Mobile:	TBA
Home Phone:	TBA
Responsibility	*To assist in the provision of Trauma Response Services for persons requiring debriefing and counselling.*
Capacity	*The professional personnel to provide Trauma Response Services. Service provision capacity 6(full time) persons.*

6. PROVISION OF EMERGENCY RELIEF (Material Support)

Primary Task Agency:	**Mission Australia, Ipswich Community Services**
Contact:	Di Townsend
Address:	225 Brisbane St, Ipswich
Office Phone:	[redacted]
Home Phone:	
Mobile:	
Email:	
Responsibility	*To assist in the provision of Emergency Relief Services for persons requiring material support.*

Capacity *The organisational and professional personnel to provide Emergency Relief Services for Service provision capacity 30 persons.*

7. PROVISION OF CASE MANAGEMENT

(Please refer to Department of Families Disaster Recovery Plan.

Primary Task Agency: **Lifeline Ipswich & West Moreton**

Contact: Peter Sabel
Address: [redacted] Ipswich
Office Phone:
Mobile:
Home Phone:

Responsibility *The co-ordination and provision of Counselling and Case Management Services.*

Capacity *The resources and capacity to coordinate and provide Counselling and Case Management Services for local persons. Service provision capacity 6 (full time) persons.*

ANNEX (C) AGENCY CAPABILITY AND RESOURCES

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
IPSWICH CITY COUNCIL *Legislative authority:* *Local Government Act 1993*	Maintenance of the Local Government function (via Local Government Business Continuity Contingency Planning). *Maintenance of normal* Local Government services to the community ▪ Water ▪ Sewerage ▪ Refuse disposal ▪ Public health ▪ Animal control Environmental protection Overview, management and maintenance of a disaster response capability including management of State Emergency Service Unit. Design and maintenance of a public education/awareness program. Training of Council executive staff in disaster management concepts. Establishment, maintenance and operation of Local Disaster Co-ordination Centre, including the training of sufficient personnel to operate the Centre. Establishment and maintenance of flood telemetry and warning systems. *Collection and interpretation of information* from flood telemetry systems. Identification, development & implementation of disaster mitigation strategies.	To administer & deliver the functions of local government To design construct, delivery & maintain Council infrastructure. To staff and operate a disaster coordination centre.	Council's Administrative staff & systems Dedicated specialist staff. *Equipment for:* **Excavation**- dozers, loaders, graders, bobcats **Haulage** - tip trucks, tray top trucks **Convey water** – tankers **Miscellaneous –** compressors, mowers, barricades, hazard lights. Refer to Council's asset listing for full detail of plant and equipment available.	Vehicles for mass transport of evacuees

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
Local Disaster Management Group. *Legislative authority:* *Disaster Management Act 2003*	Development of a comprehensive Local Disaster Management Plan. Management of disaster events. Design and delivery of a public education/ awareness program. Establishment, maintenance and operation of a Local Disaster Co-Ordination Centre, including the training of sufficient personnel to operate the centre. Co-ordination of support to response agencies. Reconnaissance and impact assessment. Provision of public information and warnings prior to, during and following disaster event impact. Recommendations re areas to be considered for authorised evacuation. Public advice re voluntary evacuation. Provision of locally based community recovery services.			
Emergency Management Queensland (EMQ) *Legislative authority:* *Disaster Management Act 2003*	*The role of EMQ, with respect to disaster management, is to provide advice and assistance to all agencies and committees within the Queensland disaster management system, and administrative and executive support to the State Disaster Management Group (SDMG).* EMQ is responsible for: The overall management of Queensland's disaster management system on behalf of the SDMG,	Staff who understand disaster and coordination management arrangements. Knowledge of resources. Link to commonwealth resources. Access to NDRA and SDRA funding/resources Delivery of public education campaigns.	State Disaster Management Plan. State Disaster Coordination Group. Publication relating to disaster management. Brochures relating to various hazards. Staffed and resourced State Disaster Coordination Centre	

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
	Provision of policy and operational advice to disaster managers at all levels of the State's disaster management system, Facilitation of a comprehensive approach to disaster management, Co-ordination of the provision of disaster management training. Facilitation of the development and maintenance of the State Counter Disaster Plan, Operation and maintenance of the State Disaster Coordination Centre (SDCC). Monitor/advise/review state/district/local disaster management plans. Provide warnings in conjunction with other agencies. Public education in disaster management techniques.			
Queensland Police Service *Legislative authority:* *Public Safety Ppreservation Act 1986;* *Terrorism Act 2004 (Community Safety)*	Preservation of peace and good order. Investigation of the criminal aspect of any event. Prevention of crime. Security of any site as a possible crime scene. Investigation of the criminal aspect of any event. Coronial investigation procedures. Traffic control, including assistance with road closures and maintenance of road blocks. Crowd control/public safety.		Support from Logan District Police HQ	

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
	Co-ordination of search and rescue (see State Rescue Policy). Mandatory evacuation. Security of evacuated areas. Assist registration of evacuated persons if required.			
Queensland Fire & Rescue Service *Legislative authority:* *Fire and Rescue Service Act 1990, S 8B*	Primary provider of fire and rescue services.	**QFRS:** To respond to: • fires in buildings, homes, vehicles and land,; • Road and other rescue incidents; • Chemical & hazardous material incidents; • Requests for expert advisory services (through the Chemical. Hazard Emergency Management Unit's RACE *[Response Advice on Chemical Emergencies]* Team). • Request to pump out flooded buildings; • Requests to assist clean-up of flooded buildings. To provide: • Community awareness/education; • Training in fire fighting, safety and evacuation. • **Rural Fire Service:** To provide: • Fire management for rural and semi rural areas; • Incident Control Centres in rural areas;	**Town Brigades (auxiliary):** Trained volunteers; Basic first aid; radio Comms; AIIMS trained. teams; Stations at: Equipment: Urban fire appliance (not suitable for off road incidents); Portable pumps; **Rural Brigades:** Trained volunteers; Basic first aid; radio Comms; Chainsaw operation; AIIMS trained. teams; Brigades at: Equipment: Tankers: Light tankers 600 lt.; Slip-on 540 lt.; Medium Tankers 1800 lt.; Heavy tankers 3000-6000 lt.; Trailers; Urban unit;	**Town Brigades**: Potable water; Sustainability of personnel in early stages of incident; **Rural Brigades:** Water; tankers; personnel transport; Fuel; Earthmoving equipment; Equipment movement after hrs; Welfare of personnel.

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
		To provide protection of life, property and environment through : • Reduction in fire risk; • Managing the use of fire for hazard reduction; • Managing unwanted fire. • Community awareness/education; • Road incident rescue support;	Sundry Items: hand tools; knapsack sprays; Lighting plants; portable pumps; hoses;& couplings.	
Queensland Ambulance Service. *Legislative authority:* *Ambulance Service Act 1991, S 3D*	Assessment, treatment and transportation of injured persons. Assistance with medical evacuation. Provision of advice regarding medical special needs sectors of the community. First Aid.	To provide: • Emergency response to patients with sudden illness and injury; • Pre-hospital patient care; • Specialised transport; • Stand-by at special events; • Coordination of aero-medical services; • Inter hospital transfers; • Casualty room services; • Community education and training;		
State Emergency Service *Legislative authority:* *Disaster Management Act 2003, S 82*	Assisting the community to prepare for, respond to and recover from an event or disaster. Co-ordination of voluntary organisations within the community. Public Education. Rescue of stranded persons (See State Rescue Policy). Search operations for missing	To advise and assist local government, government departments, statutory organisations, voluntary groups and others; To educate and train members of public (including volunteers and members of voluntary groups); To coordinate, direct and control members of the public (including volunteers and members of	Trained volunteers; Flood boats; Tarpaulins; Sandbags; Portable lighting Units; Hand held radios; Basic First Aid Equipment; Ropes & Pulleys;	Tarpaulins; Sandbags; Flood Boats

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
	persons. Traffic Control. Short term welfare support to response agencies. Assistance with impact assessment. Assistance with communications. Assistance with lighting. Tasking as directed by the ICLG.	voluntary groups), material and resources, with respect to counter disaster purposes, where required. To rescue persons and live stock. To undertake searches including forensic searches. To assist agencies at major incidents with lighting, traffic control & communications.	Small Generators. Chainsaws.	
Department of Health *Legislative authority:* *State Health Disaster Plan,* *S. 2*	Co-ordination of medical resources including medical personnel. Public health advice and warnings to participating agencies and the community. Psychological and counselling services for disaster affected persons. On going medical and health services required during the recovery period to preserve the general health of the community.			
Ergon / Energex	Maintenance of electrical power supply. Advice in relation to electrical power. Restoration of power. Safety advice for consumers.			
Australian Defence Forces	Defence aid to the civil community (when requested through formal channels)	Command, Communications and Control Aviation Assets, both fixed wing and rotary, Civil Engineering, Planning, Design and	High clearance vehicles (unimog), Tentage (240 beds);	Personal protective equipment if army personnel used off base.

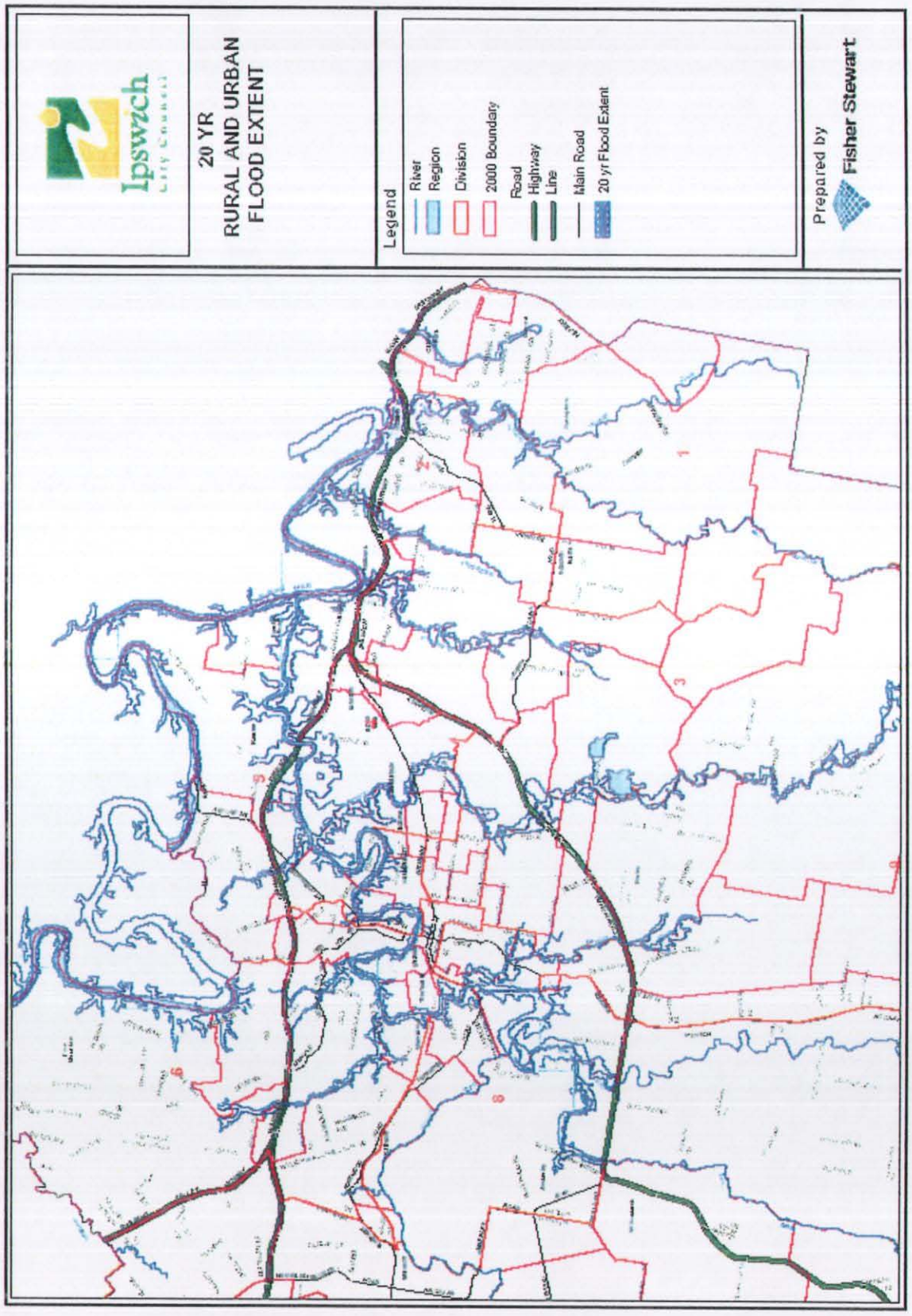
AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
		Construction, both horizontal and vertical Transport, including high clearance vehicles, which are not suitable as passenger vehicles, but could be used for such in an emergency, Provision of emergency accommodation *(tented), field catering, and field* preventive health (hygiene), Water Purification and Field Water Holding Tanks, and Organised Manpower.	Water treatment 2Mgl/day (Kokoda Barracks); Water purification; Preventative health field (ex Enoggera Barracks); Catering (ex Enoggera Barracks), On-site fire fighting (contractor Spotless), use off-site subject to financial payment; 600-700 Disciplined personnel; Civil engineering capacity (ex Enoggera Barracks);	
Bureau of Meteorology	A small operational Queensland unit of the National authority for weather & flood forecasting & warnings. Weather & Flood updates	Specialist staff to: • Forecast weather & Issue warnings; • Monitor weather systems. • *Specialist staff to:* • Monitor rainfall & stream flows; • Predict flood levels. • Specialist staff to: • Assist with the design & installation of telemetry systems. • To conduct of public education programs relating to weather impacts.	Staff to assist with conduct of public education campaigns. Database of past weather and flood events. Brochures relating to weather systems. Brochures "Flood Warning Systems" for all major streams in Queensland.	
Centrelink	Commonwealth agency responsible for dispersal of financial assistance to victims of a major or widespread disaster.	Specialist staff to process financial assistance and other related disaster services. Coordinated through the Dept. of Communities		

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
Department of Communities	To assist individuals, families and communities to restore emotional, social, economic, and physical wellbeing following a disaster event.	Specialist staff to assist the community to recovery by providing information on: • cause and effect of disaster; • availability and accessibility of services such as comfort, child care, transport, interpreter services, help with clean-up. • Financial assistance; • Counseling.		
Federation Mountain Rescue	Bush and mountain search and rescue.	Provide persons, material equipment and methods for search and rescue.	Self sufficient in search and rescue equipment: Stretchers, hauling gear, comprehensive ropes for rock climbing and prusiking.	
Department of Innovation, Information Economy, Sport & Recreation	State information management			
Department of Primary Industries and Fisheries	Manage risks to primary industries including agriculture associated with potentially harmful pests and diseases.	Specialist staff to : • Provide advice on pests and diseases. • Manage outbreaks. • Establish & operate a local disease control centre. Provide advice on quarantine and disposal of diseased stock and plants.		

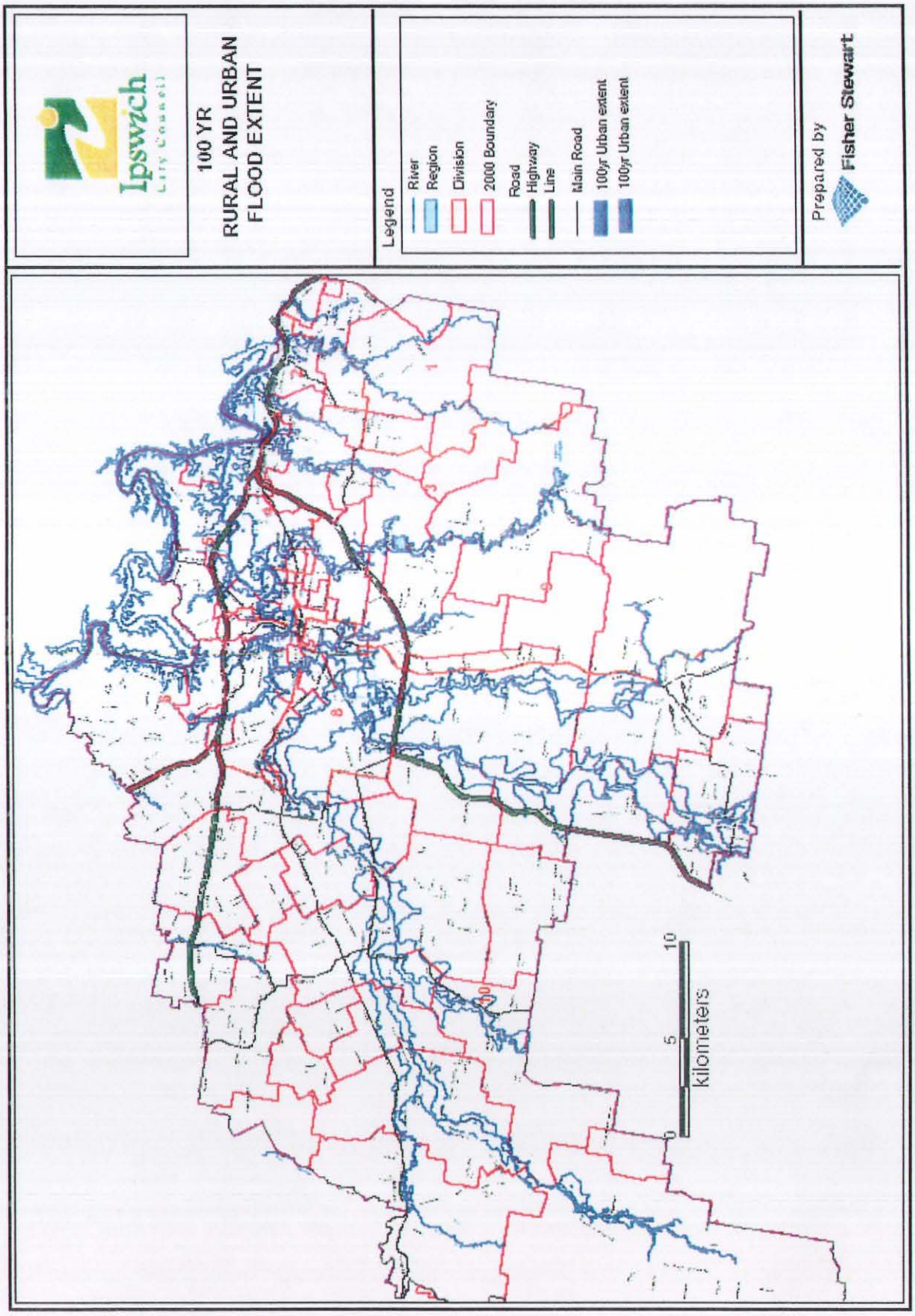
AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
Department of Public Works (Q- Build) Disaster Management Unit	Support communities during a disaster event.	Specialist staff to assist in: • Acquiring emergency supplies; • Providing building and *engineering* advice & services; • Appraising extent of damage; • Repairing or reconstruction damaged public assets; • Arrange temporary accommodation; • Coordinate the repair & replacement f damaged communication systems. • Advising on future mitigation options.		
Department of Transport – Main Roads	Planning, design, building, and maintaining the main roads network including bridges.	Transport of disaster related equipment and supplies as requested by DDMG. Movement of persons as a result of a mass evacuation of a disaster affected community at the request of the DDMG. Information on main road closures. Repair of main road infrastructure after a disaster.		
Environmental Protection Agency	Environmental incidents			
Red Cross	Evacuee registration			
Salvation Army	Catering for displaced persons Material aid			

AGENCY	FUNCTION	RESPONSE CAPABILITY	RESOURCES	POTENTIAL RESOURCE SHORTFALL
St John Ambulance	First Aid			
St Vincent de Paul	Material aid e.g. Essential clothing, bedding etc.			
State Development	Economic Recovery			
Telstra	Supply & maintenance of public communications. Advice concerning communications			
Private Sector				

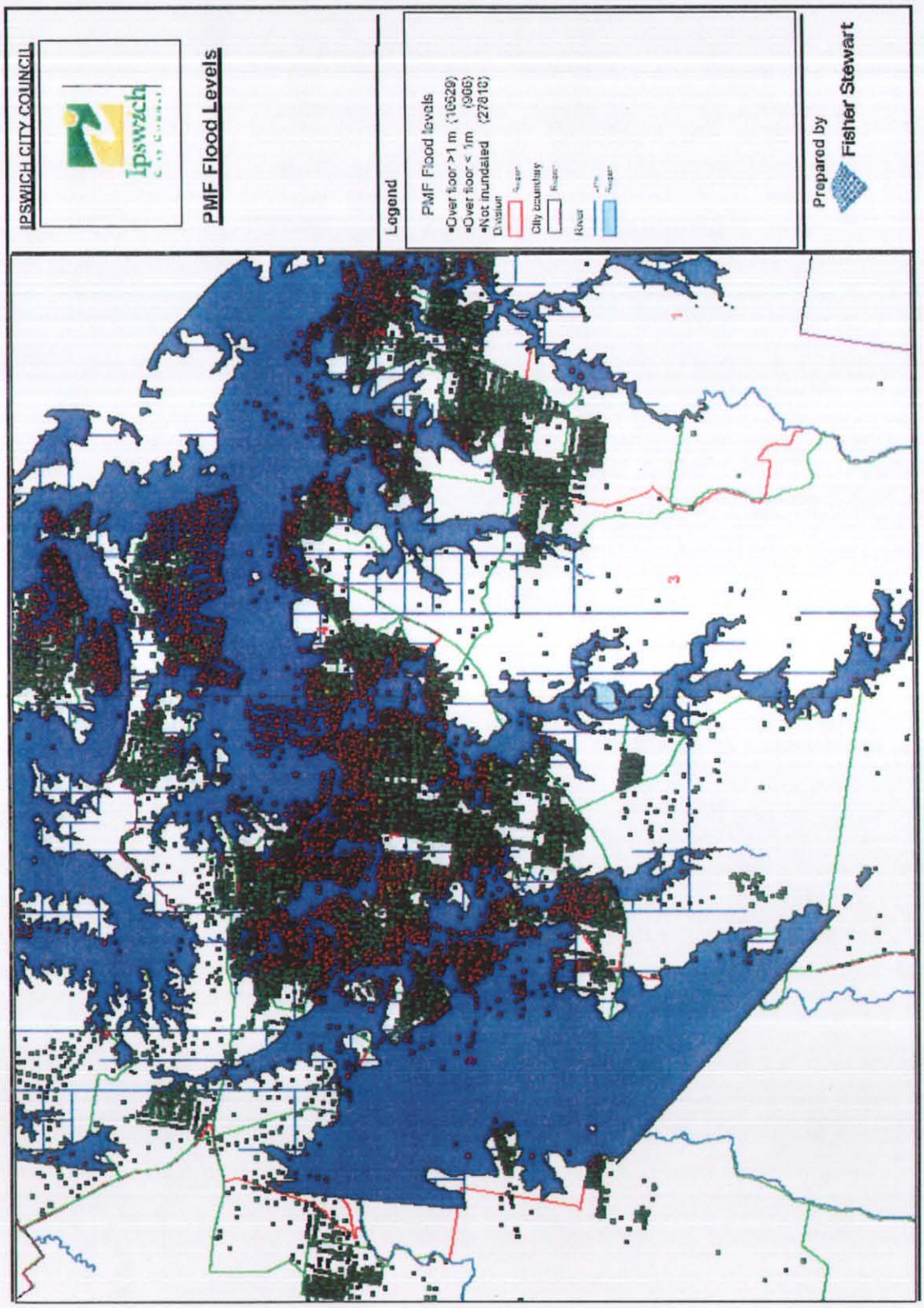
ANNEX (D) RISK MAP FLOOD 20 Yr ARI



ANNEX (E) RISK MAP FLOOD 100 Yr ARI



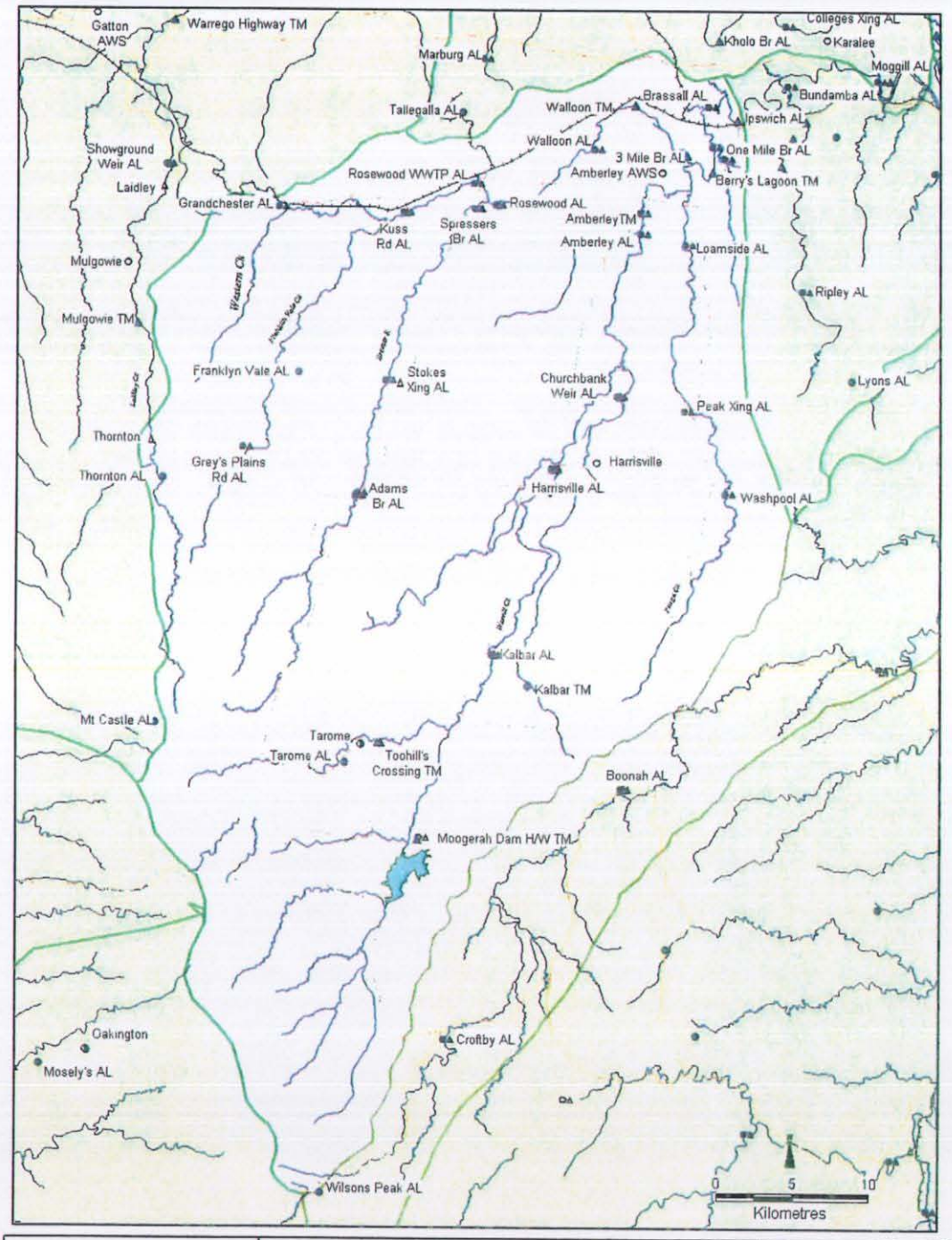
ANNEX (F) RISK MAP FLOOD PMF



ANNEX (G) CATCHMENT MAP BREMER RIVER

MAP 143.9

Australian Government
Bureau of Meteorology



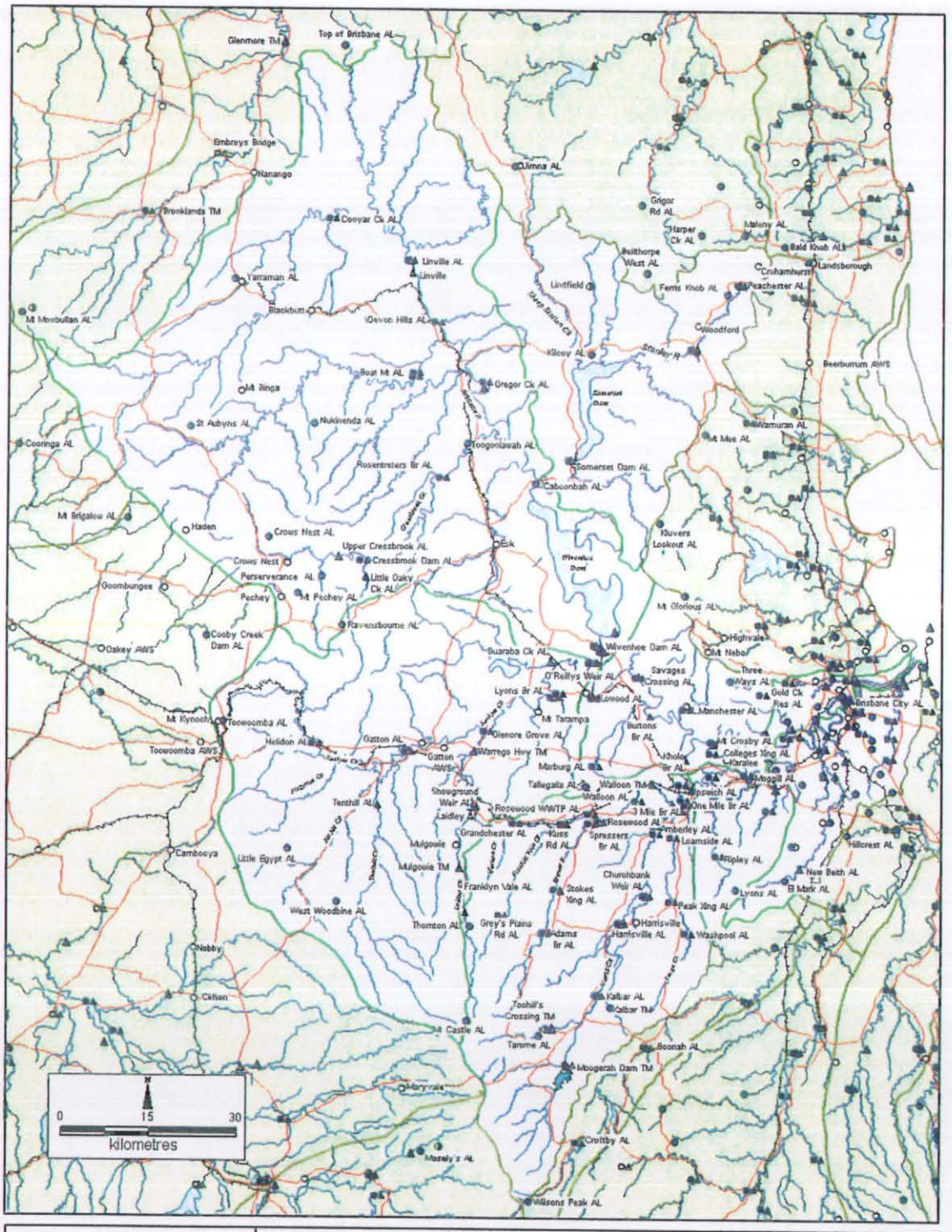
r:/pub/maps/map03/map143_9.wor

Digital data supplied Geoscience Australia. All rights reserved.

ANNEX (H) FLOOD WARNING SYSTEM BRISBANE & STANLEY RIVERS

MAP 143.1

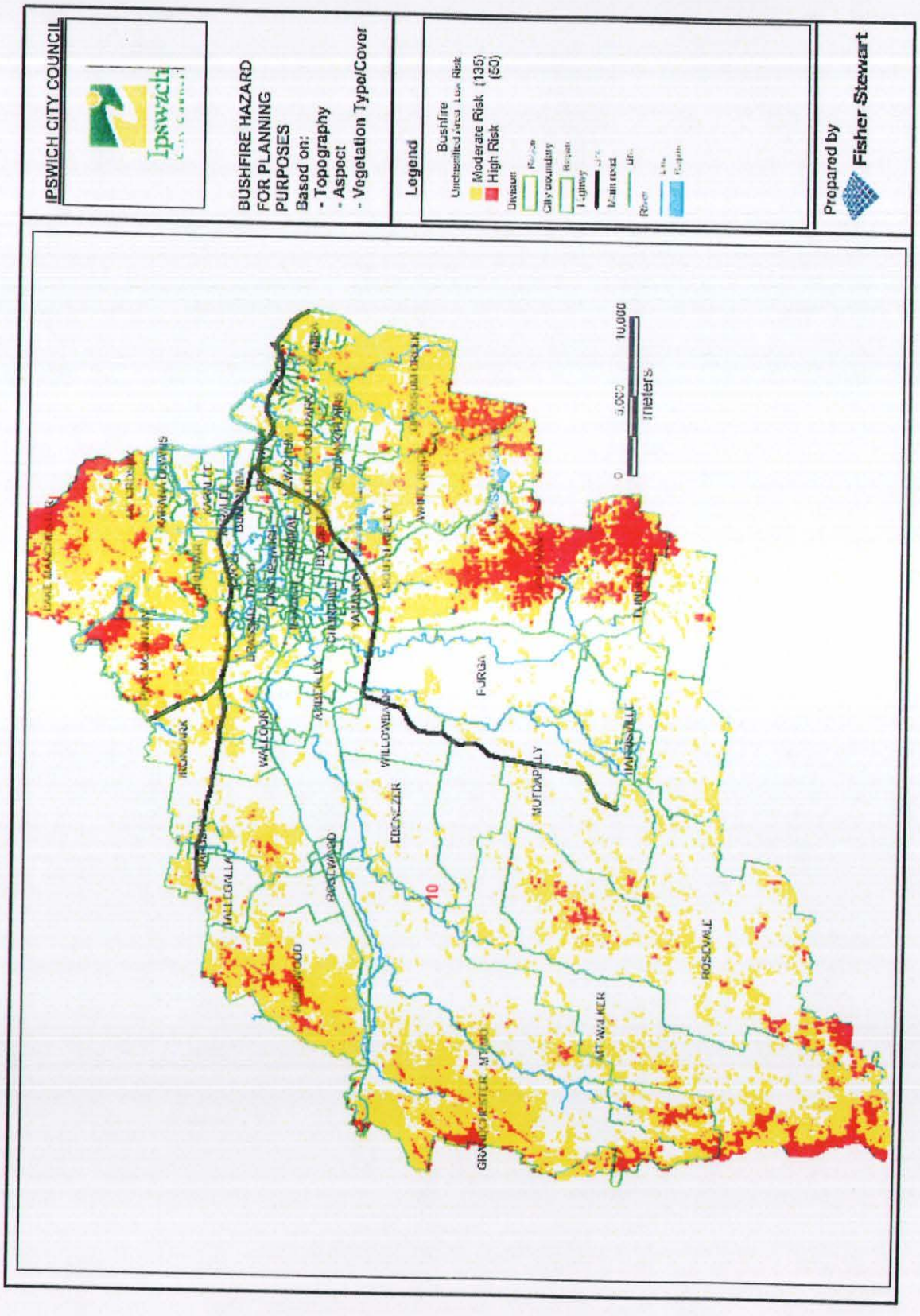
Australian Government
Bureau of Meteorology



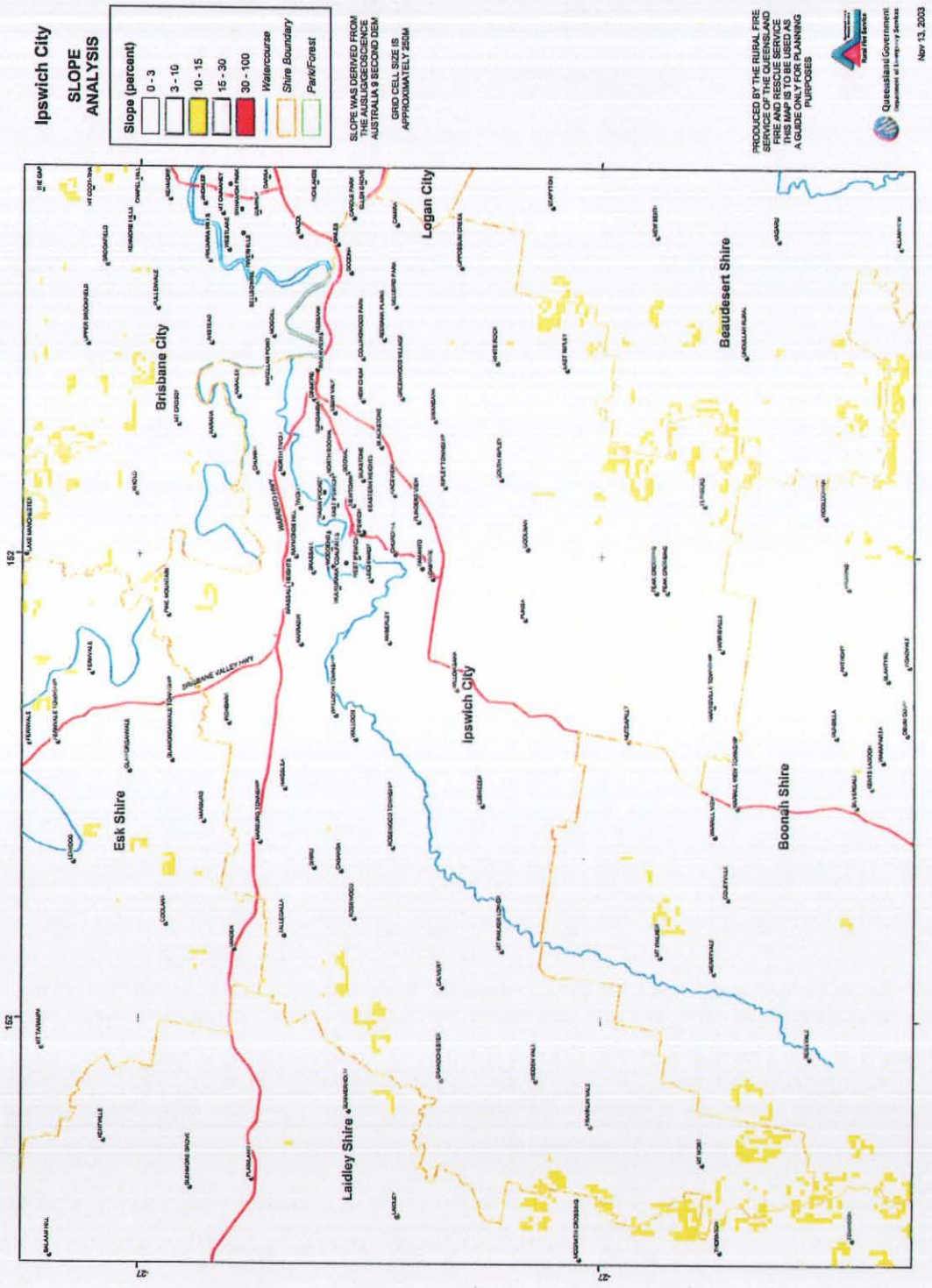
r:/pub/maps/map03/map143_1.wor

Digital data supplied Geoscience Australia. All rights reserved.

ANNEX (I) RISK MAP BUSHFIRE

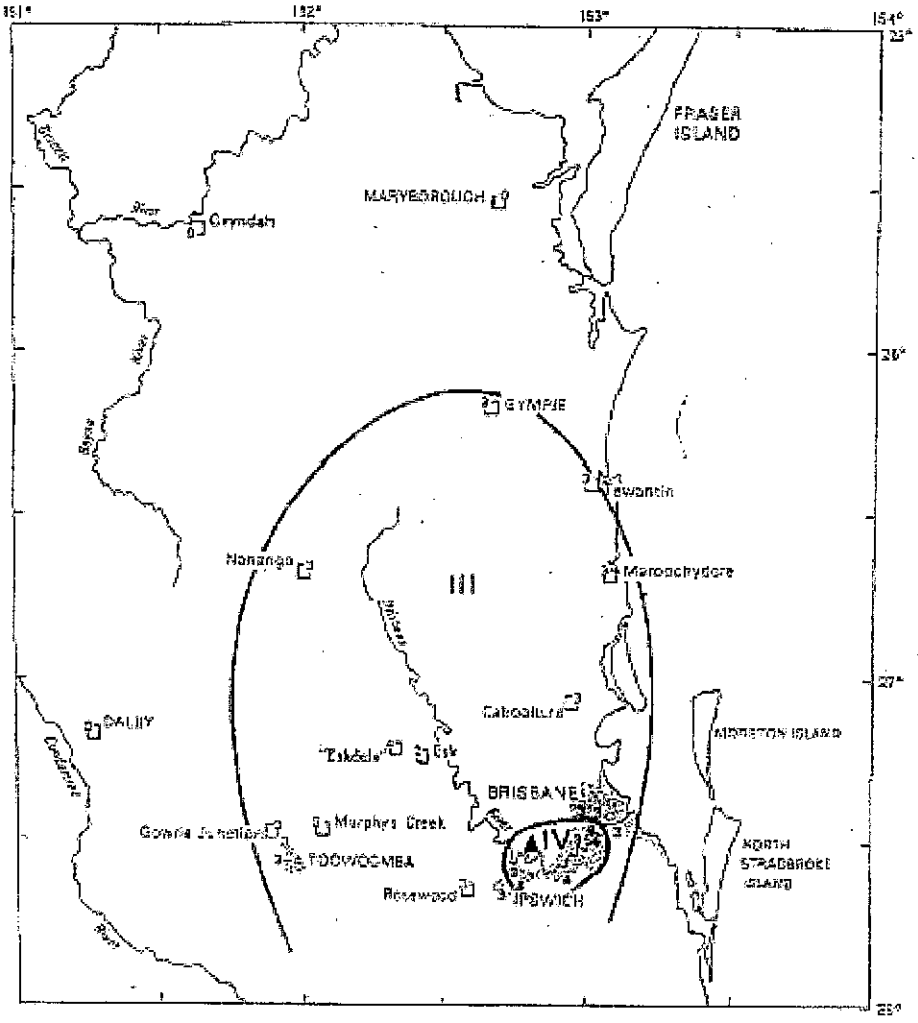


ANNEX (J) RISK MAP LANDSLIDE



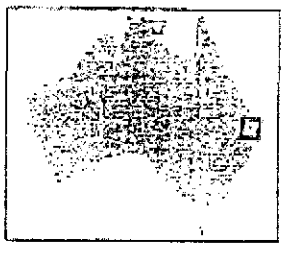
ANNEX (K) RISK MAPS EARTHQUAKE

ISOSEISMAL MAP OF THE IPSWICH EARTHQUAKE, QUEENSLAND, 26 FEBRUARY 1877



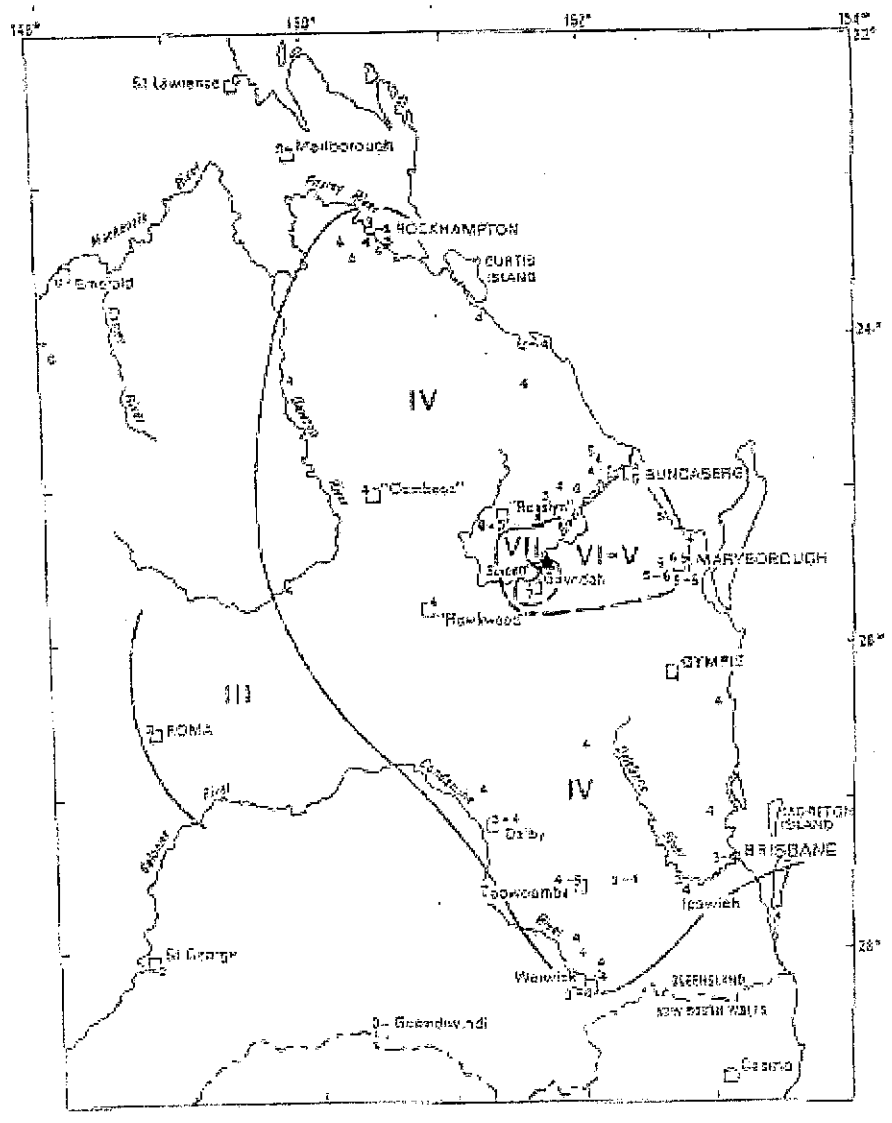
DATE : 26 FEBRUARY 1877
TIME : 21:45 UT
MAGNITUDE : 4.5 ML (E)
EPICENTRE : 27.5°S 152.8°E
DEPTH : Crustal

▲ EPICENTRE
IV ZONE INTENSITY DESIGNATION (MM)
4 EARTHQUAKE FELT (MM)
o EARTHQUAKE NOT FELT

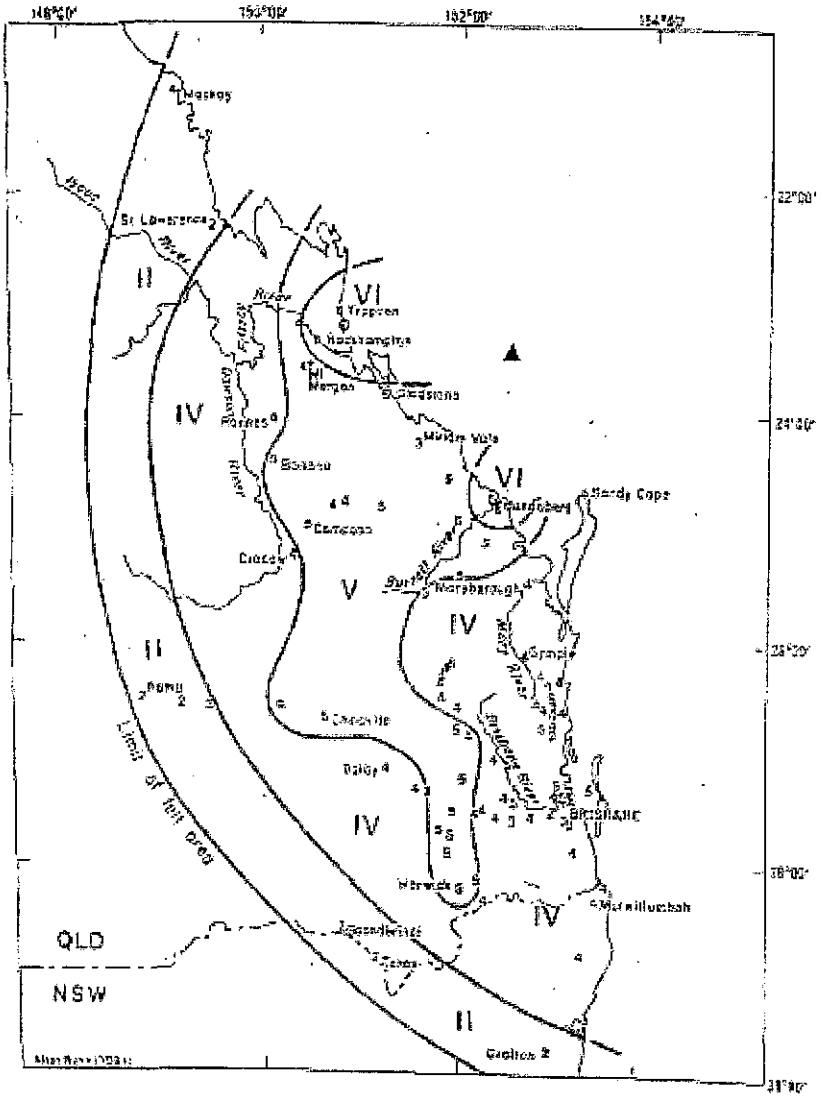


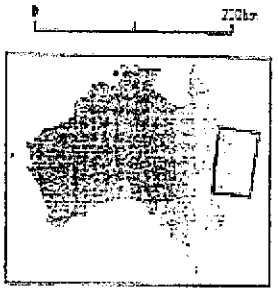
24/0599/18

ISOSEISMAL MAP OF THE GAYNDAH EARTHQUAKE, QUEENSLAND, 28 AUGUST 1883


148°
150°
152°
154°
St Lawrence
Mackay
ROCKHAMPTON
CURTIS ISLAND
Emerald
Dawson River
Nogoa River
Mackenzie River
Comet River
Carnarvon Creek
Barcaldine
Blackall
Tambo
Augathella
Charleville
Cunnamulla
Thomson River
Warrego River
Paroo River
Bulloo River
Eulo
Quilpie
Windorah
Birdsville
Diamantina River
Cooper Creek
Georgina River
Eyre Creek
Lake Eyre
Lake Frome
Lake Callabonna
Lake Gregory
Lake Blanche
Lake Torrens
Lake Eyre South
Lake Eyre North
Lake Yamma Yamma
Lake Bulloo
Lake Nooka
Lake Machattie
Lake Wyara
Lake Buchanan
Lake Galilee
Lake Dunn
Lake Elphinstone
Lake Lindsay
Lake Salvator
Lake Mackay
Lake Amadeus
Lake Neale
Lake Macdonald
Lake Hopkins
Lake Carnegie
Lake Wells
Lake Barlee
Lake Ballard
Lake Rason
Lake Lefroy
Lake Cowan
Lake Dundas
Lake Johnston
Lake Hope
Lake Cronin
Lake Grace
Lake Magenta
Lake Biddy
Lake Muir
Lake Unicup
Lake Saide
Lake Jasper
Lake Clifton
Lake Preston
Lake Kepwari
Lake Navarino
Lake Leschenaultia
Lake Monger
Lake Goollelal
Lake Gnangara
Lake Joondalup
Lake Yanchep
Lake Pinjar
Lake Mariginiup
Lake Nowergup
Lake Neerabup
Lake Jandabup
Lake Adams
Lake Forrestdale
Lake Thomsons
Lake Walyalup
Lake Coogee
Lake Yangebup
Lake Richmond
Lake Claremont
Lake Herdsman

ISOSEISMAL MAP OF THE BUNDABERG ('QUEENSLAND') EARTHQUAKE, QUEENSLAND 6 JUNE 1918

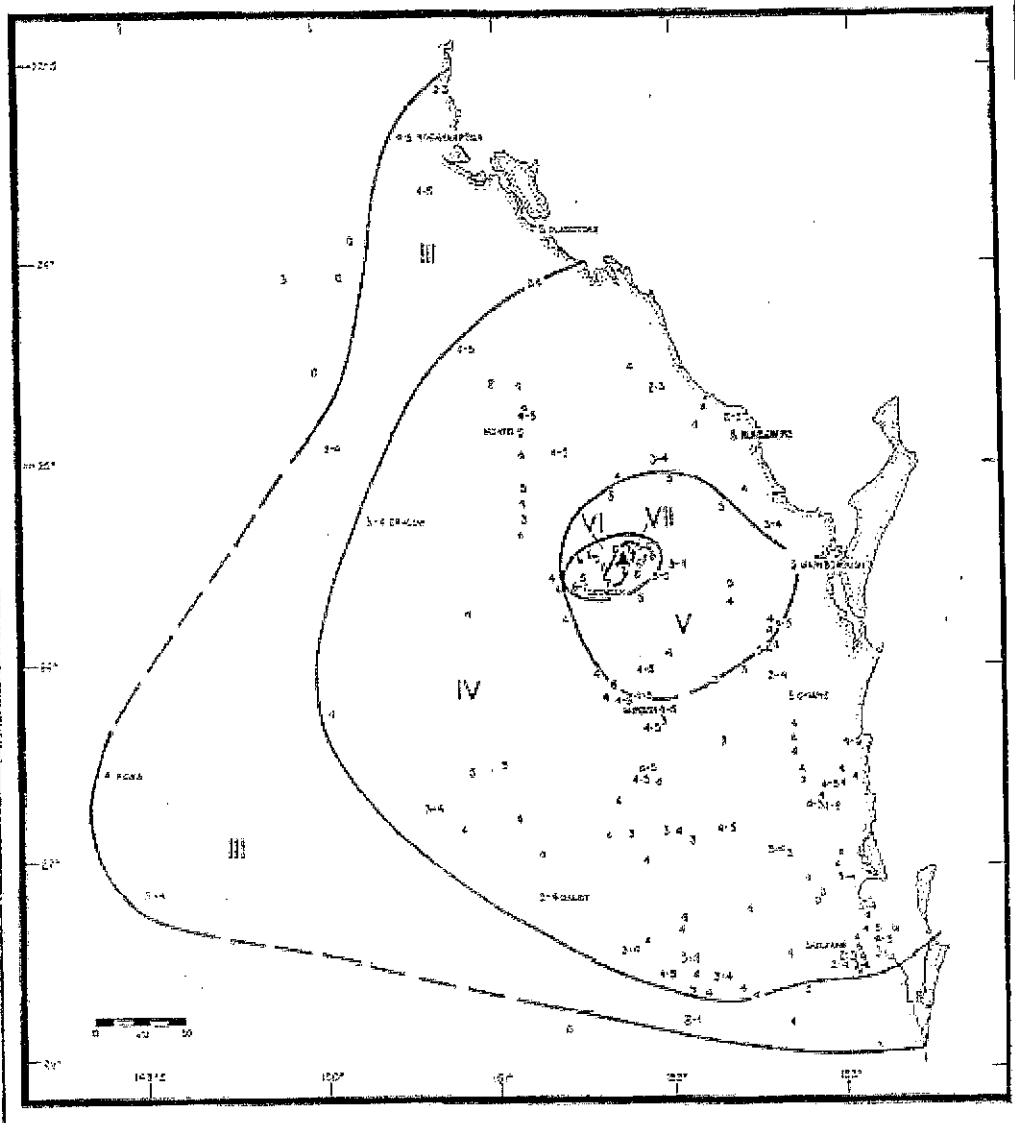




DATE : 6 JUNE 1918
TIME : 15:14:24 UT
MAGNITUDE : 6.0 ML (RIV), 5.8 MS (BMR), 6.3 MLE)
EPICENTRE : 25.5°S 152.5°E

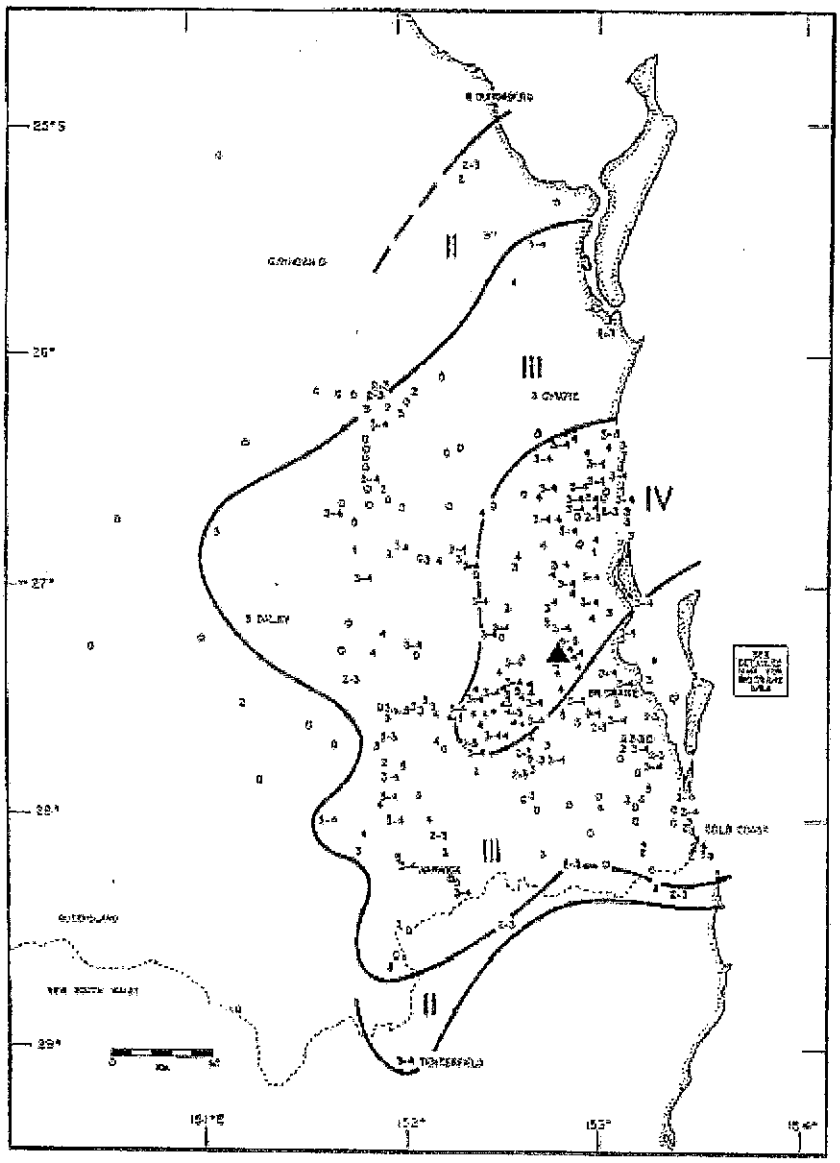
▲ EPICENTRE
IV ZONE INTENSITY DESIGNATION (MM)
4 EARTHQUAKE FELT (MM)
0 EARTHQUAKE NOT FELT

ISOSEISMAL MAP OF THE GAYNDAH EARTHQUAKE, QUEENSLAND 12 APRIL 1935



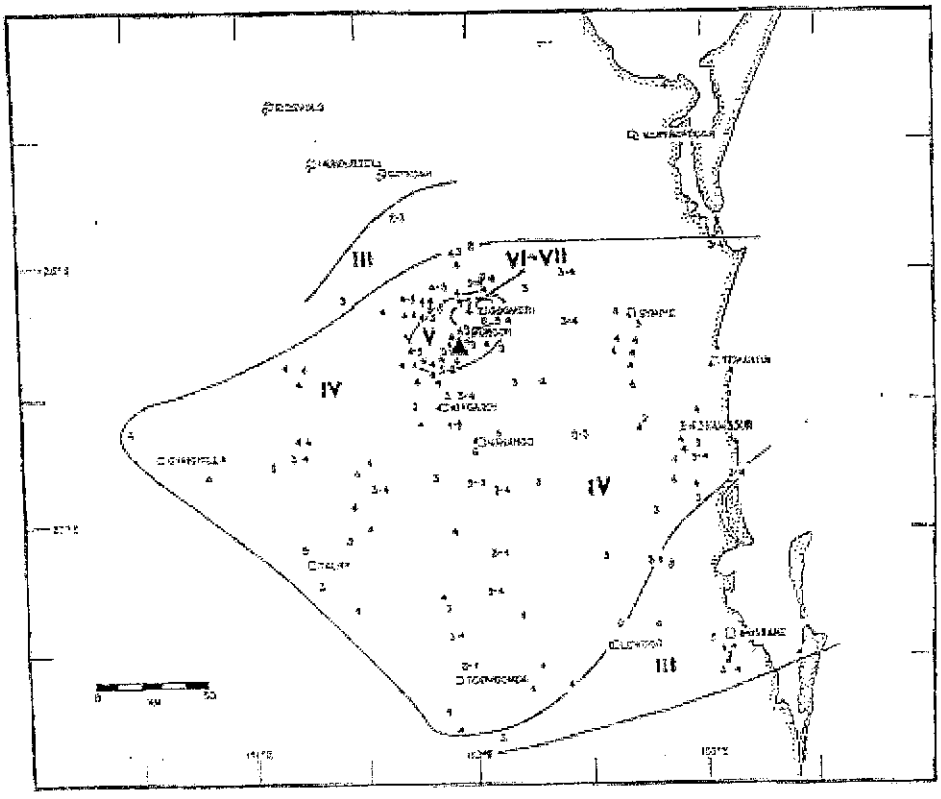
DATE : 12 APRIL 1935
TIME : 01:32UT
MAGNITUDE : 5.8ML (RIV), 5.7 ML (I)
EPICENTRE : 26.50°S 151.67°E
DEPTH : CRUSTAL

ISOSEISMAL MAP OF THE MT GLORIOUS EARTHQUAKE, QUEENSLAND 17 NOVEMBER 1960



DATE : 17 NOVEMBER 1960
TIME : 05:00UT
MAGNITUDE : 5.0ML (BRS), 4.7 ML (I)
EPICENTRE : 27.33°S 152.83°E
DEPTH : CRUSTAL

ISOSEISMAL MAP OF THE MURGON EARTHQUAKE, QUEENSLAND 30 OCTOBER 1984



DATE : 30 OCTOBER 1984
TIME : 06:29:48 UT
MAGNITUDE : 4.2ML (UQ), 4.7 ML (I)
EPICENTRE : 26.31°S 151.97°E
DEPTH : 7KM

ANNEX (L) TRAINING REGISTER

DATE	TYPE	PROCESS	PARTICIPANTS	SPECIFIC LESSONS LEARNT	OPPORTUNITIES FOR IMPROVEMENT	ACTION PLAN	COMPLETION DATE

ANNEX (M) COORDINATION CENTRE – STANDARD OPERATING PROCEDURES (SOP)

ANNEXURE M

IPSWICH CITY COORDINATION CENTRE

Standing Operating Procedures (SOP) – Ipswich City Coordination Centre

1.1 Introduction

This SOP is aimed to provide Ipswich City Coordination Centre personnel with a management tool to assist in the effective operation of the Centre.

To effectively manage the Coordination Centre activities, the following staff will be required:

(a)	1	Executive Officer
(b)	2-6	Telephonists
(c)	1-2	Runners
(d)	1	Administration Officer
(e)	1	Operations/ Computer Logger
(f)	2	Plotting/ Intelligence Officers
(g)	?	Liaison Officers (from Lead Agencies)
(h)	1	Media Officer
(i)	1	Communications Officer

Staff members will fluctuate depending on the centre requirements.

Staff duty statements refer to **FORM 1**

All staff is required to sign in and out for each shift they work. See **FORM 2** for Staff Registration Form (As staff are entitled to be paid for the hours they work.)

Incoming staff are required to arrive half an hour before their scheduled shift start time, to enable handover briefings to be conducted.

1.2 Coordination Centre Location

The Ipswich City Coordination Centre is located in the Presentation Room on Level 3 of the Ipswich Global Information Centre, South Street, Ipswich.

If circumstances arise that require the coordination centre to be relocated then the alternative location will be located at **(TO BE DETERMINED)**

1.3 Power to the Coordination Centre

The Presentation Room is powered from the Council's main power switch board located on the ground floor of the Council Administration Building.

In the event of a power failure the Council's standby diesel power generator will automatically cut-in an maintain power to the building.

The standby generator is maintained by the Facilities Management Section of Council with the assistance of the Council's electricians

1.4 Floor Plan Layout of the Claremont Room Coordination Centre

FORM 11 details the layout arrangements for the Ipswich City Coordination Centre.

Operational stations within the coordination centre should desirably be identified by suitable legible name plates.

It should be noted that the actual layout may vary depending on the level of activation and the size of the event being coordinated.

1.5 Decision to Activate

The Chairperson or the Executive Officer of the Ipswich City Local Disaster Management Group will decide when to activate the Coordination Centre for operations as per Section 5 - "Response" –and in particular clause 05.01.02 – Concept and Process - of the Ipswich City Local Disaster Management Plan,

The Ipswich City Local Disaster Management Group is to keep frequent contact with the Ipswich City Coordination Centre Executive Officer prior to the decision to activate the centre. This will enable the Executive Officer time to arrange staff and appropriate resources to operate the centre.

1.6 Prior to Activating the Coordination Centre

The Executive Officer is to:

(a) alert liaison officers of the Lead Agencies to standby to attend the Ipswich City Coordination centre;
(b) advise the District Disaster Coordinator of the status of the response and the level of activation of the Ipswich City Coordination Centre;
(c) ascertain staff availability for the Ipswich City Coordination Centre and advise the staff to remain on standby. (This will require some staff to remain in town to ensure staff are available to work the Coordination Centre.);
(d) welfare will be required for staff members who, are required to remain in town;
(e) contact the Administration Officer to arrange for the coordination centre to be organised (see floor plan **FORM 10**);
(f) contact the Communications Officer to arrange for activation the Ipswich City Coordination Centre 'phone lines; and
(g) ensure the resources as per **FORM 8** are available in the centre.

1.7 Upon Decision to Activate the Ipswich City Coordination Centre

The Executive Officer shall initiate the following:

(a) call in Coordination Centre staff on standby;
(b) call in Liaison officers on standby;
(c) brief staff of the nature of the situation;
(d) advise the District Disaster Coordinator of the activation; and
(e) advise the Area Director Counter Disaster and Rescue Services of the decision to activate.

Refer to **FORM 13** and **Annex T** for an activation flow chart

1.8 Administration of the Ipswich City Coordination Centre

1.8.1 Paper Flow

Refer to **FORM 12**

1.8.2 Situation Reports (SITREPS)

SITREPS shall be prepared at predetermined time intervals or as the situation changes and shall be forwarded to the District Disaster Coordinator.

See clause 05.09 of the Ipswich City Local Disaster Management Plan.

See SITREP form at **FORM 10** and **Annex O**

1.8.3 Extended Hours of Operation

The Executive Officer must be cognisant of the likelihood of the event timeline being extended and make provision for:

(a) roster of coordination centre staff;
(b) welfare of coordination centre staff who cannot return home;
(c) timing of meetings of Liaison officers with the Chairperson and Executive Officer.; and
(d) briefing of incoming coordination centre staff.

1.9 Roles and Responsibilities

ROLE	RESPONSIBILITY
CHAIRPERSON , IPSWICH CITY LOCAL DISASTER MANAGEMENT GROUP	Elected representative of Ipswich City Council; Ratification of decisions made by Ipswich City Local Disaster Management Group; Spokesperson for all media releases.
EXECUTIVE OFFICER IPSWICH CITY LOCAL DIASTER MANAGEMENT GROUP	See duty statement Form 1
AREA DIRECTOR DISASTER SOUTH EAST REGION	Advisor to Ipswich City Local Disaster Management Group

ROLE	RESPONSIBILITY
QUEENSLAND POLICE SERVICE, IPSWICH	Liaison Officer for Queensland Police Service
QUEENSLAND AMBULANCE SERVICE	Liaison Officer for Queensland Ambulance Service
QUEENSLAND FIRE AND RESCUE SERVICE - URBAN	Liaison Officer for Queensland Fire and Rescue Service - Urban
QUEENSLAND FIRE AND RESCUE SERVICE - RURAL	Liaison Officer for Queensland Fire and Rescue Service - Rural
LOCAL CONTROLLER, STATE EMERGENCY SERVICE IPSWICH	Liaison Officer for State Emergency Service Ipswich
IPSWICH CITY COUNCIL	Liaison Officer for Ipswich City Council – Municipal; Liaison Officer for Ipswich City Council – Flood; Liaison Officer for Ipswich City Council – Communications; Liaison Officer for Ipswich City Council – Welfare; Liaison Officer for Ipswich City Council – Recovery;
ROYAL AUSTRALIAN AIR FORCE	Liaison Officer Royal Australian Air Force
DEPARTMENT OF PRIMARY INDUSTRIES	Liaison Officer Exotic Animal Disease.
WEST MORETON PUBLIC HEALTH UNIT – POPULATION UNIT	Health – Epidemic – Infectious Disease.

1.10 Requests for Assistance – Accessing Support

When the resources of the Lead and/or Support Agency has been exhausted or other assistance required which cannot be met from the Agency's own resources then requests for support must be made to the Executive Officer Ipswich City Local Group who will consider the request in accordance with clause 05.10.01 of the Ipswich City Local Disaster Management Plan. All such requests shall be recorded on the appropriate form.

See **FORM 8**

1.11 Coordination Centre Equipment Requirements

As a guide, a list of equipment that is likely to be required in the Coordination Centre is detailed in **FORM 9.**

FORMS:

1. Staff Duty Statements
2. Staff Registration
3. Current Operations Status Board
4. Offers of Assistance Status Board
5. Operations Log
6. Message IN Form
7. Message OUT Form
8. Request For Assistance Form
9. Coordination Centre Resource List
10. Situation Reports Form
11. Coordination Centre Floor Layout Plan
12. Coordination Centre Paper Flow Chart
13. Coordination Centre Activation Chart
14. Activation of Coordination Centre ACD System

FORM 1

DUTY STATEMENTS COORDINATION CENTRE STAFF

(A) Executive Officer

The Executive Officer is responsible for the management of the Ipswich City Coordination Centre and support to the Ipswich City Local Disaster Management Group.

Specific duties include:

(a) keep the Chairperson and the Ipswich City Local Disaster Management Group briefed on the situation and provide forward forecasts;
(b) ensure there is a replacement Executive Officer available at the change of shift;
(c) Oversee the processing of operational information;
(d) Overview the preparation of SITREPS;
(e) Prepare material for briefing and debriefing session;
(f) General brief to all staff of the situation at the change of shift;
(g) Delegate where possible; and
(h) Sequentially number the message out forms and the SITREPS.

(B) Telephonist

The telephonist is responsible for receiving and transmitting information by telephone in the Coordination Centre.

Specific Duties include:

(a) Brief incoming replacement telephonist staff;
(b) Answer incoming 'phone calls and extract relevant information to determine if the (c) call is and enquiry or should the information pass through to the Coordination Centre;
(d) Accurately record relevant information on the appropriate forms in a legible manner (see form LDMG 004);
(e) Ensure the recorded information is passed to the Operations Logger for action;
(f) As directed make 'phone calls seeking and relaying information;

NOTE: A 'phone call should not be terminated until the entire message form has been completed.

(C) Runners

The runner is responsible for ensuring that information flows to the respective Coordination Centre staff in an immediate and efficient manner.

Specific duties include:

(a) Brief incoming replacement runner;
(b) Observe all out trays and pass information on to in trays next in line. (see paper flow)
(c) Collect message forms from Telephonist, stamp with numbering machine, photocopy on (**PINK** Coloured paper) and pass into information chain at point of Operations logger staff;
(d) Collect message forms from Communications Liaison Officers, stamp with numbering machine and pass to logging officer for recording and filing; and
(e) ensure numbering stamp machine has adequate ink and produces a clear number.

(D) Operations Logger

The operations logger is responsible for recording incoming and outgoing information..

Specific duties are:

(a) Brief incoming replacement Operations Logger;
(b) Register all
- requests for assistance;
- offers of assistance
- incoming and outgoing messages;
- SITREPS;
- important events; and
- incoming messages received by liaison officers with action taken on operations log form in a legible manner

(c) ensure that priority or urgent messages are brought to the attention of the Executive Officer;
(d) maintain a master register of all incoming and outgoing information;
(e) ensure distribution of messages/requests to the appropriate Ipswich City Coordination Centre personnel e.g.:
- plotting (Intelligence) officer;
- executive Officer;
- tasking Officer; and
- liaison Officers;

(f) ensure and confirm that all outgoing messages have been transmitted;
(g) regularly review the operations log and bring to the attention of the Executive Officer any incomplete actions; and
(h) marry and staple together completed original and photocopied messages and file in numerical order.

(E) Plotting (Intelligence) Officer

The Plotting Officer is responsible for the recording and plotting and updating of operational information on the Ipswich City Coordination Centre display boards.

Specific duties are:

(a) Brief incoming replacement officer;
(b) Plotting and updating information on maps/charts/white boards;
(c) Recording of:
- SITREP information on the SITREP chart;

- all "IN" messages on current Operations Status Chart;
- resource offers of assistance on Offers of Assistance Status Chart;
- Bureau of Meteorology information;
- information from photocopied messages "IN" on Current Operations Status Chart; and
- results of original "IN" messages on the Current Operations Status chart.

(d) where authorised, update or delete information from display boards;

(e) photocopy all information on boards and charts for record purposes prior to deleting completed operations; and

(f) have a thorough knowledge of the SITREPS and ensure that the information required to complete the report ids kept up to date and is accessible.

(F) Liaison Officers

Lead Agency and Supporting Agency Liaison Officers provide a link between their organizations and the Executive Officer.

Liaison Officers must have the authority to commit their organisation's personnel and resources in support of operational requirements.

Specific duties are:

(a) brief incoming replacement staff;

(b) record(legibly) results of action on the ACTION section of the original message form and place form in the out tray;

(c) some messages may not require action but will be information only. The Action section of the original message form is to be completed with a similar notation;

(d) Information relevant top the disaster, received via Liaison Officer communications is to be recorded on an incoming message form, action taken to be recorded and form given to the Plotting officer for recording actions on chart;

(e) advise and assist then Executive Officer in resolving operational matters;

(f) negotiate and implement agreed Counter Disaster response strategies e.g.:
- deployment of personnel and equipment;
- coordination of activities with other response organizations; and
- bringing resources from other Districts;

(g) maintain operational continuity with the Executive Officer and the Ipswich City Local Disaster Management Group through meetings and communications.

COORDINATION CENTRE STAFF REGISTRATION FORM

FORM 2

DATE: -- - / - - / - -

NAME (PRINT)	ORGANISATION (PRINT)	TIME IN	TIME OUT	SIGNATURE

IPSWICH CITY COORDINATION CENTRE

FORM 3

CURRENT OPERATIONS STATUS BOARD

This status board is maintained by the Intelligence Officer. Details of current operations only are recorded. Once the operation is completed and the action recorded for inclusion in the SITREP, the entry should be deleted from the board.

DATE:_____

LOG NO.	TIME IN	OPERATIONS DETAIL	ACTION AGENCY	RESULT

Form No: LDMG – 002
Rev. 0

IPSWICH CITY COORDINATION CENTRE
OFFERS OF ASSISTANCE STATUS BOARD

FORM 4

This status board is maintained by the Intelligence Officer. Details are recorded, "Offers of Assistance," from various agencies or members of the Public This is to include offers of labour, resources or intelligence.

DATE:_____

ASSISTANCE OFFERED	NAME & ADDRESS OF PERSON/AGENCY	TELEPHONE NO.	ANY LIMITATIONS IMPOSED

Form No: LDMG – 003
Rev. 0

IPSWICH CITY COORDINATION CENTRE

FORM 5

OPERATION LOG

No.	Time In	Information or Request	Action Agency	Action taken	Time Completed.

Form No. LDMG – 004
Rev. 0

IPSWICH CITY COORDINATION CENTRE FORM 6

Message Form IN

Log No._____

Date:____/____/____ Time _____Hrs.

FROM:

Name:_____
Address:_____
_____

Phone/Facsimile No.:_____

Message/Request: (If fax message, pin copy to rear of this form)

_____
_____
_____
_____

_____
Signature of the Recipient

Action (to be completed by liaison officer/s taking action)

Liaison Officer/s Taking Action

QFRS (UR). QFRS (RU). QAS. SES. DPI. QPS. TELSTRA. ENERGEX. IPSWICH CITY C. Q RAIL.

WEST MORETON PUBLIC HEALTH. IPSWICH C C COMMUNITY OPS. AREA DIRECTOR CDRS. OTHER(specify)

INCLUDED IN SITREP YES/NO

_____

ACTION TAKEN

_____
_____
_____
_____
_____
___

Date & Time Completed___/__/__ _____Hrs.

_____
Signature of Liaison Officer

Form No. LDMG – 005
Rev.

IPSWICH CITY COORDINATION CENTRE

FORM 7

Message Form **OUT**

Log No._____

Date:____/____/____ **Time** _____**Hrs.**

FROM: CHAIRPERSON/EXECUTIVE OFFICER.

TO: Name: _____
Address: _____
_____
Phone/Facsimile No.:_____

Message: (If fax message, pin copy to rear of this form)

_____
_____
_____
_____
_____
_____
_____
_____

_____
Printed Name of Sender

ACTION TAKEN

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

.....
Signature of Executive Officer

INCLUDED IN SITREPS **YES / NO**

LOGGED: **Date:** ___/___/_____ **Time** _____**Hrs.**

COMPLETED: **Date:** ___/___/_____ **Time:** _____**Hrs.**

Form No. LDMG – 006
Rev. 0

IPSWICH CITY COORDINATION CENTRE **FORM 8**

REQUEST FOR ASSISTANCE

TO: DISTRICT DISASTER COORDINATOR

FROM: CHAIRPERSON/EXECUTIVE OFFICER

REQUEST NUMBER _____ OPERATION/EVENT NAME _____

SUBJECT:
OWN RESOURCES: ☐ FULLY UTILISED ☐ NOT APPROPRIATE
PURPOSE OF REQUEST:
DELIVERY: WHERE TO: BY WHEN: TRANSPORT TYPE:
CONSIGNEE: NAME: TELEPHONE: ADDRESS:
PRIORITY: ☐ URGENT ☐ NON URGENT
CARGO: SIZE: WEIGHT:
AUTHORISING OFFICER: SIGNATURE..... PRINT NAME:.....
DATE: ..... TIME: ..... FORM No. LDMG – 07 Rev 0

RESOURCES FOR IPSWICH CITY COORDINATION CENTRE FORM 9

MAPS AND CHARTS	Local District Satellite Detail Plans Aerial Photographs
WHITEBOARDS	Current Operations Offers of Assistance Other
PIN BOARDS	
TELEVISION SET AND VIDEO	
OVERHEAD PROJECTOR AND SCREEN	
OFFICE FURNITURE – TABLES & CHAIRS	Telephonists Operations Logger Tasking officer Plotting (intelligence Officer) Executive Officer Chairperson Liaison Officers x 6
TWO WAY RADIO	Council Base Station
RADIOS	Transistor type with spare batteries
COMPUTERS	Word processing and database capability
PRINTER	
MOBILE PHONE	Recharging unit/spare batteries
POWER SUPPLY	Emergency supply Auxiliary for air conditioning
LITTER BINS	
FACSIMILE MACHINE	
PHOTOCOPIER	
FILE TRAYS X 2 (IN & OUT)	Telephonists Operations Logger Tasking officer Plotting (intelligence Officer) Executive Officer Chairperson Liaison Officers x 6
FILING CONTAINER	
TELSTRA TELEPHONES	
HANDS FREE TELEPHONES	
PAPER	For Facsimile, Photocopier, Printer
OFFICE STATIONERY	Pens, Stapler, Number Stamp, White Board Markers, Magnets, Drawing Pins
FORMS	AS PER SOPS
FIRST AID KIT	
KITCHEN FACILITIES	
PROTECTIVE CLOTHING	Hard hats/overalls/jackets/raincoats as required

REFERENCE DOCUMENTS	Phone Books, Ipswich City LDM Plan, Ipswich District DM Plan, EAPs, NDRA Guide, DM Act 2003,

FORM 10

IPSWICH CITY LOCAL DIASTER MANAGEMENT GROUP

SITUATION REPORT (SITREP)

Form No: LDMG 007

FROM
Chairperson/Executive Officer

Telephone:
Fax:

TO: (i) **District Disaster Coordinator**
FAX:

(ii) **Area Director**
Counter Disaster & Rescue Services
FAX:

DATE: **TIME:** **SITREP No.**

WEATHER
Local Observations:

Any Difference from
Official weather report:

TRANSPORT
Road:

Rail:

Aviation:

Marine:

Other:

COMMUNICATIONS
Telephone network:

Mobile phone network:

Radio 2 way:

Broadcast Radio/TV:

POWER
Mains:

Auxiliary

DAMAGES
Buildings:

Services:

Environment:

POPULATION
Deceased:

Injured:

Missing:

Homeless:

EVACUATIONS
Numbers:

Origin:

Destinations:

Evacuation Centres Activated:

INDUSTRY
Council:

Government offices

Schools:

Hospitals:

LOCAL ARRANGEMENTS
Changes in Contacts:

Problems Encountered:

Staff/Resources Deployment:

ON GOING ACTIVITIES (include brief details of current operations, Politician Visits etc)

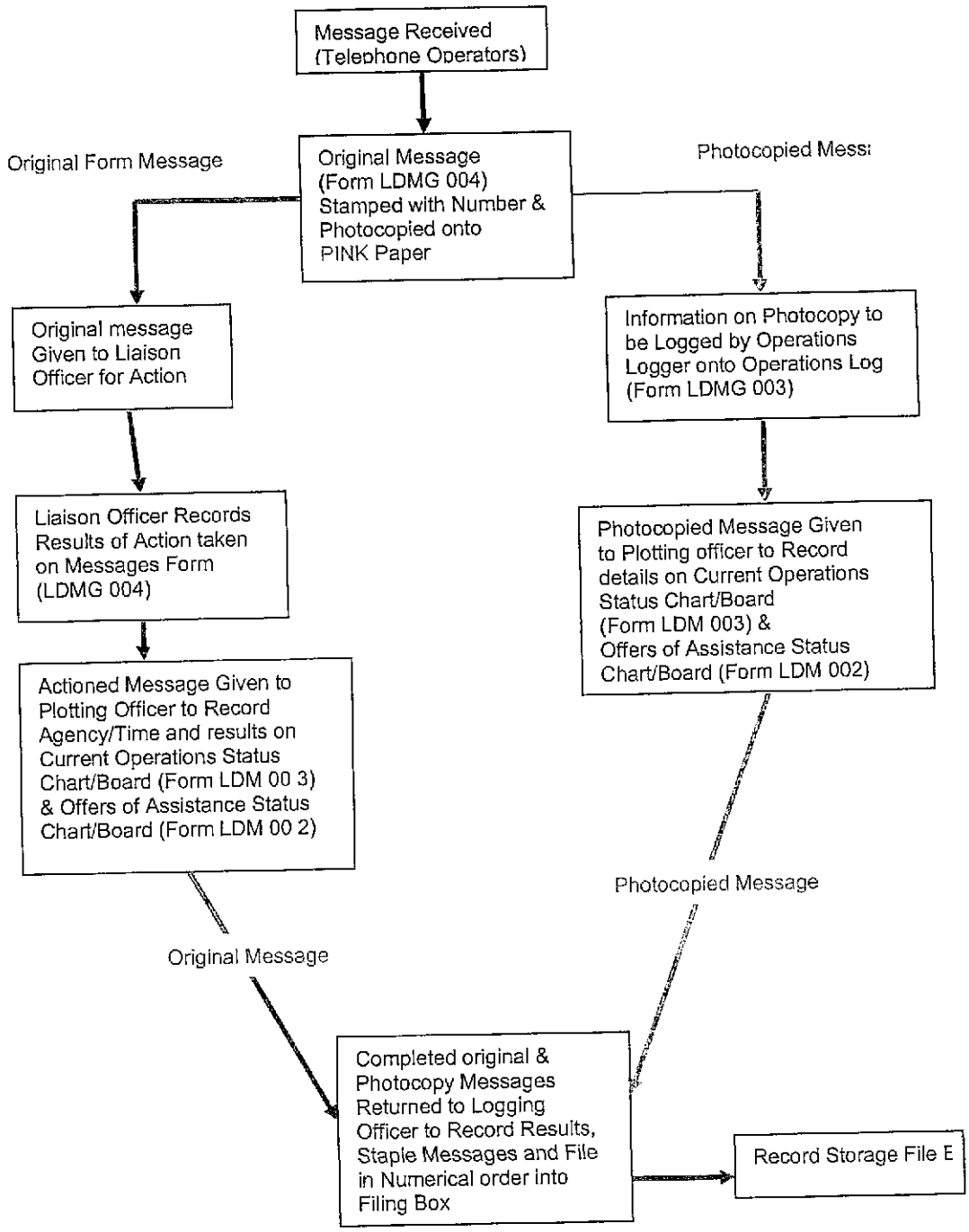
PROJECTED OPERATIONS (Major problems in next 24 hrs, Anticipated resource requirements, including food re-supply etc)

GENERAL OVERVIEW OF THE SITUATION

IPSWICH CITY COORDINATION CENTRE LAYOUT PLAN FORM 11

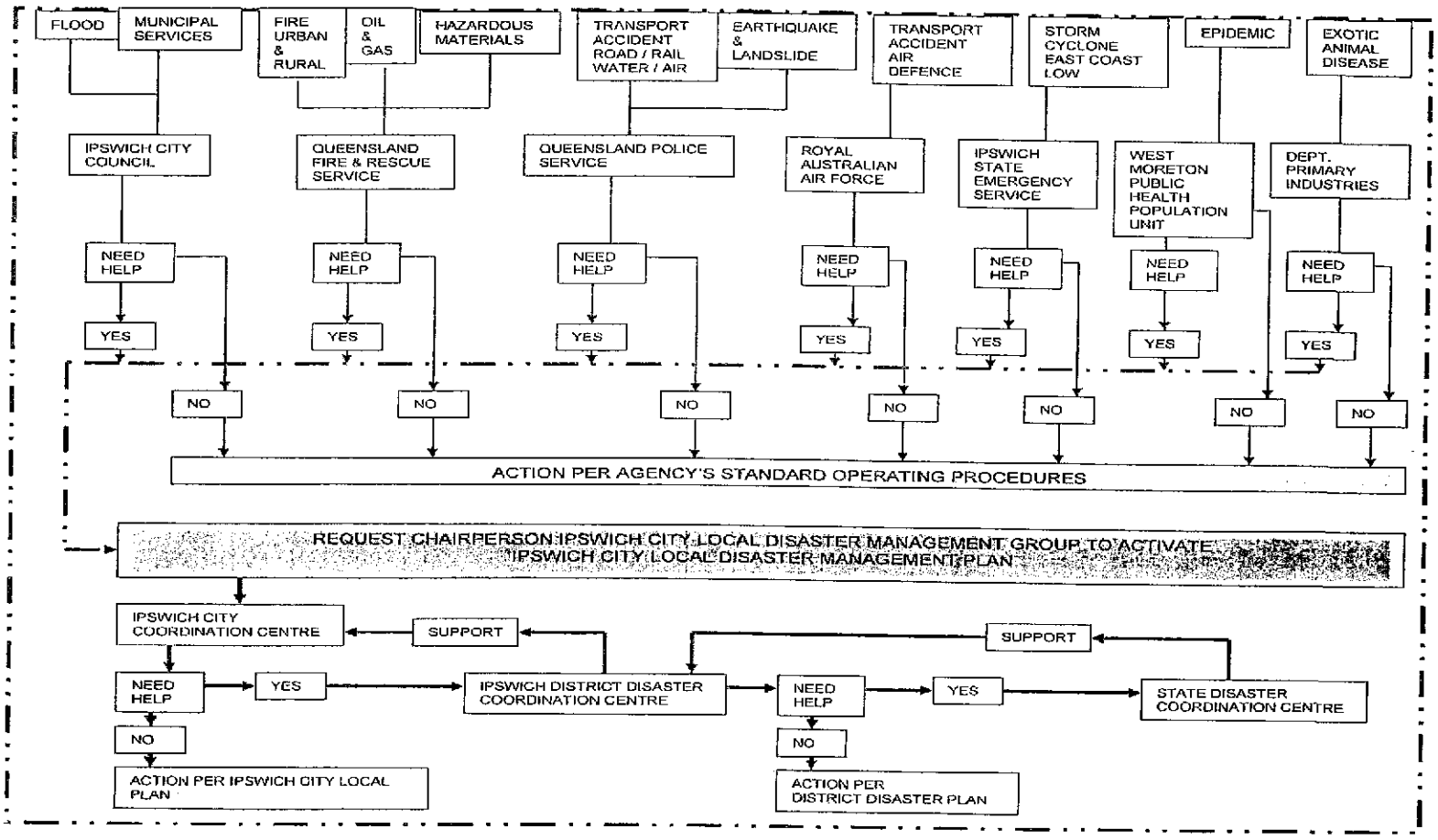
FORM 12

IPSWICH CITY COORDINATION CENTRE PAPER FLOW



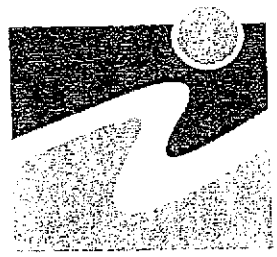
IPSWICH CITY COORDINATION CENTRE ACTIVATION CHART

FORM 13



IPSWICH CITY COORDINATION CENTRE ACD ACTIVATION FORM 14

ANNEX (N) IPSWICH CITY FLOOD OPERATIONS PROCEDURES MANUAL



Ipswich
City Council
Quality Lifestyle

Flood Operation Procedures Manual

Counter Disaster Plan

OCTOBER 2007

Controlled Copy Number:

DOCUMENT CONTROL SHEET

Controlled Copy Number:

Authorisation:

Approved by: Date:
(Chief Operating Officer, Engineering Services Department, Ipswich City Council)

The Engineering Services Department, Ipswich City Council prepared this Flood Operation Procedures Manual.

REVISION STATUS:

Revision Number	Revision Description	Revision Date
1	Revised Issue	December 2005
2	Revised Issue	October 2006
3	Revised Issue	October 2007
4		
5		
6		

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Copy Number	Position	Extension Number
1	Chief Operating Officer, Engineering Services Department	7861
2	Deputy Works Manager	7860
3	Manager, Roads and Drainage	7870
4	Chief Operating Officer, Ipswich Water	7819
5	Operations Manager, Ipswich Water	7369
6	Asset Systems Manager	7805
7	Survey Services Manager	7847
8	Design Services Manager	7894
9	**Not used**	
10	Infrastructure Delivery Engineer	7865
11	Senior Engineer, Infrastructure Planning	7906
12	Maintenance Engineer, Roads & Drainage	7864
13	Technical Officer, Roads & Drainage (Duty Officer)	7814
14	Spatial Systems Officer	7944
15	SES Local Controller, Ipswich	7839
16	Construction Engineer, Roads and Drainage	7863
17	Records Manager	6636

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KEY PERSONNEL RESPONSIBILITY

STAFF POSITION	OPERATION AND FUNCTION
Chief Operating Officer, Engineering Services Department	Team Leader Executive Officer of Counter Disaster Committee
Deputy Works Manager	Flood Information Centre Prediction Team - Team Leader Member of Counter Disaster Committee
Chief Operating Officer, Ipswich Water	Water & Sewerage Operations (Team Leader)
Roads & Drainage Manager Construction Engineer Maintenance Engineer	Roads & Drainage Coordination and Management
Operations Manager Engineer, Field Services Ipswich Water	Water & Sewerage Coordination and Management
Engineers - Infrastructure Planning Branch	Flood Information Centre Prediction Team
Infrastructure Planning Branch Technical Staff	Monitor Computer Readings, Weather, Radar, ALERT & Maintenance of Systems
Design Services Manager and Asset Systems Manager	Flood Information Centre Monitoring/Plotting/ Advice Team (Team Leader)
Designers	Flood Information Centre Public Enquiry Team Plotting of Hydrographs
Survey Services Manager	Flood Information Centre Support Gauge Reading Team, Team Leader
Surveyors	Flood Information Centre Support Gauge Reading Team
Survey Assistants	Flood Information Centre Support Gauge Reading Team
Roads & Drainage Field Officers	Road Closures, debris removal, bridge inspections
Water & Sewerage Electricians & Fitters	Sewerage pump station shutdowns Electrical & Mechanical Faults
Roads & Drainage Resource Coordinator	Field resource coordination

1. *BACKGROUND TO FLOODING*

Flooding in the City of Ipswich can occur from runoff caused by cyclonic rain, rain depressions or intense rain cells in the headwaters and or lower reaches of one or more of the following streams:

(a) Local Systems: Woogaroo Creek, Goodna Creek, Six Mile Creek, Bundamba Creek, Black Snake Creek, Deebing Creek and Sandy Creek (Camira).

(b) Major Systems: Purga Creek, Warrill Creek, Bremer River, Brisbane River, Western Creek and Franklin Vale Creek.

- Flooding from the local systems can be considered to be instantaneous, i.e. only affording one (1) to three (3) hours warning.

- Flooding from the major systems can be considered long term, i.e. the flood peak taking six (6) to twelve (12) hours to reach the City.

The prediction of flooding from the local system is very much a case of having an awareness for the wetness of the catchment and monitoring the intensity, duration and volume of catchment rainfall. This information is available from the Council's Enviromon system and Bureau of Meteorology's web site.

Hydrologic and hydraulics models were developed as part of the following studies for the Ipswich river/creeks system in recent years in order to improve knowledge of the catchments and flood prediction. There have been a number of developments relating to the outcome of these models within Brisbane River, which have resulted for review of these hydrologic/hydraulic models. This review was undertaken during the financial years 2005-06 & 2006-07 and to be finalised.

- Ipswich Rivers Flood Study Phase 1 and Phase 2, SKM (2000)
- Ipswich Rivers Flood Study Phase 3, Halliburton (2002)
- ICC's Natural Disaster Risk Management Study, Fisher Stewart (2002)
- IRIT's Bremer River Catchment Flood Risk Management Study, QRMC (2004)

The prediction of flooding from the major systems involves having the same awareness and knowledge of the catchment as for the local systems. This information is also available from the Council's Enviromon system and Bureau of Meteorology's web site. These floods also require close liaison with the Bureau of Meteorology in order to obtain flood heights at key monitoring stations located well upstream of Ipswich and an indication of predicted rainfall in the catchment.

2. *THE FLOOD INFORMATION CENTRE*

The purpose of the Flood Information Centre is to act as an information provider during a flood event, both to Council areas and external to the organisation.

This is achieved through the analysis of information provided from various sources within Council and from external agencies. The information is gathered and processed in order to be used for prediction of the duration and extent of likely flooding within the City.

The information provided by the Centre is distributed to Council's operations staff, the SES, the Police, the media and direct to the public via pre-advertised public telephone numbers.

Once open, the Centre is staffed by the following teams:

(a) Prediction;
(b) Monitoring, Plotting & Advice to Police, SES and Council's field staff;
(c) Public Enquiry;
(d) Gauge Reading (Field)

Appendix A contains a ready reference of telephone numbers etc. of all personnel of the Flood Information Centre.

Operations continue around the clock until any imminent danger has passed.

If the event escalates to the point where the Counter Disaster Organisation needs to be actuated, then the Executive Officer is alerted in order that the Ipswich Counter Disaster Committee can be advised of the likely magnitude of the event and the extent of assistance needed. (The Executive Officer of the Counter Disaster Committee is the Chief Operating Officer, Engineering Services Department or his relief).

3. *FLOOD INFORMATION CENTRE - FUNCTIONS OF TEAMS*

3.1 Prediction Team

(a) Deputy Works Manager - Team Leader
(b) Engineers - Infrastructure Planning Branch

During the wet season and at other appropriate times, staff of the Infrastructure Planning Branch monitor rainfall in the catchment and weather patterns generally. This is achieved through the use of the Council's Enviromon system, the Internet (BOM Weather Info Pages) and liaison with the Bureau of Meteorology as necessary.

Monitoring of a flood event on the major stream system occurs for many hours prior to any decision to open the Flood Information Centre. The responsibility for monitoring will be carried out by Infrastructure Planning Branch staff.

The Council's Flood ALERT computer automatically monitors rainfall and stream heights in real time. Based on predetermined criteria, the system raises an alarm via pager messages to the Duty Officer with a message relevant to the alarm.

Infrastructure Planning Branch staff will access the ALERT system from either the main terminal during working hours or a remote site via modem outside working hours. As necessary, the officer will access the Council's Enviromon system and Bureau of Meteorology's web site for more information in relation to rainfall in and adjacent to the catchments.

The situation will be assessed and the matter at hand will be discussed with the Deputy Works Manager. The Deputy Works Manager and Duty Officer will decide on any necessary course of action.

If the Deputy Works Manager is not contacted by the Duty Officer within thirty minutes of receiving a significant pager alarm message from the Enviromon system then it will be the responsibility of the Deputy Works Manager to contact the Duty Officer or assume responsibility accordingly.

If it is evident that there is a need for further action, i.e. activation of the Flood Information Centre, then the Duty Officer will liaise with the Deputy Works Manager as to the extent of this action.

Any decision to open the Flood Information Centre will be made by the Deputy Works Manager. This would occur once it has been determined that flood heights at any or all of the key locations, i.e. Ripley, O'Possum Creek, Harrisville or Rosewood will produce a significant flood event in Ipswich.

Such an event could be expected to result in road closures, flooding of bridges, flooding of Council facilities (such as sewerage pump stations), flooding of homes or when it is determined that the level of flooding, although not necessarily causing significant closures etc, will generate considerable public enquiry.

Whilst the ALERT computer is capable of providing early warning of heavy rain or stream rises etc. via pager, it is still necessary to monitor the system when there has been heavy or constant rainfall in the catchment or there is predicted imminent heavy rain/storm activity.

A table of predetermined criteria for the automatic alarms, relevant messages and a list of manual criteria are listed in Appendix B.

In periods of heavy continuing rain in the catchment, the various systems are monitored to gauge intensity of rain and estimate subsequent expected level of rise in the principal streams.

If levels at the gauge stations indicate an expected level of:

(i) 16.00 m at 3 Mile Bridge;
(ii) 11.50 m at 1 Mile Bridge;
(iii) 6.00 m at David Trumpy Bridge;
(iv) 18.50 m at Blackstone Bridge;
(v) 7.00 m at Highway at Woogaroo Creek;

The Deputy Works Manager should be advised and requested to authorise the Flood Information Centre to be activated.

If the Flood Information Centre is activated, the following duties will be performed:

- Team members analyse incoming gauge station heights to calculate expected peak heights at strategic locations throughout the City and raise alarms etc. as required.

- Contact is maintained with Flood Operations at BOM as required via the telephone on either the public information lines or a private telephone line access.

- Constant interrogation and monitoring of the Council's Enviromon system, BOM Flood Warnings and weather forecasts (Internet).

- Team leader or staff member on duty at the time shall provide status details to the Council's Media Branch for dissemination to the media.

- Coordination of the relevant information to operational staff, SES, Police etc.

3.2 Monitoring/Plotting/Advice Team

(a) Design Services Manager - Team Leader
(b) Technical Officers
(c) Drafters

Individual stream heights are plotted on stream profile sheets.

The levels of critical locations within the City are monitored on stream profile sheets in order to provide the best possible warning to the SES, Police and Council's operational staff of likely road closures, house evacuation needs, removal of electrical motors from Council's pump stations etc.

Based on levels determined by the Prediction Team, information is conveyed to the SES, Police and Council's operations personnel as required.

Flooding in Bundamba Creek will be managed as per the procedures outlined in the document titled 'Bundamba Creek Citizen's Watch'. Members of the Watch and contact telephone numbers are listed in Appendix D.

3.3 Public Enquiry Team

Public Enquiry Teams will be assembled by the Team Leaders in attendance on a need basis. Teams will comprise staff from the Infrastructure Planning Branch and other areas as required.

Telephone lines are connected in the Flood Information Centre as soon as the Centre is activated. Depending on the magnitude of the event, this will vary between two and six telephones.

The publics are advised by media releases of the activation of the Centre and of the telephone numbers to be used. This is arranged through Council's Media Branch and is prioritised according to the expected magnitude of the event. Any calls to Council's advertised phone number for general flood advice will be redirected to the Flood Information Centre during times that the Centre is active.

All incoming and outgoing calls are to be logged by the Monitoring/Plotting/Advice Team for analysis after the event.

Staff of the Flood Information Centre compare existing and predicted flood levels with information confirmed by the Bureau of Meteorology and contour plans of the City in order to give appropriate advice to any enquirer.

Council's Media Branch is to be provided with updates in order for them to be able to make satisfactory media releases relevant to the event.

NB: Recorded telephone messages can be used for dissemination of general information once the Flood Information Centre has been closed instructions for this procedure in Appendix K.

3.4 Gauge Reading

(a) Survey Services Manager - Team Leader
(b) Surveyors
(c) Survey Assistants

Staff read manual gauges at intervals determined by the Prediction Team as and when required enhancing or validating automatic readings.

Manual readings are telephoned or radioed to the Flood Information Centre.

Occasional calibration readings are made at ALERT sites to automatically transmitted data.

3.5 Roster

Teams will work:

(i) Ideally a twelve hour roster if the event is expected to last no more than thirty-six hours if sufficient staff are available;

(ii) Ideally an eight hour roster if the event is expected to last more than thirty-six hours if sufficient staff are available;

(iii) A handover/briefing period of thirty minutes will occur prior to the change of shifts.

3.6 Debriefing

A debriefing of the event will be undertaken within five days of the cessation of any Flood Information Centre activation and the Deputy Works Manager will prepare a report on the Centres operations to the Chief Operating Officer, Engineering Services Department.

The Deputy Works Manager will call a debriefing of the overall event in conjunction with the Ipswich City Council Executive Management, Police and SES within fourteen days of the cessation of any event, as determined necessary by the Chief Operating Officer, Engineering Services Department.

3.7 Record of the Event

Stream hydrographs will be plotted for archiving purposes.

A report will be prepared for Council's consideration, together with any recommendations for improvements to the operation of the Flood Information Centre or Flood Operations Unit and functions of the teams as appropriate. This report will outline general costs to Council for damage of infrastructure, economic and personal loss etc.

4. *FLOOD OPERATIONS UNITS*

Council's Flood Operations Units are established to undertake operational responsibility and coordinate actions to mitigate the effects of flooding on the public and property, based on information supplied from the Flood Information Centre.

Two distinct Operations Units are established to manage field operations as follows:

- Ipswich Water Operations Units (IWOU)
- Roads & Drainage Operations Unit (RDOU)

4.1 Ipswich Water Operations Unit

In the event of the Flood Information Centre being activated, the Deputy Works Manager will contact the Chief Operating Officer, Ipswich Water advising of such activity. As such, the Chief Operating Officer, Ipswich Water will activate the Ipswich Water Operations Unit (IWOU), which shall be responsible for the control and monitoring of the water and sewerage staff coordination and operational functions.

The IWOU will have two major components with staff based in close proximity to the FIC directing and coordinating field operations staff by mobile phone and facilitating the flow of information from field reports to the FIC and vice versa.

4.1.1 Staffing

The IWOU will be staffed by Ipswich Water personnel and shall comprise of the following;

Coordination

- Operations Manager
- Ipswich Water Engineers
- Technical Staff - Duty Officers
- Administration Staff

Operational

- Maintenance Crews
- Electricians
- Fitters

The number of personnel per gang, with assigned tasks and/or duties, shall be determined by the Chief Operating Officer, Ipswich Water and will largely be dependent on the magnitude of the flood.

4.1.2 Duties

a) Liaison

As predictions and/or particular events are received from the Flood Information Centre and/or field staff, the IWOU shall determine the most efficient method of mitigating the effects of flooding on Council water and sewerage infrastructure. This will largely be determined by the magnitude of the flood, coupled with the availability of resources.

b) Operations and Task Allocation

As information is received, either predicted or real time, the establishment and coordination of core gangs, plant and material shall be determined by the IWOU and will largely be dependent on the magnitude of the flood.

4.1.3 Roster/Relief Arrangements

It is suggested that staffing of the IWOU shall be on-duty for an initial four hour period followed by a one hour rest period, then on duty for a further four hours. At the completion of each 4/1/4 shift, staff shall be relieved from duty for a minimum period of ten hours. Change of shifts shall be staggered, allowing for a minimum of thirty minutes briefing prior to changeover.

4.1.4 Transport Requirements

Access to all maintenance resources shall be available to the IWOU. Council's aluminium dinghy shall be ready for service at all times and must be equipped with all safety requirements as determined by the Department of Transport, including Personal Flotation Devices.

Engineering Services Department vehicles will be available from all Council depots for use by field staff. The allocation of such vehicles per core gang will be controlled and monitored by the IWOU.

4.2 Roads & Drainage Operations Unit

In the event of the Flood Information Centre being activated, the Deputy Works Manager will contact the Roads and Drainage Manager advising of such activity. As such, the Roads and Drainage Manager will activate the Roads and Drainage Operations Unit (RDOU), which shall be responsible for the control and monitoring of the roads and drainage staff coordination and operational functions.

The RDOU will have two major components with staff based in close proximity to the FIC directing and coordinating field operations staff by two way radio and facilitating the flow of information from field reports to the FIC and vice versa.

4.2.1 Staffing

The RDOU will be staffed by Roads and Drainage personnel and shall comprise of the following;

Coordination

- Roads and Drainage Engineers - Team Leaders
- Technical Officers - Duty Officers
- Resource Coordinator/s
- Administration Staff

Operational

- Superintendents
- Maintenance Crews
- Plant Operators

The number of personnel per gang, with assigned tasks and/or duties, shall be determined by the Roads and Drainage Manager and will largely be dependent on the magnitude of the flood.

4.2.2 Duties

a) Liaison

As predictions and/or particular events are received from the Flood Information Centre and/or field staff, the RDOU shall determine the most efficient method of mitigating the effects of flooding on the public and property. This will largely be determined by the magnitude of the flood, coupled with the availability of resources.

b) Monitoring

Local systems not connected to Council's ALERT System will rely heavily on Roads and Drainage field staff to monitor the flood status of these sites. The status of these local systems shall be recorded and monitored by the RDOU, then conveyed to the FIC for further distribution. Furthermore, the movements of all field staff with assigned tasks and associated equipment is to be recorded and monitored by the RDOU.

Such changes may include some of the following:

- Water has overtopped a road; the time this occurred and the extent of such flooding.
- The time such road was closed to traffic.
- The rate at which water continues to rise, (best estimate with equipment available).
- Structural damage or total failure of a roads or drainage structure.
- Areas that may become or have become totally isolated.

The monitoring and recording of such information is vital to the functionality of the FIC.

c) Operations and Task Allocation

As information is received, either predicted or real time, the establishment and coordination of core gangs, plant and material shall be determined by the RDOU and will largely be dependent on the magnitude of the flood.

4.2.3 Roster/Relief Arrangements

It is suggested that staffing of the RDOU shall be on-duty for an initial four hour period followed by a one hour rest period, then on duty for a further four hours. At the completion of each 4/1/4 shift, staff shall be relieved from duty for a minimum period of ten hours. Change of shifts shall be staggered, allowing for a minimum of thirty minutes briefing prior to changeover.

4.2.4 Transport Requirements

Access to at least two Ipswich City Council vehicles (preferably diesel 4WD's), with two way radio communications shall be available to the RDOU. Such vehicles shall be used expressly for gaining access to sites that are inaccessible by sedans or utilities and shall be controlled by the RDOU Team Leader.

Engineering Services Department vehicles will be available from all Council depots for use by field staff. The allocation of such vehicles per core gang will be controlled and monitored by the RDOU.

Council's aluminium dinghy shall be ready for service at all times and must be equipped with all safety requirements of the Department of Transport, including Personal Flotation Devices.

5. *COUNTER-DISASTER ACTIVATION*

If the flood event moves into the Counter Disaster activation stage as determined by the Deputy Works Manager in accordance with guidelines in Counter Disaster Flood Sub Plan, then:

(a) the Flood Information Centre continues to function as above.

APPENDIX A: READY REFERENCE OF TELEPHONE NUMBERS

Ipswich Flood Information Centre

Public Enquiries - Flood Information Centre [redacted]
Note:- An A.C.D. Group is set up for answering calls during events.
Note:- change of numbers from Design to Flood Centre for event.

Flood Executive - Flood Information Centre [redacted] (Silent Number)
Extension 7874

Note: Silent numbers are not to be given out to the public.

Ipswich City Council Flood Centre - Facsimile Number [redacted] (Flood Warning)
(Severe Weather Warning)

State Emergency Service

See Appendix H

Bureau of Meteorology

See Appendix C.

Brisbane City Council

Flood Centre [redacted] (24hrs)
Ken Morris (h) [redacted]
(m)

Evan Caswell
Con Peshkoff
Flood Emergency Fax

Department of Natural Resources/ SEQWater

Flood Control Centre

General Phones	[redacted]
SAS Modem	
Fax Machine	
Answering Machine	
ALERT Mobile	

Back-Up FCC (Mineral House)	
General Phone	[redacted]

Duty Engineers

NAME		Work	Fax	Mobile	Home
Robert	AYRE	[redacted]			
Terry	MALONE				
John	RUFFINI				
John	TIBALDI				

Wivenhoe and Somerset Dam Operations

DNR/SEQWater/Sunwater have duty engineers who are responsible, on a roster basis for flood releases from the dams. First hand information is available by contacting the Duty Engineer at their Flood Information Room.

A message on the answering machine will give a contact number for the current Duty Engineer when the Flood Information Centre is not staffed.

Emergency Services

Police Headquarters	3364 6464
Ipswich Police Station	3813 8777
	3813 8766 (Fax 3812 1844)
Booval Police Station	3282 1320
Goodna Police Station	3288 2999
Queensland Ambulance Service	3281 1000
Queensland Fire & Rescue Service	3247 5750 Office Hours Only
	000 - All others hours
Rosewood Police	54 642 555
Karana Downs Police	3201 1777

Other Relevant Numbers

Bundamba Creek early warning - Bridge at Ripley/Bayliss Rd	3288 8870
Esk Shire Council -Vim Balachandran	[redacted]
Laidley Shire Council – Gerard Frenzmann	
SEQWATER - Wivenhoe Dam - Doug Grigg	
SEQWATER - Somerset Dam - Anthony Dagan	
RACQ - 24 Hour Road Report for Queensland	www.racq.com.au

Engineering Services Department

	WORK	HOME	MOBILE
Ross Drabble	[redacted]		

Roads & Drainage Branch

Maurie McGuire	[redacted]
Rob Hooper	[redacted]
Michael Munzenberger	[redacted]

Infrastructure Planning

Andrew Underwood	[redacted]
Tony Youren	[redacted]
Daryl Hickey	[redacted]
Tony Dileo	[redacted]
Gavin Heuer	[redacted]
Ashley Dobbie	[redacted]
Michael Schmidt	[redacted]
Jon Freeman	[redacted]
Wayne Barram	[redacted]
Ravi Raveenthiran	[redacted]

Tim Salomon [redacted]

Nick Prasser [redacted]

Brad Freiberg [redacted]

Lauren Yarrow [redacted]

David Pirie [redacted]

Mick Johnson [redacted]

Surveyors and Survey Assistants

Wayne Halls [redacted]

Jeff Williams [redacted]

Dean Claydon [redacted]

Andy Keddie [redacted]

Michael Clunes [redacted]

Andrew Forsyth [redacted]

Tony Camplin [redacted]

Mark Forsyth [redacted]

Josh Rains [redacted]

[redacted]

Design Office Staff	WORK	HOME	MOBILE
Peter Grennan	[redacted]		
Michael Robertson	[redacted]		
Robert Young	[redacted]		
Tom Reynolds	[redacted]		
Kurt Sleaford	[redacted]		
Brett Kleinschmidt	[redacted]		
Ann Burns	[redacted]		
Steve Bailey	[redacted]		
Adam Berry	[redacted]		
Alyce Ferguson	[redacted]		
Mitch Brennan	[redacted]		
Chris Osley	[redacted]		

Ipswich Water	WORK	HOME	MOBILE
Barry Jeppesen			
Nimish Chand			
Sandy Veeren			
Guy Mowat			
Joseph Tam			
Brian Hester			
Bruce Penman			
Media			
Allan Roebuck			
Julie Brumfield-Jones			
Danny Mortison			
Marburg			

PLEASE NOTE THAT THE ABOVE HOME NUMBERS ARE NOT TO BE PUBLICISED

APPENDIX B: ALARM CRITERION AND MESSAGES

The Flood ALERT system has been configured to raise alarms via pager based on the following criteria.

Rain Gauge Message

- If any rain gauge in the system registers 50 mm of rain within any continuous three hour period the following alarm message will be delivered;

1. Rain fall at (SITE NAME) has exceeded 50 mm in three hours, DATE & TIME

The ALERT system will then disable that sensor from raising another alarm for a period of one hour. If after this period the same sensor still registers 50 mm of rain in the previous three hour period then another alarm message will be issued. This process will continue until such time as the alarms are disabled manually by either direct or remote access to the system.

Stream Gauge Messages

- If certain stream gauges in the system register the following criteria, the corresponding alarm message will be delivered;

1. 3 Mile Bridge gauge at 12m and rising at >= 0.4m/hr, DATE & TIME
2. Bundamba School gauge at 12.5m and rising at >= 0.4m/hr, DATE & TIME
3. Blackstone Bridge gauge at 18.5 m and rising at >=0.4,/hr, DATE & TIME
4. 1 Mile Bridge gauge at 7.5m and rising at >= 0.4m/hr, DATE & TIME
5. Ipswich City gauge at 12.5m and rising at >=0.4m/hr, DATE & TIME
6. Adam's Bridge gauge at 2.2m and rising, DATE & TIME
7. Harrisville gauge at 1.8m and rising, DATE & TIME
8. Kuss Road gauge at 3.1m and rising, DATE & TIME
9. Washpool gauge at 2m and rising, DATE & TIME
10. Keanes Road gauge at 3.2m and rising, DATE & TIME
11. Walloon gauge at 10.5m and rising, DATE & TIME
12. Ripley gauge at 51.5m and rising, DATE & TIME
13. Grandchester gauge at 4m and rising, DATE & TIME
14. Peak Crossing gauge at 2.4m and rising, DATE & TIME
15. Colleges Crossing gauge at 1.2m and rising, DATE & TIME
16. Stokes Crossing gauge at 3m and rising
17. Spresser's Bridge gauge, Rosewood-Warrill View Road, Rosewood
18. Churchbank Weir gauge at 1.8m and rising
19. Greys Plains Road gauge at 2m and rising
20. Marburg gauge, Rosewood–Marburg Road at 1.7m and rising

The ALERT system will then disable that sensor from raising another alarm for a period of one hour. If after this the same sensor still registers the alarm criteria another alarm message will be issued. This process will continue until such time as the alarms are disabled manually by either direct or remote access to the system.

In periods of heavy continuing rain in the catchment, the various systems are monitored to gauge intensity of rain and estimate subsequent expected level of rise in the principal streams.

If levels at the gauge stations indicate an expected level of:

(i) 16.00 m at 3 Mile Bridge;
(ii) 11.50 m at 1 Mile Bridge;
(iii) 6.00 m at David Trumpy Bridge;
(iv) 18.50 m at Blackstone Bridge;
(v) 7.00 m at Highway at Woogaroo Creek;

The Deputy Works Manager should be advised and would decide whether or not to authorise the Flood Information Centre to be activated in the event that any of the above levels are reached.

