

Table A3.10.1: Calculated DO Depletion of Grab Dredger Models

Sensitive Receiver Depth	Dredging Location A		Dredging Location B		Dredging Location C		Dredging Location D		Baseline (mg/L)		Criteria (mg/L)	Dredging Location A		Dredging Location B		Dredging Location C		DO level at sensitive receiver (mg/L)	
	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet		Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
Calculated max SS release rate (kg/s)	3.65	5.21	6.61	5.15	5.98	4.58	3.86	2.77											
Max DO Depletion (mg/L)																			
S1 DA	2.7E-03	1.7E-03	1.8E-03	5.0E-04	1.3E-03	2.7E-04	6.6E-04	1.2E-04	5.9	5.4	>2	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
S2 DA	2.4E-05	1.6E-05	2.8E-05	2.0E-05	1.8E-05	1.3E-05	6.4E-06	2.7E-06	5.7	4.3	>2	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
S3 DA	1.8E-05	1.5E-05	1.8E-05	1.5E-05	1.4E-05	8.2E-06	5.8E-06	2.9E-06	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
S4 DA	1.7E-05	4.1E-05	1.9E-05	3.4E-05	1.4E-05	1.4E-05	5.4E-06	2.1E-06	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
S5 DA	2.3E-05	5.1E-05	2.3E-05	4.9E-05	1.4E-05	7.6E-06	5.5E-06	1.2E-06	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
S6 DA	2.7E-05	5.3E-05	2.8E-05	4.4E-05	1.6E-05	5.8E-06	6.4E-06	1.6E-06	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
B1 DA	1.3E-07	3.6E-06	2.5E-06	2.1E-05	1.2E-06	1.2E-05	6.1E-07	2.7E-06	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
B1 B	1.7E-07	5.8E-06	3.5E-06	2.4E-05	1.7E-06	1.3E-05	8.9E-07	2.8E-06	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	5.9	3.8
B2 DA	3.9E-05	1.4E-04	4.1E-04	1.1E-04	1.4E-04	1.7E-04	6.9E-05	5.6E-05	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
B2 B	4.6E-05	2.6E-04	6.8E-04	1.6E-04	2.2E-04	3.1E-04	1.1E-04	1.3E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	5.9	3.8
B3 DA	3.1E-09	1.7E-08	2.3E-09	3.4E-08	9.1E-10	8.6E-08	2.7E-10	8.2E-08	5.7	4.8	>4	5.7	4.8	5.7	4.8	5.7	4.8	5.7	4.8
B3 B	7.0E-09	1.6E-08	5.2E-09	3.5E-08	2.1E-09	8.0E-08	6.0E-10	6.8E-08	5.7	3.3	>2	5.7	3.3	5.7	3.3	5.7	3.3	5.7	3.3
B4 DA	1.0E-08	2.6E-06	9.6E-09	1.6E-06	1.5E-08	3.4E-07	2.3E-08	1.2E-07	5.8	5.4	>4	5.8	5.4	5.8	5.4	5.8	5.4	5.8	5.4
B4 B	1.5E-08	6.2E-06	1.1E-08	4.3E-06	3.4E-08	7.0E-07	5.4E-08	2.6E-07	5.8	4.7	>2	5.8	4.7	5.8	4.7	5.8	4.7	5.8	4.7
