

# COOLMUNDA DAM FLOOD EVENT REPORT

## Emergency Event Recording Sheets

- Description of the event
- Instrument readings, rainfall and levels data
- Description of Observed Damage
- Record of Communication sheet
- General comments & other issues
- Photos during & after event

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

**QFCI**

Date:

27/05/11

JM

Exhibit Number:

516

## Coolmunda Dam Event Report

### Emergency Event Recording Sheets

- Description of the Event

# EMERGENCY ACTION PLAN - COOLMUNDA 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 10:30 AM Date 13/9/10 Finishing: Time 18:00 Date 16-10-10

### 2. DESCRIPTION OF THE EVENT

25-10-10

21-10-10  
28-10-10

Attach relevant sheets from Section 6.

### 3. STATISTICS

|                                     |                 |               |
|-------------------------------------|-----------------|---------------|
| Total inflow <u>MEASURED</u>        | <u>49650</u>    | Megalitres    |
| Total discharge                     | <u>89378</u>    | Megalitres    |
| Capacity of Storage prior to inflow | <u>57219 ML</u> | <u>82.9</u> % |
| Volume prior to inflow              | <u>57219</u>    | Megalitres    |
| Maximum inflow <u>ATT</u>           | <u>18,095</u>   | MLD           |
| Maximum discharge <u>ATT</u>        | <u>32,691</u>   | MLD           |

### 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

### 6. DAMAGE REPORT

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

ACCESS TO DISSIPATOR WASHED AWAY, LADDER ON PIER DAMAGED

Name:.....Signed:.....Designation:.....Date:...../...../.....

# EMERGENCY ACTION PLAN - COOLMUNDA 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 7:00 am/pm; Date 21/11/10 Finishing: Time 7:00 am/pm; Date 16/11/10

### 2. DESCRIPTION OF THE EVENT

Attach relevant sheets from Section 6.

### 3. STATISTICS

|                                     |               |            |
|-------------------------------------|---------------|------------|
| Total inflow <i>MEASURED</i>        | <u>90495</u>  | Megalitres |
| Total discharge                     | <u>178805</u> | Megalitres |
| Capacity of Storage prior to inflow | <u>102.6</u>  | %          |
| Volume prior to inflow              | <u>70848</u>  | Megalitres |
| Maximum inflow <i>ATT</i>           | <u>49709</u>  | MLD        |
| Maximum discharge <i>ATT</i>        | <u>77998</u>  | MLD        |

### 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

### 6. DAMAGE REPORT

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

PIER LADDERS DAMAGED, ACCESS RAMP DESTROYED,  
SOME BANK EROSION D/S

Name:.....Signed:.....Designation:.....Date:...../...../.....

## Coolmunda Dam Event Report

### Emergency Event Recording Sheets

- Instrument readings, rainfall and levels data

TABLE 2

RECORD OF GATE OPERATION DURING FLOOD COMMENCING 16 / 11 / 10  
COOLMUNDA DAM

| Date     | Time  | Reservoir Level | Measured Inflow | Rainfall at Dam | Gate Openings |   |   |   |   |   |   | Discharges through Gates |                |   |   |   |   |   | Outlet Valve Discharge | Total Discharge<br><br>ATT.<br>ML/D | D/Stream Discharge<br><br>(From Gauge) |
|----------|-------|-----------------|-----------------|-----------------|---------------|---|---|---|---|---|---|--------------------------|----------------|---|---|---|---|---|------------------------|-------------------------------------|----------------------------------------|
|          |       |                 |                 |                 | 1             | 2 | 3 | 4 | 5 | 6 | 7 | 1                        | 2<br>Seal Leak | 3 | 4 | 5 | 6 | 7 |                        |                                     |                                        |
| 05/10/10 | 07:00 | 314.178         | 307             | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 06/10/10 | 07:00 | 314.166         | 282             | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 07/10/10 | 07:00 | 314.152         | 0               | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 08/10/10 | 07:00 | 314.135         | 0               | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 09/10/10 | 07:00 | 314.134         | 0               | 10              | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 10/10/10 | 07:00 | 314.119         | 275             | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 11/10/10 | 07:00 | 314.103         | 0               | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 12/10/10 | 07:00 | 314.083         | 0               | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 371                    | 406                                 | N/A                                    |
| 13/10/10 | 07:00 | 314.062         | 0               | 0               | 0             | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 35             | 0 | 0 | 0 | 0 | 0 | 0                      | 35                                  | N/A                                    |
|          |       |                 |                 |                 |               |   |   |   |   |   |   |                          |                |   |   |   |   |   |                        |                                     |                                        |
|          |       |                 |                 |                 |               |   |   |   |   |   |   |                          |                |   |   |   |   |   |                        |                                     |                                        |
|          |       |                 |                 |                 |               |   |   |   |   |   |   |                          |                |   |   |   |   |   |                        |                                     |                                        |

|          |       |         |      |     |   |   |   |     |   |   |   |   |    |   |      |   |   |   |     |      |      |
|----------|-------|---------|------|-----|---|---|---|-----|---|---|---|---|----|---|------|---|---|---|-----|------|------|
| 17/10/10 | 07:00 | 314.200 | 1451 | 0   | 0 | 0 | 0 | .37 | 0 | 0 | 0 | 0 | 57 | 0 | 3170 | 0 | 0 | 0 | 349 | 3576 | 0.68 |
| //       | 08:00 | 314.198 | 1383 | 0   | 0 | 0 | 0 | .37 | 0 | 0 | 0 | 0 | 57 | 0 | 3170 | 0 | 0 | 0 | 349 | 3576 | 0.68 |
| //       | 12:00 | 314.199 | 1219 | 0   | 0 | 0 | 0 | .23 | 0 | 0 | 0 | 0 | 57 | 0 | 1970 | 0 | 0 | 0 | 349 | 2376 | 0.48 |
| //       | 15:00 | 314.199 | 1126 | 0   | 0 | 0 | 0 | .23 | 0 | 0 | 0 | 0 | 57 | 0 | 1970 | 0 | 0 | 0 | 349 | 2376 | 0.48 |
| //       | 18:00 | 314.197 | 1049 | 0   | 0 | 0 | 0 | .16 | 0 | 0 | 0 | 0 | 57 | 0 | 1311 | 0 | 0 | 0 | 349 | 1717 | 0.41 |
| 18/10/10 | 07:00 | 314.197 | 742  | 0   | 0 | 0 | 0 | .07 | 0 | 0 | 0 | 0 | 57 | 0 | 600  | 0 | 0 | 0 | 349 | 1006 | 0.29 |
| 19/10/10 | 07:00 | 314.196 | 499  | 0   | 0 | 0 | 0 | .04 | 0 | 0 | 0 | 0 | 57 | 0 | 383  | 0 | 0 | 0 | 349 | 755  | 0.17 |
| 20/10/10 | 07:00 | 314.195 | 384  | 0   | 0 | 0 | 0 | .02 | 0 | 0 | 0 | 0 | 57 | 0 | 171  | 0 | 0 | 0 | 349 | 577  | 0.10 |
| 21/10/10 | 07:00 | 314.186 | 322  | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.05 |
| 22/10/10 | 07:00 | 314.176 | 294  | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.03 |
| 23/10/10 | 07:00 | 314.164 | 278  | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.03 |
| 24/10/10 | 07:00 | 314.147 | 0    | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.03 |
| 25/10/10 | 07:00 | 314.223 | 1486 | 6.0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 0 | 0 | 57 | 0 | 5140 | 0 | 0 | 0 | 349 | 5546 | 0.91 |
| //       | 09:00 | 314.223 | 1260 | 0   | 0 | 0 | 0 | 0.6 | 0 | 0 | 0 | 0 | 57 | 0 | 5140 | 0 | 0 | 0 | 349 | 5546 | 0.90 |
| //       | 14:00 | 314.208 | 1052 | 0   | 0 | 0 | 0 | .48 | 0 | 0 | 0 | 0 | 57 | 0 | 4112 | 0 | 0 | 0 | 349 | 4518 | 0.80 |
| 26/10/10 | 07:00 | 314.195 | 603  | 0   | 0 | 0 | 0 | .10 | 0 | 0 | 0 | 0 | 57 | 0 | 856  | 0 | 0 | 0 | 349 | 1262 | 0.25 |
| 27/10/10 | 07:00 | 314.195 | 425  | 0   | 0 | 0 | 0 | .04 | 0 | 0 | 0 | 0 | 57 | 0 | 383  | 0 | 0 | 0 | 349 | 789  | 0.15 |
| 28/10/10 | 07:00 | 314.191 | 333  | 0   | 0 | 0 | 0 | .01 | 0 | 0 | 0 | 0 | 57 | 0 | 86   | 0 | 0 | 0 | 349 | 492  | 0.08 |
| 29/10/10 | 07:00 | 314.180 | 284  | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.04 |
| 30/10/10 | 07:00 | 314.162 | 0    | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.03 |
| 31/10/10 | 07:00 | 314.142 | 0    | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.03 |
|          |       |         |      |     |   |   |   |     |   |   |   |   |    |   |      |   |   |   |     |      |      |
|          |       |         |      |     |   |   |   |     |   |   |   |   |    |   |      |   |   |   |     |      |      |

|          |       |         |      |      |   |   |   |     |   |   |   |   |   |    |   |      |   |   |   |     |      |      |
|----------|-------|---------|------|------|---|---|---|-----|---|---|---|---|---|----|---|------|---|---|---|-----|------|------|
| 02/11/10 | 07:00 | 314.112 | 0    | 5.0  | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 57 | 0 | 0    | 0 | 0 | 0 | 349 | 406  | 0.03 |
| 03/11/10 | 07:00 | 314.081 | 0    | 0    | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 349 | 349  | 0.00 |
| 04/11/10 | 07:00 | 314.074 | 0    | 0    | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 93  | 93   | N/A  |
| 05/11/10 | 07:00 | 314.086 | 469  | 21.0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 78  | 78   | N/A  |
| 18/11/10 | 07:00 | 314.096 | 202  | 31.0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 100 | 100  | 0    |
| //       | 11:30 | 314.092 | 651  | 3.0  | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 340 | 340  | 0    |
| //       | 15:00 | 314.095 | 1251 | 1.0  | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 340 | 340  | 0    |
| 19/11/10 | 07:00 | 314.142 | 1261 | 13.0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 340 | 340  | 0    |
| //       | 20:00 | 314.181 | 855  | 0    | 0 | 0 | 0 | .17 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 1456 | 0 | 0 | 0 | 340 | 1796 | 0.32 |
| //       | 21:00 | 314.181 | 850  | 0    | 0 | 0 | 0 | .19 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 1628 | 0 | 0 | 0 | 340 | 1968 | 0.40 |
| //       | 22:00 | 314.178 | 821  | 0    | 0 | 0 | 0 | .21 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 2139 | 0 | 0 | 0 | 340 | 2139 | 0.42 |
| //       | 23:00 | 314.177 | 809  | 0    | 0 | 0 | 0 | .20 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 1713 | 0 | 0 | 0 | 340 | 2053 | 0.45 |
| 20/11/10 | 07:00 | 314.182 | 672  | 0    | 0 | 0 | 0 | .11 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 942  | 0 | 0 | 0 | 340 | 982  | 0.24 |
| 21/11/10 | 07:00 | 314.178 | 424  | 0    | 0 | 0 | 0 | .03 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 257  | 0 | 0 | 0 | 340 | 597  | 0.10 |
| 22/11/10 | 07:00 | 314.174 | 323  | 0    | 0 | 0 | 0 | .01 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 86   | 0 | 0 | 0 | 340 | 426  | 0.01 |
| 23/11/10 | 07:00 | 314.178 | 270  | 0    | 0 | 0 | 0 | .01 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 86   | 0 | 0 | 0 | 0   | 86   | 0    |
| 24/11/10 | 07:00 | 314.180 | 0    | 0    | 0 | 0 | 0 | .02 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 171  | 0 | 0 | 0 | 0   | 171  | 0    |
| 25/11/10 | 07:00 | 314.178 | 0    | 0    | 0 | 0 | 0 | .01 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 86   | 0 | 0 | 0 | 0   | 86   | 0    |
| 26/11/10 | 07:00 | 314.179 | 0    | 0    | 0 | 0 | 0 | .01 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 86   | 0 | 0 | 0 | 0   | 86   | 0    |
| 27/11/10 | 07:00 | 314.159 | 0    | 0    | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 340 | 340  | 0    |
| 28/11/10 | 07:00 | 314.134 | 0    | 0    | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 340 | 340  | 0    |
| 29/11/10 | 07:00 | 314.111 | 0    | 0    | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 340 | 340  | 0    |
| 30/11/10 | 07:00 | 314.087 | 0    | 0    | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0    | 0 | 0 | 0 | 355 | 355  | 0    |



|          |       |         |      |     |   |   |   |     |   |   |   |   |   |   |   |      |   |   |     |      |      |
|----------|-------|---------|------|-----|---|---|---|-----|---|---|---|---|---|---|---|------|---|---|-----|------|------|
| 1/12/10  | 07:00 | 314.071 | 0    | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 298 | 298  | 0    |
| 2/12/10  | 07:00 | 314.086 | 0    | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 77  | 77   | 0    |
| 3/12/10  | 07:00 | 314.086 | 0    | 7.0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 69  | 69   | 0    |
| 4/12/10  | 07:00 | 314.087 | 0    | 5.0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 88  | 88   | 0    |
| 5/12/10  | 07:00 | 314.095 | 564  | 9.0 | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 100 | 100  | 0    |
| 6/12/10  | 07:00 | 314.142 | 681  | 11  | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 176 | 176  | 0    |
| 7/12/10  | 07:00 | 314.182 | 380  | 0   | 0 | 0 | 0 | .07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 600  | 0 | 0 | 343 | 943  | 0.17 |
| 8/12/10  | 07:00 | 314.176 | 282  | 0   | 0 | 0 | 0 | .02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 171  | 0 | 0 | 343 | 514  | 0.09 |
| 9/12/10  | 07:00 | 314.167 | 0    | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 334 | 334  | 0    |
| 10/12/10 | 07:00 | 314.163 | 0    | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 334 | 334  | 0    |
| 11/12/10 | 18:00 | 314.191 | 5427 | 0   | 0 | 0 | 0 | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0    | 0 | 0 | 332 | 332  | 0    |
| //       | 18:45 | 314.195 | 5101 | 0   | 0 | 0 | 0 | .02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 171  | 0 | 0 | 332 | 503  | 0.01 |
| //       | 20:00 | 314.200 | 4943 | 0   | 0 | 0 | 0 | .30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2570 | 0 | 0 | 332 | 2902 | 0.05 |
| //       | 21:00 | 314.201 | 4584 | 0   | 0 | 0 | 0 | .44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3769 | 0 | 0 | 332 | 4101 | 0.75 |
| //       | 22:00 | 314.203 | 4155 | 0   | 0 | 0 | 0 | .46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3941 | 0 | 0 | 332 | 4273 | 0.78 |
| //       | 23:00 | 314.207 | 3347 | 0   | 0 | 0 | 0 | .50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4283 | 0 | 0 | 332 | 4615 | 0.80 |
| 12/12/10 | 12:00 | 314.224 | 2068 | 0   | 0 | 0 | 0 | .60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5140 | 0 | 0 | 332 | 5472 | 0.91 |
| //       | 13:00 | 314.222 | 2030 | 0   | 0 | 0 | 0 | .58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4969 | 0 | 0 | 332 | 5301 | 0.90 |
| //       | 14:00 | 314.219 | 1993 | 0   | 0 | 0 | 0 | .56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4797 | 0 | 0 | 332 | 5129 | 0.88 |
| //       | 15:00 | 314.217 | 1989 | 0   | 0 | 0 | 0 | .54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4626 | 0 | 0 | 332 | 4958 | 0.87 |
| 13/12/10 | 07:00 | 314.196 | 1229 | 0   | 0 | 0 | 0 | .30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2570 | 0 | 0 | 332 | 2902 | 0.61 |

