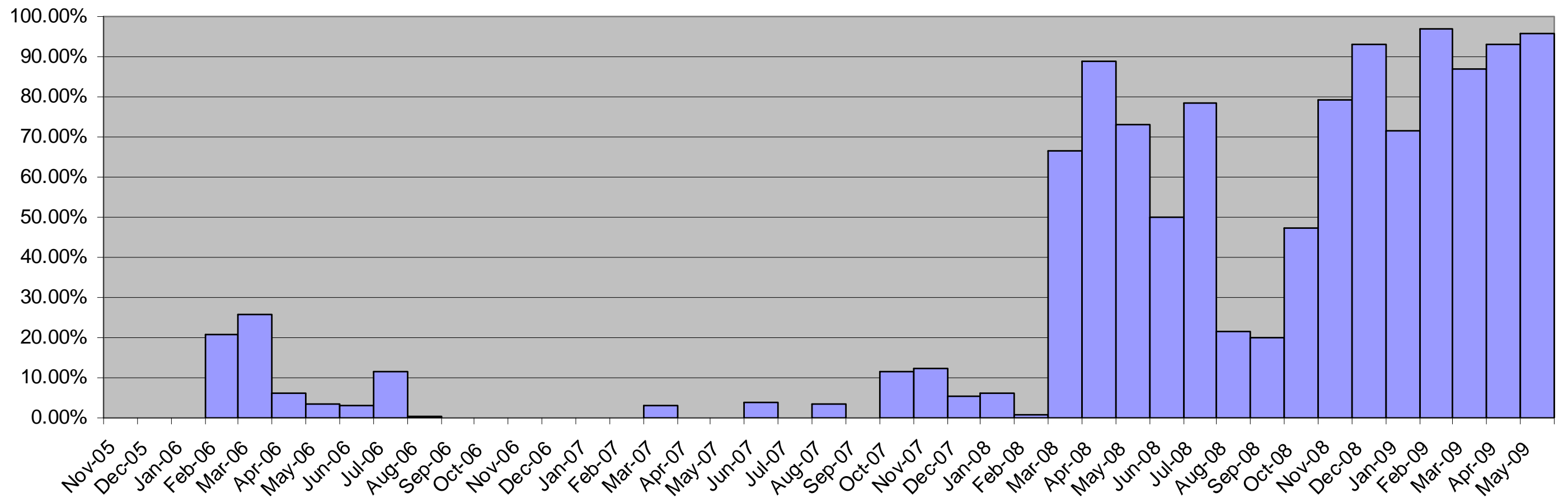
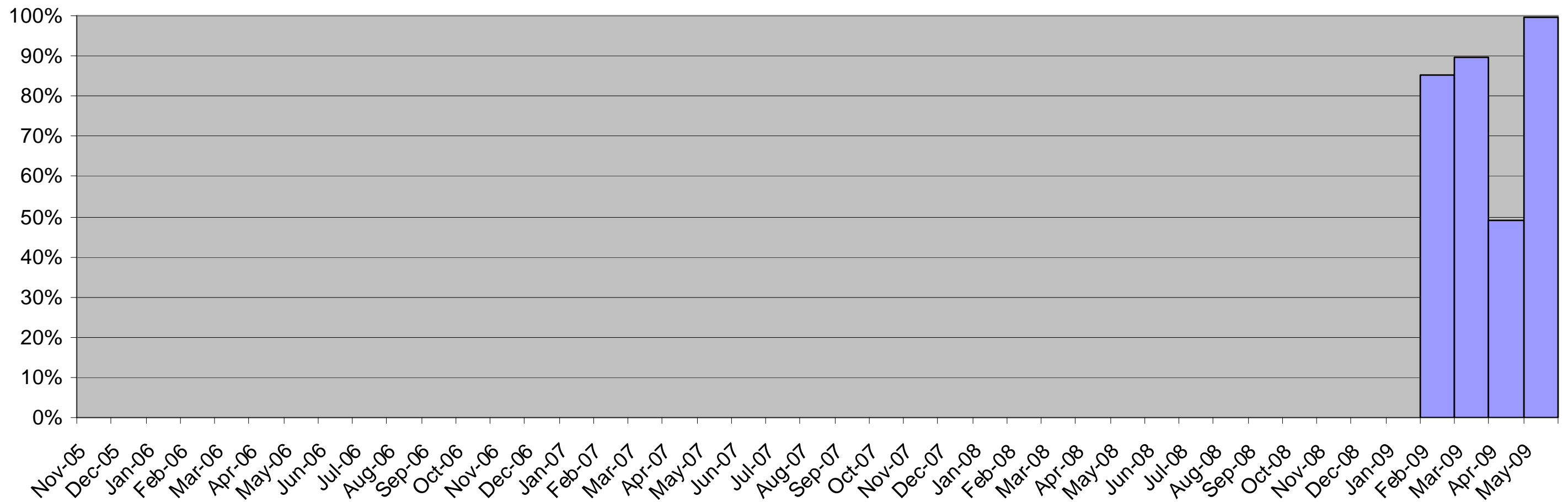


**Graph of percentage of total time the Paradise Dam upstream fishway operated each month between 28 November 2005 and 24 May 2009 based on particulars provided by Burnett Water Pty Ltd on 11 June 2009**



**Graph of percentage of total time the Paradise Dam downstream fishway operated each month between 28 November 2005 and 24 May 2009 based on particulars provided by Burnett Water Pty Ltd on 11 June 2009**



**Table 1: Calculation of the percentage operation per month of the upstream fishway based on hours of operation each month admitted by Burnett Water Pty Ltd in its Further & Better Particulars on 11 June 2009**

Month	Hours in Month	Hours of Operation	% Operation	Page
Nov-05	720	0	0.0 %	
Dec-05	744	0	0.0 %	5
Jan-06	744	0	0.0 %	6
Feb-06	672	139.5	20.8 %	7
Mar-06	744	191	25.7 %	8
Apr-06	720	44	6.1 %	9
May-06	744	26	3.5 %	10
Jun-06	720	22	3.0 %	11
Jul-06	744	86.75	11.7 %	12
Aug-06	744	4	0.5 %	13
Sep-06	720	0	0.0 %	14
Oct-06	744	0	0.0 %	15
Nov-06	720	0	0.0 %	16
Dec-06	744	0	0.0 %	17
Jan-07	744	0	0.0 %	18
Feb-07	672	0	0.0 %	19
Mar-07	744	23.5	3.2 %	20
Apr-07	720	0	0.0 %	21
May-07	744	0	0.0 %	22
Jun-07	720	28	3.9 %	23
Jul-07	744	0	0.0 %	24
Aug-07	744	26	3.5 %	25
Sep-07	720	0	0.0 %	26
Oct-07	744	86	11.6 %	27
Nov-07	720	88	12.2 %	28
Dec-07	744	40	5.4 %	29
Jan-08	744	47	6.3 %	30
Feb-08	696	5	0.7 %	31
Mar-08	744	496.5	66.7 %	32
Apr-08	720	640.5	89.0 %	33
May-08	744	544	73.2 %	34
Jun-08	720	359.5	49.9 %	35
Jul-08	744	584	78.5 %	36
Aug-08	744	162	21.7 %	37
Sep-08	720	144	20.0 %	38
Oct-08	744	351.75	47.2 %	39
Nov-08	720	170	79.2 %	40
Dec-08	744	693	93.2 %	41
Jan-09	744	531.5	71.4 %	42
Feb-09	672	652.25	97.1 %	43
Mar-09	744	646.25	86.9 %	44
Apr-09	720	670.5	93.1 %	45
May-09 to 24 <sup>th</sup>	576	551.25	95.7 %	46

**Table 2: Calculation of the percentage operation per month of the downstream fishway based on hours of operation each month admitted by Burnett Water Pty Ltd in its Defence and Further & Better Particulars on 11 June 2009**

Month	Hours in Month	Hours of Operation	% Operation	Page
Nov-05	720	0	0.0 %	
Dec-05	744	0	0.0 %	
Jan-06	744	0	0.0 %	
Feb-06	672	0	0.0 %	
Mar-06	744	0	0.0 %	
Apr-06	720	0	0.0 %	
May-06	744	0	0.0 %	
Jun-06	720	0	0.0 %	
Jul-06	744	0	0.0 %	
Aug-06	744	0	0.0 %	
Sep-06	720	0	0.0 %	
Oct-06	744	0	0.0 %	
Nov-06	720	0	0.0 %	
Dec-06	744	0	0.0 %	
Jan-07	744	0	0.0 %	
Feb-07	672	0	0.0 %	
Mar-07	744	0	0.0 %	
Apr-07	720	0	0.0 %	
May-07	744	0	0.0 %	
Jun-07	720	0	0.0 %	
Jul-07	744	0	0.0 %	
Aug-07	744	0	0.0 %	
Sep-07	720	0	0.0 %	
Oct-07	744	0	0.0 %	
Nov-07	720	0	0.0 %	
Dec-07	744	0	0.0 %	
Jan-08	744	0	0.0 %	
Feb-08	696	0	0.0 %	
Mar-08	744	0	0.0 %	
Apr-08	720	0	0.0 %	
May-08	744	0	0.0 %	
Jun-08	720	0	0.0 %	
Jul-08	744	0	0.0 %	
Aug-08	744	0	0.0 %	
Sep-08	720	0	0.0 %	
Oct-08	744	0	0.0 %	
Nov-08	720	0	0.0 %	
Dec-08	744	0	0.0 %	
Jan-09	744	0	0.0 %	47
Feb-09	672	573.25	85.3 %	48
Mar-09	744	667.5	89.8 %	49
Apr-09	720	353	49.0 %	50
May-09 to 24 <sup>th</sup>	576	573.5	99.6%	51



**Date** 11 June 2009  
**From** Bill McCredie / Robyn Morrison  
**To** Ms Jo Bragg, Environmental Defenders' Office  
 (Queensland) Inc.  
**Email** jbragg@edo.org.au

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Confidential Email

Dear Ms Bragg

**Burnett Water Pty Ltd (BW) ats Wide Bay Burnett Conservation Council Inc (WBCC) - Federal Court of Australia Proceedings No.QUD 319/08**

We refer to your letter of 4 June 2009 requesting particulars of paragraphs 15, 16 and 17 of our client's defence.

**Paragraph 15 and 16 of the Defence**

In response to paragraphs 1, 2, 3 and 4 of your letter, we attach two excel spreadsheets (one in respect of upstream and one in respect of downstream) compiled by our client which provides the further and better particulars sought in those paragraphs.

The columns are self-explanatory. The comments appearing in the far right-hand column are sourced from our client's records which have been disclosed to you. Those comments provide particulars as to why the fishways were not operating on any particular day or part of a day if in fact releases of water were being made.

The particulars to paragraph 14 of our client's defence specify the rules pursuant to which water releases were governed during specific periods which periods are included in the spreadsheet.

Therefore, if no releases of water were made in the period:

- (a) 1 December 2005 to 14 December 2005, this was pursuant to the ROL at the time;
- (b) 15 December 2005 to 30 June 2007, this was pursuant to the ROL at the time incorporating by reference attachment 4.1 E of the ROP

Our Ref QNMS:RLMB:406090194

rmb A0112626149v1 406090194 10.6.2009

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- (c) 1 July 2007 to 22 February 2008, this was pursuant to the ROL at the time incorporating by reference attachment 4.1 E of the ROP and subject to the critical water supply arrangements for the Bundaberg Water Supply Scheme;
- (d) 23 February 2008 to 30 June 2008, this was this was pursuant to the ROL at the time incorporating by reference attachment 4.1 E of the ROP;
- (e) 1 July 2008 to present, this was pursuant to attachment 4.1E of the ROP.

In respect to paragraph 3(d), (e) and (f) of your request, the period is one and the same namely 14 August 2006 to 31 July 2007.

In respect of paragraph 5 of your request "windy conditions" refers to winds of approximately 70km/hr when the hopper is empty resulting in a risk that the hopper could be damaged due to a pendulum effect.

**Paragraph 17 Defence**

In respect of paragraphs 6, 7, 8 and 9 of your request, the particulars our client relies on in respect of paragraph 17 of the defence are those matters listed in paragraph 13,14 and 16 of the defence insofar as future periods are concerned. It is not possible nor reasonable to expect our client to predict the periods of time over the next 43 years when the fishways will not be operating for the said reasons.

Yours faithfully

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**Robyn Morrison**  
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Paradise Dam Upstream Fishway Operation Data - December 2005

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Dec-05	53.34	74,247	NR	73	60	NR	NR	NR	NR	--	
2-Dec-05	53.42	74,887	NR	60	60	NR	NR	NR	NR	--	
3-Dec-05	53.52	75,695	NR	65	65	NR	NR	NR	NR	--	
4-Dec-05	53.57	76,099	NR	65	65	NR	NR	NR	NR	--	
5-Dec-05	53.72	77,324	NR	65	65	NR	NR	NR	NR	--	
6-Dec-05	53.80	77,979	NR	69	60	NR	NR	NR	NR	--	
7-Dec-05	53.92	78,975	NR	81	56	NR	NR	NR	NR	--	
8-Dec-05	54.27	81,920	NR	60	60	NR	NR	NR	NR	--	
9-Dec-05	54.52	84,069	NR	60	60	NR	NR	NR	NR	--	
10-Dec-05	54.64	85,113	NR	60	60	NR	NR	NR	NR	--	
11-Dec-05	54.73	85,904	NR	60	60	NR	NR	NR	NR	--	
12-Dec-05	54.79	86,431	NR	60	60	NR	NR	NR	NR	--	
13-Dec-05	54.85	86,965	NR	52	52	NR	NR	NR	NR	--	
14-Dec-05	54.93	87,678	NR	52	52	NR	NR	NR	NR	--	
15-Dec-05	54.96	87,945	NR	79	35	NR	NR	NR	NR	--	
16-Dec-05	54.97	88,034	NR	72	43	NR	NR	NR	NR	--	
17-Dec-05	55.06	88,844	NR	64	60	NR	NR	NR	NR	--	
18-Dec-05	55.11	89,296	NR	60	60	NR	NR	NR	NR	--	
19-Dec-05	55.17	89,839	NR	52	52	NR	NR	NR	NR	--	
20-Dec-05	55.18	89,929	NR	43	43	NR	NR	NR	NR	--	
21-Dec-05	55.19	90,020	NR	43	43	NR	NR	NR	NR	--	
22-Dec-05	55.19	90,020	NR	39	39	NR	NR	NR	NR	--	
23-Dec-05	55.18	89,929	NR	43	43	NR	NR	NR	NR	--	
24-Dec-05	55.18	89,929	NR	39	39	NR	NR	NR	NR	--	
25-Dec-05	55.18	89,929	NR	39	39	NR	NR	NR	NR	--	
26-Dec-05	55.18	89,929	NR	39	39	NR	NR	NR	NR	--	
27-Dec-05	55.19	90,020	NR	39	39	NR	NR	NR	NR	--	
28-Dec-05	55.30	91,028	NR	39	39	NR	NR	NR	NR	--	
29-Dec-05	55.48	92,691	NR	39	39	NR	NR	NR	NR	--	
30-Dec-05	55.55	93,343	NR	39	39	NR	NR	NR	NR	--	
31-Dec-05	55.57	93,530	NR	39	39	NR	NR	NR	NR	--	