If the Flood Information Centre is activated then the following duties will be performed:

- Team members analyse incoming gauge station heights to calculate expected peak heights at strategic locations throughout the City and raise alarms etc as required.
- Contact is maintained with Flood Operations at BOM as required via the telephone on either the public information lines or a private telephone line access.
- Constant interrogation and monitoring of the flood ALERT System, RAPIC radar system, BOM Flood Warnings and weather forecasts (Internet).
- Team leader or staff member on duty at the time shall provide status details to the Media Branch for dissemination to the media.
- Coordination of relevant information to operational staff, SES, Police etc.

APPENDIX C: BUREAU OF METEOROLOGY FLOOD WARNING CENTRE

Flood Operations	[redacted]
Engineer in Charge	NOT FOR PUBLIC USE
Fax	[redacted]

GENERAL ENQUIRIES

Supervising Engineer	Peter Baddiley	[redacted]
Senior Engineer		
Historical Flood Data		
Fax		

RECORDED INFORMATION SERVICES

Weathercall ($0.77 per minute)

Flood Warnings (selected coastal warnings only)	1300 659 219
Weather Warnings (includes cyclone)	1300 659 212
Queensland Weather Services (general number)	1900 955 360
Weathercall services Voice directory	1900 926 113

INTERNET/WWW ACCESS

http://www.bom.gov.au/hydro/flood/qld/

COMMUNICATION ENQUIRIES OR PROBLEMS

Duty Communications Officer	(07) 3239 8631 (24 hours)
Meteorologist in Charge	(07) 3239 8750 (24 hours)

FLOOD INFORMATION BY FAX

Flood Warnings	1902 935 065
RIVER HEIGHT BULLETINS	
Nerang, Logan, Albert	1902 935 051
Brisbane, Bremer	1902 935 052
Maroochy, Mary, Noosa	1902 935 053

APPENDIX D: BUNDAMBA FLOOD WATCH

Residential Members:

Mrs L Adams – [redacted]
Mrs R Oerton – [redacted]
Mr N Bower – [redacted]

Mr R Clark – [redacted]
Ms Kay Green – [redacted]

Mr P Bower – [redacted]

Ms Melissa Korcheke – [redacted]

[redacted]

Business Members:

Name	Address	Phone Number	Name
Bailey's Brake and Clutch	[redacted]		Factory Michael Bailey Home
Kev Dale Automotive			Factory Mercy & Jason Strudwick
At Eze Security			Factory Home
Ian Boettcher Motors			Dealership Ian Boettcher
T P Turner Pty Ltd (Tom Turner)			Factory Robert Turner Robert Turner
Hoepners Transport Group			Factory Tom Keewan Tom Keewan Peter Schostakowski
D J's Electric Motor Pump Centre			Darryl Trapp A/hrs
Pine Shop			Factory Andrew Parnell Andrew
Crawford Crash Repairs			Factory Tony Roberts

Bundamba Skateway	[redacted]	Andrew Balzer David Buttner (Mgr)
Ipswich Superbowl		Fascimile Dino Margiolas Darren Fagg (Mgr)
Sky Dancers		Tony Villiers Tony Villiers
D & L Appliance Services		Donald or Sharon
JB's Pet Accessories		John Macleod Home
H2 Grow Pty Ltd		Factory Home Paul Steele
Living Antiques		Factory Home Peter Klinkenberg
Allstyle Fencing		Ian Sharp Home
Wholesale Building Products		Steven Todd
Dulux Trade Centre		Pam Cross Norm Podlich
Vacant		
Dominos Pizza		Max Casa
Better Buy Pets & Accessories		Andrew Donaldson Ben Anderson
Bremer 4x4		Factory Cindy Wright
Ingram's Joinery		Factory Greg Brockie Greg Brockie
Children of the Dreaming		Phillip Conewops
Design All Cabinets		Richard Jones Craig White
Re-Pump Australia P/L		Factory *Gary Callaghan*
Vacant		
Urban Interior		Shane Costa Home
Liquimix Pty Ltd		Factory Home

	[redacted]	Neill Barrell Jill Harrison
Big Hit Team Wear		Peter Whyman Nathan Denkel (Mgr)
Ipswich Property Sales		Josephine Gamer
Boom Sherrin Hire		Phillip McLeod
Duce Instaltex Pty Ltd		Barry Hoare
JP Glass & Aluminium		John Smailes
Fibreglass Moulded Interior		Geoff Harris
Toll		
King Bars		Judith Chambers
Haultech Engineering Pty Ltd		Charles Inder Sam Overton
Ipswich Tint Weix		Luke Crowley
Storage Choice		Pat Fagan

Note: Residents to be advised by ONLY SES people in Persons

PLEASE NOTE THAT THE ABOVE HOME NUMBERS ARE NOT TO BE PUBLICISED

APPENDIX E: TWO WAY RADIO LOCALITIES AND OPERATORS

TWO WAY RADIO LOCALITIES AND OPERATORS – ROAD AND DRAINAGE BRANCH							
Two Way No.	Name	Title	Unit	Two Way No.	Name	Title	Unit
236	Ahearn, Rodney	Supervisor		237	Neilson, Troy	Superviso r	
345	Albury, Michael	Simgle Axle	832	472	O'Connor, Peter	Large job	F00967
333	Allum, Brett	Small Job	F01186	227	Orpwood, Jason	Jason	2335
321	Arnold, Dave	Job Truck	F01406	476	Orwin, Adrian	Job Truck	F01404
203	Asphalt Plant B.C.C		203	303	Pagel Ken	Roller	P01596
235	Berlin Ken	Supervisor		540	Parker Len	Fuel Truck	F01241
242	Beutel Russell	Supervisor		284	Regeling Noel	Truck & Dog	F00671
357	Bevan, Bill	Small Job	F01122	428	Rossner, Errol	Superviso r	
331	Bond, James	Small Job	F00597	290	Ruthenberg Keith	Tandem	F00715
272	Boughen Ivan	Backhoe	P01287	288	Ryder Kevin	Gravel Tandem	F00576
259	Brannigan, Dale	Tandem/Wate r	F00763	350	Schipplock, Gary	Job Truck	F00966
342	Brock, Tim	Job Truck	F01408	416	Schumacher Bruce	Water Truck	F00537
310	Brooks, Kevin	Large Job	F01463	395	Sharp, David	Large job	F01076
336	Bunda, Jim	Large Job	F01462	314	Sines Mark	Supervisor	F00591
460	Bussian, Brian	Roller	P00792	270	Smith David	Backhoe	P01155
297	Cherry Victor	Gravel single	F00674	466	Smith Neil	Grader Driver	P00940
267	Clark Lawrie	Backhoe	P01159	332	Smith Shayne	Small Job	F01093
244	Clark, Bob	Supervisor	F00778	335	Spare	Job Truck	F00817
228	Coker, Paul	Paul Coker	2226	262	Spare	Excavator	P01058
315	Colfax Mick	Patching	F01217	264	Spare	Loader	P00984
596	Coupe Daryl	Roller	P01595	318	Spare	Patching	F00045
289	Coupe Neil	Gravel tandem	F00437	281	Spare	Broom	P01075
243	Court Warren	Supervisor		605	Spare	Tandem	A960
275	Degen Harold	Backhoe	P01468	733	Spare	Tractor	P00830
329	Forsyth, Warren	Small Job	F01181	320	Spare	Grader	319
291	Franklin (Nip)	Gravel tandem	F00438	270	Spare	Backhoe	P00863
308	Fraser Phil	Large Job	F01405	561	Spare	Backhoe	P00565

283	Freeman Keith	Grader	P00939	274	Spare	Backhoe	P00656
280	Freiburg Ken	Truck & Dog	F00960	473	Spare	Slasher	P00857
328	Gorissen, Chris	Job Truck	F00759	326	Strong Bert	Job Truck	F00595
245	Greentree, Rob	Supervisor		240	Studley, Jim	Superviso r	
287	Hallet Graham	Gravel tandem	F00333	247	Sue Mal	Supervisor	F00712
325	Hesling Graham	Large job	F01094	344	Taege, Tony	Slasher	P01326
255	Janke, Robert	Grader Driver	P01592	327	Turner, Scott	Small Job	F01090
334	Kaatz, Warren	C/Ldr L/Marker	F00637	312	Viles Mick	Large job	F01231
520	Keane, Brian	Plt Co-ordinator		239	Voll Alan	Superviso r	
296	Kelly, Shawn	Gravel single	F01184	292	Wallis Robert	Large job	F01244
316	Kerle Darren	Patching	F00331	285	Williams Keith	Truck & Dog	F00670
305	Kitchener, Barry	Large Job	F01461	278	Wilson, Dave	Water Truck	F01307
313	Kleidon, Brad	Patching	F01218	471	Wright, William	Large job	F00965
330	Krause Trevor	Slasher	P01031	322	Wrigley, Shaun	Large job	F01464
324	Loy, Bernie	Job Truck	F01130				
306	Mansfield, Tony	Spray Truck	F01415	200	R'view Supers.		
534	Martin Neil	Excavator	P00849	201	Admin Office		
266	Martin, Warren	Backhoe	P01453	491	Riverview W'Shop		
230	Mathewson, Mark	Supervisor		493	Riverview Stores		
282	McIntosh Barry	Semi Trailer	F01245	494	Small Plant R'view		
295	Meier Bevan	Gravel single	F00862	522	Service Truck		
293	Mohr, Tom	Spray Truck	F00580				
317	Moore, Noel	Patching	F01219				

Ipswich Water Mobile Phone and Two Way List @ 04.09.07

SURNAME	NAME	MOBILE	2 WAY	SURNAME	NAME	MOBILE	2 WAY
ADAMS	GREG			JEPPESEN	BARRY		
ALDERTON	LAURIE			KURTH	MURRAY		
ANTAL	MARCUS			LAMBERT	DAVID		
AXELSEN	GLEN			LEADBETTER	BRIAN		
				LUDLOW	ALLAN		
BIDDLE	DAVID			LUCAS	KEVIN		432
BUHMANN	KEV			MATHEWS	JOHN		
BUNDAMBA WWC				MCHUGH	ALAN		
CHAND	NIMISH			MCHUGH	TERRY		
CAROLE PARK WWC				MCMINN	RAY		
CHEE	MURRAY						
CHRISTIANSEN	JEFF		464				
COOMBS	MILDRED			MOWAT	GUY		
COSTELLO	ANTHONY			MUGGERIDGE	BRIAN		323
				NGUYEN	NGHIEP		
CROSSLEY	DAVID			NORRIS	TERRY		
DOWELL	KEN			O'BRIEN	DANIEL		
				OERTEL	DUDLEY		
				PARSLOW	LLIAM		
DUTY PLANT OPERATOR							
DUTY SEWERAGE SUPER				PEARSON	KERRIE		
DUTY WATER SUPERVISOR A/H				PENMAN	BRUCE		
ENGLER	ROBERT						
ENRIGHT	RAY			PROFKE	ALWYN		294
ENVIRONMENTAL LAB							
FECHNER	PETER			REPAIR WATER SUPERVISOR			
				RILEY	NOEL		
FREEMAN	NOEL			ROSE	ERIK		
				ROWLEY	TREVOR		
GOEBEL	HILARY			SCHULTZ	MARK		417
				SCHULZ	AL		301
GOODRICH	BEN			SHEEHAN	BILL		406
GOSPER	RICKY		579	SHERSON	MARK		
GREEN	GREG			SMITH	DARREN		
HALL, Peter	Truck Driver		401	STATHAM	ERROL		
HANCOCK	KEVIN			STEVENS	BRIAN		
HASS	DIETER		299				
HAUG	DAVID			TAM	JOSEPH		
HESTER	BRIAN			TAYLOR	PHIL		429
HESTER	COL			TAYLOR	MARK		

HIGGINS	BARRY	[redacted]	435	ON CALL TELEMETRY	C/- B Penman	[redacted]	
HIGGINS	MICHAEL		431				
				TESKE	MALCOL M		
HUMPHRIES	JOE			TITE	NEIL		
IPSWICH WATER ADMIN	SANDY NEBE			TORO	TONY		
JEFFREY	DENNIS			TRONC	JOHN		562
JONES	BRETT		573				
JOSEPH	STEVEN			VEEREN	SANDY		
KAATZ	BRETT		420	WASS	GRAHAM		421
KAJTAR	ANTHONY			WENDT	MEL		
KATT	RICHARD			WILLEY	GRAHAM		
KELLY	DANNY		425	YATES	TERRY		450

Branch	After_Hrs_ Location	Position	User	Mobile No	Radio_ No
Infrastructure Planning					351
Infrastructure Planning	[redacted]	Eng Surveyor	G. Townsend	[redacted]	352
Infrastructure Planning		Eng Surveyor	J. Williams		353
Infrastructure Planning		Surveyor	Wayne Halls		355
Infrastructure Planning		Local Controller - SES	Arie van den Ende		360
Infrastructure Planning		Rosewood Room	Flood Centre		361

APPENDIX F: LOCATION OF MATERIAL FOR FLOOD INFORMATION CENTRE

The cupboards in the Flood Information Centre (Hayden Centre - 1st Floor, Conference Room) contain the following;

(i) 1:2 500 contour maps of the City

(ii) Flood profile charts for - Bremer River
Warrill Creek
Bundamba Creek
Woogaroo Creek

(iii) Flood height recording sheets

(iv) Internal telephone directories (enhanced)

(v) Writing material

(vi) Telephone log sheets

(vii) Eight telephones for use in the Flood Centre and Executive office

The Plan Cabinet in the Executive office contains the following;

(i) 1:10 000 contour maps of the City

(ii) 1:25 000 contour maps of the City

(iii) 1:50 000 contour maps of the City

(iv) 1:100 000 contour maps of the City

NB: Duty Information Systems Officer is on call (pager service 016 780 680) to arrange for patching of data outlets as required.

APPENDIX G: STATE EMERGENCY SERVICE PRIORITY TELEPHONE CONTACT NUMBERS

GOLD COAST CITY	[redacted]	OR	[redacted]
BEAUDESERT SHIRE		OR	
BOONAH SHIRE		OR	
ESK SHIRE		OR	
IPSWICH CITY		OR	
LOGAN CITY		OR	
REDLAND SHIRE		OR	
REDCLIFFE CITY			
CABOOLTURE CITY			
KILCOY			
PINE RIVERS SHIRE		OR	
BRISBANE		FAX	

IPSWICH CITY SES UNIT HEADQUARTERS

Unit Street Address UBD Reference 213, G19	54 Thorn Street, Ipswich Qld 4305
Unit Mailing Address	P O Box 205, Ipswich Qld 4305
Telephone	(07) 3202 1711 (Public) [redacted]
Facsimile	[redacted]
Local Controller	Arie van den Ende [redacted]
Deputy Controller	John McVeigh [redacted]
Administration Officers	Russ Ladlay [redacted] Chris Ball [redacted]
Welfare Officer	Beth Suhr [redacted]

SES GROUP LOCATION / EXECUTIVE OFFICERS

UNIT ADMINISTRATION	
54 Thorn Street, Ipswich PO Box 205, Ipswich, 4305	Phone Facsimile
Controller - Mr A.F.C. van den Ende	Phone A/H Mobile
Deputy Controller - Mr J.F. Mc Veigh	Mobile A/H
GOODNA GROUP	
Jones Road, Bellbird Park, 4301 PO Box 219, Goodna, 4300	Phone
Group Leader - Mr H. Hancock Deputy Group Leader – Ms K. Burchmann	Phone Phone
IPSWICH GROUP	
54 Thorn Street, Ipswich, 4305 PO Box 205, Ipswich, 4305	Phone Mobile
Group Leader - Mr Jim Cooper	Phone Mobile
MARBURG GROUP	
M Verrenkamp Road, Marburg QLD 4346 PO Box 27, Marburg QLD 4346	Phone Mobile
Group Leader - Mrs E. Suhr	Phone Mobile
ROSEWOOD GROUP Mt Walker Road, Rosewood QLD 4340 P O Box 73, Rosewood QLD 4340	
Group Leader – Mr Rob Probst	Phone Mobile

APPENDIX H: ACTIVATION OF COUNTER DISASTER LINE AND FLOOD INFORMATION CENTRE

Ipswich City Council

Customer Service Counter Disaster Procedure Manual

Activation of HUNT Groups

Counter Disaster Line
Flood Information Centre

Updated September 2007

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COUNTER DISASTER LINE - 3810 6858

Activating the Counter Disaster Line HUNT Group

Note: The Counter Disaster Line does not have voice mail activated, as this service is not advertised to the public. Only relevant emergency services (ie Police, SES, Ambulance, Fire, etc) are required to know the number.

During an Event

The Counter Disaster Line is to be redirected to the Counter Disaster HUNT Group that will be set up in the Claremont Room (Level 2, Administration Building) during an Event. Refer to attached procedure *"During an Event"*.

Note: *General Forwarding is active on the Counter Disaster HUNT Group and is required to be deactivated by the Duty Officer-Computer Systems or the Duty Officer-Customer Service.*

After an Event

The Counter Disaster Line is to be redirected back to the Secretary to the Deputy Works Manager (extension 7861) to screen enquiries and forward on if necessary.
Refer to attached procedure *"After an Event"*.

During Normal Business Hours

The Counter Disaster Line is directed to the Secretary to the Deputy Works Manager (extension 7861) to screen enquiries and forward on if necessary.
Refer to attached procedure *"During Normal Business Hours"*.

For Further Assistance Contact

Information Systems Branch
Duty Officer-Computer Systems [redacted]

Customer Service Branch
Duty Officer-Customer Service
Karen Gosselin [redacted]

Counter Disaster Line

COUNTER DISASTER LINE - 3810 6858

Procedure - During an Event

Redirect the Counter Disaster Line 3810 6858 to the HUNT Group set up in the Claremont Room (level 2, Administration Building). The diversion can be done from any PABX extension located in buildings at 37 or 40 South Street or 45 Roderick Street (Administration Building).

Redirection Procedure

1. Pick up the handset
2. Dial # **02**
3. You will hear the voice prompt *"Please dial your own extension number"* Now dial **6858**
4. You will hear the voice prompt *"Please dial your personal code"* Now dial **1111.**
5. You will hear a dial tone.
6. Dial ***01 6859**.
7. You will hear the voice prompt *"Your request has been recorded. You may now hang up"*.
8. Replace the handset.
9. Activate the 6859 HUNT Group and remove General Forwarding by referring to the following instructions *"Remove General Forwarding"*.
10. **Double Check** the diversion has been activated, pick up the handset and dial 6858.

The Duty Computer Systems Officer or the Duty Customer Service Officer will be required to follow the procedure *"Remove General Forwarding"* on page 5. This procedure can only be performed at a workstation that has OmniVista 4760 installed on that workstation

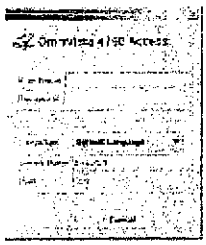
Procedure - Remove General Forwarding *(Day Service for HUNT Group 6859)*

The Duty Computer Systems Officer or Duty Customer Service Officer will be required to remove general forwarding for the HUNT group.

Procedure

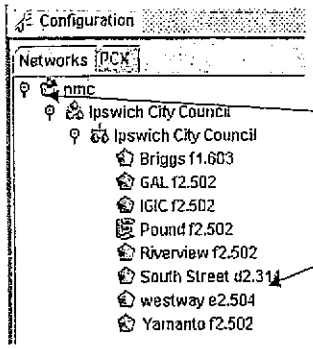


Double click on 4760 desktop icon.

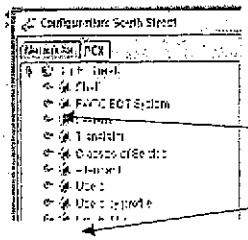


To log on type in -
Username: *(first initial and surname)*
Password: 1111 then press enter

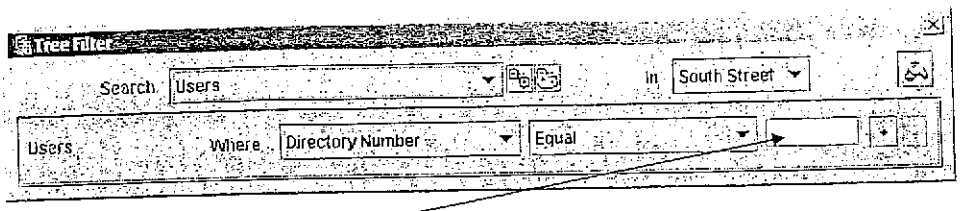
Click on Configuration



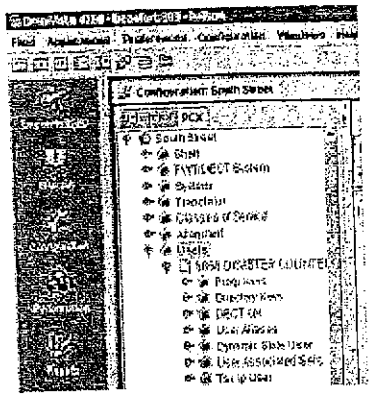
Click on nmc and drill down, right click on South Street and select connect.



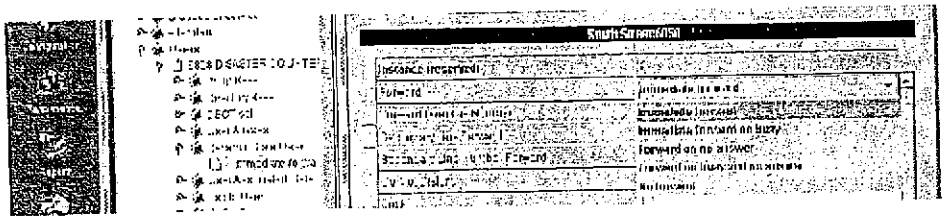
Drill down
Click on Users, Right Click, Select Filter



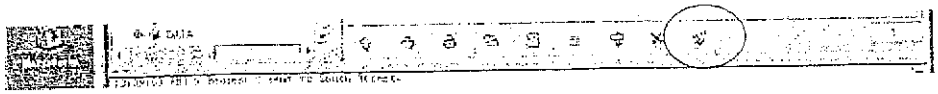
Type 6858 in Tree Filter box enter



Drill down and click on Dynamic State User and drill down (This is always set at Immediate Forward)



Highlight Immediate Forward, Double click on Immediate Forward, use drop down arrow and select No Forward



Click on Green Tick

Double Check the diversion has been activated, pick up the handset and dial 6858.

Extensions Allocated to the Counter Disaster HUNT Group

Extension	Outlet
6602	GA114A

COUNTER DISASTER LINE - 3810 6858

Procedure -After an Event

The Counter Disaster Line 3810 6858 is to be diverted to the Secretary to the Deputy Works Manager (extension 7861). The diversion can be done from any PABX extension located in buildings at 37 or 40 South Street or 45 Roderick Street (Administration Building).

Redirection Procedure

1. Pick up the handset
2. Dial # 02
3. You will hear the voice prompt *"Please dial your own extension number"*, now dial **6858.**
4. You will hear the voice prompt *"Please dial your personal code"*, now dial **1111.**
5. You will hear a dial tone.
6. Dial * 01 7860.
7. You will hear the voice prompt *"Your request has been recorded. You may now hang up"*.
8. Replace the handset.
9. **Double check** the diversion has been activated, pick up the handset and dial 6858.

Note: The 6859 HUNT Group will need to have General Forwarding reactivated by the Duty Computer Systems Officer of Duty Customer Service Officer via workstation.

Refer to the following instructions for *"Reactivate General Forwarding"*

Procedure - After an Event Continued

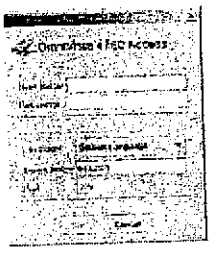
Reactivate General Forwarding *(Night Service for HUNT Group 6859)*

The Duty Computer Systems Officer or Duty Customer Service Officer will be required to reactivate general forwarding for the HUNT group.

Procedure

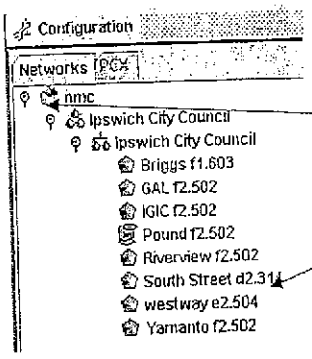


Double click on 4760 desktop icon.

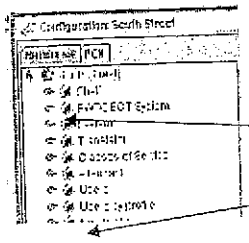


To log on type in -
Username: *(first initial and surname)*
Password: 1111 then press enter

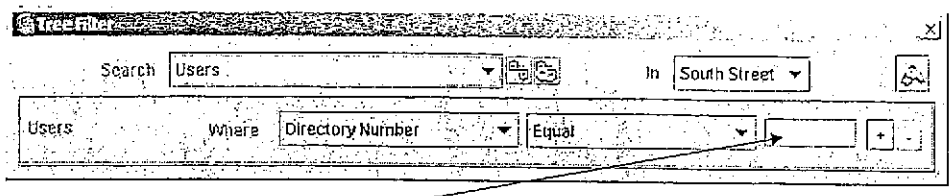
Click on Configuration



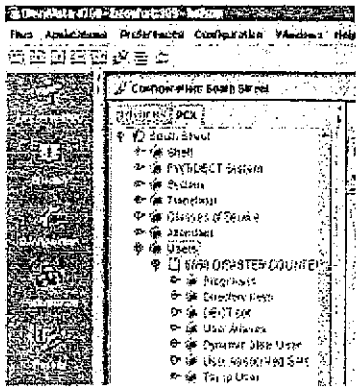
Click on nmc and drill down, right click on South Street and select connect.



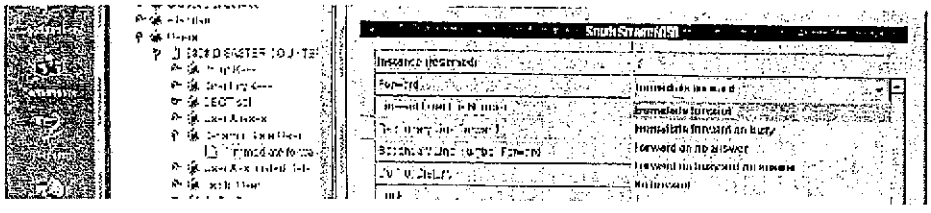
Drill down
Click on Users, Right Click, Select Filter



Type 6858 in Tree Filter box enter



Drill down and click on Dynamic State User and drill down (This will be set at No Forward)



Highlight No Forward, Double click on No Forward, use drop down arrow and select Immediate Forward.



Click on Green Tick

Double check the diversion has been activated, pick up the handset and dial 6858.

Counter Disaster Line

COUNTER DISASTER LINE - 3810 6858

Procedure - During Normal Business Hours

The Counter Disaster Line 3810 6858 is diverted to the Secretary to the Deputy Works Manager (extension 7861) during normal business hours. The diversion can be done from any PABX extension located in buildings at 37 or 40 South Street or 45 Roderick Street (Administration Building).

Procedure

10. Pick up the handset

11. Dial # 02

12. You will hear the voice prompt *"Please dial your own extension number"*, now dial **6858.**

13. You will hear the voice prompt *"Please dial your personal code"*. Now dial **1111.**

14. You will hear a dial tone.

15. Dial * **01** 7860.

16. You will hear the voice prompt *"Your request has been recorded. You may now hang up"*.

17. Replace the handset.

18. Double check the diversion has been activated and pick up the handset and dial 6858.

Note: The HUNT Group 6859 will already be in General Forwarding.

Counter Disaster Line

FLOOD INFORMATION CENTRE - 3810 7868

Activating the Flood Information Centre HUNT Group

Note: The Flood Information Centre number has voice mail activated.

During A Flood

The Flood Information Centre number is to be redirected to the Flood Information Centre HUNT Group that will be set up in the Rosewood Room (1st floor, Hayden Centre, 37 South Street, Ipswich) during a flood. Refer to attached procedure *"During A Flood"*.

Note: *There is no general forwarding active on the Flood Information HUNT Group.*

Directly After A Flood

The Flood Info Line is to be redirected to the voice mailbox. Follow the steps for *"Directly After A Flood"*.

During Normal Business Hours

The Flood Info Line should be directed to the Works Department Administration staff to screen enquiries and forward on if necessary. Follow the steps for *"During Normal Business Hours"*. (Ext 22 7822)

For Further Assistance Contact

Information Systems Branch
Duty Officer - Computer Systems 07 3810 6666

Customer Service Branch

Duty Officer - Customer Service
Karen Gosselin [redacted]

Procedure - During A Flood

Divert the Flood Info Line 3810 7868 to the HUNT Group set up in the Rosewood Room (1st Floor, Hayden Centre)

The diversion can be done from any PABX extension located in buildings at 37 or 40 South Street or 45 Roderick Street (Administration Building).

NOTE: Before activation ALL phones must be plugged into the extension outlets located in the Rosewood Room. All extensions must be logged into the HUNT Group in order for the HUNT group to work effectively.

Extensions 7821 and 7838 are the only two extensions currently logged into the HUNT group. All remaining extensions are logged OUT and will need to be logged IN to the HUNT Group.

Divert Procedure

1. Pick up the handset
2. Dial # 02
3. You will hear the voice prompt *"Please dial your own extension number"* Now dial 7868
4. You will hear the voice prompt *"Please dial your personal code"*. Now dial **1111**
5. Your calls are forwarded.
6. Dial *01 7866
7. You will hear the voice prompt *"Your request has been recorded. You may now hang up"*
8. Replace the handset.
9. Install handsets (located in the cupboard along the back wall of the Rosewood Room) into the nominated outlets as listed under *"Extensions Allocated to the Flood Information Centre HUNT Group"*.
10. **Double check** the diversion has been activated, pick up the handset and dial 7868.

Refer to following instructions for logging extensions in and out of the 7868 HUNT group

During a Flood Continued

Officers or *"agents"* who are taking calls will need to log in and out of the HUNT Group as required.

Agents using those extensions that are logged out of the HUNT Group, on lifting the handset, will hear a voice prompt *"You are now logged out"*. These extensions must be logged IN to enable the extension ring.

LOG IN

Pick up the handset and press * **4**. The voice prompt *"Your request has been recorded, you may now hang up"* will be heard.

The PABX will now distribute calls evenly to all agents logged in to the HUNT group.

LOG OUT

Pick up the handset and press # **4**. The voice prompt *"Your request has been recorded, you may now hang up"*.

The PABX will recognise the agent is no longer available to take calls and will not forward calls to this phone until the agent logs back in again.

Note: The next time the handset is picked up the voice prompt *"You are now logged out"* will be heard. Press * **4** to log in.

Extensions Allocated to the Flood Information Centre HUNT Group

Extension	Port	V	Outlet
7821	(1-3-3)	28	1-2B
7838	(1-3-6)	31	1-3B
7845	(1-3-10)	35	1-7B
7856	(1-3-14)	39	1-8B
7912	(1-4-20)	21	1-5B (FAX)
7951	(1-4-16)	17	1-9B
7954	(1-4-17)	18	1-10B

Directly After A Flood

Divert the Flood Info Line 3810 7868 to voice mail.

The diversion can be done from any PABX extension located in buildings at 37 or 40 South Street or 45 Roderick Street (Administration Building).

Divert Procedure

1. Pick up the handset
2. Dial # **02**
3. You will hear the voice prompt *"Please dial your own extension number"*. Now dial **7868**
4. You will hear the voice prompt *"Please dial your personal code"*. Now dial **1111**.
5. You will hear a dial tone.
6. Dial *01 6799
7. You will hear the voice prompt *"Your request has been recorded. You may now hang up"*
8. Replace the handset.
9. **Double check** the diversion has been activated, pick up the handset and dial **7868**.

Note: A new voice mail greeting may need to be recorded for the voice mailbox. Refer to the following instructions on "Recording a Voice Mail Greeting".

Directly After a Flood Continued

Recording a Voice Mail Greeting

Note: If you press 0 at any stage throughout the voice mail guide you will receive more options or further detail.

1. Dial 6799 *Wait for voice prompts before selecting the options*
2. Press * to access to your own mailbox
3. Press 7868 your mailbox number
4. Press 7868 your password
5. Press 4 Personal Options
6. Press 1 Change the Personal Greeting
7. Press 2 Record a Personal Greeting
8. Follow the voice prompts to record the greeting and finish the recording.
9. Double check the diversion has been activated, pick up the handset and dial 7868.

During Normal Business Hours

Divert the Flood Info Line 3810 7868 to the Works Department HUNT Group.

The diversion can be done from any PABX extension located in buildings at 37 or 40 South Street or 45 Roderick Street (Administration Building).

Procedure

1. Pick up the handset
2. Dial # **02**
3. You will hear the voice prompt *"Please dial your own extension number"*. Now dial **7868**
4. You will hear the voice prompt *"Please dial your personal code"*. Now dial **1111**.
5. You will hear a dial tone.
6. Dial ***01 22 7822**
7. You will hear the voice prompt *"Your request has been recorded. You may now hang up"*
8. Replace the handset.
9. **Double check** the diversion has been activated, pick up the handset and dial 7868.

ANNEX O

IPSWICH CITY LOCAL DIASTER MANAGEMENT GROUP

SITUATION REPORT (SITREP)

Form No: LDMG 007

FROM
Coordinator
Chairperson/Executive Officer

Telephone:
Fax:
Services

TO: (i) **District Disaster**

FAX:

(ii) **Area Director**
Counter Disaster & Rescue

FAX:

DATE: **TIME:** **SITREP No.**

WEATHER
Local Observations:

Any Difference from
Official weather report:

TRANSPORT
Road:

Rail:

Aviation:

Marine:

Other:

COMMUNICATIONS
Telephone network:

Mobile phone network:

Radio 2 way:

Broadcast Radio/TV:

POWER
Mains:

Auxiliary

DAMAGES
Buildings:

Services:

Environment:

POPULATION
Deceased:

Injured:

Missing:

Homeless:

EVACUATIONS
Numbers:

Origin:

Destinations:

Evacuation Centres Activated:

INDUSTRY
Council:

Government offices

Schools:

Hospitals:

LOCAL ARRANGEMENTS
Changes in Contacts:

Problems Encountered:

Staff/Resources Deployment:

ON GOING ACTIVITIES (include brief details of current operations, Politician Visits etc)

PROJECTED OPERATIONS (Major problems in next 24 hrs, Anticipated resource requirements, including food re-supply etc)

GENERAL OVERVIEW OF THE SITUATION

ANNEX (P) DISASTER MANAGEMENT STATUS REPORT TEMPLATE

< NAME OF LOCAL DISASTER MANAGEMENT GROUP >

Disaster Management Status Report

to the

<Disaster District> District Disaster Coordinator

and the

<Disaster District>

District Disaster Management Group

<date>

Contents

Insert Table of Contents

ANNEXURES

Include LDMG Membership Details and any other annexures required

1. MEMBERSHIP OF LDMG

Include updates to the membership of the LDMG and any general comments. Include contact details as an annexure.

2. MEETINGS OF LDMG

LDMG Meeting Frequency
Include adopted meeting frequency and scheduled dates for financial year

Last LDMG Meeting
Insert summary of last LDMG meeting including date, outcomes of discussions and any other relevant issues

Next LDMG Meeting
Insert information regarding the next LDMG meeting including date, items to be discussed etc

3. RISK MANAGEMENT / MITIGATION

Studies Program (NDRMSP or NDMP)
Include information regarding the current status of any studies undertaken as part of the Natural Disaster Risk Management Studies Program or the Natural Disaster Mitigation Program. Also include studies that have been undertaken and are complete.

Mitigation Plan
Insert information regarding disaster mitigation plan(s), including date of adoption by council and summary of risks addressed, etc

Mitigation Measures
Summarise identified mitigation measures/treatment options and timelines

Impediments to Implementation of Mitigation Measures
Summarise any identified impediments to the implementation of mitigation measures – funding, other resourcing issues, other organisation responsibility, etc

4. INTEGRATION WITH BUSINESS PLANNING

Summarise how disaster management is being integrated with the overall business of the organisation, including the incorporation of disaster management issues with other strategic and operational planning arrangements

5. LOCAL DISASTER MANAGEMENT PLAN

Plan Review
Insert summary of review process and date of review

Type of Review
Insert comment on type of review conducted

Amendments
Insert summary of amendments

6. OPERATIONAL ISSUES

Readiness Status
Insert general comment regarding status of operational readiness

Staff Availability
Comment on staff availability for Disaster Coordination Centre, etc

Coordination Centre Resourcing
Comment on resourcing levels of the Disaster Coordination Centre and the impacts on operations (if any)

Operations Conducted
Briefly summarise of any operational involvement>

Remedial Action
Outline any proposed actions/improvements resulting from operational activity

7. TRAINING and DEVELOPMENT

Training Conducted
Insert details of any training undertaken or conducted

Identified Training Needs
Insert details of any training that has been identified as being required, including suggested dates, etc

8. EXERCISES

Exercises Conducted
Insert details of any exercises conducted

Remedial Action
Outline any proposed actions/improvements resulting from operational activity

Proposed Exercises
Insert details of any exercises that are proposed or currently under development, including suggested dates, etc

9. COMMUNITY AWARENESS and EDUCATION

Public Awareness Activities Conducted
Insert details of any public awareness/education activities conducted

Proposed Public Awareness Activities
Insert details of any public awareness/education activities that are proposed or currently under development, including suggested dates, etc

10. SIGN OFF AND APPROVAL

Status Report completed by:

Sign off by Chair:

Date:

Date of next review:

ANNEX (Q) EMERGENCY ACTION PLANS

Rosewood Detention Basin

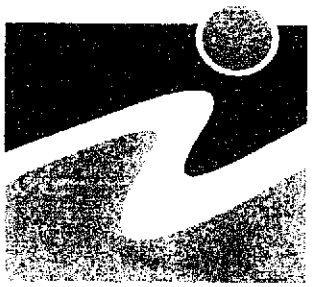
Marburg Detention Basin

Lake Manchester Dam

Moogerah Dam

Somerset Dam

Wivenhoe Dam



Ipswich
City Council
Quality Lifestyle

EMERGENCY ACTION PLAN

ROSEWOOD DETENTION BASIN
at
TREVLAC STREET, ROSEWOOD

This Emergency Action Plan has been prepared to comply with the safety conditions notified under S 491(9) of the Water Act 2000, by notice dated 31 January 2003 and the QLD Dam Safety Management guidelines February 2002.

1. DOCUMENT CONTROL SHEET

Controlled Copy Number: 2

Authorisation:

Approved by: [redacted] J. R. DERRYSMIRE Date: 1/11/05
(Works Manager, Ipswich City Council)

The Works Department, Ipswich City Council, prepared this Emergency Action Plan.

REVISION STATUS:

Revision Number	Revision Description	Revision Date
1	Initial Issue	February 2004
2	Updated Issue	October 2004
3	Updates on pages 2, 6 & 8	October 2005
4		
5		
6		

2. CONTROLLED COPY DISTRIBUTION

Copy Number	Position	Location
1	Works Manager	Ipswich City Council
2	Deputy Works Manager	Ipswich City Council
3	Manager, Roads and Drainage	Ipswich City Council
4	Chief Executive /Director Dam Safety, Department of Natural Resources and Mines	Brisbane
5	SES Local Controller	Ipswich
6	Disaster District Coordinator	Ipswich
7	Records Manager	Ipswich City Council
8	Executive Officer, Ipswich City Counter Disaster Committee	Ipswich City Council

LIST OF ABBREVIATIONS AND MEANINGS

DNR&M - Department of Natural Resources and Mines
SES - State Emergency Services
ICC - Ipswich City Council
WM - Works Manager

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Appendix A Plan of the Rosewood Detention Basin with Location of Gauge Boards and Typical Section through Dam Wall
Appendix B Plan of Spillway Details
Appendix C Evacuation Plan
Appendix D Activity Record Form

3. TELEPHONE NOTIFICATION LIST

	TITLE/NAME	PHONE BUSINESS	PHONE A/H	PHONE MOBILE	FAX
1	Mayor				
2	Works Manager				
3	Deputy Works Manager				
4	Manager, Roads & Drainage				
5	Infrastructure Delivery Engineer				
6	Senior Engineer				
7	Manager, Media				
	Bureau of Meteorology				
8	Meteorologist in charge				
	Counter Disaster Groups				
9	Disaster District Coordinator Ipswich				
10	Executive Officer Ipswich City Counter Disaster Committee				
11	Chemical Hazards Local Fire Service				
12	SES Local Controller, Ipswich (Arie Van Den Ende)				
13	SES Rosewood				
14	State Counter Disaster Organisation Duty Officer				
	Police				
15	Ipswich Police				
16	Rosewood Police				

4. AFFECTED PERSONS
(As at 19 October 2005)

No	Name	Address	Phone Numbers
1	Mr S A Hill & Mrs J M Hill	[redacted]	-
2	Mrs V M Sticher		-
3	Mr D L Newall & Ms A J Cole		
4	Mr E B Thomas		
5	Mrs B D Cassimatis		
6	Rosewood Aged Peoples Home Committee Inc		
7	Ms ED Ousley		
8	SECU 1 Pty Ltd & Chereekee Industries Pty Ltd		
9	Mrs J A Huntress		
10	Mr R C Harsant & Mrs J R Harsant		
11	St Matthews Evangelical Lutheran Cong Rosewood Inc		
12	Mr W P Navie & Mrs S H Navie		
13	Mr CGB Dutney & Mrs T N Dutney		
14	The Baptist Union of Queensland		
15	Mr S A Fowler and Mrs S D Fowler		
16	Mr J M Ross & Mrs S A Ross		
17	Mr D J Hyde & Ms L A Presley		
18	Mr B F Murray & Mrs S A Murray		
19	Mr R E Schiefelbein		

Figure 4: Houses at Risk gives the locations of these properties

Note: Where no phone number is shown, contact the occupier visiting the address

5. PURPOSE

To define the actions to be taken for an event which could lead to collapse or failure of Rosewood Detention Basin.

Such events include:

- Occurrence of a larger flood than the flood used for the design of the detention basin;
- Occurrence of a series of large storms in a short period;
- Occurrence of overtopping due to blockage of intake structure;
- Failure of spillway during a flood;
- Development of a pipe through the embankment;
- Damage to the embankment from accident, vandalism and sabotage

Flooding

The detention basin is designed to safely withstand very severe flooding under normal spillway operations.

6. ROLES AND RESPONSIBILITIES

- Dam Operator: Works Manager, Ipswich City Council
  Central decision maker for sequence of actions in the event of unusual situation at the detention basin

- Other Dam Personnel: Deputy Works Manager
  Infrastructure Delivery Engineer
  Roads & Drainage Manager
  To assist Dam Operator whenever required

- Flood Duty Officer: Person assigned this duty by the Works Manager, Ipswich City Council
  To identify severity of rainfall within the catchment and to alert Dam Operator

- Operations Officer: Person assigned this duty by the Works Manager, Ipswich City Council on rostered basis and may include one of the following:-
  - Deputy Works Manager
  - Infrastructure Delivery Engineer
  - Roads and Drainage Manager
  - Senior Engineer

  To organise nearest staff member to monitor the basin water level reading from the gauge board at the site and inform the situation to the Dam Operator

- Inspecting Officer * Person assigned this duty by the Works Manager or Operations Officer
  To monitor the basin water level reading from the gauge board at the site and inform the situation to the Dam Operator and in emergency situation (if advised by WM) to assume control until arrival of the Police and or Ambulance Service

- SES Local Controller, Ipswich: *To carry out SES responsibilities as per request from Dam Operator (or his delegate) or Queensland Police*

* Note: Inspecting Officer will be one of the followings:-

1) A supervisor from the Road and Drainage Branch in particular from the Rosewood Depot in Mill Street, Rosewood (Phone [redacted]
2) A sewerage plant operator from Ipswich Water (Phone either [redacted] at Rosewood Treatment Plant or Manager Operations [redacted]
3) A member of the Ipswich SES unit (Phone either [redacted] at Rosewood SES or SES Local Controller [redacted]
4) Another officer nominated by the Works Manager or his delegate

Contact should be attempted in the order of 1), 2), 3) and then 4). Should only proceed to 2) if 1) is not contactable

12. FLOODING EVENT DEFINITIONS

- "**DCF**" or
  "Dam Crest Flood"
  The flood event which when routed through the Detention Basin just reaches the crest of the Dam wall.

- "**PMF**" or
  "Probable Maximum Flood"
  The flood resulting from the Probable Maximum Precipitation

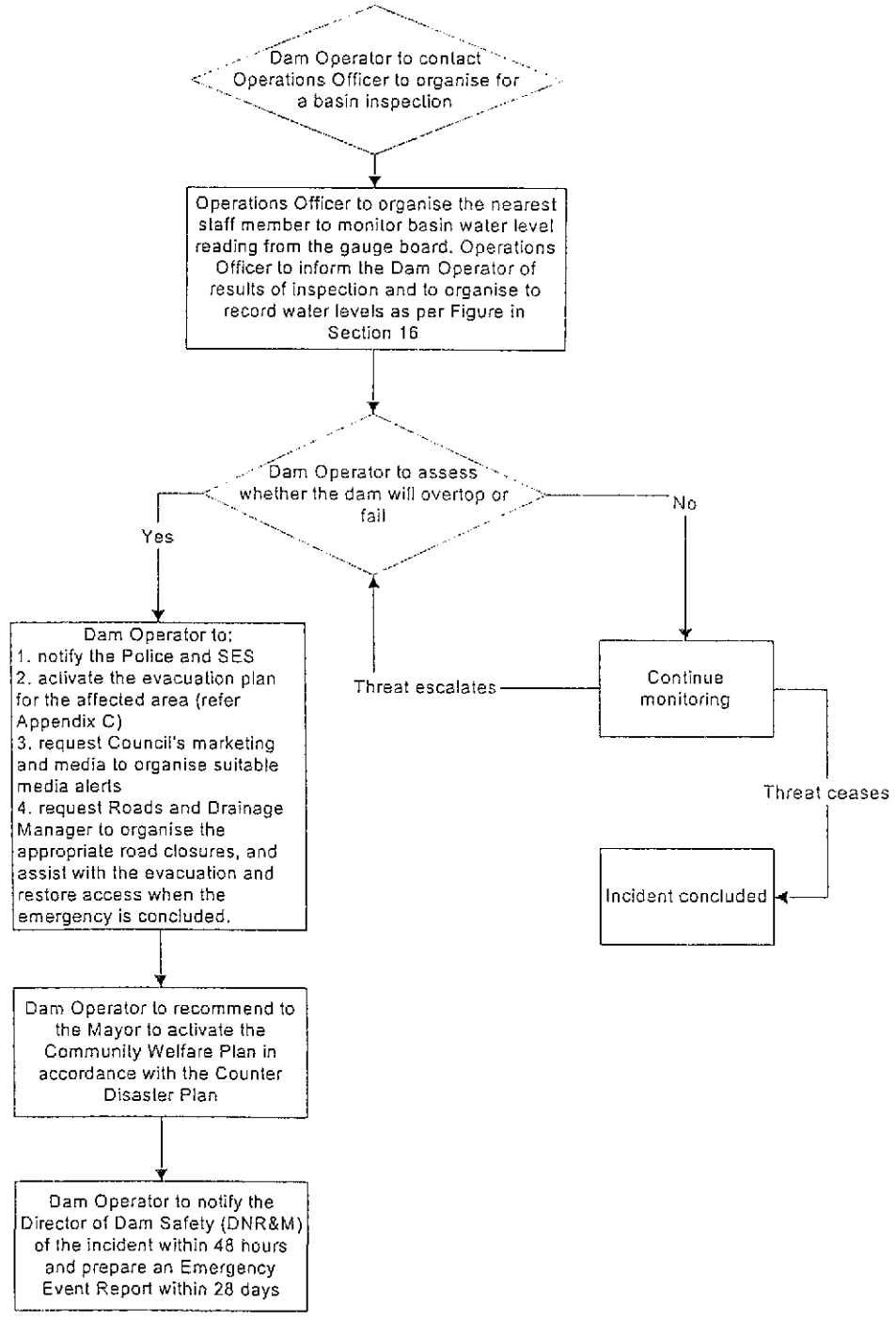
- "**PMP**" or
  "Probable Maximum Precipitation"
  The theoretical greatest depth of precipitation for a given duration that is physically possible over a particular drainage system

11. EMERGENCY EVENTS AND ACTIONS – EVENTS OF STRUCTURES FAILURE

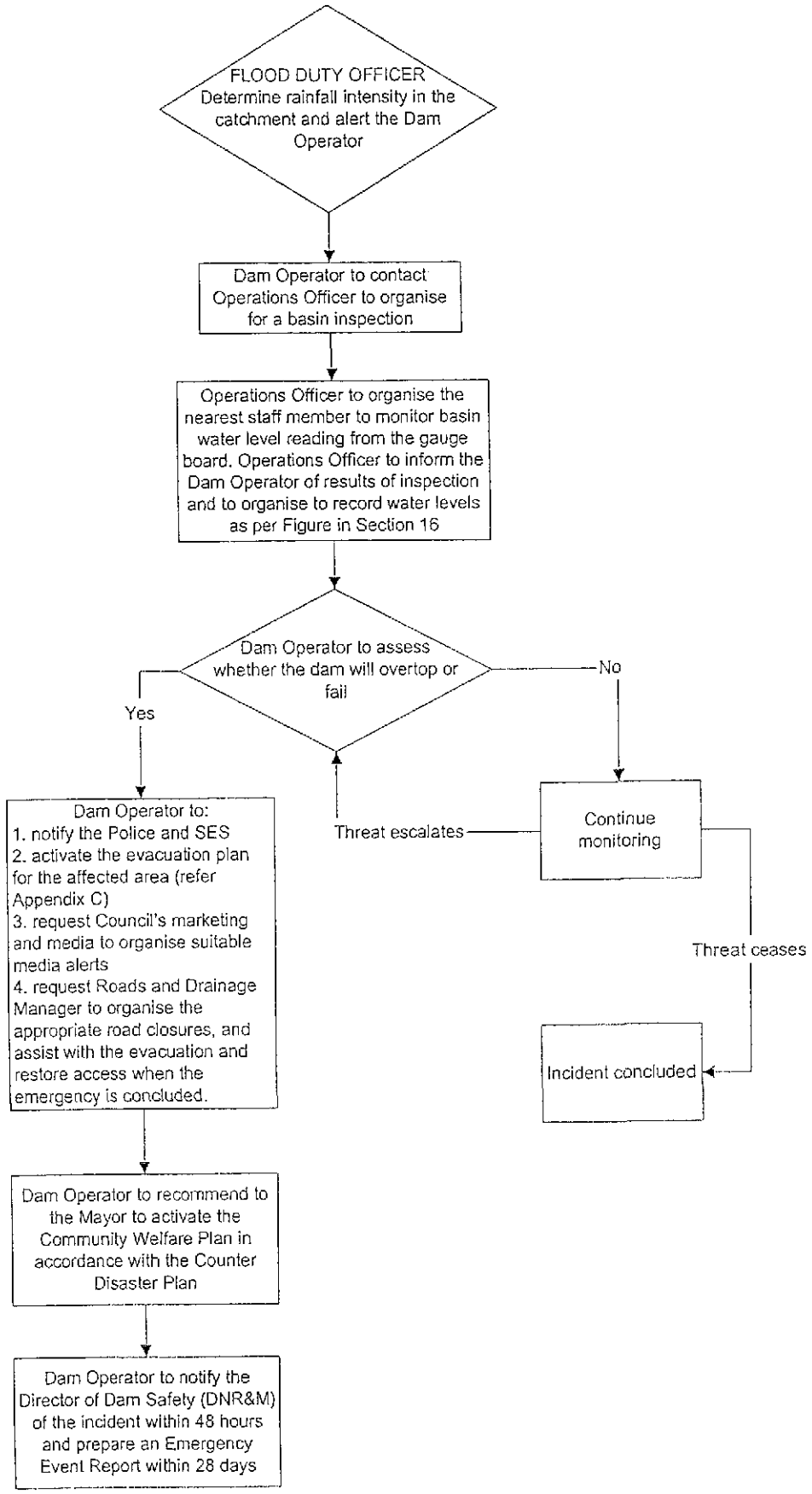
If there is:

- Possibility of Piping Failure prior to flood reaching the dam crest or
- Accident, Vandalism and Sabotage or
- Blockage of intake structure leading to premature failure of the dam or spillway before the dam would be operate normally then the actions on the following flow chart need to be followed.

FLOW CHART



10. FLOW CHART FOR EMERGENCY EVENTS AND ACTIONS – HEAVY RAINFALL EVENTS



The theoretical time to fully develop a breach in the embankment may be of the order of 30 minutes after the storage reaches its peak level. The water level in the flow path adjoining the nearest dwellings downstream may begin to rise within possibly 5 minutes of breach commencement.

DETERMINATION OF RESPONSE TO STORM EVENTS

A. The **Flood Duty Officer** needs to determine at least one of the following criteria are reached.

- The following rainfalls justify an inspection of the basin:

1. intensity exceeding 110 mm/hour
2. intensity exceeding 70 mm/hour for a period of 15 minutes
3. rainfall of 25 mm in 10 minutes
4. rainfall of 35 mm in 30 minutes

- The closest rainfall gauge is Bureau of Meteorology's Tallegalla rainfall gauge as shown on the attached Figure 2. The first alarm was set up for 20mm rainfall in 15minutes. Flood Duty Officer will monitor once after receiving the first alarm and alert the Dam Operator (Works Manager) the situation.
- All information is to be recorded including total rainfall.

B. **Dam Operator** will then contact Operations Officer to organise for a basin inspection.

C. **Operations Officer** is

- to organise the nearest staff member to monitor basin water level reading from the gauge board and inform the Dam Operator of results of inspection
- to organise to plot the water level readings in the Figure given in the Section 15

Section 10 gives the Flow Chart showing the sequence of actions during the heavy rainfall events.

INTERPRETATION OF WATER LEVEL READINGS DURING SPILLWAY DISCHARGE

- With reference to water level information plotted in Figure in Section 15, if the spillway discharges, record the gauge board level at 5 minute intervals. After 3 readings it will be possible to observe any tendency for the curve to be either steepening or flattening. This will assist in attempting to predict what will happen. If the plotted curve is steepening, then downstream flooding will become more serious. If the plotted curve is flattening, then an estimate of the peak water level and discharge may be possible.

RECORDS OF INCIDENTS

- All incidents should be recorded into the Dam Log Book and made available for future reference.

9. BASIN OPERATION

- Rosewood Detention Basin is intended to reduce the potential for flooding the town centre. An embankment approximately 10 m high catches runoff from the steep local catchment of 1.4 km2 below Perrys Knob. (Refer Figure 2)

- Two pipes beneath the dam, 900 mm and 1050 mm in diameter, restrict the discharge and the runoff is stored temporarily behind the embankment. The water rises to a maximum level consistent with the intensity of the storm.

- The basin was proportioned to pass the 100 year Average Recurrence Interval (ARI) flood without the spillway discharging and to limit the 20 year ARI flow in the Town Drain to within the drain capacity at bankfull.

- The total rainfall, which would produce the 100 year ARI runoff, would be an estimated 115 mm over a period of 90 minutes, with about 50 mm falling in the first 30 minutes.

- The 20 year ARI runoff would cause the water level in the storage to peak at RL 78.7 (1.2 m below the spillway crest). The total rainfall, which would produce that runoff would be an estimated 85 mm over a period of 90 minutes, with about 35 mm falling in the first 30 minutes.

- The spillway consists of a rockfilled, concrete covered, gabion and mattress channel and cascade built over the embankment. Its crest was constructed about 200 mm higher than the level to which the basin storage would rise during a 100 year ARI flood event. The constructed level is RL 79.9, 1.8m below the dam crest level of RL 81.7. Thus the event which would cause the spillway to commence discharging is a storm larger than 100 year ARI. The capacity of the spillway is around 124m^3/s.

- As designed, the dam crest flood was the probable maximum flood. For the spillway as built, the 200 000 year ARI flood would rise to RL 81.4, 300 mm below the dam crest. The total rainfall, which would produce this runoff, would be about 300 mm over a period of 60 minutes, with about 95 mm falling in the first 15 minutes.

- Rosewood Detention Basin is deemed a referable dam, Category 1 (population at risk not exceeding 100). The Water Act 2000 requires a failure impact assessment to be done 5 years after completion, that is, in 2006. At that time it will be necessary to:

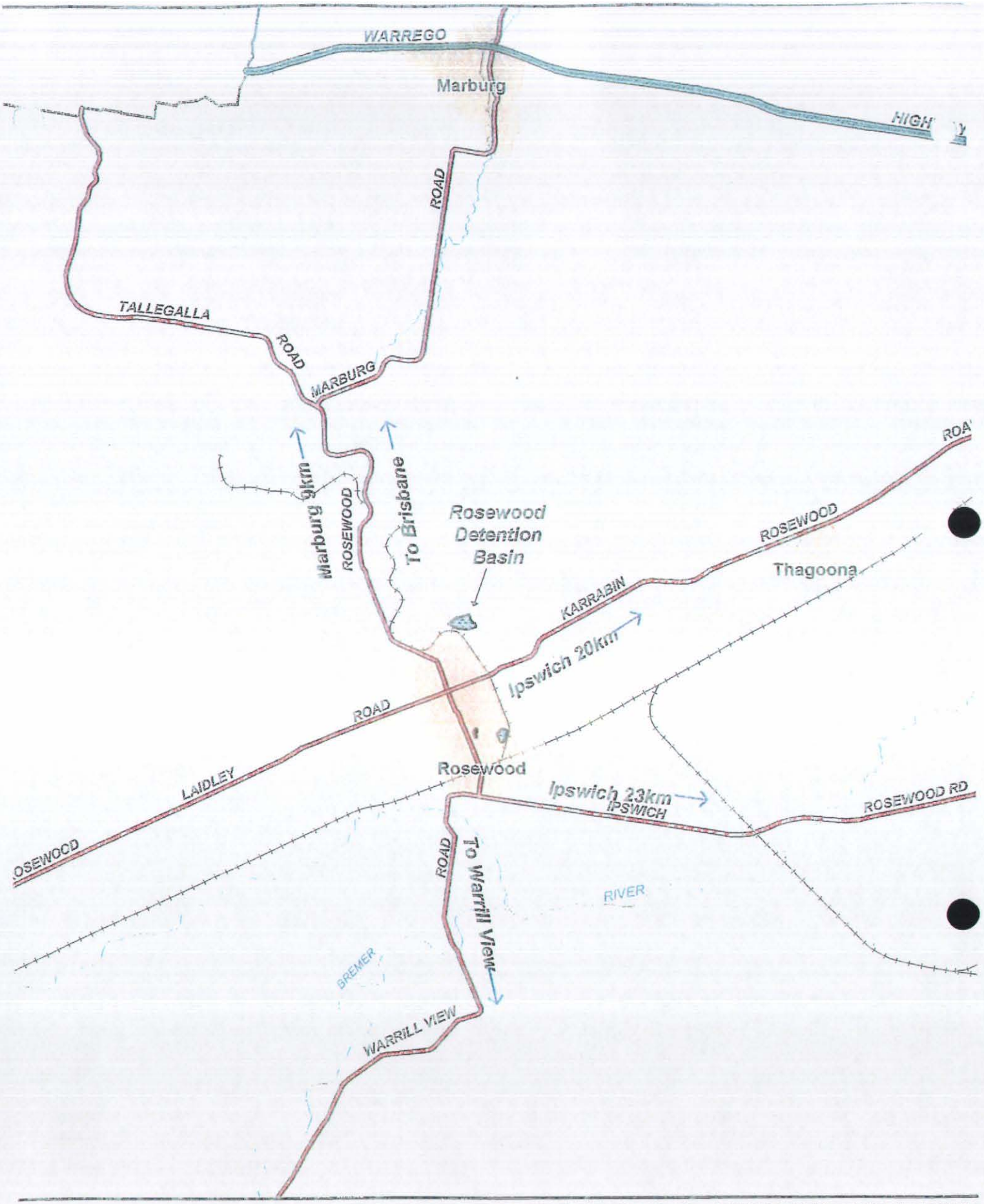
  - determine the ARI of the storm reaching the crest level of the spillway;

  - determine the ARI of the dam crest flood;

  - carry out dambreak analyses for spillway overflow and dam crest flood conditions; and

  - determine travel times of the dambreak flood wave.

INDICATIVE DAMBREAK TRAVEL TIMES



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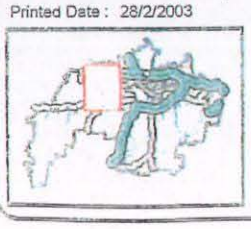
EMERGENCY ACTION PLAN
ROSEWOOD DETENTION BASIN
FIGURE 1
Access Routes
(Preferred route via Ipswich Rosewood Road)

Scale: 1 : 60,000

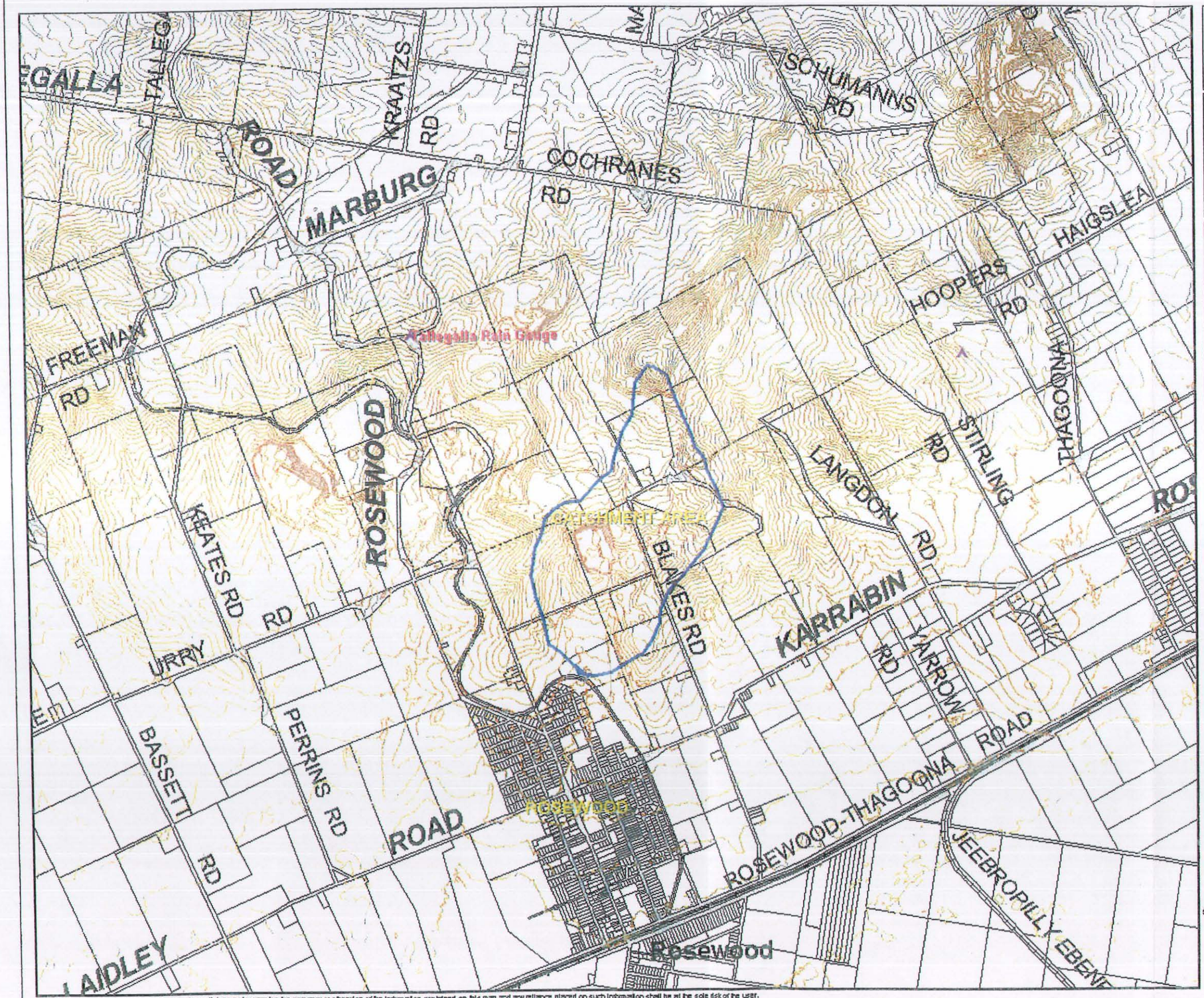
0 1 2
Kilometres

Map Grid : Geocentric Datum of Australia (G.D.A.)
Level Datum : Australian Height Datum (A.H.D.)
Printed Date : 28/2/2003



N
W

GDA



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Based on data provided with the permission of the Department of Natural Resources and Mines (Cadastral Data 1:1 (2003))

EMERGENCY ACTION PLAN
ROSEWOOD DETENTION BASIN

FIGURE 2

Storage Catchment Area &
Location of Rainfall Gauge Map

Base cadastral data supplied by the Surveyor-General Queensland and reproduced by arrangement with the Queensland Government

NORTH

500 0 500 1000 m

Scale 1:25,000

25/2/2004

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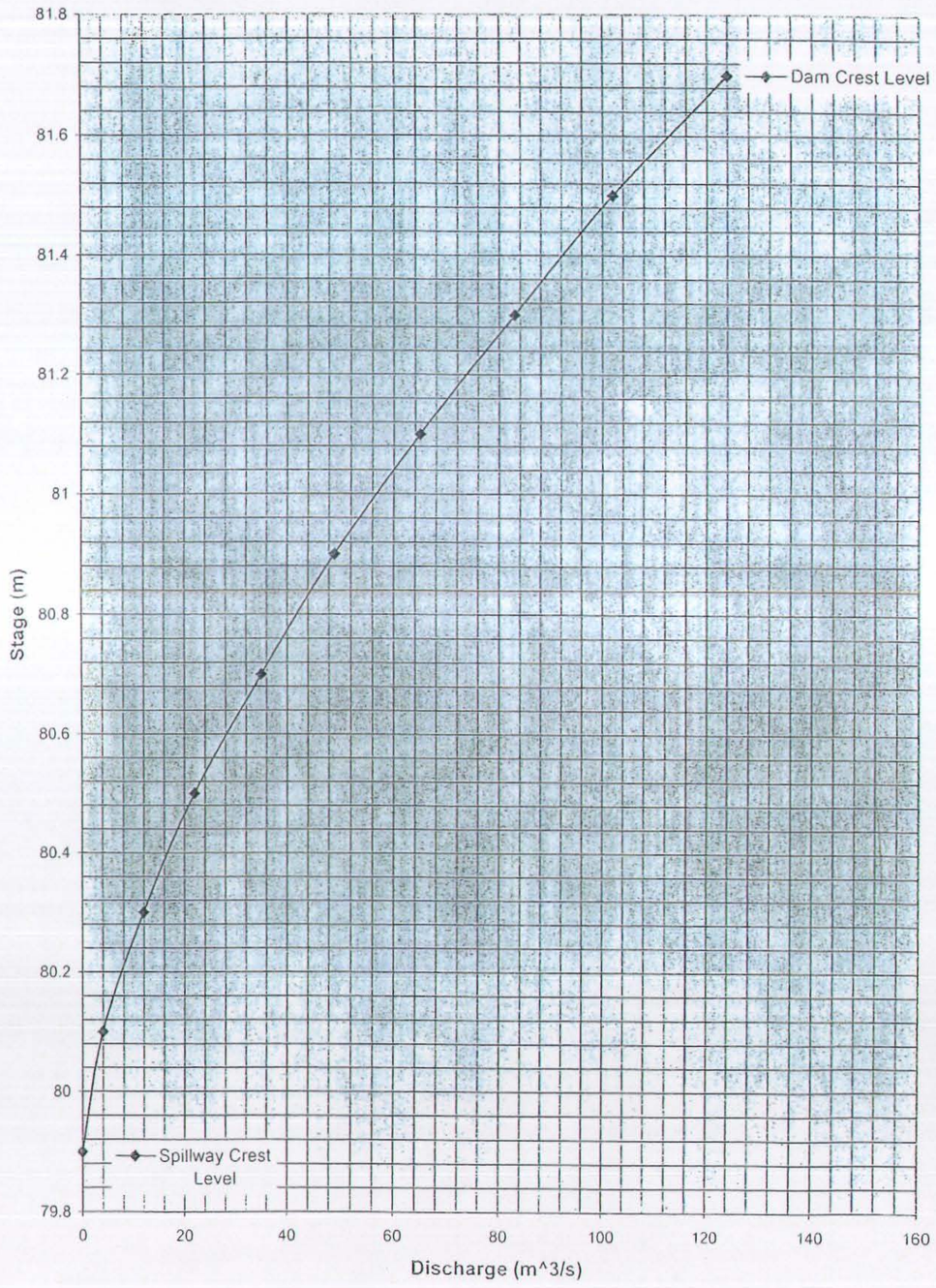
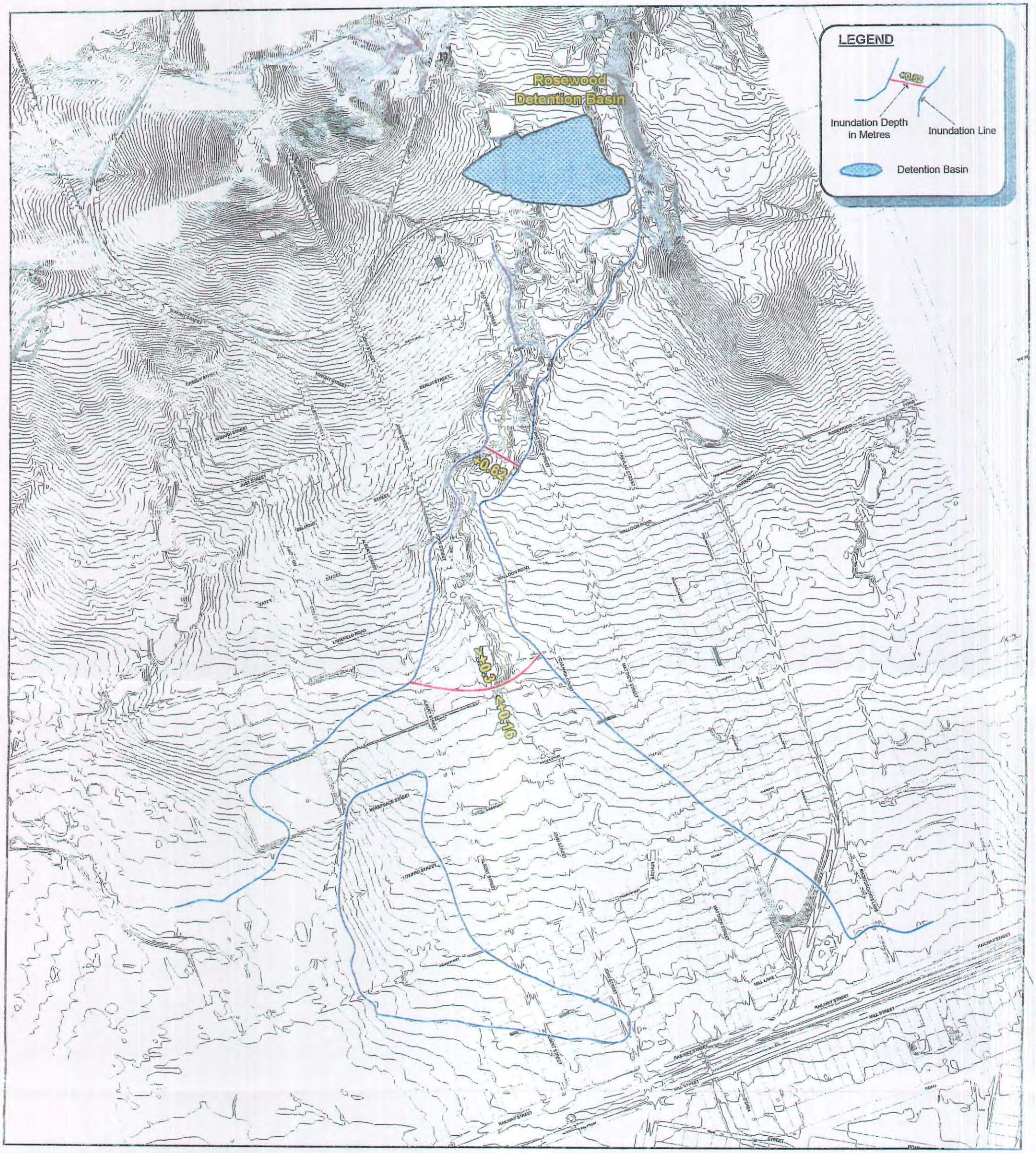
15. SPILLWAY H/W DISCHARGE RELATIONSHIP – ROSEWOOD DETENTION BASIN

Spillway H/W Discharge Relationship - Rosewood Detention Basin





IPSWICH CITY COUNCIL

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EMERGENCY ACTION PLAN
ROSEWOOD DETENTION BASIN

FIGURE 3

Probable Maximum Flood
Inundation Boundaries

Scale: 1 : 7,000

0 0.2 0.4

Kilometres

Map Grid : Geocentric Datum of Australia (G.D.A.)
Level Datum : Australian Height Datum (A.H.D.)
Printed Date : 28/2/2003

N W E S

GDA



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Based on data provided with the permission of the Department Of Natural Resources and Mines: Cadastral Data (11/2003)

EMERGENCY ACTION PLAN
ROSEWOOD DETENTION BASIN

Figure 4
Houses at Risk

Flow Direction

Probable Maximum Flood Inundation Line

Houses at Risk as per Section 4 List

Base cadastral data supplied by the Surveyor-General Queensland and reproduced by arrangement with the Queensland Government

NORTH

100 0 100 m

Scale 1:4,000

25/2/2004

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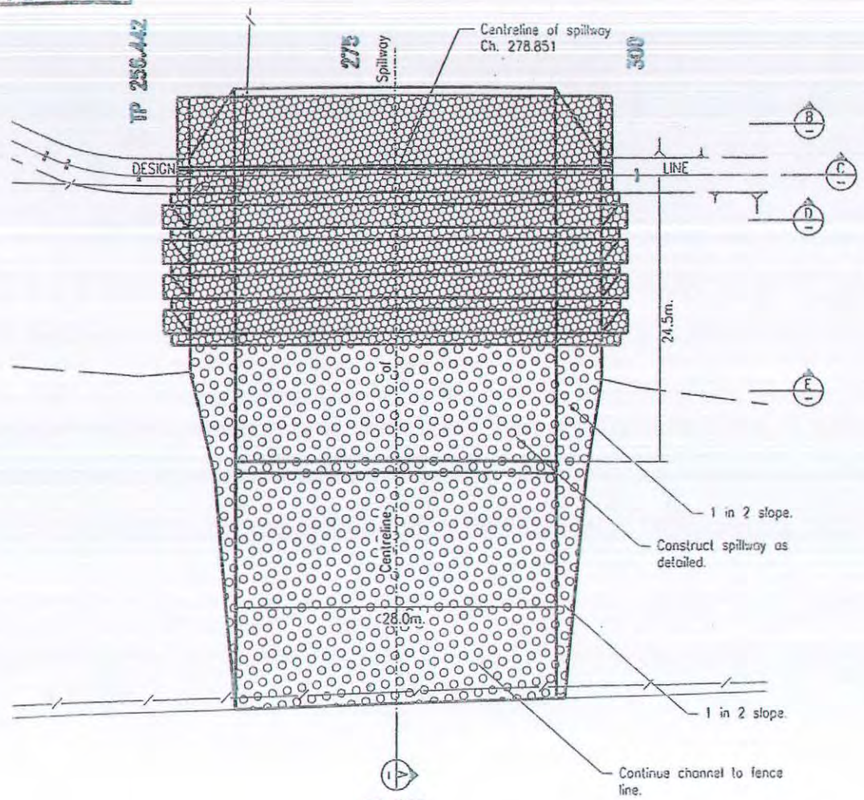
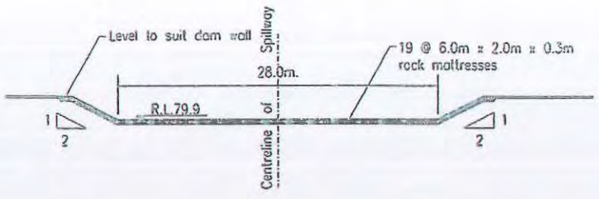
APPENDIX B



PLAN
Scale A



SECTION B – B
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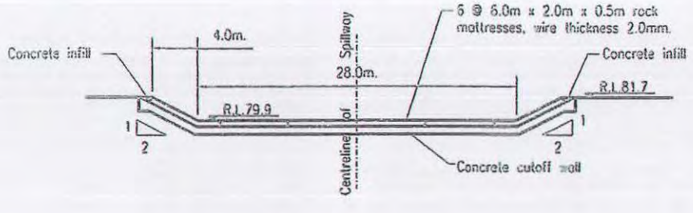

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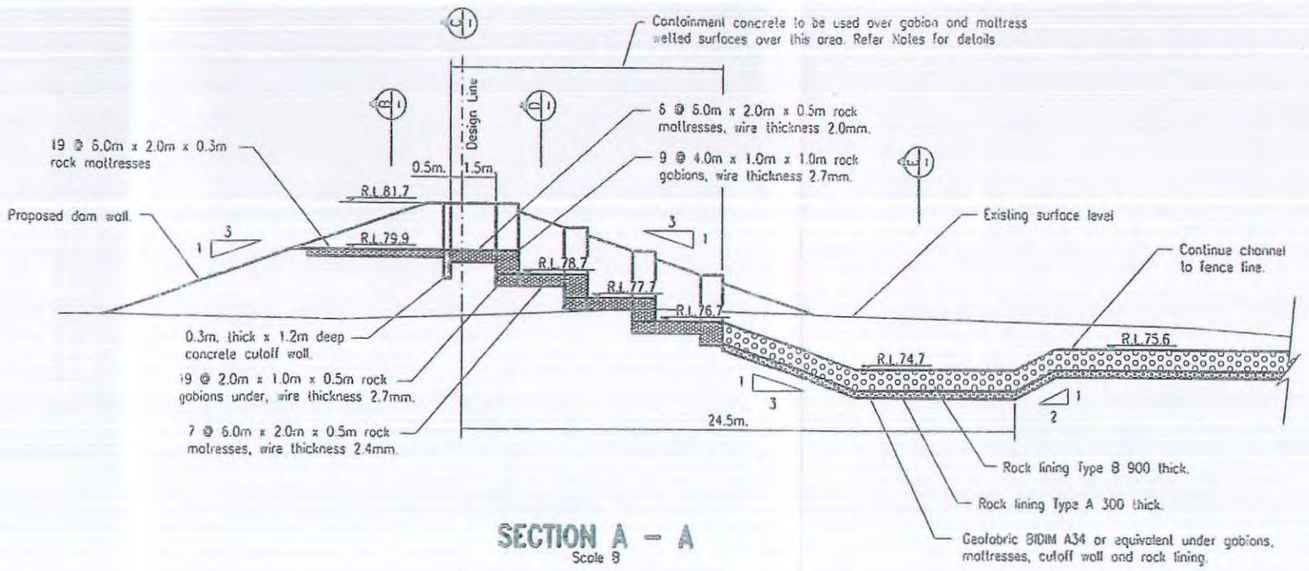
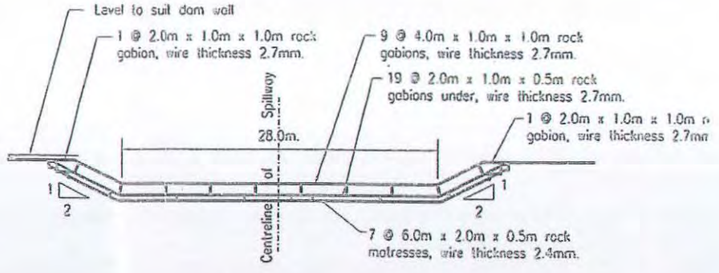


SECTION A – A
Scale B



SECTION D – D
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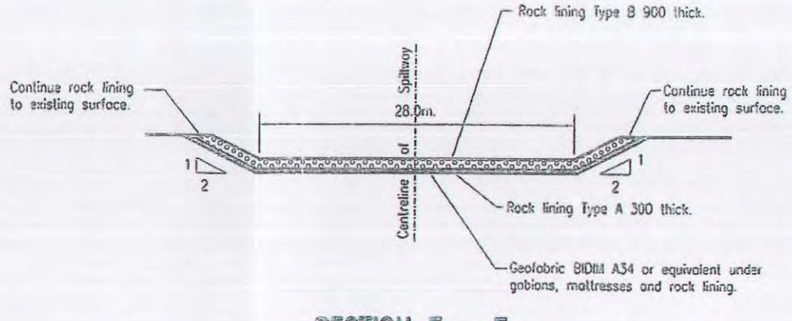

SECTION E – E
Scale A

NOTES

MATTRESSES AND GABIONS:
1. Material for mattresses and gabions shall consist of hard, dense, durable, rock fragments. Water absorption (AS 2758) not exceeding 2.5%.
2. Wire for mattresses and gabions shall be plastic coated.
3. Mesh openings shall be 60mm. x 80mm. for mattresses and 80mm. x 100mm. for gabions.
4. Rock for mattresses and gabions shall have a partical size between 120mm. and 250mm.

ROCK PROTECTION:
1. Material for rock protection shall consist of hard, dense, durable rock fragments. Water absorption (AS 2758) not exceeding 2.5%.
2. Rock protection Type A shall be well graded within the following limits:
   (i) Maximum size 300mm.
   (ii) Not less than 50% by mass larger than 200mm.
   (iii) Not more than 10% smaller than 50mm.
   Rock protection Type B shall consist of boulders not more than 900mm mean dimension, with at least 50% larger than 500mm. and less than 10% smaller than 150mm.
3. Rock protection shall be spread to the thickness shown on the drawing, in such a manner that the finer material is generally toward the underside of the layer, that the rock protection is stable without any tendency to slide and that there are no large voids.

CONTAINMENT CONCRETE:
1. The surface layer of the rock mattresses and gabions where indicated shall be contained by placing and working concrete down into the voids. The concrete shall have a characteristic strength of 25MPa. and a max. aggregate size of 10mm. and shall be worked down into the voids by vibrating, rodding and ramming until the surface of the concrete is in accordance with the lines, grades and dimensions shown on the drawing. The depth of concrete placed shall be between 150mm. and 250mm. Slump shall be 60mm. – 80mm. The concrete cover over the wire fits of the mattresses shall be 25mm.

ENVIRONMENT PROTECTION:
1. During construction, provide silt retention devices to ensure no ingress of silt, soil etc. into drainage system as directed by the Engineer.
2. All disturbed/exposed areas to be hydromulched.

LEGEND
— · — · — Proposed Top of Earthworks
— — — Proposed Bottom of Earthworks
Proposed Outlet Pipe
Existing Fence

REVISIONS			
	AMENDMENT	INITIALS	DATE
G			
F			
E			
D			
C			
B			
A	ORIGINAL ISSUE		

Survey Certification:
As the Surveyor for this Project, I hereby certify that the setout for construction has been in accordance with the design and levels shown on this drawing.
SIGNED _____ DATE _____

Engineering Certification:
As Registered Practising Engineer for this project, I certify that the works detailed on this drawing are in accordance with current engineering practices and complies with the current Australian Standards.
SIGNED _____ DATE _____
R.P.E.Q. No. _____

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50 SOUTH STREET
IPSWICH 4305
P.O. BOX 191
Ipswich
Phone (07) 3810 7894
(07) 3810 7927
Fax (07) 3810 7950

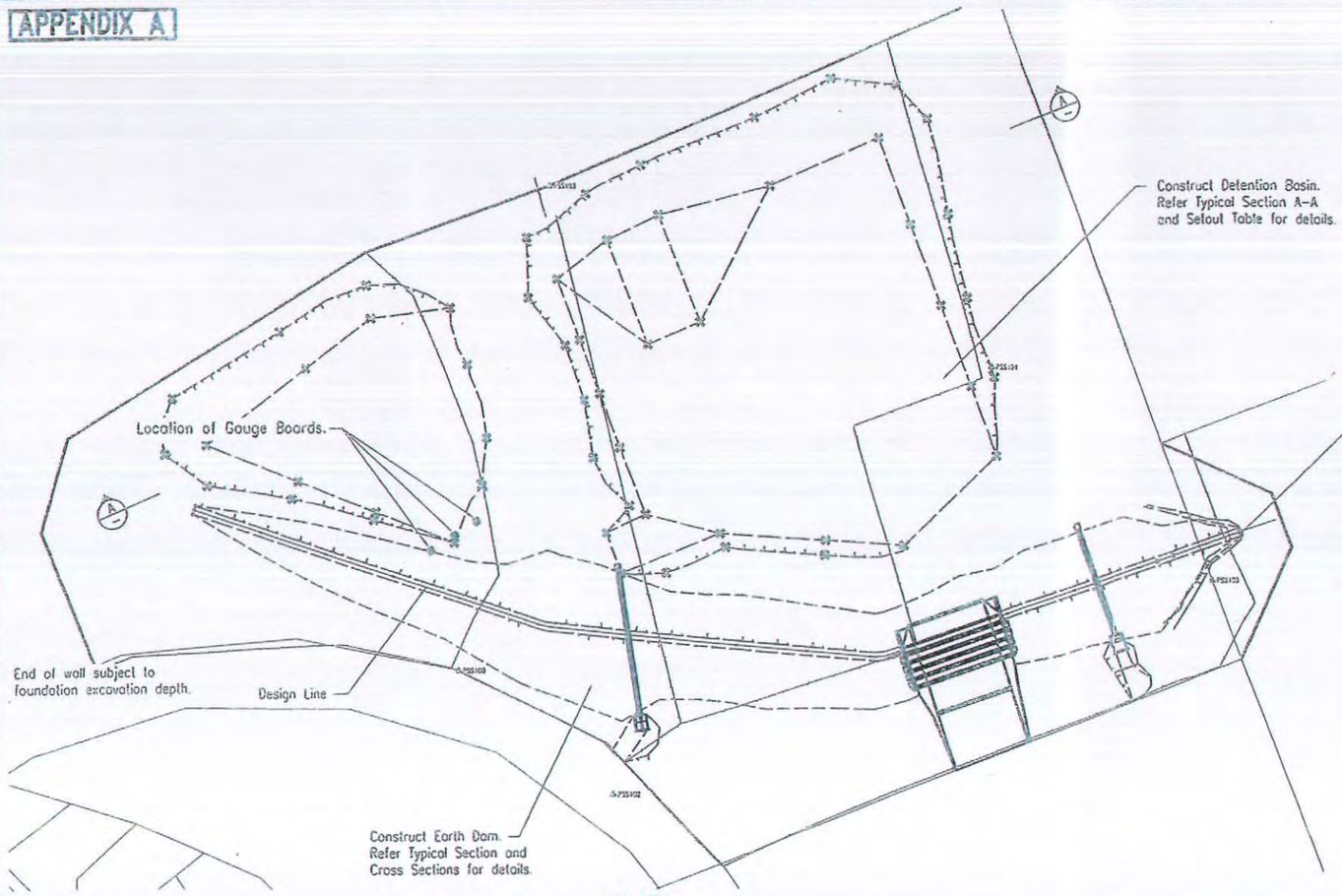
SCALES BEFORE REDUCTION:
SCALE A 0 2 4 6 8 10 12 METRES 1:250
SCALE B 0 1 2 3 4 5 6 METRES 1:125

	NAME	DATE
DESIGNED	B.K.	22/3/01
DRAWN	B.K.	22/3/01
CHECKED		
REGISTERED		
RECOMMENDED		
APPROVED		DATE
	WORKS MANAGER	

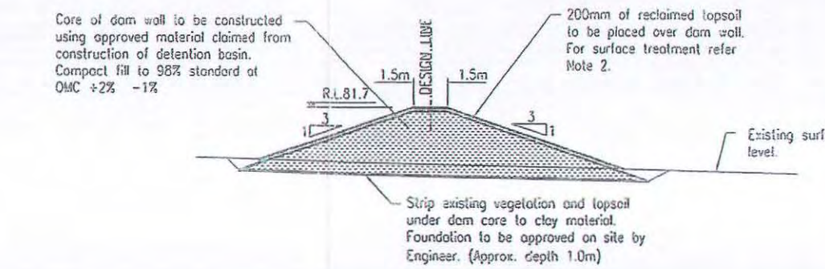
ROSEWOOD DETENTION BASIN
ROSEWOOD
SPILLWAY DETAILS – APPENDIX B

Doc Status : SCHEME	Size : A1	Dr : 198	Rev : A	Drg : 2001028.201

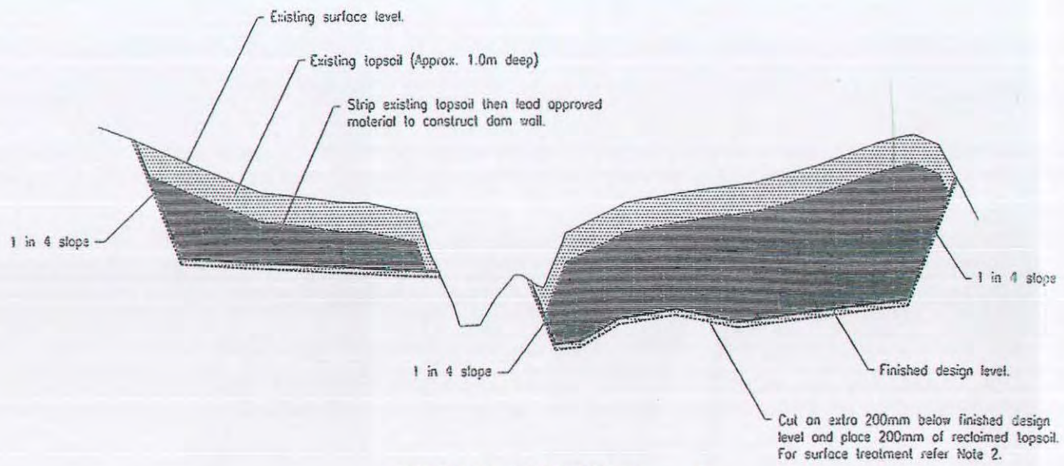
APPENDIX A



PLAN
Scale A



TYPICAL SECTION THROUGH DAM WALL
Not to Scale



TYPICAL SECTION A – A
Horizontal Scale A
Vertical Scale B

APPENDIX A –

a Location of Gauge Boards.

LEGEND

Proposed Top of Earthworks
Proposed Bottom of Earthworks
Proposed Outlet Pipe
Existing Fence

REVISIONS			
	AMENDMENT	INITIALS	DATE
G			
F			
E			
D			
C			
B			
A	ORIGINAL ISSUE		

Survey Certification:
As the Surveyor for this Project, I hereby certify that the setout for construction has been in accordance with the design and levels shown on this drawing.

SIGNED _____ DATE _____

Engineering Certification:
As Registered Practicing Engineer for this project, I certify that the works detailed on this drawing are in accordance with current engineering practices and complies with the current Australian Standards.

SIGNED _____ DATE _____

R.P.E.Q. No. _____

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50 SOUTH STREET
IPSWICH 4305
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Ipswich
Phone (07) 3810 7894
(07) 3810 7927
Fax (07) 3810 7950

SCALES BEFORE REDUCTION:

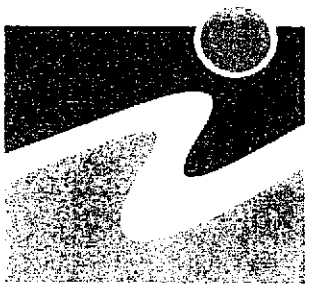
Scale A 0 10 20 30 40 50 METRES 1:1000

Scale B 0 1.0 2.0 3.0 4.0 5.0 METRES 1:100

	NAME	DATE
DESIGNED	B.K.	22/1/01
DRAWN	B.K.	22/1/01
CHECKED		
REGISTERED		
RECOMMENDED		
APPROVED		DATE
	WORKS MANAGER	

ROSEWOOD DETENTION BASIN
ROSEWOOD
PLAN AND TYPICAL SECTIONS – APPENDIX A

Doc Status : SCHEME | Size : A1 | Dr : 198 | Rev : A | Org : 2001028.200



Ipswich
City Council
Quality Lifestyle

EMERGENCY ACTION PLAN

MARBURG DETENTION BASIN
at
ROSEWOOD-MARBURG ROAD, MARBURG

This Emergency Action Plan has been prepared to comply with the safety conditions notified under S 491(9) of the Water Act 2000 and the QLD Dam Safety Management guidelines February 2002.

1. DOCUMENT CONTROL SHEET

Controlled Copy Number: 2

Authorisation: [redacted]

Approved by: J.R. DERBYSHIRE Date: 1/11/05
(Works Manager, Ipswich City Council)

The Works Department, Ipswich City Council, prepared this Emergency Action Plan.

REVISION STATUS:

Revision Number	Revision Description	Revision Date
1	Initial Issue	October 2005
2		
3		
4		
5		
6		

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1	Works Manager	Ipswich City Council
2	Deputy Works Manager	Ipswich City Council
3	Manager, Roads and Drainage	Ipswich City Council
4	Chief Executive /Director Dam Safety, Department of Natural Resources and Mines	Brisbane
5	SES Local Controller	Ipswich
6	Disaster District Coordinator	Ipswich
7	Records Manager	Ipswich City Council
8	Executive Officer, Ipswich City Counter Disaster Committee	Ipswich City Council

LIST OF ABBREVIATIONS AND MEANINGS

DNR&M - Department of Natural Resources and Mines
SES - State Emergency Services
ICC - Ipswich City Council
WM - Works Manager

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Appendix A Plan of the Marburg Detention Basin with Location of Gauge Boards and Typical Section through Dam Wall
Appendix B Plan of Spillway Details
Appendix C Evacuation Plan
Appendix D Activity Record Form

3. TELEPHONE NOTIFICATION LIST

	TITLE/NAME	PHONE BUSINESS	PHONE A/H	PHONE MOBILE	FAX
1	Mayor	[redacted]			
2	Works Manager				
3	Deputy Works Manager				
4	Manager, Roads & Drainage				
5	Infrastructure Delivery Engineer				
6	Senior Engineer, Infrastructure Planning				
7	Manager, Media				
	Bureau of Meteorology				
8	Meteorologist in charge				
	Counter Disaster Groups				
9	Disaster District Coordinator Ipswich				
10	Executive Officer Ipswich City Counter Disaster Committee				
11	Chemical Hazards Local Fire Service				
12	SES Local Controller, Ipswich (Arie Van Den Ende)				
13	SES Marburg				
14	State Counter Disaster Organisation Duty Officer				
	Police				
15	Ipswich Police	3813 8777	[redacted]		3812 1844
16	Rosewood Police	5464 2555			

4. AFFECTED PERSONS
(As at 18 October 2005)

No	Name	Address	Phone Numbers
1	Mr P K McKay	[redacted]	
2	Mr P McGrath and Ms R Welman		
3	Marburg & District Agricultural & Industrial Assoc		
4	Mr M C Blake and Mrs T N Blake		
5	Ms K P Statham		
6	Mr A M Schultz and Mrs M M Schultz		
7	Mr D A Fritz		
8	Mr P R Steele		
9	Mr G J Redgrave and Ms N B Benson		
10	Mr P McGrath and Ms R Welman		
11	Mr C B Colless		
12	Mr P J Parker		
13	M/s N Dingle		
14	I J & M J Thorne Pty Ltd As Trustee		
15	Mrs J K Robison		
16	Mr R M Bain		
17	Mr E L Wardrop		
18	Ms M M Williams		
19	Mr J J McAuliffe and Mrs L M McAuliffe		
20	Mr J R Hall and Mrs M A Hall		
21	Mr E G Whip and Mrs J M Whip		
22	Mr M E Blake		
22a	Mr W A Richardson		
23	Mr A A Bramley and Mrs C M Bramley		
23a	Mr R L Greentree		
24	Ms A G Kickbusch		
25	Mr B W Dance		
26	Mrs D M Dance		
27	Mrs E A Dance		
28	Mr G M Cochrane and Mrs C A Cochrane and Mr R K Stephenson and Mrs L L Stephenson		
29	Mr I B Emanuel and Mrs M I Emanuel		
30	Mr G J Catt and Mrs L A Catt		
31	Mr E V Anforth and Mrs G I Anforth		
32	Mr B de Jong		
33	Ipswich City Council Program 21		
34	Ipswich City Council Program 30		
35	Mr M V W Payne and Ms S J Strasburg		
36	Energex		
37	Mr A R McDowall and Mrs K M I McDowell		
38	Mr D Martin and Mrs B A Martin		

39	Mr S W R Youngs and Mrs K A Youngs
40	Ms R J Rasmussen
41	Mr A N Rasmussen and Mrs L J Rasmussen
42	Mr P J Schmidt and Mrs L F Schmidt
43	The State Of Queensland
44	Mr J M MacKintosh and Mrs C G MacKintosh
45	Mr J P Nuffer
46	Ms P J Scott
47	Mr B J Daley and Mrs S F Daley
48	Churches Of Christ In Queensland
49	Mr A M de Neeff and Mrs E C de Neeff
50	Mr P J Keats
51	Mr G J Bye and Mrs K R Bye
52	Queensland Police Service
53	Ms B J Kilgour
54	Mr R J Poza
55	Mr G T McHugh
56	Mr P Buchholtz
57	Mr J R Hoddle
58	Marburg & District Residents Association Inc
59	Ipswich City Council Program 30
60	Queensland Fire & Rescue Authority
61	Mr N H Dat and Mrs M T Dat
62	Mr N H Dat and Mrs M T Dat
63	Mr W G G Wilmshurst
64	Mrs J I Freese
65	Ms M J Grant
66	Mr E G Whip and Ms J M Whip and Mr S J Whip
67	Mr L K Birnie and Mrs K Birnie
68	Transfield Telstra Alliance
69	Mr H A Errey and Mrs C M Errey
70	Corporation Of The Synod Of Diocese Of Brisbane
71	Mr D J Bowden and Mrs J M Bowden
72	Mr H A Errey
73	Ms M E A Bulloch
74	Mr P J Robson and Mrs C M Robson
75	Mr J G Edwards
76	Mrs S P Pearce
77	Ms M J Grant
78	Ms Y P Vollbrecht
79	Mr A B Doyle and Mrs C M Doyle
80	Mr M J Jacklin and Mrs K L Jacklin
81	Mr J Verrenkamp
82	Ms A L Patch

83	Mr G V Greensill and Mrs D L Greensill	[redacted]
84	Mr L J M West and Mrs K J West	
85	Mrs M F Potts	
86	Mr P J Horrigan and Mrs G F Horrigan	

Figure 4: Houses at Risk gives the locations of these properties

Note: Where no phone number is shown, contact the occupier visiting the address

5. PURPOSE

To define the actions to be taken for an event which could lead to collapse or failure of Marburg Detention Basin.

Such events include:

- Occurrence of a larger flood than the flood used for the design of the detention basin;
- Occurrence of a series of large storms in a short period;
- Occurrence of overtopping due to blockage of intake structure;
- Failure of spillway during a flood;
- Development of a pipe through the embankment;
- Damage to the embankment from accident, vandalism and sabotage

Flooding

The detention basin is designed to safely withstand very severe flooding under normal spillway operations.

6. ROLES AND RESPONSIBILITIES

- Dam Operator: Works Manager, Ipswich City Council
  Central decision maker for sequence of actions in the event of unusual situation at the detention basin

- Other Dam Personnel: Deputy Works Manager
  Infrastructure Delivery Engineer
  Roads & Drainage Manager
  To assist Dam Operator whenever required

- Flood Duty Officer: Person assigned this duty by the Works Manager, Ipswich City Council
  To identify severity of rainfall within the catchment and to alert Dam Operator

- Operations Officer: Person assigned this duty by the Works Manager, Ipswich City Council on rostered basis and may include one of the following:-
  - Deputy Works Manager
  - Infrastructure Delivery Engineer
  - Roads and Drainage Manager
  - Senior Engineer

  To organise nearest staff member to monitor the basin water level reading from the gauge board at the site and inform the situation to the Dam Operator

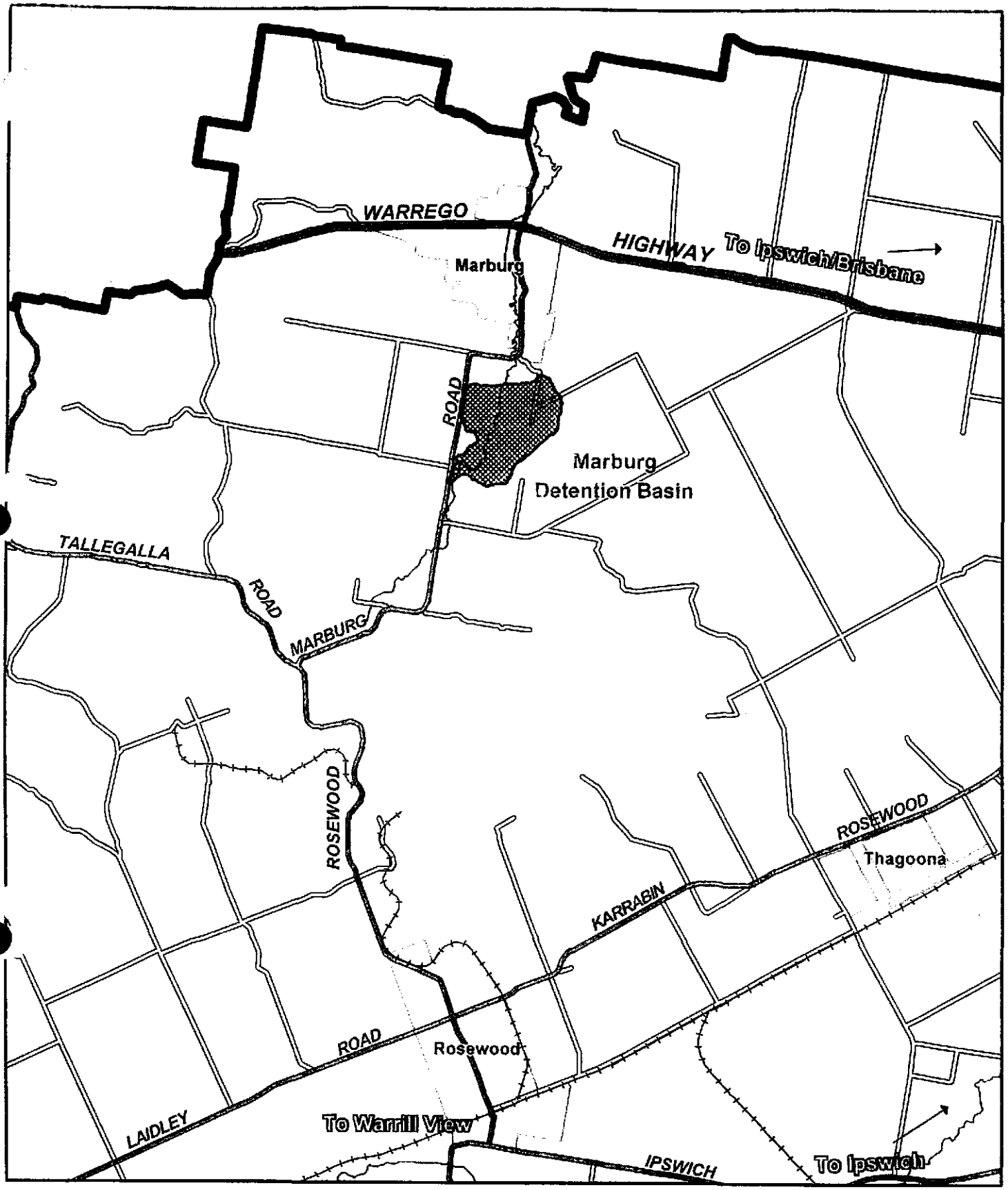
- Inspecting Officer * Person assigned this duty by the Works Manager or Operations Officer
  To monitor the basin water level reading from the gauge board at the site and inform the situation to the Dam Operator and in emergency situation (if advised by WM) to assume control until arrival of the Police and or Ambulance Service

- SES Local Controller, Ipswich: *To carry out SES responsibilities as per request from Dam Operator (or his delegate) or Queensland Police*

* Note: Inspecting Officer will be one of the following:-

1) A supervisor from the Road and Drainage Branch in particular from the Rosewood Depot in Mill Street, Rosewood (Phone [redacted]
2) A sewerage plant operator from Ipswich Water (Phone either [redacted] at Rosewood Treatment Plant or Manager Operations [redacted]
3) A member of the Ipswich SES unit (Phone either [redacted] at Marburg SES or SES Local Controller [redacted]
4) Another officer nominated by the Works Manager or his delegate

Contact should be attempted in the order of 1), 2) 3) and then 4). Should only proceed to 2) if 1) is not contactable.



IPSWICH CITY COUNCIL

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Data Compiled by: Asset Information Management Section, Works Department
Phone: (07) 3810 7805

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EMERGENCY ACTION PLAN
MARBURG DETENTION BASIN

FIGURE 1

Access Routes
(Preferred route via Warrego Highway)

0 1 2
Kilometres

Map Grid : Geocentric Datum of Australia (G.D.A.)
Level Datum : Australian Height Datum (A.H.D.)
Printed Date : 22/11/2004
Scale : 1:50,000



N
W E
S

GDA

9. BASIN OPERATION

- Marburg Detention Basin on Black Snake Creek above the outskirts of the township is intended to reduce the potential for flooding properties in the town centre. An embankment approximately 10m high intercepts runoff from the creek catchment of about 17 km2 to the south (refer Figure -).

- Four concrete pipes beneath the dam, each of 1800 mm diameter, restrict the discharge with the runoff being stored temporarily behind the embankment. The water rises to a maximum consistent with the intensity of the storm.

- The basin was proportioned to pass the 100 year Average Recurrence Interval (ARI) flood without the spillway discharging. The water level rises to RL 86.7, the crest of the spillway.

- For storm events smaller than the 100 year ARI, the water level in the storage is estimated to reach the following approximate levels:

Storm Event (ARI - years)	Storage Level (RL - m)
1	82.0
2	82.7
5	83.8
10	84.7
20	85.4
50	86.2

- Discharges from the basin are conveyed through the township along a grassed channel of 20 m invert width. Crossings on the Rosewood Marburg Road and Edmond Street remain passable during the 100 year ARI event.

- To produce the 100 year ARI runoff, the total rainfall would be an estimated 140 mm over a period of three hours, with about 25 mm falling in the first 30 minutes.

- The spillway consists of a rockfilled, concrete covered gabion and mattress channel and cascade built over the embankment. Its crest is nominally 2.5 m below the embankment crest.

- The dam crest flood (which rises above the spillway crest to just reach but not overtop the embankment crest) is the 50000 year ARI event.
  - To produce this runoff, the total rainfall would be about 350 mm over a period of 2.5 hours, with about 135 mm falling in the first hour.

- Marburg Detention Basin has been assessed to be a referable dam, Category 2 (population at risk exceeding 100). The Water Act 2000 does not require any future failure impact assessment.

- An Alert gauge and a manual gauge were installed in July 2005 on the Basin Wall. See **Appendix** A for the location of these gauges to measure the basin water level.

DAMBREAK BREACH AND TRAVEL TIMES

- The time to fully develop a breach in the embankment is estimated to be between one and two hours.

- The nearest dwellings along the flow path are on the north side of the Rosewood Marburg Road, approximately 300 m downstream. After the breach discharge reaches a peak, the travel time to this point is 3minutes for the spillway level dambreak or 1 minute for the dam crest flood breach.

- The breach path thereafter to the Warrego Highway end is approximately 1300 m long. The additional travel time for the peak to reach this point is 48 minutes for the spillway level dambreak or 19minutes for the dam crest flood breach.

DETERMINATION OF RESPONSE TO STORM EVENTS

A. The DUTY OFFICER is to determine whether any of the following, which justify an inspection of the basin, has occurred:

    1. intensity exceeding 100 mm/hour

    2. intensity exceeding 70 mm/hour for a period of 30 minutes

    3. rainfall of 60 mm in 15 minutes

    - The closest Bureau of Meteorology's gauge is at Tallegalla and as shown on the attached Figure 2. The first alarm was set up for 20 mm rainfall in 15 minutes. The Flood Duty Officer will commence monitoring after receiving the first alarm and will alert the Dam Operator (Works Manager) as to the situation.

    - All information including total rainfall is to be recorded.

    - Section 10 includes the flow chart showing the sequence of actions during heavy rainfall events.

B. The DAM OPERATOR, after being informed by the Flood Duty Officer, will contact the Operations Officer. to arrange a basin inspection.

    - The Operations Officer will remotely monitor the basin height information provided by the Alert gauge installed at the Basin Wall.
    - The Operations Officer will arrange a basin inspection when the water level reaches 4m below the spillway which is equivalent to 3.5m gauge height.

C. The OPERATIONS OFFICER will organise the nearest staff member to undertake basin water level readings from the gauge board and inform the Dam Operator of those readings

    - arrange to plot the water level readings on a chart as shown on the Figure in Section 15.

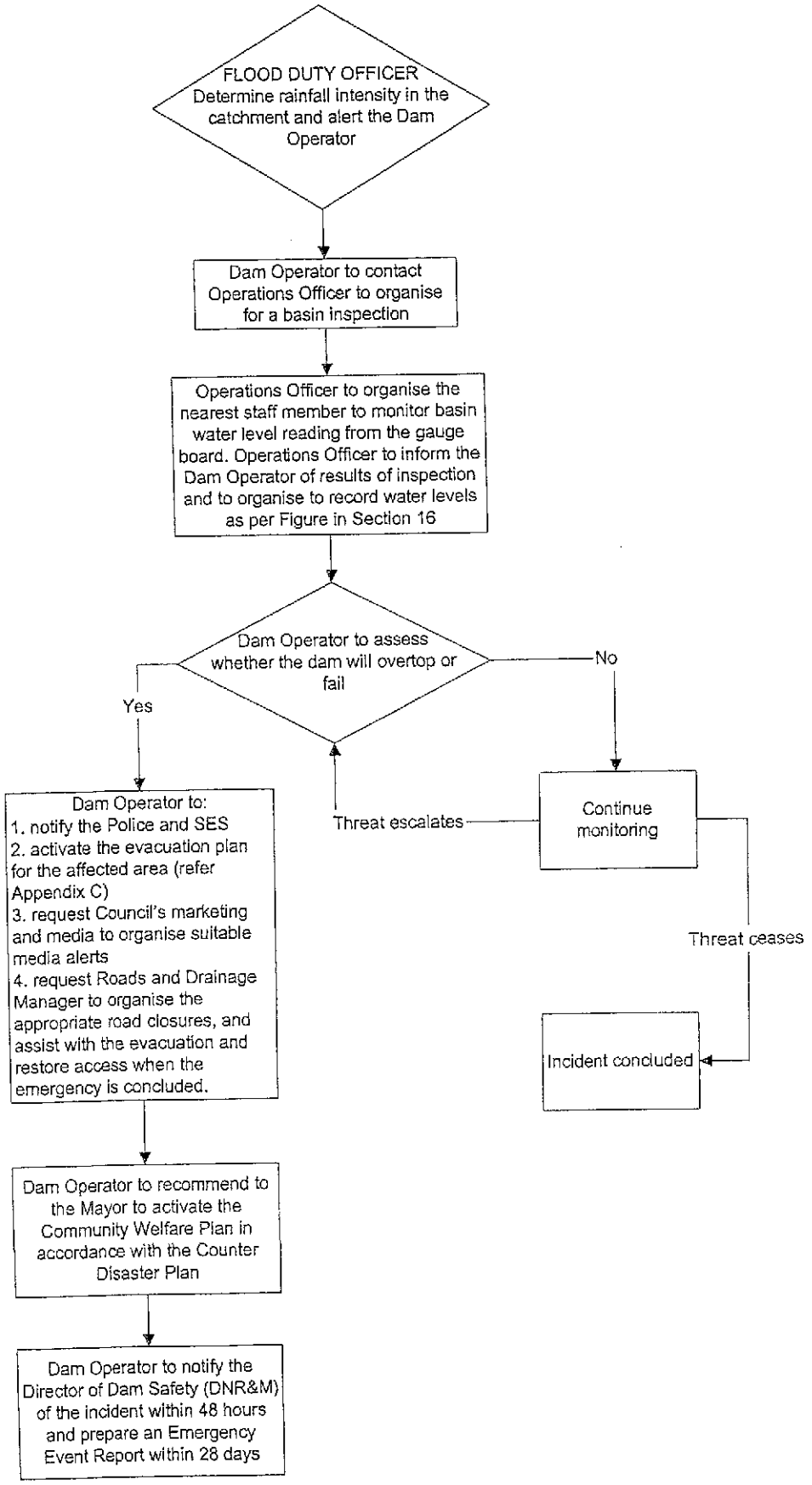
INTERPRETATION OF WATER LEVEL READINGS DURING A SPILLWAY DISCHARGE

- If the spillway discharges, the Operations Officer is to continue plotting the gauge board levels, at 15 minute intervals, on the Figure in Section 15. After six readings, it will be possible to observe any tendency for the curve to be either steepening or flattening. This will assist in determining what will happen. If the plotted curve is steepening, then downstream flooding will become more serious. If the plotted curve is flattening, then an estimate of the peak water level and discharge may be possible.

RECORD OF INCIDENTS

- All incidents should be recorded in the Dam Log Book, which is placed in a secure location for future reference.