|          |       |         |       |      |   |   |     |      |     |   |   |   |   |      |      |      |   |   |     |       |      |
|----------|-------|---------|-------|------|---|---|-----|------|-----|---|---|---|---|------|------|------|---|---|-----|-------|------|
| 14/12/10 | 07:00 | 314.196 | 567   | 0    | 0 | 0 | 0   | .08  | 0   | 0 | 0 | 0 | 0 | 0    | 685  | 0    | 0 | 0 | 332 | 1017  | 0.19 |
| 15/12/10 | 07:00 | 314.195 | 397   | 0    | 0 | 0 | 0   | .04  | 0   | 0 | 0 | 0 | 0 | 0    | 383  | 0    | 0 | 0 | 332 | 715   | 0.14 |
| 16/12/10 | 07:00 | 314.192 | 324   | 0    | 0 | 0 | 0   | .03  | 0   | 0 | 0 | 0 | 0 | 0    | 257  | 0    | 0 | 0 | 332 | 589   | 0.09 |
| 17/12/10 | 07:00 | 314.198 | 2275  | 0    | 0 | 0 | 0   | .17  | 0   | 0 | 0 | 0 | 0 | 0    | 1456 | 0    | 0 | 0 | 332 | 1788  | 0.22 |
| //       | 18:00 | 314.198 | N/A   | 0    | 0 | 0 | 0   | .32  | 0   | 0 | 0 | 0 | 0 | 0    | 2741 | 0    | 0 | 0 | 332 | 3073  | 0.64 |
| 18/12/10 | 07:00 | 314.196 | 741   | 0    | 0 | 0 | 0   | .11  | 0   | 0 | 0 | 0 | 0 | 0    | 942  | 0    | 0 | 0 | 332 | 1174  | 0.24 |
| //       | 18:00 | 314.198 | 625   | 0    | 0 | 0 | 0   | .03  | 0   | 0 | 0 | 0 | 0 | 0    | 257  | 0    | 0 | 0 | 332 | 589   | 0.15 |
| 19/12/10 | 07:00 | 314.196 | 514   | 0    | 0 | 0 | 0   | .07  | 0   | 0 | 0 | 0 | 0 | 0    | 600  | 0    | 0 | 0 | 332 | 932   | 0.17 |
| 20/12/10 | 07:00 | 314.194 | 753   | 0    | 0 | 0 | 0   | .02  | 0   | 0 | 0 | 0 | 0 | 0    | 171  | 0    | 0 | 0 | 332 | 503   | 0.12 |
| 21/12/10 | 07:00 | 314.198 | 443   | 0    | 0 | 0 | 0   | .05  | 0   | 0 | 0 | 0 | 0 | 0    | 428  | 0    | 0 | 0 | 332 | 760   | 0.07 |
| 22/12/10 | 07:00 | 314.195 | 346   | 0    | 0 | 0 | 0   | .02  | 0   | 0 | 0 | 0 | 0 | 0    | 171  | 0    | 0 | 0 | 332 | 503   | 0.02 |
| 23/12/10 | 07:00 | 314.182 | 290   | 0    | 0 | 0 | 0   | .01  | 0   | 0 | 0 | 0 | 0 | 0    | 86   | 0    | 0 | 0 | 332 | 418   | 0    |
| 24/12/10 | 07:00 | 314.176 | 0     | 4.0  | 0 | 0 | 0   | 0    | 0   | 0 | 0 | 0 | 0 | 0    | 0    | 0    | 0 | 0 | 332 | 332   | 0    |
| 25/12/10 | 07:00 | 314.162 | 0     | 0.6  | 0 | 0 | 0   | 0    | 0   | 0 | 0 | 0 | 0 | 0    | 0    | 0    | 0 | 0 | 332 | 332   | 0    |
| 26/12/10 | 07:00 | 314.150 | 0     | 2.0  | 0 | 0 | 0   | 0    | 0   | 0 | 0 | 0 | 0 | 0    | 0    | 0    | 0 | 0 | 332 | 332   | 0    |
| 27/12/10 | 07:00 | 314.154 | 494   | 16.8 | 0 | 0 | 0   | 0    | 0   | 0 | 0 | 0 | 0 | 0    | 0    | 0    | 0 | 0 | 332 | 332   | 0    |
| //       | 20:00 | 314.206 | 14712 | 6.4  | 0 | 0 | 0   | .57  | 0   | 0 | 0 | 0 | 0 | 0    | 4883 | 0    | 0 | 0 | 332 | 5215  | 0.87 |
| //       | 21:00 | 314.249 | 11406 | 0    | 0 | 0 | 0   | .79  | 0   | 0 | 0 | 0 | 0 | 0    | 6768 | 0    | 0 | 0 | 332 | 7100  | 1.04 |
| //       | 22:00 | 314.263 | 10532 | 0    | 0 | 0 | .36 | .82  | .34 | 0 | 0 | 0 | 0 | 3084 | 7025 | 2913 | 0 | 0 | 332 | 13354 | 1.53 |
| //       | 23:00 | 314.281 | 9684  | 0    | 0 | 0 | .55 | .91  | .50 | 0 | 0 | 0 | 0 | 4712 | 7796 | 4283 | 0 | 0 | 332 | 17123 | 1.70 |
| //       | 24:00 | 314.299 | 8874  | 0    | 0 | 0 | .61 | 1.02 | .65 | 0 | 0 | 0 | 0 | 5226 | 8738 | 5568 | 0 | 0 | 332 | 19532 | 1.87 |
| 28/12/10 | 01:00 | 314.314 | 8067  | 0    | 0 | 0 | .74 | 1.10 | .70 | 0 | 0 | 0 | 0 | 6339 | 9423 | 5997 | 0 | 0 | 332 | 22091 | 1.98 |

|          |       |         |      |      |   |   |     |      |     |   |     |   |   |      |      |      |   |     |     |       |      |
|----------|-------|---------|------|------|---|---|-----|------|-----|---|-----|---|---|------|------|------|---|-----|-----|-------|------|
| //       | 02:00 | 314.322 | 7395 | 0    | 0 | 0 | .77 | 1.13 | .73 | 0 | .01 | 0 | 0 | 6596 | 9680 | 6254 | 0 | 86  | 332 | 22948 | 2.05 |
| //       | 03:00 | 314.324 | 6931 | 0    | 0 | 0 | .78 | 1.14 | .74 | 0 | .02 | 0 | 0 | 6682 | 9766 | 6339 | 0 | 171 | 332 | 23290 | 2.07 |
| //       | 04:00 | 314.317 | 6431 | 0    | 0 | 0 | .72 | 1.08 | .68 | 0 | .02 | 0 | 0 | 6168 | 9252 | 5825 | 0 | 171 | 332 | 21748 | 1.97 |
| //       | 05:00 | 314.310 | 6118 | 0    | 0 | 0 | .68 | 1.04 | .64 | 0 | .01 | 0 | 0 | 5825 | 8909 | 5483 | 0 | 86  | 332 | 20635 | 1.90 |
| //       | 06:00 | 314.301 | 5795 | 0    | 0 | 0 | .62 | .97  | .57 | 0 | 0   | 0 | 0 | 5311 | 8310 | 4883 | 0 | 0   | 332 | 18836 | 1.79 |
| //       | 07:00 | 314.290 | 5360 | 0    | 0 | 0 | .55 | .91  | .52 | 0 | 0   | 0 | 0 | 4712 | 7796 | 4455 | 0 | 0   | 332 | 17295 | 1.70 |
| //       | 08:00 | 314.281 | 5149 | 0    | 0 | 0 | .49 | .86  | .46 | 0 | 0   | 0 | 0 | 4198 | 7367 | 3941 | 0 | 0   | 332 | 15838 | 1.63 |
| //       | 09:00 | 314.270 | 4899 | 0    | 0 | 0 | .44 | .81  | .40 | 0 | 0   | 0 | 0 | 3769 | 6939 | 3427 | 0 | 0   | 332 | 14467 | 1.54 |
| //       | 10:00 | 314.262 | 4688 | 0    | 0 | 0 | .34 | .76  | .32 | 0 | 0   | 0 | 0 | 2913 | 6511 | 2741 | 0 | 0   | 332 | 12497 | 1.47 |
| 05/01/11 | 07:00 | 314.200 | 784  | 0    | 0 | 0 | 0   | .03  | 0   | 0 | 0   | 0 | 0 | 0    | 257  | 0    | 0 | 0   | 332 | 589   | 0.16 |
| //       | 12:30 | 314.205 | 775  | 0    | 0 | 0 | 0   | .03  | 0   | 0 | 0   | 0 | 0 | 0    | 257  | 0    | 0 | 0   | 332 | 589   | 0.18 |
| //       | 16:00 | 314.221 | 719  | 35.0 | 0 | 0 | 0   | 0.52 | 0   | 0 | 0   | 0 | 0 | 0    | 4455 | 0    | 0 | 0   | 332 | 4787  | 0.79 |
| //       | 17:00 | 314.222 | 697  | 5.0  | 0 | 0 | 0   | 0.52 | 0   | 0 | 0   | 0 | 0 | 0    | 4455 | 0    | 0 | 0   | 332 | 4787  | 0.82 |
| //       | 18:00 | 314.223 | 682  | 3.0  | 0 | 0 | 0   | 0.49 | 0   | 0 | 0   | 0 | 0 | 0    | 4198 | 0    | 0 | 0   | 332 | 4530  | 0.82 |
| //       | 19:00 | 314.217 | 673  | 0    | 0 | 0 | 0   | 0.45 | 0   | 0 | 0   | 0 | 0 | 0    | 3855 | 0    | 0 | 0   | 332 | 4187  | 0.77 |
| //       | 20:00 | 314.208 | 689  | 0    | 0 | 0 | 0   | 0.38 | 0   | 0 | 0   | 0 | 0 | 0    | 3255 | 0    | 0 | 0   | 332 | 3587  | 0.70 |
| //       | 21:00 | 314.205 | 1875 | 0    | 0 | 0 | 0   | 0.16 | 0   | 0 | 0   | 0 | 0 | 0    | 1311 | 0    | 0 | 0   | 332 | 1643  | 0.50 |
| //       | 22:00 | 314.204 | 3122 | 0    | 0 | 0 | 0   | 0.10 | 0   | 0 | 0   | 0 | 0 | 0    | 856  | 0    | 0 | 0   | 332 | 1188  | 0.31 |
| //       | 23:00 | 314.204 | 2542 | 0    | 0 | 0 | 0   | 0.10 | 0   | 0 | 0   | 0 | 0 | 0    | 856  | 0    | 0 | 0   | 332 | 1188  | 0.25 |
| //       | 24:00 | 314.205 | 2146 | 0    | 0 | 0 | 0   | 0.10 | 0   | 0 | 0   | 0 | 0 | 0    | 856  | 0    | 0 | 0   | 332 | 1188  | 0.23 |
| 06/01/11 | 08:00 | 314.212 | 2352 | 1    | 0 | 0 | 0   | .42  | 0   | 0 | 0   | 0 | 0 | 0    | 3598 | 0    | 0 | 0   | 332 | 3930  | 0.74 |
| //       | 09:00 | 314.214 | 2899 | 0    | 0 | 0 | 0   | .46  | 0   | 0 | 0   | 0 | 0 | 0    | 3941 | 0    | 0 | 0   | 332 | 4273  | 0.78 |
| //       | 10:00 | 314.217 | 3376 | 4    | 0 | 0 | 0   | .49  | 0   | 0 | 0   | 0 | 0 | 0    | 4198 | 0    | 0 | 0   | 332 | 4530  | 0.80 |

|          |       |         |       |   |     |     |     |      |     |     |     |      |      |      |       |      |      |      |     |       |      |
|----------|-------|---------|-------|---|-----|-----|-----|------|-----|-----|-----|------|------|------|-------|------|------|------|-----|-------|------|
| //       | 11:00 | 314.222 | 4615  | 0 | 0   | 0   | 0   | .52  | 0   | 0   | 0   | 0    | 0    | 0    | 4455  | 0    | 0    | 0    | 332 | 4787  | 0.83 |
| //       | 12:00 | 314.225 | 7963  | 0 | 0   | 0   | 0   | .54  | 0   | 0   | 0   | 0    | 0    | 0    | 4626  | 0    | 0    | 0    | 332 | 4958  | 0.84 |
| //       | 13:00 | 314.236 | 16544 | 0 | 0   | 0   | 0   | .63  | 0   | 0   | 0   | 0    | 0    | 0    | 5397  | 0    | 0    | 0    | 332 | 5729  | 0.91 |
| //       | 14:00 | 314.251 | 25837 | 0 | 0   | 0   | 0   | .72  | 0   | 0   | 0   | 0    | 0    | 0    | 6168  | 0    | 0    | 0    | 332 | 6500  | 0.98 |
| //       | 15:00 | 314.277 | 30575 | 0 | 0   | 0   | .48 | .86  | .46 | 0   | 0   | 0    | 0    | 4112 | 7367  | 3941 | 0    | 0    | 332 | 15752 | 1.38 |
| //       | 16:00 | 314.307 | 42656 | 0 | 0   | 0   | .67 | 1.03 | .64 | 0   | 0   | 0    | 0    | 5740 | 8824  | 5438 | 0    | 0    | 332 | 20379 | 1.80 |
| //       | 17:00 | 314.348 | 47773 | 0 | .37 | .57 | .87 | 1.23 | .84 | .11 | .46 | 3170 | 4883 | 7453 | 10501 | 7196 | 942  | 3941 | 332 | 38418 | 2.38 |
| //       | 18:00 | 314.361 | 42927 | 0 | .59 | .65 | .95 | 1.32 | .92 | .63 | .57 | 5054 | 5568 | 8138 | 11168 | 7881 | 5397 | 4883 | 332 | 48421 | 3.33 |
| //       | 19:00 | 314.365 | 34585 | 0 | .62 | .68 | .98 | 1.34 | .95 | .65 | .59 | 5311 | 5825 | 8395 | 11310 | 8138 | 5568 | 5054 | 332 | 49933 | 3.55 |
| //       | 20:00 | 314.368 | 27356 | 0 | .63 | .71 | .99 | 1.35 | .96 | .67 | .63 | 5397 | 6081 | 8481 | 11384 | 8224 | 5740 | 5397 | 332 | 51036 | 3.65 |
| //       | 21:00 | 314.365 | 21631 | 0 | .63 | .71 | .99 | 1.35 | .96 | .67 | .63 | 5397 | 6081 | 8481 | 11384 | 8224 | 5740 | 5397 | 332 | 51036 | 3.65 |
| //       | 22:00 | 314.363 | 17861 | 0 | .63 | .71 | .95 | 1.30 | .93 | .67 | .63 | 5397 | 6081 | 8138 | 11016 | 7967 | 5740 | 5397 | 332 | 50068 | 3.62 |
| //       | 23:00 | 314.355 | 15398 | 0 | .59 | .65 | .90 | 1.27 | .87 | .66 | .56 | 5054 | 5568 | 7710 | 10795 | 7453 | 5654 | 4797 | 332 | 47363 | 3.50 |
| //       | 24:00 | 314.348 | 13651 | 0 | .52 | .59 | .83 | 1.20 | .81 | .58 | .50 | 4455 | 5054 | 7110 | 10280 | 6939 | 4969 | 4283 | 332 | 43422 | 3.25 |
| 07/01/11 | 13:00 | 314.280 | 6298  | 0 | 0   | 0   | .43 | .79  | .39 | 0   | 0   | 0    | 0    | 3684 | 6768  | 3341 | 0    | 0    | 332 | 14125 | 1.53 |
| //       | 14:00 | 314.273 | 6094  | 0 | 0   | 0   | .34 | .75  | .35 | 0   | 0   | 0    | 0    | 2913 | 6425  | 2998 | 0    | 0    | 332 | 12668 | 1.45 |
| //       | 15:00 | 314.272 | 5792  | 0 | 0   | 0   | .26 | .75  | .31 | 0   | 0   | 0    | 0    | 2227 | 6425  | 2656 | 0    | 0    | 332 | 11640 | 1.38 |
| //       | 16:00 | 314.268 | 5512  | 0 | 0   | 0   | .16 | .73  | .22 | 0   | 0   | 0    | 0    | 1311 | 6254  | 1885 | 0    | 0    | 332 | 9782  | 1.28 |
| //       | 17:00 | 314.268 | 5335  | 0 | 0   | 0   | .13 | .73  | .16 | 0   | 0   | 0    | 0    | 1114 | 6254  | 1311 | 0    | 0    | 332 | 9011  | 1.22 |
| //       | 18:00 | 314.272 | 5082  | 0 | 0   | 0   | .13 | .73  | .17 | 0   | 0   | 0    | 0    | 1114 | 6254  | 1456 | 0    | 0    | 332 | 9156  | 1.22 |
| //       | 19:00 | 314.272 | 4752  | 0 | 0   | 0   | .13 | .73  | .16 | 0   | 0   | 0    | 120  | 1114 | 6254  | 1311 | 0    | 0    | 332 | 9131  | 1.22 |
| //       | 20:00 | 314.271 | 4474  | 0 | 0   | 0   | .13 | .73  | .16 | 0   | 0   | 0    | 120  | 1114 | 6254  | 1311 | 0    | 0    | 332 | 9131  | 1.22 |
| //       | 21:00 | 314.271 | 4222  | 0 | 0   | 0   | .13 | .73  | .16 | 0   | 0   | 0    | 120  | 1114 | 6254  | 1311 | 0    | 0    | 332 | 9131  | 1.22 |

