

**Appendix 6.3 Model Results for Seawater Intakes**

Note: Shaded and bolded - value exceeded the WSD criteria

N/A - Not Available

**(I) WSD Flushing Water Intakes**

ID	Indicator Point	Scenario	Mid-depth					
			Minimum DO (mg/L)	Maximum				
				UIA (mg/L)	E.coli (no./100mL)	NH <sub>3</sub> -N (mg/L)	SS (mg/L)	BOD <sub>5</sub> (mg/L)
<b>WSD Flushing Water Intakes</b>			<b>≥ 2</b>	<b>N/A</b>	<b>≤ 20,000</b>	<b>≤ 1</b>	<b>≤ 10</b>	<b>≤ 10</b>
<b>Assessment Criteria</b>			<b>≥ 2</b>	<b>N/A</b>	<b>≤ 20,000</b>	<b>≤ 1</b>	<b>≤ 10</b>	<b>≤ 10</b>
WSD1	Near Butterfly Beach	2014 - Without HATS Stage 2A (1a)	5.13	0.013	369	0.209	<b>16.37</b>	0.91
		2014 - Early Phase of HATS Stage 2A (1b)	5.02	0.011	351	0.203	<b>16.07</b>	1.00
		2021 - Without HATS Stage 2A (2a)	5.10	0.013	372	0.216	<b>16.38</b>	0.92
		2021 - Late Phase of HATS Stage 2A (2b)	5.13	0.014	373	0.219	<b>16.45</b>	0.92
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.13	0.014	372	0.219	<b>16.45</b>	0.92
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.17	0.013	371	0.210	<b>16.41</b>	0.92
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	5.08	0.015	370	0.231	<b>16.44</b>	0.92
		2021 - Early Phase of HATS Stage 2B (3a)	5.35	0.010	372	0.155	<b>16.41</b>	0.93
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.32	0.010	398	0.162	<b>16.40</b>	0.93
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	5.13	0.014	373	0.219	<b>16.45</b>	0.92
		2021 - Emergency Scenario due to power failure at SCISTW (B)	5.13	0.014	373	0.219	<b>16.46</b>	0.92
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	5.13	0.014	373	0.219	<b>16.45</b>	0.92
		2014 - Emergency Scenario due to modification works at pumping station (D)	5.13	0.013	369	0.226	<b>16.38</b>	0.91
		2014 - Emergency Scenario due to modification works at NWK PS (E)	5.13	0.013	369	0.217	<b>16.39</b>	0.91
WSD2	Near LRT Terminus	2014 - Without HATS Stage 2A (1a)	5.78	0.012	10,438	0.209	<b>21.77</b>	2.44
		2014 - Early Phase of HATS Stage 2A (1b)	5.66	0.011	10,355	0.204	<b>24.16</b>	2.50
		2021 - Without HATS Stage 2A (2a)	5.75	0.012	11,089	0.217	<b>21.80</b>	2.45
		2021 - Late Phase of HATS Stage 2A (2b)	5.77	0.013	11,105	0.219	<b>21.70</b>	2.47
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.77	0.013	11,105	0.219	<b>21.70</b>	2.47
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.80	0.012	11,097	0.211	<b>21.68</b>	2.44
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	5.74	0.014	11,113	0.230	<b>21.70</b>	2.48
		2021 - Early Phase of HATS Stage 2B (3a)	5.96	0.010	11,096	0.164	<b>21.62</b>	2.45
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.93	0.010	11,969	0.173	<b>21.64</b>	2.48
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	5.77	0.013	11,105	0.219	<b>21.70</b>	2.47
		2021 - Emergency Scenario due to power failure at SCISTW (B)	5.77	0.013	11,105	0.219	<b>21.70</b>	2.47
