

1 Monitoring Data

1.1 Monitoring Equipment

Noise	Seven noise monitoring locations are currently being used – NSR1 & NSR2 (compliance monitoring points) and AN1, AN2, AN3, GN1 and RN1 (information purposes). The noise meters records in the 1/3 octave band.
Weather Station	The data used for this reporting period was taken from the Aughoose Site meteorological station. A meteorological station will be installed in Glengad upon erection of the site perimeter fence.
TSS	There are TSS meters (SB3 line 1 and SB3 line 2) on each of discharges on the Siltbuster.
Sondes	The results are displayed graphically for dissolved oxygen, conductivity, pH, turbidity and temperature.
Discharge pipe flow	The results are displayed graphically.

1.2 Rainfall Data

Date	Rainfall mm
15/03/2012	6.4
16/03/2012	4.4
17/03/2012	21.2
18/03/2012	0.2
19/03/2012	1.6
20/03/2012	0.2
21/03/2012	0.0
Total	34.0

1.3 Summary

General Information	
Due to a construction holiday on Friday 16 th March, Saturday 17 th March and Monday 19 th March, the Glengad and Aughoose construction sites were closed.	
Environment	Comments
Weather	There was a total of 34.0mm of rainfall during the reporting period, with a temperature range of -1.4°C to 13.9°C.
Noise	There were no identified noise exceedences during the reporting period.
Surface Water	There were no identified surface water exceedences during the reporting period.

2 Environmental Exceedances / Incidents /

There were no identified environmental exceedances during this reporting period.

Day Time Noise Monitoring / Max Hourly or above 60dB L_{aeq} Record Sheet
Determinant Results

Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			*Comments
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
NSR1	8.1	10.3	15/03/2012 07:00	1:00:00	4.8	179.3	54.8	73.7	37.2	
NSR2			15/03/2012 12:00	1:00:00	4.1	192.8	63.8	81.8	40.8	
NSR2			15/03/2012 13:00	1:00:00	5.2	186.3	60.0	80.1	38.8	
NSR1	1.9	8.1	16/03/2012 15:00	1:00:00	5.2	209.0	56.4	76.3	37	All construction activity ceased on Thursday 15th March at 2pm until Tuesday 20th March. Elevated noise readings not contributable to site activity
NSR2			16/03/2012 07:00	1:00:00	1.0	215.5	60.6	85.2	50.7	
NSR2			16/03/2012 08:00	1:00:00	2.8	210.0	65.2	85.8	49.2	
NSR2			16/03/2012 09:00	1:00:00	4.2	197.8	63.8	85.7	48.6	
NSR2			16/03/2012 16:00	1:00:00	3.6	222.0	65.7	81.1	49.6	
NSR2			16/03/2012 17:00	1:00:00	2.3	230.3	64.8	82.0	49.5	
NSR2			16/03/2012 18:00	1:00:00	3.0	234.3	61.2	78.8	49.0	
NSR1	-1.4	3.9	17/03/2012 12:00	1:00:00	1.5	250.0	62.5	79.8	34.3	See above
NSR2			17/03/2012 09:00	1:00:00	0.7	226.8	55.2	77.0	43.5	
NSR1	6.1	9.8	19/03/2012 10:00	1:00:00	7.6	195.8	61.2	76.5	40.9	See above
NSR1			19/03/2012 11:00	1:00:00	7.1	188.0	63.2	79.1	43.4	
NSR2			19/03/2012 15:00	1:00:00	7.0	190.0	62.1	83.0	48.3	
NSR2			19/03/2012 16:00	1:00:00	6.4	193.5	60.4	82.6	47.0	
NSR1	9.9	10.8	20/03/2012 12:00	1:00:00	7.2	184.3	61.7	78.1	40.8	
NSR1			20/03/2012 13:00	1:00:00	5.7	184.0	60.5	74.8	41.3	
NSR1			20/03/2012 15:00	1:00:00	8.2	196.3	61.2	77.1	43.2	
NSR1			20/03/2012 16:00	1:00:00	7.4	194.5	61.6	79.8	44.6	
NSR2			20/03/2012 09:00	1:00:00	6.5	197.5	59.8	83.9	46.7	
NSR1	9.5	10.1	21/03/2012 16:00	1:00:00	3.1	183.0	55.8	80.5	34.5	
NSR2			21/03/2012 09:00	1:00:00	5.0	176.8	59.7	84.6	43.5	

* Wind speeds in excess of 5 m/s negatively impact noise readings (as per EPA Guidance Note on Noise Measurement).

**Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))

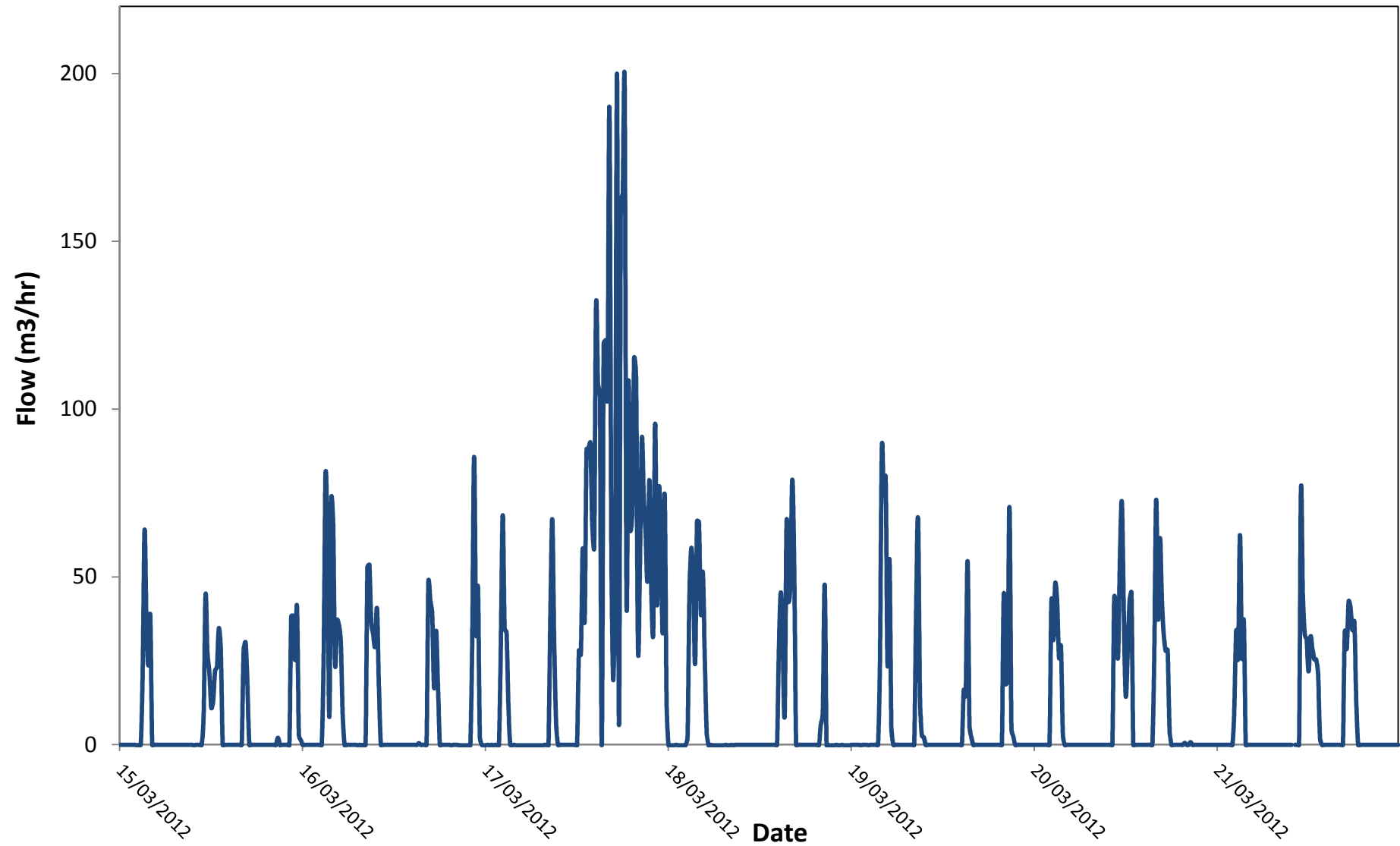
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring

	NSR1
	NSR2

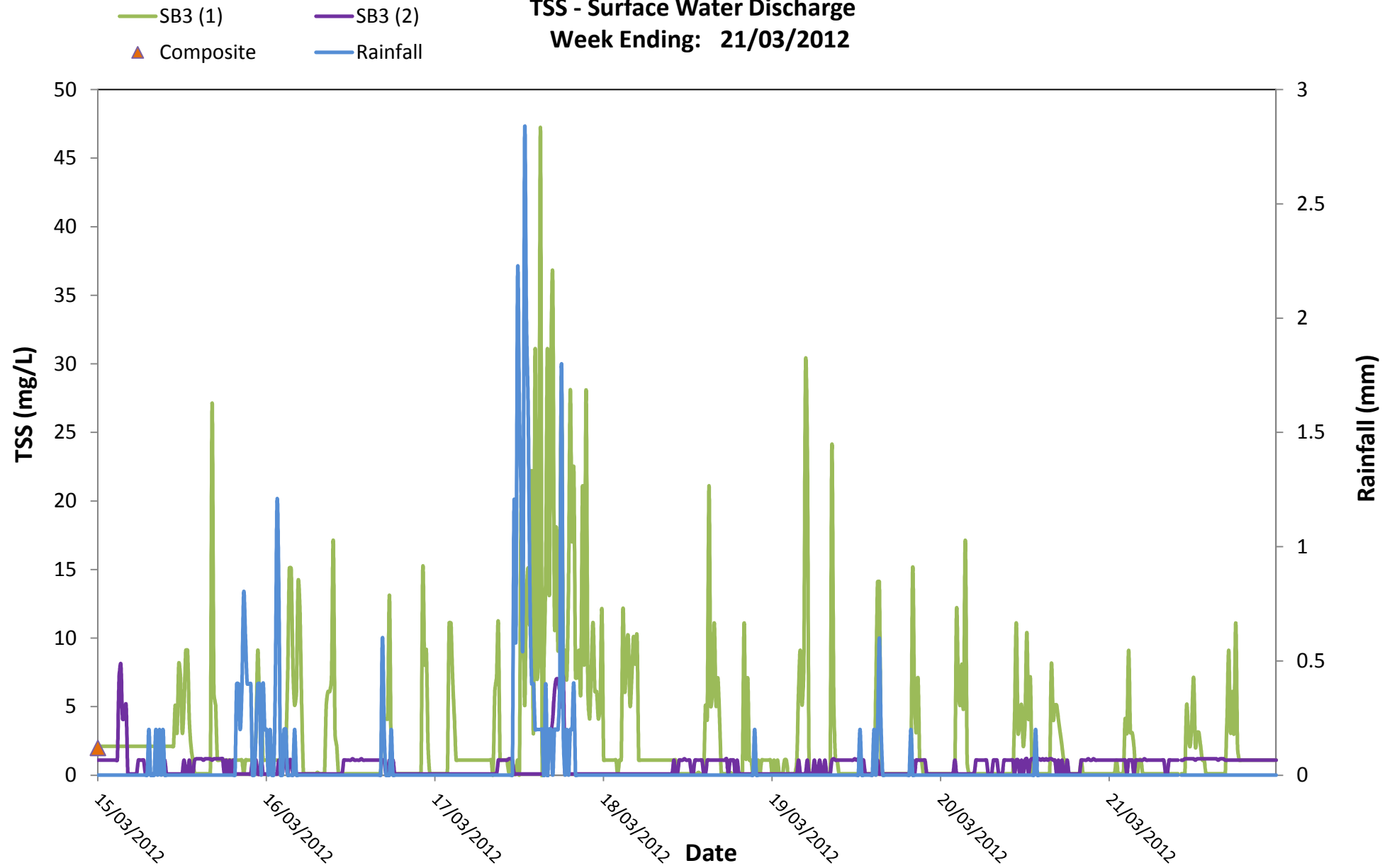
Day Time Noise Monitoring / Max Hourly or above 60dB L _{aeq} Record Sheet											
Determinant Results											
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB				
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}		
Action Limit							60.0				
Target Limit							65.0				
AN1	8.1	10.3	15/03/2012 08:00	1:00:00	5.1	175.0	68.4	90.2	56.6		
			15/03/2012 09:00	1:00:00	5.4	184.5	70.3	92.2	59.2		
			15/03/2012 10:00	1:00:00	4.2	195.0	70.7	92.9	59.1		
			15/03/2012 11:00	0:58:59	4.0	192.5	73.8	93.7	60.5		
			15/03/2012 13:00	1:00:00	5.2	186.3	65.9	83.7	53.3		
			15/03/2012 16:00	1:00:00	2.0	190.8	58.8	74.3	34.8		
			15/03/2012 14:00	1:00:00	3.5	173.5	45.0	69.7	29.4		
			15/03/2012 15:00	1:00:00	3.0	188.0	61.9	91.3	33.5		
RN1			15/03/2012 09:00	1:00:00	5.4	184.5	57.4	83.2	37.3		
AN1	1.9	8.1	16/03/2012 19:00	1:00:00	1.3	226.8	57.9	60.9	55.5		
AN2			16/03/2012 16:00	1:00:00	3.6	222.0	55.8	78.4	39.3		
AN3			16/03/2012 17:00	1:00:00	2.3	230.3	44.5	71.5	30.1		
GN1			16/03/2012 15:00	1:00:00	5.2	209.0	57.2	73.1	40.6		
RN1			16/03/2012 18:00	1:00:00	3.0	234.3	59.7	83.4	33.4		
AN1	-1.4	3.9	17/03/2012 12:00	1:00:00	1.5	250.0	60.3	81.9	52.6		
AN2			17/03/2012 13:00	1:00:00	2.1	271.3	64.4	82.8	52.5		
AN3			17/03/2012 12:00	1:00:00	1.5	250.0	57.2	79.3	40.5		
GN1			17/03/2012 07:00	1:00:00	0.6	202.3	49.4	83.5	28.8		
RN1			17/03/2012 19:00	1:00:00	1.6	256.5	61.5	92.3	38.0		
			17/03/2012 07:00	1:00:00	0.6	202.3	63.2	81.4	25.4		
AN1	6.1	9.8	19/03/2012 09:00	1:00:00	6.8	201.8	60.6	83.1	51.5		
			19/03/2012 10:00	1:00:00	7.6	195.8	63.4	87.7	51.7		
			19/03/2012 11:00	1:00:00	7.1	188.0	64.7	85.6	51.9		
			19/03/2012 12:00	1:00:00	6.4	197.8	62.3	84.2	51.4		
			19/03/2012 13:00	1:00:00	5.9	203.0	61.5	84.8	51.8		
			19/03/2012 14:00	1:00:00	4.1	159.8	61.1	83.8	51.4		
			19/03/2012 11:00	1:00:00	7.1	188.0	60.7	81.1	44.0		
			19/03/2012 12:00	1:00:00	6.4	197.8	50.2	72.2	33.5		
19/03/2012 07:00			1:00:00	5.3	194.8	62.7	82.1	41.8			
19/03/2012 08:00			1:00:00	6.9	200.0	63.4	78.9	43.0			
19/03/2012 09:00			1:00:00	6.8	201.8	63.5	85.3	37.7			
19/03/2012 10:00			1:00:00	7.6	195.8	65.2	84.3	40.4			
19/03/2012 11:00			1:00:00	7.1	188.0	67.6	88.5	41.8			
19/03/2012 12:00			1:00:00	6.4	197.8	65.9	82.8	42.0			
19/03/2012 13:00			1:00:00	5.9	203.0	67.7	86.2	43.4			
19/03/2012 14:00			1:00:00	4.1	159.8	67.5	83.9	44.4			
19/03/2012 15:00			1:00:00	7.0	190.0	69.4	88.7	51.2			
19/03/2012 16:00			1:00:00	6.4	193.5	70.0	84.4	43.3			
19/03/2012 17:00			1:00:00	5.5	199.5	66.3	81.4	41.7			
19/03/2012 18:00			1:00:00	5.6	196.5	67.7	86.7	46.2			
19/03/2012 19:00			1:00:00	5.4	198.8	67.0	82.1	45.7			
RN1			19/03/2012 07:00	1:00:00	5.3	194.8	59.9	85.3	40.7		
AN1	9.9	10.8	20/03/2012 07:00	1:00:00	4.2	201.5	63.7	91.2	51.2		
			20/03/2012 08:00	1:00:00	3.7	204.5	73.1	95.1	56.8		
			20/03/2012 09:00	1:00:00	6.5	197.5	74.4	94.9	59.0		
			20/03/2012 10:00	1:00:00	5.2	195.0	70.3	94.1	57.2		
			20/03/2012 11:00	1:00:00	6.1	194.8	72.6	92.2	60.7		
			20/03/2012 12:00	1:00:00	7.2	184.3	77.3	92.4	60.9		
