

FAIRBAIRN DAM

EMERGENCY EVENT REPORT

10TH Sept 2010 to 1ST APR 2011

QFCI

Date:

27/05/11

Jm

Exhibit Number:

520



SunWater
179 Turbot St., Brisbane
PO Box 15536
City East QLD 4002

FAIRBAIRN DAM - EMERGENCY EVENT REPORT

Emergency Event Recording Sheets

- Description of the Event
- Instrument Readings and Level Data
- Description of Damage
- Photos during and after the Event
- Details of Communication
- General Comments and/or EAP Recommendations

Note: These sheets must be completed for all Emergency Event Scenarios and be included in the emergency Event Report

FAIRBAIRN DAM - EMERGENCY EVENT REPORT

Emergency Event Recording Sheets

- **Description of the Event**

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and be included in the emergency Event Report**

EMERGENCY ACTION PLAN - FAIRBAIRN DAM

EMERGENCY EVENT RECORD

COMPLETE THIS COVER SHEET AND ATTACH RELEVANT RECORDING SHEETS FROM SECTION 6.

1. NATURE OF THE EVENT (circle the event)

Spillway discharge Earthquake Piping Water Quality Terrorist Activity

Commencing: Time 7:30 am/pm; Date 10/9/2010 Finishing: Time 2:30 am/pm; Date 11/3/2011

2. DESCRIPTION OF THE EVENT

Attach relevant sheets from Section 6.

3. STATISTICS

Total inflow	2,796,802	Megalitres
Total discharge	3,589,264	Megalitres
Capacity of Storage prior to inflow	94%	%
Volume prior to inflow	1224405	Megalitres
Maximum inflow - DERIVED	554,900	MLD
Maximum discharge - DERIVED	346,000	MLD

NOTE UNGAUGED INFLOWS BELOW CRAECMORE

4. EVENT PROGRESS

Attach copies of the Spillway Level versus Time Graph, the Record of Communication, the Log of Events / Actions, and Rainfall during a Flood Event. (Section 6A)

5. GENERAL COMMENTS

Include in this section any observations or comments regarding the Event, such as Equipment malfunctions, improved Reporting, Safety issues, or any suggestions which may improve monitoring of the Event

INTERNET ACCESS FAILED.
MOBILE PHONE FAILURE.

6. DAMAGE REPORT

Detail any damage to the Embankment, Spillway, Abutments or Stream bank in the downstream area of the Dam. Attach photos.

LEFT BANK SIPHON ACTUATOR TORN FROM MOUNTINGS
INCLUDES DECK AND HANDRAILING
LOWER PIEZOMETER PIT FLOODED

Name: MAL CONNOR Signed: [Signature] Designation: STORAGE SUPERVISOR Date: 1/3/2011

SunWater
Section 6: Page 3 of 5
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FAIRBAIRN DAM - EMERGENCY EVENT REPORT

SUMMARY

Fairbairn Dam Storage was at 94% capacity prior to the inflow which was estimated as 2,796,802 ML. Total discharge was 3,589,264 ML. During the event the Maximum Inflow was 554,900 ML/d with a maximum Discharge of 346,000 ML/d.

During the event Internet access failed and mobile phone access also failed, causing some problems to communications.

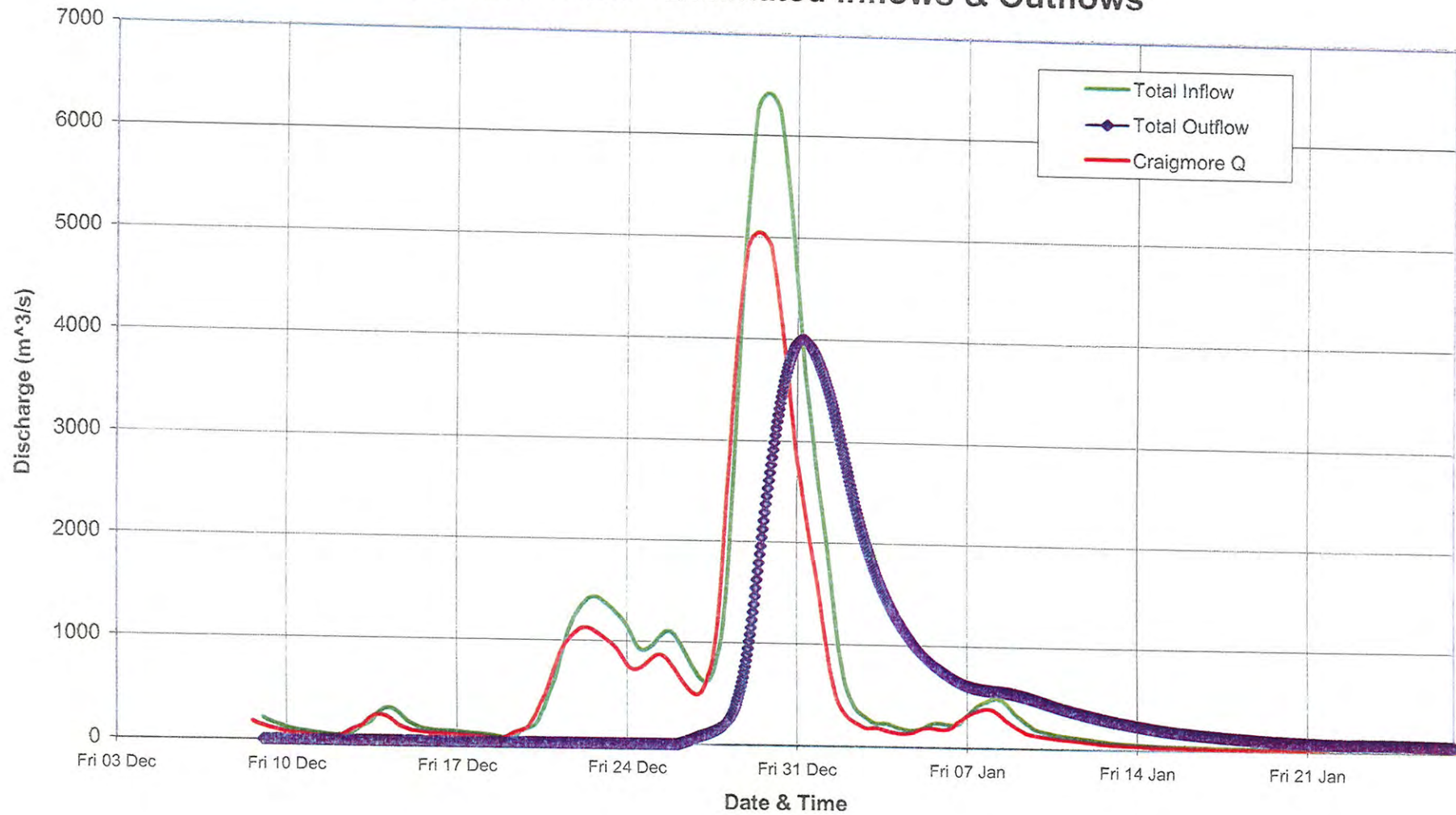
FAIRBAIRN DAM - EMERGENCY EVENT REPORT

Emergency Event Recording Sheets

- **Instrument Readings and Level Data**

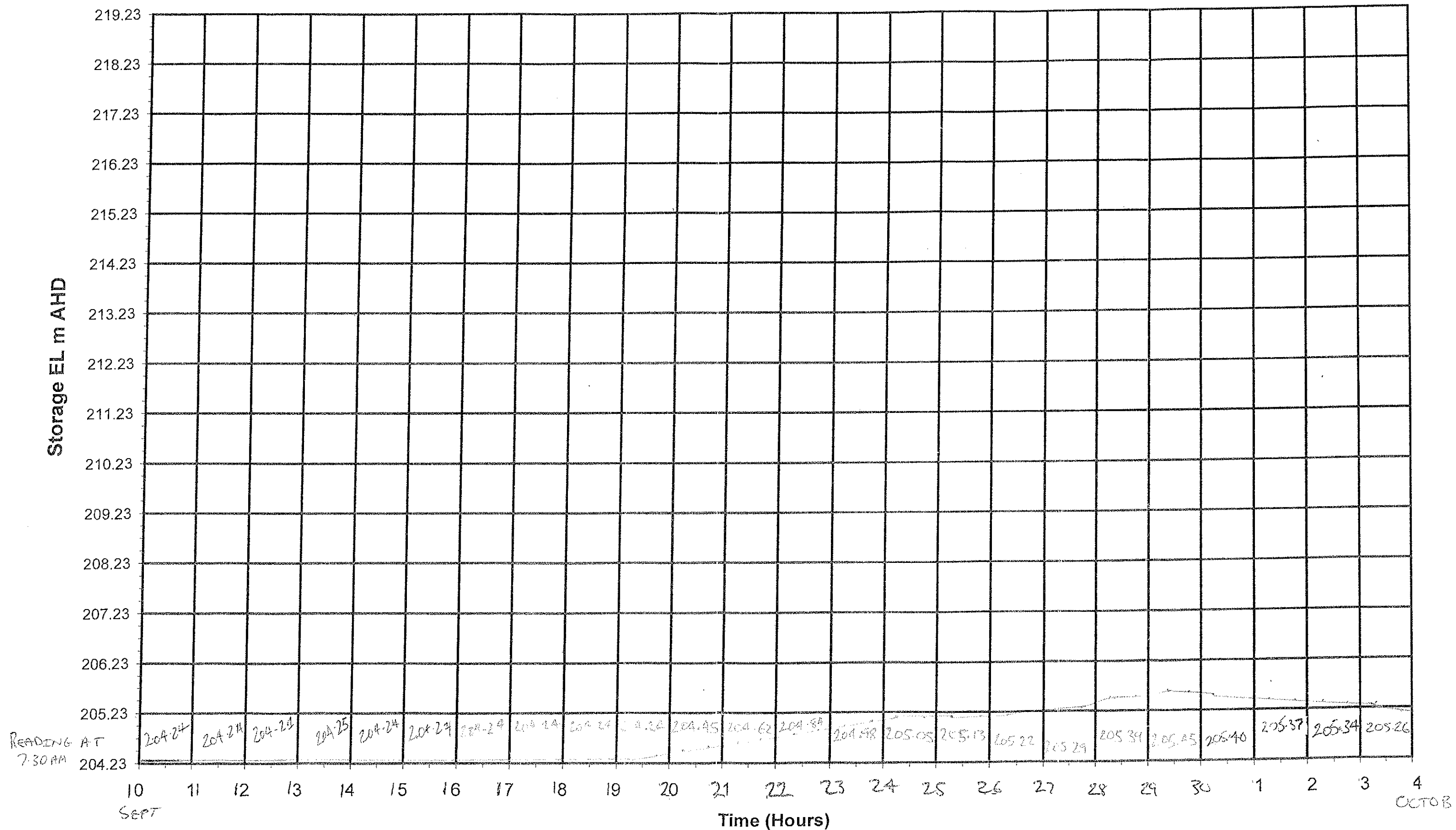
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FairbairnDam - Estimated Inflows & Outflows