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	5.77	0.013	11,105	0.219	<b>21.70</b>	2.47
		2014 - Emergency Scenario due to modification works at pumping station (D)	5.78	0.012	10,438	0.230	<b>21.77</b>	2.44
		2014 - Emergency Scenario due to modification works at NWK PS (E)	5.78	0.012	10,438	0.221	<b>21.77</b>	2.44
WSD3	Near Hong Kong Garden	2014 - Without HATS Stage 2A (1a)	5.01	0.016	223	0.229	<b>12.83</b>	0.75
		2014 - Early Phase of HATS Stage 2A (1b)	4.99	0.014	219	0.224	<b>12.95</b>	0.88
		2021 - Without HATS Stage 2A (2a)	4.99	0.016	221	0.236	<b>12.77</b>	0.75
		2021 - Late Phase of HATS Stage 2A (2b)	5.03	0.017	218	0.238	<b>12.72</b>	0.76
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.03	0.017	208	0.238	<b>12.72</b>	0.76
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.07	0.016	216	0.225	<b>12.72</b>	0.75
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.97	0.018	217	0.255	<b>12.73</b>	0.76
		2021 - Early Phase of HATS Stage 2B (3a)	5.27	0.011	217	0.151	<b>12.66</b>	0.76
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.24	0.012	235	0.158	<b>12.68</b>	0.76
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	5.03	0.017	218	0.238	<b>12.72</b>	0.76
		2021 - Emergency Scenario due to power failure at SCISTW (B)	5.03	0.017	266	0.238	<b>12.72</b>	0.76
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	5.03	0.017	218	0.238	<b>12.72</b>	0.76
		2014 - Emergency Scenario due to modification works at pumping station (D)	5.01	0.016	693	0.267	<b>12.83</b>	0.75
		2014 - Emergency Scenario due to modification works at NWK PS (E)	5.01	0.016	273	0.233	<b>12.83</b>	0.75
WSD4	Tsun Wan	2014 - Without HATS Stage 2A (1a)	4.77	0.019	3,650	0.283	9.57	0.73
		2014 - Early Phase of HATS Stage 2A (1b)	4.67	0.017	3,494	0.256	<b>9.91</b>	0.78
		2021 - Without HATS Stage 2A (2a)	4.74	0.019	3,531	0.292	<b>9.59</b>	0.73
		2021 - Late Phase of HATS Stage 2A (2b)	4.90	0.017	3,524	0.267	<b>9.52</b>	0.73
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	4.90	0.017	3,523	0.267	<b>9.52</b>	0.73
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	4.93	0.016	3,564	0.255	<b>9.51</b>	0.73
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.83	0.018	3,406	0.283	<b>9.54</b>	0.73
		2021 - Early Phase of HATS Stage 2B (3a)	5.17	0.013	3,518	0.178	<b>9.44</b>	0.73
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.12	0.013	3,549	0.187	<b>9.46</b>	0.73
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.90	0.017	3,524	0.267	<b>9.52</b>	0.73
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.90	0.017	8,056	0.270	<b>9.52</b>	0.73
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.90	0.017	3,524	0.267	<b>9.52</b>	0.73
		2014 - Emergency Scenario due to modification works at pumping station (D)	4.34	0.027	8,101	0.476	<b>9.57</b>	0.81
