

## **ANNEX G**

### **CONSTRUCTION PHASE MARINE WATER QUALITY MONITORING RESULTS**

Water Quality Monitoring Data Log Sheet

Date: 2021/01/27

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity (NTU)			Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
E2	Cloudy	Calm	12:25	8.2	S	2.27	210	17.45	17.46	31.72	31.72	8.26	8.26	111.9	112.2	8.85	8.88	8.83	2.1	2.2	2.6	2.3	2.4	2.3
						2.27	210	17.46		31.71		8.26		112.5		8.90			2.3			2.4		
						0.20	336	17.33		31.72		8.26		110.5		8.76			2.0			2.4		
					M	0.18	286	17.30	31.71	8.26	110.9	8.80	2.7	3.1	8.54	8.54	2.2	2.3	2.3					
						0.58	275	17.21	31.75	8.26	107.9	8.57	2.7											
						1.21	109	17.20	31.73	8.25	106.9	8.50	3.5											
IM3	Cloudy	Calm	10:47	15.0	S	0.25	330	16.96	16.97	31.66	31.68	8.21	8.21	118.3	118.4	9.45	9.46	9.39	0.6	0.7	0.8	3.0	2.9	2.3
						0.25	330	16.97		31.70		8.21		118.4		9.46			0.7			2.8		
						0.76	236	16.94		31.65		8.20		116.4		9.30			0.9			2.1		
					M	0.51	73	16.94	31.66	8.20	117.0	9.35	1.0	0.9	9.01	9.01	0.9	1.0	0.8	2.3				
						0.33	242	16.95	31.70	8.16	113.2	9.04	0.9				1.8							
						0.35	93	16.95	31.72	8.17	112.3	8.97	0.9				1.5							
IM4	Cloudy	Calm	11:13	16.0	S	1.24	255	17.16	17.16	31.61	31.61	8.25	8.25	118.7	119.0	9.45	9.47	9.38	1.4	1.5	1.2	2.3	2.2	2.9
						1.24	255	17.15		31.61		8.25		119.2		9.49			1.5			2.1		
						1.89	109	17.08		31.69		8.24		116.3		9.27			0.7			3.1		
					M	0.08	104	17.11	31.65	8.25	117.0	9.32	0.8	1.4	9.05	9.05	0.8	1.4	0.8	3.1				
						0.64	64	17.06	31.74	8.23	113.6	9.05	1.3				3.6							
						0.72	29	17.06	31.73	8.23	113.4	9.04	1.4				3.4							
IM5	Cloudy	Calm	11:57	15.2	S	0.86	255	17.16	17.17	31.76	31.77	8.26	8.26	116.1	116.7	9.23	9.28	9.16	0.6	0.7	1.3	3.8	3.7	3.2
						0.86	255	17.18		31.77		8.26		117.2		9.32			0.7			3.6		
						0.48	217	16.95		31.86		8.25		112.9		9.01			1.0			3.2		
					M	1.35	304	16.96	31.83	8.25	113.5	9.06	1.2	2.3	8.90	8.90	1.2	2.3	1.1	3.2				
						0.25	184	16.76	31.98	8.24	111.3	8.91	2.1				2.5							
						0.76	264	16.76	32.00	8.24	110.9	8.88	2.4				2.6							
IM6	Cloudy	Calm	11:40	16.0	S	0.97	308	16.99	16.99	31.92	31.93	8.26	8.26	116.3	116.3	9.27	9.27	9.13	0.5	0.6	0.9	2.8	2.7	2.3
						1.78	249	16.98		31.93		8.26		116.3		9.27			0.6			2.6		
						0.99	312	16.81		32.04		8.24		112.1		8.96			1.0			2.3		
					M	0.32	300	16.81	32.03	8.24	112.6	9.00	1.2	1.1	8.84	8.84	1.2	1.1	1.1	2.3				
						0.40	267	16.75	32.07	8.23	110.6	8.85	1.0				1.8							
						0.40	267	16.74	32.07	8.23	110.3	8.83	1.1				1.9							