B5 DA	1.8E-08	3.1E-06	1.3E-08	2.0E-06	3.7E-08	4.9E-07	5.7E-08	1.9E-07	5.8	5.4	>4	5.8	5.4	5.8	5.4	5.8	5.4	5.8	5.4
B5 B	3.8E-08	5.3E-06	2.7E-08	3.5E-06	8.0E-08	8.0E-07	1.2E-07	3.0E-07	5.8	4.7	>2	5.8	4.7	5.8	4.7	5.8	4.7	5.8	4.7
B6 DA	1.0E-10	1.4E-10	1.9E-10	8.1E-11	1.4E-10	1.0E-10	6.3E-11	6.5E-11	5.6	5.0	>4	5.6	5.0	5.6	5.0	5.6	5.0	5.6	5.0
B6 B	1.3E-10	3.6E-10	2.5E-10	1.6E-10	1.9E-10	1.6E-10	8.6E-11	1.0E-10	5.8	4.2	>2	5.8	4.2	5.8	4.2	5.8	4.2	5.8	4.2
CR1 DA	1.1E-03	7.8E-04	1.4E-03	4.5E-04	1.2E-03	3.2E-04	5.5E-04	1.2E-04	5.4	4.1	>4	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
CR1 B	1.4E-03	1.7E-03	1.8E-03	1.3E-03	1.5E-03	7.6E-04	6.7E-04	2.5E-04	5.6	2.5	>2	5.6	2.5	5.6	2.5	5.6	2.5	5.6	2.5
CR2 DA	2.5E-03	2.3E-03	2.5E-03	1.2E-03	1.7E-03	6.1E-04	7.9E-04	1.4E-04	5.6	4.7	>4	5.6	4.7	5.6	4.7	5.6	4.7	5.6	4.7
CR2 B	3.4E-03	4.2E-03	2.8E-03	2.4E-03	1.9E-03	1.2E-03	9.0E-04	4.2E-04	5.6	3.8	>2	5.6	3.8	5.6	3.8	5.6	3.8	5.6	3.8
CR3 DA	3.9E-04	1.6E-04	5.7E-04	1.4E-04	4.6E-04	9.2E-05	1.7E-04	2.7E-05	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
CR3 B	4.5E-04	2.8E-04	6.4E-04	2.2E-04	5.3E-04	1.5E-04	1.9E-04	3.5E-05	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	5.8	2.8
CR4 DA	2.6E-04	5.7E-05	4.0E-04	6.4E-05	3.2E-04	6.4E-05	1.1E-04	4.4E-05	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
CR4 B	3.4E-04	4.1E-05	5.3E-04	4.4E-05	4.7E-04	1.1E-04	1.7E-04	7.3E-05	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	5.8	2.8
CR5 DA	7.9E-05	7.8E-06	1.1E-04	2.4E-05	8.7E-05	6.7E-05	3.0E-05	5.0E-05	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
CR5 B	8.2E-05	8.5E-06	1.2E-04	4.9E-05	8.9E-05	1.6E-04	3.1E-05	1.2E-04	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	5.8	2.8
CR6 DA	1.2E-05	3.5E-06	1.6E-05	8.3E-06	1.3E-05	1.8E-05	1.1E-05	1.9E-05	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
CR6 B	1.6E-05	5.5E-06	2.2E-05	1.2E-05	1.8E-05	2.4E-05	1.4E-05	3.2E-05	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	5.9	3.8
CR7 DA	9.1E-06	1.8E-05	9.3E-06	1.9E-05	5.6E-06	1.2E-05	2.1E-06	3.3E-06	5.7	4.8	>4	5.7	4.8	5.7	4.8	5.7	4.8	5.7	4.8
CR7 B	8.6E-06	1.7E-05	8.9E-06	1.8E-05	5.7E-06	1.2E-05	2.1E-06	4.9E-06	5.7	3.3	>2	5.7	3.3	5.7	3.3	5.7	3.3	5.7	3.3
CR8 DA	4.1E-05	1.6E-05	5.1E-05	2.0E-05	3.3E-05	1.3E-05	1.0E-05	5.3E-06	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7</	

