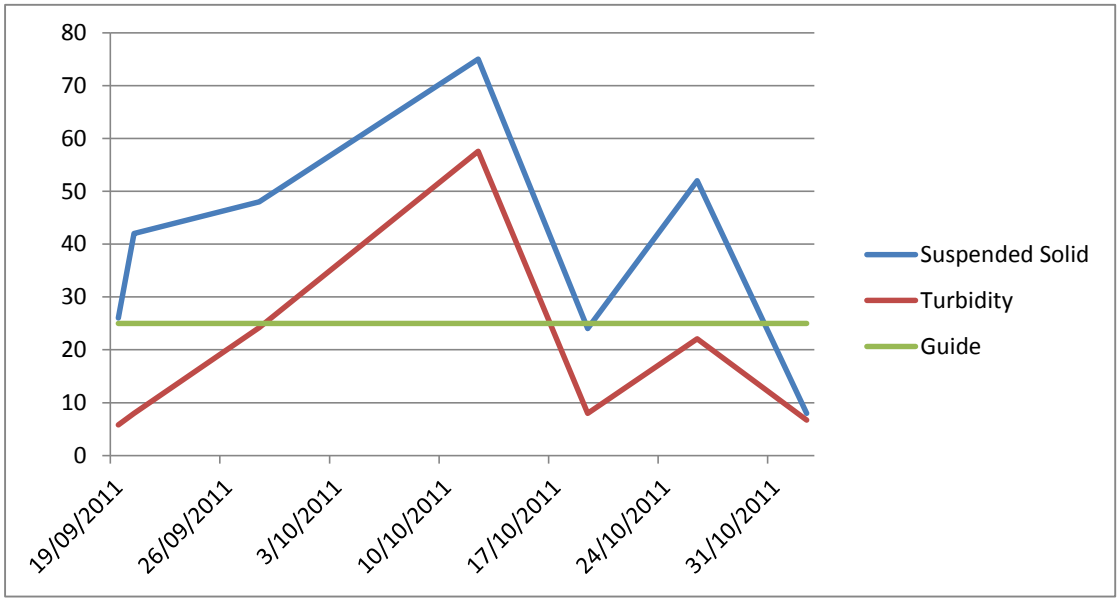
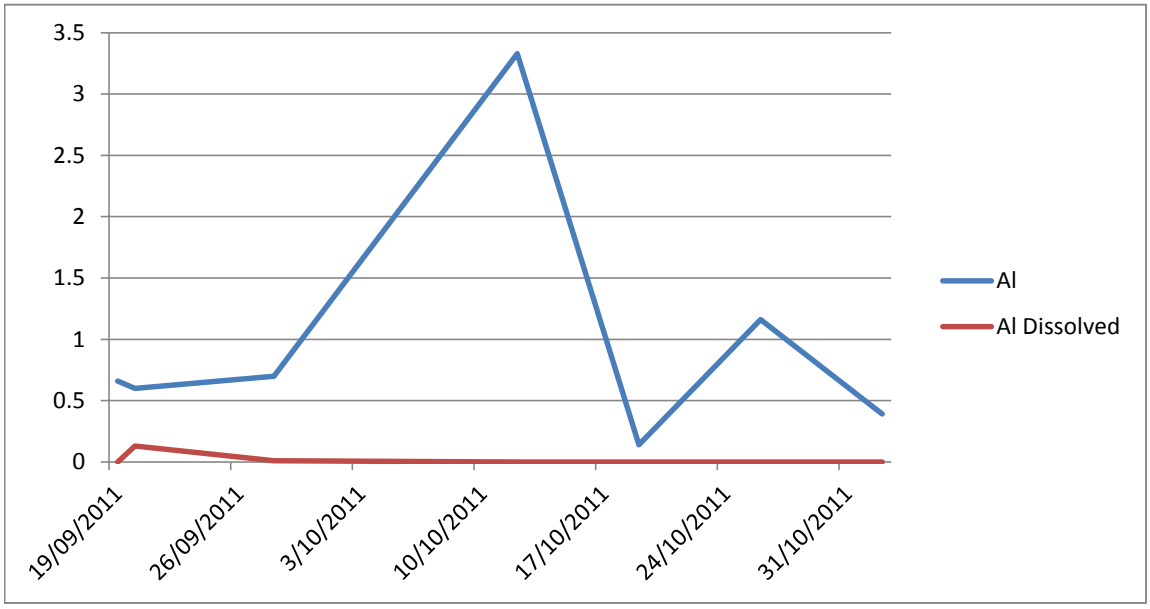
EDOCS_n159452__John_robertson_-_DEEDI_161111

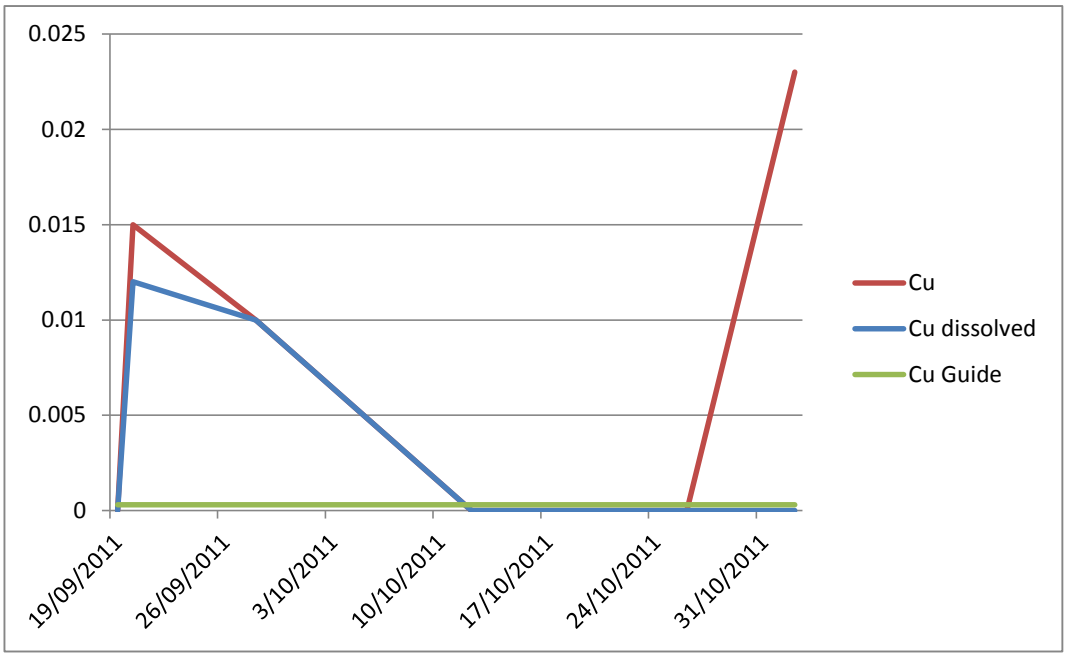
Date	Suspended	Turbidity	Al Dissolve	As dissolve	Cd dissolve	Cr dissolve	Cu dissolve	Pb dissolve	Mn dissolv	Ni dissolve	Zn dissolve	Hg dissolve	Al	As	Cd	Cr	Cu	Pb	Mn	Ni	Zn	Hg	S2-	pH	DO	N	P		Guide	ZN Guide	Cu Guide	Turbidity Guide
19/09/2011	26	5.8	<0.010		<0.001	<0.010	<0.020	<0.010	<0.010		<0.050	<0.0001	0.66		<0.0010	<0.010	<0.020	<0.010	0.015		<0.052	<0.0001		8.24	6.78	0.4	0.01		25	0.0007	0.0003	25
20/09/2011	42	8	0.13		0.0001	<0.001	0.012	0.002	0.012		0.021	<0.0001	0.6		<0.0001	0.002	0.015	0.003	0.016		0.025	<0.0001		8.32	6.9	1	<0.01		25	0.0007	0.0003	25
28/09/2011	48	24.2	0.01		<0.0001	<0.001	0.01	<0.001	0.002		<0.005	<0.0001	0.7		<0.0001	0.002	0.01	<0.001	0.024		<0.005	<0.0001		8.32	6.9				25	0.0007	0.0003	25
12/10/2011	75	57.6	<0.010	0.016	<0.0010	<0.010	<0.010	<0.010	0.014	<0.010	<0.050	<0.0001	3.33	0.033	<0.0010	<0.010	<0.010	<0.010	0.092	<0.010	<0.052	<0.0001	<0.1	8.23	6.85				25	0.0007	0.0003	25
19/10/2011	24	8	<0.10	<0.010	<0.0010	<0.010	<0.010	<0.010		<0.010	<0.010	<0.0001	0.14	<0.010	<0.0010	<0.010	<0.010	<0.010		<0.010	<0.052	<0.0001	<0.1	8.19	6.83				25	0.0007	0.0003	25
26/10/2011	52	22.1	<0.10	<0.010	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050	<0.0001	1.16	<0.010	<0.0010	<0.010	<0.010	<0.010	0.033	<0.010	<0.052	<0.0001	<0.1	7.98	6.74				25	0.0007	0.0003	25
2/11/2011	8	6.7	<0.10	<0.10	<0.0010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.050	<0.0001	0.39	<0.010	<0.0010	<0.010	0.023	<0.010	0.01	<0.010	<0.050	<0.0001	<0.1	8.35	6.62				25	0.0007	0.0003	25
QWQ	25	25																						7.0- 8.4		0.45	0.04					
ANZECC		10			0.0007	0.0077	0.0003	0.0022		0.0007	0.0007	0.0001			0.0007	0.0077	0.0003	0.0022		0.0007	0.0007	0.0001		7.0 -8.5		0.3	0.03					
LOR	5	0.1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.005	0.0001	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.005	0.0001	0.1	0.01	0.01	0.1	0.01					

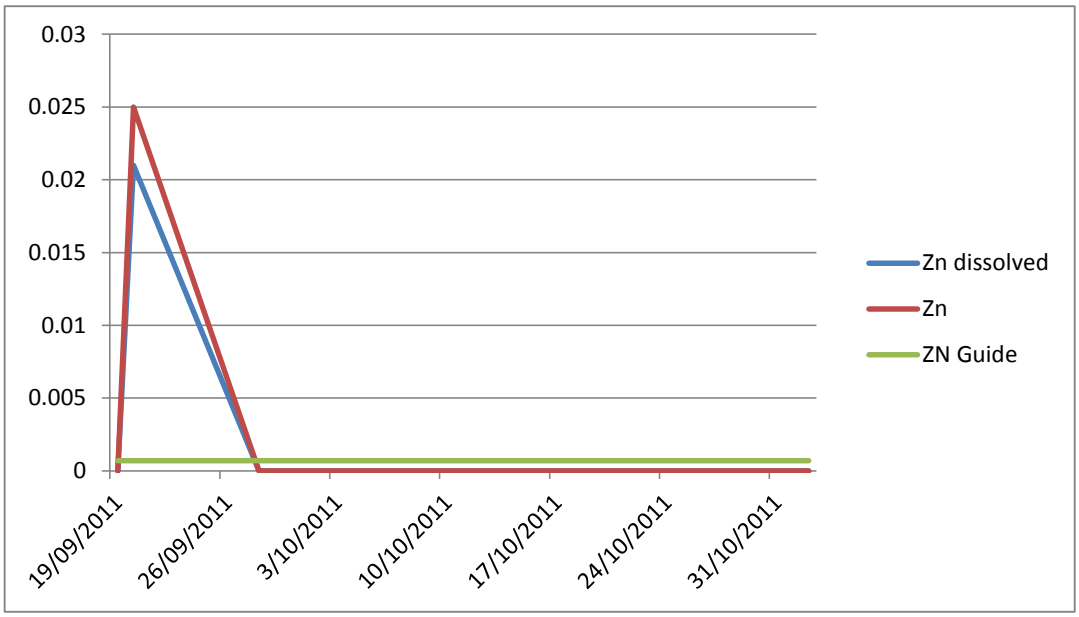
Where a < sign is displayed it indicates that the result was less than the detection limit of the testing laboratory (unable to detect)

Note: Water Guidelines are designed to cover large areas.
It is possible and normal of some areas to naturally be outside guideline limits,
as the guidelines will only cover the average expected for the area that the guidelines are applicable to.




3.5
3
2.5
2
1.5
1
0.5
0
19/09/2011
26/09/2011
3/10/2011
10/10/2011
17/10/2011
24/10/2011
31/10/2011
Al
Al Dissolved


0.025
0.02
0.015
0.01
0.005
0
19/09/2011
26/09/2011
3/10/2011
10/10/2011
17/10/2011
24/10/2011
31/10/2011
Cu
Cu dissolved
Cu Guide


0.03
0.025
0.02
0.015
0.01
0.005
0
19/09/2011
26/09/2011
3/10/2011
10/10/2011
17/10/2011
24/10/2011
31/10/2011
Zn dissolved
Zn
ZN Guide

1_EDOCS_n159467_DEEDI_Hatchery161111

MTypeCode	SubProgramme	SampleID	BottleNo	Jobnum	Sdate	Stime	SID	AD
23	Discharge	H1-20	Field	Internal	17/11/2009	10:45:00	TT	
23	Discharge	H2-20	Field	Internal	16/02/2010	8:10:00	TT	
23	Discharge	H3-20	Field	Internal	20/04/2010	10:00:00 AM	TT	
23	Discharge	H4-20	Field	Internal	18 & 19/08/2010	2:10:00 PM	TT	18 & 19/08/2010
23	Discharge	H4-20	Field	Internal	18 & 19/08/2010	14:10:00	T.Tobin	
23	Discharge	H12-20	Field	Internal	19/10/2010	10:20:00 AM	TT	19/10/2010
23	Discharge	H12-20	Field	Internal	19/10/2010	10:20:00 AM	TT	
23	Discharge	H13-20	Field	Internal	13/01/2011	8:00:00 AM	TT	13/01/2011
23	Discharge	H14-20	Field	Internal	12/04/2011	1:15:00 PM	TT	12/04/2011
23	Discharge	H14-20	Field	Internal	12/04/2011	1:15:00 PM	TT	
23	Discharge	H15-20	Field	Internal	11/05/2011	12:50:00 PM	TT	11/05/2011
23	Discharge	H16-20	Field	Internal	31/05/2011	10:45:00 AM	TT	31/05/2011
23	Discharge	H16-20	Field	Internal	1/06/2011	10:45:00 AM	TT	1/06/2011
23	Discharge	H17-20	Field	Internal	19/07/2011	11:00:00	tt	19/07/2011
23	Discharge	H18-20	Field	Internal	16/08/2011	10:15:00	tt	16/08/2011
23	Discharge	H20-20	Field	Internal	18/10/2011	11:05:00	VvR	
23	Discharge	AM10-20		EB1009166001	21/05/2010	10:35:00	Terese Tobin	27/05/2010
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	23/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	30/09/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	18/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	10/11/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM53-20	AM5301	ES1123750001	31/10/2011	8:50:00	VvR	6/11/2011
23	Discharge	H1-20		EB0918200003	17/11/2009	15:00:00	Terese Tobin	24/11/2009
23	Discharge	H12-20	2284	EB1018765001	19/10/2010	3:00:00 PM	TT	26/10/2010
23	Discharge	H12-20		EB1018765001	19/10/2010	15:00:00	TERESE TOBIN	26/10/2010
23	Discharge	H13 - 20	3023	EB1100727001	13/01/2011	8:00:00 AM	TT	20/01/2011
23	Discharge	H14-20	3674	EB1107336001	12/04/2011	1:15:00 PM	TT	16/04/2011
23	Discharge	H15-20	4168	EB1109281001	11/05/2011	12:50:00 PM	Terese Tobin	17/05/2011
23	Discharge	H16-20	4176	ES1111440001	31/05/2011	3:00:00 PM	TT	1/06/2011
23	Discharge	H17-20	4350	ES1115542001	19/07/2011	11.00:00	TT	23/07/2011
23	Discharge	H18-20	4525	ES1117737001	16/08/2011	10:15:00	TT	21/08/2011
23	Discharge	H19-20	4732	ES1120602001	20/09/2011	15:00:00	TT	27/09/2011
23	Discharge	H20-20	5021	ES1122680001	18/10/2011	11:05:00	VvR	25/10/2011
23	Discharge	H2-20		EB1002751003	16/02/2010	8:10:00	Terese Tobin	23/02/2010
23	Discharge	H3-20		EB1006972003	20/04/2010	10:00:00	Terese Tobin	28/04/2010
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	20/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	29/09/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	14/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	21/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		28/10/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	4/11/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	22/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	3/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	3/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	3/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	3/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	3/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	3/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	3/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	19/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011

