Modified parameters	Unit	This study	Reference range
Biological dynamics			
Maximum specific photosynthetic rate	s^{-1}	5.58×10^{-5}	$0.107 – 18.2 \times 10^{-5}$ (a)
Photosynthetic efficiency	m^2 s (µ mol photons s)$^{-1}$	4.11×10^{-7}	$1.67 – 6.94 \times 10^{-7}$ (a)
Phytoplankton mortality rate constant	s^{-1}	37×10^{-8}	$23 – 350 \times 10^{-8}$ (a)
Phytoplankton growth constant	-	0.3	0.1 - 0.5(a)
Aerobic degradation rate constant	µmolC $L^{-1}s^{-1}$	1.44×10^{-4}	$0.8 – 9.26 \times 10^{-4}$ (a)
Denitrification rate constant	µmolC $L^{-1}s^{-1}$	5.00×10^{-4}	$0.26 – 522 \times 10^{-4}$ (a)
Nitrification rate constant	µmolN $L^{-1}s^{-1}$	4.62×10^{-4}	$0.106 – 21.7 \times 10^{-4}$ (a)
Particle dynamics			
Critical shear stress for erosion and deposition: km 0 – km 140; km 140 – estuary mouth	Newtons m^{-2}	0.25; 0.6	0.17 – 0.6(b)
Erosion coefficient: from km 0 – km 140; km 140 – estuary mouth	kgTSS m^{-2} s^{-1}	6.0×10^{-6} 1.0×10^{-6}	$1.0 – 5.0 \times 10^{-6}$ (b)
Settling velocity	m s^{-1}	1.0×10^{-4}	$0.1 - 10 \times 10^{-4}$ (b, c)

(a): Volta et al., (2016); (b): Letrung et al., (2016); (c): Le et al., (2020)