Table A3.10.1: Calculated DO Depletion of Grab Dredger Models (cont'd)

Sensitive Receiver Depth	Dredging Location A		Dredging Location B		Dredging Location C		Dredging Location D		Baseline (mg/L)		Criteria (mg/L)	Dredging Location A		Dredging Location B		Dredging Location C		DO level at sensitive receiver (mg/L)	
	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet		Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
Calculated max SS release rate (kg/s)	3.65	5.21	6.61	5.15	5.98	4.58	3.86	2.77											
Max DO Depletion (mg/L)																			
CR17	DA	3.6E-08	5.4E-08	3.2E-08	4.9E-08	1.7E-08	2.3E-08	9.3E-09	1.0E-08	5.6	5.0	>4	5.6	5.0	5.6	5.0	5.6	5.0	
	B	4.1E-08	9.6E-08	3.7E-08	8.7E-08	2.0E-08	4.0E-08	1.1E-08	1.8E-08	5.8	4.2	>2	5.8	4.2	5.8	4.2	5.8	4.2	
CR18	DA	6.6E-07	2.7E-05	9.7E-06	5.8E-05	5.0E-06	3.1E-05	2.5E-06	1.2E-05	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	8.0E-07	5.2E-05	2.2E-05	5.8E-05	1.2E-05	6.1E-05	6.0E-06	2.3E-05	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
CR19	DA	6.5E-05	1.5E-04	5.6E-04	3.1E-04	1.9E-04	2.5E-04	9.1E-05	7.0E-05	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	8.6E-05	3.3E-04	1.4E-03	5.4E-04	4.3E-04	4.6E-04	2.1E-04	2.2E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
F1	DA	6.8E-05	4.4E-05	8.9E-05	3.3E-05	7.1E-05	1.7E-05	2.8E-05	4.5E-06	5.7	4.3	>5	5.7	4.3	5.7	4.3	5.7	4.3	
	B	7.6E-05	6.6E-05	1.0E-04	5.1E-05	7.9E-05	2.8E-05	3.2E-05	6.6E-06	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	
F2	DA	4.1E-07	3.6E-06	5.1E-07	3.0E-06	3.7E-07	1.7E-06	1.6E-07	6.5E-07	5.6	4.6	>5	5.6	4.6	5.6	4.6	5.6	4.6	
	B	4.5E-07	7.1E-06	5.6E-07	7.3E-06	4.1E-07	3.1E-06	1.8E-07	1.7E-06	5.7	3.7	>2	5.7	3.7	5.7	3.7	5.7	3.7	
F3	DA	5.1E-08	8.8E-08	4.6E-08	8.0E-08	2.5E-08	3.7E-08	1.3E-08	1.7E-08	5.6	5.0	>5	5.6	5.0	5.6	5.0	5.6	5.0	
	B	5.8E-08	1.5E-07	5.2E-08	1.4E-07	2.8E-08	6.2E-08	1.5E-08	2.8E-08	5.8	4.2	>2	5.8	4.2	5.8	4.2	5.8	4.2	
FP1	DA	7.1E-06	6.7E-05	4.0E-06	8.5E-05	8.0E-06	1.1E-05	1.0E-05	1.0E-05	5.6	4.7	>4	5.6	4.7	5.6	4.7	5.6	4.7	
	B	7.8E-06	1.3E-04	4.5E-06	1.3E-04	9.2E-06	2.2E-05	1.1E-05	1.5E-05	5.6	3.8	>2	5.6	3.8	5.6	3.8	5.6	3.8	
FP3	DA	5.5E-04	5.0E-04	1.0E-03	6.8E-04	2.2E-03	1.4E-03	2.4E-03	1.1E-03	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	6.0E-04	6.5E-04	1.1E-03	9.6E-04	2.3E-03	2.8E-03	2.9E-03	2.8E-03	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
FP4	DA	1.5E-04	1.4E-05	2.1E-04	1.8E-05	1.5E-04	4.2E-05	4.8E-05	2.8E-05	5.7	4.8	>4	5.7	4.8	5.7	4.8	5.7	4.8	
	B	1.6E-04	9.2E-06	2.2E-04	2.1E-05	1.6E-04	1.1E-04	5.2E-05	7.5E-05	5.7	3.3	>2	5.7	3.3	5.7	3.3	5.7	3.3	
GT1	DA	6.5E-05	1.5E-04	5.6E-04	3.1E-04	1.9E-04	2.5E-04	9.1E-05	7.0E-05	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	8.6E-05	3.3E-04	1.4E-03	5.4E-04	4.3E-04	4.6E-04	2.1E-04	2.2E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT2	DA	6.4E-04	7.9E-04	2.1E-03	8.0E-04	1.5E-03	1.0E-03	9.0E-04	8.5E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	7.3E-04	1.2E-03	2.4E-03	2.8E-03	2.9E-03	2.0E-03	1.4E-03	8.7E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT3	DA	5.5E-05	6.9E-05	3.2E-04	6.2E-04	1.5E-03	1.2E-03	1.2E-03	8.8E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	5.9E-05	1.3E-04	3.7E-04	9.6E-04	1.7E-03	2.0E-03	1.4E-03	1.6E-03	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT4	DA	1.1E-04	1.3E-05	1.5E-04	6.2E-05	2.4E-04	3.1E-04	3.2E-04	3.2E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	1.2E-04	1.7E-05	1.7E-04	8.2E-05	2.5E-04	4.3E-04	3.5E-04	5.0E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT5	DA	5.2E-05	3.0E-06	7.6E-05	1.0E-05	5.9E-05	2.5E-05	2.2E-05	1.7E-05	5.6	4.6	>4	5.6	4.6	5.6	4.6	5.6	4.6	
	B	4.3E-05	6.6E-06	6.2E-05	2.3E-05	4.7E-05	6.0E-05	1.8E-05	4.2E-05	5.7	3.7	>2	5.7	3.7	5.7	3.7	5.7	3.7	
PMP1	DA	3.5E-04	6.2E-04	9.9E-04	4.3E-04	7.6E-04	7.3E-04	3.7E-04	5.9E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	4.4E-04	1.1E-03	1.3E-03	9.9E-04	1.4E-03	1.3E-03	7.5E-04	6.7E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
SS1	DA	8.5E-08	4.5E-07	1.2E-07	1.1E-06	9.5E-08	2.6E-06	5.1E-08	3.2E-06	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	1.1E-07	7.4E-07	1.5E-07	1.8E-06	1.2E-07	4.2E-06	6.4E-08	4.3E-06	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	