10. FLOW CHART FOR EMERGENCY EVENTS AND ACTIONS – HEAVY RAINFALL EVENTS

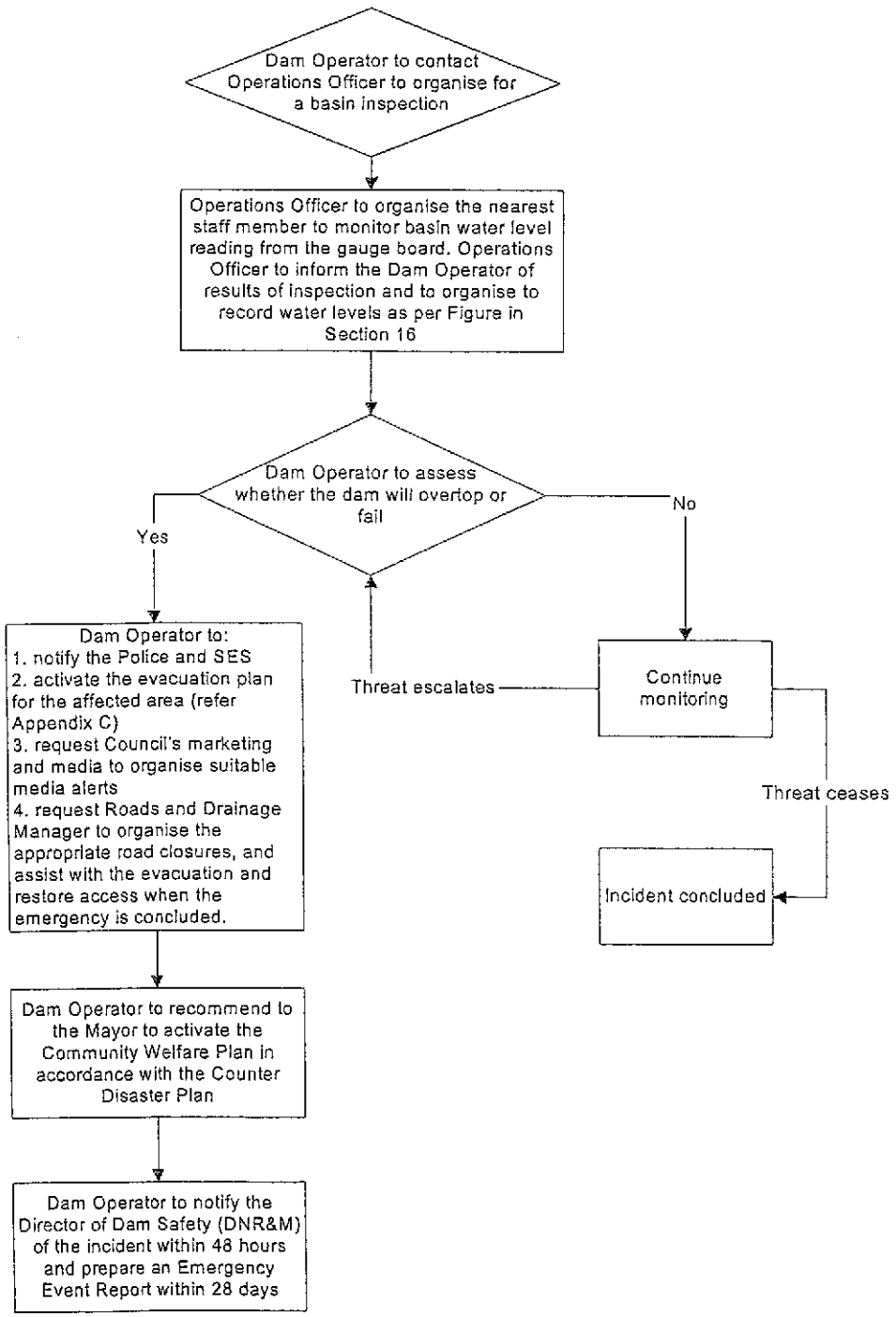


11. EMERGENCY EVENTS AND ACTIONS – EVENTS OF STRUCTURES FAILURE

If there is:

- Possibility of Piping Failure prior to flood reaching the dam crest or
- Accident, Vandalism and Sabotage or
- Blockage of intake structure leading to premature failure of the dam or spillway before the dam would be operate normally then the actions on the following flow chart need to be followed.

FLOW CHART

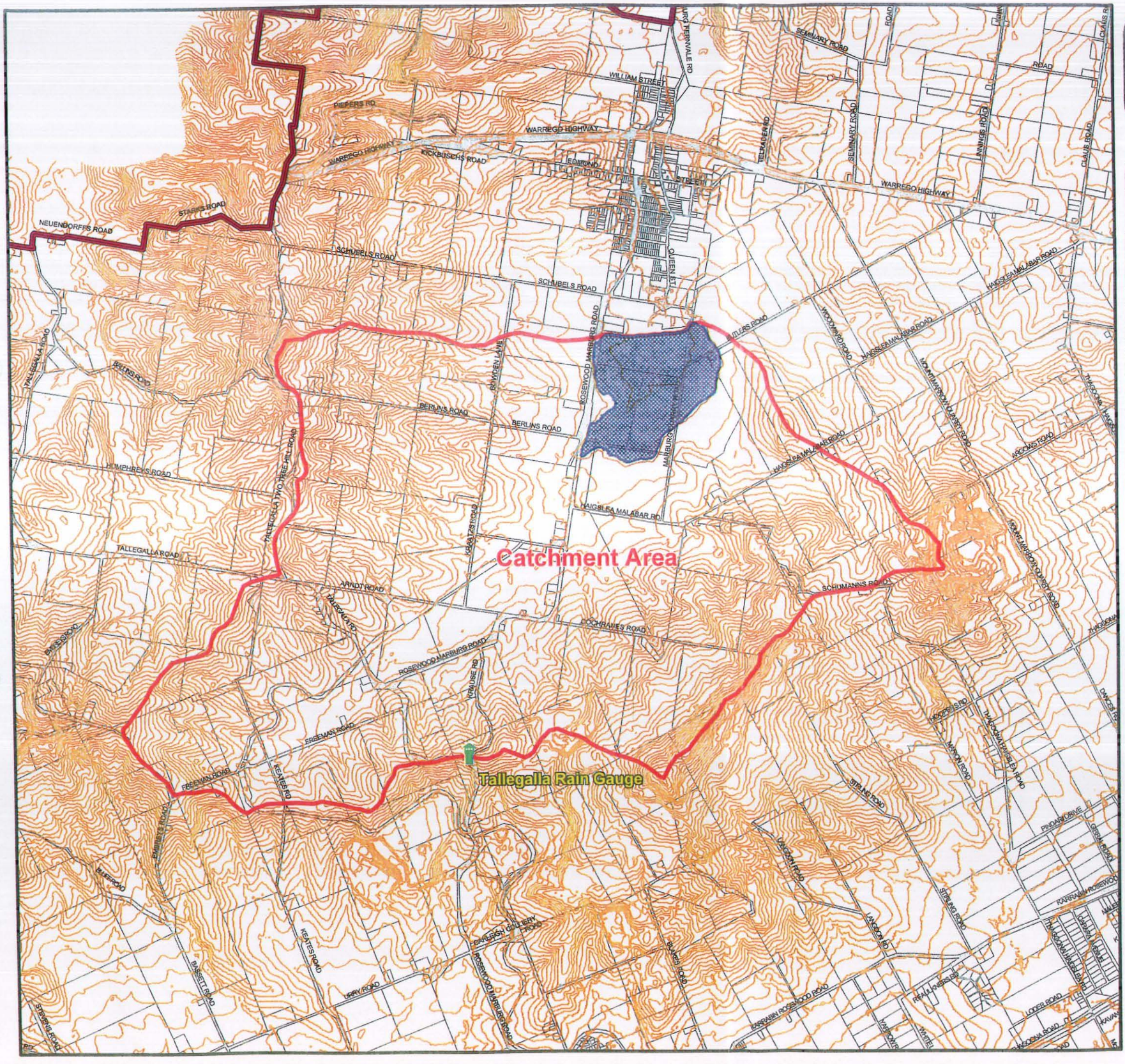


12. FLOODING EVENT DEFINITIONS

- **"DCF"** or
  "Dam Crest Flood"
  The flood event which when routed through the Detention Basin just reaches the crest of the Dam wall.

- **"PMF"** or
  "Probable Maximum Flood"
  The flood resulting from the Probable Maximum Precipitation

- **"PMP"** or
  "Probable Maximum Precipitation"
  The theoretical greatest depth of precipitation for a given duration that is physically possible over a particular drainage system



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EMERGENCY ACTION PLAN
MARBURG DETENTION BASIN

FIGURE 2

Storage Catchment Area & Location of Rainfall Gauge Map

LEGEND

- Rain Gauge
- Marburg Detention Basin
- Catchment Boundary
- Ipswich City Boundary

0 1 2
Kilometres

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Level Datum :	Australian Height Datum (A.H.D.)
Scale :	1:30,000
Printed Date :	22/11/2004
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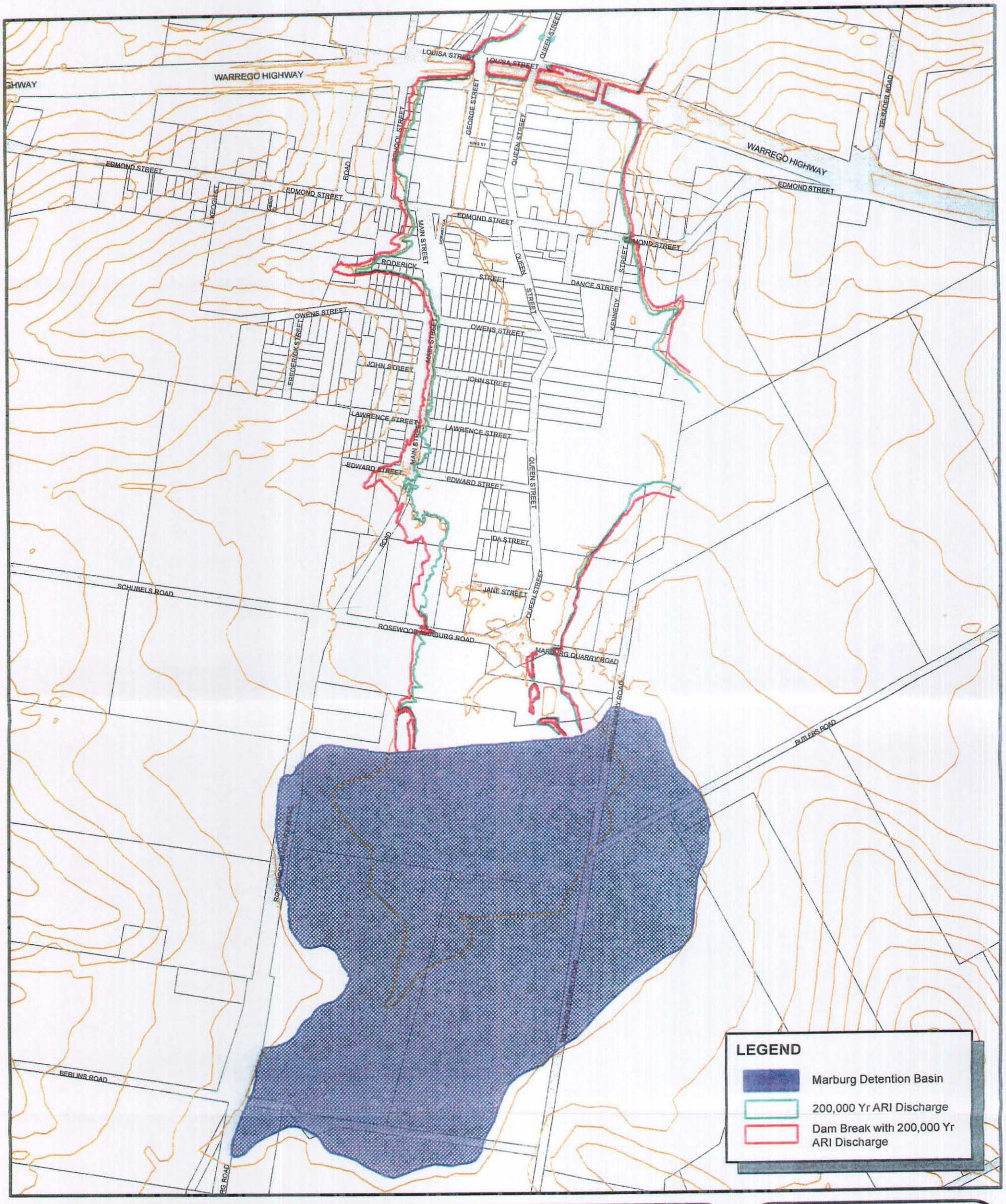

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EMERGENCY ACTION PLAN
MARBURG DETENTION BASIN

FIGURE 3

200,000 Yr ARI Dam Break Inundation Boundaries

0 0.25 0.5
Kilometres

Map Grid : Geocentric Datum of Australia (G.D.A.)
Level Datum : Australian Height Datum (A.H.D.)
Printed Date : 22/11/2004
Scale : 1:8,500

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EMERGENCY ACTION PLAN
MARBURG DETENTION BASIN

FIGURE 4

Houses at Risk

0 50 100 200
Metres

Map Grid : Geocentric Datum of Australia (G.D.A.)
Level Datum : Australian Height Datum (A.H.D.)
Printed Date : 22/11/2004
Scale : 1:5,000

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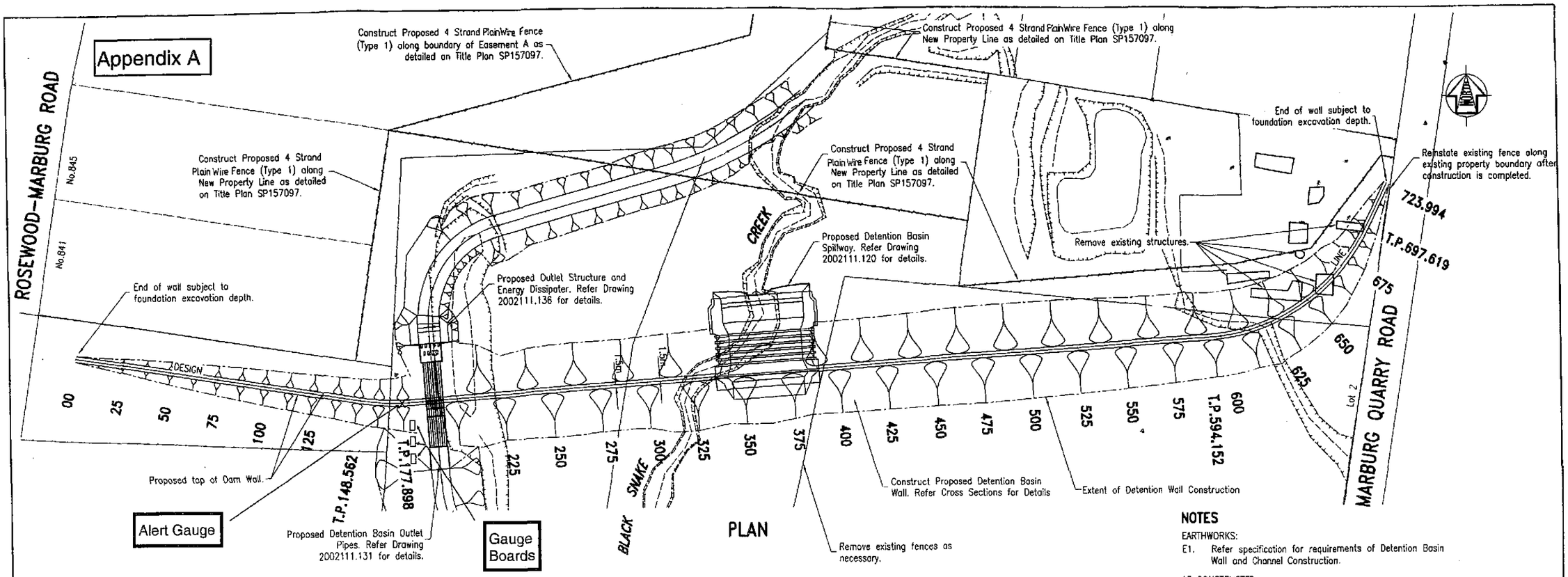

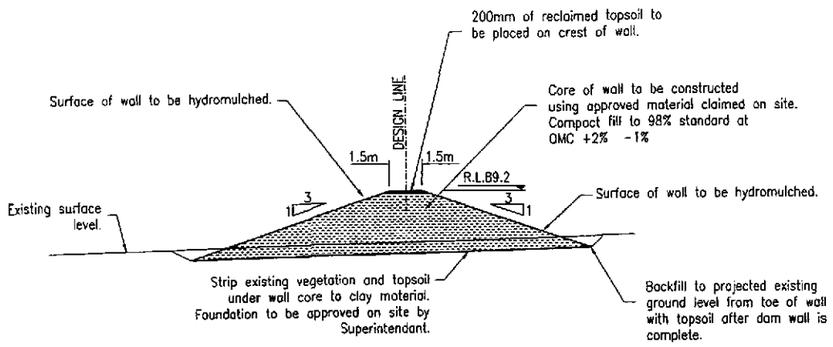

TYPICAL SECTION THROUGH DETENTION BASIN WALL

Not to Scale

NOTES

EARTHWORKS:

E1. Refer specification for requirements of Detention Basin Wall and Channel Construction.

AS CONSTRUCTED:

AC1. As constructed information to conform to "As Constructed Requirements for Capital Works" prepared by Asset Management Section.

ENVIRONMENTAL PROTECTION:

EP1. Environmental protection to be carried out as per Environmental Management Plan.

EP2. Hydromulch all disturbed/exposed areas.

GENERAL:

G1. During construction, erect appropriate stock proof temporary fencing around construction areas

SERVICES:

S1. GENERAL

Position of ALL SERVICES are approximate only and position of these services are to be located by the relevant authority before the start of any construction. For service details contact Dial Before You Dig (Ph.1100).

LEGEND

	Existing Edge of Bitumen		Existing Moonie Oil Line
	Existing Edge of Gravel Road	OP	Existing Optus Cable
	Existing Kerb and Channel		Existing Optus Pit
	Existing Footpath	T	Existing Telstra Cable
	Existing Sign	TOF	Existing Telstra O/F Cable
S	Existing Sewerage Line		Existing Telstra Pit
	Existing Sewerage Manhole		Existing Fence
	Existing Stormwater System		Existing Tree
	Existing Stormwater Manhole		Proposed Edge of Bitumen
	Existing G.I.P.		Proposed Kerb and Channel
W	Existing Water Main		Proposed Footpath
	Existing Fire Hydrant		Proposed Sign
	Existing Valve		Proposed Stormwater System
	Existing Power Pole		Proposed Stormwater Manhole
G	Existing Gas Main		Proposed G.I.P.
HPG	Existing H/P Gas Main		Proposed Headwall

REVISIONS			
	AMENDMENT	INITIALS	DATE
G			
F			
E			
D	Approved For Construction	RJ	07/09/03
C	For Tender Only	TH	28/5/03
B	Local. of Outlet Pipes & Inlet & Outlet Structures Altered	R.Jaryes	16/4/03
A	ORIGINAL ISSUE		

Survey Certification :
As the Surveyor for this Project, I hereby certify that the setout for construction has been in accordance with the design and levels shown on this drawing.
SIGNED ..... DATE .....

Construction Certification :
As Supervising Engineer for this project, I certify that the works detailed on this drawing have been carried out in accordance with this drawing and specifications, to the satisfaction of the IPSWICH CITY COUNCIL.
SIGNED ..... DATE .....

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IPSWICH 4305
P.O. BOX 191
Ipswich
Phone (07) 3810 7894
(07) 3810 7927
Fax (07) 3810 7950

SCALES BEFORE REDUCTION:
SCALE 0 10 20 30 40 50 METRES 1:1000

	NAME	DATE
DESIGNED	B. WALFORD	AUG 2002
DRAWN	A. KATI	NOV 2002
CHECKED	[signature]	28/5/03
REGISTERED	[signature]	28.5.03
RECOMMENDED	[signature]	29/5/03
APPROVED	[signature]	28/5/03 DATE

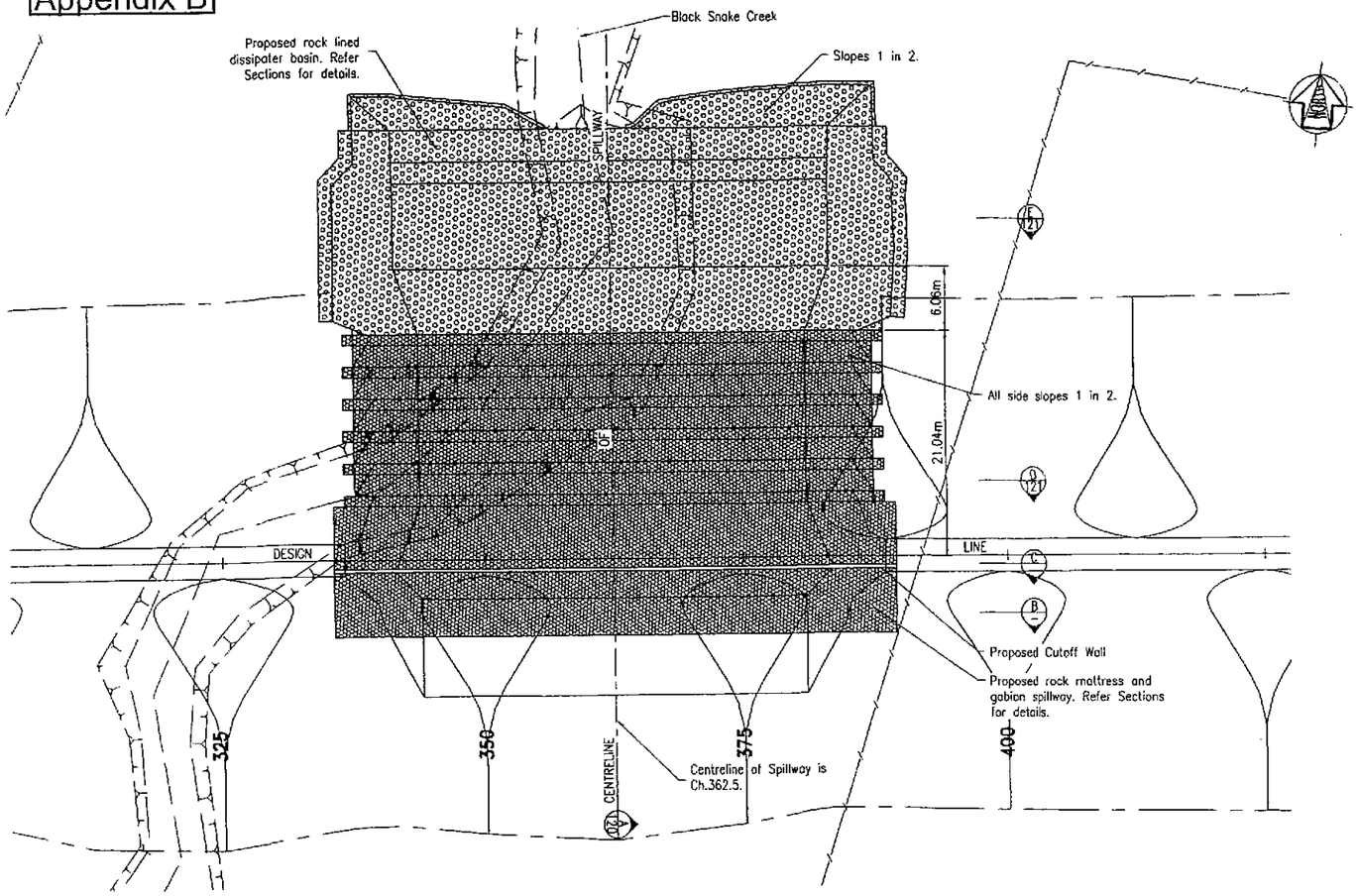
ICE WORKS MANAGER

MARBURG DETENTION BASIN, MARBURG DETENTION BASIN WALL PLAN AND TYPICAL SECTION

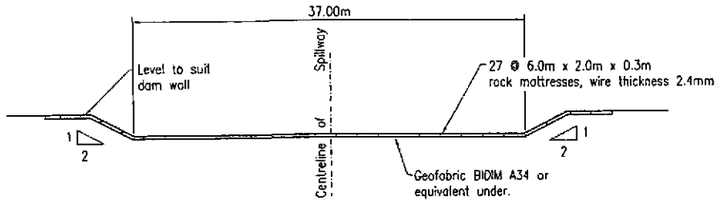
Appendix A

Doc Status : SCHEME | Size : A1 | Dr : 209 | Rev : D | Drg : 2002111.103

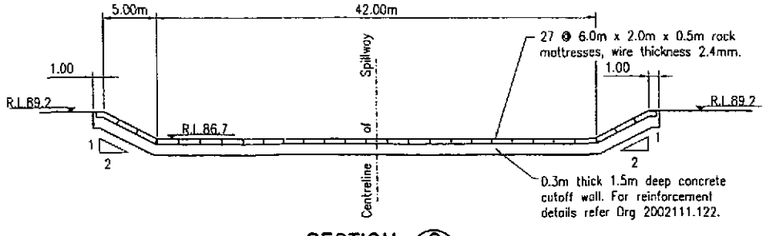
Appendix B



PLAN



SECTION B



SECTION C

NOTES

MATTRESSES AND GABIONS:

1. Material for mattresses and gabions shall consist of hard, dense, durable, rock fragments. Water absorption (AS 2758) not exceeding 2.5%.
2. Wire for mattresses and gabions shall be plastic coated.
3. Mesh openings shall be 60mm. x 80mm. for mattresses and 80mm. x 100mm. for gabions.
4. Rock for mattresses and gabions shall have a particle size between 120mm. and 250mm.

ROCK PROTECTION:

1. Material for rock protection shall consist of hard, dense, durable rock fragments. Water absorption (AS 2758) not exceeding 2.5%.
2. Rock Protection Type A shall be well graded within the following limits:
   (i) Maximum size 300mm.
   (ii) Not less than 50% by mass larger than 200mm.
   (iii) Not more than 10% smaller than 50mm.
   Rock protection Type B shall consist of boulders not more than 900mm mean dimension, with at least 50% larger than 600mm. and less than 10% smaller than 150mm.
   Rock protection Type C shall consist of boulders not more than 900mm mean dimension, with at least 50% larger than 500mm. and less than 10% smaller than 150mm.
3. Rock protection shall be spread to the thickness shown on the drawing, in such a manner that the finer material is generally toward the underside of the layer, that the rock protection is stable without any tendency to slide and that there are no large voids.

CONTAINMENT CONCRETE:

1. The surface layer of the rock mattresses and gabions where indicated shall be contained by placing and working concrete down into the voids. The concrete shall have a characteristic strength of 25MPa. and a max. aggregate size of 10mm. and shall be worked down into the voids by vibrating, rodding and ramming until the surface of the concrete is in accordance with the lines, grades and dimensions shown on the drawing. The depth of concrete placed shall be between 150mm. and 250mm. Slump shall be 60mm. - 80mm. The concrete cover over the wire lids of the mattresses shall be 25mm.
2. Design Levels are to surfaces of concrete cover.

ENVIRONMENTAL PROTECTION:

EP1. Environmental protection to be carried out as per Environmental Management Plan.
EP2. Hydromulch all disturbed/exposed areas.

LEGEND

- Existing Edge of Bitumen
- Existing Edge of Gravel Road
- Existing Kerb and Channel
- Existing Footpath
- Existing Sign
- Existing Sewerage Line
- Existing Sewerage Manhole
- Existing Stormwater System
- Existing Stormwater Manhole
- Existing G.I.P.
- Existing Water Main
- Existing Fire Hydrant
- Existing Valve
- Existing Power Pole
- Existing Gas Main
- Existing H/P Gas Main
- Existing Moonie Oil Line
- Existing Optus Cable
- Existing Optus Pit
- Existing Telstra Cable
- Existing Telstra O/F Cable
- Existing Telstra Pit
- Existing Fence
- Existing Tree
- Proposed Edge of Bitumen
- Proposed Kerb and Channel
- Proposed Footpath
- Proposed Sign
- Proposed Stormwater System
- Proposed Stormwater Manhole
- Proposed G.I.P.
- Proposed Headwall

REVISIONS			
	AMENDMENT	INITIALS	DATE
G			
F			
E			
D	Approved For Construction	RJ	07/07/03
C	For Tender Only	R.J.	24/6/03
B	Locn. of Outlet Pipes & Inlet & Outlet Structures Altered	R.Jarjees	18/6/03
A	ORIGINAL ISSUE		

Survey Certification :
As the Surveyor for this Project, I hereby certify that the setout for construction has been in accordance with the design and levels shown on this drawing.
SIGNED ..... DATE .....

Construction Certification :
As Supervising Engineer for this project, I certify that the works detailed on this drawing have been carried out in accordance with this drawing and specifications, to the satisfaction of the IPSWICH CITY COUNCIL.
SIGNED ..... DATE .....

IPSWICH CITY COUNCIL
50 SOUTH STREET
IPSWICH 4305
P.O. BOX 191
Ipswich
Phone (07) 3810 7894
(07) 3810 7927
Fax (07) 3810 7950

SCALES BEFORE REDUCTION:
SCALE 0 2 4 6 8 10 12 METRES 1:250

	NAME	DATE
DESIGNED	B. WALFORD	AUG 2002
DRAWN	A. RATT	NOV 2002
CHECKED	[illegible]	25/6/03
REGISTERED	[illegible]	27.5.03
RECOMMENDED	R. [illegible]	24/6/03
APPROVED	[illegible]	DATE

B.P. WORKS MANAGER

MARBURG DETENTION BASIN
DETENSION BASIN SPILLWAY
PLAN AND SECTIONS Appendix B

Doc Status : SCHEME | Size : A1 | Dr : 209 | Rev : D | Drg : 2002111.120

APPENDIX C

EVACUATION PLAN

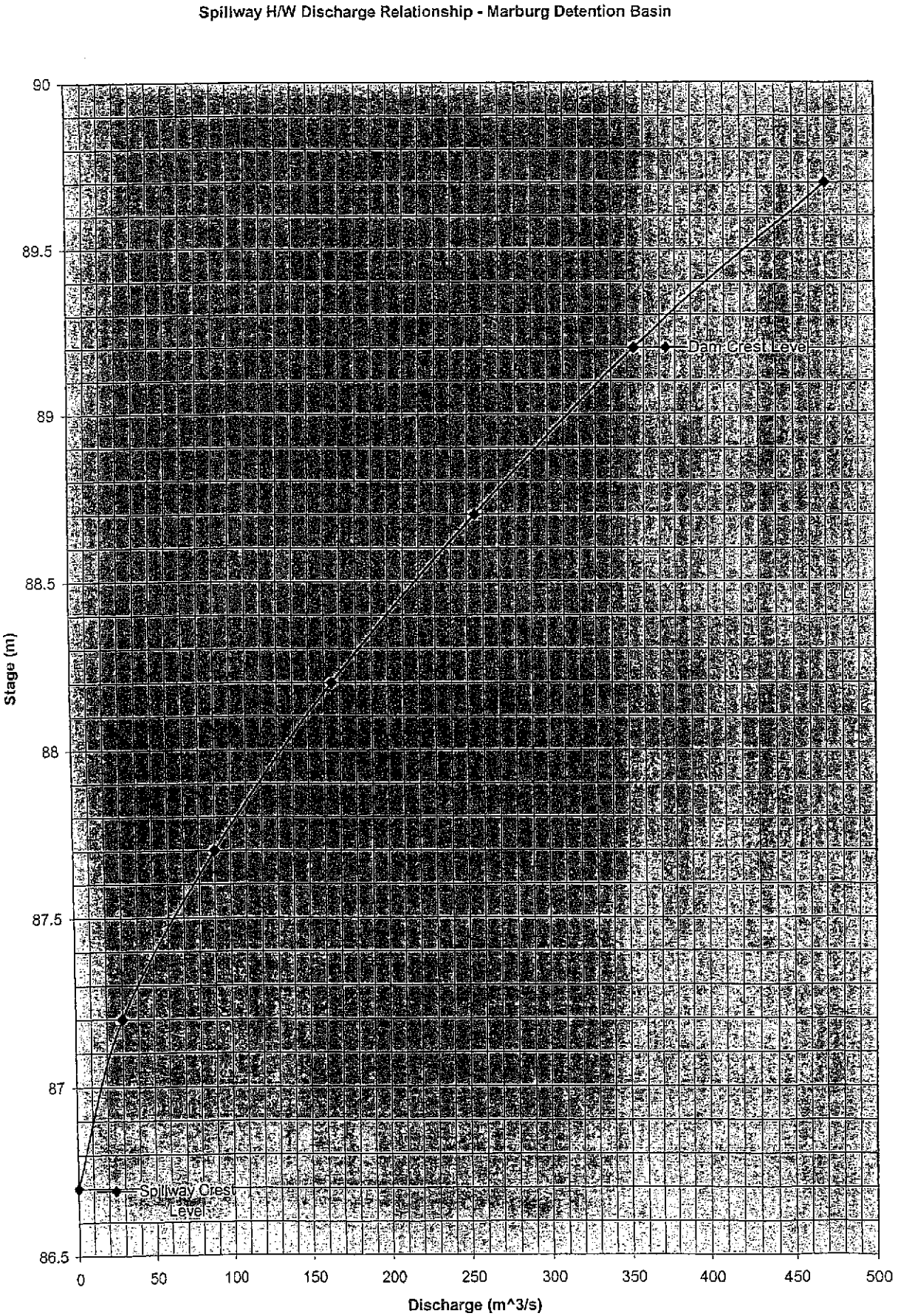
1. If Works Manager, Ipswich City Council decides that the Dam will overtop or fail and evacuations are necessary then this can be achieved by activating the Ipswich City Counter Disaster Plan for Flooding and seeking assistance from the Police and SES.

2. Evacuation could possibly be arranged by the Police and/or possibly by the SES and/or possibly by Council Staff by door knocking of the houses at risk as per the List in Section 4 of the Emergency Action Plan and advising the occupants of the situation and requesting to vacate their houses.

3. Residents should be directed to move to designated areas at higher ground outside the Inundation boundaries indicated in Figure 3 of the EAP until the event has passed and safe to return.

4. If the duration is drawn out or alternative accommodation is needed, arrangement will be taken according to the Counter Disaster Plan.

15. SPILLWAY H/W DISCHARGE RELATIONSHIP – MARBURG DETENTION BASIN



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4. If the duration is drawn out or alternative accommodation is needed, arrangement will be taken according to the Counter Disaster Plan.

APPENDIX D

ACTIVITY RECORD FORM
Marburg Detention Basin

Date:
Completing Officer:
Designation:
Details of Action:

Use more pages if required and attach any further information Signature

seqwater

WATER FOR LIFE

LAKE MANCHESTER DAM

EMERGENCY ACTION PLAN

FOR USE BY STAFF OF

SEQWATER

AND

EMERGENCY RESPONSE PERSONNEL

DISTRIBUTION, AUTHORISATION AND REVISION STATUS

Distribution

Copy No.	Agency	Position	Location
1	Seqwater	Dam Safety and Source Operations Manager	Brisbane
2	Seqwater	Principal Engineer Dam Safety	Ipswich
3	Seqwater	Storage Supervisor	Lake Manchester Dam
4	Seqwater	Operations Coordinator	Central
5	SunWater	Senior Flood Operations Engineer	Flood Operations Centre, Brisbane
6	NRW	Director Dam Safety	Brisbane
7	Department of Emergency Services	Duty Officer – Disaster Management Service	Brisbane
8 – 12	Brisbane City Council	Local Disaster Response Coordinator	Brisbane
13	Ipswich City Council	Local Disaster Response Coordinator	Ipswich
14	Emergency Management Queensland	Regional Director, Brisbane District	Brisbane

Authorisation

Approved for Issue by:_____ Date _____

Seqwater Principal Engineer
(Dam Safety)

Revision Status

Rev No.	Date	Revision Description
0	October 2008	Original
1	August 2009	Revision 1

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APPENDIX B – Maps and Plans

APPENDIX C – Flood Inundation Maps and Dam Break Analysis

APPENDIX D – Storage: Discharge Characteristics

APPENDIX E – Inspection and Reporting Forms

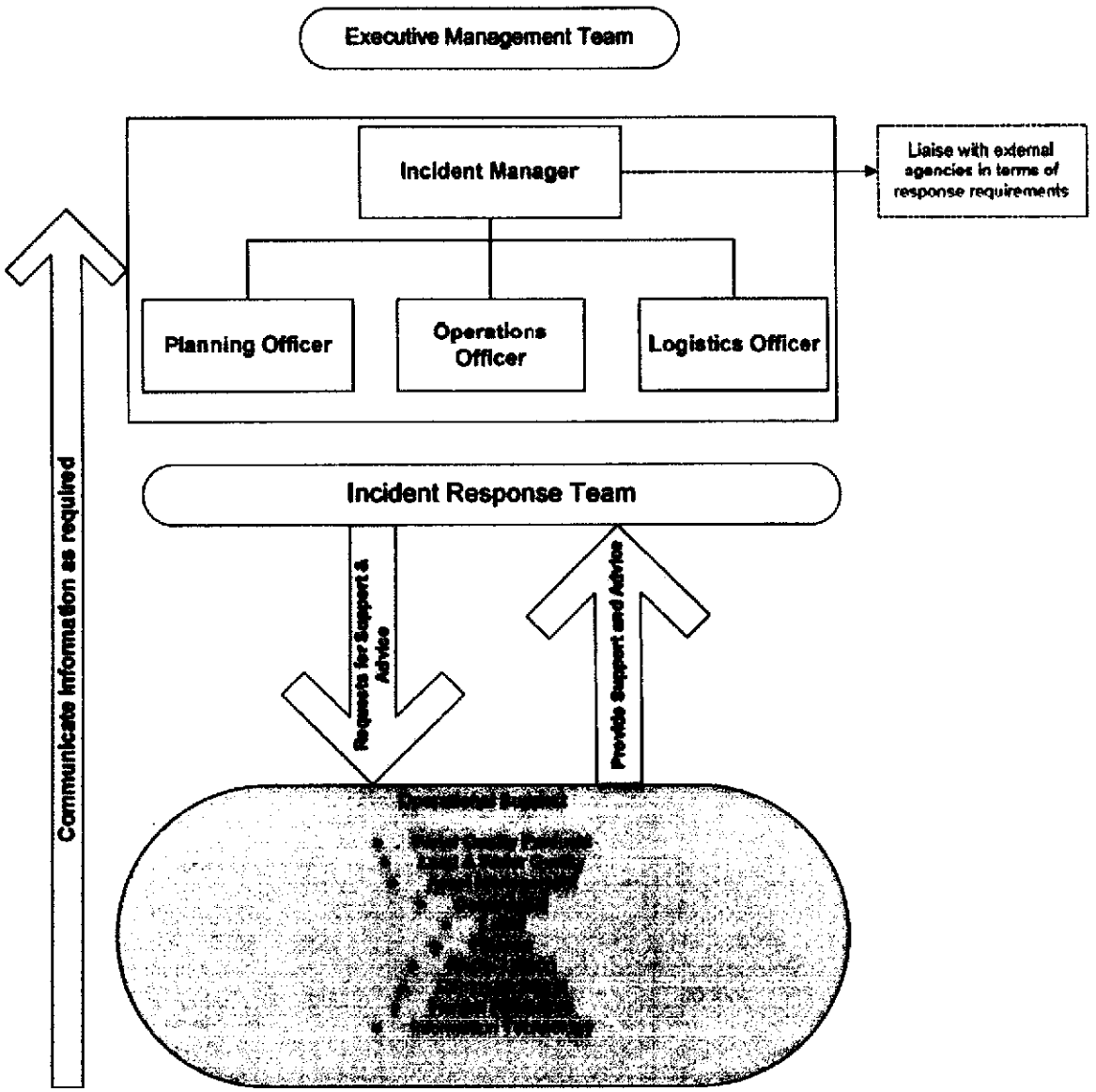
ABREVIATIONS

AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AMTD	Adopted Middle Thread Distance
BoM	Bureau of Meteorology
DCF	Dam Crest Flood
EAP	Emergency Action Plan
FSL	Full Supply Level
FOC	Flood Operations Centre, SunWater
GS	Gauging Station
IERP	Incident and Emergency Response Plan
ML	Megalitre
NRW	Department of Natural Resources and Water
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
PMPDF	Probable Maximum Precipitation Design Flood

1 INTRODUCTION

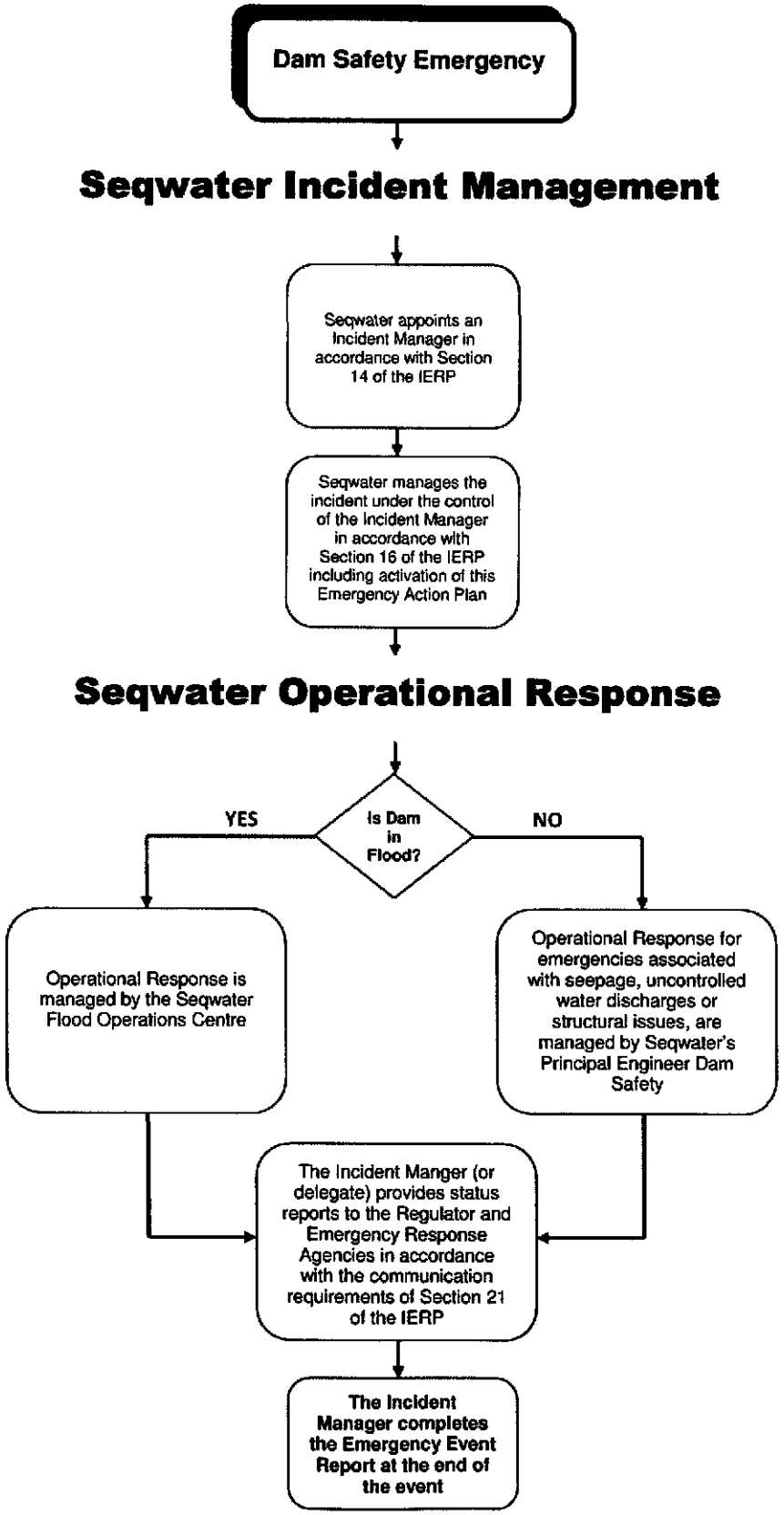
The Seqwater Incident and Emergency Response structure is a flexible team based structure that parallels the normal management regime. The team based structure is detailed in the diagram below.

Seqwater Incident and Emergency Response



This Emergency Action Plan (EAP) sits under the above structure and identifies emergency conditions that could endanger the integrity of the dam and prescribes procedures which should be followed by Seqwater staff in the event of such an emergency. A primary focus of these actions is to provide timely warning to appropriate emergency response and management agencies, to

allow these agencies to implement protection measures for downstream communities. The flowchart below summarises the actions that occur in an emergency situation.



Under the Seqwater Grid Emergency Response Plan, five incident levels have been implemented. These levels have been established to deal with varying degrees of incident severity and range from Level 1 where there are no significant impacts on other water grid participants and the incident can be managed using standard operating procedures and communication protocols, to Level 5 where state or federal government intervention would be expected. Definitions and general principals relating to these levels are detailed in Section 21 of the IERP.

2 AGENCIES AND RESPONSIBILITIES

The following table shows the agencies and personnel who have responsibilities under this Emergency Action Plan.

AGENCIES AND PERSONNEL	RESPONSIBILITIES
Seqwater	• Undertake emergency response at the dam. • Determine the area of potential impact from the Dam Safety Emergency. • Provide the relevant Disaster Response Agencies with timely notification of impending and actual emergencies, including details of the emergency and estimates of potential impacts downstream of the dam.
Seqwater Flood Operations Centre	• Coordinate dam safety emergency actions for Seqwater during a flood event.
Principal Engineer Dam Safety (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for dam safety emergencies involving actual or potential structural failures.
Land and Water Quality Manager (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for water quality emergencies.
Director Dam Safety (NRW)	• Provide regulatory input during a dam safety emergency.
Regional or City Council	• Exercise primary responsibility for disaster response and management within its boundaries, in accordance with the Queensland Disaster Management Act 2003. • Deploy all appropriate resources to contribute to response and recovery during the dam safety emergency, until its resources are fully committed. • Mobilise disaster response assistance from other relevant Disaster Response Agencies, as appropriate during the emergency.

A list of agencies and personnel who may need to be contacted in the event of an emergency is included in Appendix A of this document. Once notification is made to a person within an agency on the list, it is the person's responsibility to notify other relevant persons within the agency. Generally attempts to contact an agency should be in the priority order outlined in the list. However discretion should be exercised if the gravity of the situation warrants.

3 DAM TECHNICAL DATA

LAKE MANCHESTER DAM	
POPULATION AT RISK	- Sunny Day Failure..... 1273 - Flood .....> 1273 (Not fully assessed)
Failure Impact Rating	2
Hazard Category	Extreme
Name of Reservoir	Lake Manchester
Year Complete	Originally constructed in 1916 and upgraded in 2008
Location	Approximately 25km west of Brisbane
Dam Owner	Seqwater
Water Course	Cabbage Tree Creek
Purpose	Town water
Type of Construction	Mass concrete gravity dam
Outlet Works	Broad crested weir with flip bucket
Catchment Area	74 km^2
FSL	50.90 m AHD
Nominal Full Supply Capacity	26,400 ML
Surface Area at FSL	280 ha
Main Dam Crest	59.7 m AHD
Main Dam Embankment Length	188 m
Maximum Height of Main Dam Embankment	43.8 m
Width at Top of Main Dam Embankment	4.0 m
Spillway Crest	50.90 m AHD
Spillway Length	50.0 m
Gates	Nil
Saddle Dam Crest	Not Applicable
Saddle Dam Length	Not Applicable

Maximum Height of Saddle Dam Embankment	Not Applicable
Peak water level as a result of PMF	> EL 57.29
Spillway Capacity	> PMF
Maximum discharge as a result of PMF	> 2093 m^3/s
AEP of Spillway Capacity	> PMF
Regulator valves	*Piped gravity outlet*
Mean annual pan evaporation	1752 mm at nearby 040082 Gatton
Mean annual rainfall	845 mm at nearby 040004 Amberley
Hydroelectric Facilities	Nil
Notable events	2009
Maximum Historic Storage Level	Estimated 51.0 m (since dam upgrade in 2008)
COMMENT	

3.1 CRITICAL FLOOD LEVELS

Analysis of the stability of the spillway indicates that it is stable for the PMF event. Critical stability levels are as follows:

Dam Critical Stability Levels

Description	Level (m AHD)
Spillway Level	50.90
Dam Crest Level	59.7

The spillway rating curves were used to route the inflow floods through the reservoir for various flood exceedence probabilities as shown below:

Dam Flood Routing Results

Event (AEP)	Peak Inflow (m^3/s)	Peak Outflow (m^3/s)	Peak Water Level (m)
1 in 10	340	127	52.29
1 in 50	520	205	52.75
1 in 100	600	241	52.99
1 in 1,000	915	419	53.84
1 in 10,000	1195	970	55.77
PMF	3635	2840	>57.29

4 EMERGENCY EVENTS AND ACTIONS

The following events define the triggers for initiation of the Emergency Action Plan. For flood events, a formal report to the Dam Safety Regulator is prepared only if the storage level exceeds 51.5m. Formal reports are provided for all trigger events outside flood events.

- Reservoir Level is approaching 50.90m and further rain is forecast (major flood possible)
- Reservoir Level is above 51.5m (major flood event)
- Increase in Seepage or New Area of Seepage
- Earthquake, Explosion, Structural Damage to Dam, Abnormal Instrumentation Readings or Major Electrical or Mechanical Failure
- Object Crashes into the Dam or Reservoir

Potential Damage or Indicators of Damage relevant to these triggers are shown in Section 4.6.

4.1 RESERVOIR LEVEL IS APPROACHING 50.90M AND FURTHER RAIN IS FORECAST

STORAGE SUPERVISOR	FLOOD OPERATIONS CENTRE
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify Flood Operations Centre of dam status and rainfall. ◗ If the Flood Operations Centre cannot be contacted, notify the Principal Engineer, Dam Safety or the Dam Safety and Source Operations Manager.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Obtain and confirm forecast from BOM. ◗ Advise the Dam Supervisor of dam monitoring actions.
◗ Monitor rainfall, lake levels and rates of rise of lake level. ◗ Record instrumentation readings as per Dam Standing Operating Procedures. ◗ Report damage and unusual observations to the Flood Operations Centre.	◗ Despatch appropriate staff to site if necessary.
◗ Monitor the situation as directed by the Flood Operations Centre. If communication with Flood Operations is lost, continue monitoring and attempt to restore communications.	◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator
◗ If lake level is > 51.5m and dam level continues to rise, advise Flood Operations Centre.	◗ If lake level is likely to exceed 51.5m, initiate EAP Section 4.2 and advise the Dam Supervisor of dam monitoring actions.
◗ If lake level is < 50.90m, advise Flood Operations Centre.	◗ If lake level is < 50.90m and no more rain is forecast, advise Dam Supervisor to close incident.
◗ Complete Incident Log and Report.	◗ Complete Incident Log and Report.

4.2 RESERVOIR LEVEL IS LIKELY TO EXCEED 51.5M

STORAGE SUPERVISOR	FLOOD OPERATIONS CENTRE
◗ Continue to fill out Incident Log until incident is closed. ◗ Provided it is safe to do so, perform a Dam Safety Inspection including instrumentation and seepage measurements. ◗ Report damage and unusual observations to the Flood Operations Centre. If communication with Flood Operations is lost, continue monitoring and attempt to restore communications.	◗ Continue to fill out Incident Log until incident is closed. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Director, Dam Safety (NRW) ◗ Organise closure of public access roads to Dam and evacuate and close the public areas around Dam. ◗ Advise the Dam Supervisor of dam monitoring actions.
◗ Monitor rainfall, lake levels and rates of rise of lake level and relay information to the Flood Operations Centre.	◗ Keep Local Disaster Response Coordinator and Director Dam Safety regularly informed of lake level and situation at the dam.
◗ Provided it is safe to do so, undertake inspections and instrumentation readings at intervals of approximately 6 hours to monitor structural performance of the dam. ◗ Report damage and unusual observations to the Flood Operations Centre.	
◗ If lake level is < 50.90m, advise Flood Operations Centre.	◗ If lake level is < 50.90m and no more rain is forecast, advise Dam Supervisor to close incident.
◗ Complete Incident Log and Report.	◗ Complete Incident Log and Report.

4.3 INCREASE IN SEEPAGE OR NEW AREA OF SEEPAGE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Monitor the situation by measuring the rate of seepage flow and observe the clarity of the seepage flow, keeping notes and photographs for the Incident Log. ◗ Provided it is safe to do so, undertake inspections and instrumentation readings as directed by the Principal Engineer, Dam Safety.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.4 EARTHQUAKE, EXPLOSION, STRUCTURAL DAMAGE TO DAM, ABNORMAL INSTRUMENTATION READINGS OR MAJOR ELECTRICAL OR MECHANICAL FAILURE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
▸ Commence filling out Incident Log and continue to fill out Log until incident is closed. ▸ Notify the Principal Engineer, Dam Safety of the situation. ▸ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ▸ Provided it is safe to do so, perform a Dam Safety Inspection including instrumentation and seepage measurements. ▸ Report damage and unusual observations to the Principal Engineer, Dam Safety.	▸ Commence filling out Incident Log and continue to fill out Log until incident is closed. ▸ Assemble and activate an Incident Management Team to investigate the incident. ▸ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
▸ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	▸ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ▸ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
▸ Complete Incident Log and Report.	▸ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ▸ Complete Incident Log and Report.

4.5 OBJECT CRASHES INTO THE DAM OR RESERVOIR

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ On confirmation of the event, advise the Police or Ambulance if necessary by phoning 000. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Provided it is safe to do so, perform a Dam Safety Inspection, paying particular attention to the area where the object has crashed, including instrumentation and seepage measurements. ◗ Report damage and unusual observations to the Principal Engineer, Dam Safety from fuel or other substances. ◗ Monitor the situation, keeping notes and photographs for the Incident Log and the routine dam safety inspections.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.6 POTENTIAL DAMAGE OR INDICATORS OF DAMAGE

Problem	General Characteristic	When and What to Check
Overtopping Imminent	*Storage full and water level rising.*	*During periods of excessive rainfall – check reservoir levels.*
Rapid increases or cloudy appearance of seepage	Seepage flow through storage embankment is cloudy and increasing (piping failure has started).	After detection of cloudy water look for source in embankment.
Seepage erosion or piping	Progressive internal erosion of the embankment or saddle dam or foundation to form an open conduit or pipe (piping failure).	During routine inspections or after unaccountable increases in seepage flows, look for an emission point.
Foundation Failure	Sliding, rotation, or settlement of part of or entire dam.	During routine inspection or immediately after earthquakes – inspect for evidence of foundation movement or displacement immediately adjacent to the dam.
Slide in downstream slope	Slide in the downstream face.	During routine inspection or following heavy periods of rainfall – look for cracks or scarps near the crest and bulges at the toe.
Flow slide	Collapse and flow of soil around the storage periphery.	During routine inspections, after heavy or long periods of rainfall. Especially in sedimentary or colluvial soils – look for material displacement around the storage rim.
New springs, seeps or boggy areas	Evidence of internal changes in seepage control (could be initial signs of piping failure).	During routine inspection, look for 'evergreen' spots, boggy ground or pools of water.
Gullying	No rock protection or vegetation cover on embankment batters or poor drainage.	During and after large rainfalls – inspect embankment and saddle dam batters for damage to rock protection or vegetation cover.
Increase in gallery seepage	Increase in the normal rate of gallery seepage.	After detection – check for differential movement or cracking in concrete components of spillway and retaining walls.
Landslide	Mass movement of soil or rock from slopes and valley walls around the storage.	During routine inspections or following earthquakes – look for material displacement.
Damage to structural concrete	Movement or cracking of structural concrete.	During routine inspections or when mechanical problems such as burst pipe occur – look for any movement or

Problem	General Characteristic	When and What to Check
		cracking of structural concrete.
Failure of appurtenant structures or operating equipment	Loss of ability to supply water or discharge floods safely.	After detecting an operational anomaly – identify and investigation cause.
Loss of storage contents	Excessive loss from the storage and / or occasionally increased seepage or increased groundwater levels near the storage.	During routine monitoring – look for environmental changes such as vegetation damage, salt scalds, etc
Toe erosion	Erosion of embankment toe by spillway discharge or diversion flows.	During and after large rainfalls – inspect embankment toe.
Wave erosion	Beaching or notching of the upstream face of the embankment by waves generated over long periods of strong wind.	During or after periods of strong wind – inspect upstream face of embankment and saddle dam.

APPENDIX A

CONTACT REGISTER

REGISTER – CONTACT LIST FOR EMERGENCIES & FLOOD INFORMATION – LAKE MANCHESTER DAM

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Seqwater	Principal Engineer Dam Safety	1	1	John TIBALDI	[redacted]				Seqwater/FCC
	Dam Safety and Source Operations Manager	2	2	Robert DRURY					
	Flood Operations Engineer	3	3	Terry MALONE					
	Operations Coordinator Central	4	4	Jayam TENNAKOON					
	Executive General Manager, Operations	5	5	Phil ALDRIDGE					
	Land and Water Quality Manager	1	1	Peter SCHNEIDER					
	Chief Executive Officer	3	3	Peter BORROWS					
	Chairman	4	4	Annabelle CHAPLIN					
	Storage Supervisor	1	1	Graham KEEGAN					
	Standby Officer	2	2	Justin LEE					
	Other on-call Staff	3	3	Denis VARRIE (Ranger)					
Department of Natural Resources & Water	Director, Dam Safety	1	1	Peter ALLEN					Seqwater/FCC
	Director, Water Industry Asset Management & Standards	2	2	Peter ARTEMIEFF					
	Dam Safety Engineer	3	3	Ron GUPPY					
Flood Operations Centre (operated by Sunwater)	Principal Engineer Dam Safety	1	1	John TIBALDI					Seqwater/FCC
	Flood Operations Engineer	2	2	Terry MALONE					
	Senior Flood Operations Engineer	3	3	Rob AYRE					
	Senior Flood Operations Engineer	4	4	John RUFFINI*					
	Flood Control Room (Operational)	5	5	General Phones					

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Department of Emergency Services Disaster Operations	Duty Officer* (24 Hours)	1	1	Rostered					Seqwater/FCC
Brisbane City Council	Local Disaster Response Coordinator	1	1	Duty Officer					Seqwater/FCC
	Flood Information Centre	2	2	Duty Officer					
Ipswich City Council	Local Disaster Response Coordinator	1	1	Andrew UNDERWOOD (Strategic Infrastructure Manager)					Seqwater/FCC
	Local Disaster Response Coordinator	2	2	Ross DRABBLE (Chief Operations Officer)					
	Local Disaster Response Coordinator	3	3	Arie Van Den ENDE (SES Controller)					
Emergency Management Queensland	Regional Director, Brisbane District	1	1	Jason CAMERON					Seqwater/FCC
Police									Seqwater/FCC
Bureau of Meteorology	Engineer in charge Flood Warning*	1	1						Seqwater/FCC
	Meteorologist in Charge (24 hours)	2	2						
Ambulance									Seqwater/FCC

Notes:

1. Contact with an agency is to be made via position with highest priority. That person contacted is then responsible to forward notification to other relevant persons with the agency.
2. Agencies to provide notification of updated contact details to John Tibaldi of Seqwater.

APPENDIX B

MAPS AND PLANS

Locality Map 1 (UBD Refidex)

Locality Map 2 (UBD Refidex)

Locality Map showing routes to Dam Site

Catchment Sub-Division

Aerial View of Dam Wall

Aerial Photograph of Dam Surrounds

General Arrangement

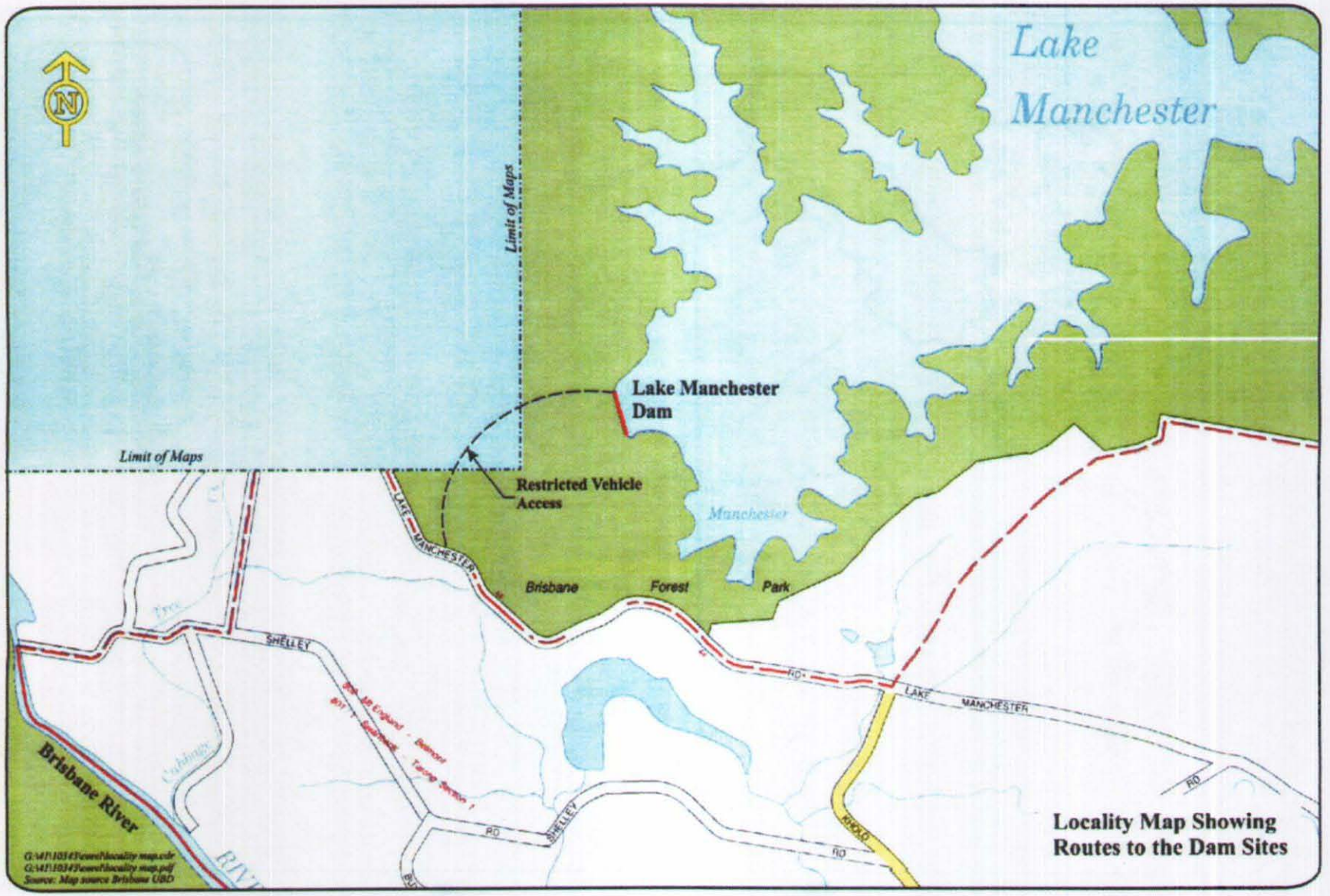
Spillway General Arrangement

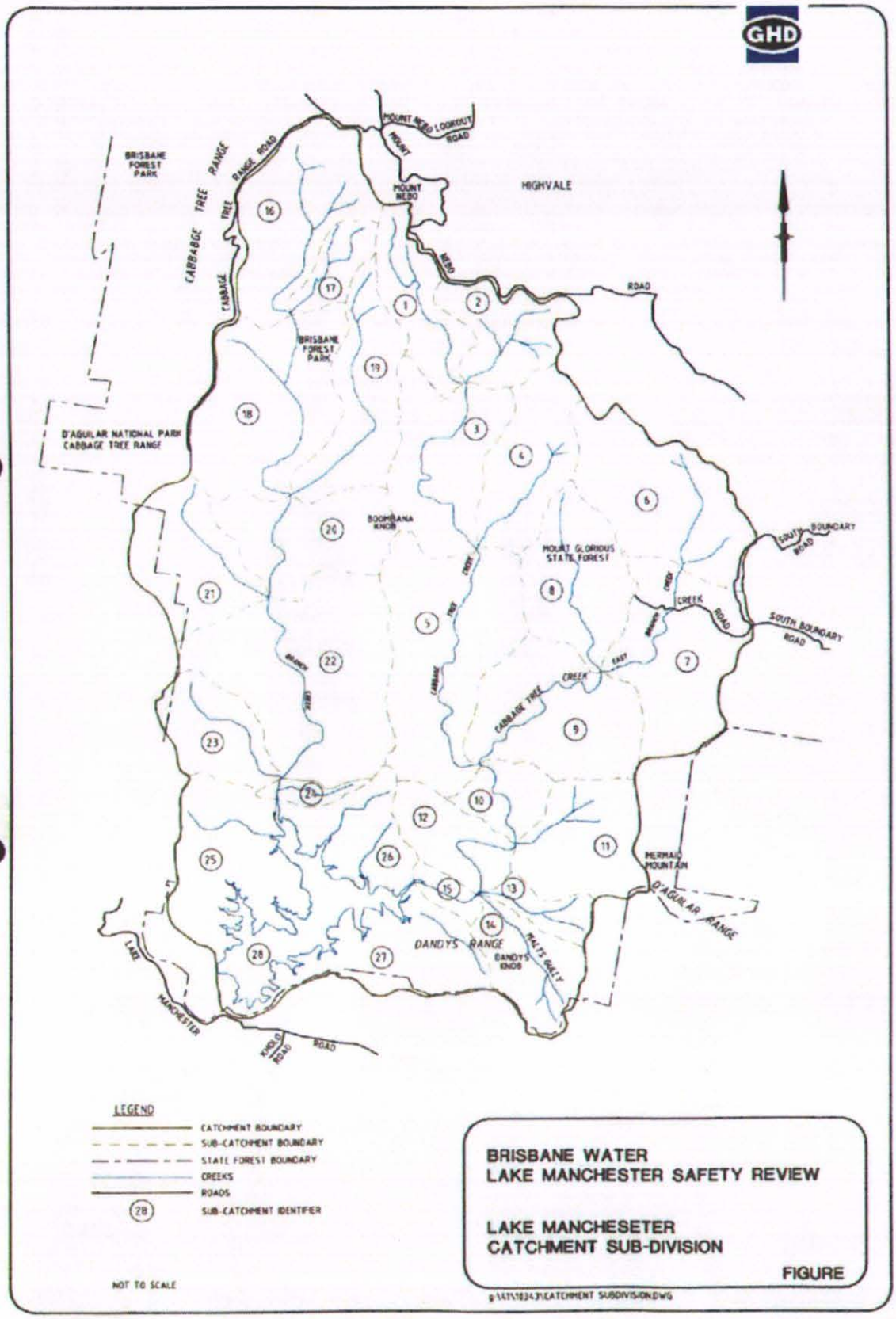


(Reference: Brisbane UBD Refidex)



(Reference: Brisbane UBD Refidex)


Lake
Manchester
Limit of Maps
Limit of Maps
Lake Manchester
Dam
Restricted Vehicle
Access
Manchester
Brisbane
Forest
Park
LAKE MANCHESTER
SHELLEY
RD
LAKE MANCHESTER
RD
SHELLEY
RD
RD
Brisbane River
Locality Map Showing
Routes to the Dam Sites


GHD
BRISBANE FOREST PARK
CABBAGE TREE RANGE ROAD
MOUNT MEBO LOOKOUT ROAD
MOUNT MEBO
HIGHVALE
MEBO ROAD
BRISBANE FOREST PARK
D'AGUILAR NATIONAL PARK CABBAGE TREE RANGE
BOOMBANA KNOB
MOUNT GLORIOUS STATE FOREST
SOUTH BOUNDARY ROAD
CABBAGE TREE CREEK
MERMAID MOUNTAIN
D'AGUILAR RANGE
DANDYS RANGE
DANDYS KNOB
LAKE MANCHESTER
KHOLO ROAD
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
21
22
23
24
25
26
27
28
LEGEND
CATCHMENT BOUNDARY
SUB-CATCHMENT BOUNDARY
STATE FOREST BOUNDARY
CREEKS
ROADS
SUB-CATCHMENT IDENTIFIER
NOT TO SCALE
BRISBANE WATER
LAKE MANCHESTER SAFETY REVIEW
LAKE MANCHESETER
CATCHMENT SUB-DIVISION
FIGURE

(Reference: http://maps.google.com.au/maps)

- **Aerial Photograph of Dam Surrounds**







APPENDIX C

FLOOD INUNDATION MAPS AND DAM BREAK ANALYSIS

EMERGENCY EVACUATION

Where possible, emergency evacuation should always be carried out to the upper limit of flood levels shown on the inundation maps, due to the uncertainties associated with the flood development time and likely areas of inundation.

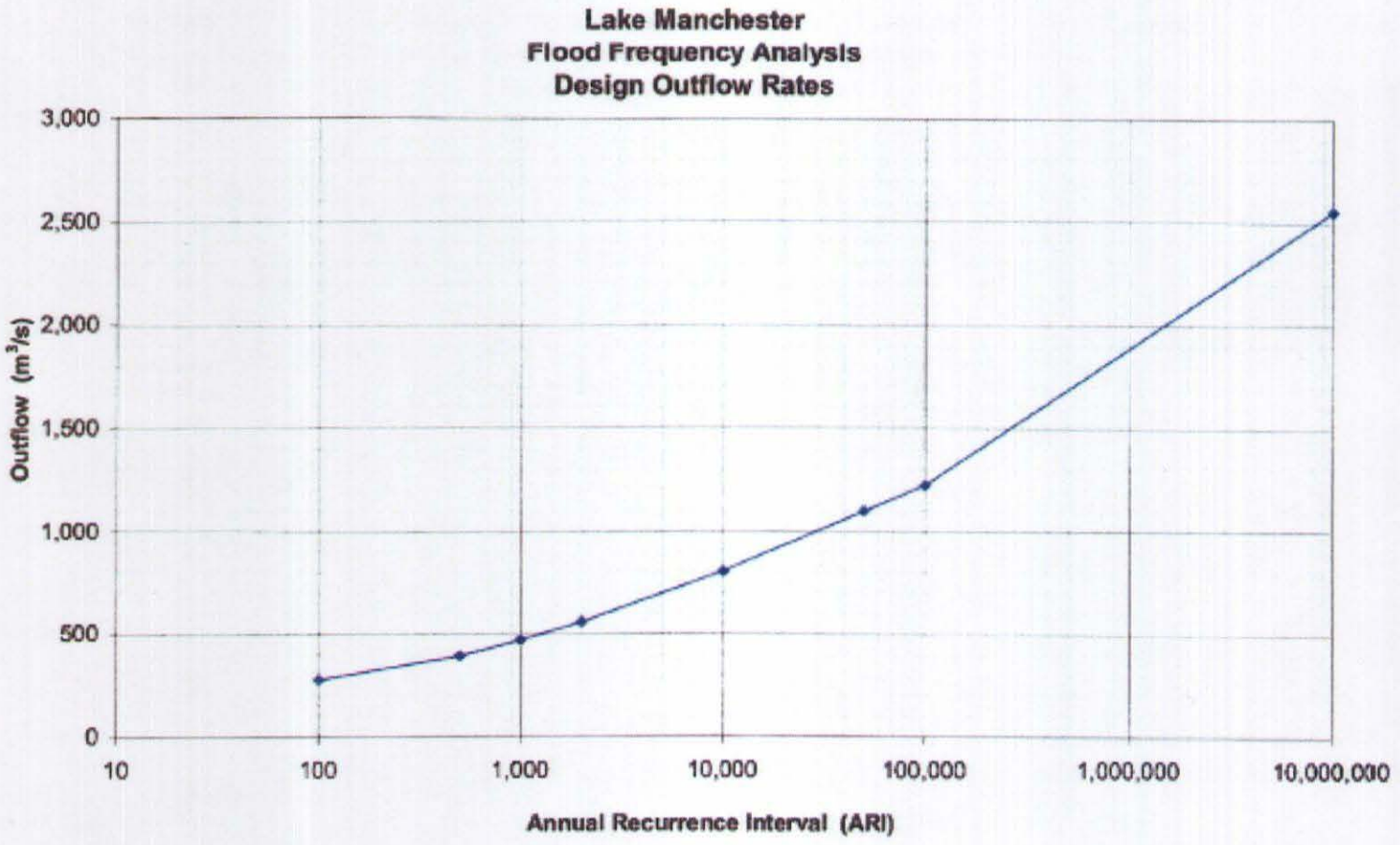

Lake Manchester
Flood Frequency Analysis
Design Outflow Rates
3,000
2,500
2,000
1,500
1,000
500
0
Outflow (m³/s)
10
100
1,000
10,000
100,000
1,000,000
10,000,000
Annual Recurrence Interval (ARI)

Figure 1 - Profile Plots

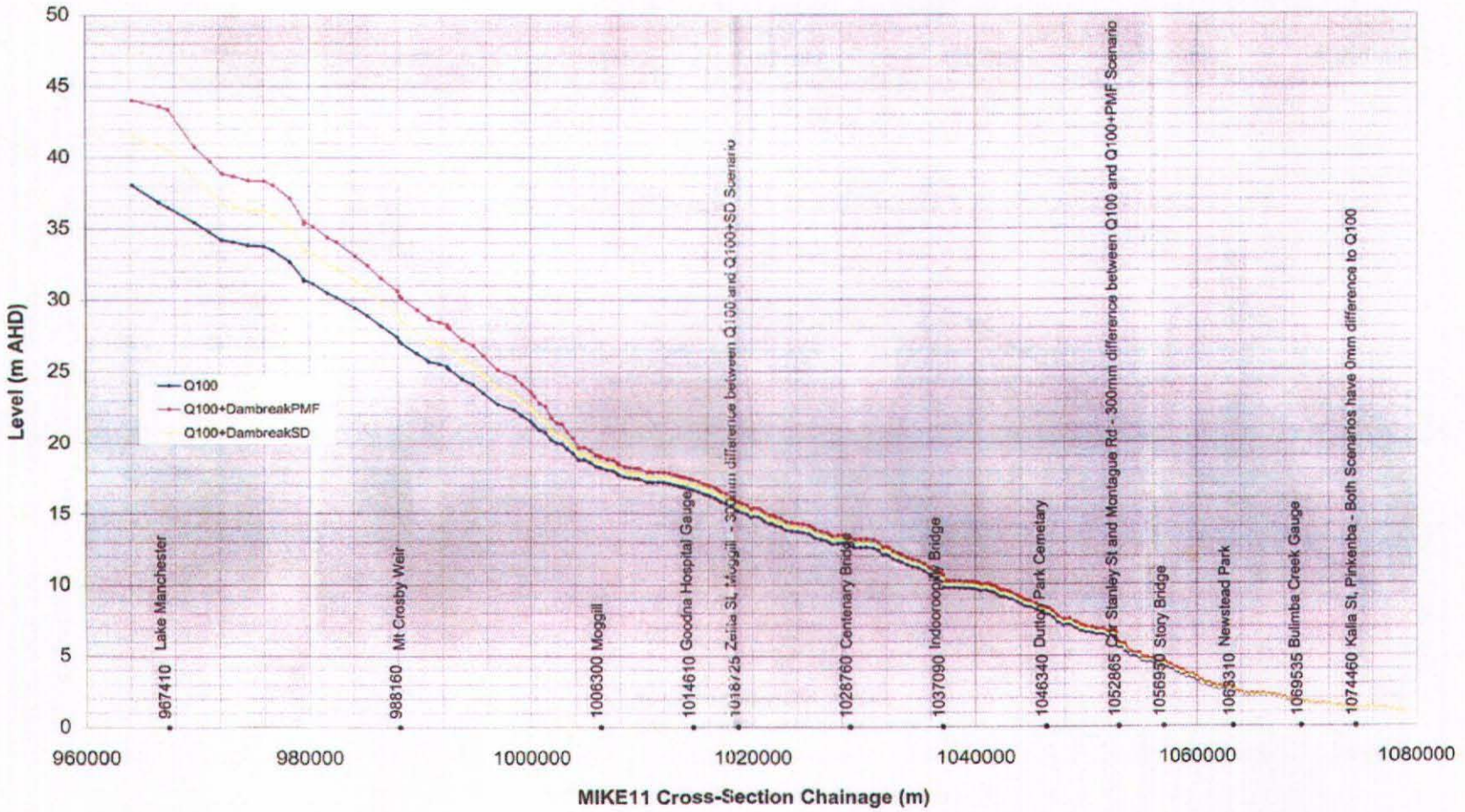


Figure 2: Discharges - BNE970475 Lake Manchester

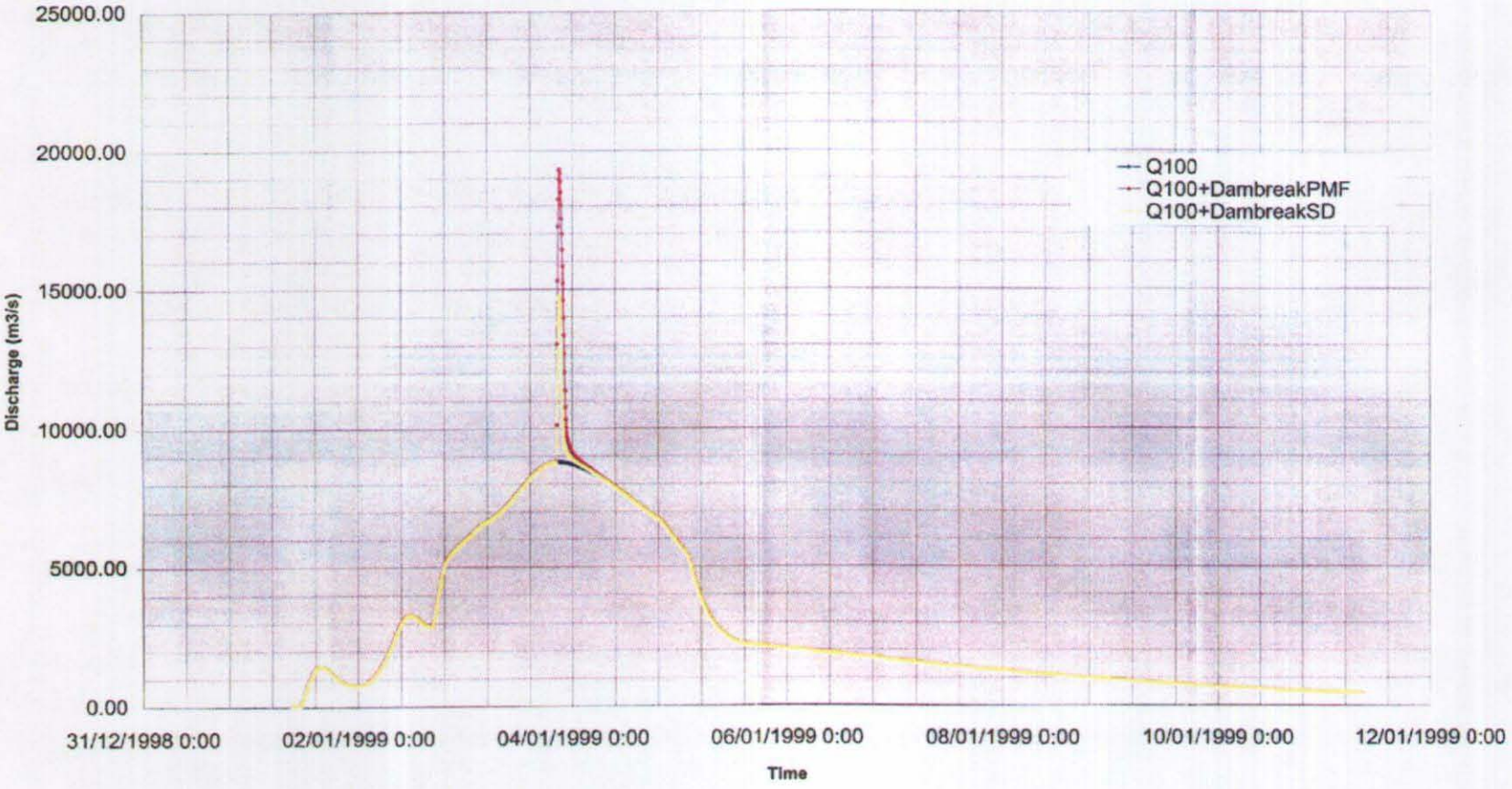


Figure 3: Discharges - BNE995225 Karana Downs

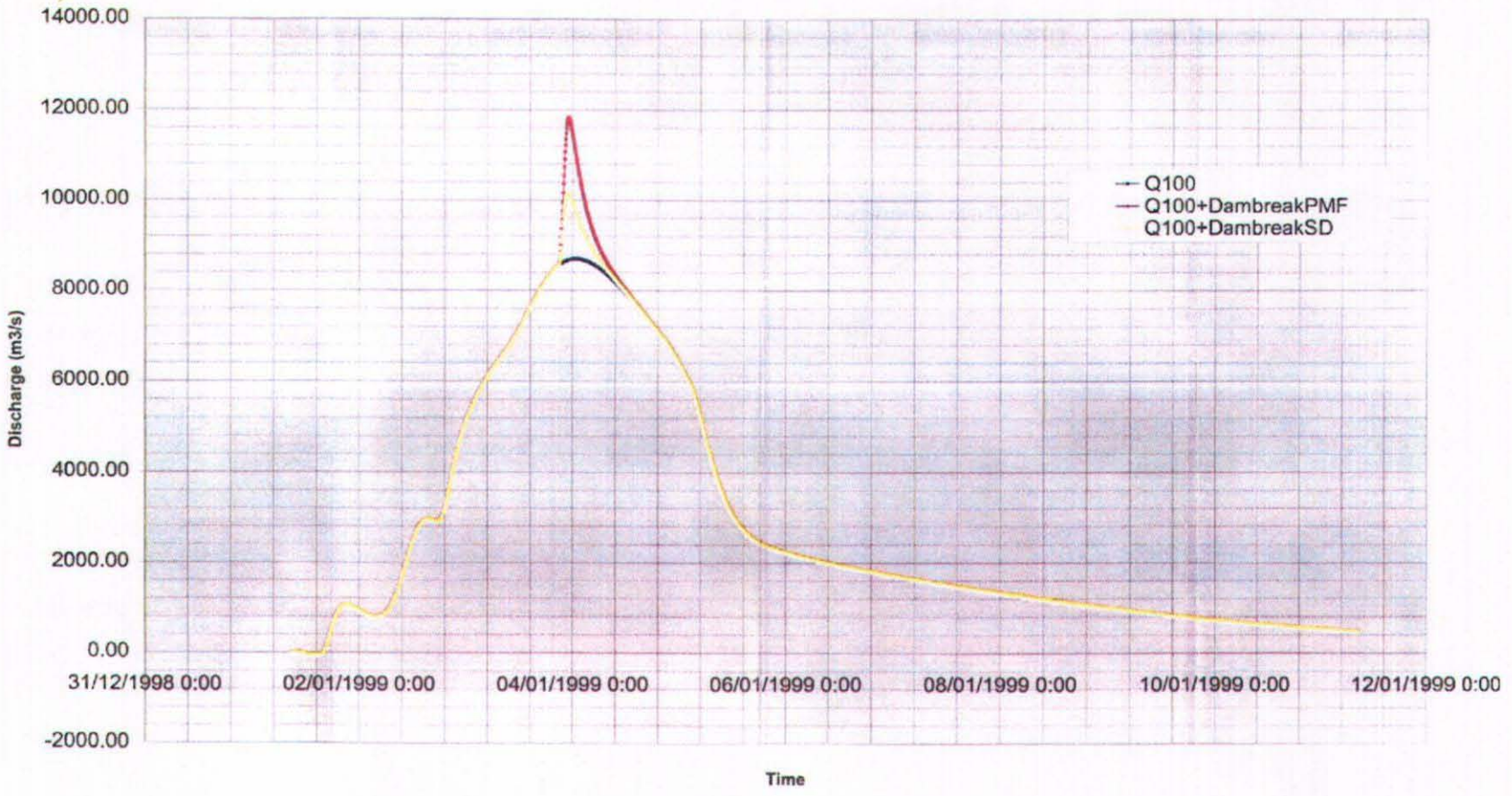


Figure 4: Discharges - BNE1020320 Riverhills

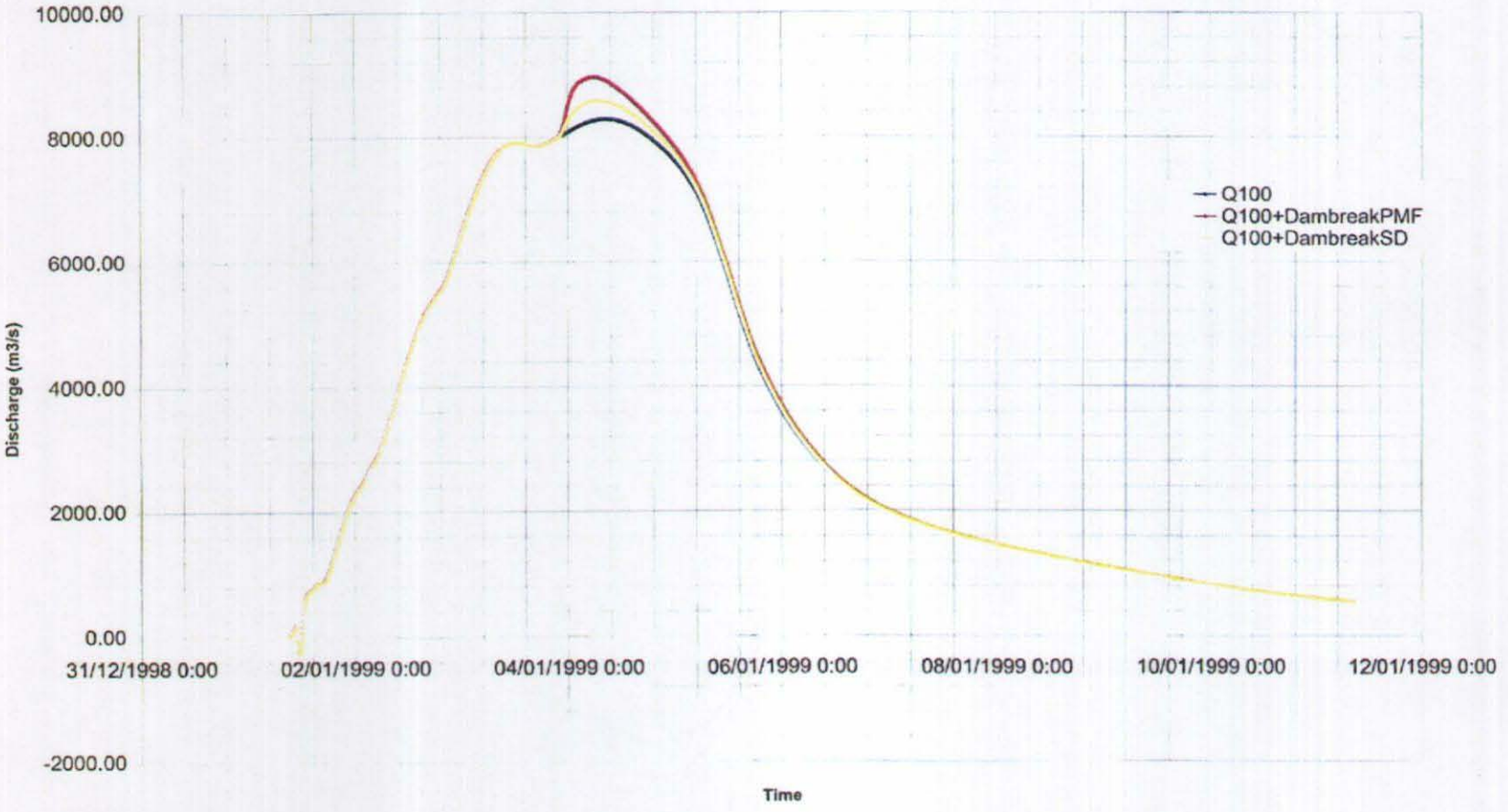
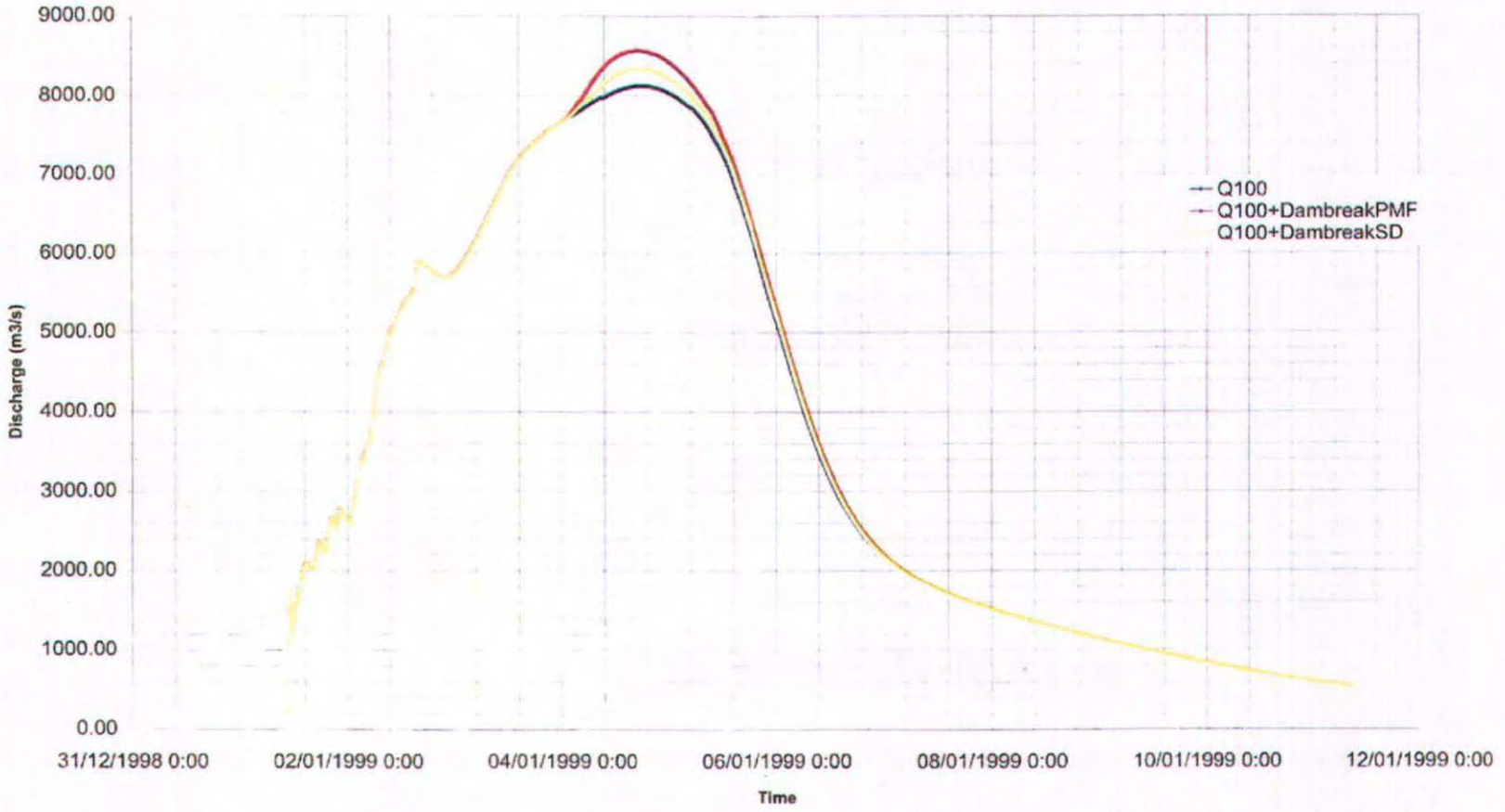
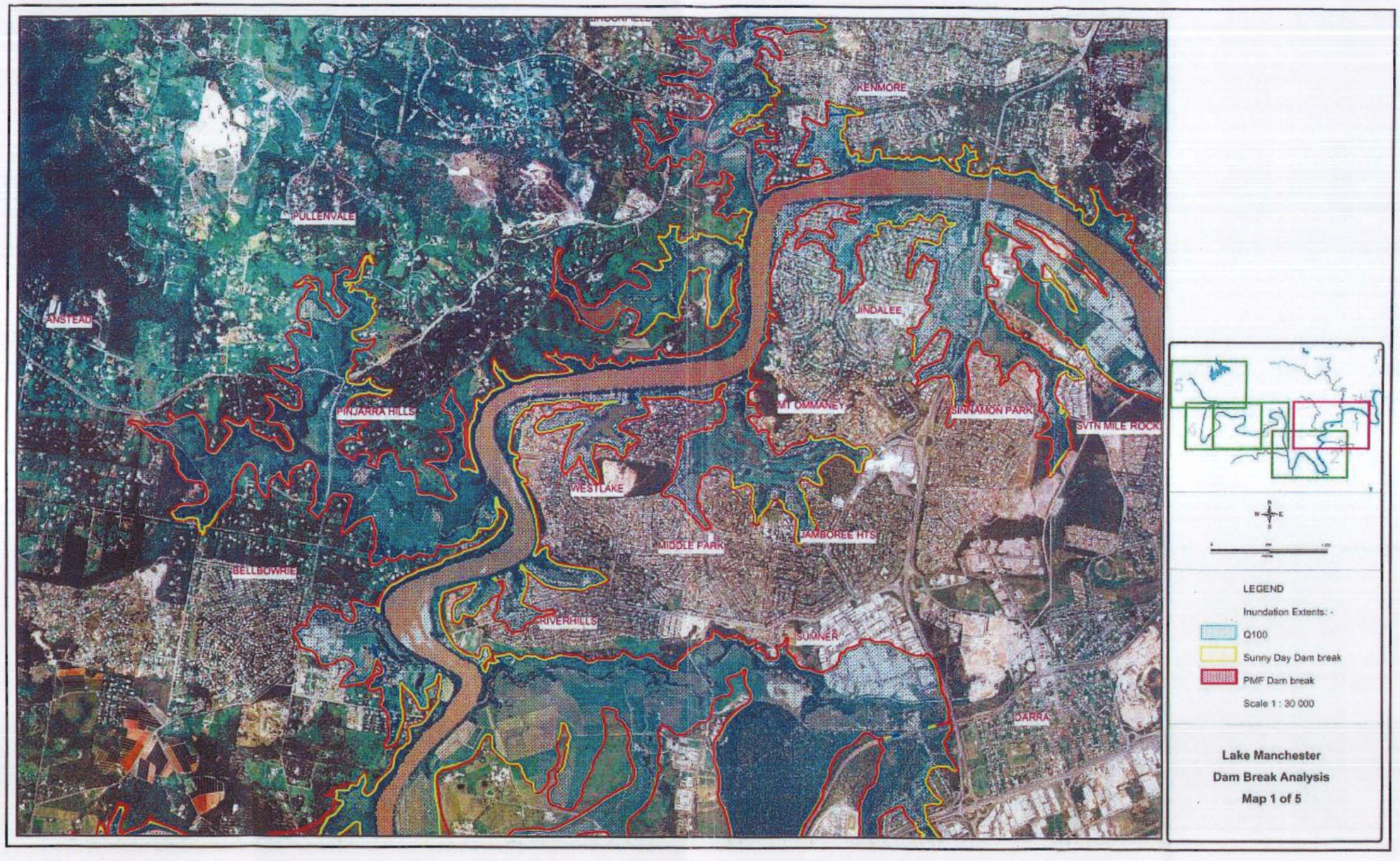
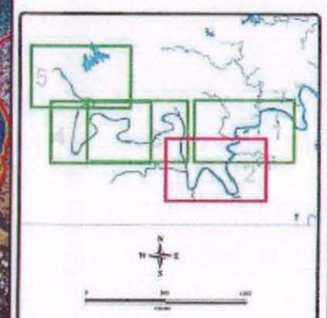


Figure 5: Discharges - BNE1072267.5 Bulimba Creek




KENMORE
PULLENVALE
ANSTEAD
JINDALEE
MT OMMANEY
PINJARRA HILLS
CINNAMON PARK
SVTN MILE ROCK
WESTLAKE
MIDDLE PARK
JAMBOREE HTS
BELLBOWRIE
RIVERHILLS
SUMNER
DARRA
LEGEND
Inundation Extents: -
Q100
Sunny Day Dam break
PMF Dam break
Scale 1 : 30 000
Lake Manchester
Dam Break Analysis
Map 1 of 5





LEGEND

Inundation Extents: -

Q100

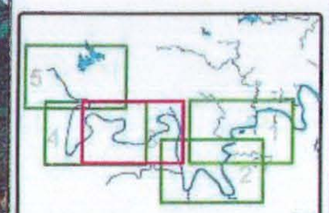
Sunny Day Dam break

PMF Dam break

Scale 1 : 30 000

Lake Manchester
Dam Break Analysis
Map 2 of 5







LEGEND

Inundation Extents: -

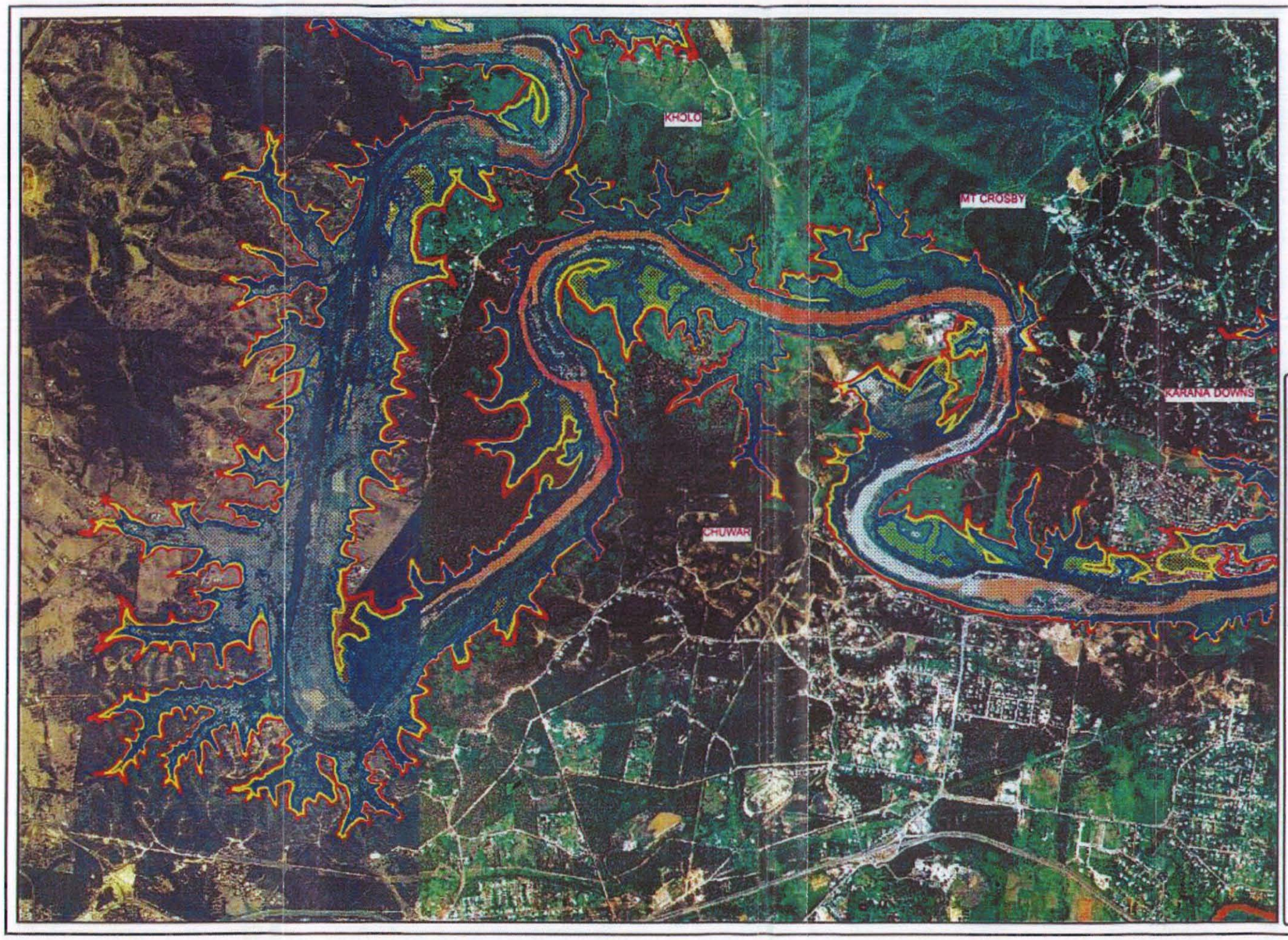
Q100

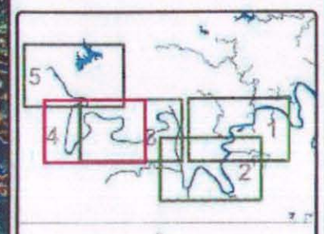
Sunny Day Dam break

PMF Dam break

Scale 1 : 30 000

Lake Manchester
Dam Break Analysis
Map 3 of 5





LEGEND

Inundation Extents: -

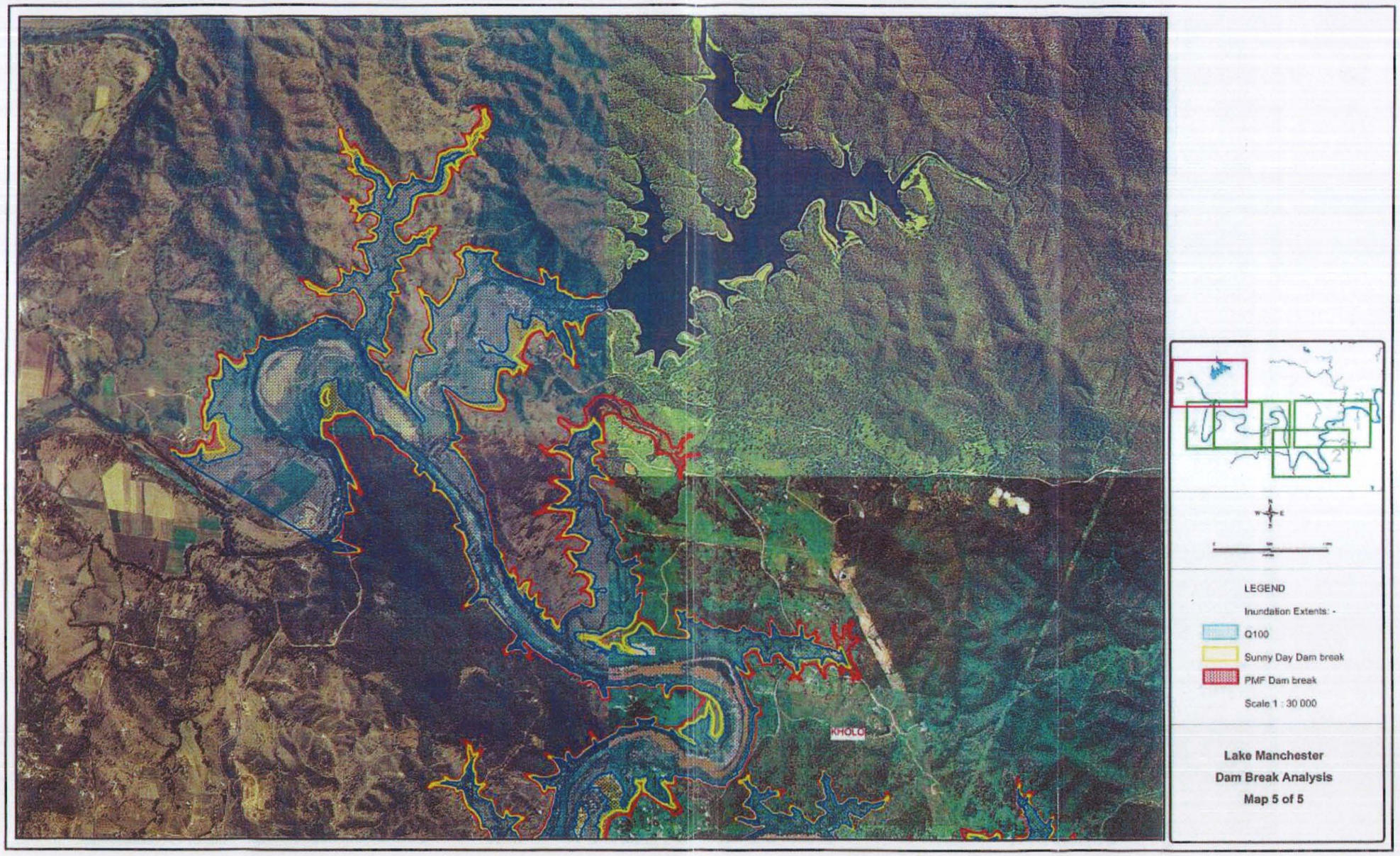
Q100

Sunny Day Dam break

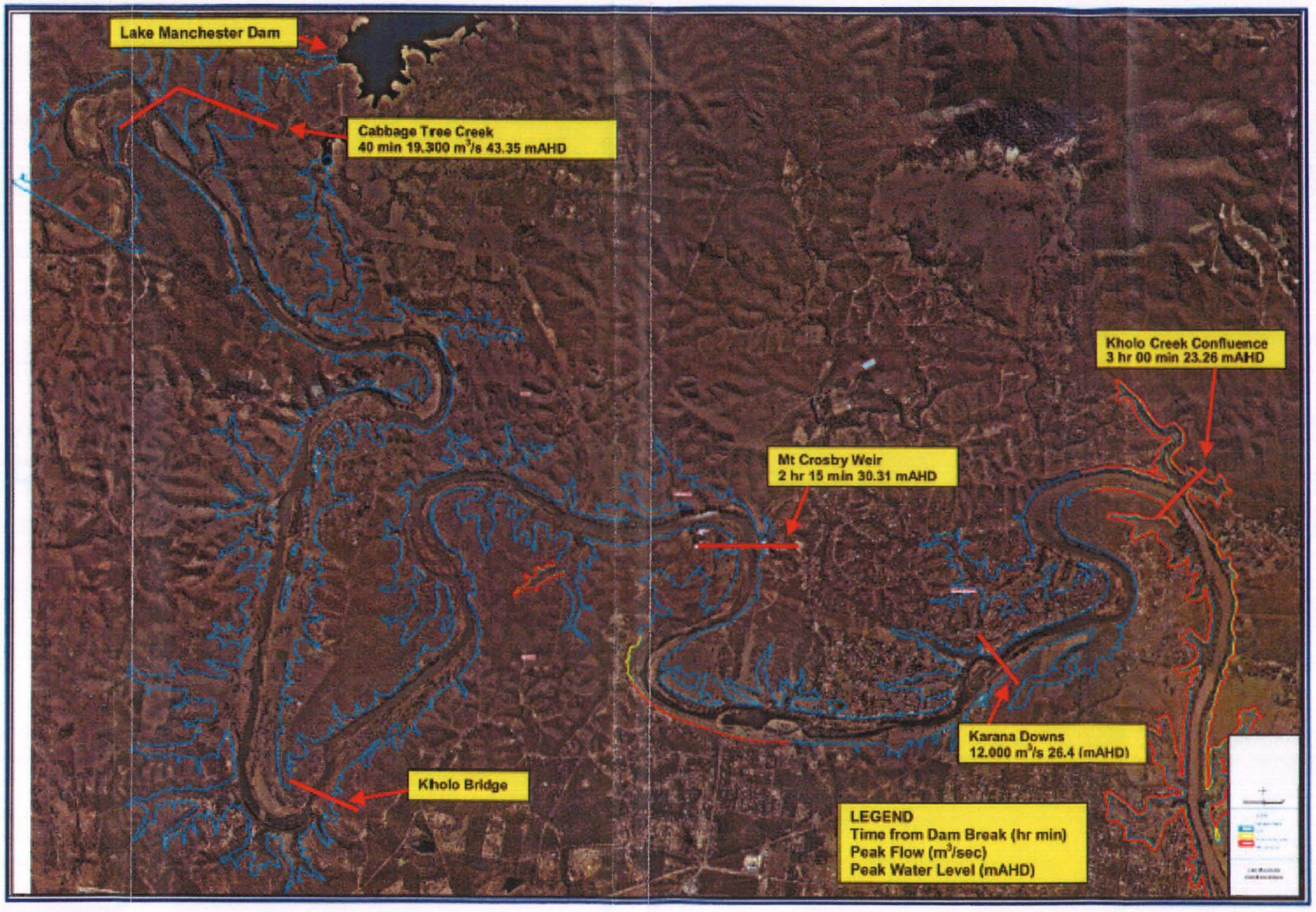
PMF Dam break

Scale 1 : 30 000

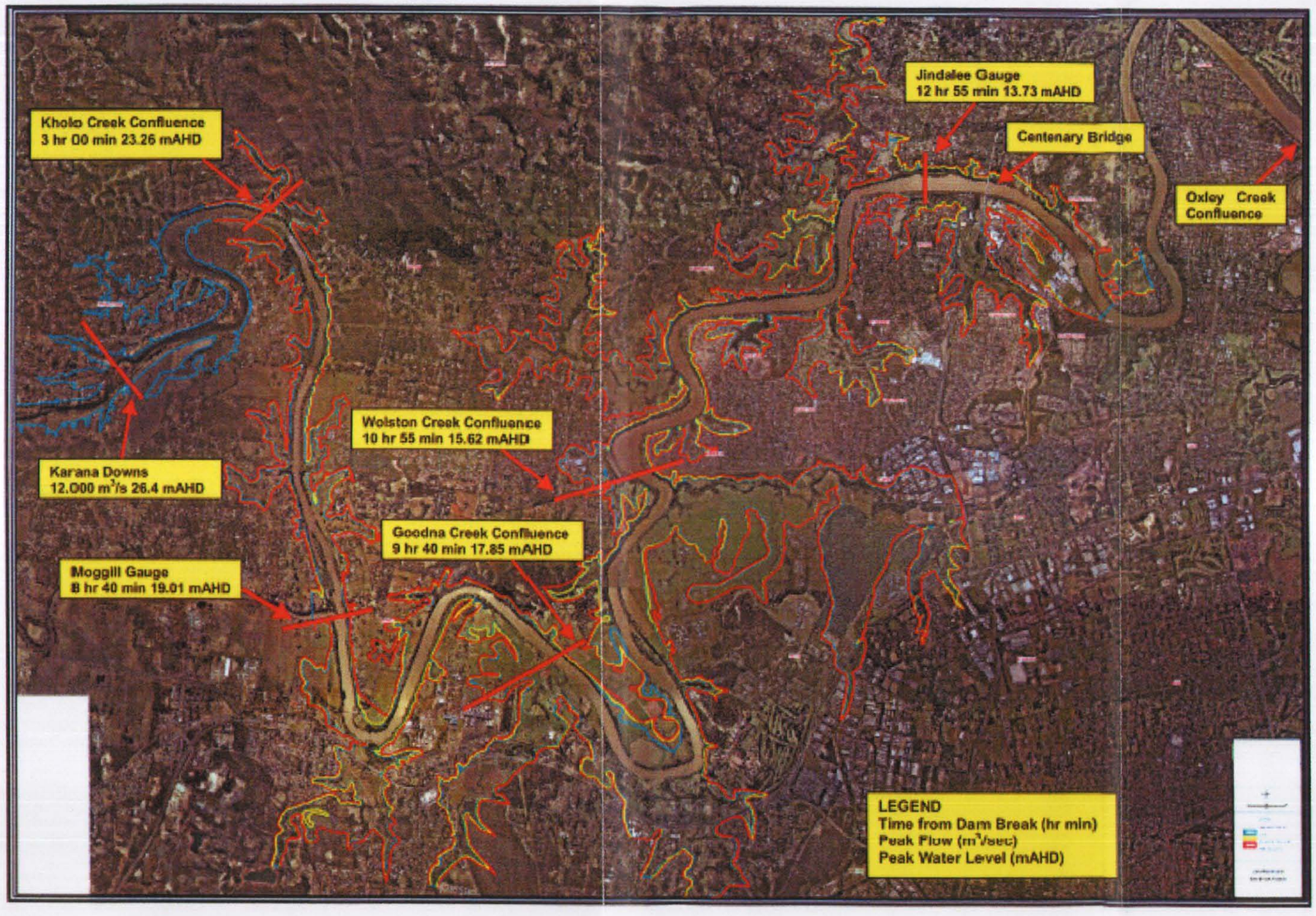
Lake Manchester
Dam Break Analysis
Map 4 of 5


KHOLO
LEGEND
Inundation Extents: -
Q100
Sunny Day Dam break
PMF Dam break
Scale 1 : 30 000
Lake Manchester
Dam Break Analysis
Map 5 of 5

Appendix C - Lake Manchester Dam Break Inundation Mapping

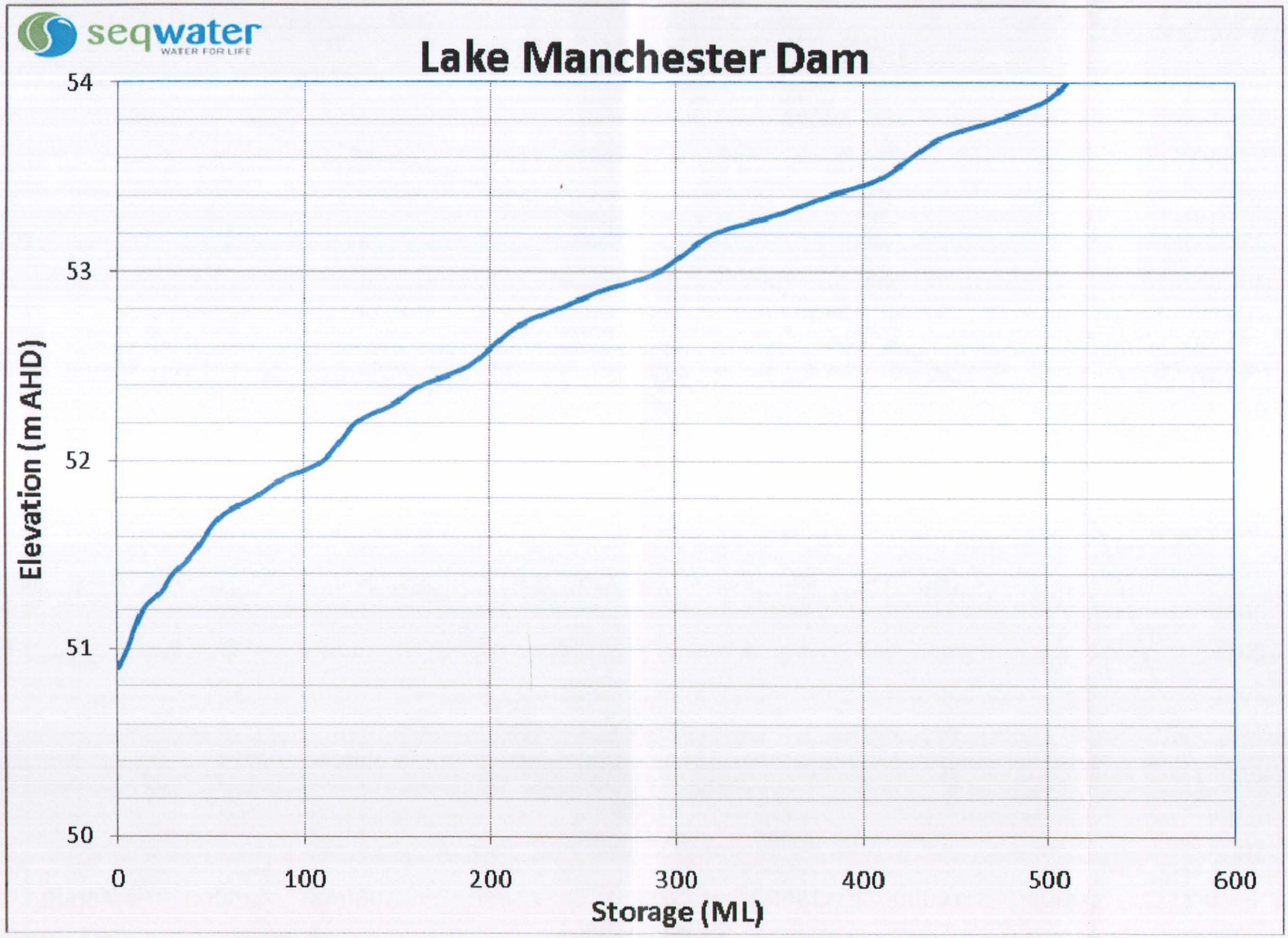


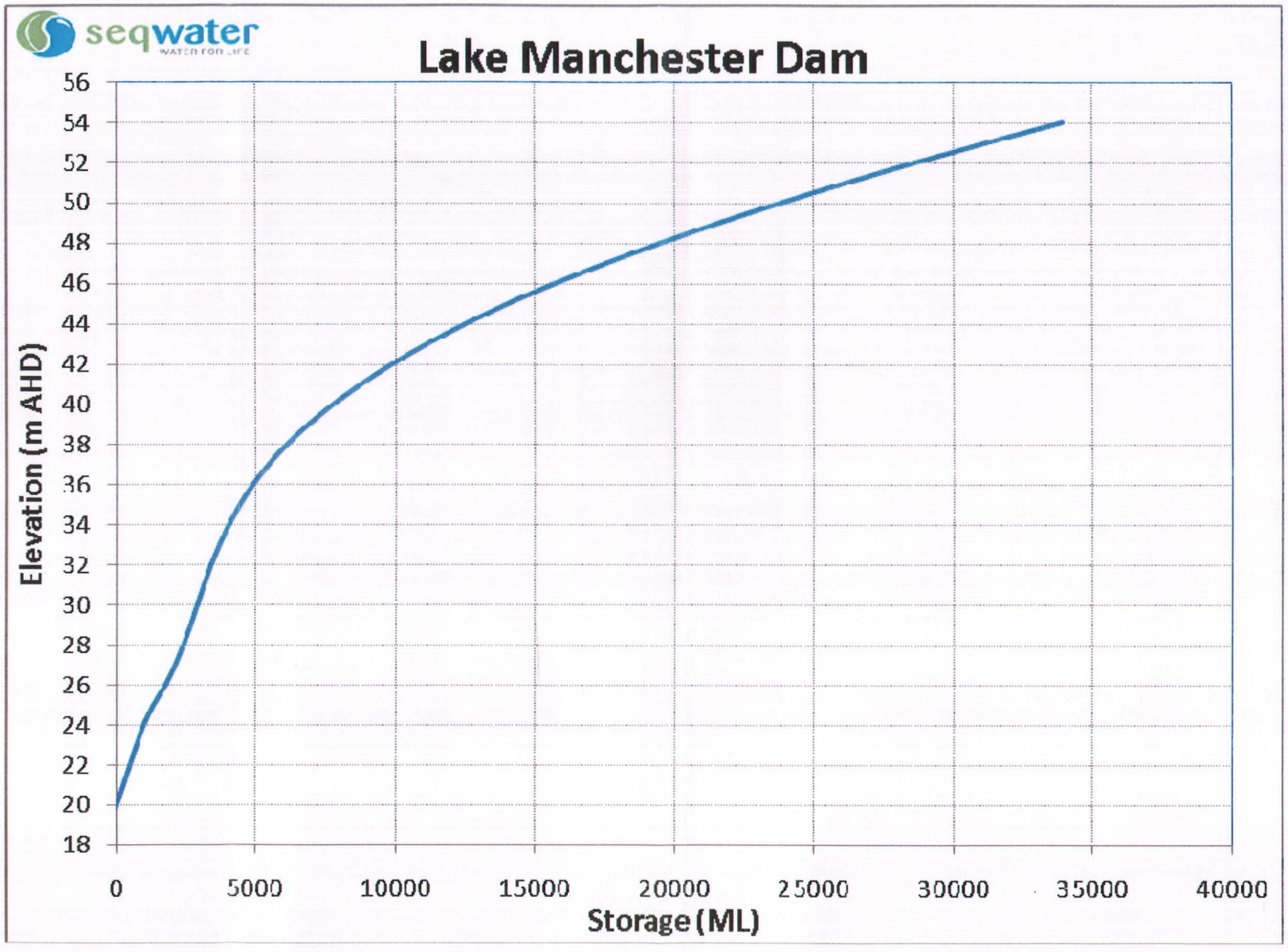
Lake Manchester Dam Break Inundation Mapping



APPENDIX D

DISCHARGE AND STORAGE CURVES


seqwater
WATER FOR LIFE
Lake Manchester Dam
Elevation (m AHD)
54
53
52
51
50
0
100
200
300
400
500
600
Storage (ML)


seqwater
WATER FOR LIFE
Lake Manchester Dam
Elevation (m AHD)
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
0
5000
10000
15000
20000
25000
30000
35000
40000
Storage (ML)

APPENDIX E

INSPECTION AND REPORTING FORMS

Incident Management – Incident Log

The purpose of the Incident Log is to record all decisions, actions, direction and other pertinent information. It is important for all personnel involved in managing / responding to the incident to record information in the event that it is required as part of a post incident review or some other investigation.