Remark: \* DA: Depth-Averaged

\*\* Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

\*\*\* S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet

Date: 2021/01/27

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity (NTU)			Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F2	Cloudy	Calm	15:38	19.0	S	0.92	326	17.30	17.29	31.98	31.98	8.22	8.22	117.0	117.2	9.27	9.29	9.16	0.1	0.1	1.0	<1.0	0.5	1.7
						1.12	283	17.28		31.98		8.22		117.3		9.30			0.1			<1.0		
						0.52	241	17.16		32.05		8.21		113.5		9.01			0.1			1.3		
					M	0.68	288	17.16	32.04	8.21	114.2	9.07	0.1	1.2										
						0.42	301	17.11	32.23	8.20	109.0	8.65	2.6	3.5										
						0.59	248	17.12	32.23	8.19	8.20	107.4	8.52	8.59	3.0	2.8	3.3							
F3	Cloudy	Calm	16:14	17.8	S	0.57	294	17.15	17.16	32.00	32.00	8.25	8.25	117.2	117.5	9.31	9.33	9.21	0.3	0.3	0.7	1.5	1.4	1.7
						1.26	322	17.16		32.00		8.25		117.7		9.35			0.3			1.3		
						0.30	17	17.10		32.05		8.24		114.3		9.09			0.6			1.7		
					M	0.41	189	17.10	32.04	8.24	114.4	9.09	0.7	1.7										
						0.61	317	17.03	32.05	8.23	112.1	8.92	1.2	2.0										
						0.63	173	17.03	32.05	8.23	111.8	8.90	1.3	2.1										
IM3	Cloudy	Calm	17:24	15.3	S	0.73	238	17.32	17.32	31.77	31.77	8.30	8.31	124.4	124.6	9.86	9.88	9.81	0.6	0.6	2.1	2.3	2.4	4.3
						0.63	292	17.32		31.77		8.31		124.7		9.89			0.5			2.5		
						0.58	206	17.32		31.76		8.30		122.1		9.68			0.7			3.2		
					M	0.18	18	17.33	31.76	8.30	123.6	9.80	0.6	3.4										
						0.52	278	17.05	31.78	8.27	115.4	9.20	4.6	6.9										
						0.22	163	17.04	31.78	8.26	114.3	9.11	5.8	7.2										
IM4	Cloudy	Calm	17:02	17.2	S	0.51	261	17.28	17.28	31.57	31.57	8.28	8.29	121.2	121.4	9.63	9.64	9.60	0.3	0.3	1.1	2.6	2.5	3.2
						0.51	261	17.27		31.57		8.29		121.5		9.65			0.3			2.4		
						0.63	222	17.28		31.56		8.28		119.9		9.53			0.4			3.1		
					M	0.23	321	17.28	31.57	8.28	120.6	9.58	0.4	2.7										
						0.28	230	16.98	31.68	8.26	114.7	9.16	2.4	4.2										
						0.71	5	17.02	31.65	8.26	113.4	9.05	2.8	4.4										
IM5	Cloudy	Calm	16:41	15.2	S	0.69	330	17.24	17.24	31.56	31.55	8.27	8.27	119.3	119.4	9.49	9.50	9.39	0.3	0.3	1.3	1.3	1.3	2.2
						0.69	330	17.23		31.53		8.27		119.4		9.50			0.3			1.2		
						1.07	263	17.17		31.58		8.27		116.4		9.27			0.6			2.2		
					M	1.07	263	17.18	31.54	8.27	116.9	9.31	0.5	2.4										
						0.81	154	16.81	31.78	8.24	110.6	8.86	3.0	3.2										
						0.70	280	16.79	31.80	8.24	110.3	8.83	3.3	3.1										
IM6	Cloudy	Calm	16:26	16.1	S	0.54	190	17.09	17.09	31.83	31.83	8.26	8.26	117.8	118.1	9.38	9.40	9.35	0.6	0.6	1.0	4.7	4.6	3.0
						0.08	344	17.08		31.83		8.26		118.3		9.42			0.6			4.4		
						1.17	146	17.08		31.84		8.26		116.9		9.31			0.8			3.1		
					M	0.72	249	17.03	31.85	8.26	116.3	9.27	0.7	2.8										
						0.77	274	16.93	31.84	8.25	113.5	9.06	1.4	1.7										
						0.16	336	16.90	31.86	8.24	113.3	9.05	1.6	1.5										

Remark: \* DA: Depth-Averaged

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Water Quality Monitoring Data Log Sheet

Date: 2021/01/29

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity (NTU)			Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
E2	Fine	Calm	13:29	8.2	S	0.69	6	17.45	17.45	31.42	31.42	8.21	8.21	112.2	112.3	8.89	8.90	8.84	2.2	2.1	3.1	2.2	2.2	3.5
						0.69	6	17.45	31.41	8.21		112.3	8.90	8.90	1.9	2.1	2.2							
						0.31	132	17.40	31.44	8.20		110.8	8.76	8.79	3.1	2.9	2.3							
					M	0.13	31	17.41	31.46	8.20	111.2	8.82	8.64	4.4	4.5	2.7	4.4	4.5	5.8					
						0.20	52	17.21	31.57	8.19	108.7	8.65		8.64	4.4	4.5	5.4							
						0.17	2	17.21	31.56	8.19	108.3	8.62		8.64	4.5	4.5	5.4							
IM3	Fine	Calm	12:00	15.1	S	0.75	118	17.28	17.28	31.06	31.08	8.18	8.19	119.2	119.8	9.50	9.55	9.26	0.4	0.5	0.8	1.6	1.5	1.8
						0.75	118	17.27	31.09	8.19		120.3	9.59	9.55	0.5	0.5	1.4							
						0.35	144	17.17	31.42	8.15		112.1	8.93	8.97	0.8	0.9	1.9							
					M	0.35	144	17.17	31.43	8.15	113.1	9.01	8.82	0.9	1.2	0.9	1.2	2.1						
						0.13	305	17.20	31.56	8.12	111.2	8.85		8.82	1.1	1.2	1.7							
						0.46	259	17.20	31.58	8.13	110.4	8.78		8.82	1.2	1.2	2.3							
IM4	Fine	Calm	12:23	16.0	S	1.51	291	17.32	17.33	31.35	31.36	8.21	8.21	116.4	116.5	9.25	9.26	9.19	1.6	1.8	1.6	1.6	1.8	2.5
						1.51	291	17.33	31.36	8.21		116.5	9.26	9.26	1.6	1.8	1.9							
						0.45	194	17.24	31.40	8.20		114.4	9.10	9.13	1.0	1.0	2.4							
					M	0.53	4	17.25	31.32	8.20	115.0	9.16	9.00	0.9	1.0	0.9	1.0	2.3						
						0.55	29	17.22	31.41	8.20	113.0	9.00		9.00	1.9	2.1	3.9							
						0.52	343	17.21	31.42	8.20	112.9	8.99		9.00	2.2	2.1	3.1							
IM5	Fine	Calm	13:05	15.1	S	0.59	305	17.29	17.29	31.29	31.33	8.24	8.24	120.9	121.2	9.62	9.64	9.49	0.8	0.8	1.2	1.9	1.9	2.0
						0.47	201	17.29	31.36	8.24		121.4	9.65	9.64	0.7	0.7	1.8							
						0.99	239	17.22	31.45	8.23		116.3	9.26	9.34	0.7	0.7	1.9							
					M	0.52	86	17.24	31.42	8.23	118.3	9.41	8.98	0.7	2.3	0.7	2.3	2.0						
						0.10	187	17.11	31.70	8.21	113.4	9.03		8.98	2.1	2.3	2.2							
						0.85	293	17.11	31.67	8.21	112.1	8.93		8.98	2.4	2.3	2.0							
IM6	Fine	Calm	12:49	16.1	S	1.66	276	17.32	17.32	31.56	31.58	8.23	8.23	117.8	118.3	9.35	9.39	9.20	2.4	2.7	1.5	< 1.0	0.5	1.1
						1.66	276	17.32	31.60	8.23		118.7	9.42	9.39	2.9	2.7	< 1.0							
						0.17	87	17.29	31.75	8.21		113.0	8.97	9.01	0.4	0.4	1.0							
					M	0.67	142	17.29	31.78	8.21	114.0	9.04	8.84	0.4	1.4	0.4	1.4	1.2						
						0.99	117	17.33	31.96	8.20	111.9	8.86		8.84	1.5	1.4	1.8							
						0.51	77	17.33	31.87	8.20	111.3	8.82		8.84	1.2	1.4	1.5							

