

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 Aughooose 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 the 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
01/03/2012	0.2
02/03/2012	0.0
03/03/2012	7.2
04/03/2012	2.6
05/03/2012	0.0
06/03/2012	16.4
07/03/2012	2.8
Total	29.2

1.3 Summary

Environment	Comments
Weather	There was a total of 29.2mm of rainfall during the reporting period, with a temperature range of 4.4°C to 9.6°C.
Noise	There were five noise level elevations at NSR2 during the reporting period. An investigation will be carried out to establish the source of the noise.
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_{avg} 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	1.0	11.0	01/03/2012 08:00	1:00:00	4.3	190.0	53.4	72.0	35.0		
			01/03/2012 16:00	1:00:00	1.1	325.5	56.8	77.1	46.5		
			02/03/2012 13:00	1:00:00	4.0	147.8	60.4	76.3	40.3		
NSR2			02/03/2012 15:00	1:00:00	4.3	126.5	62.2	78.1	42.7		
NSR1	2.1	12.8	02/03/2012 16:00	1:00:00	2.6	107.8	62.9	82.3	39.3		
			02/03/2012 08:00	1:00:00	0.7	328.5	66.2	90.2	37.2	Cause of noise elevation currently investigation	
			02/03/2012 13:00	1:00:00	4.0	147.8	61.6	82.1	41.6		
NSR2			02/03/2012 15:00	1:00:00	4.3	126.5	61.4	81.5	41.3		
NSR1	1.1	10.6	03/03/2012 07:00	1:00:00	6.9	180.0	65.1	80.8	46.1	Elevated noise due to high wind speeds	
			03/03/2012 08:00	1:00:00	7.9	198.3	68.2	81.6	45.7	Elevated noise due to high wind speeds	
			03/03/2012 09:00	1:00:00	7.9	214.3	67.1	84.2	41.3	Elevated noise due to high wind speeds	
			03/03/2012 10:00	1:00:00	4.3	245.3	62.3	79.6	36.0		
			03/03/2012 15:00	1:00:00	2.8	231.5	60.4	80.6	32.0		
			03/03/2012 16:00	1:00:00	3.8	240.5	60.2	79.2	30.3		
NSR2			03/03/2012 07:00	1:00:00	6.9	180.0	67.5	91.4	48.1	Elevated noise due to high wind speeds	
			03/03/2012 08:00	1:00:00	7.9	198.3	68.1	89.9	48.4	Elevated noise due to high wind speeds	
			03/03/2012 09:00	1:00:00	7.9	214.3	65.5	84.0	50.8	Elevated noise due to high wind speeds	
			03/03/2012 10:00	1:00:00	4.3	245.3	65.2	83.7	50.3	Cause of noise elevation currently investigation	
			03/03/2012 11:00	1:00:00	4.9	257.0	64.6	84.6	51.9		
			03/03/2012 12:00	1:00:00	4.7	254.0	61.3	81.2	52.1		
	03/03/2012 13:00	1:00:00	5.1	254.8	60.9	78.1	51.7				
	03/03/2012 15:00	1:00:00	2.8	231.5	62.5	83.1	50.8				
NSR1	2.4	11.0	05/03/2012 09:00	1:00:00	1.9	204.8	53.9	72.9	32.6		
			05/03/2012 16:00	1:00:00	1.7	209.3	62.9	85.8	41.5		
NSR2			05/03/2012 17:00	1:00:00	1.5	208.8	63.0	90.2	49.8		
NSR1	7.2	11.8	06/03/2012 08:00	1:00:00	6.6	185.5	60.9	78.0	45.5		
			06/03/2012 13:00	1:00:00	7.4	186.3	60.1	73.4	42.7		
			06/03/2012 15:00	1:00:00	5.8	184.8	60.3	76.3	44.3		
			06/03/2012 16:00	1:00:00	9.1	182.0	63.4	79.2	44.8		
			06/03/2012 17:00	1:00:00	6.8	191.3	62.9	77.7	45.7		
			06/03/2012 18:00	1:00:00	8.1	194.0	63.3	78.6	45.6		
			NSR2	06/03/2012 11:00	1:00:00	6.1	181.0	60.4	79.5	44.9	
				06/03/2012 16:00	1:00:00	9.1	182.0	60.8	84.9	46.4	
06/03/2012 17:00	1:00:00	6.8		191.3	61.4	82.0	45.9				
06/03/2012 18:00	1:00:00	8.1		194.0	61.1	86.7	45.6				
NSR1	2.9	9.8	07/03/2012 08:00	1:00:00	4.3	256.8	60.5	84.7	39.9		
			07/03/2012 09:00	1:00:00	6.8	254.8	61.0	84.0	37.8		
			07/03/2012 10:00	1:00:00	6.4	257.3	61.8	80.4	38.1		
			07/03/2012 11:00	1:00:00	5.3	262.5	68.1	89.2	36.6	Elevated noise due to high wind speeds	
			07/03/2012 12:00	1:00:00	6.5	255.3	63.2	82.0	39.6		
			07/03/2012 13:00	1:00:00	5.2	275.8	60.0	81.4	40.1		