Incident Name: ..... **Incident Manager:** .....

Date	Time	Item	Recorded by

seqwater

WATER FOR LIFE

MOOGERAH DAM

EMERGENCY ACTION PLAN

FOR USE BY STAFF OF

SEQWATER

AND

EMERGENCY RESPONSE PERSONNEL

DISTRIBUTION, AUTHORISATION AND REVISION STATUS

Distribution

Copy No.	Agency	Position	Location
1	Seqwater	Dam Safety and Source Operations Manager	Brisbane
2	Seqwater	Principal Engineer Dam Safety	Ipswich
3	Seqwater	Storage Supervisor	Moogerah Dam
4	Seqwater	Operations Coordinator	South Coast
5	SunWater	Senior Flood Operations Engineer	Flood Operations Centre, Brisbane
6	NRW	Director Dam Safety	Brisbane
7	Department of Emergency Services	Duty Officer – Disaster Management Service	Brisbane
8	Scenic Rim Regional Council	Local Disaster Response Coordinator	Beaudesert
9	Ipswich City Council	Local Disaster Response Coordinator	Ipswich
10	Emergency Management Queensland	Regional Director, South Eastern District	Eagleby

Authorisation

Approved for Issue by:_____ Date _____

Seqwater Principal Engineer
(Dam Safety)

Revision Status

Rev No.	Date	Revision Description
0	October 2008	Original
1	August 2009	Revision 1

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4.2 Reservoir Level is Likely to Exceed 157.0m 10

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4.4 Increase in Seepage or New Area of Seepage 12

4.5 Earthquake, Explosion, Structural Damage To Dam, Abnormal Instrumentation Readings or Major Electrical or Mechanical Failure 13

4.6 Object Crashes into the Dam or Reservoir 14

4.7 Potential Damage or Indicators of Damage 15

APPENDICES

APPENDIX A – Contact Register

APPENDIX B – Maps and Plans

APPENDIX C – Flood Inundation Maps and Dam Break Analysis

APPENDIX D – Storage: Discharge Characteristics

APPENDIX E – Inspection and Reporting Forms

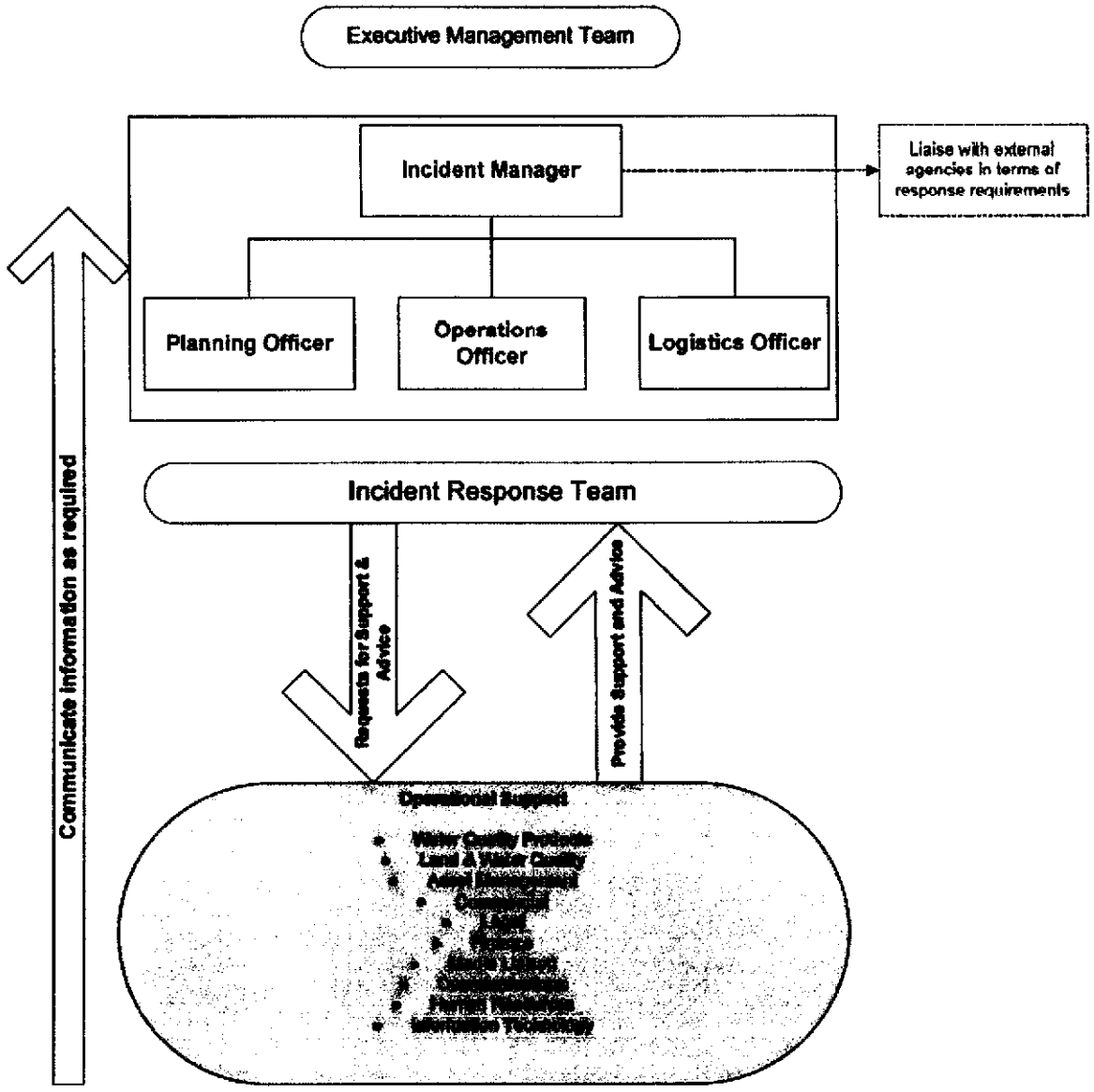
ABREVIATIONS

AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AMTD	Adopted Middle Thread Distance
BoM	Bureau of Meteorology
DCF	Dam Crest Flood
EAP	Emergency Action Plan
FSL	Full Supply Level
FOC	Flood Operations Centre, SunWater
GS	Gauging Station
IERP	Incident and Emergency Response Plan
ML	Megalitre
NRW	Department of Natural Resources and Water
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
PMPDF	Probable Maximum Precipitation Design Flood

1 INTRODUCTION

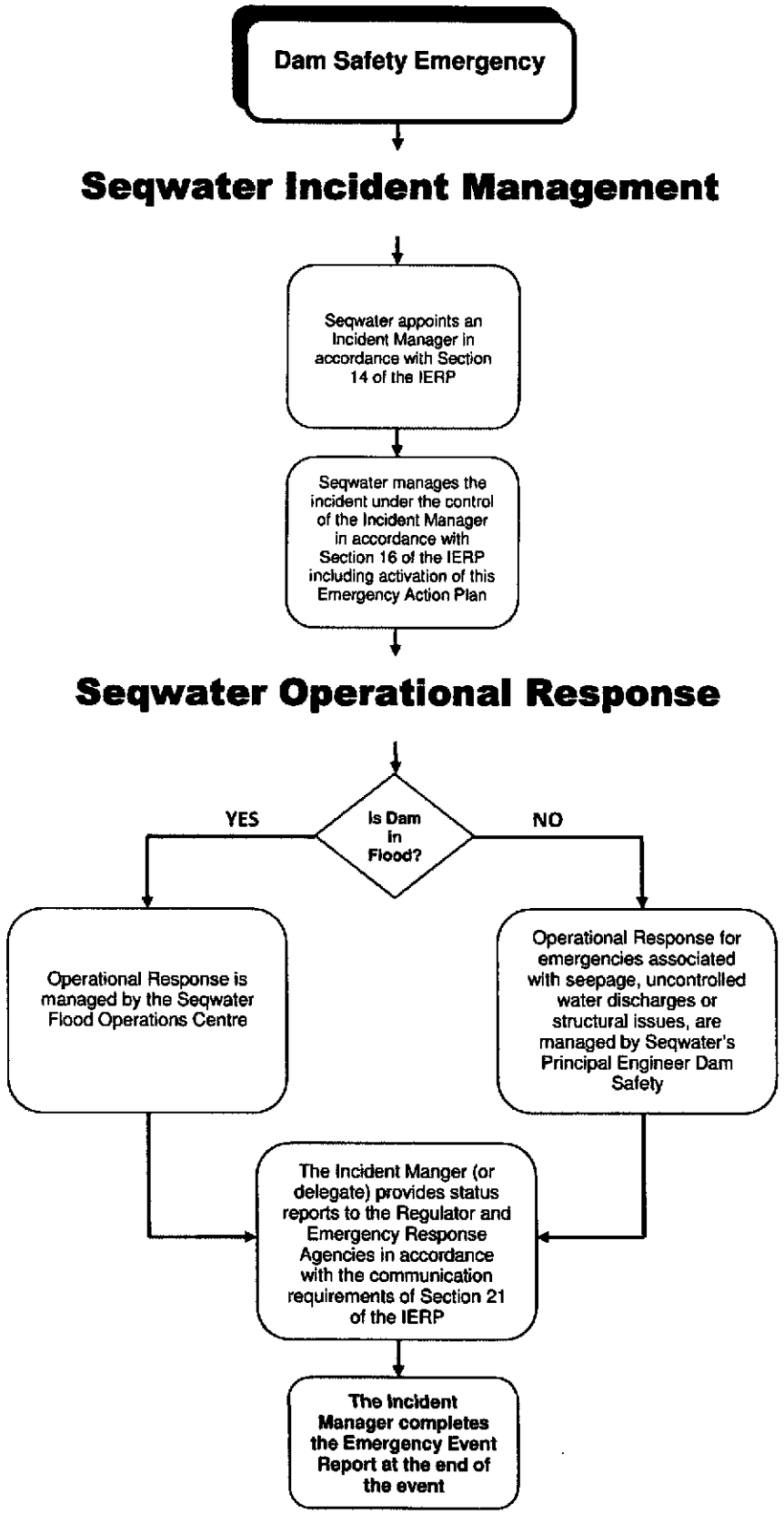
The Seqwater Incident and Emergency Response structure is a flexible team based structure that parallels the normal management regime. The team based structure is detailed in the diagram below.

Seqwater Incident and Emergency Response



This Emergency Action Plan (EAP) sits under the above structure and identifies emergency conditions that could endanger the integrity of the dam and prescribes procedures which should be followed by Seqwater staff in the event of such an emergency. A primary focus of these actions is to provide timely warning to appropriate emergency response and management agencies, to

allow these agencies to implement protection measures for downstream communities. The flowchart below summarises the actions that occur in an emergency situation.



Under the Seqwater Grid Emergency Response Plan, five incident levels have been implemented. These levels have been established to deal with varying degrees of incident severity and range from Level 1 where there are no significant impacts on other water grid participants and the incident can be managed using standard operating procedures and communication protocols, to Level 5 where state or federal government intervention would be expected. Definitions and general principals relating to these levels are detailed in Section 21 of the IERP.

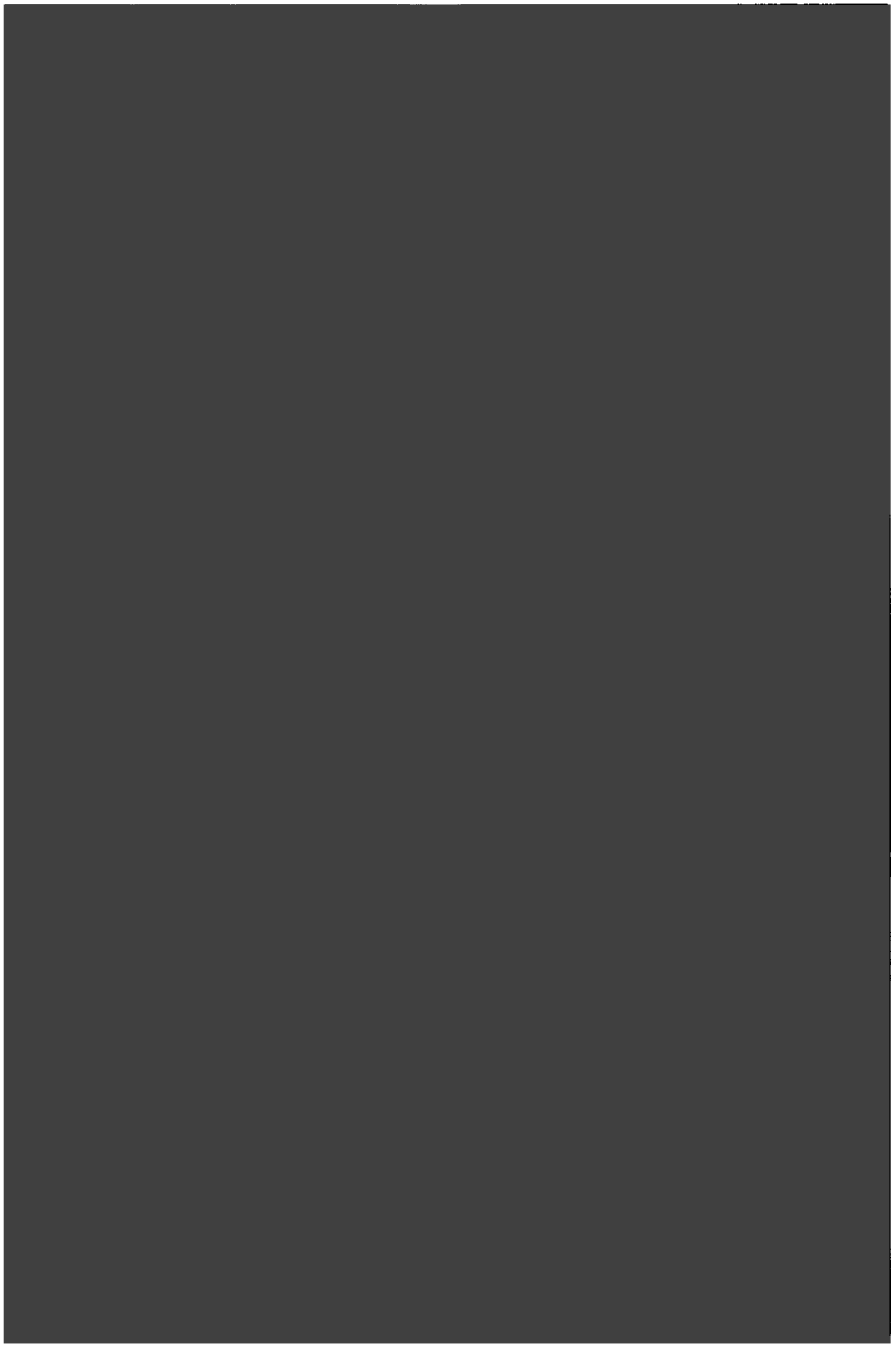
2 AGENCIES AND RESPONSIBILITIES

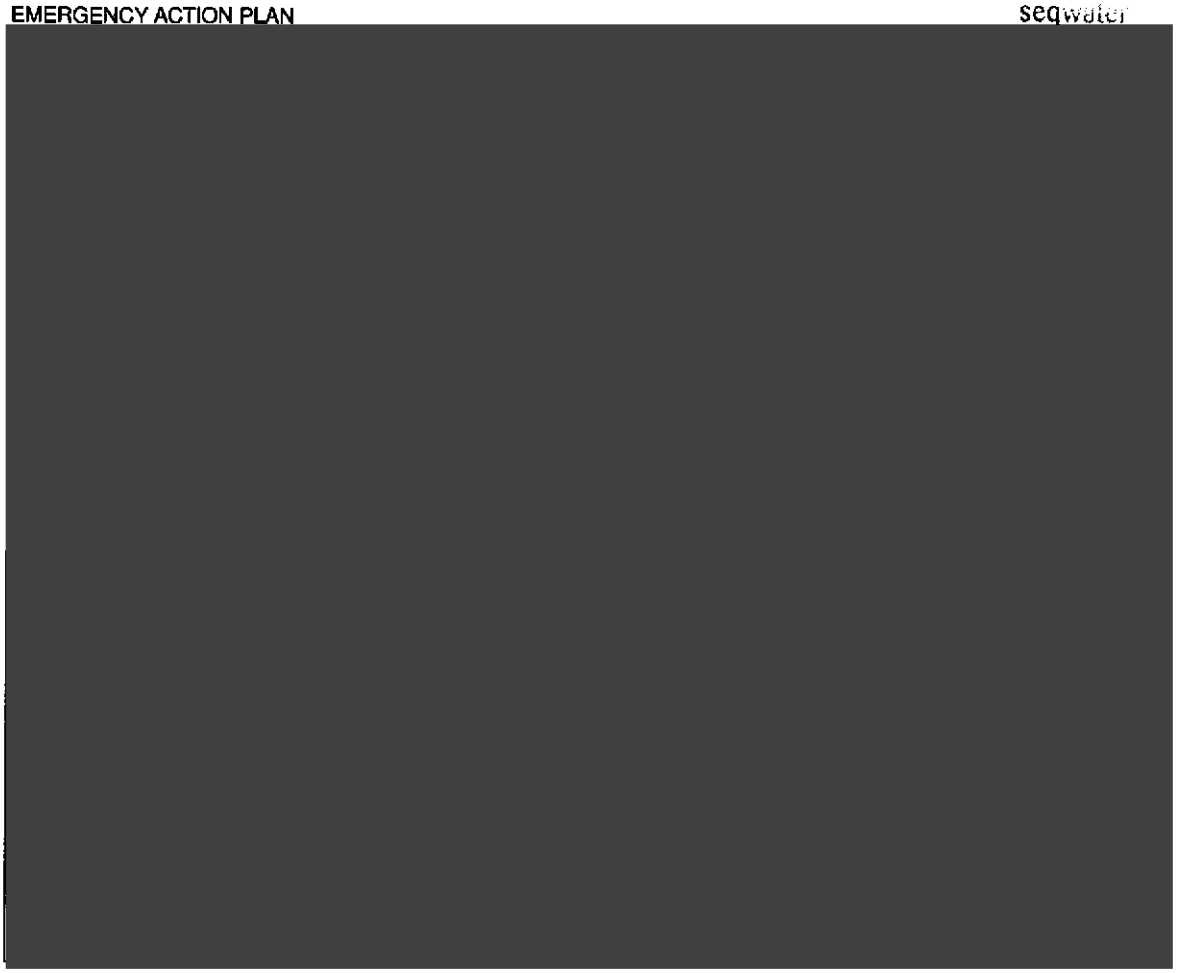
The following table shows the agencies and personnel who have responsibilities under this Emergency Action Plan.

AGENCIES AND PERSONNEL	RESPONSIBILITIES
Seqwater	• Undertake emergency response at the dam. • Determine the area of potential impact from the Dam Safety Emergency. • Provide the relevant Disaster Response Agencies with timely notification of impending and actual emergencies, including details of the emergency and estimates of potential impacts downstream of the dam.
Seqwater Flood Operations Centre	• Coordinate dam safety emergency actions for Seqwater during a flood event.
Principal Engineer Dam Safety (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for dam safety emergencies involving actual or potential structural failures.
Land and Water Quality Manager (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for water quality emergencies.
Director Dam Safety (NRW)	• Provide regulatory input during a dam safety emergency.
Regional or City Council	• Exercise primary responsibility for disaster response and management within its boundaries, in accordance with the Queensland Disaster Management Act 2003. • Deploy all appropriate resources to contribute to response and recovery during the dam safety emergency, until its resources are fully committed. • Mobilise disaster response assistance from other relevant Disaster Response Agencies, as appropriate during the emergency.

A list of agencies and personnel who may need to be contacted in the event of an emergency is included in Appendix A of this document. Once notification is made to a person within an agency on the list, it is the person's responsibility to notify other relevant persons within the agency. Generally attempts to contact an agency should be in the priority order outlined in the list. However discretion should be exercised if the gravity of the situation warrants.

3 DAM TECHNICAL DATA





3.1 CRITICAL FLOOD LEVELS

The dam is overtopped for the PMF event.

Dam Critical Stability Levels

Description	Level (m AHD)
Spillway Level	154.93
Dam Crest Level	160.72
PMF	163.48

The spillway rating curves were used to route the inflow floods through the reservoir for various flood exceedence probabilities as shown below:

Dam Flood Routing Results

AEP (1 in ...)	Estimated Peak Inflow (m^3/s)	Estimated Peak Outflow (m^3/s)	Peak Storage Level (m AHD)
50	610	270	158.01
100	700	330	158.40
200	800	390	158.79
500	940	470	159.29
1,000	1,060	540	159.68
2,000	1,170	610	160.06
5,000	1,350	730	160.65
5,500 (AEP of DCF)	1,370	740	160.71
10,000	1,500	900	161.08
50,000	1,930	1,400	161.79
100,000	2,150	1,660	162.10
1,000,000	3,100	2,700	163.12
4,400,000 (AEP of PMP)	3,950	3,490	163.79

Reference: *Design Flood Hydrology Based on July 2003 Revised PMP Estimates – December 2003*

4 EMERGENCY EVENTS AND ACTIONS

The following events define the triggers for initiation of the Emergency Action Plan. For flood events, a formal report to the Dam Safety Regulator is prepared only if the storage level exceeds 157.0m. Formal reports are provided for all trigger events outside flood events.

- Reservoir Level is approaching 154.93m and further rain is forecast (major flood possible)
- Reservoir Level is between 157.0m and 160.0m (major flood event)
- Reservoir Level is above 160.72m (dam overtopped – due to concrete arch construction, dam is resistant to overtopping, however the loading condition at PMF is extreme and appropriate precautions downstream are advisable)
- Increase in Seepage or New Area of Seepage
- Earthquake, Explosion, Structural Damage to Dam, Abnormal Instrumentation Readings or Major Electrical or Mechanical Failure
- Object Crashes into the Dam or Reservoir

Potential Damage of Indicators of Damage relevant to these triggers are shown in section 4.7.

4.1 RESERVOIR LEVEL IS APPROACHING 154.93M AND FURTHER RAIN IS FORECAST

STORAGE SUPERVISOR	FLOOD OPERATIONS CENTRE
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify Flood Operations Centre of dam status and rainfall. ◗ If the Flood Operations Centre cannot be contacted, notify the Principal Engineer, Dam Safety or the Dam Safety and Source Operations Manager.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Obtain and confirm forecast from BOM. ◗ Advise the Dam Supervisor of dam monitoring actions.
◗ Monitor rainfall, dam condition, lake levels and rates of rise of lake level. ◗ Record instrumentation readings as per Dam Standing Operating Procedures. ◗ Report damage and unusual observations to the Flood Operations Centre.	◗ Despatch appropriate staff to site if necessary.
◗ Monitor the situation as directed by the Flood Operations Centre. If communication with Flood Operations is lost, continue monitoring and attempt to restore communications.	◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator
◗ If lake level is > 157.0m and dam level continues to rise, advise Flood Operations Centre.	◗ If lake level is likely to exceed 157.0m, initiate EAP Section 4.2 and advise the Dam Supervisor of dam monitoring actions.
◗ If lake level is < 154.93m, advise Flood Operations Centre.	◗ If lake level is < 154.93m and no more rain is forecast, advise Dam Supervisor to close incident.
◗ Complete Incident Log and Report.	◗ Complete Incident Log and Report.

4.2 RESERVOIR LEVEL IS LIKELY TO EXCEED 157.0M

STORAGE SUPERVISOR	FLOOD OPERATIONS CENTRE
◗ Continue to fill out Incident Log until incident is closed. ◗ Close public access to the spillway bridge. ◗ Provided it is safe to do so, perform a Dam Safety Inspection including instrumentation and seepage measurements. ◗ Maintain observation of the spillway bridge and the effect the bridge has on the spillway flow. Look for any signs of damage below the spillway. Report damage and unusual observations to the Flood Operations Centre.	◗ Continue to fill out Incident Log until incident is closed. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Director, Dam Safety (NRW) ◗ Organise closure of public access roads to Dam and evacuate and close the public areas around Dam. ◗ Advise the Dam Supervisor of dam monitoring actions.
◗ Monitor rainfall, dam condition, lake levels and rates of rise of lake level and relay information to the Flood Operations Centre.	◗ Keep Local Disaster Response Coordinator and Director Dam Safety regularly informed of lake level and situation at the dam.
◗ Provided it is safe to do so, undertake inspections and instrumentation readings at intervals of approximately 6 hours to monitor structural performance of the dam. ◗ Report damage and unusual observations to the Flood Operations Centre. If communication with Flood Operations is lost, continue monitoring and attempt to restore communications.	
◗ If lake level is > 160.0m and dam level continues to rise, advise Flood Operations Centre.	◗ If lake level is likely to exceed 160.0m, initiate EAP Section 4.3 and advise the Dam Supervisor of dam monitoring actions.
◗ If lake level is < 154.93m, advise Flood Operations Centre.	◗ If lake level is < 154.93m and no more rain is forecast, advise Dam Supervisor to close incident.
◗ Complete Incident Log and Report.	◗ Complete Incident Log and Report.

4.3 RESERVOIR LEVEL IS LIKELY TO EXCEED 160.72M

STORAGE SUPERVISOR	FLOOD OPERATIONS CENTRE
◗ Continue to fill out Incident Log until incident is closed. ◗ All operational staff are to be accounted for and allocated safe positions upstream of the dam.	◗ Continue to fill out Incident Log until incident is closed. ◗ Inform the following persons of the event and the status of the dam and that the dam may overtop (EL 160.72m): o Local Disaster Response Coordinator o CEO o Director, Dam Safety (NRW) ◗ Advise the Dam Supervisor of dam monitoring actions.
◗ Provided it is safe to do so, monitor rainfall, dam condition, lake levels and rates of rise of lake level and relay information to the Flood Operations Centre.	◗ Keep Local Disaster Response Coordinator and Director Dam Safety regularly informed of lake level and situation at the dam.
◗ If lake level is < 154.93m, advise Flood Operations Centre.	◗ If lake level is < 154.93m and no more rain is forecast, advise Dam Supervisor to close incident.
◗ Complete Incident Log and Report.	◗ Complete Incident Log and Report.

4.4 INCREASE IN SEEPAGE OR NEW AREA OF SEEPAGE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Monitor the situation by measuring the rate of seepage flow and observe the clarity of the seepage flow, keeping notes and photographs for the Incident Log. ◗ Provided it is safe to do so, undertake inspections and instrumentation readings as directed by the Principal Engineer, Dam Safety.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.5 EARTHQUAKE, EXPLOSION, STRUCTURAL DAMAGE TO DAM, ABNORMAL INSTRUMENTATION READINGS OR MAJOR ELECTRICAL OR MECHANICAL FAILURE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Provided it is safe to do so, perform a Dam Safety Inspection including instrumentation and seepage measurements. ◗ Report damage and unusual observations to the Principal Engineer, Dam Safety.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.6 OBJECT CRASHES INTO THE DAM OR RESERVOIR

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ On confirmation of the event, advise the Police or Ambulance if necessary by phoning 000. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Provided it is safe to do so, perform a Dam Safety Inspection, paying particular attention to the area where the object has crashed, including instrumentation and seepage measurements. ◗ Report damage and unusual observations to the Principal Engineer, Dam Safety. from fuel or other substances. ◗ Monitor the situation, keeping notes and photographs for the Incident Log and the routine dam safety inspections.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.7 POTENTIAL DAMAGE OR INDICATORS OF DAMAGE

Problem	General Characteristic	When and What to Check
Overtopping Imminent	Storage full and water level rising.	During periods of excessive rainfall – check reservoir levels.
Rapid increases or cloudy appearance of seepage	Seepage flow through storage embankment is cloudy and increasing (piping failure has started).	After detection of cloudy water look for source in embankment.
Seepage erosion or piping	Progressive internal erosion of the embankment or saddle dam or foundation to form an open conduit or pipe (piping failure).	During routine inspections or after unaccountable increases in seepage flows, look for an emission point.
Foundation Failure	Sliding, rotation, or settlement of part of or entire dam.	During routine inspection or immediately after earthquakes – inspect for evidence of foundation movement or displacement immediately adjacent to the dam.
Slide in downstream slope	Slide in the downstream face.	During routine inspection or following heavy periods of rainfall – look for cracks or scarps near the crest and bulges at the toe.
Flow slide	Collapse and flow of soil around the storage periphery.	During routine inspections, after heavy or long periods of rainfall. Especially in sedimentary or colluvial soils – look for material displacement around the storage rim.
New springs, seeps or boggy areas	Evidence of internal changes in seepage control (could be initial signs of piping failure).	During routine inspection, look for 'evergreen' spots, boggy ground or pools of water.
Gullying	No rock protection or vegetation cover on embankment batters or poor drainage.	During and after large rainfalls – inspect embankment and saddle dam batters for damage to rock protection or vegetation cover.
Increase in gallery seepage	Increase in the normal rate of gallery seepage.	After detection – check for differential movement or cracking in concrete components of spillway and retaining walls.
Landslide	Mass movement of soil or rock from slopes and valley walls around the storage.	During routine inspections or following earthquakes – look for material displacement.
Damage to structural concrete	Movement or cracking of structural concrete.	During routine inspections or when mechanical problems such as burst pipe occur – look for any movement or

Problem	General Characteristic	When and What to Check
		cracking of structural concrete.
Failure of appurtenant structures or operating equipment	Loss of ability to supply water or discharge floods safely.	After detecting an operational anomaly – identify and investigation cause.
Loss of storage contents	Excessive loss from the storage and / or occasionally increased seepage or increased groundwater levels near the storage.	During routine monitoring – look for environmental changes such as vegetation damage, salt scalds, etc
Toe erosion	Erosion of embankment toe by spillway discharge or diversion flows.	During and after large rainfalls – inspect embankment toe.
Wave erosion	Beaching or notching of the upstream face of the embankment by waves generated over long periods of strong wind.	During or after periods of strong wind – inspect upstream face of embankment and saddle dam.

APPENDIX A

CONTACT REGISTER

REGISTER – CONTACT LIST FOR EMERGENCIES & FLOOD INFORMATION – MOOGERAH DAM

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Seqwater	Principal Engineer Dam Safety	1	1	John TIBALDI					Seqwater/FCC
	Dam Safety and Source Operations Manager	2	2	Robert DRURY					
	Flood Operations Engineer	3	3	Terry MALONE					
	Operations Coordinator South Coast	4	4	Craig DUNCAN					
	Executive General Manager, Operations	5	5	Phil ALDRIDGE					
	Land and Water Quality Manager	1	1	Peter SCHNEIDER					
	Chief Executive Officer	3	3	Peter BORROWS					
	Chairman	4	4	Annabelle CHAPLIN					
	Storage Supervisor	1	1	Rob TITMARSH					
	Standby Officer	2	2	Grant TITMARSH					
	Other on-call Staff	3	3	Don KIRCHNER					
Department of Natural Resources & Water	Director, Dam Safety	1	1	Peter ALLEN					Seqwater/FCC
	Director, Water Industry Asset Management & Standards	2	2	Peter ARTEMIEFF					
	Dam Safety Engineer	3	3	Ron GUPPY					
Flood Operations Centre (operated by Sunwater)	Principal Engineer Dam Safety	1	1	John TIBALDI					Seqwater/FCC
	Flood Operations Engineer	2	2	Terry MALONE					
	Senior Flood Operations Engineer	3	3	Rob AYRE					
	Senior Flood Operations Engineer	4	4	John RUFFINI*					
	Flood Control Room (Operational)	5	5	General Phones					

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Department of Emergency Services Disaster Operations	Duty Officer* (24 Hours)	1	1	Rostered					Seqwater/FCC
Scenic Rim Regional Council	Local Disaster Response Coordinator	1	1	Brendan Guy					Seqwater/FCC
	Local Disaster Response Coordinator	2	2	Peter WEALLANS					
	Local Disaster Response Coordinator	3	3	Duty Officer (SES Controller)					
Ipswich City Council	Local Disaster Response Coordinator	1	1	Andrew UNDERWOOD (Strategic Infrastructure Manager)					Seqwater/FCC
	Local Disaster Response Coordinator	1	1	Tony TRACE					
	Local Disaster Response Coordinator	2	2	Ross DRABBLE (Chief Operations Officer)					
	Local Disaster Response Coordinator	3	3	Arie Van Den ENDE (SES Controller)					
Brisbane City Council	Local Disaster Response Coordinator	1	1	Duty Officer					Seqwater/FCC
	Flood Information Centre	2	2	Duty Officer					
Emergency Management Queensland	Regional Director, South Eastern District	1	1	Eddie BENNET					Seqwater/FCC
	Regional Director, Brisbane District	1	1	Jason CAMERON					
	Area Director, South Eastern District	2	2	Deryck TAYLOR					
Police									Seqwater/FCC
Bureau of Meteorology	Engineer in charge Flood Warning*	1	1						Seqwater/FCC
	Meteorologist in Charge (24 hours)	2	2						
Ambulance					000				Seqwater/FCC
Notes:	1. Contact with an agency is to be made via position with highest priority. That person contacted is then responsible to forward notification to other relevant persons with the agency.								
	2. Agencies to provide notification of updated contact details to John Tibaldi of Seqwater.								

APPENDIX B

MAPS AND PLANS

Locality Map

Access Routes

Catchment Map

Aerial View of Dam Wall

General Layout



(Reference: http://maps.google.com.au/maps)

EMERGENCY ACTION PLAN - MOOGERAH DAM

Access Routes

Preferred route via Cunningham Highway to Boonah/Beaudesert turnoff, 3km along this road, then right to Moogerah Dam

Alternate routes via Peak Crossing and Kalbar or via Peak Crossing and Boonah

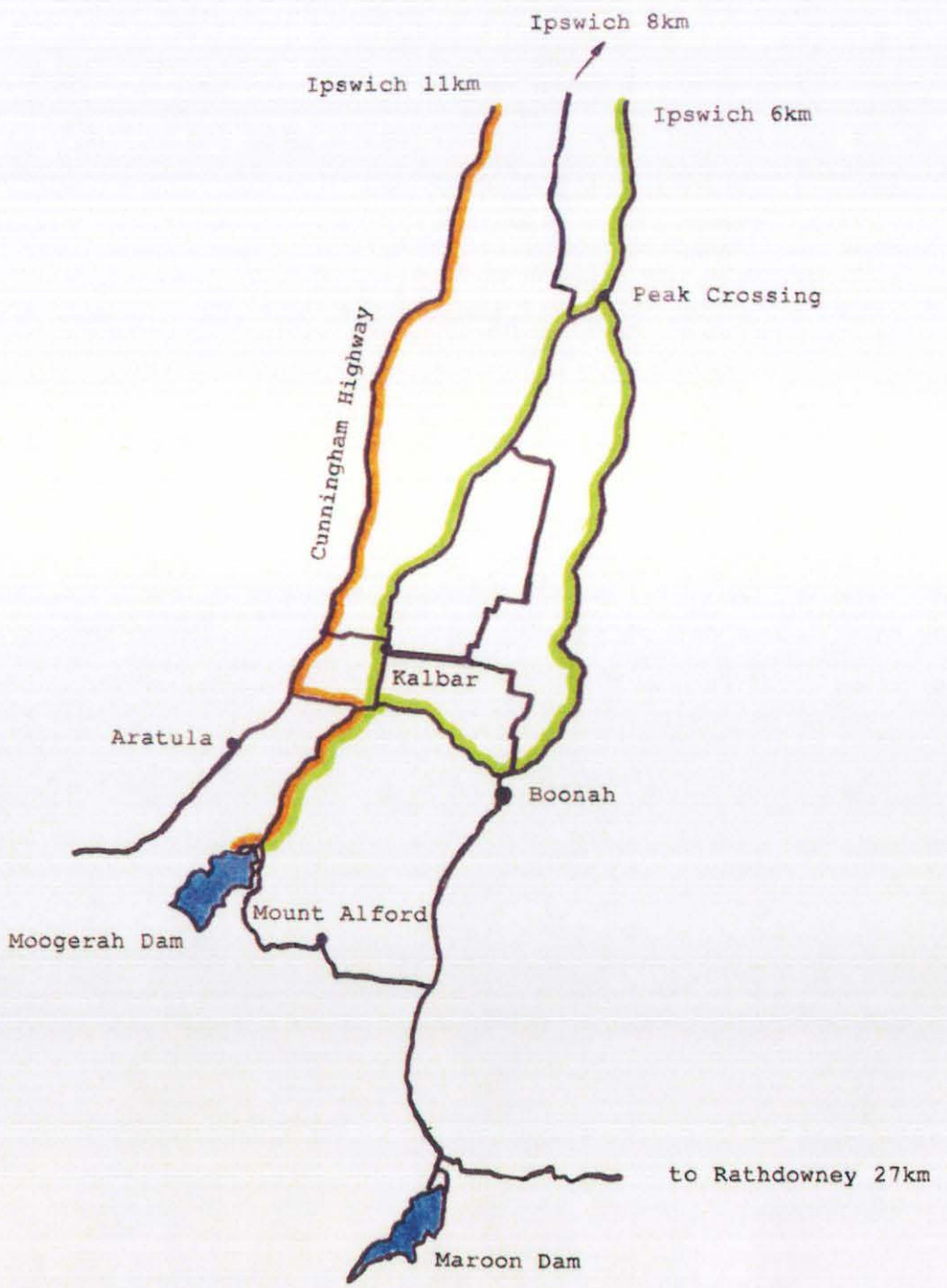
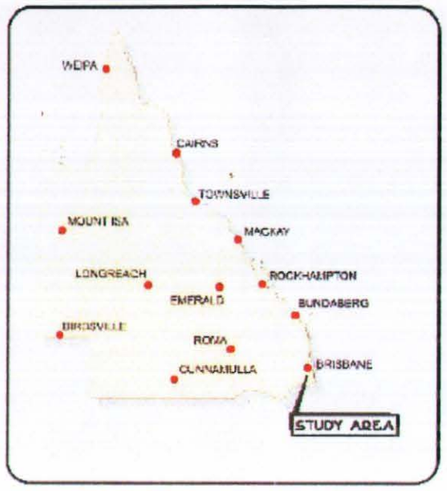


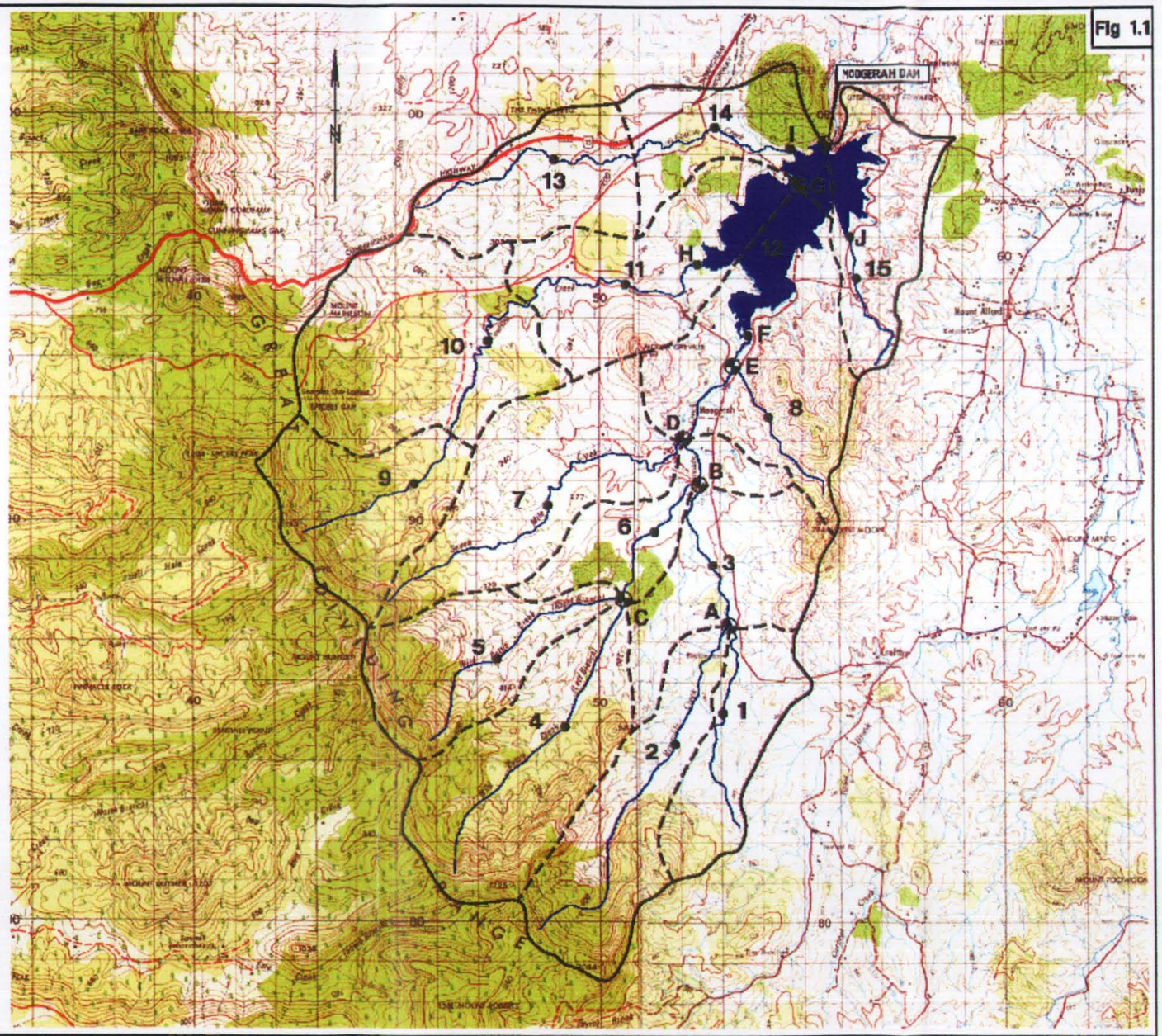
Fig 1.1



LEGEND:

- CATCHMENT BOUNDARY
- SUBCATCHMENT BOUNDARY
- F — NODES
- A — JUNCTION NODES
- STREAM
- RESERVOIR AREA FSL 154.91m AHD

CATCHMENT AREA = 228km²



REVISION	DATE	REMARKS	CKD	PSD	DRAWING REFERENCES

SCALES
0 1000 2000 3000 4000 5000 METRES
1:100 000

DRAFTING	DESIGN
TB	BT
DRAFTING CHK	DESIGN CHK
APPROVED	
R. AYR	
HYDROLOGIST	

SunWater Engineering Services
www.sunwater.com.au

MOOGERAH DAM
FLOOD STUDY
CATCHMENT MAP
RORB MODEL LAYOUT

CONTRACT NUMBER
DRAWING NUMBER 218343
DATE MARCH 2002



(Reference: http://maps.google.com.au/maps)



APPENDIX C

FLOOD INUNDATION MAPS AND DAM BREAK ANALYSIS

EMERGENCY EVACUATION

Where possible, emergency evacuation should always be carried out to the upper limit of flood levels shown on the inundation maps, due to the uncertainties associated with the flood development time and likely areas of inundation.

For the SDF case the minimum base flow that was required to ensure computational stability was found to be 140 m^3/s. This flowrate was considerably higher than the actual discharge through the outlet works, as the initial water levels in the downstream reach (i.e., before the arrival of the first flood water) were found to be higher than the deck levels of some of the creek crossing bridges (see Section 3.4.2). Hence, the period of flooding for the SDF case was omitted in relation to the low-lying bridge at the Boonah-Fassifern Road Crossing. However, as an indication of the period for the initial flooding of this bridge to occur, the estimated time for the first flood water to arrive has been included.

5.2 Sunny Day Failure

Figures 2 and 3 present discharge and stage hydrographs of :

1. Outflow from the dam, and
2. Flow at key locations in the system
   * Boonah-Fassifern Road Crossing
   * Kalbar Connection Road Crossing
   * Silverdale Township.

There were no appreciable inflows for the sunny day failure scenario, other than to maintain the base flow. The maximum discharge from the breach was 24 106 m^3/s, which occurred 6.0 minutes after the failure was initiated. The reservoir was effectively emptied 150 minutes after the beginning of discharge.

At the Boonah-Fassifern Road Crossing a maximum discharge of 10 971 m^3/s was computed at a time of 1.3 hours. After 1.5 hours the flood water reached a peak elevation of 94.64 m AHD which was approximately 11.2 m above the bridge deck level. The level of the Boonah-Fassifern Road Bridge and other points of interest are included in Table 3.5. The first flood water arrived after about 0.6 hours. A maximum velocity of 2.16 m/s was calculated.

The 'base flow' used in this case actually caused overtopping of the Boonah-Fassifern road crossing. Therefore, the time given as that which the first flood wave arrived, and also the time at which flooding of the crossing starts, is based on an increase in the 'base height' of 0.1m.

A maximum discharge of 8 519 m^3/s occurred 2.2 hours after the start of the SDF event at the Kalbar Connection Road Crossing. The peak water level of 80.91 m AHD was 5.6 metres above the bridge deck after 2.3 hours. At approximately 0.9 hours after the initial breach, the start of the flood wave arrived at the crossing. The bridge was initially overtopped after 1.5 hours and flooding continued for a period of 6.5 hours. The maximum water velocity was found to be 2.38 m/s.

The first flood water reached the township of Silverdale after an estimated 3.7 hours. The maximum discharge of 3 091 m^3/s occurred 5.7 hours after the breach initiation. After 6.5 hours, the maximum water surface elevation of 70.31 m AHD inundated the adopted elevation of Silverdale by 3.3 metres. Flooding began after 3.9 hours and continued for a period of 21.2 hours. A water velocity of 0.89 m/s was recorded as the maximum.

Figure 4 shows a longitudinal section of the study reach showing the maximum flood levels for the sunny day dam wall failure scenario.

5.3 Twelve Hour Imminent Failure Flood

Figures 5 and 6 present discharge and stage hydrographs for the same locations as listed in 5.2 above.

An attenuation of 78.3 % was achieved by the passage of the flood wave through the dam. The maximum inflow of 3 317 m^3/s at a time of 10.0 hours was reduced to a maximum discharge of 721 m^3/s at 15.0 hours. The water level in the dam reached a peak of 160.74 m AHD, which was 0.01 metres below the level of the non overflow crest and was assumed to threaten failure of the concrete arch.

The start of the flood wave arrived at the Boonah-Fassifern Road Crossing after an estimated 5.7 hours. The event had a maximum discharge of 718 m^3/s at 16.6 hours and peak flood elevation of 87.70 m AHD at 17.0 hours. The bridge deck was overtopped by a maximum of approximately 4.3 m and was submerged from 9.3 to 59.9 hours after the first reservoir inflow. At this location a maximum velocity of 1.46 m/s can be expected.

At the Kalbar Connection Road Bridge, the maximum discharge of 714 m^3/s occurred 18.3 hours after the commencement of inflow. The corresponding peak water level of 75.90 m AHD was 0.6 metres above the bridge deck level. The initial flood water reached the crossing after 6.5 hours and flooding occurred between 14.6 and 28.4 hours after the start of the event. The maximum water velocity was calculated as 1.45 m/s.

The maximum discharge of 598 m^3/s occurred at Silverdale 26.3 hours after the start of inflow. At 27.4 hours, the peak water surface elevation was 67.97 m AHD, 1.0 metres above the level used to represent the township. Flooding began after 20.1 hours and continued for a period of approximately 32.1 hours. The maximum water velocity was found to be 0.85 m/s.

Figure 7 shows a longitudinal section of the study reach showing the maximum flood levels for the IFF, no dam failure scenario.

5.4 Twelve Hour PMF - No Dam Failure

Figures 8 and 9 present discharge and stage hydrographs for the same locations as listed in 5.2 above.

An attenuation of 55.0 % was achieved by the passage of the flood wave through the dam. The maximum inflow of 6 031 m^3/s at a time of 10.0 hours was reduced to a maximum discharge of 2 711 m^3/s at 12.7 hours. The dam was overtopped for a period of 12.8 hours commencing 9.4 hours after the arrival of the first inflow. The water level in the dam reached a peak of 163.28 m AHD after 12.5 hours, which resulted in a maximum overtopping of 2.53 metres.

The Boonah-Fassifern Road Crossing experienced the start of the flood wave after about 6.3 hours. A maximum discharge of 2 668 m^3/s was computed at a time of 14.0 hours. The peak flood water elevation of 90.41 m AHD was approximately 7.0 metres above the bridge deck level and occurred 14.3 hours after the initial dam outflow. The road bridge was inundated after 8.1 hours and flooding continued for a duration of 56.9 hours. A maximum velocity of 1.47 m/s was calculated.

At the Kalbar Connection Road Crossing, the discharge peaked at 2 616 m^3/s, 15.3 hours after the commencement of inflow. The corresponding peak flood water elevation of 78.10 m AHD was 2.8 metres above the deck level. The first flood water reached the bridge after 7.0 hours. The crossing was impassable from 12.0 hours to 33.6 hours after the start of the PMF event. The maximum water velocity was found to be 1.67 m/s.

The township of Silverdale experienced a peak flood level of 69.60 m AHD at 21.7 hours. This water level was 2.6 metres above the representative level of the town. The maximum discharge occurred at 20.3 hours after the start of inflow and was calculated to be 1890 m^3/s. Silverdale was flooded from 16.4 hours to 57.3 hours after the initial reservoir discharge. Approximately 0.81 m/s was determined as the peak stream velocity.

Figure 10 shows a longitudinal section of the study reach showing the maximum flood levels for the 12 hour PMF, no dam failure scenario.

5.5 Twelve Hour PMF - Dam Failure

Figures 11 and 12 present discharge and stage hydrographs for the same locations as listed in 5.2 above.

The maximum inflow to the reservoir was 6 031 m^3/s at a time of 10.0 hours. The peak discharge was estimated as 37 398 m^3/s after 12.5 hours. The dam wall was first overtopped 9.4 hours after the arrival of the first inflow and remained inundated for about 3.3 hours. The reservoir was effectively emptied in 16.5 hours following the breach initiation. The reservoir elevation peaked at 163.28 m AHD after 12.4 hours, resulting in a maximum overtopping of 2.53 metres.

At the Boonah-Fassifern Road Bridge a maximum discharge of 22 204 m^3/s was computed at a time of 13.5 hours. After 13.7 hours, the flood water reached a peak elevation of 98.04 m AHD, which was approximately 14.6 metres above the deck level. The crossing was flooded from 8.1 hours to 37.2 hours. The first flood water reached the crossing at 6.5 hours after the first inflow and the maximum velocity was estimated as 2.38 m/s.

The maximum discharge was 18 638 m^3/s at the Kalbar Connection Road Crossing, occurring 14.3 hours after the commencement of inflow. The peak water level of 83.47 m AHD flooded the bridge deck by 8.2 metres at 14.4 hours. The crossing experienced flooding for 10.7 hours, starting 12.0 hours after the first reservoir outflow. The maximum water velocity was found to be 2.96 m/s and the beginning of the flood wave arrived after 7.2 hours.

Silverdale Township was inundated by 5.8 metres as a result of the PMF dam wall failure event. The peak flood water elevation was approximately 72.80 m AHD and occurred after 17.6 hours. A maximum discharge of 9 319 m^3/s was calculated at a time of 16.8 hours. Flooding of Silverdale began after 15.5 hours and continued for a period of 25.1 hours. A maximum stream velocity of 1.37 m/s was calculated.

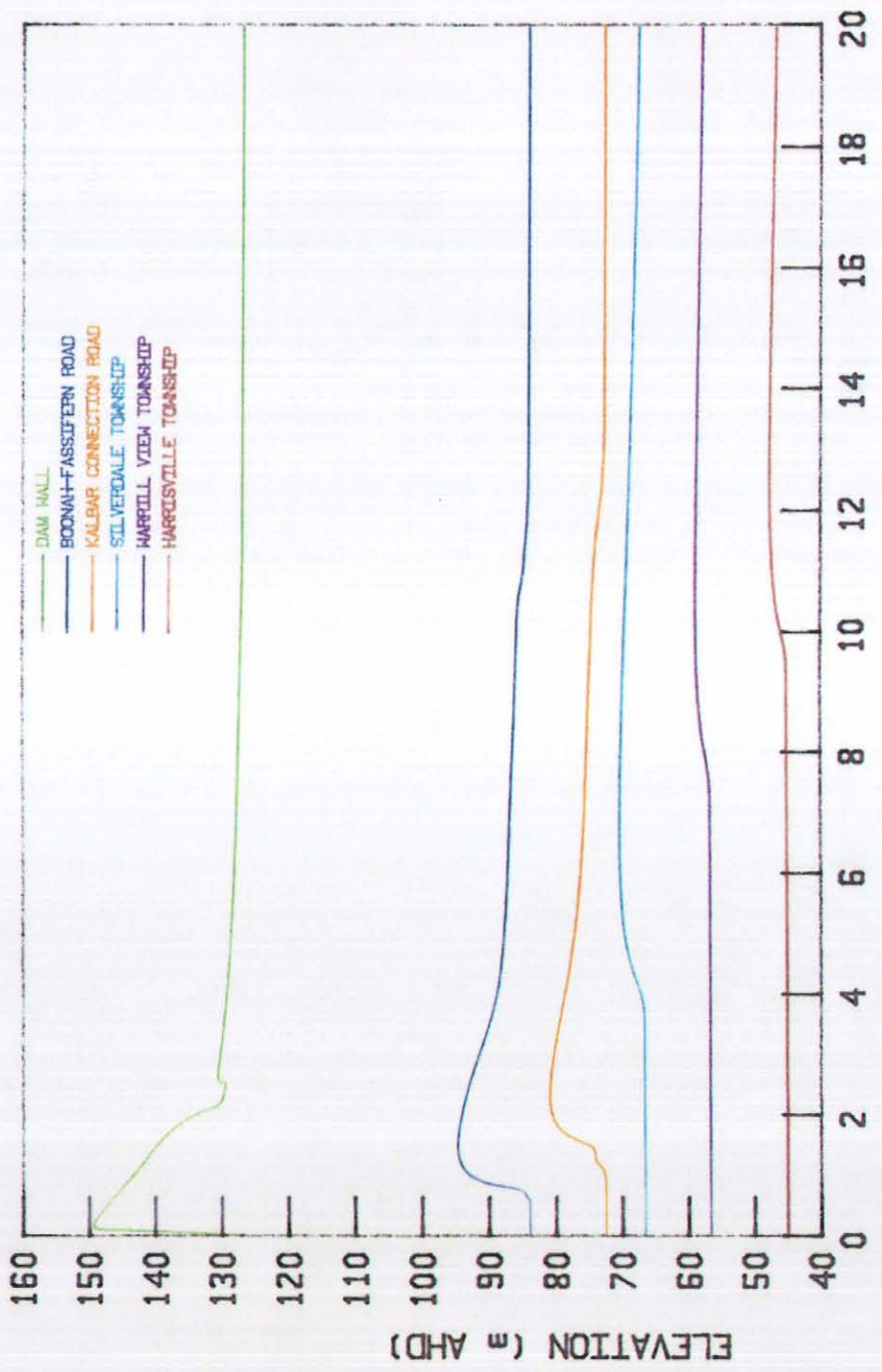
Figure 13 shows a longitudinal section of the study reach showing the maximum flood levels for the PMF dam wall failure scenario.

5.6 Summary of Hydraulic Analyses

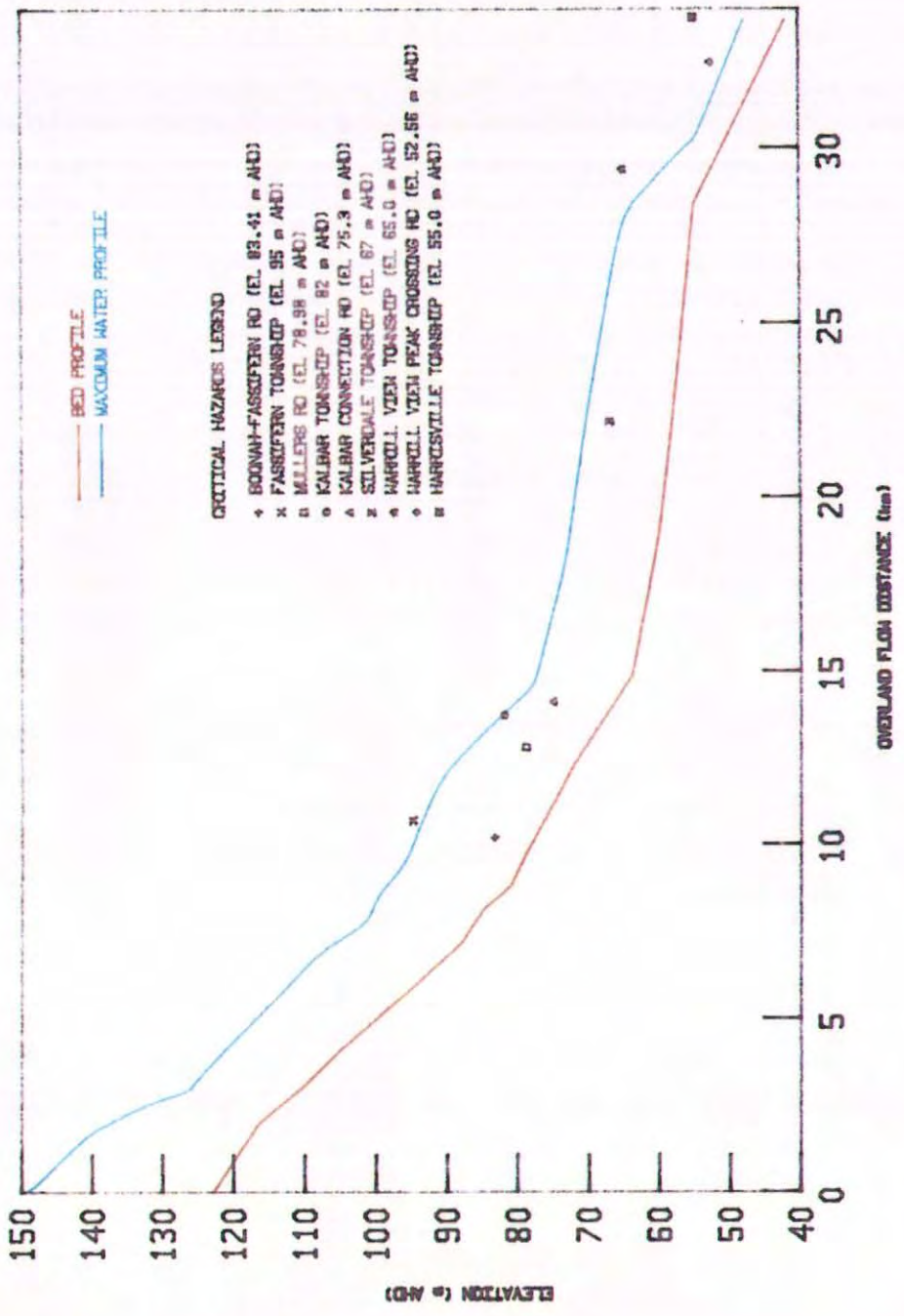
Table 5.1 : Summary of Hydraulic Analyses

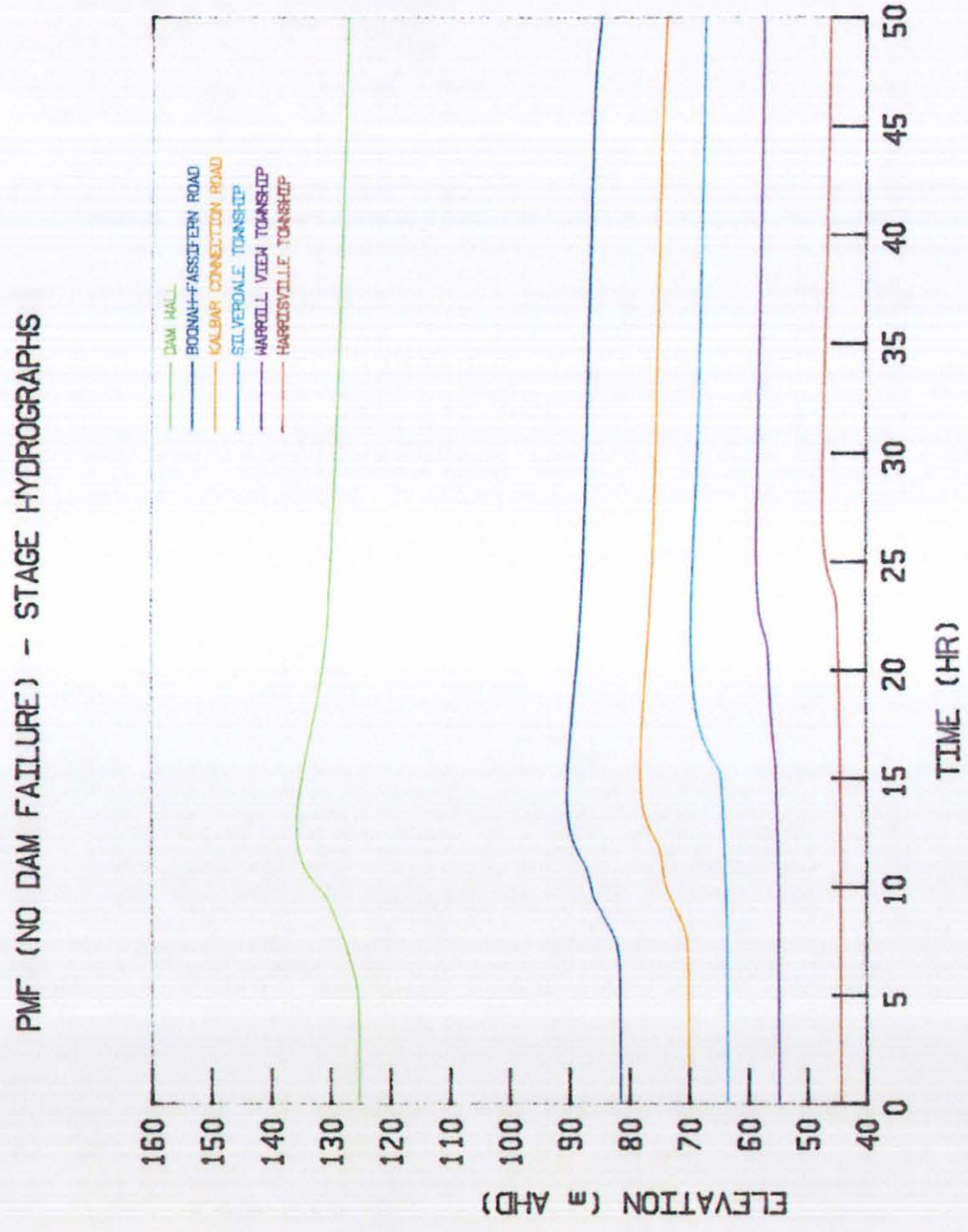
	SDF Dam Failure	IFF No Failure	PMF No Failure	PMF Dam Failure
Moogerah Dam				
Peak Inflow (m^3/s)	-	3 317	6 031	6 031
Time Peak Inflow (h)	-	10.0	10.0	10.0
Peak Outflow (m^3/s)	24 106	721	2 711	37 398
Time Peak Outflow (h)	0.1	15.0	12.7	12.5
Boonah-Fassifern Rd. (EL 83.41 m AHD)				
Peak Flow (m^3/s)	10 971	718	2 668	22 204
Peak Level (m AHD)	94.64	87.70	90.41	98.04
Time of Peak Flow (h)	1.3	16.6	14.0	13.5
Time of Peak Level (h)	1.5	17.0	14.3	13.7
Max Velocity (m/s)	2.16	1.46	1.47	2.38
Time Flooding Starts	0.6 *	9.3	8.1	8.1
Time Flooding Ceases	30.0 *	59.9	65.0	37.2
Kalbar Connection Rd. (EL 75.3 m AHD)				
Peak Flow (m^3/s)	8 519	714	2 616	18 638
Peak Level (m AHD)	80.91	75.90	78.10	83.47
Time of Peak Flow (h)	2.2	18.3	15.3	14.3
Time of Peak Level (h)	2.3	18.3	15.3	14.4
Max Velocity (m/s)	2.38	1.45	1.67	2.96
Time Flooding Starts	1.5	14.6	12.0	12.0
Time Flooding Ceases	8.0	28.4	33.6	22.8
Silverdale Township (EL 67 m AHD)				
Peak Flow (m^3/s)	3 091	598	1890	9 319
Peak Level (m AHD)	70.31	67.97	69.60	72.80
Time of Peak Flow (h)	5.7	26.3	20.3	16.8
Time of Peak Level (h)	6.5	27.4	21.7	17.6
Max Velocity (m/s)	0.89	0.85	0.81	1.37
Time Flooding Starts	3.9	20.1	16.4	15.5
Time Flooding Ceases	25.1	52.1	57.3	40.6

* The times are approximate only as the crossing is inundated by the base flow. Refer Section 5.2 for further details.

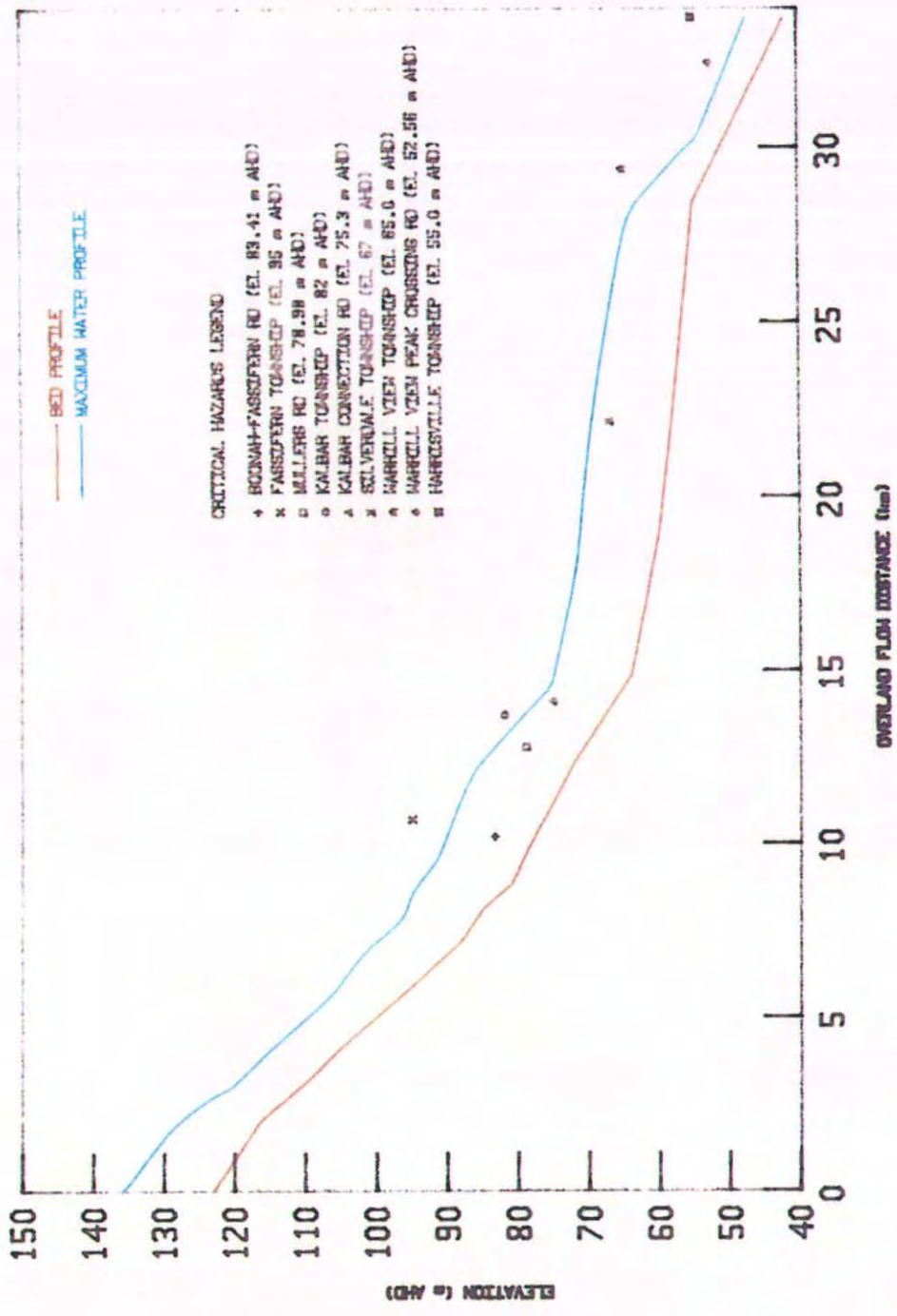

SUNNY DAY FAILURE - STAGE HYDROGRAPHS
DAM WALL
BOONAH-FASSIFERN ROAD
KALBAR CONNECTION ROAD
SILVERDALE TOWNSHIP
HARRILL VIEW TOWNSHIP
HARRISVILLE TOWNSHIP
ELEVATION (m AHD)
160
150
140
130
120
110
100
90
80
70
60
50
40
TIME (HR)
0
2
4
6
8
10
12
14
16
18
20

SUNNY DAY FAILURE - LONGITUDINAL SECTION




PMF (NO DAM FAILURE) - STAGE HYDROGRAPHS
DAM WALL
BOONAH-FASSIFERN ROAD
KALBAR CONNECTION ROAD
SILVERDALE TOWNSHIP
HARRILL VIEW TOWNSHIP
HARRISVILLE TOWNSHIP
ELEVATION (m AHD)
160
150
140
130
120
110
100
90
80
70
60
50
40
TIME (HR)
0
5
10
15
20
25
30
35
40
45
50

PMF (NO DAM FAILURE) - LONGITUDINAL SECTION



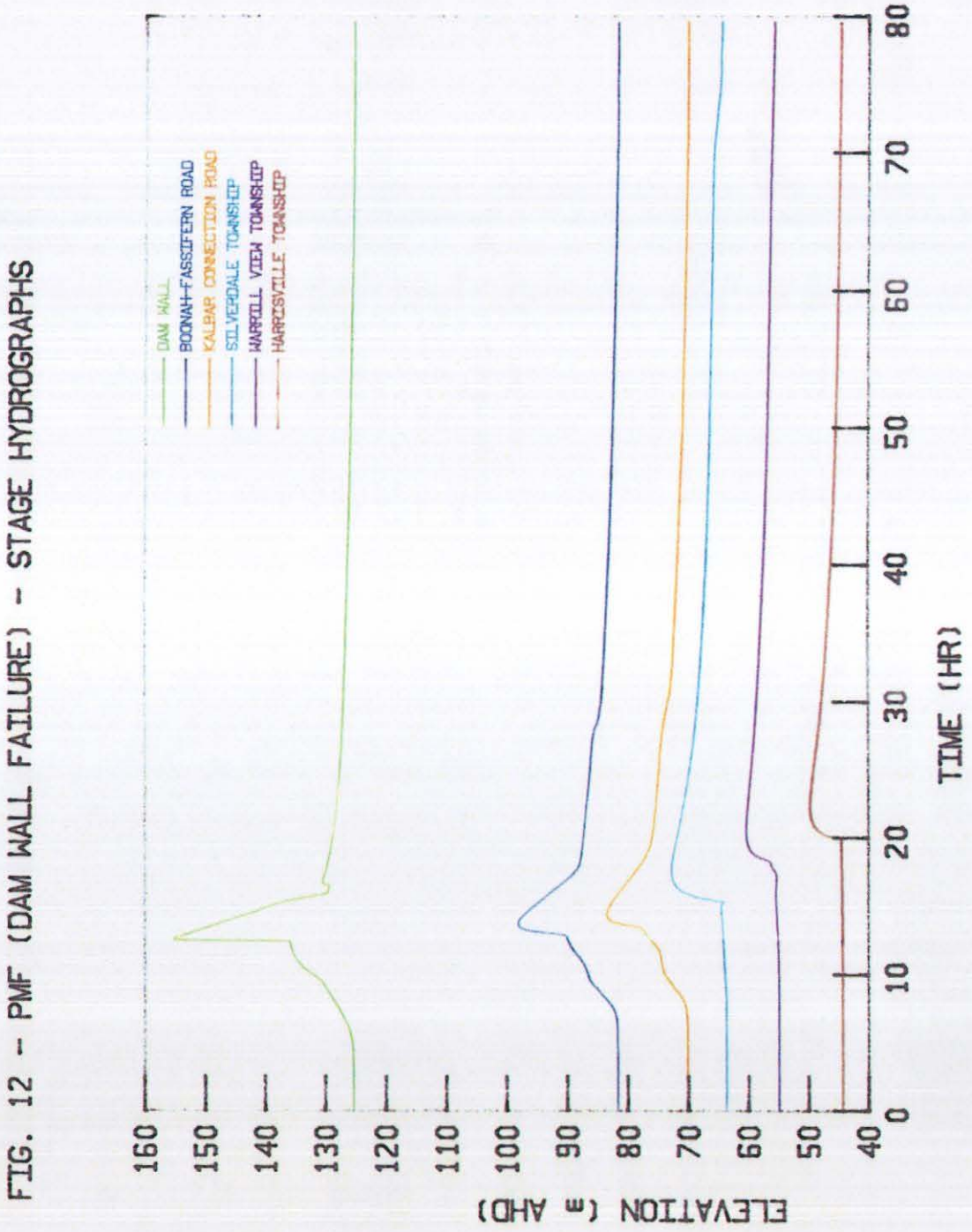
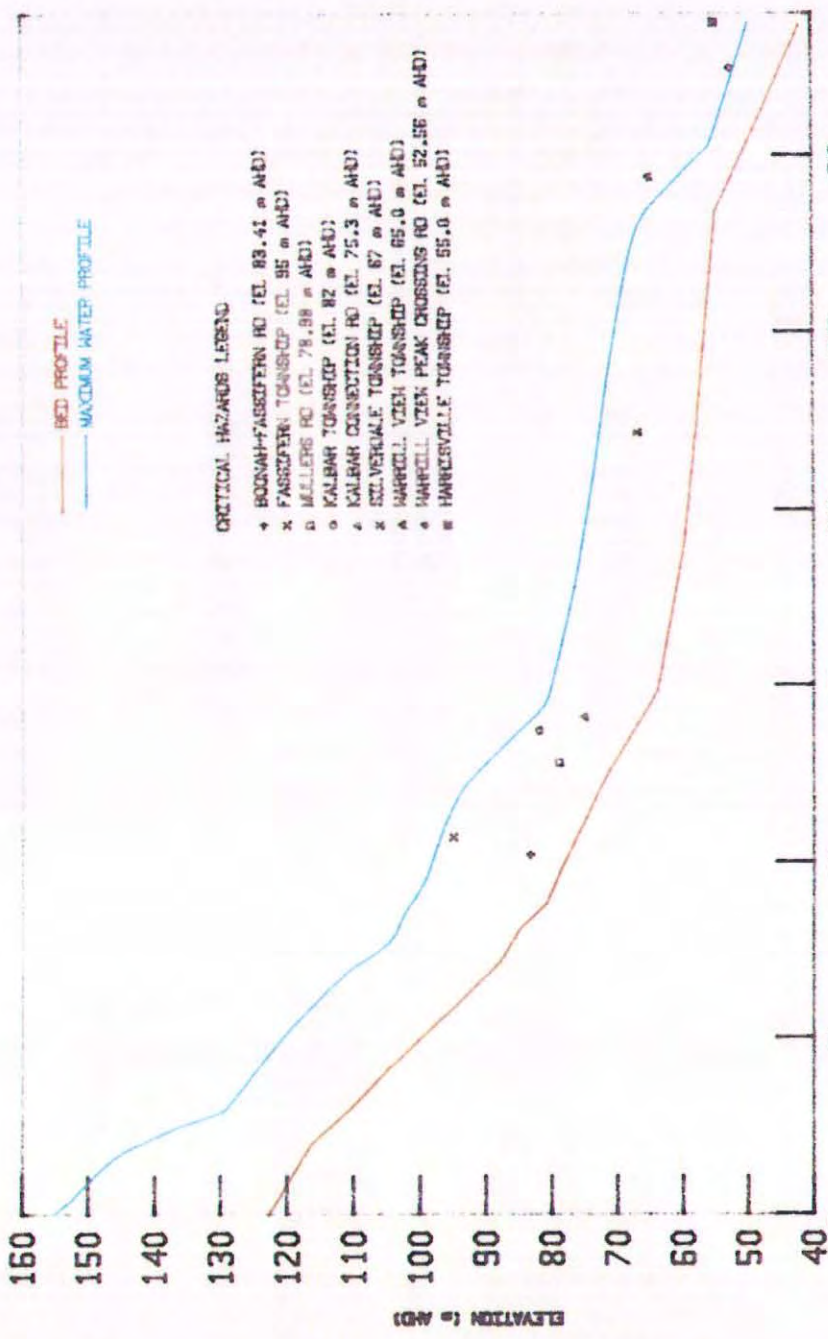
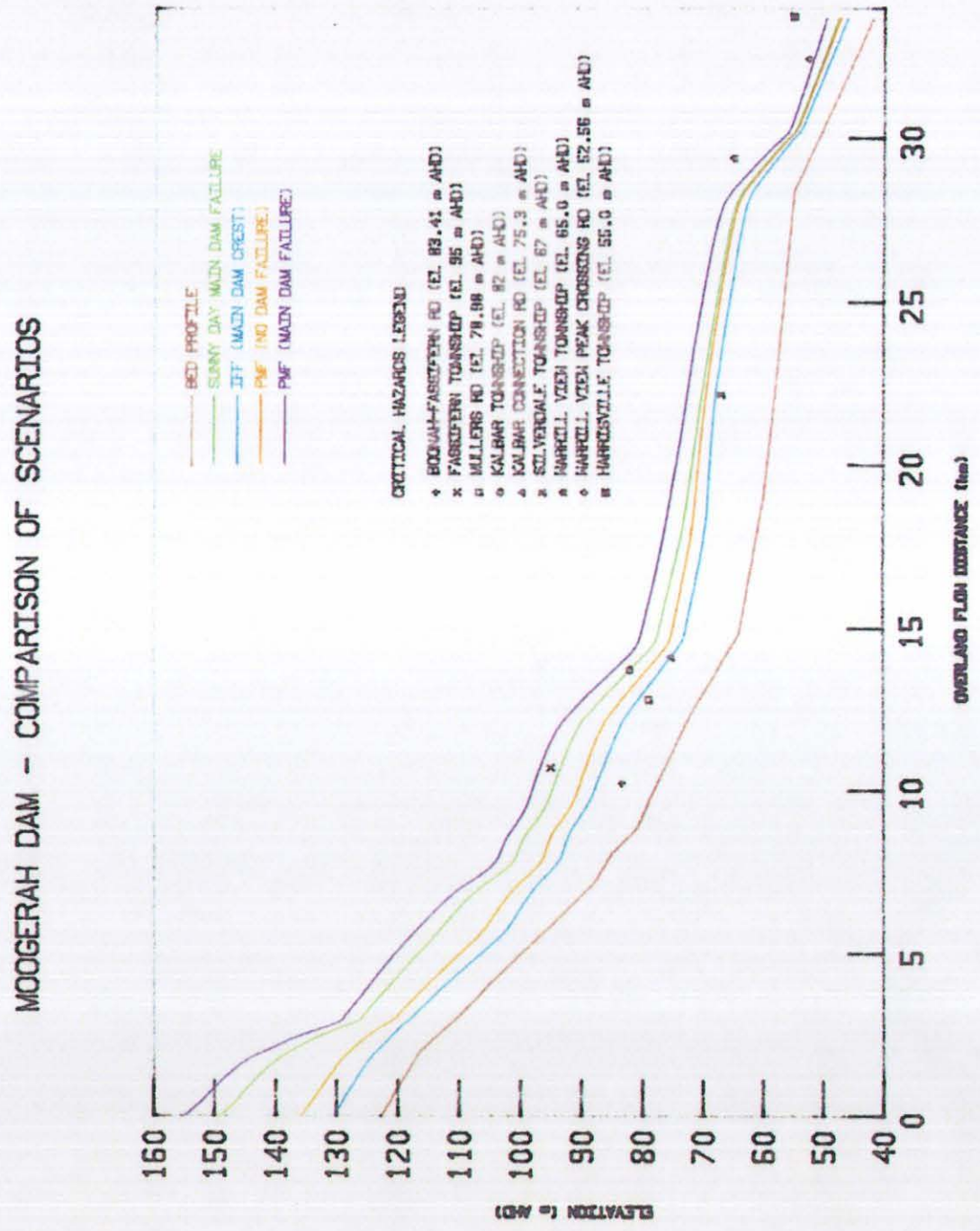


FIG. 12 - PMF (DAM WALL FAILURE) - STAGE HYDROGRAPHS

PMF (DAM WALL FAILURE) - LONGITUDINAL SECTION




MOOGERAH DAM - COMPARISON OF SCENARIOS
BED PROFILE
SUNNY DAY MAIN DAM FAILURE
IFF (MAIN DAM CREST)
PMF (NO DAM FAILURE)
PMF (MAIN DAM FAILURE)
CRITICAL HAZARDS LEGEND
BOONAH-FASSIFERN RD (EL 83.41 m AHD)
FASSIFERN TOWNSHIP (EL 95 m AHD)
MILLERS RD (EL 78.88 m AHD)
KALBAR TOWNSHIP (EL 82 m AHD)
KALBAR CONNECTION RD (EL 75.3 m AHD)
SILVERDALE TOWNSHIP (EL 67 m AHD)
HARROLL VIEW TOWNSHIP (EL 65.0 m AHD)
HARROLL VIEW PEAK CROSSING RD (EL 52.56 m AHD)
HARROLDVILLE TOWNSHIP (EL 55.0 m AHD)
ELEVATION (m AHD)
OVERLAND FLOW DISTANCE (km)
160
150
140
130
120
110
100
90
80
70
60
50
40
0
5
10
15
20
25
30





LOCALITY PLAN

ROAD CROSSINGS:

1	PURDON BRIDGE, CHARLWOOD ROAD - REYNOLDS CREEK
2	GATKE ROAD FLOODWAY - REYNOLDS CREEK
3	MOWINCHA ROAD - REYNOLDS CREEK
4	DIGGER'S BRIDGE, BOONAH-FASSIFERN ROAD - REYNOLDS CREEK
5	MULLER ROAD - REYNOLDS CREEK
6	TOO HILLS CROSSING - WARRILL CREEK
7	FRASERVIEW ROAD - WARRILL CREEK
8	CUNNINGHAM HIGHWAY - WARRILL CREEK
9	KALBAR CONNECTION ROAD - WARRILL CREEK
10	KENGOON ROAD - WARRILL CREEK
11	RADFORD ROAD - WARRILL CREEK
12	ROSEVALE-PEAK CROSSING ROAD - WARRILL CREEK
13	MUTDAPILLY-PEAK CROSSING ROAD - WARRILL CREEK
14	CUNNINGHAM HIGHWAY - WARRILL CREEK
15	KENGOON ROAD - KENTS LAGOON
16	RADFORD ROAD - BLACK GULLY
17	ROSEVALE-PEAK CROSSING ROAD - BLACK GULLY
18	ROSEVALE-PEAK CROSSING ROAD - NORMANBY GULLY
19	CHARLES CHAUVEL DR. - WARROOLABA CREEK
20	CUNNINGHAM HIGHWAY - WARROOLABA CREEK
21	CUNNINGHAM HIGHWAY - MOUNT WALKER CREEK

LEGEND:

- MODELLED STREAM ALIGNMENT
- AMTD (km)
- ROAD CROSSING LOCATION

NOTES:

1. AZIMUTH DATUM : MGA94.
2. INFORMATION SOURCED FROM REPORT ON MOOGERAH DAM - DAM BREAK ANALYSIS BY ENGINEERING SERVICES - Dec 2003.

REVISION

DATE		REMARKS	CKD	PSD

REFERENCE DRAWINGS

221244	PHOTO MOSAIC - SUNNY DAY FAILURE - SH 1 OF 3
221241	PHOTO MOSAIC - PMF/DF AND DCFMF - SH 1 OF 3
221240	HYDRAULIC MODEL LAYOUT

SCALES

0 1.25 2.50 3.75 5.0 6.25 KILOMETRES
1:125000

COMPILED FROM 1:100000 TOPOGRAPHIC MAPS 9441-42, 9541-42

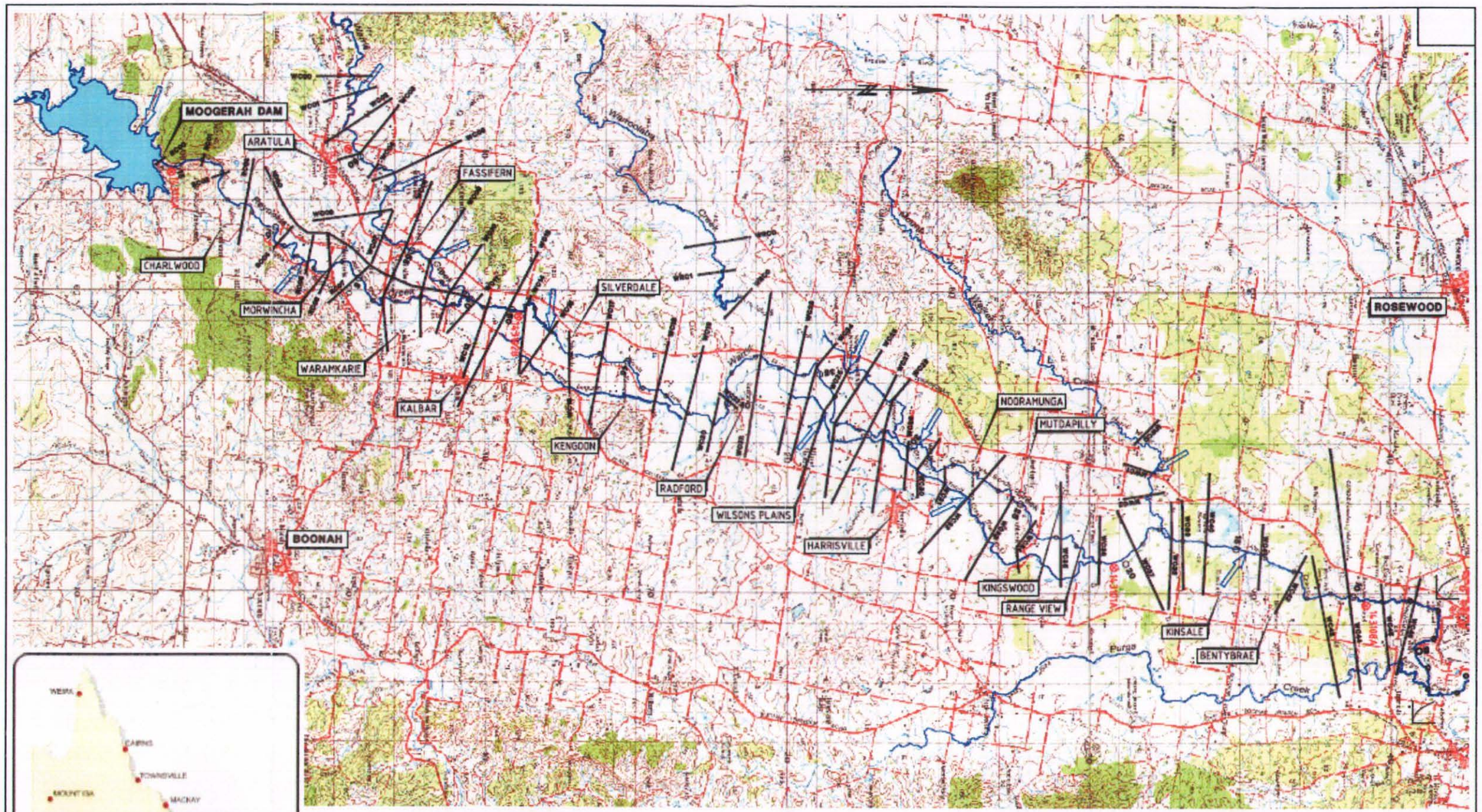
DRAWN JJN	DESIGNED SM
CHECKED	CHECKED
APPROVED R. AYRE, PROJECT MANAGER WATER STUDIES	

SunWater
Level 9, 120 Edward Street
Brisbane Qld 4002
Tel: (07) 3120 0000

MOOGERAH DAM
DAM BREAK ANALYSIS
KEY LOCATIONS

CONTRACT NUMBER
DRAWING NUMBER 221239
DATE DEC 2003

23 Apr 2004 11:51 AM



LOCALITY PLAN

LEGEND:

- MODEL CROSS SECTION
- MODELLED STREAM ALIGNMENT
- AMTD (km)
- STREAMFLOW GAUGE STATION
- INFLOWS
- RATING CURVES

NOTES:

1. AZIMUTH DATUM : MGA94
2. INFORMATION SOURCED FROM REPORT ON MOOGERAH DAM - DAM BREAK ANALYSIS BY ENGINEERING SERVICES - Dec 2003.

REVISION	DATE	REMARKS	CKD	PSD

REFERENCE DRAWINGS	
221244	PHOTO MOSAIC - SUNNY DAY FAILURE - SH 1 OF 3
221241	PHOTO MOSAIC - PMF/DF AND DCF/BF - SH 1 OF 3

SCALES

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1:125000

COMPILED FROM 1:100000 TOPOGRAPHIC MAPS 9441-42, 9541-42

DRAWN	DESIGNED
JJN	SM
CHECKED	CHECKED
APPROVED	
R. AYRE	
PROJECT MANAGER WATER STUDIES	

SunWater
Level 9, 120 Edward Street
Brisbane Qld 4002
Tel: (07) 3120 0000

MOOGERAH DAM
DAM BREAK ANALYSIS
HYDRAULIC MODEL LAYOUT

CONTRACT NUMBER

DRAWING NUMBER
221240

DATE DEC 2003



REVISION					REFERENCE DRAWINGS	
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DATE		REMARKS	GND	PSD	221242	PHOTO MOSAIC - PMF/DF & DCF/NF - SH 2

SCALES

0 500 1000 1500 2000 MILLIMETRES

1:20000 on A1 prints
1:40000 on A3 prints

DRAWN	DESIGNED
JJN	SM
CHECKED	CHECKED
APPROVED	
R. AYRE	
PROJECT MANAGER WATER STUDIES	

SunWater
Level 9, 120 Edward Street
Brisbane Qld 4002
Tel: (07) 3120 0000

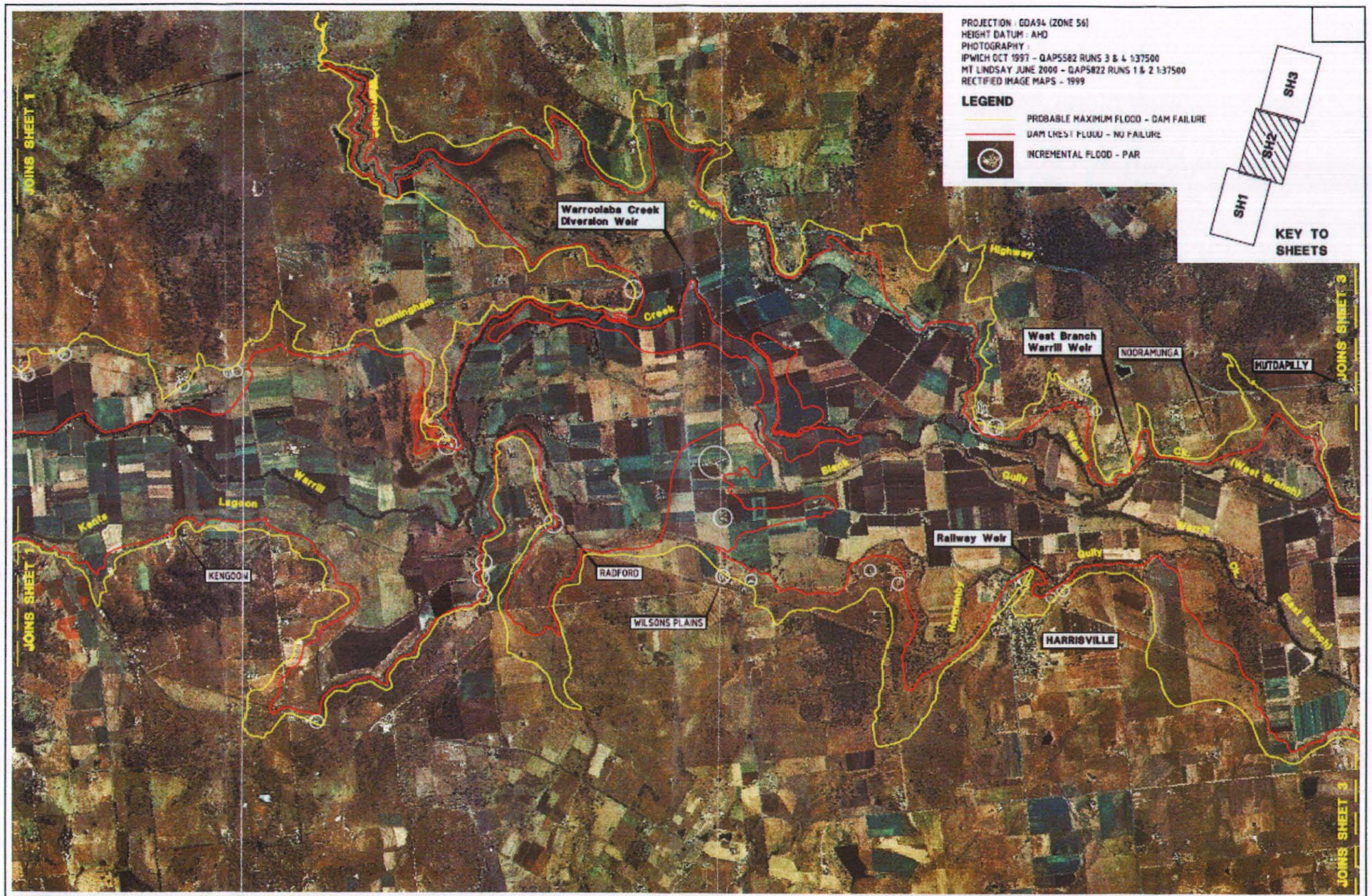
MOOGERAH DAM
DAM BREAK ANALYSIS
INUNDATION PLAN - 2003
PHOTO MOSAIC
PMF - DF AND DCF - NF

SH 1 OF 3

CONTRACT NUMBER

DRAWING NUMBER
221241

DATE DEC 2003



31 Mar 2004 12:12 PM

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DATE		REMARKS	QKD	PSD			
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						221241	PHOTO MOSAIC - PMF-DF & DCF-NF - SH 1

SCALES

0 500 1000 1500 2000 MILLIMETRES

1:20000 on A1 prints
1:40000 on A3 prints

DRAWN	DESIGNED
JJN	SM
CHECKED	CHECKED
APPROVED	
R. AYRE	
PROJECT MANAGER WATER STUDIES	

SunWater
Level 9, 120 Edward Street
Brisbane Qld 4002
Tel: (07) 3120 0000

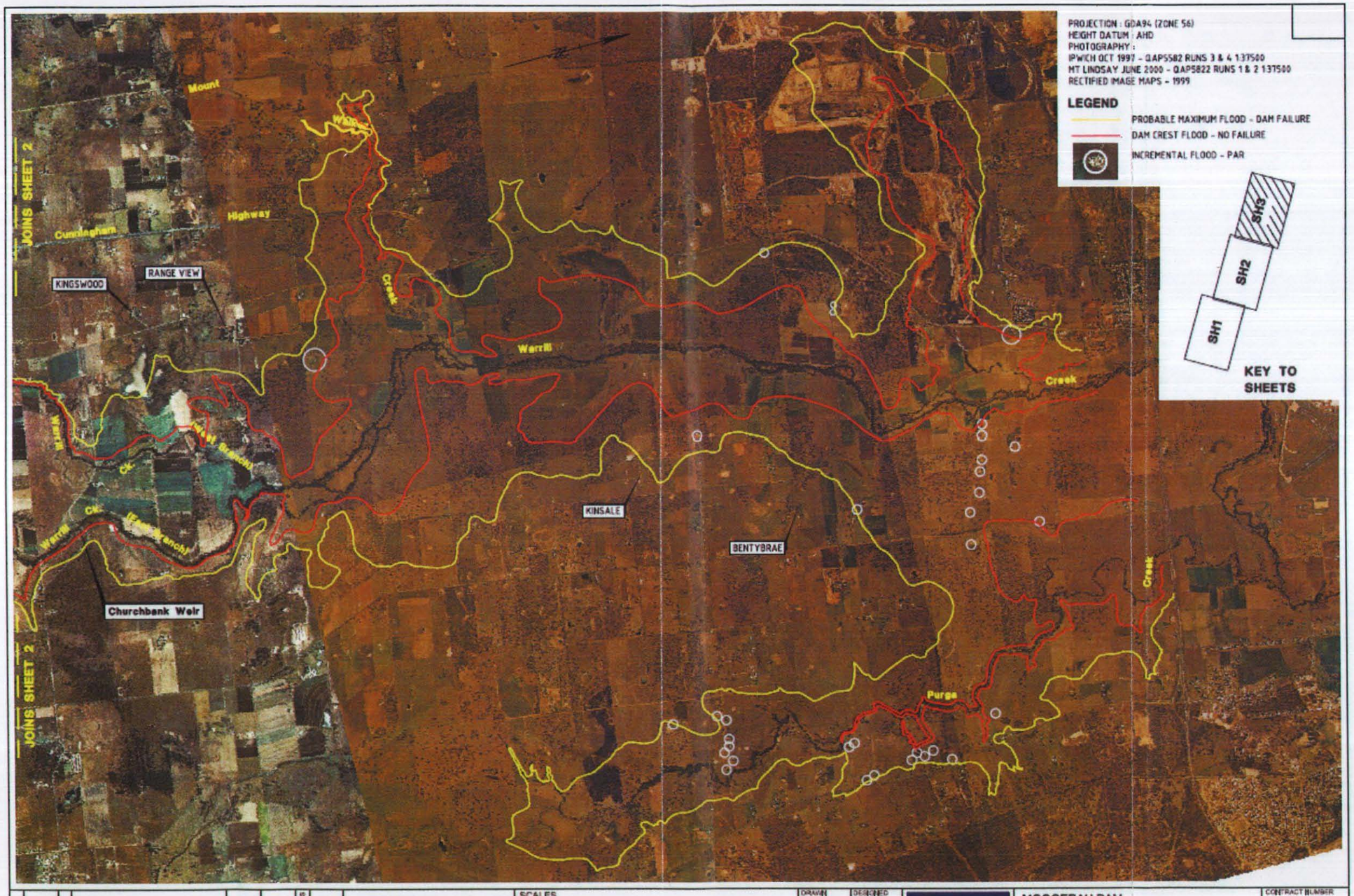
MOOGERAH DAM
DAM BREAK ANALYSIS
INUNDATION PLAN - 2003
PHOTO MOSAIC
PMF - DF AND DCF - NF

SH 2 OF 3

CONTRACT NUMBER

DRAWING NUMBER 221242

DATE DEC 2003



REVISION				
DATE		REMARKS	CHD	PSD

REFERENCE DRAWINGS	
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221241	PHOTO MOSAIC • PMF-DF & DCF-NF • SH 1

SCALES

0 500 1000 1500 2000 MILLIMETRES

1:20000 on A1 prints
1:40000 on A3 prints

DRAWN JTN	DESIGNED SM
CHECKED	CHECKED
APPROVED	R. AYRE
	PROJECT MANAGER WATER STUDIES

SunWater
Level 9, 120 Edward Street
Brisbane Qld 4002
Tel: (07) 3120 6000

MOOGERAH DAM
DAM BREAK ANALYSIS
INUNDATION PLAN - 2003
PHOTO MOSAIC
PMF - DF AND DCF - NF

SH 3 OF 3

CONTRACT NUMBER

DRAWING NUMBER 221243

DATE DEC 2003

PROJECTION : GDA94 (ZONE 56)
HEIGHT DATUM : AHD
PHOTOGRAPHY :
IPWICH OCT 1997 - QAP5582 RUNS 3 & 4 1:37500
MT LINDSAY JUNE 2000 - QAP5822 RUNS 1 & 2 1:37500
RECTIFIED IMAGE MAPS - 1999

LEGEND

SUNNY DAY FAILURE

SUNNY DAY FAILURE - PAR

SH3
SH2
SH1

KEY TO SHEETS

Aratula Weir
Warrill
ARATULA
MOOGERAH DAM
Upper Warrill Diversion Weir
Reynolds
HORWINCHA
FASSIFERN
Cunningham
Warrill Creek Diversion Weir
SILVERDALE
Highway
Creek
CHARLWOOD
Fassifern
Creek
Kents Lagoon Diversion Weir
WARAMKARIE
Road
KALBAR
Kents Lagoon

JOINS SHEET 2

JOINS SHEET 3

05 Mar 2004 9:35 AM

REVISION				
DATE	REMARKS	CKD	PSD	

REFERENCE DRAWINGS	
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221245	PHOTO MOSAIC - SUNNY DAY FAILURE - SH 2

SCALES

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1:20000 on A1 prints
1:40000 on A3 prints

DRAWN JJN	DESIGNED SM
CHECKED	CHECKED
APPROVED R. AYRE, PROJECT MANAGER WATER STUDIES	

SunWater
Level 9, 120 Edward Street
Brisbane Qld 4002
Tel: (07) 3120 0000

MOOGERAH DAM
DAM BREAK ANALYSIS
INUNDATION PLAN - 2003
PHOTO MOSAIC
SUNNY DAY FAILURE

SH 1 OF 3

CONTRACT NUMBER

DRAWING NUMBER 221244

DATE DEC 2003



REVISION					REFERENCE DRAWINGS		SCALES	DRAWN JJN	DESIGNED SM	SunWater	MOOGERAH DAM DAM BREAK ANALYSIS INUNDATION PLAN - 2003 PHOTO MOSAIC SUNNY DAY FAILURE	CONTRACT NUMBER
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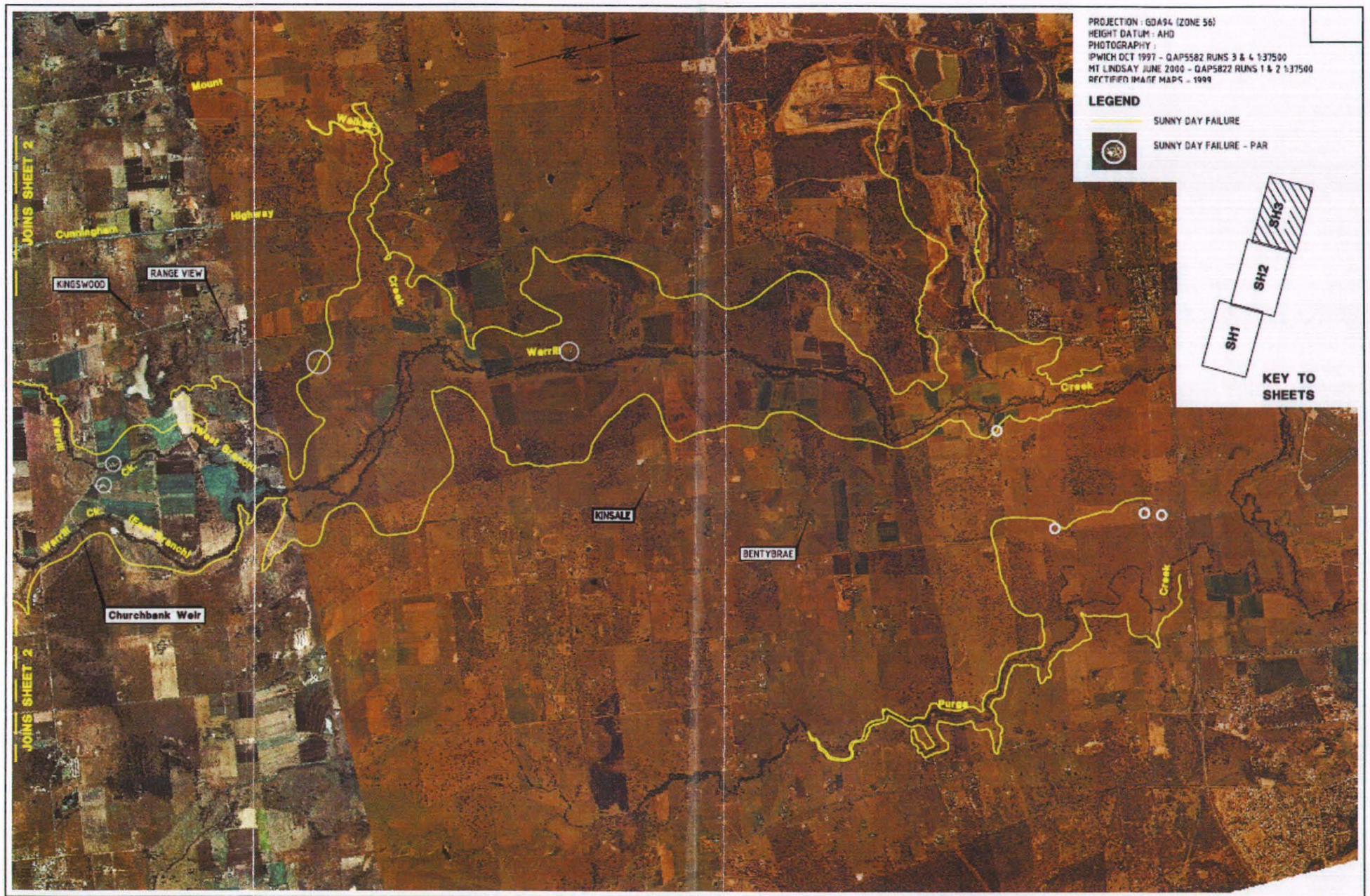
					221246	PHOTO MOSAIC - SUNNY DAY FAILURE - SH 3	1:20000 on A1 prints 1:40000 on A3 prints	APPROVED R. AYRE		Level 9, 120 Edward Street Brisbane Qld 4002 Tel: (07) 3120 0000	SH 2 OF 3	DATE DEC 2003
DATE		REMARKS	CKD	PSD	221244	PHOTO MOSAIC - SUNNY DAY FAILURE - SH 1		PROJECT MANAGER WATER STUDIES				



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DATE		REMARKS	CHD	PSD	221245	PHOTO MOSAIC - SUNNY DAY FAILURE - SH 2	
					221244	PHOTO MOSAIC - SUNNY DAY FAILURE - SH 1	

SCALES

0 500 1000 1500 2000 MILLIMETRES

1:20000 on A1 prints
1:40000 on A3 prints

DRAWN	DESIGNED
JJN	SM
CHECKED	CHECKED

APPROVED
R. AYRE
PROJECT MANAGER
WATER STUDIES

SunWater
Level 9, 120 Edward Street
Brisbane Qld 4002
Tel: (07) 3120 0000

MOOGERAH DAM
DAM BREAK ANALYSIS
INUNDATION PLAN - 2003
PHOTO MOSAIC
SUNNY DAY FAILURE

SH 3 OF 3

CONTRACT NUMBER

DRAWING NUMBER
221246

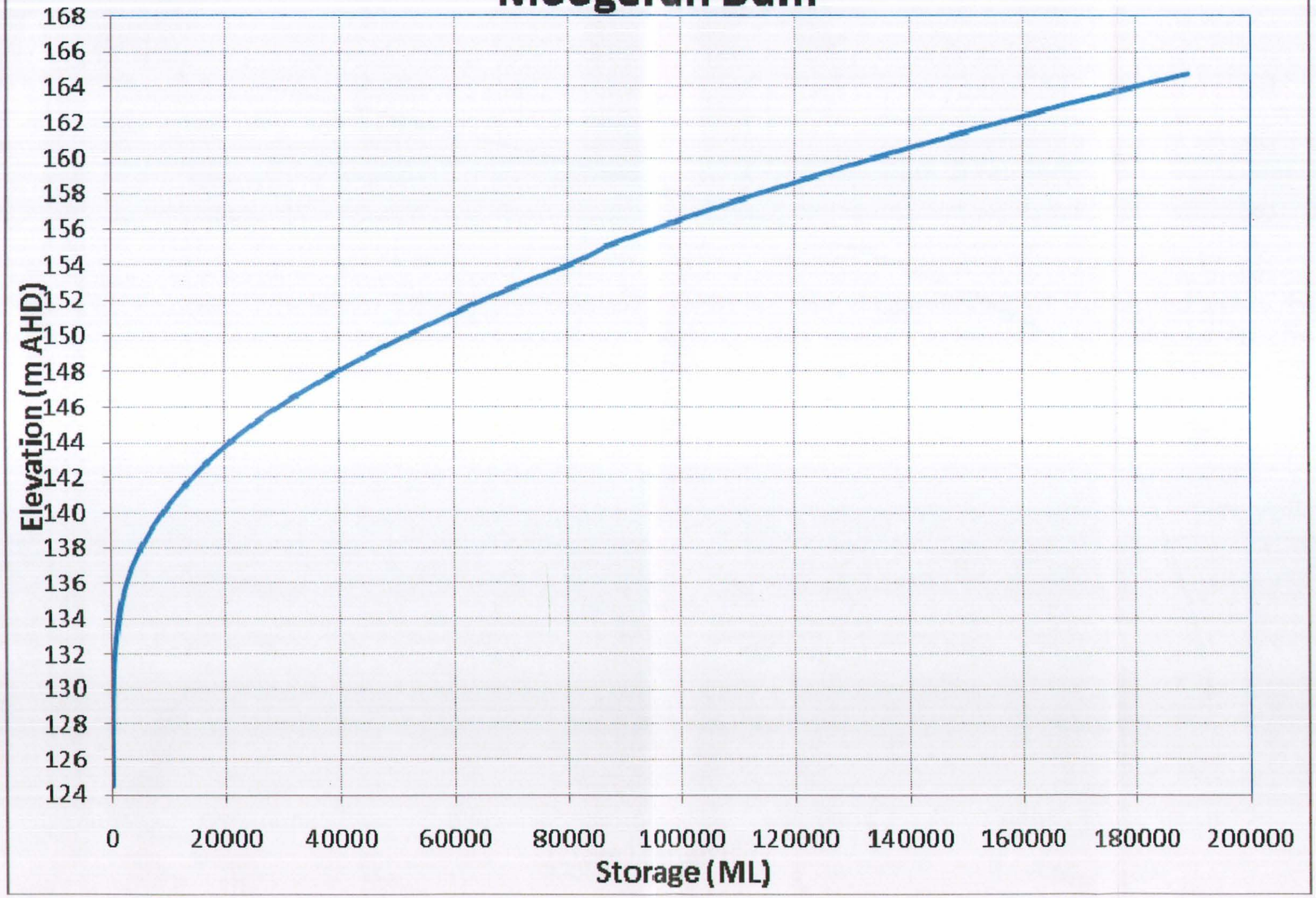
DATE DEC 2003

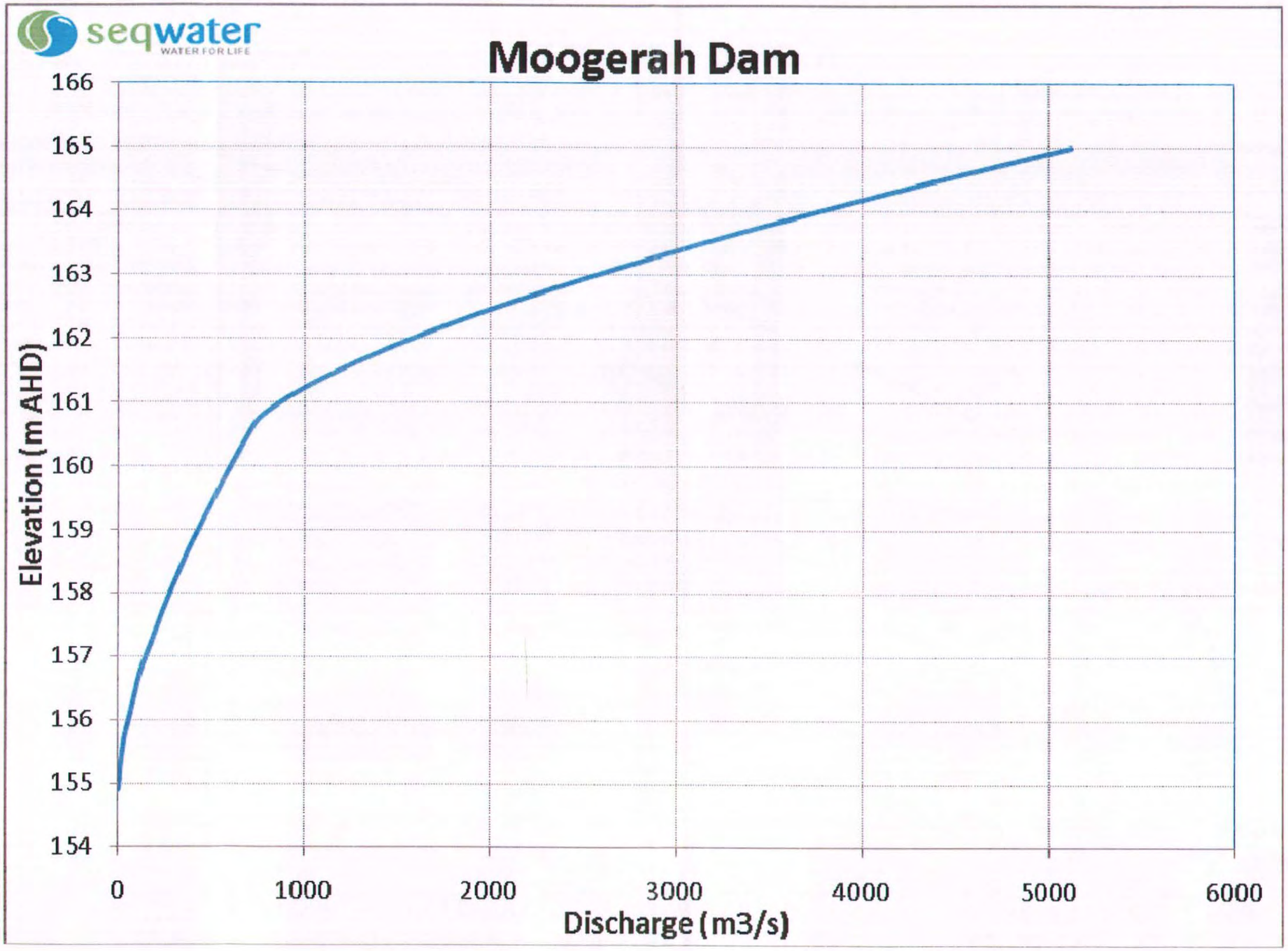
APPENDIX D

DISCHARGE AND STORAGE CURVES

seqwater
WATER FOR LIFE

Moogerah Dam




seqwater
WATER FOR LIFE
Moogerah Dam
Elevation (m AHD)
166
165
164
163
162
161
160
159
158
157
156
155
154
0
1000
2000
3000
4000
5000
6000
Discharge (m3/s)

APPENDIX E

INSPECTION AND REPORTING FORMS

Incident Management – Incident Log

The purpose of the Incident Log is to record all decisions, actions, direction and other pertinent information. It is important for all personnel involved in managing / responding to the incident to record information in the event that it is required as part of a post incident review or some other investigation.