|          |       |         |      |     |   |   |     |     |     |   |   |   |     |      |      |      |   |   |     |      |      |
|----------|-------|---------|------|-----|---|---|-----|-----|-----|---|---|---|-----|------|------|------|---|---|-----|------|------|
| //       | 22:00 | 314.272 | 4045 | 0   | 0 | 0 | .13 | .73 | .16 | 0 | 0 | 0 | 120 | 1114 | 6254 | 1311 | 0 | 0 | 332 | 9131 | 1.22 |
| //       | 23:00 | 314.269 | 3793 | 0   | 0 | 0 | .13 | .72 | .16 | 0 | 0 | 0 | 120 | 1114 | 6168 | 1311 | 0 | 0 | 332 | 9045 | 1.22 |
| 08/01/11 | 16:00 | 314.244 | 1818 | 0   | 0 | 0 | 0   | .58 | 0   | 0 | 0 | 0 | 120 | 0    | 4969 | 0    | 0 | 0 | 332 | 5421 | 0.90 |
| //       | 17:00 | 314.243 | 1818 | 0   | 0 | 0 | 0   | .56 | 0   | 0 | 0 | 0 | 120 | 0    | 4797 | 0    | 0 | 0 | 332 | 5249 | 0.88 |
| //       | 17:45 | 314.241 | 1758 | 0   | 0 | 0 | 0   | .56 | 0   | 0 | 0 | 0 | 120 | 0    | 4797 | 0    | 0 | 0 | 332 | 5249 | 0.87 |
| 09/01/11 | 12:00 | 314.235 | 5547 | 0   | 0 | 0 | 0   | .56 | 0   | 0 | 0 | 0 | 120 | 0    | 4797 | 0    | 0 | 0 | 332 | 5249 | 0.84 |
| //       | 13:00 | 314.242 | 5156 | 1.0 | 0 | 0 | 0   | .56 | 0   | 0 | 0 | 0 | 120 | 0    | 4797 | 0    | 0 | 0 | 332 | 5249 | 0.88 |
| //       | 14:00 | 314.249 | 4731 | 0   | 0 | 0 | 0   | .61 | 0   | 0 | 0 | 0 | 120 | 0    | 5226 | 0    | 0 | 0 | 332 | 5651 | 0.90 |
| //       | 15:00 | 314.259 | 4379 | 0   | 0 | 0 | 0   | .66 | 0   | 0 | 0 | 0 | 120 | 0    | 5654 | 0    | 0 | 0 | 332 | 6105 | 0.97 |
| //       | 16:00 | 314.268 | 4068 | 0   | 0 | 0 | 0   | .70 | 0   | 0 | 0 | 0 | 120 | 0    | 5997 | 0    | 0 | 0 | 332 | 6449 | 1.00 |
| //       | 17:00 | 314.271 | 3876 | 0   | 0 | 0 | 0   | .72 | 0   | 0 | 0 | 0 | 120 | 0    | 6168 | 0    | 0 | 0 | 332 | 6620 | 1.01 |
| //       | 18:00 | 314.273 | 3528 | 0   | 0 | 0 | .03 | .74 | .01 | 0 | 0 | 0 | 120 | 257  | 6339 | 86   | 0 | 0 | 332 | 7134 | 1.06 |
| //       | 19:00 | 314.275 | 3376 | 0   | 0 | 0 | .03 | .74 | .03 | 0 | 0 | 0 | 120 | 257  | 6339 | 257  | 0 | 0 | 332 | 7305 | 1.08 |
| //       | 20:00 | 314.276 | 3100 | 0   | 0 | 0 | .03 | .74 | .03 | 0 | 0 | 0 | 120 | 257  | 6339 | 257  | 0 | 0 | 332 | 7305 | 1.08 |
| //       | 21:00 | 314.278 | 2961 | 0   | 0 | 0 | .03 | .74 | .04 | 0 | 0 | 0 | 120 | 257  | 6339 | 383  | 0 | 0 | 332 | 7431 | 1.08 |
| //       | 22:00 | 314.274 | 2738 | 0   | 0 | 0 | .02 | .70 | .11 | 0 | 0 | 0 | 120 | 171  | 5997 | 942  | 0 | 0 | 332 | 7562 | 1.32 |
| //       | 23:00 | 314.270 | 2644 | 0   | 0 | 0 | .01 | .68 | .04 | 0 | 0 | 0 | 120 | 86   | 5825 | 383  | 0 | 0 | 332 | 6746 | 1.28 |
| 10/01/11 | 06:00 | 314.248 | 1975 | 0   | 0 | 0 | 0   | .57 | 0   | 0 | 0 | 0 | 120 | 0    | 4883 | 0    | 0 | 0 | 332 | 5335 | 0.88 |
| //       | 07:00 | 314.251 | 1979 | 0   | 0 | 0 | 0   | .57 | 0   | 0 | 0 | 0 | 120 | 0    | 4883 | 0    | 0 | 0 | 332 | 5335 | 0.88 |
| //       | 08:00 | 314.247 | 1877 | 0   | 0 | 0 | 0   | .55 | 0   | 0 | 0 | 0 | 120 | 0    | 4712 | 0    | 0 | 0 | 332 | 5164 | 0.87 |
| //       | 09:00 | 314.246 | 1820 | 0   | 0 | 0 | 0   | .54 | 0   | 0 | 0 | 0 | 120 | 0    | 4626 | 0    | 0 | 0 | 332 | 5078 | 0.87 |
| //       | 10:00 | 314.243 | 1784 | 0   | 0 | 0 | 0   | .52 | 0   | 0 | 0 | 0 | 120 | 0    | 4455 | 0    | 0 | 0 | 332 | 4907 | 0.83 |
| //       | 11:00 | 314.240 | 1743 | 0   | 0 | 0 | 0   | .51 | 0   | 0 | 0 | 0 | 120 | 0    | 4369 | 0    | 0 | 0 | 332 | 4821 | 0.83 |

|          |       |         |       |   |   |   |     |      |      |   |   |   |     |      |       |      |   |   |     |       |      |
|----------|-------|---------|-------|---|---|---|-----|------|------|---|---|---|-----|------|-------|------|---|---|-----|-------|------|
| //       | 12:00 | 314.235 | 1716  | 0 | 0 | 0 | 0   | .48  | 0    | 0 | 0 | 0 | 120 | 0    | 4112  | 0    | 0 | 0 | 332 | 4564  | 0.81 |
| //       | 13:00 | 314.232 | 1739  | 0 | 0 | 0 | 0   | .46  | 0    | 0 | 0 | 0 | 120 | 0    | 3941  | 0    | 0 | 0 | 332 | 4393  | 0.79 |
| //       | 14:00 | 314.233 | 1811  | 0 | 0 | 0 | 0   | .46  | 0    | 0 | 0 | 0 | 120 | 0    | 3941  | 0    | 0 | 0 | 332 | 4393  | 0.78 |
| //       | 15:00 | 314.230 | 1929  | 0 | 0 | 0 | 0   | .43  | 0    | 0 | 0 | 0 | 120 | 0    | 3684  | 0    | 0 | 0 | 332 | 4136  | 0.75 |
| //       | 16:00 | 314.228 | 2222  | 0 | 0 | 0 | 0   | .42  | 0    | 0 | 0 | 0 | 120 | 0    | 3598  | 0    | 0 | 0 | 332 | 4050  | 0.75 |
| //       | 17:00 | 314.226 | 2601  | 0 | 0 | 0 | 0   | .42  | 0    | 0 | 0 | 0 | 120 | 0    | 3598  | 0    | 0 | 0 | 332 | 4050  | 0.75 |
| //       | 18:00 | 314.223 | 2774  | 0 | 0 | 0 | 0   | .63  | 0    | 0 | 0 | 0 | 120 | 0    | 5397  | 0    | 0 | 0 | 332 | 5849  | 0.77 |
| //       | 19:00 | 314.218 | 2978  | 0 | 0 | 0 | 0   | .58  | 0    | 0 | 0 | 0 | 120 | 0    | 4969  | 0    | 0 | 0 | 332 | 5421  | 0.91 |
| //       | 20:00 | 314.215 | 3610  | 0 | 0 | 0 | 0   | .58  | 0    | 0 | 0 | 0 | 120 | 0    | 4969  | 0    | 0 | 0 | 332 | 5421  | 0.91 |
| //       | 21:00 | 314.214 | 3767  | 0 | 0 | 0 | 0   | .58  | 0    | 0 | 0 | 0 | 120 | 0    | 4969  | 0    | 0 | 0 | 332 | 5421  | 0.91 |
| //       | 22:00 | 314.212 | 2770  | 0 | 0 | 0 | 0   | .64  | 0    | 0 | 0 | 0 | 120 | 0    | 5483  | 0    | 0 | 0 | 332 | 5935  | 0.94 |
| //       | 23:00 | 314.211 | 3740  | 0 | 0 | 0 | 0   | .64  | 0    | 0 | 0 | 0 | 120 | 0    | 5483  | 0    | 0 | 0 | 332 | 5935  | 0.94 |
| 11/01/11 | 01:00 | 314.210 | 3506  | 3 | 0 | 0 | 0   | .62  | 0    | 0 | 0 | 0 | 120 | 0    | 5311  | 0    | 0 | 0 | 332 | 5763  | 0.95 |
| //       | 02:00 | 314.215 | 3649  | 4 | 0 | 0 | 0   | .75  | 0    | 0 | 0 | 0 | 120 | 0    | 6425  | 0    | 0 | 0 | 332 | 6877  | 1.03 |
| //       | 03:00 | 314.215 | 4132  | 2 | 0 | 0 | 0   | .75  | 0    | 0 | 0 | 0 | 120 | 0    | 6425  | 0    | 0 | 0 | 332 | 6877  | 1.03 |
| //       | 04:00 | 314.215 | 4955  | 0 | 0 | 0 | 0   | .75  | 0    | 0 | 0 | 0 | 120 | 0    | 6425  | 0    | 0 | 0 | 332 | 6877  | 1.03 |
| //       | 05:00 | 314.216 | 6600  | 1 | 0 | 0 | 0   | .75  | 0    | 0 | 0 | 0 | 120 | 0    | 6425  | 0    | 0 | 0 | 332 | 6877  | 1.03 |
| //       | 06:00 | 314.216 | 9102  | 0 | 0 | 0 | 0   | .075 | 0    | 0 | 0 | 0 | 120 | 0    | 6425  | 0    | 0 | 0 | 332 | 6877  | 1.03 |
| //       | 07:00 | 314.223 |       | 8 |   |   |     |      |      |   |   |   |     |      |       |      |   |   |     |       |      |
| //       | 08:00 | 314.211 | 31231 | 6 | 0 | 0 | 1.0 | 1.10 | 0.70 | 0 | 0 | 0 | 120 | 8567 | 8652  | 5997 | 0 | 0 | 332 | 14996 | 1.75 |
| //       | 09:00 | 314.219 | 31423 | 4 | 0 | 0 | .35 | 1.13 | .42  | 0 | 0 | 0 | 120 | 2998 | 9680  | 3598 | 0 | 0 | 332 | 16728 | 1.60 |
| //       | 10:00 | 314.213 | 48421 | 0 | 0 | 0 | .95 | 1.55 | .93  | 0 | 0 | 0 | 120 | 8138 | 12878 | 7967 | 0 | 0 | 332 | 29435 | 2.35 |
| //       | 11:00 | 314.217 | 49709 | 0 | 0 | 0 | .93 | 1.98 | .93  | 0 | 0 | 0 | 120 | 6967 | 16093 | 7967 | 0 | 0 | 332 | 32479 | 2.55 |

|          |       |         |       |     |      |      |      |      |      |      |      |      |      |      |       |      |      |       |     |       |      |
|----------|-------|---------|-------|-----|------|------|------|------|------|------|------|------|------|------|-------|------|------|-------|-----|-------|------|
| //       | 12:00 | 314.228 | 46613 | 1.0 | 0    | 0    | 1.01 | 1.32 | 1.01 | .41  | .56  | 0    | 120  | 8652 | 11168 | 8652 | 3512 | 4797  | 332 | 37233 | 2.90 |
| //       | 19:00 | 314.208 | 24066 | 0   | 0.52 | 0.82 | 0.93 | 1.95 | 0.88 | 0.34 | 1.21 | 4455 | 7025 | 7967 | 15868 | 7539 | 2913 | 10354 | 332 | 56453 | 4.00 |
| //       | 20:00 | 314.211 | 21746 | 0   | 0.22 | 1.14 | 0.98 | 1.94 | 0.94 | 0.06 | 1.21 | 1885 | 9766 | 8395 | 15794 | 8053 | 513  | 10354 | 332 | 55092 | 3.78 |
| //       | 21:00 | 314.202 | 19181 | 0   | 0.02 | 1.14 | 0.85 | 1.91 | 0.84 | 0.14 | 1.21 | 171  | 9766 | 7282 | 15569 | 7196 | 1200 | 10354 | 332 | 51870 | 3.67 |
| //       | 22:00 | 314.191 | 17288 | 0   | 0    | 1.14 | 0.75 | 1.90 | 0.71 | 0.13 | 1.21 | 0    | 9766 | 6425 | 15495 | 6082 | 1114 | 10354 | 332 | 49568 | 3.54 |
| //       | 23:00 | 314.170 | 15767 | 0   | 0    | 1.14 | 0.60 | 1.87 | 0.55 | 0.01 | 1.21 | 0    | 9766 | 5140 | 15270 | 4712 | 86   | 10354 | 332 | 45660 | 3.37 |
| 12/1/11  | 13:00 | 314.124 | 6770  | 0   | 0    | 0    | 0    | 1.85 | 0    | 0    | 0    | 0    | 400  | 0    | 15121 | 0    | 0    | 0     | 332 | 15853 | 1.60 |
| //       | 14:00 | 314.113 | 6481  | 0   | 0    | 0    | 0    | 1.84 | 0    | 0    | 0    | 0    | 400  | 0    | 15047 | 0    | 0    | 0     | 332 | 15779 | 1.60 |
| //       | 15:00 | 314.104 | 6095  | 0   | 0    | 0    | 0    | 1.84 | 0    | 0    | 0    | 0    | 400  | 0    | 15047 | 0    | 0    | 0     | 332 | 15779 | 1.60 |
| //       | 16:00 | 314.094 | 5741  | 0   | 0    | 0    | 0    | 1.84 | 0    | 0    | 0    | 0    | 400  | 0    | 15047 | 0    | 0    | 0     | 332 | 15779 | 1.60 |
| //       | 17:00 | 314.104 | 5507  | 0   | 0    | 0    | 0    | 0.33 | 0    | 0    | 0    | 0    | 400  | 0    | 2827  | 0    | 0    | 0     | 332 | 3559  | 0.65 |
| //       | 18:00 | 314.118 | 5086  | 0   | 0    | 0    | 0    | 0.69 | 0    | 0    | 0    | 0    | 400  | 0    | 5911  | 0    | 0    | 0     | 332 | 6643  | 1.01 |
| //       | 19:00 | 314.122 | 4860  | 0   | 0    | 0    | 0    | 1.02 | 0    | 0    | 0    | 0    | 400  | 0    | 8738  | 0    | 0    | 0     | 332 | 9470  | 1.23 |
| //       | 20:00 | 314.118 | 4605  | 0   | 0    | 0    | 0    | 1.48 | 0    | 0    | 0    | 0    | 400  | 0    | 12355 | 0    | 0    | 0     | 332 | 13087 | 1.47 |
| //       | 21:00 | 314.104 | 4135  | 0   | 0    | 0    | 0    | 1.85 | 0    | 0    | 0    | 0    | 400  | 0    | 15121 | 0    | 0    | 0     | 332 | 15853 | 1.63 |
| //       | 22:00 | 314.108 | 4061  | 0   | 0    | 0    | 0    | 1.00 | 0    | 0    | 0    | 0    | 400  | 0    | 8567  | 0    | 0    | 0     | 332 | 9299  | 1.09 |
| //       | 23:00 | 314.116 | 3814  | 0   | 0    | 0    | 0    | 1.07 | 0    | 0    | 0    | 0    | 400  | 0    | 9166  | 0    | 0    | 0     | 332 | 9898  | 1.25 |
| //       | 24:00 | 314.113 | N/A   | 0   | 0    | 0    | 0    | .90  | 0    | 0    | 0    | 0    | 400  | 0    | 7710  | 0    | 0    | 0     | 332 | 8442  | 1.15 |
| 13/01/11 | 01:00 | 314.112 | N/A   | 0   | 0    | 0    | 0    | .65  | 0    | 0    | 0    | 0    | 400  | 0    | 5568  | 0    | 0    | 0     | 332 | 6300  | 1.30 |
| //       | 02:00 | 314.102 | N/A   | 0   | 0    | 0    | 0    | 1.35 | 0    | 0    | 0    | 0    | 400  | 0    | 11384 | 0    | 0    | 0     | 332 | 12116 | 1.39 |
| //       | 03:00 | 314.093 | N/A   | 0   | 0    | 0    | 0    | 1.12 | 0    | 0    | 0    | 0    | 400  | 0    | 9595  | 0    | 0    | 0     | 332 | 10327 | 1.27 |
| //       | 04:00 | 314.085 | N/A   | 0   | 0    | 0    | 0    | 0.83 | 0    | 0    | 0    | 0    | 400  | 0    | 7110  | 0    | 0    | 0     | 332 | 7842  | 1.34 |

|    |       |         |     |   |   |   |   |      |   |   |   |   |     |   |       |   |   |   |     |       |      |
|----|-------|---------|-----|---|---|---|---|------|---|---|---|---|-----|---|-------|---|---|---|-----|-------|------|
| // | 05:00 | 314.078 | N/A | 0 | 0 | 0 | 0 | 1.42 | 0 | 0 | 0 | 0 | 400 | 0 | 11907 | 0 | 0 | 0 | 332 | 12639 | 1.42 |
| // | 06:00 |         |     |   |   |   |   |      |   |   |   |   |     |   |       |   |   |   |     |       |      |
| // | 07:00 |         |     |   |   |   |   |      |   |   |   |   |     |   |       |   |   |   |     |       |      |