			07/03/2012 14:00	1:00:00	5.6	272.3	62.4	82.7	41.0		
			07/03/2012 15:00	1:00:00	5.2	262.5	61.7	80.1	41.5		
			07/03/2012 16:00	1:00:00	7.6	257.3	64.1	85.9	39.0		
			07/03/2012 17:00	1:00:00	6.1	265.3	61.4	85.0	38.8		
			07/03/2012 18:00	1:00:00	3.6	277.8	61.6	83.5	38.2		
			NSR2	07/03/2012 07:00	1:00:00	4.2	259.0	67.9	86.5	53.1	Cause of noise elevation currently investigation
				07/03/2012 08:00	1:00:00	4.3	256.8	68.8	86.1	52.9	Cause of noise elevation currently investigation
				07/03/2012 09:00	1:00:00	6.8	254.8	68.3	84.9	51.7	Elevated noise due to high wind speeds
				07/03/2012 10:00	1:00:00	6.4	257.3	67.1	85.3	51.9	Elevated noise due to high wind speeds
				07/03/2012 11:00	1:00:00	5.3	262.5	76.9	97.4	51.6	Elevated noise due to high wind speeds
				07/03/2012 12:00	1:00:00	6.5	255.3	69.8	88.8	53.1	Elevated noise due to high wind speeds
				07/03/2012 13:00	1:00:00	5.2	275.8	69.3	86.8	54.2	Elevated noise due to high wind speeds
				07/03/2012 14:00	1:00:00	5.6	272.3	69.6	89.1	54.9	Elevated noise due to high wind speeds
				07/03/2012 15:00	1:00:00	5.2	262.5	68.2	89.9	53.4	Elevated noise due to high wind speeds
07/03/2012 16:00	1:00:00	7.6		257.3	70.6	89.6	55.0	Elevated noise due to high wind speeds			
07/03/2012 17:00	1:00:00	6.1		265.3	70.9	89.7	54.3	Elevated noise due to high wind speeds			
07/03/2012 18:00	1:00:00	3.6		277.8	69.5	91.8	54.8	Cause of noise elevation currently investigation			
* 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	1.0	11.0	01/03/2012 08:00	1:00:00	4.3	190.0	69.9	91.0	53.8
			01/03/2012 09:00	1:00:00	2.8	312.3	69.8	96.5	52.1
			01/03/2012 10:00	1:00:00	4.2	296.5	71.2	92.9	50.9
			01/03/2012 12:00	1:00:00	3.9	294.0	69.4	91.3	55.0
			01/03/2012 13:00	1:00:00	3.3	298.0	66.1	92.0	50.5
			01/03/2012 15:00	1:00:00	2.0	333.0	66.8	90.1	52.2
			01/03/2012 16:00	1:00:00	1.1	325.5	67.8	91.2	54.2
			01/03/2012 17:00	1:00:00	0.6	22.5	69.3	105.2	50.0
			01/03/2012 18:00	1:00:00			62.4	89.1	48.9
			AN2	01/03/2012 11:00	1:00:00	3.5	308.0	57.6	74.7
AN3	01/03/2012 11:00	1:00:00	3.5	308.0	50.5	80.6	36.2		
GN1	01/03/2012 18:00	1:00:00			52.4	86.8	36.9		
RN1	01/03/2012 07:00	1:00:00	3.8	163.8	57.5	80.7	34.5		
AN1	2.1	12.8	02/03/2012 08:00	1:00:00	0.7	328.5	67.7	93.4	54.7
			02/03/2012 09:00	1:00:00	1.1	137.3	69.7	89.9	55.1
			02/03/2012 10:00	1:00:00	2.0	122.0	69.7	88.7	53.6
			02/03/2012 11:00	1:00:00	3.2	166.0	73.5	89.5	59.3
			02/03/2012 12:00	1:00:00	4.2	132.5	76.2	90.6	58.7
			02/03/2012 13:00	1:00:00	4.0	147.8	70.5	89.4	51.5
			02/03/2012 14:00	1:00:00	4.8	124.0	65.3	86.7	52.5
			02/03/2012 15:00	1:00:00	4.3	126.5	67.4	86.9	56.2
			02/03/2012 16:00	1:00:00	2.6	107.8	66.3	84.4	49.3
			02/03/2012 17:00	1:00:00	2.2	140.8	62.1	97.5	49.0
AN2	02/03/2012 11:00	1:00:00	3.2	166.0	65.7	94.7	47.6		
	02/03/2012 12:00	1:00:00	4.2	132.5	66.6	87.6	49.6		
	02/03/2012 13:00	1:00:00	4.0	147.8	65.8	90.4	39.9		
	02/03/2012 14:00	1:00:00	4.8	124.0	64.6	88.5	36.8		
	02/03/2012 15:00	1:00:00	4.3	126.5	65.4	96.0	41.7		
	02/03/2012 16:00	1:00:00	2.6	107.8	60.7	80.4	39.1		
AN3	03/02/2012 16:00	1:00:00	2.6	107.8	46.5	66.2	32.6		
GN1	02/03/2012 15:00	1:00:00	4.3	126.5	53.7	78.2	40.3		
RN1	02/03/2012 13:00	1:00:00	4.0	147.8	61.0	75.8	45.4		
	02/03/2012 14:00	1:00:00	4.8	124.0	60.1	74.9	44.2		
	02/03/2012 15:00	1:00:00	4.3	126.5	63.4	76.9	47.2		
	02/03/2012 16:00	1:00:00	2.6	107.8	62.9	79.3	47.3		
* 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

