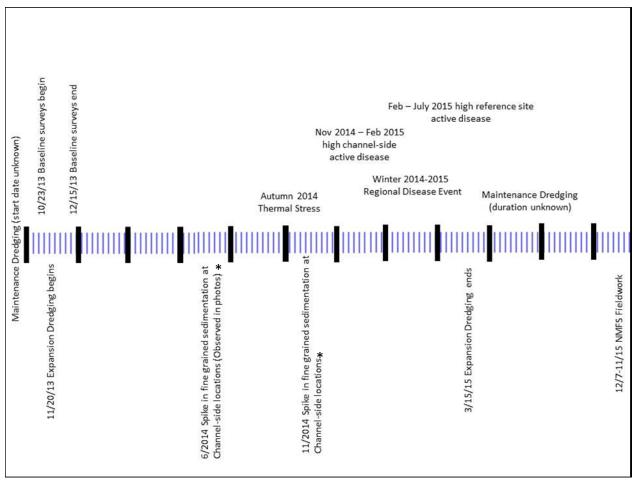
Suppl Fig 1: Estimated reconstructed timeline of dredging, monitoring, and other coral reef disturbance events over approximately 112 weeks at the Port of Miami between late October 2014 and mid-December 2015. Black bars represent 10-week intervals.

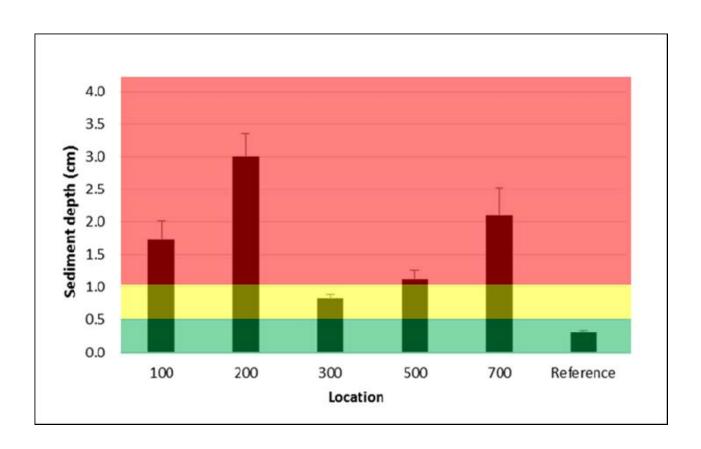


<sup>\*</sup>Sedimentation data from USACE (2015b)

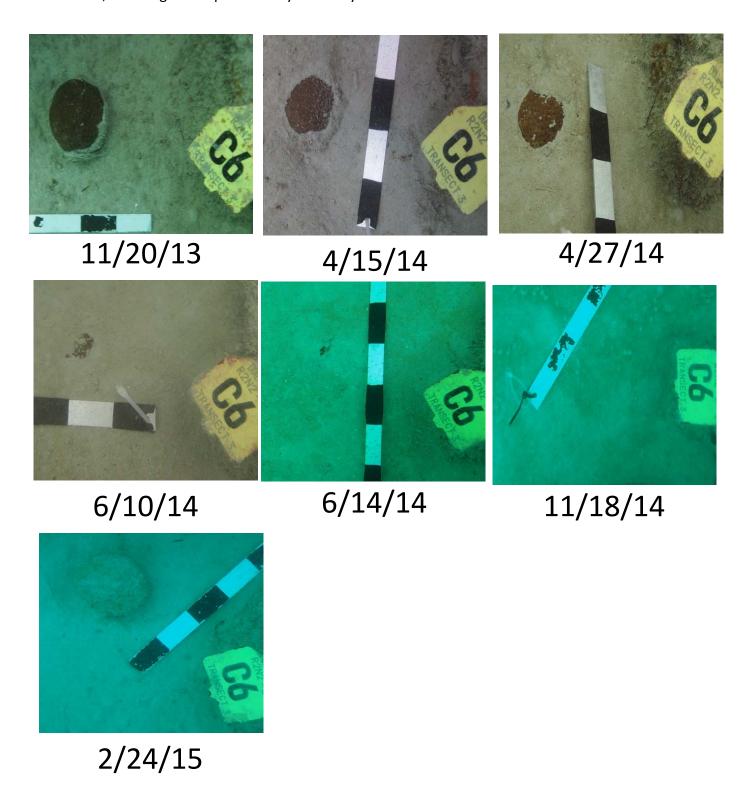
Suppl. Fig 2: All photos from the location surveyed 200 m from the channel in the Inner Reef north, Linear Reef habitat. A-B) Illustration of 'halo' pattern of partial mortality originating from partial burial of the colony with sediment (B taken after diver had manually removed sediment by fanning). C-D) Additional examples of edge burial (C) and 'halo' pattern of partial mortality showing sediment interaction (D). E-F) Partially buried soft corals in an area of 'deep sediment over hardbottom' (DSOHB).