"NR" = Not recorded  
"--" = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - January 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jan-06	55.59	93,716	NR	39	39	NR	NR	NR	NR	--	
2-Jan-06	55.61	93,904	NR	39	39	NR	NR	NR	NR	--	
3-Jan-06	55.62	93,998	NR	39	39	NR	NR	NR	NR	--	
4-Jan-06	55.62	93,998	NR	282	39	NR	NR	NR	NR	--	
5-Jan-06	55.57	93,530	NR	471	39	NR	NR	NR	NR	--	
6-Jan-06	55.52	93,064	NR	471	39	NR	NR	NR	NR	--	
7-Jan-06	55.47	92,598	NR	384	39	NR	NR	NR	NR	--	
8-Jan-06	55.44	92,319	NR	39	39	NR	NR	NR	NR	--	
9-Jan-06	55.43	92,225	NR	52	52	NR	NR	NR	NR	--	
10-Jan-06	55.45	92,412	NR	52	52	NR	NR	NR	NR	--	
11-Jan-06	55.45	92,412	NR	60	60	NR	NR	NR	NR	--	
12-Jan-06	55.44	92,319	NR	60	60	NR	NR	NR	NR	--	
13-Jan-06	55.43	92,225	NR	65	65	NR	NR	NR	NR	--	
14-Jan-06	55.42	92,132	NR	65	65	NR	NR	NR	NR	--	
15-Jan-06	55.41	92,039	NR	65	65	NR	NR	NR	NR	--	
16-Jan-06	55.40	91,946	NR	13	13	NR	NR	NR	NR	--	
17-Jan-06	55.39	91,854	NR	32	32	NR	NR	NR	NR	--	
18-Jan-06	55.38	91,762	NR	71	60	NR	NR	NR	NR	--	
19-Jan-06	55.37	91,671	NR	60	60	NR	NR	NR	NR	--	
20-Jan-06	55.43	92,225	NR	330	60	NR	NR	NR	NR	--	
21-Jan-06	55.49	92,784	NR	314	60	NR	NR	NR	NR	--	
22-Jan-06	55.56	93,437	NR	373	65	NR	NR	NR	NR	--	
23-Jan-06	55.54	93,250	NR	323	52	NR	NR	NR	NR	--	
24-Jan-06	55.51	92,971	NR	307	52	NR	NR	NR	NR	--	
25-Jan-06	55.52	93,064	NR	426	65	NR	NR	NR	NR	--	
26-Jan-06	55.52	93,064	NR	426	65	NR	NR	NR	NR	--	
27-Jan-06	55.53	93,157	NR	462	78	NR	NR	NR	NR	--	
28-Jan-06	55.54	93,250	NR	475	69	NR	NR	NR	NR	--	
29-Jan-06	55.53	93,157	NR	421	73	NR	NR	NR	NR	--	
30-Jan-06	55.52	93,064	NR	471	52	NR	NR	NR	NR	--	
31-Jan-06	55.50	92,878	NR	449	35	NR	NR	NR	NR	--	

"NR" = Not recorded  
"--" = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - February 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Feb-06	55.47	92,598	NR	374	35	NR	NR	NR	NR	--	
2-Feb-06	55.39	91,854	NR	381	39	NR	NR	NR	NR	--	
3-Feb-06	55.35	91,487	NR	484	39	NR	NR	NR	NR	--	
4-Feb-06	55.27	90,753	NR	639	43	NR	22	2	NR	--	Downtime due to node alarm
5-Feb-06	55.20	90,110	NR	639	43	NR	24	0	NR	--	Downtime due to node alarm
6-Feb-06	55.12	89,387	NR	646	50	NR	24	0	NR	--	Downtime due to node alarm
7-Feb-06	55.07	88,935	NR	650	54	NR	24	0	NR	--	Downtime due to node alarm
8-Feb-06	55.00	88,302	NR	652	56	NR	24	0	NR	--	Downtime due to node alarm
9-Feb-06	54.93	87,678	NR	646	50	NR	24	0	NR	--	Downtime due to node alarm
10-Feb-06	54.86	87,054	NR	597	39	NR	21.5	2.5	NR	--	Downtime due to slack rope alarm
11-Feb-06	54.79	86,431	NR	741	50	NR	24	0	NR	--	Downtime due to slack rope alarm
12-Feb-06	54.72	85,816	NR	747	56	NR	24	0	NR	--	Downtime due to slack rope alarm
13-Feb-06	54.64	85,113	NR	745	54	NR	18.5	5.5	NR	--	Downtime due to slack rope alarm and cleanup after RCC coring
14-Feb-06	54.56	84,415	NR	734	43	NR	14.5	9.5	NR	--	Downtime due to slack rope alarm
15-Feb-06	54.47	83,636	NR	734	43	NR	0	24	NR	--	
16-Feb-06	54.38	82,859	NR	743	52	NR	19	5	NR	--	Downtime due to slack rope alarm
17-Feb-06	54.29	82,091	NR	739	48	NR	24	0	NR	--	Downtime due to slack rope alarm
18-Feb-06	54.20	81,322	NR	741	50	NR	24	0	NR	--	Downtime due to slack rope alarm
19-Feb-06	54.11	80,565	NR	744	53	NR	24	0	NR	--	Downtime due to slack rope alarm
20-Feb-06	54.02	79,807	NR	739	48	NR	0.5	23.5	NR	--	Downtime due to slack rope alarm
21-Feb-06	53.93	79,058	NR	317	44	NR	1.5	22.5	NR	--	Downtime due to slack rope alarm and fish hopper not at disengaged position alarm
22-Feb-06	53.84	78,311	NR	743	52	NR	0	24	NR	--	
23-Feb-06	53.75	77,569	NR	747	56	NR	22	2	NR	--	Downtime due to slack rope alarm
24-Feb-06	53.66	76,832	NR	750	59	NR	24	0	NR	--	Downtime due to slack rope alarm
25-Feb-06	53.57	76,099	NR	752	60	NR	24	0	NR	--	Downtime due to slack rope alarm
26-Feb-06	53.48	75,371	NR	752	60	NR	24	0	NR	--	Downtime due to slack rope alarm
27-Feb-06	53.39	74,645	NR	752	60	NR	24	0	NR	--	Downtime due to slack rope alarm
28-Feb-06	53.29	73,848	NR	749	57	NR	5	19	NR	--	Downtime due to slack rope alarm and contractor (JDN) on site to resolve slack rope alarm issue

"NR" = Not recorded

"--" = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - March 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Mar-06	53.20	73,131	NR	577	51	NR	0	24	25	--	
2-Mar-06	53.16	72,816	NR	40	40	NR	20	4	9	--	Downtime due to shutter level discrepancy alarm
3-Mar-06	53.18	72,974	NR	43	43	NR	21.5	2.5	3	--	Downtime due to shutter level discrepancy alarm
4-Mar-06	53.17	72,895	NR	41	41	NR	24	0	0	--	Downtime due to shutter level discrepancy alarm
5-Mar-06	53.16	72,816	NR	40	40	NR	24	0	0	--	Downtime due to shutter level discrepancy alarm
6-Mar-06	53.15	72,738	NR	41	41	NR	15	9	12	--	Downtime due to quad leaf gate failed to position alarm
7-Mar-06	53.17	72,895	NR	46	46	NR	24	0	0	--	Downtime due to quad leaf gate failed to position alarm
8-Mar-06	53.17	72,895	NR	42	42	NR	24	0	0	--	Downtime due to quad leaf gate failed to position alarm
9-Mar-06	53.16	72,816	NR	39	39	NR	15	9	11	--	Downtime due to quad leaf gate failed to position alarm and unidentifiable outage
10-Mar-06	53.16	72,816	NR	40	40	NR	1	23	22	--	Downtime due to contractor (SAGE) working on water level sensors
11-Mar-06	53.14	72,659	NR	31	31	NR	0	24	16	--	
12-Mar-06	53.14	72,659	NR	85	85	NR	22	2	1	--	Downtime due to shutter level discrepancy alarm
13-Mar-06	53.12	72,502	NR	71	71	NR	24	0	0	--	Downtime due to shutter level discrepancy alarm
14-Mar-06	53.11	72,423	NR	31	31	NR	24	0	0	--	Downtime due to shutter level discrepancy alarm
15-Mar-06	53.10	72,344	NR	14	14	NR	10	14	10	--	Downtime due to shutter level discrepancy alarm
16-Mar-06	53.09	72,266	NR	41	41	NR	0	24	24	--	
17-Mar-06	53.09	72,266	NR	44	44	NR	7	17	23	--	Downtime due to contractor (SAGE) working on water level sensors
18-Mar-06	53.07	72,108	NR	43	43	NR	0	24	35	--	
19-Mar-06	53.06	72,030	NR	57	57	NR	12.5	11.5	38	--	Downtime due to hopper not full after dumping alarm caused by leaking hopper release door seal
20-Mar-06	53.05	71,951	NR	43	43	NR	24	0	0	--	Downtime due to leaking hopper release door seal and the need to pump out attraction chamber
21-Mar-06	53.04	71,872	NR	31	31	NR	24	0	0	--	Downtime due to leaking hopper release door seal and the need to pump out attraction chamber
22-Mar-06	53.03	71,794	NR	50	50	NR	24	0	0	--	Downtime due to leaking hopper release door seal and the need to pump out attraction chamber
23-Mar-06	53.02	71,715	NR	49	49	NR	24	0	0	--	Downtime due to leaking hopper release door seal and the need to pump out attraction chamber
24-Mar-06	53.01	71,637	NR	48	48	NR	24	0	0	--	Downtime due to leaking hopper release door seal and the need to pump out attraction chamber. Contractor (BDA) on site to replace section of hopper release door seal.
25-Mar-06	53.00	71,558	NR	48	48	NR	24	0	0	--	Downtime due to the need to pump out attraction chamber
26-Mar-06	52.99	71,480	NR	48	48	NR	24	0	0	--	Downtime due to the need to pump out attraction chamber
27-Mar-06	52.98	71,403	NR	191	21	NR	24	0	0	--	Downtime due to the need to pump out attraction chamber
28-Mar-06	52.94	71,092	NR	354	0	NR	24	0	0	--	Downtime due to the need to pump out attraction chamber
29-Mar-06	52.89	70,705	NR	354	0	NR	24	0	0	--	Downtime due to the need to pump out attraction chamber
30-Mar-06	52.85	70,394	NR	350	0	NR	24	0	0	--	Downtime due to the need to pump out attraction chamber
31-Mar-06	52.77	69,777	NR	600	NR	NR	21	3	NR	--	Downtime due to contractor (BDA) pumping out attraction chamber, and contractor (Cole Engineering) working on hopper release door latch, and fish hopper not at disengaged position alarm

"NR" = Not recorded

"--" = Not able to calculate as data not recorded



Paradise Dam Upstream Fishway Operation Data - April 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Apr-06	52.70	69,241	NR	391	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
2-Apr-06	52.64	68,782	NR	530	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
3-Apr-06	52.56	68,174	NR	505	10	NR	22	2	NR	--	Downtime due to fish hopper not in disengaged position alarm and contractor (Cole Engineering) working on roof over local control cubicle in close vicinity of moving hopper.
4-Apr-06	52.50	67,721	NR	375	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
5-Apr-06	52.43	67,193	NR	375	30	NR	12	12	NR	--	Downtime due to fish hopper not at disengaged position alarm
6-Apr-06	52.39	66,892	NR	559	30	NR	12	12	NR	--	Downtime due to fish hopper not at disengaged position alarm
7-Apr-06	52.32	66,370	NR	559	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
8-Apr-06	52.23	65,700	NR	614	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
9-Apr-06	52.13	64,963	NR	614	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
10-Apr-06	52.04	64,302	NR	634	10	NR	18	6	NR	--	Downtime due to fish hopper not at disengaged position alarm
11-Apr-06	51.93	63,501	NR	584	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
12-Apr-06	51.87	63,067	NR	426	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
13-Apr-06	51.82	62,705	NR	364	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
14-Apr-06	51.77	62,345	NR	364	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
15-Apr-06	51.70	61,846	NR	364	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
16-Apr-06	51.65	61,488	NR	364	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
17-Apr-06	51.59	61,061	NR	364	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
18-Apr-06	51.54	60,709	NR	243	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
19-Apr-06	51.51	60,497	NR	98	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
20-Apr-06	51.49	60,357	NR	44	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
21-Apr-06	51.49	60,357	NR	19	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
22-Apr-06	51.49	60,357	NR	27	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
23-Apr-06	51.48	60,286	NR	18	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
24-Apr-06	51.47	60,216	NR	18	10	NR	20	4	NR	--	Downtime due to fish hopper not at disengaged position alarm
25-Apr-06	51.46	60,145	NR	18	10	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
26-Apr-06	51.45	60,075	NR	18	10	NR	20	4	NR	--	Downtime due to fish hopper not at disengaged position alarm, V121 alarm and all motions isolator open alarm
27-Apr-06	51.42	59,863	NR	77	69	NR	20	4	NR	--	Downtime due to fish hopper not at disengaged position alarm and V121 alarm
28-Apr-06	51.40	59,723	NR	267	76	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
29-Apr-06	51.37	59,514	NR	415	70	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
30-Apr-06	51.32	59,167	NR	415	70	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm

"NR" = Not recorded

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Paradise Dam Upstream Fishway Operation Data - May 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Daily Operation	% of Operation (days when releasing water)	% of Operation (hours when releasing water)	% of Operation (hours when releasing > 14ML/day)	% of Compliance (fishway must operate when releasing > 14ML/day)	Comments
1-May-06	51.26	58,750	NR	415	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
2-May-06	51.20	58,333	NR	415	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
3-May-06	51.13	57,854	NR	415	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
4-May-06	51.07	57,443	NR	415	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
5-May-06	51.01	57,031	NR	540	54	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
6-May-06	50.92	56,422	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
7-May-06	50.82	55,747	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
8-May-06	50.72	55,079	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
9-May-06	50.61	54,346	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
10-May-06	50.50	53,622	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
11-May-06	50.41	53,031	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
12-May-06	50.29	52,252	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
13-May-06	50.17	51,478	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
14-May-06	50.02	50,520	NR	761	70	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
15-May-06	49.96	50,141	NR	358	20	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
16-May-06	49.96	50,141	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
17-May-06	49.95	50,078	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
18-May-06	49.95	50,078	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
19-May-06	49.95	50,078	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
20-May-06	49.96	50,140	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
21-May-06	49.96	50,140	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
22-May-06	49.96	50,141	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
23-May-06	49.96	50,141	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
24-May-06	49.96	50,141	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
25-May-06	49.96	50,141	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
26-May-06	49.96	50,141	NR	0	0	NR	24	0	NR	0		--	--	100	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm and isolating attraction flow for mini hydro construction
27-May-06	49.96	50,141	NR	17	17	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
28-May-06	49.96	50,141	NR	54	54	NR	24	0	NR	0	0	--	--	0	Downtime due to fish hopper not at disengaged position alarm
29-May-06	49.96	50,141	NR	80	80	NR	13	11	NR	46	46	--	--	--	Downtime due to fish hopper not at disengaged position alarm and on-site repair of bridle pins to resolve disengaged position alarm
30-May-06	49.94	50,015	NR	110	110	NR	9	15	NR	63	63	--	--	--	Downtime due to V129 failed to position alarm
31-May-06	49.92	49,889	NR	52	52	NR	24	0	NR	0	0	--	--	0	Downtime due to V129 failed to position alarm

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Paradise Dam Upstream Fishway Operation Data - June 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jun-06	49.91	49,827	NR	225	54	NR	23	1	NR	--	Downtime due to V129 failed to position alarm and leaking hopper release door seal.
2-Jun-06	49.86	49,512	NR	382	54	NR	24	0	NR	--	Notified BDA to resolve leaking hopper release door seal
3-Jun-06	49.80	49,135	NR	382	54	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
4-Jun-06	49.75	48,825	NR	382	54	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
5-Jun-06	49.69	48,453	NR	225	20	NR	23	1	NR	--	Downtime due to leaking hopper release door seal
6-Jun-06	49.67	48,329	NR	149	20	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
7-Jun-06	49.63	48,082	NR	345	17	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
8-Jun-06	49.58	47,774	NR	437	17	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
9-Jun-06	49.52	47,407	NR	585	46	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
10-Jun-06	49.44	46,919	NR	574	69	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
11-Jun-06	49.42	46,797	NR	176	60	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
12-Jun-06	49.41	46,736	NR	54	54	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
13-Jun-06	49.40	46,675	NR	54	54	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
14-Jun-06	49.40	46,675	NR	55	55	NR	24	0	NR	--	Downtime due to leaking hopper release door seal. SunWater inserted new section of hopper release door seal to help rectify leaking seal
15-Jun-06	49.40	46,675	NR	25	25	NR	23	1	NR	--	Downtime due to leaking hopper release door seal
16-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
17-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
18-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
19-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
20-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
21-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
22-Jun-06	49.41	46,736	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
23-Jun-06	49.41	46,736	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
24-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
25-Jun-06	49.42	46,797	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
26-Jun-06	49.41	46,736	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
27-Jun-06	49.41	46,736	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
28-Jun-06	49.40	46,675	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate
29-Jun-06	49.26	45,833	NR	30	30	NR	13	11	NR	--	Downtime due to leaking hopper release door seal
30-Jun-06	49.25	45,773	NR	40	40	NR	16	8	NR	--	Downtime due to leaking hopper release door seal

