



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

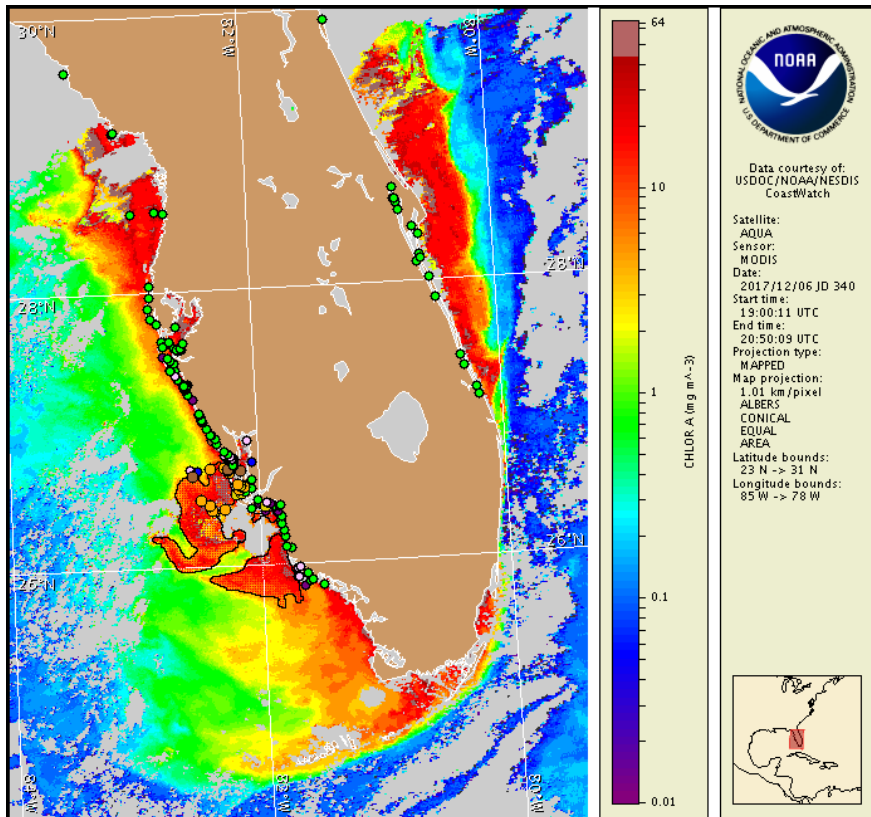
Thursday, 07 December 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 4, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 27 to December 5: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[https://tidesandcurrents.noaa.gov/hab/hab\\_publication/GOMX\\_HAB\\_Bulletin\\_Guide.pdf](https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf)

Detailed sample information can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <https://tidesandcurrents.noaa.gov/hab/gomx.html>

## Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present alongshore portions of southwest Florida. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Thursday, December 7 through Monday, December 11 is listed below:

**County Region: Forecast (Duration)**

**Southern Manatee: Very Low (Th-M)**

**Southern Manatee, bay regions: Very Low (Th-M)**

**Northern Sarasota: Very Low (Th-M)**

**Northern Charlotte: Low (Th-M)**

**Southern Charlotte: Low (Th-M)**

**Southern Charlotte, bay regions: Moderate (Th-M)**

**Northern Lee: Low (Th, Su-M), Moderate (F-Sa)**

**Northern Lee, bay regions: Moderate (Th-M)**

**Central Lee: Moderate (Th-Su), Low (M)**

**Central Lee, bay regions: Moderate (Th-M)**

**Southern Lee: Moderate (Th-F), Very Low (Sa-M)**

**Northern Lee, bay regions: Very Low (Th-M)**

**Central Collier: Very Low (F-Sa), none (Th, Su-M)**

**All Other SWFL County Regions: None expected (Th-M)**

Health information, from the Florida Department of Health and other agencies, is available at [https://tidesandcurrents.noaa.gov/hab/gomx\\_health.html](https://tidesandcurrents.noaa.gov/hab/gomx_health.html). For recent, local observations and data check Mote Marine Laboratory Daily Beach Conditions (<http://visitbeaches.org/>) and the Florida Fish and Wildlife Conservation Commission Red Tide Status (<http://myfwc.com/redtidestatus>). Reports of dead fish were received from Pinellas County.

## Analysis

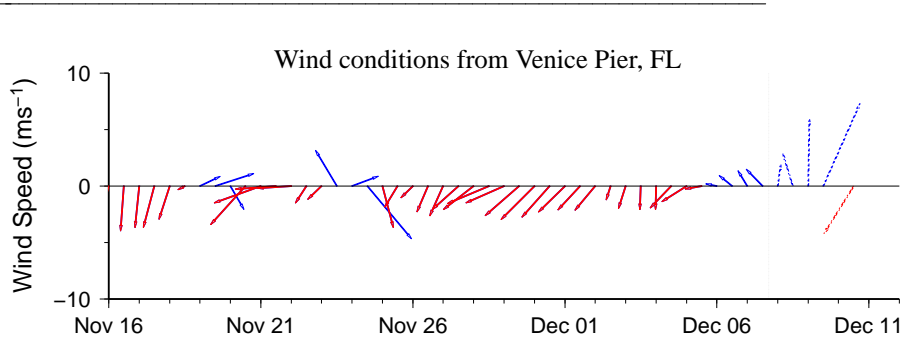
Recent samples collected along- and offshore southwest Florida from Pinellas to Collier counties continue to indicate not present to 'high' concentrations of *Karenia brevis* are present. Up to 'medium' concentrations of *K. brevis* were newly identified offshore and in the bay regions at several locations in Lee County. 'Very low a' concentrations have been identified in the bay regions of southern Manatee and southern Lee counties, and along-shore northern Sarasota and central Collier counties (FWRI, MML, SCHD, CCPCD; 11/27-12/5). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 12/6) shows elevated to very high chlorophyll (2 to >20 µg/L) along- and offshore southwest Florida. Patches of elevated to very high chlorophyll matching the optical characteristics of *K. brevis* are visible along- and offshore southwest Florida from northern Lee County to central Collier County.