MTypeCode	SubProgramme	SampleID	BottleNo	Jobnum	Sdate	Stime	SID	AD
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		2/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	26/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	4/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	20/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	26/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	26/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	23/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	20/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	26/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		1/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	9/11/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	21/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	4/10/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	23/09/2011
23	Discharge	AM53-20	AM5302	ES1123750002	31/10/2011	8:50:00	VvR	2/11/2011
23	Discharge	H12-20	2285	EB1018765002	19/10/2010	3:00:00 PM	TT	25/10/2010
23	Discharge	H12-20		EB1018765002	19/10/2010	15:00:00	TERESE TOBIN	25/10/2010
23	Discharge	H13 - 20	3024	EB1100727002	13/01/2011	8:00:00 AM	TT	21/01/2011
23	Discharge	H14-20	3675	EB1107336002	12/04/2011	1:15:00 PM	TT	19/04/2011
23	Discharge	H15-20	4169	EB1109281002	11/05/2011	12:50:00 PM	Terese Tobin	16/05/2011
23	Discharge	H16-20	4177	ES1111440002	31/05/2011	3:00:00 PM	TT	1/06/2011
23	Discharge	H17-20	4351	ES1115542002	19/07/2011	11.00:00	TT	23/07/2011
23	Discharge	H18-20	4526	ES1117737002	16/08/2011	10:15:00	TT	19/08/2011
23	Discharge	H19-20	4733	ES1120602002	20/09/2011	15:00:00	TT	23/09/2011
23	Discharge	H20-20	5022	ES1122680002	18/10/2011	11:05:00	VvR	20/10/2011
23	Discharge	AM10-20		EB1009166002	21/05/2010	10:35:00	Terese Tobin	1/06/2010
23	Discharge	H1-20		EB0918200004	17/11/2009	15:00:00	Terese Tobin	24/11/2009
23	Discharge	H2-20		EB1002751004	16/02/2010	8:10:00	Terese Tobin	22/02/2010
23	Discharge	H3-20		EB1006972004	20/04/2010	10:00:00	Terese Tobin	27/04/2010
23	Discharge	AM10-20		EB1009166002	21/05/2010	10:35:00	Terese Tobin	1/06/2010
23	Discharge	H1-20		EB0918200004	17/11/2009	15:00:00	Terese Tobin	20/11/2009
23	Discharge	H12-20	2285	EB1018765002	19/10/2010	3:00:00 PM	TT	23/10/2010
23	Discharge	H12-20		EB1018765002	19/10/2010	15:00:00	TERESE TOBIN	23/10/2010
23	Discharge	H2-20		EB1002751004	16/02/2010	8:10:00	Terese Tobin	24/02/2010
23	Discharge	H3-20		EB1006972004	20/04/2010	10:00:00	Terese Tobin	22/04/2010
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	22/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	4/10/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM53-20	AM5302	ES1123750002	31/10/2011	8:50:00	VvR	4/11/2011
23	Discharge	H13 - 20	3024	EB1100727002	13/01/2011	8:00:00 AM	TT	25/01/2011
23	Discharge	H14-20	3675	EB1107336002	12/04/2011	1:15:00 PM	TT	26/04/2011
23	Discharge	H15-20	4169	EB1109281002	11/05/2011	12:50:00 PM	Terese Tobin	16/05/2011
23	Discharge	H16-20	4177	ES1111440002	31/05/2011	3:00:00 PM	TT	2/06/2011
23	Discharge	H17-20	4351	ES1115542002	19/07/2011	11.00:00	TT	21/07/2011
23	Discharge	H18-20	4526	ES1117737002	16/08/2011	10:15:00	TT	18/08/2011
23	Discharge	H19-20	4733	ES1120602002	20/09/2011	15:00:00	TT	23/09/2011
23	Discharge	H20-20	5022	ES1122680002	18/10/2011	11:05:00	VvR	24/10/2011
23	Discharge	H1-20		EB0918200004	17/11/2009	15:00:00	Terese Tobin	25/11/2009
23	Discharge	AM10-20		EB1009166002	21/05/2010	10:35:00	Terese Tobin	2/06/2010
23	Discharge	H12-20	2285	EB1018765002	19/10/2010	3:00:00 PM	TT	26/10/2010
23	Discharge	H12-20		EB1018765002	19/10/2010	15:00:00	TERESE TOBIN	26/10/2010
23	Discharge	H2-20		EB1002751004	16/02/2010	8:10:00	Terese Tobin	25/02/2010
23	Discharge	H3-20		EB1006972004	20/04/2010	10:00:00	Terese Tobin	28/04/2010
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	22/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	5/10/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM53-20	AM5302	ES1123750002	31/10/2011	8:50:00	VvR	7/11/2011
23	Discharge	H13 - 20	3024	EB1100727002	13/01/2011	8:00:00 AM	TT	27/01/2011
23	Discharge	H14-20	3675	EB1107336002	12/04/2011	1:15:00 PM	TT	28/04/2011
23	Discharge	H15-20	4169	EB1109281002	11/05/2011	12:50:00 PM	Terese Tobin	17/05/2011
23	Discharge	H16-20	4177	ES1111440002	31/05/2011	3:00:00 PM	TT	6/06/2011
23	Discharge	H17-20	4351	ES1115542002	19/07/2011	11.00:00	TT	26/07/2011
23	Discharge	H18-20	4526	ES1117737002	16/08/2011	10:15:00	TT	22/08/2011
23	Discharge	H19-20	4733	ES1120602002	20/09/2011	15:00:00	TT	26/09/2011
23	Discharge	H20-20	5022	ES1122680002	18/10/2011	11:05:00	VvR	24/10/2011
23	Discharge	AM10-20		EB1009166002	21/05/2010	10:35:00	Terese Tobin	1/06/2010
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	22/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	4/10/2011

MTypeCode	SubProgramme	SampleID	BottleNo	Jobnum	Sdate	Stime	SID	AD
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	27/09/2011
23	Discharge	AM53-20	AM5302	ES1123750002	31/10/2011	8:50:00	VvR	4/11/2011
23	Discharge	H1-20		EB0918200004	17/11/2009	15:00:00	Terese Tobin	20/11/2009
23	Discharge	H12-20	2285	EB1018765002	19/10/2010	3:00:00 PM	TT	23/10/2010
23	Discharge	H12-20		EB1018765002	19/10/2010	15:00:00	TERESE TOBIN	23/10/2010
23	Discharge	H13 - 20	3024	EB1100727002	13/01/2011	8:00:00 AM	TT	25/01/2011
23	Discharge	H14-20	3675	EB1107336002	12/04/2011	1:15:00 PM	TT	26/04/2011
23	Discharge	H15-20	4169	EB1109281002	11/05/2011	12:50:00 PM	Terese Tobin	16/05/2011
23	Discharge	H16-20	4177	ES1111440002	31/05/2011	3:00:00 PM	TT	2/06/2011
23	Discharge	H17-20	4351	ES1115542002	19/07/2011	11.00:00	TT	21/07/2011
23	Discharge	H18-20	4526	ES1117737002	16/08/2011	10:15:00	TT	18/08/2011
23	Discharge	H19-20	4733	ES1120602002	20/09/2011	15:00:00	TT	23/09/2011
23	Discharge	H20-20	5022	ES1122680002	18/10/2011	11:05:00	VvR	24/10/2011
23	Discharge	H2-20		EB1002751004	16/02/2010	8:10:00	Terese Tobin	24/02/2010
23	Discharge	H3-20		EB1006972004	20/04/2010	10:00:00	Terese Tobin	22/04/2010
23	Discharge	AM46-20		ES1122281001	12/10/2011	15:00:00	TC	19/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	26/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		1/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	7/11/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	27/09/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	6/10/2011
23	Discharge	AM45-20		EM1110970001	28/09/2011	15:00:00	DR	6/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	20/10/2011
23	Discharge	AM46-20		ES1122281001	12/10/2011	14:00:00	TC	20/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM47-20		ES1122825001	19/10/2011	14:00:00	TC	25/10/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM48-20		ES1123439001	26/10/2011	14:00:00		3/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	2/11/2011
23	Discharge	AM49-20		ES1123960001	2/11/2011	14:00:00	TC	2/11/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	28/09/2011
23	Discharge	AM52-20		EM1110608001	20/09/2011	10:00:00	TC	28/09/2011
23	Discharge	AM10-20		EB1009166003	21/05/2010	10:35:00	Terese Tobin	28/05/2010
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	21/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	21/09/2011
23	Discharge	AM43-20		ES1120355001	19/09/2011	9:50:00	TC	21/09/2011
23	Discharge	AM53-20	AM5303	ES1123750003	31/10/2011	8:50:00	VvR	2/11/2011
23	Discharge	H1-20		EB0918200005	17/11/2009	15:00:00	Terese Tobin	19/11/2009
23	Discharge	H12-20	2286	EB1018765003	19/10/2010	3:00:00 PM	TT	25/10/2010
23	Discharge	H12-20		EB1018765003	19/10/2010	15:00:00	TERESE TOBIN	25/10/2010
23	Discharge	H13 - 20	3025	EB1100727003	13/01/2011	8:00:00 AM	TT	19/01/2011
23	Discharge	H14-20	3676	EB1107336003	12/04/2011	1:15:00 PM	TT	15/04/2011
23	Discharge	H15-20	4170	EB1109281003	11/05/2011	12:50:00 PM	Terese Tobin	14/05/2011
23	Discharge	H16-20	4178	ES1111440003	31/05/2011	3:00:00 PM	TT	1/06/2011
23	Discharge	H17-20	4352	ES1115542003	19/07/2011	11.00:00	TT	21/07/2011
23	Discharge	H17-20	4352	ES1115542003	19/07/2011	11.00:00	TT	21/07/2011
23	Discharge	H17-20	4352	ES1115542003	19/07/2011	11.00:00	TT	21/07/2011
23	Discharge	H18-20	4527	ES1117737003	16/08/2011	10:15:00	TT	17/08/2011
23	Discharge	H19-20	4734	ES1120602003	20/09/2011	15:00:00	TT	22/09/2011
23	Discharge	H20-20	5023	ES1122680003	18/10/2011	11:05:00	VvR	19/10/2011
23	Discharge	H2-20		EB1002751005	16/02/2010	8:10:00	Terese Tobin	18/02/2010
23	Discharge	H3-20		EB1006972005	20/04/2010	10:00:00	Terese Tobin	22/04/2010
23	Discharge	H4-20	1668	EB1015521001	31/08/2010	3:00:00 PM	TT	3/09/2010
23	Discharge	H4-20		EB1015521001	31/08/2010	15:00:00	Terese Tobin	3/09/2010
23	Discharge	AM10-20		EB1009166004	21/05/2010	10:35:00	Terese Tobin	26/05/2010
23	Discharge	AM53-20	AM5304	ES1123750004	31/10/2011	8:50:00	VvR	2/11/2011
23	Discharge	H1-20		EB0918200006	17/11/2009	15:00:00	Terese Tobin	18/11/2009
23	Discharge	H12-20	2287	EB1018765004	19/10/2010	3:00:00 PM	TT	22/10/2010
23	Discharge	H12-20		EB1018765004	19/10/2010	15:00:00	TERESE TOBIN	22/10/2010
23	Discharge	H13 - 20	3026	EB1100727004	13/01/2011	8:00:00 AM	TT	18/01/2011
23	Discharge	H14-20	3677	EB1107336004	12/04/2011	1:15:00 PM	TT	15/04/2011
23	Discharge	H15-20	4171	EB1109281004	11/05/2011	12:50:00 PM	Terese Tobin	16/05/2011
23	Discharge	H16-20	4179	ES1111440004	31/05/2011	3:00:00 PM	TT	1/06/2011
23	Discharge	H17-20	4353	ES1115542004	19/07/2011	11.00:00	TT	21/07/2011
23	Discharge	H18-20	4528	ES1117737004	16/08/2011	10:15:00	TT	17/08/2011
23	Discharge	H19-20	4735	ES1120602004	20/09/2011	15:00:00	TT	22/09/2011
23	Discharge	H20-20	5024	ES1122680004	18/10/2011	11:05:00	VvR	20/10/2011
23	Discharge	H2-20		EB1002751006	16/02/2010	8:10:00	Terese Tobin	18/02/2010
23	Discharge	H3-20		EB1006972006	20/04/2010	10:00:00	Terese Tobin	21/04/2010
23	Discharge	H1-20	Field	Internal	17/11/2009	10:45:00	TT	
23	Discharge	H12-20	Field	Internal	19/10/2010	10:20:00 AM	TT	19/10/2010
23	Discharge	H12-20	Field	Internal	19/10/2010	10:20:00 AM	TT	
23	Discharge	H13-20	Field	Internal	13/01/2011	8:00:00 AM	TT	13/01/2011
23	Discharge	H14-20	Field	Internal	12/04/2011	1:15:00 PM	TT	12/04/2011
23	Discharge	H14-20	Field	Internal	12/04/2011	1:15:00 PM	TT	
23	Discharge	H15-20	Field	Internal	11/05/2011	12:50:00 PM	TT	11/05/2011
23	Discharge	H16-20	Field	Internal	31/05/2011	10:45:00 AM	TT	31/05/2011
23	Discharge	H16-20	Field	Internal	1/06/2011	10:45:00 AM	TT	1/06/2011
23	Discharge	H17-20	Field	Internal	19/07/2011	11:00:00	tt	19/07/2011
23	Discharge	H18-20	Field	Internal	16/08/2011	10:15:00	tt	16/08/2011
23	Discharge	H20-20	Field	Internal	18/10/2011	11:05:00	VvR	
23	Discharge	H2-20	Field	Internal	16/02/2010	8:10:00	TT	
23	Discharge	H3-20	Field	Internal	20/04/2010	10:00:00 AM	TT	
23	Discharge	H4-20	Field	Internal	18 & 19/08/2010	2:10:00 PM	TT	18 & 19/08/2010
23	Discharge	H4-20	Field	Internal	18 & 19/08/2010	14:10:00	T.Tobin	
23	Discharge	H1-19	Field	Internal	17/11/2009	11:00:00	TT	
23	Discharge	H2-19	Field	Internal	16/02/2010	8:25:00	TT	
23	Discharge	H3-19	Field	Internal	20/04/2010	10:30:00 AM	TT	
23	Discharge	H4-19	Field	Internal	18 & 19/08/2010	7:30:00 AM	TT	18 & 19/08/2010
23	Discharge	H4-19	Field	Internal	18 & 19/08/2010	7:30:00	T.Tobin	
23	Discharge	H12-19	Field	Internal	19/10/2010	10:35:00 AM	TT	19/10/2010
23	Discharge	H12-19	Field	Internal	19/10/2010	10:35:00 AM	TT	
23	Discharge	H13-19	Field	Internal	13/01/2011	8:20:00 AM	TT	13/01/2011
23	Discharge	H14-19	Field	Internal	12/04/2011	1:05:00 PM	TT	12/04/2011
23	Discharge	H14-19	Field	Internal	12/04/2011	1:05:00 PM	TT	
23	Discharge	H15-19	Field	Internal	11/05/2011	12:40:00 PM	TT	11/05/2011
23	Discharge	H16-19	Field	Internal	31/05/2011	11:00:00 AM	TT	31/05/2011
23	Discharge	H16-19	Field	Internal	1/06/2011	11:00:00 AM	TT	1/06/2011
23	Discharge	H17-19	Field	Internal	19/07/2011	11:20:00	tt	19/07/2011
23	Discharge	H18-19	Field	Internal	16/08/2011	10:35:00	tt	16/08/2011
23	Discharge	H20-19	Field	Internal	18/10/2011	11:10:00	VvR	
23	Discharge	AM10-19		EB1009166005	21/05/2010	10:45:00	Terese Tobin	27/05/2010
23	Discharge	AM53-19	AM5305	ES1123750005	31/10/2011	8:40:00	VvR	6/11/2011
23	Discharge	H1-19		EB0918200007	17/11/2009	15:00:00	Terese Tobin	24/11/2009
23	Discharge	H12-19	2288	EB1018765005	19/10/2010	3:00:00 PM	TT	26/10/2010
23	Discharge	H12-19		EB1018765005	19/10/2010	15:00:00	TERESE TOBIN	26/10/2010
23	Discharge	H13 - 19	3027	EB1100727005	13/01/2011	8:20:00 AM	TT	20/01/2011
23	Discharge	H14-19	3678	EB1107336005	12/04/2011	1:05:00 PM	TT	16/04/2011
23	Discharge	H15-19	4172	EB1109281005	11/05/2011	12:40:00 PM	Terese Tobin	17/05/2011
23	Discharge	H16-19	4180	ES1111440005	31/05/2011	3:00:00 PM	TT	1/06/2011
23	Discharge	H17-19	4354	ES1115542005	19/07/2011	11:20:00	TT	23/07/2011
23	Discharge	H18-19	4529	ES1117737005	16/08/2011	10:35:00	TT	21/08/2011
23	Discharge	H19-19	4736	ES1120602005	20/09/2011	15:00:00	TT	27/09/2011