			20/03/2012 13:00	1:00:00	5.7	184.0	78.7	94.8	59.2		
			20/03/2012 14:00	1:00:00	6.3	200.5	69.8	92.9	57.0		
			20/03/2012 15:00	1:00:00	8.2	196.3	70.2	98.7	60.1		
			20/03/2012 16:00	1:00:00	7.4	194.5	73.0	95.4	60.5		
20/03/2012 17:00			1:00:00	6.8	194.0	73.4	93.9	57.1			
20/03/2012 18:00			1:00:00	8.1	188.3	64.1	84.2	50.9			
20/03/2012 19:00			1:00:00	9.8	188.5	62.7	86.6	48.9			
20/03/2012 15:00			1:00:00	8.2	196.3	59.3	80.2	44.5			
20/03/2012 09:00			1:00:00	6.5	197.5	61.4	81.7	31.2			
20/03/2012 10:00			1:00:00	5.2	195.0	64.6	82.8	41.6			
20/03/2012 11:00			1:00:00	6.1	194.8	63.5	83.3	40.7			
20/03/2012 12:00			1:00:00	7.2	184.3	66.3	81.5	41.7			
20/03/2012 13:00			1:00:00	5.7	184.0	66.9	83.9	42.5			
20/03/2012 14:00			1:00:00	6.3	200.5	64.1	84.8	40.8			
20/03/2012 15:00			1:00:00	8.2	196.3	65.5	86.0	39.4			
20/03/2012 16:00			1:00:00	7.4	194.5	66.5	85.5	42.6			
20/03/2012 17:00			1:00:00	6.8	194.0	66.8	85.9	43.0			
20/03/2012 18:00			1:00:00	8.1	188.3	63.9	86.1	39.7			
20/03/2012 07:00			1:00:00	4.2	201.5	60.4	80.8	41.1			
20/03/2012 08:00			1:00:00	3.7	204.5	64.9	81.3	44.2			
20/03/2012 09:00			1:00:00	6.5	197.5	65.8	82.8	41.6			
20/03/2012 10:00			1:00:00	5.2	195.0	63.7	83.3	42.0			
20/03/2012 11:00			1:00:00	6.1	194.8	65.9	81.5	40.7			
20/03/2012 12:00			1:00:00	7.2	184.3	66.6	83.9	45.1			
20/03/2012 13:00			1:00:00	5.7	184.0	64.6	84.8	40.8			
20/03/2012 14:00			1:00:00	6.3	200.5	64.9	86.0	39.4			
20/03/2012 15:00			1:00:00	8.2	196.3	66.7	85.5	43.9			
20/03/2012 16:00			1:00:00	7.4	194.5	65.9	85.6	42.6			
20/03/2012 17:00			1:00:00	6.8	194.0	66.0	86.1	39.7			
20/03/2012 17:00			1:00:00	6.8	194.0	60.1	87.9	48.2			
RN1			20/03/2012 18:00	1:00:00	8.1	188.3	63.5	89.6	46.9		
AN1			9.5	10.1	21/03/2012 07:00	1:00:00	3.0	189.5	71.5	93.7	49.2
					21/03/2012 08:00	1:00:00	4.5	183.5	76.6	91.1	60.1
					21/03/2012 09:00	1:00:00	5.0	176.8	74.5	91.7	57.2
	21/03/2012 10:00	1:00:00			4.0	177.0	67.9	92.4	55.9		
	21/03/2012 11:00	1:00:00			5.3	165.5	68.2	89.7	58.1		
	21/03/2012 12:00	1:00:00			7.0	184.3	71.4	94.8	59.6		
	21/03/2012 13:00	1:00:00			5.1	199.5	72.7	94.0	51.4		
	21/03/2012 14:00	1:00:00			5.8	163.8	66.0	87.5	54.0		
	21/03/2012 15:00	1:00:00			5.8	186.5	71.6	94.7	58.8		
	21/03/2012 16:00	1:00:00			3.1	183.0	73.8	92.4	56.8		
21/03/2012 17:00	1:00:00	2.8			179.0	72.3	91.2	53.3			
21/03/2012 18:00	1:00:00	1.8			152.5	67.0	91.0	45.7			
AN2	21/03/2012 11:00	1:00:00			5.3	165.5	57.7	81.9	38.7		
AN3	21/03/2012 12:00	1:00:00			7.0	184.3	46.0	71.3	30.1		
GN1	21/03/2012 11:00	1:00:00			5.3	165.5	54.9	89.4	35.9		
RN1	21/03/2012 07:00	1:00:00			3.0	189.5	63.6	87.7	36.6		
	21/03/2012 08:00	1:00:00			4.5	183.5	60.6	83.7	38.7		
* Wind speeds in excess of 5 m/s negatively impact noise readings (as per EPA Guidance Note on Noise Measurement).											
**Allowance of +/- 1.5dB accuracy of sound level meter (ref: IEC 61672 (2002-2005))											
The results show Laeq(1hr) for maximum daily values or values over 60dB for each day of monitoring											
	AN1		AN2		AN3		GN1		RN1		