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								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F2	Fine	Calm	17:11	19.2	S	1.11	342	17.58	17.58	32.07	32.07	8.19	8.19	112.7	112.7	8.88	8.88	8.83	0.1	0.1	2.4	< 1.0	0.5	1.6
						0.48	169	17.58	32.07	32.07	8.19	8.19	112.7	112.7	8.88	8.88	8.83	0.1	0.1					
						0.35	163	17.58	32.07	32.07	8.17	8.18	111.1	111.5	8.75	8.78	8.83	2.8	2.9					
					M	0.36	179	17.58	32.06	32.06	8.18	8.18	111.8	111.8	8.80	8.80	8.83	3.0	2.9					
						0.39	319	17.59	32.08	32.08	8.16	8.16	109.6	109.0	8.63	8.58	8.58	3.9	4.1					
						1.30	281	17.60	32.08	32.08	8.16	8.16	108.3	109.0	8.52	8.58	8.58	4.3	4.1					
F3	Fine	Calm	17:48	18.0	S	0.37	274	17.37	17.37	31.85	31.85	8.26	8.26	117.0	117.1	9.26	9.27	9.21	0.4	0.5	2.4	< 1.0	0.8	3.0
						0.68	247	17.37	31.85	31.85	8.26	8.26	117.1	117.1	9.27	9.27	9.21	0.5	0.5					
						1.65	254	17.40	31.94	31.94	8.26	8.26	115.9	115.8	9.17	9.16	9.21	0.6	0.7					
					M	0.77	221	17.40	31.93	31.94	8.26	8.26	115.6	115.8	9.14	9.16	9.21	0.7	0.7					
						0.47	85	17.43	32.07	32.06	8.23	8.23	111.5	111.0	8.81	8.77	8.77	6.3	6.1					
						0.53	115	17.43	32.05	32.05	8.23	8.23	110.5	111.0	8.73	8.77	8.77	5.9	6.1					
IM3	Fine	Calm	19:09	15.0	S	0.64	234	17.34	17.34	31.56	31.56	8.29	8.29	120.0	120.0	9.52	9.52	9.49	1.0	1.0	3.9	1.3	1.4	2.7
						0.78	133	17.34	31.55	31.56	8.29	8.29	120.0	120.0	9.52	9.52	9.49	0.9	1.0					
						0.65	304	17.36	31.61	31.62	8.28	8.28	119.4	119.4	9.47	9.47	9.49	2.5	2.3					
					M	0.32	288	17.37	31.62	31.62	8.28	8.28	119.3	119.4	9.46	9.46	9.49	2.1	2.3					
						0.97	137	17.38	31.64	31.64	8.28	8.28	118.5	118.4	9.39	9.39	9.39	7.4	8.3					
						0.88	107	17.37	31.64	31.64	8.28	8.28	118.3	118.4	9.38	9.39	9.39	9.2	8.3					
IM4	Fine	Calm	18:42	17.2	S	1.28	277	17.20	17.21	31.43	31.44	8.27	8.27	117.4	117.5	9.35	9.35	9.31	1.5	1.6	5.1	3.0	3.2	6.6
						1.00	258	17.21	31.45	31.46	8.27	8.27	117.5	117.5	9.35	9.35	9.31	1.6	1.6					
						0.96	239	17.23	31.46	31.46	8.27	8.27	116.4	116.5	9.26	9.27	9.31	2.5	2.5					
					M	0.54	202	17.23	31.46	31.46	8.27	8.27	116.6	116.5	9.28	9.27	9.31	2.5	2.5					
						0.38	185	17.24	31.46	31.46	8.26	8.26	114.7	114.7	9.13	9.13	9.13	11.6	11.1					
						0.46	285	17.24	31.46	31.46	8.26	8.26	114.6	114.7	9.12	9.13	9.13	10.6	11.1					
IM5	Fine	Calm	18:17	15.0	S	0.99	257	17.23	17.23	31.48	31.48	8.27	8.27	116.2	116.3	9.25	9.26	9.19	1.7	1.9	4.9	1.4	1.4	4.2
						0.99	257	17.23	31.48	31.48	8.27	8.27	116.4	116.3	9.26	9.26	9.19	2.0	1.9					
						0.91	128	17.23	31.50	31.50	8.26	8.27	114.0	114.7	9.07	9.13	9.19	4.5	4.3					
					M	1.93	265	17.23	31.49	31.49	8.27	8.27	115.4	114.7	9.18	9.13	9.19	4.0	4.3					
						0.49	69	17.15	31.71	31.68	8.25	8.25	110.8	110.7	8.82	8.81	8.81	8.8	8.5					
						0.80	47	17.16	31.65	31.68	8.25	8.25	110.6	110.7	8.80	8.81	8.81	8.1	8.5					
IM6	Fine	Calm	18:01	16.1	S	0.49	19	17.29	17.29	31.68	31.69	8.28	8.28	118.5	118.6	9.41	9.41	9.38	2.6	2.8	5.8	2.6	2.7	6.5
						0.49	19	17.29	31.69	31.69	8.28	8.28	118.6	118.6	9.41	9.41	9.38	2.9	2.8					
						0.26	159	17.30	31.69	31.69	8.27	8.28	117.5	117.8	9.32	9.34	9.38	5.7	5.5					
					M	0.64	285	17.30	31.68	31.69	8.28	8.28	118.0	117.8	9.36	9.34	9.38	5.2	5.5					
						0.03	198	17.30	31.72	31.73	8.27	8.27	115.6	115.1	9.17	9.13	9.13	8.2	9.2					
						0.52	291	17.31	31.74	31.73	8.26	8.27	114.5	115.1	9.08	9.13	9.13	10.2	9.2					

