

# Progress Towards Meeting Regulatory Goals

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



## FDEP Criteria:

|      | OTB | HB | MTB | LTB |
|------|-----|----|-----|-----|
| 1975 | R   | R  | R   | G   |
| 1976 | R   | R  | R   | G   |
| 1977 | R   | R  | R   | R   |
| 1978 | R   | R  | R   | G   |
| 1979 | R   | R  | R   | R   |
| 1980 | R   | R  | R   | R   |
| 1981 | R   | R  | R   | R   |
| 1982 | R   | R  | R   | R   |
| 1983 | R   | R  | R   | R   |
| 1984 | G   | G  | R   | G   |
| 1985 | R   | R  | R   | G   |
| 1986 | R   | R  | G   | G   |
| 1987 | R   | G  | R   | G   |
| 1988 | G   | G  | G   | G   |
| 1989 | R   | G  | G   | G   |
| 1990 | R   | G  | G   | G   |
| 1991 | G   | G  | G   | G   |
| 1992 | G   | G  | G   | G   |
| 1993 | G   | G  | G   | G   |
| 1994 | R   | R  | R   | R   |
| 1995 | R   | R  | R   | G   |
| 1996 | G   | G  | G   | G   |
| 1997 | G   | G  | G   | G   |
| 1998 | R   | R  | R   | R   |
| 1999 | G   | G  | G   | G   |
| 2000 | G   | G  | G   | G   |
| 2001 | G   | G  | G   | G   |
| 2002 | G   | G  | G   | G   |
| 2003 | R   | G  | G   | G   |
| 2004 | R   | G  | G   | G   |
| 2005 | G   | G  | G   | R   |
| 2006 | G   | G  | G   | G   |
| 2007 | G   | G  | G   | G   |
| 2008 | G   | G  | G   | G   |
| 2009 | R   | G  | G   | G   |
| 2010 | G   | G  | G   | G   |
| 2011 | R   | G  | G   | G   |
| 2012 | G   | G  | G   | G   |
| 2013 | G   | G  | G   | G   |
| 2014 | G   | G  | G   | G   |
| 2015 | R   | G  | G   | G   |
| 2016 | G   | G  | G   | G   |
| 2017 | R   | G  | G   | G   |
| 2018 | G   | G  | G   | G   |
| 2019 | R   | G  | G   | G   |
| 2020 | R   | G  | G   | G   |
| 2021 | G   | G  | G   | G   |

Figure 5: Attainment of bay segments for chlorophyll criteria from 1975 to 2021 (April, May data missing for 2020).

## Maintaining Reasonable Assurance & TMDL Compliance

During 2020, the COVID-19 pandemic precluded water quality data collection in April and May. As a result, compliance determinations have not been made for any bay segments. Results shown in Figure 5 depict chlorophyll-a concentrations in relation to regulatory criteria, as calculated without observations from the months noted above. The fourth RA annual assessment report for the 2017-2021 period will be submitted in April 2021.

## 2021 Chl-a Monthly Variation Compared to 1974-2020

Chlorophyll-a concentrations were evaluated within the bay on a monthly basis during 2021 and compared to prior years' levels (Figure 6). Elevated concentrations in Old Tampa Bay were primarily due to *Pyrodinium bahamense* during the late summer months.