Incident Name:..... **Incident Manager:**.....

Date	Time	Item	Recorded by

seqwater

WATER FOR LIFE

SOMERSET DAM

EMERGENCY ACTION PLAN

FOR USE BY STAFF OF

SEQWATER

AND

EMERGENCY RESPONSE PERSONNEL

DISTRIBUTION, AUTHORISATION AND REVISION STATUS

Distribution

Copy No.	Agency	Position	Location
1	Seqwater	Dam Safety and Source Operations Manager	Brisbane
2	Seqwater	Principal Engineer Dam Safety	Ipswich
3	Seqwater	Storage Supervisor	Somerset Dam
4	Seqwater	Operations Coordinator	Central
5	SunWater	Senior Flood Operations Engineer	Flood Operations Centre, Brisbane
6	NRW	Director Dam Safety	Brisbane
7	Department of Emergency Services	Duty Officer – Disaster Management Service	Brisbane
8	Somerset Regional Council	Local Disaster Response Coordinator	Esk
9	Ipswich City Council	Local Disaster Response Coordinator	Ipswich
10 – 14	Brisbane City Council	Local Disaster Response Coordinator	Brisbane
15	Emergency Management Queensland	Regional Director, Brisbane District	Brisbane

Authorisation

Approved for Issue by:_____ Date _____

Seqwater Principal Engineer
(Dam Safety)

Revision Status

Rev No.	Date	Revision Description
0	October 2008	Original
1	August 2009	Revision 1

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2 AGENCIES AND RESPONSIBILITIES 4

3 DAM TECHNICAL DATA 5

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4 EMERGENCY EVENTS AND ACTIONS 8

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4.2 Increase in Seepage or New Area of Seepage 10

4.3 Earthquake, Explosion, Structural Damage To Dam, Abnormal Instrumentation Readings or Major Electrical or Mechanical Failure 11

4.4 Object Crashes into the Dam or Reservoir 12

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APPENDICES

APPENDIX A – Contact Register

APPENDIX B – Maps and Plans

APPENDIX C – Flood Inundation Maps and Dam Break Analysis

APPENDIX D – Storage: Discharge Characteristics

APPENDIX E – Inspection and Reporting Forms

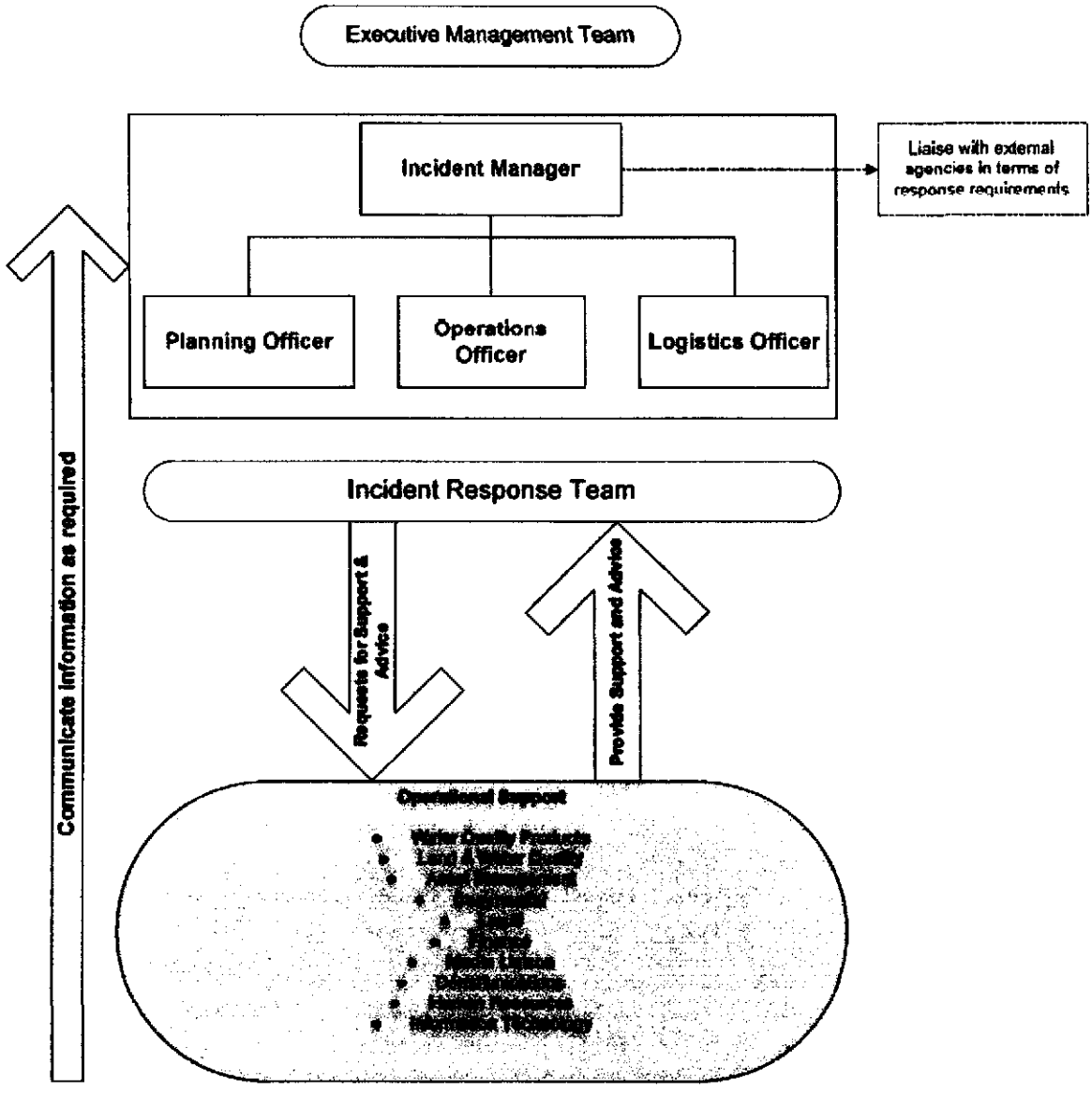
ABREVIATIONS

AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AMTD	Adopted Middle Thread Distance
BoM	Bureau of Meteorology
DCF	Dam Crest Flood
EAP	Emergency Action Plan
FSL	Full Supply Level
FOC	Flood Operations Centre, SunWater
GS	Gauging Station
IERP	Incident and Emergency Response Plan
ML	Megalitre
NRW	Department of Natural Resources and Water
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
PMPDF	Probable Maximum Precipitation Design Flood

1 INTRODUCTION

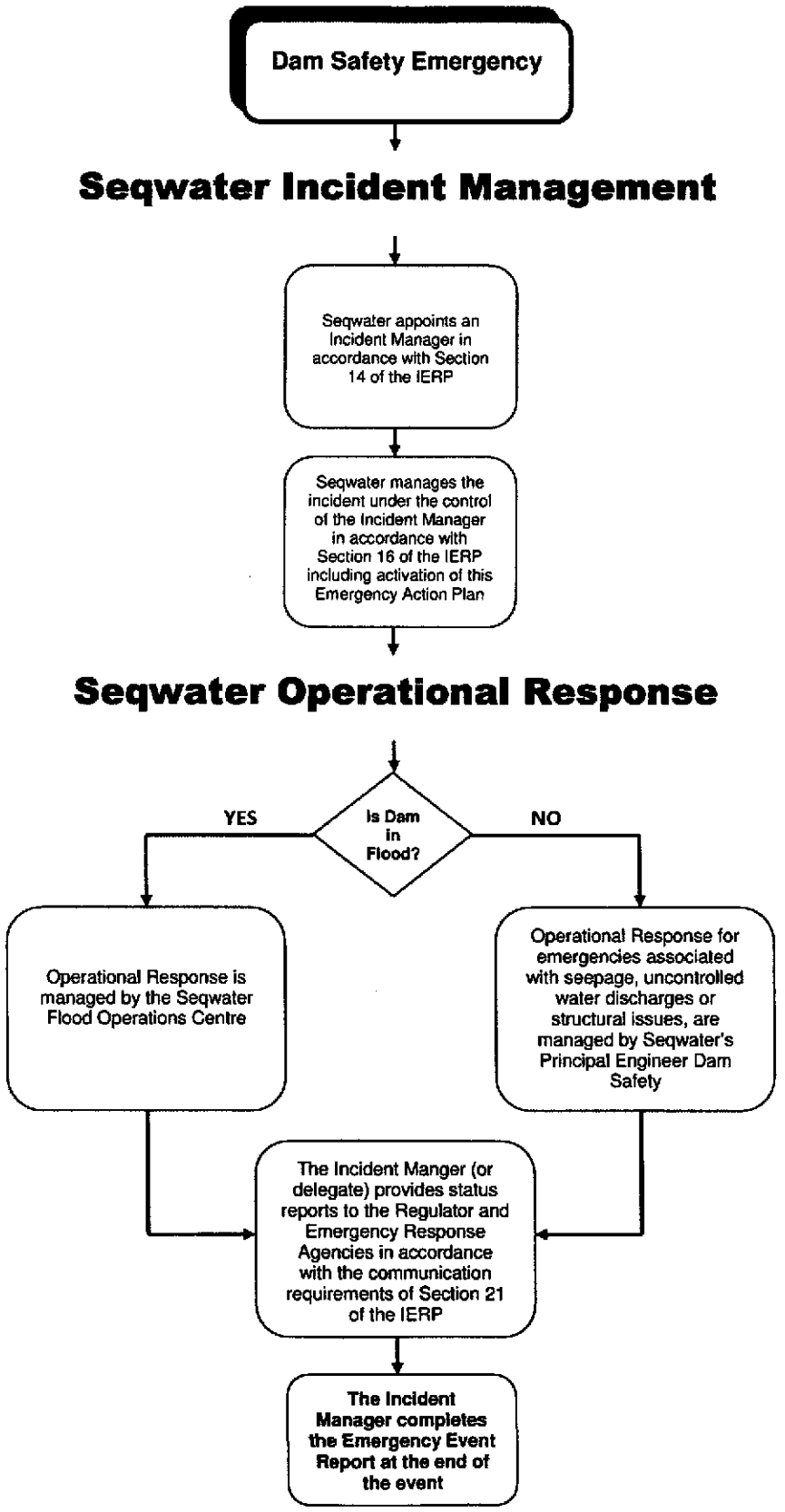
The Seqwater Incident and Emergency Response structure is a flexible team based structure that parallels the normal management regime. The team based structure is detailed in the diagram below.

Seqwater Incident and Emergency Response



This Emergency Action Plan (EAP) sits under the above structure and identifies emergency conditions that could endanger the integrity of the dam and prescribes procedures which should be followed by Seqwater staff in the event of such an emergency. A primary focus of these actions is to provide timely warning to appropriate emergency response and management agencies, to

allow these agencies to implement protection measures for downstream communities. The flowchart below summarises the actions that occur in an emergency situation.



Under the Seqwater Grid Emergency Response Plan, five incident levels have been implemented. These levels have been established to deal with varying degrees of incident severity and range from Level 1 where there are no significant impacts on other water grid participants and the incident can be managed using standard operating procedures and communication protocols, to Level 5 where state or federal government intervention would be expected. Definitions and general principals relating to these levels are detailed in Section 21 of the IERP.

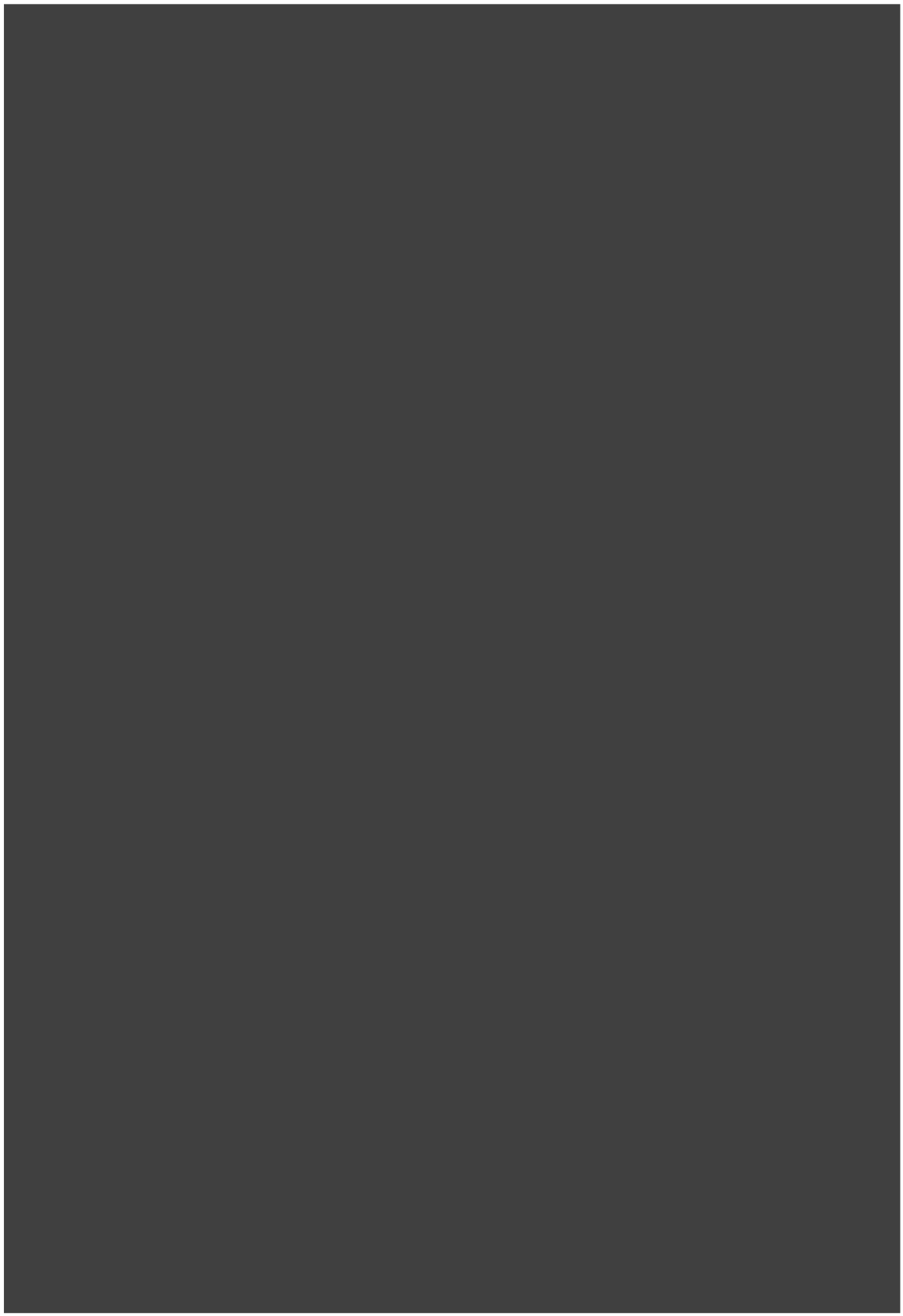
2 AGENCIES AND RESPONSIBILITIES

The following table shows the agencies and personnel who have responsibilities under this Emergency Action Plan.

AGENCIES AND PERSONNEL	RESPONSIBILITIES
Seqwater	• Undertake emergency response at the dam. • Determine the area of potential impact from the Dam Safety Emergency. • Provide the relevant Disaster Response Agencies with timely notification of impending and actual emergencies, including details of the emergency and estimates of potential impacts downstream of the dam.
Seqwater Flood Operations Centre	• Coordinate dam safety emergency actions for Seqwater during a flood event.
Principal Engineer Dam Safety (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for dam safety emergencies involving actual or potential structural failures.
Land and Water Quality Manager (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for water quality emergencies.
Director Dam Safety (NRW)	• Provide regulatory input during a dam safety emergency.
Regional or City Council	• Exercise primary responsibility for disaster response and management within its boundaries, in accordance with the Queensland Disaster Management Act 2003. • Deploy all appropriate resources to contribute to response and recovery during the dam safety emergency, until its resources are fully committed. • Mobilise disaster response assistance from other relevant Disaster Response Agencies, as appropriate during the emergency.

A list of agencies and personnel who may need to be contacted in the event of an emergency is included in Appendix A of this document. Once notification is made to a person within an agency on the list, it is the person's responsibility to notify other relevant persons within the agency. Generally attempts to contact an agency should be in the priority order outlined in the list. However discretion should be exercised if the gravity of the situation warrants.

3 DAM TECHNICAL DATA





3.1 CRITICAL FLOOD LEVELS

The dam is overtopped for the PMF event, but is likely to withstand being overtopped.

Dam Critical Stability Levels

Description	Level (m AHD)
Full Supply level	EL 99.00 m
Spillway Crest Level	EL 100.45 m
Dam Crest Level	EL 107.46 m
Bridge Deck Level	EL 112.34 m

The spillway rating curves were used to route the inflow floods through the reservoir for various flood exceedence probabilities as shown below:

Dam Flood Routing Results

Event (AEP)	Peak Inflow (m^3/s)	Peak Outflow (m^3/s)	Peak Water Level (m)
1 in 100	3500	1700	103.5
1 in 1000	4500	2600	104.5
1 in 10000	6800	4700	107.5
1 in 100000	9200	6300	109.3
PMF	16000	9600	112.0

4 EMERGENCY EVENTS AND ACTIONS

The following events define the triggers for initiation of the Emergency Action Plan. For flood events, formal reports to the Dam Safety Regulator are prepared in accordance with the Somerset Dam Manual of Flood Operations. Formal reports are provided for all trigger events outside flood events.

- Reservoir Level is approaching 99.0m and further rain is forecast (major flood possible)
- Increase in Seepage or New Area of Seepage
- Earthquake, Explosion, Structural Damage to Dam, Abnormal Instrumentation Readings or Major Electrical or Mechanical Failure
- Object Crashes into the Dam or Reservoir

Potential Damage or Indicators of Damage relevant to these triggers are shown in Section 4.5.

4.1 RESERVOIR LEVEL IS APPROACHING 99.0M AND FURTHER RAIN IS FORECAST

STORAGE SUPERVISOR	FLOOD OPERATIONS CENTRE
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify Flood Operations Centre of dam status and rainfall. ◗ If the Flood Operations Centre cannot be contacted, notify the Principal Engineer, Dam Safety or the Dam Safety and Source Operations Manager.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Obtain and confirm forecast from BOM. ◗ Despatch appropriate staff to site if necessary. ◗ Advise the Dam Supervisor of dam monitoring actions.
◗ Monitor rainfall, lake levels and rates of rise of lake level. ◗ Record instrumentation readings as per Dam Standing Operating Procedures. ◗ Report damage and unusual observations to the Flood Operations Centre.	◗ Direct the overall operation of the dam in accordance with the Manual of Operational Procedures for Flood Releases from Somerset Dam.
◗ Monitor the situation as directed by the Flood Operations Centre. If communication with Flood Operations is lost, continue monitoring and attempt to restore communications.	◗ Inform the persons of the event and the status of the dam in accordance with the Manual of Operational Procedures for Flood Releases from Somerset Dam.
◗ Undertake actions as directed by the Flood Operations Centre. ◗ If communications with the Flood Operations Centre Fail operate the dam in accordance with the Somerset Dam Flood Manual and attempt to restore communications.	◗ Direct visual gate observations at intervals generally not exceeding 30 minutes. ◗ Direct regular instrumentations readings and inspections.
◗ If lake level is < 99.0m, advise Flood Operations Centre.	◗ If lake level is < 99.0m and no more rain is forecast, advise Dam Supervisor to close incident.
◗ Complete Incident Log and Report.	◗ Complete Incident Log and Report.

4.2 INCREASE IN SEEPAGE OR NEW AREA OF SEEPAGE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Monitor the situation by measuring the rate of seepage flow and observe the clarity of the seepage flow, keeping notes and photographs for the Incident Log. ◗ Provided it is safe to do so, undertake inspections and instrumentation readings as directed by the Principal Engineer, Dam Safety.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.3 EARTHQUAKE, EXPLOSION, STRUCTURAL DAMAGE TO DAM, ABNORMAL INSTRUMENTATION READINGS OR MAJOR ELECTRICAL OR MECHANICAL FAILURE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Provided it is safe to do so, perform a Dam Safety Inspection including instrumentation and seepage measurements. ◗ Report damage and unusual observations to the Principal Engineer, Dam Safety.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.4 OBJECT CRASHES INTO THE DAM OR RESERVOIR

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ On confirmation of the event, advise the Police or Ambulance if necessary by phoning 000. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Provided it is safe to do so, perform a Dam Safety Inspection, paying particular attention to the area where the object has crashed, including instrumentation and seepage measurements. ◗ Report damage and unusual observations to the Principal Engineer, Dam Safety for fuel or other substances. ◗ Monitor the situation, keeping notes and photographs for the Incident Log and the routine dam safety inspections.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.5 POTENTIAL DAMAGE OR INDICATORS OF DAMAGE

Problem	General Characteristic	When and What to Check
Overtopping Imminent	Storage full and water level rising.	During periods of excessive rainfall – check reservoir levels.
Rapid increases or cloudy appearance of seepage	Seepage flow through storage embankment is cloudy and increasing (piping failure has started).	After detection of cloudy water look for source in embankment.
Seepage erosion or piping	Progressive internal erosion of the embankment or saddle dam or foundation to form an open conduit or pipe (piping failure).	During routine inspections or after unaccountable increases in seepage flows, look for an emission point.
Foundation Failure	Sliding, rotation, or settlement of part of or entire dam.	During routine inspection or immediately after earthquakes – inspect for evidence of foundation movement or displacement immediately adjacent to the dam.
Slide in downstream slope	Slide in the downstream face.	During routine inspection or following heavy periods of rainfall – look for cracks or scarps near the crest and bulges at the toe.
Flow slide	Collapse and flow of soil around the storage periphery.	During routine inspections, after heavy or long periods of rainfall. Especially in sedimentary or colluvial soils – look for material displacement around the storage rim.
New springs, seeps or boggy areas	Evidence of internal changes in seepage control (could be initial signs of piping failure).	During routine inspection, look for 'evergreen' spots, boggy ground or pools of water.
Gullying	No rock protection or vegetation cover on embankment batters or poor drainage.	During and after large rainfalls – inspect embankment and saddle dam batters for damage to rock protection or vegetation cover.
Increase in gallery seepage	Increase in the normal rate of gallery seepage.	After detection – check for differential movement or cracking in concrete components of spillway and retaining walls.
Landslide	Mass movement of soil or rock from slopes and valley walls around the storage.	During routine inspections or following earthquakes – look for material displacement.
Damage to structural concrete	Movement or cracking of structural concrete.	During routine inspections or when mechanical problems such as burst pipe occur – look for any movement or

Problem	General Characteristic	When and What to Check
		cracking of structural concrete.
Failure of appurtenant structures or operating equipment	Loss of ability to supply water or discharge floods safely.	After detecting an operational anomaly – identify and investigation cause.
Loss of storage contents	Excessive loss from the storage and / or occasionally increased seepage or increased groundwater levels near the storage.	During routine monitoring – look for environmental changes such as vegetation damage, salt scalds, etc
Toe erosion	Erosion of embankment toe by spillway discharge or diversion flows.	During and after large rainfalls – inspect embankment toe.
Wave erosion	Beaching or notching of the upstream face of the embankment by waves generated over long periods of strong wind.	During or after periods of strong wind – inspect upstream face of embankment and saddle dam.

APPENDIX A

CONTACT REGISTER

REGISTER – CONTACT LIST FOR EMERGENCIES & FLOOD INFORMATION – SOMERSET DAM

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Seqwater	Principal Engineer Dam Safety	1	1	John TIBALDI					Seqwater/FCC
	Dam Safety and Source Operations Manager	2	2	Robert DRURY					
	Flood Operations Engineer	3	3	Terry MALONE					
	Operations Coordinator Central	4	4	Jayam TENNAKOON					
	Executive General Manager, Operations	5	5	Phil ALDRIDGE					
	Land and Water Quality Manager	1	1	Peter SCHNEIDER					
	Chief Executive Officer	3	3	Peter BORROWS					
	Chairman	4	4	Annabelle CHAPLIN					
	Storage Supervisor	1	1	Anthony DAGAN					
	Standby Officer	2	2						
Department of Natural Resources & Water	Director, Dam Safety	1	1	Peter ALLEN					Seqwater/FCC
	Director, Water Industry Asset Management & Standards	2	2	Peter ARTEMIEFF					
	Dam Safety Engineer	3	3	Ron GUPPY					
Flood Operations Centre (operated by Sunwater)	Principal Engineer Dam Safety	1	1	John TIBALDI					Seqwater/FCC
	Flood Operations Engineer	2	2	Terry MALONE					
	Senior Flood Operations Engineer	3	3	Rob AYRE					
	Senior Flood Operations Engineer	4	4	John RUFFINI*					
	Flood Control Room (Operational)	5	5	General Phones					

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Department of Emergency Services Disaster Operations	Duty Officer* (24 Hours)	1	1	Rostered					Seqwater/FCC
Somerset Regional Council	Local Disaster Response Coordinator	1	1	Tony JACOBS					Seqwater/FCC
	Local Disaster Response Coordinator	2	2	Andy BICKERTON (SES Controller)					
	Local Disaster Response Coordinator	3	3	Robert BAIN (CEO)					
Ipswich City Council	Local Disaster Response Coordinator	1	1	Andrew UNDERWOOD (Strategic Infrastructure Manager)					Seqwater/FCC
	Local Disaster Response Coordinator	1	1	Tony TRACE					
	Local Disaster Response Coordinator	2	2	Ross DRABBLE (Chief Operations Officer)					
	Local Disaster Response Coordinator	3	3	Arie Van Den ENDE (SES Controller)					
Brisbane City Council	Local Disaster Response Coordinator	1	1	Duty Officer					Seqwater/FCC
	Flood Information Centre	2	2	Duty Officer					
Emergency Management Queensland	Regional Director, Brisbane District	1	1	Jason CAMERON					Seqwater/FCC
Police									Seqwater/FCC
Bureau of Meteorology	Engineer in charge Flood Warning*	1	1						Seqwater/FCC
	Meteorologist in Charge (24 hours)	2	2						
Ambulance									Seqwater/FCC
Notes:	1. Contact with an agency is to be made via position with highest priority. That person contacted is then responsible to forward notification to other relevant persons with the agency.								
	2. Agencies to provide notification of updated contact details to John Tibaldi of Seqwater.								

APPENDIX B

MAPS AND PLANS

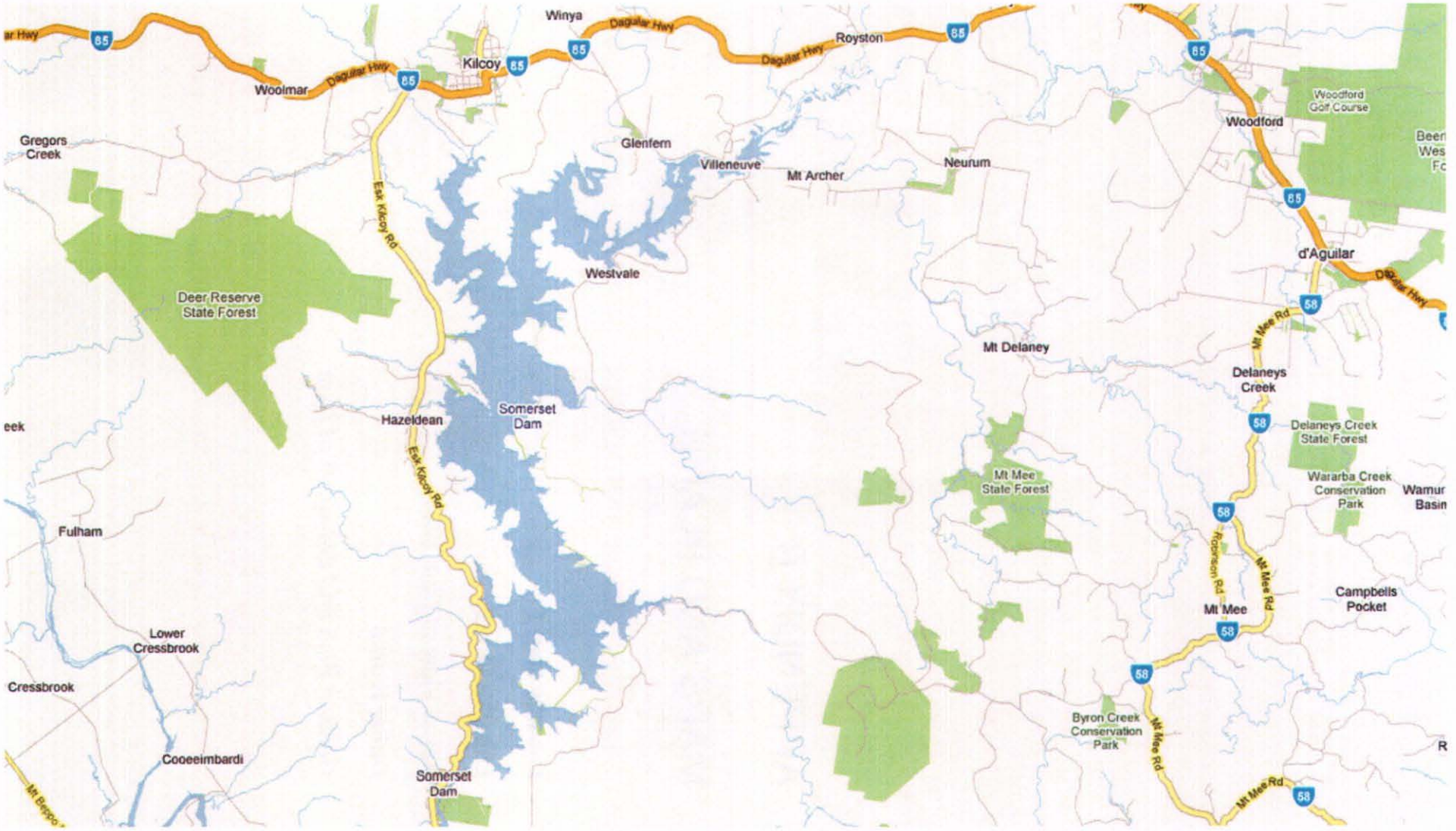
Locality Map 1

Locality Map 2

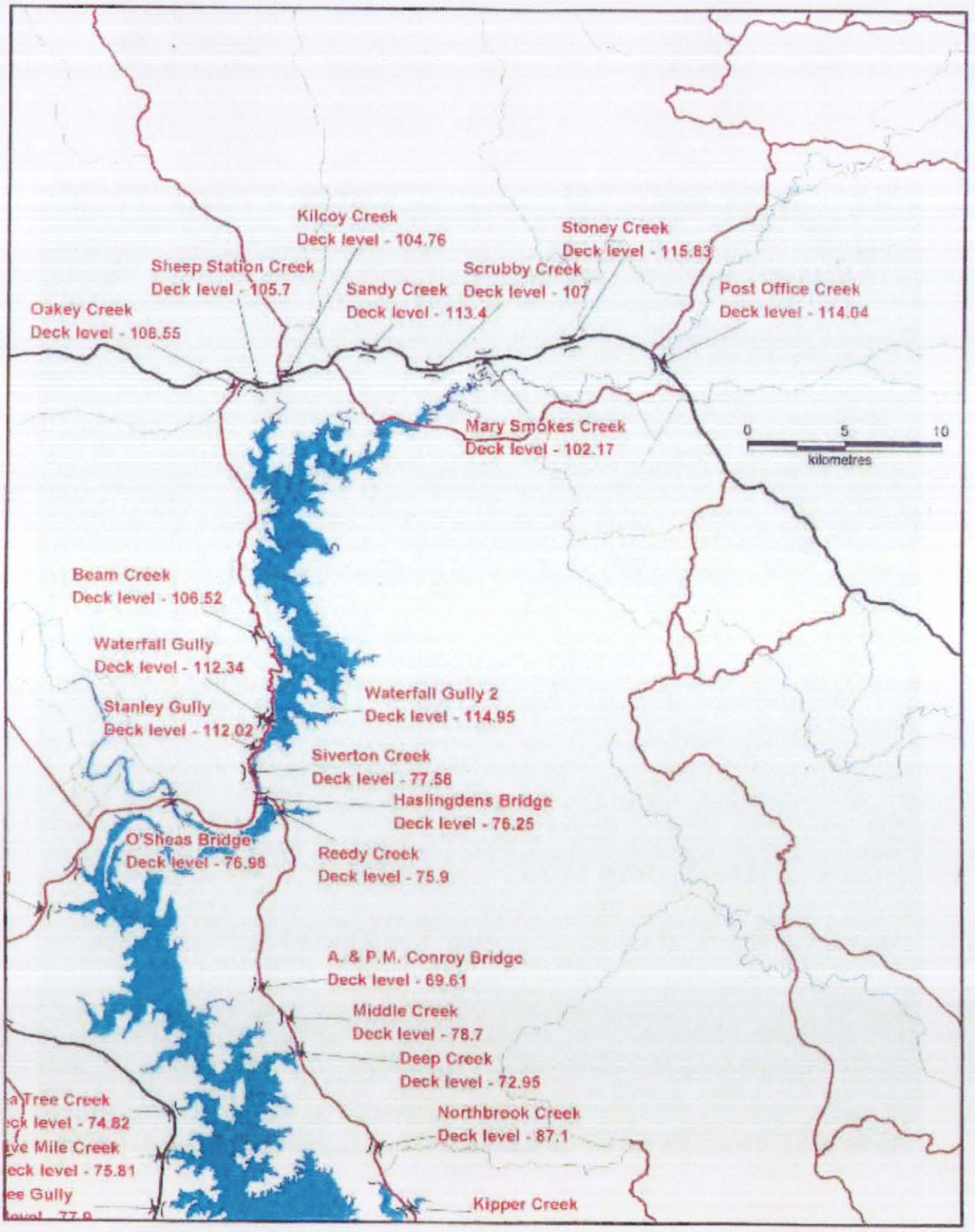
Aerial View of Dam Wall

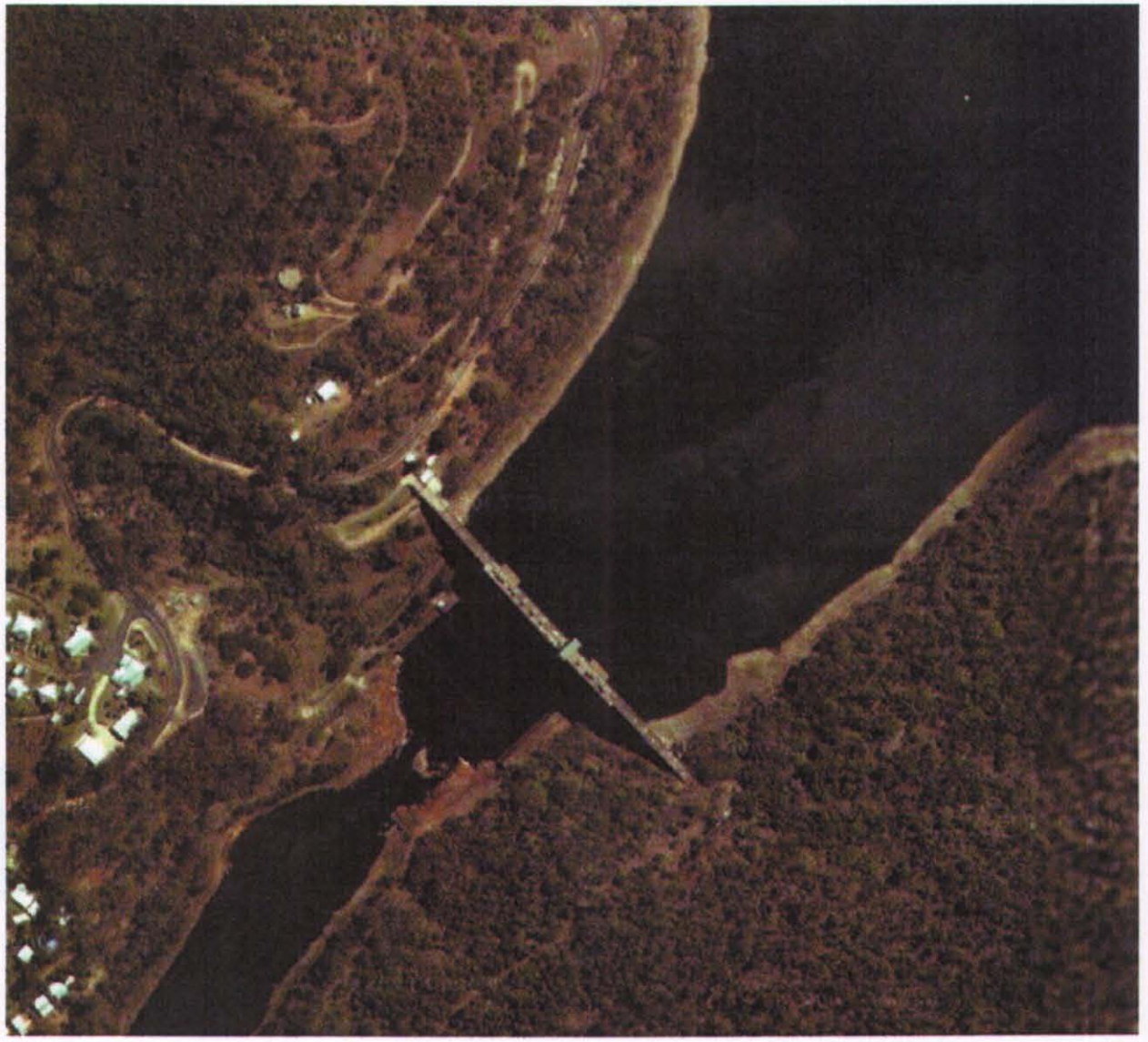
Outlet Works

General Plan and Elevation of Dam



(Reference: http://maps.google.com.au/maps)


Kilcoy Creek
Deck level - 104.76
Stoney Creek
Deck level - 115.83
Sheep Station Creek
Deck level - 105.7
Scrubby Creek
Deck level - 107
Sandy Creek
Deck level - 113.4
Post Office Creek
Deck level - 114.04
Oakey Creek
Deck level - 108.55
Mary Smokes Creek
Deck level - 102.17
0
5
10
kilometres
Beam Creek
Deck level - 106.52
Waterfall Gully
Deck level - 112.34
Waterfall Gully 2
Deck level - 114.95
Stanley Gully
Deck level - 112.02
Siverton Creek
Deck level - 77.56
Haslingdens Bridge
Deck level - 76.25
O'Sheas Bridge
Deck level - 76.96
Reedy Creek
Deck level - 75.9
A. & P.M. Conroy Bridge
Deck level - 69.61
Middle Creek
Deck level - 78.7
Deep Creek
Deck level - 72.95
Northbrook Creek
Deck level - 87.1
Kipper Creek



(Reference: http://maps.google.com.au/maps)

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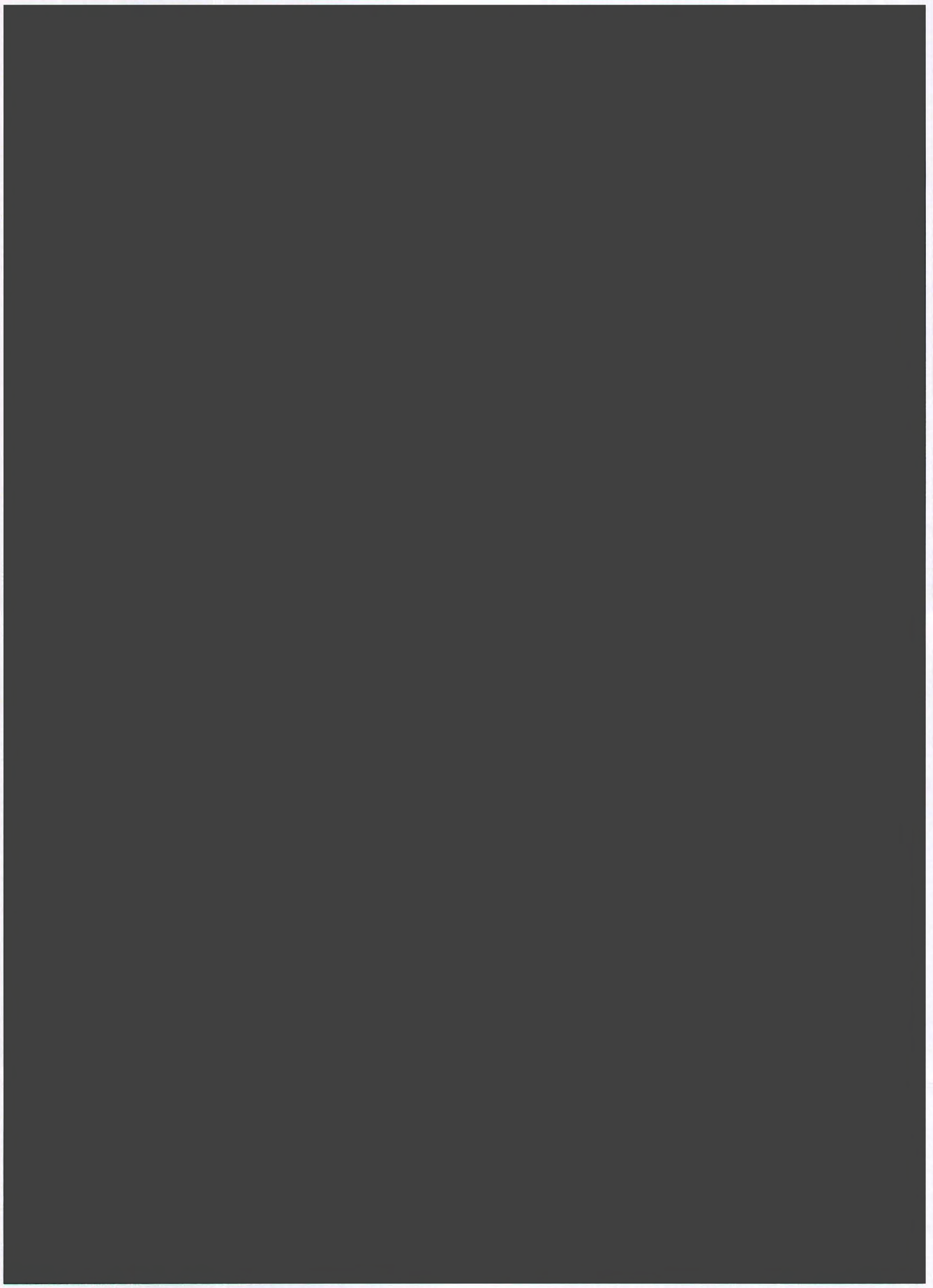




APPENDIX C

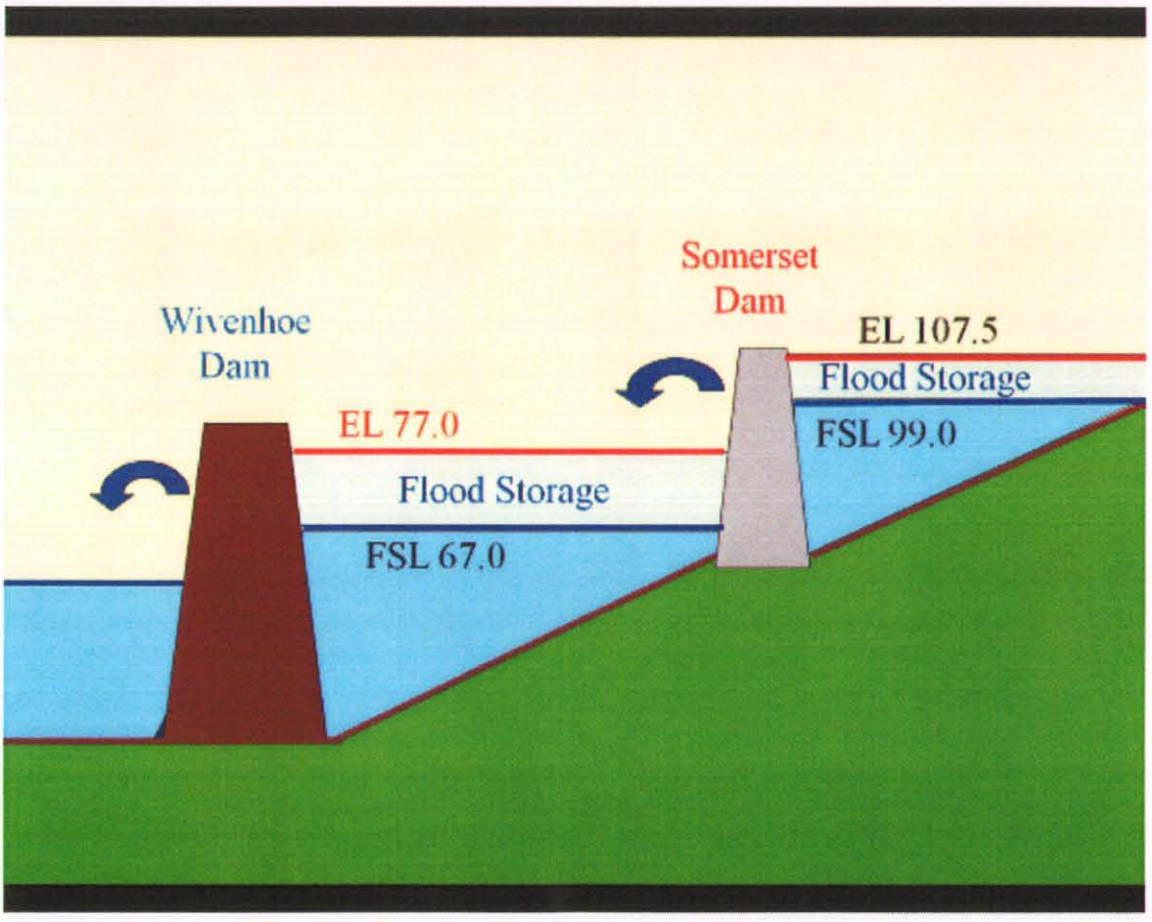
FLOOD INUNDATION MAPS AND DAM BREAK ANALYSIS

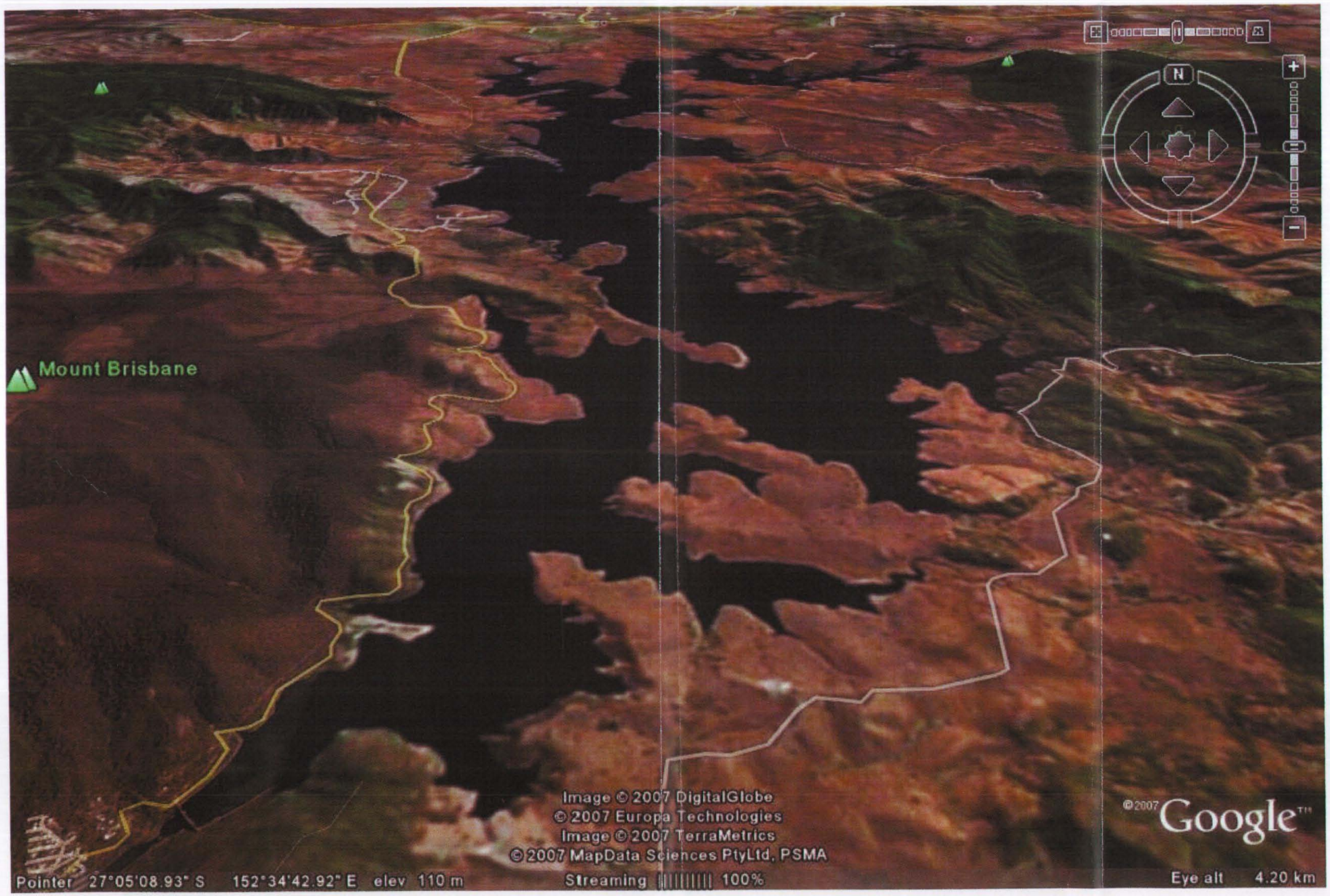
EMERGENCY EVACUATION

Where possible, emergency evacuation should always be carried out to the upper limit of flood levels shown on the inundation maps, due to the uncertainties associated with the flood development time and likely areas of inundation.

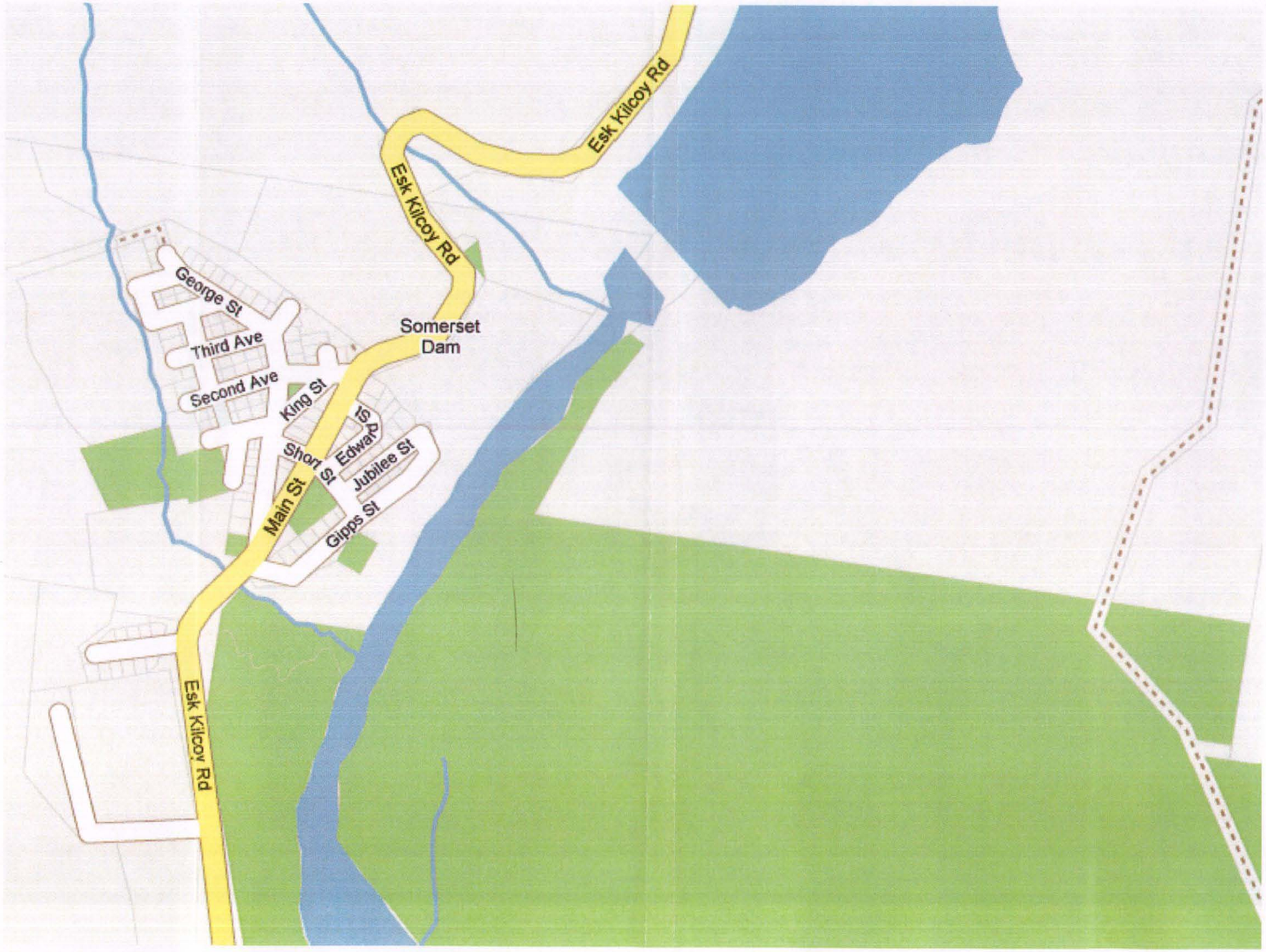
When Wivenhoe Dam is at its Full Supply Level of 67.0, the water in Wivenhoe backs up to the base of the Somerset Dam Wall. Accordingly, water flowing from a dam failure of Somerset Dam, will flow directly into Wivenhoe Dam. However houses within the lower areas of the Somerset Dam Township as well as campers in Somerset Dam Township camping area may be at risk in the event of a dam failure at Somerset Dam.

The impact of a failure of Somerset Dam on the Wivenhoe Dam embankment must also be considered when assessing the impact of a dam failure at Somerset Dam.




Mount Brisbane
N
Image © 2007 DigitalGlobe
© 2007 Europa Technologies
Image © 2007 TerraMetrics
© 2007 MapData Sciences PtyLtd, PSMA
©2007 Google™
Pointer 27°05'08.93" S 152°34'42.92" E elev 110 m
Streaming 100%
Eye alt 4.20 km

Somerset Dam Township



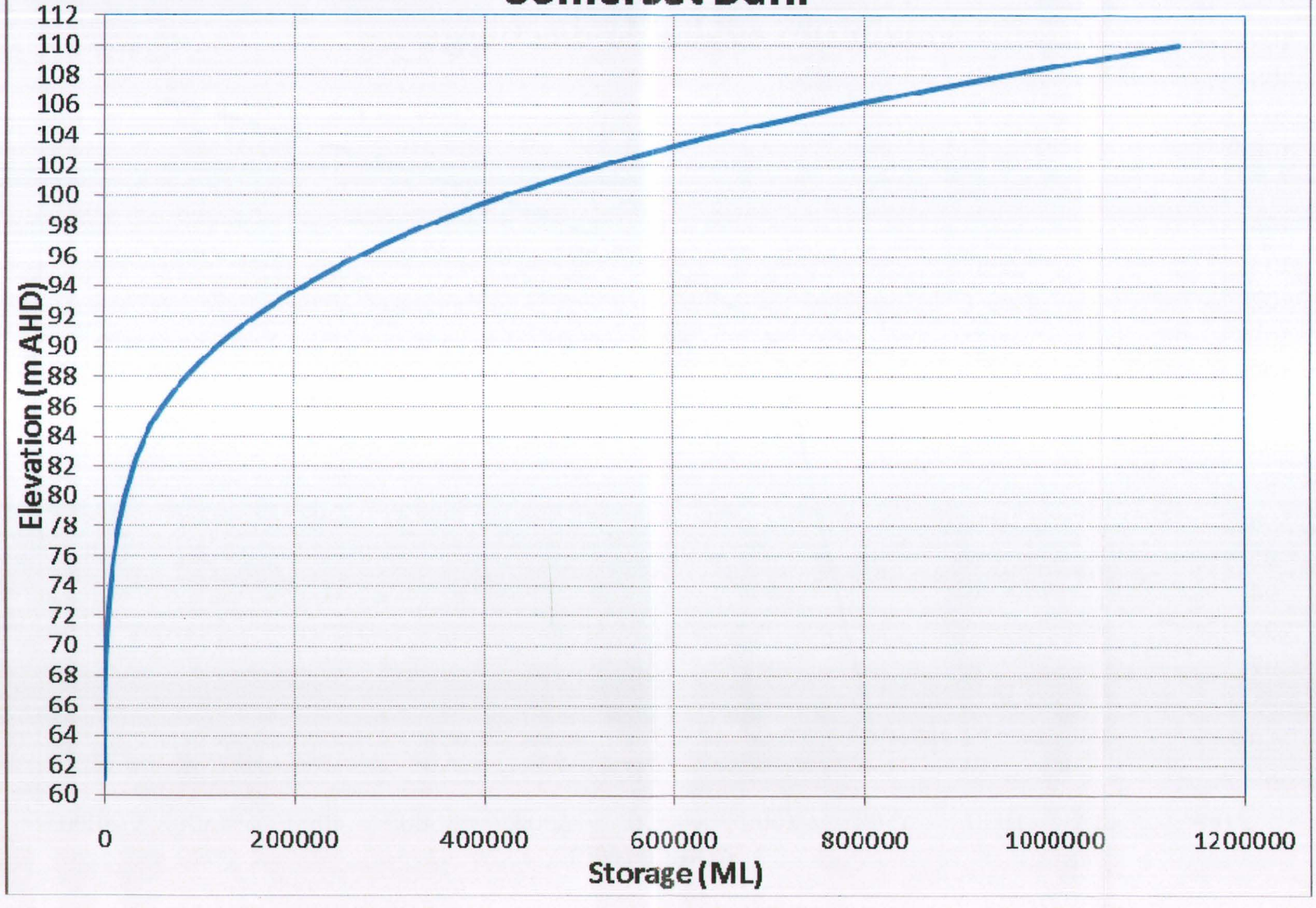
(Reference: http://maps.google.com.au/maps)

APPENDIX D

DISCHARGE AND STORAGE CURVES

seqwater
WATER FOR LIFE

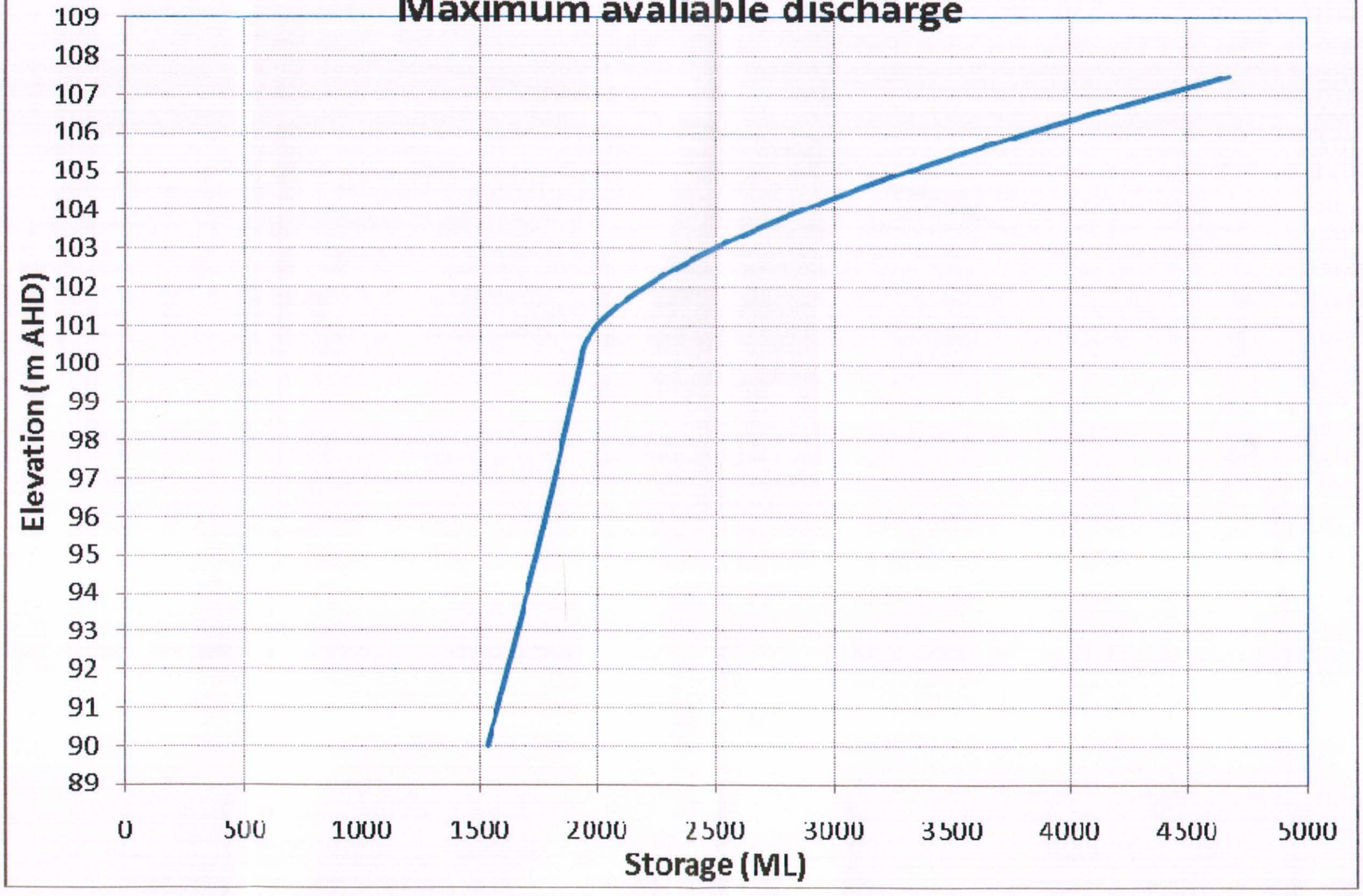
Somerset Dam



seqwater
WATER FOR LIFE

Somerset Dam

Maximum avaliable discharge



APPENDIX E

INSPECTION AND REPORTING FORMS

Incident Management –
Incident Log

The purpose of the Incident Log is to record all decisions, actions, direction and other pertinent information. It is important for all personnel involved in managing / responding to the incident to record information in the event that it is required as part of a post incident review or some other investigation.

Incident Name: ..... **Incident Manager:** .....

Date	Time	Item	Recorded by

seqwater

WATER FOR LIFE

WIVENHOE DAM

EMERGENCY ACTION PLAN

FOR USE BY STAFF OF

SEQWATER

AND

EMERGENCY RESPONSE PERSONNEL

DISTRIBUTION, AUTHORISATION AND REVISION STATUS

Distribution

Copy No.	Agency	Position	Location
1	Seqwater	Dam Safety and Source Operations Manager	Brisbane
2	Seqwater	Principal Engineer Dam Safety	Ipswich
3	Seqwater	Storage Supervisor	Wivenhoe Dam
4	Seqwater	Operations Coordinator	Central
5	SunWater	Senior Flood Operations Engineer	Flood Operations Centre, Brisbane
6	NRW	Director Dam Safety	Brisbane
7	Department of Emergency Services	Duty Officer – Disaster Management Service	Brisbane
8	Somerset Regional Council	Local Disaster Response Coordinator	Esk
9	Ipswich City Council	Local Disaster Response Coordinator	Ipswich
10 – 14	Brisbane City Council	Local Disaster Response Coordinator	Brisbane
15	Emergency Management Queensland	Regional Director, Brisbane District	Brisbane

Authorisation

Approved for Issue by:_____ Date _____

Seqwater Principal Engineer
(Dam Safety)

Revision Status

Rev No.	Date	Revision Description
0	October 2008	Original
1	August 2009	Revision 1

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APPENDIX B – Maps and Plans

APPENDIX C – Flood Inundation Maps and Dam Break Analysis

APPENDIX D – Storage: Discharge Characteristics

APPENDIX E – Inspection and Reporting Forms

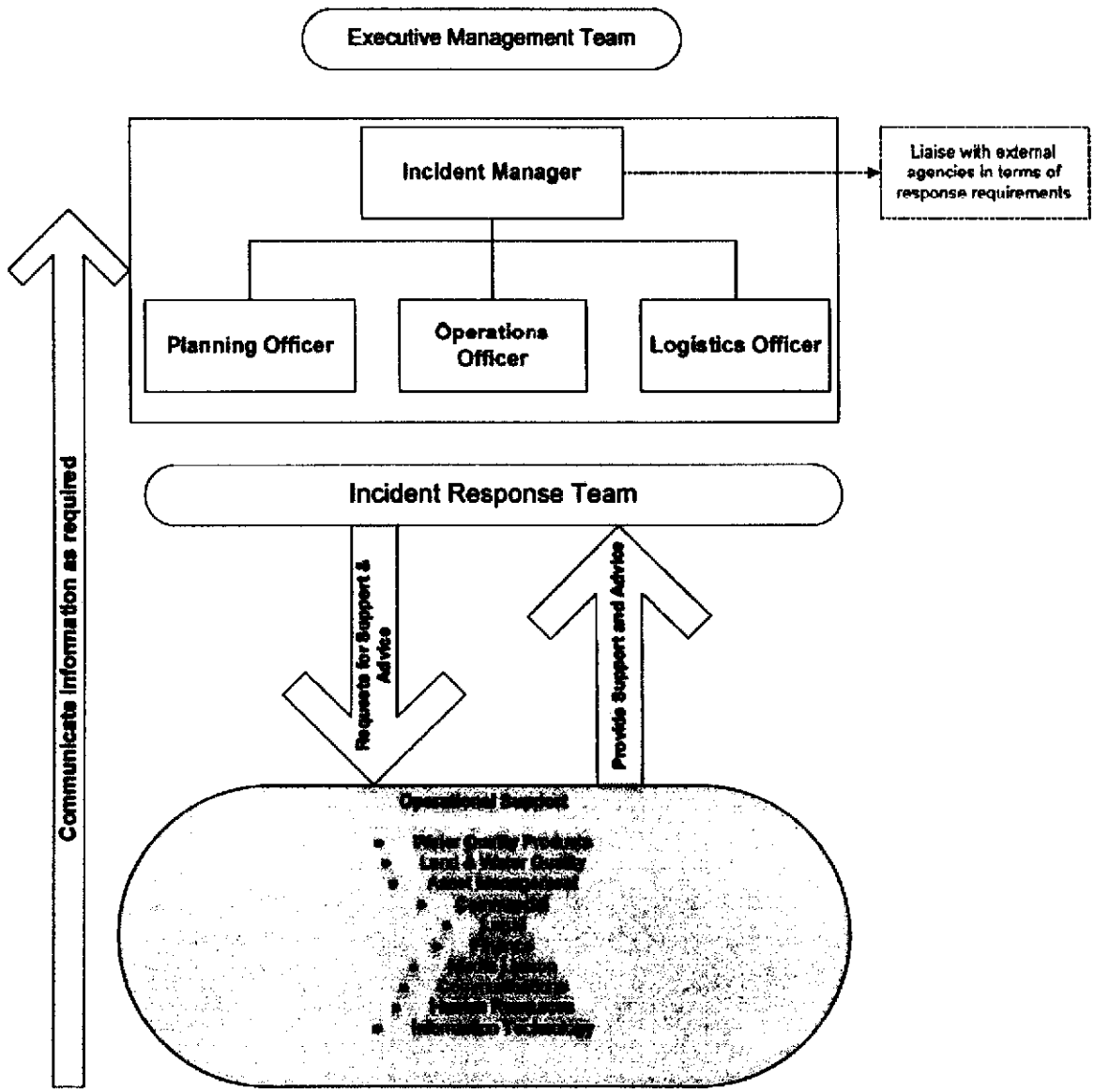
ABREVIATIONS

AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AMTD	Adopted Middle Thread Distance
BoM	Bureau of Meteorology
DCF	Dam Crest Flood
EAP	Emergency Action Plan
FSL	Full Supply Level
FOC	Flood Operations Centre, SunWater
GS	Gauging Station
IERP	Incident and Emergency Response Plan
ML	Megalitre
NRW	Department of Natural Resources and Water
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
PMPDF	Probable Maximum Precipitation Design Flood

1 INTRODUCTION

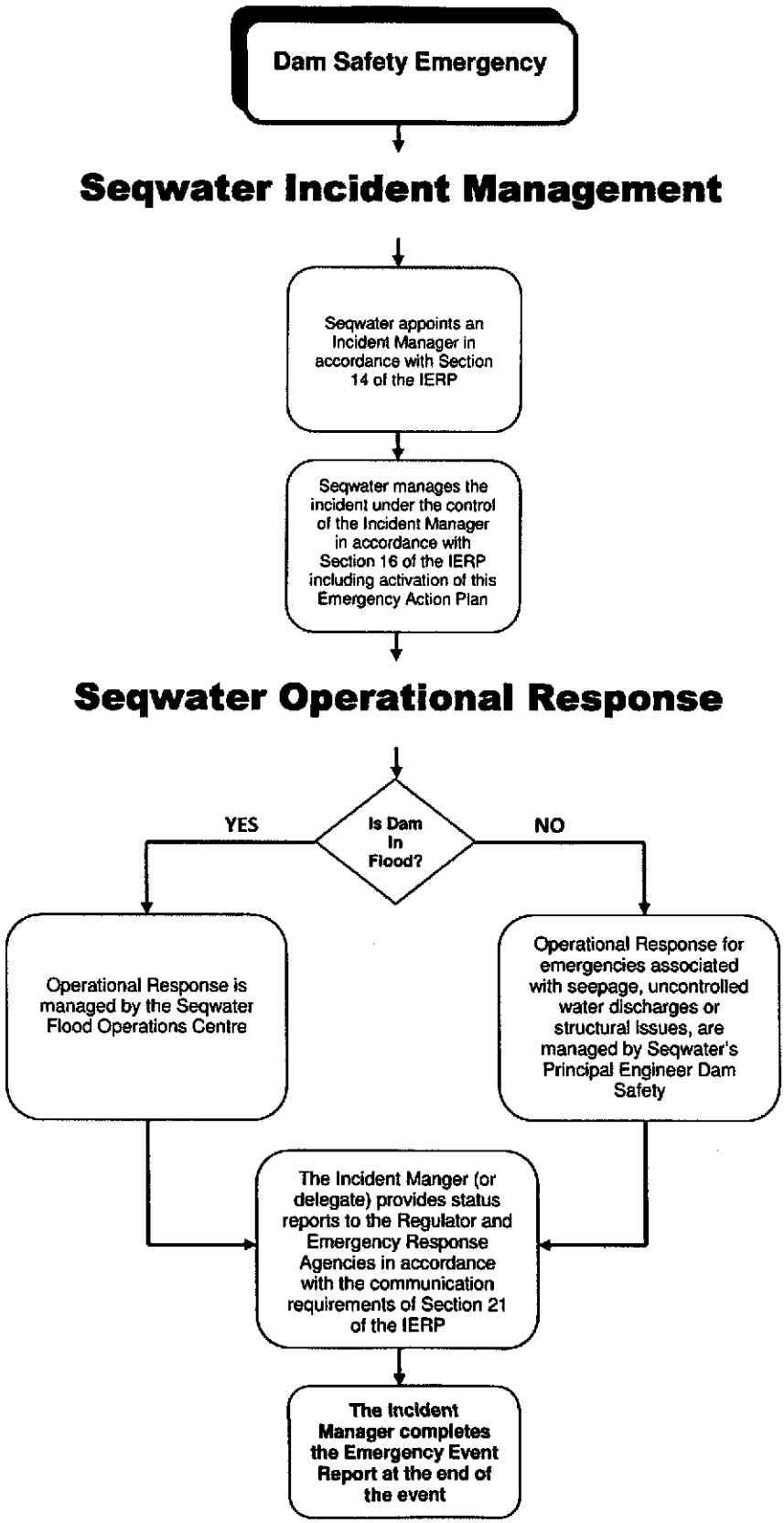
The Seqwater Incident and Emergency Response structure is a flexible team based structure that parallels the normal management regime. The team based structure is detailed in the diagram below.

Seqwater Incident and Emergency Response



This Emergency Action Plan (EAP) sits under the above structure and identifies emergency conditions that could endanger the integrity of the dam and prescribes procedures which should be followed by Seqwater staff in the event of such an emergency. A primary focus of these actions is to provide timely warning to appropriate emergency response and management agencies, to

allow these agencies to implement protection measures for downstream communities. The flowchart below summarises the actions that occur in an emergency situation.



Under the Seqwater Grid Emergency Response Plan, five incident levels have been implemented. These levels have been established to deal with varying degrees of incident severity and range from Level 1 where there are no significant impacts on other water grid participants and the incident can be managed using standard operating procedures and communication protocols, to Level 5 where state or federal government intervention would be expected. Definitions and general principals relating to these levels are detailed in Section 21 of the IERP.

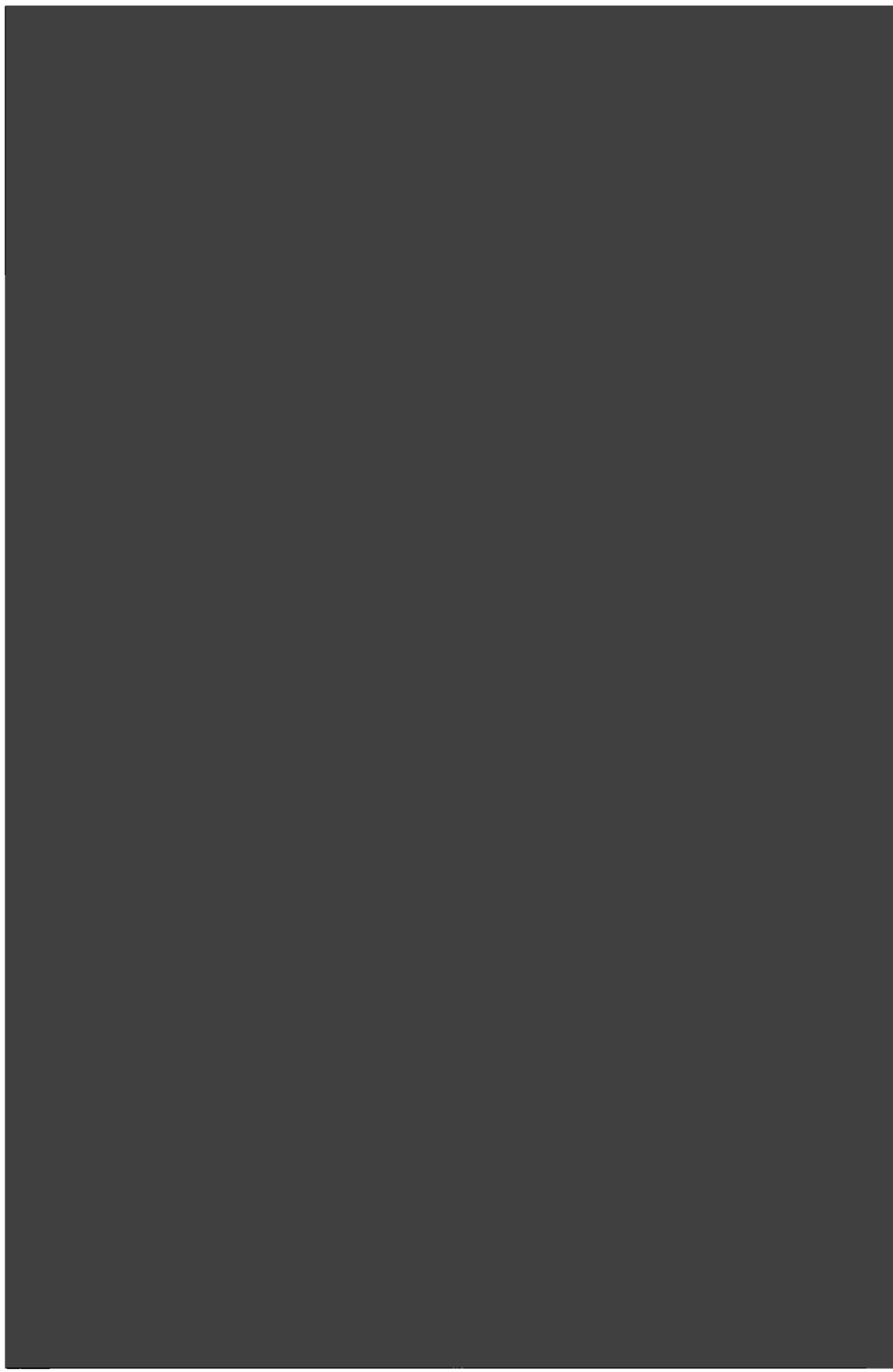
2 AGENCIES AND RESPONSIBILITIES

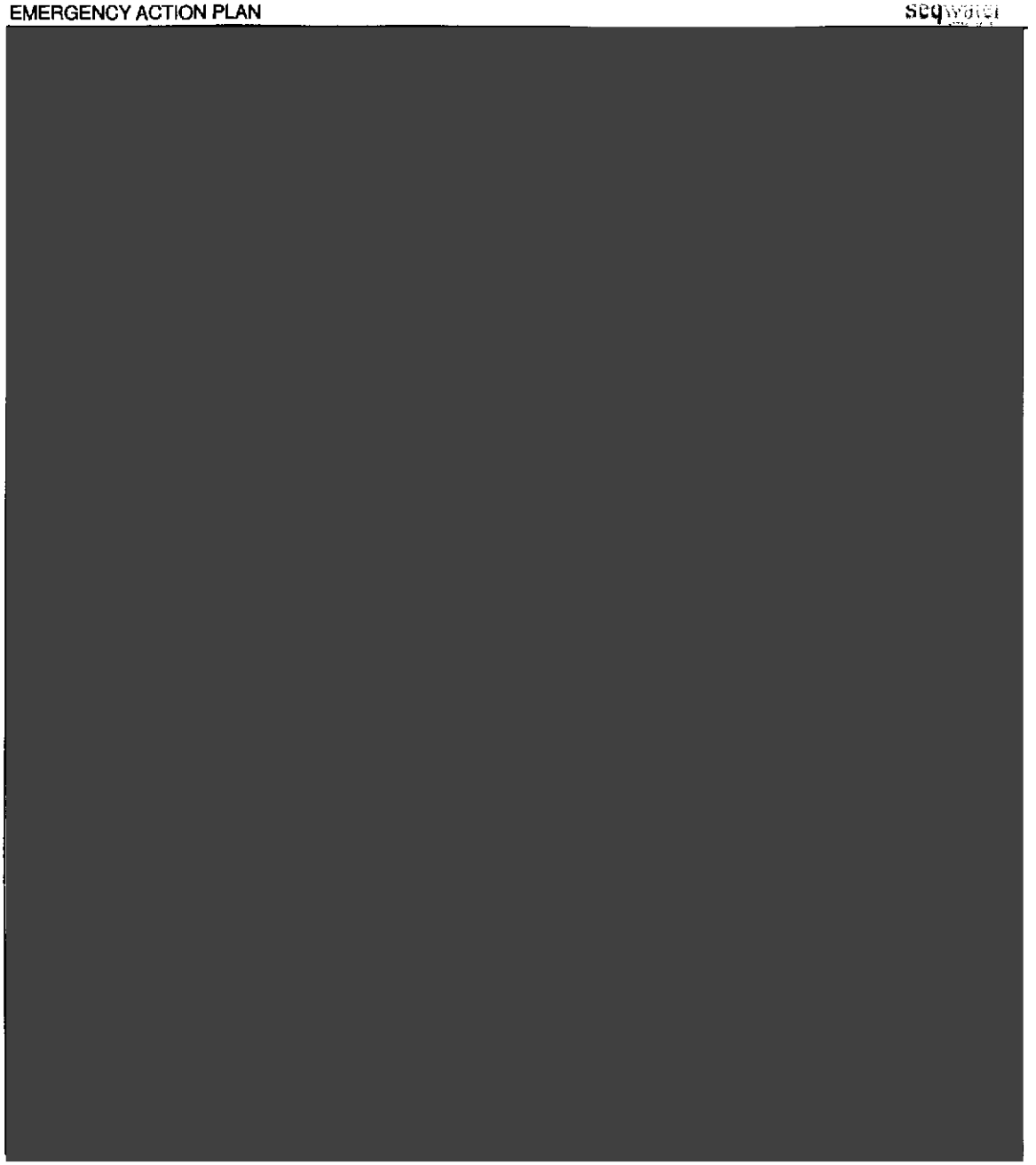
The following table shows the agencies and personnel who have responsibilities under this Emergency Action Plan.

AGENCIES AND PERSONNEL	RESPONSIBILITIES
Seqwater	• Undertake emergency response at the dam. • Determine the area of potential impact from the Dam Safety Emergency. • Provide the relevant Disaster Response Agencies with timely notification of impending and actual emergencies, including details of the emergency and estimates of potential impacts downstream of the dam.
Seqwater Flood Operations Centre	• Coordinate dam safety emergency actions for Seqwater during a flood event.
Principal Engineer Dam Safety (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for dam safety emergencies involving actual or potential structural failures.
Land and Water Quality Manager (Seqwater)	• Coordinate dam safety emergency actions for Seqwater outside a flood event, for water quality emergencies.
Director Dam Safety (NRW)	• Provide regulatory input during a dam safety emergency.
Regional or City Council	• Exercise primary responsibility for disaster response and management within its boundaries, in accordance with the Queensland Disaster Management Act 2003. • Deploy all appropriate resources to contribute to response and recovery during the dam safety emergency, until its resources are fully committed. • Mobilise disaster response assistance from other relevant Disaster Response Agencies, as appropriate during the emergency.

A list of agencies and personnel who may need to be contacted in the event of an emergency is included in Appendix A of this document. Once notification is made to a person within an agency on the list, it is the person's responsibility to notify other relevant persons within the agency. Generally attempts to contact an agency should be in the priority order outlined in the list. However discretion should be exercised if the gravity of the situation warrants.

3 DAM TECHNICAL DATA





3.1 CRITICAL FLOOD LEVELS

The dam is overtopped for the PMF event, and is unlikely to withstand being overtopped.

Dam Critical Stability Levels

Description	Level (m AHD)
Full Supply level	67.00
Fuse Plugs Fixed Crest	67.00
Gate Operation Trigger Level	67.25
Top of Closed Radial Gates	73.00
Minimum Land Resumption Level	75.00
Centre Fuse Plug Crest	75.70
Right Fuse Plug Crest	76.20
Left Fuse Plug Crest	76.70
Evaluation Design Level	77.00
Main Embankment Crest	79.00
Top of Wave Wall	79.90
Saddle Dam Embankment Crest	80.00

The spillway rating curves were used to route the inflow floods through the reservoir for various flood exceedence probabilities as shown below:

Dam Flood Routing Results

Event (AEP)	Peak Inflow (m^3/s)	Peak Outflow (m^3/s)	Peak Water Level (m)
1 in 200	83,00	2,800	73.0
1 in 6,000		12,250	75.8
1 in 22,500		21,800	76.9
1 in 65,000		32,850	78.4
1 in 100,000	43,300	35,000	79.0
PMF	49,000	37,500	> 79.0

4 EMERGENCY EVENTS AND ACTIONS

The following events define the triggers for initiation of the Emergency Action Plan. For flood events, formal reports to the Dam Safety Regulator are prepared in accordance with the Wivenhoe Dam Manual of Flood Operations. Formal reports are provided for all trigger events outside flood events.

- Reservoir Level approaching EL 67.0 with further rain forecast
- Increase in Seepage or New Area of Seepage
- Earthquake, Explosion, Structural Damage to Dam, Abnormal Instrumentation Readings or Major Electrical or Mechanical Failure
- Object Crashes into the Dam or Reservoir

Potential Damage or Indicators of Damage relevant to these triggers are shown in section 4.5.

4.1 RESERVOIR LEVEL IS APPROACHING 67.0M AND FURTHER RAIN IS FORECAST

STORAGE SUPERVISOR	FLOOD OPERATIONS CENTRE
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify Flood Operations Centre of dam status and rainfall. ◗ If the Flood Operations Centre cannot be contacted, notify the Principal Engineer, Dam Safety or the Dam Safety and Source Operations Manager.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Obtain and confirm forecast from BOM. ◗ Despatch appropriate staff to site if necessary. ◗ Advise the Dam Supervisor of dam monitoring actions.
◗ Monitor rainfall, lake levels and rates of rise of lake level. ◗ Record instrumentation readings as per Dam Standing Operating Procedures. ◗ Report damage and unusual observations to the Flood Operations Centre.	◗ Direct the overall operation of the dam in accordance with the Manual of Operational Procedures for Flood Releases from Wivenhoe Dam.
◗ Monitor the situation as directed by the Flood Operations Centre. If communication with Flood Operations is lost, continue monitoring and attempt to restore communications.	◗ Inform the persons of the event and the status of the dam in accordance with the Manual of Operational Procedures for Flood Releases from Wivenhoe Dam.
◗ Undertake actions as directed by the Flood Operations Centre. ◗ If communications with the Flood Operations Centre Fail operate the dam in accordance with the Wivenhoe Dam Flood Manual and attempt to restore communications.	◗ Direct visual gate observations at intervals generally not exceeding 30 minutes. ◗ Direct regular instrumentations readings and inspections.
◗ If lake level is < 67.0m, advise Flood Operations Centre.	◗ If lake level is < 67.0m and no more rain is forecast, advise Dam Supervisor to close incident.
◗ Complete Incident Log and Report.	◗ Complete Incident Log and Report.

4.2 INCREASE IN SEEPAGE OR NEW AREA OF SEEPAGE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Monitor the situation by measuring the rate of seepage flow and observe the clarity of the seepage flow, keeping notes and photographs for the Incident Log. ◗ Provided it is safe to do so, undertake inspections and instrumentation readings as directed by the Principal Engineer, Dam Safety.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.3 EARTHQUAKE, EXPLOSION, STRUCTURAL DAMAGE TO DAM, ABNORMAL INSTRUMENTATION READINGS OR MAJOR ELECTRICAL OR MECHANICAL FAILURE

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Notify the Principal Engineer, Dam Safety of the situation. ◗ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ◗ Provided it is safe to do so, perform a Dam Safety Inspection including instrumentation and seepage measurements. ◗ Report damage and unusual observations to the Principal Engineer, Dam Safety.	◗ Commence filling out Incident Log and continue to fill out Log until incident is closed. ◗ Assemble and activate an Incident Management Team to investigate the incident. ◗ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	◗ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ◗ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
◗ Complete Incident Log and Report.	◗ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ◗ Complete Incident Log and Report.

4.4 OBJECT CRASHES INTO THE DAM OR RESERVOIR

STORAGE SUPERVISOR	PRINCIPAL ENGINEER, DAM SAFETY
▸ Commence filling out Incident Log and continue to fill out Log until incident is closed. ▸ On confirmation of the event, advise the Police or Ambulance if necessary by phoning 000. ▸ Notify the Principal Engineer, Dam Safety of the situation. ▸ If the Principal Engineer, Dam Safety cannot be contacted, notify the Dam Safety and Source Operations Manager or the Executive General Manager, Operations. ▸ Provided it is safe to do so, perform a Dam Safety Inspection, paying particular attention to the area where the object has crashed, including instrumentation and seepage measurements. ▸ Report damage and unusual observations to the Principal Engineer, Dam Safety from fuel or other substances. ▸ Monitor the situation, keeping notes and photographs for the Incident Log and the routine dam safety inspections.	▸ Commence filling out Incident Log and continue to fill out Log until incident is closed. ▸ Assemble and activate an Incident Management Team to investigate the incident. ▸ Inform the following persons of the event and the status of the dam: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
▸ Remain in contact with the Principal Engineer, Dam Safety and proceed as directed.	▸ Undertake site investigations and proceed with actions as appropriate. Such actions may include: o Directing remedial works o Obtaining advice from specialist Dam Safety Consultants o Draining down the dam storage level ▸ If a potential dam failure is suspected, immediately inform the following persons: o Local Disaster Response Coordinator o CEO o Flood Operations Centre o Director, Dam Safety (NRW)
▸ Complete Incident Log and Report.	▸ Once satisfied that the incident is resolved, stand down the incident team and close the incident. ▸ Complete Incident Log and Report.

4.5 POTENTIAL DAMAGE OR INDICATORS OF DAMAGE

Problem	General Characteristic	When and What to Check
Overtopping Imminent	Storage full and water level rising.	During periods of excessive rainfall – check reservoir levels.
Rapid increases or cloudy appearance of seepage	Seepage flow through storage embankment is cloudy and increasing (piping failure has started).	After detection of cloudy water look for source in embankment.
Seepage erosion or piping	Progressive internal erosion of the embankment or saddle dam or foundation to form an open conduit or pipe (piping failure).	During routine inspections or after unaccountable increases in seepage flows, look for an emission point.
Foundation Failure	Sliding, rotation, or settlement of part of or entire dam.	During routine inspection or immediately after earthquakes – inspect for evidence of foundation movement or displacement immediately adjacent to the dam.
Slide in downstream slope	Slide in the downstream face.	During routine inspection or following heavy periods of rainfall – look for cracks or scarps near the crest and bulges at the toe.
Flow slide	Collapse and flow of soil around the storage periphery.	During routine inspections, after heavy or long periods of rainfall. Especially in sedimentary or colluvial soils – look for material displacement around the storage rim.
New springs, seeps or boggy areas	Evidence of internal changes in seepage control (could be initial signs of piping failure).	During routine inspection, look for 'evergreen' spots, boggy ground or pools of water.
Gullying	No rock protection or vegetation cover on embankment batters or poor drainage.	During and after large rainfalls – inspect embankment and saddle dam batters for damage to rock protection or vegetation cover.
Increase in gallery seepage	Increase in the normal rate of gallery seepage.	After detection – check for differential movement or cracking in concrete components of spillway and retaining walls.
Landslide	Mass movement of soil or rock from slopes and valley walls around the storage.	During routine inspections or following earthquakes – look for material displacement.
Damage to structural concrete	Movement or cracking of structural concrete.	During routine inspections or when mechanical problems such as burst pipe occur – look for any movement or

Problem	General Characteristic	When and What to Check
		cracking of structural concrete.
Failure of appurtenant structures or operating equipment	Loss of ability to supply water or discharge floods safely.	After detecting an operational anomaly – identify and investigation cause.
Loss of storage contents	Excessive loss from the storage and / or occasionally increased seepage or increased groundwater levels near the storage.	During routine monitoring – look for environmental changes such as vegetation damage, salt scalds, etc
Toe erosion	Erosion of embankment toe by spillway discharge or diversion flows.	During and after large rainfalls – inspect embankment toe.
Wave erosion	Beaching or notching of the upstream face of the embankment by waves generated over long periods of strong wind.	During or after periods of strong wind – inspect upstream face of embankment and saddle dam.

APPENDIX A

CONTACT REGISTER

REGISTER – CONTACT LIST FOR EMERGENCIES & FLOOD INFORMATION – WIVENHOE DAM

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Seqwater	Principal Engineer Dam Safety	1	1	John TIBALDI					Seqwater/FCC
	Dam Safety and Source Operations Manager	2	2	Robert DRURY					
	Flood Operations Engineer	3	3	Terry MALONE					
	Operations Coordinator Central	4	4	Jayam TENNAKOON					
	Executive General Manager, Operations	5	5	Phil ALDRIDGE					
	Land and Water Quality Manager	1	1	Peter SCHNEIDER					
	Chief Executive Officer	3	3	Peter BORROWS					
	Chairman	4	4	Annabelle CHAPLIN					
	Storage Supervisor	1	1	Doug GRIGG					
	Standby Officer	2	2	Mathew O'REILLY					
Department of Natural Resources & Water	Director, Dam Safety	1	1	Peter ALLEN					Seqwater/FCC
	Director, Water Industry Asset Management & Standards	2	2	Peter ARTEMIEFF					
	Dam Safety Engineer	3	3	Ron GUPPY					
Flood Operations Centre (operated by Sunwater)	Principal Engineer Dam Safety	1	1	John TIBALDI					Seqwater/FCC
	Flood Operations Engineer	2	2	Terry MALONE					
	Senior Flood Operations Engineer	3	3	Rob AYRE					
	Senior Flood Operations Engineer	4	4	John RUFFINI*					
	Flood Control Room (Operational)	5	5	General Phones					

Agency	Position	Working Hrs Priority	Out of Hrs Priority	Name	Work Ph	Fax	Mobile	After Hrs	Contacted By
Department of Emergency Services Disaster Operations	Duty Officer* (24 Hours)	1	1	Rostered					Seqwater/FCC
Somerset Regional Council	Local Disaster Response Coordinator	1	1	Tony Jacobs					Seqwater/FCC
	Local Disaster Response Coordinator	2	2	Andy Bickerton (SES Controller)					
	Local Disaster Response Coordinator	3	3	Robert Bain (CEO)					
Ipswich City Council	Local Disaster Response Coordinator	1	1	Andrew UNDERWOOD (Strategic Infrastructure Manager)					Seqwater/FCC
	Local Disaster Response Coordinator	1	1	Tony TRACE					
	Local Disaster Response Coordinator	2	2	Ross DRABBLE (Chief Operations Officer)					
	Local Disaster Response Coordinator	3	3	Arie Van Den ENDE (SES Controller)					
Brisbane City Council	Local Disaster Response Coordinator	1	1	Duty Officer					Seqwater/FCC
	Flood Information Centre	2	2	Duty Officer					
Emergency Management Queensland	Regional Director, Brisbane District	1	1	Jason CAMERON					Seqwater/FCC
Police									Seqwater/FCC
Bureau of Meteorology	Engineer in charge Flood Warning*	1	1						Seqwater/FCC
	Meteorologist in Charge (24 hours)	2	2						
Ambulance									Seqwater/FCC
Notes:	1. Contact with an agency is to be made via position with highest priority. That person contacted is then responsible to forward notification to other relevant persons with the agency.								
	2. Agencies to provide notification of updated contact details to John Tibaldi of Seqwater.								

APPENDIX B

MAPS AND PLANS

Locality Map

Aerial View of Dam Wall

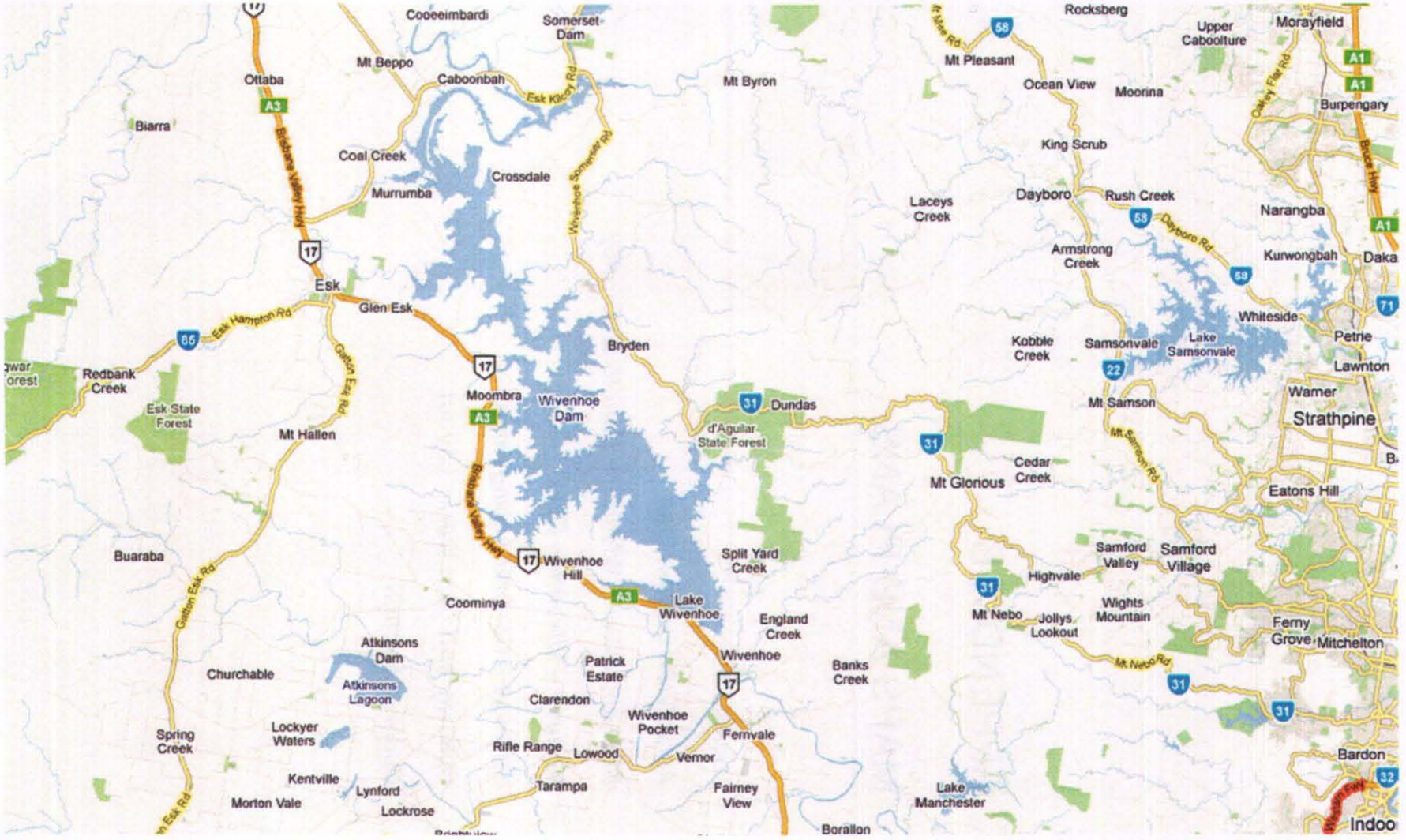
Brisbane River – Wivenhoe Dam to Mt Crosby

Bridges – Wivenhoe Dam

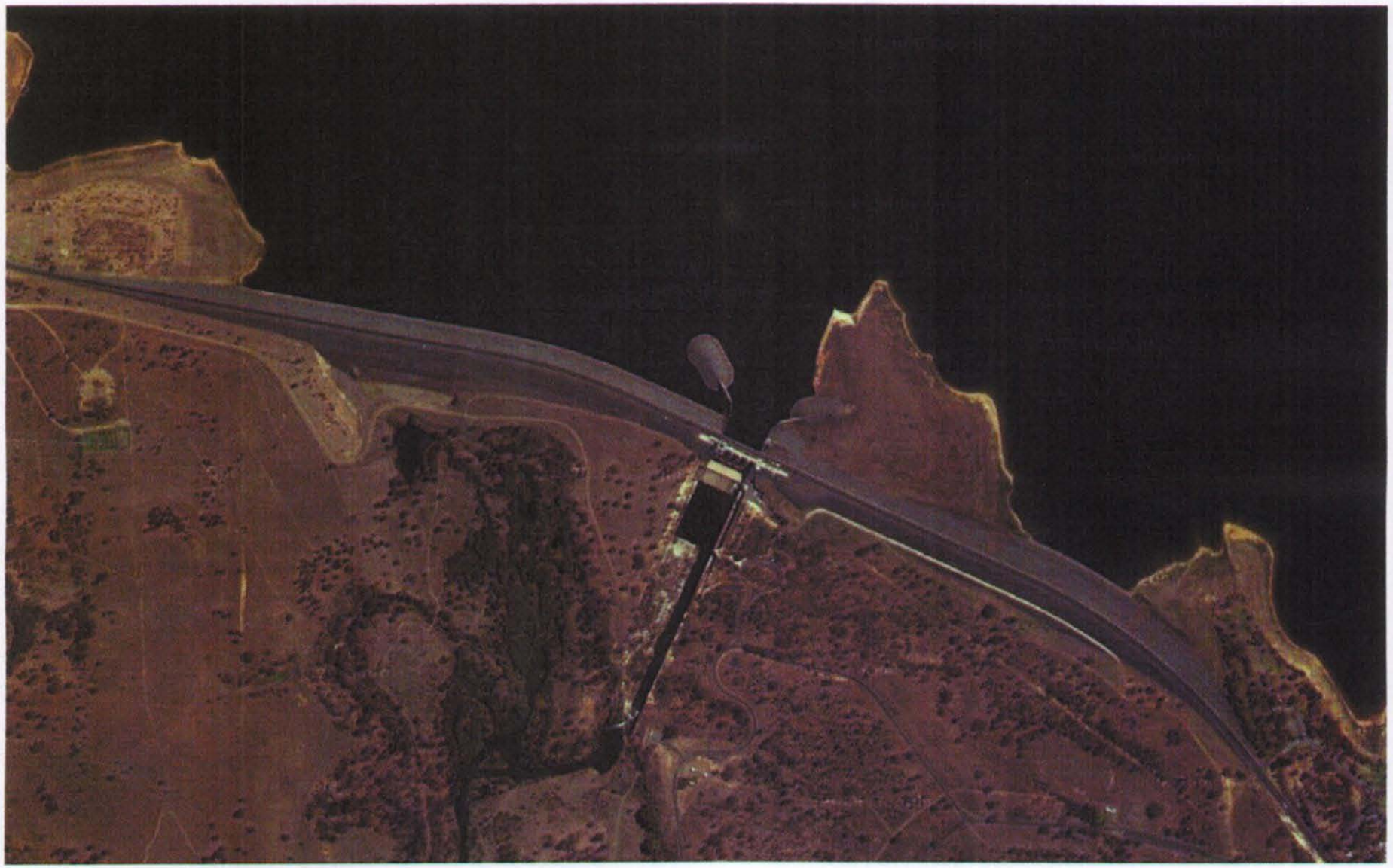
Spillway – General Arrangement

Spillway and Dam Works Layout

Spillway Section

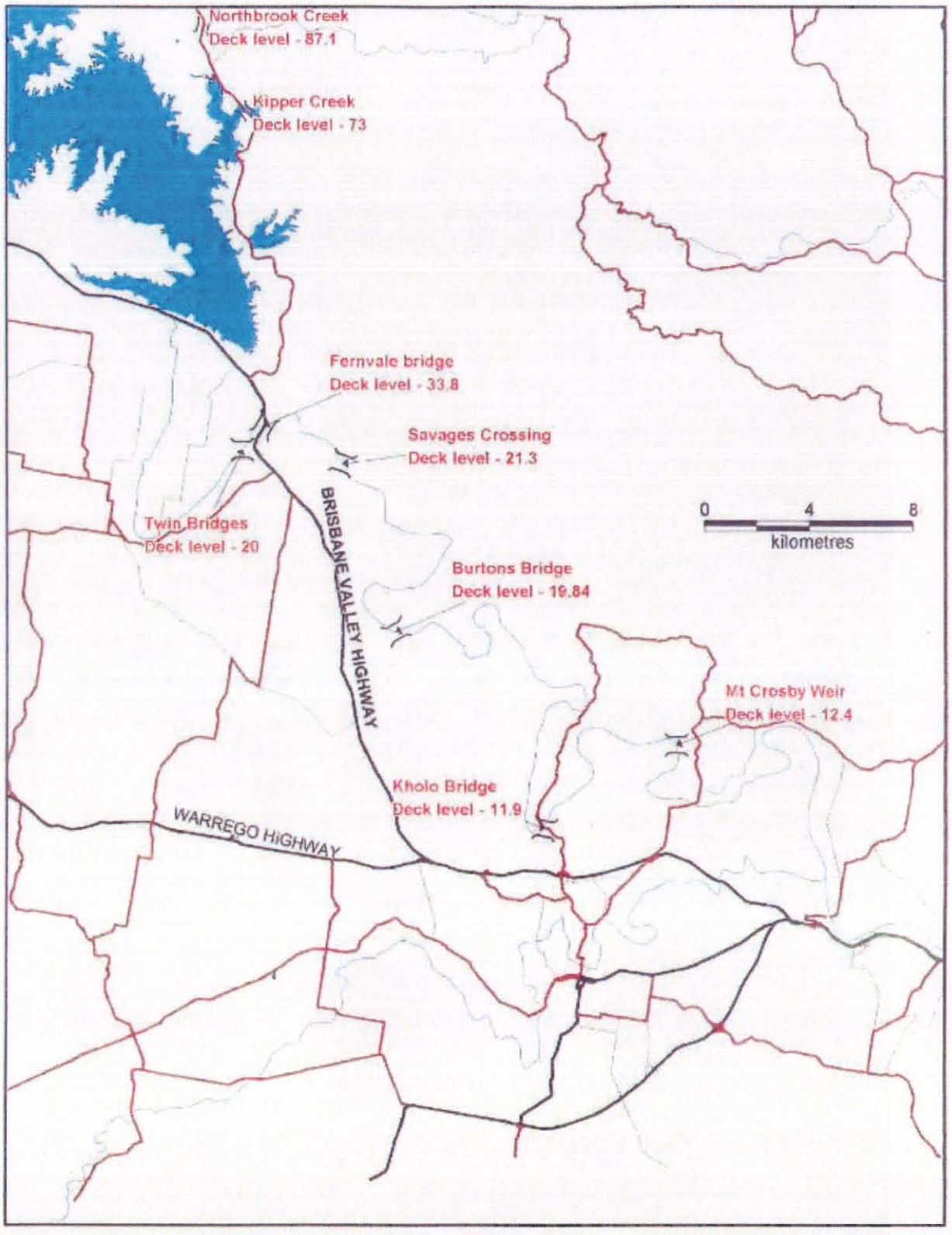


(Reference: http://maps.google.com.au/maps)

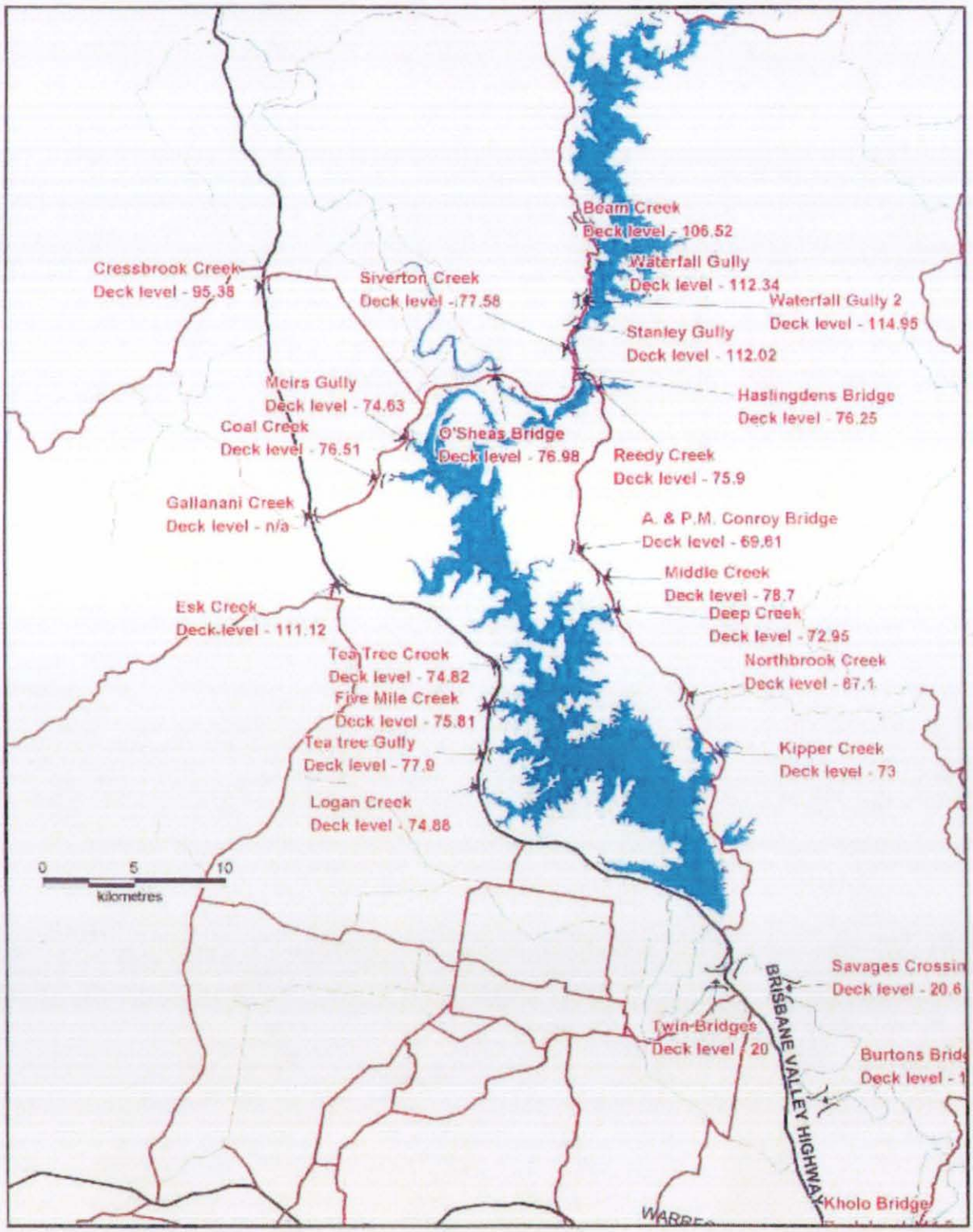


(Reference: http://maps.google.com.au/maps)

BRISBANE RIVER – WIVENHOE DAM TO MT CROSBY



BRIDGES – WIVENHOE DAM



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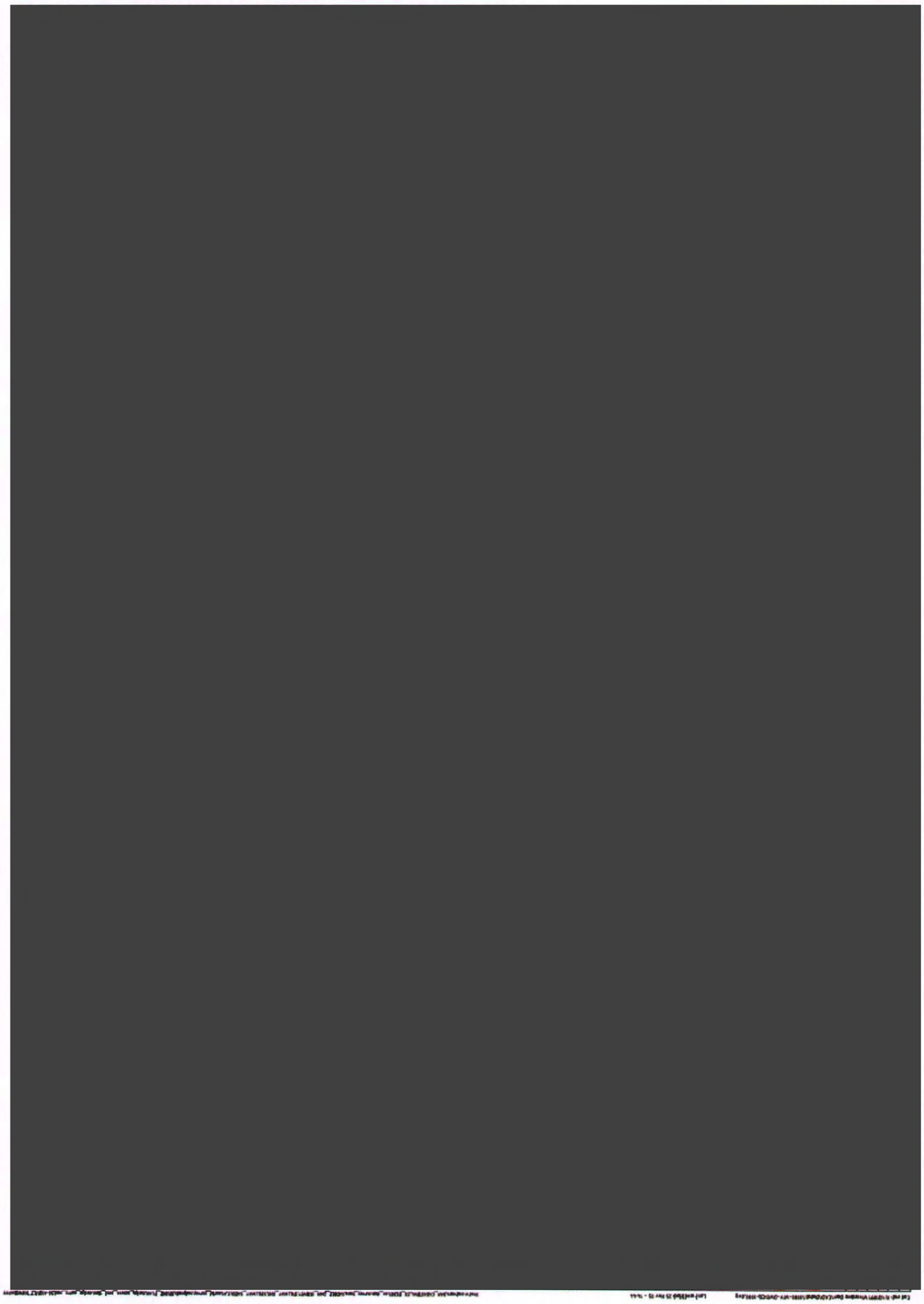


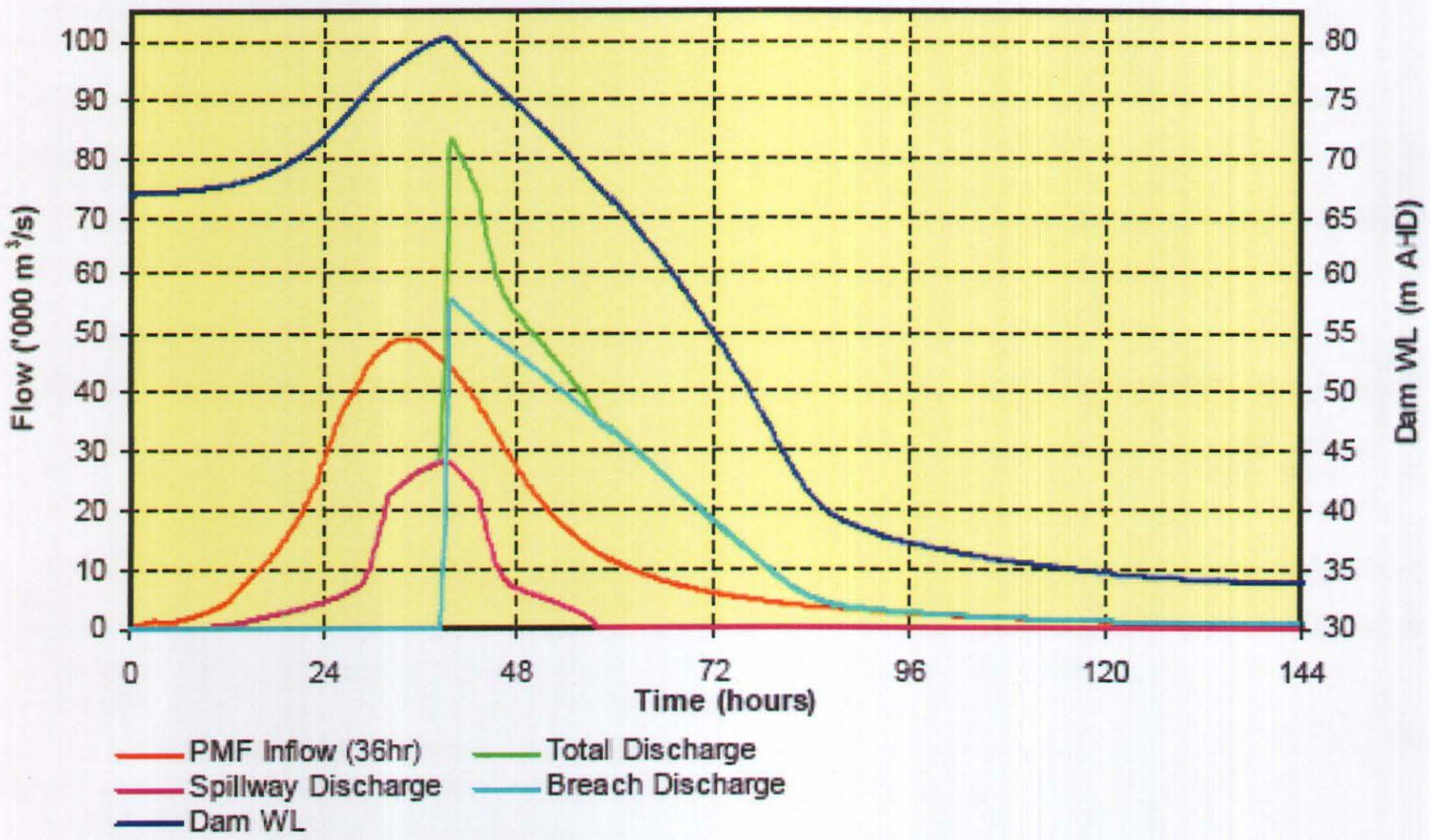


APPENDIX C

FLOOD INUNDATION MAPS AND DAM BREAK ANALYSIS

EMERGENCY EVACUATION

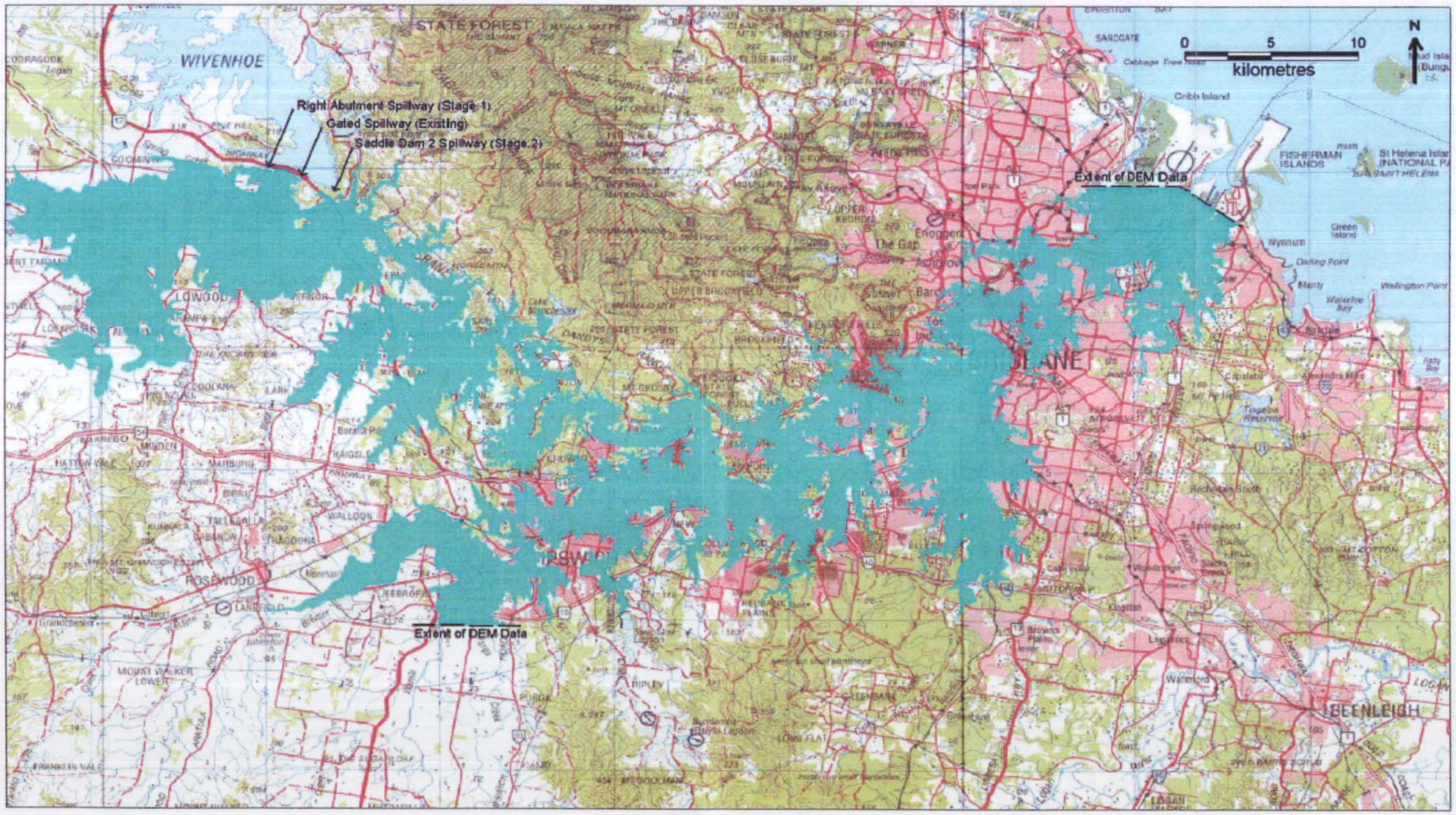
Where possible, emergency evacuation should always be carried out to the upper limit of flood levels shown on the inundation maps, due to the uncertainties associated with the flood development time and likely areas of inundation.