Remark: \* DA: Depth-Averaged

\*\* Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

\*\*\* S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

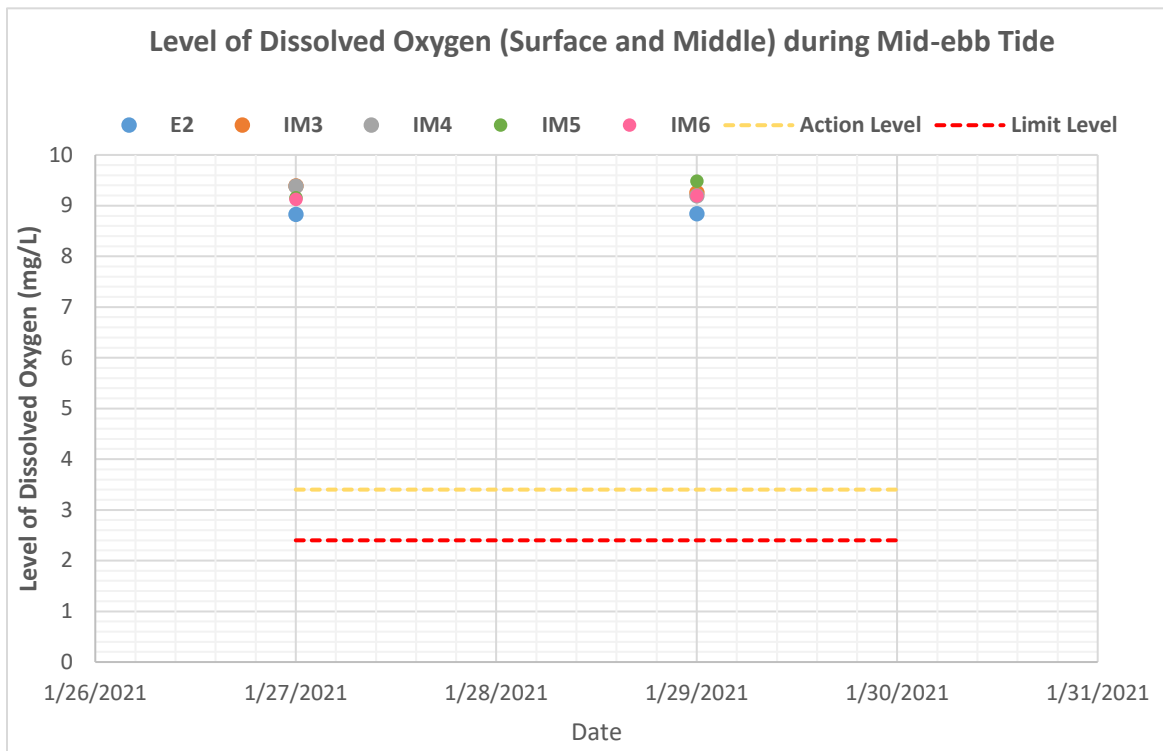


Figure G1a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control station (E2) and impact stations (IM3-IM6) under Group 2 during mid-ebb tides between 27 and 29 January 2021.