Note: DA represents depth-averaged, B represents bottom layer.

DO depletion (mg/L) = Predicted SS release elevation (mg/L) × SOD value (taken as 760mg/kg) × Daily oxygen uptake factor (set at 1.0 for worst case estimate)

DO level at sensitive receiver = Baseline DO level - DO depletion

Values exceeding criteria limit are highlighted.

Table A3.10.2: Calculated DO Depletion of TSHD Models

Sensitive Receiver Depth	Dredging Location A		Dredging Location B		Dredging Location C		Dredging Location D		Baseline (mg/L)		Criteria (mg/L)	Dredging Location A		Dredging Location B		Dredging Location C		DO level at sensitive receiver (mg/L)	
	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet		Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
Calculated max SS release rate (kg/s)	4.62	7.65	8.05	4.41	9.17	3.64	3.33	1.28											
Max DO Depletion (mg/L)																			
S1 DA	4.9E-03	2.4E-03	1.6E-03	6.2E-04	1.2E-03	1.9E-04	1.3E-04	3.5E-05	5.9	5.4	>2	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
S2 DA	2.5E-05	2.7E-05	1.9E-05	6.3E-06	1.1E-05	6.9E-06	3.6E-06	8.8E-07	5.7	4.3	>2	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
S3 DA	1.9E-05	1.8E-05	1.6E-05	5.8E-06	1.2E-05	5.7E-06	2.6E-06	6.9E-07	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
S4 DA	1.8E-05	1.8E-05	1.6E-05	5.4E-06	2.1E-05	9.6E-06	3.9E-06	7.5E-07	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
S5 DA	2.4E-05	2.2E-05	1.6E-05	5.5E-06	1.8E-05	1.4E-05	3.4E-06	5.7E-07	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
S6 DA	2.8E-05	2.6E-05	1.9E-05	6.4E-06	1.6E-05	1.3E-05	2.6E-06	5.0E-07	5.4	4.1	>2	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
B1 DA	1.6E-07	3.2E-06	1.4E-06	5.7E-07	3.5E-06	1.7E-07	2.2E-07	1.6E-07	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
B1 B	2.0E-07	4.6E-06	2.0E-06	8.2E-07	5.6E-06	2.9E-07	3.5E-07	2.6E-07	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	5.9	3.8
B2 DA	4.5E-05	4.0E-04	1.6E-04	6.3E-05	1.3E-04	1.0E-05	1.1E-05	5.3E-06	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
B2 B	5.3E-05	6.6E-04	2.5E-04	9.9E-05	2.5E-04	2.8E-05	3.1E-05	1.2E-05	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	5.9	3.8
B3 DA	3.2E-09	2.2E-09	9.8E-10	2.7E-10	1.3E-08	1.5E-08	2.8E-08	1.1E-08	5.7	4.8	>4	5.7	4.8	5.7	4.8	5.7	4.8	5.7	4.8
B3 B	7.1E-09	4.8E-09	2.2E-09	6.0E-10	1.3E-08	1.4E-08	2.3E-08	8.9E-09	5.7	3.3	>2	5.7	3.3	5.7	3.3	5.7	3.3	5.7	3.3
B4 DA	1.2E-08	9.8E-09	1.6E-08	2.1E-08	3.5E-06	6.7E-07	1.8E-07	5.2E-08	5.8	5.4	>4	5.8	5.4	5.8	5.4	5.8	5.4	5.8	5.4