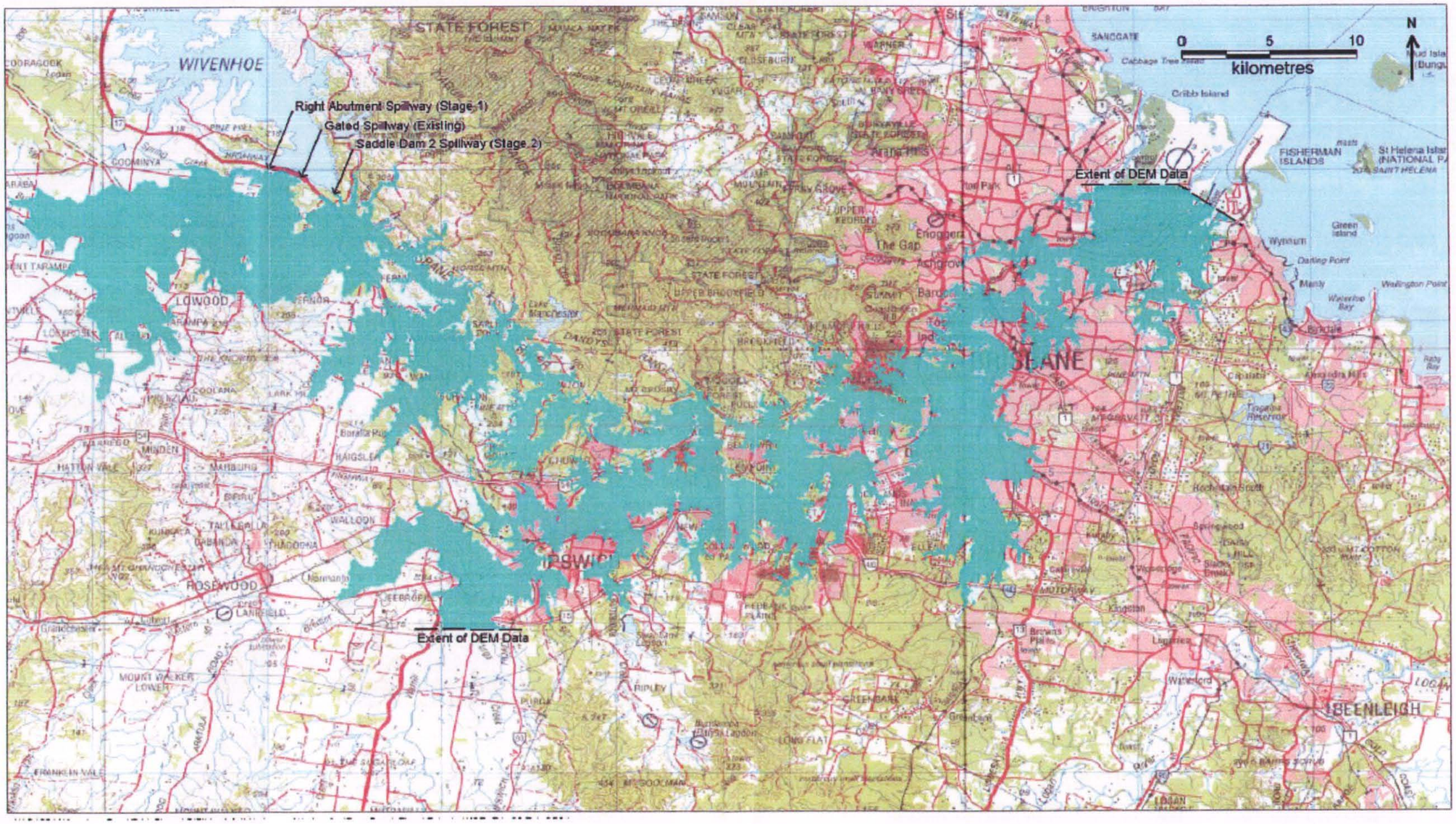
Wivenhoe Dam PMF Hydrographs

Comparison of Flood Peak Travel Time at Key Locations, Wivenhoe Dam PMF event

Location	**Original Dam** (Overtopping Failure) (hours)	**Existing Dam** (Overtopping Failure) (hours)	Stage 2 (Overtopping Failure) (hours)	Stage 2 (No Failure) (hours)
Wivenhoe Dam	0.0	0.0	0.0	0.0
Savages Crossing	16.5	13.0	11.0	11.0
Mt Crosby Weir	20.0	16.5	14.5	14.5
Moggill Gauge	35.0	31.5	29.5	29.5
Port Office	40.5	37.0	35.0	35.0



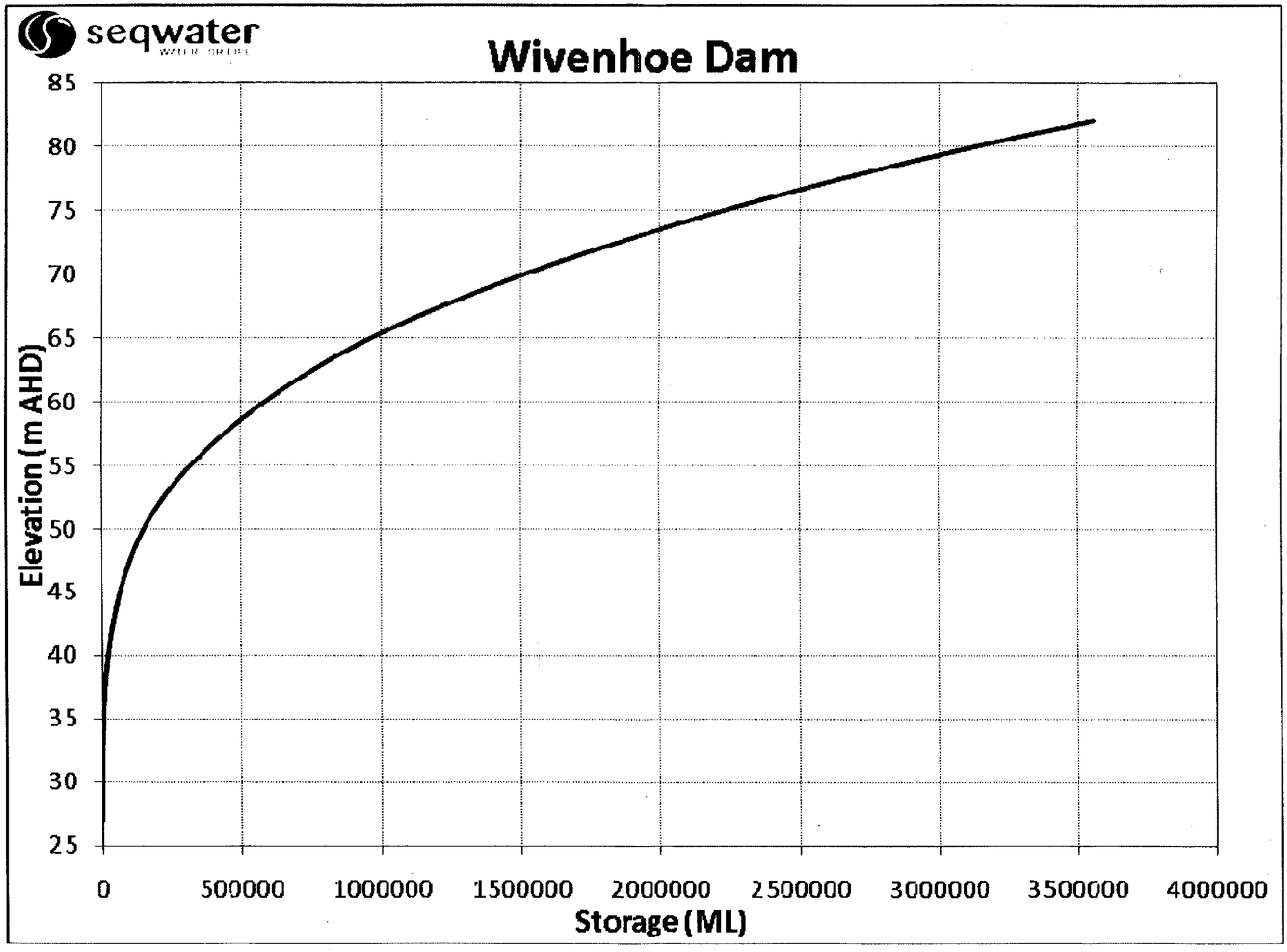
PMF Extent of Flooding, (Overtopping Failure)



PMF Extent of Flooding, Stage 2 (No Failure)

APPENDIX D

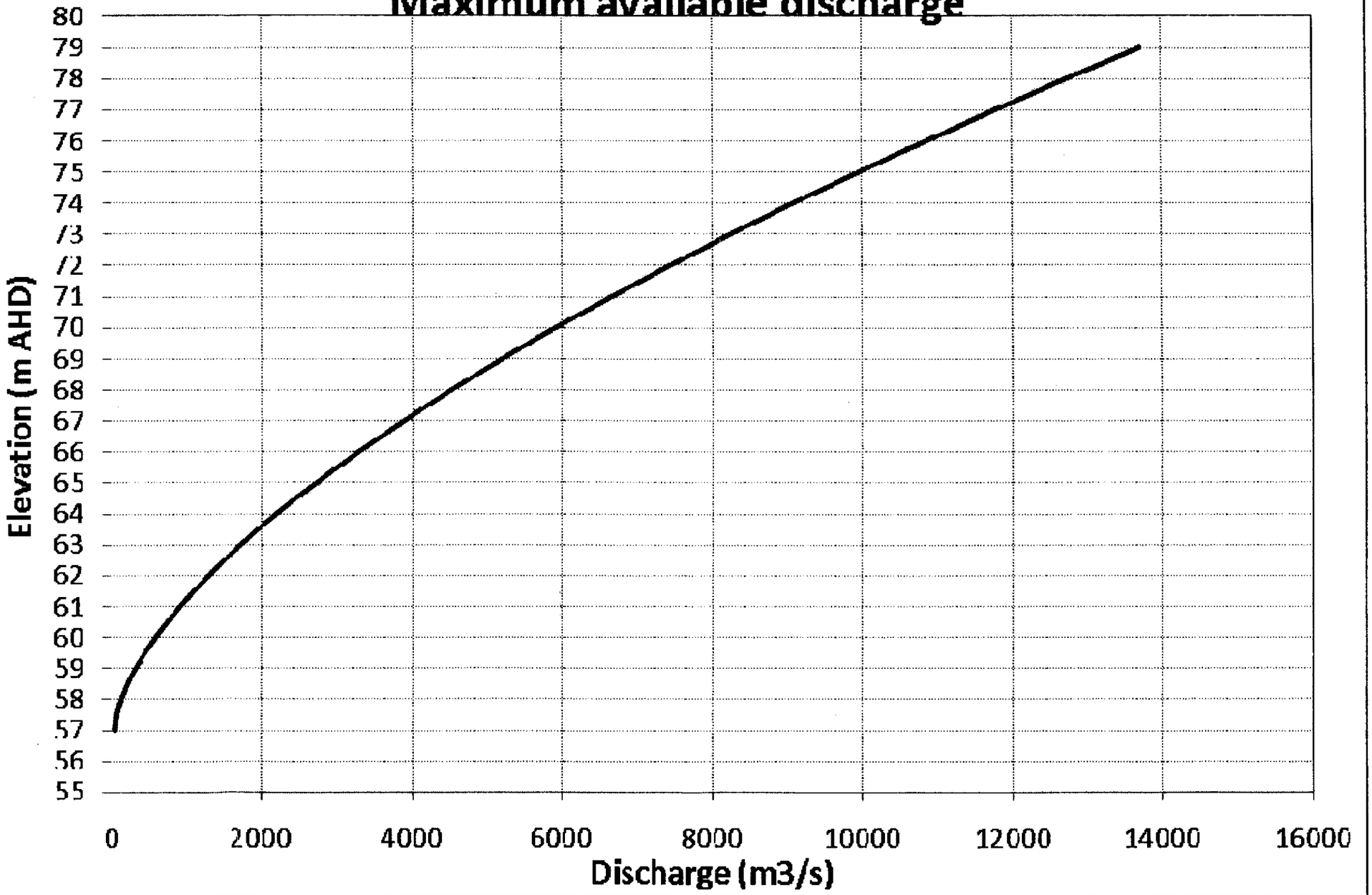
DISCHARGE AND STORAGE CURVES


seqwater
Wivenhoe Dam
85
80
75
70
65
60
55
50
45
40
35
30
25
Elevation (m AHD)
0
500000
1000000
1500000
2000000
2500000
3000000
3500000
4000000
Storage (ML)

seqwater
WATER FOR LIFE

Wivenhoe Dam

Maximum available discharge



APPENDIX E

INSPECTION AND REPORTING FORMS

Incident Management – Incident Log

The purpose of the Incident Log is to record all decisions, actions, direction and other pertinent information. It is important for all personnel involved in managing / responding to the incident to record information in the event that it is required as part of a post incident review or some other investigation.

Incident Name: ..... **Incident Manager:** .....

Date	Time	Item	Recorded by

ROADS FLOOD RECOVERY

Hays Recruiting Staff

Name :	Kevin Boylan			Ryan Buckley	Brian McKay	Pedro Baraza	Greg Krause
Position title:	Project Manager			Inspector - Road Flood Recovery	Inspector - Road Flood Recovery	Inspector - Road Flood Recovery	Inspector - Road Flood Recovery
Extension number				7864	7864	7864	7864
Alternate extension number:				n/a	n/a	n/a	n/a
Location :	ES Project Delivery , 1st Floor Hayden Centre			ES Maintenance Section, Yamanto Depot	ES Maintenance Section, Yamanto Depot	ES Maintenance Section, Yamanto Depot	ES Maintenance Section, Yamanto Depot
Mobile number (If applicable):				To be advised	To be advised	To be advised	To be advised
Radio number (If applicable):	n/a						
Fax number:							
Supervisor's name (If you are not their supervisor):	Tony Youren			Michael Thompson	Michael Thompson	Michael Thompson	Michael Thompson
Department name:	Engineering Services			Engineering Services	Engineering Services	Engineering Services	
Branch name:	Project Services			Infrastructure Planning and Operations	Infrastructure Planning and Operations	Infrastructure Planning and Operations	Infrastructure Planning and Operations
Any additional information to be included in the entry:							
	Inducted 15/2/11	Inducted 15/2/11		Inducted 15/2/13	Inducted 15/03/11	Inducted 15/03/11	To be inducted 22MAR 2011
	Network Access	No Network Required	Network Access Required	Network Access Required	Network Access Required	Network Access Required	Network Access Required
	Transferred to Project Delivery as from 7 Mar 2011	Finished 14 MAR 2011	FINISHED 18MAR 2011	Mobile Phone ordered form Help		Mobile Phone ordered from Help	
			Hot Desk Floor 2 Hayden	Hot Desk Floor 2 Hayden	Hot Desk Floor 2 Hayden	Hot Desk Floor 2 Hayden	

ANNEX (R) RISK TREATMENT REGISTERS

CONFIDENTIAL RESTRICTED DISTRIBUTION

RISK TREATMENT SUMMARY					
A) ACTIONS IN HAND OR ALREADY IMPLEMENTED					
HAZARD	ENDORSED TREATMENT	RESPONSIBLE AGENCY	ESTIMATED COST	FUNDING SOURCE	TIMEFRAME
GENERAL	Council's Corporate Plan has been reviewed and includes reference to disaster and disaster mitigation planning.	Ipswich City Council (ICC)			2001/2002
GENERAL	A draft operational plan has been prepared that includes strategies for disaster and disaster mitigation planning.	Ipswich City Council (ICC)			2001/2002
GENERAL	Disaster mitigation principles are being taken into account in the current town plan review.	Ipswich City Council (ICC)			2001/2002
GENERAL	An initial review of Council's Counter Disaster Plan has been completed. A more detailed review will be required when the study is complete.	Ipswich City Council (ICC)			2001/2002
FLOOD	Flood Mapping - Urban areas	Ipswich City Council and Ipswich River Improvement Trust			2000
FLOOD	Rural Flood Mapping NDRM Study	Ipswich City Council (ICC)			2001/2002
FLOOD	Development Controls	Ipswich City Council (ICC)			2001/2002
FLOOD	Council's Flood Operations Centre Manual is under review to accommodate any new information obtained from the study.	Ipswich City Council (ICC)			2001/2002
FLOOD	The consultant is preparing suggestions on how road construction standards should be varied in areas subject to flood inundation.	Ipswich City Council (ICC)			2001/2002
FLOOD	Council has a well-developed flood warning system with a network of 'Alert' stations sited in strategic locations throughout the City area. Five new sites were recently installed under the 'Regional Flood Mitigation Program'.	Ipswich City Council (ICC)			2001/2002
FLOOD	Council has undertaken a 'Regional Flood Mitigation Program' project with the construction of a detention basin to protect Rosewood	Ipswich City Council (ICC)			2001/2002
FLOOD	Applications have been now submitted for two other projects in the Ipswich area under this program.	Ipswich City Council (ICC)			2001/2002

RISK TREATMENT SUMMARY					
A) ACTIONS IN HAND OR ALREADY IMPLEMENTED					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
FLOOD	Riparian rehabilitation works which will reduce the impact of minor flooding and bed and bank damage in waterways.	Council in conjunction with the Ipswich Rivers Improvement Trust and the Bremer River Catchment Association			2001/2002

RISK TREATMENT SUMMARY					
B) ACTIONS ENDORSED BY COUNCIL FOR IMPLEMENTATION					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
FLOOD - Risk to people and buildings	Improve the flood database by conducting floor level and construction material surveys in flood risk areas, in order to determine effective of house raising and flood proofing of commercial premises	Ipswich City Council (ICC)	**$200,000**	NDRM Program	December 2002
FLOOD - Risk to people and buildings	Control population at risk by planning controls to limit further development in the floodplain - include any changes in the new Town Planning Scheme.	Ipswich City Council (ICC)	**$5,000**	Ipswich City Council (ICC)	December 2002
FLOOD - Risk to people and buildings	Improve forward estimates of population at risk under new Planning Scheme	Ipswich City Council (ICC)	**$5,000**	Ipswich City Council (ICC)	June 2003
FLOOD - Risk to people and buildings	Reduce the *Primary Flow Path* risk by raising community awareness	Ipswich City Council (ICC)	**$20,000**	NDRM Program	December 2002
FLOOD - Risk to people and buildings	Reduce the population at risk by construction of flood storage at Marburg	Ipswich City Council (ICC)	**$1,600,000**	Regional Flood Mitigation Program	June 2003
FLOOD - Risk to people and buildings	Reduce the vulnerability of the community at risk by improvements to the tributary flood warning and flood forecasting systems	Ipswich City Council (ICC) and Bureau of Meteorology (BoM)	**$20,000**	NDRM Program	December 2002
FLOOD - Risk to people and buildings	Reduce the vulnerability of the community at risk by making flood warnings easier to interpret and apply	Ipswich City Council (ICC)	**$20,000**	NDRM Program	December 2002
FLOOD - Risk to people and buildings	Reduce the vulnerability of the community at risk by community education and awareness	Ipswich City Council (ICC)	**$40,000**	NDRM Program	December 2002
FLOOD - Risk to people and buildings	Improve flood preparedness of industrial/commercial premises by encouraging the preparation of flood management plans for enterprises in flood risk areas	Ipswich City Council (ICC)	**$10,000**	NDRM Program	September 2002
FLOOD - Risk to people and buildings	Improve response ability by improvements to rural addressing. Update GIS	Ipswich City Council (ICC)	**$80,000** **$50,000**	NDRM Program	March 2003 June 2003

RISK TREATMENT SUMMARY					
B) ACTIONS ENDORSED BY COUNCIL FOR IMPLEMENTATION					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
FLOOD - Risk to people and buildings	Improve response ability by expansion of GIS to include NDRM issues, and making it available for Emergency Services operations, including training of personnel	Ipswich City Council (ICC) and State Emergency Services (SES)	**20000 pa**	NDRM Program	December 2002
FLOOD - Risk to environment, lifelines and critical facilities	Locations of possible road closure identified from mapping to be ground-truthed and compared with flood levels of bridge/bridge approach levels confirm or otherwise	Ipswich City Council (ICC) and Dept of Main Roads	**$20,000**	NDRM Program	December 2002
FLOOD - Risk to environment, lifelines and critical facilities	Prepare database/GIS maps showing road/street closure/re-open sequences	Ipswich City Council (ICC) and State Emergency Services (SES)	**$10,000**	NDRM Program	December 2002
FLOOD - Risk to environment, lifelines and critical facilities	Reduce recurring flood damage to rural roads (gravel)	Ipswich City Council (ICC)	**$200,000**	NDRM Program	June 2003
FLOOD - Risk to environment, lifelines and critical facilities	Increase signage at roads at risk of flooding to reduce risk to public safety	Ipswich City Council (ICC) and Dept of Main Roads	**$20,000**	NDRM Program	June 2003
FLOOD - Risk to environment, lifelines and critical facilities	High velocity flows during flood results in risk of river bank erosion and possible avulsion (course change)	Ipswich City Council (ICC) and Ipswich River Improvement Trust (IRIT)	**$50,000**	NDRM Program	December 2002
FLOOD - Risk to environment, lifelines and critical facilities	Prepare database/GIS maps showing rail closure/re-open sequences	Ipswich City Council (ICC) and Queensland Rail (QR)	**$10,000**	NDRM Program	December 2002
FLOOD - Risk to environment, lifelines and critical facilities	Determine requirements for relocation of surface infrastructure below 100 Year ARI flood level	Water supply and Sewerage Ipswich Water (ICC) Power Supply - Energex Communications Infrastructure Telstra, Optus, Vodaphone etc.	**$20,000**	NDRM Program	June 2003
FLOOD - Risk to environment, lifelines and critical facilities	Determine requirements for relocation of critical facilities in flood risk areas	Ipswich City Council (ICC) (co-ordinator) and facility owners	**$20,000**	NDRM Program	June 2003

RISK TREATMENT SUMMARY					
B) ACTIONS ENDORSED BY COUNCIL FOR IMPLEMENTATION					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
SEVERE STORM	Commission/undertake community awareness program	Ipswich City Council (ICC)	**$40,000**	NDRM Program	December 2002
SEVERE STORM	Seek to reduce community exposure by improving the effectiveness of Severe Strom Warnings	Ipswich City Council (ICC) jointly with the Bureau of Meteorology	**$30,000**	NDRM Program	June 2003
SEVERE STORM	Improve response ability by expansion of GIS to include NDRM issues, and making it available for Emergency Services operations, including training of personnel	Ipswich City Council (ICC) and State Emergency Services (SES)	**$25,000 pa**	NDRM Program	June 2003
SEVERE STORM	Review engineering of overhead power lines and telephone cables (urban areas), including consideration of relocating underground in high risk areas	Ipswich City Council (ICC) in coordinating role Energex, Telstra etc for implementation as asset	**$40,000**	NDRM Program	June 2003
SEVERE STORM	Minimise exposure of lifelines, consider reducing hazard to critical roads from falling power lines and trees	in coordinating role Energex, Telstra etc for implementation as asset owners	**$40,000**	NDRM Program	June 2003
SEVERE STORM	Reduce risk to critical facilities by duplication of power supplies (or standby generation facility) and telecommunications	Ipswich City Council (ICC) in coordinating role Facility owners/operators for implementation	**$40,000**	NDRM Program	June 2003
SEVERE STORM	Reduce risk to pre-1980 building stock over time, *by way of pre-sale* inspections and building approval inspections	Ipswich City Council (ICC)	**$40,000**	NDRM Program	June 2003
BUSHFIRE	Adopt best practice for design in bushfire Prone Areas	Ipswich City Council (ICC)	**$5,000**	Ipswich City Council (ICC)	December 2002
BUSHFIRE	Seek voluntary adoption of current standards for housing pre-dating bushfire provisions in the Building Code	Ipswich City Council (ICC)	**$5,000**	Ipswich City Council (ICC)	June 2003
BUSHFIRE	Reduce the vulnerability of the community at risk by community education and awareness of bushfire related issues	Ipswich City Council (ICC)	**$20,000**	NDRM Program	December 2002
BUSHFIRE	Improve response ability by expansion of GIS to include NDRM issues, and making it available for Emergency Services operations, including training of personnel	Ipswich City Council (ICC) and State Emergency Services (SES)	**$20,000**	NDRM Program	June 2003

RISK TREATMENT SUMMARY					
B) ACTIONS ENDORSED BY COUNCIL FOR IMPLEMENTATION					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
BUSHFIRE	Review engineering of overhead power lines and telephone cables (bushfire prone areas), including consideration of relocating underground in high risk areas	Ipswich City Council (ICC) in coordinating role Energex, Telstra etc for implementation as asset owners	**$40,000**	NDRM Program	December 2002
BUSHFIRE	Minimise exposure of lifelines, consider reducing hazard to critical roads from falling power lines and trees	in coordinating role Energex, Telstra etc for implementation as asset owners	**$40,000**	NDRM Program	June 2003
BUSHFIRE	Monitor and evaluate current fire management and fuel reduction strategies	Ipswich City Council (ICC) and Rural Fire Service	**$20,000**	NDRM Program	June 2003
BUSHFIRE	Monitor and evaluate current fire management and fuel reduction strategies	Ipswich City Council (ICC) and Rural Fire Service	**$20,000**	NDRM Program	June 2003
BUSHFIRE	Review location of critical facilities in respect of bushfire hazard	Ipswich City Council (ICC)	**$20,000**	NDRM Program	June 2003
TOTAL			**$2 865 000**		

RISK TREATMENT SUMMARY					
C) PROPOSED FUTURE ACTIONS SUBJECT TO AVAILABILITY OF FUNDING					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
FLOOD - Risk to people and buildings	Reduce the *Primary Flow Path* risk by voluntary property acquisition	Ipswich City Council (ICC)	**$110 million over 10 years**	NDRM Program	Ongoing to 2013
FLOOD - Risk to people and buildings	Reduce the *Primary Flow Path* risk by voluntary property acquisition	Ipswich City Council (ICC)		NDRM Program	
FLOOD - Risk to people and buildings	Reduce flood impact by raising houses	Ipswich City Council (ICC)	**$30 million over 10 years**	NDRM Program	Ongoing to 2013
FLOOD - Risk to people and buildings	Reduce flood impact by flood proofing of commercial premises	Ipswich City Council (ICC)	**$10 million over 10 years**	NDRM Program	Ongoing to 2013
FLOOD - Risk to people and buildings	Reduce the population at risk by means of structural works - levees , flood storage	Ipswich City Council (ICC)	**$10 million over 10 years**	Regional Flood Mitigation Program	Ongoing to 2013
FLOOD - Risk to people and buildings	Reduce future community *vulnerability by planning* for additional emergency services resources in response to population increases and other demographics	Department of Emergency Services (DES)	**$10,000 per 5 years**	Department of Emergency Services (DES)	Every 5 years
FLOOD - Risk to people and buildings	Reduce the vulnerability of the community at risk by improvements to the tributary flood warning and flood forecasting systems	Ipswich City Council (ICC) and Bureau of Meteorology (BoM)	**$2 million over 10 years $1 million over 10 years**	NDRM Program	Ongoing to 2013
FLOOD - Risk to people and buildings	Reduce the vulnerability of *the community at risk* by making flood warnings easier to interpret and apply	Ipswich City Council (ICC)	**$100,000**	NDRM Program	June 2004
FLOOD - Risk to people and buildings	Improve flood preparedness of industrial/commercial premises by encouraging the preparation of flood management plans for enterprises in flood risk areas	Ipswich City Council (ICC)	**$20,000 pa**	NDRM Program	Ongoing to 2013
FLOOD - Risk to people and buildings	Reduce the vulnerability of the community at risk by community education and awareness	Ipswich City Council (ICC)	$ 40, 000 pa	NDRM Program	Ongoing to 2013
FLOOD - Risk to people and buildings	Improve response ability by expansion of GIS to include NDRM issues, and making it available for Emergency Services operations, including training of personnel	Ipswich City Council (ICC) and State Emergency Services (SES)	$20,000 pa	NDRM Program	Ongoing to 2013
FLOOD - Risk to environment, lifelines and critical facilities	High velocity flows during flood results in risk of river bank erosion and possible avulsion (course change)	Ipswich City Council (ICC) and Ipswich River Improvement Trust (IRIT)	**$5,000,000**	NDRM Program	December 2002

RISK TREATMENT SUMMARY					
C) PROPOSED FUTURE ACTIONS SUBJECT TO AVAILABILITY OF FUNDING					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
FLOOD - Risk to environment, lifelines and critical facilities	Reduce recurring flood damage to rural roads (gravel)	Ipswich City Council (ICC)	**$2,000,000 over 10 years**	NDRM Program	June 2003
FLOOD - Risk to environment, lifelines and critical facilities	Increase flood immunity of major highways (Ipswich Motorway/Brisbane Rd, Warrego Highway & Cunningham Highway to at least 20 Year ARI	Department of Main Roads	**$60,000,000 over 10 years**	NDRM Program/ State Roads Program	Completion by 2013
FLOOD - Risk to environment, lifelines and critical facilities	Increase signage at roads at risk of flooding to reduce risk to public safety	Ipswich City Council (ICC) and Dept of Main Roads	**$20,000**	NDRM Program	June 2003
FLOOD - Risk to environment, lifelines and critical facilities	Prepare database/GIS maps showing rail closure/re-open sequences	Ipswich City Council (ICC) and Queensland Rail (QR)	**$10,000**	NDRM Program	December 2002
FLOOD - Risk to environment, lifelines and critical facilities	Determine requirements for relocation of surface infrastructure below 100 Year ARI flood level	Water supply and Sewerage Ipswich Water (ICC) Power Supply - Energex Communications Infrastructure Telstra, Optus, Vodaphone etc	**$2,000,000 over 10 years** **$2,000,000 over 10 years** **$2,000,000 over 10 years**	NDRM Program	June 2003
FLOOD - Risk to environment, lifelines and critical facilities	Relocate critical facilities below PMF level Telephone exchanges at Ipswich, Brassall and Booval Ambulance Stations - Ipswich, Redbank Police Stations-Goodna	Ipswich City Council (ICC) and facility owners	**$60,000,000** **$2,000,000** **$2,000,000**	NDRM Program	by 2013
SEVERE STORM	Reduce the vulnerability of the community at risk by community education and awareness of storm related issues.	Ipswich City Council (ICC)	**$20 000 pa**	NDRM Program	Ongoing to 2013
SEVERE STORM	Underground cable implementation	Ipswich City Council (ICC) in coordinating role Energex, Telstra etc for implementation as asset owners	**$10,000,000 over 10 years**	NDRM Program	Ongoing to 2013
SEVERE STORM	Reduction of lifeline exposure	Ipswich City Council (ICC) in coordinating role Energex, Telstra etc for implementation as	**$2,500,000 over 10 years**	NDRM Program	Ongoing to 2013

RISK TREATMENT SUMMARY					
C) PROPOSED FUTURE ACTIONS SUBJECT TO AVAILABILITY OF FUNDING					
HAZARD	ENDORSED TREATMENT	RESPONSIBLE AGENCY	ESTIMATED COST	FUNDING SOURCE	TIMEFRAME
		asset owners			
SEVERE STORM	Reduce risk to critical facilities by duplication of power supplies (or standby generation facility) and telecommunications	Ipswich City Council (ICC) in coordinating role Facility owners/operators for implementation	**$10,000,000 over 10 years**	NDRM Program	Ongoing to 2013
SEVERE STORM	Reduce future community vulnerability by planning for additional emergency services resources in response to population increases and other demographics	Department of Emergency Services (DES)	**$10,000 per 5 years**	Department of Emergency Services (DES)	Every 5 years
SEVERE STORM	Reduce the vulnerability of the community at risk by community education and awareness of storm related issues	Ipswich City Council (ICC)	**$20,000 pa**	NDRM Program	Ongoing to 2013
SEVERE STORM	Improve response ability by expansion of GIS to include NDRM issues, and making it available for Emergency Services operations, including training of personnel	Ipswich City Council (ICC) and State Emergency Services (SES)	**$20,000 pa**	NDRM Program	Ongoing to 2013
BUSHFIRE	Reduce the vulnerability of the community at risk by community education and awareness of bushfire related issues	Ipswich City Council (ICC)	**$20,000pa**	Department of Emergency Services (DES)	Every 5 years
BUSHFIRE	Seek voluntary adoption of current standards for housing pre-dating bushfire provisions in the Building Code	Ipswich City Council (ICC)	**$5,000 pa**	Ipswich City Council (ICC)	Ongoing unless found to be ineffective
BUSHFIRE	Improve response ability by expansion of GIS to include NDRM issues, and making it available for Emergency Services operations, including training of personnel	Ipswich City Council (ICC) and State Emergency Services (SES)	**$10,000 pa**	NDRM Program	Ongoing
BUSHFIRE	Review engineering of overhead power lines and telephone cables (bushfire prone areas), including consideration of relocating underground in high risk areas	Ipswich City Council (ICC) in coordinating role Energex, Telstra etc for implementation as asset owners	**$10,000,000 over 10 years**	NDRM Program	Ongoing until completed

RISK TREATMENT SUMMARY					
C) PROPOSED FUTURE ACTIONS SUBJECT TO AVAILABILITY OF FUNDING					
HAZARD	**ENDORSED TREATMENT**	**RESPONSIBLE AGENCY**	**ESTIMATED COST**	**FUNDING SOURCE**	**TIMEFRAME**
BUSHFIRE	Timber bridge replacement program	Ipswich City Council (ICC)	**$5,000,000 over 10 years**	NDRM Program	Ongoing until completed
BUSHFIRE	Minimise exposure of lifelines, consider reducing hazard to critical roads from falling power lines and trees	Ipswich City Council (ICC) in coordinating role Energex, Telstra etc for implementation as asset owners	**$2,500,000 over 10 years**	NDRM Program	Ongoing
BUSHFIRE	Monitor and evaluate current fire management and fuel reduction strategies	Ipswich City Council (ICC) and Rural Fire Service	**$20,000 pa**	NDRM Program	Ongoing
BUSHFIRE	Relocate critical facilities	Ipswich City Council (ICC) and facility owners	**$2,500,000 over 10 years**	NDRM Program	Ongoing until completed
TOTAL			**$344 620 000**		

Annexure S

ANNEX (S) NDRA & SDRA GUIDELINES



Queensland Government
Counter Disaster and Rescue Services
Department of Emergency Services

NATURAL DISASTER

FINANCIAL ASSISTANCE ARRANGEMENTS

WITHIN QUEENSLAND

2004/2005
(V2.0)

PREFACE

Responsibility for activating and co-ordinating natural disaster financial relief measures within Queensland lies with the Minister for Emergency Services. Counter Disaster and Rescue Services within the Department of Emergency Services provide direct support for this role.

This booklet provides an overview of financial arrangements for the activation and delivery of natural disaster relief and assistance within Queensland.

The text is presented by way of an executive summary followed by 7 Sections which, explain the formal disaster relief arrangements and assistance scheme guidelines:

Section 1	The Agencies responsible for administering Disaster Relief and associated Assistance Schemes, the functions they perform, where they are located and who to contact;
Section 2	Natural Disaster Financial Arrangements, the activation process and a summary of Natural Disaster Relief Measures;
Section 3	The formal guidelines (for Disaster Relief Measures) that have been pre-agreed with the Commonwealth Government; and
Sections 4-7	Administration instructions for the Natural Disaster Relief Measure *Restoration of Public Assets*. Includes generic administration instructions (Section 4) as well as instructions specifically for Local Governments (Section 5), River Improvement Trusts (Section 6) and Government Departments (Section 7).

Application documentation is available from the Agency responsible for each specific assistance measure.

For latest version availability, the document is published electronically and is available under the publications tab on the State Disaster Management website (www.disaster.qld.gov.au) or by E-mail transfer on request, where web access is unavailable.

Enquiries regarding information contained within this booklet should be referred to Counter Disaster and Rescue Services (CDRS), Department of Emergency Services - Telephone (07) 3247 8950; Facsimile (07) 3247 8475; E-mail khansen@emergency.qld.gov.au

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EXECUTIVE SUMMARY OF KEY NDRA PROVISIONS

The Natural Disaster Relief Arrangements (NDRA) provide a cost sharing formula between the State and Commonwealth Governments as well as a package of pre-agreed relief measures that may be activated by the Queensland Government on a needs basis. ***(Commonwealth/State Arrangements 2-1; Cost sharing formula 2-3; Relief Measure Summary 2-4 to 2-7)***

Under the cost sharing formula, for 2004-2005 Queensland will meet a 'base' initial amount of $45.6M. The next $34.1M will be shared Commonwealth 50% / State 50% with expenditure in excess of $79.7M shared Commonwealth 75% / Queensland 25%. ***(Cost sharing formula 2-3)***

NDRA relief measures are not compensation based. Assistance is targeted at those in the communities who are unable to provide for their own recovery. The relief schemes are essentially a 'safety-net' for those affected by disasters. ***(NDRA Objective 2-2)***

Eligible natural disasters under NDRA include any one of, or combination of, the natural phenomena; Bushfire, Cyclone, Earthquake, Flood, Storm, Storm Surge and also Landslide consequential upon an eligible event. Eligible disasters do not include disasters where poor environmental planning, commercial development, personal intervention or accidents are significant contributing factors to the event. Social, environmental and technological disasters are ineligible. ***(Commonwealth/State Arrangements 2-1; Eligible NDRA Events 2-2)***

The threshold amount for activation of Commonwealth/State funding is $240,000; ie expenditure by the State on eligible relief measures must exceed $240,000. For isolated disaster events that do not reach the $240,000 threshold, State funded Disaster Relief Arrangements (SDRA) apply to relief measures for community response and assistance to individuals. ***(State Support 2-1; Eligible Natural Disaster Events 2-2; Activation of NDRA Assistance 2-2)***

The package of pre-approved natural disaster relief measures includes schemes for needy individuals, community response activities, asset restoration and assistance to primary producers, small business owners and the assets of non-profit organisations. ***(Relief Measures 2-4 to 2-7; Formal guidelines - Section 3)***

The Minister for Emergency Services is responsible for the activation and co-ordination of disaster relief measures. A Specific Department or Agency administers each NDRA relief measure. ***(Relief Measures 2-4 to 2-7; Administration Agencies contact details 1-1)***

Community response (counter disaster operations), is administered by the Department of Emergency Services through Counter Disaster & Rescue Services. ***(Relief Measure Summary – Counter Disaster Operations 2-4; Formal Guidelines 3-1)***

Department of Communities administers assistance to needy individuals. Assistance categories include emergency assistance, replacement of essential household contents and dwelling repairs to return homes to a habitable and secure condition. With the exception of emergency assistance payments, eligibility for all other assistance categories is means tested. ***(Relief Measure Summary – Disaster Relief Assistance Scheme 2-5; Formal Guidelines 3-2 to 3-5)***

EXECUTIVE SUMMARY OF KEY NDRA PROVISIONS

Department of Communities administers assistance to Clubs, Churches, Sporting Associations and Non-Profit Organisations. Loans with an accompanying grant are available to facilitate the re-establishment of damaged facilities. ***(Relief Measure Summary – Associations Natural Disaster Relief Scheme 2-5; Formal Guidelines 3-16)***

The Queensland Rural Adjustment Authority administers concessional loan assistance to disaster affected primary production and small business enterprises. Upper limits - A cumulative total of $150,000 per applicant applies consisting of carry-on (max $100,000) and restocking (max $100,000). ***(Relief Measure Summary - Concessional Loans to Primary Producers; Concessional Loans to Small Businesses 2-6; Formal Guidelines 3-11 to 3-14)***

The Department of Primary Industries and Fisheries administers freight subsidy schemes for primary producers. These schemes are tailored to address specific needs following a disaster event and may apply to the movement of food, building materials, stock, fodder, machinery or food. Concessions of up to 50% may be approved. A maximum subsidy ceiling of $5,000 applies to Commonwealth/State funded schemes. ***(Relief Measure Summary – Freight Subsidies to Primary Producers 2-6; Formal Guidelines 3-15)***

The Department of Local Government and Planning administers asset restoration funding for Local Governments and Community Councils. Following activation of the Restoration of Public Assets NDRA relief measure, Councils are considered for assistance once the cost of eligible works exceeds their 'trigger-point' amount. ***(Relief Measure Summary - Restoration of Public Assets 2-5; Formal Guidelines 3-7 to 3-10; Trigger Point listing 5-5 to 5-7)***

Trading Undertakings of State and Local Governments are ineligible for NDRA asset restoration funding. Ineligible trading undertakings include Public Transport, Ports and Waterways, Housing, Garbage collection, Electricity & Gas, Aerodromes and Abattoirs and also Water Supply & Sewerage. Significant damage to the undertakings of smaller Local Governments (where the undertakings are funded with significant public contributions) to be considered on a case-by-case basis. ***(Relief Measure Summary – Restoration of Public Assets 2-5; Local Governments 3-7; Public Assets ineligible works 4-1; Government Departments – Ineligible Authorities 7-1)***

Trigger-points for larger Councils are calculated at 1% of general rate revenue receipts. Smaller Councils trigger-points are calculated as a percentage of Queensland's 'base' amount. For 2004-2005 the trigger-point amount for smaller Local Government's (for consideration of NDRA funding) is $114,000. ***(Relief Measure Summary – Restoration of Public Assets 2-5; Formal Guidelines - Financing 3-10;Trigger point Formula/Local Government Listing 5-5 to 5-7)***

Councils with a rate revenue base of less than $3M become eligible for a trigger-point/maximum contribution amount of $50,000 (instead of $114,000) following completion of a disaster risk assessment based on Australian and New Zealand Risk Management Standard AS/NZS 4360:1999. ***(State Support 2-1; Relief Measure Summary - Restoration of Public Assets 2-6; Formal Guidelines - Financing 3-10, Local Government listing 5-5 to 5-7)***

EXECUTIVE SUMMARY OF KEY NDRA PROVISIONS

Once assistance has been triggered, Councils contribute (towards eligible restoration costs) at the rate of 25% until their contribution equals their trigger–point amount. Thus a Council with a trigger-point of $114,000 and damage of $120,000 will contribute 25% of restoration costs; ie $30,000. For damage of $300,000 the contribution would be $75,000 (25% of $300,000). For damage of $456,000 and greater the contribution would be $114,000 (trigger-point amount). ***(Contribution Levels of Local Governments 5-4; Local Government Listing 5-5 to 5-7)***

River Improvement Trusts asset damage is aggregated with the encompassing Local Government for the purpose of both triggering NDRA assets restoration funding and determining the amount to be contributed towards eligible works. ***(Activation of NDRA Assistance 2-2; Relief Measure Summary – Restoration of Public Assets 2-5; Trust Contribution 6-2)***

Government Departments and Agencies contribute a full 25% towards the restoration of eligible Departmental assets. ***(Formal Guidelines – Financing 3-10; Departmental Contribution Level 7-1)***

The re-supply of essential foodstuffs to communities isolated by a disaster event is provided under the Disaster management Policy on "Resupplying Isolated Communities". Copies of the policy are available from District Managers of Counter Disaster and Rescue Services or from under the publications tab at the Disaster Management website (www.disaster.qld.gov.au). ***(District Manager Contact Details 1-2)***

Costs involved in the purchase and dropping of fodder to stock isolated by a disaster event (fodder dropping operations) are not eligible for Commonwealth/State NDRA funding. Should a large scale need exist following a severe disaster event, the Queensland Government would consider an appropriate package of arrangements on a case-by-case basis. As part of this package, NDRA funded freight subsidies may apply. ***(Relief Measure Summary – Counter Disaster Operations 2-4)***

ADMINISTRATION AGENCIES

SECTION 1

Section 1 summarises the Agencies responsible for Natural Disaster Relief/Assistance Measures, where they are located and contact details.

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ADMINISTRATION AGENCIES

Assistance Category	Authority
ACTIVATION & CO-ORDINATION OF DISASTER RELIEF MEASURES	Counter Disaster & Rescue Services (CDRS) Department of Emergency Services Telephone [redacted]
COUNTER DISASTER OPERATIONAL EXPENDITURE	Facsimile [redacted] Address GPO Box 1425 Brisbane QLD 4001 Queensland Districts – Contact CDRS District Managers *(Contact Details Page 1-2)*
PERSONAL HARDSHIP NEEDS Disaster Relief Assistance Scheme (Assistance to needy persons – Household contents; Dwelling repairs)	Department of Communities Co-ordinator (Brisbane): Telephone [redacted] Facsimile [redacted] Address GPO Box 806 Brisbane QLD 4001
NON-PROFIT ORGANISATIONS Associations Natural Disaster Relief Scheme (Loans and Grants)	Brisbane City Region Gold Coast Region Ipswich & Logan Region Caboolture & Redcliffe Region Sunshine Coast Region Toowoomba & South West Region Wide Bay Burnett Region Central Queensland Region Mackay & Whitsunday Region Townsville & Hinterland Region Cairns & Tablelands Region Remote & North West Region [redacted]
HOME REBUILDING	
PUBLIC ASSETS RESTORATION LOCAL GOVERNMENTS	Department of Local Government and Planning Telephone [redacted] Facsimile Address GPO Box 31 Brisbane Albert Street Q 4002
RIVER IMPROVEMENT TRUSTS	Department of Natural Resources and Mines Telephone [redacted] Facsimile Address GPO Box 2454 Brisbane QLD 4001
GOVERNMENT DEPARTMENTS	Counter Disaster & Rescue Services (See Contact details above)
PRIMARY PRODUCERS & SMALL BUSINESS OWNERS (Concessional Loans)	Queensland Rural Adjustment Authority Telephone 1800 623 946 Facsimile [redacted] GPO Box 211 Brisbane QLD 4001
FREIGHT SUBSIDIES (For Primary Producers)	Department of Primary Industries and Fisheries Telephone [redacted] Facsimile Address GPO Box 46 Brisbane QLD 4001

ADMINISTRATION AGENCIES

District Managers – Counter Disaster and Rescue Services

Area Director, **Far North**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 242
CAIRNS QLD 4870
Ph:
Fax:

Area Director, **Darling Downs**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 831
TOOWOOMBA QLD 4350
Ph:
Fax:

Area Director, **North**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 5845
TOWNSVILLE QLD 4810
Ph:
Fax:

Area Director, **South West**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 141
ROMA QLD 4455
Ph:
Fax:

Area Director, **Mount Isa**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 1295
MOUNT ISA QLD 4825
Ph:
Fax:

Area Director, **Burnett**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 1842
BUNDABERG QLD 4670
Ph:
Fax:

Area Director, **Capricorn**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 1397
ROCKHAMPTON QLD 4700
Ph:
Fax:

Area Director, **North Coast**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 457
GYMPIE QLD 4570
Ph:
Fax:

Area Director, **Mackay**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 10359
MT PLEASANT QLD 4740
Ph:
Fax:

Area Director, **South East**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 301
BEENLEIGH QLD 4207
Ph:
Fax:

Area Director, **Central West**
Counter Disaster and Rescue Services
Dept of Emergency Services
PO Box 245
LONGREACH QLD 4730
Ph:
Fax:

Area Director, **Metropolitan**
Counter Disaster and Rescue Services
Dept of Emergency Services
GPO Box 2953
BRISBANE QLD 4001
Ph:
Fax:

SECTION 2

Section 2 provides a broad outline of the financial mechanisms utilised by the Queensland Government to provide assistance to disaster stricken communities.

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NATURAL DISASTER FINANCIAL ARRANGEMENTS

THE COMMONWEALTH/STATE ARRANGEMENTS (NDRA)

The prime mechanism utilised by the Queensland Government for providing financial assistance to communities affected by natural disaster events is the Commonwealth/State Natural Disaster Relief Arrangements (NDRA).

These arrangements provide a cost sharing formula (between the Queensland and Commonwealth Governments) as well as a range of pre-agreed relief/assistance measures that may be activated by the Queensland Government immediately that a need has been established. The Commonwealth Minister for Regional Services Territories and Local Government determines terms and conditions of assistance under NDRA (including loan and subsidy ceilings). All assistance schemes must comply with the Minister's determination and are subject to Commonwealth acceptance.

STATE SUPPORT FOR DISASTER STRICKEN COMMUNITIES

The activation of financial relief schemes is only one of a number of ways by which the Queensland Government assists those affected by natural disaster.

Support is also provided through:

Emergency Service Agencies:
Counter Disaster and Rescue Services including disaster mitigation and risk management methodology, co-ordination of Disaster Operations, State Emergency Service & Volunteer Marine Rescue Organisations, Queensland Rescue (helicopters);
Queensland Ambulance Service;
Queensland Fire and Rescue Service; and
Queensland Police Service.

A range of services by State Departments and Agencies:
Key areas are Public Safety, Health and Welfare, Financial Services; Community Recovery Services; Engineering and Reconstruction; Support for Primary Producers; and Small Business Operators.

Contributions to Public Appeals.

State funded Disaster Relief Arrangements (SDRA) for the NDRA relief measures "Disaster Relief Assistance Scheme" and "Counter Disaster Operations". SDRA allows activation of assistance for disaster-affected individuals and communities following isolated disaster events that do not reach the $240,000 threshold for NDRA Commonwealth/State funding. ***(Eligible Natural Disaster Events 2-2; SDRA 2-7)***

Aggregation of River Improvements Trusts (RIT) with their encompassing Local Government for the purpose of both triggering NDRA asset restoration funding and determining the amount to be contributed towards eligible restoration expenditure. ***(Trust Contribution 6-2; Local Government Listing 5-5 to 5-7)***

A lower trigger point/contribution level of $50,000 for smaller Local Governments (with a rate revenue base of less than $3M) that have completed a disaster risk assessment based on the Australian and New Zealand Risk Management Standard AS/NZS 4360:1999. A number of smaller Local Governments took advantage of the lower trigger point/contribution level by completing an interim process to identify potential hazards, assess the risk and then reflecting the results in the Local Government's Land Use and Counter Disaster Plans. ***(Restoration of Public Assets 2-5 to 2-6; Local Government Listing 5-5 to 5-7)***

This concession for smaller Local Governments is to support Local Governments in complying with clause 3.3 of the Commonwealth determination of NDRA terms and conditions. Clause 3.3 states that a pre-requisite for Commonwealth funding is the existence of disaster mitigation strategies or a commitment to develop and implement such a strategy within a reasonable timeframe.

NATURAL DISASTER FINANCIAL ARRANGEMENTS

THE OBJECTIVE/INTENTION OF NDRA

To assist the recovery of communities whose social, financial and economic well-being has been severely affected by a natural disaster event.

NATURAL DISASTER FINANCIAL ARRANGEMENTS

- The activation of relief measures is dependent on a demonstrated need for a particular category of assistance and also whether:

Damage was caused by an eligible natural disaster event; and
State expenditure on eligible NDRA assistance measures will exceed $240,000. (Where the $240,000 Commonwealth/State funding threshold will not be reached, the Minister may consider the activation of State funded assistance for community response or personal hardship needs).

- Should natural disaster damage occur to the assets of Local Government/s and either projected State expenditure does not exceed $240,000 or the damaged works are ineligible for NDRA funding (i.e. trading undertakings such as water supply or sewerage works) then, the provision of Queensland Government funded assistance will only be considered in those cases where the level of expenditure is beyond the Authority's financial capacity.

Once the 'Public Assets Restoration' relief measure has been activated, each Council/River Improvement Trust will be considered for NDRA funding once aggregated expenditure (on eligible NDRA works) exceeds a set 'trigger point' amount.

The 2004-2005 'trigger point' amount for all but the larger Local Governments is $114,000. This amount may be reduced to $50,000 for Local Governments and Community Councils with a rate revenue base of $3M or less that have completed the disaster risk assessment process. ***(State Support 2-1; Restoration of Public Assets 2-5 to 2-6; Local Government Listing 5-5 to 5-7)***

Clause 3.2 of the Commonwealth determination of NDRA terms and conditions of NDRA states that a prerequisite for NDRA assistance is recognition by the States of the Commonwealth contribution to relief assistance under NDRA. This recognition specifically applies to advice to victims of both the activation of NDRA and availability of relief assistance. To comply with this requirement, public advices and press releases by Queensland Government Agencies should refer to assistance under NDRA as being jointly funded by the Queensland and Commonwealth Governments.

AREA DEFINED FOR RECEIPT OF NDRA RELIEF MEASURES

In order to determine disaster affected communities eligible for NDRA assistance, the Minister for Emergency Services will define a specific geographic area to which NDRA relief measures will apply. This 'area definition' will also indicate the disaster event and its timing. Typically the area definition will read - *Communities within* [insert geographic area] *affected by* [insert eligible disaster type ie flooding, storms, cyclone etc)] *in/ from [insert month or date].*

The definition of an area to receive NDRA funding should not be confused with the formal declaration of a 'Disaster Situation', which may be invoked by the Minister for Emergency Services under the Disaster Management Act 2003. This short-term declaration provides additional operational powers to Police and Emergency Services during and in the immediate wake of a disaster event. Both the State of Disaster declaration and activation of State and Local Government Disaster Plans have no link to the provision of NDRA relief measures.

COMMONWEALTH/STATE COST SHARING FORMULA

Under NDRA, Commonwealth/State NDRA cost sharing in 2004-2005 will be the greater of the following:

- An amount equal to 50% of all eligible expenditure incurred on Personal Hardship measures; or
- An amount calculated over the total expenditure incurred in 2004-2005 for all eligible relief/assistance measures activated for all eligible disasters:

First $45,573,750	Qld Government 100%
Next $34,180,313	Commonwealth/Qld 50%/50%
Additional expenditure (in excess of $79,754,063)	Commonwealth/Qld 75%/25%

The 'base' amount ($45,573,750) is calculated as a percentage (0.225%) of Queensland's budget

sector receipts for the financial year two (2) years earlier. Queensland must spend this initial amount (on NDRA eligible assistance measures) before Commonwealth cost sharing will commence.

The 'extended base' amount (next $34,180,313; eligible for 50/50 cost sharing) is calculated as a percentage (75%) of the 'base' amount.

NATURAL DISASTER RELIEF MEASURES

The Queensland Government may invoke NDRA relief measures immediately that an eligible disaster event has occurred and a need for assistance established. Following is a summary of NDRA relief measures that may be activated to assist individuals and communities affected by disaster events; formal guidelines for these schemes are included at ***Section 3.***

Where these relief measures are inadequate or inappropriate having regard to the circumstances of a particular disaster, additional assistance measures will be considered. Further disaster specific details and application documentation may be obtained from the Authority responsible for each specific scheme.

Counter Disaster Operations (To alleviate Community Personal Hardship)

Administering Authority – Counter Disaster and Rescue Services, Department of Emergency Services.

- Expenditure by the State Agencies (including Emergency Services) and Local Governments on Counter Disaster Operations to assist community response/recovery and ensure the safety of life, health and property.

- All non-capital community response operational costs by Local Governments and State Agencies are potentially eligible including:
  - Wages (day labour/auxiliaries)/Overtime/Allowances (excludes base salaries)
  - Temporary Employment Costs
  - Transportation/Charter Costs (all transportation modes)
  - Plant Hire (vehicles, plant and equipment, including hire rates for Council plant)
  - Meals (SES units, Council employees, volunteers, disaster victims)
  - Fuels (petrol, diesel, gas etc)
  - Consumables used and not recovered (rope, batteries, plastic sheet, sandbags, tarps etc)
  - Repair/replacement of damaged equipment (includes additional servicing costs)
  - Evacuation & Evacuation Centre costs
  - Disaster Co-ordination Centre costs
  - Greenwaste/debris removal originating from private property
  - Emergent public health/safety matters including temporary works to protect community or private assets (To considered on a case-by-case basis)

  Ineligible expenditure includes:

  The purchase of assets and equipment (office and operational) where the life of the item extends beyond the current operation.

  Administrative/base salary expenditure (salaries, rostered shifts etc) that would have been incurred even if the disaster event had not occurred.

- Fodder dropping operations are not eligible for NDRA funding. These operations are considered for State funding on a case-by-case basis. Fodder dropping operations include the purchase of fodder, delivery to an airfield and the air freight/delivery/dropping of the fodder to stranded stock. In an approved operation, the purchase of fodder and delivery to a designated airfield would be a primary producer responsibility. Depending on circumstances, NDRA freight subsidies may apply. State assistance would be limited to aircraft hire costs.

Disaster Relief Assistance Scheme (To alleviate Individual Personal Hardship)

NATURAL DISASTER FINANCIAL ARRANGEMENTS

Emergency Assistance of up to $150 per person ($700 per family) to disaster affected persons in emergent circumstances. Emergency Assistance is based strictly on the basis of need and provides for the acquisition of food, clothing, accommodation and medical supplies in the immediate aftermath of a natural disaster.

- Means tested grants to eligible applicants for essential household contents (food, bedding, clothing etc) and repairs to dwellings.
- Upper Limits:
  - * Essential Household Contents Grant:
    Individual Applicants - $1,500
    Applicant Couples - $4,400
  - * Repairs to Dwellings:
    Individual Applicants - $9,100 (less the amount paid as Essential Household Contents Grant)
    Applicant Couples - $12,200 (less the amount paid as Essential Household Contents Grant)
- Administering Authority –Department of Communities

Associations Natural Disaster Relief Scheme

- Concessional Loans and accompanying grants (to Sporting and other Non-Profit Organisations which are unable to provide for their own recovery) to restore assets to pre-disaster standard.
- Upper Limits - Loan/Grant initially in the ratio 5:1 up to $100,000 loan; $5,000 grant.
- Loan Conditions - 4.0% pa; seven (7) Years
- Administering Authority – Department of Communities.

Restoration of Public Assets

- Grants to Local Governments and Government Departments for the restoration of essential eligible public assets to the equivalent of their pre-disaster standard.
- Assistance towards Local Government/River Improvement Trust restoration costs are considered once each Council's/Trusts aggregated expenditure (on eligible works) is in excess of a set 'trigger point' amount. For all but the larger Councils, the 2004-2005 trigger point amount is $114,000. For Councils with a rate revenue base of less than $3M, a lower amount ($50,000) will apply after completion and approval of a disaster risk assessment.
- Governmental and Local Government Trading Undertakings (ports, waterways, aerodromes, housing, water supply and sewerage etc) are ineligible. Significant damage to the undertakings of smaller Local Governments (where the undertakings are funded with significant public contributions) will be considered on a case-by-case basis.
- The maximum amount that each Local Government is required to contribute is identical to its trigger point amount.

NATURAL DISASTER FINANCIAL ARRANGEMENTS

Each Local Governments Trigger Point/Contribution level amount (applicable to each NDRA disaster event) is determined as follows:

- Larger Local Governments - 1% of General rate Revenue
- Other Local Governments - 0.25% of Queensland's NDRA base expenditure amount (ie 0.25% of $45,573,750 = $114,000)
- For smaller Local Governments with a rate revenue base of less than $3M, a lower threshold of $50,000 applies after completion of a disaster risk assessment based on the Australia and New Zealand Risk Management Standard AS/NZS 4360:1999

- 2004-2005 trigger point/contribution levels are included in the Restoration of Public Assets – Instructions for Local Governments section. ***(Local Government Listing 5-5 to 5-7)***

- Administering Authority for Local Governments – Department of Local Government and Planning.

Concessional Loans to Primary Producers

- Concessional Loans (to Primary Producers who are unable to provide for their own recovery) for carry-on needs, stock replacement and restoration of fixed/landed assets.

- Upper Limits: Carry-on - up to $100,000
  Restocking - up to $100,000 (Cumulative total - $150,000)

- Loan Conditions - 4.0% pa.; seven (7) Years

- Administering Authority - Queensland Rural Adjustment Authority

Freight Subsidies to Primary Producers

- Freight subsidy schemes are tailored to address specific needs or deficiencies that may exist during and following a natural disaster event.

- Concessions of up to 50% may be approved for the movement of essential items including food, building materials, stock, fodder, water, machinery or fuels.

- Subsidy Ceiling of $5,000 per applicant.

- Administering Authority - Department of Primary Industries and Fisheries.

Concessional Loans to Small Businesses

- Concessional Loans (to Small Business Operators who are unable to provide for their own recovery) to re-establish operations following physical loss.

- Upper Limits - Carry-on & Re-establishment - $100,000 (Cumulative total per recipient $150,000).

- Loan Conditions - 4.0% pa; seven (7) Years.

- Administering Authority - Queensland Rural Adjustment Authority.

CONCESSIONAL LOAN TERMS AND CONDITIONS

The following terms, conditions and loan ceilings are common to all NDRA Concessional loan relief measures:

- Assistance is restricted to applicants who do not have the capacity to recover using either their own resources or commercial finance. Loans are NOT intended as compensation for damage incurred.

NATURAL DISASTER FINANCIAL ARRANGEMENTS

- Assistance may only be provided where the enterprise has sustained substantial damage and is considered to be potentially viable.
- A loan limit of $100,000 applies to each borrower per single category of assistance. (More than one category of assistance may be available; ie 'carry-on/restoration' and also 'restocking'.)
- An upper limit of $150,000 applies for aggregate NDRA loans per borrower; ie all NDRA loans for each borrower for all disasters. However, where genuine need is demonstrated, consideration will be given to the provision of loans above the maximum limits (State financed).
- The initial interest rate of 4.0% pa. is subject to annual review and subsequent adjustment if the borrowers circumstances improve.
- The maximum initial repayment term of seven (7) years may be subject to later adjustment up to a maximum of ten (10) years where warranted by individual circumstances. However, the loan must have been operative for a minimum of four (4) years.
- Provision exists for deferment of repayments for up to two (2) years provided that the loan and interest charges are repaid over the balance of the approved term.

NDRA SUBSIDY CEILING

A NDRA subsidy ceiling of $5,000 applies to each recipient per natural disaster event. Personal Hardship measures are exempt from this limit.

NDRA GST TREATMENT

Reimbursement of costs incurred by Local Governments, State Agencies, SES/RFS Units and non-profit organisations – When claiming **expenditure reimbursement** the amount to be submitted should be the **GST exclusive** actual cost incurred per Australian Taxation Office Private Ruling Authorisation Number 30199 of 4 July 2003. (It should be noted that the act of seeking the reimbursement is not considered to be a supply per Australian Taxation Office Ruling GSTR2000/11).

STATE DISASTER RELIEF ARRANGEMENTS (SDRA)

Following disaster events, the Minister for Emergency Services may activate financial relief measures under the Commonwealth/State (funded) Natural Disaster Relief Arrangements (NDRA) or the State (funded) Disaster Relief Arrangements (SDRA).

The purpose of SDRA is to address personal hardship and community response needs for disaster events that fall under the NDRA activation threshold of $240,000. SDRA relief measures for Personal Hardship (**Disaster Relief Assistance Scheme *2-5 and 3-2 to 3-6***) and community response activities (**Counter Disaster Operations *2-4 and 3-1***) are the same relief measures that are activated under NDRA, only the funding source differs.

As a State funded assistance package, SDRA is not subject to the Commonwealth imposed event eligibility provisions or the activation threshold ($240,000) that exists under NDRA. As a consequence, SDRA is able to address a wider range of disaster events and circumstances where personal hardship exists.

The protection, emergency repairs and restoration of State and Local Government assets is not covered under SDRA. The restoration of Public Assets Relief Measure requires NDRA to be activated.

SECTION 3

Section 3 reproduces the formal relief measure guidelines that have been pre-agreed between the Commonwealth and Queensland Governments under the Commonwealth/State Natural Disaster Relief Arrangements.

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FORMAL NDRA GUIDELINES
Counter Disaster Operations
(To Alleviate Personal Hardship and Distress)

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1. **PURPOSE**

To determine eligibility under NDRA Personal Hardship and Distress for the reimbursement of expenditure incurred by the Queensland Government during counter disaster operations.

2. **ELIGIBLE EXPENDITURE CATEGORIES**

The following categories of State counter disaster expenditure (by Local Government, the Emergency Services and other State Agencies) are eligible for reimbursement under NDRA:

(a) The net cost of emergency food/essential supply drops to stranded individuals or communities.

(b) Transportation costs for manpower, equipment and materials.
- Includes aircraft/vessel/vehicle transport, charter and hire costs.

(c) Non-capital expenses
- Includes vehicle and helicopter operating costs, food, fuels and other expendable or consumable items necessary for immediate usage.
- Also includes vehicle or equipment repairs and additional servicing required as a direct consequent of relief operations.

(d) Overtime, travel expenses/allowances, temporary employment costs.
- Excludes normal (pre-disaster) administrative commitments (salaries etc), which would otherwise have been incurred.

(e) The activation, co-ordination and administration of NDRA Relief Measures
- Excludes pre-disaster salary and other committed costs which would otherwise have been incurred.

(f) Emergent expenditure to ensure the safety of life, health and property.
- Includes the construction of structures/ earthworks and movement/ hire/ use of; buildings, machinery, equipment, specialist skills and personal possessions (eg temporary levy banks/sandbagging to divert floodwaters, evacuations and shelters, emergent public health matters etc).

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FORMAL NDRA GUIDELINES
Disaster Relief Assistance Scheme
(To Alleviate Personal Hardship and Distress)

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1. PURPOSE

The Disaster Relief Assistance Scheme is designed to provide disaster relief assistance to disaster-affected persons whose financial position is such that they are unable to provide for their own recovery.

Subject to eligibility, the scheme provides grants towards the replacement or repair of Essential Household Contents as well as assistance towards dwelling repairs to a habitable and secure condition.

The Department of Communities administers the scheme in Queensland.

2. APPLICATION PROCEDURE

Applications are accepted on the official Disaster Relief Assistance application form.

Emergent assistance payments of up to $150 per person ($700 maximum) may be paid:

To applicants in emergent need, in the immediate aftermath of a disaster.
To eligible applicants pending a home inspection and finalisation of assessment of their application.

NOTE: AMOUNTS ADVANCED AS EMERGENT ASSISTANCE ARE DEDUCTED FROM THE ESSENTIAL HOUSEHOLD CONTENTS GRANT.

Home inspections are conducted, wherever possible, prior to assessment of the amount of the Essential Household Contents grant. Essential Household Contents grants are paid directly to applicants.

Those applicants eligible for Repairs to Dwellings assistance are requested to obtain quotations for repair of eligible works. Two quotations are required for repairs in excess of $1,000. These quotations are compared with the estimated cost of repairs provided by the Department of Public Works.

Applicants are informed of the acceptable quotation and advised to authorise repairs to proceed. The scheme provides for payment to repairers upon receipt of invoices certified by the applicants that the repairs have been satisfactorily completed.

3. ELIGIBILITY

Broadly, the scheme is aimed at assisting those in the community who, because of their financial situation, are unable to provide for their own recovery from the effects of natural disaster. Eligibility under the Disaster Relief Assistance Scheme is determined by reference to income and assets tests.

Applications must also meet the following criteria:

(a) Damage or loss must be the result of an eligible natural disaster.

(b) The applicant must be the owner of the property lost or damaged. With respect to claims for Repairs to Dwellings, the applicant must be the owner-occupier and the dwelling must be the applicant's sole place of residence.

(c) Only loss or damage of essential items and repairs to render dwellings habitable and secure are claimable.

FORMAL NDRA GUIDELINES
Disaster Relief Assistance Scheme
(To Alleviate Personal Hardship and Distress)

(d) The scheme does not aim to replace all losses, to compensate for losses or to operate as an alternative to insurance, but rather as assistance to persons whose financial position is such that they are unable to provide for their own recovery.

4. *ASSISTANCE*

Disaster relief assistance is available to those (suffering loss or damage as the result of a natural disaster) who meet the means test and other eligibility criteria.

The Essential Household Contents Grant provides assistance with respect to the loss of or damage to food, essential clothing and household effects.

The Repairs to Dwellings assistance provides for payments to a repairer to return owner occupied dwellings, including caravans, to a habitable and secure condition.

(a) Essential Household Contents Grants:

The loss or damage of the following attracts assistance under the Essential Household Contents Grants up to the maximum limits shown. The amount of the grant is not to exceed the value of the loss. The upper limit of Essential Household Contents Grants is:

Individual Applicant	$1,500
Applicant Couples/Families	$4,400

i) **Food**

Individual Applicant	$ 80
Applicant Couples	$ 160 per couple
Children	$ 20 each

ii) **Cooking Utensils**

Loss or damage beyond repair	$ 200
Repairs	$ 80

Non fixture stoves are claimable. Installed stoves are included in Repairs to Dwellings.

iii) **Bedding, Linen and Essential Furniture**

Mattresses	- Single	$ 70
	- Double	$ 80
Sheets	- Single pair	$ 40
	- Double pair	$ 70
Blankets	- Pair	$ 150

Household Linen

Individual Applicant	$ 80
Applicant Couples/Families	$ 200

Essential Furniture

Beds	- Single	$ 160
	- Double	$ 200
Table		$ 100
Chairs	- Each	$ 50

Wardrobes

Individual Applicant	$ 150
Applicant Couples/Families	$ 310

Dining room table and chairs are only claimable with respect to a dwelling without an eat-in kitchen.

iv) **Floor Coverings** $ 20 per metre - Maximum assistance $240

v) **Clothing**
Essential clothing only
Persons 14 yrs and over - up to $410 per person
Children 13 yrs and under - up to $240 per child

vi) **Refrigerators, Hot Water Systems, Washing Machines**
Repair or assistance towards purchase - $290 per unit
Consideration can be given to replacement costs for those with special needs ie. Elderly, babies, infirm.

(b) **Repairs to Dwellings**

The repair of dwellings, including caravans, is eligible for owner-occupiers to the extent necessary to return the dwelling to a habitable and secure condition.

In circumstances where the repair costs of a caravan exceeds its pre-disaster value, assistance towards the purchase of a replacement caravan is limited to the lesser of pre-disaster value or assistance limit.

The process following application is for the dwelling to be inspected and assessment made on the extent of natural disaster damage to the dwelling and the estimated cost to return it to a habitable and secure condition. The owner is then required to obtain a quote or quotes for the authorised repairs.

Payment is made to the repairer, on certification by the owner that the work has been satisfactorily completed.

The upper limit of Repairs to Dwelling assistance is:

- Individual Applicant - $9,100 (Less amount paid as Essential Household Contents Grant)
- Applicant Couples/Families - $12,200 (Less amount paid as Essential Household Contents Grant)

Where the cost of essential repairs for eligible applicants exceeds these amounts and all avenues of alternative assistance have been exhausted, consideration will be given to additional assistance on a case-by-case basis.

5. INCOME AND ASSETS TESTS

The income and assets tests are designed to provide assistance to those persons whose financial position is such that they are unable to provide for their own recovery.

(a) **Income**

The upper income limits calculated on gross weekly earnings are:

Individual Applicant	$590 per week *
Applicant Couples/Families	$790 per week *

* These limits are increased by $50 per week for each dependant.

The Essential Household Contents Grant or Repairs to Dwelling Assistance is reduced by 2.5% for each dollar of income in excess of these limits i.e. Reduced grants are available up to $40 in excess of these limits.

(b) **Assets**
The upper assets limits are:

Pensioners	$21,200
Other Applicants	$ 5,100

The approved amount for Essential Household Contents Grants or Repairs to Dwelling assistance is reduced $1 for $1 for assets in excess of the upper limits. Assets taken into account are:

Cash;
Bank Accounts;
Building Society Accounts;
Other Financial Institution Accounts;
Shares, Debentures, Bonds;
Properties; and
Business/Primary Production Equity & Assets.

The applicant's dwelling is not subject to the assets test.

6. WHERE TO APPLY

Payments will normally be made from offices of the Department of Communities. However, specific payment outlets will be established and publicised following a disaster. Enquiries regarding the operation of this scheme should be made to the following Departmental Offices:

Brisbane City Region	(07) 3405 6373
Gold Coast Region	(07) 3804 9133
Ipswich & Logan Region	(07) 3280 1777
Caboolture & Redcliffe Region	(07) 5490 1040
Sunshine Coast Region	(07) 5475 0060
Toowoomba & South West Region	(07) 4688 4063
Wide Bay Burnett Region	(07) 4197 7900
Central Queensland Region	(07) 4938 4699
Mackay & Whitsunday Region	(07) 4951 5920
Townsville & Hinterland Region	07) 4799 7110
Cairns & Tablelands Region	(07) 4039 8354
Remote & North West Region	(07) 4039 8354

NOTE: ALL AMOUNTS SPECIFIED ARE SUBJECT TO REVIEW ON JULY 1ST EACH YEAR. THE LATEST REVIEW WAS CONDUCTED IN JULY 2004.

FORMAL NDRA GUIDELINES
Concessional Loans to Needy Persons
For Home Rebuilding or Substitute Purchase

1. PURPOSE

This relief measure is designed to assist needy homeowners to rebuild or replace their residences following a natural disaster. Assistance would not generally be available where adequate insurance could be effected at reasonable rates.

2. ELIGIBILITY

The applicant must personally own and occupy the dwelling. The applicant's net realisable assets (excluding the value of the residence and the land on which it is situated) and income must be insufficient to repair or rebuild the residence without undue hardship.

The applicant must be unable to obtain the finance necessary to repair or rebuild the residence or obtain a substitute residence from normal sources of housing finances and must be able to provide first mortgage security.

3. AMOUNT OF LOAN

The amount of the loan will be calculated as follows:

(a) The net cost of repairs, rebuilding, or substitute purchase will be abated by:

i) 3 per cent for each dollar that the applicant's gross income (exclusive of overtime) exceeds $590 per week for a single person and $790 per week for a couple plus in each case an additional $50.00 per week for each dependent other than a spouse. In the case of an applicant with spouse, the income to be taken into consideration is the combined income of both adults.

Where an applicant has an employed child living at home, the child shall not be regarded as a dependent and 25 per cent of his weekly income shall be added to the income of the applicant.

ii) One dollar for each dollar by which, the net realisable assets at the time of the disaster exceeded $5,100 ($21,200 for pensioners), having regard for the extent to which they had been or would have been taken into account in assessing his personal hardship and distress application.

(b) The loan so calculated shall not exceed $100,000.

4. TERMS OF THE LOAN

A Concessional interest rate and normal Department of Local Government and Housing conditions.

The maximum initial repayment term of seven (7) years is subject to later adjustment up to a maximum term of ten (10) years where warranted by individual circumstances. The minimum repayment will be interest only but this shall only apply in the most needy cases. Only first mortgage security will be taken.

FORMAL NDRA GUIDELINES
Grants for Restoration of Public Assets and Emergency Protection and Repair Works by State, Local and Semi-Government Authorities

1. GENERAL

Following a disaster where this relief measure is approved, all Local Governments and relevant Government Departments within the affected area are invited to submit estimates of restoration costs as well as costs incurred on emergency protection and repair work. Should a Local Government or Government Department suffer damage from a natural disaster event for which grant assistance has not been approved, the Authority may submit a case (for assistance).

The financial assistance given may vary for each disaster. Special instructions modifying any of these predetermined principles may be issued in respect of a specific disaster.

2. APPLICATION PROCEDURE

Local Governments and Government Departments should submit full damage details including location, extent and cause of damage and restoration costs.

Where it is impossible to give specific details of damage immediately, a generalised description and preliminary estimate of cost should be submitted followed by specific details as soon as possible. Preliminary estimates of cost should be as accurate as possible.

Estimates are used for grant approval purposes. However, **only actual expenditure (on approved works) is eligible for grant assistance or additional appropriation (Government Agencies).**

Where an improvement in standard is involved, assistance is limited to the amount approved for restoration to the pre-existing standard.

Assistance is administered by:

Local Governments	Department of Local Government and Planning
River Trusts	Department of Natural Resources and Mines
Government Departments	Queensland Treasury through Department of Emergency Services

3. ELIGIBLE PUBLIC AUTHORITY

An Eligible Public Authority means a public undertaking which has been established by (or by virtue of) a law of the State, being a government department, ministry, office, local government body or other body which provides community, social or economic services outside the normal market mechanism. These are either free of charge or at a nominal charge well below the costs of production. Other undertakings may be agreed between the Queensland and Commonwealth Governments in light of special circumstances and include, but not limited to, those funded with significant public contributions.

Ineligible public undertakings include:

(a) a public financial undertaking which is primarily engaged in financial transactions in the market involving both the incurring of liabilities and the acquisition of financial assets; and

(b) a public trading undertaking which is primarily engaged in the production of goods and services for sale in the market with the intention of recovering all or a significant proportion of its operating costs.

Other than in exceptional circumstances, financial and trading undertakings of State and Local Governments such as those listed below would not be regarded as an eligible public undertaking:

- Abattoirs;
- Aerodromes;
- Banking and Insurance;
- Brickworks and Quarry Operations;
- Electricity and Gas Supply;
- Garbage Collection;
- Housing & Rented Property (other than Welfare Housing);
- Operation of Ports and Waterways;
- Product Marketing and Handling;
- Public Transport (excluding Railways);
- Sewerage Services; and
- Water Supply (including irrigation).

Significant damage to the undertakings of smaller Local Governments (where the undertakings are funded with significant public contributions) will be considered on a case-by-case basis.

4. ELIGIBLE WORKS

Funds are normally provided to restore damage by flood submergence, wind or wave action but may be restricted in a particular disaster to any of a number of conditions. The particular measures covered are advised when estimates/claims are being sought. Also eligible for funding is landslide damage that is the direct result of bushfire, cyclone, earthquake, flood, flood surge or storm where poor environmental planning practices or commercial development have not been significant contributing factors.

The term "public assets" may be taken as any structure or facility that is the property of an eligible Public Authority where that Authority is also responsible for the asset's maintenance.

Assets include such items as roads and bridges, buildings, plant, equipment and stores, etc. but not natural banks and beds of streams (except as hereunder), undeveloped public land, beaches, natural trees and shrubs, also otherwise eligible public assets damaged by saturation; see paragraph 6 ***(Road Base Saturation 3-10)*** for details of eligible road base saturation.

The term "restoration of damage" may be taken to apply to any expenditure (not covered by insurance) incurred by the Authority on the following:

(a) Emergent works necessary during the course of a disaster to protect eligible public assets or to restore essential services. This could include earthmoving, rock placing, sand-bagging, installation of tarpaulins, and removal of an asset or stores to prevent damage;

(b) Immediate post-disaster repairs to an eligible asset to enable it to operate/be operated at a reasonable level of efficiency - this would include clean up costs, removal of silt, debris etc. and emergent repairs;

(c) Reconstruction or replacement of the asset to its previous standard only.

NOTE: SALARIES, WAGES AND OTHER ADMINISTRATIVE COSTS THAT WOULD HAVE BEEN INCURRED IRRESPECTIVE OF THE DISASTER, ARE NOT ELIGIBLE FOR ASSISTANCE.

Estimates must be submitted on a sufficiently detailed basis to enable the nature of the damage and the location of the damaged asset to be ascertained.

Damage as the result of "flood submergence" is regarded as that caused by:

(a) Inundation (overtopping) by flood waters either rising from natural streams and watercourses or from concentrated overland flows along natural drainage features.

(b) Concentration of surface runoff in drainage systems including overtopping thereof. Drainage systems are defined as natural streams, watercourses, natural drainage features and man-made drains lined and unlined, but **NOT** road pavements, road formations and road table drains, road catch drains, road kerb and channel and associated stormwater systems. Eligible damage under this category is confined to assets constructed within or over the drainage system.

Damage consequential to inundation as defined in (a) and (b) above, due to pavement failure under traffic, is eligible.

By way of example under (b) above:

(a) Lengthways scouring of a road would be ineligible for assistance as the damage is not within or over an eligible drainage system.

(b) Cross-road washouts within or over eligible drainage systems would be eligible for assistance (i.e. damage at creek and gully crossings, inverts, etc).

(c) Any damage within, or caused by overtopping of road drainage systems, would be ineligible.

Landslide damage (that is the direct result of bushfire, cyclone, earthquake, flood, flood surge or storm where poor environmental planning or commercial development have not been significant contributing factors) is eligible under Category 1 Submergence.

5. ADDITIONAL DETAILS

Natural banks of streams are not considered as constructed assets. However, where a change in bank regime occurs adjacent to an existing constructed protection work, the estimate can include any extension of the pre-existing asset required to provide equivalent stability to the physical system of protection existing prior to the flood event.

Natural foundations of constructed assets are considered as part of the constructed asset within a boundary defined by a batter of one vertical to one horizontal from the outer toe of the constructed asset.

Where a constructed asset is restored or replaced by one of a standard higher than existed previously or, because of gross damage, is relocated, the cost of restoration to its pre-existing standard in its original location only is eligible for grant recoupment. Accordingly, separate estimates are required in these cases. The excess cost of improvement in standard or the excess of the cost of relocation over the cost of restoring in the previous location is usually met under normal loan/subsidy conditions.

Doubtful cases not expressly covered by these guidelines should be referred to the relevant Administering Authority for determination.

6. ROAD BASE SATURATION

Where road base saturation damage has occurred following an eligible natural disaster event, assistance is available as a contribution towards upgrading damaged road sections to a standard that will withstand future damage.

Under this assistance category funding is:

(a) Restricted to damage caused by road base saturation of sealed roads (and subsequent deterioration under traffic) as a direct result of an eligible natural disaster;

(b) Limited to the estimated cost of returning such damaged road to the equivalent standard prior to the disaster event;

(c) Conditional on the Authority concerned upgrading the damaged road section to a standard which would withstand future damage; and funding the upgrading component of the works; and

(d) Provided as a 'once only' contribution towards each upgraded road section.

7. FINANCING

State, Local and Semi-Governmental Authorities, with the exception of Local Government Authorities, Aboriginal and Community Councils and River Improvement Trusts are required to meet from their own sources a full 25% of expenditures approved in terms of these arrangements.

River Improvement Trust asset damage is aggregated with the encompassing Local Government for the purpose of determining the level of contribution required.

Local Governments are required to meet 25% of expenditures approved in terms of the arrangements but with a maximum contribution for each disaster of either:-

(a) 1% of a Council's general rate revenue receipts for the financial year two (2) years earlier; or

(b) 0.25% of Queensland's base expenditure amount for the current financial year whichever is the greater.

However, no Council will be required to contribute in excess of 2.5% of Queensland's base expenditure amount for the current financial year for each disaster.

For Councils under (b) above with a rate revenue base of less than $3M, a contribution level of $50,000 will apply following completion of a disaster risk assessment based on Risk Management Standard AS/NZS 4360:1999.

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FORMAL NDRA GUIDELINES
Concessional Loans To Primary Producers for Carry-on, Restocking And Restoration Purposes

1. PURPOSE

This relief measure is designed to assist in meeting the needs of Primary Producers to recover following natural disasters of substantial magnitude. Assistance would not generally be available where adequate insurance could be effected at reasonable rates.

The Queensland Rural Adjustment Authority administers the measure.

2. APPLICATION PROCEDURE

Primary producers who have suffered substantial loss from a natural disaster should contact their local Department of Primary Industries and Fisheries Office and request that the affected property be declared Disaster Stricken.

In the event that a significant number of properties in a shire are affected by a disaster, consideration will be given to declaring a geographically definable area for the purpose of providing assistance.

Once Department of Primary Industries and Fisheries) has issued an Individual Disaster Stricken Property (IDSP) certificate or the property included in the area defined for receipt of assistance (by the Minister, Department of Emergency Services) primary producers requiring assistance may apply to Queensland Rural Adjustment Authority for a disaster loan.

IDSP certificates will only be given to property owners who have suffered losses from natural disasters that would significantly affect the operation of their enterprise.

The scheme is not intended to encourage producers in marginal production areas to increase risks in farming operations. It will be up to the applicant to show that excessive risks had not been taken.

Following the activation of this relief measure:

i) Specific disaster guidelines are forwarded to Branches of Commercial Lenders in the affected areas.

ii) Applications should be made to the Queensland Rural Adjustment Authority.

3. ELIGIBLE DISASTERS

Eligible disasters include floods, cyclones, storms, bushfires and earthquakes. Also landslides that are the direct result of bushfire, cyclone, earthquake, flood or storm where poor environmental planning practices or commercial development have not been significant contributing factors. Storms can include hail, wind, rain or various combinations of these elements.

(a) **Eligibility**

Applicants must:

i) Be in working occupation of their properties;

ii) Have used up all liquid assets and all normal credit sources up to normal credit limits;

FORMAL NDRA GUIDELINES
Concessional Loans To Primary Producers for Carry-on, Restocking And Restoration Purposes

iii) Be considered to be viable with the assistance provided; and

iv) Have taken reasonable precautions to minimise or prevent the disaster.

(b) **Purpose of Loan Assistance**

Loans are provided for carry-on requirements including replanting, restoration and re-establishment of affected areas, sustenance, essential property operations and payments of rent, rates and repair and/or replacement of farm buildings and for re-stocking.

Loans are not intended to compensate for losses suffered.

(c) **Maximum Loan Amounts**

The following limits apply:

i)	carry-on:	Up to $100,000)
ii)	restocking:	Up to $100,000) cumulative total per recipient of $150,000

(d) **Interest Rates**

i) Declared Disaster Area - Primary Producers who are situated in a disaster stricken area will be eligible for a concessional interest rate.

ii) Individual Disaster Stricken Properties (IDSP) - Primary producers affected by a single isolated natural disaster will be offered loans at the current commercial lending rate.

For those primary producers in category (ii) above, the Board of the Queensland Rural Adjustment Authority may use their discretion in exceptional cases to approve a concessional interest rate provided applicants are considered viable and in desperate circumstances.

(e) **Repayment**

A maximum initial repayment term of seven (7) years applies. This term is subject to later adjustment up to a maximum term of ten (10) years, where warranted by individual circumstances provided the loan has been operative for a minimum period of four (4) years.

Provision for deferment of repayments for up to two (2) years provided the loan and interest charges are repaid over the balance of the approved term.

(f) **Security**

Security will be in the form of a mortgage over appropriate landed assets commensurate with the support provided. Lodgement of a priority-servicing document will be required.

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FORMAL NDRA GUIDELINES
Concessional Loans to Small Businesses for Carry-on and Re-Establishment Costs

PURPOSE

This relief measure is designed to assist in meeting the needs of industry and small business to re-establish operations on a viable basis following the effects of instantaneous natural disasters (cyclones or severe flooding etc).

Short-term loan funds may be made available in those cases where significant damage has occurred to buildings, plant and equipment and stock. Assistance would not generally be available where adequate insurance could be effected at reasonable rates.

The Queensland Rural Adjustment Authority administers the measure.

2. **ELIGIBLE DISASTERS**

(a) **Application Procedure**

Following the activation of this relief measure:

i) Specific guidelines are forwarded to Branches of Commercial Lenders in the affected areas.

ii) Applications should be made to the Queensland Rural Adjustment Authority.

(b) **Eligibility**

Loans may be made to business enterprises suffering physical loss as a direct result of the natural disaster event upon the following conditions:

i) Applicants must be sole owners, partnerships or private companies, but not public companies alone or in association with other companies.

ii) Applicants must have sustained substantial damage to buildings, plant, equipment and stock (where the cost of essential repair or replacement is the applicant's responsibility) and have had their financial liquidity severely affected.

iii) Applicants must be unable to effect repairs or replacement and be unable to return to viable operations from their own resources without this assistance and must be able to demonstrate that they have used up all liquid assets and normal credit sources up to normal credit limits.

iv) Applicants must be able to demonstrate that with the assistance of this loan there are reasonable prospects of re-establishing the business on a viable basis.

v) v) The extent of loan assistance is based on a careful assessment of the applicant's financial position including any insurance recoveries.

FORMAL NDRA GUIDELINES
Concessional Loans to Small Businesses for Carry-on and Re-Establishment Costs

c) **Amount of Loan and Terms**

A maximum loan of $100,000 for any applicant enterprise.

An aggregate loan ceiling of $150,000 (all categories of assistance for all disasters) also applies to each borrower.

A maximum initial repayment term of seven (7) years. Subject to later adjustment up to a maximum term of ten (10) years where warranted by individual circumstances provided the loan has been operative for a minimum period of four (4) years.

Provision exists for deferment of repayments for up to two (2) years provided the loan and interest charges are fully repaid over the balance of the approved term.

Each application is judged on its merits as to need of the applicant, amount of loan and subsequent viability of the business and all information supplied regarding financial affairs is kept strictly confidential.

The amount of the loan is not to exceed the amount of net loss sustained by the applicant.

Security will be in the form of a mortgage over appropriate landed assets commensurate with the support provided.

The terms of loans, interest rates and repayment conditions as specified in (a) and (b) may be varied at the discretion of the State.

Moneys lent are for the purpose of repair and/or replacement of damaged plant and equipment, repairs to buildings and replacement of stock losses, either raw materials or finished products, up to a maximum of one month's supply and to maintain liquidity of the operation.

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FORMAL NDRA GUIDELINES
Freight Subsidies

1. GENERAL

Assistance schemes will be tailored to address specific deficiencies that have occurred as a direct consequent of an eligible natural disaster event.

2. ELIGIBLE MOVEMENTS

Dependent on circumstances, concessions could apply for the movement of:

Foodstuffs
Building/Fencing Materials
Stock
Fodder
Water
Machinery/Equipment\
Fuels

3. ASSISTANCE

A rate of concession will be determined for each assistance scheme activated.

Except in exceptional circumstances, the rate will not exceed 50%. For road transport, a maximum rate per km may also apply.

A subsidy ceiling of $5,000 will apply to each recipient per natural disaster event.

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FORMAL NDRA GUIDELINES
Associations Natural Disaster Relief Scheme
(Concessional Loans and Grants to Churches, Clubs, Sporting Associations and other Voluntary Non-Profit Organisations for re-Establishment Costs)

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1. PURPOSE

This relief measure is designed to assist in meeting the needs of Associations to re-establish facilities following natural disaster damage. Assistance would not generally be available where adequate insurance could be effected at reasonable rates.

The Department of Communities administers the measure.

2. APPLICATION PROCEDURE

Following the activation of this relief measure application forms and explanatory notes are made available to those Churches and Associations that have requested assistance.

Completed applications should be addressed to the Associations Natural Disaster Relief Scheme, Department of Communities, GPO Box 806, Brisbane, Queensland 4001. All applications are assessed and advice forwarded to the Association concerned.

3. ELIGIBILITY

Those eligible to apply are Churches or other Associations that have sustained substantial damage as a direct result of a natural disaster. Assistance is limited to the cost of restoration of the organisations assets to pre-damage standard.

Projects eligible for assistance include restoration of damage to clubrooms, grandstands, playing fields, shower blocks, sporting equipment and other facilities. Assistance towards loss of revenue and replacement of damaged liquor and food stocks is not available.

The financial position of the organisation is taken into account and the applicant body must be unable to effect necessary repairs or replacements from its own resources and have exhausted alternative sources of assistance. Each application is judged on its merits as to need of the applicant and the ability of the applicant to repay the loan.

4. AMOUNT OF LOAN AND TERMS

Assistance is by way of a combination of loan and grant up to maximum amounts of $100,000 loan and $5,000 grant for any one applicant. The first $30,000 (or part thereof) of assistance provided will be by way of loan and grant in the ratio of 5:1.

An aggregate loan ceiling of $150,000 (all categories of assistance for all disasters) also applies to each borrower. After taking into account any insurance recovery, the amount of the loan is not to exceed the net cost of restoring disaster-damaged assets to pre-disaster standard.

A maximum initial repayment term of seven (7) years. Subject to later adjustment up to a maximum term of ten (10) years where warranted by individual circumstances. Security for the loan should be the best available from the applicant body.

The terms of loans, interest rates and repayment conditions may be varied at the discretion of the State.

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RESTORATION OF PUBLIC ASSETS
Activation Process and Generic Eligibility Criteria

SECTION 4

Section 4 provides details of the NDRA activation process and generic administration instructions for the Natural Disaster Relief Measure 'Restoration of Public Assets'. Sections 5, 6 and 7 provide specific instructions for Local Governments, River Improvement Trusts and Government Agencies respectively.

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RESTORATION OF PUBLIC ASSETS
Activation Process and Generic Eligibility Criteria

ACTIVATION PROCESS

The Minister for Emergency Services, supported by Counter Disaster and Rescue Services, Department of Emergency Services, is responsible for co-ordinating all aspects of disaster relief including the activation and administration of assistance measures.

After the event and initial evaluation of damage, loss and personal hardship, the Queensland Government will immediately approve those disaster relief measures that are considered appropriate.

Should natural disaster damage occur to the assets of an Authority (or Authorities) and either projected State expenditure does not exceed $240,000 or the damaged works are ineligible for NDRA funding (i.e. water supply or sewerage works) then the provision of assistance (NDRA or State) will only be considered in those cases where the level of expenditure is beyond the Authority's financial capacity.

Following approval of the 'Restoration of Public Assets' assistance measure, each Authority will be considered for funding once expenditure (on eligible NDRA works) exceeds a set 'trigger point' amount.

Each Authority approved for **restoration** funding will be required to contribute 25% of the value of approved works up to a maximum amount equal to the Authority's trigger point amount. The maximum contribution level applies to each disaster event where assistance is approved. For 2004-2005 disaster events, the trigger point/maximum contribution level for all but the larger Councils is $114,000.

PURPOSE OF ASSISTANCE

To encourage the speedy restoration of essential public assets damaged by natural disasters by providing grant funding towards the restoration of essential constructed eligible public assets to the equivalent of their pre-disaster standard.

INELIGIBLE WORKS/ASSETS

Damage to natural (non-constructed) assets such as creek banks and beaches.

Maintenance type works that would have been required irrespective of the disaster event.

State and local Government 'Trading Undertakings' such as abattoirs, aerodromes, garbage collection, quarries, housing and rented property (other than welfare housing), insurance, electricity and gas, operation of ports and waterways, public transport (excluding railways), sewerage services, water supply (including irrigation) and other enterprises competing with the private sector.

In 'exceptional circumstances', damage to trading undertakings may be considered for funding. However, to successfully argue a case for funding, the Authority concerned MUST be able to demonstrate that the 'exceptional' expenditure involved is beyond its financial capacity to meet from either loan or revenue sources. Significant damage to the undertakings of smaller Local Governments (where the undertakings are funded with significant public contributions) will be considered on a case-by-case basis.

Rainfall damage (which does not result in flood submergence) is not eligible. However, where road base saturation has occurred to a sealed road following an eligible disaster event, funding (to pre-disaster standard) is available (under a special assistance category) on the condition that the damaged road sections are upgraded to a standard that will withstand future damage.

RESTORATION OF PUBLIC ASSETS
Activation Process and Generic Eligibility Criteria

DEFINITIONS

The terms "Public Assets", "Restoration of Damage" and "Flood Submergence" are defined at paragraph 4 in the formal guidelines. ***(Eligible Works 3-8 to 3-9)***

'AT RISK' ASSETS

The Disaster Relief Arrangements are NOT a source of finance by which, assets in 'at risk' locations may be repeatedly repaired. In these circumstances, repair works may be determined as ineligible for grant assistance.

UPGRADING OF PRE-DISASTER STANDARD

GRANT ASSISTANCE MAY ONLY BE PROVIDED TO RESTORE CONSTRUCTED ASSETS TO THE EQUIVALENT OF THEIR PRE-DISASTER STANDARD (and condition). Should the opportunity be taken to reconstruct an asset to a higher standard, the upgrading component will be ineligible for grant assistance.

Where the pre-disaster standard of a damaged asset was less than its originally constructed specification (due to age or poor maintenance) a percentage of reconstruction works will be regarded as "upgrading". To satisfy Commonwealth reporting requirements, advice is required where upgrading is significant.

FLOOD SUBMERGENCE

Paragraph 4 of the formal guidelines ***(Eligible Works 3-8 to 3-9)*** details various examples of eligible and ineligible "drainage systems".

Please note that road pavements/formations or any road drainage systems (including road table drains, road catch drains, road kerb and channelling) are regarded as ineligible drainage systems. Consequently, all damage originating from the overtopping or blockage of any road drainage system is ineligible for grant assistance.

SATURATION

Damage caused by saturation of road foundations (as opposed to overtopping of the road surface) is eligible for assistance under a special Category.

LANDSLIDES

Landslide damage that is the direct result of bushfire, cyclone, earthquake, flood, flood surge or storm where poor environmental planning or commercial development have not been significant contributing factors is eligible under Category 1 Submergence.

Examples of eligible works caused by landslip are:

- Saturated cutting collapses onto road. Restore cutting and road pavement to pre-disaster standard.

- Saturated cutting collapses onto road. Slippage soaks (saturates) road base causing road base and natural foundation under road to collapse down mountain/hill side. Restoration of cutting, road natural foundation and road base to pre-disaster standard.

- Saturated cutting collapses resulting in the slippage taking out the road base and natural foundations under road. Restoration of road natural foundation and road base to pre-disaster standard.

- Saturated cutting collapses onto road and subsequent damage to road pavement as a result of traffic. Restoration of cutting, road natural foundation and road base to pre-disaster standard.

Overhanging batters caused by a landslide, if trimmed back to original batter slope are eligible.

Materials used in the restoration of road base and natural foundation to pre-existing standard that are different from what existed pre-disaster, will not be regarded as an upgrade if the cost is less than restoring the asset with original material type. An example is using concrete pile/slab construction under the road base in reconstructing the foundations instead of rebuilding the foundations with natural materials.

Separate estimates are required in these cases to demonstrate the cost difference.

In all landslide cases, expenditure incurred in immediate post disaster clearing of soil and debris from an asset (such as a road surface) would be eligible for assistance.

CLEAN-UP and DEBRIS REMOVAL

Under paragraph 4 of the formal guidelines ***(Eligible Works 3-8 to 3-9)*** eligible expenditure includes "immediate post disaster repairs to an asset (including debris removal) to enable it to operate at a reasonable level of efficiency". To be eligible the asset must be controlled by the Agency concerned. Debris etc on/from private lands/properties is ineligible under the Restoration of Public Assets relief measure but will be considered under the Counter Disaster Operations NDRA relief measure.

It follows that while clearing/clean-up works to reopen roads, causeways or buildings are a legitimate charge, longer-term removal/pruning costs are ineligible.

As only immediate post disaster repair works are eligible, claims for clean-up/debris removal will only be accepted where expenditure is incurred within one month following a Natural Disaster event.

Following cyclone and storm disaster events, clean-up/debris removal may be required on a large scale and disposal may become a major issue. In these cases, all works performed by local governments associated with proper disposal (e.g., the establishment and provision of access to and the management of dumps) are to be approved by the Director-General, Department of Local Government and Planning (DLGP).

Should conditions prevail where approved works are no longer necessary for the IMMEDIATE disposal of natural disaster debris, any expenditure on such works will be disallowed under the natural disaster funding arrangements.

RESTORATION OF PUBLIC ASSETS
Activation Process and Generic Eligibility Criteria

'RUN-OFF' AND EROSION DAMAGE

To be eligible for assistance, damage to an eligible constructed asset (or the foundations of an eligible constructed asset) must have occurred as a direct result of "flood submergence" as defined in paragraph 4 of the formal guidelines. ***(Eligible Works 3-8 to 3-9)***

STREAM BANK RESTORATION

Restoration of natural creek banks and gullies are ineligible for grant assistance unless the work relates to the natural foundations of an eligible constructed asset as defined in paragraph 5 of the formal guidelines. ***(Additional Details 3-10)***

EXPENDITURE TIME LIMIT

All expenditure on approved damage restoration is subject to a time limit of two (2) years after the end of the financial year in which the relevant disaster occurred. Approvals for the restoration of damage caused by disasters that occurred in 2002-2003 will lapse at 30 June 2005.

All Authorities should attempt to finalise approved restoration works within twelve months following a disaster event. The Commonwealth regards an essential public asset as one that is an integral and necessary part of the State's infrastructure such that its loss of use would unduly disrupt the ongoing activities of the community. Assets which are left to a "repair later" approach could be regarded as non-essential works and therefore ineligible for grant assistance.

SECTION 5

Section 5 provides specific instructions for Local Governments and Community Councils

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RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

INTRODUCTION

The following administrative guidelines will:

- Assist Local Governments/Community Councils and Departmental Reporting Officers to determine the eligibility of restoration works for grant assistance; and
- Indicate the procedure, format and individual details required when submitting an application for grant assistance. ***(Application procedures 5-8 to 5-15)***

These instructions complement and are to be read along with the formal guidelines for the Natural Disaster Relief Measure "Grants for the Restoration of Public Assets and Emergency Protection and Repair Works by State, Local and Semi-Government Authorities". ***(Formal NDRA Guidelines 3-7 to 3-10)***

PURPOSE OF ASSISTANCE

To restore essential constructed eligible public assets damaged by high winds, wave action, flood submergence or landslides (in certain circumstances) to the equivalent of their pre-disaster standard; includes roads, bridges, public buildings and other essential services.

EXISTING NDRA ASSISTANCE

Prior to submitting a detailed application for restoration funding following a new disaster event, each Local Government will need to determine whether or not the public assets (in particular local government roads) under an existing restoration program have been subsequently damaged by the new disaster in the same location.

If the same assets have been subsequently damaged (ie existing restoration works are no longer representative of the works required to restore the asset to pre-disaster standard) the local government would need to submit a final claim under the existing restoration program. The level of NDRA assistance for the new disaster will be determined from the local government's application which should include the estimated cost of unrepaired damage from the existing restoration program as well as the estimated cost of additional damage caused by the new disaster.

If other assets are damaged and/or if the same assets are damaged but not in the same location, the level of NDRA assistance will be determined from the estimated cost of damage caused by the new disaster.

ELIGIBLE WORKS

The natural disaster relief measure "Grants for the Restoration of Public Assets and Emergency Protection and Repair Works by State, Local and Semi-Government Authorities" provides assistance that can be split into two separate categories:

Category 1 Restoration of damage caused by bushfire, cyclone, earthquake, flood, storm, storm surge or landslide (consequential upon an eligible event); and

Category 2 Restoration of damage due to road base saturation and subsequent deterioration under traffic.

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

Eligible Works (Category 1)

In cyclone and storm events, funds are normally provided to restore damage by flood submergence, wind or wave action but may be restricted in a particular disaster to specific conditions. The particular measures covered are advised when estimates/claims are being sought.

The term "public assets" may be taken as any structure or facility that is the property of an eligible Public Authority and that Authority is responsible for the asset's maintenance. Assets include such items as roads, streets and bridges, buildings, plant, equipment and stores.

Local Government trading undertakings are ineligible. ***(Ineligible Works/Assets 4-1)***

Natural banks and beds of streams, undeveloped public land, beaches, natural trees and shrubs are ineligible. The cost of restoring eligible public assets damaged by landslides is also ineligible where poor environmental planning practices or commercial development have been significant contributing factors.

The term "restoration of damage" may be taken to apply to any expenditure (not covered by insurance) incurred by the Authority on the following:

a) Emergent works necessary during a disaster to protect public assets or to restore essential services. This could include earthmoving, rock placing, sand-bagging, installation of tarpaulins, and removal of an asset or stores to prevent damage;

b) Immediate post-disaster repairs to an eligible asset to enable it to operate at a reasonable level of efficiency - this would include clean up costs, removal of silt, debris and emergent repairs. Longer term removal/pruning costs are ineligible; and

c) Reconstruction or replacement of the asset to its previous standard and condition only.

NOTE: Salaries, wages and other administrative costs that would have been incurred irrespective of the disaster are not eligible for assistance.

Where roadway restoration works require the reinstatement of gravel washed away by flooding, the associated claim must reflect the cost of gravel replacement to the thickness that existed on the road before the flooding.

Only immediate post disaster repair works are eligible for assistance. Consequently claims for clean up/debris removal etc will only be accepted where expenditure is incurred within one month following a natural disaster event.

Damage as the result of "flood submergence" is regarded as that caused by:

a) Inundation (overtopping) by flood waters either rising from natural streams and watercourses or from concentrated overland flows along natural drainage features; and

b) Concentration of surface runoff in drainage systems including overtopping thereof. Drainage systems are defined as natural streams, watercourses, natural drainage features and man-made drains lined and unlined, but **NOT** road pavements, road formations and road table drains, road catch drains, road kerb and channel and associated stormwater systems. Eligible damage under this category is confined to assets constructed within or over the drainage system.

Damage consequential to inundation as defined in a) and b) above, due to pavement failure under traffic is eligible.

By way of example under b) above:

- Lengthways scouring of a road would be ineligible for assistance as the damage is not within or over an eligible drainage system.
- Crossroad washouts within or over eligible drainage systems would be eligible for assistance (ie damage at creek/gully crossings and inverts).
- Any damage within, or caused by overtopping of road drainage systems, would be ineligible.
- Sheet scouring caused by heavy rain on gravel roads would be ineligible.

Landslide damage that is the direct result of bushfire, cyclone, earthquake, flood, flood surge or storm where poor environmental planning or commercial development have not been significant contributing factors is eligible under Category 1 Submergence. ***(Landslides 4-2 and 4-3)***

Additional Details (Category 1)

Natural banks of streams are not considered as constructed assets. However, where a change in bank regime occurs next to an existing constructed protection work, the estimate can include any extension of the pre-existing asset required to provide equivalent stability to the physical system of protection existing before the flood event.

Natural foundations of eligible constructed assets are considered as part of the constructed asset within a boundary defined by a batter of one vertical to one horizontal from the outer toe of the constructed asset.

Where an eligible constructed asset is restored or replaced by one of a standard higher than existed previously or, because of gross damage, is relocated, the cost of restoration to its pre-existing standard in its original location only is eligible for grant recoupment. Separate estimates are required in these cases.

The excess cost of improvement in standard or the excess of the cost of relocation over the cost of restoring in the previous location is usually met under normal loan/subsidy conditions.

Where cleanup/debris removal is required on a large scale and disposal becomes a major problem, all works associated with proper disposal (eg the establishment and provision of access to and the management of dumps) are to be approved in writing by the Director-General, DLGP. Should conditions prevail where any approved works be no longer necessary for the IMMEDIATE disposal of natural disaster debris, then any expenditure on such works will be disallowed under the natural disaster funding arrangements.

Local governments should refer doubtful cases to the Director-General, DLGP for determination.