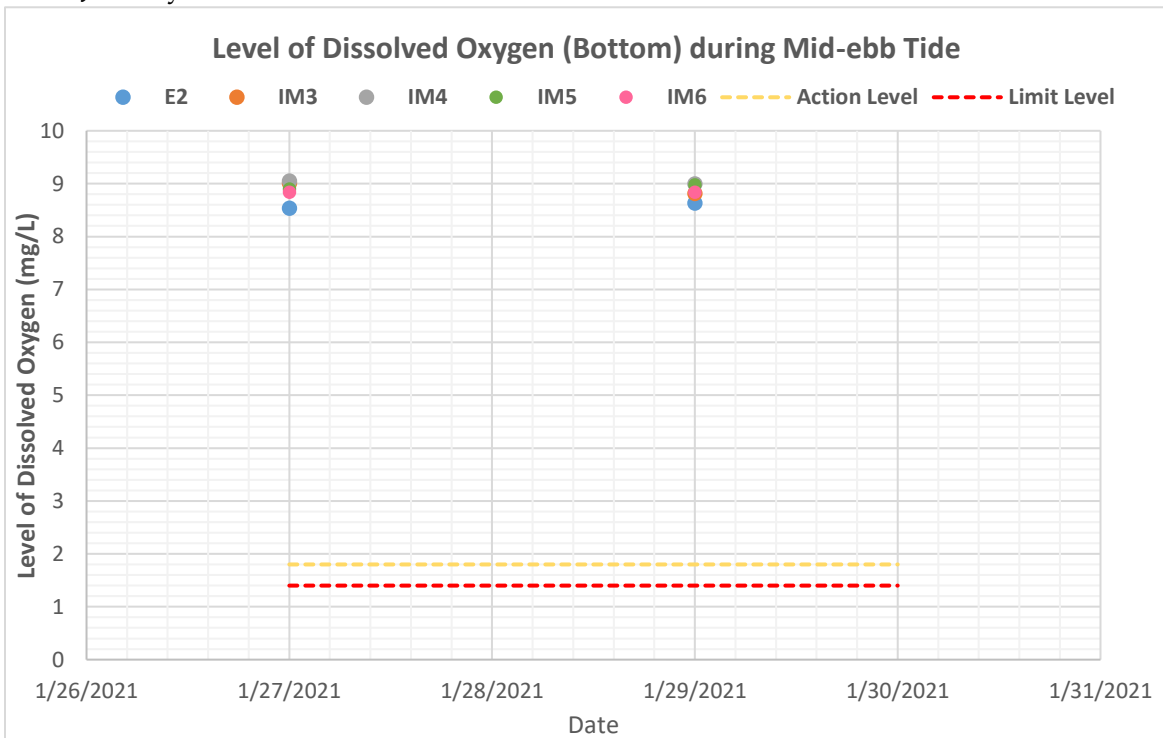


Figure G1b: Levels of Bottom Dissolved Oxygen (mg/L) at control station (E2) and impact stations (IM3-IM6) under Group 2 during mid-ebb tides between 27 and 29 January 2021.