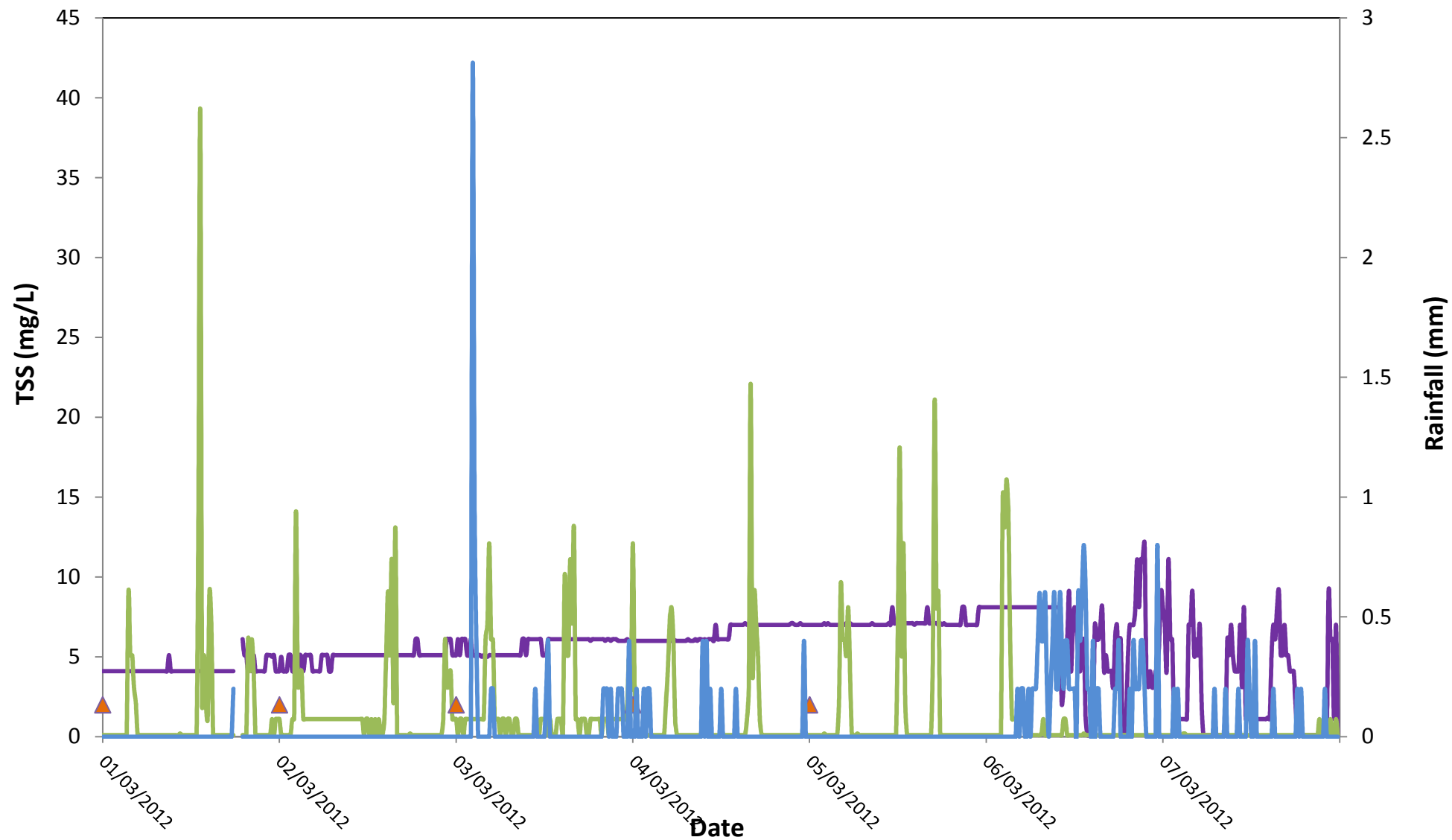
Location	Air Temp. (Min)	Air Temp. (Max)	Start Date and Time	Duration	Wind		Results dB			
					Speed (m/s)*	Direction (Degrees)	L _{Aeq}	L _{Amax}	L _{Amin}	
Action Limit							60.0			
Target Limit							65.0			
AN1	1.1	10.6	03/03/2012 07:00	1:00:00	6.9	180.0	66.8	92.8	44.7	
			03/03/2012 08:00	1:00:00	7.9	198.3	64.5	90.1	43.6	
			03/03/2012 09:00	1:00:00	7.9	214.3	64.8	91.3	49.5	
			03/03/2012 10:00	1:00:00	4.3	245.3	63.4	87.4	49.6	
			03/03/2012 11:00	1:00:00	4.9	257.0	63.0	81.3	49.4	
			03/03/2012 13:00	1:00:00	5.1	254.8	60.2	80.1	49.2	
			03/03/2012 14:00	1:00:00	4.9	246.3	61.0	84.9	48.4	
			03/03/2012 15:00	1:00:00	2.8	231.5	60.9	87.1	47.9	
			03/03/2012 16:00	1:00:00	3.8	240.5	60.9	82.4	48.3	
			03/03/2012 07:00	1:00:00	6.9	180.0	60.4	84.3	45.3	
			03/03/2012 08:00	1:00:00	7.9	198.3	64.2	83.7	44.9	
			03/03/2012 09:00	1:00:00	7.9	214.3	65.4	85.5	41.9	
			03/03/2012 10:00	1:00:00	4.3	245.3	59.6	77.6	35.2	
			03/03/2012 07:00	1:00:00	6.9	180.0	62.6	87.4	42.0	
			03/03/2012 09:00	1:00:00	7.9	214.3	69.4	85.1	48.6	
			03/03/2012 10:00	1:00:00	4.3	245.3	62.9	79.8	48.2	
GN1	03/03/2012 11:00	1:00:00	4.9	257.0	62.3	77.1	48.0			
	03/03/2012 12:00	1:00:00	4.7	254.0	60.5	77.8	46.9			
	03/03/2012 15:00	1:00:00	2.8	231.5	61.4	82.5	44.5			
	03/03/2012 16:00	1:00:00	3.8	240.5	61.4	84.7	43.4			
RN1			03/03/2012 07:00	1:00:00	6.9	180.0	64.2	82.3	51.0	
AN1	2.4	11.0	05/03/2012 07:00	1:00:00	1.1	212.3	66.2	89.9	49.0	
			05/03/2012 08:00	1:00:00	1.6	170.8	73.3	90.6	57.7	
			05/03/2012 09:00	1:00:00	1.9	204.8	74.1	90.7	53.7	
			05/03/2012 10:00	1:00:00	2.1	241.8	73.2	95.4	52.6	
			05/03/2012 11:00	1:00:00	1.6	249.0	74.6	92.3	58.7	
			05/03/2012 12:00	1:00:00	2.4	226.5	73.0	93.7	54.7	
			05/03/2012 13:00	1:00:00	2.2	260.3	63.1	82.7	51.7	
			05/03/2012 14:00	1:00:00	3.1	230.0	60.7	83.9	51.1	
			05/03/2012 15:00	1:00:00	2.5	240.8	72.2	91.6	55.6	
			05/03/2012 16:00	1:00:00	1.7	209.3	72.6	90.1	58.7	
			05/03/2012 17:00	1:00:00	1.5	208.8	71.7	90.1	56.9	
			05/03/2012 15:00	1:00:00	2.5	240.8	56.9	76.8	36.5	
			05/03/2012 09:00	1:00:00	1.9	204.8	45.1	71.0	28.7	
			05/03/2012 17:00	1:00:00	1.5	208.8	54.2	90.8	39.1	
			03/05/2012 07:00	1:00:00	1.1	212.3	50.3	84.5	22.7	
			AN1	7.2	11.8	06/03/2012 07:00	1:00:00	4.0	175.3	69.6
06/03/2012 08:00	1:00:00	6.6				185.5	76.3	90.1	55.9	
06/03/2012 09:00	1:00:00	7.8				194.0	72.7	91.1	58.7	
06/03/2012 10:00	1:00:00	6.2				183.8	66.3	96.5	54.4	
06/03/2012 11:00	1:00:00	6.1				181.0	69.7	90.8	58.8	
06/03/2012 12:00	1:00:00	6.2				185.3	67.2	93.7	57.9	
06/03/2012 13:00	1:00:00	7.4				186.3	72.6	91.5	56.9	
06/03/2012 14:00	1:00:00	4.0				182.3	68.3	88.0	55.8	
06/03/2012 15:00	1:00:00	5.8				184.8	65.8	86.5	56.3	
06/03/2012 16:00	1:00:00	9.1				182.0	70.0	87.8	57.9	
06/03/2012 17:00	1:00:00	6.8				191.3	69.7	91.9	56.6	
06/03/2012 18:00	1:00:00	8.1				194.0	65.4	87.6	50.3	
06/03/2012 09:00	1:00:00	7.8				194.0	60.5	83.7	42.9	
06/03/2012 18:00	1:00:00	8.1				194.0	51.9	76.2	35.6	
GN1	06/03/2012 13:00	1:00:00				7.4	186.3	61.7	84.9	42.5
	06/03/2012 14:00	1:00:00				4.0	182.3	62.1	85.9	42.4
	06/03/2012 15:00	1:00:00				5.8	184.8	62.7	83.2	40.9
	06/03/2012 16:00	1:00:00				9.1	182.0	65.6	84.5	41.9
	06/03/2012 17:00	1:00:00				6.8	191.3	66.5	87.3	42.1
	06/03/2012 18:00	1:00:00				8.1	194.0	67.7	88.7	40.9
	06/03/2012 14:00	1:00:00	4.0	182.3	60.0	81.4	46.5			
	06/03/2012 17:00	1:00:00	6.8	191.3	65.2	84.1	52.2			
RN1			06/03/2012 18:00	1:00:00	8.1	194.0	64.9	84.3	53.5	
* 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										
	AN1		AN2		AN3		GN1		RN1	