MTypeCode		SubProgramme	SampleID	BottleNo	Jobnum	Sdate	Stime	SID	AD
	23	Discharge	H20-19	5025	ES1122680005	18/10/2011	11:10:00	VvR	25/10/2011
	23	Discharge	H2-19		EB1002751007	16/02/2010	8:25:00	Terese Tobin	23/02/2010
	23	Discharge	H3-19		EB1006972007	20/04/2010	10:30:00	Terese Tobin	28/04/2010
	23	Discharge	AM53-19	AM5306	ES1123750006	31/10/2011	8:40:00	VvR	2/11/2011
	23	Discharge	H12-19	2289	EB1018765006	19/10/2010	3:00:00 PM	TT	25/10/2010
	23	Discharge	H12-19		EB1018765006	19/10/2010	15:00:00	TERESE TOBIN	25/10/2010
	23	Discharge	H13 - 19	3028	EB1100727006	13/01/2011	8:20:00 AM	TT	21/01/2011
	23	Discharge	H14-19	3679	EB1107336006	12/04/2011	1:05:00 PM	TT	19/04/2011
	23	Discharge	H15-19	4173	EB1109281006	11/05/2011	12:40:00 PM	Terese Tobin	16/05/2011
	23	Discharge	H16-19	4181	ES1111440006	31/05/2011	3:00:00 PM	TT	1/06/2011
	23	Discharge	H17-19	4355	ES1115542006	19/07/2011	11:20:00	TT	23/07/2011
	23	Discharge	H18-19	4530	ES1117737006	16/08/2011	10:35:00	TT	19/08/2011
	23	Discharge	H19-19	4738	ES1120602006	20/09/2011	15:00:00	TT	23/09/2011
	23	Discharge	H20-19	5026	ES1122680006	18/10/2011	11:10:00	VvR	20/10/2011
	23	Discharge	AM10-19		EB1009166006	21/05/2010	10:45:00	Terese Tobin	1/06/2010
	23	Discharge	H1-19		EB0918200008	17/11/2009	15:00:00	Terese Tobin	24/11/2009
	23	Discharge	H2-19		EB1002751008	16/02/2010	8:25:00	Terese Tobin	22/02/2010
	23	Discharge	H3-19		EB1006972008	20/04/2010	10:30:00	Terese Tobin	22/04/2010
	23	Discharge	AM10-19		EB1009166006	21/05/2010	10:45:00	Terese Tobin	1/06/2010
	23	Discharge	H1-19		EB0918200008	17/11/2009	15:00:00	Terese Tobin	20/11/2009
	23	Discharge	H12-19	2289	EB1018765006	19/10/2010	3:00:00 PM	TT	23/10/2010
	23	Discharge	H12-19		EB1018765006	19/10/2010	15:00:00	TERESE TOBIN	23/10/2010
	23	Discharge	H2-19		EB1002751008	16/02/2010	8:25:00	Terese Tobin	24/02/2010
	23	Discharge	H3-19		EB1006972008	20/04/2010	10:30:00	Terese Tobin	22/04/2010
	23	Discharge	AM53-19	AM5306	ES1123750006	31/10/2011	8:40:00	VvR	4/11/2011
	23	Discharge	H13 - 19	3028	EB1100727006	13/01/2011	8:20:00 AM	TT	25/01/2011
	23	Discharge	H14-19	3679	EB1107336006	12/04/2011	1:05:00 PM	TT	26/04/2011
	23	Discharge	H15-19	4173	EB1109281006	11/05/2011	12:40:00 PM	Terese Tobin	16/05/2011
	23	Discharge	H16-19	4181	ES1111440006	31/05/2011	3:00:00 PM	TT	2/06/2011
	23	Discharge	H17-19	4355	ES1115542006	19/07/2011	11:20:00	TT	21/07/2011
	23	Discharge	H18-19	4530	ES1117737006	16/08/2011	10:35:00	TT	18/08/2011
	23	Discharge	H19-19	4738	ES1120602006	20/09/2011	15:00:00	TT	23/09/2011
	23	Discharge	H20-19	5026	ES1122680006	18/10/2011	11:10:00	VvR	24/10/2011
	23	Discharge	H1-19		EB0918200008	17/11/2009	15:00:00	Terese Tobin	25/11/2009
	23	Discharge	AM10-19		EB1009166006	21/05/2010	10:45:00	Terese Tobin	2/06/2010
	23	Discharge	H12-19	2289	EB1018765006	19/10/2010	3:00:00 PM	TT	26/10/2010
	23	Discharge	H12-19		EB1018765006	19/10/2010	15:00:00	TERESE TOBIN	26/10/2010
	23	Discharge	H2-19		EB1002751008	16/02/2010	8:25:00	Terese Tobin	25/02/2010
	23	Discharge	H3-19		EB1006972008	20/04/2010	10:30:00	Terese Tobin	27/04/2010
	23	Discharge	AM53-19	AM5306	ES1123750006	31/10/2011	8:40:00	VvR	7/11/2011
	23	Discharge	H13 - 19	3028	EB1100727006	13/01/2011	8:20:00 AM	TT	27/01/2011
	23	Discharge	H14-19	3679	EB1107336006	12/04/2011	1:05:00 PM	TT	28/04/2011
	23	Discharge	H15-19	4173	EB1109281006	11/05/2011	12:40:00 PM	Terese Tobin	17/05/2011
	23	Discharge	H16-19	4181	ES1111440006	31/05/2011	3:00:00 PM	TT	6/06/2011
	23	Discharge	H17-19	4355	ES1115542006	19/07/2011	11:20:00	TT	26/07/2011
	23	Discharge	H18-19	4530	ES1117737006	16/08/2011	10:35:00	TT	22/08/2011
	23	Discharge	H19-19	4738	ES1120602006	20/09/2011	15:00:00	TT	26/09/2011
	23	Discharge	H20-19	5026	ES1122680006	18/10/2011	11:10:00	VvR	24/10/2011
	23	Discharge	AM10-19		EB1009166006	21/05/2010	10:45:00	Terese Tobin	1/06/2010
	23	Discharge	AM53-19	AM5306	ES1123750006	31/10/2011	8:40:00	VvR	4/11/2011
	23	Discharge	H1-19		EB0918200008	17/11/2009	15:00:00	Terese Tobin	20/11/2009
	23	Discharge	H12-19	2289	EB1018765006	19/10/2010	3:00:00 PM	TT	23/10/2010
	23	Discharge	H12-19		EB1018765006	19/10/2010	15:00:00	TERESE TOBIN	23/10/2010
	23	Discharge	H13 - 19	3028	EB1100727006	13/01/2011	8:20:00 AM	TT	25/01/2011
	23	Discharge	H14-19	3679	EB1107336006	12/04/2011	1:05:00 PM	TT	26/04/2011
	23	Discharge	H15-19	4173	EB1109281006	11/05/2011	12:40:00 PM	Terese Tobin	16/05/2011
	23	Discharge	H16-19	4181	ES1111440006	31/05/2011	3:00:00 PM	TT	2/06/2011
	23	Discharge	H17-19	4355	ES1115542006	19/07/2011	11:20:00	TT	21/07/2011
	23	Discharge	H18-19	4530	ES1117737006	16/08/2011	10:35:00	TT	18/08/2011
	23	Discharge	H19-19	4738	ES1120602006	20/09/2011	15:00:00	TT	23/09/2011
	23	Discharge	H20-19	5026	ES1122680006	18/10/2011	11:10:00	VvR	24/10/2011
	23	Discharge	H2-19		EB1002751008	16/02/2010	8:25:00	Terese Tobin	24/02/2010
	23	Discharge	H3-19		EB1006972008	20/04/2010	10:30:00	Terese Tobin	22/04/2010
	23	Discharge	AM10-19		EB1009166007	21/05/2010	10:45:00	Terese Tobin	28/05/2010
	23	Discharge	AM53-19	AM5307	ES1123750007	31/10/2011	8:40:00	VvR	2/11/2011
	23	Discharge	H1-19		EB0918200009	17/11/2009	15:00:00	Terese Tobin	19/11/2009
	23	Discharge	H12-19	2290	EB1018765007	19/10/2010	3:00:00 PM	TT	25/10/2010
	23	Discharge	H12-19		EB1018765007	19/10/2010	15:00:00	TERESE TOBIN	25/10/2010
	23	Discharge	H13 - 19	3029	EB1100727007	13/01/2011	8:20:00 AM	TT	19/01/2011
	23	Discharge	H14-19	3680	EB1107336007	12/04/2011	1:05:00 PM	TT	15/04/2011
	23	Discharge	H15-19	4174	EB1109281007	11/05/2011	12:40:00 PM	Terese Tobin	14/05/2011
	23	Discharge	H16-19	4182	ES1111440007	31/05/2011	3:00:00 PM	TT	1/06/2011
	23	Discharge	H17-19	4356	ES1115542007	19/07/2011	11:20:00	TT	21/07/2011
	23	Discharge	H17-19	4356	ES1115542007	19/07/2011	11:20:00	TT	21/07/2011
	23	Discharge	H17-19	4356	ES1115542007	19/07/2011	11:20:00	TT	21/07/2011
	23	Discharge	H18-19	4531	ES1117737007	16/08/2011	10:35:00	TT	17/08/2011
	23	Discharge	H19-19	4739	ES1120602007	20/09/2011	15:00:00	TT	22/09/2011
	23	Discharge	H20-19	5027	ES1122680007	18/10/2011	11:10:00	VvR	19/10/2011
	23	Discharge	H2-19		EB1002751009	16/02/2010	8:25:00	Terese Tobin	18/02/2010
	23	Discharge	H3-19		EB1006972009	20/04/2010	10:30:00	Terese Tobin	22/04/2010
	23	Discharge	AM10-19		EB1009166008	21/05/2010	10:45:00	Terese Tobin	26/05/2010
	23	Discharge	AM53-19	AM5308	ES1123750008	31/10/2011	8:40:00	VvR	2/11/2011
	23	Discharge	H1-19		EB0918200010	17/11/2009	15:00:00	Terese Tobin	18/11/2009
	23	Discharge	H12-19	2291	EB1018765008	19/10/2010	3:00:00 PM	TT	22/10/2010
	23	Discharge	H12-19		EB1018765008	19/10/2010	15:00:00	TERESE TOBIN	22/10/2010
	23	Discharge	H13 - 19	3030	EB1100727008	13/01/2011	8:20:00 AM	TT	18/01/2011
	23	Discharge	H14-19	3681	EB1107336008	12/04/2011	1:05:00 PM	TT	15/04/2011
	23	Discharge	H15-19	4175	EB1109281008	11/05/2011	12:40:00 PM	Terese Tobin	16/05/2011
	23	Discharge	H16-19	4183	ES1111440008	31/05/2011	3:00:00 PM	TT	1/06/2011
	23	Discharge	H17-19	4357	ES1115542008	19/07/2011	11:20:00	TT	21/07/2011
	23	Discharge	H18-19	4532	ES1117737008	16/08/2011	10:35:00	TT	17/08/2011
	23	Discharge	H19-19	4740	ES1120602008	20/09/2011	15:00:00	TT	22/09/2011
	23	Discharge	H20-19	5028	ES1122680008	18/10/2011	11:10:00	VvR	20/10/2011
	23	Discharge	H2-19		EB1002751010	16/02/2010	8:25:00	Terese Tobin	18/02/2010
	23	Discharge	H3-19		EB1006972010	20/04/2010	10:30:00	Terese Tobin	21/04/2010
	23	Discharge	H1-19	Field	Internal	17/11/2009	11:00:00	TT	
	23	Discharge	H12-19	Field	Internal	19/10/2010	10:35:00 AM	TT	19/10/2010
	23	Discharge	H12-19	Field	Internal	19/10/2010	10:35:00 AM	TT	
	23	Discharge	H13-19	Field	Internal	13/01/2011	8:20:00 AM	TT	13/01/2011
	23	Discharge	H14-19	Field	Internal	12/04/2011	1:05:00 PM	TT	12/04/2011
	23	Discharge	H14-19	Field	Internal	12/04/2011	1:05:00 PM	TT	
	23	Discharge	H15-19	Field	Internal	11/05/2011	12:40:00 PM	TT	11/05/2011
	23	Discharge	H16-19	Field	Internal	31/05/2011	11:00:00 AM	TT	31/05/2011
	23	Discharge	H16-19	Field	Internal	1/06/2011	11:00:00 AM	TT	1/06/2011
	23	Discharge	H17-19	Field	Internal	19/07/2011	11:20:00	tt	19/07/2011
	23	Discharge	H18-19	Field	Internal	16/08/2011	10:35:00	tt	16/08/2011
	23	Discharge	H20-19	Field	Internal	18/10/2011	11:10:00	VvR	
	23	Discharge	H2-19	Field	Internal	16/02/2010	8:25:00	TT	
	23	Discharge	H3-19	Field	Internal	20/04/2010	10:30:00 AM	TT	
	23	Discharge	H4-19	Field	Internal	18 & 19/08/2010	7:30:00 AM	TT	18 & 19/08/2010
	23	Discharge	H4-19	Field	Internal	18 & 19/08/2010	7:30:00	T.Tobin	

ERA Discharge	19 - Outlet
to Environment	20 - Inlet

Internal - GAWB Staff
ES/EB/EM - ALS

Sdate	Stime	SID	Site	Parameter	SParameter	Rprefix	Result	LOR	Unit	Laboratory	Appmethod	Method	Comments/Observations
17/11/2009	10:45:00	TT	HDMIn	Dissolved Oxygen			7.89	0.01	mg/L	GAWB	infield		
16/02/2010	8:10:00	TT	HDMIn	Dissolved Oxygen			6.52	0.01	mg/L	GAWB	Infield		
20/04/2010	10:00:00 AM	TT	HDMIn	Dissolved Oxygen			6.48	0.01	mg/L	GAWB	Infield		Grey green tinge, Low TideCloudyMed
18 & 19/08/2010	2:10:00 PM	TT	HDMIn	Dissolved Oxygen			7.12	0.01	mg/L	GAWB	Infield		
18 & 19/08/2010	14:10:00	T.Tobin	HDMIn	Dissolved Oxygen			7.12	0.01	mg/L	GAWB	Infield		
19/10/2010	10:20:00 AM	TT	HDMIn	Dissolved Oxygen			102.40	0.01	%	GAWB	Infield		
19/10/2010	10:20:00 AM	TT	HDMIn	Dissolved Oxygen			102.40	0.01	%	GAWB	Infield		0
13/01/2011	8:00:00 AM	TT	HDMIn	Dissolved Oxygen			6.94	0.01	mg/l	GAWB	Infield		Low tide clear waterSunny and fineMedium
12/04/2011	1:15:00 PM	TT	HDMIn	Dissolved Oxygen			7.17	0.01	mg/L	GAWB	Infield		incoming tide
12/04/2011	1:15:00 PM	TT	HDMIn	Dissolved Oxygen			7.17	0.01	mg/L	GAWB	Infield		incoming tide
11/05/2011	12:50:00 PM	TT	HDMIn	Dissolved Oxygen			6.83	0.01	mg/l	GAWB	Infield		
31/05/2011	10:45:00 AM	TT	HDMIn	Dissolved Oxygen			7.18	0.01	mg/l	GAWB	Infield		bottom of tide - clear sample, fine light
1/06/2011	10:45:00 AM	TT	HDMIn	Dissolved Oxygen			7.18	0.01	mg/l	GAWB	Infield		bottom of tide - clear samplefinelight
19/07/2011	11:00:00	tt	HDMIn	Dissolved Oxygen			99.70	0.01	%	GAWB	Infield		
16/08/2011	10:15:00	tt	HDMIn	Dissolved Oxygen			7.00	0.01	mg/l	GAWB	Infield		
18/10/2011	11:05:00	VvR	HDMIn	Dissolved Oxygen			95.10	0.01	%	GAWB	Infield		windy incoming tidecloudy but fine
21/05/2010	10:35:00	Terese Tobin	HDMIn	EA025: Suspended S	Suspended Solids (SS)		26	1	mg/L	ALS		EA025	
19/09/2011	9:50:00	TC	HDMIn	EA025: Suspended S	Suspended Solids (SS)		26	5	mg/L	ALS		EA025H	
28/09/2011	15:00:00	DR	HDMIn	EA025: Suspended S	Suspended Solids (SS)		48	5	mg/L	ALS		EA025H	
12/10/2011	14:00:00	TC	HDMIn	EA025: Suspended S	Suspended Solids (SS)		75	1	mg/L	ALS		EA025	
19/10/2011	14:00:00	TC	HDMIn	EA025: Suspended S	Suspended Solids (SS)		24	5	mg/L	ALS		EA025H	
26/10/2011	14:00:00		HDMIn	EA025: Suspended S	Suspended Solids (SS)		52	5	mg/L	ALS		EA025H	
2/11/2011	14:00:00	TC	HDMIn	EA025: Suspended S	Suspended Solids (SS)		8	5	mg/L	ALS		EA025H	
20/09/2011	10:00:00	TC	HDMIn	EA025: Suspended S	Suspended Solids (SS)		42	5	mg/L	ALS		EA025H	
31/10/2011	8:50:00	VvR	HDMIn	EA025: Suspended S	Suspended Solids (SS)		46	1	mg/L	ALS		EA025	
17/11/2009	15:00:00	Terese Tobin	HDMIn	EA025: Suspended S	Suspended Solids (SS)		10	1	mg/L	ALS		EA025	
19/10/2010	3:00:00 PM	TT	HDMIn	EA025: Suspended S	Suspended Solids (SS)		14	1	mg/L	ALS		EA025	
19/10/2010	15:00:00	TERESE TOBIN	HDMIn	EA025: Suspended S	Suspended Solids (SS)		14	1	mg/L	ALS		EA025	
13/01/2011	8:00:00 AM	TT	HDMIn	EA025: Suspended S	Suspended Solids (SS)		24	1	mg/L	ALS		EA025	
12/04/2011	1:15:00 PM	TT	HDMIn	EA025: Suspended S	Suspended Solids (SS)		21	5	mg/L	ALS		EA025H	
11/05/2011	12:50:00 PM	Terese Tobin	HDMIn	EA025: Suspended S	Suspended Solids (SS)		51	5	mg/L	ALS		EA025H	
31/05/2011	3:00:00 PM	TT	HDMIn	EA025: Suspended S	Suspended Solids (SS)		17	5	mg/L	ALS		EA025H	
19/07/2011	11.00:00	TT	HDMIn	EA025: Suspended S	Suspended Solids (SS)		5	5	mg/L	ALS		EA025H	
16/08/2011	10:15:00	TT	HDMIn	EA025: Suspended S	Suspended Solids (SS)		18	5	mg/L	ALS		EA025H	
20/09/2011	15:00:00	TT	HDMIn	EA025: Suspended S	Suspended Solids (SS)		12	5	mg/L	ALS		EA025H	
18/10/2011	11:05:00	VvR	HDMIn	EA025: Suspended S	Suspended Solids (SS)		30	1	mg/L	ALS		EA025	
16/02/2010	8:10:00	Terese Tobin	HDMIn	EA025: Suspended S	Suspended Solids (SS)		34	1	mg/L	ALS		EA025	
20/04/2010	10:00:00	Terese Tobin	HDMIn	EA025: Suspended S	Suspended Solids (SS)		39	1	mg/L	ALS		EA025	
19/09/2011	9:50:00	TC	HDMIn	EA045: Turbidity	Turbidity		5.8	0.1	NTU	ALS		EA045	
28/09/2011	15:00:00	DR	HDMIn	EA045: Turbidity	Turbidity		24.2	0.1	NTU	ALS		EA045	
12/10/2011	14:00:00	TC	HDMIn	EA045: Turbidity	Turbidity		57.6	0.1	NTU	ALS		EA045	
19/10/2011	14:00:00	TC	HDMIn	EA045: Turbidity	Turbidity		8	0.1	NTU	ALS		EA045	
26/10/2011	14:00:00		HDMIn	EA045: Turbidity	Turbidity		22.1	0.1	NTU	ALS		EA045	
2/11/2011	14:00:00	TC	HDMIn	EA045: Turbidity	Turbidity		6.7	0.1	NTU	ALS		EA045	
20/09/2011	10:00:00	TC	HDMIn	EA045: Turbidity	Turbidity		8	0.1	NTU	ALS		EA045	
19/09/2011	9:50:00	TC	HDMIn	EG020F: Dissolved M	Aluminium	<	0.1	0.01	mg/L	ALS		EG020A-F	
19/09/2011	9:50:00	TC	HDMIn	EG020F: Dissolved M	Manganese	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/09/2011	9:50:00	TC	HDMIn	EG020F: Dissolved M	Copper	<	0.02	0.001	mg/L	ALS		EG020A-F	
19/09/2011	9:50:00	TC	HDMIn	EG020F: Dissolved M	Zinc	<	0.05	0.005	mg/L	ALS		EG020A-F	
19/09/2011	9:50:00	TC	HDMIn	EG020F: Dissolved M	Chromium	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/09/2011	9:50:00	TC	HDMIn	EG020F: Dissolved M	Cadmium	<	0.001	0.0001	mg/L	ALS		EG020A-F	
19/09/2011	9:50:00	TC	HDMIn	EG020F: Dissolved M	Lead	<	0.01	0.001	mg/L	ALS		EG020A-F	
28/09/2011	15:00:00	DR	HDMIn	EG020F: Dissolved M	Aluminium		0.01	0.01	mg/L	ALS		EG020A-F	
28/09/2011	15:00:00	DR	HDMIn	EG020F: Dissolved M	Cadmium	<	0.0001	0.0001	mg/L	ALS		EG020A-F	
28/09/2011	15:00:00	DR	HDMIn	EG020F: Dissolved M	Chromium	<	0.001	0.001	mg/L	ALS		EG020A-F	
28/09/2011	15:00:00	DR	HDMIn	EG020F: Dissolved M	Copper		0.01	0.001	mg/L	ALS		EG020A-F	
28/09/2011	15:00:00	DR	HDMIn	EG020F: Dissolved M	Lead	<	0.001	0.001	mg/L	ALS		EG020A-F	
28/09/2011	15:00:00	DR	HDMIn	EG020F: Dissolved M	Manganese		0.002	0.001	mg/L	ALS		EG020A-F	
28/09/2011	15:00:00	DR	HDMIn	EG020F: Dissolved M	Zinc	<	0.005	0.005	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Aluminium	<	0.1	0.01	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Manganese		0.014	0.001	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Copper	<	0.01	0.001	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Arsenic		0.016	0.001	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Nickel	<	0.01	0.001	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Zinc	<	0.05	0.005	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Chromium	<	0.01	0.001	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Cadmium	<	0.001	0.0001	mg/L	ALS		EG020A-F	
12/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Lead	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Aluminium	<	0.1	0.01	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Arsenic	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Cadmium	<	0.001	0.0001	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Chromium	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Copper	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Lead	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Nickel	<	0.01	0.001	mg/L	ALS		EG020A-F	
19/10/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Zinc	<	0.05	0.005	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Aluminium	<	0.1	0.01	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Manganese	<	0.01	0.001	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Copper	<	0.01	0.001	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Arsenic	<	0.01	0.001	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Nickel	<	0.01	0.001	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Zinc	<	0.05	0.005	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Chromium	<	0.01	0.001	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Cadmium	<	0.001	0.0001	mg/L	ALS		EG020A-F	
26/10/2011	14:00:00		HDMIn	EG020F: Dissolved M	Lead	<	0.01	0.001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Aluminium	<	0.1	0.01	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Arsenic	<	0.01	0.001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Cadmium	<	0.001	0.0001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Chromium	<	0.01	0.001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Copper	<	0.02	0.001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Lead	<	0.01	0.001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Manganese	<	0.01	0.001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Nickel	<	0.01	0.001	mg/L	ALS		EG020A-F	
2/11/2011	14:00:00	TC	HDMIn	EG020F: Dissolved M	Zinc	<	0.05	0.005	mg/L	ALS		EG020A-F	
20/09/2011	10:00:00	TC	HDMIn	EG020F: Dissolved M	Aluminium		0.13	0.01	mg/L	ALS		EG020A-F	
20/09/2011	10:00:00	TC	HDMIn	EG020F: Dissolved M	Cadmium		0.0001	0.0001	mg/L	ALS		EG020A-F	
20/09/2011	10:00:00	TC	HDMIn	EG020F: Dissolved M	Chromium	<	0.001	0.001	mg/L	ALS		EG020A-F	
20/09/2011	10:00:00	TC	HDMIn	EG020F: Dissolved M	Copper		0.012	0.001	mg/L	ALS		EG020A-F	
20/09/2011	10:00:00	TC	HDMIn	EG020F: Dissolved M	Lead		0.002	0.001	mg/L	ALS		EG020A-F	
20/09/2011	10:00:00	TC	HDMIn	EG020F: Dissolved M	Manganese		0.012	0.001	mg/L	ALS		EG020A-F	
20/09/2011	10:00:00	TC	HDMIn	EG020F: Dissolved M	Zinc		0.021	0.005	mg/L	ALS		EG020A-F	
19/09/2011	9:50:00	TC	HDMIn	EG020T: Total Meta	Lead	<	0.01	0.001	mg/L	ALS		EG020A-T	
19/09/2011	9:50:00	TC	HDMIn	EG020T: Total Meta	Copper	<	0.02	0.001	mg/L	ALS		EG020A-T	
19/09/2011	9:50:00	TC	HDMIn	EG020T: Total Meta	Aluminium		0.66	0.01	mg/L	ALS		EG020A-T	
19/09/2011	9:50:00	TC	HDMIn	EG020T: Total Meta	Chromium	<	0.01	0.001	mg/L	ALS		EG020A-T	
19/09/2011	9:50:00	TC	HDMIn	EG020T: Total Meta	Manganese		0.015	0.001	mg/L	ALS		EG020A-T	
19/09/2011	9:50:00	TC	HDMIn	EG020T: Total Meta	Zinc	<	0.052	0.005	mg/L	ALS		EG020A-T	
19/09/2011	9:50:00	TC	HDMIn	EG020T: Total Meta	Cadmium	<	0.001	0.0001	mg/L	ALS		EG020A-T	
28/09/2011	15:00:00	DR	HDMIn	EG020T: Total Meta	Aluminium		0.7	0.01	mg/L	ALS		EG020A-T	
28/09/2011	15:00:00	DR	HDMIn	EG020T: Total Meta	Cadmium	<	0.0001	0.0001	mg/L	ALS		EG020A-T	
28/09/2011	15:00:00	DR	HDMIn	EG020T: Total Meta	Chromium		0.002	0.001	mg/L	ALS		EG020A-T	
28/09/2011	15:00:00	DR	HDMIn	EG020T: Total Meta	Copper		0.01	0.001	mg/L	ALS		EG020A-T	
28/09/2011	15:00:00	DR	HDMIn	EG020T: Total Meta	Lead	<	0.001	0.001	mg/L	ALS		EG020A-T	
28/09/2011	15:00:00	DR	HDMIn	EG020T: Total Meta	Manganese		0.024	0.001	mg/L	ALS		EG020A-T	