READS 10TH SEPTEMBER TO 4TH OCTOBER 2010

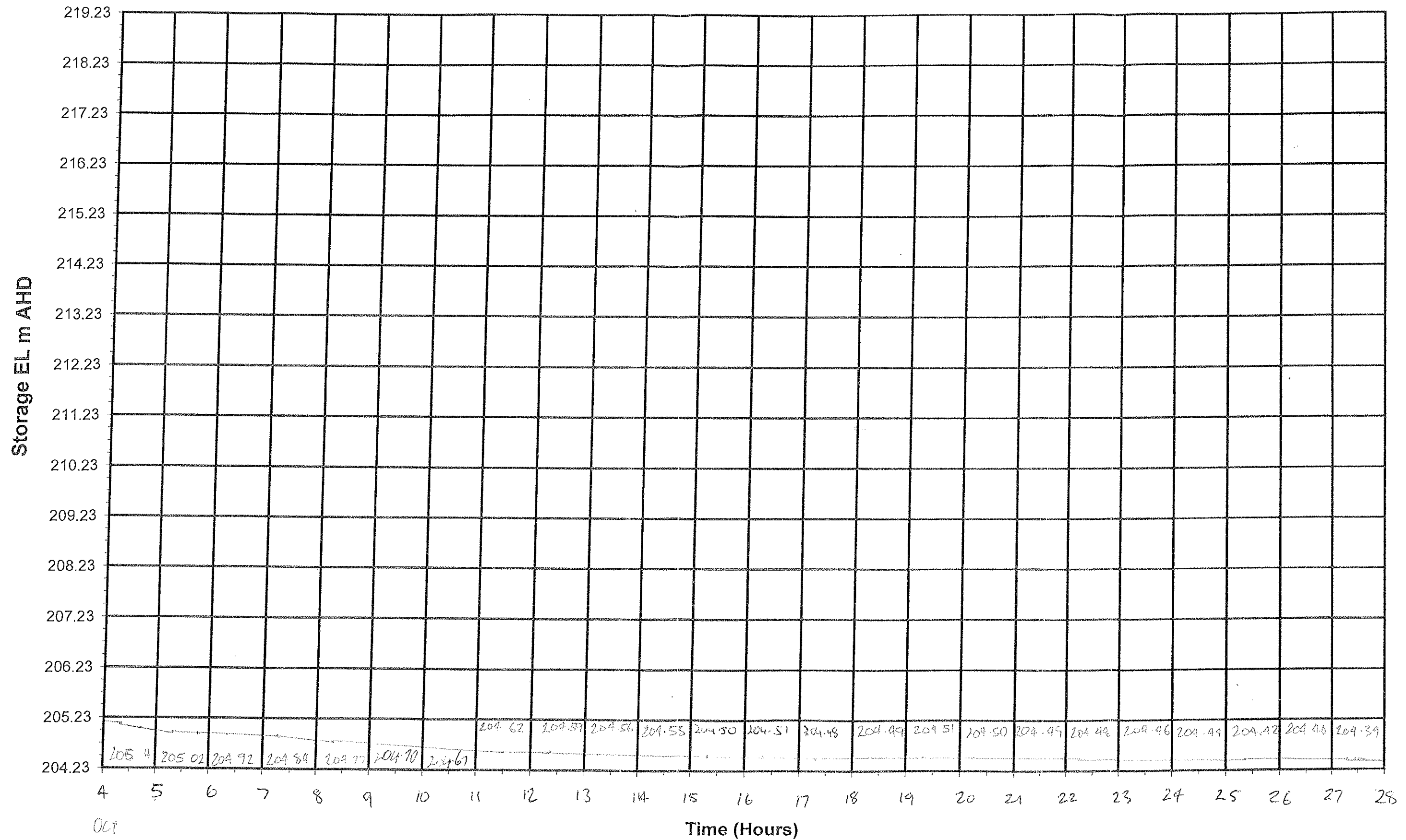
STORAGE LEVEL AT SPILLWAY VERSUS TIME



COMMENCES — 10 SEPTEMBER 2010

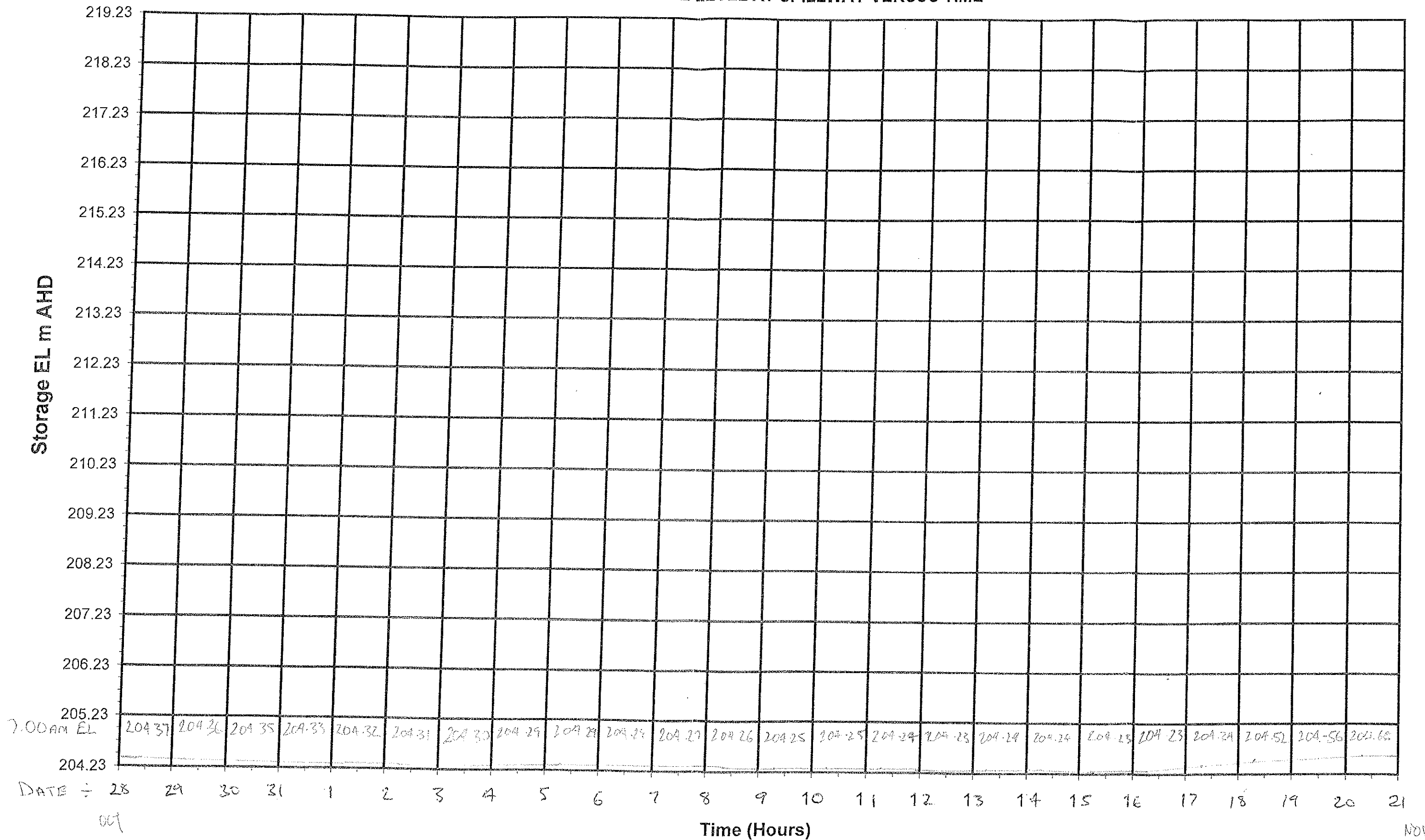
GRAPH COMMENCES THE 4TH OCTOBER 2010

STORAGE LEVEL AT SPILLWAY VERSUS TIME



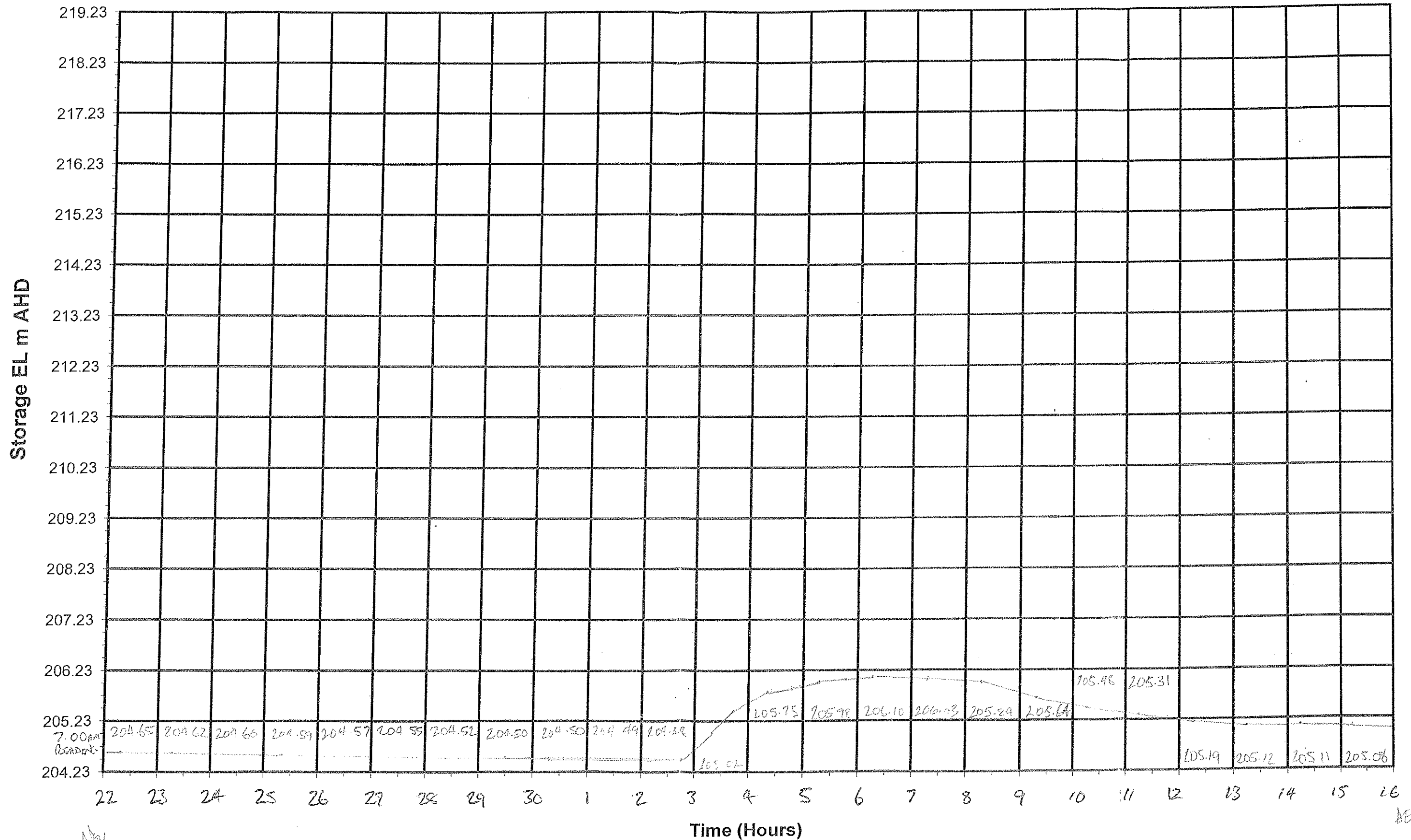
GRAPH COMMENCES 28th OCTOBER 2010

STORAGE LEVEL AT SPILLWAY VERSUS TIME



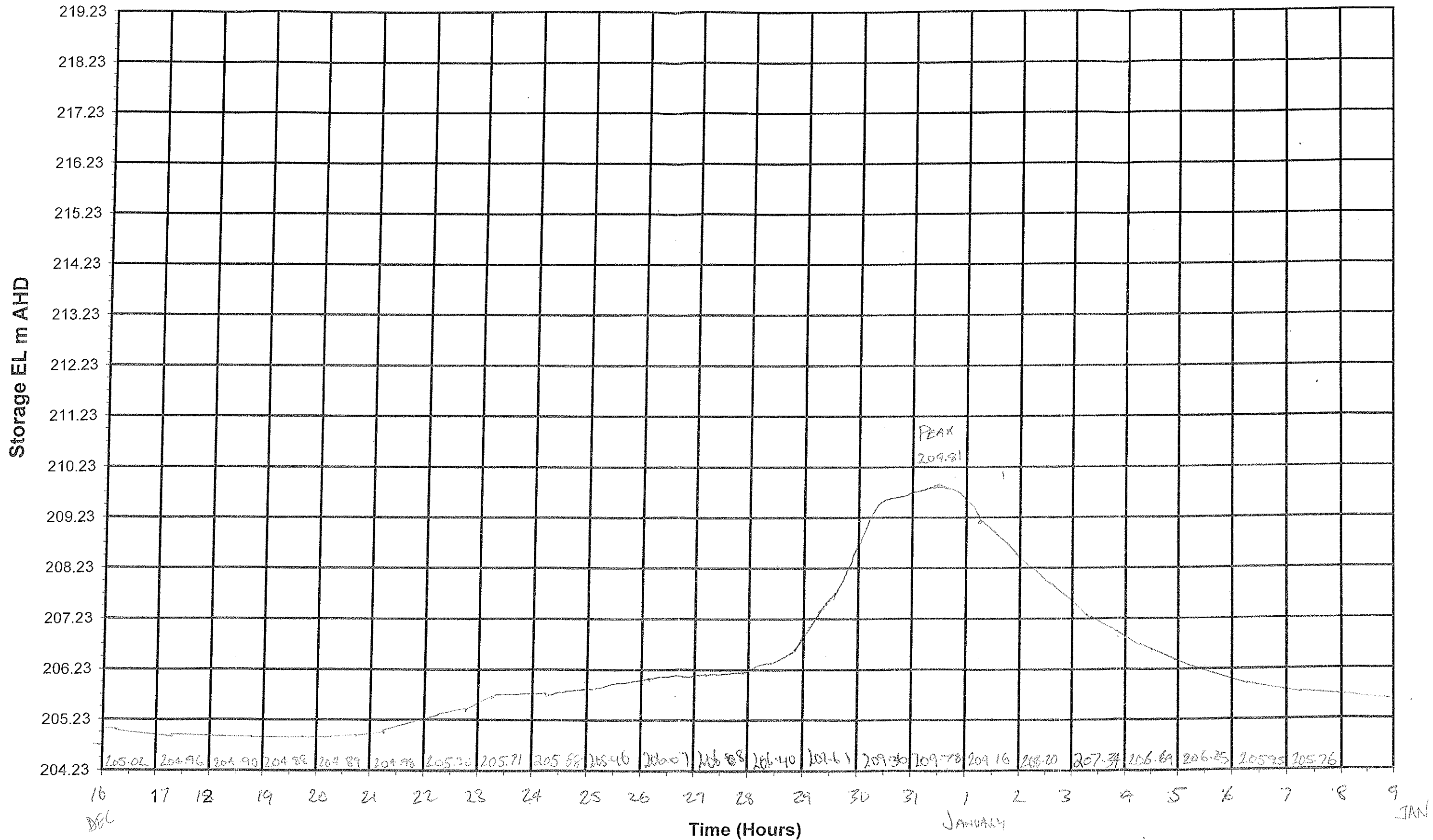
GRAPH COMMENCES 22 ^{Nov} DECEMBER 2010

STORAGE LEVEL AT SPILLWAY VERSUS TIME



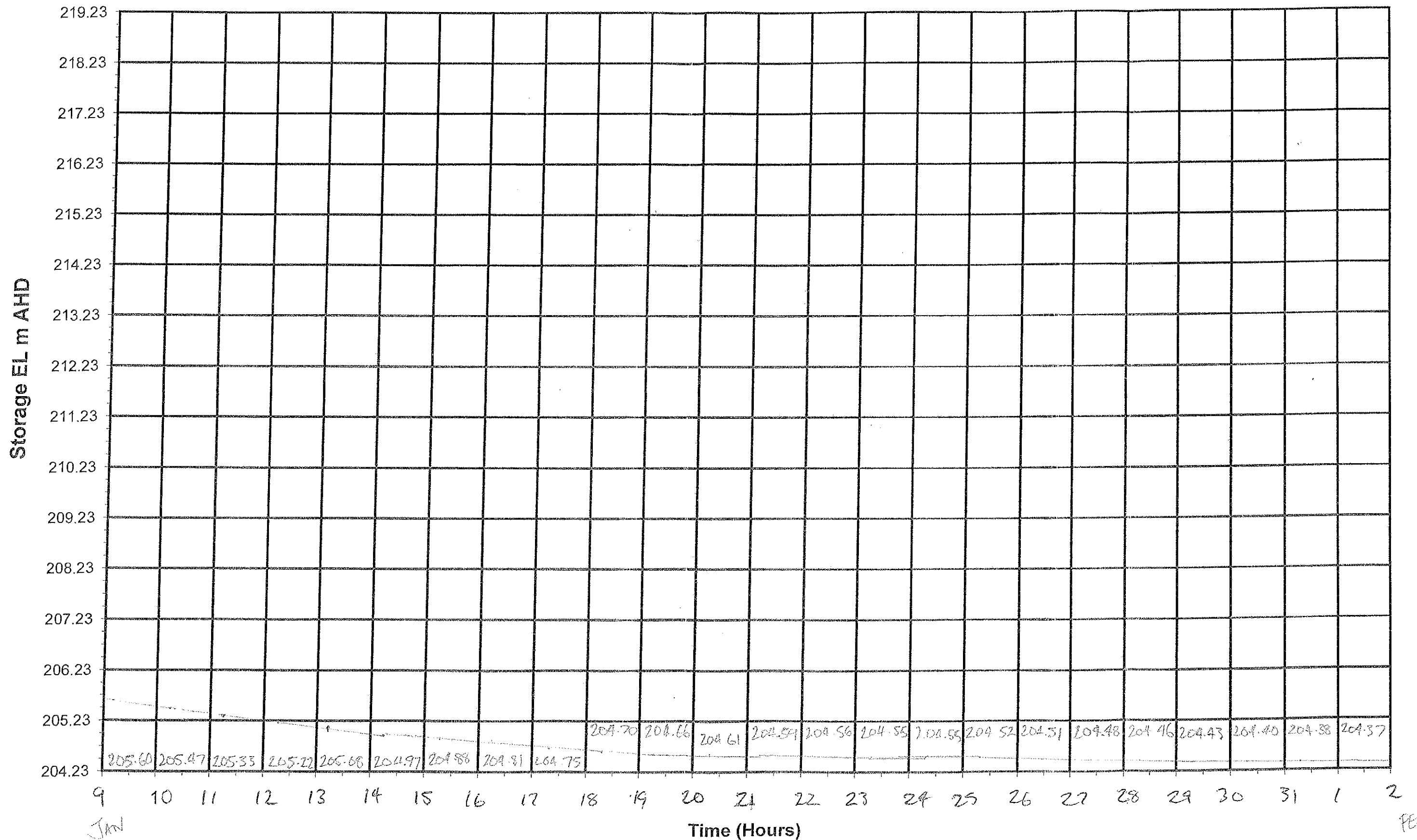
DECEMBER 16th to JANUARY 9th 2011

STORAGE LEVEL AT SPILLWAY VERSUS TIME



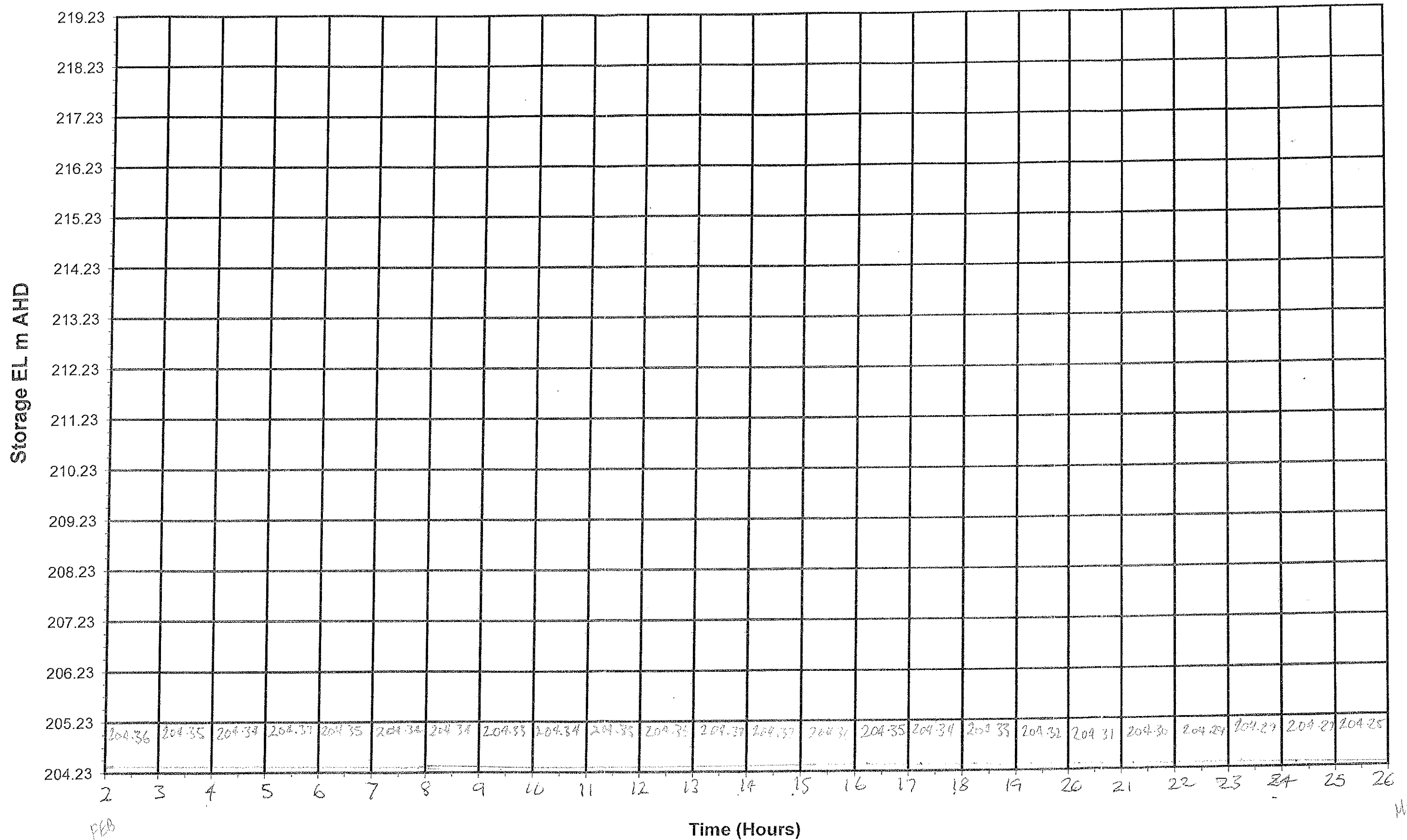
Commences 9th JANUARY TO 1st FEBRUARY

STORAGE LEVEL AT SPILLWAY VERSUS TIME



GRAPH COMMENCES 2nd FEBRUARY 2011

STORAGE LEVEL AT SPILLWAY VERSUS TIME



GRAPH PERIOD 26 NOVEMBER 2011 TO 1st MARCH 2011

STORAGE LEVEL AT SPILLWAY VERSUS TIME

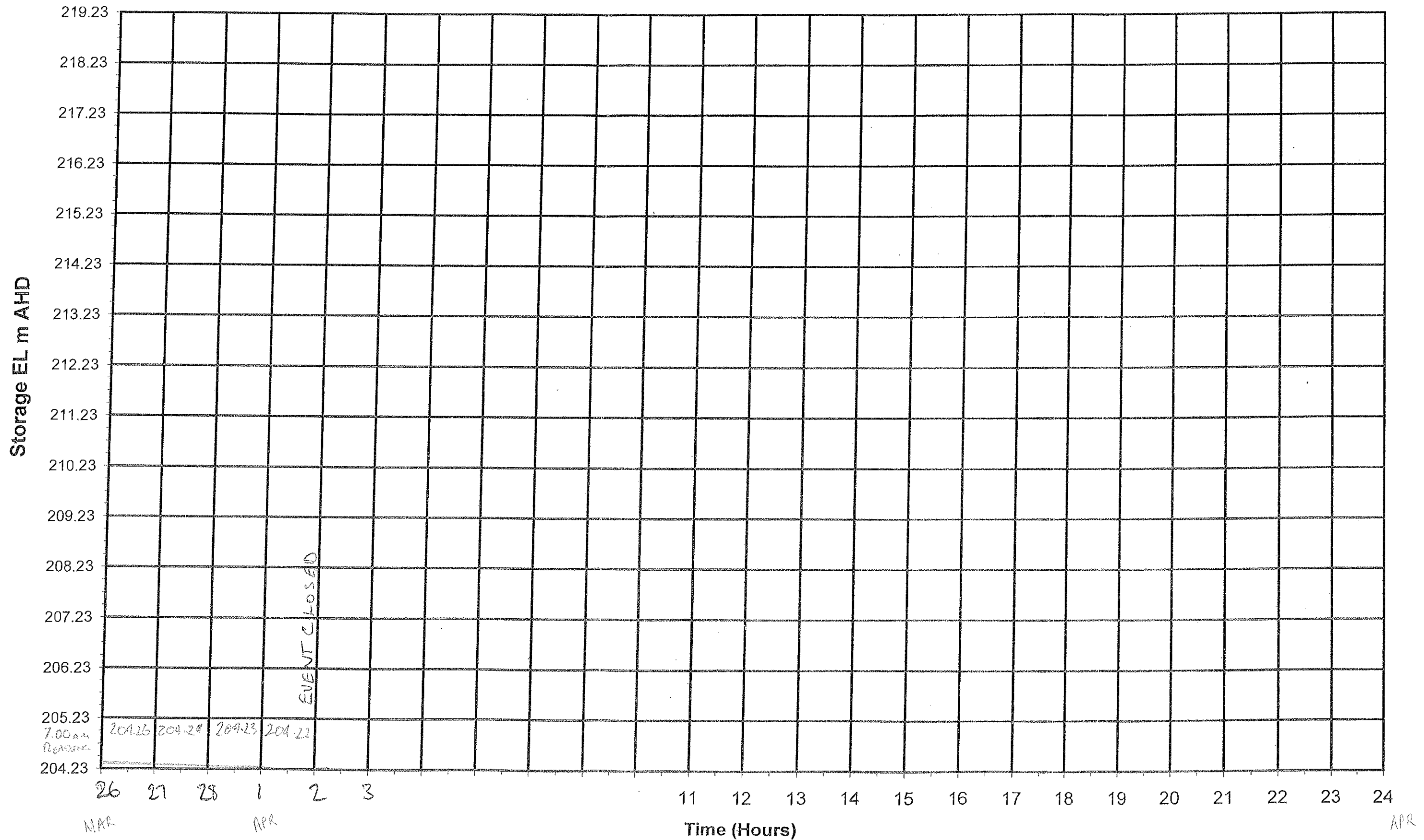


TABLE 1
RECORD OF RAINFALL AND WATER LEVEL DURING FLOOD EVENT

Date	Time	Rainfall mm	Daily Total	Comments
10-9-10	0730			EAP INITIATED
11-9-10	0800	0.5	0.5	LIGHT SHOWER FRIDAY AFTERNOON
19-9-10	0700	16mm	16	
20-9-10	0700	26.2	26.2	
21-9-10	0700	3.4	3.4	
23-9-10	0700	23.8	23.8	
24-9-10	0700	4	4	
25-9-10	0730	22.4	22.4	
26-9-10	0730	6.6	6.6	
27-9-10	0700	0.5	0.5	
28-9-10	0700	0.4	0.4	
29-9-10	0700	66	66	VERY HEAVY SHOWERS + THUNDERSTORMS OVERNIGHT
10-10-10	0700	4.4	4.4	
12-10-10	0700	1.6	1.6	
13-10-10	0700	1.0	1.0	
16-10-10	0700	10.4	10.4	
4-11-10	0700	2.2	2.2	
5-11-10	0700	4.4	4.4	
13-11-10	0700	6mm	6mm	
17-11-10	0700	69mm	69mm	
18-11-10	0700	42mm	42mm	
19-11-10	0700	1.2mm	1.2mm	
20-11-10	0700	8.2	8.2	
21-11-10	0700	34.8	34.8	
22-11-10	0700	2.2	2.2	
23-11-10	0700	0.5	0.5	
24-11-10	0700	1.2	1.2	
29-11-10	0700	4.4	4.4	
30-11-10	0700	8.0	8.0	

TABLE 1
RECORD OF RAINFALL AND WATER LEVEL DURING FLOOD EVENT

Date	Time	Rainfall mm	Daily Total	Comments
1-12-10	0700	2.6 _{mm}	2.6	
2-12-10	0700	1.0	1.0	
3-12-10	0700	163 _{mm}	163 _{mm}	
4-12-10	0700	5.2 _{mm}	5.2 _{mm}	
5-12-10	0700	0.5 _{mm}	0.5 _{mm}	
7-12-10	0700	6.4	6.4	
8-12-10	0700	0.4	0.4	
9-12-10	0700	0.3	0.3	
12-12-10	0700	7.0	7.0	
17-12-10	0700	5.6	5.6	
19-12-10	0700	22 _{mm}	22 _{mm}	
20-12-10	0700	10.5	10.5	
23-12-10	0700	32	32	
14-12-10	0700	8	8	
25-12-10	0700	27.6	27.6	
26-12-10	0700	18.6	18.6	
27-12-10	0700	29.0	29.0	
29-12-10	0700	.6	.6	
30-12-10	0700	0	0	
31-12-10	0700	1.2	1.2	
3-1-11	0700	5.4	5.4	
6-1-11	0700	12.4	12.4	
10-1-11	0700	2.0	2.0	
14-1-11	0700	1.6	1.6	
18-1-11	0700	3.5	3.5	
19-1-11	0700	0.8	0.8	
2-2-11	0700	3.8	3.8	
6-2-11	0700	44.2	44.2	
9-2-11	0700	9.0	9.0	

TABLE 1
RECORD OF RAINFALL AND WATER LEVEL DURING FLOOD EVENT

[illegible]

Rainfall Craigmore

Rainfall Craigmore gauging station

Date	Rainfall: mm
5.9.10	119
6.9.10	1
9.9.10	2
10.9.10	3
17.9.10	7
19.9.10	87
20.9.10	3
22.9.10	10
23.9.10	11
24.9.10	8
25.9.10	39
28.9.10	18
29.9.10	6
9.10.10	11
12.10.10	1
15.10.10	30
24.10.10	2
26.10.10	14
1.11.10	1
4.11.10	1
12.11.10	20
13.11.10	1
15.11.10	4
16.11.10	77
17.11.10	11
18.11.10	9
20.11.10	33
21.11.10	1
22.11.10	1
23.11.10	1
11.12.10	27
18.12.10	26
19.12.10	22

Rainfall Craigmore

22.12.10	35
23.12.10	8
24.12.10	3
25.12.10	23
26.12.10	21
27.12.10	50
30.12.10	1
4.1.11	1
5.1.11	7
18.1.11	16
20.1.11	5
1.2.11	1
5.2.11	5
8.2.11	13
9.2.11	1
19.2.11	4
21.2.11	3

Date	130216 EL @ 6am	130216 Capacity (ML) at 6am	130216 Flow (ML/day) at 6am	130216 Discharge for 24hr (ML)	130209 Flow for 24hrs (0:00:00 to 11:59:00) (ML)	CRAIGMORE 130209 Rainfall (mm)	Total estimated Inflow (130209*1.25)
1/09/2010	203.721	1225999.77	0.00	0.00	0.00	0	0
2/09/2010	203.717	1225419.73	0.00	0.00	0.00	0	0
3/09/2010	203.715	1225129.77	0.00	0.00	0.00	0	0
4/09/2010	203.706	1223825.46	0.00	0.00	0.00	9	0
5/09/2010	203.722	1226144.80	0.00	0.00	515.10	119	643.875
6/09/2010	203.908	1253250.45	0.00	0.00	10292.60	1	12865.75
7/09/2010	204.036	1272214.59	0.00	0.00	9937.80	0	12422.25
8/09/2010	204.136	1287119.72	0.00	0.00	8324.40	0	10405.5
9/09/2010	204.194	1295764.86	0.00	0.00	2301.60	2	2877
10/09/2010	204.199	1296510.08	0.00	28.70	1131.20	3	1414
11/09/2010	204.24	1302619.94	20.28	40.90	776.60	0	970.75
12/09/2010	204.239	1302470.96	39.09	43.90	569.70	0	712.125
13/09/2010	204.24	1302619.94	39.09	39.50	422.10	0	527.625
14/09/2010	204.242	1302917.91	43.72	43.50	545.30	0	681.625
15/09/2010	204.24	1302619.94	43.72	35.70	614.80	0	768.5
16/09/2010	204.237	1302172.99	36.37	31.10	408.40	0	510.5
17/09/2010	204.228	1300832.03	16.09	21.30	253.90	7	317.375
18/09/2010	204.238	1302321.98	17.42	10.20	179.70	0	224.625
19/09/2010	204.242	1302917.91	40.86	78.90	279.60	87	349.5
20/09/2010	204.443	1333259.07	1120.11	3172.50	19320.40	3	24150.5
21/09/2010	204.624	1360935.07	4079.99	7676.70	29099.00	0	36373.75
22/09/2010	204.842	1394651.39	8764.90	12734.90	26935.30	10	33669.125
23/09/2010	204.98	1416219.31	13628.47	16401.90	12424.60	11	15530.75
24/09/2010	205.042	1425967.75	16685.14	18112.60	16701.80	8	20877.25
25/09/2010	205.098	1434803.60	18603.48	21323.60	25088.90	39	31361.125
26/09/2010	205.218	1453833.62	21624.43	24437.30	30396.00	0	37995
27/09/2010	205.293	1465792.36	25093.09	27440.10	42794.70	0	53493.375
28/09/2010	205.391	1481493.79	28336.29	30782.90	20394.90	18	25493.625
29/09/2010	205.45	1490988.57	31370.79	31840.00	21794.70	6	27243.375
30/09/2010	205.403	1483422.36	31605.48	30459.20	25746.10	0	32182.625
1/10/2010	205.385	1480529.99	30322.64	29481.60	20837.40	0	26046.75
2/10/2010	205.342	1473632.30	29142.90	27435.80	10887.90	0	13609.875
3/10/2010	205.256	1459886.56	26708.48	23917.40	5033.40	0	6291.75
4/10/2010	205.137	1440974.14	22981.04	19867.30	2547.00	0	3183.75
5/10/2010	205.023	1422976.48	18961.17	16320.60	1657.40	0	2071.75
6/10/2010	204.931	1408540.72	15618.79	13484.30	1094.90	0	1368.625
7/10/2010	204.848	1395585.45	12954.11	11207.30	750.60	0	938.25
8/10/2010	204.769	1383313.19	10650.79	9244.30	566.10	0	707.625
9/10/2010	204.714	1374802.39	8851.71	7784.40	465.60	11	582
10/10/2010	204.667	1367551.35	7552.94	6673.90	403.20	0	504
11/10/2010	204.618	1360013.21	6401.07	5702.40	356.00	0	445
12/10/2010	204.589	1355562.18	5512.45	4994.10	318.60	1	398.25
13/10/2010	204.558	1350812.66	4868.57	4387.20	301.10	0	376.375
14/10/2010	204.529	1346377.49	4254.54	3850.90	358.30	0	447.875
15/10/2010	204.503	1342407.66	3719.39	3597.30	400.80	30	501
16/10/2010	204.508	1343170.61	3519.58	3489.90	785.50	0	981.875
17/10/2010	204.48	1338899.32	3260.93	2978.80	6610.10	0	8262.625
18/10/2010	204.489	1340272.01	3057.69	3350.00	7136.10	0	8920.125
19/10/2010	204.514	1344086.45	3418.99	3641.00	2923.50	0	3654.375
20/10/2010	204.505	1342712.81	3594.34	3439.10	2357.70	0	2947.125
21/10/2010	204.49	1340424.54	3346.36	3055.10	1449.90	0	1812.375
22/10/2010	204.478	1338594.30	3047.08	2774.80	904.10	0	1130.125
23/10/2010	204.459	1335697.32	2710.05	2391.60	573.90	0	717.375
24/10/2010	204.441	1332954.40	2331.99	2062.90	412.50	2	515.625
25/10/2010	204.422	1330061.50	1984.40	1727.00	328.50	0	410.625
26/10/2010	204.405	1327475.79	1673.30	1479.60	275.00	14	343.75
27/10/2010	204.388	1324893.19	1405.57	1247.00	238.10	0	297.625
28/10/2010	204.376	1323072.33	1195.01	1052.80	208.80	0	261
29/10/2010	204.361	1320799.09	1017.08	858.60	185.30	0	231.625
30/10/2010	204.347	1318680.54	841.64	702.70	159.20	0	199
31/10/2010	204.335	1316867.28	698.82	593.00	138.00	0	172.5
1/11/2010	204.323	1315056.67	579.72	503.50	122.20	1	152.75
2/11/2010	204.313	1313549.98	480.33	416.90	109.90	0	137.375
3/11/2010	204.299	1311444.13	384.39	322.80	100.50	0	125.625
4/11/2010	204.296	1310993.44	320.83	298.80	92.50	1	115.625
5/11/2010	204.292	1310392.82	297.14	270.60	87.30	0	109.125

