Progress Towards Meeting Regulatory Goals

An initiative of the Tampa Bay Nitrogen Management Consortium to Maintain and Restore the Bay's Resources

FDEP Criteria Met:

	OTB	HB	MTB	LTB
1975	red	red	red	green
1976	red	red	red	green
1977	red	red	red	red
1978	red	red	red	green
1979	red	red	red	red
1980	red	red	red	red
1981	red	red	red	red
1982	red	red	red	red
1983	red	red	red	red
1984	green	green	red	green
1985	red	red	red	green
1986	red	red	green	green
1987	red	green	red	green
1988	green	green	green	green
1989	red	green	green	green
1990	red	green	green	green
1991	green	green	green	green
1992	green	green	green	green
1993	green	green	green	green
1994	red	red	red	red
1995	red	red	red	green
1996	green	green	green	green
1997	green	green	green	green
1998	red	red	red	red
1999	green	green	green	green
2000	green	green	green	green
2001	green	green	green	green
2002	green	green	green	green
2003	red	green	green	green
2004	red	green	green	green
2005	green	green	green	red
2006	green	green	green	green
2007	green	green	green	green
2008	green	green	green	green
2009	red	green	green	green
2010	green	green	green	green
2011	red	green	green	green
2012	green	green	green	green
2013	green	green	green	green
2014	green	green	green	green
2015	red	green	green	green
2016	green	green	green	green
2017	red	green	green	green
2018	green	green	green	green
2019	red	green	green	green

Figure 5: Attainment of bay segments for chlorophyll criteria from 1975 to 2019.

Maintaining Reasonable Assurance & TMDL compliance

In November 2017, the Florida Department of Environmental Protection (FDEP) accepted the 2017 Reasonable Assurance Update (2017 RA Update) as submitted by TBEP in partnership with the Tampa Bay Nitrogen Management Consortium. FDEP concluded that the RA Update demonstrated both attainment of seagrass targets and total nitrogen numeric criteria for 2012-2016. During 2019, all bay segments, excluding Old Tampa Bay, were in compliance with the FDEP regulatory criteria for chlorophyll-a concentrations (Figure 5). The second compliance report for the 2017-2021 period was submitted March 2019.

2019 Chl-a Monthly Variation Compared to 1974-2018

Chlorophyll-a concentrations were evaluated within the bay on a monthly basis during 'r maxyr' and compared to prior years' levels (Figure 6) . Elevated concentrations in Old Tampa Bay and Lower Tampa Bay were primarily due to *Pyrodinium bahamense* and *Karenia brevis* blooms, respectively. Hillsborough Bay also showed elevated concentrations during two months in 2018 - the fall event coincided with blooms of the nonharmful alga, *Tripos hircus*.

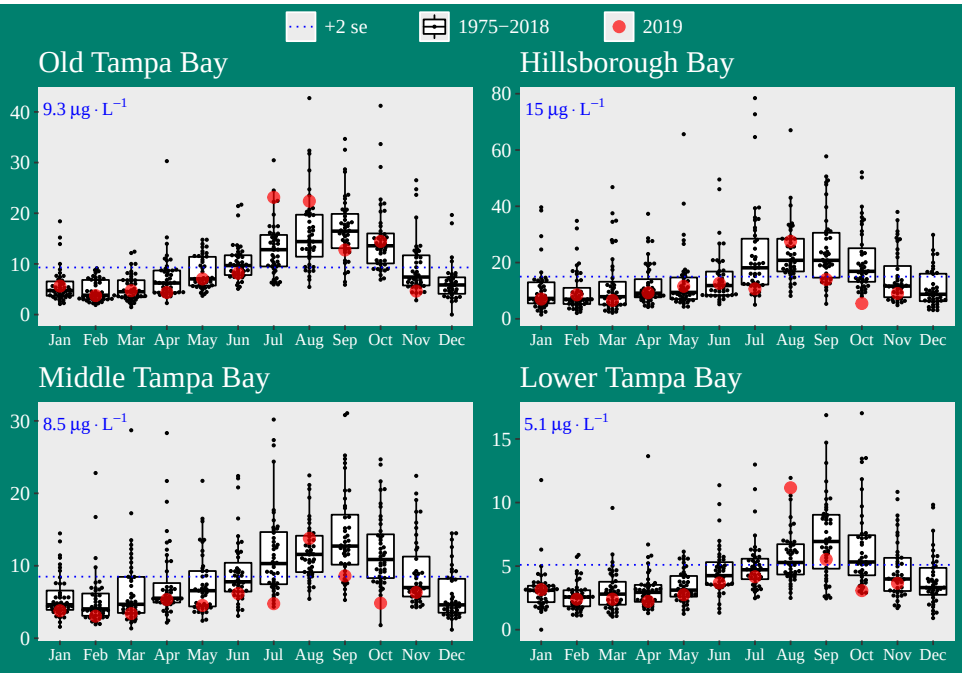

Figure 6: Chlorophyll-a monthly averages from 1975-2018 for the four bay segments. The monthly averages for 2019 are shown in red.Historic chlorophyll-a annual averages for the four bay segments.

Tampa Bay Seagrass Recovery

Tampa Bay's total seagrass coverage remains above the recovery goal, though a slight decrease was observed from 2016 to 2018. The 2018 baywide coverage was estimated at 40,652 acres (Figure 7). As in 2016, coverage remains above the target (38,000 acres) and the estimated historic coverage of the 1950s (40,420 acres). The next SWFWMD coverage estimates will be developed from aerial photographs acquired over the winter 2019-20 period, following the extensive red tide event observed throughout 2018 (note: the 2018 coverage estimate was developed prior this event). More information can be found in TBEP technical publication #08-16 and #09-17.

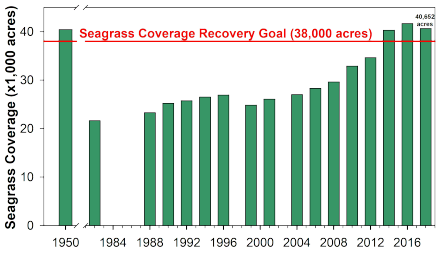

Figure 7: Historic seagrass acreage estimates for Tampa Bay from 1950-2018 (Source: TBEP & SWFMD)

***Additional info**: 2019 nutrient management compliance assessment available from Sherwood, E., Burke, M. 2019. TBEP Technical Report #11-19.*