

# 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 |

## 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*.

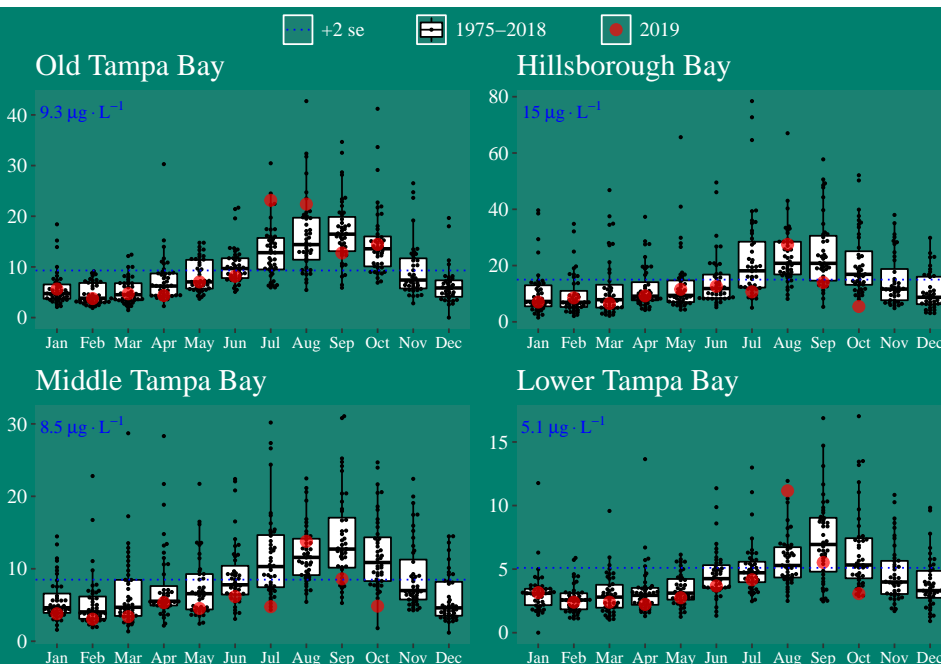


Figure 6: Chlorophyll-a monthly averages from 1975-2018 for the four bay segments. The monthly averages for 2019 are shown in red. Historic chlorophyll-a annual averages for the four bay segments.

## 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 40,618 acres (Figure 7). As in 2016, coverage remains above both 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 to this event). More information can be found in TBEP Technical Publication #0816.

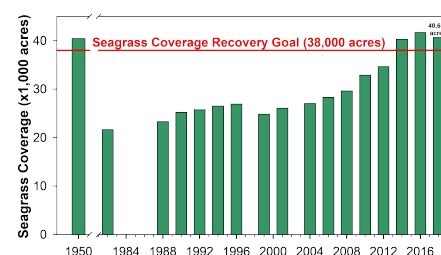


Figure 7: Historic seagrass acreage estimates for Tampa Bay from 1950-2018 (Source: TBEP & SWFWMD)