Flow - Surface Water Discharge
Week Ending: 21/03/2012

— SB3

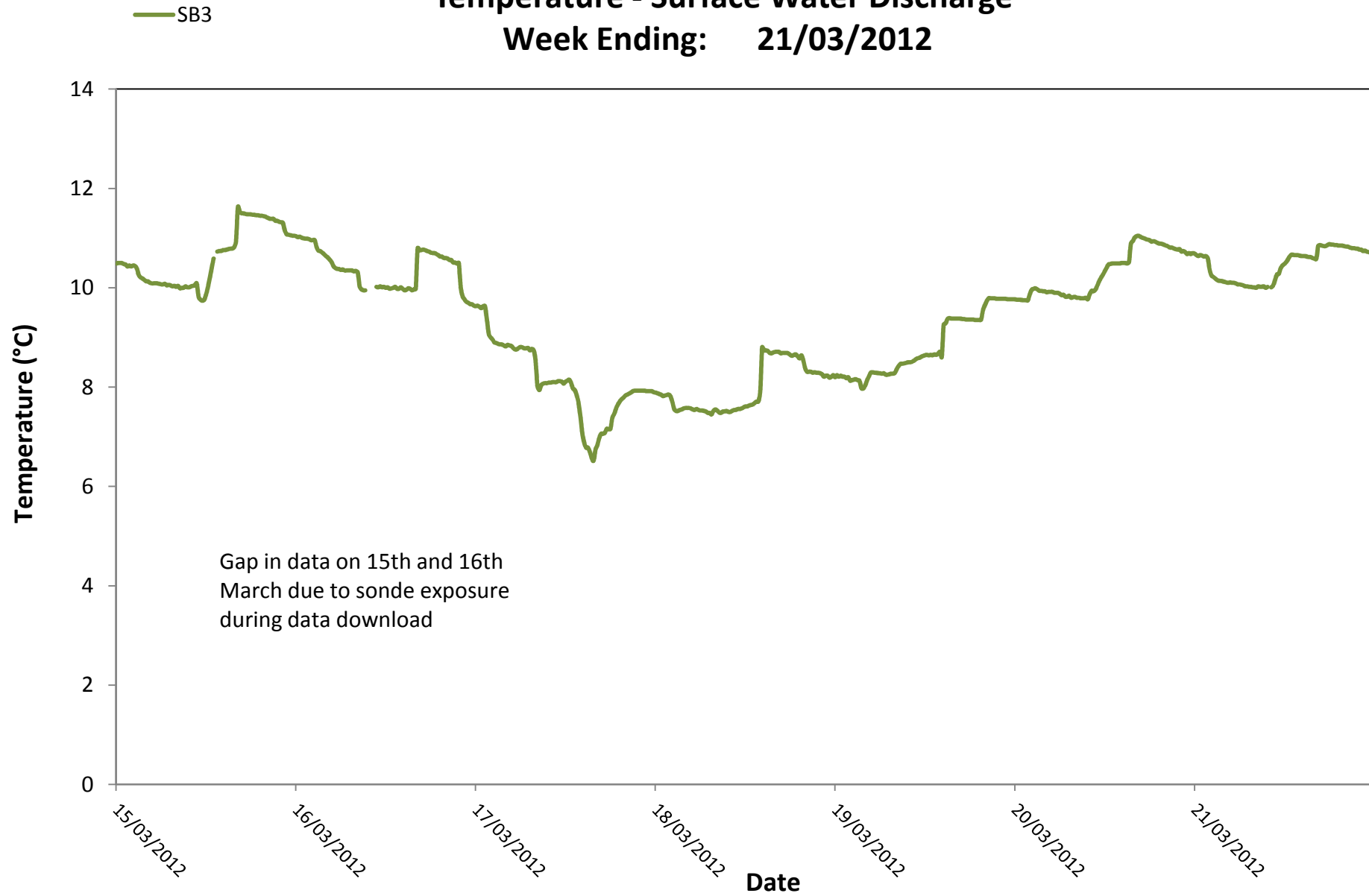


TSS - Surface Water Discharge
Week Ending: 21/03/2012



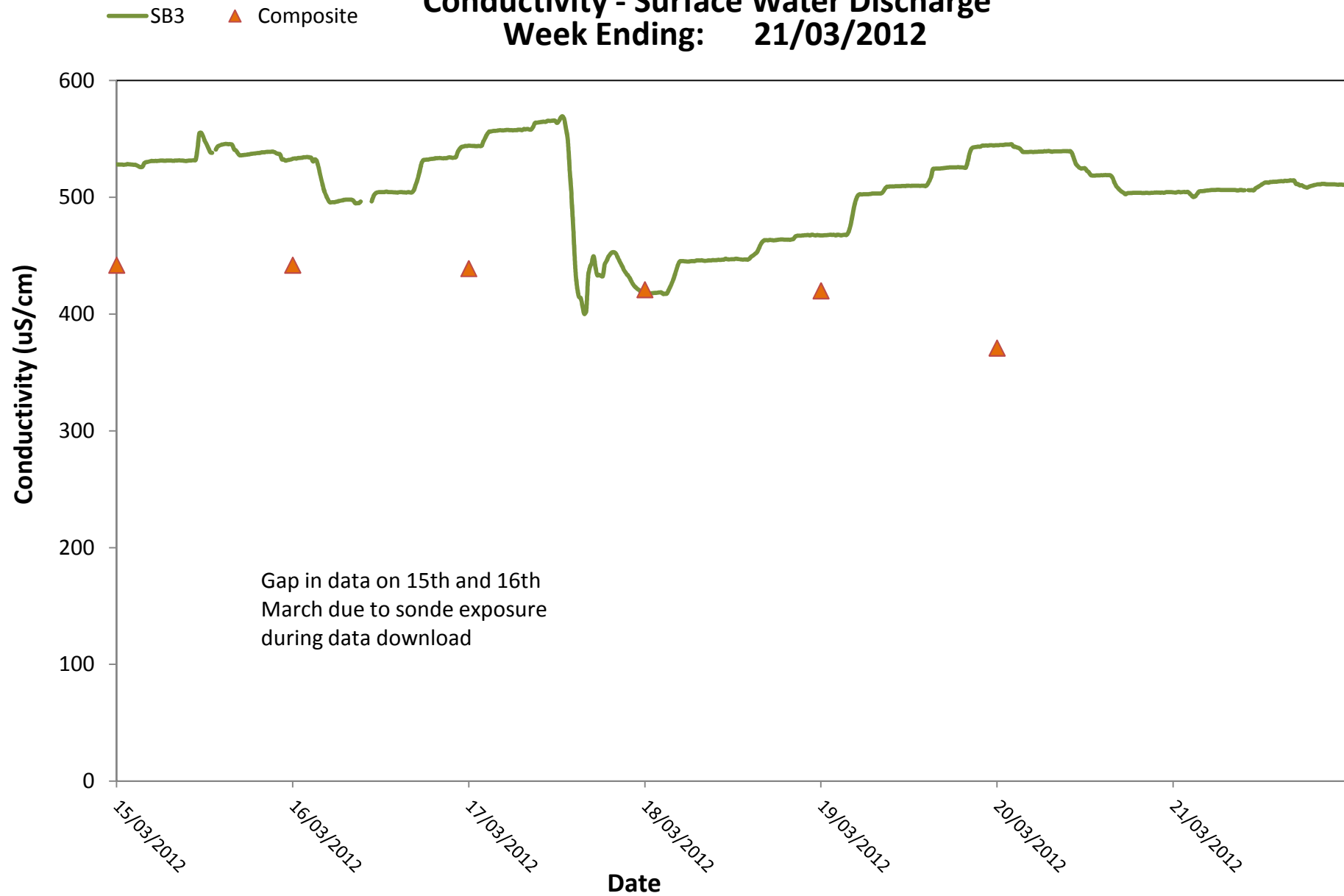
Temperature - Surface Water Discharge

Week Ending: 21/03/2012