Sdate	Stime	SID	Site	Parameter	SParameter	Rprefix	Result	LOR		Unit	Laboratory	Appmethod	Method	Comments/Observations
28/09/2011	15:00:00	DR	HDMin	EG020T: Total Meta	Zinc	<		0.005	0.005	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Lead	<		0.01	0.001	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Copper	<		0.01	0.001	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Aluminium			3.33	0.01	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Chromium	<		0.01	0.001	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Manganese			0.092	0.001	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Arsenic			0.033	0.001	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Zinc	<		0.052	0.005	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Cadmium	<		0.001	0.0001	mg/L	ALS		EG020A-T	
12/10/2011	15:00:00	TC	HDMin	EG020T: Total Meta	Nickel	<		0.01	0.001	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Aluminium			0.14	0.01	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Arsenic	<		0.01	0.001	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Cadmium	<		0.001	0.0001	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Chromium	<		0.01	0.001	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Copper	<		0.01	0.001	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Lead	<		0.01	0.001	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Nickel	<		0.01	0.001	mg/L	ALS		EG020A-T	
19/10/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Zinc	<		0.052	0.005	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Lead	<		0.01	0.001	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Copper	<		0.01	0.001	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Aluminium			1.16	0.01	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Chromium	<		0.01	0.001	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Manganese			0.033	0.001	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Arsenic	<		0.01	0.001	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Zinc	<		0.052	0.005	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Cadmium	<		0.001	0.0001	mg/L	ALS		EG020A-T	
26/10/2011	14:00:00		HDMin	EG020T: Total Meta	Nickel	<		0.01	0.001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Aluminium			0.39	0.01	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Arsenic	<		0.01	0.001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Cadmium	<		0.001	0.0001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Chromium	<		0.01	0.001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Copper			0.023	0.001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Lead	<		0.01	0.001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Manganese			0.01	0.001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Nickel	<		0.01	0.001	mg/L	ALS		EG020A-T	
2/11/2011	14:00:00	TC	HDMin	EG020T: Total Meta	Zinc	<		0.05	0.005	mg/L	ALS		EG020A-T	
20/09/2011	10:00:00	TC	HDMin	EG020T: Total Meta	Aluminium			0.6	0.01	mg/L	ALS		EG020A-T	
20/09/2011	10:00:00	TC	HDMin	EG020T: Total Meta	Cadmium	<		0.0001	0.0001	mg/L	ALS		EG020A-T	
20/09/2011	10:00:00	TC	HDMin	EG020T: Total Meta	Chromium			0.002	0.001	mg/L	ALS		EG020A-T	
20/09/2011	10:00:00	TC	HDMin	EG020T: Total Meta	Copper			0.015	0.001	mg/L	ALS		EG020A-T	
20/09/2011	10:00:00	TC	HDMin	EG020T: Total Meta	Lead			0.003	0.001	mg/L	ALS		EG020A-T	
20/09/2011	10:00:00	TC	HDMin	EG020T: Total Meta	Manganese			0.016	0.001	mg/L	ALS		EG020A-T	
20/09/2011	10:00:00	TC	HDMin	EG020T: Total Meta	Zinc			0.025	0.005	mg/L	ALS		EG020A-T	
19/09/2011	9:50:00	TC	HDMin	EG035F: Dissolved M	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035F	
28/09/2011	15:00:00	DR	HDMin	EG035F: Dissolved M	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035F	
12/10/2011	14:00:00	TC	HDMin	EG035F: Dissolved M	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035F	
19/10/2011	14:00:00	TC	HDMin	EG035F: Dissolved M	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035F	
26/10/2011	14:00:00		HDMin	EG035F: Dissolved M	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035F	
2/11/2011	14:00:00	TC	HDMin	EG035F: Dissolved M	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035F	
20/09/2011	10:00:00	TC	HDMin	EG035F: Dissolved M	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035F	
19/09/2011	9:50:00	TC	HDMin	EG035T: Total Reco	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035T	
28/09/2011	15:00:00	DR	HDMin	EG035T: Total Reco	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035T	
12/10/2011	15:00:00	TC	HDMin	EG035T: Total Reco	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035T	
19/10/2011	14:00:00	TC	HDMin	EG035T: Total Reco	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035T	
26/10/2011	14:00:00		HDMin	EG035T: Total Reco	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035T	
2/11/2011	14:00:00	TC	HDMin	EG035T: Total Reco	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035T	
20/09/2011	10:00:00	TC	HDMin	EG035T: Total Reco	Mercury	<		0.0001	0.0001	mg/L	ALS		EG035T	
19/09/2011	9:50:00	TC	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.02	0.01	mg/L	ALS		EK059G	
28/09/2011	15:00:00	DR	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N	<		0.01	0.01	mg/L	ALS		EK059G	
20/09/2011	10:00:00	TC	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N	<		0.01	0.01	mg/L	ALS		EK059G	
31/10/2011	8:50:00	VvR	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.02	0.01	mg/L	ALS		EK059G	
19/10/2010	3:00:00	PM TT	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.01	0.01	mg/L	ALS		EK059G	
19/10/2010	15:00:00	TERESE TOBIN	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.01	0.01	mg/L	ALS		EK059G	
13/01/2011	8:00:00	AM TT	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N	<		0.01	0.01	mg/L	ALS		EK059G	
12/04/2011	1:15:00	PM TT	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.06	0.01	mg/L	ALS		EK059G	
11/05/2011	12:50:00	PM Terese Tobin	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N	<		0.01	0.01	mg/L	ALS		EK059G	
31/05/2011	3:00:00	PM TT	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N	<		0.01	0.01	mg/L	ALS		EK059G	
19/07/2011	11.00:00	TT	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.01	0.01	mg/L	ALS		EK059G	
16/08/2011	10:15:00	TT	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.02	0.01	mg/L	ALS		EK059G	
20/09/2011	15:00:00	TT	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.03	0.01	mg/L	ALS		EK059G	
18/10/2011	11:05:00	VvR	HDMin	EK059G: Nitrite plu	Nitrite + Nitrate as N			0.09	0.01	mg/L	ALS		EK059G	
21/05/2010	10:35:00	Terese Tobin	HDMin	EK059G: NOX as N l	Nitrite + Nitrate as N			0.06	0.01	mg/L	ALS		EK059G	
17/11/2009	15:00:00	Terese Tobin	HDMin	EK059G: NOX as N l	Nitrite + Nitrate as N			0.04	0.01	mg/L	ALS		EK059G	
16/02/2010	8:10:00	Terese Tobin	HDMin	EK059G: NOX as N l	Nitrite + Nitrate as N			0.01	0.01	mg/L	ALS		EK059G	
20/04/2010	10:00:00	Terese Tobin	HDMin	EK059G: NOX as N l	Nitrite + Nitrate as N			0.04	0.01	mg/L	ALS		EK059G	
21/05/2010	10:35:00	Terese Tobin	HDMin	EK061: Total Kjeldal	Total Kjeldahl Nitrogen as N			0.1	0.1	mg/L	ALS		EK061G	
17/11/2009	15:00:00	Terese Tobin	HDMin	EK061: Total Kjeldal	Total Kjeldahl Nitrogen as N			0.2	0.1	mg/L	ALS		EK061G	
19/10/2010	3:00:00	PM TT	HDMin	EK061: Total Kjeldal	Total Kjeldahl Nitrogen as N			0.3	0.1	mg/L	ALS		EK061G	
19/10/2010	15:00:00	TERESE TOBIN	HDMin	EK061: Total Kjeldal	Total Kjeldahl Nitrogen as N			0.3	0.1	mg/L	ALS		EK061G	
16/02/2010	8:10:00	Terese Tobin	HDMin	EK061: Total Kjeldal	Total Kjeldahl Nitrogen as N			0.4	0.1	mg/L	ALS		EK061G	
20/04/2010	10:00:00	Terese Tobin	HDMin	EK061: Total Kjeldal	Total Kjeldahl Nitrogen as N			0.2	0.1	mg/L	ALS		EK061G	
19/09/2011	9:50:00	TC	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.4	0.1	mg/L	ALS		EK061G	
28/09/2011	15:00:00	DR	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.2	0.1	mg/L	ALS		EK061G	
20/09/2011	10:00:00	TC	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			1	0.1	mg/L	ALS		EK061G	
31/10/2011	8:50:00	VvR	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.7	0.1	mg/L	ALS		EK061G	
13/01/2011	8:00:00	AM TT	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrog	<		0.1	0.1	mg/L	ALS		EK061G	
12/04/2011	1:15:00	PM TT	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.3	0.1	mg/L	ALS		EK061G	
11/05/2011	12:50:00	PM Terese Tobin	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			1.1	0.1	mg/L	ALS		EK061G	
31/05/2011	3:00:00	PM TT	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.2	0.1	mg/L	ALS		EK061G	
19/07/2011	11.00:00	TT	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrog	<		0.1	0.1	mg/L	ALS		EK061G	
16/08/2011	10:15:00	TT	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.2	0.1	mg/L	ALS		EK061G	
20/09/2011	15:00:00	TT	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.3	0.1	mg/L	ALS		EK061G	
18/10/2011	11:05:00	VvR	HDMin	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N			0.4	0.1	mg/L	ALS		EK061G	
17/11/2009	15:00:00	Terese Tobin	HDMin	EK062: Total Nitrog	Total Nitrogen as N			0.2	0.1	mg/L	ALS		EK062G	
21/05/2010	10:35:00	Terese Tobin	HDMin	EK062: Total Nitrog	Total Nitrogen as N			0.2	0.1	mg/L	ALS		EK062G	
19/10/2010	3:00:00	PM TT	HDMin	EK062: Total Nitrog	Total Nitrogen as N			0.3	0.1	mg/L	ALS		EK062G	
19/10/2010	15:00:00	TERESE TOBIN	HDMin	EK062: Total Nitrog	Total Nitrogen as N			0.3	0.1	mg/L	ALS		EK062G	
16/02/2010	8:10:00	Terese Tobin	HDMin	EK062: Total Nitrog	Total Nitrogen as N			0.4	0.1	mg/L	ALS		EK062G	
20/04/2010	10:00:00	Terese Tobin	HDMin	EK062: Total Nitrog	Total Nitrogen as N			0.2	0.1	mg/L	ALS		EK062G	
19/09/2011	9:50:00	TC	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.4	0.1	mg/L	ALS		EK062G	
28/09/2011	15:00:00	DR	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.2	0.1	mg/L	ALS		EK062G	
20/09/2011	10:00:00	TC	HDMin	EK062G: Total Nitro	Total Nitrogen as N			1	0.1	mg/L	ALS		EK062G	
31/10/2011	8:50:00	VvR	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.7	0.1	mg/L	ALS		EK062G	
13/01/2011	8:00:00	AM TT	HDMin	EK062G: Total Nitro	Total Nitrogen as N	<		0.1	0.1	mg/L	ALS		EK062G	
12/04/2011	1:15:00	PM TT	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.4	0.1	mg/L	ALS		EK062G	
11/05/2011	12:50:00	PM Terese Tobin	HDMin	EK062G: Total Nitro	Total Nitrogen as N			1.1	0.1	mg/L	ALS		EK062G	
31/05/2011	3:00:00	PM TT	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.2	0.1	mg/L	ALS		EK062G	
19/07/2011	11.00:00	TT	HDMin	EK062G: Total Nitro	Total Nitrogen as N	<		0.1	0.1	mg/L	ALS		EK062G	
16/08/2011	10:15:00	TT	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.2	0.1	mg/L	ALS		EK062G	
20/09/2011	15:00:00	TT	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.3	0.1	mg/L	ALS		EK062G	
18/10/2011	11:05:00	VvR	HDMin	EK062G: Total Nitro	Total Nitrogen as N			0.5	0.1	mg/L	ALS		EK062G	
21/05/2010	10:35:00	Terese Tobin	HDMin	EK067G: Total Phos	Total Phosphorus as P			0.05	0.01	mg/L	ALS		EK067G	
19/09/2011	9:50:00	TC	HDMin	EK067G: Total Phos	Total Phosphorus as P			0.01	0.01	mg/L	ALS		EK067G	
28/09/2011	15:00:00	DR	HDMin	EK067G: Total Phos	Total Phosphorus as P	<		0.01	0.01	mg/L	ALS		EK067G	