Note! See sect;00 6 of Operating Manual



RA

RECORD OF GATE OPERATION DURING FLOOD COMMENCING 16 / 11 / 10  
COOLMUNDA DAM

| Date     | Time  | Reservoir Level | Measured Inflow | Rainfall at Dam | Gate Openings |   |   |      |   |   |   | Discharges through Gates |                   |   |       |   |   |   | Outlet Valve Discharge | Total Discharge<br><br>ATT.<br>ML/D | D/Stream Discharge<br><br>(From Gauge) |
|----------|-------|-----------------|-----------------|-----------------|---------------|---|---|------|---|---|---|--------------------------|-------------------|---|-------|---|---|---|------------------------|-------------------------------------|----------------------------------------|
|          |       |                 |                 |                 | 1             | 2 | 3 | 4    | 5 | 6 | 7 | 1                        | 2<br>Seal<br>Leak | 3 | 4     | 5 | 6 | 7 |                        |                                     |                                        |
| 14/01/11 | 06:00 | 314.112         | N/A             | 0               | 0             | 0 | 0 | 0    | 0 | 0 | 0 | 0                        | 400               | 0 | 0     | 0 | 0 | 0 | 332                    | 732                                 | 0.20                                   |
| //       | 07:00 | 314.112         | N/A             | 0               | 0             | 0 | 0 | 0.80 | 0 | 0 | 0 | 0                        | 400               | 0 | 685 3 | 0 | 0 | 0 | 332                    | 7585                                | 0.85                                   |
| //       | 08:00 | 314.101         | N/A             | 0               | 0             | 0 | 0 | 0.80 | 0 | 0 | 0 | 0                        | 400               | 0 | 685 3 | 0 | 0 | 0 | 332                    | 7585                                | 1.03                                   |
| //       | 10:00 | 314.086         | 977             | 0               | 0             | 0 | 0 | 0.40 | 0 | 0 | 0 | 0                        | 400               | 0 | 3427  | 0 | 0 | 0 | 332                    | 4159                                | 0.74                                   |
| //       | 13:00 | 314.071         | 902             | 0               | 0             | 0 | 0 | 0.26 | 0 | 0 | 0 | 0                        | 400               | 0 | 222 7 | 0 | 0 | 0 | 332                    | 2959                                | 0.63                                   |
| //       | 15:00 | 314.059         | 831             | 0               | 0             | 0 | 0 | 0.35 | 0 | 0 | 0 | 0                        | 400               | 0 | 2998  | 0 | 0 | 0 | 332                    | 3730                                | 0.74                                   |
| 15/01/11 | 06:00 | 314.094         | 520             | 0               | 0             | 0 | 0 | 0    | 0 | 0 | 0 | 0                        | 400               | 0 | 0     | 0 | 0 | 0 | 332                    | 732                                 | 0.20                                   |
| //       | 11:00 | 314.102         | 488             | 0               | 0             | 0 | 0 | 0.40 | 0 | 0 | 0 | 0                        | 400               | 0 | 3427  | 0 | 0 | 0 | 332                    | 4159                                | 0.74                                   |
| //       | 15:00 | 314.089         | 449             | 0               | 0             | 0 | 0 | 0.40 | 0 | 0 | 0 | 0                        | 400               | 0 | 3427  | 0 | 0 | 0 | 332                    | 4159                                | 0.34                                   |
| //       | 18:00 | 314.079         | 422             | 0               | 0             | 0 | 0 | 0.40 | 0 | 0 | 0 | 0                        | 400               | 0 | 3427  | 0 | 0 | 0 | 332                    | 4159                                | 0.35                                   |
| 16/01/11 | 06:00 | 314.076         | N/A             | 0               | 0             | 0 | 0 | 0    | 0 | 0 | 0 | 0                        | 400               | 0 | 0     | 0 | 0 | 0 | 332                    | 732                                 | 0.20                                   |
| 17/01/11 | 07:00 | 314.082         | N/A             | 0               | 0             | 0 | 0 | 0    | 0 | 0 | 0 | 0                        | 400               | 0 | 0     | 0 | 0 | 0 | 332                    | 732                                 | 0.17                                   |

|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
|----------|-------|---------|-----|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|-----|-----|------|
| 18/01/11 | 07:00 | 314.077 | N/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 280 | 0 | 0 | 0 | 0 | 0 | 350 | 630 | 0.15 |
|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
|          |       |         |     |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |     |     |      |
| 24/01/11 | 07:00 | 314.088 | N/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 280 | 0 | 0 | 0 | 0 | 0 | 0   | 280 | 0    |
| 25/01/11 | 07:00 | 314.081 | N/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 280 | 0 | 0 | 0 | 0 | 0 | 0   | 280 | 0    |

Note! See sect;00 6 of Operating Manual

04:00

## Coolmunda Dam Event Report

### Emergency Event Recording Sheets

- Description of Observed Damage



Access service ladders damaged and missing lower ladder, washed away



Access ramp to down stream area eroded away



Dam crest seal failure



Missing floating buoys

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 25/1/11

EMAILED 26-1-11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

**Note: Refer to Page 2 for recording instructions \*\***

Date: 24-1-11

SunWater  
Section 8A: Page 1 of 5  
Jan 08, Issue 2-0



## Flood Operation

## Visual Inspection and Storage Report

**Note: Refer to Page 2 for recording instructions \*\***

Date: 18/1/11

[illegible]

EMALLO 19/1/11



## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 17/1/11

EMailed 12/1/11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

### Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 16-1-10

[illegible]

## Flood Operation

Date: 15-1-11

EMACLEP 10/1/01

g. d

## Flood Operation

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording instructions \*\*

Date: 14/1/21

[illegible]

ENTERED 15/1/4

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording instructions \*\*

Date: 13-1-11

|                                                        | SUN                                       | MON | TUE                                     | WED | THU                                     | FRI | SAT |
|--------------------------------------------------------|-------------------------------------------|-----|-----------------------------------------|-----|-----------------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                         |                                           |     |                                         |     | 314.067                                 |     |     |
| Tail Water Level (m)                                   |                                           |     |                                         |     | 0.87                                    |     |     |
| Daily Rainfall (mm) Morning 9am                        |                                           |     |                                         |     | 0                                       |     |     |
| Evening 3pm                                            |                                           |     |                                         |     | 0                                       |     |     |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising | <b>STAGE 1</b><br>EL 314.07 - EL 314.17 m |     | <b>STAGE 2</b><br>EL 314.17-EL 314.38 m |     | <b>STAGE 3</b><br>EL 314.38 -EL 315.44m |     |     |
|                                                        | Morning                                   |     | (Tick if Gates are Closed)              |     |                                         |     |     |
|                                                        | Evening                                   |     | (Tick if Gates are Closed)              |     |                                         |     |     |

| <b>VISUAL INSPECTION</b>                                            |                                                | First Inspection<br>0700 | Second Inspection<br>(+6 hrs) | Third Inspection<br>(+12 hrs) |
|---------------------------------------------------------------------|------------------------------------------------|--------------------------|-------------------------------|-------------------------------|
| (Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive) |                                                |                          |                               |                               |
| <b>Spillway Channel</b>                                             |                                                | W                        | W                             | W                             |
| Erosion, damage to concrete structure                               |                                                | ✓                        | ✓                             | ✓                             |
| <b>Irrigation Control Structure</b>                                 |                                                | W                        | W                             | W                             |
| Cracks, concrete deterioration                                      |                                                | W/D                      | W/D                           | W/D                           |
| <b>Embankments</b>                                                  |                                                | W/D                      | W/D                           | W/D                           |
| Cracks, subsidence in pavement                                      |                                                | W/D                      | W/D                           | W/D                           |
| <b>Upstream Face</b>                                                | (Use binoculars)                               | W/D                      | W/D                           | W/D                           |
| Settlement                                                          |                                                | ✓                        | ✓                             | ✓                             |
| <b>Downstream face</b>                                              | Displacement of riprap material                | W/D                      | W/D                           | W/D                           |
| Subsidence, slides, erosion                                         |                                                | ✓                        | ✓                             | ✓                             |
| Sign of seepage                                                     |                                                | ✓                        | ✓                             | ✓                             |
| <b>Area Downstream of Dam</b>                                       |                                                | D                        | D                             | D                             |
| Seepage from any location apart from seepage point                  |                                                | W/D                      | W/D                           | W/D                           |
| <b>Seepage</b>                                                      | Seepage water Clear or Turbid (Tick for clear) | ✓                        | ✓                             | ✓                             |

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)

Email 42  
14-1-11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 12-1-11

[illegible]

EMAILED  
13-1-11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 11-1-11

EMailed  
12/10/01

01. d

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 10-12-11

[illegible]

EMILED  
11-1-11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0



## Flood Operation.

**Visual Inspection and Storage Report**  
 Notes: Refer to Page 2-1

Note: Refer to Page 2 for recording instructions \*\*

Date: 7/7/11

[illegible]

EMailed  
10-1-70

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Date: 8-1-11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 7-1-11

|                                                        | SUN                                | MON | TUE                              | WED | THU                              | FRI     | SAT |
|--------------------------------------------------------|------------------------------------|-----|----------------------------------|-----|----------------------------------|---------|-----|
| Stored Water Level FSL 314.07m                         |                                    |     |                                  |     |                                  | 314.320 |     |
| Tail Water Level (m)                                   |                                    |     |                                  |     |                                  | 1.88    |     |
| Daily Rainfall (mm) Morning 9am                        |                                    |     |                                  |     |                                  | 1.0     |     |
| Evening 3pm                                            |                                    |     |                                  |     |                                  | 0       |     |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | STAGE 3<br>EL 314.38 -EL 315.44m |         |     |
| Morning                                                |                                    |     | (Tick if Gates are Closed)       |     |                                  |         |     |
| Evening                                                |                                    |     | (Tick if Gates are Closed)       |     |                                  |         |     |

### VISUAL INSPECTION

First  
Inspection

Second  
Inspection  
(+6 hrs)

Third  
Inspection  
(+12 hrs)

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

|                                                    |     |  |  |
|----------------------------------------------------|-----|--|--|
| <b>Spillway Channel</b>                            |     |  |  |
| Erosion, damage to concrete structure              | W   |  |  |
| <b>Irrigation Control Structure</b>                |     |  |  |
| Cracks, concrete deterioration                     | W   |  |  |
| <b>Embankments</b>                                 |     |  |  |
| Cracks, subsidence in pavement                     | W/D |  |  |
| <b>Upstream Face</b>                               |     |  |  |
| (Use binoculars)                                   | W/D |  |  |
| Settlement                                         | W   |  |  |
| <b>Downstream face</b>                             |     |  |  |
| Displacement of riprap material                    | W/D |  |  |
| Subsidence, slides, erosion                        | W   |  |  |
| Sign of seepage                                    | W   |  |  |
| <b>Area Downstream of Dam</b>                      |     |  |  |
| Seepage from any location apart from seepage point | D   |  |  |
| <b>Seepage</b>                                     |     |  |  |
| Seepage water Clear or Turbid (Tick for clear)     | W/D |  |  |

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)

8/1/11

email to DEC

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Date: 06/01/11

Note: Refer to Page 2 for recording instructions \*\*

7/1/11  
EMAIL TO EIC

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 05/01/11

[illegible]

6/11/11

FINAL TO EEC

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 04/01/11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 03/01/11

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 02/01/11

3/1/00  
EMAIL TO CCC.

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0



## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 31-12-10

2/01/11  
Email to Rec.

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 30-12-10

31/12/10  
Email To: EEC.

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## COOLMUNDA DAM EAP

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 29-12-72

[illegible]

Entered  
30-12-10

**COOLMUNDA DAM EAP**

## Flood Operation

## Visual Inspection and Storage Report

**Note: Refer to Page 2 for recording instructions \*\***

Date: 28-12-18

[illegible]

29/12/10  
EMAIL TO EEC.

**COOLMUNDA DAM EAP**

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 27-12-10

[illegible]

## COOLMUNDA DAM EAP

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 26-12-10

[illegible]

## COOLMUNDA DAM EAP

## Flood Operation

## Visual Inspection and Storage Report

**Note: Refer to Page 2 for recording instructions \*\***

Date: 25-12-10

[illegible]

**COOLMUNDA DAM EAP**

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 24/12/10

|                                                                                         | SUN                                            | MON | TUE                              | WED                                                                                                                      | THU                              | FRI                           | SAT |  |  |  |  |  |
|-----------------------------------------------------------------------------------------|------------------------------------------------|-----|----------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------|-----|--|--|--|--|--|
| Stored Water Level FSL 314.07m                                                          |                                                |     |                                  |                                                                                                                          |                                  | 314.176                       |     |  |  |  |  |  |
| Tail Water Level (m)                                                                    |                                                |     |                                  |                                                                                                                          |                                  | 0                             |     |  |  |  |  |  |
| Daily Rainfall (mm) Morning 9am                                                         |                                                |     |                                  |                                                                                                                          |                                  | 0                             |     |  |  |  |  |  |
| Evening 3pm                                                                             |                                                |     |                                  |                                                                                                                          |                                  | 0-2                           |     |  |  |  |  |  |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising                                         | STAGE 1<br>EL 314.07 - EL 314.17 m             |     | STAGE 2<br>EL 314.17-EL 314.38 m |                                                                                                                          | STAGE 3<br>EL 314.38 -EL 315.44m |                               |     |  |  |  |  |  |
| Morning                                                                                 | <input checked="" type="checkbox"/>            |     | (Tick if Gates are Closed)       |                                                                                                                          |                                  |                               |     |  |  |  |  |  |
| Evening                                                                                 | <input checked="" type="checkbox"/>            |     | (Tick if Gates are Closed)       |                                                                                                                          |                                  |                               |     |  |  |  |  |  |
| VISUAL INSPECTION                                                                       |                                                |     |                                  | First Inspection<br>07:00                                                                                                | Second Inspection<br>(+6 hrs)    | Third Inspection<br>(+12 hrs) |     |  |  |  |  |  |
| (Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)                     |                                                |     |                                  |                                                                                                                          |                                  |                               |     |  |  |  |  |  |
| Spillway Channel                                                                        | Erosion, damage to concrete structure          |     |                                  | W                                                                                                                        |                                  |                               |     |  |  |  |  |  |
| Irrigation Control Structure                                                            | Cracks, concrete deterioration                 |     |                                  | -                                                                                                                        |                                  |                               |     |  |  |  |  |  |
| Embankments                                                                             | Cracks, subsidence in pavement                 |     |                                  | w/p                                                                                                                      |                                  |                               |     |  |  |  |  |  |
| Upstream Face                                                                           | (Use binoculars)<br>Settlement                 |     |                                  | w/p                                                                                                                      |                                  |                               |     |  |  |  |  |  |
| Downstream face                                                                         | Displacement of riprap material                |     |                                  | w/p                                                                                                                      |                                  |                               |     |  |  |  |  |  |
|                                                                                         | Subsidence, slides, erosion                    |     |                                  | w/p                                                                                                                      |                                  |                               |     |  |  |  |  |  |
| Area Downstream of Dam                                                                  | Sign of seepage                                |     |                                  | w/p                                                                                                                      |                                  |                               |     |  |  |  |  |  |
| Seepage from any location apart from seepage point                                      |                                                |     |                                  | w/p                                                                                                                      |                                  |                               |     |  |  |  |  |  |
| Seepage                                                                                 | Seepage water Clear or Turbid (Tick for clear) |     |                                  | w/p                                                                                                                      |                                  |                               |     |  |  |  |  |  |
| Details of significant changes. New occurrences and issues warranting further attention |                                                |     |                                  |                                                                                                                          |                                  |                               |     |  |  |  |  |  |
| Inspecting Officer's Initials                                                           |                                                |     |                                  |                                                                                                                          |                                  |                               |     |  |  |  |  |  |
| Fax to<br>(tick if faxed)                                                               |                                                |     |                                  | Asset Engineering Manager / Service Delivery Manager (07) 3884 5312<br>Principal Engineer (Dam Safety)<br>(07) 3120 0255 |                                  |                               |     |  |  |  |  |  |

FRANK [REDACTED]



**COOLMUNDA DAM EAP**

## Flood Operation

## Visual Inspection and Storage Report

**Note: Refer to Page 2 for recording instructions \*\***

Date: 23-12-10

[illegible]

04-12-10  
EMAIL TO EEC

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

Date: 4/11/0

IS Feb 2011 11:47AM COOLMUNDA.DRM.