B4 B	1.5E-08	1.1E-08	3.7E-08	4.8E-08	8.6E-06	1.4E-06	3.7E-07	1.1E-07	5.8	4.7	>2	5.8	4.7	5.8	4.7	5.8	4.7	5.8	4.7
B5 DA	1.8E-08	1.2E-08	4.0E-08	5.1E-08	3.9E-06	8.8E-07	2.7E-07	7.8E-08	5.8	5.4	>4	5.8	5.4	5.8	5.4	5.8	5.4	5.8	5.4
B5 B	3.6E-08	2.5E-08	8.6E-08	1.1E-07	6.8E-06	1.5E-06	4.3E-07	1.3E-07	5.8	4.7	>2	5.8	4.7	5.8	4.7	5.8	4.7	5.8	4.7
B6 DA	1.3E-10	2.2E-10	1.9E-10	7.9E-11	2.0E-10	5.9E-11	6.0E-11	2.6E-11	5.6	5.0	>4	5.6	5.0	5.6	5.0	5.6	5.0	5.6	5.0
B6 B	1.6E-10	2.9E-10	2.5E-10	1.0E-10	4.7E-10	9.3E-11	9.3E-11	4.0E-11	5.8	4.2	>2	5.8	4.2	5.8	4.2	5.8	4.2	5.8	4.2
CR1 DA	1.1E-03	1.4E-03	1.4E-03	5.2E-04	8.4E-04	3.3E-04	2.2E-04	6.4E-05	5.4	4.1	>4	5.4	4.1	5.4	4.1	5.4	4.1	5.4	4.1
CR1 B	1.5E-03	1.8E-03	1.6E-03	6.3E-04	2.0E-03	7.1E-04	4.4E-04	1.3E-04	5.6	2.5	>2	5.6	2.5	5.6	2.5	5.6	2.5	5.6	2.5
CR2 DA	2.5E-03	2.4E-03	1.8E-03	7.9E-04	2.2E-03	6.7E-04	3.8E-04	7.8E-05	5.6	4.7	>4	5.6	4.7	5.6	4.7	5.6	4.7	5.6	4.7
CR2 B	3.2E-03	2.7E-03	2.1E-03	8.9E-04	5.0E-03	1.4E-03	8.8E-04	2.2E-04	5.6	3.8	>2	5.6	3.8	5.6	3.8	5.6	3.8	5.6	3.8
CR3 DA	4.0E-04	5.6E-04	5.0E-04	1.7E-04	1.2E-04	6.9E-05	3.7E-05	1.1E-05	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
CR3 B	4.6E-04	6.4E-04	5.7E-04	1.9E-04	2.1E-04	1.1E-04	6.5E-05	1.6E-05	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	5.8	2.8
CR4 DA	2.7E-04	3.9E-04	3.4E-04	1.0E-04	4.0E-05	3.0E-05	2.0E-05	7.9E-06	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
CR4 B	3.5E-04	5.2E-04	5.0E-04	1.6E-04	2.8E-05	1.9E-05	3.3E-05	1.4E-05	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	5.8	2.8
CR5 DA	8.2E-05	1.1E-04	9.4E-05	2.9E-05	5.2E-06	1.1E-05	2.1E-05	8.5E-06	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7	4.3
CR5 B	8.5E-05	1.1E-04	9.7E-05	3.0E-05	5.4E-06	2.0E-05	5.5E-05	2.4E-05	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	5.8	2.8
CR6 DA	1.1E-05	1.6E-05	1.4E-05	1.2E-05	2.5E-06	4.9E-06	6.5E-06	5.4E-06	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	5.9	5.4
CR6 B	1.5E-05	2.1E-05	1.9E-05	1.5E-05	3.9E-06	5.7E-06	9.8E-06	9.4E-06	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	5.9	3.8
CR7 DA	9.4E-06	9.0E-06	6.1E-06	2.0E-06	1.1E-05	7.9E-06	4.2E-06	1.1E-06	5.7	4.8	>4	5.7	4.8	5.7	4.8	5.7	4.8	5.7	4.8
CR7 B	8.8E-06	8.6E-06	6.3E-06	2.0E-06	1.1E-05	7.6E-06	4.3E-06	1.2E-06	5.7	3.3	>2	5.7	3.3	5.7	3.3	5.7	3.3	5.7	3.3
CR8 DA	4.3E-05	4.9E-05	3.5E-05	9.9E-06	1.1E-05	7.6E-06	4.4E-06	1.2E-06	5.7	4.3	>4	5.7	4.3	5.7	4.3	5.7	4.3	5.7</td	