Sdate	Stime	SID	Site	Parameter	SParameter	Rprefix	Result	LOR	Unit	Laboratory	Appmethod	Method	Comments/Observations
20/09/2011	10:00:00	TC	HDMin	EK067G: Total Phos	Total Phosphorus as	<		0.01	0.01 mg/L	ALS		EK067G	
31/10/2011	8:50:00	VvR	HDMin	EK067G: Total Phos	Total Phosphorus as	<		0.01	0.01 mg/L	ALS		EK067G	
17/11/2009	15:00:00	Terese Tobin	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.18	0.01 mg/L	ALS		EK067G	
19/10/2010	3:00:00 PM	TT	HDMin	EK067G: Total Phos	Total Phosphorus as	<		0.01	0.01 mg/L	ALS		EK067G	
19/10/2010	15:00:00	TERESE TOBIN	HDMin	EK067G: Total Phos	Total Phosphorus as	<		0.01	0.01 mg/L	ALS		EK067G	
13/01/2011	8:00:00 AM	TT	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.05	0.01 mg/L	ALS		EK067G	
12/04/2011	1:15:00 PM	TT	HDMin	EK067G: Total Phos	Total Phosphorus as	<		0.01	0.01 mg/L	ALS		EK067G	
11/05/2011	12:50:00 PM	Terese Tobin	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.18	0.01 mg/L	ALS		EK067G	
31/05/2011	3:00:00 PM	TT	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.01	0.01 mg/L	ALS		EK067G	
19/07/2011	11.00:00	TT	HDMin	EK067G: Total Phos	Total Phosphorus as	<		0.01	0.01 mg/L	ALS		EK067G	
16/08/2011	10:15:00	TT	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.06	0.01 mg/L	ALS		EK067G	
20/09/2011	15:00:00	TT	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.06	0.01 mg/L	ALS		EK067G	
18/10/2011	11:05:00	VvR	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.02	0.01 mg/L	ALS		EK067G	
16/02/2010	8:10:00	Terese Tobin	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.07	0.01 mg/L	ALS		EK067G	
20/04/2010	10:00:00	Terese Tobin	HDMin	EK067G: Total Phos	Total Phosphorus as	P		0.37	0.01 mg/L	ALS		EK067G	
12/10/2011	15:00:00	TC	HDMin	EK085M: Sulfide as	Sulfide as S2-	<		0.1	0.1 mg/L	ALS		EK085	
19/10/2011	14:00:00	TC	HDMin	EK085M: Sulfide as	Sulfide as S2-	<		0.1	0.1 mg/L	ALS		EK085	
26/10/2011	14:00:00		HDMin	EK085M: Sulfide as	Sulfide as S2-	<		0.1	0.1 mg/L	ALS		EK085	
2/11/2011	14:00:00	TC	HDMin	EK085M: Sulfide as	Sulfide as S2-	<		0.1	0.1 mg/L	ALS		EK085	
19/09/2011	9:50:00	TC	HDMin	EN67: Field Tests	Dissolved Oxygen			6.78	0.01 mg/L	ALS		EN67	
19/09/2011	9:50:00	TC	HDMin	EN67: Field Tests	pH			8.24	0.01 pH Unit	ALS		EN67	
28/09/2011	15:00:00	DR	HDMin	EN67: Field Tests	Dissolved Oxygen			6.9	0.1 mg/L	ALS		EN67-B01	
28/09/2011	15:00:00	DR	HDMin	EN67: Field Tests	pH			8.32	0.01 pH Unit	ALS		EN67-B01	
12/10/2011	14:00:00	TC	HDMin	EN67: Field Tests	Dissolved Oxygen			6.85	0.01 mg/L	ALS		EN67	
12/10/2011	14:00:00	TC	HDMin	EN67: Field Tests	pH			8.23	0.01 pH Unit	ALS		EN67	
19/10/2011	14:00:00	TC	HDMin	EN67: Field Tests	Dissolved Oxygen			6.83	0.01 mg/L	ALS		EN67	
19/10/2011	14:00:00	TC	HDMin	EN67: Field Tests	pH			8.19	0.01 pH Unit	ALS		EN67	
26/10/2011	14:00:00		HDMin	EN67: Field Tests	Dissolved Oxygen			6.74	0.01 mg/L	ALS		EN67	
26/10/2011	14:00:00		HDMin	EN67: Field Tests	pH			7.98	0.01 pH Unit	ALS		EN67	
2/11/2011	14:00:00	TC	HDMin	EN67: Field Tests	Dissolved Oxygen			6.62	0.01 mg/L	ALS		EN67	
2/11/2011	14:00:00	TC	HDMin	EN67: Field Tests	pH			8.35	0.01 pH Unit	ALS		EN67	
20/09/2011	10:00:00	TC	HDMin	EN67: Field Tests	Dissolved Oxygen			6.9	0.1 mg/L	ALS		EN67-B01	
20/09/2011	10:00:00	TC	HDMin	EN67: Field Tests	pH			8.32	0.01 pH Unit	ALS		EN67-B01	
21/05/2010	10:35:00	Terese Tobin	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
19/09/2011	9:50:00	TC	HDMin	EP008: Chlorophyll	Volume Extract			10	0.01 mL	ALS		EP008	
19/09/2011	9:50:00	TC	HDMin	EP008: Chlorophyll	Volume			1	0.01 L	ALS		EP008	
19/09/2011	9:50:00	TC	HDMin	EP008: Chlorophyll	Chlorophyll a			1	1 mg/m³	ALS		EP008	
31/10/2011	8:50:00	VvR	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
17/11/2009	15:00:00	Terese Tobin	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
19/10/2010	3:00:00 PM	TT	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
19/10/2010	15:00:00	TERESE TOBIN	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
13/01/2011	8:00:00 AM	TT	HDMin	EP008: Chlorophyll	Chlorophyll a			2	1 mg/m³	ALS		EP008	
12/04/2011	1:15:00 PM	TT	HDMin	EP008: Chlorophyll	Chlorophyll a			1	1 mg/m³	ALS		EP008	
11/05/2011	12:50:00 PM	Terese Tobin	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
31/05/2011	3:00:00 PM	TT	HDMin	EP008: Chlorophyll	Chlorophyll a			1	1 mg/m³	ALS		EP008	
19/07/2011	11.00:00	TT	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
19/07/2011	11.00:00	TT	HDMin	EP008: Chlorophyll	Volume			1	0.01 L	ALS		EP008	
19/07/2011	11.00:00	TT	HDMin	EP008: Chlorophyll	Volume Extract			10	0.01 mL	ALS		EP008	
16/08/2011	10:15:00	TT	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
20/09/2011	15:00:00	TT	HDMin	EP008: Chlorophyll	Chlorophyll a			1	1 mg/m³	ALS		EP008	
18/10/2011	11:05:00	VvR	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
16/02/2010	8:10:00	Terese Tobin	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
20/04/2010	10:00:00	Terese Tobin	HDMin	EP008: Chlorophyll	Chlorophyll a	<		1	1 mg/m³	ALS		EP008	
31/08/2010	3:00:00 PM	TT	HDMin	EP008: Chlorophyll	Chlorophyll a			1	1 mg/m³	ALS		EP008	
31/08/2010	15:00:00	Terese Tobin	HDMin	EP008: Chlorophyll	Chlorophyll a			1	1 mg/m³	ALS		EP008	
21/05/2010	10:35:00	Terese Tobin	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
31/10/2011	8:50:00	VvR	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
17/11/2009	15:00:00	Terese Tobin	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
19/10/2010	3:00:00 PM	TT	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
19/10/2010	15:00:00	TERESE TOBIN	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
13/01/2011	8:00:00 AM	TT	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
12/04/2011	1:15:00 PM	TT	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
11/05/2011	12:50:00 PM	Terese Tobin	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
31/05/2011	3:00:00 PM	TT	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
19/07/2011	11.00:00	TT	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
16/08/2011	10:15:00	TT	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
20/09/2011	15:00:00	TT	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
18/10/2011	11:05:00	VvR	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
16/02/2010	8:10:00	Terese Tobin	HDMin	EP030: Biochemical	Biochemical Oxygen Demand			3	2 mg/L	ALS		EP030	
20/04/2010	10:00:00	Terese Tobin	HDMin	EP030: Biochemical	Biochemical Oxyger	<		2	2 mg/L	ALS		EP030	
17/11/2009	10:45:00	TT	HDMin	pH			7.86	0.10	pH units	GAWB	infield		
19/10/2010	10:20:00 AM	TT	HDMin	pH			7.25	0.1	pH units	GAWB	Infield		
19/10/2010	10:20:00 AM	TT	HDMin	pH			7.25	0.1	pH units	GAWB	Infield		
13/01/2011	8:00:00 AM	TT	HDMin	pH			7.46		pH unit	GAWB	Infield		Low tide clear waterSunny and fineMedium
12/04/2011	1:15:00 PM	TT	HDMin	pH			8.02		pH units	GAWB	Infield		incoming tide
12/04/2011	1:15:00 PM	TT	HDMin	pH			8.02		pH units	GAWB	Infield		incoming tide
11/05/2011	12:50:00 PM	TT	HDMin	pH			7.74		pH units	GAWB	Infield		
31/05/2011	10:45:00 AM	TT	HDMin	pH			8.04		pH unit	GAWB	Infield		bottom of tide - clear sample, fine light
1/06/2011	10:45:00 AM	TT	HDMin	pH			8.04		pH units	GAWB	Infield		bottom of tide - clear samplefinelight
19/07/2011	11:00:00	tt	HDMin	pH			7.81		pH unit	GAWB	Infield		
16/08/2011	10:15:00	tt	HDMin	pH			7.83		pH unit	GAWB	Infield		
18/10/2011	11:05:00	VvR	HDMin	pH			7.93		pH unit	GAWB	Infield		windy incoming tidecloudy but fine
16/02/2010	8:10:00	TT	HDMin	pH			7.99	0.10	pH unit	GAWB	Infield		Inflow from large pipeHumid OvercastNil still
20/04/2010	10:00:00 AM	TT	HDMin	pH			7.74	0.1	pH unit	GAWB	Infield		Grey green tinge, Low TideCloudyMed
18 & 19/08/2010	2:10:00 PM	TT	HDMin	pH			7.61	0.1	pH unit	GAWB	Infield		Very clear, coming in spring tide near topSunny and fineLight
18 & 19/08/2010	14:10:00	T.Tobin	HDMin	pH			7.61	0.1	pH unit	GAWB	Infield		Very clear, coming in spring tide near topSunny and fineLight
17/11/2009	11:00:00	TT	HDMout	Dissolved Oxygen			7.74	0.01	mg/L	GAWB	infield		
16/02/2010	8:25:00	TT	HDMOut	Dissolved Oxygen			6.59	0.01	mg/L	GAWB	Infield		
20/04/2010	10:30:00 AM	TT	HDMout	Dissolved Oxygen			6.51	0.01	mg/L	GAWB	Infield		Small amount of floating particles, all 5 drains were running.CloudyMed
18 & 19/08/2010	7:30:00 AM	TT	HDMout	Dissolved Oxygen			7.39	0.01	mg/L	GAWB	Infield		
18 & 19/08/2010	7:30:00	T.Tobin	HDMout	Dissolved Oxygen			7.39	0.01	mg/L	GAWB	Infield		
19/10/2010	10:35:00 AM	TT	HDMout	Dissolved Oxygen			102.10	0.01	%	GAWB	Infield		
19/10/2010	10:35:00 AM	TT	HDMout	Dissolved Oxygen			102.10	0.01	%	GAWB	Infield		0
13/01/2011	8:20:00 AM	TT	HDMOut	Dissolved Oxygen			6.87	0.01	mg/l	GAWB	Infield		1 pipe running clear water
12/04/2011	1:05:00 PM	TT	HDMOut	Dissolved Oxygen			6.99	0.01	mg/L	GAWB	Infield		cloudy, light wind
12/04/2011	1:05:00 PM	TT	HDMOut	Dissolved Oxygen			6.99	0.01	mg/L	GAWB	Infield		cloudy, light wind
11/05/2011	12:40:00 PM	TT	HDMOut	Dissolved Oxygen			7.12	0.01	mg/l	GAWB	Infield		bottom of tidesunny & finelight
31/05/2011	11:00:00 AM	TT	HDMOut	Dissolved Oxygen			8.93	0.01	mg/l	GAWB	Infield		clear
1/06/2011	11:00:00 AM	TT	HDMOut	Dissolved Oxygen			8.93	0.01	mg/l	GAWB	Infield		clear
19/07/2011	11:20:00	tt	HDMOut	Dissolved Oxygen			101.80	0.01	%	GAWB	Infield		
16/08/2011	10:35:00	tt	HDMOut	Dissolved Oxygen			7.16	0.01	mg/l	GAWB	Infield		
18/10/2011	11:10:00	VvR	HDMOut	Dissolved Oxygen			99.70	0.01	%	GAWB	Infield		
21/05/2010	10:45:00	Terese Tobin	HDMout	EA025: Suspended S	Suspended Solids (SS)		28	1	mg/L	ALS		EA025	
31/10/2011	8:40:00	VvR	HDMout	EA025: Suspended S	Suspended Solids (SS)		39	1	mg/L	ALS		EA025	
17/11/2009	15:00:00	Terese Tobin	HDMout	EA025: Suspended S	Suspended Solids (SS)		13	1	mg/L	ALS		EA025	
19/10/2010	3:00:00 PM	TT	HDMout	EA025: Suspended S	Suspended Solids (SS)		24	1	mg/L	ALS		EA025	
19/10/2010	15:00:00	TERESE TOBIN	HDMout	EA025: Suspended S	Suspended Solids (SS)		24	1	mg/L	ALS		EA025	
13/01/2011	8:20:00 AM	TT	HDMOut	EA025: Suspended S	Suspended Solids (SS)		29	1	mg/L	ALS		EA025	
12/04/2011	1:05:00 PM	TT	HDMOut	EA025: Suspended S	Suspended Solids (SS)		16	5	mg/L	ALS		EA025H	
11/05/2011	12:40:00 PM	Terese Tobin	HDMout	EA025: Suspended S	Suspended Solids (SS)		39	5	mg/L	ALS		EA025H	
31/05/2011	3:00:00 PM	TT	HDMout	EA025: Suspended S	Suspended Solids (SS)		15	5	mg/L	ALS		EA025H	
19/07/2011	11:20:00	TT	HDMOut	EA025: Suspended S	Suspended Solids (S	<	5	5	mg/L	ALS		EA025H	
16/08/2011	10:35:00	TT	HDMout	EA025: Suspended S	Suspended Solids (SS)		28	5	mg/L	ALS		EA025H	
20/09/2011	15:00:00	TT	HDMout	EA025: Suspended S	Suspended Solids (SS)		18	5	mg/L	ALS		EA025H	