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	2.9	9.6	07/03/2012 07:00	1:00:00	4.2	259.0	66.6	86.9	52.8
			07/03/2012 08:00	1:00:00	4.3	256.8	71.9	90.2	59.3
			07/03/2012 09:00	1:00:00	6.8	254.8	67.6	84.8	56.4
			07/03/2012 10:00	1:00:00	6.4	257.3	67.5	83.2	58.7
			07/03/2012 11:00	1:00:00	5.3	262.5	73.9	93.7	57.6
			07/03/2012 12:00	1:00:00	6.5	255.3	73.7	90.3	57.3
			07/03/2012 13:00	1:00:00	5.2	275.8	76.0	92.1	56.3
			07/03/2012 14:00	1:00:00	5.6	272.3	77.8	90.8	55.7
			07/03/2012 15:00	1:00:00	5.2	262.5	70.1	94.3	56.3
			07/03/2012 16:00	1:00:00	7.6	257.3	70.3	95.7	58.6
07/03/2012 17:00			1:00:00	6.1	265.3	70.4	88.6	54.2	
07/03/2012 18:00			1:00:00	3.6	277.8	66.7	85.8	52.3	
AN2			07/03/2012 11:00	1:00:00	5.3	262.5	63.5	88.1	43.9
			07/03/2012 12:00	1:00:00	6.5	255.3	63.0	82.3	47.0
			07/03/2012 13:00	1:00:00	5.2	275.8	62.0	81.3	46.5
			07/03/2012 14:00	1:00:00	5.6	272.3	62.4	81.9	46.2
			07/03/2012 15:00	1:00:00	5.2	262.5	61.8	80.6	46.3
			07/03/2012 17:00	1:00:00	6.1	265.3	61.3	83.5	42.7
AN3			07/03/2012 18:00	1:00:00	3.6	277.8	60.5	83.5	41.7
			07/03/2012 12:00	1:00:00	6.5	255.3	68.5	91.5	33.4
			07/03/2012 13:00	1:00:00	5.2	275.8	64.8	84.5	37.4
			07/03/2012 14:00	1:00:00	5.6	272.3	62.4	79.8	38.7
			07/03/2012 15:00	1:00:00	5.2	262.5	62.8	81.9	37.2
			07/03/2012 17:00	1:00:00	6.1	265.3	61.3	80.3	38.2
GN1			07/03/2012 18:00	1:00:00	3.6	277.8	60.1	77.9	35.8
			07/03/2012 07:00	1:00:00	4.2	259.0	66.9	83.1	52.8
			07/03/2012 08:00	1:00:00	4.3	256.8	66.8	81.8	51.6
			07/03/2012 09:00	1:00:00	6.8	254.8	67.2	83.4	51.0
			07/03/2012 10:00	1:00:00	6.4	257.3	66.7	85.2	51.0
			07/03/2012 11:00	1:00:00	5.3	262.5	71.3	89.9	50.4
	07/03/2012 12:00	1:00:00	6.5	255.3	68.5	85.2	53.0		
	07/03/2012 13:00	1:00:00	5.2	275.8	68.2	84.0	52.1		
	07/03/2012 14:00	1:00:00	5.6	272.3	68.4	86.2	52.8		
	07/03/2012 15:00	1:00:00	5.2	262.5	66.7	84.6	52.0		
RN1	07/03/2012 16:00	1:00:00	7.6	257.3	68.5	86.8	51.7		
	07/03/2012 17:00	1:00:00	6.1	265.3	68.4	90.4	51.1		
	07/03/2012 18:00	1:00:00	3.6	277.8	68.8	88.2	51.5		
	07/03/2012 07:00	1:00:00	4.2	259.0	61.7	82.2	44.5		
			07/03/2012 08:00	1:00:00	4.3	256.8	61.3	84.2	44.1
* 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