# COOLMUNDA DAM EAP

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording Instructions \*\*

Flood Operation

Date: 3/11/10

|                                                 | SUN                                | MON | TUE                              | WED     | THU                              | FRI | SAT |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|---------|----------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                  |                                    |     |                                  |         |                                  |     |     |
| Tail Water Level (m)                            |                                    |     |                                  | 314-081 |                                  |     |     |
| Daily Rainfall (mm) Morning 9am                 |                                    |     |                                  | 0-638   |                                  |     |     |
| Evening 3pm                                     |                                    |     |                                  | 0       |                                  |     |     |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |         | STAGE 3<br>EL 314.38 -EL 315.44m |     |     |
| Morning                                         |                                    |     | (Tick if Gates are Closed)       |         |                                  |     |     |
| Evening                                         |                                    |     | (Tick if Gates are Closed)       |         |                                  |     |     |

## VISUAL INSPECTION

First  
Inspection  
07:00

Second  
Inspection  
(+6 hrs)

Thrd  
Inspection  
(+12 hrs)

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

|                                                    |     |  |  |
|----------------------------------------------------|-----|--|--|
| Spillway Channel                                   |     |  |  |
| Erosion, damage to concrete structure              | W   |  |  |
| Irrigation Control Structure                       |     |  |  |
| Cracks, concrete deterioration                     |     |  |  |
| Embankments                                        | W/D |  |  |
| Cracks, subsidence in pavement                     |     |  |  |
| Upstream Face                                      | W/D |  |  |
| (Use binoculars)                                   |     |  |  |
| Settlement                                         | W   |  |  |
| Downstream face                                    | W/D |  |  |
| Displacement of riprap material                    |     |  |  |
| Subsidence, slides, erosion                        | W   |  |  |
| Sign of seepage                                    | W   |  |  |
| Area Downstream of Dam                             |     |  |  |
| Seepage from any location apart from seepage point | W   |  |  |
| Seepage                                            | W/D |  |  |
| Seepage water Clear or Turbid (Tick for clear)     | W   |  |  |

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)

4/11/10

EMAILED TO BCC

SunWater  
Section 8A: Page 1 of 5  
Jan 08, Issue 2-0

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording instructions \*\*

Date: 2-15-10

3/11/10  
REMAILED TO CEC

# COOLMUNDA DAM EAP

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording instructions \*\*

Flood Operation

Date: 1/11/10

|                                                 | SUN                                | MON    | TUE                                | WED | THU                               | FRI | SAT |
|-------------------------------------------------|------------------------------------|--------|------------------------------------|-----|-----------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                  |                                    | 314.12 |                                    |     |                                   |     |     |
| Tail Water Level (m)                            |                                    | 0.632  |                                    |     |                                   |     |     |
| Daily Rainfall (mm) Morning 9am                 |                                    | 0      |                                    |     |                                   |     |     |
| Evening 3pm                                     |                                    | 3.0    |                                    |     |                                   |     |     |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |        | STAGE 2<br>EL 314.17 - EL 314.38 m |     | STAGE 3<br>EL 314.38 - EL 315.44m |     |     |
| Morning                                         | ✓                                  |        | (Tick if Gates are Closed)         |     |                                   |     |     |
| Evening                                         | ✓                                  |        | (Tick if Gates are Closed)         |     |                                   |     |     |

## VISUAL INSPECTION

First Inspection 07:00  
Second Inspection (+6 hrs)  
Third Inspection (+12 hrs)

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

|                              |                                                    |     |  |  |
|------------------------------|----------------------------------------------------|-----|--|--|
| Spillway Channel             | Erosion, damage to concrete structure              | W   |  |  |
| Irrigation Control Structure | Cracks, concrete deterioration                     | W   |  |  |
| Embankments                  | Cracks, subsidence in pavement                     | W/D |  |  |
| Upstream Face                | (Use binoculars)<br>Settlement                     | W/D |  |  |
| Downstream face              | Displacement of riprap material                    | W/D |  |  |
| Area Downstream of Dam       | Subsidence, slides, erosion<br>Sign of seepage     | W/D |  |  |
| Seepage                      | Seepage from any location apart from seepage point | W/D |  |  |
|                              | Seepage water Clear or Turbid (Tick for clear)     | W/D |  |  |

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)

# COOLMUNDA DAM EAP

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording instructions \*\*

Flood Operation

Date: 31/10/10

|                                                 | SUN                                | MON | TUE                              | WED | THU                              | FRI | SAT |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|-----|----------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                  | 314.142                            |     |                                  |     |                                  |     |     |
| Tail Water Level (m)                            | 0.628                              |     |                                  |     |                                  |     |     |
| Daily Rainfall (mm) Morning 9am                 | 0                                  |     |                                  |     |                                  |     |     |
| Evening 3pm                                     | 0                                  |     |                                  |     |                                  |     |     |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | STAGE 3<br>EL 314.38 -EL 315.44m |     |     |
| Morning                                         | ✓                                  |     | (Tick if Gates are Closed)       |     |                                  |     |     |
| Evening                                         | ✓                                  |     | (Tick if Gates are Closed)       |     |                                  |     |     |

## VISUAL INSPECTION

|                                                                                         | First Inspection<br>07:00 | Second Inspection<br>(+6 hrs) | Third Inspection<br>(+12 hrs) |
|-----------------------------------------------------------------------------------------|---------------------------|-------------------------------|-------------------------------|
| Spillway Channel<br>(Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive) | W                         |                               |                               |
| Erosion, damage to concrete structure                                                   | ✓                         |                               |                               |
| Irrigation Control Structure                                                            | —                         |                               |                               |
| Cracks, concrete deterioration                                                          | —                         |                               |                               |
| Embankments                                                                             | W/D                       |                               |                               |
| Cracks, subsidence in pavement                                                          | W/D                       |                               |                               |
| (Use binoculars)                                                                        | W/D                       |                               |                               |
| Settlement                                                                              | ✓                         |                               |                               |
| Downstream face                                                                         | W/D                       |                               |                               |
| Displacement of riprap material                                                         | ✓                         |                               |                               |
| Subsidence, slides, erosion                                                             | ✓                         |                               |                               |
| Sign of seepage                                                                         | W/D                       |                               |                               |
| Area Downstream of Dam                                                                  | W/D                       |                               |                               |
| Seepage from any location apart from seepage point                                      | W/D                       |                               |                               |
| Seepage                                                                                 | W/D                       |                               |                               |
| Seepage water Clear or Turbid (Tick for clear)                                          | ✓                         |                               |                               |
| 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)

11/11/10

MAILED TO REC.

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

# COOLMUNDA DAM EAP

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Flood Operation

Date: 30/10/10

|                                                 | SUN                                | MON | TUE                              | WED | THU                              | FRI | SAT     |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|-----|----------------------------------|-----|---------|
| Stored Water Level FSL 314.07m                  |                                    |     |                                  |     |                                  |     |         |
| Tail Water Level (m)                            |                                    |     |                                  |     |                                  |     | 314-162 |
| Daily Rainfall (mm) Morning 9am                 |                                    |     |                                  |     |                                  |     | 0-6/8   |
| Evening 3pm                                     |                                    |     |                                  |     |                                  |     | 0       |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | STAGE 3<br>EL 314.38 -EL 315.44m |     |         |
| Morning                                         | ✓                                  |     | (Tick if Gales are Closed)       |     |                                  |     |         |
| Evening                                         | ✓                                  |     | (Tick if Gales are Closed)       |     |                                  |     |         |

## VISUAL INSPECTION

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

|                                                    | First<br>Inspection<br>07:00 | Second<br>Inspection<br>(+6 hrs) | Third<br>Inspection<br>(+12 hrs) |
|----------------------------------------------------|------------------------------|----------------------------------|----------------------------------|
| Spillway Channel                                   | ✓                            |                                  |                                  |
| Erosion, damage to concrete structure              | ✓                            |                                  |                                  |
| Irrigation Control Structure                       | ✓                            |                                  |                                  |
| Cracks, concrete deterioration                     | ✓                            |                                  |                                  |
| Embankments                                        | W/D                          |                                  |                                  |
| Cracks, subsidence in pavement                     | W/D                          |                                  |                                  |
| Upstream Face                                      | W/D                          |                                  |                                  |
| (Use binoculars)                                   | ✓                            |                                  |                                  |
| Settlement                                         | ✓                            |                                  |                                  |
| Downstream face                                    | W/D                          |                                  |                                  |
| Displacement of riprap material                    | ✓                            |                                  |                                  |
| Subsidence, slides, erosion                        | ✓                            |                                  |                                  |
| Sign of seepage                                    | ✓                            |                                  |                                  |
| Area Downstream of Dam                             | W/D                          |                                  |                                  |
| Seepage from any location apart from seepage point | W/D                          |                                  |                                  |
| Seepage                                            | W/D                          |                                  |                                  |
| Seepage water Clear or Turbid (Tick for clear)     | ✓                            |                                  |                                  |

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)

31/10/10

EMILED TO EEC

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

# COOLMUNDA DAM EAP

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

DATE 29/10/00

FRI SAT

3/4.180

0.608

0

0

|                                                 | SUN                                | MON | TUE                              | WED | THU                    |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|-----|------------------------|
| Stored Water Level FSL 314.07m                  |                                    |     |                                  |     |                        |
| Tail Water Level (m)                            |                                    |     |                                  |     |                        |
| Daily Rainfall (mm) Morning 9am                 |                                    |     |                                  |     |                        |
| Evening 3pm                                     |                                    |     |                                  |     |                        |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | EL 314.38 m and rising |
| Morning                                         | ✓                                  |     | (Tick if Gates are Closed)       |     |                        |
| Evening                                         | ✓                                  |     | (Tick if Gates are Closed)       |     |                        |

## VISUAL INSPECTION

First Inspection  
07:00

Second Inspection  
(+07:00)

Third Inspection  
(+12:00)

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

|                                                    |                                                |     |  |
|----------------------------------------------------|------------------------------------------------|-----|--|
| Spillway Channel                                   | Erosion, damage to concrete structure          | W   |  |
| Irrigation Control Structure                       | Cracks, concrete deterioration                 | ✓   |  |
| Embankments                                        | Cracks, subsidence in pavement                 | W/D |  |
| Upstream Face                                      | (Use binoculars)<br>Settlement                 | W/D |  |
| Downstream face                                    | Displacement of riprap material                | ✓   |  |
|                                                    | Subsidence, slides, erosion                    | W/D |  |
| Area Downstream of Dam                             | Sign of seepage                                | ✓   |  |
| Seepage from any location apart from seepage point |                                                | W/D |  |
| Seepage                                            | Seepage water Clear or Turbid (Tick for clear) | W/D |  |

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

Inspecting Officer's initials

Fax to  
(tick if faxed)

Asset Engineering Manager  
Manager  
Principal Engineer (Dam Safety)

30/10/00

EMAILED TO EEL

Section 6



## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 28-10-70

[illegible]

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 27/10/10

[illegible]

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 26/10/10

|                                                 | SUN                                | MON | TUE                              | WED | THU                              | FRI | SAT |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|-----|----------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                  |                                    |     | 314.195                          |     |                                  |     |     |
| Tail Water Level (m)                            |                                    |     | 1.111                            |     |                                  |     |     |
| Daily Rainfall (mm) Morning 9am                 |                                    |     | 0                                |     |                                  |     |     |
| Evening 3pm                                     |                                    |     | 0                                |     |                                  |     |     |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | STAGE 3<br>EL 314.38 -EL 315.44m |     |     |
| Morning                                         |                                    |     | (Tick if Gates are Closed)       |     |                                  |     |     |
| Evening                                         |                                    |     | (Tick if Gates are Closed)       |     |                                  |     |     |

### VISUAL INSPECTION

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

|                                                    | First<br>Inspection<br>07:00 | Second<br>Inspection<br>(+6 hrs) | Third<br>Inspection<br>(+12 hrs) |
|----------------------------------------------------|------------------------------|----------------------------------|----------------------------------|
| Spillway Channel                                   | W                            |                                  |                                  |
| Erosion, damage to concrete structure              | W                            |                                  |                                  |
| Irrigation Control Structure                       | W                            |                                  |                                  |
| Cracks, concrete deterioration                     | W                            |                                  |                                  |
| Embankments                                        | W                            |                                  |                                  |
| Cracks, subsidence in pavement                     | W                            |                                  |                                  |
| Upstream Face                                      | W                            |                                  |                                  |
| (Use binoculars)                                   | W                            |                                  |                                  |
| Settlement                                         | W                            |                                  |                                  |
| Downstream face                                    | W                            |                                  |                                  |
| Displacement of riprap material                    | W                            |                                  |                                  |
| Subsidence, slides, erosion                        | W                            |                                  |                                  |
| Sign of seepage                                    | W                            |                                  |                                  |
| Area Downstream of Dam                             | W                            |                                  |                                  |
| Seepage from any location apart from seepage point | W                            |                                  |                                  |
| Seepage                                            | W                            |                                  |                                  |
| Seepage water Clear or Turbid (Tick for clear)     | W                            |                                  |                                  |

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)

**COOLMUNDA DAM EAP**

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 25/10/10

[illegible]

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording Instructions \*\*

Date: 24/10/10

[illegible]

# COOLMUNDA DAM EAP

Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 3/10/10

|                                                        | SUN                                       | MON | TUE                                     | WED | THU                                     | FRI | SAT |
|--------------------------------------------------------|-------------------------------------------|-----|-----------------------------------------|-----|-----------------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                         | 314.186                                   |     |                                         |     |                                         |     |     |
| Tail Water Level (m)                                   | 0.725                                     |     |                                         |     |                                         |     |     |
| Daily Rainfall (mm) Morning 9am                        | —                                         |     |                                         |     |                                         |     |     |
| Evening 3pm                                            | —                                         |     |                                         |     |                                         |     |     |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising | <b>STAGE 1</b><br>EL 314.07 - EL 314.17 m |     | <b>STAGE 2</b><br>EL 314.17-EL 314.38 m |     | <b>STAGE 3</b><br>EL 314.38 -EL 315.44m |     |     |
| Morning                                                |                                           |     | (Tick if Gates are Closed)              |     |                                         |     |     |
| Evening                                                |                                           |     | (Tick if Gates are Closed)              |     |                                         |     |     |

## VISUAL INSPECTION

First  
Inspection  
07:00

Second  
Inspection  
(+6 hrs)

Third  
Inspection  
(+12 hrs)