Sdate	Stime	SID	Site	Parameter	SParameter	Rprefix	Result	LOR	Unit	Laboratory	Appmethod	Method	Comments/Observations
18/10/2011	11:10:00	VvR	HDMOut	EA025: Suspended S	Suspended Solids (SS)		876	1	mg/L	ALS		EA025	
16/02/2010	8:25:00	Terese Tobin	HDMout	EA025: Suspended S	Suspended Solids (SS)		37	1	mg/L	ALS		EA025	
20/04/2010	10:30:00	Terese Tobin	HDMout	EA025: Suspended S	Suspended Solids (SS)		12	1	mg/L	ALS		EA025	
31/10/2011	8:40:00	VvR	HDMout	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.14	0.01	mg/L	ALS		EK059G	
19/10/2010	3:00:00 PM	TT	HDMout	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.03	0.01	mg/L	ALS		EK059G	
19/10/2010	15:00:00	TERESE TOBIN	HDMout	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.03	0.01	mg/L	ALS		EK059G	
13/01/2011	8:20:00 AM	TT	HDMout	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.04	0.01	mg/L	ALS		EK059G	
12/04/2011	1:05:00 PM	TT	HDMout	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.08	0.01	mg/L	ALS		EK059G	
11/05/2011	12:40:00 PM	Terese Tobin	HDMout	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.06	0.01	mg/L	ALS		EK059G	
31/05/2011	3:00:00 PM	TT	HDMout	EK059G: Nitrite plu	Nitrite + Nitrate as N		1.62	0.01	mg/L	ALS		EK059G	
19/07/2011	11:20:00	TT	HDMOut	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.01	0.01	mg/L	ALS		EK059G	
16/08/2011	10:35:00	TT	HDMOut	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.02	0.01	mg/L	ALS		EK059G	
20/09/2011	15:00:00	TT	HDMOut	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.42	0.01	mg/L	ALS		EK059G	
18/10/2011	11:10:00	VvR	HDMOut	EK059G: Nitrite plu	Nitrite + Nitrate as N		0.37	0.01	mg/L	ALS		EK059G	
21/05/2010	10:45:00	Terese Tobin	HDMout	EK059G: NOX as N (	Nitrite + Nitrate as N		0.18	0.01	mg/L	ALS		EK059G	
17/11/2009	15:00:00	Terese Tobin	HDMout	EK059G: NOX as N (	Nitrite + Nitrate as N		0.08	0.01	mg/L	ALS		EK059G	
16/02/2010	8:25:00	Terese Tobin	HDMout	EK059G: NOX as N (	Nitrite + Nitrate as N		0.01	0.01	mg/L	ALS		EK059G	
20/04/2010	10:30:00	Terese Tobin	HDMout	EK059G: NOX as N (	Nitrite + Nitrate as N		2.69	0.01	mg/L	ALS		EK059G	
21/05/2010	10:45:00	Terese Tobin	HDMout	EK061: Total Kjelda	Total Kjeldahl Nitrogen as N		0.3	0.1	mg/L	ALS		EK061G	
17/11/2009	15:00:00	Terese Tobin	HDMout	EK061: Total Kjelda	Total Kjeldahl Nitrogen as N		2.1	0.1	mg/L	ALS		EK061G	
19/10/2010	3:00:00 PM	TT	HDMout	EK061: Total Kjelda	Total Kjeldahl Nitrogen as N		0.4	0.1	mg/L	ALS		EK061G	
19/10/2010	15:00:00	TERESE TOBIN	HDMout	EK061: Total Kjelda	Total Kjeldahl Nitrogen as N		0.4	0.1	mg/L	ALS		EK061G	
16/02/2010	8:25:00	Terese Tobin	HDMout	EK061: Total Kjelda	Total Kjeldahl Nitrogen as N		0.2	0.1	mg/L	ALS		EK061G	
20/04/2010	10:30:00	Terese Tobin	HDMout	EK061: Total Kjelda	Total Kjeldahl Nitrogen as N		0.6	0.1	mg/L	ALS		EK061G	
31/10/2011	8:40:00	VvR	HDMout	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.4	0.1	mg/L	ALS		EK061G	
13/01/2011	8:20:00 AM	TT	HDMOut	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.4	0.1	mg/L	ALS		EK061G	
12/04/2011	1:05:00 PM	TT	HDMout	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.2	0.1	mg/L	ALS		EK061G	
11/05/2011	12:40:00 PM	Terese Tobin	HDMout	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.9	0.1	mg/L	ALS		EK061G	
31/05/2011	3:00:00 PM	TT	HDMout	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.6	0.1	mg/L	ALS		EK061G	
19/07/2011	11:20:00	TT	HDMOut	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.2	0.1	mg/L	ALS		EK061G	
16/08/2011	10:35:00	TT	HDMOut	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.2	0.1	mg/L	ALS		EK061G	
20/09/2011	15:00:00	TT	HDMOut	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		0.7	0.1	mg/L	ALS		EK061G	
18/10/2011	11:10:00	VvR	HDMOut	EK061G: Total Kjeld	Total Kjeldahl Nitrogen as N		5	0.1	mg/L	ALS		EK061G	
17/11/2009	15:00:00	Terese Tobin	HDMout	EK062: Total Nitrog	Total Nitrogen as N		2.2	0.1	mg/L	ALS		EK062G	
21/05/2010	10:45:00	Terese Tobin	HDMout	EK062: Total Nitrog	Total Nitrogen as N		0.5	0.1	mg/L	ALS		EK062G	
19/10/2010	3:00:00 PM	TT	HDMout	EK062: Total Nitrog	Total Nitrogen as N		0.4	0.1	mg/L	ALS		EK062G	
19/10/2010	15:00:00	TERESE TOBIN	HDMout	EK062: Total Nitrog	Total Nitrogen as N		0.4	0.1	mg/L	ALS		EK062G	
16/02/2010	8:25:00	Terese Tobin	HDMout	EK062: Total Nitrog	Total Nitrogen as N		0.2	0.1	mg/L	ALS		EK062G	
20/04/2010	10:30:00	Terese Tobin	HDMout	EK062: Total Nitrog	Total Nitrogen as N		3.3	0.1	mg/L	ALS		EK062G	
31/10/2011	8:40:00	VvR	HDMout	EK062G: Total Nitro	Total Nitrogen as N		0.5	0.1	mg/L	ALS		EK062G	
13/01/2011	8:20:00 AM	TT	HDMOut	EK062G: Total Nitro	Total Nitrogen as N		0.4	0.1	mg/L	ALS		EK062G	
12/04/2011	1:05:00 PM	TT	HDMout	EK062G: Total Nitro	Total Nitrogen as N		0.3	0.1	mg/L	ALS		EK062G	
11/05/2011	12:40:00 PM	Terese Tobin	HDMout	EK062G: Total Nitro	Total Nitrogen as N		1	0.1	mg/L	ALS		EK062G	
31/05/2011	3:00:00 PM	TT	HDMout	EK062G: Total Nitro	Total Nitrogen as N		2.2	0.1	mg/L	ALS		EK062G	
19/07/2011	11:20:00	TT	HDMOut	EK062G: Total Nitro	Total Nitrogen as N		0.2	0.1	mg/L	ALS		EK062G	
16/08/2011	10:35:00	TT	HDMOut	EK062G: Total Nitro	Total Nitrogen as N		0.2	0.1	mg/L	ALS		EK062G	
20/09/2011	15:00:00	TT	HDMOut	EK062G: Total Nitro	Total Nitrogen as N		1.1	0.1	mg/L	ALS		EK062G	
18/10/2011	11:10:00	VvR	HDMOut	EK062G: Total Nitro	Total Nitrogen as N		5.4	0.1	mg/L	ALS		EK062G	
21/05/2010	10:45:00	Terese Tobin	HDMout	EK067G: Total Phos	Total Phosphorus as P	<	0.01	0.01	mg/L	ALS		EK067G	
31/10/2011	8:40:00	VvR	HDMout	EK067G: Total Phos	Total Phosphorus as P		0.02	0.01	mg/L	ALS		EK067G	
17/11/2009	15:00:00	Terese Tobin	HDMout	EK067G: Total Phos	Total Phosphorus as P		0.16	0.01	mg/L	ALS		EK067G	
19/10/2010	3:00:00 PM	TT	HDMout	EK067G: Total Phos	Total Phosphorus as P	<	0.01	0.01	mg/L	ALS		EK067G	
19/10/2010	15:00:00	TERESE TOBIN	HDMout	EK067G: Total Phos	Total Phosphorus as P	<	0.01	0.01	mg/L	ALS		EK067G	
13/01/2011	8:20:00 AM	TT	HDMOut	EK067G: Total Phos	Total Phosphorus as P		0.08	0.01	mg/L	ALS		EK067G	
12/04/2011	1:05:00 PM	TT	HDMout	EK067G: Total Phos	Total Phosphorus as P	<	0.01	0.01	mg/L	ALS		EK067G	
11/05/2011	12:40:00 PM	Terese Tobin	HDMout	EK067G: Total Phos	Total Phosphorus as P		0.12	0.01	mg/L	ALS		EK067G	
31/05/2011	3:00:00 PM	TT	HDMout	EK067G: Total Phos	Total Phosphorus as P		0.24	0.01	mg/L	ALS		EK067G	
19/07/2011	11:20:00	TT	HDMOut	EK067G: Total Phos	Total Phosphorus as P		0.01	0.01	mg/L	ALS		EK067G	
16/08/2011	10:35:00	TT	HDMOut	EK067G: Total Phos	Total Phosphorus as P		0.06	0.01	mg/L	ALS		EK067G	
20/09/2011	15:00:00	TT	HDMout	EK067G: Total Phos	Total Phosphorus as P		0.05	0.01	mg/L	ALS		EK067G	
18/10/2011	11:10:00	VvR	HDMOut	EK067G: Total Phos	Total Phosphorus as P		0.89	0.01	mg/L	ALS		EK067G	
16/02/2010	8:25:00	Terese Tobin	HDMout	EK067G: Total Phos	Total Phosphorus as P		0.08	0.01	mg/L	ALS		EK067G	
20/04/2010	10:30:00	Terese Tobin	HDMout	EK067G: Total Phos	Total Phosphorus as P		1.53	0.01	mg/L	ALS		EK067G	
21/05/2010	10:45:00	Terese Tobin	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
31/10/2011	8:40:00	VvR	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
17/11/2009	15:00:00	Terese Tobin	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
19/10/2010	3:00:00 PM	TT	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
19/10/2010	15:00:00	TERESE TOBIN	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
13/01/2011	8:20:00 AM	TT	HDMOut	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
12/04/2011	1:05:00 PM	TT	HDMout	EP008: Chlorophyll	Chlorophyll a		1	1	mg/m³	ALS		EP008	
11/05/2011	12:40:00 PM	Terese Tobin	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
31/05/2011	3:00:00 PM	TT	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
19/07/2011	11:20:00	TT	HDMOut	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	8.11pH 18.5C
19/07/2011	11:20:00	TT	HDMOut	EP008: Chlorophyll	Volume		1	0.01	L	ALS		EP008	8.11pH 18.5C
19/07/2011	11:20:00	TT	HDMOut	EP008: Chlorophyll	Volume Extract		10	0.01	mL	ALS		EP008	
16/08/2011	10:35:00	TT	HDMOut	EP008: Chlorophyll	Chlorophyll a		1	1	mg/m³	ALS		EP008	
20/09/2011	15:00:00	TT	HDMout	EP008: Chlorophyll	Chlorophyll a		10	1	mg/m³	ALS		EP008	
18/10/2011	11:10:00	VvR	HDMOut	EP008: Chlorophyll	Chlorophyll a		3	1	mg/m³	ALS		EP008	
16/02/2010	8:25:00	Terese Tobin	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
20/04/2010	10:30:00	Terese Tobin	HDMout	EP008: Chlorophyll	Chlorophyll a	<	1	1	mg/m³	ALS		EP008	
21/05/2010	10:45:00	Terese Tobin	HDMout	EP030: Biochemical	Biochemical Oxygen Demand		4	2	mg/L	ALS		EP030	
31/10/2011	8:40:00	VvR	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
17/11/2009	15:00:00	Terese Tobin	HDMout	EP030: Biochemical	Biochemical Oxygen Demand		2	2	mg/L	ALS		EP030	
19/10/2010	3:00:00 PM	TT	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
19/10/2010	15:00:00	TERESE TOBIN	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
13/01/2011	8:20:00 AM	TT	HDMOut	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
12/04/2011	1:05:00 PM	TT	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
11/05/2011	12:40:00 PM	Terese Tobin	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
31/05/2011	3:00:00 PM	TT	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
19/07/2011	11:20:00	TT	HDMOut	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	8.11pH 18.5C
16/08/2011	10:35:00	TT	HDMOut	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
20/09/2011	15:00:00	TT	HDMOut	EP030: Biochemical	Biochemical Oxygen Demand		3	2	mg/L	ALS		EP030	
18/10/2011	11:10:00	VvR	HDMOut	EP030: Biochemical	Biochemical Oxygen Demand		5	2	mg/L	ALS		EP030	
16/02/2010	8:25:00	Terese Tobin	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
20/04/2010	10:30:00	Terese Tobin	HDMout	EP030: Biochemical	Biochemical Oxyger	<	2	2	mg/L	ALS		EP030	
17/11/2009	11:00:00	TT	HDMout	pH			7.81	0.10	pH units	GAWB	infield		
19/10/2010	10:35:00 AM	TT	HDMout	pH			7.53	0.1	pH units	GAWB	Infield		
19/10/2010	10:35:00 AM	TT	HDMout	pH			7.53	0.1	pH units	GAWB	Infield		
13/01/2011	8:20:00 AM	TT	HDMOut	pH			7.73		pH unit	GAWB	Infield		1 pipe running clear water
12/04/2011	1:05:00 PM	TT	HDMout	pH			7.90		pH units	GAWB	Infield		cloudy, light wind
12/04/2011	1:05:00 PM	TT	HDMout	pH			7.90		pH units	GAWB	Infield		cloudy, light wind
11/05/2011	12:40:00 PM	TT	HDMout	pH			7.66		pH units	GAWB	Infield		bottom of tidesunny & finelight
31/05/2011	11:00:00 AM	TT	HDMout	pH			8.07		pH unit	GAWB	Infield		clear
1/06/2011	11:00:00 AM	TT	HDMout	pH			8.07		pH units	GAWB	Infield		clear
19/07/2011	11:20:00	tt	HDMOut	pH			7.93		pH unit	GAWB	Infield		
16/08/2011	10:35:00	tt	HDMOut	pH			8.04		pH unit	GAWB	Infield		
18/10/2011	11:10:00	VvR	HDMOut	pH			8.06		pH unit	GAWB	Infield		
16/02/2010	8:25:00	TT	HDMout	pH			8.12	0.10	pH unit	GAWB	Infield		High tideHumid OvercastNil still
20/04/2010	10:30:00 AM	TT	HDMout	pH			7.87	0.1	pH unit	GAWB	Infield		Small amount of floating particles, all 5 drains were running.CloudyMed
18 & 19/08/2010	7:30:00 AM	TT	HDMout	pH			8	0.1	pH unit	GAWB	Infield		Very clear back flush in progressSunny and fineLight
18 & 19/08/2010	7:30:00	T.Tobin	HDMout	pH			8	0.1	pH unit	GAWB	Infield		Very clear back flush in progressSunny and fineLight

ff

HDMOut	Hatchery Auckland Creek Main Discharge - Outlet
HDMin	Hatchery Auckland Creek Dishcarge - Inlet

JAN. 2011. STRESS TEST.

TANK	TIME	AGE (DAYS)	TEMPERATURE		SALINITY		SKIMMERS		FOOD TYPE	FOOD LEVEL (individuals/ml)		WATER EXCHANGE (%)	ALGAE	OBSERVATIONS (0800-1630)
A1	am											27TH.		36 FISH INTO AQ 4, INTRODUCED TO FRESH
	pm													PLACED ON SLOW FLOW TRU OVER NIGHT SALT 4‰.
A2	am											28TH.		ALL FISH HEALTHY, MOBILE. NOT EATING LIVE
	pm													MYSIS YET.
B1	am											29TH.		MOST PRAWN GONE, NO ISSUE WITH MOST, 1
	pm													FISH WITH MAJOR ABDOMEN DAMAGE NOT SO GOOD.
B2	am											1ST.		UNHEALTHY FISH. DISPOSED OF, WILL DIE IN NEXT 24
	pm													OTHERS EATING WELL. FIN IS HEALING WELL
C1	am											2ND.		12 FISH STILL WITH SUPERFICIAL SCAR TISSUE EXPOS
	pm													NO FIN OR FIN EVIDENCE ON FISH.
C2	am													
	pm													
D1	am													
	pm													
D2	am													
	pm													

FEB 20--

TANK	TIME	AGE (DAYS)	TEMPERATURE		SALINITY		SKIMMERS		FOOD TYPE	FOOD LEVEL (individuals/ml)		WATER EXCHANGE (%)	ALGAE	OBSERVATIONS (0800-1630)
A1	am											8th.		2 fish entered into system. Salinity swing overnight.
	pm													8 fish with heavy scaring on one side of body, 100 mullet added to tank.
A2	am													
	pm													
B1	am											9th		All fish seem fine, obvious no mullet have been eating. all fish school sulking in a corner.
	pm													
B2	am													
	pm													
C1	am											11th.		Slowly beginning to eat, V. few mullet available, H_2O = Shit
	pm													Temp: 28.1°C. flow rates up ☆ Salinity 29.2 ppt..
C2	am											13th		2 fish died overnight, obvious fishing injuries, ☆
	pm													hooks found in both gullets
D1	am											15th.		All fish (19 returned to the Boyne).
	pm													
D2	am													
	pm													

March 2011.

TANK	TIME	AGE (DAYS)	TEMPERATURE		SALINITY		SKIMMERS	FOOD TYPE	FOOD LEVEL (individuals/ml)		WATER EXCHANGE (%)	ALGAE	OBSERVATIONS (0800-1630)
A1	am										07th.		31 fish collected., 10 really nice healthy not 1 bit of
	pm												post spillway damage., 2 with major. Rest = normal.
A2	am												Much less EwD & Saproleg. than previous batch
	pm												
B1	am										8th.		All good, one fish with post capture trauma, not too
	pm												good = Euthanased. Full salt achieved. (33ppt).
B2	am												
	pm												
C1	am										10th		Eating well, good gut & activity.
	pm												
C2	am												
	pm												
D1	am												
	pm												
D2	am												
	pm												

Aaron Jon. BARRA TRIAL.

TANK	TIME	AGE (DAYS)	TEMPERATURE		SALINITY		SKIMMERS		FOOD TYPE	FOOD LEVEL (individuals/ml)		WATER EXCHANGE (%)	ALGAE	OBSERVATIONS (0800-1630)
A1	am											11TH		33 FISH → AQUAMOVE OF FRESH. COLLECTED
	pm													FROM PIKES CROCKERY. RANGE 35 – 107mm.
A2	am													No MAJOR INJURIES OR LESIONS NOTICED.
	pm													FULL SALT SWING (FAST 50,000 L/HR)
B1	am											12TH		ALL FISH ABOVE 25°C FEEDING.
	pm													
B2	am											15TH		ALL FEEDING WELL V. CLEAN SWING
	pm													TO FRESH. 50% EATING FROZEN FOOD. (PELLETS)
C1	am											17TH		FISH KEPT AS BACK-UP BROODSTOCK.
	pm													ALL HAPPY + HEALTHY.
C2	am													DO NOT NEED ANY MORE TRIALS.
	pm													DISINFECT. ALL BLEACH. ADD FISH TO
D1	am													D, BROODIE TANK.
	pm													
D2	am													
	pm													

GAWB Response to Request for Information from Scientific Panel

This report is provided in the following order:

1. Purpose
2. Introduction
3. Methodology of Assessing Fish Releases
4. Why Barramundi exited Lake Awoonga
5. Number of Fish Exiting the Lake
6. Survival Rates
7. Post Spilling Activities – Below Spillway
8. Post Spillway Assessments of Fish Health
9. Fish Deaths and Actions taken by GAWB
10. Tagging of Fish Stocks
11. Number of Stocks Remaining
12. Decision for Relocating Released Fish Downstream
13. Future Management Options
14. Lakes Fishery – Post Spilling Period

1. Purpose

The State Government has established a scientific panel to oversee the investigation into the conditions affecting fish in the Gladstone area. The Panel will provide the State Government with independent scientific advice on issues such as water quality and human health concerns surrounding the affected fish. The Panel will also examine whether there is a need for additional testing of water quality or other ecological parameters.