Table A3.10.2: Calculated DO Depletion of TSHD Models (cont'd)

Sensitive Receiver Depth	Dredging Location A		Dredging Location B		Dredging Location C		Dredging Location D		Baseline (mg/L)		Criteria (mg/L)	Dredging Location A		Dredging Location B		Dredging Location C		DO level at sensitive receiver (mg/L)	
	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet		Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
Calculated max SS release rate (kg/s)	4.62	7.65	8.05	4.41	9.17	3.64	3.33	1.28											
Max DO Depletion (mg/L)																			
CR17	DA	4.2E-08	3.2E-08	2.1E-08	9.7E-09	5.1E-08	2.5E-08	1.4E-08	4.1E-09	5.6	5.0	>4	5.6	5.0	5.6	5.0	5.6	5.0	
	B	4.8E-08	3.7E-08	2.4E-08	1.1E-08	9.1E-08	4.4E-08	2.4E-08	7.2E-09	5.8	4.2	>2	5.8	4.2	5.8	4.2	5.8	4.2	
CR18	DA	7.7E-07	1.3E-05	5.8E-06	2.3E-06	2.6E-05	4.0E-06	1.6E-06	1.2E-06	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	9.4E-07	3.0E-05	1.4E-05	5.5E-06	5.1E-05	1.5E-05	4.1E-06	2.4E-06	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
CR19	DA	7.6E-05	6.6E-04	2.2E-04	8.4E-05	1.4E-04	4.3E-05	1.2E-05	7.4E-06	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	1.0E-04	1.6E-03	5.0E-04	1.9E-04	3.4E-04	2.0E-04	5.0E-05	2.3E-05	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
F1	DA	7.0E-05	8.8E-05	7.7E-05	2.7E-05	2.7E-05	1.3E-05	7.5E-06	1.8E-06	5.7	4.3	>5	5.7	4.3	5.7	4.3	5.7	4.3	
	B	7.9E-05	9.9E-05	8.7E-05	3.0E-05	2.8E-05	2.2E-05	1.0E-05	2.3E-06	5.8	2.8	>2	5.8	2.8	5.8	2.8	5.8	2.8	
F2	DA	4.3E-07	4.8E-07	4.1E-07	1.5E-07	2.2E-06	1.4E-06	7.8E-07	1.9E-07	5.6	4.6	>5	5.6	4.6	5.6	4.6	5.6	4.6	
	B	4.7E-07	5.3E-07	4.5E-07	1.7E-07	3.7E-06	2.5E-06	1.3E-06	4.4E-07	5.7	3.7	>2	5.7	3.7	5.7	3.7	5.7	3.7	
F3	DA	5.9E-08	4.6E-08	3.0E-08	1.4E-08	8.4E-08	4.0E-08	2.2E-08	6.7E-09	5.6	5.0	>5	5.6	5.0	5.6	5.0	5.6	5.0	
	B	6.7E-08	5.2E-08	3.4E-08	1.6E-08	1.4E-07	7.2E-08	3.7E-08	1.1E-08	5.8	4.2	>2	5.8	4.2	5.8	4.2	5.8	4.2	
FP1	DA	7.4E-06	3.8E-06	8.8E-06	9.2E-06	1.1E-04	1.9E-05	7.1E-06	3.2E-06	5.6	4.7	>4	5.6	4.7	5.6	4.7	5.6	4.7	
	B	8.0E-06	4.2E-06	9.7E-06	1.0E-05	2.3E-04	3.1E-05	1.5E-05	6.6E-06	5.6	3.8	>2	5.6	3.8	5.6	3.8	5.6	3.8	
FP3	DA	4.7E-04	1.0E-03	2.2E-03	2.4E-03	3.9E-04	5.1E-04	8.9E-04	7.2E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	5.2E-04	1.1E-03	2.7E-03	4.8E-03	5.6E-04	8.9E-04	2.3E-03	2.8E-03	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