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.77	0.019	3,666	0.316	<b>9.57</b>	0.73
WSD5	Tsing Yi	2014 - Without HATS Stage 2A (1a)	4.53	0.021	10,010	0.305	9.33	0.84
		2014 - Early Phase of HATS Stage 2A (1b)	4.61	0.019	8,995	0.274	<b>9.65</b>	0.84
		2021 - Without HATS Stage 2A (2a)	4.50	0.021	9,976	0.315	<b>9.34</b>	0.84
		2021 - Late Phase of HATS Stage 2A (2b)	4.76	0.021	9,821	0.293	<b>9.26</b>	0.84
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	4.77	0.021	9,821	0.292	<b>9.26</b>	0.84
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	4.82	0.019	9,852	0.276	<b>9.24</b>	0.83
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.70	0.022	9,784	0.313	<b>9.28</b>	0.84
		2021 - Early Phase of HATS Stage 2B (3a)	5.05	0.014	9,812	0.192	<b>9.14</b>	0.82
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.01	0.015	10,247	0.201	<b>9.17</b>	0.82
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.76	0.021	9,821	0.293	<b>9.26</b>	0.84
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.76	0.021	<b>24,880</b>	0.303	<b>9.26</b>	1.36
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.76	0.021	9,821	0.293	<b>9.26</b>	0.84
		2014 - Emergency Scenario due to modification works at pumping station (D)	4.04	0.037	<b>61,461</b>	0.653	<b>9.33</b>	1.48
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.50	0.027	10,094	0.341	<b>9.33</b>	0.85
WSD6	Cheung Sha Wan	2014 - Without HATS Stage 2A (1a)	3.03	0.046	<b>29,082</b>	0.515	<b>10.42</b>	2.45
		2014 - Early Phase of HATS Stage 2A (1b)	4.16	0.032	<b>29,735</b>	0.383	<b>10.08</b>	2.41
		2021 - Without HATS Stage 2A (2a)	3.00	0.048	<b>29,924</b>	0.532	<b>10.38</b>	2.45
		2021 - Late Phase of HATS Stage 2A (2b)	3.95	0.038	<b>29,955</b>	0.417	<b>10.21</b>	2.47
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	3.95	0.038	<b>29,955</b>	0.417	<b>10.21</b>	2.47
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	3.98	0.036	<b>29,931</b>	0.403	<b>10.15</b>	2.46
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	3.91	0.039	<b>29,816</b>	0.431	<b>10.19</b>	2.45
		2021 - Early Phase of HATS Stage 2B (3a)	4.19	0.032	<b>29,931</b>	0.355	<b>10.12</b>	2.47
		Ultimate - Late Phase of HATS Stage 2B (3b)	4.08	0.035	<b>32,705</b>	0.387	<b>10.22</b>	2.51
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	3.95	0.038	<b>29,955</b>	0.417	<b>10.21</b>	2.47
		2021 - Emergency Scenario due to power failure at SCISTW (B)	3.95	0.038	<b>29,955</b>	0.417	<b>10.21</b>	2.47
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	3.95	0.038	<b>29,955</b>	0.417	<b>10.21</b>	2.47
		2014 - Emergency Scenario due to modification works at pumping station (D)	3.03	0.046	<b>29,082</b>	0.548	<b>10.42</b>	2.45
		2014 - Emergency Scenario due to modification works at NWK PS (E)	3.03	0.046	<b>29,082</b>	0.515	<b>10.42</b>	2.45