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

|                                                    |     |  |  |
|----------------------------------------------------|-----|--|--|
| <b>Spillway Channel</b>                            |     |  |  |
| Erosion, damage to concrete structure              | W   |  |  |
| <b>Irrigation Control Structure</b>                | W   |  |  |
| Cracks, concrete deterioration                     | —   |  |  |
| <b>Embankments</b>                                 | W/D |  |  |
| Cracks, subsidence in pavement                     | W/D |  |  |
| <b>Upstream Face</b>                               | W/D |  |  |
| (Use binoculars)                                   | W/D |  |  |
| Settlement                                         | W   |  |  |
| <b>Downstream face</b>                             | W   |  |  |
| Displacement of riprap material                    | W/D |  |  |
| Subsidence, slides, erosion                        | W   |  |  |
| Sign of seepage                                    | W   |  |  |
| <b>Area Downstream of Dam</b>                      | W/D |  |  |
| Seepage from any location apart from seepage point | W/D |  |  |
| <b>Seepage</b>                                     | W/D |  |  |
| Seepage water Clear or Turbid (Tick for clear)     | W   |  |  |

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)

4/10/10

FAXED AT 09:05

SunWater  
Section 6A: Page 1 of 6  
Jan 08, Issue 2-0

15 Feb 2011 11:52AM COOLMUNDA.DAM..

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 2/10/10

[illegible]

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 1/10/10

|                                                 | SUN                                | MON | TUE                              | WED | THU                              | FRI     | SAT |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|-----|----------------------------------|---------|-----|
| Stored Water Level FSL 314.07m                  |                                    |     |                                  |     |                                  | 314.192 |     |
| Tail Water Level (m)                            |                                    |     |                                  |     |                                  | 0.993   |     |
| Daily Rainfall (mm) Morning 9am                 |                                    |     |                                  |     |                                  | —       |     |
| Evening 3pm                                     |                                    |     |                                  |     |                                  | —       |     |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | STAGE 3<br>EL 314.38 -EL 315.44m |         |     |
| Morning                                         |                                    |     | (Tick if Gates are Closed)       |     |                                  |         |     |
| Evening                                         |                                    |     | (Tick if Gates are Closed)       |     |                                  |         |     |

| VISUAL INSPECTION                                                   |                                                    | First<br>Inspection<br>07:00 | Second<br>Inspection<br>13:00 | Third<br>Inspection<br>18:00 |
|---------------------------------------------------------------------|----------------------------------------------------|------------------------------|-------------------------------|------------------------------|
| (Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive) |                                                    |                              |                               |                              |
| Spillway Channel                                                    | Erosion, damage to concrete structure              | W                            | W                             |                              |
| Irrigation Control Structure                                        | Cracks, concrete deterioration                     | W                            | W                             |                              |
| Embankments                                                         | Cracks, subsidence in pavement                     | W/D                          | W/D                           |                              |
| Upstream Face                                                       | (Use binoculars)<br>Settlement                     | W/D                          | W/D                           |                              |
| Downstream face                                                     | Displacement of riprap material                    | W/D                          | W/D                           |                              |
|                                                                     | Subsidence, slides, erosion                        | W/D                          | W/D                           |                              |
| Area Downstream of Dam                                              | Sign of seepage                                    | W                            | W                             |                              |
|                                                                     | Seepage from any location apart from seepage point | W                            | W                             |                              |
| Seepage                                                             | Seepage water Clear or Turbid (Tick for clear)     | W/D                          | W/D                           |                              |

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)

02/10/10

FAXED AT 08:25

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0



## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 30-9-70

01/10/10  
FAXED 08:45

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 29-9-10

|                                                        | SUN                                       | MON | TUE                                     | WED     | THU                                     | FRI | SAT |
|--------------------------------------------------------|-------------------------------------------|-----|-----------------------------------------|---------|-----------------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                         |                                           |     |                                         | 314.199 |                                         |     |     |
| Tail Water Level (m)                                   |                                           |     |                                         | 1.746   |                                         |     |     |
| Daily Rainfall (mm) Morning 9am                        |                                           |     |                                         | 0.2     |                                         |     |     |
| Evening 3pm                                            |                                           |     |                                         |         |                                         |     |     |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising | <b>STAGE 1</b><br>EL 314.07 - EL 314.17 m |     | <b>STAGE 2</b><br>EL 314.17-EL 314.38 m |         | <b>STAGE 3</b><br>EL 314.38 -EL 315.44m |     |     |
| Morning                                                |                                           |     | (Tick if Gates are Closed)              |         |                                         |     |     |
| Evening                                                |                                           |     | (Tick if Gates are Closed)              |         |                                         |     |     |

### VISUAL INSPECTION

First  
Inspection  
07:00

Second  
Inspection  
(+6 hrs)

Third  
Inspection  
(+12 hrs)

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

|                                                    |     |  |     |
|----------------------------------------------------|-----|--|-----|
| <b>Spillway Channel</b>                            |     |  |     |
| Erosion, damage to concrete structure              | W   |  | W   |
| <b>Irrigation Control Structure</b>                |     |  |     |
| Cracks, concrete deterioration                     | W   |  | W   |
| <b>Embankments</b>                                 |     |  |     |
| Cracks, subsidence in pavement                     | W/D |  | W/D |
| <b>Upstream Face</b>                               |     |  |     |
| (Use binoculars)                                   | W/D |  | W/D |
| Settlement                                         | W   |  | W   |
| <b>Downstream face</b>                             |     |  |     |
| Displacement of riprap material                    | W/D |  | W/D |
| Subsidence, slides, erosion                        | W   |  | W   |
| Sign of seepage                                    | W   |  | W   |
| <b>Area Downstream of Dam</b>                      |     |  |     |
| Seepage from any location apart from seepage point | D   |  | D   |
| <b>Seepage</b>                                     |     |  |     |
| Seepage water Clear or Turbid (Tick for clear)     | W/D |  | W/D |

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)

FAKED  
30-9-10  
@ 8:30

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 28/9/10

E/MAILED  
29-9-10 08:30

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

## Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 27-9-12

[illegible]

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 26-9-10

|                                                 | SUN                                | MON | TUE                              | WED | THU                              | FRI | SAT |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|-----|----------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                  | 314.294                            |     |                                  |     |                                  |     |     |
| Tail Water Level (m)                            | 2.540                              |     |                                  |     |                                  |     |     |
| Daily Rainfall (mm) Morning 9am                 | —                                  |     |                                  |     |                                  |     |     |
| Evening 3pm                                     | —                                  |     |                                  |     |                                  |     |     |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | STAGE 3<br>EL 314.38 -EL 315.44m |     |     |
|                                                 | Morning                            |     | (Tick if Gates are Closed)       |     |                                  |     |     |
|                                                 | Evening                            |     | (Tick if Gates are Closed)       |     |                                  |     |     |

### VISUAL INSPECTION

First  
Inspection  
0700

Second  
Inspection  
(+6 hrs)

Third  
Inspection  
(+12 hrs)

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

|                              |                                                    |     |  |     |
|------------------------------|----------------------------------------------------|-----|--|-----|
| Spillway Channel             | Erosion, damage to concrete structure              | W   |  | W   |
| Irrigation Control Structure | Cracks, concrete deterioration                     | W   |  | W   |
| Embankments                  | Cracks, subsidence in pavement                     | W/D |  | W/D |
| Upstream Face                | (Use binoculars)<br>Settlement                     | W/D |  | W/D |
| Downstream face              | Displacement of riprap material                    | W/D |  | W/D |
|                              | Subsidence, slides, erosion                        | W/D |  | W/D |
|                              | Sign of seepage                                    | W   |  | W   |
| Area Downstream of Dam       | Seepage from any location apart from seepage point | W   |  | W   |
| Seepage                      | Seepage water Clear or Turbid (Tick for clear)     | W/D |  | W/D |

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)

FAKED 27-9-10  
06.30

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 25/9/10

|                                                 | SUN                                | MON | TUE                              | WED | THU                              | FRI | SAT     |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|-----|----------------------------------|-----|---------|
| Stored Water Level FSL 314.07m                  |                                    |     |                                  |     |                                  |     | 314.249 |
| Tail Water Level (m)                            |                                    |     |                                  |     |                                  |     | 2.056m  |
| Daily Rainfall (mm) Morning 9am                 |                                    |     |                                  |     |                                  |     | 14.0mm  |
| Evening 3pm                                     |                                    |     |                                  |     |                                  |     | 7.0mm   |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |     | STAGE 3<br>EL 314.38 -EL 315.44m |     |         |
| Morning                                         |                                    |     | (Tick if Gates are Closed)       |     |                                  |     |         |
| Evening                                         |                                    |     | (Tick if Gates are Closed)       |     |                                  |     |         |

### VISUAL INSPECTION

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

|                                                    | First<br>Inspection<br>07:00 | Second<br>Inspection<br>13:00 | Third<br>Inspection<br>(+12 hrs) |
|----------------------------------------------------|------------------------------|-------------------------------|----------------------------------|
| Spillway Channel                                   | W                            | W                             |                                  |
| Erosion, damage to concrete structure              | ✓                            | ✓                             |                                  |
| Irrigation Control Structure                       | W/D                          | W/D                           |                                  |
| Cracks, concrete deterioration                     | ✓                            | ✓                             |                                  |
| Embankments                                        | W/D                          | W/D                           |                                  |
| Cracks, subsidence in pavement                     | ✓                            | ✓                             |                                  |
| Upstream Face                                      | D                            | W/D                           |                                  |
| (Use binoculars)                                   | ✓                            | ✓                             |                                  |
| Settlement                                         | ✓                            | ✓                             |                                  |
| Displacement of riprap material                    | ✓                            | ✓                             |                                  |
| Downstream face                                    | D                            | W/D                           |                                  |
| Subsidence, slides, erosion                        | ✓                            | ✓                             |                                  |
| Sign of seepage                                    | ✓                            | ✓                             |                                  |
| Area Downstream of Dam                             | D                            | W/D                           |                                  |
| Seepage from any location apart from seepage point | ✓                            | ✓                             |                                  |
| Seepage                                            | W/D                          | W/D                           |                                  |
| Seepage water Clear or Turbid (Tick for clear)     | ✓                            | ✓                             |                                  |

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)

FAKED  
26.9.10  
@ 7.30

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 24/9/10

FAXED  
25-9-10

## Flood Operation

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording instructions \*\*

Date: 23/9/10

[illegible]

FIXED 24-9-10

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0



## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 22/9/10

FRYED  
23-9-10  
@ 7.20

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

## Visual Inspection and Storage Report

**Note: Refer to Page 2 for recording instructions \*\***

Date: 21/9/10

[illegible]

FILED 22-9-10  
@ 0730

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0

## Flood Operation

## Visual Inspection and Storage Report

**Note: Refer to Page 2 for recording instructions \*\***

Date: 20-9-10

|                                                                                         | SUN                                                | MON     | TUE                                     | WED                                                  | THU                                     | FRI                            | SAT |
|-----------------------------------------------------------------------------------------|----------------------------------------------------|---------|-----------------------------------------|------------------------------------------------------|-----------------------------------------|--------------------------------|-----|
| Stored Water Level FSL 314.07m                                                          |                                                    | 314.192 |                                         |                                                      |                                         |                                |     |
| Tail Water Level (m)                                                                    |                                                    | 725     |                                         |                                                      |                                         |                                |     |
| Daily Rainfall (mm) Morning 9am                                                         |                                                    | 19      |                                         |                                                      |                                         |                                |     |
| Evening 3pm                                                                             |                                                    | 5       |                                         |                                                      |                                         |                                |     |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising                                  | <b>STAGE 1</b><br>EL 314.07 - EL 314.17 m          |         | <b>STAGE 2</b><br>EL 314.17-EL 314.38 m |                                                      | <b>STAGE 3</b><br>EL 314.38 -EL 315.44m |                                |     |
| Morning                                                                                 |                                                    |         | (Tick if Gates are Closed)              |                                                      |                                         |                                |     |
| Evening                                                                                 |                                                    |         | (Tick if Gates are Closed)              |                                                      |                                         |                                |     |
| <b>VISUAL INSPECTION</b>                                                                |                                                    |         |                                         | First<br>Inspection<br>0700                          | Second<br>Inspection<br>1200hrs         | Third<br>Inspection<br>1512hrs |     |
| (Walk OR Drive at 10 km/hour. Write 'W' for walk and 'D' for Drive)                     |                                                    |         |                                         |                                                      |                                         |                                |     |
| <b>Spillway Channel</b>                                                                 | Erosion, damage to concrete structure              |         |                                         | W                                                    | W                                       | W                              |     |
| <b>Irrigation Control Structure</b>                                                     | Cracks, concrete deterioration                     |         |                                         | N/A                                                  | N/A                                     | =                              |     |
| <b>Embankments</b>                                                                      | Cracks, subsidence in pavement                     |         |                                         | D/W                                                  | D/W                                     | D/W                            |     |
| <b>Upstream Face</b>                                                                    | (Use binoculars)<br>Settlement                     |         |                                         | D/W                                                  | W/D                                     | D/W                            |     |
|                                                                                         | Displacement of riprap material                    |         |                                         | ✓                                                    | ✓                                       | ✓                              |     |
| <b>Downstream face</b>                                                                  | Subsidence, slides, erosion                        |         |                                         | D/W                                                  | W/D                                     | D/W                            |     |
|                                                                                         | Sign of seepage                                    |         |                                         | ✓                                                    | ✓                                       | ✓                              |     |
| <b>Area Downstream of Dam</b>                                                           | Seepage from any location apart from seepage point |         |                                         | D/W                                                  | D                                       | D                              |     |
| <b>Seepage</b>                                                                          | Seepage water Clear or Turbid (Tick for clear)     |         |                                         | D/W                                                  | D/W                                     | D/W                            |     |
| Details of significant changes. New occurrences and issues warranting further attention |                                                    |         |                                         |                                                      |                                         |                                |     |
| Inspecting Officer's initials                                                           |                                                    |         |                                         | Asset Engineering Manager / Service Delivery Manager |                                         |                                |     |
| (tick if faxed)                                                                         |                                                    |         |                                         | Principal Engineer (Dam Safety)                      |                                         |                                |     |

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 19/8/10

|                                                        | SUN                                       | MON | TUE                                     | WED | THU                                     | FRI | SAT |
|--------------------------------------------------------|-------------------------------------------|-----|-----------------------------------------|-----|-----------------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                         | 314.179                                   |     |                                         |     |                                         |     |     |
| Tail Water Level (m)                                   | 0.663                                     |     |                                         |     |                                         |     |     |
| Daily Rainfall (mm) Morning 9am                        | —                                         |     |                                         |     |                                         |     |     |
| Evening 3pm                                            |                                           |     |                                         |     |                                         |     |     |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising | <b>STAGE 1</b><br>EL 314.07 - EL 314.17 m |     | <b>STAGE 2</b><br>EL 314.17-EL 314.38 m |     | <b>STAGE 3</b><br>EL 314.38 -EL 315.44m |     |     |
| Morning                                                | ✓                                         |     | (Tick if Gates are Closed)              |     |                                         |     |     |
| Evening                                                |                                           |     | (Tick if Gates are Closed)              |     |                                         |     |     |

### VISUAL INSPECTION

First Inspection 07:00  
Second Inspection (+6 hrs)  
Third Inspection (+12 hrs)

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

#### Spillway Channel

Erosion, damage to concrete structure

W

#### Irrigation Control Structure

Cracks, concrete deterioration

N/A

#### Embankments

Cracks, subsidence in pavement

N/A

#### Upstream Face

(Use binoculars)

D/W

Settlement

✓

#### Downstream face

Displacement of riprap material

✓

Subsidence, slides, erosion

D/W

Sign of seepage

✓

#### Area Downstream of Dam

Seepage from any location apart from seepage point

D/W

#### Seepage

Seepage water Clear or Turbid (Tick for clear)

D/W

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)

20/9/10

FAKED AT 08:30

SunWater  
Section 6A: Page 1 of 5  
Jan 08. Issue 2-0

**COOLMUNDA DAM EAP****Flood Operation**

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 18/9/10

|                                                        | SUN                                       | MON | TUE                                     | WED | THU                                     | FRI | SAT     |
|--------------------------------------------------------|-------------------------------------------|-----|-----------------------------------------|-----|-----------------------------------------|-----|---------|
| Stored Water Level FSL 314.07m                         |                                           |     |                                         |     |                                         |     |         |
| Tail Water Level (m)                                   |                                           |     |                                         |     |                                         |     | 314.186 |
| Daily Rainfall (mm) Morning 9am                        |                                           |     |                                         |     |                                         |     | 0.673   |
| Evening 3pm                                            |                                           |     |                                         |     |                                         |     | —       |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising | <b>STAGE 1</b><br>EL 314.07 - EL 314.17 m |     | <b>STAGE 2</b><br>EL 314.17-EL 314.38 m |     | <b>STAGE 3</b><br>EL 314.38 -EL 315.44m |     |         |
|                                                        | Morning                                   |     | (Tick if Gates are Closed)              |     |                                         |     |         |
|                                                        | Evening                                   |     | (Tick if Gates are Closed)              |     |                                         |     |         |