Date	130216 EL @ 6am	130216 Capacity (ML) at 6am	130216 Flow (ML/day) at 6am	130216 Discharge for 24hr (ML)	130209 Flow for 24hrs (0:00:00 to 11:59:00) (ML)	130209 Rainfall (mm)	Total estimated Inflow (130209*1.25)
6/11/2010	204.283	1309042.81	256.18	220.30	83.50	0	104.375
7/11/2010	204.275	1307844.42	206.57	174.30	77.30	0	96.625
8/11/2010	204.266	1306498.15	162.84	130.20	69.70	0	87.125
9/11/2010	204.257	1305153.97	122.33	92.20	63.60	0	79.5
10/11/2010	204.25	1304110.00	91.11	63.60	58.70	0	73.375
11/11/2010	204.24	1302619.94	59.59	37.90	57.20	0	71.5
12/11/2010	204.232	1301428.03	30.74	43.50	53.50	20	66.875
13/11/2010	204.248	1303811.93	45.29	65.50	56.30	1	70.375
14/11/2010	204.244	1303215.90	61.74	44.20	76.70	0	95.875
15/11/2010	204.232	1301428.03	37.37	19.00	77.20	4	96.5
16/11/2010	204.225	1300384.95	10.46	3.70	99.20	77	124
17/11/2010	204.315	1313851.16	227.02	760.80	603.40	11	754.25
18/11/2010	204.526	1345919.12	2180.78	4090.70	501.40	9	626.75
19/11/2010	204.561	1351271.91	4256.24	4553.70	476.70	0	595.875
20/11/2010	204.562	1351425.01	4615.24	5109.30	762.80	33	953.5
21/11/2010	204.65	1364933.60	5596.16	6484.90	1500.80	1	1876
22/11/2010	204.646	1364318.04	6519.92	6403.30	1291.30	1	1614.125
23/11/2010	204.632	1362164.73	6311.01	5982.20	2010.40	1	2513
24/11/2010	204.605	1358016.97	5845.47	5495.30	1735.00	12	2168.75
25/11/2010	204.594	1356329.05	5421.77	5176.40	1382.00	0	1727.5
26/11/2010	204.574	1353262.93	5088.26	4686.10	1031.00	0	1288.75
27/11/2010	204.548	1349282.43	4607.90	4134.60	735.00	0	918.75
28/11/2010	204.52	1345002.62	4066.60	3745.00	424.00	0	530
29/11/2010	204.504	1342560.23	3642.01	3480.70	397.00	5	496.25
30/11/2010	204.504	1342560.23	3491.67	3395.90	568.00	8	710
1/12/2010	204.495	1341187.21	3395.42	3232.10	649.00	3	811.25
2/12/2010	204.481	1339051.83	3138.66	3069.70	1382.00	1	1727.5
3/12/2010	204.959	1412925.70	9007.10	23998.50	13109.00	0	16386.25
4/12/2010	205.747	1539278.07	30087.59	47501.10	70000.00	163	87500
5/12/2010	205.974	1576739.42	50372.27	57803.90	66000.00	0	82500
6/12/2010	206.107	1598903.36	59010.34	61664.90	40899.00	0	51123.75
7/12/2010	206.026	1585386.49	60300.12	55756.90	21505.00	6	26881.25
8/12/2010	205.836	1553909.63	53669.44	46981.80	13109.00	1	16386.25
9/12/2010	205.653	1523904.50	45075.74	38961.00	8736.20	0	10920.25
10/12/2010	205.475	1495021.40	37270.30	31752.50	5626.60	0	7033.25
11/12/2010	205.309	1468349.99	30304.54	25883.80	3750.60	27	4688.25
12/12/2010	205.191	1449540.63	24908.59	22002.00	7261.60	0	9077
13/12/2010	205.123	1438757.48	21565.09	20204.40	18483.90	0	23104.875
14/12/2010	205.112	1437017.07	20191.57	19872.70	14625.30	0	18281.625
15/12/2010	205.093	1434013.51	19683.17	18781.40	7973.40	0	9966.75
16/12/2010	205.031	1424235.55	18341.18	16722.30	6809.90	0	8512.375
17/12/2010	204.964	1413709.51	16255.90	14751.40	5450.10	0	6812.625
18/12/2010	204.904	1404319.32	14277.06	13254.40	3661.90	26	4577.375
19/12/2010	204.876	1399948.76	12950.30	12691.80	9286.80	22	11608.5
20/12/2010	204.894	1402757.57	12802.02	13387.80	37094.20	0	46367.75
21/12/2010	204.984	1416847.14	14443.03	17883.20	83111.70	0	103889.625
22/12/2010	205.272	1462438.93	20754.91	29324.60	94667.90	35	118334.875
23/12/2010	205.676	1527658.41	33843.84	44653.90	78861.70	8	98577.125
24/12/2010	205.877	1560674.38	46520.07	52348.00	65176.90	3	81471.125
25/12/2010	205.963	1574913.35	53061.63	56230.90	70852.80	23	88566
26/12/2010	206.069	1592554.88	57748.89	60639.60	47947.00	21	59933.75
27/12/2010	206.076	1593723.38	60599.74	66141.50	86974.80	50	108718.5
28/12/2010	206.405	1649144.11	69932.86	90940.50	350000.00	0	437500
29/12/2010	207.592	1857760.75	120401.00	205932.40	400000.00	0	500000
30/12/2010	209.351	2195028.25	243495.32	344649.90	280000.00	1	350000
31/12/2010	209.784	2283729.14	347961.15	356770.90	177744.80	0	222181
1/01/2011	209.159	2156432.99	338291.16	282893.90	55926.90	0	69908.625
2/01/2011	208.2	1970383.88	259888.76	193905.10	18980.10	0	23725.125
3/01/2011	207.341	1812410.03	177990.53	129968.40	14209.80	0	17762.25
4/01/2011	206.717	1702612.84	120241.25	90828.60	11721.50	1	14651.875
5/01/2011	206.265	1625439.02	84674.87	66676.70	15605.90	7	19507.375
6/01/2011	205.972	1576407.32	63256.11	52607.90	20120.70	0	25150.875
7/01/2011	205.764	1542067.18	50703.88	44899.20	31073.90	0	38842.375
8/01/2011	205.693	1530436.25	44320.37	41936.60	25170.70	0	31463.375
9/01/2011	205.606	1516249.01	40861.16	37585.00	12905.00	0	16131.25
10/01/2011	205.47	1494214.38	36160.15	31789.00	8926.40	0	11158

Date	130216 EL @ 6am	130216 Capacity (ML) at 6am	130216 Flow (ML/day) at 6am	130216 Discharge for 24hr (ML)	130209 Flow for 24hrs (0:00:00 to 11:59:00) (ML)	130209 Rainfall (mm)	Total estimated Inflow (130209*1.25)
11/01/2011	205.326	1471069.96	30523.88	26486.90	6955.70	0	8694.625
12/01/2011	205.198	1450653.01	25353.69	21978.30	4872.40	0	6090.5
13/01/2011	205.08	1431960.35	20963.97	18116.80	3594.90	0	4493.625
14/01/2011	204.984	1416847.14	17373.80	15029.40	2932.50	0	3665.625
15/01/2011	204.894	1402757.57	14443.03	12473.90	2633.30	0	3291.625
16/01/2011	204.821	1391384.77	12020.62	10466.10	2381.20	0	2976.5
17/01/2011	204.761	1382073.56	10166.81	8844.90	2164.90	0	2706.125
18/01/2011	204.704	1373257.93	8619.93	7578.80	2018.80	16	2523.5
19/01/2011	204.66	1366473.14	7342.51	6562.70	1997.20	0	2496.5
20/01/2011	204.622	1360627.75	6362.38	5657.30	1953.60	5	2442
21/01/2011	204.589	1355562.18	5557.51	5003.90	2549.10	0	3186.375
22/01/2011	204.56	1351118.82	4889.04	4498.90	6079.70	0	7599.625
23/01/2011	204.555	1350353.49	4533.39	4363.10	4843.30	0	6054.125
24/01/2011	204.547	1349129.45	4401.56	4184.90	3504.10	0	4380.125
25/01/2011	204.527	1346071.90	4123.81	3835.80	2707.70	0	3384.625
26/01/2011	204.508	1343170.61	3746.40	3412.80	2041.80	0	2552.25
27/01/2011	204.483	1339356.86	3294.46	2860.00	1576.70	0	1970.875
28/01/2011	204.458	1335544.89	2755.55	2351.10	1303.30	0	1629.125
29/01/2011	204.433	1331735.99	2247.88	1898.70	1143.50	0	1429.375
30/01/2011	204.409	1328083.94	1802.30	1506.40	1037.30	0	1296.625
31/01/2011	204.388	1324893.19	1437.41	1204.60	953.50	0	1191.875
1/02/2011	204.378	1323375.67	1208.40	1104.70	901.40	1	1126.75
2/02/2011	204.367	1321707.99	1067.38	902.60	879.40	0	1099.25
3/02/2011	204.349	1318982.99	889.54	767.10	909.60	0	1137
4/02/2011	204.344	1318226.99	756.11	695.10	883.50	0	1104.375
5/02/2011	204.331	1316263.44	663.12	700.70	842.30	5	1052.875
6/02/2011	204.359	1320496.25	747.67	826.30	859.80	0	1074.75
7/02/2011	204.347	1318680.54	829.67	745.40	837.90	0	1047.375
8/02/2011	204.339	1317471.42	718.99	676.50	982.60	13	1228.25
9/02/2011	204.335	1316867.28	656.51	655.90	3163.60	1	3954.5
10/02/2011	204.343	1318075.84	677.34	722.60	3180.70	0	3975.875
11/02/2011	204.348	1318831.76	745.28	817.70	5170.10	0	6462.625
12/02/2011	204.366	1321556.47	877.77	1007.40	3956.70	0	4945.875
13/02/2011	204.377	1323224.00	1054.41	1105.90	2512.60	0	3140.75
14/02/2011	204.376	1323072.33	1118.85	1028.10	1660.50	0	2075.625
15/02/2011	204.364	1321253.47	1035.35	902.80	1141.00	0	1426.25
16/02/2011	204.355	1319890.75	904.84	799.50	867.90	0	1084.875
17/02/2011	204.341	1317773.59	774.24	651.30	722.20	0	902.75
18/02/2011	204.327	1315659.90	628.45	536.10	633.90	0	792.375
19/02/2011	204.315	1313851.16	506.79	436.30	572.70	4	715.875
20/02/2011	204.307	1312646.96	422.06	380.90	529.40	0	661.75
21/02/2011	204.3	1311594.41	364.20	346.70	492.40	3	615.5
22/02/2011	204.295	1310843.25	320.99	286.90	464.90	0	581.125
23/02/2011	204.284	1309192.71	269.02	203.00	459.60	0	574.5
24/02/2011	204.269	1306946.68	194.63	131.20	981.90	0	1227.375
25/02/2011	204.258	1305303.22	131.18	103.40	935.70	0	1169.625
26/02/2011	204.258	1305303.22	107.46	79.70	647.60	0	809.5
27/02/2011	204.245	1303364.89	82.49	46.10	519.70	0	649.625
28/02/2011	204.24	1302619.94	49.04	25.00	455.70	0	569.625
1/03/2011	204.23	1301130.00	28.92	5.20	400.10	0	500.125

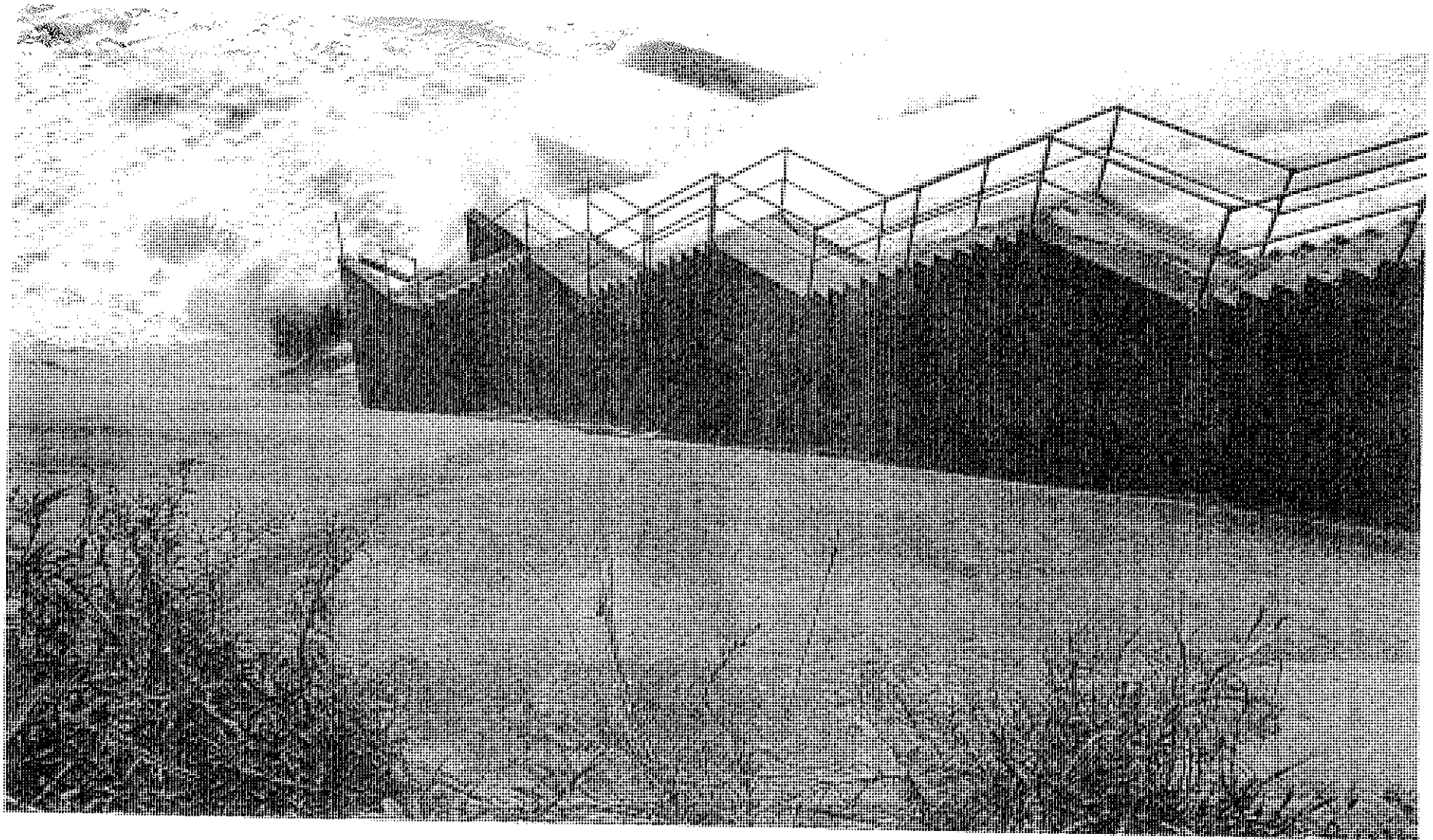
FAIRBAIRN DAM - EMERGENCY EVENT REPORT

Emergency Event Recording Sheets

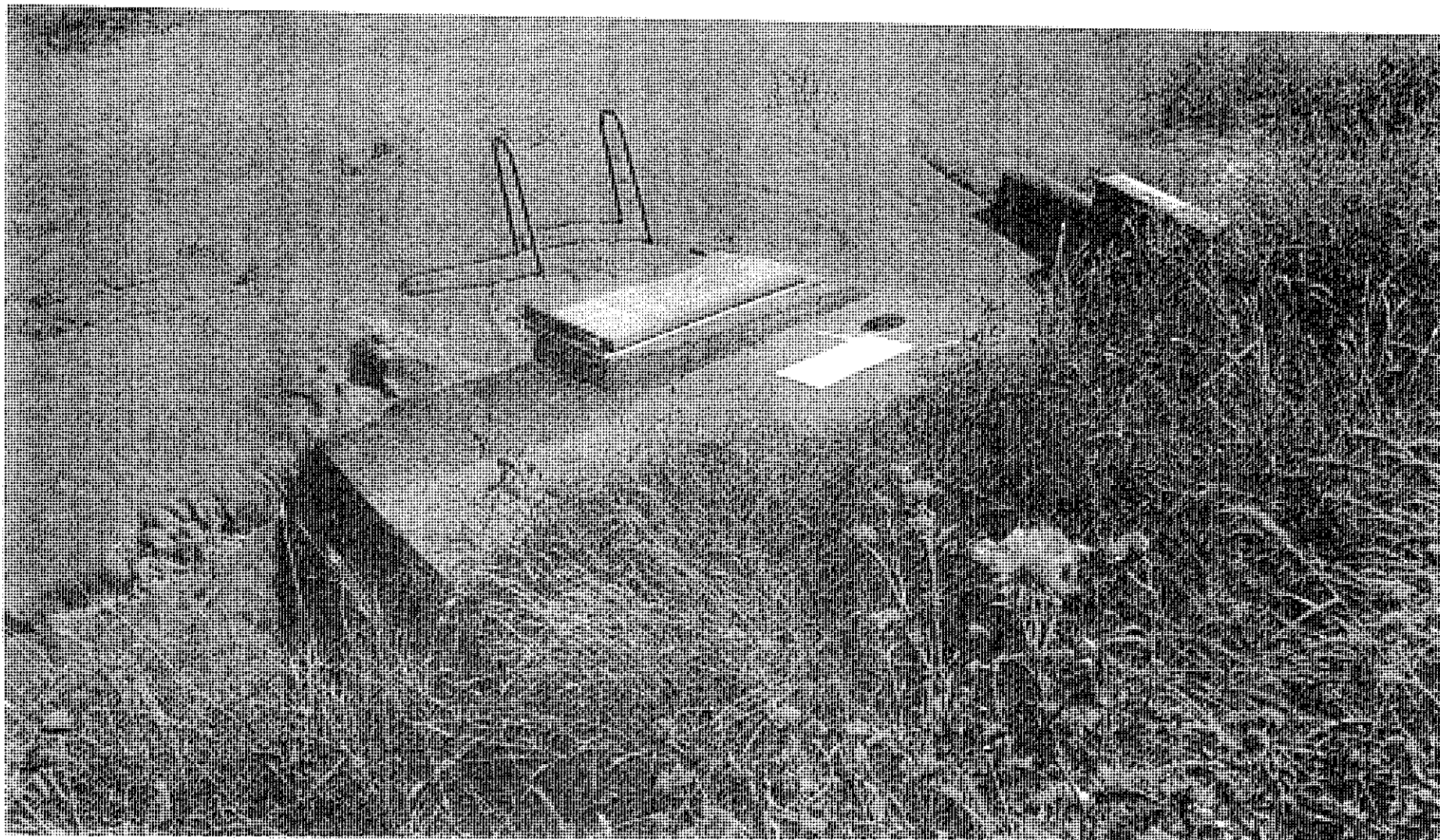
- **Description of Damage**

Some damage was sustained during the event and photos are included herewith. Left bank Siphon Actuator torn from mountings including deck and hand railing. Lower Piezometer pit flooded

Note: These sheets must be completed for all Emergency Event Scenarios and be included in the emergency Event Report

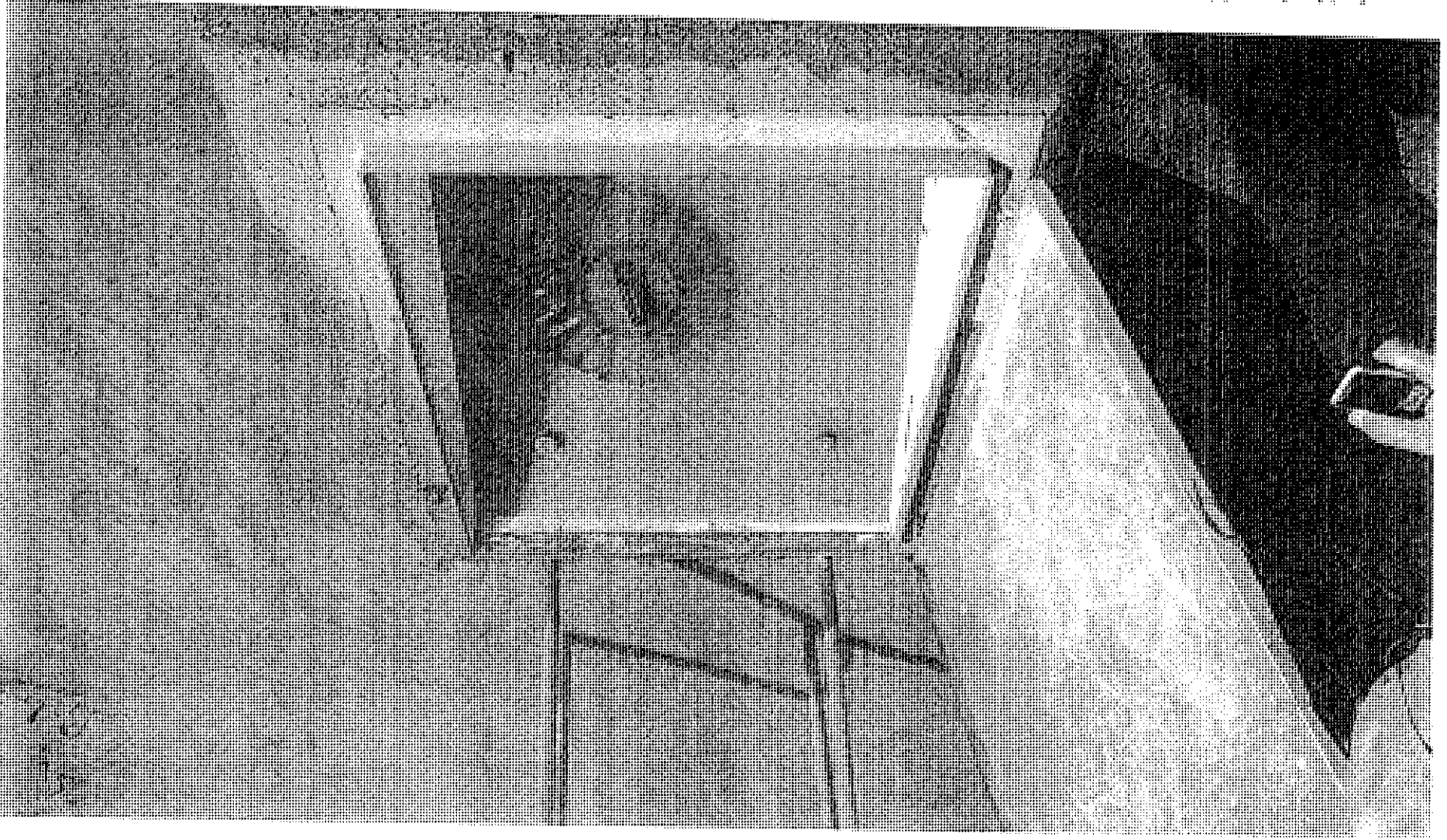


View of left bank siphon with missing Actuator, deck and handrails torn off by floodwaters