Eligible Works (Category 2)

Funds are provided to restore damage caused by road base saturation of sealed roads and subsequent deterioration under traffic as a direct result of an eligible natural disaster.

The term "base" is interpreted to include the constructed road base and sub base as well as the natural sub grade under the constructed carriageway but does not include the shoulders beyond the carriageway in those cases where the carriageway is intact.

Assistance is limited to the estimated cost of returning such damaged road to its pre-flood standard.

Saturation damage must be because of a rise in the water table or surrounding surface saturation and not from rain damage that has caused slips, table drain scour or damage to drainage structures.

Saturation due to penetration of rain through road pavement is ineligible. Further, if saturation damage has occurred as a result of flood submergence i.e. flood waters crossing the road and thereby penetrating the road pavement, then this damage would be eligible under Category 1.

NOTE: Grant funding is:

Conditional on the Local Government concerned upgrading the damaged road section to a standard that would withstand future damage and funding the upgrading component of the works; and

Provided as a once-only contribution towards each upgraded road section.

TRIGGER POINT FORMULA

Assistance for each disaster event will be considered where estimated total State expenditure on eligible damage exceeds $240,000 and an individual Local Government's estimated expenditure on eligible restoration works is greater than either:

1% of its general fund rate receipts for the financial year two (2) years earlier; or

0.25% of Queensland's base expenditure for the current financial year ($114,000 for 2004-2005) whichever is the greater.

Any Council's trigger point for assistance will not exceed 2.5% of Queensland's base expenditure amount for the current financial year ($1,114,000 for 2004-2005).

CONTRIBUTION LEVEL OF LOCAL GOVERNMENTS

Each local government is required to contribute 25% of eligible NDRA expenditure up to a maximum calculated for each Council (equal to it's trigger point amount).

Following completion and approval of a disaster risk assessment, Local Governments and Community Councils with a rate revenue base of $3M or less (in the financial year two (2) years prior to the relevant disaster event) are eligible for a reduction in the local government contribution from $114,000 to $50,000. The risk assessment is to be based on the Australian and New Zealand Risk Management Standard AS/NZS 4360:1999.

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

The following summary indicates each local government's trigger point/contribution level for 2004-2005. Those Councils marked with an asterisk (*) are eligible for a reduced trigger point/contribution level following completion of a disaster risk assessment.

LOCAL GOVERNMENT/ COMMUNITY COUNCIL	2004-2005 Trigger Point/ Contribution Level
DOOMADGEE	50,000
UMAGICO	50,000
YARRABAH	50,000
Other Aboriginal Community and Island Councils *	114,000
ARAMAC	50,000
ATHERTON	114,000
AURUKUN *	114,000
BALONNE	50,000
BANANA	114,000
BARCALDINE	50,000
BARCOO	50,000
BAUHINIA	50,000
BEAUDESERT	242,000
BELYANDO	114,000
BENDEMERE	50,000
BIGGENDEN	50,000
BLACKALL	50,000
BOONAH	50,000
BOORINGA	50,000
BOULIA	50,000
BOWEN	114,000
BRISBANE	1,140,000
BROADSOUND	50,000
BULLOO	50,000
BUNDABERG	150,000
BUNGIL	50,000
BURDEKIN	147,000
BURKE	50,000
BURNETT	114,000
CABOOLTURE	348,000
CAIRNS	524,000
CALLIOPE	114,000
CALOUNDRA	349,000
CAMBOOYA	50,000
CARDWELL	114,000
CARPENTARIA	50,000
CHARTERS TOWERS	50,000
CHINCHILLA	50,000
CLIFTON	50,000
CLONCURRY	50,000
COOK	50,000
COOLOOLA	135,000
CROWS NEST	50,000
CROYDON	50,000
DALBY	114,000
DALRYMPLE	50,000
DIAMANTINA	50,000
DOUGLAS	114,000
DUARINGA	50,000

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

LOCAL GOVERNMENT/ COMMUNITY COUNCIL	2004-2005 Trigger Point/ Contribution Level
EACHAM	50,000
EIDSVOLD	50,000
EMERALD	114,000
ESK	114,000
ETHERIDGE	50,000
FITZROY	114,000
FLINDERS	50,000
GATTON	114,000
GAYNDAH	50,000
GLADSTONE	167,000
GOLD COAST	1,140,000
GOONDIWINDI	50,000
HERBERTON	50,000
HERVEY BAY	188,000
HINCHINBROOK	114,000
ILFRACOMBE	50,000
INGLEWOOD	50,000
IPSWICH	449,000
ISIS	50,000
ISISFORD	50,000
JERICHO	50,000
JOHNSTONE	114,000
JONDARYAN	114,000
KILCOY	50,000
KILKIVAN	50,000
KINGAROY	50,000
KOLAN	50,000
LAIDLEY	114,000
LIVINGSTONE	130,000
LOGAN	542,000
LONGREACH	50,000
MACKAY	349,000
MAREEBA	114,000
MAROOCHY	545,000
MARYBOROUGH	114,000
McKINLAY	50,000
MILLMERRAN	50,000
MIRANI	50,000
MIRIAM VALE	114,000
MONTO	50,000
MORNINGTON	50,000
MOUNT ISA	114,000
MT. MORGAN	50,000
MUNDUBBERA	50,000
MURGON	50,000
MURILLA	50,000
MURWEH	50,000
NANANGO	50,000
NEBO	50,000
NOOSA	239,000
PAROO	50,000

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

LOCAL GOVERNMENT/ COMMUNITY COUNCIL	2004-2005 Trigger Point/ Contribution Level
PEAK DOWNS	50,000
PERRY	50,000
PINE RIVERS	376,000
PITTSWORTH	50,000
QUILPIE	50,000
REDCLIFFE	175,000
REDLAND	504,000
RICHMOND	50,000
ROCKHAMPTON	225,000
ROMA	50,000
ROSALIE *	114,000
SARINA	114,000
STANTHORPE	114,000
TAMBO	50,000
TARA	50,000
TAROOM	50,000
THURINGOWA	186,000
TIARO	50,000
TOOWOOMBA	329,000
TORRES	50,000
TOWNSVILLE	445,000
WAGGAMBA	50,000
WAMBO	50,000
WARROO	50,000
WARWICK	114,000
WHITSUNDAY	114,000
WINTON	50,000
WONDAI	50,000
WOOCOO	50,000

* Eligible for a reduced trigger point/contribution level following completion of a disaster risk assessment.

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

APPLICATION PROCEDURES

Immediately following the occurrence of a natural disaster event where a damage level greater than the Local Governments 'Trigger Point' has been sustained, verbal or facsimile advice (regarding the nature of damage sustained and a preliminary restoration estimate) should be provided to the Manager, Local Government Funding Division, DLGP (from now on called the Manager).

Following activation of the Standard Assistance Measure "Restoration of Public Assets", each affected local government will be invited to submit a formal application for grant assistance to the Manager. **The application MUST be received within three (3) months** of the date of formal advice of inclusion of the local government within the area defined for assistance under the Natural Disaster Relief Arrangements.

In extenuating circumstances, the three-month limit may be increased, for example, where the inspection of isolated locations is prevented by access problems. It should be recognised, however, assistance is provided for the restoration of "essential public assets". Late applications tend to suggest the assets are not essential in terms of the arrangements with the Commonwealth Government.

Local governments seeking an extension of time should notify DLGP of the likely submission date (including estimated cost) along with reasons as to the delay to ensure that late applications are considered under NDRA.

Details required with Formal Application - Category 1 (Submergence)

Each application must include a full description and detailed estimates of cost of eligible emergent and restoration work on each damage site. A summary ***(Summary Format Category One 5-11)*** must be provided indicating:

- Specific location
- Asset description
- Damage description
- Cause of damage
- Estimated total cost of restoration works proposed

This summary must be supported by full costing for each damaged site in a dissected estimate format as per the example format ***(Format Dissected Estimate 5-12)*** supported by photographic evidence of the damaged asset. A plan is also required showing the location of the damaged asset in relation to the source of the damage.

Details Required with Formal Application - Category 2 (Saturation)

Each affected local government may submit a formal application for grant assistance to the Manager. The application MUST be received within three (3) months of the date of formal advice of inclusion of the local government within the declared natural disaster area eligible for assistance under the Natural Disaster Relief Arrangements.

Each application must include a summary ***(Summary Format Category Two 5-11)*** indicating:

- Specific location
- Asset description
- Damage description
- Cause of damage
- Proposed restoration works to pre disaster standard/condition
- Proposed upgrading works to withstand future saturation damage
- Estimated cost of restoration
- Estimated cost of upgrading

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

This summary must be supported by full details including estimated costs to restore damage to pre-disaster standard/condition ***(Format A 5-13)*** together with full details of proposed works and dissected estimated costs to upgrade the damaged sections. ***(Format B 5-13)***

Recommendation of Responsible Government Department

Each local government must provide a copy of its application for assistance to the Government Department responsible for the particular type of work involved. For example applications including roads, streets and bridges should be sent to the local District Director, Department of Main Roads.

The reporting Department will submit a report to the Manager indicating whether:

- The restoration works are eligible for grant assistance under the Natural Disaster Relief Arrangements.

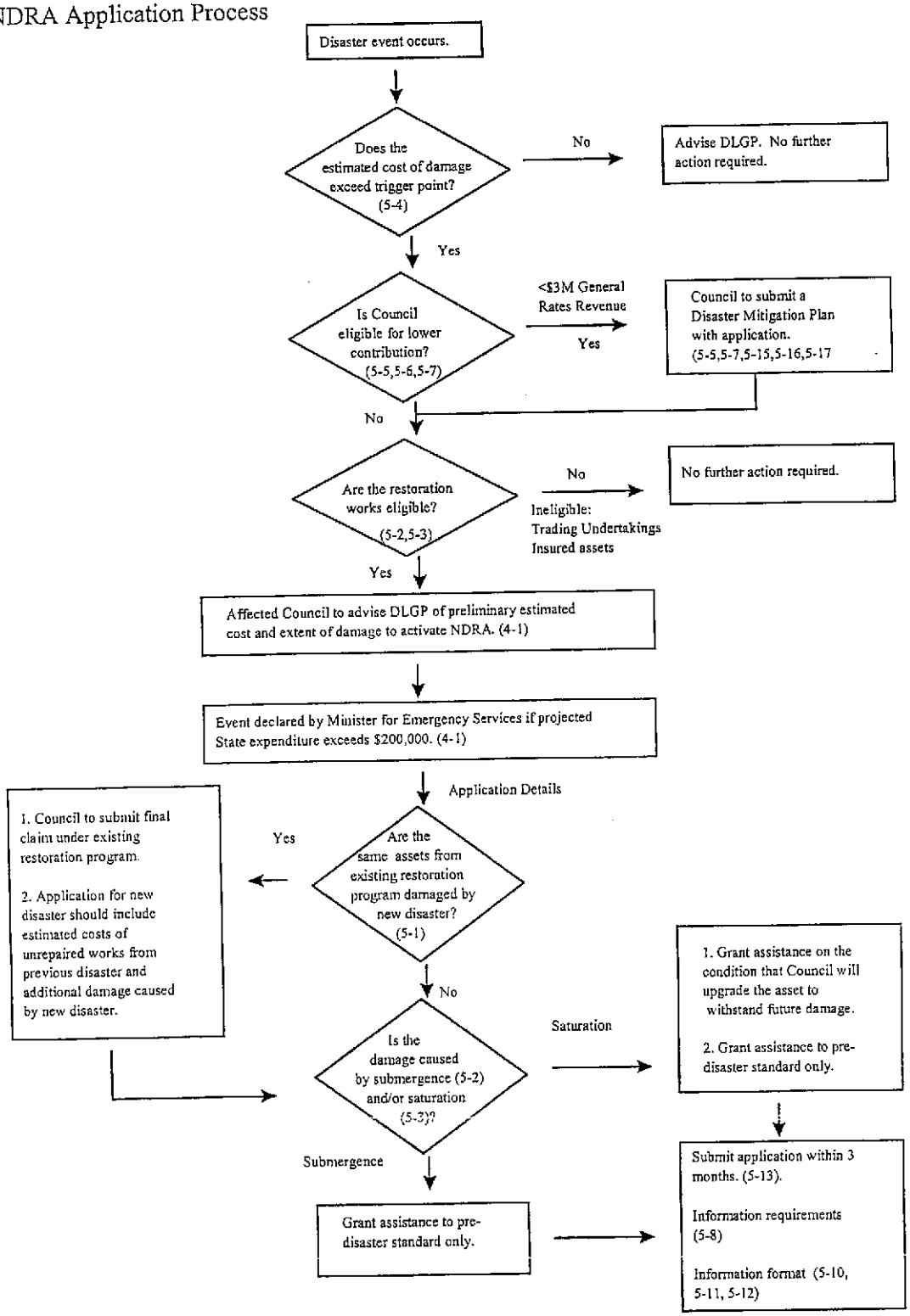
The estimates to restore assets to pre-disaster standard are reasonable.

The proposed restoration works would result in an upgrading of standard of the damaged asset (including upgrading from a previously depreciated state).

For damage due to road base saturation the proposed upgrading works would prevent the occurrence of future saturation damage.

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments

NDRA Application Process



RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments
(Format – Dissected estimate)

SUMMARY FORMAT – CATEGORY 1

JOB LOCATION			DAMAGE		
Road or Area (Job No.)	Chainage or KM	Description	Nature/ Description	Cause	Estimate (excl. GST) $
Problem Rd (14)	1.8 – 2.0 km	1st crossing of Problem Creek	Replace invert And re-gravel Approaches	Flooding from Problem Ck	18,000
Problem Rd (15)	5.8 – 6.0 km	Bridge over Jacks Ck	Re-deck Bridge and re-gravel approaches	Flooding from Jacks Ck	26,000

I hereby certify that the photographs supplied are a true and accurate record of the damage sustained to the asset at the specific location indicated as a result of the activated natural disaster event that is the subject of this application.

.....Chief Executive Officer/Council Clerk/Consulting Engineer

I also certify that where roadway restoration works require the reinstatement of gravel washed away by flooding, the associated claim reflects the cost of gravel replacement to the thickness that existed on the relevant road before the flooding.

.....Chief Executive Officer/Council Clerk/Consulting Engineer

SUMMARY FORMAT – CATEGORY 2

Road/ Street Name	Location of Damage (Including kilometres From/To)	Damage Description and Cause	Proposed Repairs (Include upgrading)	Estimate to Pre-flood Standard (excl. GST)	Estimate including Upgrading (excl. GST)
Problem Rd	Bridge Road Intersection to Scott St (o to 0.6km) (In country areas also relate to local geographical features to assist in future identification)	Major road surface failure due to road base saturation by rise in water table.	Remove damaged sections of road surface. Stabilise subgrade and construct suitable drains to prevent future road base saturation. Bitumen reseal.	20,000	60,000

I hereby certify that the photographs supplied are a true and accurate record of the damage sustained to the asset at the specific location indicated as a result of the activated natural disaster event that is the subject of this application.

.....Chief Executive Officer/Council Clerk/Consulting Engineer

I hereby certify that the section(s) of road detailed herein has/have not previously been claimed under the NDRA road base saturation category for an activated natural disaster event.

.....Chief Executive Officer/Council Clerk/Consulting Engineer

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments
(Format – Dissected estimate)

Queensland Government
Department of Local Government and Planning

APPLICATION FOR NATURAL DISASTER RELIEF ASSISTANCE (NDRA)
Category 1 – Flood Submergence

Local Government: _____

Activated Natural Disaster Event: _____

Specific Location of Damage: _____

Site/Job No: _____

Damage Description: _____

Cause of Damage: _____

Source of Damage
(eg. Athol's River) _____

Restoration Works Proposed: _____

DISSECTED ESTIMATE (exclusive of GST)

Photo Number	Description	Unit	Unit Rate	Qty	Amount
				Sub Total:	$
				Plus Overheads:	$
				Total Claim:	$

The detail above MUST include the type of damage sustained and the cause and source of the damage eg. "Damage caused to road infrastructure by inundation from Athol's River." This information is required to satisfy Commonwealth/State Audit and Procedure requirements. The provision of insufficient detail may lead to delay in assessing the NDRA application.

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments
(Interim Risk Assessment Proforma – Contact List)

SATURATION DAMAGE
DISSECTED ESTIMATE FORMAT A
RESTORATION TO PRE-DISASTER STANDARD

LOCAL GOVT: _____

NATURAL DISASTER EVENT: "Western Queensland Flooding from November 2001"

ROAD/STREET: Problem Rd JOB NO: 56

Damage Site Identification and Proposed Repairs	**Road/Street Surface** Type	Dissection of costing – Restoration Only				
		Material Labour	Unit	Unit Rate	Qty	Amount
Bridge Rd. Intersection to Scott St. (0 to 0.6 km). Repair pavement and reseal (In country areas also relate to local geographical features to assist in future identification)						

SATURATION DAMAGE
DISSECTED ESTIMATE FORMAT B
RESTORATION INCLUDING UPGRADING

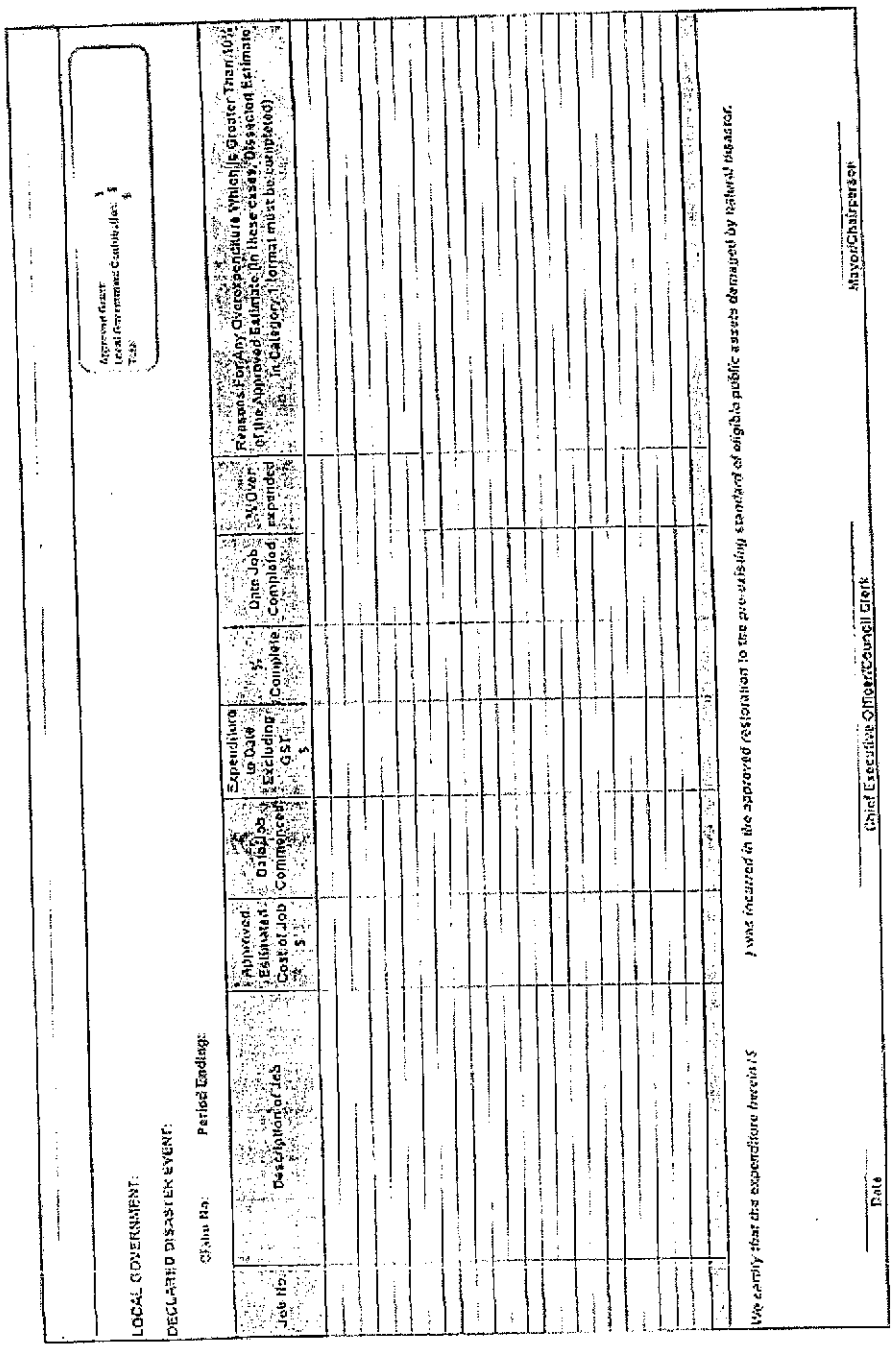
LOCAL GOVT: _____

NATURAL DISASTER EVENT "Western Queensland Flooding from November 2001"
ROAD/STREET: Problem Rd JOB NO: 56

Damage Site Identification and Proposed Repairs	Road/Street Surface Type	Dissection of costing – Upgrading				
		Material Labour	Unit	Unit Rate	Qty	Amount
Bridge Rd. Intersection to Scott St. (0 to 0.6 km). Remove damaged section of road surface Stabilise subgrade and construct suitable drainage to prevent future road base saturation Bitumen reseal						

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments
(Interim Risk Assessment Proforma – Contact List)

Claim for Commonwealth/State Natural Disaster Relief Assistance



LOCAL GOVERNMENT:

DECLARED DISASTER EVENT:

Claim No: Period Ending:

Approved Grant: $
Local Government Contribution: $
Total: $

Job No.	Description of Job	Approved Estimated Cost of Job $	Date Job Commenced	Expenditure to Date Excluding GST $	% Complete	Date Job Completed	% Over expended	Reasons For Any Overexpenditure Which Is Greater Than 10% of the Approved Estimate (In these cases, Dissected Estimate in Category 1 format must be completed)

We certify that the expenditure herein is *I was incurred in the approved restoration to the pre-existing standard of eligible public assets damaged by natural disaster.*

Date

Chief Executive Officer/Council Clerk

Mayor/Chairperson

Claim Process

Following advice of approval of assistance under the Commonwealth/State Natural Disaster Relief Arrangements (NDRA) each local government should submit to the Manager periodic claims for reimbursement of actual expenditure incurred on approved eligible restoration works to pre-disaster standard. The Chief Executive Officer/Council Clerk and the Mayor/Chairperson Each must certify each claim. ***(Claim form format above)***

RESTORATION OF PUBLIC ASSETS
Instructions for Local Governments
(Interim Risk Assessment Proforma – Contact List)

A copy of this form, with a list of approved restoration works shown thereon, will be forwarded to each Local Government with the letter advising the approval of grant assistance under NDRA.

Periodic claims should be submitted to DLGP for payment with a copy to the appropriate recommending Government Department. On receipt of a final claim from a local government, the recommending Department is requested (by DLGP) to inspect the repaired asset and confirm that all repairs have been satisfactorily completed.

Payment of Claims

On receipt of each duly certified claim for reimbursement, the Manager will examine such claim and, if satisfied, make a prompt payment to the claiming local government. However, a final claim will not be paid without a certification from the recommending Government Department.

When a local government has expended its contribution towards the cost of approved works, the Manager may, on receipt of a supported expenditure claim, consider an advance of 20% of the approved grant. This advance, if approved, may be retained as restoration works progress until payments to the local government reach 70% of the approved grant, after which, actual expenditure will be reimbursed until payments reach 90% of the approved grant. The remaining 10% will be paid upon receipt of advice that restoration works have been completed (final claim).

EXPENDITURE TIME LIMIT

All expenditure on approved damage restoration is subject to a time limit of two (2) years after the end of the financial year in which the relevant disaster occurred. However, all local governments should strive to finalise approved restoration works within twelve months following a disaster event.

Due to the timing of end of financial year payments, final claims should be submitted by mid May. This action will allow adequate time for the relevant recommending Government Department to validate the claim and for DLGP to process the payment once a recommendation for payment is received. **Final claims received on 30 June are unlikely to be paid.**

SECTION 6

Section 6 provides specific instructions for River Improvement Trusts.

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RESTORATION OF PUBLIC ASSETS
Instructions for River Improvement Trusts

INTRODUCTION

These guidelines relate to the restoration of River Improvement Trust assets destroyed or damaged as a consequence of a natural disaster such as a cyclone or flood where NDRA has been activated.

Assets which qualify for restoration assistance include any public capital work previously undertaken and maintained by the Trust, such as groynes, revetments, bank stabilisation, levee banks, constructed floodways, stream clearing, revegetation etc. The asset must be essential to the protection of the environmental and structural integrity of the stream or to the mitigation of floods within the stream.

Private levee banks are not assets of the Trust and their reinstatement therefore does not qualify for flood damage disaster assistance under this element of the overall arrangements. All assets of the trust must be designated in an asset register maintained by the trust before being eligible for assistance.

Similarly, the assets of a local government or other body, such as pipeline crossing, bridge abutments, tramway bridge, etc are not eligible for flood damage assistance under the River Improvement Trust element of the arrangements. Those bodies may be able to seek funding assistance in their own right under separate arrangements.

PURPOSE OF ASSISTANCE

Financial assistance is provided to Trusts to allow them to:

a) Temporarily protect, stabilise or reinforce an asset during the occurrence of the natural disaster in order to avoid the likely failure of the asset that in turn would cause substantial damage to public and private property. This could include earthmoving, rock placing, and sandbagging.

b) Immediate post-disaster repairs to damaged assets to enable them to continue to operate at a reasonable level of efficiency. This could include clean up costs, removal of silt and debris, and emergency repairs.

c) Permanently restore (repair, rebuild or reinstate) a damaged or failed asset as soon as possible after the natural disaster has occurred.

In case c), assistance is provided to restoring an asset to the equivalent of its pre-disaster standard. This means that the asset does not have to be restored exactly to its original design or form if cost savings can be made by using more up to date methods or concepts to achieve the same level of protection or mitigation.

Should a Trust decide that an asset failed due to inadequate design or capacity, the Trust may choose to restore the asset to a standard higher than existed prior to the disaster. In this case, financial assistance will be limited to the cost of restoring the asset to its pre-disaster standard and the Trust must separately meet the cost of the additional enhancements.

Should a trust decide that an asset not be repaired but the cause of the problem can be better addressed by other means (such as buying back and environmental restoration of flood prone land) then the equivalent value of restoring the asset may be claimed (towards the amended purpose) provided the original asset is removed from the trust's asset register.

ELIGIBLE WORKS

The following restoration works undertaken by the Trust to repair, rebuild or reinstate its assets are considered to be eligible for financial assistance:

a) Topping up of rock protection where the rockwork has slumped or thinned out as a direct result of the natural disaster event. Topping up of rockwork where it has subsided or settled under normal conditions is not eligible as such work is considered to be part of normal asset maintenance.

b) Replacement of trees and shrubs (and native grasses such as Lomandra) lost as a result of the natural disaster event where such vegetation had been previously planted or included as part of specific bank protection works. Replacement of lost vegetation that was previously occurring naturally on a bank and were not associated with an identified capital asset established or adopted by the Trust is not eligible.

c) Extension of an asset may be required where necessary to restore the functional protection that it afforded prior to the disaster. In these circumstances limited extension of the asset is permitted in order to conserve the assets integrity and its original functionality. Extension of the asset in other circumstances is not eligible, as such work would be considered to be new capital works. All such extensions must be contiguous with the original physical extent of the original asset. Restoration of other natural banks (unprotected) damaged by the natural disaster event is not eligible, as they are not deemed to be capital assets.

NOTE: The Department of Natural Resources and Mines reserves the right to deny financial assistance for the restoration of certain assets, which are repeatedly damaged because of poor design, poor construction or inadequate maintenance. In such cases, grant approval may be withheld unless the Trust undertakes to reconstruct the work to a higher standard than pre-existing or to an amended design that will reduce the likelihood of future damage. Similarly assets that are established by others but subsequently adopted by the Trust as assets are only eligible for flood damage assistance if the adoption of the asset has been formally endorsed with Ministerial approval in conjunction with the Trust annual works program in the year in which the asset was adopted.

d) All design and construction supervision costs associated with eligible asset repair (or redesign to be more secure) are considered to be eligible for assistance.

TRUST CONTRIBUTION

Restoration works are eligible for Natural Disaster Relief Assistance only if the aggregated total Trust/Local Government cost for restoration damage incurred by a natural disaster event exceeds the Local Government's trigger point. ***(Local Government Listing 5-5 to 5-8)***

For each natural disaster event the Trust contribution is subject to consideration with the attendant Local Government for the combined contribution amount. Local Governments are required to contribute 25% of eligible expenditure until the contribution reaches their trigger point amount. All expenditure in excess of 4 times the trigger point amount is reimbursed 100% under NDRA.

APPLICATION PROCEDURE

Immediately following a disaster event where damage occurs to River Trust assets, Trusts will be invited to urgently submit to Department of Natural Resources and Mines, a preliminary estimate of damage incurred. Such estimates will be used by Department of Emergency Services to determine 'order-of' damage levels. These early damage estimates are an important tool in determining the geographical area to be declared as eligible for Commonwealth/State Funding.

Once the State Government has activated the disaster relief measure pertaining to the Restoration of Public Assets, each Trust is then invited to submit a formal application for grant assistance. This application must be submitted to Department of Natural Resources and Mines within 3 months of the invitation.

RESTORATION OF PUBLIC ASSETS
Instructions for River Improvement Trusts

Application Details

Each application must include a full description and detailed estimate of cost for all eligible emergent and restoration work on each damage site. Description of works for each site should include:

- Job number;
- Site location;
- Asset description and function;
- Damage description and failure mechanism;
- Proposed restoration work and method;
- Estimated total cost of restoration;
- Full dissection of restoration cost; and
- A photograph of the damage.

In the event that an asset is totally destroyed or removed, the Trust will need to provide proof of the asset's previous existence and details of its pre-disaster standard. Documentation such as an Asset Register would be adequate evidence.

Upgrading Details

Should the Trust wish to restore an asset to a standard higher than existed prior to the disaster, the description of works should ALSO include:

- Inadequacies with existing asset;
- Proposed upgrading work and method;
- Estimated total cost of upgrading; and
- Full dissection of reinstatement and upgrading costs.

Details of upgrading should be sufficient to allow the Department of Natural Resources and Mines to decide if the proposal is eligible for approval under normal capital works subsidy arrangements. The proposed upgrade or extension should also be submitted together with the Trusts application for approval of its annual works program.

Summary Details

In addition to the description of works for each damage site, a summary of proposed works is to be provided as a cover sheet. The summary should describe each site as:

- Job number;
- Site location; and
- Estimated total cost of restoration.

An estimate of total cost to restore all eligible damage should be given at the bottom of the summary.

Approval

Department of Natural Resources will advise the Trust as soon as possible of approval of grant assistance once the formal application has been assessed. A copy of the approval letter will also be forwarded to Queensland Treasury. Response time will depend on the quality and timeliness of the application received.

CLAIM PROCEDURES

Once grant assistance has been formally approved, Trusts may submit (to Department of Natural Resources and Mines) periodic claims for reimbursement of expenditure incurred on approved eligible restoration works to pre-disaster standard.

RESTORATION OF PUBLIC ASSETS
Instructions for River Improvement Trusts

Claim Form

The Trust Chairman and Trust Engineer/Overseer (or Trust Secretary if no Engineer/Overseer appointed) must certify each claim. Claim forms are available from Department of Natural Resources.

Each claim form should list all of the damage sites, and for each site give details on the estimated cost of restoration, actual expenditure to date and status of the work. Where there is a large number of damage sites, only show details for those to which the claim relates and cover the balance as a single entry. Similarly, all sites that have been fully restored and claimed prior to the current claim can be represented by a single entry

Advance

Once a Trust has fully spent its contribution toward the estimated restoration cost, the Trust may apply for an advance of approved grant funds for the remaining restoration works. This advance is limited to 20% of the approved grant.

The advance, if approved, may be retained by the Trust as restoration works proceed. Once the Trust's total claims reach 70% of the approved grant, the advance will then be offset against future claims until the advance is exhausted. Any subsequent claims will be paid upon receipt of advice that restoration works have been completed.
Expenditure over Estimate

The Department of Natural Resources will seek additional grant assistance on behalf of the Trust where it is satisfied that the over expenditure is fair and reasonable. The Department may ask the Trust for further details of the additional expenditure in order to make a decision.

Payment of Claims

The Department of Natural Resources and Mines will promptly pay claims direct to the Trust once the claims have been examined and approved.

Time Limit for Claims

Grant funds will be held for two complete financial years after the event if exceptional circumstances can be demonstrated. That is, for a disaster occurring during the 2002-2003 year, funds will be available until 30 June 2005. Any claim made by a Trust after that date may be considered, and if supported, be subject to a Queensland Treasury submission for funding to the Commonwealth Department of Finance and Administration.

If a Trust believes that it cannot undertake all of its restoration work within that time limit, it should seek an extension of time as soon as possible from the Department of Natural Resources and Mines. Approval of such an extension will be dependent on funds available to the State and the basis for the request.

The objective of the grant assistance program is to allow Trusts to quickly restore essential assets upon which the community relies. Any unjustified time delay in restoring the asset places a question over the value of the assets.

Rollover of Claims

In the event that a natural disaster is superseded by a later declared natural disaster in the same area, the cost of all actual expenditure incurred by the Trust up to the date of the later disaster will be considered to be applicable to the prior disaster. The total value of all damage existing in the area immediately after the later event (including further damage to partially completed repairs as the result of the later disaster) will then be re-estimated and regarded as if it had occurred as the result of the later declared disaster.

RESTORATION OF PUBLIC ASSETS
Instructions for Government Departments

SECTION 7

Section 7 provides specific instructions for State Government Departments and Agencies

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RESTORATION OF PUBLIC ASSETS
Instructions for Government Departments

INTRODUCTION

These instructions are specifically for Government Departments and Agencies (excluding Local Governments and River Improvement Trusts) where State Assets have suffered damage following an eligible natural disaster. All enquiries should be referred to Counter Disaster & Rescue Services, Department of Emergency Services - Telephone 3247 8950; Facsimile 3247 8480; E-mail khansen@emergency.qld.gov.au

PURPOSE OF ASSISTANCE

- To restore essential constructed public assets (damaged by high winds, wave action or flood submergence) to the equivalent of their pre-disaster standard; includes roads, bridges and public buildings/facilities, plant and equipment ***(Eligible Works 3-8)***; and

- To contribute towards the upgrading of roads damaged by road base saturation following an eligible disaster event. ***(Road Base Saturation 3-11)***

DEPARTMENTAL CONTRIBUTION LEVEL

All natural disaster restoration costs are to be charged to Departmental budgets. Queensland Treasury approves funding supplementation at the rate of 75% of NDRA eligible works. Departments are required to contribute the remaining 25% from within existing budgets.

ROLE OF ADMINISTERING AUTHORITIES

Department of Emergency Services is responsible for coordinating all applications from State Departments and providing advice to Queensland Treasury on the eligibility of restoration works for assistance under the Natural Disaster Relief Arrangements (NDRA) or other approved disaster funding arrangements.

Following assessment of each application, Department of Emergency Services provides advice to Queensland Treasury on the eligibility of works under NDRA guidelines. Queensland Treasury advises each Agency of the level of approved works and issues instructions regarding procedures to be followed if 'funding supplementation' is subsequently required.

NOTE: QUEENSLAND TREASURY WILL ONLY CONSIDER FUNDING FOR RESTORATION WORKS THAT HAVE BEEN ASSESSED BY DEPARTMENT OF EMERGENCY SERVICES AND APPROVED BY QUEENSLAND TREASURY AS ELIGIBLE FOR NATURAL DISASTER FUNDING.

DAMAGE LEVEL REQUIRED TO 'TRIGGER' ASSISTANCE

Following an eligible disaster event, assistance towards Departmental restoration costs will be considered for a natural disaster event where significant damage has occurred and the cost of relief measures under NDRA is estimated to be greater than $240,000.

INELIGIBLE AUTHORITIES

Under the terms and conditions of the Commonwealth/State Natural Disaster Relief Arrangements (NDRA), State 'Trading Undertakings' are ineligible for assistance except in 'exceptional circumstances'. This term relates to the financial effects on the Authority concerned and not to any 'exceptional' nature of the physical event that caused the damage. To be considered as 'exceptional', the Authority concerned would need to show that restoration costs were beyond its financial/borrowing capacity.

RESTORATION OF PUBLIC ASSETS
Instructions for Government Departments

The Commonwealth Government has determined that ineligible 'Trading Undertakings' include those involved with:

- Electricity
- Harbours, Ports and Waterways
- Aerodromes
- Irrigation
- Water Supply and Sewerage (not significantly funded by public contributions)
- Housing and Rented Property (other than welfare housing)
- Public Transport (excluding railways)

Affected Queensland Departments/Agencies include:

- Electricity Authorities
- Department of Transport - Marine and Port assets; Harbour Authorities; Aerodrome Boards/ Authorities
- Department of Local Government and Planning – Water Supply Authorities and certain Local Government Water & Sewerage assets; also Local Government Aerodromes, Public Transport & Garbage Disposal
- Department of Primary Industries and Fisheries - Research Station Crops & Livestock; Queensland Forest Service assets (excluding recreational facilities)
- Department of Natural Resources and Mines - Irrigation Assets including those of Water Boards
- All Departments - Non-welfare Housing and Rented Property

ACTIVATION PROCESS

In the wake of a severe disaster event where damage has occurred to the assets of a Government Department, a preliminary 'order of' estimate (and advice regarding the extent of damage) should be provided to Department of Emergency Services.

Following an investigation of the need for assistance under the natural disaster relief arrangements, (including preliminary advice from Government Departments/Agencies) the Minister for Emergency Services will consider the activation of natural disaster assistance schemes. Once the Queensland Government has approved assistance schemes under the Commonwealth/State Arrangements (including the 'Restoration of Public Assets' scheme) advice is forwarded to the Commonwealth Government.

APPLICATION PROCEDURE AND FORMATS

Following activation of the 'Public Assets' assistance scheme, Department of Emergency Services will immediately advise all Departments that have reported asset damage and invite the submission of formal applications for assistance towards the restoration of eligible asset damage.

For all damage sites a full description (and detailed estimates of eligible works) is required. Damage 'sites' are defined as:

Roads - Each damage location along a road. A road name is NOT a 'site'.
Buildings - Each building.
Equipment - Each building or storage location.
Other - Each specific damage location.

Damage to State Controlled Roads is to be submitted for each damage site in the Main Roads Department formats ***(7-4 to 7-6)***. All other Departments are to submit applications under the headings indicated below.

The specific presentation format for supply of restoration details and estimates is left to each Agency's discretion. However, full details under each heading **(including Local Government Area**

and cause of damage) must be supplied for each damage site. The headings on ***Page 7-3*** facilitate supply of the minimum level of details required for reporting and audit purposes.

DETAILS REQUIRED FOR EACH DAMAGE SITE WHEN SUBMITTING AN APPLICATION FOR NDRA ASSET RESTORATION FUNDING

Each application MUST provide the following details <u>for each damage site:</u>

- **Local Government Area**
  (Name of Local Government area ie Pine Rivers Shire)
- **Specific Location**
  (For road damage - road name and specific location on road measured in km from beginning of road eg 'Problem Rd 1.8km to 2.0km; for building etc - Address / Place Name)
- **Asset Description**
  (eg Road; Bridge; Road culvert; Toilet block; Police Station; Fence; etc)

Damage Description
(Describe the extent of damage)

- **Cause of Damage**
  (eg Flood Submergence, Landslide, Wind damage)
- **Restoration Works Proposed**
  (Briefly describe the restoration works proposed, eg, Redeck bridge and regravel approaches; Repair roof and replace broken glass in windows)
- **A Dissected Estimate of Cost for each 'damage site'.**
  (Showing materials, unit rates and quantities)
- **Estimated Total Cost for each 'damage site'**
- **A summary listing Total Estimated Cost for all 'damage sites'.**
- **A summary listing total estimated cost by Local Government Area.**

Digital photographs of damage sites should support the application where damage cost is significant.

ELIGIBLE WORKS

There are 2 categories of assistance:

- Category 1 - Damage to eligible constructed assets caused by bushfire, cyclone, earthquake, flood, storm, storm surge, and landslide (consequential upon an eligible event). Eligible disasters do not include disasters where poor environmental planning, commercial development, personal intervention or accident are significant contributing factors to the event ***(Landslides 4-2 and 4-3)***; and

- Category 2 - Road damage due to road base saturation and subsequent deterioration under traffic (sealed roads only). (Assistance under Category 2 is only available in conjunction with a project to upgrade the damaged road section to a standard that will prevent future damage. Specific formats are to be used for this category. ***(5-14)***

Sections 4 & 5 provide further eligibility details for both assistance categories.

Section 3-7 to 3-11 provide formal NDRA guidelines for restoration of public assets for Government Departments.

EXPENDITURE TIME LIMIT

All expenditure on approved restoration works is subject to a time limit of two (2) years after the end of the financial year in which the relevant disaster occurred.

RESTORATION OF PUBLIC ASSETS
Instructions for Government Departments

Queensland Government
Department of Main Roads

APPLICATION FOR NATURAL DISASTER FUNDING
Category 1 - Flood Submergence

Local Government: _____ LG No. _____ Road No: _____ Event No: _____

Natural Disaster Event: _____

Road Name / Section: _____

Specific Location of Damage: _____

Asset Description: _____

Damage Description: _____

Cause/Source of Damage: _____

Restoration Works Proposed: _____

DISSECTED ESTIMATE

	Activity Description	Unit	Unit Rate $	Qty	Amount $
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Note: All sections of this form must be filled out to comply with Commonwealth/State Audit and Procedural requirements

Event No. is Mxx for RTCS & Lxx for Local Government controlled projects

Sub Total: _____

Plus Overheads: _____

Category 1 Total Claim:

ATTACH TO APPLICATION:
Itemised Summary of Working Rates (Labour, Plant & Materials) used to calculate Unit Rates

RESTORATION OF PUBLIC ASSETS
Instructions for Government Departments

Queensland Government
Department of Main Roads

APPLICATION FOR NATURAL DISASTER FUNDING

Category 2 - Saturation Part A (Restoration Component)
(BOTH PART A & B REQUIRED)

Local Government: _____ LG No. _____ Road No: _____ Event No: _____

Natural Disaster Event: _____

Road Name / Section: _____

Specific Location of Damage
(Describe lane & position if not full width) _____

Asset Description: _____

Damage Description: _____

Cause/Source of Damage: _____

Restoration Works Proposed: _____

_____

DISSECTED ESTIMATE (RESTORATION COMPONENT)

	Activity Description	Chainage (Km)		Unit	Unit Rate $	Qty	Amount $
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Note: All sections of this form must be filled out to comply with Commonwealth/State Audit and Procedural requirements

Event No. is Mxx for RTCS & Lxx for Local Government controlled projects

Sub Total: _____

Plus Overheads: _____

Category 2 Total Part A _____

Plus Total Part B _____

Total Claimed A + B _____

ATTACH TO APPLICATION:
Itemised Summary of Working Rates (Labour, Plant & Materials) used to calculate Unit Rates

Certification of Road Section:

I hereby certify that the sections of road detailed herein have not previously been claimed under the NDRA Road Base Saturation category for an activated Natural Disaster Event.

_____
District Director/ Engineer

RESTORATION OF PUBLIC ASSETS
Instructions for Government Departments

Queensland Government
Department of Main Roads

APPLICATION FOR NATURAL DISASTER FUNDING

Category 2 - Saturation Part B (Restoration including Upgrading Component)
(BOTH PART A & B REQUIRED)

Local Government: _____ LG No. _____ Road No: _____ Event No: _____

Natural Disaster Event: _____

Road Name / Section: _____

Specific Location of Damage
(Describe lane & position if not full width) _____

Asset Description: _____

Damage Description: _____

Cause/Source of Damage: _____

Restoration Works Proposed: _____

_____

DISSECTED ESTIMATE (RESTORATION INCLUDING UPGRADING COMPONENT)

	Activity Description	Chainage (Km)		Unit	Unit Rate $	Qty	Amount $
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							

Note: *All sections of this form must be filled out to comply with Commonwealth/State* Audit and Procedural requirements

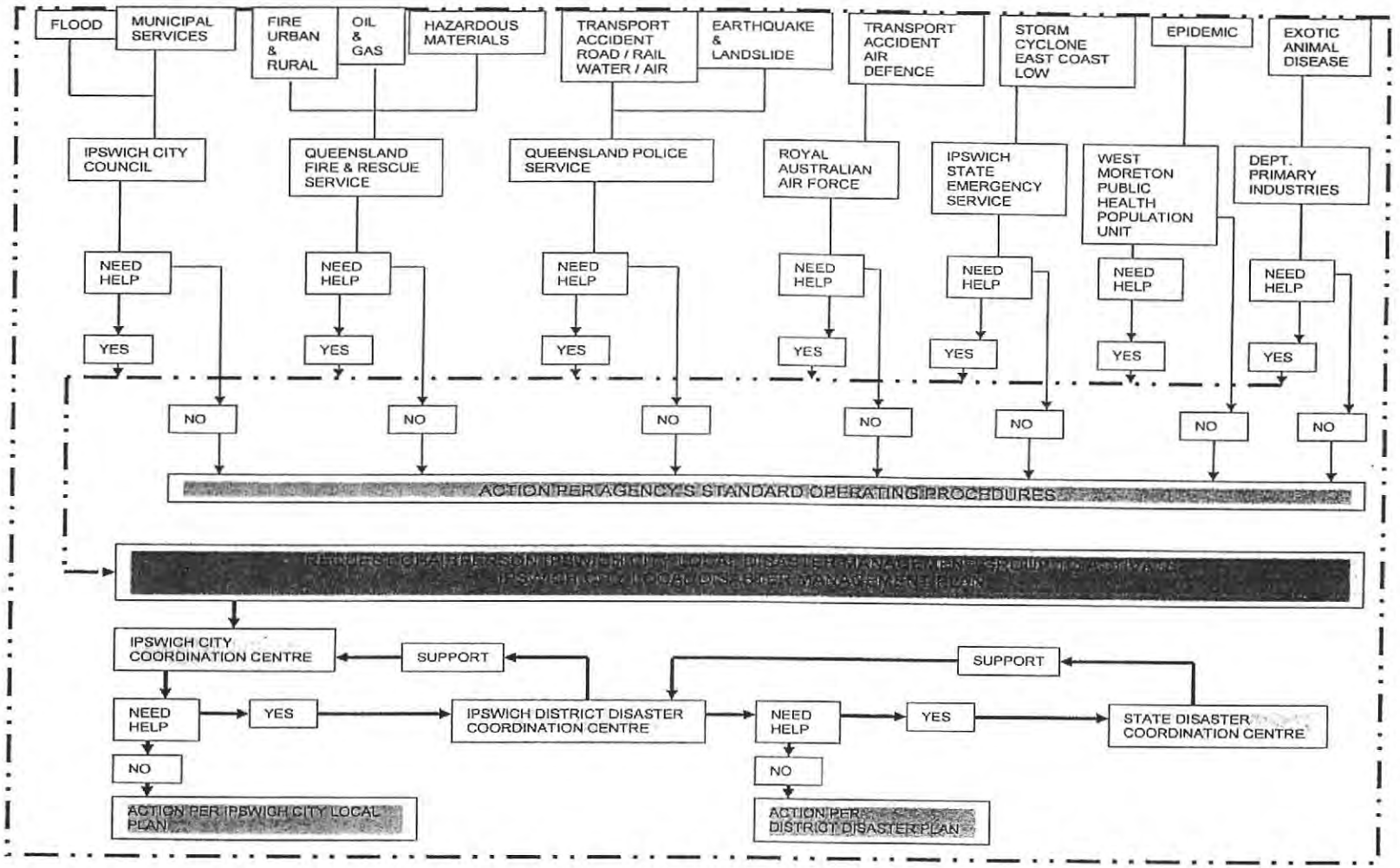
Event No. is Mxx for RTCS & Lxx for Local Government controlled projects

Sub Total: _____

Plus Overheads: _____

Category 2 Total Part B _____

ANNEX (T) COORDINATION CENTRE ACTIVATION FLOW CHART

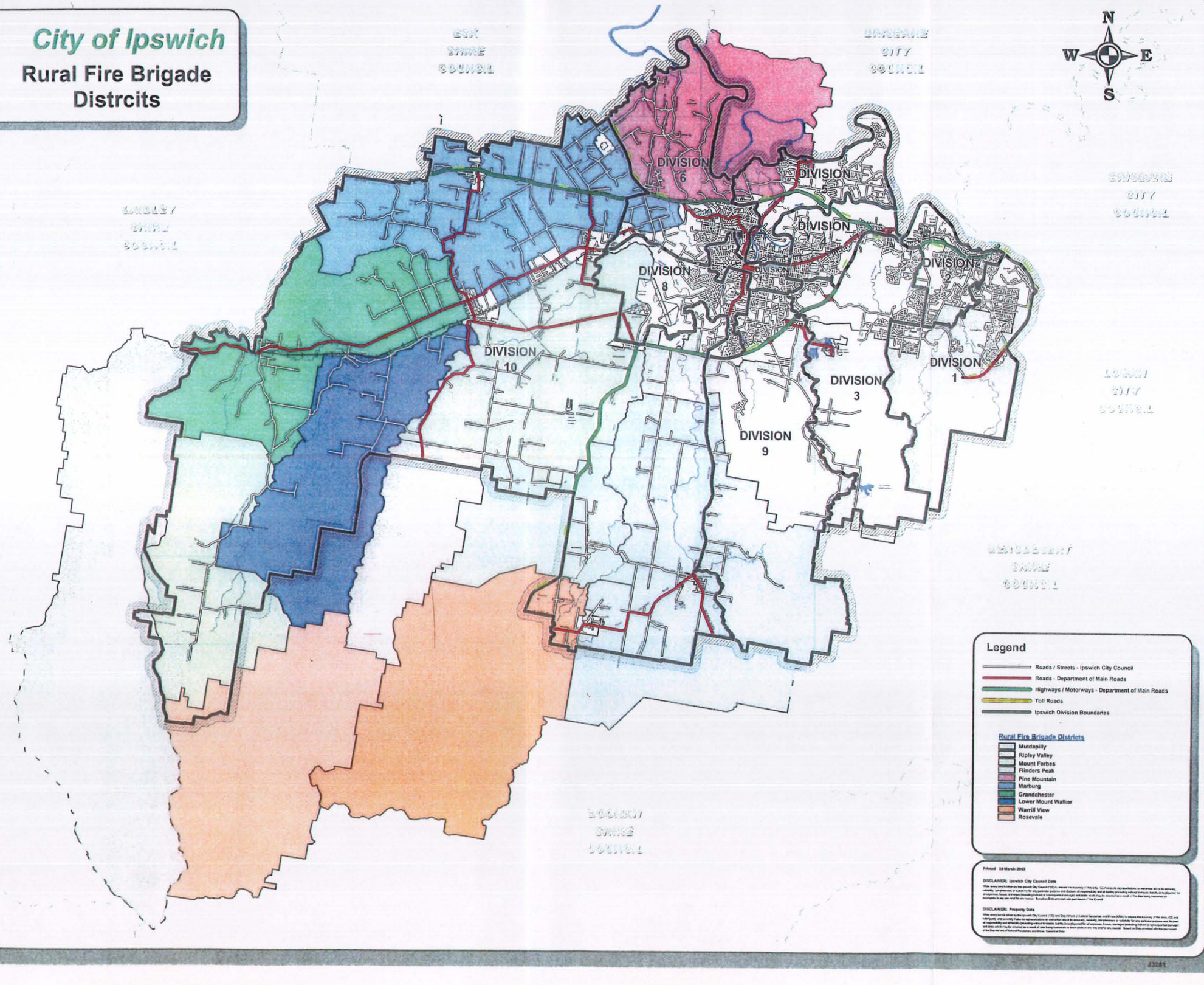


ANNEX (U) MAP URBAN – RURAL FIRE DISTRICT BOUNDARIES

City of Ipswich

Rural Fire Brigade Distrcits

Ipswich City Council



ANNEX (V) IMPACT ASSESSMENT FORMS

POST-DISASTER SURVEY FORM A

URGENT SEARCH AND RESCUE NEEDS

NB: This information should be passed to the emergency operations centre with minimum delay

LOCATION	**DISTRICT**
DATE	
Survey by	**Contact Details (Name)**

RESCUE

Are there any rescue needs? YES/NO.

Approximate number of people needing rescue: .....

Location(s) (as accurately as possible):

What are the problems?

Is equipment available, if not, what is needed?

SEARCH Are there any people missing? YES/NO Where were they last seen? What were they doing then? What action has been taken so far?	How Many?..

URGENT MEDICAL NEEDS

Is there anyone sick or injured who might die if they are moved? YES/NO
How many?

Has a medical professional examined them? YES/NO

What seems to be wrong with them?

Is there anyone who needs to be evacuated to hospital? YES/NO.
How Many? .....

What transport and other special equipment may be needed?

Remarks:

POST-DISASTER SURVEY FORM B

CASUALTIES AND DAMAGE

LOCATION **DISTRICT**

DATE

Survey by **Contact Details (Name)**

Population:	**Casualties:**
Adults (over 15 years)	Dead
Children (5 to 15)	Missing .....
Infants (under 5 years)	Seriously injured .....
	Moderately injured .....
	Slightly injured .....
	Sick

Evacuations
Number of evacuees:
Major evacuation centres and numbers at each: .....
.....
.....

HOUSING DAMAGE (give numbers or percentages)

House Type	**Brick**	**Wood**	**Fibro**	**Other (describe)**
Destroyed				
Major Damage				
Moderate				
Slight Damage				

Describe major damage types:

OTHER BUILDING DAMAGE

Community facilities (hospitals, clinics, schools, emergency service centres etc):

Other buildings (give details):

Describe any risks to or from remaining or damaged buildings:

DAMAGE TO KEY TRANSPORT LINKS Roads

Bridges

Airports

Port and wharf facilities

COMMUNICATIONS
Describe major damage to communications and broadcasting facilities and list surviving facilities.

Remarks:

POST-DISASTER SURVEY FORM C

MEDICAL AND PUBLIC HEALTH

LOCATION		**DISTRICT**	
DATE			
Survey by (Name)		**Contact Details**	

MEDICAL FACILITIES (circle correct answers)

Hospital(s):			
BEDS	Available	Occupied	Remaining Capacity
Describe any damage:			

Availability of key resources (operating theatres, x-ray etc):

Medical staff available?

DOCTORS NURSES OTHERS (Describe)

Are more staff needed? YES/NO
What other medical and health facilities are:

a. damaged; or

b. remain available?

Medical Supplies

List needs (description and amounts):

ENVIRONMENTAL HEALTH CONCERNS (Tick as necessary and give details)

Polluted water .....Poor drainage .....

Stagnant water .....Poor hygiene .....

Overcrowding .....Rotting food .....

Insect/rat infestation.....Spraying needed? YES/NO

Toilet/sewerage systems AVAILABLE/DAMAGED/NOT AVAILABLE

Is there any problem with sewage disposal? YES/NO

Details and needs.

Remarks:

POST-DISASTER SURVEY FORM D-

WATER AND SANITATION

LOCATION		DISTRICT	
DATE			
SURVEYED BY (NAME)		CONTACT DETAIL	

WATER SUPPLY

Source of supply:

Method of storage:

Disaster effect on supply (tick as appropriate)

	Drinking	Household	Agriculture	Industry
AMOUNT				
No Difference				
Reduced but Enough				
Not Enough				
No Water				
SAFETY				
Seems Safe				
Potentially Unsafe				
Definitely Unsafe				

Describe any damage to the supply, storage and/or distribution system and say why it might not be safe:

.....
.....
.....

How much water needs to be brought In?
Every day: ..... For how long? .....

SANITATION

Sewerage systems used in the area (tick all that apply)

Mains .....Septic Tank ..... Composting ..... Other .....
For mains systems: is the system operating? YES/NO Has it overflowed or been flooded? YES/NO Is the disposal system working? YES/NO

Describe any problems and needs:
Other systems:

Have septic tanks and other systems been subject to overflowing, flooding or other problems? YES/NO Is this still occurring? YES/NO

Describe any other problems:

Remarks:

POST-DISASTER SURVEY FORM E

-ADMINISTRATION, COMMUNICATIONS, TRANSPORT AND PUBLIC FACILITIES

LOCATION		**DISTRICT**	
DATE			
SURVEYED BY (NAME)		**CONTACT DETAIL**	

ADMINISTRATION

Who is managing post-disaster activities?
Contact details ..... Office location .....

EMERGENCY SERVICES

Services available:
Problems resulting from the event:

Support needs:

COMMUNICATIONS

List communications available to the emergency operations centre:

Which public radio broadcasting stations are being received? .....
List any help needed for communications:

TRANSPORT

Road

Which main roads are closed?
Estimated time to clear these or details of help needed: **Railway**

Detail any damage to railways and immediate support needs: **Air**

Describe any damage or limitations to the airport and air navigation equipment (including air radio):

Aircraft availability: List any serviceable helicopters and small transport aircraft: **Water**

Describe any damage to port facilities and marine navigation aids:

What is the best place to land relief supplies?

Are there any boats available locally for relief transport?

LIFELINES

Is electricity working? YES/NO. If no, why not?

What fuel is available (type and amount)?

List any other public facilities damaged: .....

POST-DISASTER SURVEY FORM F

FOOD

LOCATION		**DISTRICT**	
DATE			
SURVEYED BY (NAME)		**CONTACT DETAIL**	

HOME SUPPLIES

How many days of food do most families have? ....
How many people have no food? .....

FOOD STORES

What major supplies of food are available in shops or stores?

Item	Amount	Where

Is any rationing if force? .....
Who is controlling it? .....

IMMEDIATE FOOD NEEDS

What foods are needed? Give Details.

Item	Daily Requirement	From (Date)

Who should relief supplies be addressed to?
Who will supervise relief issues? .....

SPECIAL FOOD NEEDS

Are there any special food needs (baby food etc) for particular people? Give Details.

Item	Daily Requirement	From (date)

Remarks:

POST-DISASTER SURVEY FORM G

AGRICULTURE

LOCATION		**DISTRICT**	
DATE			
Survey by (Name)		**Contact Details**	

DAMAGE TO CROPS

Crop	Area	Destroyed (%)	Damaged but Salvageable (%)	Undamaged (%)	Remarks

LIVESTOCK LOSSES

Animal Type	Dead	Injured/Stranded	Missing	Remaining

AGRICULTURAL EQUIPMENT Describe losses

NEEDS

Remarks:

ANNEX (W) REGISTRATION OF EVACUEES SOP

REGISTRATION OF EVACUEES STANDARD OPERATING PROCEDURE

This SOP outlines responsibilities and tasks for the registration of evacuees.

PURPOSE OF SOP

- coordination, undertaking and collating of registration, through completion of the National Registration and Inquiry System (NRIS) registration form, of individuals passing through the hands of emergency welfare response/evacuation personnel etc (excluding hospitals);
- the answering of inquiries regarding safety and welfare of individuals/evacuees and assistance in reuniting families;
- compilation of authoritative data regarding the number and location of evacuees of the disaster and the services and facilities needed for their care;
- entering detail of evacuees onto the NRIS registration form;
- uploading registration data, via email, to the appropriate QPS officer responsible for NRIS, so that interstate enquiries about a Queensland event can be satisfied from interstate inquiry points;

Primary/Co-ordinating Agency: QUEENSLAND POLICE SERVICE

Primary Support Agency: AUSTRALIAN RED CROSS
Volunteers in Policing

NOTE: 1
Under the co-ordination of the Police, the Australian Red Cross would primarily undertake this role as defined within the ambit of the Community Welfare and/or Evacuation Sub-Plans. The local SES Unit or community groups such as Rotary and Lions Clubs may be requested provide further support if required.

NOTE: 2
Interpreter services may be required and these would be accessed through the provision in the Community Welfare sub plan.

The Australian Red Cross Disaster Services Volunteers Handbook states:
"The aim of registering victims/evacuees is to record and make available the essential personal details of evacuees and other (non-fatal) victims of disaster so they can be reunited with their family/loved ones. While evacuees are encouraged to register, registration is not compulsory.

Registration information is used:

to assist in identifying the scale and human consequence of an event;
provide information to the State Inquiry Centre;
to assist in identifying individuals who may require assistance;
to provide emergency authorities with information about the location of victims;"

NOTE: 3
Registration of persons in a disaster is the responsibility of the QPS.

QPS is usually assisted by the Red Cross;
SES unit members may also be required to assist, especially during the initial response phase;
other agencies and volunteers may be co-opted to assist, e.g. Rotary, Lions, Volunteers in Policing;

Details are to be recorded in accordance with the National Registration & Inquiry System (NRIS).

The NRIS forms and procedures are outlined at Appendix 1A, 1B, and 3.

The essential information is:

place of registration;
name;
address;
contact telephone number (mobile preferred);
intended destination;

NOTE: 4
Ideally a master copy of the NRIS form should be placed on computers and detail of each evacuee should be entered onto sequentially numbered copies of the form.

At the appropriate time a copy of all completed forms should be delivered to the appropriate QPS officer who will transfer the data to the QPS copy of the NRIS system.

Where hard copies of the NRIS form are used, the completed forms are to be filed and held for hand-over to the Red Cross at the earliest opportunity for inputting into the NRIS computer system. Where the Red Cross has not been activated then the organisation completing the forms should hand them to the QPS for inputting to the NRIS system.

When forms are handed over, this occurrence should be logged and a written receipt requested from the person they are handed to.

NOTE 5.
Use a separate form for each member of the family.

NATIONAL REGISTRATION AND INQUIRY SYSTEM (NRIS)
REGISTRATION AND INQUIRY FORMS (Samples) Appendix 1A
NRIS National Registration

Disaster Code

PLEASE PRINT CLEARLY IN BLOCK LETTERS USING BLACK OR BLUE PEN

Place of Registration		Date DD/MM/YYYY	/ /	Time (24 hr)	

*Family Name	

*Given Names	Date of Birth/Age	*Gender M/F	*Hosp Y/N	Deceased Y/N

*Home Address					
*Town/Suburb		*State		*Postcode	
Country					
Phone		Mobile			
*Intended Destination					
*Town/Suburb		*State		*Postcode	
Country					
Phone		Mobile			

*PERMISSION TO RELEASE INFORMATION ☐ Yes ☐ No	Signature *OF PERSON BEING REGISTERED*

Notes:

Registration Recorded by		Registrar's Initials	

Distribution to State Inquiry Centre:

☐ Fax ☐ Email ☐ Recom ☐ Other

Computer Entered (Initials).....

Date / / Time

Privacy: This information will be used by Police and Emergency Services to manage the emergency account for evacuated people and ensure next of kin can be notified in cases of serious injury. With your permission, information will also be made available to friends and relatives who inquire about your welfare and whereabouts.

* Mandatory Field

NRIS National Inquiry

Disaster Code [ ] **Appendix 1B**

PLEASE PRINT CLEARLY IN BLOCK LETTERS USING BLACK OR BLUE PEN

PERSON BEING SOUGHT	Date DD/MM/YYYY	/ /	Time (24 HR)	

Is this your first inquiry for the person sought? ..... ☐ Yes ☐ No

*Family Name					
Given Names		Age		Gender M/F	
Home Address					
Town/Suburb		State		Postcode	
Country					
Phone		Mobile			

PERSON MAKING INQUIRY

*Family Name		Given Name	
Address			
Town/Suburb		*State	Postcode
Country			
Phone		Mobile	
Email			
Relationship to Persons Sought			
Notes:			
Inquiry Recorded by		Recorder's Initials	

Distribution to State Inquiry Centre: .....

☐ Recom ☐ In person ☐ Phone ☐ Other

Computer Entered (Initials) .....

Date / / Time

Appendix 2

COMPLETING THE NRIS FORMS
WHERE AND BY WHOM IS THE DETAIL COMPLETED

In the case of requested voluntary evacuation:

- where the evacuee has been requested to proceed to an nominated assembly point or evacuation centre
- by persons at the centre designated the task of registration (usually a member of the Red Cross);

DO NOT REGISTER ANYONE WHO IS NOT PRESENT AT THE ASSEMBLY or EVACUATION CENTRE;

where the evacuee decides to proceed to a relative or friends home

- the evacuee is to be encouraged to register by contacting a nominated contact number/person;

In the case of forced evacuation

- the representative of the agency enforcing the evacuation should direct the evacuees to an assembly point from whence a decision will be made on where best to send the evacuees;
- evacuees who are directed to a nominated evacuation centre will be registered at the centre;
- evacuees who nominate to go to a relatives home should be registered at the assembly point before being allowed to proceed to the relatives home;
- the person giving the direction to evacuate must make a diary note of the persons spoken to, the direction given and the response from the person. This detail is married up with the registration forms ASAP at the assembly/ evacuation centre;

USEFUL TIPS

- make sure you have everything you need: forms, biros, and the latest information available about likely numbers of evacuees and where services such as toilets and refreshments are located;

- when registering evacuees:

- introduce yourself;
- provide a clear and concise explanation of the registration process;
- let people know what will happen to the form once it has been completed:

- what organizations will have access to the form – usually only Red Cross and QPS;
- the completed form is sent to the State Inquiry Centre;
- information is entered onto NRIS;
- information is used to match the victim with any inquiries made about them;
- information is only used to manage the disaster – no other purpose;
- do not separate children from their families;

- make sure you ask the "Authority to Release Information" question – and the answer is yes or no (yes means the information will be released to anyone who inquires about the evacuees, after the inquirer has provided their details);

- draw evacuee's attention to the privacy statement at the bottom of the registration form;

- print clearly in capital letters, checking spelling as necessary;

- at the end of your shift, see your team leader for debriefing, then sign off and return your ID;

TIPS ON HOW TO REGISTER

- use a separate form for each member of the same family;
  greet victims with warmth and comfort, not forced cheerfulness;
- giving the evacuees your undivided attention: don't let your eyes wander to other activities or let others interrupt the interview unless absolutely necessary ;
- speak slowly and quietly;
- talk to and comfort children;
- give evacuees confidence by repeating details as you record them and check any spelling;
- prompt if necessary (*"... do you think there is anything else?"*);
- do not pressure people to give information;
- ask the evacuee to complete the form if you are having difficulty understanding what they are saying;

Appendix 3

REGISTRATION FORM: Instructions for Completion

- form should be completed using black or blue pen as follows (this allows a good faxed copy);
- all fields marked * are mandatory fields and must be filled in
- TAKE TIME, BE ACCURATE AND CLEAR WITH SPELLING, this will ensure speedy responses;

Step	Heading	Information Required
1	**Disaster Code**	Code will be entered at Inquiry Centre
2	**Place of Registration**	Actual place the form is being completed. Evacuation/ Welfare Centre, School, Church Hall etc.
3	**Date**	DD/MM/YYYY e.g. 17/03/2203
4	**Time**	Use 24 hour clock, e.g. 1600 (4pm)
5	**Identify Yourself**	"I am ..."
6	**Family Name ***	Printed in BLOCK letters • For reasons of clarity, correct spelling of the FAMILY NAME is critical. Please repeat the spelling of the FAMILY NAME back to the person being registered • Family groups must have SAME FAMILY NAME, SAME USUAL ADDRESS and SAME INTENDED ADDRESS to be registered on same form. A differing FAMILY NAME requires a new form to be completed (Needs linkages, e.g., wife who has kept maiden name, cross-reference in "Notes" at foot of form.
7	**Given Name ***	Printed in BLOCK letters • Should the person have a NICKNAME this is included in brackets after the GIVEN NAME eg Elizabeth (Beth) **NOTE: use a separate form for each member of the family.**
8	**Date of Birth or age**	DD/MM/YYYY e.g. 21/10/1976
9	**Gender ***	M/F Male or Female
10	**Hospital ***	N for No Y for Yes. Those sent to hospital will be registered at the hospital
11	**Deceased**	Police Only Function Yes or No • Fill in DECEASED only if information is confirmed. Information on deceased persons can only be released by Police
12	**Home Address ***	To include Town/Suburb*, State* and Postcode* and be usual place of abode
13	**Country**	If evacuee is from overseas
14	**Phone/Mobile Phone**	Include code (Area code) (number) Mobile number is very useful.
15	**Intended Destination ***	Location to which the persons registering expects to go or be conveyed to.
16	**Phone/Mobile Phone**	(Do not enter Evacuation Centre phone number)
17	**Permission to Release Info ***	**Yes** – Inquirers can be told you are safe and where you are **No** – No release of information, however Emergency Agencies will have access to this record
18	**Signature**	Signature of person being registered This is to signifying the person understands the "release of information" Deceased – Police will sign Hospitalised patient form can be signed by Hospital staff should the person be unable.
19	**Notes**	e.g. "Home address of grandparents with whom grandchild has been evacuated". Can also include information that may be required by another agency.

20	**Registration Recorded By**	Your family name and given name in BLOCK letters
21	**Registrar's Initials**	Your Initials

DISTRIBUTION TO STATE INQUIRY CENTRE:

22	**Fax Email** **RECOM** **Other**	Tick box appropriate to method of distribution
23	***Computer Entered***	Initial once data has been entered on NRIS, complete the Date and Time box
24	**Review**	Check all relevant boxes are complete. **Is your writing clear?**

IPSWICH CITY COUNCIL
LOCAL DISASTER MANAGEMENT PLAN

PART 2 SUB/OPERATIONAL PLANS

SECTION 7 SUB/OPERATIONAL PLANS

07.00 INTRODUCTION

Disaster management planning for Ipswich City Council is not solely the responsibility of the Council and the Department of Emergency Services, represented by Emergency Management Queensland. It is a joint responsibility held by all member agencies of the Ipswich City Local Group, and each member agency has a vital role to play in the provision of an appropriate operational response to any event impacting upon the community. This role includes participation in the development of Sub-Plans, either as a lead agency or as a support agency.

If an agency has agreed to take the 'Lead Agency' role for a particular operational function, it is then responsible for co-ordination of the development of the Sub-Plan for that function. Agencies that have a 'Support Agency' role will provide assistance in the plan development.

The following sub-plans have been developed by the IPSWICH CITY LOCAL GROUP:

Functional Sub-Plans/Operational Plans:

Evacuation.
Evacuation Centre Management.
Communications.
Community Support.
Transport.
Financial Management.
Public Health.

Threat Specific Sub/Operational Plans:

Terrorism Management.
Emergency Animal/Plant Disease.
Epidemic or Other Health Issues.
Flood/Storm.
Fire Urban.
Fire Rural.
Earthquake.
Landslide.
Hazardous Material Accident.
Major Transport Accident – Road.
Major Transport Accident – Rail.
Major Transport Accident – Air.

ISSUES TO BE CONSIDERED, ADDRESSED AND DOCUMENTED

Within some sub/operational plans, issues have been identified which need to be considered by the appropriate working groups, addressed accordingly and the plan updated. Detail of these issues has been consolidated into an action plan and attached in Annex Y at the end of the Ipswich City Local Plan.

ROLES AND RESPONSIBILITIES

Agencies have agreed to undertake the following roles and responsibilities when activated.

Lead Agency	Roles and Responsibilities
Ipswich City Council	Establishment of the Ipswich City Council Co-ordination Centre. Collection and interpretation of information, data and advice to the Ipswich City Local Disaster Management Group Public warning and advice. Collection and interpretation of meteorological warnings and data. Maintenance, monitoring and interpretation of data from the A.L.E.R.T. system Preservation of public health and hygiene precautions. Protection, maintenance and restoration of water and sewerage services. Provision of specialist staff such as turncocks. Assistance in vaccination programs. Maintenance of drainage systems. Assessment and safety of damage buildings. Sign posting, barricading and road. Construction and maintenance of roads. Clearance of debris. Co-ordination of clean up of private dwellings. Assistance in animal control. Provision of animal records. Provision of other man power and equipment as necessary. Supply of water tenders. Provision of communication system. Closure of roads as required. Maintain an SES unit in accordance with the Act.
Queensland Police Service	Control of incident/impact site/s. Control of essential traffic routes. Control of evacuation. Supply of Meteorological Information to Local Government. Assist QFRS to Co-ordinate rescue of trapped/stranded persons. Security of specific areas. Road blocks and diversions. Control of disaster victim identification and emergency mortuary facilities where required. Tracing of persons. Augmenting emergency communications. Investigations of offences. Assistance with stock destruction. Control of crime threatened site. Criminal investigations - Mass Incident Response Unit - Special Emergency Response Team; - Negotiators; - Public safety Response Team; - Explosive ordnance Response Team; - Dog Squad; - State Crime Operations Command; Security Intelligence Branch Coordinate & control of search operations. Stock control movement. Assistance, on request, with stock and infected material tracing.

Lead Agency	Roles and Responsibilities
Queensland Rail	Control operation, movement and technical advice on railway plant and equipment. Provision and control of railway manpower and equipment as required. Clearance and restoration of railway lines.
Queensland Fire & Rescue Service (Urban)	Safety of persons in relation to fire prevention, fighting and recovery. Control of fire in designated fire zone. Control and assist clean up of hazardous materials, spillage/release (negotiable with Council Environmental Health Officers). Extrication of trapped persons. Advice and directions on public safety/evacuation from fire/hazardous materials danger zone. Assistance in the provision of clean up facilities particularly pumping and hose down (negotiable with Council). Advice on carcass burning conditions. Provision of spraying and protective equipment (decontamination). Provision of specialist manpower and equipment. Provision of AIIMS trained teams.
Queensland Fire & Rescue Service (Rural)	Administration & direction on public safety, evacuation, wildfire. Control of fire in designated fire zone. Safety of persons in relation to fire prevention, fighting and recovery. Provision of specialist manpower and equipment. Any other situation where QFRS requires assistance. Provision of AIIMS trained teams.
Department of Primary Industry & Fisheries	Co-ordination of resources in exotic animal disease outbreaks. Establish restricted area cordon. Establish local disease control centre and forward command post. Detection of foci of infection. Slaughter and disposal of animals and infective agents. Evaluation and compensation. Control of movement of animals, animal products, vehicles. Disinfection/disinfestation of contamination. Public advice and information. Control of specific enterprises. Provide training to volunteer staff. Assist and conduct training exercises.
State Emergency Service	Provide management system for the employment of public volunteers. Co-ordination of volunteer resources from local community. Assistance in rescue of trapped/stranded persons. Assistance in community information services. Augment emergency communications. Assist establishment of short term community welfare services. Temporary covering to damaged private dwellings or other essential buildings. Assistance in traffic control. Provision of emergency lighting. Establishment of field DCC at the request of Incident Commander. Provision of field welfare facilities. Provision of trained search manpower. Augment field search equipment as required. Marking of wreckage as requested by Incident Commander. Provision and erection of initial tentage for Field Triage/Treatment point or morgue.

Lead Agency	Roles and Responsibilities
Queensland Ambulance Service	Initial treatment and transport of casualties. Initial triage of casualties.
Energex	Control of electrical hazards. Restoration of power.
Telstra	Emergency telecommunications. Restoration of Telstra facilities.
Chem Unit – RACE (Response Advice for Chemical Emergency)	Provision of on-site and off-site chemical and technical advice.
Environmental Protection Agency	Advice on disposal of contaminants and contaminated soil.
Department of Main Roads	Assistance in tracing of animal and livestock products being transported. Halting, off loading and disinfecting of transportation vehicles is required. Advice on vehicle detour routes. Provision of heavy earthmoving equipment and manpower. Clearance of debris – Cunningham and Warrego Highways and Ipswich and Logan Motorways. Clearance of blocked drains – Cunningham and Warrego Highways And Ipswich and Logan Motorways. Setting up barricades – Cunningham and Warrego Highways and Ipswich and Logan Motorways.
Ipswich Hospital	Provision of Site Medical Officer or Site Medical Teams as required. On-site field triage of casualties. On-site emergency treatment. Coordination of ongoing treatment. Triage, *accurate diagnosis* and treatment of the ill. Co-ordination of secondary referral centres Establish isolation / barrier nursing and medical protocols Provision of facilities and extra manpower to PHU. Assistance with education of emergency workers. Assistance with education of the public. Support for Ipswich Hospital Pathology Laboratory Organise biologically sound transport to other Hospitals.
Queensland National Parks & Wildlife Service	Provision of manpower and equipment.
Government Undertaker	Removal of deceased persons.
Department of Admin Services (Q-Build)	Provision of engineering and logistical requirements to damages areas.

Lead Agency	Roles and Responsibilities
ROYAL AUSTRALIAN AIR FORCE (FOR MILITARY AIRCRAFT OFF BASE)	Provide specialist advice on hazardous materials and systems. Make safe aircraft ejection/egress systems and weapons as appropriate. Provision of manpower and equipment. Provision of additional fire, ambulance and medical teams. Arrange Air Force Investigation team participation. Removal of aircraft wreckage.
ROYAL AUSTRALIAN AIR FORCE - CIVILIAN AIRCRAFT	Provision of manpower and equipment in accordance with Category 1 Defence Aid to Civil Community (DACC) requirements.
BUREAU OF AIR SAFETY INVESTIGATION (BASI)	Provide specialist investigation staff. Provide specialist advice. Co-ordinate removal of aircraft wreckage.
CIVIL AVIATION AUTHORITY (CAA)	Provision of passenger manifests and other information. Liaison with aircraft owner/operator. Impose air space restrictions if requested.

Lead Agency	Roles and Responsibilities
Department of Defence	DACC provisions – The provision of defence resources for the performance of tasks which are primarily the responsibility of the civil community. Defence resources includes personnel, equipment, stores, supplies and facilities, and expenditure from defence outlay on administration, personnel support, equipment operation, repair and maintenance. Defence assistance to the civil community may be made available in situations where the State/Territory authorities are unable to react with sufficient speed or lack the necessary resources. A Local Commander/Administrator may authorise the provision of emergency assistance for a specific task(s), from within his own resources, in localised emergency situations when immediate action is necessary to save human life, alleviate suffering, prevent extensive loss of animal life or prevent widespread loss/damage to property. Provision of emergency assistance that does not comply with the requirements detailed above requires Ministerial and other clearances before assistance can be made available.
West Moreton Public Health Unit (Population Health Unit)	Notification of disaster. Epidemiological identification of agent vector and spread mechanisms. Registration of cases and outcomes. Notification to Health Minister, Chief Health Officer and Director-General. Notification to Public and Private Microbiology and Pathology laboratories. Identification of measures to control spread. Rationalisation of resources needed for medical treatment. Education of emergency personnel and public. Notification of Division of General Practice Contact National Communicable Diseases Centre and/or CDC (Atlanta).

7.01 EVACUATION PLAN

Aim

To co-ordinate the activities of organisations involved in preparing for and evacuating communities.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered potential areas for conducting evacuation operations:

(a) whole of area;

(b) flooding – The following areas / properties may be isolated and / or require evacuation:

Properties within the floodplains of:

Brisbane River;
Bremer River;
Bundamba Creek;
Black Snake Creek;
Goodna creek;
Mihi Creek;
Purga Creek
Six Mile Creek;
Sandy Creek;
Warrill Creek;
Western creek;
Woogaroo creek;

2300 properties at risk in a 20 year ARI event;
5800 properties at risk in a 50 year ARI event;
9300 properties at risk in a 100 year ARI event;
54000 properties at risk in a PMF event.

(c) landslide – It is unlikely, in the present developed areas, that evacuations will be required as a result of landslides in the area. Landslides may occur in areas containing the 'Marburg Formation" and Walloon Coal Measures".

(d) bushfire – rural areas of the Council's area may require evacuation together with residential areas adjacent to bush land.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the main plan:

Lead Agency	Support Agencies
Ipswich City Council	Queensland Police Service SES Red Cross Department Transport

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Evacuation

Decision to Evacuate:

The decision to authorise an evacuation may occur under the following conditions/authorities:

Queensland Police Service may order an evacuation under the *Public Safety Preservation Act 1986*;

Queensland Fire and Rescue Service may order an evacuation under the *Fire and Rescue Service Act 1990*; or

Ipswich City Local Government Disaster Management Group may recommend a voluntary self evacuation of a community or portions of a community; or

Ipswich City Local Government Disaster Management Group may request the District Disaster Coordinator to declare a Disaster Situation under the *Disaster Management Act 2003* in order to effect a mandatory evacuation of a community or portions of a community;

The Ipswich District Disaster Coordinator may declare a Disaster Situation under the *Disaster Management Act 2003,* subject to the approval of the Minister;

In the case of mandatory evacuations, the authority for the declaration lies with the District Disaster Coordinator, with Ministerial approval; a Commissioned Officer of Police; and an authorised officer, respectively.

There is no legislative restriction to the provision of advice by the Ipswich City Local Disaster Management Group (Ipswich City Local Group) concerning voluntary evacuation. Advice to voluntarily evacuate would be issued under the authority of the Chairperson of the Ipswich City Local Group.

Some disaster events are slow-moving and provide ample reaction time, e.g. flooding. The worst case scenario is that there will be little or no warning of the need to evacuate and it may be necessary day or night, e.g. landslide, earthquake, severe weather damage, hazardous chemical spill, terrorism or human caused incident – bombing, arson etc.

For the purpose of planning evacuations are considered to be of the following types:

Immediate Evacuation:

An evacuation resulting from an event which provides little or no warning and consequently limits the final preparation time. Hazardous materials incidents, earthquakes and air crashes are examples of events that may require immediate evacuation.

These types of evacuation may include spontaneous / uncontrolled / unorganised / self or voluntary and mass evacuations.

Planned Evacuation:

An evacuation resulting from an event that provides adequate warning and gives time to prepare. Bushfire, flooding, cyclone and long term hazardous material emissions are examples of this type of evacuation.

These types of evacuation include self or voluntary, staged / phased / limited / selective / forced and medical evacuations.

Post Impact Evacuations:

Reactive evacuations to move people from a disaster impacted area into safer conditions. There are two types of post impact evacuation:

Rescue Evacuation – Short term evacuations to rescue endangered people. Examples would be an evacuation of tourists stranded by rising flood waters or trapped persons from a building collapse.

Reconstruction Evacuation – When people are moved from a disaster affected area for a relatively long term, while attempts are made to reconstruct a disaster impacted community. An example of this type of evacuation is Darwin after cyclone Tracy.

Evacuation Process

Irrespective of the type of evacuation, there are five (5) phases to an evacuation:

Decision to evacuate

Refer to "evacuation" above.

Warning

Once the decision to evacuate has been made, a warning will be issued by the responsible authority. At this stage the Ipswich City Council and the local SES Unit may be asked to assist with the evacuation.

The issue of warnings will be by the most efficient means given the circumstances of the event, time available etc. Methods available to issue warnings include:

- media (electronic);
- telephone to individual properties;
- personal visit/door knocking to properties by Police, SES or Council employees;
- predetermined devices, e.g. horns, sirens, alarms, etc;
- loud hailer;
- internet (where time permits; this is in addition to any of the above);

Warning content should include the following detail:

- the area affected;
- likely numbers of persons to be moved;
- timing;
- instructions for the public (what to take etc.);
- assembly points, evacuation routes, means of transport, intended destination etc;
- any special instructions;

Withdrawal – Evacuation

Refer to appropriate sections in this sub-plan. This may be a 2 stage process – stage 1 to move out of harms way; and stage 2 to then move to a nominated emergency shelter or evacuation centre.

Shelter – Evacuation Centres

Refer to appropriate sections in this sub-plan.

Return

Before the evacuees can be permitted to return to their premises the following issues must have been addressed:

- has the hazardous situation that caused the evacuation abated?
- has sufficient debris has been removed to permit travel?
- are roads and bridges are safe to use?
- have fallen power lines have been removed; ruptured gas, water, and sewer lines repaired; and other significant safety hazards eliminated?
- have structures have been inspected and determined to be safe to reoccupy?
- public health information (See Public Health Operational Plan)
- identification of persons requesting re-entry?
- temporary re-entry – to retrieve personal belongings when the area has not been cleared for full unconditional return?
- staged re-entry to permit repairs, etc?
- special needs groups?

See SOP assessing disaster affected housing and accompanying check list in the Public Health Sub-Plan.

NOTE 1: Evacuees should be directed to a staging/assembly point where they can be directed to the most appropriate evacuation centre. Those evacuees at the assembly point who indicate that they can be housed at a relatives home should be registered at the assembly point before being allowed to proceed to their relatives home.

NOTE 2: When allocating evacuees to evacuation centres care must be taken to ensure the centre is suitable for the class of evacuee.

Evacuation Special Needs Groups

The following groups within the community have special needs with regard to evacuation:

- house-bound population;
- mobility impaired;
- aged;
- medical (home dialysis machines, oxygen concentrators, etc);
- lack of transport;
- transient people – motel , hotel, seasonal workers, street people;
- pre-registered special needs people;
- hospitals, nursing homes;
- schools, day-care centres;
- caravan parks;
- Tourist resorts;
- shopping centres;

NOTE 1: Information from the Commonwealth Department of Health and Ageing suggest that unless the nursing home proprietors have voluntarily developed continuing care arrangements for residents of the facility, they are under no(legal) obligation to do so.

This leaves the situation where the Ipswich City Local Group will potentially be left to address the issue of having to find suitable accommodation for numbers of infirm residents, many of whom may be bedridden, suffering from incontinence, or varying degrees of dementia. It is obvious that accommodating such persons in standard evacuation centres is not appropriate.

NOTE 2: In the case of short-notice or no-notice emergency situations, some of the facilities identified in the listing above may be unable to make the required arrangements for transportation and may need assistance from local government with transportation and in identifying suitable reception facilities.

NOTE 3: The evacuation of some persons within the above listing may require the use of specialised transport vehicles.

NOTE 4: When allocating "special needs" evacuees to evacuation centres care must be taken to ensure the centre is suitable for the class of evacuee.

Evacuation Centres

Evacuation centres are generally located in local halls and schools. A list of evacuation centres is contained in Annex 7.04 Community Support - Welfare Plan.

Full detail of the centres is contained in the appropriate layers of Councils' GIS system. Detail is also held by the SES.

Registration of Evacuees

Registration of evacuees is normally the responsibility of the Red Cross who maybe assisted by other community groups, e.g. Rotary and Lions Club members, who have been trained in the registration process.

Registration usually occurs at the evacuation centre, however it would be prudent to register some evacuees at an assembly point

Refer to the Registration of Evacuees SOP attached.

Evacuation Routes

All evacuation routes and traffic control points will be under the control of the Police.

Council's GIS system contains detail of evacuation routes.

Communications

Temporary communications between the evacuation centre and the Ipswich City Coordination Centre may be provided by the SES.

Communication facilities at the evacuation centres will be required both for centre management staff and the public.

Security

Evacuated Area

Arrangements must be put in place to secure the evacuated area, e.g. road blocks, patrols etc.

Remember the Police will not have the resources to provide security of the evacuated area.

Council should either use the services of its existing security provider or engage the services of a suitable security firm.

Attachments

Annex B – Contact names and phone numbers.
Annex W – Registration of Evacuees.

7.02 EVACUATION CENTRE MANAGEMENT PLAN

Aim

To provide for the management of facilities which provide affected people with basic human needs including accommodation, food, and water and welfare/recovery processes.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered potential areas for conducting evacuation operations:

(a) whole of area.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the main plan:

Lead Agency	Support Agencies
Ipswich City Council	Ipswich City Council State Emergency Service Red Cross Service Clubs

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Identification of Evacuation Centres

When deciding whether a structure or location is suitable for an evacuation centre the following points should be considered (note some of these points are dealt with in more detail under separate headings:

- is the location suitable for a temporary facility such as a tent city?
- what is the capacity of the structure or area?
- is the location safe from the impact of natural hazards?
- is an alternative power source available or can provision be made on the existing electricity power switch board to connect a generator supply?
- what is the length of stay capability of the facility?
- what are the toilet facilities – connected to the sewer, septic tank or do latrines need to be dug?
- what are the showering facilities?
- what are the catering/kitchen facilities?
- does the facility/area have all weather vehicular access?
- does the facility/area have an area for vehicle parking and is it secure or what needs to be done to make it secure?
- is the facility/area have provided with disabled access?

Safe Location

In determining whether the location is safe one must consider whether the current disaster event is likely to affect the location. e.g. in a flood event the location should not be in an area that may be flooded if the flood waters rise beyond the predicted levels; or in he case of a bushfire the location is not in an area that may be affected if the wind changed the direction of the fire front.

Length of Stay Capability

The facility management should be asked if the facility can be taken "off-line", for what length of time and for any other restrictions on the use of the facility. This detail must be entered into the GIS database pertaining to that facility.

Management Processes

Overall management of the centre remains the responsibility of the centre owner.

However, day to day management of the evacuees and the functions of providing for their welfare is the responsibility of the Ipswich City Council through the Community Support - Welfare Sub-Committee.

It is desirable that a memorandum of understanding (MOU) be drawn up between the centre owner and the Ipswich City Council detailing the arrangements for the use of the facility as an evacuation centre.

The following management issues need to be addressed and documented:

- management structure;
- staff requirements including roles and responsibilities;
- roster system;
- communications within the management structure and between the evacuation centre location and the Ipswich City Local Group and the Ipswich City Disaster Coordination Centre;
- reporting requirements within the management structure and between the evacuation centre management structure and the Ipswich City Local Group and Ipswich city Coordination Centre;
- provision of security.

Registration of Evacuees

Refer to the SOP "Registration of Evacuees".

Attachments

Annex B – Contact names and phone numbers.
Annex W – Registration of Evacuees.
Section 8 - Operational Check List

SOP – Guidelines for Management of Evacuation Centres

Ablutions

Regulations govern the number of persons that can use the facilities and if more persons are to be housed at the facility then additional provisions must be made by way of portable toilets (chemical) or in ground latrines, portable shower units (demountable building) etc.

The following numbers are a guide:

	Males			Females	
	WC	Urinals	HWB	WC	HWB
Patrons	1 per 20 persons	1 per 25 person	1 per 30 persons	1 per 15 persons	1 per 30 persons

(Table reference: EMA Manual 9 – Disaster Medicine, Annex G Chapter 10)

If additional toilet facilities are required the shortfall may be met by the use of portable chemical toilets usually available from hire companies. Arrangements need to be put in place to service the units and to regularly clean the units.

If latrines have to be dug then these should be suitable sighted and regularly serviced by a hygiene squad. DO NOT USE ANTISEPTICS; USE SOAP AND WATER. ANTISEPTICS KILL BACTERIA THAT BREAK DOWN FAECES.

The following is a guide to the type of latrine to use:

LENGTH OF STAY	No. DAYS	LATRINE TYPE
Short stay	Max.3	Shallow trench
Long stay	Over 3 days	Deep trench or bore hole
Urine disposal		Urinals and soak pits

Kitchen Facilities

The available kitchen facilities at the evacuation centre will be the limiting factor in determining the number of evacuees that the facility can accommodated.

Where ever possible it is desirable to use the existing kitchen facilities at the evacuation centre because these offer suitable conditions for maintaining a satisfactory standard of cleanliness and protection from the invasion of rodents and insects.

The kitchen should be fly-proof (if possible), sited away from latrines and drainage must be controlled. Grease traps should installed (if possible) if not already in place and cleaned daily.

Other kitchen facilities that may be considered as supplementary or alternative areas for the preparation of meals are those found in restaurants, hotels, school tuckshops, motels public halls, meals on wheels etc.

If a field kitchen has to be established then consideration should be given to seeking Australian Defence Force assistance.

Water to be used in kitchens must be potable water. Where no potable supply is connected to the premises then potable water must be transported, stored and handled in such a manner as to avoid contamination.

The following minimum quantities of water for all purposes per person per day are:

PERSON	20 litres
MEDICAL Unit per CASUALTY	60 litres
Feeding Unit per person	30 litres

Note the drinking water component of this allowance (4 litres) must be increased in hot conditions or where heavy work is being carried-out.

Where refrigeration facilities are inadequate or non existent then perishable foods should only be accessed on a daily basis and cooked and served as soon as possible. In these cases the use of supplementary refrigeration facilities such as portable cool-rooms should be considered.

A sufficient number of hand basins, each with soap, nail brushes and clean towels (preferably paper towels) must be provided for the exclusive use of food handlers and kitchen staff.

An adequate supply of detergents, disinfectants, brushes, cloths, brooms and other housekeeping necessities must be provided at all centres.

Remember that flies and cockroaches will be a problem and vermin control measures must be strictly enforced.

Vehicular Access

Vehicular access to the evacuation centre and grounds should be dust free and preferably sealed. It should also be wide enough to permit the entry of coaches and trucks and be flood free.

Vehicle Parking

The area set aside for vehicle parking should be secure, solid, flood free and sufficient for the anticipated number of vehicles. An area for delivery vehicles should be designated close to the goods storage areas.

Wheelchair Access

Wheelchair access to the evacuation centre is highly desirable as lack of such access restricts the use of the facility by wheelchair bound evacuees.

Pets and Service Animals

Provision needs to be made for holding pens and exercise areas for pets and service animals. As these areas can be a breading ground for vermin they should be cleaned regularly.

Social Considerations

The following social issues need to be considered and appropriate provisions made to address them:

- ethnic tensions;
- indigenous mixes (clans, tribal groups and skin groups);
- Anti-social behaviour;
- Dietary requirements including religious beliefs. Kitchen staff must to be made aware of the requirements.

Entertainment

Provision should be made for entertainment such as television and video.

7.03 COMMUNICATIONS PLAN

Aim

To identify and co-ordinate the activities of organisations involved in providing communications in support of disaster management operations.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered potential areas for conducting welfare operations:

(a) *whole of area;*
(b) Ipswich City Disaster Coordination Centre or alternative site;
(c) evacuation centres.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Lead Agency	Support Agencies
Ipswich City Council	SES WISCEN Telstra Other communication providers

Activation

This sub-plan will be activated in conjunction with the activation of the Ipswich City Coordination Centre.

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

The primary means of communication during a disaster management operation is the telephone and facsimile followed by email, mobile 'phone, two way radio, multiple service radios, other services radio network and finally courier. If the primary means of communications fail then the Ipswich City Council with the support of the Support Agencies will attempt to restore communications or provide alternative means of communications.

All Lead and Support Agencies involved in the disaster response shall provide their own communication links between the Ipswich City Coordination Centre and their agency, forward command post or evacuation centre.

Initial temporary communications between the evacuation centres and the Ipswich City Coordination Centre may be required to be provided by the SES until more suitable communications means are established by Ipswich City Council.

Available Communication Resources

- conventional Telstra and other service provider landlines;
- mobile 'phone facilities;
- SES radio net;
- Ipswich City radio net;
- Queensland Police radio net;
- individual agency radio nets;
- electronic media – radio and television stations;
- radio club members; and
- private individuals.

(material to be inserted)

Maintenance of Communication Resources

Each agency is responsible for the maintenance of its system and facilities.

Attachments

Annex B – Contact names and phone numbers.

7.04 COMMUNITY SUPPORT/WELFARE PLAN

Aim

To co-ordinate the provision of short term Community Support to the emergency/disaster affected community.

Authority to plan

This sub-plan is prepared under the authority of the Ipswich City Local Disaster Management Group in support of the Ipswich City Local Disaster Management Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Scope of Sub –Plan

The scope of this sub-plan relates to the delivery of short term emergency Community Support services to the affected community through the activation of the relevant support agencies.

Potential Area of Operations

The provisions of this sub-plan may be required to be implemented for any of the potential hazard impacts within the Council's area.

The following are considered potential areas for the conducting of Community Support Operations:

(a) Whole of the Ipswich City local government area.

Organisation for Control

The Lead Agent for the Community Support Sub-Plan Plan is the Community Services Branch, Ipswich City Council.

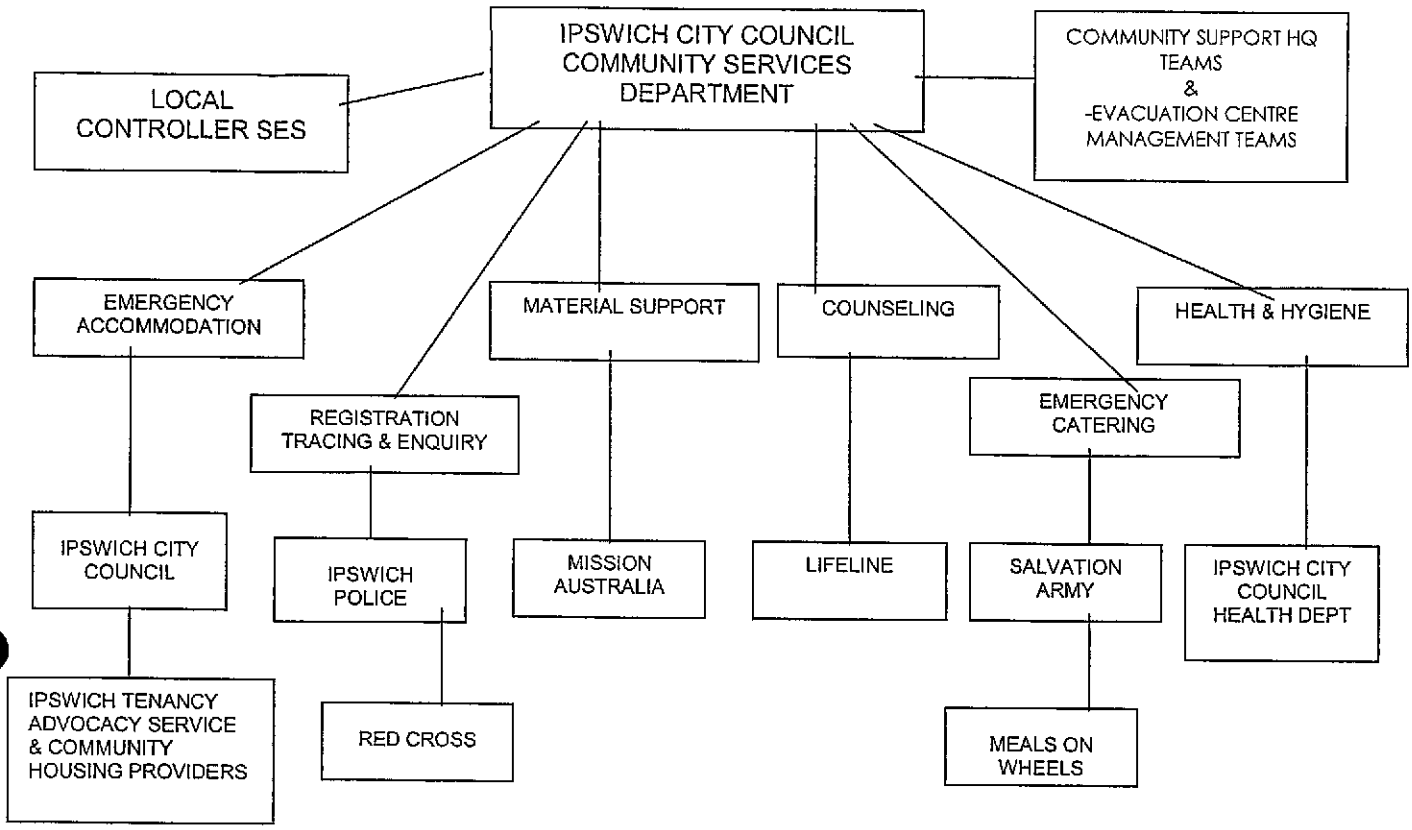
The following organisations form the Community Support Committee:

1.	Ipswich City Council Community Services Manager	Chairperson;
2.	Local Controller SES	Ipswich City Unit;
3.	Queensland Police Service	Representative;
4.	Queensland Ambulance Service (QAS)	Representative;
5.	Salvation Army	Representative;
6.	Lifeline Ipswich & West Moreton	Representative;
7.	Mission Australia	Representative;

LEAD AGENCY	SUPPORT AGENCY	RESPONSIBILITY	RESOURCES
IPSWICH CITY COUNCIL ECONOMIC & COMMUNITY DEVELOPMENT DEPARTMENT, COMMUNITY SERVICES BRANCH		**ADMINISTRATION:** Administration of community services provided by the Community Support Sub-Plan.	
	IPSWICH COMMUNITY AID	Assist with administration of the Community Recovery. Plan arrangements.	
	PRIMARY: IPSWICH CITY COUNCIL **SECONDARY:** Ipswich City Council Community Services Branch. Ipswich Tenancy Advocacy Service	**TEMPORARY ACCOMMODATION:** Maintain a register of possible places suitable for temporary accommodation, including capacity and facilities, key holders and contact numbers. Activate access and establishment of temporary accommodation facilities. To support and assist State Emergency Service perform its primary task. To assist in the referral to emergency accommodation within the community Recovery Arrangements.	
	PRIMARY:- QUEENSLAND POLICE SERVICE **SECONDARY:** Red Cross; State Emergency Service	**REGISTRATION OF EVACUEES:** Maintain registration of persons involved in a declared disaster. Undertake registration of persons involved in a declared disaster and forward details to Police. Comfort and care of evacuees and registration of persons involved in a declared disaster.	

LEAD AGENCY	SUPPORT AGENCY	RESPONSIBILITY	RESOURCES
	PRIMARY: QUEENSLAND AMBULANCE SERVICE **SECONDARY** ST John Ambulance Australia (QLD)	**FIRST AID:** The administration and provision of first aid treatment to persons requiring assistance. To assist in the administration and provision of first aid treatment to persons requiring assistance.	*Service provision capacity 200 persons.*
	PRIMARY: SALVATION ARMY **SECONDARY:** IPSWICH MEALS ON WHEELS Ipswich City Council Humanities Building & Civic Hall Kitchens	**CATERING:** The administration and provision of emergency food for displaced persons and catering services for emergency providers. To assist in the coordination and provision of emergency food for displaced persons. To assist in the provision of emergency food for displaced persons.	*Service provision capacity 200 persons.* *Service provision capacity 300 persons.*
	PRIMARY: LIFELINE IPSWICH & WEST MORETON	**TRAUMA RESPONSE:** To assist in the provision of trauma response services for persons requiring debriefing and counselling.	*Service capacity 6 full time persons.*
	PRIMARY: MISSION AUSTRALIA,	**MATERIAL AID EMERGENCY RELIEF:** The administration and provision of emergency relief services for persons requiring Material Support.	*Service capacity 30 persons.*

LEAD AGENCY	SUPPORT AGENCY	RESPONSIBILITY	RESOURCES
	PRIMARY: LIFELINE IPSWICH & WEST MORETON	**COUNSELLING:** The coordination and provision of counselling and care management services.	*Service capacity 6 full time persons.*



Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Community Support operations will include one or both of the following:

(a) catering for emergency workers in an emergency or disaster; and/or
(b) the welfare of the victims of an emergency or disaster;

On determining the need for a community support services, the Executive Officer Ipswich Local Group will alert the Ipswich City Council, Community Services Branch, Manager (Chairperson Community Support Committee) or the Deputy Chair.

The Community Support Committee Chairperson or Deputy Chair will activate:

(a) the relevant members of the Committee advising them of the response required; and
(b) other voluntary agencies, as necessary;

All organisations will activate as per their own S.O.P.'s.

The Chairperson will be briefed by the Executive Officer of the Ipswich Local Group at the earliest opportunity and will over-sight the provision of Community Support services.

Financial Management

Each organisation involved with the provision of goods and services under this plan will be responsible for securing supplies for and meeting the cost of its activities, for the initial response.

Where additional goods or services are required, prior approval to order them must be obtained from the Community Services Manager to a level authorised by the Ipswich City Council as detailed in the Finance Sub-Plan.

All accounts for expenditure on goods and services are to be examined by the Community Services Manager and, if approved, shall be endorsed and forwarded to either the Manager, Ipswich city Council, Works Department or the Executive Officer, Ipswich Local Group for payment, depending upon the level of activation.

No claims for reimbursement of expenditure will be recognised unless approved by the Community Services Manager.

Community Support Headquarters

For the purpose of co-ordination, a Community Support Headquarters will be established in the Humanities Building, South Street Ipswich.

Alternative Community Support Headquarters may be established at other centres in the Council area at the discretion of the Manager, Community Services Branch, Ipswich City Council.

The Manager, Community Services Branch, Ipswich City Council will be responsible for providing and staffing of the Community Support Headquarters.

The Manager, Community Services Branch, will be responsible for the training of staff to operate the Community Support Headquarters, and to test and review the Community Support Sub-Plan.

The Manager, Community Services Branch, will be responsible for providing and training staff to manage the functions undertaken at evacuation centres.

Evacuation Centres

Welfare centres have been identified at the following locations:

Name of Centre		
Amberley State School	Haigslea State School	Redbank Plains State High School
Ashwell State School	Ipswich Central School	Redbank Plains State School
Blackstone State School	Ipswich East State School	Redbank State School
Blair State School	Ipswich North State School	Riverview State School
Brassall State School	Ipswich Special School	Rosevale State School
Bremer High School	Ipswich State High School	Rosewood State High School
Bundamba State School	Ipswich West State School	Rosewood State School
Bundamba State High School	Ipswich West Special School	Silkstone State School
Camira State School	Karalee State School	Tivoli State School
Churchill State School	Kruger State School	Warrill View State School
Claremont Special School	Leichhardt State School	Walloon State School
Collingwood Park State School	Marburg State School	Ipswich Show Society
Dinmore State School	Mt Crosby State School	Salvation Army
Goodna Special School	Mt Marrow State School	St Mary's College
Goodna State School	Mutdapilly State School	St Josephs Parish Centre
Grandchester State School	Peak Crossing State School	
Harrisville State School	Raceview State School	

Other possible centres are being investigated such as Council owned buildings, Ipswich Showgrounds etc. and these will be added to the register once approved.

Detail of the location, floor layout and facilities etc. available at each centre is maintained on Council's GIS database.

Overall management and maintenance of the centre is the responsibility of the facility owner.

Management of the community support services provided at each centre is the responsibility of the evacuation centre management team established for each centre.

See Evacuation Centre management Sub-Plan for detail on centre operation etc.

Relationship to District Disaster Recovery Committee

In the event that the services provided by this sub – plan are unable to cope with the demand for medium to long term support to the community, then the chairperson should advise the Executive officer of the Ipswich Local Group of the circumstances and request that support be sought from the District Recovery Committee.

Communications

Communications between Community Support Headquarters and the Evacuation Centres will be provided by the S.E.S under the Communications Sub-Plan.

Individual agencies are responsible for providing communications with their respective organisations.

Additional communication will be supplied if required by activation of the Communications Sub-Plan.

Transport Support

All transport support requests will be co-ordinated by the Executive Officer, Ipswich Local Group, as per the Transport Sub-Plan.

Attachments

Annex B – Contact names and telephone numbers.
Section 8 - Operational Check List

7.05 TRANSPORT PLAN

Aim

To co-ordinate the activities of organisations involved in providing for transport in support of disaster management operations.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered potential areas for conducting transport operations:

(a) whole of area;
(b) evacuations associated with a flood, landslide, bushfire (wildfire), hazardous materials event;

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Lead Agency	Support Agencies
Ipswich City Council	Main Roads; Department of Transport ADF

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Available Transport and Fuel Resources

Coach Transport Companies:

Company	Address	Type Coach/Number
Concorde Coaches	PO Box 257, Redbank Q 4301	
Highway Coaches	4 Ernest Street, Leichhardt Q 4304	
Jolly Jumbuck Tours	233A Summervilles Road, Karalee	
Minden Bus Service	Tallegalla Road, Minden	
South West Transit	251 Mt Crosby Road, Karalee	
Wivenhoe Mini Bus Charter	Ipswich	
Daddows Charter Service	Bundamba	

Company	Address	Type Coach/Number
Bond Tours	Ipswich	
Blue Bird Mini Bus Service	Karalee	

Fuel Locations:

Company	Address	Fuel Type & Quantity
Jonic Petroleum	Brisbane Terrace, Goodna	
Darling Street Service Station	Darling Street, Ipswich	
Pacific Petroleum Products	Warrego Highway, Ipswich	
BP Blacksoil	Warrego Highway	
BP Eastern Heights	Robertson Road/Grange Road	
BP Goodna	Brisbane Road	
BP Redbank Plains	Redbank Plains Road/Argyle Street	
BP Silkstone	Blackstone Road/Cole Street, Booval	
Burma	Cunningham Highway, Willowbank	
Caltex Booval	Brisbane Road/Alexandra Street, Booval	
Caltex Camira	Old Logan Road	
Caltex North Side	Pine Street/Flint Street, North Ipswich	
Caltex	Warrego Highway, Blacksoil	
Freedom	Brisbane Street/Tiger Street, West Ipswich	
Matilda	Lawrence Street/Downs Street, North Ipswich	
Oz Fuels	Cunningham Highway, Yamanto	
United	Brisbane Road, Booval	
Seven 7 Eleven	Brisbane Road/Aberdare Street, Dinmore	
Seven 7 Eleven	Warwick Road/Lobley Street, Churchill	
Seven 7 Eleven	South Station Road/Blackstone Road, Silkstone	
Woolworths Plus Fuel Booval	Cole Street, Booval	
Woolworths Plus Fuel Yamanto	Warwick Road, Yamanto	
Ipswich City Council	Council Depot Riverview	

Attachments

Annex B – Contact names and phone numbers.
Section 8 - Operational Check List

Note the Ipswich Disaster Management Group's transport plan may contain additional detail.

7.06 FINANCIAL MANAGEMENT PLAN

Aim

To outline the Ipswich City and other responding agency internal financial arrangements in support of a disaster event and the eventual financial claiming process to recoup funds expended.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Context and Assumptions

- disaster-related finances are not normally included in the budgetary processes of the Council or other responding agencies. Disaster events happen, however, and may require the allocation of substantial funds as a consequence;
- due to the nature of many disaster situations, finance operations will often be carried out within compressed time frames and other pressures, necessitating the use of non-routine procedures; this in no way lessens the requirement for sound financial management and accountability;
- it is important to remember that a Declaration of a Disaster Situation is not a pre-requisite for the reimbursement of expended funding;

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Lead Agency	Support Agencies
Ipswich City Council	All support agencies

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Authority to Expend Funds

Authority to expend funds will be in accordance with each agency's financial policy and procedures.

Authorised Expenditure

Authorised expenditure limits are set by each agency's financial policy and procedures.

Delegation to Expend Funds

Any delegation of authority of expend funds must be authorised in accordance with the agency's financial policy and procedures.

Recording of Expenses

When an incident occurs, each participating department or agency should immediately begin accounting for personnel, equipment and other costs relating to the disaster response.

Separate recording of disaster-related expenditure shall be in accordance with the Council's or agency's financial procedures and supported by logs, formal records and file copies of expenditures to provide clear and reasonable accountability and justification for reimbursement must be maintained.

While innovative and expeditious means of procurement are called for during times of disaster events, it is still mandatory that good accounting principles and practices be employed in order to safeguard the use of public funds from the potential of fraud, waste or abuse.

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Recouping of Expenditure

The circumstances and conditions under which disaster related expenditure may be recouped is explained in the Department of Emergency Services booklet, *"Natural Disaster Financial Assistance Arrangements Within Queensland"* (See Annex S).

Extreme care and attention to detail must be taken throughout the disaster response period to maintain logs, formal records and file copies of all expenditures (including personnel time sheets) in order to provide clear and reasonable accountability and justification for future reimbursement requests.

Reimbursement is not an automatic process, and requires solid evidence of disaster-related expenditure. Some disaster events may not claimable.

Claims for reimbursement of funds relating to disaster operational expenses are addressed to the Area Director, Emergency Management Queensland, PO Box 301 Beenleigh Q 4207.

NDRA Trigger Points are determined annually by the Department of Emergency Services and are contained in the current version of the booklet *"Natural Disaster Financial Assistance Arrangements Within Queensland."*

State Disaster Relief Arrangements are contained in the booklet *"Natural Disaster Financial Assistance Arrangements Within Queensland."*

Attachments

Annex B – Contact names and phone numbers
Section 8 - Operational Check List

7.07 PUBLIC HEALTH PLAN

Aim

To assist in the protection of the community, via the provision of temporary or preventative health measures to minimise the threats to public health.

Scope of Sub-Plan

This sub-plan describes the local arrangements for public health emergency management and addresses the following risk areas:

- food safety, including donated food;
- safe and adequate water supply;
- infectious disease control;
- waste collection and disposal;
- wastewater management;
- emergency toilets and ablution facilities;
- vermin and vector control;
- disposal of dead animals and stock;

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Context and Assumptions

- the Health and Environmental Protection Manager (HEPM), Ipswich City Council is responsible for the development and implementation of public health policy in association with Queensland Health;

- the Health and Environmental Protection Manager, Ipswich City Council will be supported by other departments of Council in the execution of this sub-plan;

- the standard reference handbook on emergency public health response is the Australian Institute of Health and Environmental Protection Managers (AIEH) Public Health Disaster Response Handbook;

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Support Agencies	
Ipswich City Council	Queensland Health (Public Health Units) Queensland Police Service Ipswich City Council Environmental Protection Agency Queensland Fire & Rescue Service

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Functional Responsibility of HEPM

- to facilitate the initial assessment of the disaster affected area and coordinate public health surveillance teams – see also Impact Assessment Sub-Plan;
- to facilitate the provision of safe food, water, waste disposal, sewerage services and disease control, including the provision of immunisation;
- to implement temporary or preventative public health measures including public health advice to control or mitigate threats to public health in the affected community;
- to advise the Chairperson of the Ipswich City Local Group on relevant public health matters and needs during the course of disaster management operations;

Specific Risk Area Responsibilities

Safety of Food Supplies:

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to provide assessment and guidance for the clean up of all food outlets to assure safe food operations;
- to monitor required standards for all food outlets;
- to oversee the supply of adequate, safe food (including rejection and disposal of damaged or spoilt foods) for mass feeding;
- to provide oversight and standards for the use of salvaged food and disposal of unsafe or potentially hazardous food;
- to determine siting and suitability of emergency catering arrangements including the provision of food storage facilities such as refrigeration units, food preparation facilities, washing-up facilities, dining facilities and sanitation matters;
- to ensure that food supplies for mass feeding are from safe sources and are handled safely (including storage, preparation and distribution);
- to inspect food areas, equipment, appliances and utensils for cleanliness;
- to audit cleaning procedures;
- to screen food handling personnel;
- to evaluate the condition of perishable foods and provide safe storage of those foods found to be safe;
- to brief food handlers on safe and appropriate food handling techniques;

- to advise public and emergency workers, including food caterers on general health matters relating to personal hygiene, appropriate food handling techniques and cleaning procedures;
- coordinate to provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

Reference material:

- FOOD PREMISES PROFORMA (AIEH PUBLIC HEALTH DISASTER RESPONSE HANDBOOK);
- SOP;

Safety of Water Supplies:

Comments:

- water supply impacts on food safety and sanitation issues, therefore, liaison between the HEPM and the Manager, Ipswich Water is essential;

- ongoing liaison with the Ipswich Water would provide key information relating to the status of water supply infrastructure and people potentially affected by disruption to services. Repair of such services would be a priority, particularly in relation to the hospitals and for QFRS fire fighting purposes;

- subject to feedback from the Ipswich Water regarding safety of reticulated supplies, the HEPM, water officers and other officers, shall source alternative supplies and methods of supply, such as dedicated drinking water cartage vehicles and packaged water. Alternative supplies would still require scrutiny for water quality although simple advice may suffice regarding private sources, eg wells;

- at any stage, water sampling and testing may be warranted.