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Paradise Dam Upstream Fishway Operation Data - July 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jul-06	49.24	45,713	NR	50	50	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
2-Jul-06	49.24	45,713	NR	50	50	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
3-Jul-06	49.23	45,652	NR	50	50	NR	14.5	9.5	NR	--	Downtime due to leaking hopper release door seal. Seal reinserted by SunWater staff
4-Jul-06	49.22	45,592	NR	60	60	NR	18.5	5.5	NR	--	
5-Jul-06	49.21	45,532	NR	60	60	NR	23	1	NR	--	Downtime due to V131 failed to position alarm, V129 failed to position alarm and V123 failed to position alarm
6-Jul-06	49.21	45,532	NR	41	41	NR	23	1	NR	--	Downtime due to hopper travel encoder monitor fail alarm
7-Jul-06	49.20	45,472	NR	60	60	NR	20	4	NR	--	Downtime due to fish hopper not at disengaged position alarm
8-Jul-06	49.19	45,413	NR	59	59	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
9-Jul-06	49.18	45,353	NR	59	59	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
10-Jul-06	49.17	45,294	NR	57	57	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
11-Jul-06	49.16	45,235	NR	48	48	NR	16.5	7.5	NR	--	Downtime due to leaking hopper release door seal. Seal reinserted by SunWater staff
12-Jul-06	49.16	45,235	NR	40	40	NR	16.5	7.5	NR	--	Downtime due to leaking hopper release door seal. Seal reinserted by SunWater staff
13-Jul-06	49.15	45,176	NR	40	40	NR	13	11	NR	--	Downtime due to leaking hopper release door seal. Seal reinserted by SunWater staff
14-Jul-06	49.15	45,176	NR	40	40	NR	15.5	8.5	NR	--	Downtime due to leaking hopper release door seal. Seal reinserted by SunWater staff
15-Jul-06	49.15	45,176	NR	36	36	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
16-Jul-06	49.15	45,176	NR	36	36	NR	24	0	NR	--	Downtime due to leaking hopper release door seal
17-Jul-06	49.15	45,176	NR	29	29	NR	24	0	NR	--	Downtime due to contractors (BDA) working on hopper release door seal, anodes and patch painting
18-Jul-06	49.15	45,176	NR	36	36	NR	24	0	NR	--	Downtime due to contractors (BDA) working on hopper release door seal, anodes and patch painting
19-Jul-06	49.15	45,176	NR	36	36	NR	24	0	NR	--	Downtime due to contractors (BDA) working on hopper release door seal, anodes and patch painting
20-Jul-06	49.14	45,116	NR	36	36	NR	24	0	NR	--	Downtime due to contractors (BDA) working on hopper release door seal, anodes and patch painting
21-Jul-06	49.14	45,116	NR	36	36	NR	24	0	NR	--	Downtime due to contractors (BDA) working on hopper release door seal, anodes and patch painting
22-Jul-06	49.14	45,116	NR	36	36	NR	24	0	NR	--	Downtime due to contractors (BDA) working on hopper release door seal, anodes and patch painting
23-Jul-06	49.13	45,057	NR	36	36	NR	24	0	NR	--	Downtime due to contractors (BDA) working on hopper release door seal, anodes and patch painting
24-Jul-06	49.13	45,057	NR	36	36	NR	20.5	3.5	NR	--	Downtime due to fish hopper not at disengaged position alarm
25-Jul-06	49.13	45,057	NR	36	36	NR	18.5	5.5	NR	--	Downtime due to fish hopper not at disengaged position alarm
26-Jul-06	49.12	44,998	NR	36	36	NR	15.5	8.5	NR	--	Downtime due to fish hopper not at disengaged position alarm
27-Jul-06	49.12	44,998	NR	36	36	NR	16.5	7.5	NR	--	Downtime due to fish hopper not at disengaged position alarm
28-Jul-06	49.14	45,116	NR	36	36	NR	17.75	6.25	NR	--	Downtime due to fish hopper not at disengaged position alarm
29-Jul-06	49.14	45,116	NR	36	36	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
30-Jul-06	49.13	45,057	NR	30	30	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
31-Jul-06	49.13	45,057	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm

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Paradise Dam Upstream Fishway Operation Data - August 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Aug-06	49.13	45,057	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm
2-Aug-06	49.13	45,057	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm
3-Aug-06	49.13	45,057	NR	0	0	NR	24	0	NR	--	No releases required therefore fishway not required to operate Fish hopper not at disengaged position alarm, and isolate system for contractor (BDA) to replace proximity switch within the attraction chamber
4-Aug-06	49.13	45,057	NR	14	14	NR	24	0	NR	--	Fish hopper not at disengaged position alarm, and isolate system for contractor (BDA) to replace proximity switch within the attraction chamber
5-Aug-06	49.13	45,057	NR	19	19	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm, and isolate system for contractor (BDA) to replace proximity switch within the attraction chamber
6-Aug-06	49.12	44,998	NR	19	19	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm, and isolate system for contractor (BDA) to replace proximity switch within the attraction chamber
7-Aug-06	49.12	44,998	NR	19	19	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm, and isolate system for contractor (BDA) to replace proximity switch within the attraction chamber
8-Aug-06	49.12	44,998	NR	25	25	NR	20	4	NR	--	Downtime due to fish hopper not at disengage position alarm. Hopper release door seal reinserted by SunWater staff
9-Aug-06	49.11	44,938	NR	19	19	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
10-Aug-06	49.11	44,938	NR	19	19	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
11-Aug-06	49.11	44,938	NR	19	19	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
12-Aug-06	49.10	44,879	NR	36	36	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
13-Aug-06	49.10	44,879	NR	36	36	NR	24	0	NR	--	Downtime due to fish hopper not at disengaged position alarm
14-Aug-06	49.09	44,820	NR	36	36	NR	24	0	NR	--	BDA advised cessation of fishway operation below the water level as at 14/08/2006 (EL at 14/08/2006 = 49.09m)
15-Aug-06	49.08	44,761	NR	36	36	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
16-Aug-06	49.07	44,701	NR	26	26	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
17-Aug-06	49.07	44,701	NR	8	8	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m. Isolate system and release for mini hydro construction
18-Aug-06	49.07	44,701	NR	0	0	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate Isolate system and release for mini hydro construction
19-Aug-06	49.07	44,701	NR	0	0	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate Isolate system and release for mini hydro construction
20-Aug-06	49.06	44,642	NR	0	0	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate Isolate system and release for mini hydro construction
21-Aug-06	49.06	44,642	NR	10	10	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m. Isolate system and release for mini hydro construction
22-Aug-06	49.06	44,642	NR	18	18	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
23-Aug-06	49.05	44,583	NR	18	18	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
24-Aug-06	49.05	44,583	NR	18	18	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
25-Aug-06	49.04	44,523	NR	18	18	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
26-Aug-06	49.04	44,523	NR	18	18	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
27-Aug-06	49.03	44,464	NR	18	18	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
28-Aug-06	49.03	44,464	NR	18	18	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m Isolate system and release for mini hydro construction
29-Aug-06	49.04	44,523	NR	49	49	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m
30-Aug-06	49.03	44,464	NR	100	100	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m
31-Aug-06	49.02	44,405	NR	100	100	NR	24	0	NR	--	BDA advised cessation of fishway operation below EL 49.09m

"NR" = Not recorded

Paradise Dam Upstream Fishway Operation Data - September 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Sep-06	49.02	44,405	NR	119	119	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
2-Sep-06	49.00	44,286	NR	135	135	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
3-Sep-06	48.98	44,169	NR	135	135	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
4-Sep-06	48.95	43,994	NR	135	135	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
5-Sep-06	48.94	43,936	NR	135	135	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
6-Sep-06	48.92	43,819	NR	135	135	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
7-Sep-06	48.90	43,702	NR	135	135	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
8-Sep-06	48.88	43,585	NR	185	76	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
9-Sep-06	48.85	43,410	NR	250	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
10-Sep-06	48.81	43,176	NR	250	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
11-Sep-06	48.76	42,887	NR	265	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
12-Sep-06	48.71	42,599	NR	190	70	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
13-Sep-06	48.68	42,427	NR	130	130	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
14-Sep-06	48.66	42,312	NR	130	130	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
15-Sep-06	48.64	42,196	NR	167	79	23.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
16-Sep-06	48.61	42,024	NR	250	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
17-Sep-06	48.57	41,796	NR	250	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
18-Sep-06	48.52	41,512	NR	250	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m Isolate release for contractor (BDA) to install fish trap guides within fishway approach channels
19-Sep-06	48.48	41,285	NR	250	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m Isolate release for contractor (BDA) to install fish trap guides within fishway approach channels
20-Sep-06	48.43	41,002	NR	175	50	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m Isolate release for contractor (BDA) to install fish trap guides within fishway approach channels
21-Sep-06	48.40	40,831	NR	96	96	23	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
22-Sep-06	48.39	40,776	NR	100	100	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
23-Sep-06	48.38	40,720	NR	40	40	9.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
24-Sep-06	48.37	40,664	NR	0	0	0	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
25-Sep-06	48.37	40,664	NR	0	0	0	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
26-Sep-06	48.36	40,608	NR	44	44	11	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
27-Sep-06	48.35	40,552	NR	95	95	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
28-Sep-06	48.33	40,440	NR	95	95	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
29-Sep-06	48.31	40,329	NR	95	95	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
30-Sep-06	48.29	40,217	NR	95	95	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m

"NR" = Not recorded

" - " = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - October 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Oct-06	48.27	40,105	NR	95	95	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
2-Oct-06	48.25	39,994	NR	131	65	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
3-Oct-06	48.22	39,826	NR	295	20	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
4-Oct-06	48.16	39,494	NR	417	20	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
5-Oct-06	48.08	39,054	NR	417	20	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
6-Oct-06	48.00	38,614	NR	360	29	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
7-Oct-06	47.93	38,236	NR	412	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
8-Oct-06	47.86	37,857	NR	412	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
9-Oct-06	47.79	37,480	NR	412	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
10-Oct-06	47.71	37,055	NR	337	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
11-Oct-06	47.65	36,736	NR	373	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
12-Oct-06	47.59	36,418	NR	191	9	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
13-Oct-06	47.56	36,261	NR	228	0	13.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
14-Oct-06	47.52	36,052	NR	314	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
15-Oct-06	47.44	35,635	NR	274	0	15.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
16-Oct-06	47.37	35,272	NR	518	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
17-Oct-06	47.26	34,708	NR	553	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
18-Oct-06	47.16	34,198	NR	275	0	13	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
19-Oct-06	47.14	34,098	NR	0	0	0	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
20-Oct-06	47.14	34,098	NR	8	8	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
21-Oct-06	47.13	34,047	NR	18	18	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
22-Oct-06	47.13	34,047	NR	18	18	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
23-Oct-06	47.12	33,997	NR	18	18	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
24-Oct-06	47.12	33,997	NR	18	18	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
25-Oct-06	47.12	33,997	NR	13	13	21	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
26-Oct-06	47.11	33,946	NR	14	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
27-Oct-06	47.11	33,946	NR	18	18	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
28-Oct-06	47.11	33,946	NR	23	23	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
29-Oct-06	47.10	33,896	NR	23	23	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
30-Oct-06	47.09	33,846	NR	23	23	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
31-Oct-06	47.07	33,745	NR	149	21	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m

"NR" = Not recorded

" - " = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - November 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Nov-06	47.03	33,543	NR	515	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
2-Nov-06	46.93	33,045	NR	515	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
3-Nov-06	46.83	32,549	NR	504	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
4-Nov-06	46.75	32,157	NR	491	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
5-Nov-06	46.67	31,767	NR	515	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
6-Nov-06	46.57	31,283	NR	515	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
7-Nov-06	46.46	30,756	NR	450	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
8-Nov-06	46.38	30,375	NR	303	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
9-Nov-06	46.39	30,422	NR	15	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
10-Nov-06	46.39	30,422	NR	14	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
11-Nov-06	46.39	30,422	NR	14	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
12-Nov-06	46.39	30,422	NR	14	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
13-Nov-06	46.38	30,375	NR	14	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m. Isolate system and release for contractor (BDA) to install isolation joints in the pipe work to the supplementary attraction flow diffusers
14-Nov-06	46.38	30,375	NR	14	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m. Isolate system and release for contractor (BDA) to install isolation joints in the pipe work to the supplementary attraction flow diffusers
15-Nov-06	46.37	30,328	NR	5	5	8	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m. Isolate system and release for contractor (BDA) to install isolation joints in the pipe work to the supplementary attraction flow diffusers
16-Nov-06	46.37	30,328	NR	0	0	0	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate Isolate system and release for contractor (BDA) to install isolation joints in the pipe work to the supplementary attraction flow diffusers
17-Nov-06	46.37	30,328	NR	5	5	12.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
18-Nov-06	46.36	30,281	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
19-Nov-06	46.35	30,233	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
20-Nov-06	46.34	30,186	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
21-Nov-06	46.34	30,186	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
22-Nov-06	46.33	30,139	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
23-Nov-06	46.33	30,139	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
24-Nov-06	46.33	30,139	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
25-Nov-06	46.32	30,092	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
26-Nov-06	46.32	30,092	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
27-Nov-06	46.31	30,045	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
28-Nov-06	46.30	29,998	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
29-Nov-06	46.29	29,951	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
30-Nov-06	46.28	29,904	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.

"NR" = Not recorded  
"--" = Not able to calculate as data not recorded



Paradise Dam Upstream Fishway Operation Data - December 2006

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Dec-06	46.27	29,857	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
2-Dec-06	46.26	29,810	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
3-Dec-06	46.26	29,810	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
4-Dec-06	46.51	30,995	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
5-Dec-06	46.79	32,352	NR	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
6-Dec-06	46.84	32,599	NR	30	30	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
7-Dec-06	46.85	32,649	NR	40	40	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
8-Dec-06	46.86	32,698	NR	130	22	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
9-Dec-06	46.83	32,549	NR	190	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
10-Dec-06	46.79	32,352	NR	190	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
11-Dec-06	46.75	32,157	NR	190	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
12-Dec-06	46.73	32,060	NR	184	0	23.25	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
13-Dec-06	46.70	31,914	NR	208	0	21.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
14-Dec-06	46.65	31,670	NR	284	0	23.25	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
15-Dec-06	46.59	31,379	NR	275	0	22	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
16-Dec-06	46.53	31,091	NR	300	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
17-Dec-06	46.92	32,995	NR	300	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
18-Dec-06	47.24	34,605	NR	196	0	15.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
19-Dec-06	47.28	34,810	NR	254	0	16.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
20-Dec-06	47.22	34,503	NR	397	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
21-Dec-06	47.16	34,198	NR	461	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
22-Dec-06	47.07	33,745	NR	552	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
23-Dec-06	46.94	33,095	NR	552	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
24-Dec-06	46.86	32,698	NR	552	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
25-Dec-06	46.70	31,914	NR	552	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
26-Dec-06	46.65	31,670	NR	552	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
27-Dec-06	46.56	31,235	NR	450	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
28-Dec-06	46.51	30,995	NR	299	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
29-Dec-06	46.47	30,804	NR	250	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
30-Dec-06	46.41	30,517	NR	219	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
31-Dec-06	46.37	30,328	NR	103	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.