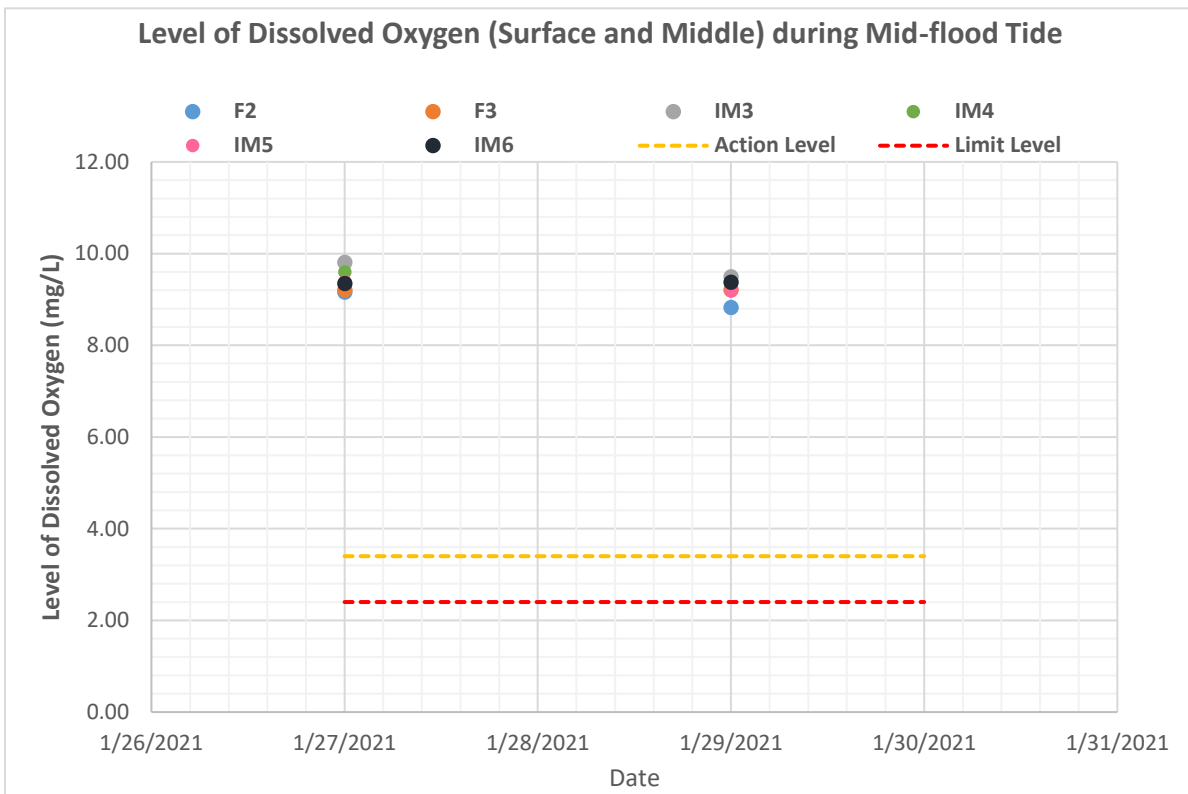


Figure G2a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations (F2-F3) and impact stations (IM3-IM6) under Group 2 during mid-flood tides between 27 and 29 January 2021.

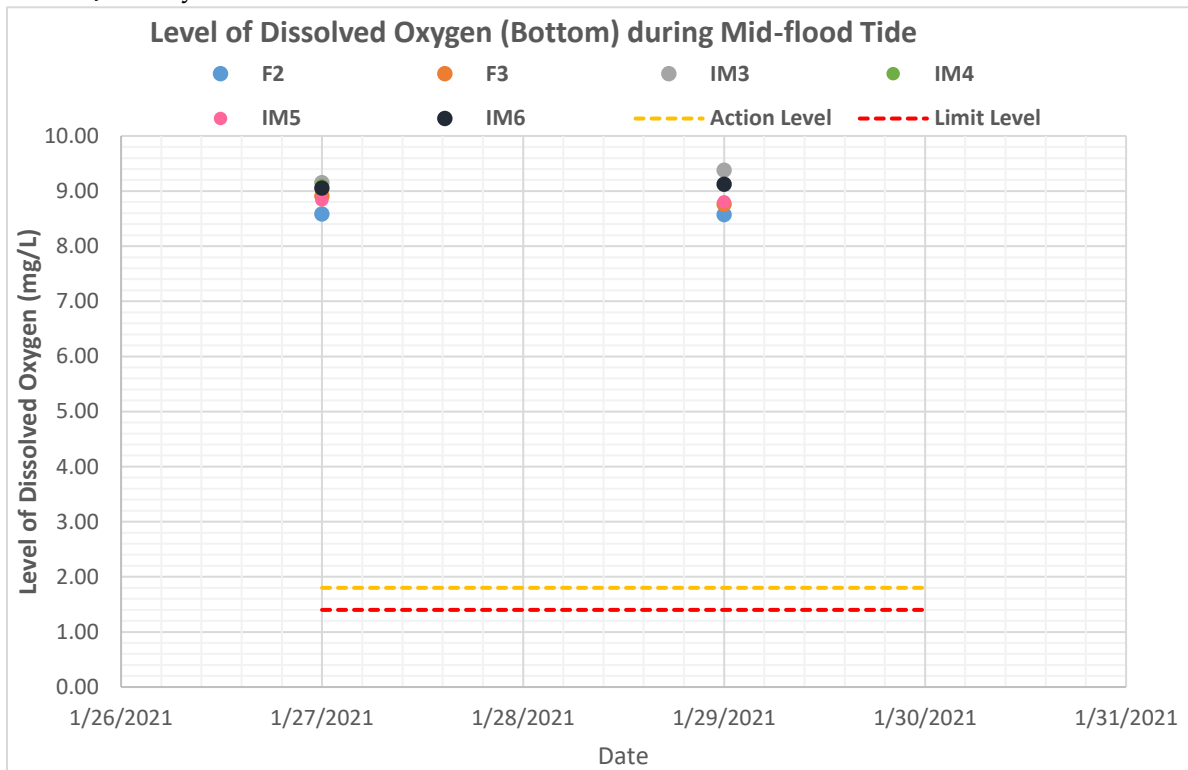


Figure G2b: Levels of Bottom Dissolved Oxygen (mg/L) at control stations (F2-F3) and impact stations (IM3-IM6) under Group 2 during mid-flood tides between 27 and 29 January 2021