**Appendix 6.3 Model Results for Seawater Intakes**

Note: Shaded and bolded - value exceeded the WSD criteria

N/A - Not Available

**(I) WSD Flushing Water Intakes**

ID	Indicator Point	Scenario	Mid-depth					
			Minimum DO (mg/L)	Maximum				
				UIA (mg/L)	E.coli (no./100mL)	NH <sub>3</sub> -N (mg/L)	SS (mg/L)	BOD <sub>5</sub> (mg/L)
<b>WSD Flushing Water Intakes</b>			<b>≥ 2</b>	<b>N/A</b>	<b>≤ 20,000</b>	<b>≤ 1</b>	<b>≤ 10</b>	<b>≤ 10</b>
<b>Assessment Criteria</b>								
WSD7	Kowloon South	2014 - Without HATS Stage 2A (1a)	3.80	0.031	10,601	0.354	7.44	1.33
		2014 - Early Phase of HATS Stage 2A (1b)	4.94	0.025	2,747	0.321	<b>7.24</b>	1.25
		2021 - Without HATS Stage 2A (2a)	3.76	0.032	11,040	0.368	<b>7.47</b>	1.33
		2021 - Late Phase of HATS Stage 2A (2b)	4.82	0.025	2,801	0.306	<b>7.03</b>	1.33
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	4.82	0.025	2,801	0.306	<b>7.03</b>	1.33
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	4.86	0.023	2,836	0.287	<b>7.00</b>	1.33
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.76	0.028	2,812	0.330	<b>7.06</b>	1.33
		2021 - Early Phase of HATS Stage 2B (3a)	5.03	0.016	2,794	0.201	<b>6.90</b>	1.34
		Ultimate - Late Phase of HATS Stage 2B (3b)	4.96	0.018	3,069	0.215	<b>6.94</b>	1.34
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.82	0.025	2,801	0.306	<b>7.06</b>	1.33
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.82	0.025	3,816	0.306	<b>7.08</b>	1.33
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.82	0.025	3,745	0.306	<b>7.04</b>	1.33
		2014 - Emergency Scenario due to modification works at pumping station (D)	3.80	0.031	10,601	0.477	<b>8.05</b>	1.33
		2014 - Emergency Scenario due to modification works at NWK PS (E)	3.80	0.031	10,601	0.354	<b>7.60</b>	1.33
WSD9	Tai Wan	2014 - Without HATS Stage 2A (1a)	4.03	0.038	6,800	0.455	6.81	1.09
		2014 - Early Phase of HATS Stage 2A (1b)	5.04	0.020	3,395	0.249	<b>6.49</b>	0.97
		2021 - Without HATS Stage 2A (2a)	3.99	0.040	7,037	0.479	<b>6.83</b>	1.09
		2021 - Late Phase of HATS Stage 2A (2b)	5.01	0.030	3,225	0.355	<b>6.44</b>	1.01
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.01	0.030	3,225	0.355	<b>6.44</b>	1.01
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.02	0.029	3,221	0.351	<b>6.41</b>	1.00
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.94	0.030	3,225	0.363	<b>6.46</b>	1.01
		2021 - Early Phase of HATS Stage 2B (3a)	5.11	0.027	3,224	0.323	<b>6.32</b>	1.01
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.04	0.028	3,702	0.336	<b>6.35</b>	1.02
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.93	0.030	18,774	0.355	<b>6.89</b>	1.15
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.88	0.030	<b>37,815</b>	0.355	<b>7.49</b>	1.79
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.98	0.030	3,225	0.355	<b>6.46</b>	1.01
		2014 - Emergency Scenario due to modification works at pumping station (D)	3.70	0.038	<b>35,113</b>	0.455	<b>7.62</b>	1.34
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.03	0.038	6,802	0.455	<b>6.92</b>	1.09
WSD10	Cha Kwo Ling	2014 - Without HATS Stage 2A (1a)	4.25	0.068	5,972	0.801	6.88	1.02
		2014 - Early Phase of HATS Stage 2A (1b)	5.06	0.033	5,124	0.425	<b>6.47</b>	0.92
		2021 - Without HATS Stage 2A (2a)	4.22	0.072	6,054	0.850	<b>6.91</b>	1.01
		2021 - Late Phase of HATS Stage 2A (2b)	5.03	0.066	5,870	0.770	<b>6.62</b>	0.97
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.03	0.066	5,870	0.770	<b>6.62</b>	0.97
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.05	0.065	5,914	0.765	<b>6.62</b>	0.96
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.99	0.066	6,133	0.772	<b>6.64</b>	0.97
		2021 - Early Phase of HATS Stage 2B (3a)	5.10	0.062	5,868	0.733	<b>6.57</b>	0.97
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.09	0.064	6,739	0.748	<b>6.63</b>	0.98
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.94	0.066	<b>145,960</b>	0.770	<b>8.85</b>	2.98
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.95	0.066	<b>126,100</b>	0.770	<b>7.49</b>	2.58