"NR" = Not recorded

" - " = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - January 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jan-07	46.36	30,281	0	29	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
2-Jan-07	46.35	30,233	0	6	NR	8	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
3-Jan-07	46.35	30,233	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
4-Jan-07	46.35	30,233	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
5-Jan-07	46.35	30,233	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
6-Jan-07	46.35	30,233	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
7-Jan-07	46.35	30,233	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
8-Jan-07	46.35	30,233	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
9-Jan-07	46.34	30,186	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
10-Jan-07	46.33	30,139	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
11-Jan-07	46.32	30,092	0	46	0	13	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
12-Jan-07	46.31	30,045	0	43	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
13-Jan-07	46.30	29,998	0	43	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
14-Jan-07	46.29	29,951	0	43	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
15-Jan-07	46.27	29,857	0	23	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
16-Jan-07	46.26	29,810	0	13	13	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
17-Jan-07	46.25	29,763	12	59	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
18-Jan-07	46.23	29,669	0	86	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
19-Jan-07	46.21	29,575	0	86	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
20-Jan-07	46.18	29,435	0	86	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
21-Jan-07	46.15	29,297	0	86	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
22-Jan-07	46.11	29,112	0	82	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
23-Jan-07	46.09	29,019	0	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
24-Jan-07	46.07	28,927	0	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
25-Jan-07	46.05	28,835	0	77	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
26-Jan-07	46.03	28,742	0	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
27-Jan-07	46.01	28,650	0	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
28-Jan-07	45.99	28,558	0	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
29-Jan-07	45.98	28,513	35	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
30-Jan-07	45.98	28,513	80	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
31-Jan-07	45.96	28,422	0	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m

"NR" = Not recorded

"--" = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - February 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Feb-07	45.94	28,331	0	80	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
2-Feb-07	45.92	28,240	0	71	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
3-Feb-07	45.91	28,195	15	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
4-Feb-07	45.90	28,149	15	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
5-Feb-07	45.88	28,058	0	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
6-Feb-07	45.87	28,013	15	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
7-Feb-07	45.85	27,922	0	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
8-Feb-07	45.83	27,831	0	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
9-Feb-07	45.82	27,786	15	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
10-Feb-07	45.81	27,740	15	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
11-Feb-07	45.79	27,650	0	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
12-Feb-07	46.13	29,204	1,614.00	60	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
13-Feb-07	46.37	30,328	1,140.00	17	5	17.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
14-Feb-07	46.44	30,660	341	8	8	19.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
15-Feb-07	46.46	30,756	105	10	10	22.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
16-Feb-07	46.48	30,852	106	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
17-Feb-07	46.50	30,948	106	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
18-Feb-07	46.55	31,187	249	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
19-Feb-07	46.63	31,573	396	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
20-Feb-07	46.70	31,914	351	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
21-Feb-07	46.76	32,206	302	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
22-Feb-07	46.80	32,401	205	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
23-Feb-07	46.84	32,599	208	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
24-Feb-07	46.87	32,748	159	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
25-Feb-07	46.89	32,847	109	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
26-Feb-07	46.89	32,847	10	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
27-Feb-07	46.90	32,896	54	5	5	11	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
28-Feb-07	46.91	32,946	50	0	0	0	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m

"NR" = Not recorded

" - " = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - March 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Mar-07	46.92	32,995	56	7	7	16.25	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
2-Mar-07	46.92	32,995	10	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
3-Mar-07	46.92	32,995	10	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
4-Mar-07	46.91	32,946	0	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
5-Mar-07	46.91	32,946	10	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
6-Mar-07	46.90	32,896	0	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
7-Mar-07	46.89	32,847	21	70	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
8-Mar-07	46.88	32,797	55	105	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
9-Mar-07	46.85	32,649	58	207	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
10-Mar-07	46.91	32,946	694	396	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
11-Mar-07	46.95	33,144	595	396	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
12-Mar-07	46.93	33,045	159	258	0	19	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
13-Mar-07	46.89	32,847	49	247	0	20.25	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
14-Mar-07	46.85	32,649	93	291	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
15-Mar-07	46.80	32,401	54	301	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
16-Mar-07	46.74	32,108	10	301	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
17-Mar-07	46.69	31,865	58	301	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
18-Mar-07	46.63	31,573	10	301	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
19-Mar-07	46.56	31,235	0	301	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
20-Mar-07	46.50	30,948	15	301	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
21-Mar-07	46.43	30,612	0	301	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
22-Mar-07	46.37	30,328	0	245	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
23-Mar-07	46.32	30,092	0	101	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
24-Mar-07	46.30	29,998	0	23	0	15.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
25-Mar-07	46.29	29,951	0	31	0	21.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
26-Mar-07	46.62	31,524	1,736.00	163	0	15	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
27-Mar-07	46.57	31,283	13	253	0	23.5	0.5	23.5	NR	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
28-Mar-07	46.52	31,043	40	279	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
29-Mar-07	46.45	30,708	0	318	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
30-Mar-07	46.39	30,422	2	288	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
31-Mar-07	46.34	30,186	0	108	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.

"NR" = Not recorded

" - " = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - April 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Apr-07	46.30	29,998	0	53	0	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
2-Apr-07	46.29	29,951	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
3-Apr-07	46.28	29,904	32	32	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
4-Apr-07	46.27	29,857	26	26	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
5-Apr-07	46.25	29,763	26	26	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
6-Apr-07	46.23	29,669	26	26	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
7-Apr-07	46.21	29,575	26	26	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
8-Apr-07	46.20	29,528	26	26	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
9-Apr-07	46.19	29,482	26	26	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
10-Apr-07	46.18	29,435	11	11	NR	10.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
11-Apr-07	46.17	29,389	17	17	NR	16	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
12-Apr-07	46.16	29,343	22	22	NR	20.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
13-Apr-07	46.14	29,251	30	30	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
14-Apr-07	46.12	29,158	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
15-Apr-07	46.10	29,066	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
16-Apr-07	46.09	29,019	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
17-Apr-07	46.08	28,973	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
18-Apr-07	46.07	28,927	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
19-Apr-07	46.05	28,835	33	33	NR	22.75	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
20-Apr-07	46.03	28,742	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
21-Apr-07	46.02	28,696	34	34	NR	23	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
22-Apr-07	46.01	28,650	35	35	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
23-Apr-07	46.00	28,604	31	31	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
24-Apr-07	45.99	28,558	25	25	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
25-Apr-07	45.98	28,513	25	25	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
26-Apr-07	45.97	28,467	0	25	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
27-Apr-07	45.95	28,376	0	25	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
28-Apr-07	45.94	28,331	0	25	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m
29-Apr-07	45.94	28,331	0	4	NR	4	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
30-Apr-07	45.94	28,331	0	0	0	0	24	0	NR		BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate

"NR" = Not recorded

" -- " = Not able to calculate as data not recorded

Paradise Dam Upstream Fishing Operation Data - May 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-May-07	45.93	28,285	0	13	13	8	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
2-May-07	45.92	28,240	0	13	13	7.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
3-May-07	45.91	28,195	0	3	3	2	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
4-May-07	45.91	28,195	0	5	5	13	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
5-May-07	45.90	28,149	0	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
6-May-07	45.89	28,104	0	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
7-May-07	45.89	28,104	0	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
8-May-07	45.88	28,058	0	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
9-May-07	45.88	28,058	0	10	10	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
10-May-07	45.87	28,013	0	8	8	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
11-May-07	45.86	27,967	0	9	9	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
12-May-07	45.86	27,967	0	15	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
13-May-07	45.86	27,967	0	15	15	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
14-May-07	45.86	27,967	0	16	16	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
15-May-07	45.85	27,922	0	16	16	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
16-May-07	45.85	27,922	0	14	14	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
17-May-07	45.85	27,922	0	12	12	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
18-May-07	45.84	27,877	0	9	9	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
19-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
20-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
21-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
22-May-07	45.85	27,922	50	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
23-May-07	45.85	27,922	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
24-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
25-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
26-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
27-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
28-May-07	45.84	27,877	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
29-May-07	45.83	27,831	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
30-May-07	45.83	27,831	0	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
31-May-07	45.83	27,831	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.

"NR" = Not recorded

" - " = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - June 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jun-07	45.83	27,831	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
2-Jun-07	45.83	27,831	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
3-Jun-07	45.83	27,831	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
4-Jun-07	45.83	27,831	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m. SunWater staff found recently installed fish hopper anodes contacting the rail guides at the top of fish hopper rail section while lowering the fish hopper. SunWater staff notified BDA and removed fish hopper anodes
5-Jun-07	45.83	27,831	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
6-Jun-07	45.83	27,831	0	5	5	24	0	24	NR	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
7-Jun-07	45.87	28,013	187	6	6	24	24	0	NR	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
8-Jun-07	45.87	28,013	0	6	6	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
9-Jun-07	45.90	28,149	142	6	6	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
10-Jun-07	45.93	28,285	142	6	6	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
11-Jun-07	45.94	28,331	51	6	6	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
12-Jun-07	45.95	28,376	51	6	6	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
13-Jun-07	45.96	28,422	51	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
14-Jun-07	45.96	28,422	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
15-Jun-07	45.96	28,422	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
16-Jun-07	45.96	28,422	0	1	1	8.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
17-Jun-07	45.96	28,422	0	0	0	0	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
18-Jun-07	45.95	28,376	0	1	1	7.5	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
19-Jun-07	45.95	28,376	0	3	3	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
20-Jun-07	45.95	28,376	0	2	2	15	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
21-Jun-07	45.95	28,376	0	0	0	0	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m No releases required therefore fishway not required to operate
22-Jun-07	45.95	28,376	0	1	1	6	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m. SunWater staff tested fishway system and system stopped on shutter water level high differential, swapped sensor with No 2 coarse screen water level sensor
23-Jun-07	45.96	28,422	48	3	3	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
24-Jun-07	45.95	28,376	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
25-Jun-07	45.95	28,376	0	5	5	24	22	2	NR	8	BDA advised cessation of fishway operation below EL 49.09m. SunWater staff tested fishway system and found system not operating correctly as the water level sensor downstream of the weir is reading incorrectly causing attraction flows to operate above the required discharge. SunWater staff changed faulty level sensor and calibrated.
26-Jun-07	45.96	28,422	45	5	5	24	22	2	NR	8	BDA advised cessation of fishway operation below EL 49.09m. SunWater staff tested system and found that system changed to sample mode for no identifiable reason. SunWater staff notified BDA.
27-Jun-07	45.97	28,467	45	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
28-Jun-07	45.98	28,513	46	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
29-Jun-07	45.99	28,558	50	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
30-Jun-07	46.01	28,650	92	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.

"NR" = Not recorded  
"--" = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - July 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jul-07	46.02	28,696	51	5	5	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
2-Jul-07	46.01	28,650	0	58	NR	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
3-Jul-07	46.00	28,604	0	7	7	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
4-Jul-07	46.00	28,604	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
5-Jul-07	46.00	28,604	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
6-Jul-07	46.00	28,604	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
7-Jul-07	46.00	28,604	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
8-Jul-07	45.99	28,558	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
9-Jul-07	45.99	28,558	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
10-Jul-07	45.99	28,558	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
11-Jul-07	45.99	28,558	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
12-Jul-07	45.99	28,558	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
13-Jul-07	45.99	28,558	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
14-Jul-07	45.98	28,513	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
15-Jul-07	45.98	28,513	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
16-Jul-07	45.97	28,467	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
17-Jul-07	45.97	28,467	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
18-Jul-07	45.97	28,467	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
19-Jul-07	45.96	28,422	0	4	4	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
20-Jul-07	45.96	28,422	0	3	3	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
21-Jul-07	45.96	28,422	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
22-Jul-07	45.95	28,376	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
23-Jul-07	45.95	28,376	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
24-Jul-07	45.94	28,331	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
25-Jul-07	45.94	28,331	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
26-Jul-07	45.94	28,331	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
27-Jul-07	45.94	28,331	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
28-Jul-07	45.94	28,331	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
29-Jul-07	45.93	28,285	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
30-Jul-07	45.92	28,240	0	2	2	24	24	0	NR	0	BDA advised cessation of fishway operation below EL 49.09m.
31-Jul-07	45.92	28,240	0	2	2	24	24	0	NR	0	BDA advised upstream fishway can be operated to a minimum headwater of EL 44.4m.

"NR" = Not recorded

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Paradise Dam Upstream Fishway Operation Data - August 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Aug-07	45.92	28,240	0	2	2	24	22	2	NR	8	SunWater staff tested fishway system in sampling mode and in automatic mode with QPI&F
2-Aug-07	45.91	28,195	0	2	2	24	24	0	NR	0	Minimal release
3-Aug-07	45.91	28,195	0	2	2	24	24	0	NR	0	Minimal release
4-Aug-07	45.91	28,195	0	2	2	24	24	0	NR	0	Minimal release
5-Aug-07	45.90	28,149	0	2	2	24	24	0	NR	0	Minimal release
6-Aug-07	45.90	28,149	0	2	2	24	24	0	NR	0	Minimal release
7-Aug-07	45.89	28,104	0	2	2	24	24	0	NR	0	Minimal release
8-Aug-07	45.89	28,104	0	2	2	24	24	0	NR	0	Minimal release
9-Aug-07	45.89	28,104	0	2	2	24	24	0	NR	0	Minimal release
10-Aug-07	45.88	28,058	0	2	2	24	24	0	NR	0	Minimal release
11-Aug-07	45.88	28,058	0	2	2	24	24	0	NR	0	Minimal release
12-Aug-07	45.88	28,058	0	2	2	24	24	0	NR	0	Minimal release
13-Aug-07	45.87	28,013	0	2	2	24	24	0	NR	0	Minimal release
14-Aug-07	45.87	28,013	0	2	2	24	24	0	NR	0	Minimal release
15-Aug-07	45.86	27,967	0	2	2	24	24	0	NR	0	Minimal release
16-Aug-07	45.86	27,967	0	2	2	24	24	0	NR	0	Minimal release
17-Aug-07	45.85	27,922	0	2	2	24	24	0	NR	0	Minimal release
18-Aug-07	45.85	27,922	0	2	2	24	24	0	NR	0	Minimal release
19-Aug-07	45.87	28,013	93	2	2	24	24	0	NR	0	Minimal release
20-Aug-07	45.87	28,013	2	2	2	24	24	0	NR	0	Minimal release
21-Aug-07	45.86	27,967	0	2	2	24	24	0	NR	0	Minimal release
22-Aug-07	45.86	27,967	0	2	2	24	24	0	NR	0	Minimal release
23-Aug-07	45.91	28,195	229	2	2	24	24	0	NR	0	Minimal release
24-Aug-07	45.92	28,240	47	2	2	24	24	0	NR	0	Minimal release
25-Aug-07	46.00	28,604	363	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
26-Aug-07	46.05	28,835	231	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
27-Aug-07	46.07	28,927	94	2	2	24	24	0	NR	0	Minimal release
28-Aug-07	46.08	28,973	48	2	2	24	0	24	NR	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
29-Aug-07	46.09	29,019	48	2	2	24	24	0	NR	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
30-Aug-07	46.09	29,019	0	2	2	24	24	0	NR	0	Minimal release
31-Aug-07	46.09	29,019	0	0.3	0.3	4	24	0	NR	0	Minimal release

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Paradise Dam Upstream Fishway Operation Data - September 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Sep-07	46.09	29,019	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
2-Sep-07	46.09	29,019	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
3-Sep-07	46.08	28,973	0	1	1	17.5	24	0	NR	0	Mnimal release
4-Sep-07	46.08	28,973	0	2	2	24	24	0	NR	0	Mnimal release
5-Sep-07	46.10	29,066	92	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
6-Sep-07	46.14	29,251	185	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
7-Sep-07	46.24	29,716	465	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
8-Sep-07	46.38	30,375	659	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
9-Sep-07	46.43	30,612	238	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
10-Sep-07	46.46	30,756	144	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
11-Sep-07	46.49	30,900	144	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
12-Sep-07	46.51	30,995	98	2	2	21.5	24	0	NR	0	Mnimal release
13-Sep-07	46.52	31,043	50	2	2	24	24	0	NR	0	Mnimal release
14-Sep-07	46.53	31,091	50	2	2	24	24	0	NR	0	Mnimal release
15-Sep-07	46.53	31,091	0	2	2	24	24	0	NR	0	Mnimal release
16-Sep-07	46.54	31,139	49	1	1	8	24	0	NR	0	Mnimal release
17-Sep-07	46.54	31,139	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
18-Sep-07	46.54	31,139	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
19-Sep-07	46.54	31,139	0	1	1	16	24	0	NR	0	Mnimal release
20-Sep-07	46.54	31,139	0	2	2	24	24	0	NR	0	Mnimal release
21-Sep-07	46.54	31,139	0	2	2	24	24	0	NR	0	Mnimal release
22-Sep-07	46.54	31,139	0	2	2	24	24	0	NR	0	Mnimal release
23-Sep-07	46.53	31,091	0	2	2	24	24	0	NR	0	Mnimal release
24-Sep-07	46.53	31,091	0	2	2	24	24	0	NR	0	Mnimal release
25-Sep-07	46.53	31,091	0	2	2	24	24	0	NR	0	Mnimal release
26-Sep-07	46.52	31,043	0	2	2	24	24	0	NR	0	Mnimal release
27-Sep-07	46.52	31,043	0	12	12	24	24	0	NR	0	Mnimal release
28-Sep-07	46.51	30,995	0	12	12	24	24	0	NR	0	Mnimal release
29-Sep-07	46.50	30,948	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
30-Sep-07	46.50	30,948	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate