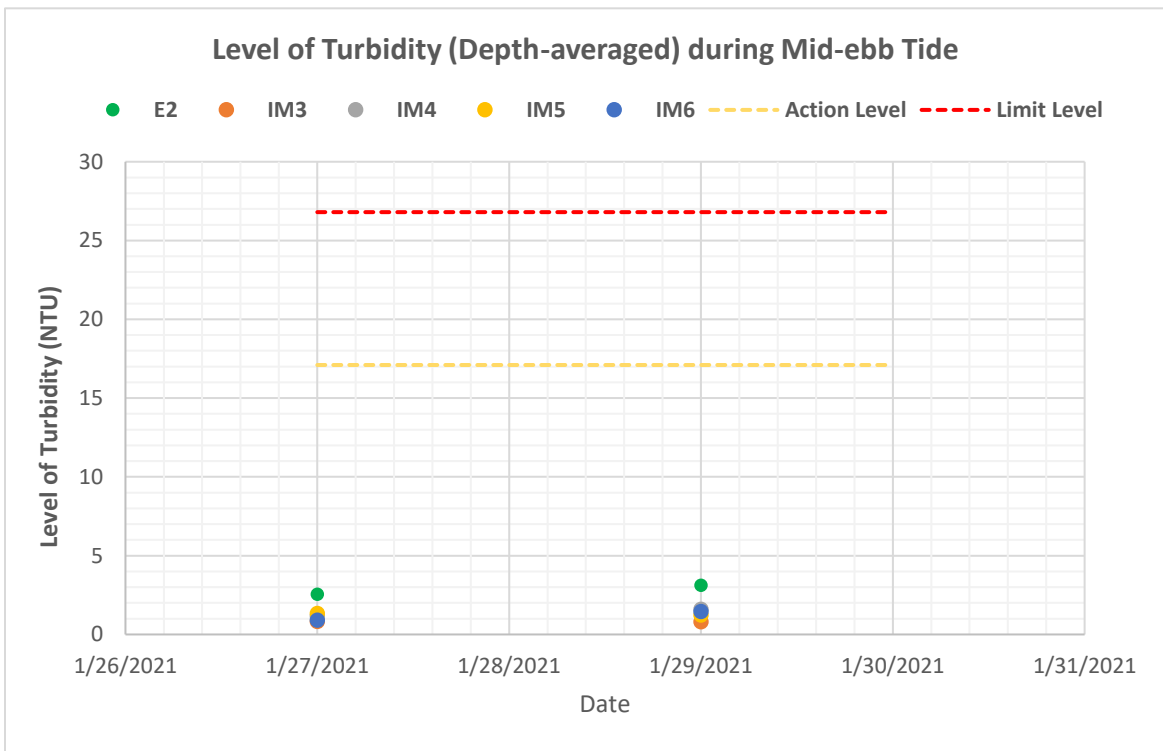


Figure G3: Levels of Depth-averaged Turbidity (NTU) at control station (E2) and impact stations (IM3-IM6) under Group 2 during mid-ebb tides between 27 and 29 January 2021.

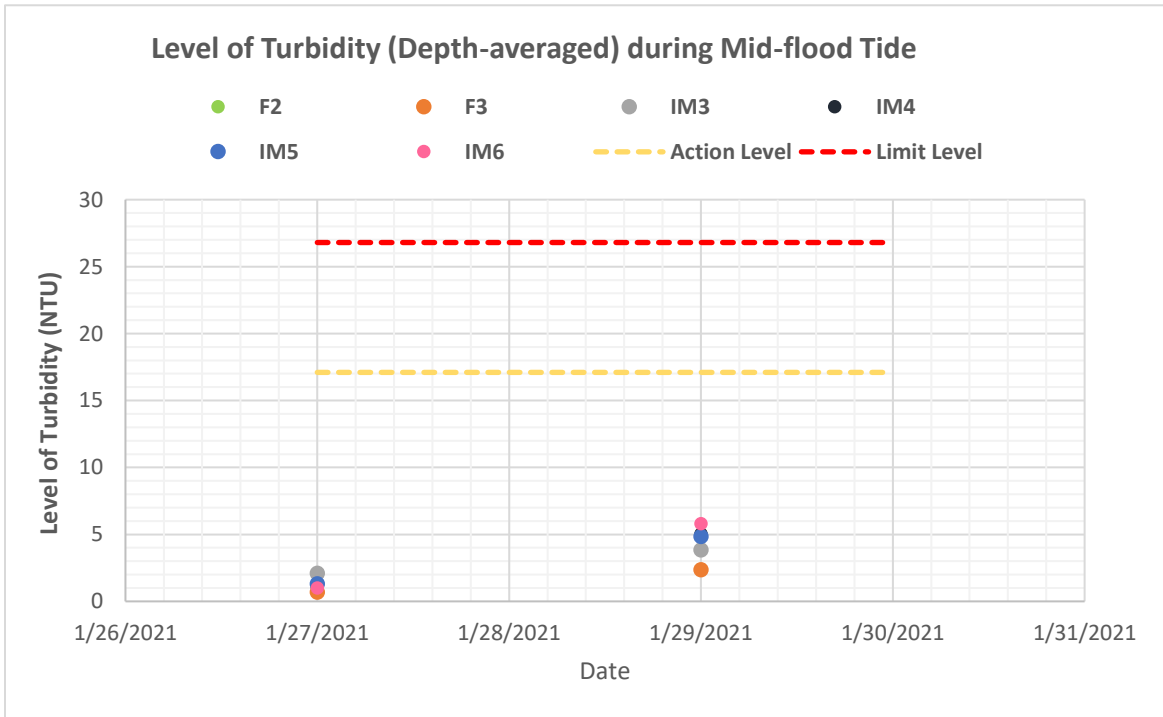


Figure G4: Levels of Depth-averaged Turbidity (NTU) at control stations (F2-F3) and impact stations (IM3-IM6) under Group 2 during mid-flood tides between 27 and 29 January 2021.