View of water flooding into lower Piezometer pit at peak of flood

Inside view of flooded Piezometer pit

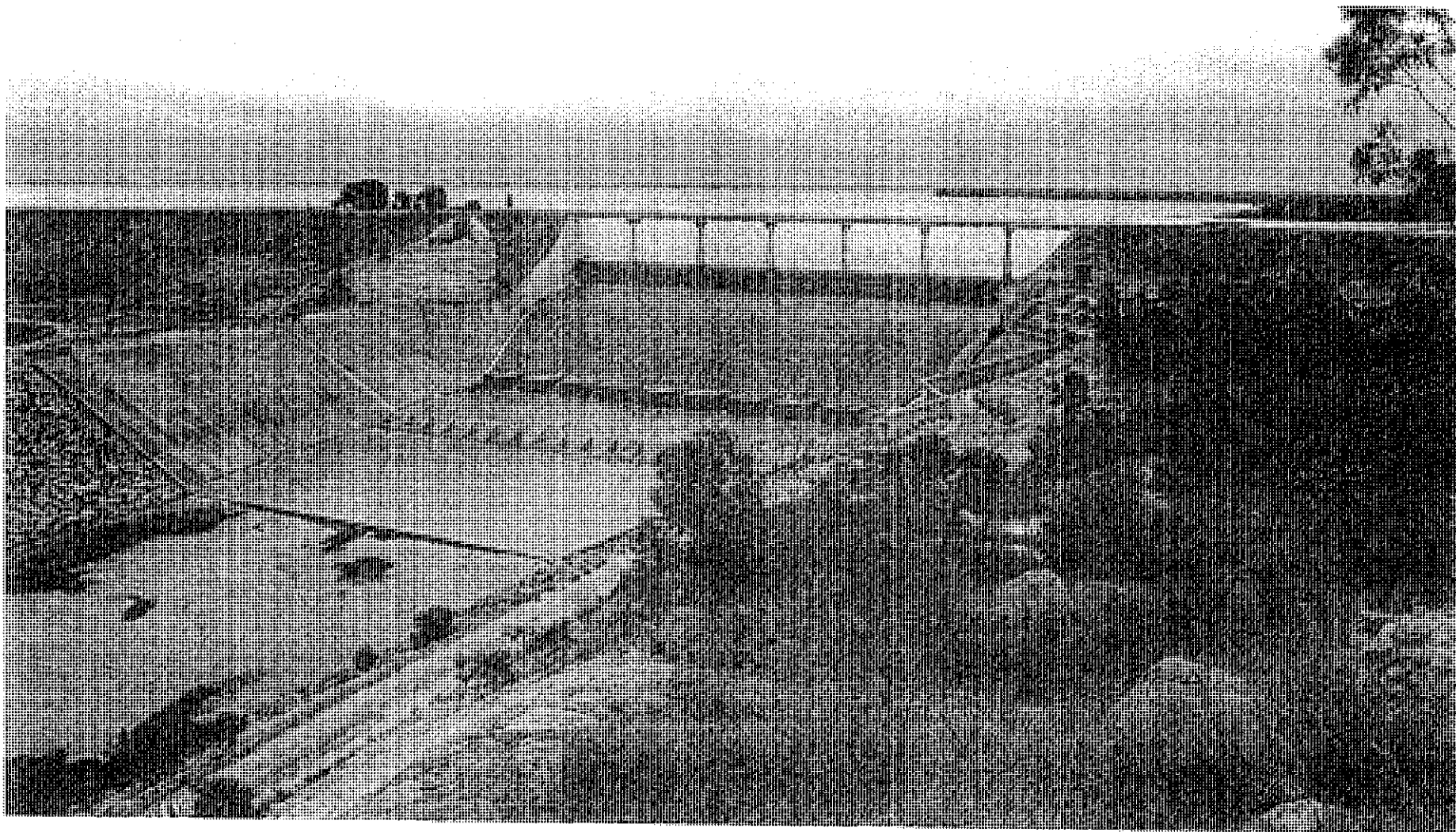


FAIRBAIRN DAM - EMERGENCY EVENT REPORT

Emergency Event Recording Sheets

- **Photos during and after the Event**

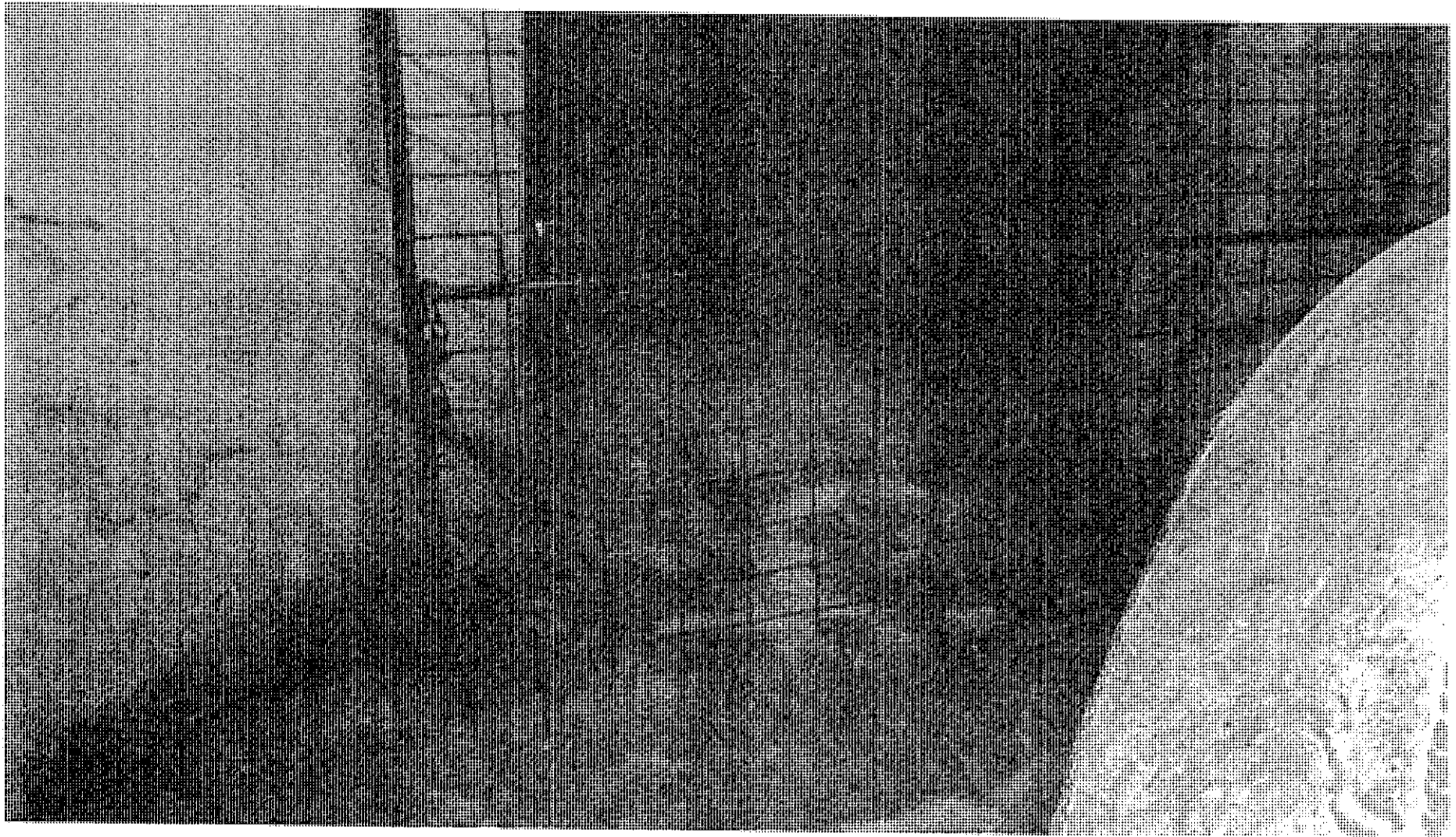
**Note: These sheets must be completed for all Emergency Event Scenarios
and be included in the emergency Event Report**



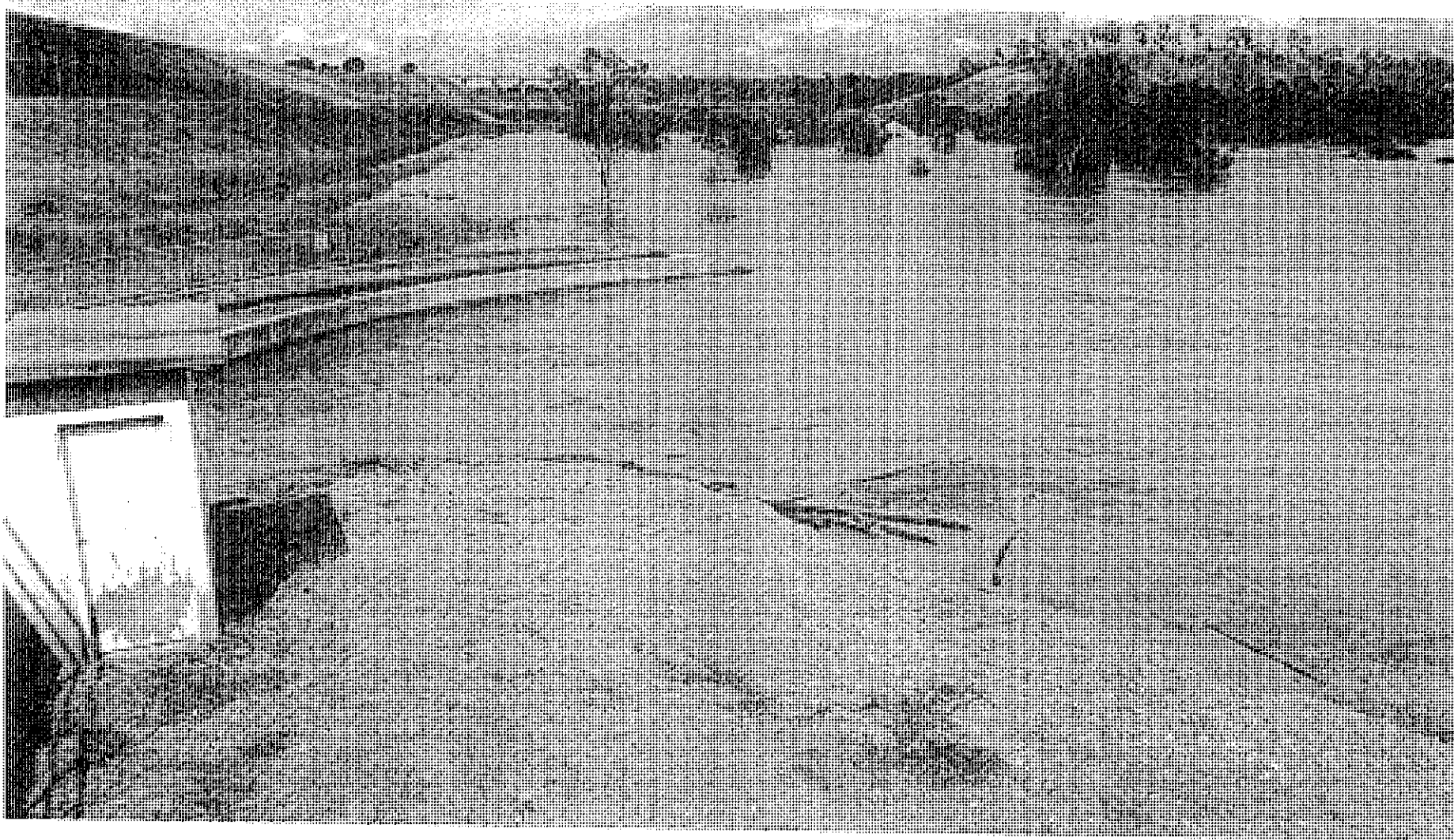
View of spillway 10.9.2010



View of spillway at peak of flood.



View showing leakage through inlet gate in Selma pump station coming out through drainage chute.



View showing flood waters backed up to landing beside bullring. (Right bank outlet works)

FAIRBAIRN DAM - EMERGENCY EVENT REPORT

Emergency Event Recording Sheets

- **Details of Communication**

Note: These sheets must be completed for all Emergency Event Scenarios and be included in the emergency Event Report

TELEPHONE & RADIO NOTIFICATION LIST

Central Office Management (Brisbane)					
TITLE/NAME	Phone Business	Phone Mobile	Phone A/H	Fax	Controlled Copy Holder Addresses
Chief Executive Officer (Peter Boettcher)					
Manager, Asset Management (Rob Keogh) 4					
Principal Engineer Dam Safety (Mal Halwala)					
Corporate Relations Manager (Olga Kakourakis)					
Media Advisor (Glenn Pfluger)					
A/Environmental Manager (Matthew Barret)					
Flood Operations Centre Duty Engineer/Senior Engineer					
Senior Engineer Headworks (Keith Ehm)					
Chief Civil Engineer (Peter Richardson)					
<div> <div>Controlled EAP Copy Holders shown numbered (e.g. 2) and shaded grey</div> <div>Note: All contacts required by the EAP are expected, in the first instance, to be by voice (phone) with email only used to confirm or provide additional details</div> </div>					

EMERGENCY ACTION PLAN - FAIRBAIRN DAM



Area Operations Centre – North (Eton) and Emerald Depot					
TITLE/NAME	Phone Business	Phone Mobile	Phone A/H	Fax	Controlled Copy Holder Addresses
Area Operations Manager (Tom Wallwork) 3					
Service Manager Emerald 2					
Emergency Event Coordinator (EEC)					
Operations Supervisor- Emerald					
Civil Supervisor –Emerald					
Storage Operator – Fairbairn Dam 1					
Standby Storage Operator - Fairbairn Dam					

Controlled EAP Copy Holders shown numbered (e.g. 2) and shaded grey

Note: All contacts required by the EAP are expected, in the first instance, to be by voice (phone) with email only used to confirm or provide additional details

Counter Disaster Groups					
TITLE/NAME	Phone Business	Phone Mobile	Phone A/H	Fax	Controlled Copy Holder Addresses
Disaster management group chairman - Central Highlands regional Council. (Peter Maguire) 6					
Coordinator – Disaster Management Central Highlands Regional Council (Bill Wilkinson / Bryan Ottone) 7					
Emergency Management Queensland State Disaster Management Group 11					
Regional Director Emergency Management Queensland (Duty Officer) 10					
Chemical Hazards Local Fire Brigade Unit	000	112	000	-	
Police					
Police Communication Centre – (24 hrs)					
District Disaster Coordinator (Rockhampton) 9					
Emerald Police 8					
State Emergency service Emerald					
State Emergency Service Blackwater					

Controlled EAP Copy Holders shown numbered (e.g. 2) and shaded grey

Note: All contacts required by the EAP are expected, in the first instance, to be by voice (phone) with email only used to confirm or provide additional details

EMERGENCY ACTION PLAN – FAIRBAIRN DAM



Department of Environment and Resource Management (DERM)					
TITLE/NAME	Phone Business	Phone Mobile	Phone A/H	Fax	Controlled Copy Holder Addresses
Director Dam Safety (Water Supply) - DERM, (Peter Allen) 5				-	
Principal Engineer Dam Safety, (Ron Guppy)				-	
National Security Hotline – 1800 123 400					
Stream Gauging Stations					
Headwater (Storage)Level Recorder	No Phone Connection (Computer Link only)	-	-	-	SunWater Station-
Craigmore	No Phone Connection (Computer Link only)	-	-	-	SunWater Station-
Theresa Ck	No Phone Connection (Computer Link only)	-	-	-	SunWater Station-
		-	-	-	
2 Way Radio					
SunWater (Emerald Depot)					

Controlled EAP Copy Holders shown
numbered (e.g. 2) and shaded grey

Note: All contacts required by the EAP are expected, in the first
instance, to be by voice (phone) with email only used to confirm or
provide additional details

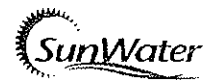
EMERGENCY ACTION PLAN – FAIRBAIRN DAM



Affected Property Owners – Weemah Side					
TITLE/NAME	Phone Business	Mobile Phone	Home Phone	Fax	Address Lot/Plan
Pacific Century					
Sampson					
Ranclaud					
Moriarty J.					
Mattingly D.					
Black T.					
Slack G.					
Cusack J.					
2PH Farms					
Campbell J. & J.					
Cordoma J.					
Barry S.					
Esmond S. & M.					
Cotterall P.					

Affected Property Owners – Selma Side					
TITLE/NAME	Phone Business	Mobile Phone	Home Phone	Fax	Address Lot/Plan
Single P. & G.					
Vendersee					
Hales D. & M.					
Smith M. & B.					
Reimers P.					

EMERGENCY ACTION PLAN - FAIRBAIRN DAM



Affected Property Owners - Selma Side - Continued					
TITLE/NAME	Phone Business	Mobile Phone	Home Phone	Fax	Address Lot/Plan
Genesis Pty. Ltd.					
Wildermuth L. & P.					
Cupper S					
Thomasson L. & P.					
Klements					
Pike R.					
Ross J. & J.					
Williams E.					
Pilkington W. & S.					
Kirby Helen					
Bray P.					
Iddles M.					
Scarpelli / Ineson					
Pressler C.					
Lennon John					
Cameron D. & S.					
Tyler D.					
Serek T. & N.					
Leonard K.					
Marsh B.					
Carson D.J.					
Ostle Amanda					
Walter John and M.					
Lewis R.M. & L.A.					
Watt H. (Aero Pro)					


EMERGENCY ACTION PLAN - FAIRBAIRN DAM

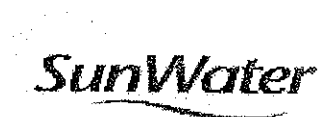
FAIRBAIRN DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

DATE	TIME	CONTACT PERSON / TELEPHONE NO.	CALL IN / OUT	MESSAGE	RECORDED BY (INITIALS)
10-9-10	0730	R. BOON P. COLLETT	OUT	CALLED IN TO ADVISE RIGHT BANK TOWER SHUT DOWN - DAM E.L. 204.24	
19-9-10	7.30	R. BOON	OUT	Collected Advised EL 204.24	
				and Received 16mm Rain	
20-9-10	8.30	Peter Collett	OUT	Collected and Advised we had 26.2mm	
				and EL at 204.45	
18-11-10	10.00	EEL NOTIFICATION	OUT	ADVISE CURRENT SITUATION	
3-12-10	2.30pm	EEL NOTIFICATION	OUT	ADVISE OF LARGE INCREASE IN E.L.	
4-12-10	10.35 AM	EEL NOTIFICATION	OUT	UPDATE CURRENT SITUATION	
5-12-10	10.56am	EEL NOTIFICATION	OUT	UPDATE CURRENT SITUATION	
6-12-10	9.28am	EEL NOTIFICATION	OUT	" " "	
7-12-10	9.10	" "	"	" " "	
8-12-10	10.45	" "	"	" " "	
9-12-10	0730	" "	"	" " "	

EMERGENCY ACTION PLAN - FAIRBAIRN DAM

FAIRBAIRN DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

DATE	TIME	CONTACT PERSON / TELEPHONE NO.	CALL IN / OUT	MESSAGE	RECORDED BY (INITIALS)
20-12-10	0745	ROBEN BOON	IN	ROBEN CALLED TO ADVISE THAT A LOT OF RAIN AT BACK OF CATCHMENT	
21-12-10	0830	ROBEN BOON	IN	FLOWES COULD REACH 1.8m OVER SPILLWAY	
23-12-10	0730	ROBEN BOON	IN	ADVISED DAM WAS RISING AT 2am hour - EEC NOTIFICATION	
29-12-10	1100	PAUL JENSEN	IN	LOWER PIEZOMETERS NOT READING	
1-3-11	1100	KERRY JONES	OUT	ADVISED DAM E.L. DROPPED TO 209.22 @ 7.30 AM	



MAKING WATER WORK

SunWater advice on Fairbairn Dam

20 Sep 2010

Advice No.2

Date and Time: 20/09/2010 - 3:45pm

Water Storage: Fairbairn Dam

Location: Emerald

Dam Level: 100%

Full Supply Level: 1,301,000 megalitres

Event/Issue: Increased Spillway Overflow

As owner and operator of Fairbairn Dam SunWater is advising of an increase in spillway overflow.

SunWater is advising that significant inflows into the Fairbairn Dam catchment resulted in the dam overflowing last week.

Dam water storage levels are currently 24cm/m above the spillway crest and discharging at a rate of approximately 2824ML per day.

Inflow monitoring data indicates the spill will remain steady over the next 48 hours which is well within the dam's design parameters.

SunWater will continue to monitor the overflow event and take all necessary action under the dam's normal operating guidelines.

SunWater has contacted all relevant local authorities to advise them of the spillway overflow and will continue to liaise with them as required.

SunWater will provide further updates on the spillway overflow once more information is gathered and assessed.

Media Enquiries

Glenn Pfluger

Media Advisor





MAKING WATER WORK

SunWater advice on Fairbairn Dam

21 Sep 2010

Advice No.3

Date and Time: 21/09/2010 - 1:45pm

Water Storage: Fairbairn Dam

Location: Emerald

Dam Level: 100%

Full Supply Level: 1,301,000 megalitres

Event/Issue: Increased Spillway Overflow

As owner and operator of Fairbairn Dam SunWater is advising of an increase in spillway overflow.

SunWater is advising that significant inflows into the Fairbairn Dam catchment resulted in the dam overflowing last week.

Dam water storage levels are currently 57cm above the spillway crest and discharging at a rate of approximately 7800ML per day.

Inflow monitoring data indicates the spill will increase at a rate of 1cm per day over the coming days which is well within the dam's design parameters.

SunWater will continue to monitor the overflow event and take all necessary action under the dam's normal operating guidelines.

SunWater has contacted all relevant local authorities to advise them of the spillway overflow and will continue to liaise with them as required.

SunWater will provide further updates on the spillway overflow once more information is gathered and assessed.

Media Enquiries

Glenn Pfluger

Media Advisor





MAKING WATER WORK

SunWater dams safely passing flood water

19 Dec 2010

Unprecedented and continued rain across Queensland has resulted in the filling and overflowing of almost all SunWater's bulk water storages across the State.

SunWater General Manager Infrastructure Management Barry Jeppesen said that SunWater staff have been working round the clock monitoring and operating SunWater's Dams in Flood Operations Mode.

"During a flood event a range of different organisations play their part in the management, monitoring, reporting or minimisation of flood impacts."

"SunWater's responsibility during flood events is to manage and operate its dams and weirs in accordance with established operational guidelines."

"SunWater's Dams have been designed to safely pass flood water through their purpose built spillways," Mr Jeppesen said.

"SunWater also has gated dams and with these dams, during a flood event, the gates are open and a controlled release of water is passed through the gates."

"Our staff are on site at all our dams regularly monitoring and undertaking operational activities as required during these extreme weather events."

"All of our dams are designed to safely pass water over the spillway when the dam's water storage is above full capacity and there are no concerns associated with the safety of any of our dams. They are operating as they should and are safely passing the floodwaters," Mr Jeppesen said.

SunWater will continue to monitor inflows into its dams' catchments and based on that data will operate its dams in line with established dam operating guidelines.

SunWater is in constant contact with all relevant local authorities to advise them of the water release and the course of action being taken and will continue to liaise with them and other stakeholders as required.

Summary of SunWater Dam Levels as at 29 December 2010

Region	Dam	Percentage full	Megalitres per day being passed or released
Far North QLD	Tinaroo Falls Dam	102.7%	2,335
	Peter Faust Dam	108.8%	1,694
	Burdekin Falls Dam	154.2%	578,824
	Julius Dam	81.5%	0
North QLD	Eungella Dam	103%	1,901
	Kinchant Dam	96.5%	1,065
	Teemburra Dam	103%	2,426
	Fairbairn Dam	151.6%	213,208
Central QLD	Callide Dam	89.3%	0
	Kroombit Dam	105.3%	1,141
	Cania Dam	101.6%	71
	Fred Haigh Dam	141.1%	56,123
	Wuruma Dam	120.2%	33,395
	Paradise Dam	156%	770,000
	Bjelke-Petersen Dam	131.3%	28,563
	Boondoomba Dam	118.7%	48,936

South West QLD	Leslie Dam	90.8%	0
	Coolmunda Dam	103.4%	839
	Beardmore Dam	100.8%	54,000

Media Enquiries

Glenn Pfluger
Media Advisor





MAKING WATER WORK

New record for Fairbairn Dam

31 Dec 2010

Fairbairn Dam reached a new record last night with water flowing over the spillway more than one meter over the previous record.

SunWater Acting Service Delivery Manager Neil Farrell said, the peak overflow at the dam was reached at around Midnight on Thursday 30 December 2010, where the water was recorded at 5.58 metres above the spillway.

"At the time Fairbairn Dam was 176% capacity at EL209.81, holding around 2,289,129 ML and discharging 373,016 ML per day," Mr Farrell said.

"The previous peak event was on the 22 January 2008. The corresponding peak level was 4.44 m above the dam's Full Supply Level (EL208.67 m AHD) with an associated volume of 2,060,200 ML. This is equivalent to a volume of 158.3% capacity," he said.

As at Friday 31 December Fairbairn Dam was at 175% (EL 209.78) or 5.55m above the spillway holding 2,282,899 ML and discharging 370,650 ML/day, with the levels receding at a rate of 0.01m/hr.

The dam's total capacity at crest level is 1.3 million megalitres and its catchment takes in 16,000 square km.

SunWater said the inflows were the highest on record for the dam and it was continuing to monitor major inflows into the catchment.

SunWater Acting Area Operations Manager, North Region, Ross Wheeler said SunWater's Dams have been designed to safely pass flood water through their purpose built spillways.

"Our staff are on site at the dam 24 hours a day regularly monitoring and undertaking operational activities as required during these extreme weather events," Mr Wheeler said.

SunWater will continue to monitor inflows into the dams catchments and based on that data will operate its dams in line with established dam operating guidelines.

SunWater is in constant contact with all relevant local authorities to advise them of the water passing through the spillway, and will continue to liaise with them and other stakeholders as required.

Summary of SunWater Dam Levels as at 31 December 2010

Region	Dam	Percentage full	Megalitres per day being passed or released
Far North QLD	Tinaroo Falls Dam	103.3%	3,263
	Peter Faust Dam	108.0%	4,727
	Burdekin Falls Dam	152.4%	553,617
	Julius Dam	81.6%	0
North QLD	Eungella Dam	105.9%	5,516
	Kinchant Dam	98.1%	0
	Teemburra Dam	104.1%	4,100
	Fairbairn Dam	175.8%	370,650
Central QLD	Callide Dam	92.1%	0
	Kroombit Dam	101.9%	1,621
	Cania Dam	101.9%	Reading not available at this time
	Fred Haigh Dam	129.8%	34,868
	Wuruma Dam	107.3%	7,874
	Paradise Dam	142%	343,089
	Bjelke-Petersen Dam	117.5%	12,119

	Boondoomba Dam	107.2%	11,256
South West QLD	Leslie Dam	91.8%	0
	Coolmunda Dam	103.2%	Reading not available at this time
	Beardmore Dam	101.1%	108,697

Media Enquiries

Glenn Pfluger
Media Advisor





CQ dam overflows

SunWater promises catchment will hold water

EMERALD: The Fairbairn Dam near Emerald is at full capacity and overflowing.

SunWater said significant inflows had resulted in the dam overflowing from 7.30am yesterday morning at the rate of 26 million litres a day.

The overflow is ex-

pected to continue at that rate for the next few days, and SunWater has advised that it is within the dam's design perimeters.

River levels at Emerald will remain well below minor flood level according to the Australian Bureau of Meteorology.

SunWater will continue to monitor the overflow and has contacted all relevant local authorities.

It said it would provide further updates as more information became available.