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Paradise Dam Upstream Fishway Operation Data - October 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Oct-07	46.51	30,995	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
2-Oct-07	46.50	30,948	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
3-Oct-07	46.50	30,948	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
4-Oct-07	46.49	30,900	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
5-Oct-07	46.48	30,852	0	12	12	24	24	0	NR	0	Minimal release
6-Oct-07	46.48	30,852	0	12	12	24	24	0	NR	0	Minimal release
7-Oct-07	46.47	30,804	0	12	12	24	24	0	NR	0	Minimal release
8-Oct-07	46.47	30,804	0	12	12	24	24	0	NR	0	Minimal release
9-Oct-07	46.46	30,756	0	12	12	24	24	0	NR	0	Minimal release
10-Oct-07	46.47	30,804	64	16	16	24	16	8	NR	33	
11-Oct-07	46.60	31,426	626	3	3	2	22	2	NR	100	
12-Oct-07	46.98	33,293	1,866.00	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
13-Oct-07	47.12	33,997	704	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
14-Oct-07	47.18	34,299	302	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
15-Oct-07	47.20	34,400	101	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
16-Oct-07	47.25	34,656	258	2	2	24	24	0	NR	0	Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place.
17-Oct-07	47.27	34,759	105	2	2	24	0	24	NR	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
18-Oct-07	47.27	34,759	0	2	2	24	24	0	NR	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
19-Oct-07	47.28	34,810	51	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
20-Oct-07	47.29	34,862	51	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
21-Oct-07	47.29	34,862	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
22-Oct-07	47.30	34,913	51	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
23-Oct-07	47.30	34,913	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
24-Oct-07	47.30	34,913	37	37	37	22	2	22	NR	100	
25-Oct-07	47.30	34,913	40	40	40	24	0	24	NR	100	
26-Oct-07	47.29	34,862	0	10	10	6	18	6	NR	100	
27-Oct-07	47.29	34,862	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
28-Oct-07	47.29	34,862	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
29-Oct-07	47.28	34,810	0	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
30-Oct-07	48.43	41,002	6,191.00	0	0	0	24	0	NR		No releases required therefore fishway not required to operate
31-Oct-07	49.39	46,615	5,613.00	0	0	0	24	0	NR		No releases required therefore fishway not required to operate

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Paradise Dam Upstream Fishway Operation Data - November 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Nov-07	49.55	47,591	976	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Nov-07	49.62	48,020	429	0	0	0	24	0	0		No releases required therefore fishway not required to operate
3-Nov-07	49.66	48,268	248	0	0	0	24	0	0		No releases required therefore fishway not required to operate
4-Nov-07	49.68	48,391	124	0	0	0	24	0	0		No releases required therefore fishway not required to operate
5-Nov-07	49.70	48,515	124	0	0	0	24	0	0		No releases required therefore fishway not required to operate
6-Nov-07	49.72	48,639	124	0	0	0	24	0	0		No releases required therefore fishway not required to operate
7-Nov-07	49.73	48,701	62	0	0	0	24	0	0		No releases required therefore fishway not required to operate
8-Nov-07	49.78	49,011	310	0	0	0	24	0	0		No releases required therefore fishway not required to operate
9-Nov-07	49.80	49,135	124	8	8	4.5	19.5	4.5	8	100	Downtime due to upstream fish hoist downstream water level invalid alarm and no releases required therefore fishway not required to operate
10-Nov-07	49.81	49,198	63	0	0	0	24	0	0		No releases required therefore fishway not required to operate
11-Nov-07	49.81	49,198	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
12-Nov-07	49.82	49,261	63	12	12	3	21	3	2	100	Downtime due to high attraction flow due to the approach channel level sensor reading low, and no releases required therefore fishway not required to operate.
13-Nov-07	49.82	49,261	0	11	11	8.5	15.5	8.5	6	100	
14-Nov-07	49.82	49,261	0	9	9	4	20	4	3	100	
15-Nov-07	49.81	49,198	0	3	3	2	22	2	1	100	SunWater staff install new drainage system within hopper
16-Nov-07	49.81	49,198	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
17-Nov-07	49.81	49,198	0	0	0	0	24	0	0		SunWater staff install new drainage system within hopper
18-Nov-07	49.80	49,135	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
19-Nov-07	49.80	49,135	36	36	36	24	17	7	NR	29	During 17hrs downtime attraction flow operating for QPI&F to attract fish for fish monitoring
20-Nov-07	49.79	49,073	0	9	9	24	24	0	0	0	Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place.
21-Nov-07	49.79	49,073	0	7	7	24	0	24	0	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
22-Nov-07	49.78	49,011	0	7	7	24	24	0	0	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
23-Nov-07	49.77	48,949	0	5	5	6	18	6	5	100	
24-Nov-07	49.77	48,949	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
25-Nov-07	49.90	49,764	815	0	0	0	24	0	0		No releases required therefore fishway not required to operate
26-Nov-07	49.90	49,764	0	10	10	7	17	7	6	100	
27-Nov-07	49.89	49,701	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
28-Nov-07	49.89	49,701	0	10	10	7	17	7	5	100	
29-Nov-07	49.88	49,638	0	12	12	8	16	8	5	100	
30-Nov-07	49.88	49,638	0	10	10	7	17	7	5	100	

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Paradise Dam Upstream Fishway Operation Data - December 2007

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Dec-07	49.89	49,701	63	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Dec-07	49.88	49,638	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
3-Dec-07	49.88	49,638	0	7	7	5	19	5	3	100	Minimal release
4-Dec-07	49.87	49,575	0	12	12	8	16	8	4	100	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating, and no releases required therefore fishway not required to operate
5-Dec-07	49.86	49,512	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
6-Dec-07	49.86	49,512	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating. SunWater staff notified BDA.
7-Dec-07	49.85	49,449	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
8-Dec-07	49.85	49,449	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
9-Dec-07	49.84	49,386	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
10-Dec-07	49.84	49,386	0	10	10	24	24	0	0	0	During 24hrs downtime attraction flow operating for QPI&F to attract fish for fish monitoring.
11-Dec-07	49.85	49,449	73	272	9	24	24	0	0	0	Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place.
12-Dec-07	49.80	49,135	0	310	10	24	0	24	0	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
13-Dec-07	49.79	49,073	248	310	10	24	24	0	0	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
14-Dec-07	49.78	49,011	248	310	10	24	21	3	2	13	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
15-Dec-07	49.74	48,763	62	300	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
16-Dec-07	49.69	48,453	0	300	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
17-Dec-07	49.63	48,082	0	269	0	21.5	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
18-Dec-07	49.59	47,835	22	300	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
19-Dec-07	49.54	47,530	0	300	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
20-Dec-07	49.50	47,285	56	383	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
21-Dec-07	49.46	47,041	139	400	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
22-Dec-07	49.41	46,736	95	400	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
23-Dec-07	49.36	46,434	98	400	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
24-Dec-07	49.32	46,194	159	110	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
25-Dec-07	49.31	46,134	50	110	0	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
26-Dec-07	49.29	46,013	0	27	27	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
27-Dec-07	49.29	46,013	27	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
28-Dec-07	49.31	46,134	140	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
29-Dec-07	49.33	46,254	140	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
30-Dec-07	49.34	46,314	80	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
31-Dec-07	49.34	46,314	0	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating

"NR" = Not recorded  
"--" = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - January 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jan-08	49.35	46,374	0	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
2-Jan-08	49.35	46,374	0	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
3-Jan-08	49.35	46,374	0	20	20	24	19	5	3	21	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
4-Jan-08	49.35	46,374	14	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
5-Jan-08	49.34	46,314	0	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
6-Jan-08	49.34	46,314	0	20	20	24	24	0	0	0	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
7-Jan-08	49.34	46,314	571	34	34	24	15.5	8.5	5	35	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
8-Jan-08	49.42	46,797	0	12	12	7	17	7	4	100	Downtime due to system starting and stopping regularly due to all motions isolator open circuit activating
9-Jan-08	49.42	46,797	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
10-Jan-08	49.42	46,797	116	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
11-Jan-08	49.43	46,858	360	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
12-Jan-08	49.48	47,163	1,221.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
13-Jan-08	49.67	48,329	180	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
14-Jan-08	49.69	48,453	180	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
15-Jan-08	49.71	48,577	1,242.00	5	5	22.5	1.5	22.5	0	100	No releases required therefore fishway not required to operate System starting and stopping regularly due to all motions isolator open circuit activating
16-Jan-08	49.90	49,764	313	5	5	24	24	0	0	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program. Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place. Contractor (JDN) on site to fault find reason for system starting and stopping regularly due to all motions isolator open circuit activating. Contractor (JDN) found cause to be overheating of regeneration unit.
17-Jan-08	49.94	50,015	125	5	5	24	24	0	0	0	During downtime, attraction channel fish trap removed for QPI&F to process fish for monitoring program. Contractor (JDN) on site to modify PLC program to allow hopper to dip twice into the lake to prevent fish stranding in hopper
18-Jan-08	49.95	50,078	121	1	1	4	20	4	NR	100	Downtime due to system starting and stopping regularly due to overheating of regeneration unit.
19-Jan-08	49.96	50,141	120	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
20-Jan-08	49.97	50,204	120	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
21-Jan-08	49.98	50,267	120	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
22-Jan-08	49.98	50,267	120	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
23-Jan-08	49.99	50,330	120	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
24-Jan-08	50.00	50,393	121	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
25-Jan-08	50.01	50,456	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
26-Jan-08	50.01	50,456	121	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
27-Jan-08	50.02	50,520	121	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
28-Jan-08	50.03	50,584	823	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
29-Jan-08	50.16	51,414	701	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
30-Jan-08	50.25	51,993	252	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
31-Jan-08	50.28	52,188	313	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.

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Paradise Dam Upstream Fishway Operation Data - February 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Feb-08	50.32	52,447	119	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
2-Feb-08	50.33	52,512	313	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
3-Feb-08	50.37	52,771	184	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
4-Feb-08	50.39	52,900	185	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
5-Feb-08	50.41	53,031	2,703.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
6-Feb-08	50.81	55,679	11,871.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
7-Feb-08	52.47	67,495	4,833.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
8-Feb-08	53.09	72,266	3,978.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
9-Feb-08	53.58	76,179	2,198.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
10-Feb-08	53.84	78,311	4,616.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
11-Feb-08	54.38	82,859	2,939.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
12-Feb-08	54.71	85,728	5,188.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
13-Feb-08	55.28	90,845	8,120.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
14-Feb-08	56.13	98,890	9,714.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
15-Feb-08	57.08	108,524	8,450.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
16-Feb-08	57.85	116,888	6,175.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
17-Feb-08	58.38	122,973	3,916.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
18-Feb-08	58.70	126,794	2,664.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
19-Feb-08	58.91	129,359	1,961.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
20-Feb-08	59.06	131,221	1,732.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
21-Feb-08	59.19	132,853	1,249.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
22-Feb-08	59.28	134,000	869	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
23-Feb-08	59.34	134,766	869	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
24-Feb-08	59.40	135,532	624	0	0	0	24	0	0		No releases required therefore fishway not required to operate System starting and stopping regularly due to overheating of regeneration unit.
25-Feb-08	59.44	136,052	499	5	5	24	24	0	0	0	System starting and stopping regularly due to overheating of regeneration unit.
26-Feb-08	59.47	136,443	495	0	0	0	24	0	0		No releases required therefore fishway not required to operate Contractor (JDN) on site to replace regeneration unit
27-Feb-08	59.50	136,833	365	0	0	0	24	0	0		No releases required therefore fishway not required to operate Contractor (JDN) on site to install new cubicle airconditioning unit to keep variable speed drive and regeneration unit operating within required temperature range
28-Feb-08	59.52	137,093	370	5	5	24	19	5	5	21	Contractor (JDN) on site to service fish hoist
29-Feb-08	59.54	137,353	225	0	0	0	24	0	0		No releases required therefore fishway not required to operate

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Paradise Dam Upstream Fishway Operation Data - March 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Mar-08	59.55	137,483	225	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Mar-08	59.56	137,613	225	0	0	0	24	0	0		No releases required therefore fishway not required to operate
3-Mar-08	59.57	137,743	0	5	5	24	24	0	0	0	During 24hrs downtime attraction flow operating for QPI&F to attract fish for fish monitoring.
4-Mar-08	59.57	137,743	230	5	5	24	24	0	0	0	Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place.
5-Mar-08	59.58	137,873	0	5	5	24	0	24	0	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
6-Mar-08	59.57	137,743	0	5	5	24	24	0	0	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
7-Mar-08	59.57	137,743	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
8-Mar-08	59.57	137,743	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
9-Mar-08	59.56	137,613	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
10-Mar-08	59.56	137,613	0	30	30	18	13.5	10.5	8	58	Downtime due to fish hoist variable speed drive alarm and installation of temporary flushing tubes in hopper
11-Mar-08	59.56	137,613	0	35	35	24	0	24	16	100	
12-Mar-08	59.55	137,483	10	45	45	24	0	24	16	100	
13-Mar-08	59.54	137,353	10	45	45	24	7	17	12	71	Downtime due to indentifiable outage
14-Mar-08	59.53	137,223	9	45	45	24	0	24	16	100	
15-Mar-08	59.52	137,093	9	45	45	24	0	24	16	100	
16-Mar-08	59.51	136,963	0	45	45	24	0	24	16	100	
17-Mar-08	59.51	136,963	4	40	40	24	0	24	16	100	
18-Mar-08	59.50	136,833	0	52	52	24	15.5	8.5	11	35	Downtime due to V127 and V117 changing to manual mode due to power outage while testing generator
19-Mar-08	59.50	136,833	5	41	41	24	1.5	22.5	15	94	Downtime due to generator fault during power outage
20-Mar-08	59.49	136,703	6	42	42	24	0	24	16	100	
21-Mar-08	59.48	136,573	7	43	43	24	0	24	17	100	
22-Mar-08	59.47	136,443	0	42	42	24	0	24	16	100	
23-Mar-08	59.47	136,443	0	43	43	24	0	24	17	100	
24-Mar-08	59.47	136,443	6	42	42	24	0	24	16	100	
25-Mar-08	59.46	136,313	0	43	43	24	0	24	17	100	
26-Mar-08	59.46	136,313	56	92	24	24	0	24	16	100	
27-Mar-08	59.45	136,182	0	150	25	24	16	8	5	33	Downtime due to power outage during wet commissioning of mini hydro
28-Mar-08	59.45	136,182	0	92	24	24	0	24	15	100	
29-Mar-08	59.45	136,182	156	192	24	24	0	24	17	100	
30-Mar-08	59.44	136,052	0	92	24	24	2	22	15	92	Downtime due to fish hoist variable speed drive alarm
31-Mar-08	59.44	136,052	42	92	24	24	0	24	16	100	

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Paradise Dam Upstream Fishway Operation Data - April 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Apr-08	59.43	135,922	12	192	42	24	0	24	16	100	
2-Apr-08	59.41	135,662	52	102	42	24	0	24	17	100	
3-Apr-08	59.40	135,532	0	62	42	24	0	24	16	100	
4-Apr-08	59.40	135,532	0	40	40	24	0	24	16	100	
5-Apr-08	59.39	135,404	0	40	40	24	16	8	8	33	Downtime due to fish hoist variable speed drive alarm
6-Apr-08	59.39	135,404	0	40	40	24	9	15	10	63	Downtime due to fish hoist variable speed drive alarm
7-Apr-08	59.38	135,277	0	40	40	24	0	24	17	100	
8-Apr-08	59.38	135,277	0	9	9	24	22	2	1	8	During 22hrs downtime, Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place.
9-Apr-08	59.37	135,149	0	6	6	24	0	24	0	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
10-Apr-08	59.36	135,021	0	6	6	24	24	0	0	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
11-Apr-08	59.36	135,021	0	40	40	24	0	24	17	100	
12-Apr-08	59.35	134,894	0	40	40	24	0	24	16	100	
13-Apr-08	59.35	134,894	0	40	40	24	0	24	17	100	
14-Apr-08	59.34	134,766	0	40	40	24	0	24	16	100	
15-Apr-08	59.33	134,638	0	40	40	24	0	24	17	100	
16-Apr-08	59.32	134,511	0	40	40	24	0	24	17	100	
17-Apr-08	59.31	134,383	0	40	40	24	0	24	17	100	
18-Apr-08	59.31	134,383	0	40	40	24	4	20	14	83	Downtime due to SunWater staff conducting routine maintenance checks on attraction flow valves
19-Apr-08	59.30	134,255	0	40	40	24	0	24	16	100	
20-Apr-08	59.29	134,127	0	40	40	24	0	24	17	100	
21-Apr-08	59.28	134,000	0	40	40	24	0	24	16	100	
22-Apr-08	59.28	134,000	0	40	40	24	0	24	16	100	
23-Apr-08	59.27	133,872	0	40	40	24	0	24	16	100	
24-Apr-08	59.26	133,744	0	40	40	24	0	24	17	100	
25-Apr-08	59.26	133,744	0	40	40	24	0	24	16	100	
26-Apr-08	59.25	133,617	0	40	40	24	0	24	17	100	
27-Apr-08	59.24	133,489	0	40	40	24	0	24	16	100	
28-Apr-08	59.23	133,361	0	40	40	24	0	24	16	100	
29-Apr-08	59.22	133,233	0	40	40	24	4.5	19.5	14	81	Downtime due to fish hoist variable speed drive alarm
30-Apr-08	59.21	133,106	0	40	40	24	0	24	16	100	