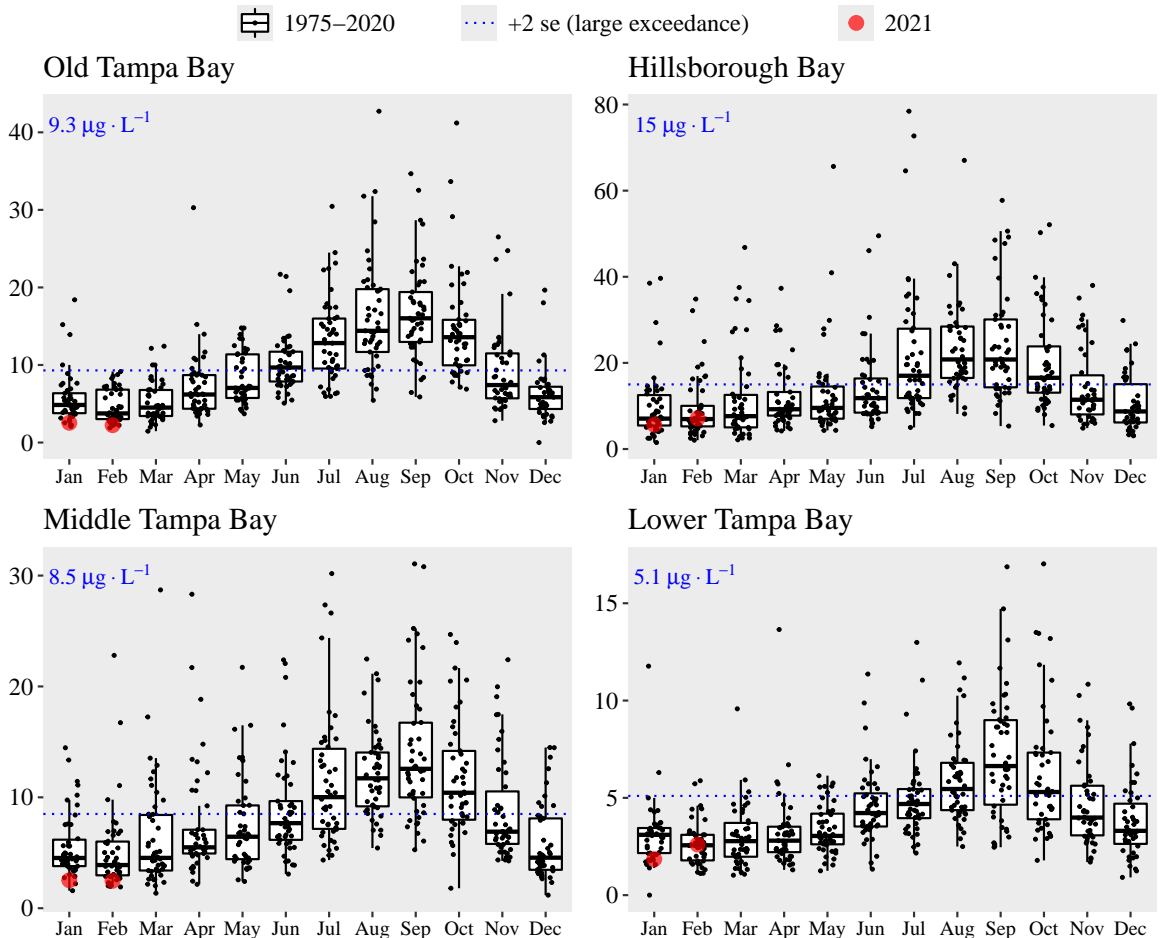


Figure 6: Chlorophyll-a monthly averages from 1975-2020 for the four bay segments. The monthly averages for 2021 are shown in red.

## 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 (40,000 acres) and the estimated historic coverage of the 1950s (40,420 acres). SWFWMD coverage estimates from the winter 2019-20 period will be available in spring 2021. More information on assessments of the bay's seagrass recovery using transect monitoring data can be found at <https://shiny.tbep.org/seagrass-transect-dash/> and using the coverage estimates from SWFWMD can be found at <https://shiny.tbep.org/seagrass-coverage-dash/>.

Note: 2020 nutrient management compliance assessment available from Sherwood, E., Burke, M., Beck, M.W. 2021. TBEP Technical Report #06-21. Please cite this document as Beck, M.W., Burke, M., Raulerson, G. 2021. 2020 Tampa Bay Water Quality Assessment. TBEP Technical Report #05-21, St. Petersburg, FL.

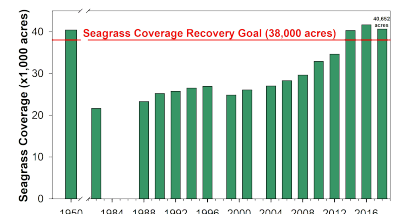


Figure 7: Seagrass estimates from 1950-2018 (Source: TBEP & SWFWMD)