Supplement for Short Comment Posted January 5, 2017 by J. M. Moriarty

**Figure R1**: Time series of bed stress, and oxygen consumption in the seabed and bottom boundary layer for both the “no-repartitioning” (blue solid line) and “no-repartitioning, no-resuspension” model runs (pink dashed line). Shading indicates resuspension time periods, including 6–11 April, 23 April–3 May, and 18–25 May 2012. The black dashed lines indicate the times at which profiles in Fig. 5 were estimated.

**Figure R2**: Figure 4 from the submitted paper. Time series of bed stress, and oxygen consumption in the seabed and bottom boundary layer for both the standard (blue solid line) and no-resuspension model runs (pink dashed line). Shading indicates resuspension time periods, including 6–11 April, 23 April–3 May, and 18–25 May 2012. The black dashed lines indicate the times at which profiles in Fig. 5 were estimated.