- engaging the community in promulgating public health advice with respect to water storage, treatment and prevention of contamination would be a priority;

- selected officers shall be involved in ensuring alternative supplies to reach relevant emergency evacuation centres if necessary;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to liaise with officers of Ipswich Water on the status of repairs to water reticulation infrastructure;
- to liaise with officers of Ipswich Water to ensure water supply to essential services, eg hospitals;
- to liaise with officers of Ipswich Water to select and maintain a safe bulk water supply;
- to liaise with officers of Ipswich Water to monitor bulk water storage, transport, allocation and treatment;
- to inspect water cartage vehicles;
- to liaise with officers of Ipswich Water to source and advise on alternative sources of water including for bulk water transport;
- to ascertain prevailing situations and the need for water treatment;

- to advise the public on water storage and treatment and prevention of contamination (see General Advice on Public Health Matters in this of Sub-Plan);

Reference material

- PROCEDURES FOR EMERGENCY WATER TREATMENT (AIEH PUBLIC HEALTH DISASTER RESPONSE HANDBOOK);
- SOP;

Safe Sewerage and Waste Water Disposal

Comments:

- these functions would primarily involve the servicing of emergency shelter;.
- HEPMs or officers allocated to shelter duties shall monitor ongoing collection and disposal requirements, arrange servicing through nightsoil contractors and suppliers of portable systems (including liaison with the Council's depots for Council supplies);

- ongoing liaison with the Ipswich Water would provide key information relating to the status of sewerage systems and people potentially affected by disruption to services;

- identification of on-site sewerage facilities and damaged plumbing and drainage and their respective condition may be a public health requirement. Surveillance teams primarily involving Ipswich Water, plumbing and drainage personnel and HEPMs, could be required to examine sites prior to rehabitation in non-sewered areas;

- the environmental health consequences of widespread contamination due to failure of major sewerage transportation, treatment and disposal infrastructure/facilities in the event of a disaster would require a collaborative response effort, possibly involving also the Environmental Protection Agency;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to ensure safe sanitary collection, treatment and disposal of human waste, waste water and animal waste;
- to ensure safe clean ups of major sewage spills and inundations;
- to locate, inspect and provide guidance for maintaining septic tanks (including desludging) and other relevant on-site sewerage facilities;
- In liaison with Council's Water and Sewerage Officers to inspect repairs to plumbing and drainage;
- to source and provide alternative systems including for the elderly/disabled;
- to co-ordinate the provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

Reference material:

- ALTERNATIVE METHODS OF SEWAGE DISPOSAL (AIEH PUBLIC HEALTH DISASTER RESPONSE HANDBOOK);
- SOP;

Safe Solid Waste – Refuse Disposal

Comments:

- the Manager, Ipswich Waste Services or his/her delegate shall arrange for a waste collection service;
- Council's existing waste transfer stations would be the first options for disposal, but alternative disposal sites may need to be ascertained;
- however, if the disaster had adversely impacted or disrupted the Council's collection capabilities the Manager Ipswich Waste Services, may seek services from relevant organisations. In addition, resources, including supervisory and monitoring personnel, have to be available for the operation of the transfer stations and any alternative sites;
- review of the day-to-day specific needs shall be addressed by the Manager, Ipswich Waste Services, or his/her delegate on an 'as need' basis;
- waste disposal teams shall be set up to co-ordinate the removal of putrescible matter, where necessary, from buildings and households and the setting up of 'transfer stations' at strategic points;
- teams set up for the screening of donated and damaged foods shall arrange for the disposal of rejected food;
- emergency evacuation centre surveillance teams shall determine waste collection and disposal needs and liaise accordingly with the Manager, Ipswich Waste Services;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to co-ordinate and monitor waste collection and disposal procedures such as burial, incineration or other methods approved by the HEPM in liaison with the EPA, etc as necessary and to co-ordinate the response with Council's collection contractor;
- to supervise the removal and disposal of spoilt or rejected foods from households, food premises, food warehouses, cold stores, cool rooms, ice to identify suitable alternative waste disposal sites;
- to ensure an adequate supply of waste containers for the relief areas including for people being relocated back onto their properties;
- to deploy waste collection/disposal teams to monitor relief areas including emergency shelters, deal with customer requests and remove putrescible matter from buildings, such as damaged buildings and those affected by power failure where necessary;
- to co-ordinate the provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

Reference material:

- ALTERNATIVE METHODS OF REFUSE DISPOSAL (AIEH PUBLIC HEALTH DISASTER RESPONSE HANDBOOK).
- SOP;

Safe Hazardous Material Disposal

Comments:

- refer to the State of Queensland Multi Agency Response Plan to chemical, biological, radiological incidents and supporting functional plans;

- the HEPM and the Manager, Ipswich Waste Services in particular shall liaise with the Environmental Protection Agency (EPA) and Queensland Fire and Rescue Service (QFRS) who may in turn liaise with the Chemical Emergency Management Unit (Chem Unit) in ascertaining the safe collection, transport and disposal of hazardous materials, including wastes, on an 'as need' basis;

- further liaison may be necessary with Queensland Health, West Moreton Public Health Population Health Unit (QH-WMPHPU) in the event of particular bio-hazards;

- the greatest potential role for HEPM would be in liaising with companies to cease production and remove hazardous material storages from affected or potentially affected areas or protect storages if they cannot be relocated. The HEPM could be involved in making direct contact with companies as far as opportunities permit in addition to arranging relevant communication through the media (via Council's Media Branch). Similar information could also be conveyed in regard to domestic storages;

- relevant databases held by Council, Division of WH&S, EPA and QFRS would be vital intelligence for any response;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to liaise and assist with CHEM Unit, EPA and QH-WMPHPU on the safe disposal of hazardous materials including wastes (eg, toxic, chemical, pathological, radioactive) including the safe temporary storage and disposal of post emergency hazardous waste;
- to liaise with companies to cease production of hazardous materials, if necessary, and remove hazardous material storages that may contaminate the environment and/or affect human health;
- to co-ordinate the provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

Vermin and Vector Control

Comments:

- the HEPM or his/her delegate shall arrange for vector control teams;

- Officers of Ipswich City Council's Health, Parks and Recreation Department will undertake adult and larval surveillance activities;

- public health surveillance teams formed shall monitor affected areas and emergency evacuation centres, deal with customer requests and control vermin/vector problems as required;

- vermin and vector control would interrelate with waste collection and disposal considerations, control of food storage and drainage and damage assessment of sewerage systems and on-site sewerage facilities;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to co-ordinate a surveillance and management program for the control of vermin/vector in the affected areas and emergency evacuation centres;
- to eliminate sources of food, water and harbourage for vermin/vectors;
- to co-ordinate the provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

Impounding and Safe Disposal of Dead Animals

Comments:

- the HEPM or his/her delegate shall in conjunction with Council's animal control officers would negotiate with its Ipswich Waste Services to collect dead animals;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to supervise Council's staff to collect and dispose of dead animals;
- to advise on the means of disposal after consultation with the Department of Primary Industries, if necessary (for example, where deaths of animals have resulted from outbreaks of animal diseases);
- to co-ordinate the provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

NOTE:

Response to outbreaks of animal diseases not currently in Australia would be subject to Qld VetPlan and Coordination Arrangements for the State Disaster Group Support to DPI in the Event of an Outbreak of Emergency Animal Disease in Queensland.

Impounding of Animals

- the HEPM or his/her delegate shall liaise with Council's animal control officer to establish animal impounding teams. Council's animal refuge will be the first option as an impounding area. Advice and assistance may need to be sought from the DPI&F, RSPCA, local veterinarian and any reputable private animal shelters and handlers;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to deploy animal impounding teams to impound stray animals, particularly those causing a threat to public health and safety risks;
- to manage identified animal impounding areas, including those that may be practically established at an emergency shelter site;
- to identify suitable alternative animal impounding areas;
- to co-ordinate the provision of public health advice. (see General Advice on Public Health Matters in this of Sub-Plan);

Safe Storage of Human Remains

Comments:

- the role of the HEPM is limited but assistance in respect of accessing temporary morgue facilities may be requested from the QPS. Such assistance would not involve handling. Services may be provided by Forensic Pathology - Qld Health Scientific Services. Q-Build may be requested for assistance;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to respond to QPS requests in relation to accessing temporary morgue facilities, ie, cool rooms, mobile refrigeration units;

Infectious Disease Control:

Comments:

- the HEPM or his/her delegate and Medial Officer of Health (MOH), shall liaise closely with Queensland Health - Brisbane Southside Public Health Unit (QH-WMPHPU) over the requisite public health response;
- should emergency immunisation or provision of immunoglobulin be deemed appropriate, QH -BSPHU shall be set up to source supplies and administer programs accordingly. The Director of Environmental Health Services would initially liaise with the QH-WMPHPU. Public Health Medical Officer;
- the HEPM or his/her delegate shall collaborate with QH-WMPHPU in regard to disease outbreak control. Emergency evacuation centres shall be monitored for any noticeable trends;
- the HEPM or his/her delegate shall collaborate with QH-WMPHPU and the Marketing and Communications Manager regarding giving public health advise to the public.
- liaison with the Environmental Protection Agency (EPA), QH-WMPHPU and the Council's Waste Management Coordinator, in regard to infectious waste collection and disposal shall be a priority, particularly if Ipswich or St Andrews Hospitals are affected by the disaster;
- team shall also be set up to facilitate and advise on the disinfection of buildings. Such teams, particularly at the shelter sites, shall arrange the sourcing of disinfectants, cleaning agents, etc, if necessary, through welfare agencies;

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to co-ordinate immunisation programs in liaison with Qld Health;
- to source and monitor quarantine areas in liaison with Qld Health;
- to sample suspected infectious substances for analysis and examination;

- to carry out epidemiological investigations in liaison with Qld Health and collect and delineate contact information, including collecting and compiling medical based information to gauge increased rate of incidence of disease/infection;
- to co-ordinate and supervise infectious waste collection, transport and disposal;
- to co-ordinate terminal and concurrent disinfection of buildings, bedding, clothing etc in liaison with Qld Health where necessary;
- to co-ordinate the provision of disinfectants, cleaning agents and antiseptics and information on the same (possibly including Material Safety Data Sheets);
- to co-ordinate the provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

Reference material:

- DISINFECTION PROCEDURES (AIEH PUBLIC HEALTH DISASTER RESPONSE HANDBOOK).
- QUEENSLAND HEALTH FOOD-BORNE ILLNESS OUTBREAK MANAGEMENT GUIDELINES;
- COMMUNICABLE DISEASES CONTROL MANUAL;
- CONTROL OF COMMUNICABLE DISEASES PROTOCOL MANUAL; and
- STATE OF QUEENSLAND MULTI-AGENCY RESPONSE PLAN TO CHEMICAL, BIOLOGICAL, RADIOLOGICAL, INCIDENTS AND SUPPORTING FUNCTIONAL PLANS.
- SOP;

General Advice on Public Health Matters

Comments:

Ipswich City Council shall ensure:

- the co-ordinated provision of accurate, timely and consistent information to affected individuals and families, including those located to emergency housing and emergency shelters, and affected businesses in relation to public health matters including the following:
- maintenance of personal and community health;
- control of animal stock and domestic pets (possibly in liaison with DPI&F and RSPCA);
- examination of vaccines if affected by a power shortage (eg, those stocks with Council, medical clinics and private hospitals);
- immunisation needs including any emergency clinics provided;
- sanitation techniques;
- clean up and disposal of debris, refuse and unwholesome/left-over foods;
- the minimisation of waste and public health nuisances;
- safe handling of asbestos waste and other hazardous materials;
- the provision and use of disinfectants, cleaning agents and antiseptics;
- safe food handling practices;
- treatment of water including sterilisation for drinking;
- alternative water supplies;
- plumbing, drainage and building repair;
- pest, vermin and mosquito control;

- safety issues (eg, protection for caravans in high winds and swimming in polluted waters);
- notification to Council of public health problems including spills and inundation events, etc;
- donation issues and criteria including information on disaster appeal;

NOTES:

2. The techniques for distributing more formal information to the community and the media and the contents of that information shall be assessed in collaboration with Council's Media Branch and co-ordinated through the Ipswich City Local Disaster Management Group.
3. Council shall collaborate with other agencies implicated in the response and recovery process, as considered necessary.
4. Efforts should be made to ensure multilingual information, if this is practical.

Suitability of Emergency Housing and Re-habitation

Comments:

- 'Emergency Housing' may include motels, relocatable home parks, including caravan parks. The State Government Departments of Works, Housing and Q-Build may also facilitate access of accommodation through its networks;

- damage assessment and repair would be a collaborative effort across Council's Building Surveyors, private certifiers, Council's Engineers and possibly Q-Build and private consulting engineers. Q-Build will be responsible for assessment of government owned structures. Inspection teams shall be formed as necessary.

Responsibilities of Council's HEPM (in association with appropriate officers of Council and Government Departments) include the following:

- to liaise with the State Government Departments in facilitating the provision and allocation of safe and sanitary temporary emergency housing (including granny flats, caravans, etc);
- to assess and inspect damaged houses to ascertain suitability for re-habitation and the need for temporary emergency housing;
- to ensure safe building demolition and removal of dangerous trees;
- to assess the suitability of temporary emergency housing;
- to co-ordinate temporary toilets, showers and laundry facilities and the disposal of wastes from same, if required;
- to ensure the provision of Energex or portable power if required;
- to ensure the provision of a safe and adequate water supply, if required;
- to ensure the provision of suitable and sufficient water receptacles, if required;
- to inspect and assess the suitability of repaired houses with respect to re-habitation;
- to facilitate the return to homes by co-ordinating the provision of essential services like waste storage and disposal, sewerage and sullage disposal facilities including liaising with the Department of Housing;
- co-ordinate the provision of public health advice (see General Advice on Public Health Matters in this of Sub-Plan);

Reference material:

- DAMAGED DOMESTIC PREMISES PROFORMA (AIEH PUBLIC HEALTH DISASTER RESPONSE HANDBOOK);
- FLOOD DAMAGED BUILDINGS PROFORMA (AIEH PUBLIC HEALTH DISASTER RESPONSE HANDBOOK);
- SOP;

Attachments

Annex B– Contact names and phone numbers.

SOP - Guidelines for Managing Public Health Risks in an Emergency

Providing Safe and Adequate Water

Drinking water supplies may include community, private, parks, resorts or Council operated systems and include reticulated mains systems, rainwater tanks, run-of-river storages and direct pumping from rivers.

Contamination of drinking water can be caused by biological, chemical or physical agents.

The HEPM should liaise with Ipswich Water whenever there are concerns about water quality, supply, sources, treatment, storage or transport.

Protect and maintain existing water supplies.

Support Ipswich Water in the investigation and management of water contamination incidents by taking samples and submitting them for analysis, and helping to implement strategies to protect public health.

Facilitate the supply, disinfection and distribution of new water supplies.

The HEPM may assist by:

- determining community requirements. Minimum quantities of water *for all purposes*[1] per person per day are:
- person 20 litres;
- medical unit per casualty 60 litres;
- feeding unit per person 30 litres;
- identifying alternative water sources (the responsibility of the water authority);
- examining possible sources of water contamination;
- ensuring that safety practices are applied;
- ensuring that new or existing water supplies are treated by clarification, disinfection or chlorination and are stored and transported appropriately;

Water can be treated by adding enough chlorine (initial dose 5 mg/L) to give a concentration of 1 mg/L after 30 mins contact. For 1000L[2], you will need:

4% available chlorine (White King/household bleach)	125mL or 125g
12.5% available chlorine (liquid swimming pool or dairy factory chlorine)	40mL or 40g
70% available chlorine (granular swimming pool chlorine).	8mL or 8g

You can check the chlorine level with a comparator (check with local swimming pool operator). If one is not available, ensure that there is a noticeable smell of chlorine in the water.

If chlorine is not available, contact Ipswich Water for advice regarding boiling water, or other treatment methods.

[1] NOTE: The drinking part of this allowance (4 litres) must be increased in hot conditions, or where heavy work is being done.
[2] 25mL/mg = 1oz/1fl oz.

Distribute information and advice to the community

The HEPM should advise on:

- water treatment, including tank water;
- water protection;
- alternative water supplies;
- providing health education material concerning personal hygiene practices to ensure a safe water supply e.g. water containers are not to be used for any other purposes, are to be kept clean and people are not to drink directly from the container;

Shelter

Inspect damaged houses and individual properties (in conjunction with Council's building surveyors), to determine suitability for rehabitation. *(See SOP – Assessing emergency affected housing).*

Assess, monitor and control public health in emergency evacuation centres. *(See SOP – Activating and managing emergency evacuation centres).*

Oversee in conjunction with the Ipswich City Local Group the establishment of new emergency venues, including siting and layout of emergency campsites.

Food and food related issues

A strong relationship with local organisations providing food during a disaster *in the pre-emergency stage* is integral in ensuring food safety is protected. Monitor and control of food safety in:

- emergency evacuation centres. This includes emergency catering and donated food;
- emergency assembly area;
- registered premises affected by the disaster;

Facilitate the distribution of information and advice to the community, as necessary. Depending on the nature of the disaster, information may need to address issues such as:

- food safety precautions during/following power failure;
- protection of food from contamination;
- clean up procedures of food premises;
- disposal of spoilt and damaged food;

Kitchens should be thoroughly cleaned and sanitised prior to being used.
Notices should be distributed to food premises regarding clean-up activities.
Place posters regarding temperature control and hygiene for food handlers in suitable areas of emergency evacuation centre kitchens.
Suitable hand washing facilities should be provided for use by recipients of food prior to eating.

Providing Emergency Ablution Facilities

Coordinate adequate provision, location and maintenance of temporary toilets, hand wash basins, showers and laundry facilities.

Toilet facilities

The number of showers and toilets required are determined by the Council. However, minimum numbers must be in accordance with Table F2.1 of the Building Code of Australia 1996.

	Males			Females	
	WC	Urinals	HWB	WC	HWB
Patrons	1 per 20 persons	1 per 25 person	1 per 30 persons	1 per 15 persons	1 per 30 persons

(Table reference: EMA Manual 9 – Disaster Medicine, Annex G Chapter 10)

Laundry Facilities

1 wash trough and a washing machine per 350 persons;
1 clothes dryer or 25m line per 350 persons;
1 ironing board and power outlet per 350 persons;

Where possible, separate toilets and hand wash basins should be made available to food handlers, as well as a unisex facility with disabled access.

Determine suitable treatment and disposal options of wastewater from emergency ablution facilities. Ensure ablution facilities are regularly cleaned and maintained.

Wastewater Treatment

Liaise with Ipswich Water regarding wastewater disposal strategies. Evaluate the use of existing septic tank systems:

- including treatment plants (need for electricity);
- disposal area;
- plumbing fixtures;
- damage to fibreglass systems and waste water pipes (especially in a fire)
- availability of reticulated water;

Ensure protection of existing septic tank systems during demolition and re-building of sites.

Liaise with Ipswich Water regarding concerns about larger wastewater treatment systems.

Facilitate the distribution of information and advice to the community as necessary. Information may need to address such issues as the following:

- living in caravans on private property during rebuilding;
- protecting septic tank systems from damage by demolition machinery and during rebuilding;

Refuse Collection and Disposal

Large amounts of refuse will be generated during an disaster. Extra bins and services will be needed for the cleanup process.

The HEPM must ensure refuse collection and disposal is adequate throughout the community, to prevent public health issues such as breeding and/or harbourage of vermin and vectors of disease.

The HEPM may need to advise waste contractors on their waste management practices:

- siting of bins and services throughout the community and at emergency evacuation centres;
- providing domestic bins and services where bins have been lost, damaged or destroyed;
- ensure additional bins and services for the disposal of spoilt and damaged food from homes and food premises. Special tipping arrangements may be required for large food premises, such as warehouses and cool-rooms;
- oversee appropriate disposal of medical and other hazardous wastes;
- providing information on safe disposal of dead animals. Liaise with DPI regarding the disposal of dead stock;

The HEPM may also need to arrange distribution of information and advice to the community:

- storing waste prior to collection;
- disposal of spoilt and damaged food;
- location and use of additional bins and services provided throughout the emergency affected area;

Liaise with the Ipswich City Local Group and Council's Health Parks and Recreation Department regarding any concerns about refuse collection and disposal.

Vermin and Vector Control

Monitor and control breeding and harbourage of vermin and vectors of disease throughout the community and at evacuation centres, by:

- coordinated pest control services;
- vector surveillance and control programs;
- monitoring waste management;

Facilitate the distribution of information and advice to the community as necessary:

- waste management and vermin control;
- vector control;
- personal protection;

Areas of concern include:

- food preparation and storage areas;
- refuse collection areas;
- sanitary depots;
- damaged or destroyed poultry sheds, piggeries and abattoirs;
- damaged food premises and domestic premises;
- dead stock and other animals;
- burst sewerage and water pipes;
- damaged septic tank systems;

Infectious Disease Control

Maintain awareness of the potential for the spread of infectious disease in emergency evacuation centres, including provision of suitable hand washing facilities for attendees.

Notify concerns regarding potential infectious disease outbreaks to (QH-WMPHPU). Recognise actual or emerging conditions that would favour an outbreak of disease endemic to the area. If specific endemic disease response plans are already developed, coordinate their implementation.

Support QH-WMPHPU in the conduct of extra vaccination sessions:

- locate and/or provide suitable vaccination venues;
- distribute information and advice to community;
- assist with coordinating vaccination sessions;
- provide refrigeration and storage areas;
- receive vaccines and equipment;
- provide personnel;
- provide relevant local information to QH-WMPHPUU provide waste management facilities;

Support QH-WMPHPU in investigating gastro-intestinal disease outbreaks, in accordance with established protocol.

Disposal of Human Bodies

This is the responsibility of the Coroner's Office, however the HEPM may be asked for advice on temporary mortuary facilities *eg* cool-stores, mobile refrigeration units.

Disposal of Dead Stock/animals

The HEPM may be asked for information on suitable locations for disposal of dead stock. The disposal of dead animals may be arranged by liaison with the Council's waste services contractor and/or the Department of Environment.

Table 3. Communicable Diseases of Public Health Importance

DISEASE	DISASTER POTENTIAL	PUBLIC HEALTH MEASURES
WATER AND FOOD-BORNE DISEASES		
Typhoid and paratyphoid fevers	Disruption of sanitary services and sanitary control of food and water	Adequate disposal of excreta
Food poisoning	Mass feeding and inadequate refrigeration/cooking facilities	Safe water for drinking and washing Sanitary food preparation
Leptospirosis	Contamination of water/food, flooding of areas with high water tables	Isolation and treatment of early cases (typhoid and paratyphoid)
PERSON-TO-PERSON SPREAD		
Shigellosis (bacillary dysentery)	Crowding, poor sanitation	Reduce crowding Adequate washing facilities
Streptococcal diseases		Public health education
Scabies	Overcrowding	Disease surveillance/ treatment
Hepatitis A	Contamination of water/food, inadequate sanitary facilities	Treatment of clinical cases Immunisation Safe food preparation
RESPIRATORY SPREAD		
Measles	Introduction of measles to susceptible persons	Adequate levels of immunisation before the disaster Reduce crowding Disease surveillance in clinics and community
Whooping cough	Overcrowding	
Diphtheria	Overcrowding	
Influenza	Overcrowding	Isolation of index cases
VECTOR-BORNE DISEASES		
Louse born typhus	Unhygienic conditions, overcrowding	Disinfection
Plague	Inappropriate rodent control	Vermin control
Australia arbo encephalitis	Availability of water sites for mosquito breeding	Vector control Disease surveillance
WOUND COMPLICATIONS		
Tetanus	Emergency situations	Immunisation

(reference: AIEH Course notes, Public Health Emergency Management Course)

Disinfection and Cleaning

Following an emergency, especially floods, buildings can be contaminated with sewage, soil and other infectious matter. This can lead to stagnant water and potentially infectious and offensive conditions. Following floodwaters, consider de-contamination of:

- buildings, including sub-floor spaces, wall cavities and ducts (see SOP for assessment of disaster affected housing);
- swimming pools and other open recreational waterway;.

Oversee the cleaning and decontamination of public swimming pools, spas and other facilities.

Facilitate distribution of information and advice to the community, as necessary:

- clean up and disinfection of the house following flood;
- cleaning and disinfection of swimming pools;
- clean-up of registered premises, especially high-risk premises such as childcare and aged care;

To sanitise small items, soak them for at least 5 minutes in a sink of water at 50°C with bleach.
If using household bleach, then add 1.25mLs to every litre of water used.
If using commercial bleach, add 0.5mLs per litre of water used.
Alternatively you can soak the items for 2 mins in clean water at a temperature of 82°C or hotter.

Chlorine concentrations required for disinfection can be obtained from QH-BSPHU.

Environmental Hazards

There are a number of environmental hazards that may arise following a disaster:

- hazardous materials from semi-demolished buildings, such as asbestos
- soil contamination;
- industrial chemical spills or releases (Hazmat incidents);
- disposal of toxic waste;
- spills or releases in domestic premises;
- blue-green algae;
- recycled water;

Liaise with relevant agency and implement strategies to protect the public from exposure. These can include:

- sampling and analysis;
- erection of signs and public notices;
- distribution of information and advice to the community;

Checklist for Public Health Risks in an Disaster

PROVIDING SAFE AND ADEQUATE WATER

Detail townships/communities affected: _____

_____

_____

Source of water supplies for the towns/communities affected:

- ❑ **tank**
- ❑ **bore**
- ❑ stream
- ❑ reticulated/mains
  responsible authority: _____
  contact details: _____

COMMENTS:

_____

_____

_____

Issues to consider – refer to and implement relevant SOPs:

- ❑ contaminated private water supplies
- ❑ water sampling
- ❑ provisions of information on water treatment
- ❑ provision of alternative water supply (responsibility of Water Authority)
- ❑ inspection of water cartage vehicles (refer to list of water carters)
- ❑ list of suppliers of bottle water
- ❑ hygienic storage of water

COMMENTS:

_____

_____

_____

_____

_____

_____

FOOD and FOOD RELATED ISSUES

Issues to consider – refer to and implement relevant SOPs:

- ❑ food premises affected by emergency
- ❑ emergency catering at:
  - emergency relief venues
  - for emergency workers
- ❑ donated food
- ❑ private homes
- ❑ distribution of information on issues such as:
  - food safety during/following power failure
  - protecting food from contamination
  - disposal of spoilt food
  - clean up procedures

COMMENTS:

_____

_____

_____

_____

SHELTER

Have any emergency relief venues been opened? **yes/no**
If so, implement SOP and checklist for activating and managing emergency evacuation centres. Liaise with Ipswich City Local Group regarding the establishment of new emergency evacuation centre.

_____
_____
_____
_____
_____

Any private homes affected? **yes/no**
If yes, complete assessments of emergency affected housing using checklist.

_____
_____
_____

Do affected persons need information regarding clean up, damaged buildings *etc*?

Method of distribution_____

PROVISION OF EMERGENCY ABLUTION FACILITIES

	Males			Females	
	WC	Urinals	HWB	WC	HWB
Patrons	1 per 20 persons	1 per 25 person	1 per 30 persons	1 per 15 persons	1 per 30 persons

Calculate the number of facilities (toilets, showers and laundry facilities) required for displaced persons: _____
_____
_____
_____

Issues to consider – refer to and implement relevant SOPs and checklist

- ❑ location of facilities
- ❑ maintenance of facilities
- ❑ who is responsible?
- ❑ disposal of waste (may need to liaise with EPA)
- ❑ cleaning
- ❑ are any records being kept?

COMMENTS:

_____
_____
_____
_____

WASTE WATER TREATMENT

Liaise with the EPA regarding wastewater disposal strategies and to ensure appropriate type of system.

Name of EPA representative? _____
Contact details _____

Evaluate the use of existing septic tank systems

- ❑ treatment plants
- ❑ plumbing fixtures
- ❑ damage to pipe works
- ❑ disposal area
- ❑ damage to existing fibreglass systems
- ❑ availability of reticulated water

COMMENTS:

_____
_____
_____
_____
_____

Is community information required? Distribute information on:

- ❑ living in caravans on private property during rebuilding
- ❑ de-sludging and maintenance
- ❑ protecting septic tank systems from damage by demolition machinery

Other information required:

_____
_____
_____

REFUSE COLLECTION and DISPOSAL

Issues to consider – Liaise with municipal engineer and EPA regarding waste management requirements

- ❑ siting of bins and services in community and relief venues
- ❑ concerns/complaints
- ❑ commercial premises requirements
- ❑ providing domestic bins and services
- ❑ damaged or destroyed bins
- ❑ keeping of records
- ❑ alternative disposal sites

COMMENTS:

_____
_____
_____
_____
_____
_____

Dead animals or stock? _____ **Yes/no/not applicable**

Liaise with the municipal rangers
Liaise with DPI for disposal methods

_____
_____

Is community information required? Distribute information on:

- ❑ storage and separation of waste prior to collection
- ❑ disposal of spoilt and damaged food
- ❑ location and use of additional bins and services provided throughout the emergency affected area

Other information required:

_____
_____
_____

VERMIN and VECTOR CONTROL

Monitor and control breeding and harbourage of vermin and vectors in areas of concern:

- ☐ food preparation and storage areas
- ☐ refuse collection areas
- ☐ sanitary depots
- ☐ damaged/destroyed poultry sheds, piggeries and abattoirs
- ☐ damaged food premises, domestic premises
- ☐ dead stock/animals
- ☐ burst sewerage and water pipes
- ☐ damaged septic tank systems

Actions:

_____
_____
_____
_____
_____
_____

Coordinate pest control services:
Pest controller: _____
Contact details: _____

Is community information required? Distribute information on:

- ☐ vector control
- ☐ personal protection
- ☐ waste management and vermin control

Other information required:

_____
_____
_____

INFECTIOUS DISEASE CONTROL

Potential for infectious diseases: **yes/no**

_____
_____
_____

Any concerns regarding infectious disease outbreaks to be notified to QH-BSPHU. Investigate any possible outbreaks in accordance with (QH-BSPHU) guidelines.

Officer responsible:_____
Documentation kept?

Vaccination sessions (if required)
Issues to consider

- ☐ locate suitable venue/s _____
  _____
- ☐ distribute information and advice
- ☐ assist with the coordination of vaccination session/s
- ☐ provide refrigeration and storage
- ☐ provide personnel *i.e.* nurses, administration
- ☐ provide waste management information

DISINFECTION and CLEANING

Issues to consider: Provide advice on how to clean and disinfect:

- ☐ private houses
- ☐ commercial premises
- ☐ public swimming pool, spas etc

COMMENTS

_____
_____
_____
_____
_____

Is community information required? Distribute information on:

- ☐ clean-up and disinfection of private homes following a flood
- ☐ cleaning and disinfection of swimming pools and spas

Other information required:

_____
_____
_____

ENVIRONMENTAL HAZARDS

What is the hazard? _____
_____

Agencies involved and contact details: _____
_____
_____
_____
_____

Are the following required?

- ☐ **Sampling and analysis** **yes/no**
  If yes, what: _____
  _____
- ☐ **Erection of signs and public notices** _____
  _____
- ☐ **Distribution of information and advice to the community** _____
  _____

GENERAL NOTES

_____
_____
_____
_____
_____
_____
_____
_____

HEALTH AND ENVIRONMENTAL PROTECTION MANAGER _____

Date: _____ **Time:** _____

SOP - Assessing Disaster Affected Housing

Procedure

Assessments of disaster affected housing should be done in consultation with officers of the Council's Planning and Development Department and other relevant agencies, to minimise the impact upon affected people. Ideally, assessment teams should include recovery staff able to assess broader community needs.

The outcome of the housing assessment will determine:

- any public health information and advice that needs to be distributed
- any resources that need to be requested to address public health issues
- the need for further inspections and public health activity to assist recovery.

Assessment

Each team should consist of at least one health officer, one building surveyor and recovery personnel. Additional resources may need to be obtained.

The assessment will include:

- completing the attached *Survey of Damaged Premises* pro forma
- recommendations to the Team Leader for public health activity, based on assessment outcomes
- warnings regarding the occupation of premises
- advice and distribution of information
- inspections, to give clearance for rehabitation of emergency affected housing
- monitoring other public health issues, including:
  - the need to address actual or emerging public health risks
  - the need for new advice and distribution of information
  - the need for additional resources.
- gathering and feedback of information to the Ipswich City Local Group, to pass on other appropriate response and recovery agencies.

The HEPM will continue to liaise with the Ipswich City Local Group and building surveyor, to arrange for ongoing visits if required and to report assessment results.

Any other community concerns noted during the housing assessment should be reported to the Ipswich City Local Group.

Check List Survey for Damaged Premises/Affected Housing

1. Address of premises:

If unable to provide a street address, give approximate location and distinguishing features (for example, 200 metres NW from the corner of X street).

2. Contour details: Is the property:
   - ❑ **steep**
   - ❑ **flat**
   - ❑ **undulating**

3. Names of owner and occupier and contact details
   (especially if not living at damaged house).
   Name of person/s present at time of visit.

Has any person visited the Emergency Relief Centre? yes/no/NA

Name of person:

4. Damage assessment summary:

House
- ❑ **intact**
- ❑ **damaged**
- ❑ **destroyed**

Comments

Outbuildings
- ❑ **intact**
- ❑ **damaged**
- ❑ **destroyed**

Comments

5. Has insurance assessor assessed property? yes/no/NA

6. What essential services have been interrupted:
   - ❑ **power**
   - ❑ **gas**
   - ❑ **water**
   - ❑ **phone**

   Duration of interruption:

8. Have any services been restored? yes/no/NA
   If yes, which services

9. Is there an operational toilet on the property? yes/no/NA

10. Is property connected to the sewer? yes/no/NA

11. Are there any problems with the sewer? yes/no/NA
If yes, describe the problem

12. Is the septic tank operational? yes/no/NA

13. Is a mechanical treatment plant used? yes/no/NA
If so, what type?

14. Is the septic tank connected to a sand filter? yes/no/NA

15. Does the septic tank system require an electric pump? yes/no/NA

16. Is there an operational potable water supply to the property? yes/no/NA
If so, what type?

17. What is the source of water supply to the property:
- ☐ **reticulated/mains**
- ☐ **tank**
- ☐ **bore**
- ☐ **stream**

18. Is there any evidence of putrescible matter, dead animals or domestic pets on the property? yes/no/NA
If so, give details:

19. Have freezer and refrigerator contents been removed? yes/no/NA

20. Are there conditions or objects that are potentially dangerous?
(*eg* trees, swimming pools, LP gas cylinders) yes/no/NA
If so, state condition:

21. Nature of flood damage
- ☐ carpets
- ☐ ducted heating
- ☐ hot water service and other gas and electrical appliances
- ☐ swimming pool
- ☐ water supply
- ☐ wall cavities and insulation
- ☐ under house
- ☐ food supply
- ☐ other.

Comments

22. Structural soundness
Roof _____
Ceiling _____
Walls_____
Floors_____

23. Are there any other health or sanitation problems? yes/no/NA
If so, give details:

24. Has an inspection marker been placed? yes/no/NA

25. Is temporary site accommodation required? yes/no/NA

26. Is there a caravan or other temporary accommodation on-site? yes/no/NA

27. Is there an area suitable for a caravan on-site? yes/no/NA

28. Does this area need to be cleared before siting of caravan? yes/no/NA
If so, give details:

Name and address of temporary accommodation provider i.e. caravan owner:

29. Power connected to caravan? yes/no/NA

30. Toilet provided? yes/no/NA
a. **Type of toilet supplied**
b. **Supplier details:**

31. Sanitary contractor required? yes/no/NA

32. Site clearing required? yes/no/NA

33. Material on-site needing removal? yes/no/NA
c. **Approximate quantity _____m^3**
d. **Is material easily accessible? yes/no**
e. **Has Council's site clearing form been signed by the owner? yes/no**
f. **Site cleared by:**

Recommendation: *(Delete one)*

i. Suitable for human habitation

ii. Unsuitable for human habitation

Other comments:

Health and Environmental Protection Manager:

Building Surveyor or other agency:

Initial inspection date: _____ Time of inspection: _____

Follow-up inspection date: _____ Time of inspection: _____

Recovery action undertaken:

SOP - Emergency Evacuation Centre - Public Health Issues

***Attachment: Emergency Evacuation Centre Inspection* pro forma**

Procedure

Assessment of emergency relief centres should be undertaken prior to an emergency.

Identification and inspection of venues

The HEPM will liaise with the Council building surveyor or agent, and the Ipswich City Local Group to:

- review Ipswich City Local Plan for existing identified evacuation centres;
- identify new or additional evacuation centres;
- outline the assessment purpose and approach to Ipswich City Local Group;

Coordinated health and building inspections of the proposed emergency evacuation centres may be completed in consultation with other agencies.
These include:

- the owners and/or committees of management responsible for day-to-day management of venues;
- other local support agencies such as Red Cross, which may have requirements for their own emergency operations;

Inspections will be carried out using the inspection *pro forma* provided.

Considerations

Short-term duration: Where the majority of people do not require bedding or substantial meals, only shelter and light refreshments.

Buildings are assessed at a ratio of one (1) person per 1.5 square metres of floor area.

Longer-term duration: Where the majority of people **are required** to be provided with sleeping accommodation (for example, mattresses and blankets) and substantial meals.

Buildings are assessed at a ratio of one (1) person per 3 square metres of floor area and *are limited by the facilities provided.*

Facilities can be assessed at a minimum of three toilets and two showers per 150 people to be accommodated.

Emergency campsites: If necessity dictates, people are to be accommodated in tents.
The siting and layout of such a campsite, particularly if it embraces showers, toilets and kitchen facilities, will require thorough planning. If expertise in this area is limited, the services of the Australian Defence Forces can be sought.

Venue

The following should provide a guide to assessing venue capacity and suitability:

- area available — for sleeping and other uses;
- ventilation, heating and cooling;
- light;
- communication (telephone lines *etc*)
- gas and electricity;
- potable water supply;
- kitchen facilities;
- toilets and hand basins;
- ablutions;
- laundry facilities;
- wastewater treatment and disposal;
- drainage;
- access;
- site topography;
- vector control services;
- waste management services;

Not all safety aspects will be addressed by the HEPM. The building surveyor and the QFRS should address aspects such as fire safety, including exits and fire extinguishers.

Reporting

Venues selected for use as emergency evacuation centres are recorded in the Community Support - Welfare Plan and in Council's GIS system.
The following outcomes of the assessment will be reported:

- name of centre;
- address (may be rural address or RMB);
- reference and/or UBD reference;
- directions for entry to halls within multi-purpose venues;
- availability of mobile telephone networks and other telecommunications services;
- suitability for use as an emergency evacuation centre;
- maximum numbers of people or other limitations;
- recommendations for maintenance and minor works required;
- recommendations for actions to be taken once venue is activated;

Details of additional facilities required to operate venue at maximum capacity must be recorded.

For example

Additional toilet facilities may be required, depending on area available for internal and external camping.

This data must be kept and easily accessible by the HEPM and other Council officers.

Annual review

The HEPM in conjunction with the Ipswich City Local Group will coordinate an annual review of venues, to verify their ongoing suitability for the proposed use.

Stakeholders consulted during the initial inspection will be included in the review process.

Follow-up inspections may be required after maintenance or alterations have been undertaken.

The Ipswich City Local Plan (and Public Health sub-Plan if applicable) will be updated as required.

Emergency Evacuation Centre Venue Inspection Pro Forma

Name and address of venue: _____

_____

reference: _____ or UBD reference _____

Type of premises: _____

Owner:
Name _____

Address _____

Phone: BH: _____ AH: _____

Occupier: Name _____

Phone: BH: _____ AH: _____

Keys located: _____

Available sleeping space *internal* (m2) _____

Available camping area *external* (m2) _____

Ground surface: _____

Kitchen facilities: _____

Water available: yes/no Type: tank / reticulated / other

Max volume available (tank): _____

Structural soundness of building: _____

Vehicle access to site: _____

Power available? yes / no Type: generator/mains

Sanitary facilities	WCs	Urinals	Hand basins	Troughs	Showers	TOTAL CAPACITY
Male						
Female						

Laundry facilities: _____

If not connected to the sewer, what type of system is installed? _____

Capacity of septic: _____ litres

Disposal method: _____

If a septic tank system, does the tank need de-sludging? yes/ no

Date of last de-sludging ___/___/___

Fire safety (no. of exits and extinguishers):_____

Any other remarks:_____

_____

Assessed by: _____ Date: ___/___/___

SOP - Activating and Managing Public Health Services at Emergency Evacuation Centres

Introduction

This section outlines specific arrangements for activating public health services, once an emergency evacuation centre is opened.

Ipswich City is responsible for the provision and operation of emergency evacuation centres.

Briefing

In most instances, the HEPM will be notified and briefed on the opening of an emergency evacuation centre by the Ipswich City Local Group.

The HEPM will obtain the following information before deploying at least one officer to the venue:

- name and location of the emergency venue activated;
- number of people expected to be accommodated;
- duration and nature of recovery services to be provided;
- catering arrangements;

Deployment

Upon arrival, the HEPM will introduce himself/herself to key emergency personnel and the emergency evacuation centre manager.

It may be appropriate for the HEPM to instruct other staff to monitor some specific areas of public health, such as waste management.

Public Health Risk Areas in Emergency Centres

HEPM responsibilities can include the following:

- food safety, including catering and donated foodstuffs;
- water supply for drinking, cooking and sanitation;
- toilets, hand basins and other washing facilities;
- wastewater management in unsewered areas:
  - will system cope with increased load?
  - system require de-sludging? Decide location of disposal area;
- cleaning and sanitation;
- ventilation, heating and cooling;
- waste management:
  - number, type and location of receptacles;
  - frequency of disposal and removal;
  - cleaning;
- vector and vermin control measures;
- noise;

- lighting, especially in high risk areas such as the kitchen;
- animal control measures, for management of pets brought to the venue and for stray animals;

Previously Unassessed Venue

If a venue has not been previously inspected and assessed, the HEPM will liaise with the Ipswich City Local Group and the building surveyor to coordinate an immediate joint health/building inspection.

Any serious concerns that cannot be addressed immediately will be reported to the emergency evacuation centre manager, and the Ipswich City Local Group with advice on any precautions that will be enforced.

The HEPM, in consultation with the Ipswich City Local Group, will arrange for any necessary actions to address public health concerns.

Guidelines for the Management and Control of Food Safety in Emergency Evacuation Centres

Important public health considerations for the organisation of mass feeding centres are outlined in *Emergency Management Manual, Part III - Emergency Management Practice, Volume 1 – Service Provisions, Manual 2 – Disaster Medicine, Chapter 10, Annex D.*

Emergency Food Production/Preparation

Food safety

Food safety in an emergency is a major public health issue and requires specific attention.

Good relationships and effective communication with key stakeholders involved in emergency catering will assist in the provision of safe food. Emergency caterers.

When planning for emergency catering, the HEPM must consider:

- the ability of a nominated food premises to supply and distribute safe food;
- the establishment of temporary emergency catering facilities;

Safe food production in an emergency depends on quality control of incoming food, a safe water supply and care with storage, preparation, serving and waste disposal.

Quality controls for incoming food:

- examine food for spoilage and contamination;
- know the source of the food and check with suppliers if necessary. Choose a reliable food source where possible, such as a supermarket;
- the type of food supplied should not pose unnecessary risk (consider ambient temperatures, shelf life and storage facilities);

Safety of the water supply:

- does it need to be treated?

Storage of food:

- are there freezers, refrigerators and dry storage areas?
- are there insects or rodents in stores, kitchens or feeding centres?

Disposal of solid and liquid food wastes:

- consider grease traps, burial, cartage and incineration needs;

Food preparation:

- arrange facilities for washing and sanitising utensils;
- ensure supervision of food preparation areas and of food servicing (appropriate cooking methods);

- ensure supervision of food handling personnel;
- organise separate toilet and hand washing facilities for food handlers if possible, to prevent cross-infection;

Supervision of Food Handlers

The following are key factors in ensuring food safety:

Screening and selection of food handling personnel

- anyone with diarrhoea, vomiting, infectious lesions or exposed areas of infected skin, or a recent history of gastrointestinal illness, *must* be excluded from handling any food;
- training — use people with training or previous commercial experience in food handling positions, where possible;

Supervision

- ensure regular supervision of feeding areas, particularly during the early stage of a disaster when personnel are operating 24 hours a day, usually in shifts of six hours.

Examination of Donated Food

Fresh food donations should be discouraged. The HEPM should liaise with the Media Officer (Council' Media Department) to ensure this is suitably communicated.

If food is donated, the key aspects to consider are:

Inspection and storage

- all foods are to be brought to a central inspection area where they can be examined by a trained person and correctly stored pending distribution;

Acceptance and disposal

- it is better to accept all food donations, even if it is obvious that they are unsuitable and to dispose of the food after the donor has left the site. This overcomes the problems of:
  - unauthorised food distribution;
  - embarrassment to the donor who, in good faith, may have travelled a long distance to donate the food, not knowing its unsuitability.

Checklist of Public Health Responsibilities in Emergency Evacuation Centre

Name of venue:_____

Address of venue:

Date: Time: _____

Contact:

FOOD

Catering

- ❑ Temperatures
- ❑ Storage
- ❑ Hand washing facilities
- ❑ Food Handling
- ❑ Cleaning and Sanitising
- ❑ Registered food supplier

COMMENTS:

_____
_____
_____
_____
_____

Donated foods

- ❑ Inspection
- ❑ Storage
- ❑ Acceptance
- ❑ Disposal

COMMENTS:

_____
_____
_____

WATER

Is there an operational potable water supply to the property? yes/no

What *is the source of water supply:*

- ❑ **reticulated/mains**
- ❑ **tank**
- ❑ **bore**
- ❑ **stream**

Does the water require any treatment?

_____
_____

Is the supply adequate for:

- ❑ drinking
- ❑ cooking
- ❑ sanitation

COMMENTS:

_____
_____

WASTEWATER MANAGEMENT

What type of system is installed? _____
Is the system coping with the load: **yes/no**
Does it require de-sludging? yes/no
Has the disposal area been isolated to prevent damage? **yes/no**
Comments:

_____
_____
_____

SANITARY FACILITIES

Are there an adequate number of facilities for the number of people being accommodated?

Sanitary facilities	WCs	Urinals	Hand basins	Troughs	Showers
Male					
Female		XXXXXXX XXXXXXX			

Are the facilities being maintained in a hygienic condition? **yes/no**
COMMENTS:

_____
_____
_____

REFUSE MANAGEMENT

Are there an adequate number of receptacles? **yes/no**
If not, how many more are needed? Have they been requested? _____

_____
_____

Are the bins sited appropriately? (i.e., kitchen, toilets etc) yes/no

_____
_____

Frequency of disposal and removal adequate? **yes/no**

_____
_____

GENERAL CONSIDERATIONS

Temperature control of the facility: Can any changes be made to the facility to improve the following?

- ☐ ventilation
- ☐ heating
- ☐ cooling

_____
_____

Vermin and vector control issues:

_____
_____

Noise issues:

_____

_____

Lighting: (in kitchen, toilets etc)

_____

_____

Animal control measures: Are animals being brought to the venue? What about stray animals? etc.

_____

_____

_____

Health and Environmental Protection Manager:

Date:

Time:

7.08 TERRORISM MANAGEMENT PLAN

Aim

To co-ordinate the activities of Agencies involved in responding to a terrorism incident affecting the residents and communities of Ipswich City .

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Scope of the Sub Plan

This sub-plan relates to terrorism incidents which involve Agencies in addition to the Queensland Police Service and applies to any incident:

(a) Which occur in the area;

(b) Which occur outside the City boundaries but which impact on the residents and communities within the area;

Potential Area for Control

The potential for a terrorism incident within the City boundaries is considered to be low but possible.

It is more probable that an incident will occur outside the City boundaries and have a secondary impact within the City, such as an incident involving a critical piece of State infrastructure such as power, transport etc.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Section 5 of this plan:

Threat	Lead Agency	Support Agencies
Terrorism	Queensland Police Service	Queensland Fire & Rescue Service Queensland Ambulance Service Ipswich City Council Energex Telstra State Emergency Service

Warnings

All warnings will be issued by the Queensland Police Service Media Unit. Upon implementation of the Ipswich City Local Plan, all public warnings will be distributed through the Ipswich City Coordination Centre upon recommendation of the Lead Agency and on authorisation of the Chairperson Ipswich City Local Group.

Concept of Operation

A report of a possible terrorism related incident will be referred to the local unit of the Queensland Police Service.

Response to and control of the incident will be undertaken by the Queensland Police Service.

Community recover will commence once the incident site is cleared by the Queensland Police Service.

Community recovery may require activation of the Ipswich City Local Group and the District Disaster Community Recovery Arrangements.

Requests for Assistance

Requests for assistance from Support Agencies will be made through the local unit of the Queensland Police Service and may involve but not be limited to:

- Provision of barricades;
- Diversion of traffic;
- Immediate welfare – evacuation, temporary accommodation, feeding etc.

Conference – Protracted Operations

Briefings will be held when necessary, as determined by the Queensland Police Service.

Debriefing

Debriefing of the incident will occur and will be arranged by the Queensland Police Service.

Attachments

Annex B Contact names and phone numbers.

7.09 EMERGENCY ANIMAL/PLANT DISEASE PLAN

Authority to plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Further this planning guide was prepared by the Animal and Plant Health Service, QDPI, SE Region to assist the Ipswich City Emergency Animal Disease Planning Committee formulate an Emergency Animal Disease Sub Plan in support of the ICLP.

Aim

The aim of this planning guide is to assist the Ipswich City Emergency Animal Disease planning committee to formulate a shire plan that will co-ordinate the activities of all elements of the Ipswich City Local Plan that may become involved with the planning, control and eradication of an emergency animal disease within the area.

Objectives

The objectives of this Emergency Animal Disease Planning Guide are to:

- Provide guidelines for a co-ordinated local response to the control and/or eradication of emergency animal disease outbreaks.
- Provide guidelines for initiating community recovery following completion of control or eradication.

Scope of Sub Plan

QLDVETPLAN, which is the threat specific emergency animal disease response sub-plan of the State Disaster Plan, has been used as a reference for this planning guide. QLDVETPLAN details the major animal diseases that are considered "emergency" diseases to Queensland, the implications of the disease relative to the circumstances, and the likely response to each disease.

The whole of the Ipswich City Council area is likely to be involved in an emergency animal disease response. There is potential for an emergency animal disease response to be undertaken in more than one local government area within a disaster district. When this occurs the Disaster District Co-ordinator will also be notified.

Most animal disease emergencies present little direct threat of injury or death to humans, however the cost in purely economic terms may be particularly significant. There may be a demand for resources long after the disease has been brought under control. QLDVETPLAN and the Exotic Diseases in Animals Act 1981 detail arrangements for compensation for loss or damage and for reimbursement where eligible of those expenses incurred during the response.

Review of Planning Guide

The Emergency Animal Disease Planning Guide is to be reviewed by the Animal and Plant Health Service:

(a) at least annually,

(b) after any change to procedures or to any agency involved,

(c) after each activation of all or part of the plan, and

(d) when so directed by the Shire Counter Disaster Planning Committee;

An updated planning guide will then be sent to the Chief Executive Officer, Ipswich City Council to assist with updates to the Ipswich City Local Plan.

Organisation for Co-Ordinating Operations

The following, or their nominees, should constitute the Emergency Animal Disease Operational Committee for Ipswich City :

- Chairperson - Mayor;
- Members - Chief Executive Officer;
- O/C Police;
- Local Controller, SES;
- Community Welfare Coordinator;
- Other representatives as decided by the Ipswich City ;
- Ipswich City Local Disaster Management Group;

The local DPI Veterinary Officer and/or Stock Inspector should attend committee meetings to assist with planning, however during a response they are unlikely to be available due to operational commitments.

Organisational for Control

Department of Primary Industry (DPI).

DPI is the Lead Agency and has overall responsibility for emergency animal disease outbreaks. The DPI response is co-ordinated at state level by a State Disease Control Headquarters (SDCHQ) and at a local level by a Local Disease Control Centre (LDCC). DPI may require assistance on a local level from other agencies and would direct these requests for assistance to the relevant Ipswich City Local Group or to the LDG. DPI may contract functions to private individuals/companies during a response. This would be facilitated separately to requests made to the Ipswich City Local Group and Ipswich District Group.

DPI Operations Centres

A DPI State Disease Control Headquarters (SDCHQ) would be set up in Primary Industries Building, Brisbane.

A DPI Local Disease Control Centre (LDCC) would be established within 48-72 hours of the first notification of an outbreak.

In the DPI's South East Region the LDCC would be established initially at one of three sites depending on the location of the outbreak:-

- Animal Research Institute, Fairfield Rd, Yeerongapilly;
- DPI, Kingaroy;
- DPI, Bundaberg;

The LDCC may be moved to an alternative site during the outbreak if thought necessary.

Provisions also exist for Forward Command Posts (FCP) to be set up. The sites for these FCP's would be determined at the time of the outbreak or during the response phase.

The structure and functions of the LDCC are detailed in the QLDVETPLAN. The AUSVETPLAN Control Centre Management Manuals details operational activities of the LDCC including chain of command, layouts, and job descriptions of all positions. The LDCC will deal directly with the Ipswich City Local Group unless the Ipswich District Group has been activated, in which case the Ipswich City Local Group would deal primarily with the Ipswich District Group.

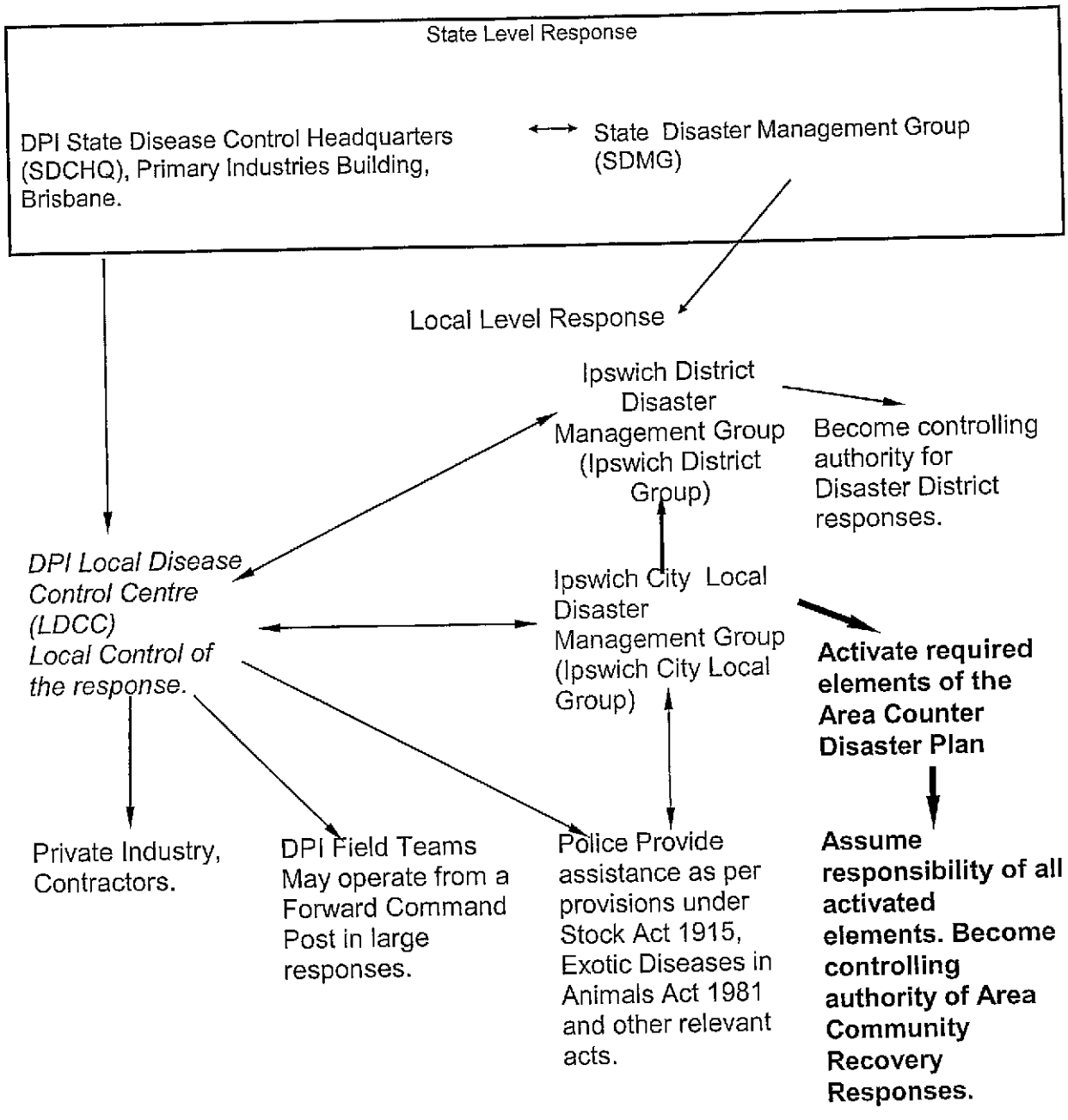
Ipswich City Local Disaster Management Group (IPSWICH CITY LOCAL GROUP).

The primary roles of the Ipswich City Local Group in an emergency animal disease response is to respond to specific requests made by DPI and to co-ordinate and lead the community recovery program in Ipswich City . These requests shall be met by the Ipswich City Local Group activating relevant parts of their counter disaster functional plans. If a request cannot be fulfilled at local level, then the Ipswich District Group should be notified as per Disaster District arrangements. The Ipswich City Local Group and the Ipswich District Group are responsible for supervising any sections of the functional plans activated to carry out specific requests.

If the Ipswich District Group is activated then the Ipswich District Coordination Centre would deal primarily with the Ipswich District Group and the Ipswich City Local Group would deal with the Ipswich District Group as per District Disaster Plans, though some contact would remain with the Ipswich District Coordination Centre.

An emergency animal disease response may take some time (weeks or months) to finalise however involvement of the Ipswich City Local Group and Ipswich District Group may not be required for this length of time. They would be kept informed and at such time that their assistance is no longer required would be notified to stand-down. DPI would take over the operation of the response until completion and would re-establish contact if new outbreaks were discovered or the current outbreak escalated beyond DPI resources.

Flow chart



Roles and Responsibilities

Suggested roles and responsibilities for Lead Agency and Support Agencies:-

Lead Agency	Support Agencies	Roles and Responsibilities
DPI &F		Overall supervision and responsibility. Investigate all suspect cases and reports. Quarantine properties. Limit spread of disease (movement control). Establish Local Disease Control Centre (LDCC) at a chosen site. Provide information for news media. Destruction and disposal of animals. Disinfection of infected properties. Any further action required to control/eradicate the disease.
	Queensland Police Service	Traffic control; Stock movements control. Assistance at road blocks and arrangement of traffic diversions; Tracing people. Assistance with the destruction of stock, as requested by the Officer In Charge of an Infected Premise. Assistance on request for stock tracing and tracing of infected material. Provision of its own communications networks. Assistance to the Department of Primary Industries officers in the investigation of offences.
	Ipswich City Local Disaster Management Group	Initiate and supervise the Community Recovery Program. Activate and supervise elements of the Local Disaster Management Plan in response to requests from Ipswich District Coordination centre. These requests will be detailed and specific and will be aimed at assisting Ipswich District Coordination Centre complete its responsibilities in the following areas: -Site Security -Valuation of animals and other items. -Destruction and disposal of animals and other items. -Decontamination of personnel, vehicles, contaminated sites. -Welfare of those directly affected and of response personnel. -Welfare of response personnel -Wild &/or feral animal control and monitoring -Communications Examples may include: -Provision or re-sourcing of heavy earthmoving equipment, operators and other vehicles and their transport to required sites. -Assistance with manpower and resources requirements eg. Road signs for road blocks, detours, etc. -List of local registered valuers, licensed shooters etc

Concept of Operations

DPI conducts responses under the Stock Act 1915 and/or the Exotic Diseases in Animals Act 1981. The technical aspects of response operations are carried out using the nationally accepted guidelines set out in AUSVETPLAN. Operations will be undertaken in four broad phases, these are:-

(a) **Investigation Phase** – when a report of a possible exotic disease has been made and is being investigated by a DPI Veterinary Officer and/or Stock Inspector.

(b) **Alert Phase** – when there is a high probability that an exotic or emergency disease is suspected in the shire or when there is a confirmed outbreak in Queensland or in another state which may affect the shire. Internal DPI response plans are activated and Ipswich District Group and District Disaster Coordinator are notified that a response may be required within the shire. If an emergency does not arise, or if the emergency can be controlled by DPI resources alone, stand-down procedures may then take effect.

(c) **Operational Phase** – when the CVO is satisfied that there is an exotic disease outbreak in the shire and implements control or eradication procedures. Overall control remains with DPI who may request assistance from Ipswich City Local Group / Ipswich District Group. Both Local Government and Disaster Districts would then be responsible for supervising any elements of their counter disaster activated to fulfill these requests. Costs incurred in this phase may be recoverable from a fund managed by DPI.

(d) **Stand-down Phase** – when the CVO determines that there is no longer an animal disease emergency and operations are wound down. Note however, as mentioned in the Scope of the plan, resources may be required well after the initial outbreak is contained. Stand-down of other agencies may occur before the actual completion of the response by DPI.

Reporting

Situation reports (Sitreps) detailing operations to date and forecast operations are to be submitted on a regular basis to the Ipswich City Local Group, the Ipswich District Group and to the State Group, when these are operational.

Communications

Communications are to be established between the Ipswich District Coordination Centre and all responding agencies, and between the Ipswich District Coordination Centre and the Ipswich City Coordination Centre and SDCHQ, when these are established. Assistance may be sought from the Ipswich City Local Group with communications in the local area.

For efficient operations there should be dedicated outgoing lines and incoming lines to alleviate overload of the system. All systems should be protected, as far as practicable, from failure and wherever possible back up systems should be established.

Public Information

Initial public announcement of an exotic or emergency animal disease outbreak will be made by the Minister for Primary Industries. SDCHQ will then continue to release media bulletins and respond to media enquires. Ipswich District Coordination Centre will have a media unit that may also release media bulletins of a more local nature.

All media enquires directed to the Ipswich City Coordination Centre should be redirected to the DPI Call Centre on 13 25 23 until the Media Unit of Local Disease Control Centre is operational. It is recognised that local government may also need to release information to the media. These releases should be cleared by the SDCHQ in the early stage then through the Ipswich District Coordination Centre media unit, when established, before release.

Reports of disease emergencies should be directed to the DPI Call Centre **13 25 23** or the National 24 hour Emergency Number **1800 675 888.**

Requests for Assistance

All requests for assistance which fall outside the scope or ability of the Ipswich City Local Group should be forwarded to the LDG.

Conferences – Protracted Operations

Daily briefing sessions will be held at the Ipswich District Coordination Centre during the early stages of a response. Briefing notes from each session will be circulated to Local Disaster Management Groups involved. The frequency of these briefings is likely to be reduced as the response is finalised. A media unit at the Ipswich District Coordination Centre may conduct press conferences and issue news releases.

Debriefing

As soon as possible after completion of the operation a debriefing of field operations will be conducted by the Controller, Ipswich District Coordination Centre. All organisations involved in the activation should be represented at the debriefing in order to identify and rectify deficiencies.

Attachments

Annex B – Contact names and phone numbers.

7.10 EPIDEMIC OR OTHER HEALTH ISSUES PLAN

Aim

To co-ordinate the activities of organisations involved in preparing for and responding to an epidemic and / or pandemic within the area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered potential areas for conducting health operations in the Shire:

- whole of area;

Potential Communicable Diseases

Epidemics of communicable diseases are of low probability. However the following hierarchy indicates broad probabilities:

Communicable diseases commonly found in the general population: meningitis, food-borne illness, influenza, water-borne diseases;

Setting – potential disease outbreak locations – childcare centres, schools, aged care facilities, event-specific, prisons, marginalised groups such as IV drug users, animal farms (chicken, cattle);

Emerging infectious diseases – Birdflu, SARS, Leptospirosis, Lyssa virus, Q fever;

Biological assault – terrorist threat, biological weapons.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Lead Agency	Support Agencies
Queensland Health	Ipswich City Council Queensland Police Service Ipswich Hospital

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Issues addressed in the Public health Sub Plan

The following issues are addressed in the sub-plan "Public Health":

- food and water distribution;
- refuse collection and disposal;
- vermin and vector control;
- disposal of dead animals;
- hygiene – food handling, storage and preparation;
- immunisation including emergency immunisation of emergency response personnel;

Other issues that need to be addressed and documented are listed at the end of this sub-plan.

Management of the Impacted Area

Containment of the area.

(material to be inserted)

Welfare of residents in the containment area including hygiene.

(material to be inserted)

Need to evacuate.

(material to be inserted)

Food and water distribution.

(material to be inserted)

Animal and pets in the containment area.

(material to be inserted)

Surveillance.

(material to be inserted)

Disinfection of premises.

(material to be inserted)

Attachments

Annex B– Contact names and phone numbers.

7.11 FLOOD / STORM (Wind, Rain, Hail) PLAN

Aim

To co-ordinate the activities of organisations involved in preparing for and/or combating the effects of local flooding and storm damage in the Ipswich City area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Areas of Operations

(a) Flood: Properties within the floodplains of:

Brisbane River;
Bremer River;
Bundamba Creek;
Black Snake Creek;
Goodna creek;
Mihi Creek;
Purga Creek
Six Mile Creek;
Sandy Creek;
Warrill Creek;
Western creek;
Woogaroo creek;

2300 properties at risk in a 20 year ARI event;
5800 properties at risk in a 50 year ARI event;
9300 properties at risk in a 100 year ARI event;
54000 properties at risk in a PMF event.

(a) Storm (wind, hail, rain): whole of area.

NOTE 1: Refer to the various report on flooding for additional detail of flood levels and properties affected at various flood levels / frequencies.

NOTE 2: Within Council's GIS system there are a number of resources that may assist in interpreting the effects of flooding within the area.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Threat	Lead Agency	Support Agencies
Flood / Storm Damage	Ipswich City Council	State Emergency Service Queensland Police Service Energex Telstra Queensland Ambulance Service Queensland Fire & Rescue Service Queensland Transport

A Flood Coordination Team has been established to monitor flood events within the area and to provide advice to the Ipswich City Local Group and the Community on flooding impacts.

The flood coordination centre operates from Rosewood Room in the Hayden Centre, South Street Ipswich.

An SOP has been developed for the Ipswich City Flood Coordination Centre. (see Annex O.

Concept of Operations

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Evacuation Centres

A listing of current evacuation centres can be found in 7.01 Evacuation Sub Plan, and full detail of the facility can obtained from Council GIS system.

Evacuation Routes

All evacuation routes and traffic control points will be under the control of the Police; Council will be required to supply, erect and maintain barricades.

See 07.01 Evacuation for further detail.

Warnings

- flood warnings will initially be received from the Bureau of Meteorology;
- flood warnings may also be issued by Flood Coordination Centre to the Ipswich City Local Group and Ipswich City Coordination Centre;
- public warnings will be issued by Bureau of Meteorology via radio and television as necessary after consultation with Flood Coordination Centre;

Disaster Impact Assessment

Refer to 05.16 Impact Assessment;
Annex V – Impact Assessment Forms;
8.07 Operational Check List – Impact Assessment.

Return of Community

Before the evacuees can be permitted to return to their premises the following issues must have been addressed:

- has the hazardous situation that caused the evacuation abated?
- has sufficient debris has been removed to permit travel?
- are roads and bridges are safe to use?
- have fallen power lines have been removed; ruptured gas, water, and sewer lines repaired; and other significant safety hazards eliminated?
- have structures have been inspected and determined to be safe to reoccupy?
- public health information (See Public Health Operational Plan)
- identification of persons requesting re-entry?
- temporary re-entry – to retrieve personal belongings when the area has not been cleared for full unconditional return?
- staged re-entry to permit repairs, etc?
- special needs groups?

See SOP Assessing disaster affected housing and accompanying check list in the Public Health Sub-Plan.

Attachments

Annex B – Contact names and phone numbers.
Annex V – Impact Assessment Forms;
8.07 Operational Check List – Impact Assessment.

7.12 FIRE – URBAN PLAN

Aim

To co-ordinate the activities of organisations involved in preparing for and/or combating the effects of fires in the urban areas of Ipswich City .

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Areas of Operations

All urban areas.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Threat	Lead Agency	Support Agencies
Fire (Urban)	Queensland Fire & Rescue Service	Queensland Police Service Queensland Ambulance Service State Emergency Service Energex Ipswich City Council Queensland National Parks & Wildlife Service Queensland Fire & Rescue Service (Rural) Chem Unit – RACE (Response Advice for Chemical Emergency)

Operations Centre

A mobile fire incident control centre will be established near the fire area.

Communications

Communications between the fire ground and the fire incident control centre will be the responsibility of the Fire Brigade. Respective support organisations will be contacted by Fire Brigade personnel via Telstra landline.

A QFRS mobile communications vehicle is available to supplement communications.

Once requested to attend the incident, individual communication will be the sole responsibility of each organisation.
Concept of Operations

On determining the need for a major fire alert, the Assistant Commissioner or Delegate shall summons any or all of the following organisations to attend the incident.

- Queensland Police Service;
- Queensland Ambulance Service;
- State Emergency Service;
- Ipswich City Council;
- Energex;

On being summoned, each representative should as rapidly as possible respond to the incident control point and receive appropriate instructions from the Assistant Commissioner or his appointed delegate.

Request for Assistance

All requests for assistance that fall outside the scope of this sub-plan will be forwarded by the Assistant Commissioner or Delegate to the Commissioner of Fire Services.

Attachments

Annex B – Contact names and phone numbers.

7.13 FIRE – RURAL PLAN

Aim

To co-ordinate the activities of organisations involved in preparing for and/or combating the effects of a wild fire within the rural areas of the Ipswich City .

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Scope of Sub-Plan

This sub-plan applies to any wild fire including grass fire:

- Which occurs in a declared Rural Fire Brigade District within the Council's area;
- Which threatens or is likely to threaten life, property or the environment;
- The effective control of which is beyond the resources of the Rural Fire Brigade within whose District the fire occurs;

Potential Area of Operations

The potential for a wild fire within the area is confined to the more sparsely populated rural areas, forestry reserves and national and environmental parks. There is a potential for fast running grass fires to occur in the agricultural areas.

There is some potential for other types of fires to fall within the scope of this sub-plan, however their type, frequency, and impact areas cannot be defined.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Threat	Lead Agency	Support Agencies
Fire (Rural)	Queensland Fire & Rescue Service (Rural Operations)	Queensland Police Service Queensland Ambulance Service Queensland Fire & Rescue Service - Urban Division State Emergency Service Energex Ipswich City Council Queensland National Parks & Wildlife Service Chem Unit – RACE (Response Advice for Chemical Emergency)

Operations Centre

A forward command post may be established by the Lead Agency at a suitable venue, depending on the incident location.

Marburg fire station acts as a central coordination centre for the rural brigades.
Communications

Communications for operational purposes will be via the QFRS Band and Radio Communication Plans using both UHF and VHF equipment. Hand held radios sets are used to communicate between personnel at the scene.

Communication between the Forward Command Post and the Ipswich City Coordination Centre will be via S.E.S. or Police radio, or by some other appropriate means.

Evacuation Centres

Detail of evacuation centres is maintained on Council's GIS system. A list of current centres is detailed in plan 7.01 Evacuation Sub Plan

Concept of Operations

On determining that a fire is of such magnitude that it falls within the scope of this Sub-plan, the Group Officer/Duty Officer of the Rural Fire Brigade within whose District the fire occurs, will alert the Rural Fire Brigade's Coordinator, who, in turn, will alert the Chairperson of the Ipswich City Local Group.

Upon determining that there is a requirement to implement this Sub-plan, the Rural Fire Brigades Coordinator will advise the Chairperson, that assistance under the Ipswich City Local Plan is required.

Request for Assistance

All requests for additional Fire Brigade resources which fall outside this plan, will be forwarded by the Group Officer/Duty Officer to the District Inspector, Rural Fires Operations, Ipswich.

Aerial Support

Aerial support can be supplied via the QFRS air operations unit which has rotary wing bombers on contract and fixed wing bombers on call. Requests for aerial support will be directed by the Group Officer/Duty Officer to the District Inspector, Rural Fires Operations, Ipswich.

Disaster Impact Assessment

Refer to 05.16 Impact Assessment for detail.
8.07 Operational Check List – Impact Assessment

Return of Community

Before the evacuees can be permitted to return to their premises the following issues must have been addressed:

- has the hazardous situation that caused the evacuation abated?
- has sufficient debris has been removed to permit travel?
- are roads and bridges are safe to use?
- have fallen power lines have been removed; ruptured gas, water, and sewer lines repaired; and other significant safety hazards eliminated?
- have structures have been inspected and determined to be safe to reoccupy?
- public health information (See Public Health Operational Plan)
- identification of persons requesting re-entry?
- temporary re-entry – to retrieve personal belongings when the area has not been cleared for full unconditional return?
- staged re-entry to permit repairs, etc?
- special needs groups?

See SOP Assessing disaster affected housing and accompanying check list in the Public Health Sub-Plan.

Attachments

Annex B – Contact names and phone numbers.
Annex V Impact Assessment Forms.
8.07 Operational Check List – Impact Assessment.

7.14 EARTHQUAKE PLAN

Aim

To co-ordinate the activities of organisations involved in combating the effects of earthquake damage in the Ipswich City.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Scope of the Sub-Plan

The Earthquake Sub-Plan applies to:

- the threat to life and / or property existing to an extent likely to exceed the resources of the statutory services and local authority;
- the effects of earthquake damage occurring within the Shire which are beyond the resources of the local authority and statutory services to adequately deal with;
- when evacuation is likely;
- the necessary temporary accommodation to adequately house those evacuated;
- the maintenance of public health until essential works and services are restored;
- severe disruption to traffic and communication facilities.

Potential Areas of Operation

Whole of area, especially urban areas.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Threat	Lead Agency	Support Agency
Earthquake	Ipswich City Council	State Emergency Service Queensland Police Service Energex Telstra Queensland Ambulance Service Queensland Fire & Rescue Service Department of Main Roads Queensland Rail Dept of Admin Services (Q-Built) Ipswich Hospital Government Undertaker

Evacuation Centres

Detail of evacuation centres is maintained on Council's GIS system.
A list of current centres is detailed in plan 7.01 Evacuation Sub Plan.

Warnings

No fore-warnings of an earthquake will be received.

The first indication will the sudden and violent movement of structures and / or the reports of "felt events"

Public advice will be issued by the Chairperson of the Ipswich City Local Group over radio and television as necessary.

Concept of Operation

The onset of an earthquake is immediate, the operation will therefore be based on three phases – activation, response and stand down.
All other aspect of the concept of operation will be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Phase	Action
Activation	Chairperson or delegate or Executive Officer Ipswich City Local GROUP activates the Ipswich City Coordination Centre and brings it to full operational level;
	Liaison officers requested to report to the ICC.
Response	Support organisations are to respond to the activation according to their Standing Operating Procedures.
	Liaison officers are to provide their own communications.
Stand Down	At the completion of operations, each Agency will stand down according to their Standing Operating Procedures.

Follow Up

Welfare co-ordination will be an ongoing concern for some time. The following will need to be addressed:

- trauma counselling of all evacuees while at the evacuation site;
- priorities to be established for order of repairs to homes;
- information Centre staff to be fully equipped for all enquiries;
- relief Building / Health Inspectors are to be seconded from unaffected Cities or Shires.

Disaster Impact Assessment

Refer to 05.16 Impact Assessment for detail.
Annex V Impact Assessment Forms.
8.07 Operational Check List – Impact Assessment.

Return of Community

Before the evacuees can be permitted to return to their premises the following issues must have been addressed:

- has the hazardous situation that caused the evacuation abated?
- has sufficient debris has been removed to permit travel?
- are roads and bridges are safe to use?
- have fallen power lines have been removed; ruptured gas, water, and sewer lines repaired; and other significant safety hazards eliminated?
- have structures have been inspected and determined to be safe to reoccupy?
- public health information (See Public Health Operational Plan)
- identification of persons requesting re-entry?
- temporary re-entry – to retrieve personal belongings when the area has not been cleared for full unconditional return?
- staged re-entry to permit repairs, etc?
- special needs groups?

See SOP Assessing disaster affected housing and accompanying check list in the Public Health Sub-Plan.

Attachments

Annex B – Contact names and phone numbers.
Annex V Impact Assessment Forms.
8.07 Operational Check List – Impact Assessment.

7.15 LANDSLIDE PLAN

Aim

To co-ordinate the activities of organisations involved in combating the effects of landslide damage in the Ipswich City Council area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Areas of Operation

Landslide damage is most likely to be confined to those areas of the City containing the Marburg formation and Walloon Coal Measures.

Landslides have been observed along the banks of the Bremer and Brisbane Rivers after floods.

A landslide risk map is shown at Annex (J).

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Threat	Lead Agency	Support Agency
Earthquake	Ipswich City Council	State Emergency Service Queensland Police Service Energex Telstra Queensland Ambulance Service Queensland Fire & Rescue Service Department of Main Roads Queensland Rail Dept of Admin Services (Q-Built) Ipswich Hospital Government Undertaker

Concept of Operation

To be administered in conjunction with Concept of Operations in Part 1, Section 5 of the Main Plan.

Evacuation Centres

Detail of evacuation centres is maintained on Council's GIS system. A list of current centres is detailed in plan 7.01 Evacuation Sub Plan

Warnings

Fore-warnings would not normally be received. However torrential or abnormal rain in the high risk areas identified above should be taken as potential for a landslide event.
Public advice will be issued by the Chairperson of the Ipswich City Local Group over radio and television as necessary.

Follow Up

Welfare co-ordination will be an ongoing concern for some time. The following will need to be addressed:

- trauma counselling of all evacuees while at the evacuation site;
- priorities to be established for order of repairs to homes;
- information Centre staff to be fully equipped for all enquiries;
- relief Building/Health Inspectors are to be seconded from unaffected Cities or Shires;

Disaster Impact Assessment

Refer to 05.16 Impact Assessment for detail.
Annex V Impact Assessment Forms.
8.07 Operational Check List – Impact Assessment.

Return of Community

Before the evacuees can be permitted to return to their premises the following issues must have been addressed:

- has the hazardous situation that caused the evacuation abated?
- has sufficient debris has been removed to permit travel?
- are roads and bridges are safe to use?
- have fallen power lines have been removed; ruptured gas, water, and sewer lines repaired; and other significant safety hazards eliminated?
- have structures have been inspected and determined to be safe to reoccupy?
- public health information (See Public Health Operational Plan)
- identification of persons requesting re-entry?
- temporary re-entry – to retrieve personal belongings when the area has not been cleared for full unconditional return?
- staged re-entry to permit repairs, etc?
- special needs groups?

See SOP Assessing disaster affected housing and accompanying check list in the Public Health Sub-Plan.

Attachments

Annex B – Contact names and phone numbers.
Annex V Impact Assessment Forms.
8.07 Operational Check List – Impact Assessment.

7.16 HAZARDOUS MATERIAL ACCIDENT PLAN

Aim

The aim of this sub-plan is to minimise the effects of, and co-ordinate the response to a major hazardous material accident affecting the residents and communities of the Council's area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Areas of Operations

The following are considered the risk areas as a result transports carrying industrial liquids / wastes chemicals, explosives and fuels:

(a) Ipswich City general roads and in particular roads leading to the industrial areas at Bundamba, Carol Park, Redbank, Swanbank and Wulkuraka;

(b) Ipswich Motorway;

(c) Cunningham Highway;

(d) Warrego Highway

(e) Brisbane – Toowoomba Railway Line;

Other risks sites are:

- on-site fuel storage;
- silos;
- Rural properties
- industrial businesses where hazardous materials are stored and / or used; and
- organisations that store, handle and use chlorine and similar material;

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Threat	Lead Agency	Support Agency
Hazardous Material Accident	Queensland Fire & Rescue Service	Queensland Police Service Ipswich City Council State Emergency Service Queensland Ambulance Service Energex Queensland Rail Department of Main Roads Environmental Protection Agency Chem Unit – RACE (Response Advice for Chemical Emergency)

Forward Command Post

At the direction of the Assistant Commissioner or Delegate, a forward command post will be set up at a safe distance and up-wind from the incident and under the control of the Assistant Commissioner or Delegate.

Once established, all requests for support organisations should be directed through this command.

Support Agencies should also direct any request through this command.

On the establishment of an Ipswich City Coordination Centre all transmissions should be directed through the Command Post to the E.O.C.

Communication

All communication emanating from the incident should only be transmitted from the Command Post.

As support organisations are summoned a suitable person with radio facilities should be stationed at the Command Post.

On receipt of a request for support by a support agency, from either the Assistant Commissioner or Delegate or specialist person with the authority of the Command Post Controller, the request should be radioed to the support organisation using their own frequency.

The only exception to this would be if the Ipswich City Coordination Centre has been established in which case all transmissions should be directed to that Centre.

Concept of Operations

On arrival at the incident the respective Police and Fire Brigade Officers should immediately assess the situation with the view to trapped person or persons overcome by toxic substances.
A Command Post should be established as soon as it is practical to do so and all organisations relevant to the plan should be summoned as requested to attend or be placed on alert.

Request for Assistance

All requests for assistance that fall outside the scope of this sub-plan should be directed towards:

- Queensland Fire & Rescue Service- Commissioner of Fire Services;
- Queensland Police Service - Police Operations Centre;
- Queensland Ambulance Service - Ambulance Operations;

Attachments

Annex B – Contact names and phone numbers.

7.17 MAJOR TRANSPORT ACCIDENT – ROAD PLAN

Aim

To co-ordinate a quick response to a road disaster or emergency in the Ipswich City area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered the risk areas:

(a) Ipswich City area roads in genera;
(b) Ipswich Motorway;
(c) Cunningham Highway;
(d) Warrego Highway.
(e)

Potential Type of Accidents

(a) Passenger Vehicles;
(b) Semi-Trailers;
(c) Coaches;
(d) Timber/Cattle Truck;
(e) Chemical Transport;

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the Main Plan:

Threat	Lead Agency	Support Agency
Major Transport Accident (Road)	Queensland Police Service	Queensland Ambulance Service Queensland Fire & Rescue Service State Emergency Service Energex Queensland Transport Ipswich City Council Department of Primary Industries Environmental Protection Agency Chem Unit – RACE (Response Advice for Chemical Emergency) RAAF Amberley

Warnings

Warnings of an accident emergency will be given initially by the Police (from particular area of operation).

Concept of Operation

On receipt of advice that a major traffic accident has occurred, the OIC Police in whose district the accident occurs, will alert:

(a) Local Controller S.E.S.;
(b) Queensland Ambulance Service;
(c) Ipswich Hospital;
(d) Queensland Fire & Rescue Service.

The Local Controller will place on stand-by or activate:

(a) required number of S.E.S. members and volunteers;
(b) necessary voluntary agencies;
(c) establish a forward command post at direction of OIC Police;
(d) advise Chairperson Ipswich City Local Group;

All organisations will activate as per their own S.O.P.'s.

All other aspect of operations will be in accordance with the Concept of Operations in Part 1, Section 5 of the Main Plan.

Request for Assistance

All requests which fall outside the scope of this sub-plan will be forwarded by the OIC Police to the Ipswich District Police headquarters for action.

Attachments

Annex B– Contact names and phone numbers.

7.18 MAJOR TRANSPORT ACCIDENT - RAIL PLAN

Aim

To co-ordinate a quick response to a Rail Accident disaster or emergency in the Ipswich City area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operation

The following are considered the risk areas:

Brisbane to Toowoomba Railway line

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the main plan:

Threat	Lead Agency	Support Agency
Major Transport Accident (Rail)	Queensland Police Service	Queensland Ambulance Service State Emergency Service Queensland Fire & Rescue Service Energex Department of Main Roads Queensland Rail Ipswich City Council Environmental Protection Agency Chem Unit – RACE (Response Advice for Chemical Emergency) RAAF Amberley

Operation Centres

For the purpose of co-ordination, Rail Accident Headquarter will be as follows:

(a) Ipswich Police Station; or

(b) Police Station in whose area the accident occurs.

A field headquarters will be established at a suitable location and close to but separated from the accident site. The field headquarters will be established and manned by S.E.S. staff at the direction of OIC Police.

Warning

Warning of an accident emergency will be given initially by the Police (from the particular area of operation).

Concept of Operations

On receipt of advice that a rail accident has occurred the Police shall alert:

(a) Queensland Rail;
(b) Local Controller S.E.S.;
(c) Queensland Fire & Rescue Service;
(d) Queensland Ambulance Service;
(e) Ipswich City Council;
(f) Ipswich Hospital;

The Local Controller will place on stand-by or activate:

(a) Required number of S.E.S. personnel and volunteers;
(b) Necessary voluntary agencies;
(c) Establish field headquarters at direction of O/C Police.

Queensland Rail will be responsible for:

- isolating overhead power where appropriate;
- providing technical advice on rolling stock;
- removal of damaged rolling stock;
- repair to the rail bed

All organisations will activate as per their own S.O.P.'s.

All other aspect of operations will be in accordance with the Concept of Operations in Part 1, Section 5 of the Main Plan.

Request for Assistance

All requests for assistance which fall outside the scope of this sub-plan will be forwarded by the OIC Police to the Ipswich District Police headquarters for action.
Debriefing

As soon as possible after the conclusion of the operational procedures, the OIC Police in Charge of the operations will conduct a debrief of such operations.

The debrief will be attended by a Senior Representative of all Agencies involved in the operation.

Attachments

Annex B– Contact names and phone numbers.

7.19 MAJOR TRANSPORT ACCIDENT - AIR PLAN

Aim

To co-ordinate a quick response to an aircraft accident disaster or emergency in the Council area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered the risk areas:

(a) Military/Commercial aircraft flight path;

(b) Other small strips in the area.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the main plan:

Threat	Lead Agency	Support Agency
Major Transport Accident (Air)	Queensland Police Service	Queensland Ambulance Service State Emergency Service Queensland Fire & Rescue Service Energex Ipswich Hospital Bureau of Air Safety Investigations Civil Aviation Authority (CAA) Chem Unit – RACE (Response Advice for Chemical Emergency) RAAF Amberley

Note: In the event of an incident involving an Australian Defence Force aircraft the Police will establish a control perimeter and take charge of the scene until Australian Defence Force personnel arrive at which time they will take charge and become the Lead Agency.

Operation Centres

For the purposes of co-ordination Aircraft Accident headquarters will be as follows:

(a) Ipswich Police Station; or

(b) Police Station in whose area the accident occurs;

A field headquarters will be established at a suitable location and close to, but separated from, the accident site. The field headquarters will be established and manned by S.E.S. staff at the direction of the OIC Police.

Warning

Warning of an accident emergency will be given initially by the Police (from the particular area of operation).

Concept of Operations

On receipt of advice that an aircraft accident has occurred the Police shall alert:

(a) Department of Aviation;
(b) Local Controller S.E.S.;
(c) Queensland Fire & Rescue Service;
(d) Queensland Ambulance Service;
(e) Ipswich City Council;
(f) Ipswich Hospital;

The Local Controller will place on stand-by or activate:

(a) required number of S.E.S. personnel and volunteers;
(b) necessary voluntary agencies;
(c) establish field headquarters at direction of OIC Police.

The Civil Aviation Authority and Bureau of Air Safety Investigation will be responsible for:

- providing passenger and cargo manifests;
- investigation of cause of accident.

RAAF Amberley will assume the lead agency role where a military aircraft is involved.

All Agencies will activate as per their own S.O.P.'s.

All other aspect of operations will be in accordance with the Concept of Operations in Part 1, Section 5 of the Main Plan.

Request for Assistance

All requests for assistance which fall outside the scope of this sub-plan will be forwarded by the OIC Police to the Ipswich District Police headquarters for action.

Attachments

Annex B– Contact names and phone numbers.

7.20 OIL/GAS ACCIDENT PLAN

Aim

To co-ordinate a quick response to an oil or gas accident or emergency in the Ipswich City Council area.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

The following are considered the risk areas:

(a) Oil – areas adjacent to the Moonie – Brisbane high pressure oil line;
(b) Gas - areas adjacent to the Roma – Brisbane high pressure gas line; and areas of the City supplied with reticulated gas.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the main plan:

Threat	Lead Agency	Support Agency
Oil/Gas Accident	Queensland Fire and Rescue Service	**OIL ACCIDENT:** Santos Ltd. 24 Hr emergency phone 1800 017 713 Moonie Pipeline Co. **GAS ACCIDENT:** **Roma – Brisbane Line** Agility Management P/L 24 hr emergency phone 1800 017 000 **Reticulated Supply Lines Ipswich** Origin Energy 24 hr emergency phone 1800 808 526 **OIL/GAS General Support** Queensland Police Service Queensland Ambulance Service State Emergency Service Queensland Fire & Rescue Service (Rural)

Threat	Lead Agency	Support Agency
		Energex Department of Main Roads Ipswich Hospital

Operation Centres

For the purposes of co-ordination Accident headquarters will be as follows:

(a) Ipswich Police Station; or

(b) Police Station in whose area the accident occurs.

A field headquarters will be established at a suitable location and close to, but separated from, the accident site. The field headquarters will be established and manned by S.E.S. staff at the direction of the OIC Police.

Warning

Warning of an accident emergency will be given initially by the Police (from the particular area of operation).

Concept of Operations

On receipt of advice that an oil/gas accident has occurred the Police shall alert:

(c) appropriate facility owner;
(b) Local Controller S.E.S.;
(c) Queensland Fire & Rescue Service;
(d) Queensland Ambulance Service;
(e) Ipswich City Council;
(f) Ipswich Hospital;
(g) Chem Unit

The Local Controller will place on stand-by or activate:

(a) required number of S.E.S. personnel and volunteers;
(b) necessary voluntary agencies;
(c) establish field headquarters at direction of OIC Police;

All Agencies will activate as per their own S.O.P.'s.

The facility owner will provide technical advice and assistance to the Police and will be responsible for operational actions to shut down the damaged facility and undertake its repair.

All other aspect of operations will be in accordance with the Concept of Operations in Part 1, Section 5 of the Main Plan.

Evacuation

If evacuation of sections of the community is required then it should be carried out in accordance with the provisions of 7.01 Evacuation Plan.

If short term welfare of the evacuated community is required then the provision of 7.04 Community Support should be applied.

Request for Assistance

All requests for assistance which fall outside the scope of this sub-plan will be forwarded by the OIC Police to the Ipswich District Police headquarters for action.

Attachments

Annex B – Contact names and phone numbers.

7.21 PUBLIC WORKS and ENGINEERING– MUNICIPAL SERVICES PLAN

Aim

To provide for the continuity of Council operated public works and engineering services to the community, such as Water, Sewerage, roads, bridges and Council owned buildings.

Authority to Plan

This sub-plan is prepared under the authority of the Ipswich City Local Group in support of the Ipswich City Local Plan in accordance with *Section 57(1) of the Disaster Management Act 2003.*

Potential Area of Operations

Whole of Council's area.

Organisation for Control

The following Agencies have accepted responsibility for the roles indicated in Part 1, Section 5 of the main plan:

Threat	Lead Agency	Support Agency
Public Works & Engineering – Municipal Services	Ipswich City Council	Department of Main Roads Department of Public Works Q Build Queensland Fire and Rescue Service

Concept of Operations

Damage Assessment

The assessment of damage to Council's infrastructure will be the responsibility of the appropriate operations department of Council as follows:

Water and sewerage:	Ipswich Water.
Roads, drainage, bridges;	Engineering Services Department.
Council owned buildings:	
Parks and reserves:	
Waste services:	Ipswich Waste Services

Assessment of the damage should be carried out using the check lists provided in Annex V

Estimates of the cost of temporary repairs should be determined and included in the damage reports and subsequently followed up with permanent restoration costs.
Council's works department will coordinate the reports from the various departments and submit them to the Ipswich Local Group.

Continuity of Service

Each department of Council will be responsible for the undertaking of temporary repairs to its services and for providing alternative services if the particular utility cannot be temporally repaired.

All other aspect of operations will be in accordance with the Concept of Operations in Part 1, Section 5 of the Main Plan.

Warnings

Advice to the community on public health issues associate with the loss of, or provision of alternative services such as water and sewerage, waster services and on alternative routes to avoid road and bridge damage will be issued by the Council's Media Branch based on detail provided by the particular department.

Request for Assistance

All requests for assistance which fall outside the capacity of the particular department of Council will be forwarded to the Executive Officer Ipswich City Local Group for attention and will be dealt with in accordance with the Concept of Operations in Part 1, Section 5 of the Main Plan.

Attachments

Annex B – Contact names and phone numbers.

IPSWICH CITY COUNCIL
LOCAL DISASTER MANAGEMENT PLAN

PART 3 OPERATIONAL CHECK LISTS

SECTION 8 OPERATIONAL CHECK LISTS

0.8.01 Introduction

These Operational checklists have been developed for use during activations, to record the actions taken, the agency/officer responsible for the actions and to provide an audit trail.

It is anticipated that the checklists would be utilised by the Executive Officer of the Ipswich city Local Group, or in larger operations, the Tasking/Operations Officer.

The use of the checklists will ensure that all operational contingencies which have been planned for have been execute, and will provide an invaluable tool in the post-event review of activities undertaken.

0.8.02 CHECKLIST – LOCAL DISASTER MANAGEMENT PLAN

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
LDMG Approval of Plan		Responsible Organisation Responsible Officer	Ph Mob Fax	
DDMG Review of Plan		Responsible Organisation Responsible Officer	Ph Mob Fax	
Council Approval of Plan		Responsible Organisation Responsible Officer	Ph Mob Fax	
LDMG Approval plan distribution		Responsible Organisation Responsible Officer	Ph Mob Fax	
LDM Plan distributed		Responsible Organisation Responsible Officer	Ph Mob Fax	
LDM Plan Review/revision Section/Annex		Responsible Organisation Responsible Officer	Ph Mob Fax	
LDMG Representative on DDMG nominated		Responsible Organisation Responsible Officer	Ph Mob Fax	
DDMG Advised of LDMG representative		Responsible Organisation Responsible Officer	Ph Mob Fax	
State Group advised of DDMG representative		Responsible Organisation Responsible Officer	Ph Mob Fax	

08.03 CHECKLIST – ACTIVATION OF LOCAL DISASTER MANAGEMENT GROUP

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Receive initial information regarding the event		Responsible Organisation Responsible Officer	Ph Mob Fax	
Confirm the information from a different source		Responsible Organisation Responsible Officer	Ph Mob Fax	
Notify the Chair of the Local Disaster Management Group		Responsible Organisation Responsible Officer	Ph Mob Fax	
Activate the Local Disaster Management Group (Executive members only)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Activate the Local Disaster Management Group (Full Group)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Activate the Local Disaster Co-ordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.04 CHECKLIST – ACTIVATION OF LOCAL DISASTER COORDINATION CENTRE

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Local Disaster Co-ordination Centre prepared for activation		Responsible Organisation Responsible Officer	Ph Mob Fax	
Local Disaster Co-ordination Centre activated		Responsible Organisation Responsible Officer	Ph Mob Fax	
Physically open the facility		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide administrative equipment		Responsible Organisation Responsible Officer	Ph Mob Fax	
Appoint a Communications Officer to the Disaster Co-ordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide telecommunications facilities to the Ipswich City Co-ordination Centre (ICC)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide emergency (back-up) telecommunications facilities and capability to the Ipswich City Coordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Maintain telecommunications facilities to the Ipswich City Coordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide internet facilities to the Ipswich City Coordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Maintain communications network display in the Ipswich City Coordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide telecommunications capability between the Ipswich City Coordination Centre and the Ipswich District Disaster Co-ordination		Responsible Organisation Responsible Officer	Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Centre				
Provide telecommunications capability between the Ipswich City Coordination Centre and the various headquarters of participating agencies		Responsible Organisation Responsible Officer	Ph Mob Fax	
Test technology		Responsible Organisation Responsible Officer	Ph Mob Fax	
Repair or replace any defective items		Responsible Organisation Responsible Officer	Ph Mob Fax	
Staff the Ipswich City Coordination Centre to appropriate level		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide Position Description or similar tasking responsibility information to staff		Responsible Organisation Responsible Officer	Ph Mob Fax	
Ensure security of Ipswich City Coordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Ensure appropriate agency liaison officers attend the Ipswich City Coordination Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Ensure information displays are available		Responsible Organisation Responsible Officer	Ph Mob Fax	
Ensure that appropriate plans and other documents are sourced and available for reference		Responsible Organisation Responsible Officer	Ph Mob Fax	
Extended operations – develop personnel roster		Responsible Organisation Responsible Officer	Ph Mob Fax	
Extended operations – provide appropriate sleeping, feeding and rest areas		Responsible Organisation Responsible Officer	Ph Mob Fax	
Ensure the provision of adequate catering		Responsible Organisation Responsible Officer	Ph Mob Fax	
In conjunction with the DDC, develop an operation reporting		Responsible Organisation	Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
timetable		Responsible Officer		
In conjunction with the Media Liaison Officer, develop a media release timetable		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.05 CHECKLIST – FINANCIAL MANAGEMENT

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Determine authorisation for expenditure of funds during a major event.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Instigate a management process which will expeditiously authorise specific officers or a class of officers to expend funds to a stipulated limit.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the limit of expenditure permitted without further reference to senior management		Responsible Organisation Responsible Officer	Ph Mob Fax	
Establish and maintain a specific cost centre for disaster or emergency event expenditure.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Develop a discrete recording system for disaster or emergency event related expenditure, to expedite the payment of appropriate claims post event.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Maintain all financial records in relation to the event.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Prepare and submit financial claims in relation to counter disaster operational expenses to Counter Disaster and Rescue Services.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Prepare and submit financial claims in relation to public assets to the Department of Local Government, Planning, Sport and Recreation.		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.06 CHECKLIST – EVACUATION

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
General Planning Considerations				
Determine area(s) vulnerable to specific hazard events		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine population of identified risk area(s)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identify warning mechanisms		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine evacuation routes.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine traffic control requirements for evacuation routes.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine if there are special population concerns (schools, hospitals, nursing homes, etc.)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine trigger point for activation of evacuation teams		Responsible Organisation Responsible Officer	Ph Mob Fax	
Preparation				
Establish boundaries of possible area(s) to be evacuated and primary evacuation routes		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide advance warning of possible need for evacuation to the public, clearly identifying areas at risk.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Pre-warn special population establishments of the possibility of an impending		Responsible Organisation	Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
evacuation		Responsible Officer		
Coordinate with special facilities regarding precautionary evacuation.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Commence and maintain a map of the entire evacuation area		Responsible Organisation Responsible Officer	Ph Mob Fax	
Have copies made for use by evacuation teams		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine evacuation routes for risk area(s) & check the status of these routes.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Estimate public transportation requirements & determine pickup points.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Coordinate with transportation providers to ensure vehicles & drivers will be available when and where needed.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Develop traffic control plans & stage traffic control devices at required locations		Responsible Organisation Responsible Officer	Ph Mob Fax	
Develop a grid or locality system for the deployment of door-to-door evacuation notification teams, to ensure maximum coverage without duplication of effort.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Operational Deployment				
Advise Disaster District that evacuation recommendation will be issued.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Make the decision to recommend to the DDC that a mandatory evacuation is required		Responsible Organisation Responsible Officer	Ph Mob Fax	
Receive notice of mandatory evacuation from DDC		Responsible Organisation Responsible Officer	Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Provide evacuation teams with written instructions to be handed to members of the community		Responsible Organisation Responsible Officer	Ph Mob Fax	
If transportation is likely to be required for evacuees or their possessions, request assistance from the Transport Functional Committee		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide transportation assistance to those who require it.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine if requirements exist for additional external support.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identify and activate all appropriate Evacuation Centres		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identify Evacuation Centres with the capacity to cater for animals		Responsible Organisation Responsible Officer	Ph Mob Fax	
Commence and maintain a record of numbers of evacuees at nominated evacuation centres		Responsible Organisation Responsible Officer	Ph Mob Fax	
Assign a liaison person to all evacuation centres, with communications ability to contact the LDCC		Responsible Organisation Responsible Officer	Ph Mob Fax	
Ensure the Media Liaison Officer has been kept fully informed, and is proactively disseminating information on the evacuation and evacuation centres through the media		Responsible Organisation Responsible Officer	Ph Mob Fax	
Disseminate evacuation recommendation to the public through available warning systems, clearly identifying areas to be evacuated.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Disseminate evacuation recommendation to special facilities. Provide assistance in evacuating, if needed.		Responsible Organisation Responsible Officer	s Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Activate and brief door-to-door evacuation notification teams		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide regular Situation Reports on evacuation to Disaster District.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide security in or control access to evacuated areas.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Develop a system for re-entry		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine when it is safe for residents to return, and if some areas need to remain restricted		Responsible Organisation Responsible Officer	Ph Mob Fax	
If evacuated areas have been damaged, conduct damage assessments.		Responsible Organisation Responsible Officer	Ph Mob Fax	
If evacuated areas have been damaged, eliminate significant health and safety hazards.		Responsible Organisation Responsible Officer	Ph Mob Fax	
If roads in evacuated areas have been damaged or blocked by debris, clear and re-open roads.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine requirements for traffic control for return of evacuees.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Maintain access controls for areas that cannot be safely reoccupied.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine requirements for & coordinate provision of transportation for return of evacuees. (in conjunction with Transport Operational Plan)		Responsible Organisation Responsible Officer	Contact Numbers Ph Mob Fax	
Advise neighbouring jurisdictions and Disaster District that return of		Responsible Organisation Responsible Officer	Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
evacuees will begin				
Advise evacuees through the media that they can return to their homes and businesses; indicate preferred travel routes.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide traffic control for return of evacuees.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Coordinate temporary housing for evacuees unable to return to their residences.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Coordinate with special facilities regarding return of evacuees to those facilities.		Responsible Organisation Responsible Officer	Ph Mob Fax	
If evacuated areas have sustained damage, provide the public information that addresses: ▪ Documenting damage & making expedient repairs ▪ Caution in reactivating utilities & damaged appliances ▪ Cleanup & removal/disposal of debris ▪ Recovery programs		Responsible Organisation Responsible Officer	Ph Mob Fax	
Terminate Evacuation Centre operations.		Responsible Organisation Responsible Officer	Contact Numbers Ph Mob Fax	
Post Deployment Actions				
Submit final evacuation information for the Situation Report to the DDC		Responsible Organisation Responsible Officer	Ph Mob Fax	
Contribute to the operational debrief		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.07 CHECKLIST – EVACUATION CENTRE MANAGEMENT

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Identify centres appropriate for the event		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide centre management personnel		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide support personnel for administration, kitchens, cleaning, security		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide refuse collection equipment and service		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide public information process for evacuees		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide basic entertainment facilities for evacuees		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide communications facility to the LDCC or the appropriate co-ordinating agency		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide evacuee registration process		Responsible Organisation Responsible Officer	Ph Mob Fax	
In conjunction with LDCC, develop operational reporting timetable		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.08 CHECKLIST – IMPACT ASSESSMENT

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Preparation				
Identify agencies to be included in an impact assessment team		Responsible Organisation Responsible Officer	Ph Mob Fax	
Develop an impact assessment reporting format and information management system		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identify and provide transport, communications and information recording equipment for impact assessment teams		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the area affected by the impact of the event		Responsible Organisation Responsible Officer	Ph Mob Fax	
Develop a grid or locality system for the deployment of impact assessment teams, to ensure maximum coverage without duplication of effort		Responsible Organisation Responsible Officer	Ph Mob Fax	
Deployment				
Determine the number of fatalities		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of seriously injured casualties		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of ill people (epidemic or pandemic)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of persons evacuated		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of persons requiring evacuation		Responsible Organisation Responsible Officer	s Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Determine the number of medical facilities which are still operational, and the number of usable beds		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of food outlets still able to function		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the status of water treatment and supply		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the status of sewage systems		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of private dwellings damaged or destroyed		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of public buildings damaged or destroyed		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the number of commercial premises damaged or destroyed		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identify any damaged or destroyed buildings which were listed as evacuation centres		Responsible Organisation Responsible Officer	Ph Mob Fax	
Post Assessment Action				
Determine the effects on the power distribution system		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on the communications networks		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on fuel distribution capacity		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on gas distribution capacity		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on road transport		Responsible Organisation Responsible Officer	Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Determine the effects on marine transport		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on rail transport		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on air transport		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on industry		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on the agricultural sector		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on the tourism sector		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on the environment		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on the continuity of government		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determine the effects on the local response capacity		Responsible Organisation Responsible Officer	Ph Mob Fax	
Utilise the impact assessment information to forecast resource requirements		Responsible Organisation Responsible Officer	Ph Mob Fax	
Include details of the impact assessment and forecast resource requirements in Situation Reports to the DDC		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.09 CHECKLIST – TRANSPORT

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Prepare and maintain a database of transport resources, including road, air and marine		Responsible Organisation Responsible Officer	Ph Mob Fax	
Prepare and maintain a database of fuel suppliers and retail outlets		Responsible Organisation Responsible Officer	Ph Mob Fax	
Ensure that the LDMG and the DDC are aware of the current situation in relation to fuel availability.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identify routes suitable for mass evacuation, and determine maximum traffic capacities.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Co-ordinate the provision of transport resources as required for mass evacuation (land based)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Co-ordinate the provision of transport resources as required for mass evacuation (marine or air from off-shore islands)		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.10 CHECKLIST – COMMUNITY SUPPORT/WELFARE

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Prepare and release media advisories regarding the function of community welfare		Responsible Organisation Responsible Officer	Ph Mob Fax	
Prepare and release media advisories regarding the assistance available		Responsible Organisation Responsible Officer	Ph Mob Fax	
Activate outreach teams and instigate a reporting timetable		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide logistic support to evacuation centres		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide logistic support to outreach teams		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide logistic support to operational personnel, both in the field and at the LDCC		Responsible Organisation Responsible Officer	Contact Numbers Ph Mob Fax	
Provide personal protective clothing or appropriate information to operational personnel		Responsible Organisation Responsible Officer	Ph Mob Fax	
Collect and report on members of the community in need of personal hardship assistance		Responsible Organisation Responsible Officer	Ph Mob Fax	
Maintain ongoing link with the District Recovery Committee		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide emergency accommodation post-impact		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide short term catering for displaced members of the community		Responsible Organisation Responsible Officer	Ph Mob Fax	

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mob Fax	DATE COMPLETED
Provide emergency clothing as appropriate		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provide a community liaison officer to the Community Recovery Centre		Responsible Organisation Responsible Officer	Ph Mob Fax	
Assist the District Recovery Committee with the development of Community Recovery Centres (One Stop Shops)		Responsible Organisation Responsible Officer	Ph Mob Fax	

0.8.11 Check List Public Works and Engineering (Municipal Services) Plan

TASK	DATE COMMENCED	RESPONSIBLE ORGANISATION RESPONSIBLE OFFICER	CONTACT NUMBERS Ph Mobile Fax	DATE COMPLETED
Water Supply				
Inspections of facilities		Responsible Organisation Responsible Officer	Ph Mob Fax	
Continuity of supply		Responsible Organisation Responsible Officer	Ph Mob Fax	
Determination of alternative supply		Responsible Organisation Responsible Officer	Ph Mob Fax	
Emergency restoration of water supply systems and the provision of water for fire-fighting.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Liaison with Public Health officials re safety of supply		Responsible Organisation Responsible Officer	Contact Numbers Ph Mob Fax	
Water restrictions		Responsible Organisation Responsible Officer	Ph Mob Fax	
Public information/warnings		Responsible Organisation Responsible Officer	Ph Mob Fax	
Sewerage Service				
Inspections of facilities		Responsible Organisation Responsible Officer	Ph Mob Fax	
Continuity of service		Responsible Organisation Responsible Officer	Ph Mob Fax	
Liaison with Public Health officials re public health implications of the loss of service		Responsible Organisation Responsible Officer	Ph Mob Fax	

Public information/warnings	Commenced	Responsible Organisation Responsible Officer	Ph Mob Fax	Completed
Roads, Rail and Bridges				
Assessment of damage to roads, bridges, traffic control devices		Responsible Organisation Responsible Officer	Ph Mob Fax	
Assessment of damage to rail infrastructure		Responsible Organisation Responsible Officer	Ph Mob Fax	
Temporary construction of emergency access routes which include damaged streets, roads, bridges, airfields and any other facilities necessary for passage of rescue personnel		Responsible Organisation Responsible Officer	Ph Mob Fax	
Restoration of damaged roads and bridges		Responsible Organisation Responsible Officer	Contact Numbers Ph Mob Fax	
Restoration of damaged rail infrastructure		Responsible Organisation Responsible Officer	Ph Mob Fax	
Public information/warnings (in conjunction with Public Information Operational Plan)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Marine Fixtures				
Assessment of damage to wharves, piers, jetties, navigation aids, boat ramps		Responsible Organisation Responsible Officer	Ph Mob Fax	
Emergency repairs		Responsible Organisation Responsible Officer	Ph Mob Fax	
Restoration of damaged wharves, piers, jetties, navigation aids, boat ramps		Responsible Organisation Responsible Officer	Ph Mob Fax	

Buildings				
Inspection of buildings for structural integrity		Responsible Organisation Responsible Officer	Ph Mob Fax	
Issue of notices concerning unsafe buildings		Responsible Organisation Responsible Officer	Ph Mob Fax	
Barricading of unsafe buildings		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identification of authority and processes for legal demolition		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identification of buildings requiring demolition		Responsible Organisation Responsible Officer	Ph Mob Fax	
Stabilization and/or barricading of damaged structures and facilities designated as immediate hazards to the public health and safety		Responsible Organisation Responsible Officer	Ph Mob Fax	
Debris Clearance				
Co-ordination of clearance of debris		Responsible Organisation Responsible Officer	Ph Mob Fax	
Emergency debris clearance for reconnaissance of damage areas and passage of emergency personnel and equipment.		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identification of emergency landfill areas for debris disposal (in conjunction with Public Health Operational Plan)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Identification of transport and heavy earthmoving equipment (in conjunction with Transportation Logistics Operational Plan)		Responsible Organisation Responsible Officer	Ph Mob Fax	
Provision of protective measures to limit further risks to the community		Responsible Organisation	Ph Mob Fax	

No.	Task	Responsible Organisation	Responsible Officer	Start Date	Duration	End Date	Comments
3.3	Public Education – Council Media Branch accept responsibility						
3.4	Train staff for coordination centre roles						
3.5	Exercise plan						
4.0	Section 5. Response						
4.1	Public information - Council Media Branch accept responsibility						
4.2	Reporting – monitor development of JIRS by SEQDMAG for SITREPS						
4.3	Media releases - Council Media Branch accept responsibility						
4.4	Disaster Coordination Centre – establish						
4.5	Disaster Coordination Centre –identify alternative & note in plan						
4.5	Impact assessment – discuss with Ipswich local group, and establish assessment groups						
4.6	Impact assessment – training exercise						
5.0	Annexures						
5.1	Annexure B Contact lists and Detail: Update						
5.2	Annex R – Risk Management Strategies: Monitor currency of strategies and delete as appropriate if Council decides not to adopt a particular strategy						
5.3	Annex S - SDRA/NDRA: Update $ values annually						

IPSWICH CITY COUNCIL

9.00 LOCAL DISASTER MANAGEMENT PLAN

ACTION PLAN

No.	Task	Responsible Organisation	Responsible Officer	Start Date	Duration	End Date	Comments
1.0	**Preliminaries**						
1.1	Foreword by Mayor						
1.2	Plan approval by agencies						
1.3	Plan approval by LDMG						
1.4	Plan review by XO of DDMG						
1.5	Plan adopted by Council						
1.6	Version control table completed after adoption by Council						
1.7.1	Distribution of plan – provide copy for public viewing						
1.7.2	Distribution of plan – Enter control copy number in table page 10						
1.8	Place copy of plan on Council web site						
1.9	Determine price for sale of hard copy of plan						
2.0	**Section 3. Prevention**						
2.1	Public Education – Council Media Branch accept responsibility						
3.0	**Section 4. Preparedness**						
3.1	Agencies to complete response capability tables in Annex C						
3.2	Forward copy of completed Annex C to DDMG						

No.	Task	Responsible Organisation	Responsible Officer	Start Date	Duration	End Date	Comments
5.4	Annex L - Training Register: keep updated						
5.5	Annex M Disaster Coordination Centre SOP: Determine location and alternative location and insert details in plan section 4.02 and SOP.						
5.6	Annex M Disaster Coordination Centre SOP: Staffing- Complete tables of roles and responsibilities for operational and administrative staff. Consider need for all stated administrative staff roles.						
5.7	Annex M Disaster Coordination Centre SOP: Modify duty statements as required.						
5.8	Annex M Disaster Coordination Centre SOP: Centre layout – develop layout plan and insert in SOP						
5.9	Annex Q. Emergency Action Plans for high risk dams and hazardous infrastructure – insert copies of plans						
5.10	Annex L. Training register: Keep updated						
511	Annex C. Agency capability and resources: Complete tables and forward copy to DDMG.						
5.12	Annex W. Registration of Evacuees:						

No.	Task	Responsible Organisation	Responsible Officer	Start Date	Duration	End Date	Comments
	Discuss with Red Cross and Police to ensure viability etc of procedures.						
6.0	Sub Plans						
6.1	Evacuation Sub Plan 7.01						
6.1	Evacuation special needs groups – identify likely needs of persons; discuss with operators of housing facilities for special needs group what arrangements they have in place for evacuation, encourage them to develop stand alone plans; identify likely needs at evacuation centres;						
6.2	evacuation routes – identify and map desirable routes on Council's GIS;						
6.3	evacuation centres- develop map identifying locations and place on GIS; security of evacuated areas – develop security plan;						
7.0	Evacuation Centre Management 7.02						
7.1	Document security arrangements for each evacuation centre						

No.	Task	Responsible Organisation	Responsible Officer	Start Date	Duration	End Date	Comments
7.2	Develop and document management structure for each centre						
7.3	Nominate staff for each centre and develop role and responsibilities						
7.4	Develop roster system for centre operational staff						
7.5	Consider and develop communications requirements						
8.0	**Communications - 7.03**						
8.1	Available communication resources – check listing						
8.2	Agency communication requirements – expand detail as required						
10.0	**Community Support - Welfare 7.04**						
10.1	Develop role and responsibility statements for participating agencies;						
11.0	**Transport - 7.05**						
11.1	Complete tables – transport companies; Fuel locations;						
12.0	**Public Health 7.07**						
12.1	Refer sub plan to Council's Health and Environmental Protection Manager for comment, amendments, acceptance of roles etc.						
13.0	**Epidemic or Other Health Issues - 7.10**						
13.1	Discuss with Dept. Health and Police containment of infected area and document procedures;						

No.	Task	Responsible Organisation	Responsible Officer	Start Date	Duration	End Date	Comments
13.2	Discuss with Dept. health and Council Officers welfare of persons in containment area and document procedures etc.						
13.3	Food and water needs – Discuss with relevant authorities the need to provide and distribute food, water and other essentials to persons in containment area and document procedures etc.						
13.4	Animals and pets in containment area – discuss with relevant authorities welfare, disposal etc of animal and pets in area and document procedures etc.;						
13.5	Disinfection of premises – discuss with relevant authorities procedures and document same						
14.0	Flood/Storm 7.11						
14.1	Develop map of evacuation routes and place on GIS						
15.0	Flood Coordination Centre						
15.1	Update terminology						