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Paradise Dam Upstream Fishway Operation Data - May 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-May-08	59.20	132,978	0	6	6	24	22.5	1.5	1	6	Downtime due to SunWater staff fault finding DC power supply
2-May-08	59.20	132,978	0	35	35	24	2	22	15	92	Downtime due to SunWater staff fault finding DC power supply
3-May-08	59.20	132,978	0	40	40	24	0	24	17	100	
4-May-08	59.19	132,853	0	40	40	24	0	24	16	100	
5-May-08	59.18	132,727	0	40	40	24	24	0	0	0	Downtime due to fish hoist variable speed drive alarm
6-May-08	59.17	132,602	0	40	40	24	0	24	NR	100	
7-May-08	59.16	132,476	0	40	40	24	0	24	NR	100	
8-May-08	NR	NR	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
9-May-08	59.15	132,351	0	40	40	24	3	21	15	88	Downtime due to SunWater staff fault finding DC power supply
10-May-08	59.15	132,351	0	40	40	24	0	24	17	100	
11-May-08	59.14	132,225	0	40	40	24	0	24	16	100	
12-May-08	59.13	132,100	0	40	40	24	0	24	17	100	
13-May-08	59.12	131,974	0	40	40	24	0	24	16	100	
14-May-08	59.11	131,849	0	40	40	24	0	24	17	100	
15-May-08	59.10	131,723	0	40	40	24	0	24	16	100	
16-May-08	59.10	131,723	0	40	40	24	0	24	17	100	
17-May-08	59.10	131,723	0	4	4	24	NR	NR	2	--	Downtime due to fish hoist variable speed drive alarm
18-May-08	59.10	131,723	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
19-May-08	59.09	131,598	0	35	35	24	1.5	22.5	14	94	
20-May-08	59.08	131,472	0	40	40	24	0	24	17	100	
21-May-08	59.07	131,347	225	40	40	24	0	24	16	100	
22-May-08	59.07	131,347	0	40	40	24	10	14	8	58	Downtime due to fish hoist variable speed drive alarm
23-May-08	59.06	131,221	0	40	40	24	2	22	15	92	Downtime due to fish hoist variable speed drive alarm
24-May-08	59.06	131,221	0	40	40	24	0	24	16	100	
25-May-08	59.05	131,096	0	40	40	24	0	24	17	100	
26-May-08	59.05	131,096	0	40	40	24	13.5	10.5	7	44	Downtime due to fish hoist variable speed drive alarm
27-May-08	59.03	130,845	0	40	40	24	0	24	0	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
28-May-08	59.02	130,720	0	40	40	24	5.5	18.5	13	77	During 5.5hrs downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program.
29-May-08	59.02	130,720	225	40	40	24	4.5	19.5	7	81	Downtime due to fish hoist variable speed drive alarm
30-May-08	59.03	130,845	852	22	22	13	11	13	3	100	
31-May-08	59.09	131,598	179	0	0	0	24	0	0		No releases required therefore fishway not required to operate

"NR" = Not recorded

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Paradise Dam Upstream Fishway Operation Data - June 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jun-08	59.10	131,723	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Jun-08	59.10	131,723	305	37	37	22	2	22	15	100	
3-Jun-08	59.12	131,974	345	40	40	24	0	24	15	100	
4-Jun-08	59.14	132,225	337	32	32	24	0	24	17	100	
5-Jun-08	59.16	132,476	214	35	35	24	0	24	7	100	
6-Jun-08	59.17	132,602	188	9	9	6	18	6	2	100	Minimal release
7-Jun-08	59.18	132,727	433	0	0	0	24	0	0		No releases required therefore fishway not required to operate
8-Jun-08	59.21	133,106	310	0	0	0	24	0	0		No releases required therefore fishway not required to operate
9-Jun-08	59.23	133,361	437	0	0	0	24	0	0		No releases required therefore fishway not required to operate
10-Jun-08	59.26	133,744	312	2	2	2.5	21.5	2.5	3	100	
11-Jun-08	59.28	134,000	182	0	0	0	24	0	0		No releases required therefore fishway not required to operate
12-Jun-08	59.29	134,127	310	0	0	0	24	0	0		No releases required therefore fishway not required to operate
13-Jun-08	59.31	134,383	182	0	0	0	24	0	0		No releases required therefore fishway not required to operate
14-Jun-08	59.32	134,511	182	0	0	0	24	0	0		No releases required therefore fishway not required to operate
15-Jun-08	59.33	134,638	182	0	0	0	24	0	0		No releases required therefore fishway not required to operate
16-Jun-08	59.34	134,766	208	26	26	24	3	21	6	88	Downtime due to fish hoist variable speed drive alarm
17-Jun-08	59.35	134,894	214	32	32	24	1	23	6	96	Downtime due to fish hoist variable speed drive alarm
18-Jun-08	59.36	135,021	0	32	32	24	0	24	7	100	
19-Jun-08	59.36	135,021	214	32	32	24	0	24	7	100	
20-Jun-08	59.37	135,149	0	32	32	24	0	24	7	100	
21-Jun-08	59.37	135,149	0	30	30	24	18	6	2	25	Downtime due to fish hoist variable speed drive alarm
22-Jun-08	59.37	135,149	0	31	31	24	24	0	0	0	Downtime due to fish hoist variable speed drive alarm
23-Jun-08	59.37	135,149	0	31	31	24	0	24	1	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
24-Jun-08	59.37	135,149	0	32	32	24	24	0	0	0	During downtime, fish hopper removed from trap position for QPI&F to process fish for monitoring program. Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place.
25-Jun-08	59.36	135,021	0	32	32	24	4	20	6	83	During downtime, attraction channel fish trap removed for QPI&F to process fish for monitoring program.
26-Jun-08	59.36	135,021	0	32	32	24	0	24	7	100	
27-Jun-08	59.36	135,021	0	32	32	24	0	24	7	100	
28-Jun-08	59.36	135,021	0	32	32	24	0	24	7	100	
29-Jun-08	59.36	135,021	0	32	32	24	5	19	5	79	Downtime due to fish hoist variable speed drive alarm
30-Jun-08	59.35	134,894	0	32	32	24	24	0	0	0	Downtime due to fish hoist variable speed drive alarm

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Paradise Dam Upstream Fishway Operation Data - July 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jul-08	59.36	135,021	0	32	32	24	0	24	7	100	
2-Jul-08	59.36	135,021	0	31	31	24	2	22	6	92	Downtime due to fish hoist variable speed drive alarm
3-Jul-08	59.36	135,021	0	32	32	24	0	24	7	100	
4-Jul-08	59.35	134,894	0	31	31	24	0	24	7	100	
5-Jul-08	59.35	134,894	0	31	31	24	0	24	7	100	
6-Jul-08	59.34	134,766	212	30	30	24	6	18	5	75	Downtime due to fish hoist variable speed drive alarm
7-Jul-08	59.35	134,894	0	28	28	24	0	24	7	100	
8-Jul-08	59.35	134,894	215	32	32	24	0	24	7	100	
9-Jul-08	59.36	135,021	0	33	33	24	5	19	5	79	Downtime due to fish hoist variable speed drive alarm and fish hopper full after dumping alarm
10-Jul-08	59.36	135,021	0	33	33	24	24	0	0	0	Downtime due to fish hopper full after dumping alarm
11-Jul-08	59.35	134,894	0	4	4	3	21	3	0	100	Hopper full after dumping alarm. No releases required therefore fishway not required to operate
12-Jul-08	59.35	134,894	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
13-Jul-08	59.35	134,894	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
14-Jul-08	59.35	134,894	0	24	24	22	0	22	6	100	
15-Jul-08	59.35	134,894	0	32	32	24	0	24	7	100	
16-Jul-08	59.35	134,894	215	32	32	24	0	24	7	100	
17-Jul-08	59.36	135,021	215	32	32	24	0	24	7	100	
18-Jul-08	59.37	135,149	216	33	33	24	0	24	7	100	
19-Jul-08	59.38	135,277	215	32	32	24	9	15	4	63	Downtime due to fish hoist variable speed drive alarm and fish hopper full after dumping alarm
20-Jul-08	59.39	135,404	0	33	33	24	0	24	7	100	
21-Jul-08	59.39	135,404	215	32	32	24	0	24	7	100	
22-Jul-08	59.40	135,532	0	32	32	24	0	24	7	100	
23-Jul-08	59.40	135,532	348	33	33	24	0	24	7	100	
24-Jul-08	59.42	135,792	9,577.00	42	42	24	3.5	20.5	6	85	Downtime due system isolated for adjusting shutters
25-Jul-08	60.11	144,997	4,719.00	32	32	24	6	18	6	75	Downtime due to fish hoist variable speed drive alarm
26-Jul-08	60.45	149,757	6,365.00	32	32	24	0	24	7	100	
27-Jul-08	60.88	156,023	4,944.00	31	31	24	0	24	7	100	
28-Jul-08	61.21	161,022	3,058.00	31	31	24	12	12	4	50	Downtime due to fish hopper full after dumping alarm
29-Jul-08	61.40	163,984	2,647.00	31	31	24	19	5	1	21	Downtime due to floating logs hazardous to fish hopper as it enters the impoundment at the fish exit point
30-Jul-08	61.56	166,534	2,053.00	45	45	24	0	24	5	100	
31-Jul-08	61.68	168,474	1,425.00	35	35	24	2.5	21.5	12	90	During 2.5hrs downtime QPI&F conducting experiments as part of fishway monitoring program

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Paradise Dam Upstream Fishway Operation Data - August 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Aug-08	61.76	169,778	940	35	35	24	0	24	6	100	
2-Aug-08	61.81	170,596	788	34	34	24	0	24	7	100	
3-Aug-08	61.85	171,262	622	34	34	24	0	24	7	100	
4-Aug-08	61.88	171,762	457	35	35	24	0	24	7	100	
5-Aug-08	61.90	172,095	457	35	35	24	2	22	7	92	Downtime due to fish hoist variable speed drive alarm
6-Aug-08	61.92	172,428	289	34	34	24	0	24	7	100	
7-Aug-08	61.93	172,595	285	30	30	20	4	20	7	100	Hopper full after dumping alarm. No releases required therefore fishway not required to operate
8-Aug-08	61.94	172,761	255	0	0	0	24	0	0		No releases required therefore fishway not required to operate
9-Aug-08	61.95	172,928	255	0	0	0	24	0	0		No releases required therefore fishway not required to operate
10-Aug-08	61.96	173,095	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
11-Aug-08	61.96	173,095	256	0	0	0	24	0	0		No releases required therefore fishway not required to operate
12-Aug-08	61.97	173,261	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
13-Aug-08	61.97	173,261	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
14-Aug-08	61.97	173,261	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
15-Aug-08	61.97	173,261	256	0	0	0	24	0	0		No releases required therefore fishway not required to operate
16-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
17-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
18-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
19-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
20-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
21-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
22-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
23-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
24-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
25-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
26-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
27-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
28-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
29-Aug-08	61.97	173,261	256	0	0	0	24	0	0		No releases required therefore fishway not required to operate
30-Aug-08	61.98	173,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
31-Aug-08	61.97	173,261	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate

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Paradise Dam Upstream Fishway Operation Data - September 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Sep-08	61.97	173,261	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Sep-08	61.97	173,261	0	6	6	14.5	24	0	0	0	Minimal release
3-Sep-08	61.97	173,261	0	40	40	24	0	24	9	100	
4-Sep-08	61.96	173,095	314	35	35	24	0	24	8	100	
5-Sep-08	61.97	173,261	0	37	37	24	0	24	9	100	
6-Sep-08	61.97	173,261	0	32	32	24	0	24	9	100	
7-Sep-08	61.97	173,261	0	30	30	24	0	24	9	100	
8-Sep-08	61.96	173,095	0	31	31	24	0	24	9	100	
9-Sep-08	61.96	173,095	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
10-Sep-08	61.95	172,928	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
11-Sep-08	61.95	172,928	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
12-Sep-08	61.94	172,761	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
13-Sep-08	61.94	172,761	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
14-Sep-08	61.94	172,761	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
15-Sep-08	61.94	172,761	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
16-Sep-08	61.93	172,595	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
17-Sep-08	61.93	172,595	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
18-Sep-08	61.92	172,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
19-Sep-08	61.92	172,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
20-Sep-08	61.92	172,428	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
21-Sep-08	61.91	172,262	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
22-Sep-08	61.90	172,095	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
23-Sep-08	61.90	172,095	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
24-Sep-08	61.90	172,095	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
25-Sep-08	61.89	171,928	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
26-Sep-08	61.89	171,928	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
27-Sep-08	61.88	171,762	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
28-Sep-08	61.87	171,595	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
29-Sep-08	61.87	171,595	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
30-Sep-08	61.87	171,595	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate

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Paradise Dam Upstream Fishway Operation Data - October 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Oct-08	61.86	171,429	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Oct-08	61.85	171,262	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
3-Oct-08	61.85	171,262	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
4-Oct-08	61.84	171,096	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
5-Oct-08	61.84	171,096	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
6-Oct-08	61.83	170,929	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
7-Oct-08	61.83	170,929	0	8	8	18	23	1	1	6	Coles Engineering contractor on site modifying proximity switch ladder
8-Oct-08	61.82	170,762	0	12	12	24	20.5	3.5	2	15	Coles Engineering contractor on site modifying proximity switch ladder
9-Oct-08	61.82	170,762	0	12	12	24	20	4	2	17	
10-Oct-08	61.81	170,596	0	17	17	24	13	11	3	46	Downtime due to fish hoist variable speed drive alarm
11-Oct-08	61.81	170,596	0	10	10	24	24	0	0	0	Minimal release
12-Oct-08	61.81	170,596	0	10	10	24	24	0	0	0	Minimal release
13-Oct-08	61.81	170,596	0	38	38	24	0	24	7	100	
14-Oct-08	61.80	170,429	2	38	38	24	0	24	7	100	
15-Oct-08	61.79	170,266	327	38	38	24	0	24	7	100	
16-Oct-08	61.80	170,429	9	45	45	24	0	24	6	100	
17-Oct-08	61.79	170,266	0	28	28	24	0	24	7	100	
18-Oct-08	61.78	170,103	0	29	29	24	1.25	22.75	7	95	Downtime due to fish hoist variable speed drive alarm
19-Oct-08	61.77	169,941	0	29	29	24	0	24	7	100	
20-Oct-08	61.76	169,778	0	27	27	24	0	24	7	100	
21-Oct-08	61.75	169,615	0	28	28	24	0	24	7	100	
22-Oct-08	61.75	169,615	0	29	29	24	0	24	7	100	
23-Oct-08	61.74	169,452	0	31	31	24	0	24	6	100	
24-Oct-08	61.73	169,289	0	32	32	24	0	24	7	100	
25-Oct-08	61.72	169,126	0	31	31	24	0	24	7	100	
26-Oct-08	61.71	168,963	0	27	27	24	20	4	1	17	Downtime due to unidentifiable outage
27-Oct-08	61.70	168,800	0	5	5	3	21	3	1	100	System isolated for divers working within the intake tower on the shutters
28-Oct-08	61.70	168,800	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
29-Oct-08	61.69	168,637	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
30-Oct-08	61.69	168,637	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
31-Oct-08	61.68	168,474	3	14	14	14.5	9.5	14.5	4	100	