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	5.03	0.066	5,878	0.770	<b>6.65</b>	0.97
		2014 - Emergency Scenario due to modification works at pumping station (D)	4.12	0.068	9,863	0.801	<b>7.57</b>	1.02
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.25	0.068	5,976	0.801	<b>6.92</b>	1.02
WSD11	Yau Tong	2014 - Without HATS Stage 2A (1a)	4.33	0.043	3,182	0.508	6.77	0.97
		2014 - Early Phase of HATS Stage 2A (1b)	5.03	0.028	1,064	0.353	<b>6.39</b>	0.88
		2021 - Without HATS Stage 2A (2a)	4.31	0.045	3,276	0.537	<b>6.78</b>	0.97
		2021 - Late Phase of HATS Stage 2A (2b)	5.00	0.038	1,158	0.445	<b>6.38</b>	0.90
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.00	0.038	1,158	0.445	<b>6.38</b>	0.90
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.01	0.037	1,160	0.437	<b>6.37</b>	0.90
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.99	0.038	1,157	0.452	<b>6.40</b>	0.90
		2021 - Early Phase of HATS Stage 2B (3a)	5.05	0.034	1,158	0.419	<b>6.32</b>	0.91
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.04	0.035	1,268	0.427	<b>6.35</b>	0.91
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.95	0.038	14,284	0.445	<b>6.61</b>	0.90
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.93	0.038	<b>37,221</b>	0.445	<b>6.74</b>	1.05
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.98	0.038	1,683	0.445	<b>6.38</b>	0.90
		2014 - Emergency Scenario due to modification works at pumping station (D)	4.10	0.043	16,477	0.508	<b>7.40</b>	1.05
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.33	0.043	3,182	0.508	<b>6.80</b>	0.97
WSD12	Tseung Kwan O	2014 - Without HATS Stage 2A (1a)	4.33	0.019	712	0.225	5.99	0.86
		2014 - Early Phase of HATS Stage 2A (1b)	4.67	0.011	620	0.141	<b>5.63</b>	0.77
		2021 - Without HATS Stage 2A (2a)	4.30	0.020	756	0.236	<b>5.98</b>	0.86
		2021 - Late Phase of HATS Stage 2A (2b)	4.70	0.016	736	0.187	<b>5.81</b>	0.87
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	4.70	0.016	736	0.187	<b>5.81</b>	0.87
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	4.65	0.015	720	0.184	<b>5.81</b>	0.87
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.61	0.016	732	0.192	<b>5.82</b>	0.87
		2021 - Early Phase of HATS Stage 2B (3a)	4.76	0.014	736	0.167	<b>5.79</b>	0.87
		Ultimate - Late Phase of HATS Stage 2B (3b)	4.66	0.014	782	0.172	<b>5.82</b>	0.87
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.70	0.016	12,783	0.187	<b>5.86</b>	0.87
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.70	0.022	<b>58,647</b>	0.260	<b>6.78</b>	1.93
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.70	0.016	736	0.187	<b>5.81</b>	0.87
		2014 - Emergency Scenario due to modification works at pumping station (D)	4.27	0.019	3,636	0.225	<b>6.59</b>	0.86
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.33	0.019	712	0.225	<b>6.00</b>	0.86
WSD13	Siu Sai Wan	2014 - Without HATS Stage 2A (1a)	4.66	0.025	3,834	0.298	6.26	0.86
		2014 - Early Phase of HATS Stage 2A (1b)	5.05	0.013	3,587	0.156	<b>5.91</b>	0.76
		2021 - Without HATS Stage 2A (2a)	4.64	0.026	3,856	0.310	<b>6.27</b>	0.86
		2021 - Late Phase of HATS Stage 2A (2b)	5.03	0.018	3,856	0.212	<b>5.90</b>	0.79
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.03	0.018	3,856	0.212	<b>5.90</b>	0.79
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.05	0.017	3,856	0.207	<b>5.89</b>	0.79
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	5.02	0.018	3,853	0.218	<b>5.92</b>	0.79
		2021 - Early Phase of HATS Stage 2B (3a)	5.09	0.015	3,856	0.186	<b>5.85</b>	0.79
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.08	0.016	4,018	0.194	<b>5.87</b>	0.79
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.99	0.018	14,453	0.212	<b>6.17</b>	0.81
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.94	0.018	<b>39,452</b>	0.212	<b>6.33</b>	1.02
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	5.01	0.018	3,856	0.212	<b>5.98</b>	0.79
		2014 - Emergency Scenario due to modification works at pumping station (D)	4.18	0.025	9,900	0.298	<b>7.13</b>	1.01
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.66	0.025	3,835	0.298	<b>6.29</b>	0.86