This report provides the information that has been requested by the Panel and provides a narrative of actions taken by GAWB relating to the passage of fish from Awoonga Dam during the recent floods.

2. Introduction

During December 2010, Queensland encountered historic rainfalls, which lead to flooding throughout much of the state. This flooding included the Gladstone region, with Lake Awoonga spilling for the first time since the raising of the Dam Wall to 40 metres AHD. As a consequence of the amount of water entering the system and the timing of the event, Barramundi and other catadromous species exited the lake via the spillway.

As owner and operator of Awoonga Dam, Gladstone Area Water Board (GAWB) took an active interest in the exiting of fish from the dam during the spilling events. During the spilling and for a period of time afterwards, GAWB staff undertook a series of actions related to monitoring and assessing fish that had exited the dam. As a result of operating a fish hatchery, GAWB has staff that are both qualified[1] and experienced in the care of barramundi and other fish species. These staff took an active interest in monitoring, assessing and where appropriate taking action with fish that had exited Lake Awoonga. These actions were taken by GAWB staff to prevent unnecessary fish deaths caused by receding flood waters. Although enquiries were made by GAWB, no other agency was in a position to take such action.

[1] GAWB's Hatchery Manger has a Bachelor Degree in Maritime Science (with Honors) and a Masters Degree in Maritime Horticulture. He has over 20 years experience in breeding barramundi.

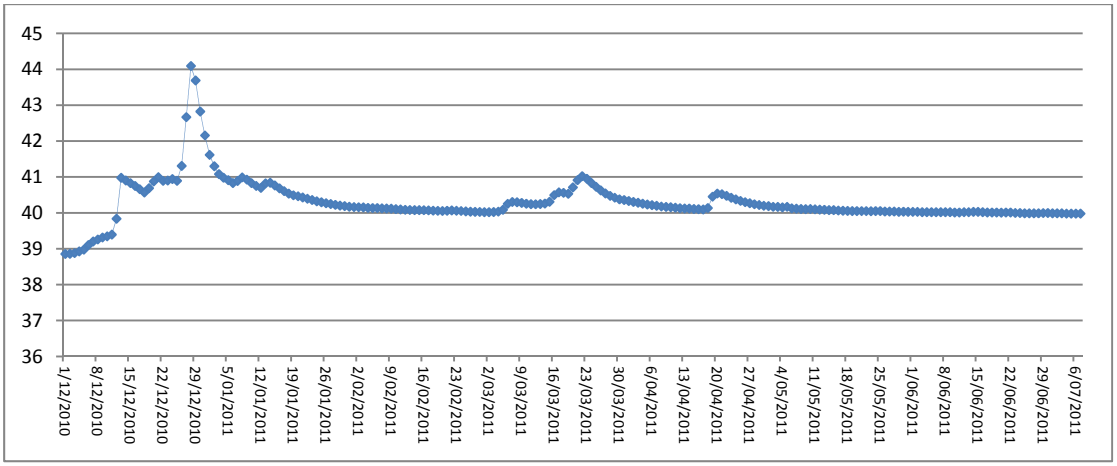


Figure 1: Spillway levels at Lake Awoonga from December 2010 to July 2011 (40 metres AHD).

3. Methodology for Assessing Fish Releases

In an attempt to gain an understanding of the scenario that occurred in relation to the exiting of fish from the Lake Awoonga spillway, the Hatchery Manager spent as many hours as possible during the spill event to conduct the following activities/ data collection methods.

The following four data collection methods were employed for this assessment:

1. Counting of fish exiting Lake Awoonga (from the first week of the spill) as a means of establishing total numbers and species entering the Boyne River. Quantitative analysis of the number of fish that exited the lake, come from variable frequencies, which changed over the life of the event.

   As the spill event progressed, the number of fish observed going over the spillway reduced dramatically, to the point where zero fish were witnessed on 21st January 2011. All estimations of fish going over the spillway were based on frequency, and adjusted in due course throughout the event, in reference to variations. The optimal data collection point was found to be at the assembled viewing stations at Lookout no.1, as the entire spillway was visible.

2. Surveillance of dead fish both below the spillway and in the lower Boyne River (the Boyne River below the Lake Awoonga spillway) was conducted. This included an assessment of morphology, and the distribution and abundance

of Barramundi that had entered the estuary system via Lake Awoonga. To conduct this surveillance, on a weekly basis the Hatchery Manager travelled upstream from the mouth of the Boyne River as far as he could navigate. Counts and observations of dead and schooling fish were recorded, in particular mortality collection points within the river for future reference in any post spill incidents. Schooling fish location studies were conducted from angler activity and from the use of high definition fish finders or sounders. Data from these observations was further established on maps of the Boyne River. These observations assisted in the understanding of migratory fish movements during the spill event between Lake Awoonga and the marine environment.

3. Sampling of fish was conducted below the spillway and in the lower Boyne River to monitor Barramundi health and condition post spill. All fish captured by line fishing were tagged and assessed for damage, then monitored for recovery rates and the extent of damage on the fish that had gone over the spillway. This was an observational component of the assessment, but will assist in providing informal data for future events.

   Every second week 30 fish (in varying condition) were collected from the Boyne River system, and then relocated to the hatchery facility for further assessment, including post capture stress tests. These tests included the application of varying salinities to samples, and health/survival rates were monitored for future reference.

   In addition for fish health and distribution monitoring, information gained from commercial fishing guides for on water observations was also employed.
   Further, as an assurance of the health status of the species collected and subsequently relocated, hatchery staff assessed all fish prior to relocation, and individual fish that were considered potential threats to the fishery health downstream were disposed of and not released into the Boyne River system.

4. In relation to the long term assessment of movements of Lake Awoonga's Barramundi stocks in the wild environment, continual collection of tags (fish originally tagged in Lake Awoonga) from local recreational and commercial

fishermen is occurring. These tag returns will be cross referenced to the GAWB register and documented to provide an illustration of the range of the stocked species, post spillway.

4. Why Barramundi Exited Lake Awoonga:

As Barramundi are a transient species, alongside Lake Awoonga's other stocked species (Mangrove Jack and Sea Mullet), they must migrate to the marine environment to complete their spawning cycle. In the wild environment, these species will move upstream as fingerlings in the wet season (usually January and February), live their lives in the estuaries, then once reaching sexual maturity migrate to spawning grounds between the months of August and December (this is different to the Sea Mullet which migrate during winter months).

As the spill event occurred during the Barramundi spawning season, it is believed that the fish exited the lake to source marine waters to complete their life cycle. If the spill event occurred outside of the spawning season of the Barramundi, it is predicted that very few fish would have exited the lake.

This transient behaviour was further illustrated by the number of wild juveniles found below the spillway during sampling. These fish were not stocked into the lake, as the size class of fish were outside the cohort ranges within the lake's population.
Size classes encountered during sampling assisted in distinguishing cohort configurations within the Boyne River Barramundi populations during the spill event (further illustrated in Figure 3).

To further support the above information, on the 20th of March 2011, staff of the Hatchery Manager witnessed Sea Mullet exiting the lake during a spike in flow rates (refer to Figure 2). This species within the wild environment commonly transition to the marine waters to complete spawning cycles. Annually, in Lake Awoonga mature size Sea Mullet school at the spillway as a migratory response to seasonality in March. Many of the fish exiting the lake ranged between 70cm and 90cm which are of mature adult size, and samples signify primary ooycytes and gonad indexes within male fish. It has been noted that many of the fish exiting during this event will participate and contribute to the annual wild population spawning events of 2011,

due to the above. Observations also noted that limited mortalities were encountered with the Sea Mullet post spillway.

5. Number of Fish Exiting the Lake:

It is believed that most of the fish that went over the spillway were residential or local to the spillway prior to the event. As all fish use the creek basin within the dam for migratory reasons, fish that were already nearby or local to the spillway, congregated at the spillway during inflow activity. It was anticipated that with the rising water levels during the spill event the fish would have more of a chance to exit the dam (once the water levels reached 60cm spilling, it was anticipated that the fish would start exiting).

The number of fish assessed to have gone over the spillway was based on hour by hour counts and observations over the first 2 weeks of the spill event. From this point an average per hour was established, which was calculated over the total length of time fish were seen to exit the lake. This calculation continued until fish were observed not to be exiting the lake. The mean fish per hour was established from these counts (i.e. the first week had an average of 1.1 fish per minute (or 66 fish per hour). Over 24 hours this approximated to 1,500 fish). Counts were conducted each week and these counts showed variances in frequency and average fish per hour.

Fish per hour were then applied to a 24 hour calculation. (Counts were however hindered by the 4 metre spillway level as fish numbers could not be distinguished at this level of spill). After many hours observing fish moving over the spillway, it has been estimated that a total number of 20,000 mature-sized fish exited the lake.

Weekly observation counts are as follows:

Count Date	Observation Hours	Frequency	Fish/Hour	Number/24 Hours	Interval Days	Total
15th December	4 Hours am + 2 Hours pm	396	66	1584	4	**6336**
19th December	3 Hours am + 3 Hours pm	324	54	1296	3	**3888**
22nd December	3 Hours am + 3 Hours pm	108	18	432	7	**2592**
*28th December	4 Hours am	72	18	432	9	**3456**
6th January	3 Hours am + 3 Hours pm	61	10	240	6	**1440**
11th January	3 Hours am + 2 Hours pm	36	7.2	172.8	11	**1900**
						19612

Table 1: This represents the number of fish estimated to have exited the lake based on the observations of stocks exiting Lake Awoonga. The total number exiting was calculated by the average number per hour during observations, multiplied by the number of hours between observation intervals.

*Note, the spillway levels rose to 4.16m on the 28th of December and due to the increased turbidity of the lake water and volumes exiting the lake, the number of fish could not be determined. Therefore for this period, the numbers of fish exiting the lake were estimated based on reference to the previous counts.

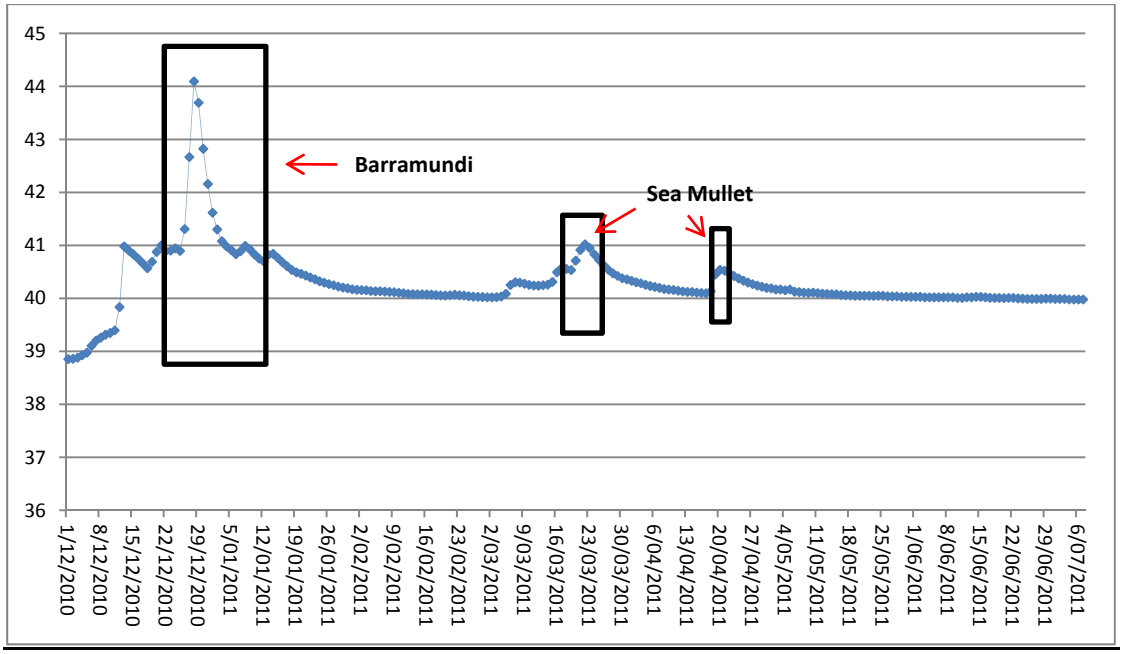


Figure 2: Species exiting the lake intervals throughout the spill event. 3 distinct periods of migratory fish were encountered by 2 focal species – i.e. Barramundi and Sea Mullet.

*Note that there were other species such as Forked Tailed Catfish and Mangrove Jack included but focus was predominantly on Barramundi during this event.

It can be noted that a major trend witnessed was the exiting of both Barramundi and Sea Mullet from the lake at particular stages of the year. This can be attributed to the species natural spawning migration, whereby they require access to the marine environment to complete this cycle.

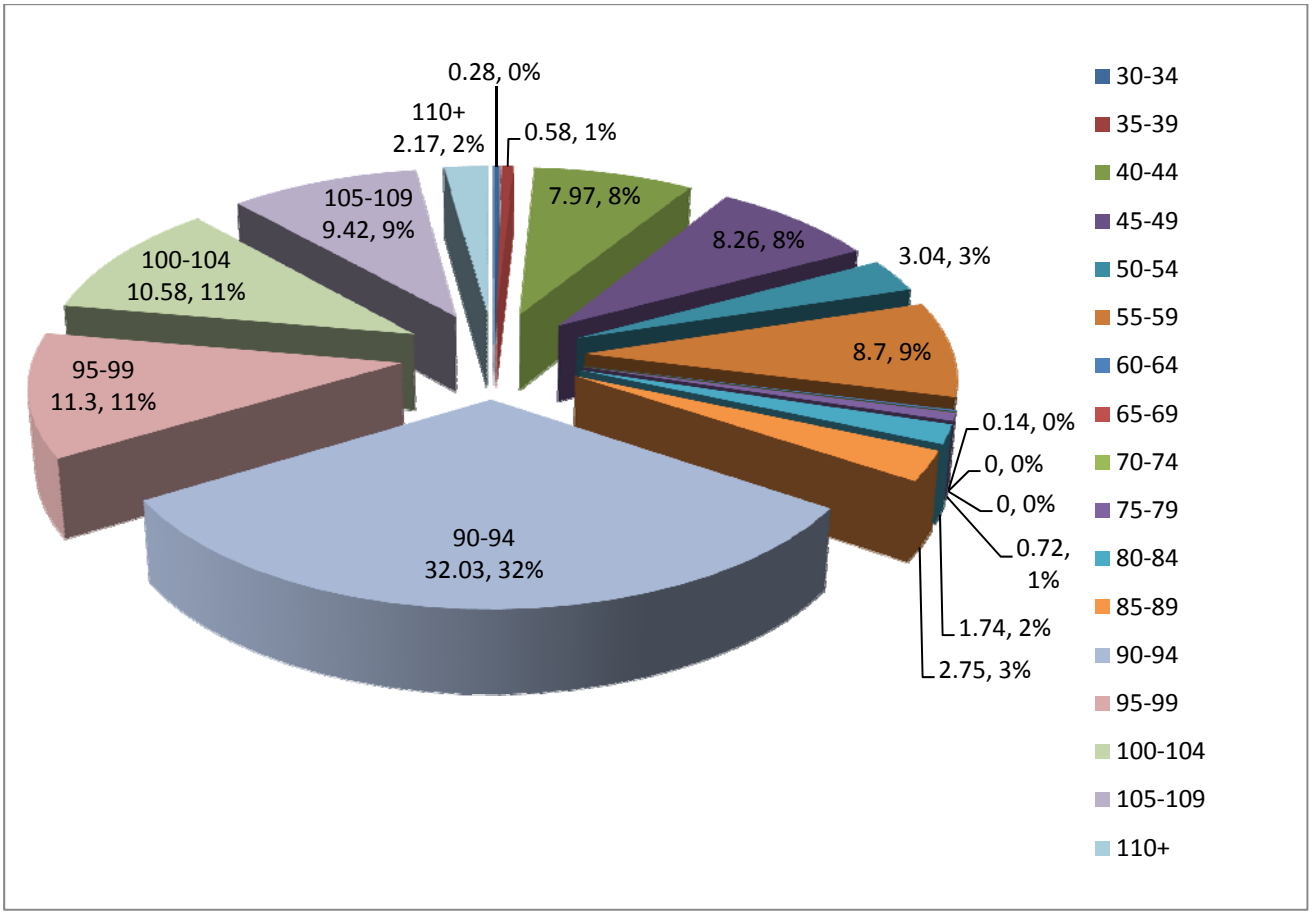


Figure 3: Percentage of the data collected (690 fish – 30 fish every second week plus various collections for testing and condition reporting assessment) in length from the above figure. All figures are in percentages of total data collected, and intervals of 5cm.

As the Figure 3 represents, the major size range of fish that exited the lake were between 90 and 105cm. These fish are deemed mature size, and within spawning range.

6. Survival Rates:

It has proven difficult to determine the actual survival rates of fish exiting the Dam as the assessment of the total number of fish exiting the Dam is based on an observed estimation rather than absolute confirmed number. It was first sighted (1 week after the spill event) that very few of the fish were dying from the fall over the spillway. It was predicted that 2 weeks after the spill event commencing, that the number of mortalities witnessed within the Boyne River and surrounding tributaries of

Gladstone Harbour, would increase. From estimations and ongoing counts of mortalities throughout the Boyne River, it is estimated that 1,200 fish perished over the course of the spill event, equating to nearly a 95% survival rate.