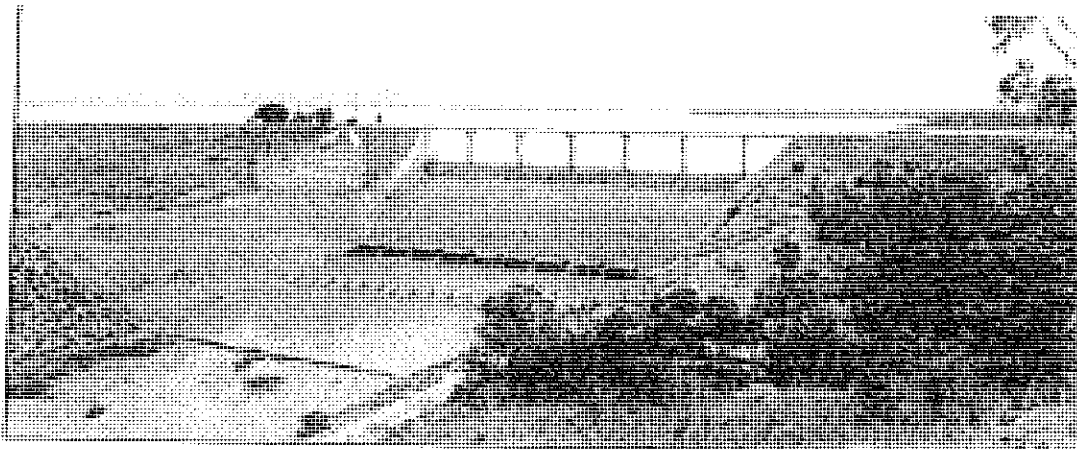
River levels along the Fitzroy River to Rockhampton were

expected to remain well below minor flood level during this week and into next week.

Minor flooding continues along the Dawson River between Isla Delusion Crossing and Knebworth.

CENTRAL QLD RIVER LEVELS

- Nogoa River at Fairbairn Dam: Height: .001m
Measured: Noon Friday, Flow: Steady
- Dawson River at Moura Weir: Height: 1.13m,
Measured: Noon Friday, Flow: Steady
- Comet River at Comet Weir: Height: 3.90m,
Measured: 4pm Friday, Flow: Falling
- Fitzroy River at Riverslea: Height: 5.38m,
Measured: 4pm Friday, Flow: Steady
- Mackenzie River at Riley's Crossing: Height:
5.99m, Measured: 2pm Friday, Flow: Falling



OVERFLOWING: The Fairbairn Dam in Emerald is overflowing at the rate of 26 million litres a day.

PHOTO: SUPPLIED



Dam spillway trickles over

First time in 32 years for a September overflow

By DI STANLEY

UNSEASONAL rain triggered a rare event in the history of the Fairbairn Dam when one centimetre of water trickled over the spillway at 7.30am last Friday.

It was on September 7, 1978, when the dam was just four-years-old, that the spillway last crested in spring.

It peaked to 30cm on September 12 and it was all over by October 10, according to SunWa-

ter records.

Currently, the storage water level remains at one centimetre above the spillway and is discharging at a rate of 26 megalitres per day.

When the rain band passed through the Central Highlands during the weekend of September 4 and 5, falls as high as 160mm were recorded on properties surrounding the dam and the Orion district.

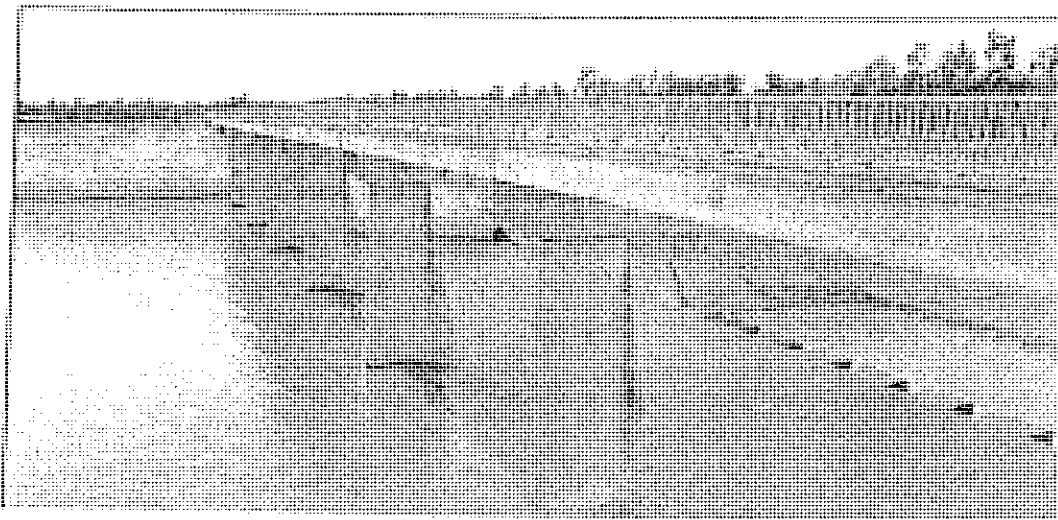
Weatherzone.com.au synoptic charts for the remainder of

the week, show more heavy rain is on the way as a trough passes through the region.

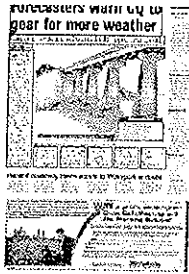
It is predicted to bring falls up to 40mm on Friday and Saturday.

Emerald and the Highlands sweltered yesterday as temperatures peaked in the low-30s before the onset of a southerly change.

A spokesperson said SunWater will continue to monitor the dam overflow event.



OVERFLOWING: Fairbairn Dam spills over after heavy rain hit the region recently.



Morning Bulletin

22-Sep-2010

Page: 8

General News

By: Emma McBryde[And Adrian Taylor

Market: Rockhampton QLD

Circulation: 18036

Type: Regional

Size: 482.89 sq.cms

Frequency: MTWTFSS-

Forecasters warn CQ to gear for more weather

Rain next week and substantial falls tipped next month

By **EMMA MCBRYDE AND ADRIAN TAYLOR**

THE risk of flooding has reduced, but Rockhampton and Central Queensland can expect more wet weather until the middle of next week.

And forecasters are predicting further rainfall in October with a high chance of substantial rain activity in the middle of the month.

Although the Rockhampton region escaped the worst of the storms that swamped Mackay and isolated both Proserpine and Airlie Beach on Monday, Rocky has already received double its

average September rainfall while Biloela has set a new record with 132mm in the first 20 days.

It's a stark contrast to the same period last year when Capricornia was suffering a dry spell ahead of the worst bushfire season in memory.

There's little chance of a repeat of those destructive fires for the rest of this year as Bureau of Meteorology climate scientist Jeff Sabburg predicts above-average rainfall for the region in October and November.

It's already the wettest September in Rockhampton since 1998, with more to come.

The average for rainfall in Rocky to September is 578mm. The city has enjoyed 629mm so far.

Rockhampton senior forecaster Mike Marrihan said yesterday he expected rain overnight and today, with lighter falls on Thursday and Friday.

Shower activity will dampen the weekend across Capricornia and the Central Highlands.

Maximum temperatures are expected to rise from 25 degrees

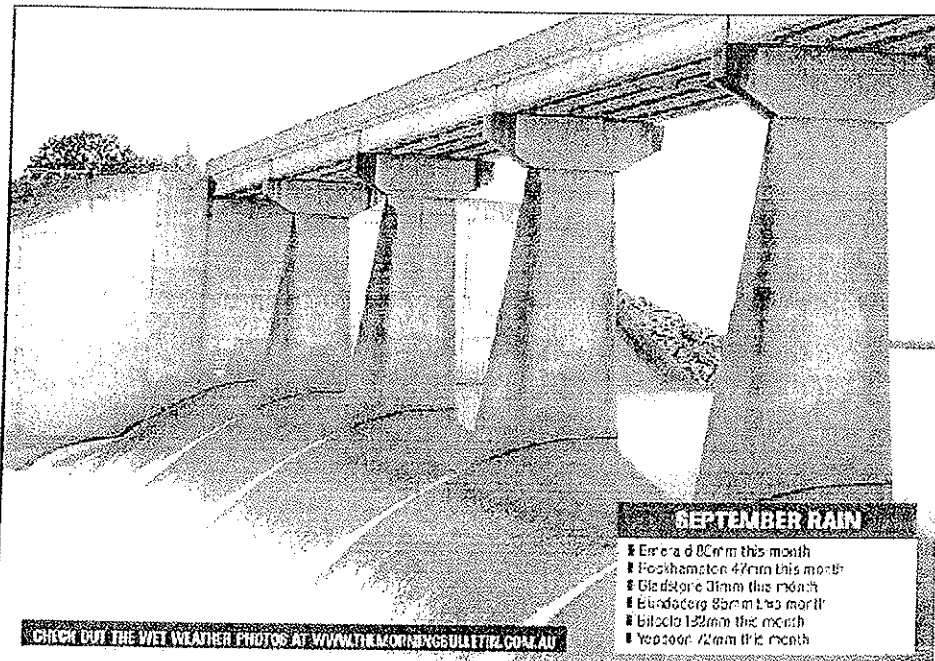
today to 27 degrees on Friday and for the weekend, with the constant risk of a shower throughout.

The leaden skies across Central Queensland have caused rejoicing in rural communities and farming areas.

And Fairbairn Dam at Emerald is spilling in September for the first time since 1978.

The dam is currently discharging 7800 megalitres per day over its spillway.

■ PAGE 11: Crops ruined.



CHECK OUT THE WET WEATHER PHOTOS AT WWW.MORNINGBULLETIN2.COM.AU

SEPTEMBER RAIN

- Emerald 629mm this month
- Rockhampton 477mm this month
- Gladstone 31mm this month
- Bundaberg 85mm this month
- Biloela 132mm this month
- Yeppoon 42mm this month

DAM FULL: Emerald's Fairbairn Dam is spilling in September for the first time since 1978.

PHOTO: SUPPLIEE



24-Sep-2010

Page: 1

General News

By: Di Stanley

Market: Emerald QLD

Circulation: 4875

Type: Regional

Size: 662.84 sq.cms

Frequency: --W-F--

WET! WET! WET!

But don't panic yet

By DI STANLEY

DAYS of rain across the Central Highlands have left road surfaces slick and saturated with closures starting to affect traffic flow in and out of major towns.

With the inclement weather set to continue and heavy falls predicted into the weekend, Central Highlands Regional Council Mayor Pe-

ter Maguire is calling for calm heads to prevail against fears of a repeat of widespread flooding in the region.

Yesterday, the Blackwater-Rolleston Road remained closed, as were roads on the Gemfields, and the Capricorn Highway from Anakie to Alpha which was cut at the Belyando River crossing.

"We are monitoring the situation

and there's a lot of water around, but no real problems yet," said Cr Maguire.

"We are expecting the dam spillway to reach about one metre in coming days.

"With the dam full, we've been going around checking drains in

Continued page 2



■ ACCESS DENIED: The John Gay Bridge was closed to traffic yesterday morning after a two-car collision in the wet.

24-Sep-2010

Page: 1

General News

By: Di Stanley

Market: Emerald QLD

Circulation: 4875

Type: Regional

Size: 662.84 sq.cms

Frequency: --W-F--

Be alert not alarmed in wet weather

From page 1

all communities, checking blockages to make sure everything works.

"This is forecast to be a pretty wet season and one of the big problems we have is repairing our roads and while it keeps raining, we can't get to them."

A SunWater spokesperson said at 12.10pm yesterday, Fairbairn Dam was at 109 per cent of capacity.

The crest on the spillway was 77cm, representing a 1.4 per cent increase in the 24 hours to yesterday, an inflow of 18,725 megalitres.

The dam is now storing

1,416,219ML. SunWater will continue to monitor dam inflows overnight.

The unseasonal rain has wheat farmers lamenting what would have been a bumper crop, but it's also led to the rewriting of rainfall record books.

Springsure, with 232mm up until Wednesday, can lay claim to the largest September rainfall in 145 years.

The widespread soaking has police urging motorists to slow down and be wary of wet roads.

"We want motorists to take a lot more care and a lot more time between where they are and where they're going," said Emerald officer-in-

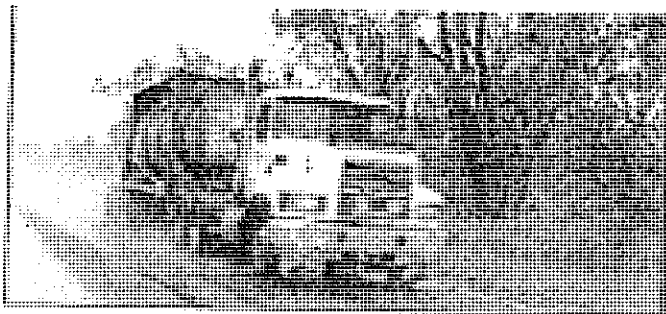
charge Senior Sergeant Marcus Cryer.

"There's a lot of water around at the moment.

"Slow down because we don't want any serious accidents."

**"Slow down
because we
don't want any
serious
accidents."**

Senior Sergeant Marcus
Cryer



■ BITUMEN BLUR: A truck on the Capricorn Highway near Black Gully Creek, 5km east of Emerald, which overflowed yesterday afternoon.

ds-230



Central Queensland News
05-Nov-2010
Page: 3
General News
Market: Emerald QLD
Circulation: 4875
Type: Regional
Size: 137.99 sq.cms
Frequency: --W-F--

Fairbairn Dam still spilling after 53 days

RAIN tumbled gently over the Central Highlands yesterday, just as water continued to fall over the Fairbairn Dam spillway.

The state's second largest water storage facility has passed more than 440,000 megalitres over its spillway since it began overflowing on September 11 this year.

SunWater Area Operations manager Tom Wallwork said this was the first time in 25 years that the dam had overflowed twice in the same year.

Mr Wallwork said while not the longest continuous overflow event, which occurred between December 1975 and April 1976 for 108 days, it was still pleasing to see the 1.3 million megalitre dam at full capacity after reaching critical lows of about 13 per cent capacity in 2007 during the peak of Queensland's drought.

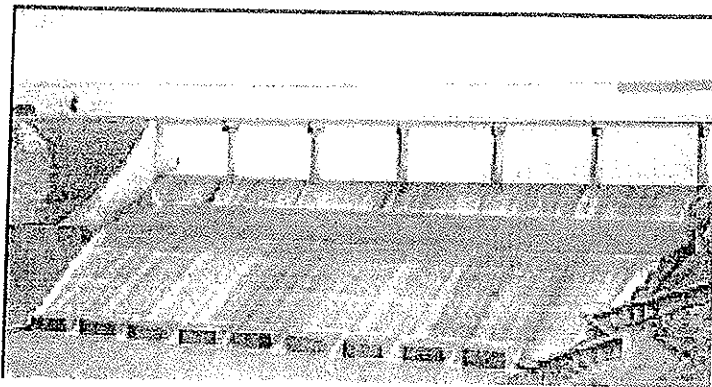
"We have gone from holding only 173,000 megalitres in storage in 2007 to now witnessing almost a third of the dam's total storage capacity going over the

spillway in just a couple of months," Mr Wallwork said.

Water is currently 5cm above the spillway crest after reaching a height of 123cm during the peak of the most recent overflow event.

The highest overflow water level ever reached at the dam was in 2008 when water was 4.4m above the spillway crest.

Mr Wallwork said this time last year, the dam was at 75 per cent.



FULL UP: Fairbairn Dam continues to spill and currently has 5cm of water flowing over the spillway.



■ CHILL OUT: Mayor Peter Maguire.
file

Chill out and have a barbie – Mayor

By DI STANLEY

TAKE a chill pill, fire up the barbie and have a beer, the Mayor has told his community.

Cr Peter Maguire was attempting to allay public fears of a repeat of the 2008 Emerald flood, as rumours of an impending deluge continued to plague the town.

Panic buying seen in Emerald last Friday was repeated yesterday, forcing the Mayor to issue the "chill pill" edict.

Cr Maguire said it was important residents retained faith in the best expert advice given to the Central Highlands Council and its local disaster management group.

"Last weekend there were rumours everywhere."

Continued page 7

Mayor calls for more trust

From page 1

"Yesterday they've started again," he said.

"And there's apparently an indication of panic buying (on Tuesday)." He said calls from shopping centre management had confirmed this.

"People have got to understand that the council, and myself as Mayor and chairman of the local disaster management group, are the point of truth.

"I want to be as clear as I can, if there are going to be any errors in information or advice, I will take the blame."

Cr Maguire said it was local-

ised flooding across Emerald on Friday when close to 200mm of rain fell, and the Fairbairn Dam spillway failed to reach the maximum predicted peak of 2.5m this week.

Regular briefings, if not hourly as the situation demanded, were being taken by council and the disaster group, he said.

"We are in a situation now where we have to continue to monitor the weather situation.

"The dam is running over, the whole place is full of water, but people need to not listen to the rumours.

"We have been trying to get information out to the media.

the ABC is the emergency disaster radio station, and we have briefings posted on our website, people manning the phones to answer any question.

"What people need to understand is we take the best information we get from the Bureau of Meteorology hydrologists, the SunWater hydrologists, the BOM chief weather forecaster and local people – that's what we work off.

"We said on Friday the dam would go to about 2.5m, and it didn't even hit 2m; so these people were right.

"Also, the Vince Lester Bridge is in no danger of going over."

Constable, Mark

From: Constable, Mark
Sent: Monday, 14 March 2011 2:21 PM
To: Constable, Mark
Subject: FW: Emailing: height_FAIRBAIRN.png
Attachments: height_FAIRBAIRN.png

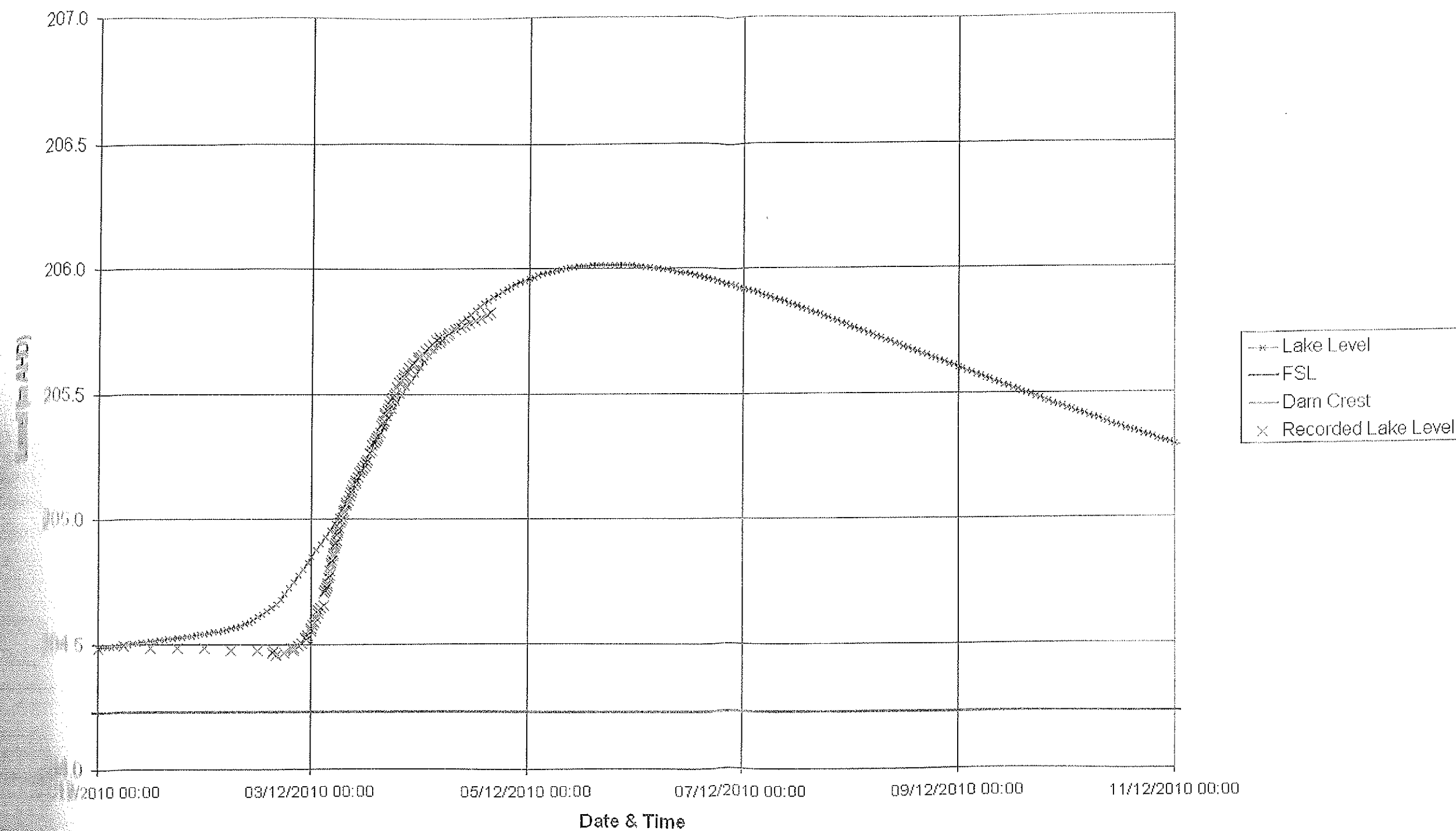
From: Ayre, Rob
Sent: Saturday, 4 December 2010 5:49 PM
To: Halwala, Mal; Constable, Mark
Cc: Keogh, Rob; Brigden, Daryl
Subject: FW: Emailing: height_FAIRBAIRN.png

Mal/Mark

The BoM updated their Nogoia Model at 15:00 today. The attachment shows their predicted water level in Fairbairn Dam. BoM predict that the lake will peak at just over 2.0 m on Monday morning.

Also enclosed is a graph of the SunWater FOC storage routing model based upon Craigmore flows to 16:00 today.

Fairbairn Dam - Estimated Levels



...also suggests a peak of about 1.8m but peaking earlier at around 17:00 on Sunday 5 December. Note I have translated the modelled levels to coincide with the recorded values.

...rain in the morning.

Constable, Mark

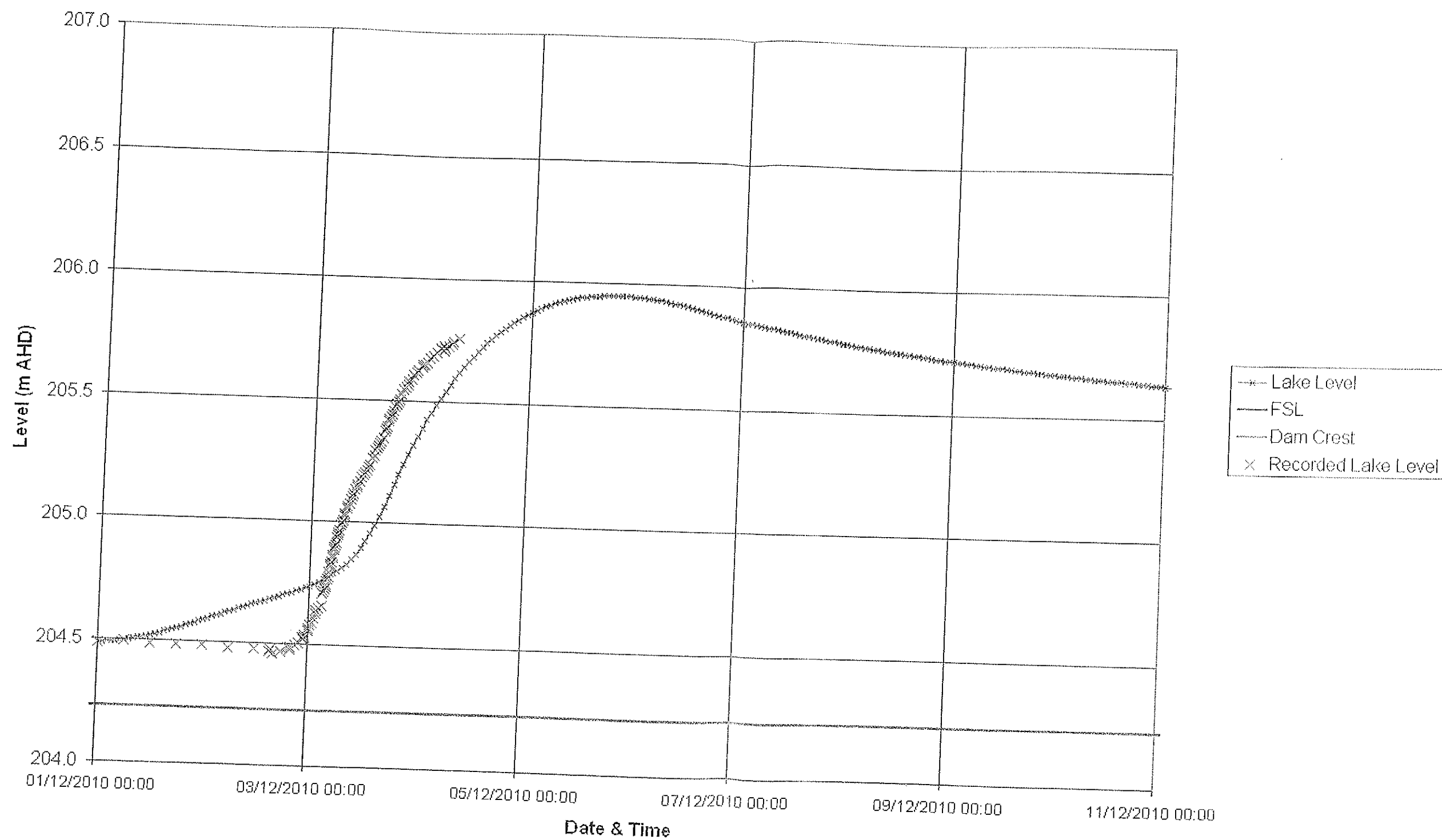
From: Constable, Mark
Sent: Monday, 14 March 2011 2:20 PM
To: Constable, Mark
Subject: FW: Fairbairn Dam SunWater FOC prediction - Saturday 4 December 2010

From: Ayre, Rob
Sent: Saturday, 4 December 2010 9:35 AM
To: Halwala, Mal; Constable, Mark
Cc: Keogh, Rob; Brigden, Daryl
Subject: Fairbairn Dam SunWater FOC prediction - Saturday 4 December 2010

Mal/Mark

The BoM have not updated their forecast for the Nogoia River yet. Based upon our storage routing model using Craigmore as the basis of the inflow we have estimated the following response:-

Fairbairn Dam - Estimated Levels



The model suggests that the peak will occur at around 12:00 (mid-day Sunday 6 Dec 2010) allowing for the difference in actual to modelled levels. The peak level should be about 206.0 m (about 1.8m above spillway). This should equate to a peak spill of 630 cumecs (or nearly 54,000 ML/day).