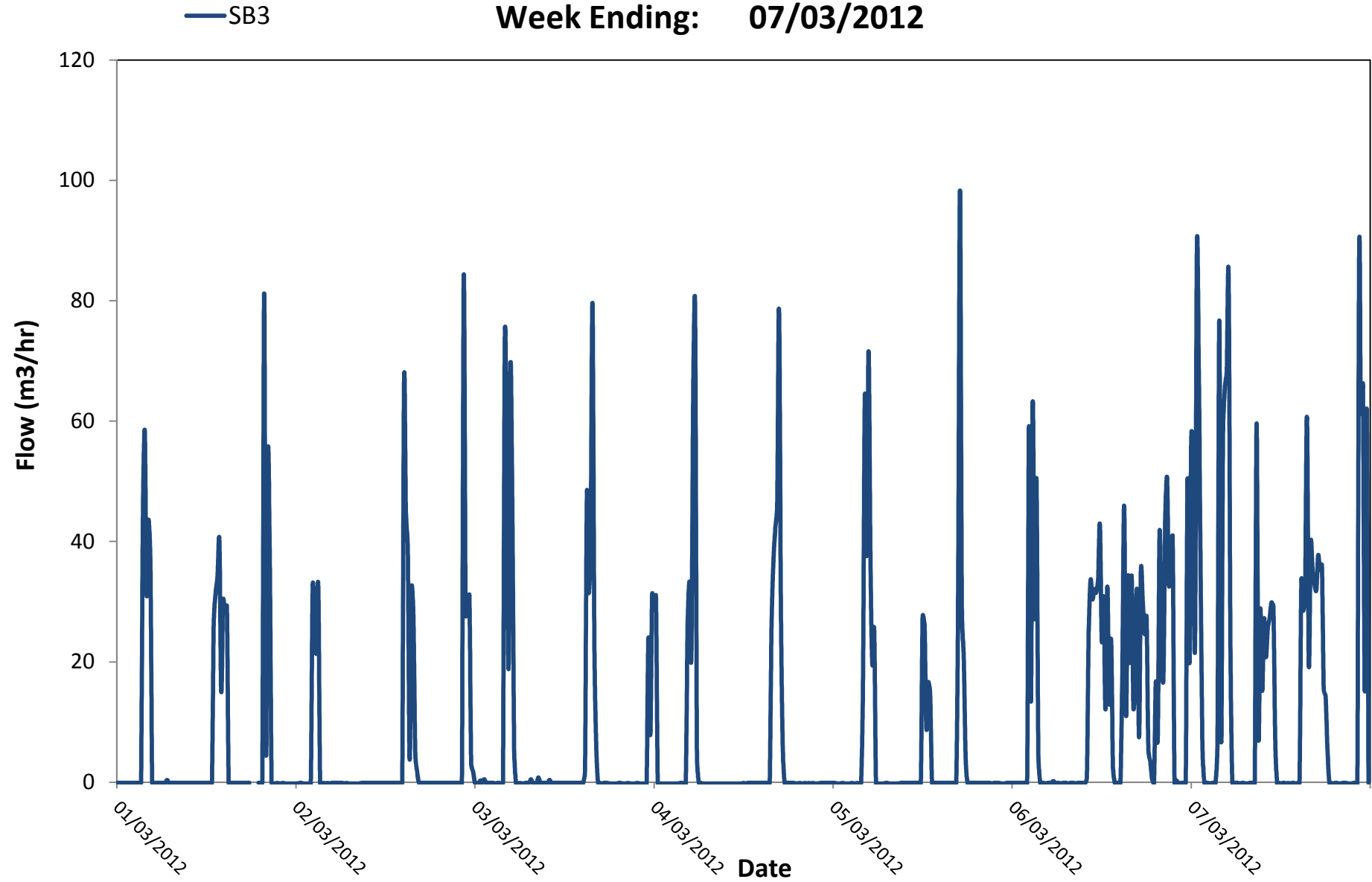
SB3 (2) SB3 (1)
Composite Rainfall

TSS - Surface Water Discharge

Week Ending: 07/03/2012

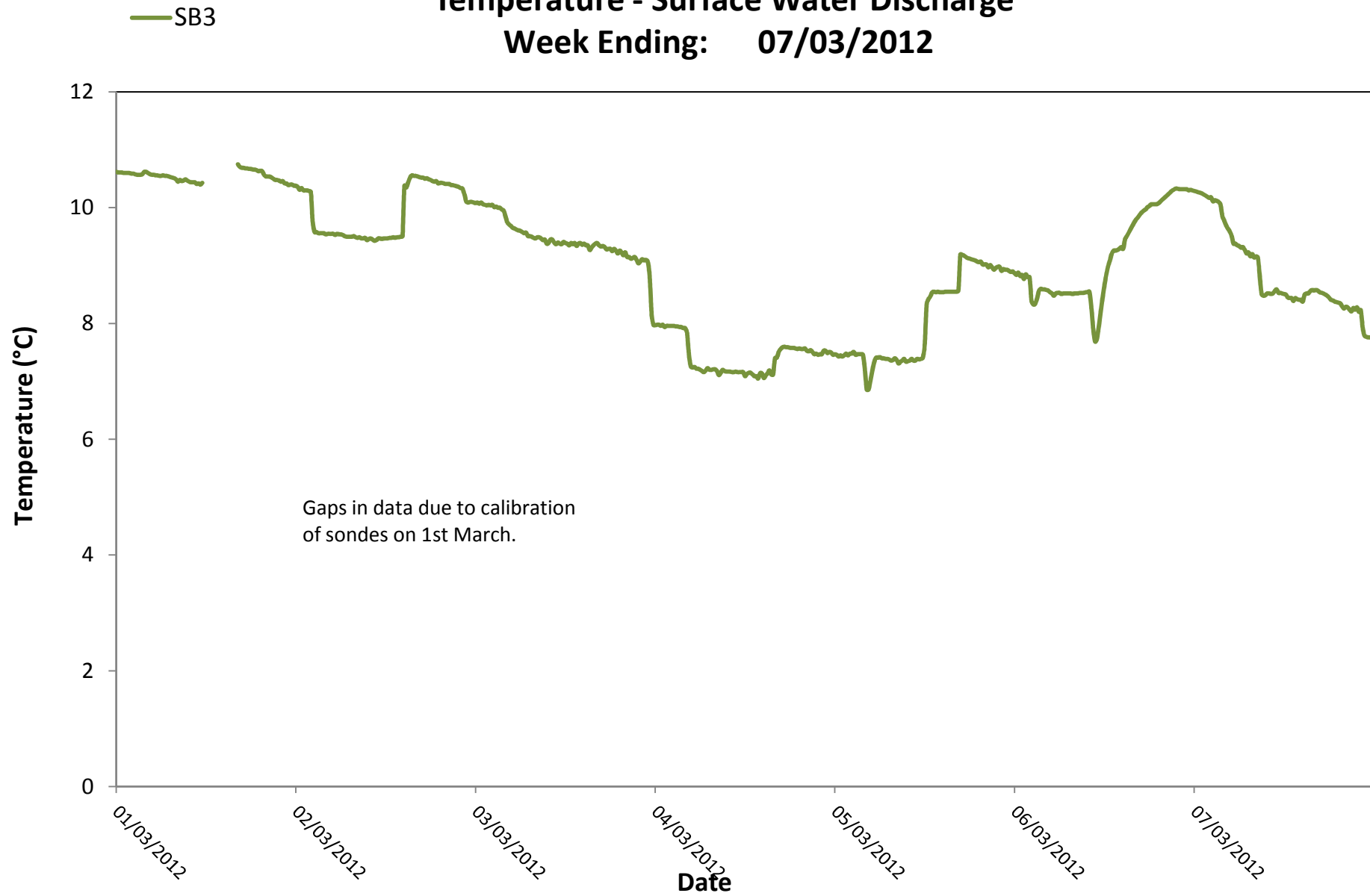


Flow - Surface Water Discharge
Week Ending: 07/03/2012



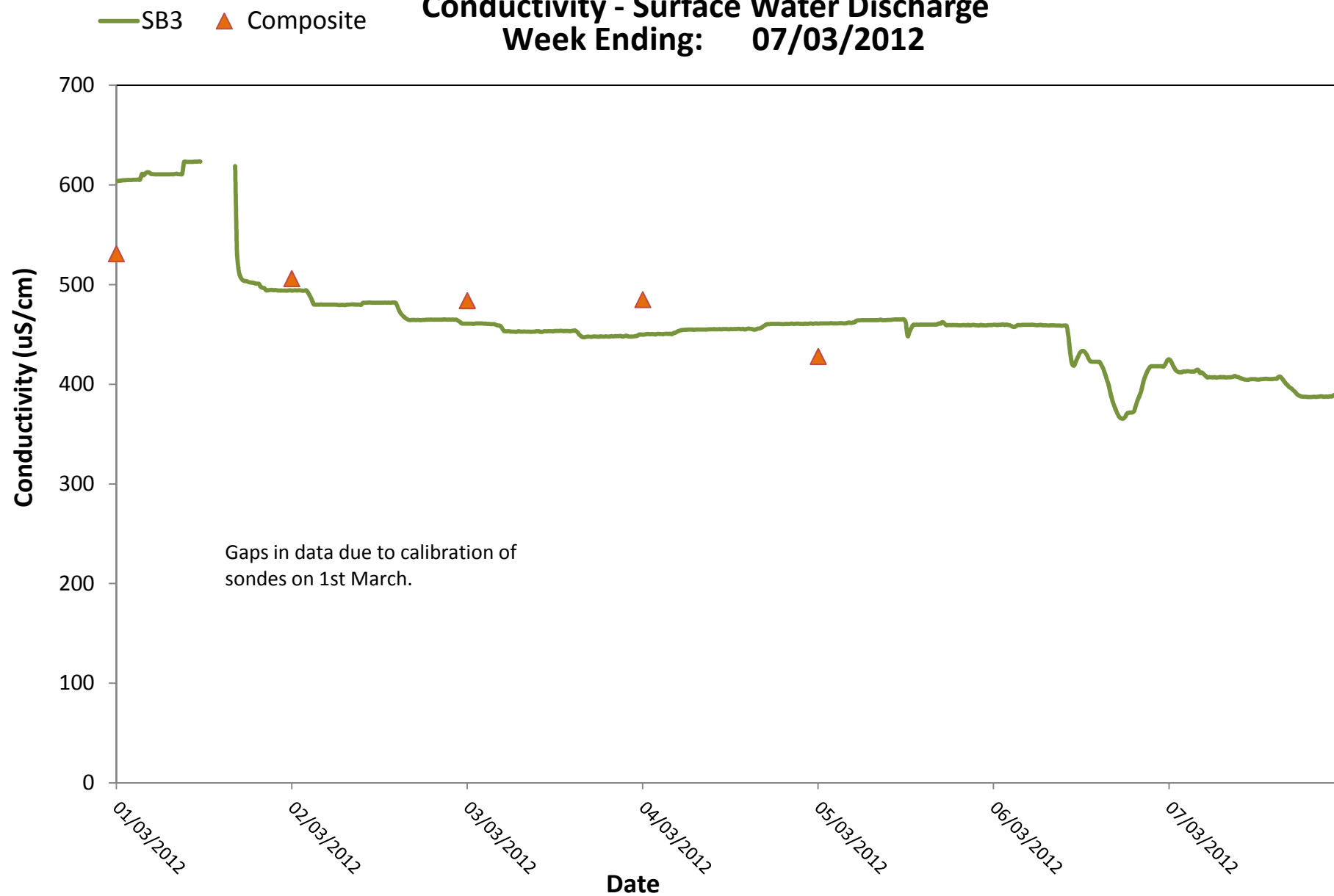