FP4	DA	1.5E-04	2.0E-04	1.6E-04	4.5E-05	1.0E-05	8.3E-06	1.3E-05	5.1E-06	5.7	4.8	>4	5.7	4.8	5.7	4.8	5.7	4.8	
	B	1.6E-04	2.2E-04	1.6E-04	5.0E-05	5.9E-06	8.0E-06	3.3E-05	1.5E-05	5.7	3.3	>2	5.7	3.3	5.7	3.3	5.7	3.3	
GT1	DA	7.6E-05	6.6E-04	2.2E-04	8.4E-05	1.4E-04	4.3E-05	1.2E-05	7.4E-06	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	1.0E-04	1.6E-03	5.0E-04	1.9E-04	3.4E-04	2.0E-04	5.0E-05	2.3E-05	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT2	DA	7.2E-04	2.2E-03	1.6E-03	1.1E-03	8.5E-04	5.1E-04	6.8E-04	2.8E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	8.1E-04	2.5E-03	2.8E-03	1.9E-03	1.5E-03	2.3E-03	2.6E-03	1.0E-03	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT3	DA	5.5E-05	2.4E-04	1.7E-03	1.5E-03	5.6E-05	3.8E-04	8.2E-04	4.8E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	6.0E-05	2.8E-04	1.9E-03	1.7E-03	9.1E-05	6.1E-04	1.6E-03	1.2E-03	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT4	DA	1.1E-04	1.5E-04	2.5E-04	3.3E-04	8.5E-06	3.5E-05	1.5E-04	1.7E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	1.2E-04	1.6E-04	2.6E-04	3.7E-04	1.1E-05	3.2E-05	2.2E-04	2.9E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
GT5	DA	5.3E-05	7.3E-05	6.4E-05	2.1E-05	2.0E-06	4.1E-06	6.5E-06	2.6E-06	5.6	4.6	>4	5.6	4.6	5.6	4.6	5.6	4.6	
	B	4.3E-05	5.9E-05	5.0E-05	1.7E-05	4.4E-06	9.3E-06	1.8E-05	7.5E-06	5.7	3.7	>2	5.7	3.7	5.7	3.7	5.7	3.7	
PMP1	DA	3.9E-04	1.1E-03	7.3E-04	4.1E-04	6.4E-04	1.8E-04	2.0E-04	1.4E-04	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	4.9E-04	1.4E-03	1.3E-03	8.4E-04	1.3E-03	5.4E-04	6.2E-04	3.5E-04	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	
SS1	DA	8.3E-08	1.1E-07	1.0E-07	5.0E-08	3.4E-07	5.0E-07	8.4E-07	3.7E-07	5.9	5.4	>4	5.9	5.4	5.9	5.4	5.9	5.4	
	B	1.0E-07	1.4E-07	1.3E-07	6.2E-08	5.6E-07	9.3E-07	1.3E-06	5.9E-07	5.9	3.8	>2	5.9	3.8	5.9	3.8	5.9	3.8	

Note: DA represents depth-averaged, B represents bottom layer.

DO depletion (mg/L) = Predicted SS release elevation (mg/L) × SOD value (taken as 760mg/kg) × Daily oxygen uptake factor (set at 1.0 for worst case estimate)

DO level at sensitive receiver = Baseline DO level - DO depletion

Values exceeding criteria limit are highlighted.