This forecast assumes no further rainfall and so should be considered the minimum expected level.

I will check the BoM website and advise if they adjust their forecast.

16/03/2011

Constable, Mark

From: Constable, Mark
Sent: Monday, 14 March 2011 2:22 PM
To: Constable, Mark
Subject: FW: SunWater FOC - Fairbairn Dam Forecast - Sunday 5 December 2010 at 08:00am

From: Ayre, Rob
Sent: Sunday, 5 December 2010 8:36 AM
To: Halwala, Mal; Constable, Mark
Cc: Keogh, Rob; Brigden, Daryl
Subject: SunWater FOC - Fairbairn Dam Forecast - Sunday 5 December 2010 at 08:00am

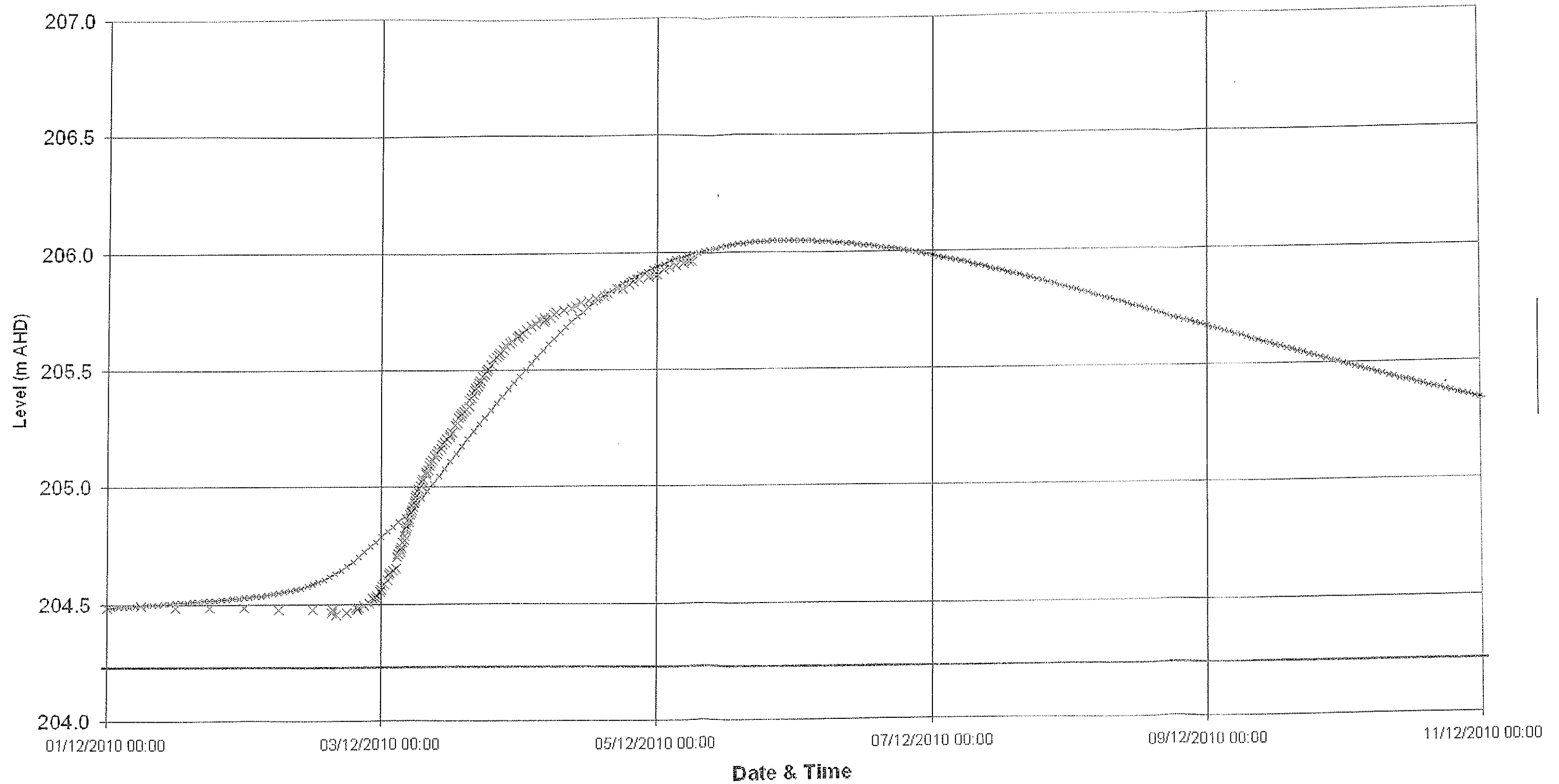
Mal/Mark

Appears to have been little rainfall overnight and Craigmore peaked at 10.56 m GH at around 21:00 last night. Fairbairn Dam was at 205.694 m AHD or 1.74 m over the spillway at 06:00 today.

Based upon these flows the SunWater storage routing model suggests that Fairbairn Dam will peak tonight between 16:00 to 20:00 with a depth of flow over the spillway of 1.85 m or about 690 cumecs (nearly 59,000 ML/day).

Refer to the attached plot:-

Fairbairn Dam - Estimated Levels



Will update again later this afternoon.

Regards

Rob Ayre

16/03/2011

Constable, Mark

From: Collett, Peter
Sent: Tuesday, 7 September 2010 2:57 PM
To: Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Ehm, Keith; Costa, Michael j
Cc: All Emerald Office; Greer, Anthony; Douglas, Petrina; Hodgson, Donna
Subject: Fairbairn Dam EAP Warning (Flood Event)
Attachments: 100907 Fairbairn Dam EL 204.06.JPG

Good Afternoon,

At 1200 today, Fairbairn Dam was at EL204.07 and rising at approximately 1cm every 2 hours. There is a 75% that the dam will spill before the weekend.

Fairbairn Dam received 70mm from the rain depression that past through central Queensland on the weekend of 04/05 September. The depression delivered heavy showers and storms across the area generating good in-flows into Fairbairn Dam.

The situation at 1200 today was:

- Dam EL 204.07 - 98.3% of capacity – 1,217,214ML
- 24 hour change +1.5% / +19,617ML
- Remaining air space 16cm / 28,919ML

In-flows through Craigmore are steady at 9,000ML/day. However, we are still receiving in-flows from the Borilla Creek catchment which does not pass through a gauging station before Fairbairn Dam.

The weather has been fine and warm since Monday morning.

At the current rate of in-flow, Fairbairn Dam could spill as early as late Wednesday. However, it is expected that in-flows will slow over the next 24-48 hours.

-) The most likely scenario is that the dam will spill late on Thursday. Although there is a chance that the in-flows might pull up just short of FSL – EL204.23.

Unless there are more widespread rains, the discharge from a spill event is anticipated to be small.

Local irrigators have been warned of the impact on Carry-over water entitlements.

The local Council and Disaster Management Group have been warned. Residents living downstream of the spillway will be contacted Wednesday morning.

Regards,

Peter Collett

**Service Manager, Emerald
SunWater**



)

)

Constable, Mark

From: Collett, Peter
Sent: Friday, 10 September 2010 9:17 AM
To: Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Ehm, Keith; Costa, Michael j; Jeppesen, Barry
Cc: All Emerald Office; Greer, Anthony; Douglas, Petrina; Hodgson, Donna
Subject: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning,

At 0730 this morning Fairbairn Dam spilled with one cm over the spillway.

From Wednesday, inflows were almost balanced by outflows as Irrigators ordered water to store in ring tanks before the dam spilled and Carry-over Water allocations are zeroed. Irrigators have now cancelled most orders. As a result the dam EL should rise slightly over the next 24 hours.

The weather in the Fairbairn Dam catchment has been fine since Monday. In-flows through Craigmore have decreased from a high of 11,278ML on Monday to 1,217ML this morning. The weather forecast for the Central Highlands for the weekend is patchy light rain in south, isolated storms elsewhere.

The situation at 0730 today was:

- Dam EL 204.24 – 100.3% of capacity – 1,305,036ML
- 24 hour change +0.5% / +6,147ML
- Discharge over Spillway – one cm – 32.2ML


Unless there are more widespread rains, the discharge from the spill event is anticipated to be small.

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed. Residents living downstream of the spillway were contacted yesterday.

Regards,

Peter Collett

**Service Manager, Emerald
SunWater**



Constable, Mark

From: Collett, Peter
Sent: Monday, 13 September 2010 9:32 AM
To: Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Ehm, Keith; Costa, Michael j; Jeppesen, Barry
Cc: All Emerald Office; Greer, Anthony; Douglas, Petrina; Hodgson, Donna
Subject: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning,

At 0600 this morning the discharge over the Fairbairn Dam Spillway remained at one cm. The discharge flow has varied over the weekend between 36ML and 50ML per day. The flow at 0600 this morning was 40ML.

Inflows from Craigmore have reduced to 439ML.

The weather in the Fairbairn Dam catchment has been fine over the weekend with no rain forecast for the next 48 hours.

The situation at 0600 today was:

- Dam EL 204.24 – 100.3% of capacity – 1,305,036ML
- 24 hour change +0.0% / +150ML
- Discharge over Spillway – one cm – 40.6ML
- Craigmore – 439.4ML


The discharge from the spill event is anticipated to be small.

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed.

Regards,

Peter Collett

**Service Manager, Emerald
SunWater**



Constable, Mark

From: Collett, Peter
Sent: Monday, 27 September 2010 11:38 AM
To: Constable, Mark
Subject: FW: Fairbairn Dam EAP Stage 1 - Flood Event


Mark,

Are you ready to take over as EEC?

Regards,

Peter Collett

**Service Manager, Emerald
SunWater**



From: Collett, Peter
Sent: Monday, 27 September 2010 11:33 AM
To: Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Ehm, Keith; Costa, Michael j; Jeppesen, Barry
Cc: All Emerald Office; Greer, Anthony; Douglas, Petrina; Hodgson, Donna
Subject: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning,

At 0600 this morning the discharge over the Fairbairn Dam Spillway was 1.06m / 26,468ML/day and rising.

There were good rains over the weekend generally in excess of 20mm across the catchment with 39mm recorded at Craigmore. Inflows from Craigmore have increased to 46,957ML/day.

The weather in the Fairbairn Dam catchment is cloudy with a chance of Thunderstorms today and tomorrow, generally clear until the weekend and 80% chance of 40mm+ on the weekend.

The situation at 0600 today was:

- Dam EL 205.29 – 112.90% of capacity – 1,465,792ML
- 24 hour change +0.9% / +11,958ML
- Discharge over Spillway – 1.06m – 26,468ML
- Craigmore – 46,957ML

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed.

Constable, Mark

From: Collett, Peter
Sent: Monday, 20 September 2010 8:17 AM
To: Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwaia, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Ehm, Keith; Costa, Michael j; Jeppesen, Barry
Cc: All Emerald Office; Greer, Anthony; Douglas, Petrina; Hodgson, Donna
Subject: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning,

At 0630 this morning the discharge over the Fairbairn Dam Spillway had increased to 24 cm / 2,824ML/day.

There were good rains over the weekend generally in excess of 40mm across the catchment with 93mm recorded at Craigmore. Inflows from Craigmore have increased to 1,976ML/day.

The weather in the Fairbairn Dam catchment is cloudy with a 70%+ chance of 10-20mm of rain each day for the next week.

The situation at 0630 today was:

- Dam EL 204.47 – 103.0% of capacity – 1,333,258ML
- 24 hour change +2.7% / +35,364ML
- Discharge over Spillway – 24 cm – 2,824ML
- Craigmore – 1,976ML

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed.

Regards,

Peter Collett

**Service Manager, Emerald
SunWater**



Regards,

Peter Collett

**Service Manager, Emerald
SunWater**



Constable, Mark

From: Constable, Mark

Sent: Tuesday, 5 October 2010 8:30 AM

To:



Cc: Constable, Mark

Subject: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Subject: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning ,

At 0600 this morning the discharge over the Fairbairn Dam Spillway was 0.79m / 17,062 ML/day with a decrease of 12 cm in the previous 24 hrs and is expected to continue falling over the next few days provided there are no further weather events .

Inflows from Craigmores have fallen sharply with a flow of 1,819 ML/day recorded at 0600hrs .

The weather in the Fairbairn Dam catchment is fine and sunny with a low chance of showers of around 1-5mm predicted per day over the next 3 days.

The situation at 0600 today was:

- Dam EL 205.02 – 109.60 % of capacity – 1,422,976 ML
- 24 hour change - 1.4% / - 3,797ML
- Discharge over Spillway – 0.79 m – 17,062 ML/day
- Craigmores – 1,819 ML/day and falling

Please give me a call if you have any questions.

Regards,

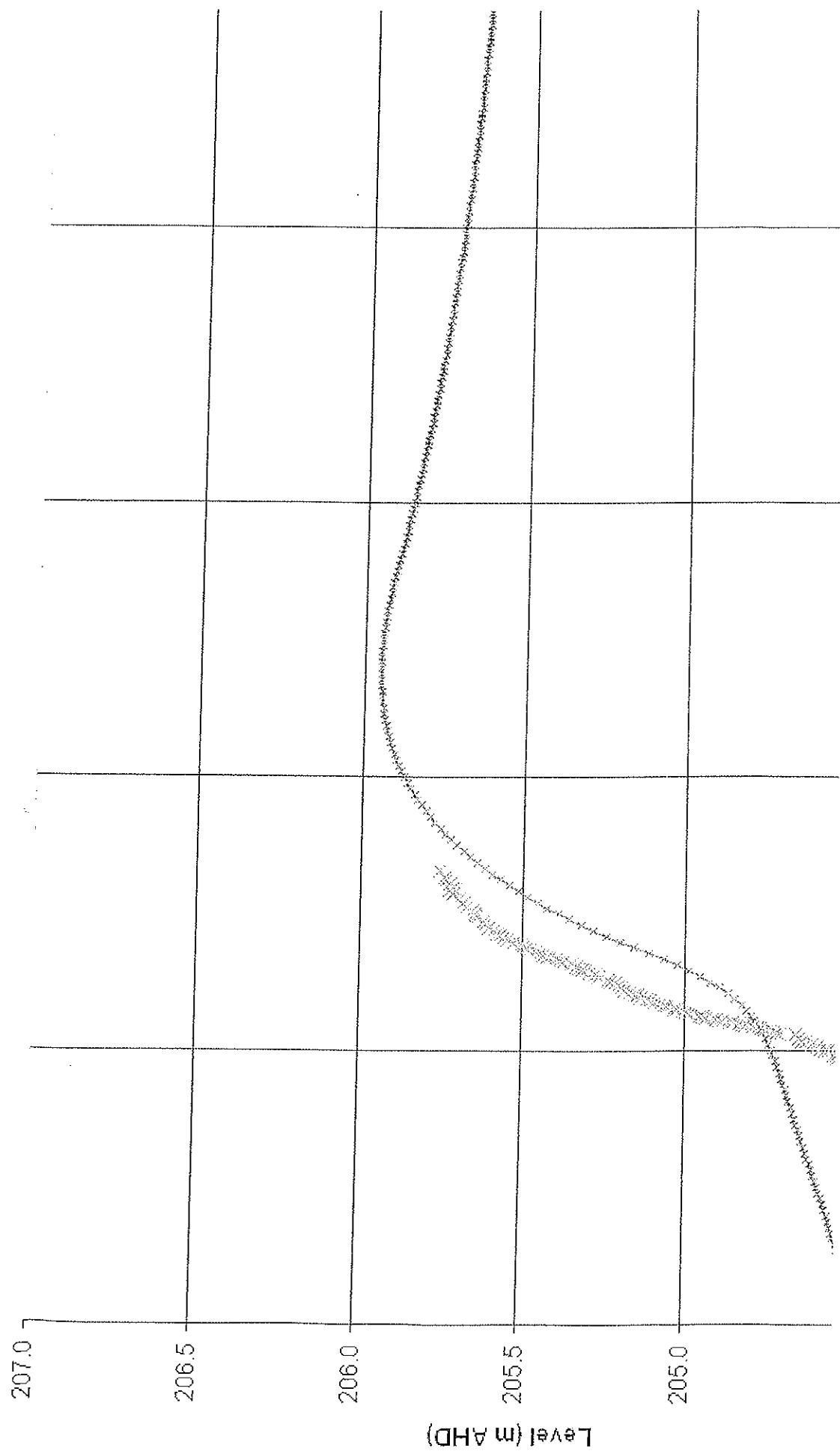
Mark Constable

Storage Supervisor, Fairbairn Dam
Emerald
SunWater



Regards,

Fairbairn Dam - Estimated Levels



Constable, Mark

From: Boon, Robin
Sent: Tuesday, 7 December 2010 8:44 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Collett, Peter; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil
Subject: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning

Fairbairn Dam level is falling, the EL @ 6am today is 206.04 or 1.81m over the spillway and falling 0.01m an hour.

Craigmore is falling and @ 6am is 7.76m.

The current situation.

Fairbairn Dam EL 206.04= 122% capacity or 1,587,719ML. Discharging 58,908ML/Day @ 1.81m over the spillway.

Craigmore 7.76m discharging 21,007ML/Day.

Rainfall at Fairbairn Dam in the last 24 hrs was 6.4mm, weather is generally cloudy with forecasts of storms and some rain possible for the rest of the week.

Robin

From: Constable, Mark

Sent: Monday, 6 December 2010 9:30 AM

To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; 'IM - Headworks Brisbane'; Ayre, Rob

Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Collett, Peter; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil

Subject: RE: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning

Based on current data Fairbairn Dam appears to have peaked at 206.11 or 1.88 metres (62415 ML/day) over the spillway at 0600 hrs this morning.

Current weather is cool and mostly cloudy with a high chance of thunderstorms over the next few days.

No rain was recorded at Fairbairn dam in the previous 24hrs to 0700hrs this morning.

Craigmore has fallen to approximately 9.00Metres or around 40,000 ML/day.

The situation at 0700hrs today:

- Dam EL 206.10= 123% of capacity=1,598,902 ML
- 24hr change +2% = 22,163 ML
- Discharge over spillway 62,269 ML/day and steady

- Craigmore 40,000 ML/day and falling

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed

Regards.

Mark Constable
Storage Supervisor Fairbairn Dam

From: Constable, Mark

Sent: Sunday, 5 December 2010 10:51 AM

To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; 'IM - Headworks Brisbane'

Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Collett, Peter; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil

Subject: RE: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning

At 0700 hrs this Morning Fairbairn Dam had risen to 205.98 or 1.75 Metres over the spillway a 24hr increase of 0.24 Metres.

Estimated peak is around the low 2 Metre mark or below or up to 60,000 ML/day to 70,000 ML/day over the spillway this evening.

0.5mm of rain was measured at the Fairbairn Dam Depot for the previous 24hrs up to 0700hrs this morning. The current weather is high cloud with some scattered showers.

Craigmore peaked at 10.56m or 84,882 ML/day at around 2100hrs last night and is slowly falling

The situation at 0700hrs today:

- Dam EL 205.98= 121% of capacity=1,576,739 ML
- 24hr change +3% = 39,100 ML
- Discharge over spillway 55999 ML/day and rising slowly
- Craigmore 74,000 ML/day and falling

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed

Regards
Mark Constable

Mobile
[REDACTED]

From: Constable, Mark

Sent: Saturday, 4 December 2010 10:56 AM

To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; 'IM - Headworks Brisbane'

Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Collett, Peter; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil

Subject: RE: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning

At 0700 hrs this morning Fairbairn Dam had risen to 205.74 or 1.51Metres over the spillway an increase of 0.47 Metres since 1300hrs yesterday. Estimation of the peak flow through the spillway is now expected to be late Sunday and current indications are putting the peak between low 2 Metre mark to mid 2 Metre mark or around 80,000ML/day.

5.2mm of rain was measured at the Fairbairn Dam Depot for the previous 24hrs up to 0700hrs this morning. The current weather is high cloud with some scattered showers.

Craigmore continues to rise and passed over the 10 Metre mark at 0700hrs this morning or around 67,000 ML/day.

The situation at 0700hrs today:

- Dam EL 205.76= 118.% of capacity=1,537,639 ML
- 18hr change =9.6% = 124,713 ML
- Discharge over spillway 45556 ML/day and rising
- Craigmore 67,000 ML/day and rising

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed

Please give me a call if you have any questions.

Regards

Mark Constable

Storage Supervisor Fairbairn Dam
[REDACTED]

From: Constable, Mark

Sent: Friday, 3 December 2010 2:34 PM

To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; IM - Headworks Brisbane

Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Collett, Peter; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil

Subject: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Afternoon

At 1600hrs on the 2nd of December Fairbairn Dam was at 204.47 or 24cm and falling slowly. Overnight 163mm of rain was recorded at fairbairn Dam depot up to 0700hrs.

A sharp rise in the EL has been experienced with the dam EL at 205.27 104cm/ 25469ML/day passing through the spillway at 1245hrs. The dam is currently rising at 3.5cm per hour with current indications putting a peak at the dam through the spillway in the low 2 metre mark or around 70,000ML/day through the spillway late Saturday evening early Sunday morning pending no further rain events.

Current weather conditions are cloudy with a few scattered showers and further light showers expected over the next 48hrs.

Craigmore received 113mm of rain overnight with 16,500ML/day being recorded at 1300hrs and is currently rising quickly but no large flows are expected from the back of the catchment.

The situation at 1300hrs today is:

- Dam EL 205.27 = 108.8% of capacity = 1,412,926 ML
- 21 hour change + 5.7% = 73,874 ML
- Discharge over spillway 25469 ML/day and rising
- Craigmore 16,500 ML/day and rising

The local Council, Disaster Management Group and the Irrigation Advisory Committee have been informed.

Please give me a call if you have any questions.

Regards

Mark Constable

Storage Supervisor Fairbairn Dam



Constable, Mark

From: Boon, Robin

Sent: Wednesday, 22 December 2010 2:11 PM

To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob

Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry

Subject: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Afternoon

The rainfall event last weekend triggered falls over Fairbairn Dam catchment that totalled between 30mm and 140mm over the three days.

Fairbairn Dam is at EL 205.27 or 1.04m above the spillway and rising 0.01m/hr.

Raymond peaked 6pm yesterday at 65,900ML/Day and is now falling 0.05m/hr

Craigmore peaked at 7am this morning at 97,367ML/Day and is now falling at 0.01m/hr.

The current situation.

Fairbairn Dam 6am EL 205.27 = 112% capacity or 1,462,120ML. Discharging 25,690ML/day at 1.04m over the spillway.

Raymond 7am 7.7m discharging 50,132 ML/day.

Craigmore 6am 10.883m discharging 97,246ml/day.

Forecast peak spill level at Fairbairn Dam would be around 1.5 to 2.0m Thursday or Friday.

Weather forecast for the next week is for rain in varying amounts.

Robin

Jones, Kerry**From:** Boon, Robin**Sent:** Saturday, 25 December 2010 8:21 AM**To:** Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross**Cc:** Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry; Wheeler, Ross; [REDACTED]**Subject:** FW: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good morning

Rainfall in the area overnight was only 2mm to 8mm in the catchment.

Fairbairn Dam is at 205.96 or 1.73m above the spillway and rising 0.001m/hr.

Raymond is still falling.

Craigmore is rising 0.01m/hr.

The current situation.

Fairbairn Dam at 6am is at EL 205.96 = 121% capacity or 1,574,416ML. Discharging 55,081ML/day at 1.73m over the spillway.

Raymond at 6:45am 5.45 discharging 9,459ML/day.

Craigmore at 6am 10.256 discharging 74,379ML/day.

Forecast is still around 1.8m.