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Paradise Dam Upstream Fishway Operation Data - November 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Nov-08	61.67	168,312	3	31	31	24	0	24	7	100	
2-Nov-08	61.66	168,149	0	31	31	24	0	24	7	100	
3-Nov-08	61.66	168,149	0	9	9	7	17	7	2	100	Downtime due to hopper release door closure mechanism starting to show signs of metal fatigue with cracking of the metal structure. SunWater staff notified BDA
4-Nov-08	61.65	167,986	0	4	4	3	21	3	1	100	No releases required therefore fishway not required to operate. Contractor (Cole Engineering) on site to repair cracked hopper release door closure mechanism Hopper full after dumping alarm and hopper not at disengaged position alarm.
5-Nov-08	61.64	167,823	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate SunWater staff fault find hopper full after dumping alarm and hopper not at disengaged position alarm
6-Nov-08	61.64	167,823	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate SunWater staff fault find hopper full after dumping alarm and hopper not at disengaged position alarm
7-Nov-08	61.64	167,823	0	8	8	19	5	19	6	100	Downtime due to SunWater staff fault find hopper full after dumping alarm and hopper not at disengaged position alarm
8-Nov-08	61.63	167,660	486	26	26	24	0	24	7	100	
9-Nov-08	61.65	167,986	0	28	28	24	0	24	7	100	
10-Nov-08	61.64	167,823	0	4	4	4	20	4	1	100	Downtime due to fish hoist variable speed drive alarm
11-Nov-08	61.63	167,660	0	28	28	24	0	24	6	100	
12-Nov-08	61.62	167,497	0	32	32	24	0	24	7	100	
13-Nov-08	61.62	167,497	0	32	32	24	0	24	7	100	
14-Nov-08	61.61	167,334	0	28	28	24	0	24	6	100	
15-Nov-08	61.61	167,334	0	12	12	24	0	24	7	100	
16-Nov-08	61.60	167,171	0	13	13	24	0	24	7	100	
17-Nov-08	61.60	167,171	0	11	11	15	9	15	6	100	Downtime due to Isolation of system to allow for installation of shutters
18-Nov-08	61.59	167,012	303	10	10	24	0	24	10	100	
19-Nov-08	61.60	167,171	0	9	9	24	0	24	7	100	
20-Nov-08	61.60	167,171	0	21	21	24	0	24	6	100	
21-Nov-08	61.60	167,171	0	20	20	24	0	24	7	100	
22-Nov-08	61.59	167,012	0	20	20	24	0	24	7	100	
23-Nov-08	61.59	167,012	0	17	17	24	0	24	7	100	
24-Nov-08	61.58	166,853	0	24	24	24	24	0	0	0	Attraction Channel Fish Trap used to trap fish for monitoring program conducted by QPI&F. Whilst attraction channel fish trap is in place fish are unable to reach the hopper therefore upstream fishway not operating whilst attraction channel fish trap is in place. During 6hrs downtime, attraction channel fish trap removed for QPI&F to process fish for monitoring program.
25-Nov-08	61.57	166,693	0	9	9	18	6	18	5	100	
26-Nov-08	61.56	166,534	0	20	20	24	0	24	7	100	
27-Nov-08	61.56	166,534	0	11	11	24	0	24	7	100	
28-Nov-08	61.55	166,375	0	11	11	24	0	24	7	100	
29-Nov-08	61.55	166,375	0	11	11	24	0	24	7	100	
30-Nov-08	61.54	166,215	0	11	11	24	0	24	7	100	

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"--" = Not able to calculate as data not recorded



Paradise Dam Upstream Fishway Operation Data - December 2008

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Dec-08	61.53	166,056	0	13	13	24	0	24	7	100	
2-Dec-08	61.53	166,056	7	26	26	24	0	24	7	100	
3-Dec-08	61.52	165,897	8	27	27	24	0	24	7	100	
4-Dec-08	61.51	165,737	0	31	31	24	0	24	6	100	
5-Dec-08	61.52	165,897	0	71	44	24	0	24	7	100	
6-Dec-08	61.51	165,737	67	86	51	24	0	24	7	100	
7-Dec-08	61.50	165,578	521	62	51	24	0.5	23.5	6	98	Downtime due to power outage
8-Dec-08	61.52	165,897	0	48	48	24	0	24	7	100	
9-Dec-08	61.52	165,897	23	42	42	24	0	24	7	100	
10-Dec-08	61.51	165,737	123	142	52	24	0	24	7	100	
11-Dec-08	61.50	165,578	0	251	62	24	0	24	6	100	
12-Dec-08	61.48	165,259	145	63	59	24	0	24	7	100	
13-Dec-08	61.46	164,940	83	103	51	24	0	24	7	100	
14-Dec-08	61.45	164,781	0	107	55	24	0	24	7	100	
15-Dec-08	61.43	164,462	0	102	50	24	0	24	7	100	
16-Dec-08	61.41	164,144	0	103	51	24	0	24	7	100	
17-Dec-08	61.39	163,828	88	106	54	24	0	24	7	100	
18-Dec-08	61.38	163,673	83	101	52	24	0	24	16	100	
19-Dec-08	61.37	163,517	0	104	52	24	0	24	17	100	
20-Dec-08	61.36	163,361	0	103	51	24	0	24	17	100	
21-Dec-08	61.33	162,893	87	105	53	24	0	24	17	100	
22-Dec-08	61.32	162,737	0	103	51	24	0	24	16	100	
23-Dec-08	61.30	162,425	84	103	51	24	0	24	17	100	
24-Dec-08	61.29	162,269	0	103	51	24	0	24	17	100	
25-Dec-08	61.27	161,958	86	104	52	24	0	24	16	100	
26-Dec-08	61.26	161,802	86	105	53	24	0	24	17	100	
27-Dec-08	61.25	161,646	0	105	53	24	0	24	16	100	
28-Dec-08	61.23	161,334	0	105	53	24	0	24	17	100	
29-Dec-08	61.22	161,178	81	101	49	24	20.5	3.5	3	15	Downtime due to hopper hoist emergency upper limit activated alarm
30-Dec-08	61.21	161,022	80	100	48	24	24	0	0	0	Downtime due to hopper hoist emergency upper limit activated alarm
31-Dec-08	61.20	160,866	0	100	48	24	6	18	13	75	Downtime due to hopper hoist emergency upper limit activated alarm

"NR" = Not recorded

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Paradise Dam Upstream Fishway Operation Data - January 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jan-09	61.19	160,714	86	105	53	24	0	24	16	100	
2-Jan-09	61.17	160,409	393	107	55	24	0	24	16	100	
3-Jan-09	61.18	160,561	85	104	52	24	0	24	17	100	
4-Jan-09	61.17	160,409	0	105	53	24	0	24	17	100	
5-Jan-09	61.15	160,103	88	107	55	24	0	24	16	100	
6-Jan-09	61.14	159,951	37	56	49	24	0	24	17	100	
7-Jan-09	61.13	159,798	25	44	44	24	0	24	16	100	
8-Jan-09	61.13	159,798	1,093.00	44	44	24	0	24	11	100	
9-Jan-09	61.16	160,256	332	45	45	24	0	24	10	100	
10-Jan-09	61.19	160,714	0	45	45	24	0	24	10	100	
11-Jan-09	61.19	160,714	0	43	43	24	0	24	10	100	
12-Jan-09	61.17	160,409	23	42	42	24	0	24	10	100	
13-Jan-09	61.16	160,256	0	42	42	24	0	24	10	100	
14-Jan-09	61.16	160,256	25	44	44	24	0	24	10	100	
15-Jan-09	61.15	160,103	25	44	44	24	0	24	10	100	
16-Jan-09	61.14	159,951	0	11	11	6	18	6	2	100	Downtime due to hopper hoist emergency upper limit activated alarm
17-Jan-09	61.15	160,103	1,357.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate Hopper hoist emergency upper limit activated alarm
18-Jan-09	61.21	161,022	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate Hopper hoist emergency upper limit activated alarm
19-Jan-09	61.21	161,022	12	0	0	0	24	0	0		No releases required therefore fishway not required to operate Hopper hoist emergency upper limit activated alarm
20-Jan-09	61.20	160,866	0	33	33	24	5	19	10	79	Downtime due to hopper hoist emergency upper limit activated alarm Contractor (JDN) on site to repair hopper hoist emergency upper limit activated alarm
21-Jan-09	61.19	160,714	0	17	15	6	18	6	5	100	Downtime due to unidentifiable outage
22-Jan-09	61.20	160,866	0	31	31	24	0.5	23.5	11	98	Downtime due to unidentifiable outage
23-Jan-09	61.19	160,714	608	9	9	3	21	3	3	100	Minimal release
24-Jan-09	61.23	161,334	15,782.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate
25-Jan-09	62.18	176,825	8,794.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate
26-Jan-09	62.66	185,289	8,119.00	0	0	0	24	0	0		No releases required therefore fishway not required to operate
27-Jan-09	63.09	193,243	3,823.00	26	26	24	5.5	18.5	12	77	Downtime due to fish hoist variable speed drive alarm
28-Jan-09	63.30	197,259	2,528.00	37	37	24	0	24	17	100	
29-Jan-09	63.41	199,389	1,780.00	32	32	24	0.5	23.5	15	98	Downtime due to power outage
30-Jan-09	63.49	200,968	1,193.00	36	33	24	0	24	17	100	
31-Jan-09	63.54	201,954	1,007.00	60	34	24	0	24	16	100	

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Paradise Dam Upstream Fishway Operation Data - February 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Feb-09	63.58	202,743	616	63	36	24	0	24	17	100	
2-Feb-09	63.60	203,138	823	56	38	24	0	24	16	100	
3-Feb-09	63.63	203,742	414	53	36	24	1	23	11	96	Downtime due to condition assessment on hopper wheel axle
4-Feb-09	63.64	203,943	619	57	37	24	0	24	10	100	
5-Feb-09	63.66	204,346	415	54	34	24	9.75	14.25	6	59	Downtime due to fish hoist variable speed drive alarm
6-Feb-09	63.68	204,749	0	65	45	24	0	24	10	100	
7-Feb-09	63.69	204,950	0	69	48	24	0	24	10	100	
8-Feb-09	63.67	204,547	0	69	48	24	0	24	10	100	
9-Feb-09	63.67	204,547	0	63	41	24	0	24	10	100	
10-Feb-09	63.67	204,547	425	64	41	24	0	24	10	100	
11-Feb-09	63.69	204,950	425	64	41	24	0	24	10	100	
12-Feb-09	63.69	204,950	627	64	41	24	0	24	10	100	
13-Feb-09	63.70	205,152	421	59	38	24	2	22	10	92	Downtime due to sump pump high water level testing
14-Feb-09	63.71	205,353	427	65	42	24	0	24	10	100	
15-Feb-09	63.73	205,756	0	66	42	24	0	24	10	100	
16-Feb-09	63.73	205,756	0	65	41	24	0	24	10	100	
17-Feb-09	63.73	205,756	0	55	33	24	6	18	7	75	Downtime due to outlet building uninterrupted power supply fault and proximity switch failure on the hopper rail disengagement position
18-Feb-09	63.74	205,957	427	65	43	24	0	24	10	100	
19-Feb-09	63.74	205,957	0	65	42	24	0	24	10	100	
20-Feb-09	63.74	205,957	425	63	40	24	0	24	10	100	
21-Feb-09	63.75	206,158	426	64	41	24	0	24	10	100	
22-Feb-09	63.76	206,360	1,443.00	65	42	24	0	24	9	100	
23-Feb-09	63.82	207,576	4,973.00	65	41	24	0	24	10	100	
24-Feb-09	64.05	212,322	2,327.00	65	42	24	0	24	10	100	
25-Feb-09	64.15	214,418	1,276.00	61	38	24	1	23	10	96	Downtime due to contractor (JDN) on site to service fish hoist
26-Feb-09	64.20	215,466	1,092.00	69	47	24	0	24	2	100	Fish Hopper used to trap fish for monitoring program conducted by QPI&F
27-Feb-09	64.23	216,106	448	65	46	24	0	24	9	100	
28-Feb-09	64.25	216,534	435	69	47	24	0	24	10	100	

"NR" = Not recorded

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Paradise Dam Upstream Fishway Operation Data - March 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Mar-09	64.26	216,747	647	68	46	24	0	24	10	100	
2-Mar-09	64.28	217,175	0	67	46	24	0	24	9	100	
3-Mar-09	64.28	217,175	427	61	45	24	0	24	9	100	
4-Mar-09	64.29	217,388	0	63	44	24	0	24	10	100	
5-Mar-09	64.29	217,388	0	66	44	24	0	24	10	100	
6-Mar-09	64.29	217,388	5	66	45	24	0	24	10	100	
7-Mar-09	64.28	217,175	0	67	46	24	0	24	10	100	
8-Mar-09	64.28	217,175	0	64	43	24	9.5	14.5	6	60	Downtime due to fish hoist variable speed drive alarm
9-Mar-09	64.28	217,175	0	65	44	24	1.5	22.5	10	94	Downtime due to fish hoist variable speed drive alarm and hopper full after dumping alarm
10-Mar-09	64.28	217,175	6	67	45	24	0	24	10	100	
11-Mar-09	64.27	216,961	6	67	46	24	0	24	9	100	
12-Mar-09	64.26	216,747	433	67	46	24	0	24	11	100	
13-Mar-09	64.27	216,961	0	62	42	24	11.25	12.75	6	53	Downtime due to fish hoist variable speed drive alarm
14-Mar-09	64.27	216,961	0	63	41	24	0.75	23.25	10	97	Downtime due to fish hoist variable speed drive alarm and hopper full after dumping alarm
15-Mar-09	64.27	216,961	2	63	41	24	0	24	10	100	
16-Mar-09	64.26	216,747	0	64	42	24	0	24	10	100	
17-Mar-09	64.26	216,747	3	64	42	24	0	24	10	100	
18-Mar-09	64.25	216,534	0	62	41	24	0	24	10	100	
19-Mar-09	64.24	216,320	0	65	43	24	0	24	10	100	
20-Mar-09	64.24	216,320	0	65	43	24	0	24	10	100	
21-Mar-09	64.24	216,320	2	64	43	24	0	24	10	100	
22-Mar-09	64.23	216,106	2	64	43	24	0	24	10	100	
23-Mar-09	64.22	215,893	3	65	44	24	0	24	10	100	
24-Mar-09	64.21	215,679	3	65	44	24	0	24	9	100	
25-Mar-09	64.20	215,466	0	66	45	24	0	24	10	100	
26-Mar-09	64.20	215,466	0	39	27	24	18.5	5.5	3	23	Downtime due to hopper release door closure float mechanism fault
27-Mar-09	64.19	215,256	0	42	27	24	9.25	14.75	7	61	Downtime due to hopper release door closure float mechanism fault and hopper not at disengaged position alarm
28-Mar-09	64.18	215,046	5	64	43	24	0	24	10	100	
29-Mar-09	64.17	214,837	0	61	42	24	0	24	9	100	
30-Mar-09	64.17	214,837	0	15	15	24	23	1	1	4	
31-Mar-09	64.16	214,627	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate

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"--" = Not able to calculate as data not recorded

Paradise Dam Upstream Fishway Operation Data - April 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Apr-09	64.16	214,627	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Apr-09	64.15	214,418	0	24	24	15	9	15	6	100	
3-Apr-09	64.15	214,418	0	35	35	24	5	19	7	79	Downtime due to SunWater staff raising shutters
4-Apr-09	64.13	213,999	0	39	39	24	0	24	10	100	
5-Apr-09	64.13	213,999	0	41	41	24	0	24	10	100	
6-Apr-09	64.12	213,789	377	41	41	24	0.5	23.5	10	98	Downtime due to fish hoist variable speed drive alarm
7-Apr-09	64.13	213,999	0	41	41	24	0	24	9	100	
8-Apr-09	64.12	213,789	0	39	39	24	0	24	11	100	
9-Apr-09	64.11	213,580	586	41	41	24	0	24	10	100	
10-Apr-09	64.13	213,999	586	40	40	24	0	24	10	100	
11-Apr-09	64.15	214,418	375	39	39	24	0	24	10	100	
12-Apr-09	64.16	214,627	374	38	38	24	0	24	9	100	
13-Apr-09	64.17	214,837	1,009.00	40	40	24	0	24	10	100	
14-Apr-09	64.21	215,679	595	40	40	24	0	24	10	100	
15-Apr-09	64.22	215,893	0	43	40	24	0	24	10	100	
16-Apr-09	64.23	216,106	1,243.00	47	41	24	2	22	9	92	Downtime due to maintenance work on fish hoist variable speed drive
17-Apr-09	64.28	217,175	2,739.00	47	40	24	0	24	10	100	
18-Apr-09	64.40	219,738	1,266.00	48	41	24	0	24	9	100	
19-Apr-09	64.45	220,827	831	47	40	24	0	24	10	100	
20-Apr-09	64.48	221,480	612	46	39	24	0	24	10	100	
21-Apr-09	64.50	221,915	829	45	38	24	0	24	10	100	
22-Apr-09	64.53	222,568	614	47	44	24	5.5	18.5	8	77	Downtime due to electrical maintenance on sump pump control system
23-Apr-09	64.55	223,004	397	48	41	24	0	24	10	100	
24-Apr-09	64.56	223,222	0	46	41	24	0.5	23.5	8	98	Downtime due to fish hoist variable speed drive alarm
25-Apr-09	64.56	223,222	395	46	41	24	0	24	10	100	
26-Apr-09	64.57	223,439	0	46	41	24	0	24	9	100	
27-Apr-09	64.57	223,439	0	47	42	24	1.5	22.5	10	94	Downtime due to fish hoist variable speed drive alarm and hopper full after dumping alarm
28-Apr-09	64.57	223,439	0	46	42	24	1.5	22.5	9	94	Downtime due to maintenance work on datalogger in the fish hoist control system
29-Apr-09	64.56	223,222	0	43	41	24	0	24	10	100	
30-Apr-09	64.56	223,222	0	45	40	24	0	24	10	100	