Temperature - Surface Water Discharge

Week Ending: 07/03/2012



Conductivity - Surface Water Discharge

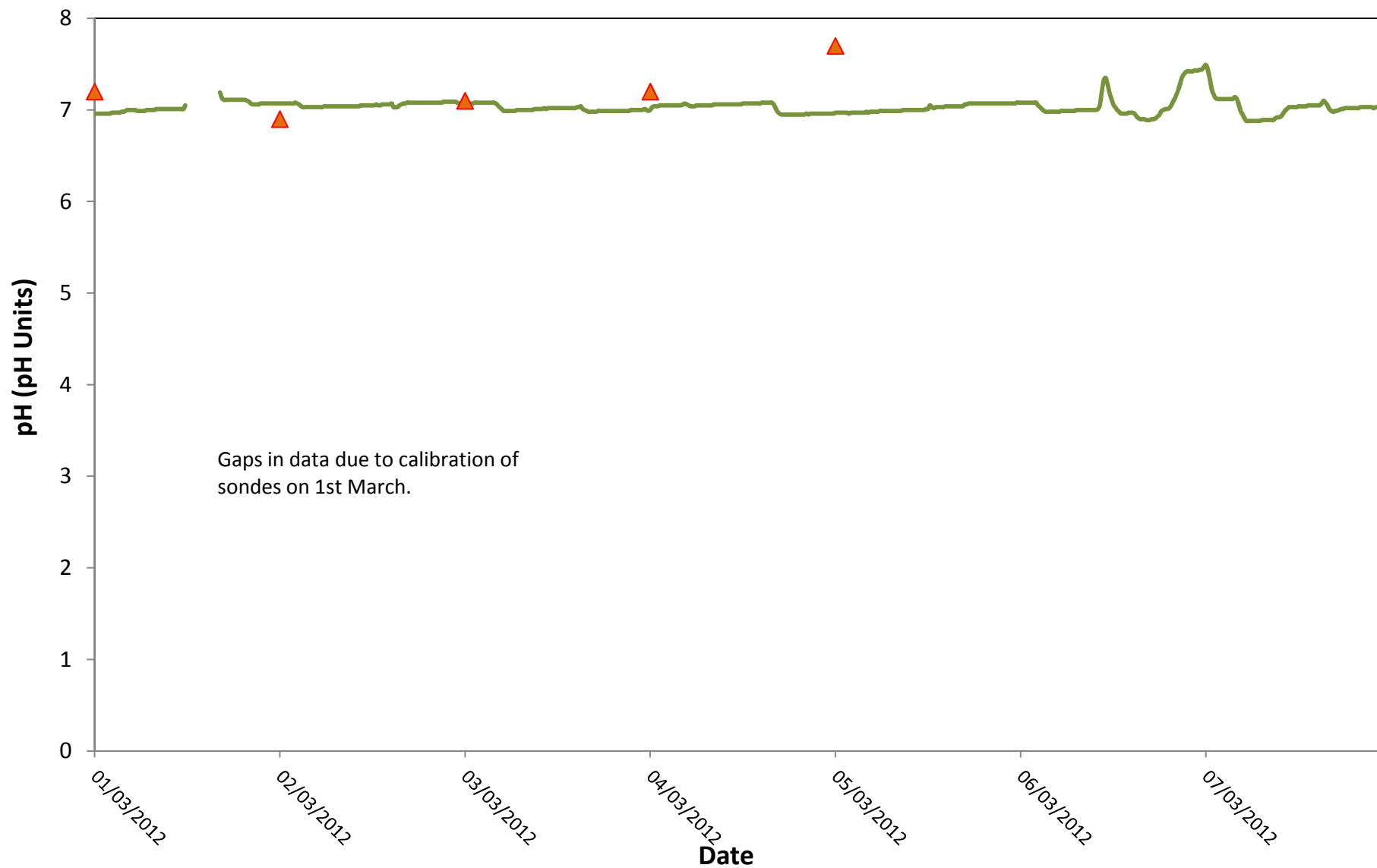
Week Ending: 07/03/2012



— SB3 ▲ Composite

pH - Surface Water Discharge

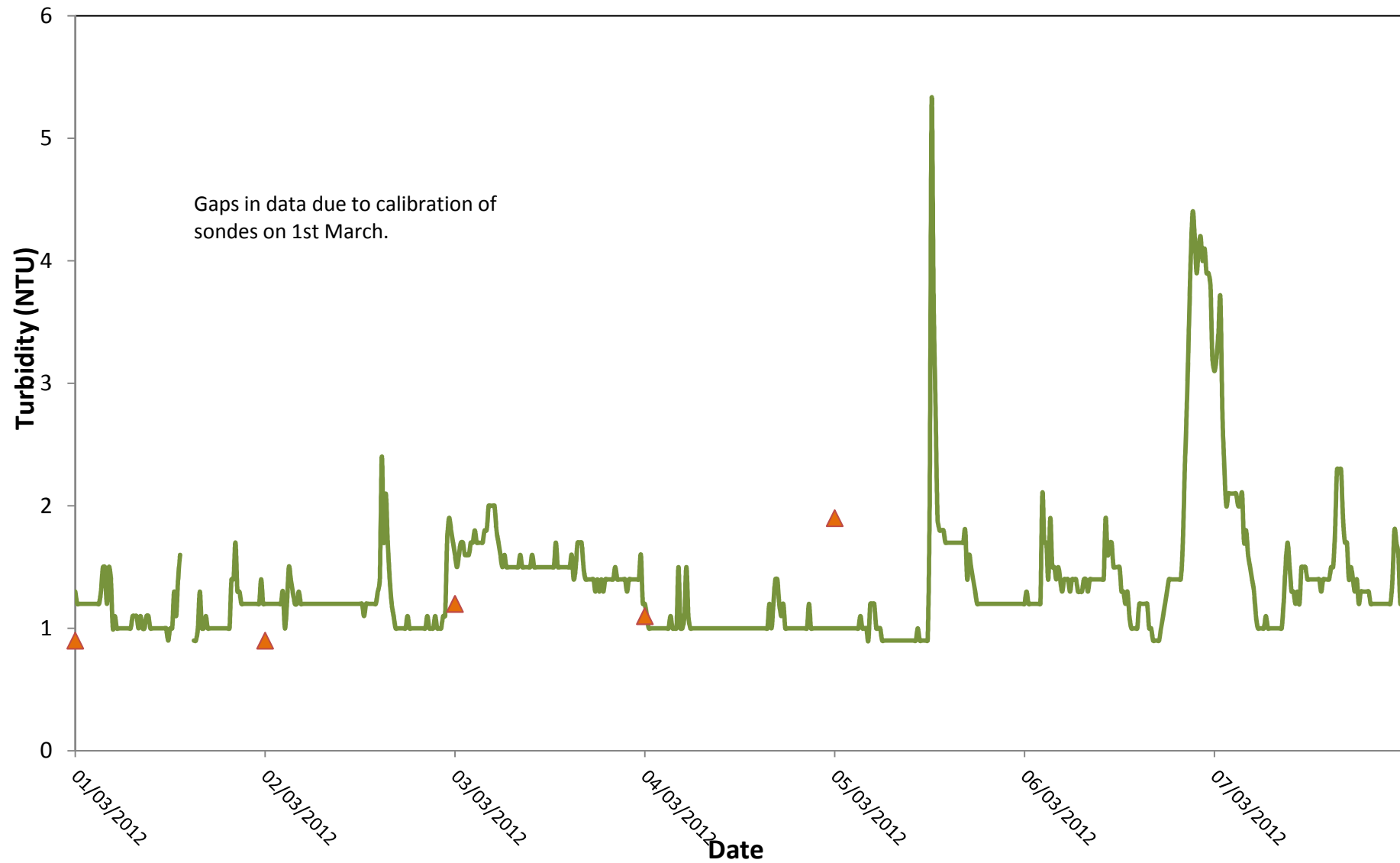