Robin

From: Boon, Robin**Sent:** Friday, 24 December 2010 8:24 AM**To:** Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob**Cc:** Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry; [REDACTED]**Subject:** FW: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good morning

Rainfall in the area overnight was minimal with only around 10mm falling in the catchment.

Fairbairn Dam is at EL 205.88 or 1.65m above the spillway and rising 0.004m/hr.

Raymond is falling again after peaking at only 13,700ML/day at 8pm last night.

Craigmore is still falling but only at 0.004m/hr.

The current situation.

Fairbairn Dam at 6am 205.88 = 120% capacity or 1,561,170ML. Discharging 51,042ML/day at 1.65m over the spillway.

Raymond at 6:15am 6.1 discharging 13,111ML/day.

Craigmore at 6am 9.86 discharging 62,224ML/day.

Forecast is now around 1.8m.

Robin

From: Boon, Robin**Sent:** Thursday, 23 December 2010 1:52 PM**To:** Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob**Cc:** Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry; [REDACTED]**Subject:** FW: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

16/03/2011

Good Afternoon

Rainfall over Fairbairn Dam catchment for the last 24 hrs was 20mm to 60mm.

Fairbairn Dam is at EL 205.68 or 1.45m above the spillway and rising 0.018m/hr.

Raymond was falling but has stopped at 12,806ML/day and is starting to rise.

Craigmore is still falling at 0.02m/hr.

The current situation.

Fairbairn Dam at 6am 205.68 = 117% capacity or 1,528,312ML. Discharging 41,998ML/day at 1.45m over the spillway.

Raymond at 6:45am 6.05 discharging 12,806ML/day.

Craigmore at 10.554 discharging 84,664ML/day.

Forecast peak is still around the 2m but could change because of rain last night.

Robin

From: Boon, Robin

Sent: Wednesday, 22 December 2010 2:11 PM

To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob

Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry

Subject: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Afternoon

The rainfall event last weekend triggered falls over Fairbairn Dam catchment that totalled between 30mm and 140mm over the three days.

Fairbairn Dam is at EL 205.27 or 1.04m above the spillway and rising 0.01m/hr.

Raymond peaked 6pm yesterday at 65,900ML/Day and is now falling 0.05m/hr

Craigmore peaked at 7am this morning at 97,367ML/Day and is now falling at 0.01m/hr.

The current situation.

Fairbairn Dam 6am EL 205.27 = 112% capacity or 1,462,120ML. Discharging 25,690ML/day at 1.04m over the spillway.

Raymond 7am 7.7m discharging 50,132 ML/day.

Craigmore 6am 10.883m discharging 97,246ml/day.

Forecast peak spill level at Fairbairn Dam would be around 1.5 to 2.0m Thursday or Friday.

Weather forecast for the next week is for rain in varying amounts.

Robin

Jones, Kerry

From: Boon, Robin
Sent: Sunday, 26 December 2010 8:32 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry; Wheeler, Ross; [REDACTED]
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning.

Rainfall over the area again was low with only 10mm to 30mm being recorded over the catchment.

Fairbairn Dam is at EL 206.07 or 1.84m above the spillway and is still rising slowly at 0.003m/hr

Raymond is rising slowly.

Craigmore is falling at 0.06m/hr.

The current situation.

Fairbairn Dam 6am is at EL 206.07 = 122% capacity or 1,592,722ML. discharging 60,417ML/day at 1.84m above the spillway.

Raymond at 3:45am 5.75 discharging 11,057ML/day.

Craigmore at 6am 9.49 discharging 52,300ML/day.

Fairbairn is now spilling more than is coming in through Craigmore so the EL should level out today. (depending on the weather)

Forecast for tomorrow is for falls up to 80mm.

Robin

From: Boon, Robin
Sent: Saturday, 25 December 2010 8:21 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry; Wheeler, Ross; [REDACTED]
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Craigmore is rising 0.01m/hr.

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Fairbairn Dam at 6am is at EL 205.96 = 121% capacity or 1,574,416ML. Discharging 55,081ML/day at 1.73m over the spillway.

Raymond at 6:45am 5.45 discharging 9,459ML/day.

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Forecast is still around 1.8m.

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16/03/2011

Jones, Kerry

From: Boon, Robin
Sent: Monday, 27 December 2010 10:14 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry; Wheeler, Ross; [REDACTED]
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

Good Morning.

Rainfall in the last 24hrs over the catchment varied from 20mm to 250mm.

Fairbairn Dam is at EL 206.1 or 1.87m above the spillway and rising 0.01m/hr

Raymond is rising 0.09m/hr.

Craigmore is rising 0.12m/hr.

The current situation.

Fairbairn Dam at 7:40am EL 206.10 = 123% or 1,597,733ML. Discharging 61,940ML/day at 1.87m over the spillway.

Raymond at 8:30am 9.15 discharging 143,544ML/day.

Craigmore at 7am 9.64 discharging 56,191ML/day.

Forecast of a 3.5m discharge would be reasonable but as usual no event is the same and more rain forecast

for the next two days could change everything .

Robin

From: Boon, Robin

Sent: Sunday, 26 December 2010 8:32 AM

To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross

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Subject: FW: FW: RE: Fairbairn Dam EAP Stage 1 - Flood Event

Good Morning.

Rainfall over the area again was low with only 10mm to 30mm being recorded over the catchment.

Fairbairn Dam is at EL 206.07 or 1.84m above the spillway and is still rising slowly at 0.003m/hr

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Fairbairn Dam 6am is at EL 206.07 = 122% capacity or 1,592,722ML. discharging 60,417ML/day at 1.84m above the spillway.

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Forecast for tomorrow is for falls up to 80mm.

Robin

Jones, Kerry

From: Boon, Robin
Sent: Tuesday, 28 December 2010 10:21 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

Good morning

Rainfall over the catchment in the last 24hrs was 5mm to 45mm.

Fairbairn Dam is at EL 206.4 or 2.17m above the spillway and rising 0.01m/hr

Raymond probably peaked at 12.2m

Craigmore is rising 0.27m/hr.

The current situation.

Fairbairn Dam at 6am EL 206.40 = 127% or 1,648,294ML. Discharging 79,083ML/day at 2.17m over the spillway.

Raymond possible peak now at 12.2m discharging an est of 300,000ML/day

Craigmore at 6am 15.07 discharging 269,892ML/day.

Forecast is now for a flood level around 2008.

Robin

From: Boon, Robin
Sent: Monday, 27 December 2010 10:14 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

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16/03/2011

Jones, Kerry

From: Boon, Robin
Sent: Wednesday, 29 December 2010 9:36 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

Good morning

Rainfall over the catchment in the last 24hrs was minimal.

Fairbairn Dam is at EL 207.52 or 3.29m above the spillway and rising 0.09m/hr

Raymond is probably around 9.0m and falling

Craigmore is rising 0.01m/hr.

The current situation.

Fairbairn Dam at 6am EL 207.52 = 142% or 1,844,683ML. Discharging 155,819ML/day at 3.29m over the spillway.

Raymond est at 9.0m discharging an est of 100,000 to 150,000ML/day.

Craigmore at 6am 18.11 discharging an est of 440,000ML/day.

Forecast is now for a discharge of around 5.0m. (2008 = 4.44m)

Robin

From: Boon, Robin
Sent: Tuesday, 28 December 2010 10:21 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

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Fairbairn Dam at 6am EL 206.40 = 127% or 1,648,294ML. Discharging 79,083ML/day at 2.17m over the spillway.

Raymond possible peak now at 12.2m discharging an est of 300,000ML/day

Craigmore at 6am 15.07 discharging 269,892ML/day.

Forecast is now for a flood level around 2008.

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Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Jones, Kerry; Wheeler, Ross; [REDACTED]

16/03/2011

Jones, Kerry

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To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event
 Sorry people this should be Fairbairn Dam EAP Stage 4 - Flood Event

From: Boon, Robin
Sent: Wednesday, 29 December 2010 9:36 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

Good morning

Rainfall over the catchment in the last 24hrs was minimal.
 Fairbairn Dam is at EL 207.52 or 3.29m above the spillway and rising 0.09m/hr
 Raymond is probably around 9.0m and falling
 Craigmores is rising 0.01m/hr.
 The current situation.
 Fairbairn Dam at 6am EL 207.52 = 142% or 1,844,683ML. Discharging 155,819ML/day at 3.29m over the spillway.
 Raymond est at 9.0m discharging an est of 100,000 to 150,000ML/day.
 Craigmores at 6am 18.11 discharging an est of 440,000ML/day.
 Forecast is now for a discharge of around 5.0m. (2008 = 4.44m)

Robin

From: Boon, Robin
Sent: Tuesday, 28 December 2010 10:21 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

Good morning

Rainfall over the catchment in the last 24hrs was 5mm to 45mm.
 Fairbairn Dam is at EL 206.4 or 2.17m above the spillway and rising 0.01m/hr
 Raymond probably peaked at 12.2m
 Craigmores is rising 0.27m/hr.
 The current situation.
 Fairbairn Dam at 6am EL 206.40 = 127% or 1,648,294ML. Discharging 79,083ML/day at 2.17m over the spillway.
 Raymond possible peak now at 12.2m discharging an est of 300,000ML/day
 Craigmores at 6am 15.07 discharging 269,892ML/day.

Jones, Kerry

From: Boon, Robin
Sent: Thursday, 30 December 2010 2:53 PM
To: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good Afternoon.

Rainfall again was minimal with the next weeks forecast looking the same.

Fairbairn Dam is at EL 209.35 or 5.12m above the spillway and rising 0.05m/hr

Craigmore peaked at 18.16 9am yesterday 29/12/10, est discharge 442,000ML/day.

The current situation.

Fairbairn Dam at 6am EL 209.35 = 168% or 2,194,826ML. Discharging 325,271ML/day at 5.12m over the spillway.

Craigmore at 6am 16.82 discharging an est of 364,000ML/day.

Forecast is now for a discharge of around 5.6 m. (2008 = 4.44m)

Robin

From: Boon, Robin
Sent: Wednesday, 29 December 2010 10:15 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Sorry people this should be Fairbairn Dam EAP Stage 4 - Flood Event

From: Boon, Robin
Sent: Wednesday, 29 December 2010 9:36 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 2 - Flood Event

Good morning

Rainfall over the catchment in the last 24hrs was minimal.

Fairbairn Dam is at EL 207.52 or 3.29m above the spillway and rising 0.09m/hr

Raymond is probably around 9.0m and falling

Craigmore is rising 0.01m/hr.

The current situation.

Fairbairn Dam at 6am EL 207.52 = 142% or 1,844,683ML. Discharging 155,819ML/day at 3.29m over the spillway.

Raymond est at 9.0m discharging an est of 100,000 to 150,000ML/day.

Craigmore at 6am 18.11 discharging an est of 440,000ML/day.

Forecast is now for a discharge of around 5.0m. (2008 = 4.44m)

Robin

Jones, Kerry

From: Boon, Robin
Sent: Friday, 31 December 2010 9:33 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good morning.

Rainfall again was minimal .

Fairbairn Dam is at EL 209.78 or 5.55 above the spillway and falling 0.01m/hr .

Peak at midnight last night was 209.81 =176% or 2,289,129ML, 5.58m above the spillway. Discharging 373,016ML/day.

Craigmore is falling 0.14m/hr.

The currant situation.

Fairbairn Dam at 6am EL 209. 78 = 175 % or 2, 282 ,899 ML. Discharging 370,650ML/day at 5.55m over the spillway.

Craigmore at 6am 13.751 discharging 208,239 ML/day.

Robin

From: Boon, Robin
Sent: Thursday, 30 December 2010 2:53 PM
To: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED]
 Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good Afternoon.

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Craigmore peaked at 18.16 9am yesterday 29/12/10, est discharge 442,000ML/day.

The currant situation.

Fairbairn Dam at 6am EL 209.35 = 168% or 2,194,826ML. Discharging 325,271ML/day at 5.12m over the spillway.

Craigmore at 6am 16.82 discharging an est of 364,000ML/day.

Forecast is now for a discharge of around 5.6 m. (2008 = 4.44m)

Robin

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Sent: Wednesday, 29 December 2010 10:15 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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 Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Sorry people this shoud be Fairbairn Dam EAP Stage 4 - Flood Event

16/03/2011

Jones, Kerry

From: Boon, Robin
Sent: Saturday, 1 January 2011 7:23 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good Morning.

Fairbairn Dam at 6am EL 209.16 = 166 % or 2,156,633 ML. Discharging 305,931ML/day at 4.93m over the spillway,
 Falling 0.03m/hr

Robin

From: Boon, Robin
Sent: Friday, 31 December 2010 9:33 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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Craigmore is falling 0.14m/hr.

The current situation.

Fairbairn Dam at 6am EL 209.78 = 175 % or 2,282,899 ML. Discharging 370,650ML/day at 5.55m over the spillway.

Craigmore at 6am 13.751 discharging 208,239 ML/day.

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From: Boon, Robin
Sent: Thursday, 30 December 2010 2:53 PM
To: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

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The current situation.

Fairbairn Dam at 6am EL 209.35 = 168% or 2,194,826ML. Discharging 325,271ML/day at 5.12m over the spillway.

16/03/2011

Jones, Kerry

From: Boon, Robin
Sent: Sunday, 2 January 2011 9:26 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good Morning.

Fairbairn Dam at 6am EL 208.20 = 151 % or 1,970,384 ML. Discharging 213,846 ML/day at 3.97m over the spillway,
 Falling 0.04m/hr

Robin

From: Boon, Robin
Sent: Saturday, 1 January 2011 7:23 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good Morning.

Fairbairn Dam at 6am EL 209.16 = 166 % or 2,156,633 ML. Discharging 305,931ML/day at 4.93m over the spillway,
 Falling 0.03m/hr

Robin

From: Boon, Robin
Sent: Friday, 31 December 2010 9:33 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

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 Craigmores is falling 0.14m/hr.
 The current situation.
 Fairbairn Dam at 6am EL 209.78 = 175 % or 2,282,899 ML. Discharging 370,650ML/day at 5.55m over the spillway.
 Craigmores at 6am 13.751 discharging 208,239 ML/day.

16/03/2011

Jones, Kerry

From: Boon, Robin
Sent: Monday, 3 January 2011 10:28 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good morning.

Fairbairn Dam at 6am EL 207.38 = 140% or 1,819,412ML/day. Discharging 145,258ML/day at 3.15m over the spillway.

Robin

From: Boon, Robin
Sent: Sunday, 2 January 2011 9:26 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
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Good Morning.

Fairbairn Dam at 6am EL 208.20 = 151 % or 1,970,384 ML. Discharging 213,846 ML/day at 3.97m over the spillway,
 Falling 0.04m/hr

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16/03/2011

Jones, Kerry

From: Boon, Robin
Sent: Tuesday, 4 January 2011 10:15 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good morning.

Fairbairn Dam at 5am EL 206.74 = 131% or 1,706,590ML/day. Discharging 99,705ML/day at 2.51m over the spillway.

This will be the last E Mail for this flood event.

Robin

From: Boon, Robin
Sent: Monday, 3 January 2011 10:28 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
Cc: Armstrong, Jeff; Boon, Robin; Chappell, Adam; Davidson, Ian V; Farlow, Scott; Farrell, Neil; Grayson, Ian; Kinna, Gary; Maher, Pat; Molloy, Craig; Neville, Philip; Pyne, Gerard; Youngnickel, Alan; Greer, Anthony; Douglas, Petrina; Hodgson, Donna; Farrell, Neil; Wheeler, Ross; [REDACTED] Jones, Kerry
Subject: FW: FW: RE: Fairbairn Dam EAP Stage 4 - Flood Event

Good morning.

Fairbairn Dam at 6am EL 207.38 = 140% or 1,819,412ML/day. Discharging 145,258ML/day at 3.15m over the spillway.

Robin

From: Boon, Robin
Sent: Sunday, 2 January 2011 9:26 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger, Glenn; Barrett, Matthew; Wallwork, Tom; Hardy-Page, Jo; Jeppesen, Barry; Ayre, Rob; Wheeler, Ross
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Good Morning.

Fairbairn Dam at 6am EL 208.20 = 151 % or 1,970,384 ML. Discharging 213,846 ML/day at 3.97m over the spillway,
 Falling 0.04m/hr

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From: Boon, Robin
Sent: Saturday, 1 January 2011 7:23 AM
To: Constable, Mark; Boettcher, Peter; Keogh, Rob; Miller, Phil; Halwala, Mal; Kakourakis, Olga; Pfluger,

16/03/2011

Constable, Mark

From: Constable, Mark
Sent: Tuesday, 1 March 2011 10:59 AM
To: Boon, Robin; Jones, Kerry
Cc: Molloy, Craig; Farrell, Neil
Subject: Fairbairn dam EAP commencing 10/9/2010

Gents

On checking the shaft encoder at the right bank tower this morning at 7:30 am the reading come up at 204.228 metres.

This would mean officially that the EAP for spillway discharge commencing on 10th September 2010 is now closed.

Although looking at the forecast this will be short lived.

Re
Mark

14/03/2011

Constable, Mark

From: Constable, Mark

Sent: Wednesday, 2 March 2011 9:04 AM

To: Costa, Michael J; Ehm, Keith; Mewett, Ross; Read, John; Richardson, Peter; Thomas, David; Willem, Leonard

Cc: Jones, Kerry

Subject: Fairbairn EAP Sept 2010

Gents

The EAP activated on the 10th of September 2010 was closed on the 1st of March 2011 at 7:30 am with the dam EL at 204.228 metres.

Expected that this will be short lived as rain is forecasted for the weekend.

Regards

Mark

EMERGENCY ACTION PLAN - FAIRBAIRN DAM

FAIRBAIRN DAM EMERGENCY ACTION PLAN LOG OF EVENTS / ACTIONS

Date	Time	Event description / Action carried out	Recorded By (Initials)
10-9-10	0730	EMERGENCY ACTION PLAN INITIATED	
10-9-10	1500	TWICE DAILY INSPECTIONS OF MAIN EMBANKMENT	
23-9-10	1130	NOTE: GATES IN PUMP STATION OPEN - WATER COMING OUT DRAINAGE TUNNEL. GATES CLOSED. INSPECTED PUMP STATION O.K.	
24-9-10	1500	COMPLETED INVESTIGATION REPORT ON PUMP STATION	
3-12-10	0700	163mm OF RAIN RECORDED OVERNIGHT - E.L. IN DAM INCREASED 0.55 METRES OVERNIGHT	
3-12-10	1530	INSPECTING MAIN EMBANKMENT TWICE DAILY DUE TO INFLOWS INTO DAM	
24-12-10	11-00	FAULT IN LOWER PSEZOS - NOG POWER REPLACED BATTERY. TWICE DAILY INSPECTIONS STARTED	
30-12-10	0700	ROTOR, HANDRAILS + LANDING RIPPED OFF FROM SIPHON ON SPILLWAY	
31-12-10	0700	LOWER PSEZO PIT FLOODED	

EMERGENCY ACTION PLAN - FAIRBAIRN DAM

FAIRBAIRN DAM EMERGENCY ACTION PLAN LOG OF EVENTS / ACTIONS

Date	Time	Event description / Action carried out	Recorded By (Initials)
1-1-11	0700	DAM E.L. RECEIVING. NO WATER UP TO SADDLE DAM LEVERS. CEASED INSPECTIONS OF SADDLE DAMS	
5-1-11	0700	DAM E.L. RETURNED BACK TO EAP LEVEL 3 COMPREHENSIVE INSPECTIONS REDUCED BACK TO ONCE DAILY	
8-11-11	0700	DAM E.L. BACK TO LEVEL 2. RETURNED BACK TO STANDARD SURVEILLANCE	
25-1-11	1000	HEAVY DUTY VACUUM PUMP USED TO CLEAN OUT LOWER PIEZOS	
15-2-11	1000	MANUAL READ OF PIEZOS	
1-3-11	0730	EAP FOR CURRENT SPILL EVENT CLOSED	

29/12/10

MAIN

EMBANKMENT

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
 Note: See Page 5 for instructions **

Page 1 of 4

VISUAL INSPECTION

First
InspectionSecond
Inspection
(+6 hrs)Third
Inspection
(+12 hrs)

DATE

21/12/10

29-12/10

TIME

0630

1730

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

	D		D
General Condition	✓		✓
Cracks, subsidence in pavement	✓		✓
Upstream Face (Use binoculars):			
Settlement	✓		✓
Displacement of riprap material	✓		✓
Downstream face:			
Subsidence, slides, erosion	✓		✓
Sign of seepage, Wet spots / seams	✓		✓

Area Downstream of Dam

Seepage from any location apart from seepage point	✓		✓
--	---	--	---

Seepage

Seepage water - Clear or Turbid (Tick for clear)	✓		✓
--	---	--	---

Spillway

Spillway Channel			
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Trainings Walls:	Erosion, damage to concrete structure	✓	✓
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U/S Face (if visible):	General Condition/Cracking/Spalling	✓	✓
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Apron (if visible):	General Condition	✓	✓
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Crest (if visible):	General Condition / Impact Damage	✓	✓
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	General Condition	✓	✓
--	-------------------	---	---

Bridge:	Impact Damage	✓	✓
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	General Condition/Cracking/Spalling/Construction Joints	✓	✓
--	---	---	---

Details of significant changes. New occurrences and issues warranting further attention

AKH OK:

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
 Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 1 of 9

07/04/2011 13:32

SUNWATER EMERALD

PAGE 03/34

29-12-10 MAFN CHASANK RIGW

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 2 of 4

VISUAL INSPECTION

First
InspectionSecond
Inspection
(+6 hrs)Third
Inspection
(+12 hrs)

DATE 29-12-10

TIME 0630

29-12-10

1730

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

River

Left Bank:

General Condition/Seepage/Slips/Slumps

✓

✓

Seepage/Erosion/Deposits

✓

✓

Right Bank:

General Condition/Seepage/Slips/Slumps

✓

✓

Intake Structure

Structure:

General Condition/Cracking/Spalling/Impact Damage

✓

✓

Trashracks/Baulks:

General Condition/Coatings/Impact Damage

✓

✓

Access Bridge:

General Condition/Cracking/Spalling/Impact Damage

✓

✓

Outlet Works Right Bank

Outlets:

General Condition/Cavitation/Cracking/Spalling

✓

✓

Channel:

General Condition/Loose Rock/Erosion/Deposits

✓

✓

Culverts:

General Condition/Cracking/Spalling/Settlement

SUBMERGED

—

Bull Ring:

General Condition/Cracking/Spalling/Damage/Joints

✓

✓

Outlet Works Left Bank (if Accessable)

Outlets:

General Condition/Cavitation/Cracking/Spalling

✓

✓

Channel:

General Condition/Loose Rock/Erosion/Deposits

✓

✓

Culverts:

General Condition/Cracking/Spalling/Settlement

✓

✓

Pump House:

General Condition/Cracking/Damage

✓

✓

Selma Channel Gate House:

General Condition/Cracking/Damage

✓

✓

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's initials

Fax to
(tick if faxed)Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 2 of 9

29/12/10 SADDLE DAMS 1, 2 + 3

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 3 of 4

VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE 29-12-10

TIME 1500 HRS

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 1

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	W		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	✓		
	Drainage System	✓		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	✓		
Left Abutment:	Cracks/Wetspots/Slides	✓		
Right Abutment:	Cracks/Wetspots/Slides	✓		

Saddle Dam 2

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	D		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	✓		
	Drainage System	✓		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	✓		
Left Abutment:	Cracks/Wetspots/Slides	✓		
Right Abutment:	Cracks/Wetspots/Slides	✓		

Saddle Dam 3

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	D		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	✓		
	Drainage System	✓		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	✓		
Left Abutment:	Cracks/Wetspots/Slides	✓		
Right Abutment:	Cracks/Wetspots/Slides	✓		

Details of significant changes. New occurrences and issues warranting further attention

ALL OK ✓

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 3 of 9

29-12-10

SADDLE DAM 4

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
 Note: See Page 5 for instructions **

Page 4 of 4

VISUAL INSPECTION

First
InspectionSecond
Inspection
(+6 hrs)Third
Inspection
(+12 hrs)

DATE 29-12-10

TIME 10.00

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 4

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 5

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 6

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Details of significant changes, New occurrences and issues warranting further attention

Saddle Dam 4 o/c

Inspecting Officer's initials

Fax to
(tick if faxed)Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 4 of 9

29/12/10

SADDLE DAM 5. SADDLE DAM 6 TO WET FOR ACCESS

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

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VISUAL INSPECTION

First
InspectionSecond
Inspection
(+6 hrs)Third
Inspection
(+12 hrs)

DATE 29-12-10

TIME 1530Hrs

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 4

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 5

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 6

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Details of significant changes. New occurrences and issues warranting further attention

SADDLE DAM 4 "CRACKS"

SADDLE DAM 5

"WATER AT BASE"

SADDLE DAM 6

"TOO WET"

Inspecting Officer's initials

Fax to
(tick if faxed)Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

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SUNWATER EMERALD

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FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

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VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE 30-12-10

TIME 0630

30-12-10

1700

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

	D		D
General Condition	✓		✓
Cracks, subsidence in pavement	✓		✓
Settlement	✓		✓
Displacement of riprap material	✓		✓
Subsidence, slides, erosion	✓		✓
Sign of seepage, Wet spots / seams	✓		✓

Area Downstream of Dam

Seepage from any location apart from seepage point	✓		✓
--	---	--	---

Seepage

Seepage water - Clear or Turbid (Tick for clear)

N/A

N/A

Spillway

Spillway Channel

Erosion, damage to concrete structure

SUBMERGED

Trainings Walls:

General Condition/Cracking/Spalling

✓

✓

U/S Face (if visible):

General Condition

✓

✓

Apron (if visible):

General Condition / Impact Damage

SUBMERGED

Crest (if visible):

General Condition

✓

✓

Impact Damage

✓

✓

Bridge:

General Condition/Cracking/Spalling/Construction Joints

✓

✓

Details of significant changes. New occurrences and issues warranting further attention

spillway major flood event under to see all areas due to monitor water

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 1 of 9

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 2 of 4

VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
DATE 30/12/10		30/12/10
TIME 0700		1730

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

River		D	.	D
Left Bank: General Condition/Seepage/Slips/Slumps		SUBMERGED		
Seepage/Erosion/Deposits		SUBMERGED		
Right Bank: General Condition/Seepage/Slips/Slumps		✓		✓
Intake Structure				
Structure: General Condition/Cracking/Spalling/Impact Damage		✓		✓
Trashracks/Baulks: General Condition/Coatings/Impact Damage		SUBMERGED		
Access Bridge: General Condition/Cracking/Spalling/Impact Damage		✓		✓
Outlet Works Right Bank				
Outlets: General Condition/Cavitation/Cracking/Spalling		✓		✓
Channel: General Condition/Loose Rock/Erosion/Deposits		SUBMERGED		
Culverts: General Condition/Cracking/Spalling/Settlement		✓		✓
Bull Ring: General Condition/Cracking/Spalling/Damage/Joints		✓		✓
Outlet Works Left Bank (if Accessable)				
Outlets: General Condition/Cavitation/Cracking/Spalling		✓		✓
Channel: General Condition/Loose Rock/Erosion/Deposits		SUBMERGED		
Culverts: General Condition/Cracking/Spalling/Settlement		✓		✓
Pump House: General Condition/Cracking/Damage		✓		✓
Selma Channel Gate House: General Condition/Cracking/Damage		✓		✓

Details of significant changes. New occurrences and issues warranting further attention

BELEVE THAT ACTUATOR FROM LEFT BANK STATION
HAS BEEN TORN OFF.