**Appendix 6.3 Model Results for Seawater Intakes**

Note: Shaded and bolded - value exceeded the WSD criteria

N/A - Not Available

**(I) WSD Flushing Water Intakes**

ID	Indicator Point	Scenario	Mid-depth					
			Minimum DO (mg/L)	Maximum				
				UIA (mg/L)	E.coli (no./100mL)	NH <sub>3</sub> -N (mg/L)	SS (mg/L)	BOD <sub>5</sub> (mg/L)
<b>WSD Flushing Water Intakes</b>								
<b>Assessment Criteria</b>								
			≥ 2	N/A	≤ 20,000	≤ 1	≤ 10	≤ 10
WSD15	Sai Wan Ho	2014 - Without HATS Stage 2A (1a)	4.15	0.033	9,681	0.394	6.75	1.10
		2014 - Early Phase of HATS Stage 2A (1b)	5.04	0.016	2,386	0.195	<b>6.30</b>	0.88
		2021 - Without HATS Stage 2A (2a)	4.12	0.035	9,856	0.413	<b>6.76</b>	1.10
		2021 - Late Phase of HATS Stage 2A (2b)	5.02	0.024	2,689	0.291	<b>6.29</b>	0.93
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.02	0.024	2,689	0.291	<b>6.29</b>	0.93
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.04	0.024	2,685	0.285	<b>6.27</b>	0.93
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	5.01	0.025	2,675	0.299	<b>6.30</b>	0.93
		2021 - Early Phase of HATS Stage 2B (3a)	5.09	0.021	2,689	0.257	<b>6.20</b>	0.93
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.07	0.022	2,813	0.267	<b>6.23</b>	0.94
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.96	0.024	4,979	0.291	<b>6.38</b>	0.93
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.93	0.024	10,262	0.291	<b>6.42</b>	0.93
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.99	0.024	12,183	0.291	<b>6.34</b>	0.93
		2014 - Emergency Scenario due to modification works at pumping station (D)	3.86	0.033	<b>31,615</b>	0.394	<b>7.88</b>	1.48
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.15	0.033	9,681	0.394	<b>6.82</b>	1.10
		WSD17	Quarry Bay	2014 - Without HATS Stage 2A (1a)	3.93	0.034	<b>29,889</b>	0.404
2014 - Early Phase of HATS Stage 2A (1b)	5.04			0.016	2,876	0.210	<b>6.44</b>	0.91
2021 - Without HATS Stage 2A (2a)	3.89			0.035	<b>30,577</b>	0.423	<b>7.26</b>	1.14
2021 - Late Phase of HATS Stage 2A (2b)	4.99			0.024	3,692	0.290	<b>6.40</b>	0.97
2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	4.99			0.024	3,692	0.290	<b>6.40</b>	0.97
2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.01			0.024	3,684	0.284	<b>6.38</b>	0.97
Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.94			0.025	3,687	0.299	<b>6.42</b>	0.97
2021 - Early Phase of HATS Stage 2B (3a)	5.12			0.021	3,691	0.255	<b>6.30</b>	0.97
Ultimate - Late Phase of HATS Stage 2B (3b)	5.07			0.022	3,876	0.265	<b>6.33</b>	0.97
2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.93			0.024	8,376	0.290	<b>6.51</b>	0.97
2021 - Emergency Scenario due to power failure at SCISTW (B)	4.88			0.024	<b>25,363</b>	0.290	<b>6.64</b>	1.04
2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.94			0.024	<b>33,813</b>	0.290	<b>6.63</b>	1.04
2014 - Emergency Scenario due to modification works at pumping station (D)	3.67			0.044	<b>88,940</b>	0.519	<b>9.02</b>	2.07
2014 - Emergency Scenario due to modification works at NWK PS (E)	3.93			0.034	<b>29,889</b>	0.404	<b>7.22</b>	1.14
WSD19	Sheung Wan			2014 - Without HATS Stage 2A (1a)	4.18	0.029	14,340	0.393
		2014 - Early Phase of HATS Stage 2A (1b)	5.06	0.028	4,387	0.377	<b>7.61</b>	0.99
		2021 - Without HATS Stage 2A (2a)	4.13	0.030	14,549	0.409	<b>7.42</b>	1.07
		2021 - Late Phase of HATS Stage 2A (2b)	5.07	0.027	4,571	0.427	<b>7.31</b>	1.03
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.07	0.027	4,571	0.427	<b>7.31</b>	1.03