Week Ending: 07/03/2012



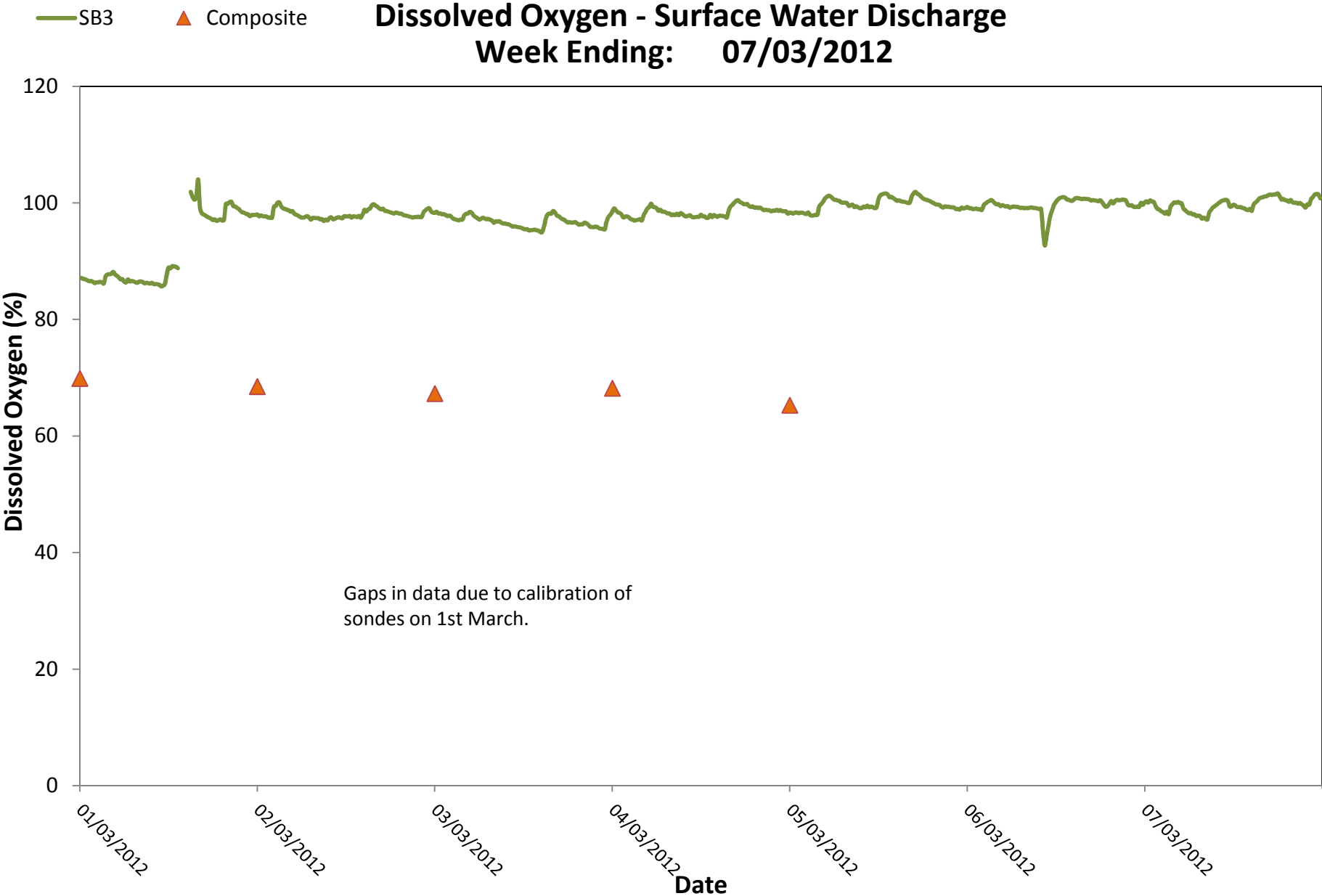
— SB3 ▲ Composite

Turbidity - Surface Water Discharge

Week Ending: 07/03/2012



Dissolved Oxygen - Surface Water Discharge
Week Ending: 07/03/2012



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	01/03/2012	10.5	34.7	520	1.0	7.1
DL2	02/03/2012	9.2	45.3	530	3.4	7.0
DL2	05/03/2012	7.0	56.4	448	5.5	6.5
DL2	06/03/2012	8.4	56.6	521	18.7	6.7
DL2	07/03/2012	8.0	84.9	468	4.0	6.8
	= Indicative Only					
< LOD	= Below Limit of Detection		> LOD	= Above Limit of Detection		