The number of fish exiting the lake reduced dramatically as the event progressed over time - no fish were encountered within the dam wall exclusion zone post 21 January 2011.

During the inflow event experienced in March 2011, no fish were witnessed going over, and the spillway was observed to have no mature sized fish during the next spill event. This was determined by side image sounder profiling.

As a secondary observation during the event, mature size Mangrove Jack congregated along the dam wall but very few reached the spillway. These fish were continually spooked by the schooling Fork Tail Catfish and Barramundi, whereby the congregations of Mangrove Jack would sink to the deep for periods of time. This indicates the species having the natural instinct to migrate to the marine environment but being intimidated by the other schooling species within the location. Of the Mangrove Jack that exited the lake, no mortalities were witnessed.

Schooling fish location studies were conducted from both angler activity and the use of high definition fish finders or sounders. Data from these observations were further established on maps of the Boyne River. This information assisted in the understanding of migratory fish during the spill event between Lake Awoonga and the marine environment and the assessment of survival rates experienced during the spilling event.

7. Post Spilling Activities – Below Spillway

As owner and operator of Awoonga Dam, GAWB was monitoring decreasing spillway discharges and understood the consequences that this would have upon fish that had traversed the spillway to successfully migrate seaward - the fish would at some stage become landlocked. Due to its operation of a fish Hatchery, GAWB has staff that are both qualified and experienced in the treatment of Barramundi.

In the period from February to June 2011 GAWB staff undertook a series of actions to prevent the unnecessary death of Barramundi that had been landlocked. These actions were undertaken in consultation with relevant government agencies and, where necessary, with the assistance of specialist external contractors (such as veterinarians) to ensure the best possible outcomes.

Once the flows reduced beneath 40cm above the spillway, it was reported to the Hatchery Manager that a large number of Barramundi and Fork Tailed Catfish were dwelling at the bottom of the spillway. It was noted that a rock wall produced in the spill event was restricting the ability of these fish to reach the lower Boyne River. An estimated 2,500 fish were trapped between the spill produced bund wall and the spillway. The Hatchery Manager employed an excavator in early February to dig channels within the rock wall to allow a pathway for trapped fish to exit. Once the channels were made, approximately 1,500 fish moved from the spillway area to the lower Boyne River. The reason behind this innovation was that the flow of the spillway was reducing dramatically and the fish that were trapped would have died due to low oxygen and fodder levels.

The hatchery team accessed the area to extract fish individually by means of both net and line fishing. Once the flow rates declined, line fishing was no longer feasible and fish were urgently relocated by net capture to ensure maximum survival.

The dates and quantities of fish caught were:
12/05/11 = 135 Barramundi (Line capture)
19/05/11 = 150 Barramundi (Line capture)
23/05/11 = 115 Barramundi (Line capture)
02/06/11 = 12 Barramundi (Line capture)
15/06/11 = 220 Barramundi (Net Capture)
20/06/11 = 210 Barramundi (Net capture)
28/06/11 = 292 Barramundi (Net capture)

The total number of fish moved from the spillway area to the lower Boyne River was 1,029 with the difference being fish that were disposed of as noted below.

Consistent with prior actions, before these fish were relocated, assessments were made as to the health of the specimens, and where there was any doubt these fish

were not released but rather disposed of to ensure that there was no downstream contamination.

The channel created in February ceased being operational in June 2011 due to limited flows and consequently fish stocks could not pass through the site into the Boyne River unless they were captured and moved on. In July 2011 the landlocked fish started to perish and actions' relating to the handling of these fish is canvassed below.

8. Post Spillway Assessments of Fish Health

Barramundi were collected from the Boyne River for assays on post spillway stress and their transition from the lake to the Boyne River.

The observation sheets completed indicate the Barramundi captured and selected for these trials made a smooth transition from fresh to marine water within the hatchery tanks with limited mortalities (post capture). This was expected.

During this assessment, the samples found that fish carrying both EUD (Epizooitc Ulcerative Disorder) and Saproligmea spp recovered rapidly with exposure to marine water. Both infections have very low tolerances to marine water, hindering further infection of the samples under this trial. This assessment was in response to the number of fish during earlier assessments carrying superficial dermal lesions in the fresh water reaches of the Boyne River, and as a consequence contracting the above pathogens. This was further distinguished and identified by Dr. Ben Diggles (DigsFish Pty. Ltd) and the full examination report is available and able to be provided to the scientific panel.

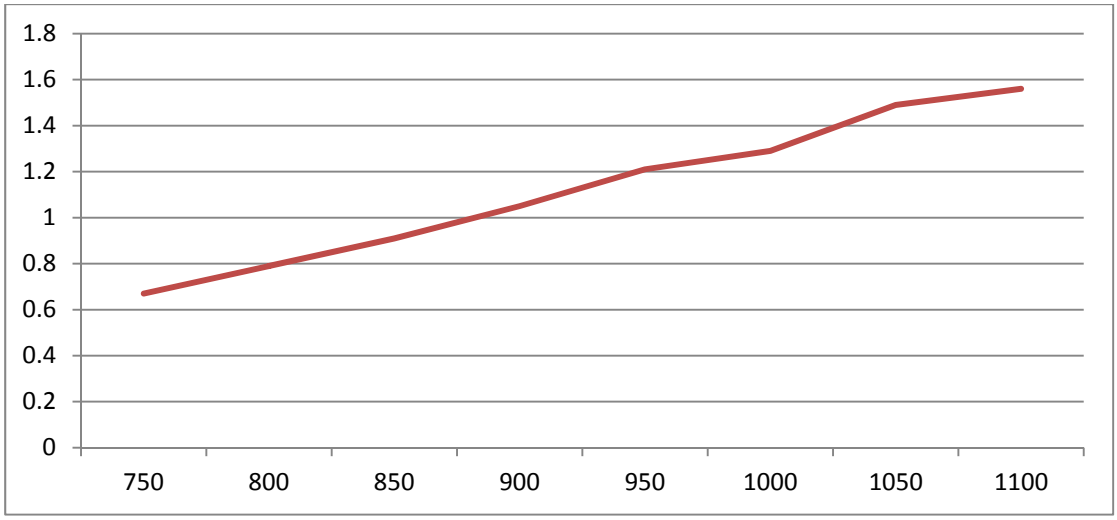


Figure 4: Length to girth ratio, from the data/specimens collected from the Boyne River February 2011 to April 2011. This illustrates the condition of the fish within the system post Lake Awoonga.

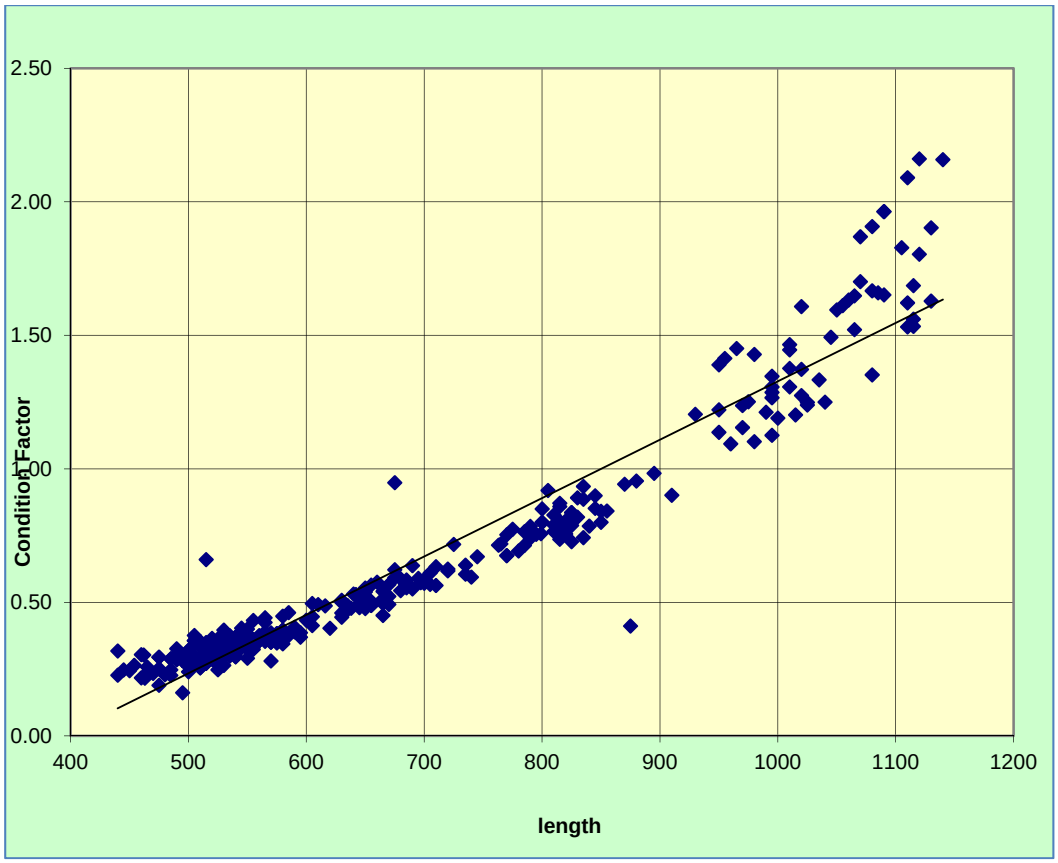


Figure 5: The Length verse condition factor of fish sampled in the 2007 electro-fishing survey at Lake Awoonga.

As Figure 4 and 5 indicate, the conditioning factor of fish captured during sampling within the Boyne River system was relative to that of fish within the lake. This provided further confidence of improvement of health as stocks migrated further downstream.

9. Fish Deaths and Actions taken by GAWB

Initial stages of spilling event

Of the dead Barramundi assessed, the primary cause of death was from trauma to both head and body. From observations, the fish would slip over the spillway, fall approximately 30 metres to the spoon midway up the spillway from which they were thrown into the air, then land aggressively on the concrete dissipation blocks.

The trauma occurred in the initial stages of the spilling event when the level of water flow was less than optimal for the correct functioning of the spillway – level of water was not enough to allow for a smooth transition by the fish stocks. However once the initial spilling had occurred the number of fish spilling was limited and certainly from late January and February onwards there were no observations of fish moving over the spillway.

As previously noted the release of fish was expected in December and the observations of reduction in fish spill from December to January and then none after this period is consistent with the migratory season instincts of the Barramundi.

For the purpose of assessing survival rates during the spilling, the Hatchery Manager navigated upstream as far as possible from the mouth of the lower Boyne River on a weekly basis. Counts and observations of dead and schooling fish were noted.

Locations of mortality collection points within the lower Boyne River were also recorded, for future reference purposes of post spill incidents. Any of the fish that died as a result of the fall over the spillway in the early stages of the spilling event that had traversed beyond Pikes Crossing and into the Boyne River were not collected by GAWB staff. These deaths were managed by the responsible government agency. The fish deaths that occurred were in the first two-four weeks of the spilling event. The fish bodies observed and reported were in the period from late December 2010 to mid January 2011.

During the initial period of spilling and water flow, GAWB Hatchery and Ranger staff removed any dead fish within the spillway area and outlet valves and arranged for these fish to be buried. There were two (2) utility loads of dead fish collected from around the bottom of the spillway entrance into Boyne River and the outlet valves located at the base of the dam wall that were disposed of by GAWB Rangers. This collection and disposal occurred in December 2010 and January 2011 when the spilling and fish releases were at their highest – these bodies were disposed of in the same area as noted further on in this report – high point 100 metres downstream from spillway. An excavator was utilised to prepare the site and then cover the dead fish. The dead fish were handled by the Rangers from the water below the spillway and around the outlet valves until such time as the Rangers were no longer able to touch the fish bodies without the bodies breaking into pieces (due to decomposition).

The occurrence of fish releases and subsequent deaths had subsided by February 2011 and hence limited activity relating to deaths was conducted by GAWB staff. Further, additional spilling that occurred in March 2011 did not result in fish releases during this period and therefore no actions relating to fish deaths were carried-out by GAWB staff during or after this period.

All data indicated the fish that exited the lake were healthy specimens and assessments indicate that observed deaths were due to the trauma experienced in the initial stages of the spilling event. GAWB staff disposed of traumatised and dead fish at suitable sites away from the river system and did not release them into the river system.

Closing stages of spilling event

In early July 2011, as a result of decreasing water levels, coupled with decreasing water temperatures, and dissolved oxygen levels, the remainder of the fish stranded within the spillway plunge pool perished. The species included in these mortalities were Barramundi, Fork Tail Catfish, Sea Mullet, Boney Bream and Eels.

GAWB hatchery staff removed the majority of the dead or infected fish and buried them in the vicinity of the spillway run (approximately 100 metrers downstream from the base of the spillway) at the highest point of ground.

This burial site was selected as the most suitable, considering the level of decay on the fish (making it difficult to relocate distances); it had a solid substrate for burial; and low probability of water flow affecting the site in the event of a further spill. All attributes were considered prior to site selection. It is noted that during this period of no flows, no fish were extracted or relocated from the lower Boyne River (including above Pikes Crossing) due to the safety concerns relating to the handling of decaying fish. It is worth noting that no fish (dead or infected) could transition from the spillway area to the lower Boyne River due to a bund created by a private road 800 metres downstream from the spillway. No fish were disposed of or relocated from the spillway area into the Boyne River Proper throughout this recovery process.

During the clean up of the fish within this fetid water, DERM (Gladstone) were made aware of the scenario as a fish kill notification form was completed and submitted by GAWB. It was agreed through contact with DERM as a response to the fish kill, to remove as many fish from the area and bury them in the selected site. This was also reported to the local DEEDI extension officer.

At the point in time that the fish became decayed and could no longer be moved by hand to arrange burial, the decision was made to cease moving the bodies and they were left to decompose in the pond below the spillway (noting that the bodies could not relocate from this area due to the bund noted above). Due to safety issues identified with the recovery of fish within this area, approximately 10% of the fish were inaccessible due to decaying and sinking within this area.

10. Tagging of Fish Stocks

22,793 tags have been issued into the lake of which the majority being in Barramundi. To date only 13 tagged fish have been returned post spillway release, these tags have been returned from as far south as the mouth of the Burnett River to as far north as the Fitzroy River. This area is the geographic range that would have been expected of the genetic strain of Barramundi that is required to be stocked into the Awoonga Dam.

11. Number of Stocks Remaining

2,990,000 fish have been stocked into the dam. These fish have a 25% survival rate (established by QDPI).

Observations of massive schools of fish greater than 90cm in length have been located within the lake, with predicted populations in these schools of up to 90,000. These schools are located at the back of the dam in areas experiencing flow. The Hatchery Manager captured 2 fish (98cm and a 73cm Barramundi) from the lake in early February 2011. These fish were in full health and condition consistent with fish encountered during the survey work conducted between 2007 and 2010.

It is estimated that there are approximately 500,000 fish still within the confines of the lake based on the observations and sounding/fish surveys undertaken.

12. Decision for Relocating Release Fish Downstream

From the date the first fish exited the lake (12 December 2010), it was decided that these exited fish would not be restocked into the lake. This decision was based on the view that the pathogens that may have been present in the Boyne River and absorbed by the exited fish could possibly lead to cross contamination back into the lake if these exited fish ("wild fish") were returned to the lake. Once the flow rates decreased and the spillway area could be accessed to allow sample testing of the fish to be conducted, it was identified that a marine pathogen (Lymphocystis) was present, further assisting in the decision making. With fish species showing full health (no presence of pathogen) in the lake, the risk rating was regarded as being too high to relocate these now "wild fish" back into the lake.

The marine pathogen that was identified (Lymphocystis) is a pathogen that can survive a range of salinities and was detected in the "exited fish" as well as the resident salt water fish located in the Boyne River. Although it poses no direct threat to the health of the individual fish, it allows opportunity for other parasites that may be present in the water to manifest and potentially lead to exposure to secondary infection for the individual fish. Accordingly, the "wild fish" were not prevented from continuing downstream as the pathogen obtained from Boyne River was present in

the usual fish stocks within the river and as these exited fish had the pathogen now present they were considered to be subject to the same conditions as all other fish within the lower Boyne River (below the Dam wall).

Although the pathology report indicated Epizootic Ulcerative Syndrome (EUS) present in samples that is a result of the pathogen Lymphocystis, it was not a prevalent infection in all samples nor has it any known correlation to the recent issues witnessed in the Gladstone Harbour.

As previously indicated, no fish that were identified as being infected or carrying pathogens that could be a potential for environmental flow issues were relocated into the Boyne River.

13. Future Management Options

A single ‘barrier’ system to restrict or limit numbers of Barramundi to exit that would be effective in the event of high volumes of water and flow has not yet been identified.

There is limited precedence of fish barrier system applications in Queensland - in particular impoundments with stocks of Barramundi. Lake Tinaroo is the exception in this case, which has a net system situated 800m from the spillway and is deployed in the event a spill occurs. This does not however stop all Barramundi from exiting as the fish become ‘local’ or ‘residential’ to the spillway prior to inflows events and the establishment of the net system.

All impoundments throughout Queensland, in particular the Barramundi stocked impoundments, have been exposed to flood waters and fish exiting them.

After observations of other spillway environments, GAWB believes that the Lake Awoonga spillway compares favourably. In comparison to other impoundments, GAWB understands that Lake Awoonga has relatively minimal impact on fish exiting the lake.

14. Lakes Fishery: Post Spilling Period

During the flood event, the lake reached levels of up to 4.16m above the spillway, which created detrimental affects on the water quality due to the hydrogen sulphides which lie on the bottom of the lake (benthos) being aggravated and causing some areas of the lake to become anoxic.

When conditions such as these are witnessed with any species in an impoundment, populations begin to shut down, which illustrates limited activity and feeding and hence resulting in poor fishing success. It should be noted that the number of fish exiting the lake has no bearing on the population activity and performance as a fishery within Lake Awoonga. The activity and performance is more so affected by the water quality.