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 2 of 9

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 3 of 4

VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
DATE 30-12-10		
TIME 1230		

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 1

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	R		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	✓		
	Drainage System	✓		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	✓		
Left Abutment:	Cracks/Wetspots/Slides	✓		
Right Abutment:	Cracks/Wetspots/Slides	✓		

Saddle Dam 2

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	R		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	✓		
	Drainage System	✓		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	✓		
Left Abutment:	Cracks/Wetspots/Slides	✓		
Right Abutment:	Cracks/Wetspots/Slides	✓		

Saddle Dam 3

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	✓		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	✓		
	Drainage System	✓		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	✓		
Left Abutment:	Cracks/Wetspots/Slides	✓		
Right Abutment:	Cracks/Wetspots/Slides	✓		

Details of significant changes. New occurrences and issues warranting further attention

ROCK ON HORSE BACK & DID THOROUGH
INSPECTION No 1 & No 2 IN GOOD CONDITION

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SADDLE DAMS

4 + 6

30-12-10

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
 Note: See Page 5 for instructions **

Page 4 of 4

VISUAL INSPECTION

First
InspectionSecond
Inspection
(+6 hrs)Third
Inspection
(+12 hrs)

DATE

30-12-10

TIME

0900

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 4

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 5

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 6

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Details of significant changes. New occurrences and issues warranting further attention

ROCK ON LARGE BACK + DID THOROUGH INSPECTION
 No 5 + 6 in GOOD CONDITION. NO 6 HAD 4 SMALL SINK HOLES.

Inspecting Officer's Initials

Fax to
(tick if faxed)Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 4 of 9

Main Embankment

31-12-10

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
 Note: See Page 5 for instructions **

Page 1 of 4

VISUAL INSPECTION

First
InspectionSecond
Inspection
(+6 hrs)Third
Inspection
(+12 hrs)

DATE 31-12-10

31-12-10

TIME 0630

1700

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

D

General Condition

✓

✓

Cracks, subsidence in pavement

✓

✓

Upstream Face (Use binoculars):

Settlement

✓

✓

Displacement of riprap material

✓

✓

Downstream face:

Subsidence, slides, erosion

✓

✓

Sign of seepage, Wet spots / seams

✓

✓

Area Downstream of Dam

D

Seepage from any location apart from seepage point

✓

✓

Seepage

Seepage water - Clear or Turbid (Tick for clear)

N/A

N/A

Spillway

Spillway Channel

Erosion, damage to concrete structure

SUBMERGED

Trainings Walls:

General Condition/Cracking/Spalling

✓

✓

U/S Face (if visible):

General Condition

✓

✓

Apron (if visible):

General Condition / Impact Damage

SUBMERGED

Crest (if visible):

General Condition

✓

-

Impact Damage

✓

-

Bridge:

General Condition/Cracking/Spalling/Construction Joints

✓

✓

Details of significant changes, New occurrences and issues warranting further attention

NOTE SPILLWAY HEAVILY SUBMERGED

LOWER PIEZO PIT FLOODED

Inspecting Officer's initials

Fax to
(tick if faxed)Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 1 of 9

Main Embankment

31-12-10

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 2 of 4

VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
------------------	----------------------------	----------------------------

DATE 31-12-10

TIME 0630

31-12-10

1200

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

River

Left Bank:

General Condition/Seepage/Slips/Slumps

D

SUBMERGED

Seepage/Erosion/Deposits

Right Bank:

General Condition/Seepage/Slips/Slumps

SUBMERGED

Intake Structure

Structure:

General Condition/Cracking/Spalling/Impact Damage

✓

✓

Trashracks/Baulks:

General Condition/Coatings/Impact Damage

SUBMERGED

Access Bridge:

General Condition/Cracking/Spalling/Impact Damage

✓

✓

Outlet Works Right Bank

Outlets:

General Condition/Cavitation/Cracking/Spalling

✓

✓

Channel:

General Condition/Loose Rock/Erosion/Deposits

SUBMERGED

Culverts:

General Condition/Cracking/Spalling/Settlement

✓

✓

Bull Ring:

General Condition/Cracking/Spalling/Damage/Joints

✓

✓

Outlet Works Left Bank (if Accessable)

Outlets:

General Condition/Cavitation/Cracking/Spalling

D

✓

Channel:

General Condition/Loose Rock/Erosion/Deposits

SUBMERGED

Culverts:

General Condition/Cracking/Spalling/Settlement

✓

✓

Pump House:

General Condition/Cracking/Damage

✓

✓

Selma Channel Gate House:

General Condition/Cracking/Damage

✓

✓

Details of significant changes. New occurrences and issues warranting further attention

WATER LEAKING INTO ROOF TUNNEL AT PUMP STN.

Inspecting Officer's initials

Fax to
(tick if faxed)Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 2 of 9

SADDLE DAMS 2+3 31-12-10

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for Instructions **

Page 3 of 4

VISUAL INSPECTION		First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
DATE 31-12-10				
TIME 10:30				

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 1

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 2

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 3

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SADDLE Dam A 31-12-10

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 4 of 4

VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
------------------	----------------------------	----------------------------

DATE 31-12-10
TIME 11:30

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 4

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	W		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	✓		
	Drainage System	✓		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	✓		
Left Abutment:	Cracks/Wetspots/Slides	✓		
Right Abutment:	Cracks/Wetspots/Slides	✓		

Saddle Dam 5

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	—		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	—		
	Drainage System	—		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	—		
Left Abutment:	Cracks/Wetspots/Slides	—		
Right Abutment:	Cracks/Wetspots/Slides	—		

Saddle Dam 6

Crest:	Depressions/Cracks/Sinkholes/Alignment/Erosion	—		
D/S Slope:	Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion	—		
	Drainage System	—		
U/S Slope:	Slides/Sinkholes/Beaching/Erosion	—		
Left Abutment:	Cracks/Wetspots/Slides	—		
Right Abutment:	Cracks/Wetspots/Slides	—		

Details of significant changes. New occurrences and issues warranting further attention

No water has reached SADDLE Dam 6. INSPECTION

DATE PREVIOUS DAY.

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SunWater

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SADDLE DAM 5 31-12-10

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 4 of 4

VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
------------------	----------------------------	----------------------------

DATE 31-12-10

TIME 9-00

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Saddle Dam Embankments (Earth & Rockfill Structure)

Saddle Dam 4

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 5

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Saddle Dam 6

Crest: Depressions/Cracks/Sinkholes/Alignment/Erosion

D/S Slope: Cracks/Sinkholes/Bulging/Wetspots/Boils/Depressions/Erosion

Drainage System

U/S Slope: Slides/Sinkholes/Beaching/Erosion

Left Abutment: Cracks/Wetspots/Slides

Right Abutment: Cracks/Wetspots/Slides

Details of significant changes. New occurrences and issues warranting further attention

Water at Base Saddle Dam 5. OK

Saddle Dam 4 OK

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SunWater

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FAIRBAIRN DAM EAP

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Flood Operation

Page 1 of 4

VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE

1-1-11

1-1-11

TIME

0630

1630

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

D

General Condition

✓

Cracks, subsidence in pavement

✓

Upstream Face (Use binoculars):

Settlement

✓

Displacement of riprap material

✓

Downstream face:

Subsidence, slides, erosion

✓

Sign of seepage, Wet spots / seams

✓

Area Downstream of Dam

D

Seepage from any location apart from seepage point

Seepage

✓

Seepage water - Clear or Turbid (Tick for clear)

Spillway

N/A

N/A

Spillway Channel

Erosion, damage to concrete structure

Trainings Walls:

General Condition/Cracking/Spalling

SUBMERGED

U/S Face (if visible):

General Condition

✓

✓

Apron (if visible):

General Condition / Impact Damage

Crest (if visible):

General Condition

✓

✓

Impact Damage

✓

✓

Bridge:

General Condition/Cracking/Spalling/Construction Joints

✓

✓

Details of significant changes. New occurrences and issues warranting further attention

SPILLWAY HEAVILY SUBMERGED

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

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FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

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VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
------------------	----------------------------	----------------------------

DATE	1-1-11	1-1-11
------	--------	--------

TIME	0700	1700
------	------	------

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

River

Left Bank:

General Condition/Seepage/Slips/Slumps

D

Seepage/Erosion/Deposits

SUBMERGED

Right Bank:

General Condition/Seepage/Slips/Slumps

SUBMERGED

Intake Structure

SUBMERGED

Structure:

General Condition/Cracking/Spalling/Impact Damage

✓

Trashracks/Baulks:

General Condition/Coatings/Impact Damage

SUBMERGED

Access Bridge:

General Condition/Cracking/Spalling/Impact Damage

✓

Outlet Works Right Bank

✓

Outlets:

General Condition/Cavitation/Cracking/Spalling

✓

Channel:

General Condition/Loose Rock/Erosion/Deposits

✓

Culverts:

General Condition/Cracking/Spalling/Settlement

✓

Bull Ring:

General Condition/Cracking/Spalling/Damage/Joints

✓

Outlet Works Left Bank (if Accessable)

✓

Outlets:

General Condition/Cavitation/Cracking/Spalling

✓

Channel:

General Condition/Loose Rock/Erosion/Deposits

✓

Culverts:

General Condition/Cracking/Spalling/Settlement

✓

Pump House:

General Condition/Cracking/Damage

✓

Selma Channel Gate House:

General Condition/Cracking/Damage

✓

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 2 of 9

Jan 08, Issue 2-0

FAIRBAIRN DAM EAP

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Flood Operation

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VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
------------------	----------------------------	----------------------------

DATE	2-1-11		2-1-11
TIME	0630		1700

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

D

	General Condition		
Upstream Face (Use binoculars):	Cracks, subsidence in pavement	✓	✓
	Settlement	✓	✓
Downstream face:	Displacement of riprap material	✓	✓
	Subsidence, slides, erosion	✓	✓
	Sign of seepage, Wet spots / seams	✓	✓
Area Downstream of Dam			

D

Seepage	Seepage from any location apart from seepage point	✓	✓
---------	--	---	---

Spillway	Seepage water - Clear or Turbid (Tick for clear)	N/A	N/A
----------	--	-----	-----

Spillway Channel	Erosion, damage to concrete structure	SUBMERGED	
Trainings Walls:	General Condition/Cracking/Spalling		
U/S Face (if visible):	General Condition	✓	~
Apron (if visible):	General Condition / Impact Damage	SUBMERGED	
Crest (if visible):	General Condition	✓	✓
	Impact Damage		✓
Bridge:	General Condition/Cracking/Spalling/Construction Joints	✓	✓
Details of significant changes. New occurrences and issues warranting further attention		✓	✓

Inspecting Officer's Initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Page 2 of 4

VISUAL INSPECTION		First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
DATE		2-1-11		2-1-11
TIME		0700		1730
(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive) D				
River				
Left Bank:	General Condition/Seepage/Slips/Slumps	0		
	Seepage/Erosion/Deposits	SUBMERGED		
Right Bank:	General Condition/Seepage/Slips/Slumps	SUBMERGED		
	Seepage/Erosion/Deposits	SUBMERGED		
Intake Structure				
Structure:	General Condition/Cracking/Spalling/Impact Damage			
Trashracks/Baulks:	General Condition/Coatins/Impact Damage	✓		✓
Access Bridge:	General Condition/Cracking/Spalling/Impact Damage	SUBMERGED		
Outlet Works Right Bank		✓		✓
Outlets:	General Condition/Cavitation/Cracking/Spalling	✓		
Channel:	General Condition/Loose Rock/Erosion/Deposits			✓
Culverts:	General Condition/Cracking/Spalling/Settlement	SUBMERGED		
Bull Ring:	General Condition/Cracking/Spalling/Damage/Joints	✓		✓
Outlet Works Left Bank (if Accessable)		✓		✓
Outlets:	General Condition/Cavitation/Cracking/Spalling	✓		✓
Channel:	General Condition/Loose Rock/Erosion/Deposits			
Culverts:	General Condition/Cracking/Spalling/Settlement	SUBMERGED		
Pump House:	General Condition/Cracking/Damage	✓		✓
Selma Channel Gate House:	General Condition/Cracking/Damage	✓		✓
Details of significant changes. New occurrences and issues warranting further attention				
Inspecting Officer's Initials				
Fax to (tick if faxed)	Asset Engineering Manager / Service Delivery Manager			
	Principal Engineer (Dam Safety)			

FAIRBAIRN DAM EAP

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Flood Operation

Page 1 of 4

VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE

3-1-11

TIME

0700

3-1-11

1630

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

D

General Condition

✓

✓

Cracks, subsidence in pavement

✓

✓

Settlement

✓

✓

Displacement of riprap material

✓

✓

Downstream face:

Subsidence, slides, erosion

✓

✓

Sign of seepage, Wet spots / seams

✓

✓

Area Downstream of Dam

Seepage from any location apart from seepage point

✓

✓

Seepage

Seepage water - Clear or Turbid (Tick for clear)

N/A

N/A

Spillway

Spillway Channel

Erosion, damage to concrete structure

SUBMERGED

Trainings Walls:

General Condition/Cracking/Spalling

✓

✓

U/S Face (if visible):

General Condition

✓

✓

Apron (if visible):

General Condition / Impact Damage

✓

✓

Crest (if visible):

General Condition

✓

✓

Impact Damage

✓

✓

Bridge:

General Condition/Cracking/Spalling/Construction Joints

✓

✓

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

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FAIRBAIRN DAM EAP

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Flood Operation

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VISUAL INSPECTION

First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
------------------	----------------------------	----------------------------

DATE 4-1-11		4-1-11
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TIME 7 AM		1600
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(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

Upstream Face (Use binoculars):	General Condition	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	Cracks, subsidence in pavement	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Downstream face:	Settlement	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	Displacement of riprap material	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	Subsidence, slides, erosion	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	Sign of seepage, Wet spots / seams	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

Area Downstream of Dam

Seepage	Seepage from any location apart from seepage point	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
---------	--	-------------------------------------	--	-------------------------------------

Spillway	Seepage water - Clear or Turbid (Tick for clear)	N/A		N/A
----------	--	-----	--	-----

Spillway Channel	Erosion, damage to concrete structure			
------------------	---------------------------------------	--	--	--

Trainings Walls:	General Condition/Cracking/Spalling	<input checked="" type="checkbox"/>	SUBMERGED	<input checked="" type="checkbox"/>
------------------	-------------------------------------	-------------------------------------	-----------	-------------------------------------

U/S Face (if visible):	General Condition	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
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Apron (if visible):	General Condition / Impact Damage	<input checked="" type="checkbox"/>	SUBMERGED	<input checked="" type="checkbox"/>
---------------------	-----------------------------------	-------------------------------------	-----------	-------------------------------------

Crest (if visible):	General Condition	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
---------------------	-------------------	-------------------------------------	--	-------------------------------------

Bridge:	Impact Damage	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
---------	---------------	-------------------------------------	--	-------------------------------------

	General Condition/Cracking/Spalling/Construction Joints	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
--	---	-------------------------------------	--	-------------------------------------

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's Initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SunWater
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SUNWATER EMERALD

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FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

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VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE 5-1-11

TIME 7Am

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

General Condition

Cracks, subsidence in pavement

Upstream Face (Use binoculars):

Settlement

Displacement of riprap material

Downstream face:

Subsidence, slides, erosion

Sign of seepage, Wet spots / seams

Area Downstream of Dam

Seepage from any location apart from seepage point

Seepage

Seepage water - Clear or Turbid (Tick for clear)

Spillway

Spillway Channel

Erosion, damage to concrete structure

Trainings Walls:

General Condition/Cracking/Spalling

U/S Face (if visible):

General Condition

Apron (if visible):

General Condition / Impact Damage

Crest (if visible):

General Condition

Impact Damage

Bridge:

General Condition/Cracking/Spalling/Construction Joints

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

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SUNWATER EMERALD

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FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions ""

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VISUAL INSPECTION

	First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
DATE	5.1.11		
TIME	7 AM		

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

River

Left Bank:

General Condition/Seepage/Slips/Slumps

Seepage/Erosion/Deposits

Right Bank:

General Condition/Seepage/Slips/Slumps

Intake Structure

Structure:

General Condition/Cracking/Spalling/Impact Damage

Trashracks/Baulks:

General Condition/Coatings/Impact Damage

Access Bridge:

General Condition/Cracking/Spalling/Impact Damage

Outlet Works Right Bank

Outlets:

General Condition/Cavitation/Cracking/Spalling

Channel:

General Condition/Loose Rock/Erosion/Deposits

Culverts:

General Condition/Cracking/Spalling/Settlement

Bull Ring:

General Condition/Cracking/Spalling/Damage/Joints

Outlet Works Left Bank (if Accessable)

Outlets:

General Condition/Cavitation/Cracking/Spalling

Channel:

General Condition/Loose Rock/Erosion/Deposits

Culverts:

General Condition/Cracking/Spalling/Settlement

Pump House:

General Condition/Cracking/Damage

Selma Channel Gate House:

General Condition/Cracking/Damage

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's Initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

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FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

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VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE 6-1-11

TIME 7:30am

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

River

Left Bank:

General Condition/Seepage/Slips/Slumps

Seepage/Erosion/Deposits

Right Bank:

General Condition/Seepage/Slips/Slumps

Intake Structure

Structure:

General Condition/Cracking/Spalling/Impact Damage

Trashracks/Baulks:

General Condition/Coatins/Impact Damage

Access Bridge:

General Condition/Cracking/Spalling/Impact Damage

Outlet Works Right Bank

Outlets:

General Condition/Cavitation/Cracking/Spalling

Channel:

General Condition/Loose Rock/Erosion/Deposits

Culverts:

General Condition/Cracking/Spalling/Settlement

Bull Ring:

General Condition/Cracking/Spalling/Damage/Joints

Outlet Works Left Bank (if Accessable)

Outlets:

General Condition/Cavitation/Cracking/Spalling

Channel:

General Condition/Loose Rock/Erosion/Deposits

Culverts:

General Condition/Cracking/Spalling/Settlement

Pump House:

General Condition/Cracking/Damage

Selma Channel Gate House:

General Condition/Cracking/Damage

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 2 of 9

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FAIRBAIRN DAM EAP

Visual Inspection and Storage Report
Note: See Page 5 for instructions **

Flood Operation

Page 1 of 4

VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE

6-1-11

TIME

7:30am

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

General Condition

Cracks, subsidence in pavement

Upstream Face (Use binoculars):

Settlement

Displacement of riprap material

Downstream face:

Subsidence, slides, erosion

Sign of seepage, Wet spots / seams

Area Downstream of Dam

Seepage from any location apart from seepage point

Seepage

Seepage water - Clear or Turbid (Tick for clear)

Spillway

Spillway Channel

Erosion, damage to concrete structure

Trainings Walls:

General Condition/Cracking/Spalling

U/S Face (if visible):

General Condition

Apron (if visible):

General Condition / Impact Damage

Crest (if visible):

General Condition

Impact Damage

Bridge:

General Condition/Cracking/Spalling/Construction Joints

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's Initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 1 of 9

FAIRBAIRN DAM EAP

Visual Inspection and Storage Report
Note: See Page 5 for instructions *

Flood Operation

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VISUAL INSPECTION

First
Inspection

Second
Inspection
(+6 hrs)

Third
Inspection
(+12 hrs)

DATE 7-1-11

TIME 7:30

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

Main Dam Embankment

D

General Condition

Cracks, subsidence in pavement

Upstream Face (Use binoculars):

Settlement

Displacement of riprap material

Downstream face:

Subsidence, slides, erosion

Sign of seepage, Wet spots / seams

Area Downstream of Dam

Seepage from any location apart from seepage point

Seepage

Seepage water - Clear or Turbid (Tick for clear)

Spillway

N/A

Spillway Channel

Erosion, damage to concrete structure

Trainings Walls:

General Condition/Cracking/Spalling

U/S Face (if visible):

General Condition

Apron (if visible):

General Condition / Impact Damage

Crest (if visible):

General Condition

SUBMERGED

Impact Damage

Bridge:

General Condition/Cracking/Spalling/Construction Joints

Details of significant changes. New occurrences and issues warranting further attention

MOST OF SPILLWAY & SEEPAGE PITS STILL UNDER WATER

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery
Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 1 of 9

SUNWATER EMERALD

07/04/2011 13:32

FAIRBAIRN DAM EAP

Flood Operation

Visual Inspection and Storage Report
Note: See Page 5 for Instructions **

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VISUAL INSPECTION

	First Inspection	Second Inspection (+6 hrs)	Third Inspection (+12 hrs)
DATE	7-1-11		
TIME	7-30		

(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)

River

Left Bank:

General Condition/Seepage/Slips/Slumps

Seepage/Erosion/Deposits

Right Bank:

General Condition/Seepage/Slips/Slumps

Intake Structure

Structure:

General Condition/Cracking/Spalling/Impact Damage

Trashracks/Baulks:

General Condition/Coatings/Impact Damage

Access Bridge:

General Condition/Cracking/Spalling/Impact Damage

Outlet Works Right Bank

Outlets:

General Condition/Cavitation/Cracking/Spalling

Channel:

General Condition/Loose Rock/Erosion/Deposits

Culverts:

General Condition/Cracking/Spalling/Settlement

Bull Ring:

General Condition/Cracking/Spalling/Damage/Joints

Outlet Works Left Bank (if Accessable)

Outlets:

General Condition/Cavitation/Cracking/Spalling

Channel:

General Condition/Loose Rock/Erosion/Deposits

Culverts:

General Condition/Cracking/Spalling/Settlement

Pump House:

General Condition/Cracking/Damage

Selma Channel Gate House:

General Condition/Cracking/Damage

Details of significant changes. New occurrences and issues warranting further attention

Inspecting Officer's initials

Fax to
(tick if faxed)

Asset Engineering Manager / Service Delivery Manager

Principal Engineer (Dam Safety)

SunWater

Section 6A: Page 2 of 9

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FAIRBAIRN DAM - EMERGENCY EVENT REPORT

Emergency Event Recording Sheets

- **General Comments and/or EAP Recommendations**

Note: These sheets must be completed for all Emergency Event Scenarios and be included in the emergency Event Report

FAIRBAIRN DAM - EMERGENCY EVENT REPORT

EAP Recommendations: *This was a longer than usual event due to the protracted wet season and continuous inflows over a long period of time.*

The EAP was considered adequate, with no major issues noted during the event. A review of the EAP was completed after the event and some improvements identified. These will be incorporated in the new EAP format that is currently being finalised.