**VISUAL INSPECTION**First  
Inspection  
07:00Second  
Inspection  
(+6 hrs)Third  
Inspection  
(+12 hrs)

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

|                                                    |     |  |  |
|----------------------------------------------------|-----|--|--|
| <b>Spillway Channel</b>                            |     |  |  |
| Erosion, damage to concrete structure              | W   |  |  |
| <b>Irrigation Control Structure</b>                |     |  |  |
| Cracks, concrete deterioration                     | N/A |  |  |
| <b>Embankments</b>                                 |     |  |  |
| Cracks, subsidence in pavement                     | N/A |  |  |
| <b>Upstream Face</b>                               |     |  |  |
| (Use binoculars)                                   | D/W |  |  |
| Settlement                                         | D/W |  |  |
| <b>Downstream face</b>                             |     |  |  |
| Displacement of riprap material                    | ✓   |  |  |
| Subsidence, slides, erosion                        | D/W |  |  |
| Sign of seepage                                    | ✓   |  |  |
| <b>Area Downstream of Dam</b>                      |     |  |  |
| Seepage from any location apart from seepage point | D/W |  |  |
| <b>Seepage</b>                                     |     |  |  |
| Seepage water Clear or Turbid (Tick for clear)     | D/W |  |  |

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)

19/9/10

FAXED 08:57

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2.0



# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording instructions \*\*

Date 16-9-10

|                                                 | SUN                                | MON | TUE                              | WED            | THU                              | FRI | SAT |
|-------------------------------------------------|------------------------------------|-----|----------------------------------|----------------|----------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                  |                                    |     |                                  | <u>314.191</u> |                                  |     |     |
| Tail Water Level (m)                            |                                    |     |                                  |                | <u>0.917</u>                     |     |     |
| Daily Rainfall (mm) Morning 9am                 |                                    |     |                                  |                |                                  |     |     |
| Evening 3pm                                     |                                    |     |                                  |                |                                  |     |     |
| NORMAL FLOOD OPERATION<br>EL 314.0 m and rising | STAGE 1<br>EL 314.07 - EL 314.17 m |     | STAGE 2<br>EL 314.17-EL 314.38 m |                | STAGE 3<br>EL 314.38 -EL 315.44m |     |     |
| Morning                                         |                                    |     | (Tick If Gates are Closed)       |                |                                  |     |     |
| Evening                                         |                                    |     | (Tick If Gates are Closed)       |                |                                  |     |     |

### VISUAL INSPECTION

First  
Inspection  
07.00

Second  
Inspection  
16.00

Third  
Inspection  
(+12 hrs)

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

|                                                    |            |            |  |
|----------------------------------------------------|------------|------------|--|
| Spillway Channel                                   |            |            |  |
| Erosion, damage to concrete structure              | <u>W</u>   | <u>W</u>   |  |
| Irrigation Control Structure                       | <u>W</u>   | <u>W</u>   |  |
| Cracks, concrete deterioration                     | <u>W</u>   | <u>W</u>   |  |
| Embankments                                        | <u>D/W</u> | <u>D/W</u> |  |
| Cracks, subsidence in pavement                     | <u>D/W</u> | <u>D/W</u> |  |
| Upstream Face                                      | <u>D/W</u> | <u>D/W</u> |  |
| (Use binoculars)                                   | <u>D/W</u> | <u>D/W</u> |  |
| Settlement                                         | <u>W</u>   | <u>W</u>   |  |
| Downstream face                                    | <u>D/W</u> | <u>W/D</u> |  |
| Displacement of riprap material                    | <u>W</u>   | <u>W</u>   |  |
| Subsidence, slides, erosion                        | <u>D/W</u> | <u>W/D</u> |  |
| Sign of seepage                                    | <u>W</u>   | <u>W</u>   |  |
| Area Downstream of Dam                             | <u>D</u>   | <u>D</u>   |  |
| Seepage from any location apart from seepage point | <u>W</u>   | <u>W</u>   |  |
| Seepage                                            | <u>D/W</u> | <u>W/D</u> |  |
| Seepage water Clear or Turbid (Tick for clear)     | <u>W</u>   | <u>W</u>   |  |

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)

17/9/10  
FAXED AT 08:55hrs

SunWater  
Section 6A: Page 1 of 5  
Jan 08. Issue 2-0

# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report  
Note: Refer to Page 2 for recording Instructions \*\*

Date: 15-9-10

|                                                        | SUN                                       | MON | TUE                                     | WED     | THU                                     | FRI | SAT |
|--------------------------------------------------------|-------------------------------------------|-----|-----------------------------------------|---------|-----------------------------------------|-----|-----|
| Stored Water Level FSL 314.07m                         |                                           |     |                                         |         |                                         |     |     |
| Tail Water Level (m)                                   |                                           |     |                                         | 314.193 |                                         |     |     |
| Daily Rainfall (mm) Morning 9am                        |                                           |     |                                         | 1.260   |                                         |     |     |
| Evening 3pm                                            |                                           |     |                                         |         |                                         |     |     |
| <b>NORMAL FLOOD OPERATION</b><br>EL 314.0 m and rising | <b>STAGE 1</b><br>EL 314.07 - EL 314.17 m |     | <b>STAGE 2</b><br>EL 314.17-EL 314.38 m |         | <b>STAGE 3</b><br>EL 314.38 -EL 315.44m |     |     |
| Morning                                                |                                           |     | (Tick if Gates are Closed)              |         |                                         |     |     |
| Evening                                                |                                           |     | (Tick if Gates are Closed)              |         |                                         |     |     |

### VISUAL INSPECTION

First Inspection 0700  
Second Inspection (+6 hrs)  
Third Inspection 1200

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

|                              |                                                    |     |  |     |
|------------------------------|----------------------------------------------------|-----|--|-----|
| Spillway Channel             | Erosion, damage to concrete structure              | W   |  | W   |
| Irrigation Control Structure | Cracks, concrete deterioration                     | N/A |  | N/A |
| Embankments                  | Cracks, subsidence in pavement                     | D/W |  | D/W |
| Upstream Face                | (Use binoculars)<br>Settlement                     | D/W |  | D/W |
| Downstream face              | Displacement of riprap material                    | W   |  | W   |
|                              | Subsidence, slides, erosion                        | D/W |  | D/W |
| Area Downstream of Dam       | Sign of seepage                                    | W   |  | W   |
| Seepage                      | Seepage from any location apart from seepage point | D   |  | D   |
|                              | Seepage water Clear or Turbid (Tick for clear)     | D/W |  | D/W |

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)

FIXED 16-9-10 2014

SunWater  
Section 6A: Page 1 of 5  
Jan 08. Issue 2-0



# COOLMUNDA DAM EAP

## Flood Operation

Visual Inspection and Storage Report

Note: Refer to Page 2 for recording instructions \*\*

Date: 14-9-10

|                                 | SUN | MON | TUE     | WED | THU | FRI | SAT |
|---------------------------------|-----|-----|---------|-----|-----|-----|-----|
| Stored Water Level FSL 314.07m  |     |     | 314.199 |     |     |     |     |
| Tail Water Level (m)            |     |     | 1.181   |     |     |     |     |
| Daily Rainfall (mm) Morning 9am |     |     | 0.8     |     |     |     |     |
| Evening 3pm                     |     |     | 7       |     |     |     |     |

### NORMAL FLOOD OPERATION EL 314.0 m and rising

STAGE 1  
EL 314.07 - EL 314.17 m

STAGE 2  
EL 314.17-EL 314.38 m

STAGE 3  
EL 314.38 -EL 315.44m

Morning

(Tick if Gates are Closed)

Evening

(Tick if Gates are Closed)

### VISUAL INSPECTION

First  
Inspection

Second  
Inspection  
(+8 hrs)

Third  
Inspection  
(+12 hrs)

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

#### Spillway Channel

Erosion, damage to concrete structure

#### Irrigation Control Structure

Cracks, concrete deterioration

#### Embankments

Cracks, subsidence in pavement

#### Upstream Face

(Use binoculars)

Settlement

Displacement of riprap material

#### Downstream face

Subsidence, slides, erosion

Sign of seepage

#### Area Downstream of Dam

Seepage from any location apart from seepage point

#### Seepage

Seepage water Clear or Turbid (Tick for clear)

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)

FAKED 15-9-10  
07.45

SunWater  
Section 6A: Page 1 of 5

## Flood Operation

Note: Refer to Page 2 for recording instructions \*\*

Date: 13-9-10

PAID  
14-9-10 @ 8.05

SunWater  
Section 6A: Page 1 of 5  
Jan 08, Issue 2-0



## Coolmunda Dam Event Report

### Emergency Event Recording Sheets

- Record of Communication sheet

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE    | TIME   | CONTACT PERSON /<br>TELEPHONE NO.    | CALL<br>IN / OUT | MESSAGE                                                           | RECORDED BY<br>(INITIALS) |
|---------|--------|--------------------------------------|------------------|-------------------------------------------------------------------|---------------------------|
| 6/1/11  | 23:30  | Warrumbidgee Police                  | OUT              | FLOOD ADVISORY (PRAIRIE PASSING)                                  |                           |
| 7/1/11  | 7:00   | NW                                   | IN               | DAM STATUS                                                        |                           |
| 7/1/11  | 9:00   | FIRE CONTACTS                        | OUT              | DAM STATUS FLOOD REPORT                                           |                           |
| 11/1/11 | 8:30am | (NORTH H.)                           | IN               | COOLMUNDA COME TO ATTENTION<br>OPERATE 3 SHUTS (TRASH IN INTAKES) |                           |
| 11/1/11 | 9:39   | QLD contacted<br>Disaster Management | OUT              | Pre Warning releases & catchment rainfall                         |                           |
| 11/1/11 | 13:00  | Dave Ransom                          | IN               | EL 314.224 42574 58937 342                                        |                           |
| 11/1/11 | 16:00  | FIRE CONTACTS                        | OUT              | DAM STATUS                                                        |                           |
| 11/1/11 | 20:30  | Rick Woodward                        | IN               | EL 314.208 56543 400                                              |                           |
| 12/1/11 | 8:00   | Dave Ransom                          | IN               | RECORD OF Dam STATUS                                              |                           |
| 12/1/11 | 9:30   | FIRE CONTACTS                        | OUT              | DAM STATUS                                                        |                           |
| 12/1/11 | 9:00pm | Nev Cole                             | OUT              | Manual operation, pipes blocked, manual operation difficult       |                           |
|         |        |                                      |                  |                                                                   |                           |
|         |        |                                      |                  |                                                                   |                           |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE     | TIME  | CONTACT PERSON /<br>TELEPHONE NO. | CALL<br>IN / OUT | MESSAGE                       | RECORDED BY<br>(INITIALS) |
|----------|-------|-----------------------------------|------------------|-------------------------------|---------------------------|
| 27/11/10 | 14:00 | NEV Cole                          | OUT              | Request for Dam Status        |                           |
| 27/11/10 | 14:30 | Disaster Man Group                | OUT              | Adviser on Irrigation Release |                           |
| 27/12/10 | 15:00 | Don Krook                         | OUT              | Discuss of Flood Peaks        |                           |
| 27/12/10 | 20:30 | Russ Kien                         | IN               | Adviser Flood Peak at 12mm    |                           |
| 27/12/10 | 21:30 | Irrigators                        | OUT              | Adviser Flood Peak            |                           |
| 5/1/11   | 15:00 | Doug Rabbitt                      | OUT              | Discuss gate Heights          |                           |
| 6/1/11   | 17:30 | Doug                              | IN               | Dam Status                    |                           |
| 6/1/11   | 17:30 | LiEC contacts                     | OUT              | Dam Status                    |                           |
| 6/1/11   | 21:00 | Doug                              | IN               | Dam Flood + Peak              |                           |
| 6/1/11   | 21:30 | Immerwood Farm                    | OUT              | Adviser Flood Peak            |                           |
| 6/1      | 22:00 | NEV                               | IN               | Dam Status                    |                           |
| 6/1      | 22:30 | Immerwood Farm                    | OUT              | Flood Status                  |                           |
| 6/1      | 23:00 | NEV                               | IN               | Dam Status                    |                           |

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

**SunWater**  
**Section 6: Page 4 of 5**  
**Jan 08, Issue 2-0**

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE    | TIME  | CONTACT PERSON /<br>TELEPHONE NO. | CALL<br>IN / OUT | MESSAGE                                                            | RECORDED BY<br>(INITIALS) |
|---------|-------|-----------------------------------|------------------|--------------------------------------------------------------------|---------------------------|
| 26-9-10 | 6:00  | G. HAGGARD 14                     | IN               | KARAN BYARTERMAN                                                   |                           |
| 26-9-10 | 10:00 | G. HAGGARD 14                     | OUT              | NEW COLE DAM FATHING LOG WITH CASE 2                               |                           |
| 26-9-10 | 12:00 | G. HAGGARD 14                     | OUT              | NEW COLE DAM FATHING                                               |                           |
| 26-9-10 | 16:00 | G. HAGGARD 14                     | OUT              | NEW COLE NO RAIN WATER                                             |                           |
| 26-9-10 | 19:45 | P. FITZGERALD                     | OUT              | DOUG RABBITT SLIGHT INCREASE IN DISCHARGE EL: 314.25 & STEADY.     |                           |
| 27-9-10 | 7:40  | P. FITZGERALD                     | OUT              | NEW COLE - DISCHARGE 6500 m <sup>3</sup> 2 GAGES OPEN. EL: 314.234 |                           |
| 27-9-10 | 12:30 | R. NEWMAN                         | OUT              | NEW COLE - EL 314.224 LOW PRESSURE                                 |                           |
| 27-9-10 | 15:00 | R. NEWMAN                         | OUT              | NEW COLE EL 314.227 LOW PRESSURE                                   |                           |
| 27-9-10 | 15:00 | MAH HANWANA                       | OUT              | MAH HANWANA REPORT.                                                |                           |
| 27-9-10 | 21:00 | R. NEWMAN                         | OUT              | D. RABBITT EL 314.213 LEVEL FLOWING                                |                           |
| 27-9-10 | 21:00 | R. NEWMAN                         | OUT              | MAH HANWANA REPORT                                                 |                           |
| 28-9-10 | 7:30  | R. NEWMAN                         | OUT              | NEW COLE EL 314.203 LOW PRESSURE                                   |                           |
| 28-9-10 | 7:30  | R. NEWMAN                         | OUT              | MAH HANWANA REPORT                                                 |                           |



## EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN

### LOG OF EVENTS / ACTIONS

[illegible]