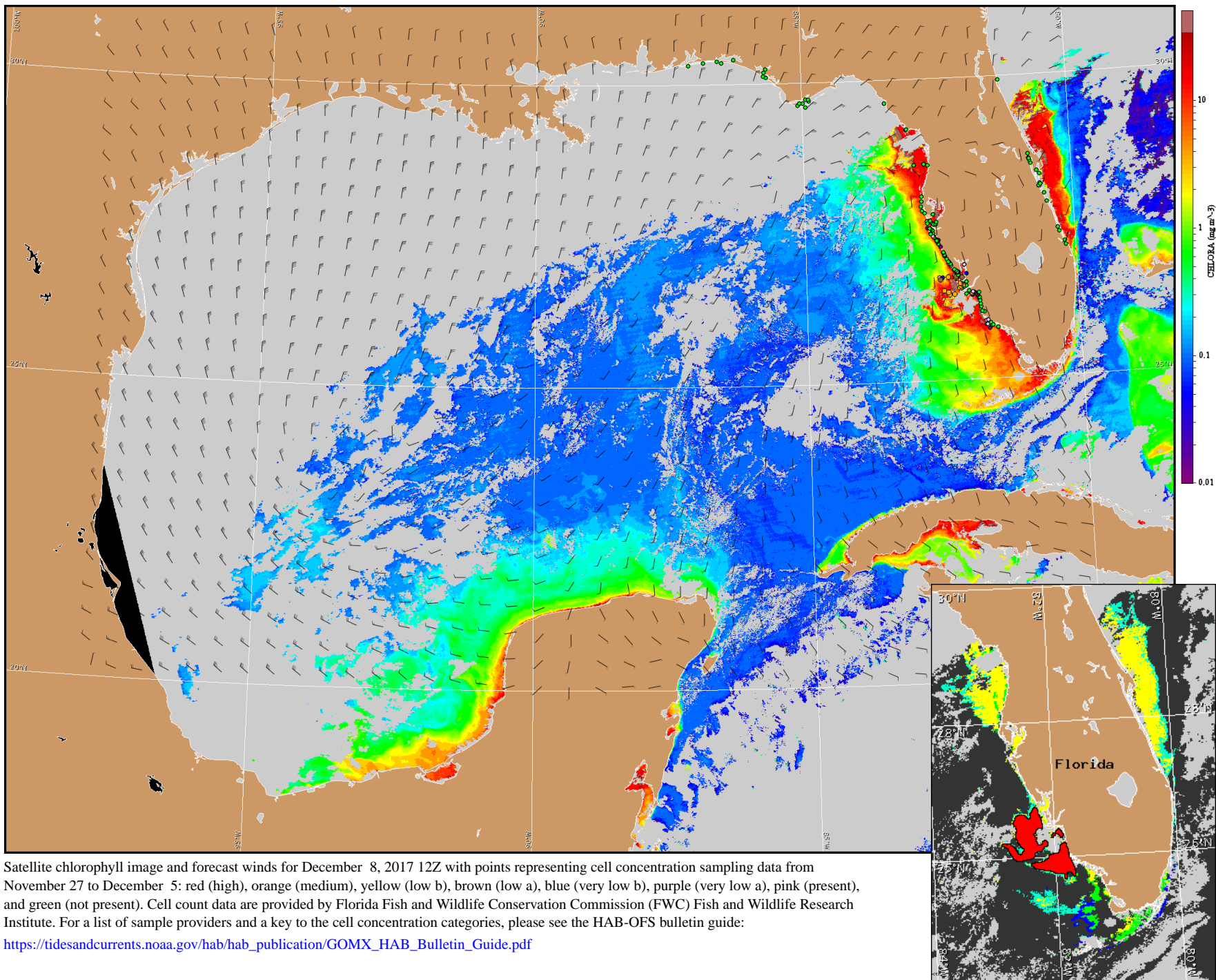
Forecast winds Saturday through Monday may promote southerly transport of surface bloom concentrations. -Lalime, Keeney

## Wind Analysis

**Englewood to Tarpon Springs (Venice):** Southeast to south winds (5-15kn, 3-8m/s) today through Friday. West winds (20kn, 10m/s) Friday night. North to northeast winds (5-25kn, 3-13m/s) Saturday through Monday.



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Satellite chlorophyll image and forecast winds for December 8, 2017 12Z with points representing cell concentration sampling data from November 27 to December 5: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).