Suppl. Figure 3: Mean (+1 SE) depth of sediment at 0.5 m intervals along point-intercept transects. Both Ridge-shallow and Linear Reef habitats were sampled at all sites except 700 m (LR only). Same as Fig 2B with depiction of sediment depths corresponding to sedimentation threshold criteria, termed "stoplight indicators", developed by Nelson et al. (2016). Threshold levels based on active sedimentation onto reef surfaces and corals during a prescribed period of time (18 to 30 days within a 90 day timeframe). Sediment depth in excess of 1.0 cm is classified as red, and corresponds to severe colony stress resulting in mortality. If depth is less than 1.0 cm, but greater than 0.5 cm it is classified as yellow, corresponding to moderate colony stress with some coral colonies expected to recover. If sediment depth was less than 0.5 cm it is classified as green, meaning negligible or limited impacts to coral colonies (Nelson et al. 2016). The standing sediment levels measured at Port of Miami are cumulative standing sediment levels over a much longer time period than is considered in Nelson et al. (2016), and are therefore conservative values when compared to the sediment threshold criteria stoplight indicators.

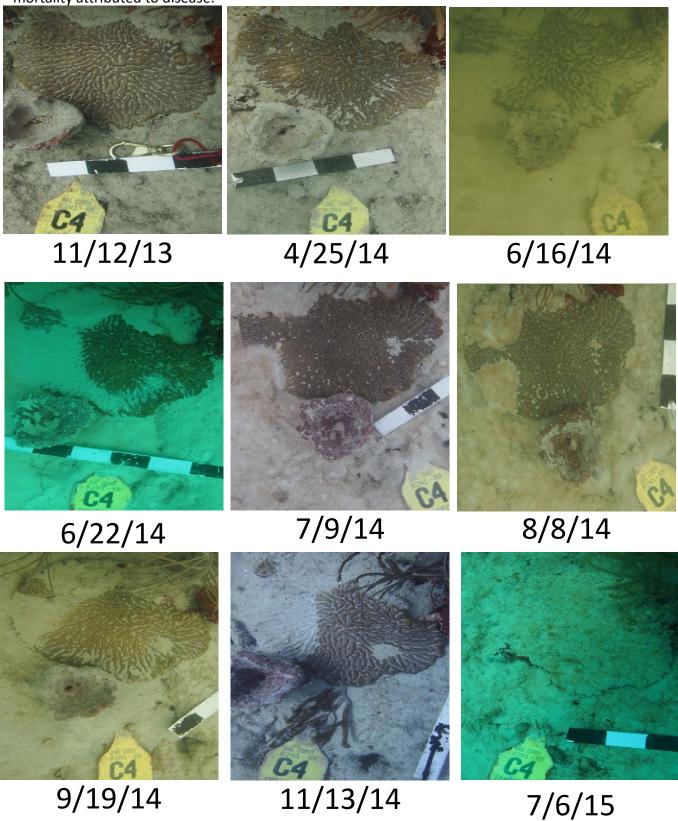


Suppl Fig 4A: Abbreviated time series photos illustrating common conditions. Channel-side Siderastrea siderea (R2N2 T3 C6) which was completely buried in sediment, apparently for several months, resulting in complete colony mortality



Suppl Fig 4B: Abbreviated time series photos illustrating common conditions. Channel-side *Meandrina meandrites* (R2N1 T2 C4) showing substantial partial buried in sediment. Disease signs are apparent both in direct combination with heavy sedimentation (June-July 2014, prior to the onset of warm thermal stress) and more severely later on (fall-winter 2014). Complete colony

mortality attributed to disease.



Suppl Fig 4C: Abbreviated time series photos illustrating common conditions. Reference colony of Siderastrea siderea (R2NC1 T1 C7) showing some apparent interaction with sediment along the colony margin throughout. This colony bleached in fall 2014 and subsequently recovered.