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Paradise Dam Upstream Fishway Operation Data - May 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Upstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Upstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-May-09	64.55	223,004	0	45	40	24	0	24	10	100	
2-May-09	64.55	223,004	0	46	41	24	0	24	9	100	
3-May-09	64.55	223,004	0	46	41	24	0	24	10	100	
4-May-09	64.54	222,786	0	45	40	24	0	24	10	100	
5-May-09	64.54	222,786	0	44	40	24	0	24	10	100	
6-May-09	64.53	222,568	0	46	41	24	0	24	10	100	
7-May-09	64.53	222,568	0	44	40	24	0	24	10	100	
8-May-09	64.52	222,351	0	46	40	24	0	24	9	100	
9-May-09	64.51	222,133	0	45	40	24	0	24	10	100	
10-May-09	64.51	222,133	0	46	41	24	0	24	10	100	
11-May-09	64.51	222,133	0	44	40	24	15.5	8.5	4	35	Downtime due to unidentifiable outage
12-May-09	64.50	221,915	0	49	44	24	0.25	23.75	8	99	Downtime due to fish hoist variable speed drive alarm
13-May-09	64.50	221,915	0	46	41	24	0	24	10	100	
14-May-09	64.49	221,697	0	45	41	24	0	24	10	100	
15-May-09	64.49	221,697	0	45	40	24	1.75	22.25	9	93	Downtime due to hopper full after dumping alarm
16-May-09	64.49	221,697	0	41	37	24	4.75	19.25	7	80	Downtime due to fish hoist variable speed drive alarm and hopper full after dumping alarm
17-May-09	64.48	221,480	0	44	39	24	0	24	10	100	
18-May-09	64.47	221,262	0	44	39	24	0	24	10	100	
19-May-09	64.47	221,262	363	45	41	24	0	24	10	100	
20-May-09	64.48	221,480	0	45	40	24	0	24	9	100	
21-May-09	64.48	221,480	0	44	39	24	0.75	23.25	10	97	Downtime due to hopper full after dumping alarm
22-May-09	64.47	221,262	0	42	38	24	1.75	22.25	9	93	Downtime due to fish hoist variable speed drive alarm and hopper full after dumping alarm
23-May-09	64.47	221,262	0	45	40	24	0	24	9	100	
24-May-09	64.46	221,044	0	43	39	24	0	24	10	100	
25-May-09											
26-May-09											
27-May-09											
28-May-09											
29-May-09											
30-May-09											
31-May-09											

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"--" = Not able to calculate as data not recorded

Paradise Dam Downstream Fishway Operation Data - January 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Downstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Downstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Jan-09	61.19	160,714	86	105							
2-Jan-09	61.17	160,409	393	107							
3-Jan-09	61.18	160,561	85	104							
4-Jan-09	61.17	160,409	0	105							
5-Jan-09	61.15	160,103	88	107							
6-Jan-09	61.14	159,951	37	56							
7-Jan-09	61.13	159,798	25	44							
8-Jan-09	61.13	159,798	1,093.00	44							
9-Jan-09	61.16	160,256	332	45							
10-Jan-09	61.19	160,714	0	45							
11-Jan-09	61.19	160,714	0	43							
12-Jan-09	61.17	160,409	23	42							
13-Jan-09	61.16	160,256	0	42							Storage EL below downstream fishway minimum operating level of EL 62.0 m
14-Jan-09	61.16	160,256	25	44							
15-Jan-09	61.15	160,103	25	44							
16-Jan-09	61.14	159,951	0	11							
17-Jan-09	61.15	160,103	1,357.00	0							
18-Jan-09	61.21	161,022	0	0							
19-Jan-09	61.21	161,022	12	0							
20-Jan-09	61.20	160,866	0	33							
21-Jan-09	61.19	160,714	0	17							
22-Jan-09	61.20	160,866	0	31							
23-Jan-09	61.19	160,714	608	9							
24-Jan-09	61.23	161,334	15,782.00	0							
25-Jan-09	62.18	176,825	8,794.00	0	0	0					No releases required therefore fishway not required to operate
26-Jan-09	62.66	185,289	8,119.00	0	0	0					No releases required therefore fishway not required to operate
27-Jan-09	63.09	193,243	3,823.00	26	0	24	N/A	N/A	NR	--	Start testing mechanical and electrical fishway operations
28-Jan-09	63.30	197,259	2,528.00	37	0	24	N/A	N/A	NR	--	Testing mechanical and electrical fishway operations
29-Jan-09	63.41	199,389	1,780.00	32	0	24	N/A	N/A	NR	--	Testing mechanical and electrical fishway operations
30-Jan-09	63.49	200,968	1,193.00	36	3	24	N/A	N/A	NR	--	Testing mechanical and electrical fishway operations
31-Jan-09	63.54	201,954	1,007.00	60	26	24	N/A	N/A	NR	--	Testing mechanical and electrical fishway operations

"NR" = Not recorded

" -- " = Not able to calculate as data not recorded

N/A = Not applicable during initial testing

Paradise Dam Downstream Fishway Operation Data - February 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Downstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Downstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Feb-09	63.58	202,743	616	63	27	24	N/A	N/A	NR	--	Testing mechanical and electrical fishway operations
2-Feb-09	63.60	203,138	823	56	18	24	N/A	N/A	NR	--	Testing mechanical and electrical fishway operations
3-Feb-09	63.63	203,742	414	53	17	24	N/A	N/A	NR	--	Testing mechanical and electrical fishway operations
4-Feb-09	63.64	203,943	619	57	20	24	N/A	N/A	26	--	Testing mechanical and electrical fishway operations
5-Feb-09	63.66	204,346	415	54	20	24	0	24	19	100	
6-Feb-09	63.68	204,749	0	65	20	24	0	24	19	100	
7-Feb-09	63.69	204,950	0	69	21	24	0	24	19	100	
8-Feb-09	63.67	204,547	0	69	21	24	0	24	19	100	
9-Feb-09	63.67	204,547	0	63	22	24	0	24	19	100	
10-Feb-09	63.67	204,547	425	64	23	24	0	24	19	100	
11-Feb-09	63.69	204,950	425	64	23	24	0	24	19	100	
12-Feb-09	63.69	204,950	627	64	23	24	0	24	19	100	
13-Feb-09	63.70	205,152	421	59	21	24	2	22	18	92	Fishway trapping conducted by QPI&F for fishway monitoring program
14-Feb-09	63.71	205,353	427	65	23	24	0	24	19	100	
15-Feb-09	63.73	205,756	0	66	24	24	0	24	19	100	
16-Feb-09	63.73	205,756	0	65	24	24	0	24	19	100	
17-Feb-09	63.73	205,756	0	55	22	24	0.75	23.25	16	97	Downtime due to outlet building uninterrupted power supply fault
18-Feb-09	63.74	205,957	427	65	23	24	0	24	19	100	
19-Feb-09	63.74	205,957	0	65	23	24	0	24	19	100	
20-Feb-09	63.74	205,957	425	63	23	24	0	24	19	100	
21-Feb-09	63.75	206,158	426	64	23	24	0	24	19	100	
22-Feb-09	63.76	206,360	1,443.00	65	23	24	0	24	19	100	
23-Feb-09	63.82	207,576	4,973.00	65	24	24	0	24	19	100	
24-Feb-09	64.05	212,322	2,327.00	65	23	24	0	24	19	100	
25-Feb-09	64.15	214,418	1,276.00	61	23	24	0	24	19	100	
26-Feb-09	64.20	215,466	1,092.00	69	22	24	0	24	19	100	
27-Feb-09	64.23	216,106	448	65	19	24	0	24	17	100	Fishway testing conducted with QPI&F for fishway monitoring program
28-Feb-09	64.25	216,534	435	69	22	24	0	24	19	100	

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Paradise Dam Downstream Fishway Operation Data - March 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Downstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Downstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Mar-09	64.26	216,747	647	68	22	24	0	24	19	100	
2-Mar-09	64.28	217,175	0	67	21	24	0	24	19	100	
3-Mar-09	64.28	217,175	427	61	16	24	0	24	2	100	Fishway trapping conducted by QPI&F for fishway monitoring program
4-Mar-09	64.29	217,388	0	63	19	24	0	24	16	100	
5-Mar-09	64.29	217,388	0	66	22	24	0	24	18	100	
6-Mar-09	64.29	217,388	5	66	21	24	0	24	19	100	
7-Mar-09	64.28	217,175	0	67	21	24	0	24	19	100	
8-Mar-09	64.28	217,175	0	64	21	24	0	24	18	100	
9-Mar-09	64.28	217,175	0	65	21	24	0	24	19	100	
10-Mar-09	64.28	217,175	6	67	22	24	0	24	19	100	
11-Mar-09	64.27	216,961	6	67	21	24	0	24	19	100	Fishway monitoring conducted by QPI&F for fishway monitoring program
12-Mar-09	64.26	216,747	433	67	21	24	0.5	23.5	19	98	Downtime due to power outage
13-Mar-09	64.27	216,961	0	62	20	24	1.5	22.5	17	94	Downtime due to power outage and contractor (SAGE) on site to update SCADA system
14-Mar-09	64.27	216,961	0	63	22	24	0	24	19	100	
15-Mar-09	64.27	216,961	2	63	22	24	0	24	19	100	
16-Mar-09	64.26	216,747	0	64	22	24	0	24	18	100	
17-Mar-09	64.26	216,747	3	64	22	24	0	24	19	100	
18-Mar-09	64.25	216,534	0	62	21	24	0	24	19	100	
19-Mar-09	64.24	216,320	0	65	22	24	0	24	18	100	
20-Mar-09	64.24	216,320	0	65	22	24	0	24	19	100	
21-Mar-09	64.24	216,320	2	64	21	24	0	24	19	100	
22-Mar-09	64.23	216,106	2	64	21	24	0	24	18	100	
23-Mar-09	64.22	215,893	3	65	21	24	0	24	19	100	
24-Mar-09	64.21	215,679	3	65	21	24	0	24	19	100	
25-Mar-09	64.20	215,466	0	66	21	24	0.5	23.5	18	98	Downtime due to floating log in attraction chamber. Log removed by SunWater staff.
26-Mar-09	64.20	215,466	0	39	12	24	18	6	5	25	Downtime due to emergency stop being activated by upstream fishway
27-Mar-09	64.19	215,256	0	42	15	24	5	19	13	79	Downtime due to emergency stop being activated by upstream fishway
28-Mar-09	64.18	215,046	5	64	21	24	0	24	19	100	
29-Mar-09	64.17	214,837	0	61	19	24	3	21	16	88	Downtime due to fishway sequence time too long alarm caused by V113 failing to close
30-Mar-09	64.17	214,837	0	15	0	24	24	0	0	0	SunWater staff repairing V133
31-Mar-09	64.16	214,627	0	0	0	0	24	0	0	0	No releases required therefore fishway not required to operate SunWater staff repairing V133

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Paradise Dam Downstream Fishway Operation Data - April 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Downstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Downstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-Apr-09	64.16	214,627	0	0	0	0	24	0	0		No releases required therefore fishway not required to operate
2-Apr-09	64.15	214,418	0	24	0	15	24	0	0	0	SunWater staff repairing V133
3-Apr-09	64.15	214,418	0	35	0	24	24	0	0	0	SunWater staff repairing V133
4-Apr-09	64.13	213,999	0	39	0	24	24	0	0	0	SunWater staff repairing V133
5-Apr-09	64.13	213,999	0	41	0	24	24	0	0	0	SunWater staff repairing V133
6-Apr-09	64.12	213,789	377	41	0	24	24	0	0	0	SunWater staff repairing V133
7-Apr-09	64.13	213,999	0	41	0	24	24	0	0	0	SunWater staff repairing V133
8-Apr-09	64.12	213,789	0	39	0	24	24	0	0	0	SunWater staff repairing V133
9-Apr-09	64.11	213,580	586	41	0	24	24	0	0	0	SunWater staff repairing V133
10-Apr-09	64.13	213,999	586	40	0	24	24	0	0	0	SunWater staff repairing V133
11-Apr-09	64.15	214,418	375	39	0	24	24	0	0	0	SunWater staff repairing V133
12-Apr-09	64.16	214,627	374	38	0	24	24	0	0	0	SunWater staff repairing V133
13-Apr-09	64.17	214,837	1,009.00	40	0	24	24	0	0	0	SunWater staff repairing V133
14-Apr-09	64.21	215,679	595	40	0	24	24	0	0	0	SunWater staff repairing V133
15-Apr-09	64.22	215,893	0	43	3	24	6	18	7	75	SunWater staff repairing V133
16-Apr-09	64.23	216,106	1,243.00	47	6	24	0	24	18	100	
17-Apr-09	64.28	217,175	2,739.00	47	7	24	0	24	19	100	
18-Apr-09	64.40	219,738	1,266.00	48	7	24	0	24	18	100	
19-Apr-09	64.45	220,827	831	47	7	24	0	24	19	100	
20-Apr-09	64.48	221,480	612	46	7	24	0	24	18	100	
21-Apr-09	64.50	221,915	829	45	7	24	0	24	19	100	
22-Apr-09	64.53	222,568	614	47	3	24	5.25	18.75	15	78	Downtime due to electrical maintenance on sump pump control system
23-Apr-09	64.55	223,004	397	48	7	24	0	24	19	100	
24-Apr-09	64.56	223,222	0	46	5	24	0.25	23.75	19	99	Downtime due to power outage
25-Apr-09	64.56	223,222	395	46	5	24	0	24	19	100	
26-Apr-09	64.57	223,439	0	46	5	24	0	24	18	100	
27-Apr-09	64.57	223,439	0	47	5	24	0	24	19	100	
28-Apr-09	64.57	223,439	0	46	4	24	5.25	18.75	14	78	Downtime due to power outage and knife gate V133 failed to close alarm
29-Apr-09	64.56	223,222	0	43	2	24	12.75	11.25	5	47	Downtime due to drain step time too long alarm and knife gate V133 failed to close alarm
30-Apr-09	64.56	223,222	0	45	5	24	1.5	22.5	17	94	Downtime due to knife gate V133 failed to close alarm caused by closed proximity switch on V133 out of adjustment.

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Paradise Dam Downstream Fishway Operation Data - May 2009

Date	Storage EL (m AHD)	Storage Volume (ML)	Estimated Storage Inflow (ML)	Total Volume Released (ML)	Volume Released through Downstream Fishway (ML)	Release Operation (Hrs)	Fishway Downtime (Hrs)	Fishway Operation (Hrs)	Number of Downstream Fishway Cycles	% of Operation (hours when releasing water)	Comments
1-May-09	64.55	223,004	0	45	5	24	0	24	19	100	
2-May-09	64.55	223,004	0	46	5	24	0	24	18	100	
3-May-09	64.55	223,004	0	46	5	24	0	24	19	100	
4-May-09	64.54	222,786	0	45	5	24	0	24	19	100	
5-May-09	64.54	222,786	0	44	4	24	0	24	18	100	
6-May-09	64.53	222,568	0	46	5	24	0	24	19	100	
7-May-09	64.53	222,568	0	44	4	24	2.5	21.5	17	90	During 2.5hrs downtime QPI&F installed hydroacoustic monitoring device at downstream fishway entrance for fishway monitoring program
8-May-09	64.52	222,351	0	46	6	24	0	24	20	100	
9-May-09	64.51	222,133	0	45	5	24	0	24	19	100	
10-May-09	64.51	222,133	0	46	5	24	0	24	19	100	
11-May-09	64.51	222,133	0	44	4	24	0	24	18	100	
12-May-09	64.50	221,915	0	49	5	24	0	24	19	100	
13-May-09	64.50	221,915	0	46	5	24	0	24	21	100	Fishway monitoring conducted by QPI&F for fishway monitoring program
14-May-09	64.49	221,697	0	45	4	24	0	24	19	100	
15-May-09	64.49	221,697	0	45	5	24	0	24	19	100	
16-May-09	64.49	221,697	0	41	4	24	0	24	18	100	
17-May-09	64.48	221,480	0	44	5	24	0	24	19	100	
18-May-09	64.47	221,262	0	44	5	24	0	24	19	100	
19-May-09	64.47	221,262	363	45	4	24	0	24	18	100	
20-May-09	64.48	221,480	0	45	5	24	0	24	21	100	
21-May-09	64.48	221,480	0	44	5	24	0	24	19	100	
22-May-09	64.47	221,262	0	42	4	24	0	24	18	100	
23-May-09	64.47	221,262	0	45	5	24	0	24	19	100	
24-May-09	64.46	221,044	0	43	4	24	0	24	18	100	
25-May-09											
26-May-09											
27-May-09											
28-May-09											
29-May-09											
30-May-09											
31-May-09											

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