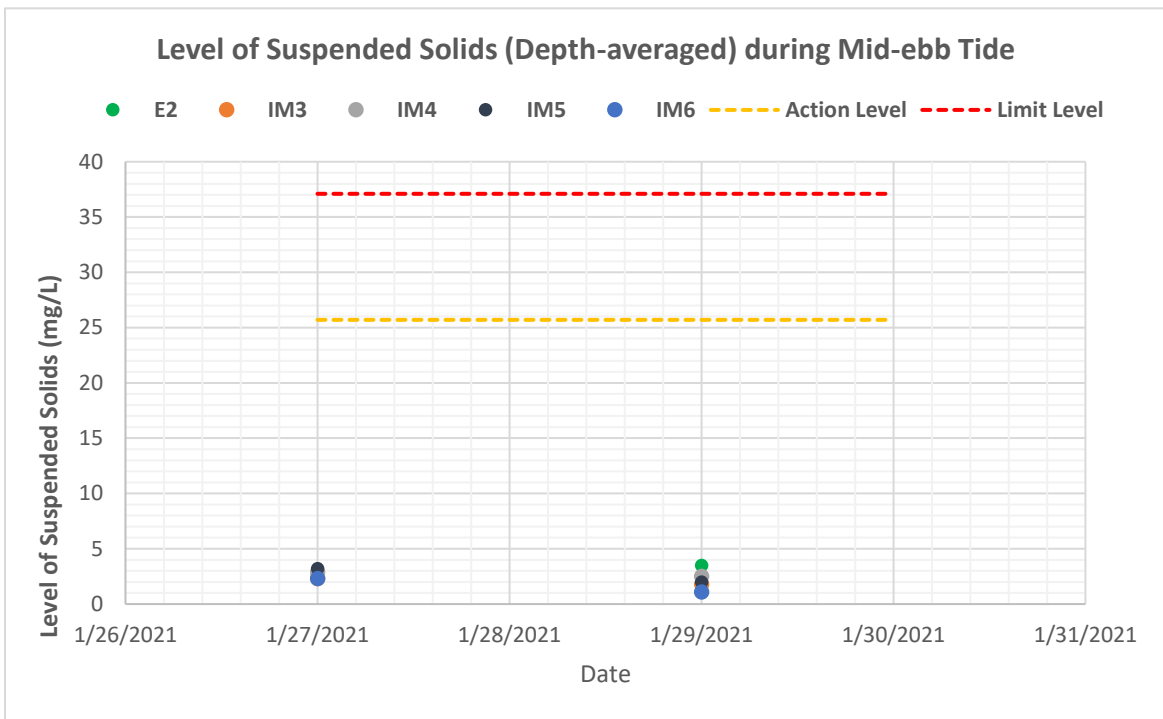


Figure G5: Levels of Depth-averaged Suspended Solids (mg/L) at control station (E2) and impact stations (IM3-IM6) under Group 2 during mid-ebb tides between 27 and 29 January 2021.

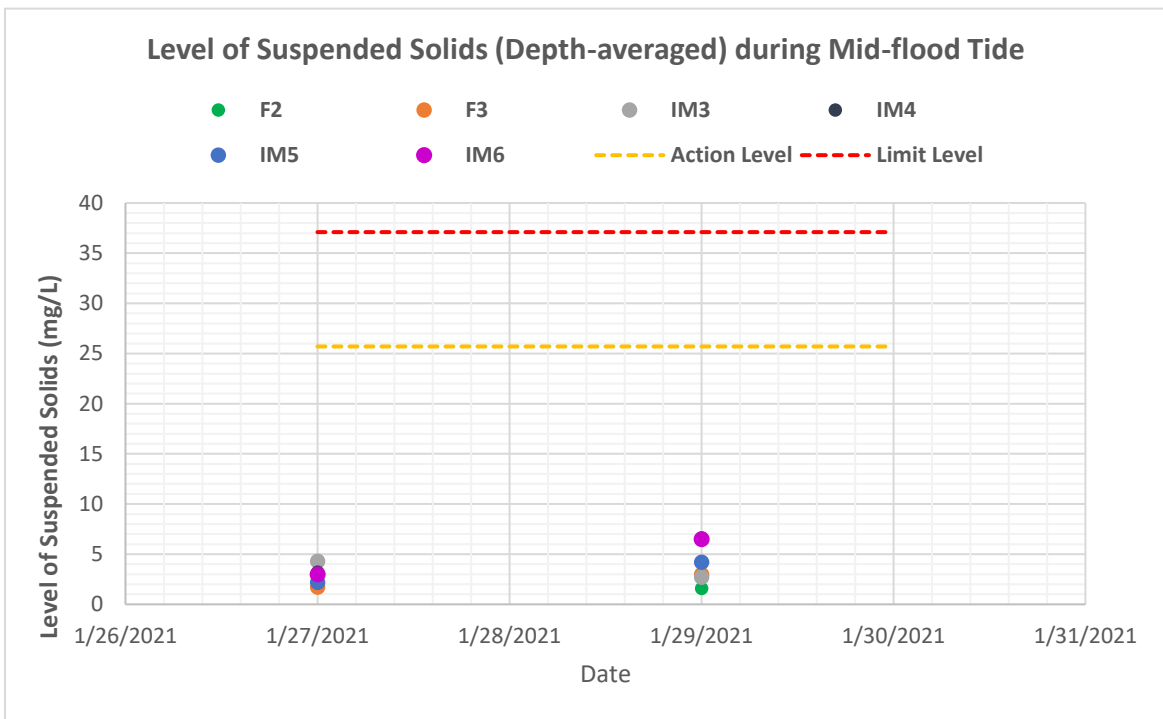


Figure G6: Levels of Depth-averaged Suspended Solids (mg/L) at control stations (F2-F3) and impact stations (IM3-IM6) under Group 2 during mid-flood tides between 27 and 29 January 2021.