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.12	0.025	4,723	0.394	<b>7.28</b>	1.03
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.99	0.030	4,831	0.468	<b>7.34</b>	1.02
		2021 - Early Phase of HATS Stage 2B (3a)	5.27	0.016	4,571	0.217	<b>7.14</b>	1.03
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.22	0.017	5,300	0.233	<b>7.15</b>	1.03
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	5.07	0.027	11,917	0.427	<b>7.31</b>	1.03
		2021 - Emergency Scenario due to power failure at SCISTW (B)	5.07	0.027	<b>40,938</b>	0.427	<b>7.31</b>	1.13
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	5.07	0.027	<b>41,010</b>	0.427	<b>7.31</b>	1.17
		2014 - Emergency Scenario due to modification works at pumping station (D)	4.18	0.029	15,966	0.478	<b>7.58</b>	1.06
		2014 - Emergency Scenario due to modification works at NWK PS (E)	4.18	0.029	14,343	0.415	<b>7.39</b>	1.06
		WSD21	Ap Lei Chau	2014 - Without HATS Stage 2A (1a)	5.17	0.008	17,521	0.120
2014 - Early Phase of HATS Stage 2A (1b)	5.20			0.007	204	0.117	<b>6.97</b>	0.77
2021 - Without HATS Stage 2A (2a)	5.16			0.008	17,911	0.124	<b>6.76</b>	0.81
2021 - Late Phase of HATS Stage 2A (2b)	5.17			0.008	211	0.124	<b>6.65</b>	0.79
2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	5.17			0.008	211	0.124	<b>6.65</b>	0.79
2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	5.19			0.007	210	0.117	<b>6.64</b>	0.79
Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	5.17			0.008	212	0.134	<b>6.66</b>	0.79
2021 - Early Phase of HATS Stage 2B (3a)	5.19			0.006	211	0.084	<b>6.61</b>	0.79
Ultimate - Late Phase of HATS Stage 2B (3b)	5.18			0.006	227	0.088	<b>6.62</b>	0.79
2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	5.17			0.008	1,702	0.124	<b>6.65</b>	0.79
2021 - Emergency Scenario due to power failure at SCISTW (B)	5.17			0.008	6,272	0.124	<b>6.65</b>	0.79
2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	5.17			0.008	6,996	0.124	<b>6.65</b>	0.79
2014 - Emergency Scenario due to modification works at pumping station (D)	5.15			0.008	17,521	0.126	<b>6.74</b>	0.80
2014 - Emergency Scenario due to modification works at NWK PS (E)	5.16			0.008	17,521	0.121	<b>6.74</b>	0.80
WSD22	Wan Chai			2014 - Without HATS Stage 2A (1a)	3.83	0.033	8,852	0.401
		2014 - Early Phase of HATS Stage 2A (1b)	5.01	0.022	6,265	0.280	<b>6.95</b>	1.02
		2021 - Without HATS Stage 2A (2a)	3.78	0.035	9,357	0.418	<b>7.13</b>	1.14
		2021 - Late Phase of HATS Stage 2A (2b)	4.96	0.022	7,868	0.268	<b>6.71</b>	1.08
		2021 - Sensitivity Test - Stage 2A - Change of Storm Loading (2c)	4.96	0.022	7,868	0.268	<b>6.71</b>	1.08
		2021 - Sensitivity Test - Stage 2A - Change of Sewage Flow Interception (2d)	4.99	0.021	7,753	0.256	<b>6.69</b>	1.08
		Ultimate - Sensitivity Test - Stage 2A - Use of HATS Design Flow Rate (2e)	4.92	0.023	7,737	0.283	<b>6.74</b>	1.08
		2021 - Early Phase of HATS Stage 2B (3a)	5.10	0.019	7,867	0.222	<b>6.57</b>	1.08
		Ultimate - Late Phase of HATS Stage 2B (3b)	5.06	0.019	8,279	0.232	<b>6.59</b>	1.09
		2021 - Emergency Scenario due to heavy rainfall (overflow) (A)	4.89	0.022	7,868	0.268	<b>6.76</b>	1.08
		2021 - Emergency Scenario due to power failure at SCISTW (B)	4.84	0.022	<b>98,167</b>	0.360	<b>6.80</b>	2.51
		2021 - Emergency Scenario due to failure at Stage 2 PTWs (C)	4.91	0.022	<b>99,389</b>	0.365	<b>6.76</b>	2.56
		2014 - Emergency Scenario due to modification works at pumping station (D)	3.75	0.033	12,645	0.460	<b>7.90</b>	1.26
		2014 - Emergency Scenario due to modification works at NWK PS (E)	3.83	0.033	8,854	0.401	<b>7.23</b>	1.14