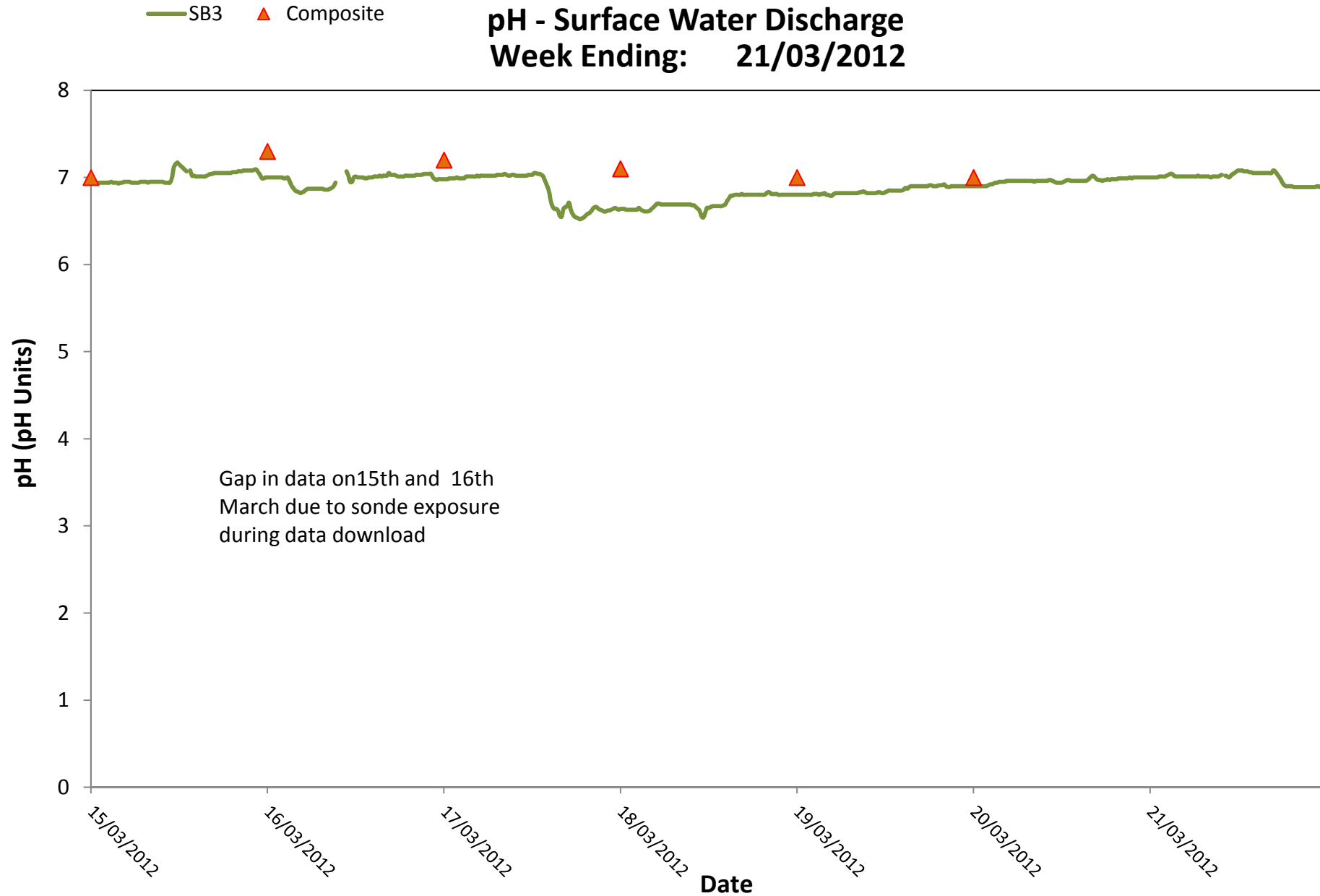
Conductivity - Surface Water Discharge

Week Ending: 21/03/2012



pH - Surface Water Discharge

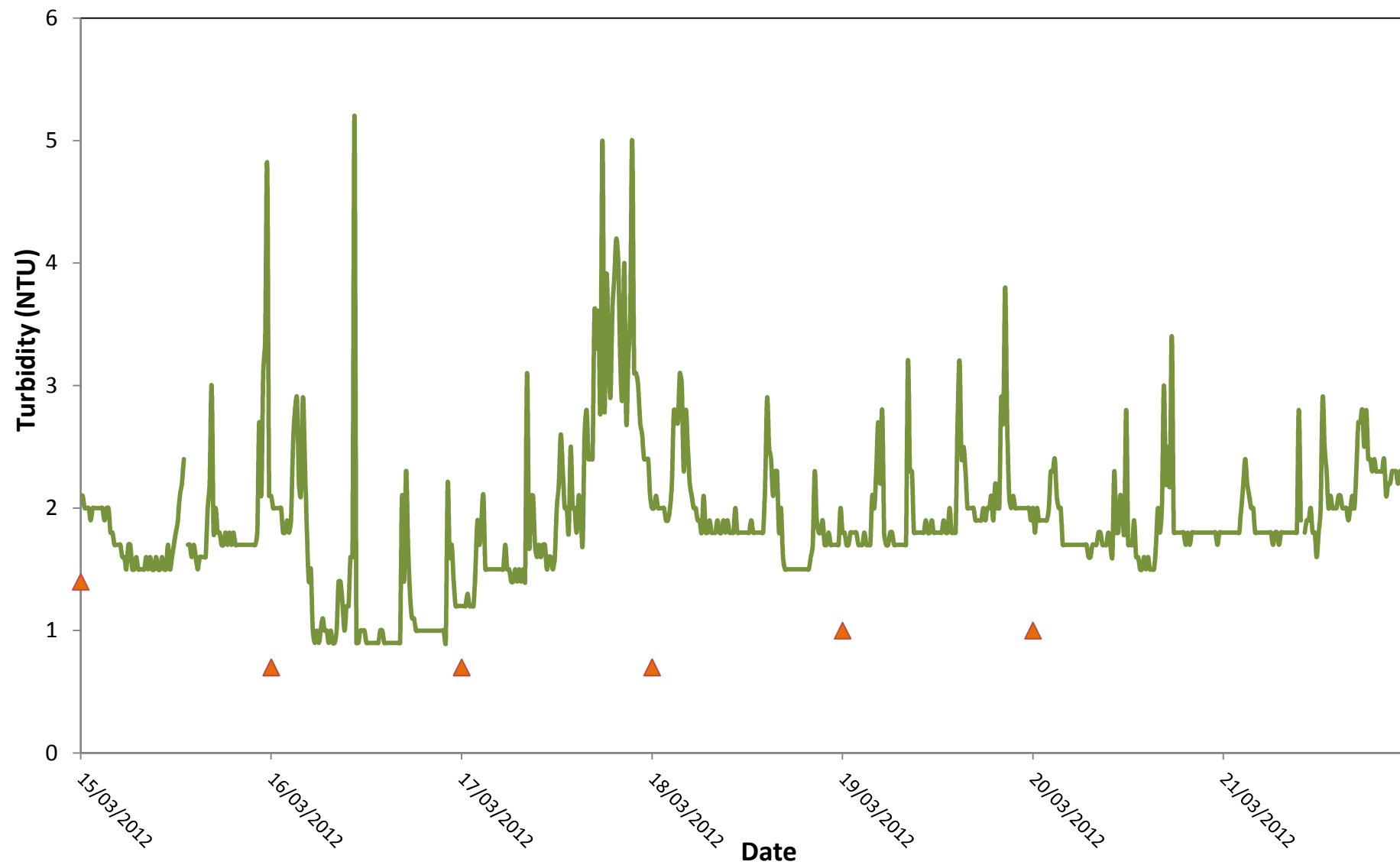
Week Ending: 21/03/2012



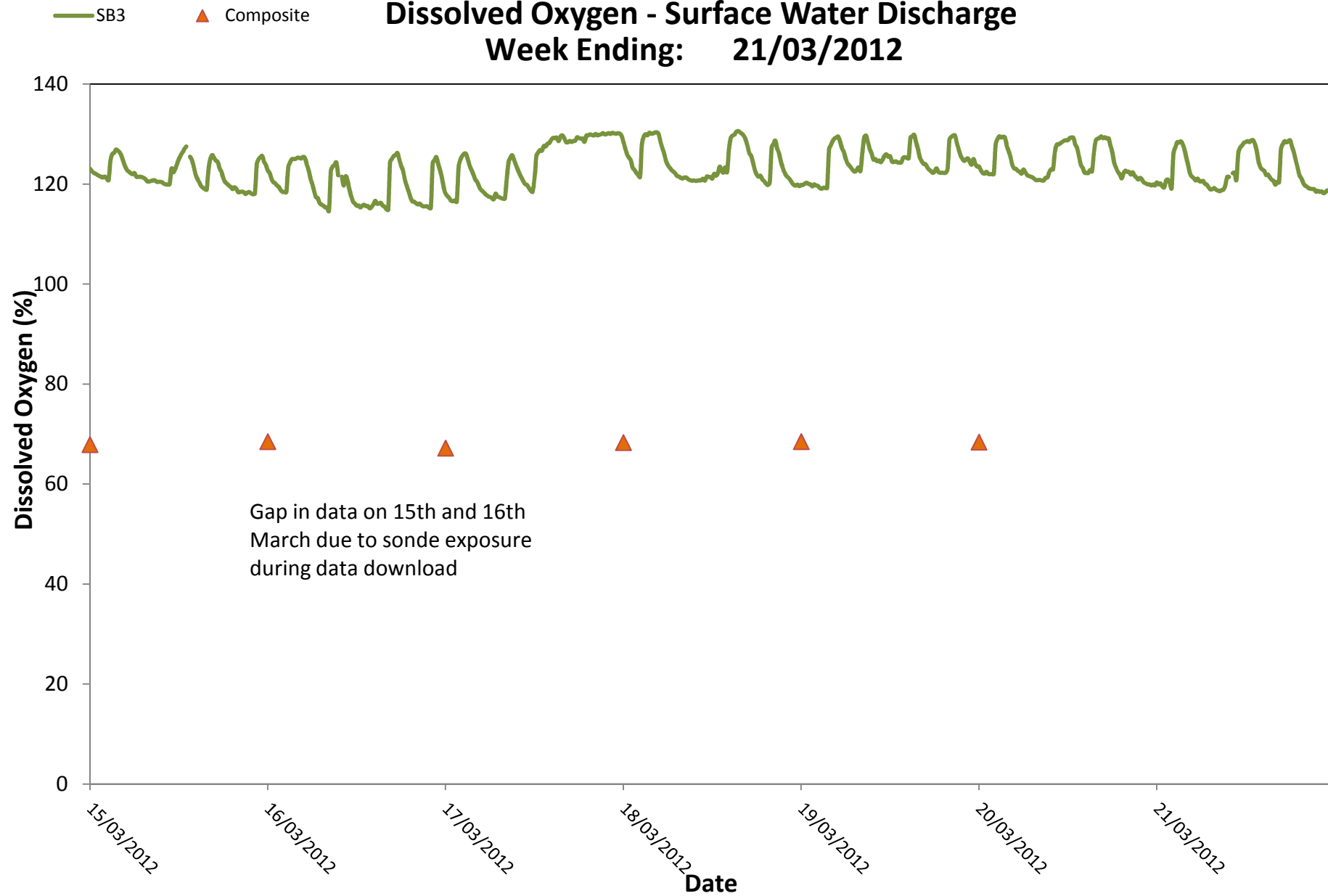
— SB3 ▲ Composite

Turbidity - Surface Water Discharge

Week Ending: 21/03/2012



Dissolved Oxygen - Surface Water Discharge Week Ending: 21/03/2012



Appendix 1

Appendix 1: Surface Water Monitoring Record Sheet- Onsite Monitoring						
Location	Date	Temp	DO	Cond.	Turbidity	pH
		C	% Sat	µS/cm	NTU	pH Units
DL2	15/03/2012	10.4	58.1	476	5.0	7.1
DL2	16/03/2012	Site Closed - No construction				
DL2	19/03/2012	Site Closed - No construction				
DL2	20/03/2012	10.6	96.2	499	5.0	6.7
DL2	21/03/2012	11.0	56.5	500	4.0	6.8
	= Indicative Only					
< LOD	= Below Limit of Detection		> LOD	= Above Limit of Detection		