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN LOG OF EVENTS / ACTIONS

| DATE    | TIME  | EVENT / ACTION DESCRIPTION                                                  | RECORDED BY (INITIALS) |
|---------|-------|-----------------------------------------------------------------------------|------------------------|
| 19/9/10 | 0930  | REACTIVATE GATE ALARM                                                       |                        |
| 20/9/10 | 07:00 | GATE NO. 4 OPEN 80mm                                                        |                        |
| "       | 19:00 | " " " " 460mm                                                               |                        |
| "       | 19:00 | DECK LIGHTS NOT WORKING. (VALVE HOUSE <sup>DECK</sup> LIGHT SWITCH TRIPPED) |                        |
| 21/9/10 | 01:00 | H/W LOGGER + T/W LOGGER NOT RESPONDING                                      |                        |
| "       | 01:00 | EL TAKEN FROM LOGGER KEY PAD 314.206m.                                      |                        |
| "       | 01:50 | H/W + T/W LOGGERS BACK ON LINE                                              |                        |
| 24/9/10 | 14:45 | RAACHER CRK ALARM RANG 1.3m                                                 |                        |
| "       | 20:00 | GATE 3, 4, 5 OPENED                                                         |                        |
| 25/9/10 | 18:00 | " 3, 4 & 5 OPEN (RISING) EL 314.284 = 72629 = 105.2%                        |                        |
| "       | 21:00 | " 3, 4, 5 & 7 OPEN EL 314.316 = 73175mL = 106%                              |                        |
| "       | 22:00 | ALL 7 GATES OPEN EL 314.326m = 73,347mL = 106.2%                            |                        |
| 26/9/10 | 07:00 | LOG UNDER GATE 2, WITH MONITOR                                              |                        |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM EMERGENCY ACTION PLAN LOG OF EVENTS/ACTIONS

| Date    | Time  | Event description / Action carried out                                                | Record entered by |
|---------|-------|---------------------------------------------------------------------------------------|-------------------|
| 13-9-10 | 11:20 | (KEN BISSET TO ACTION)<br>WATER OVER ROAD D/S CULVERT, ADVISED COUNCIL REPRESENTATIVE | [REDACTED]        |
| "       | 20:00 | STORAGE EL. HOLDING 314.200m = 71,212ML = 103.1% (GATE NO 4 OPEN 150mm)               |                   |
| "       | 23:00 | H/W LOGGER NOT RESPONDING                                                             |                   |
| "       | 24:00 | EL. TAKEN FROM LOGGER KEY PAD, 314.200m                                               |                   |
| 14/9/10 | 02:00 | " " " " " " 314.200m.                                                                 |                   |
| "       | 05:00 | " " " " " " 314.200m                                                                  |                   |
| "       | 13:00 | H/W GAUGE MEASURED + LOGGER RESTARTED + ADJUSTED 314.192                              |                   |
| 15/9/10 | 09:00 | GATE 4 RAISED TO 0.200 TO CLEAR DEBRIS & RETURNED TO AUT                              |                   |
| 16/9/10 | 14:00 | 750 + 300 VALVES BOTH OPENED FULLY                                                    |                   |
| 17/9/10 | 07:00 | EMBANKMENT + TOE DRAINS INSPECTION OK.                                                |                   |
| "       | 14:00 | " " " " " FUSE PLUG.                                                                  | [REDACTED]        |
| 18/9/10 | 07:00 | " " " " " FUSE PLUG - OK                                                              |                   |
| 19/9/10 | 07:00 | " " " " " "                                                                           |                   |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM EMERGENCY ACTION PLAN LOG OF EVENTS / ACTIONS

| Date    | Time  | Event description / Action carried out                                | Record entered by |
|---------|-------|-----------------------------------------------------------------------|-------------------|
| 12/9/10 | 0930  | FINE TRASH SCREENS REMOVED/INTAKES                                    |                   |
| 12/9/10 | 1330  | WATER DISCHARGING FROM R/PIER ORIFICE, GATE 4 (CONT MONITORING)       |                   |
| "       | 18:00 | WATER DISCHARGING FROM L & R/PIER ORIFICE, GATE NO. 4 (CONT. MONITOR) |                   |
| "       | 19:00 | SMALL INCREASE DISCHARGE ORIFICE, GATE NO. 4 (CONT. MONITORING)       |                   |
| "       | 20:00 | " " " " " "                                                           |                   |
| "       | 21:00 | SMALL DISCHARGE (ORIFICE) NO. 3, 4 + 5                                |                   |
| "       | 22:00 | " " " "                                                               |                   |
| "       | 24:00 | INCREASE DISCHARGE (ORIFICE) NO. 3, 4 + 5                             |                   |
| 13/9/10 | 01:00 | SMALL INCREASE (ORIFICE) NO. 3, 4 + 5                                 |                   |
| "       | 02:00 | GATE NO. 4 CONTROL WEIR W/LEVEL = STORAGE EL. 314.169m                |                   |
| "       | 03:00 | INCREASE DISCHARGE (ORIFICE) GATE NO. 3, 4, + 5.                      |                   |
| "       | 05:00 | " " " " " "                                                           |                   |
| "       | 06:00 | " " " " " "                                                           |                   |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE     | TIME  | CONTACT PERSON /<br>TELEPHONE NO. | CALL<br>IN / OUT | MESSAGE                                                 | RECORDED BY<br>(INITIALS) |
|----------|-------|-----------------------------------|------------------|---------------------------------------------------------|---------------------------|
| 15/10/10 | 13:23 | EEC<br>K QUINTERMAN               | OUT              | EL RISING 314.074                                       |                           |
| 15/10/10 | 13:38 | S HARGREAVES                      | IN               | EL UPDATE                                               |                           |
| 16/10/10 | 16:11 | EEC<br>KARAN                      | OUT              | ADVISE EL 314.171 (STAGE 2)<br>WILL CONTINUE MONITORING |                           |
| "        | 16:20 | S HARGREAVES                      | OUT              | " " " "                                                 |                           |
| "        | 18:19 | EEC<br>KARAN                      | OUT              | ADVISE GATE 4 OPENED                                    |                           |
| "        | 19:11 | S HARGREAVES                      | OUT              | " " " "                                                 |                           |
| 25/10/10 | 07:20 | EEC<br>KARAN                      | OUT              | " " " "                                                 |                           |
| "        | 07:42 | S HARGREAVES                      | OUT              | " " " "                                                 |                           |
| "        | 07:14 | TOM DONALD                        | OUT              | " " " "                                                 |                           |
|          |       |                                   |                  |                                                         |                           |
|          |       |                                   |                  |                                                         |                           |
|          |       |                                   |                  |                                                         |                           |
|          |       |                                   |                  |                                                         |                           |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE    | TIME  | CONTACT PERSON /<br>TELEPHONE NO. | CALL<br>IN / OUT | MESSAGE                                        | RECORDED BY<br>(INITIALS) |
|---------|-------|-----------------------------------|------------------|------------------------------------------------|---------------------------|
| 26-9-10 | 12:35 | C MANN                            | OUT              | FLOOD SHIFTS CONTINUING.                       |                           |
| 26-9-10 | 12:18 | S HARRIS                          | IN               | UPDATE EL & DISCHARGES                         |                           |
| "       | 19:52 | PAT FITZGERALD                    | IN               | " " " (EEC)                                    |                           |
| 27-9-10 | 07:44 | "                                 | "                | " R NEWMAN (EEC)                               |                           |
| 27-9-10 | 08:35 | D RABBITT                         | OUT              | NOTIFIED FOR NIGHT SHIFT                       |                           |
| "       | 08:35 | C MANN                            | OUT              | " " " "                                        |                           |
| "       | 15:50 | P CRISP (EEC)                     |                  | RIVER HEIGHTS & FLOWS &<br>EAP                 |                           |
| "       | 19:20 | RON NEWMAN (EEC)                  |                  | UPDATE ON HEIGHTS & FLOWS<br>FAX SEND (HOURLY) |                           |
| 28/9/10 | 07:05 | S HARRIS                          | IN               | UPDATE ON EL & FLOWS, OFFLOFF<br>NIGHT SHIFTS  |                           |
| "       | 07:14 | D RABBITT                         | OUT              | RE SHIFTS                                      |                           |
| "       | 07:15 | C MANN                            | OUT              | "                                              |                           |
| "       | 07:48 | R NEWMAN                          | IN               | UPDATE ELS & FLOWS                             |                           |
|         |       |                                   |                  |                                                |                           |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE    | TIME  | CONTACT PERSON /<br>TELEPHONE NO. | CALL<br>IN / OUT | MESSAGE                                           | RECORDED BY<br>(INITIALS) |
|---------|-------|-----------------------------------|------------------|---------------------------------------------------|---------------------------|
| 25-9-10 | 08:07 | KARAN Q                           | OUT              | RE INFLOWS & RECORDING.                           |                           |
| "       | 13:34 | C MANN                            | OUT              | CHECK ON AVAILABILITY FOR<br>12 HR SHIFTS         |                           |
| "       | 16:00 | KARAN Q                           | OUT              | RE INFLOWS & FAX FIGURES                          |                           |
| "       | 10:36 | " "                               | OUT              | UPDATE<br>ALL 7 GATES OPEN (FAXED SHEETS) HOURLY  |                           |
| 26/9/10 | 12:12 | INL. POLICE (TIM)<br>0419736172   | IN               | INQUIRY CAUSE HT. ETC.                            |                           |
| "       | 12:31 | KARAN Q<br>46718121               | IN               | UPDATE EL'S ETC.                                  |                           |
| "       | 04:00 | INL. POLICE (TIM)                 | IN               | UPDATE, WATER LEVELS                              |                           |
| "       | 05:30 | KARAN Q                           | IN               | UPDATE, WATER LEVELS<br>FAX SHEET, GUNDY & T'WBA. |                           |
| "       |       | "                                 | IN               | "                                                 |                           |
| "       | 08:13 | K BIGGS                           | IN               | ROAD CONDITIONS TO GUNDY                          |                           |
| "       | 06:35 | P BILLSBROUGH                     | OUT              | RE COMMENCE SHIFTS                                |                           |
| "       | 06:40 | "                                 | IN               | "                                                 |                           |
| "       | 09:15 | G HARVEY                          | OUT              | "                                                 |                           |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE    | TIME  | CONTACT PERSON /<br>TELEPHONE NO. | CALL<br>IN / OUT | MESSAGE                                                        | RECORDED BY<br>(INITIALS) |
|---------|-------|-----------------------------------|------------------|----------------------------------------------------------------|---------------------------|
| 20/9/10 | 08:53 | 46718121<br>K. QUARTEMAINE        | IN               | UP DATE WATER LEVELS<br>POSSIBLE 12 HRS SHIFTS. (TO CONFIRM)   |                           |
| "       | 09:24 | "                                 | IN               | START 12HR SHIFTS, DAVE LEFT<br>10:00AM, HOURLY MONITORING.    |                           |
| "       | 11:02 | TUBA OFFICE<br>PAT FITZGERALD     | IN               | RE FISHING ON DAM                                              |                           |
| "       | 12:39 | KARAN Q                           | IN               | RE FAX FIGURES TO GUNDI                                        |                           |
| "       | 16:10 | "                                 | IN               | " " " " " "<br>CALL ON MOBILE TO CONTACT                       |                           |
| 21-9-10 | 7:37  | "                                 | IN               | FAX FIGURES TO GUNDI<br>ADVISED LIGHTS NOT WORKING (BRIDGE DE) |                           |
| 22-9-10 | 09:26 | "                                 | IN               | FINISH 12HR SHIFTS, CONTINUE<br>MONITORING DAILY               |                           |
| 24-9-10 | 13:15 | "                                 | OUT              | ADVISED OF HEAVY RAIN ON DAM<br>10mm                           |                           |
| "       | 14:45 | BARBARA EK<br>KARAN               | IN               | ALARM RANG 1.3m                                                |                           |
| "       | 15:51 | KARAN Q                           | OUT              | RE ELX INFLOWS —<br>MONITOR O/NIGHT                            |                           |
| "       | 20:48 | "                                 | OUT              | RE INCREASED INFLOWS                                           |                           |
| 25-9-10 |       | "                                 | "                | "                                                              |                           |
| "       | 07:28 | P BILLSBROUGH                     | IN               | "                                                              |                           |



# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| Date   | Time           | Phone No.  | Contact Person | Message sent / received                        | Call sent / received by |
|--------|----------------|------------|----------------|------------------------------------------------|-------------------------|
| 13/9/0 | 21:45          | 0408718652 | G. HALLGRAVES  | ENQUIRY DAM LEVELS ETC.                        | IN                      |
| 14/9/0 | 07:00          |            | A DOONAN       | "                                              | IN                      |
| "      | 07:05          |            | K QUINTERMAN   | " 9 DISCHARGES.                                | IN                      |
| "      | 07:10          | 31200085   | RAISBANE       | ENQUIRY ON WATER LEVELS ON TEXAS YELARROW ROAD | IN                      |
| "      | 07:40          |            | G. HALLGRAVES  | DAM CONDITIONS & EL LOSER COMMUNICATION FAULT  | OUT                     |
| 14     | 10:00 TO 14:00 |            | IRISATOR LIST  | UPDATED ON DAM DISCHARGES                      | OUT.                    |
| "      | 4:04           |            | G. HALLGRAVES  | CHECK ON CONDITIONS ETC.                       | IN                      |
| 15/9/0 | 7:15           |            | "              | "                                              | IN                      |
| 15/9/0 | 17:25          |            | "              | "                                              | IN                      |
| 17/9/0 | 11:25          | 06420150   | "              | " " " "                                        | IN                      |
| "      | 14:40          | 0408987151 | K. QUINTERMAN  | UPDATE, DAM LEVELS ETC. (EEC)                  | OUT                     |
| 18/9/0 | 09:4           | "          | "              | GUNDY FAX BUSY - RE FIGURES - GUNDAKACHT INSP. | OUT                     |
| 19/9/0 | 08:29          | 46718121   | "              | UPDATE, DAM LEVELS ETC. (EEC)                  | IN                      |

# EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE    | TIME  | CONTACT PERSON /<br>TELEPHONE NO.           | CALL<br>IN / OUT | MESSAGE                                | RECORDED BY<br>(INITIALS) |
|---------|-------|---------------------------------------------|------------------|----------------------------------------|---------------------------|
| 13-9-10 | 07:03 | B SWAN                                      | IN               | INQUIRY EL9 CONDITIONS                 |                           |
| "       | 07:45 | J EATON                                     | IN               | RE TRACTOR FROM LESLIE                 |                           |
| "       | 08:25 | A DOONAN                                    | IN               | RE DAM O/FLOW ETC.                     |                           |
| "       | 08:20 | RALPHIE                                     | OUT              | RE TRACTOR PICK/UP                     |                           |
| "       | 10:10 | ANITA                                       | IN               | RE DAILY LOG FIGURES                   |                           |
| "       | 11:20 | GUNDY COUNCIL<br>BARRY / KEN BISS<br>STAFF. | OUT              | ADVISED WATER OVER ROAD AT<br>CONCRETE |                           |
| "       | 10:45 | S HARRIS                                    | IN               | CATH COUNCIL RE ROAD SIGNS             |                           |
| "       | 11:57 | IAN DAWSON                                  | IN               | INQUIRY RE DAM HEIGHT                  |                           |
| "       | 12:29 | FLOOD ROOM                                  | IN               | DISCHARGE VOLUMES.                     |                           |
| "       | 3:05  | "                                           | IN               | " "                                    |                           |
| "       | 3:16  | "                                           | OUT              | " "                                    |                           |
| "       | 4:14  | 46521964                                    | IN               | INQUIRY RE DAM HEIGHTS                 |                           |
| "       | 5:07  | S HARRIS                                    | IN               | STAFF SHIFTS.                          |                           |

# EL. EMERGENCY ACTION PLAN - COOLMUNDA DAM

## COOLMUNDA DAM - EMERGENCY ACTION PLAN RECORD OF COMMUNICATION

| DATE    | TIME  | CONTACT PERSON /<br>TELEPHONE NO. | CALL<br>IN / OUT     | MESSAGE                                                     | RECORDED BY<br>(INITIALS) |
|---------|-------|-----------------------------------|----------------------|-------------------------------------------------------------|---------------------------|
| 11-9-10 | 18:30 | G HARGRAVES                       | IN<br><del>OUT</del> | CONTINUE MONITORING TOWARDS<br>GATE OPENING                 |                           |
| "       | 18:49 | D PARBITT                         | OUT                  | ADVISED OF CONTINUED MONITORING<br>& WILL CALL IF REQUIRED  |                           |
| 12-9-10 | 01:49 | G HARGRAVES                       | IN                   | ENQUIRY ON EL'S RELATION TO FSL &<br>EAP ACTIONS DISCUSSION |                           |
| 12-9-10 | 07:02 | G HARGRAVES                       | OUT                  | ADVISED FSL REACHED, ACTION 3 -<br>STAGE 1                  |                           |
| 12-9-10 | 08:25 | B SWANN                           | IN                   | ENQUIRY DAM LEVELS                                          |                           |
| 12-9-10 | 08:30 | DAWSON                            | IN                   | "                                                           |                           |
| 12-9-10 | 09:04 | G HARGRAVES                       | IN                   | FAX INVESTIGATORS CONTACT LIST                              |                           |
| "       | 09:43 | C BURTON                          | IN                   | ENQUIRY DAM LEVEL                                           |                           |
| "       | 13:11 | G HARGRAVES                       | IN                   | " & CONDITIONS                                              |                           |
| "       | 16:48 | "                                 | IN                   | " "                                                         |                           |
| "       | 20:18 | "                                 | IN                   | " "                                                         |                           |
| 13/9/10 | 01:18 | "                                 | IN                   | " "                                                         |                           |
| 13/9/10 | 06:29 | "                                 | IN                   | & RETURN TRAILER FROM<br>" LESLIE                           |                           |

## Coolmunda Dam Event Report

### Emergency Event Recording Sheets

- General comments & other issues

At Coolmunda Dam we operated this event using the current EAP and found it adequate and relevant.

Main issue was operating the gates in manual mode as float chambers were blocked with debris.

We have now put measures in place to mitigate against this happening again.

Also the collection of data will now be done in a spreadsheet for traceability and report purposes

Cheers

## Coolmunda Dam Event Report

### Emergency Event Recording Sheets

- Photos during & after event





























