

Supplementary Table 1. CH3D model assumptions/parameterization for copper loads and settling velocity in San Diego Bay (SDB) and Sinclair Inlet (SI).

Model Condition	Assumption/Parameterization
Copper Load	Total copper load from fish pen copper: 50 pens, each 167.6 g pen ⁻¹ day ⁻¹ . Total load=2672.8 g day ⁻¹
Dissolved/Particulate Copper Partitioning	Partitioning coefficient based on field data from Chadwick et al. 2008 of 0.27 l mg ⁻¹
Settling Velocity for Particulate Copper	Empirical net settling rate 4.3 cm hr ⁻¹ from SDB mouth (Box2) to south SDB (Box24), 2.1 cm hr ⁻¹ at the head of SDB (Box27), and linear decrease from Box24 to Box 26 (per Chadwick et al. 2008). Empirical net settling rate of 1 cm hr ⁻¹ for SI.
Model output	Water column averaged total copper concentrations in µg l ⁻¹