



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

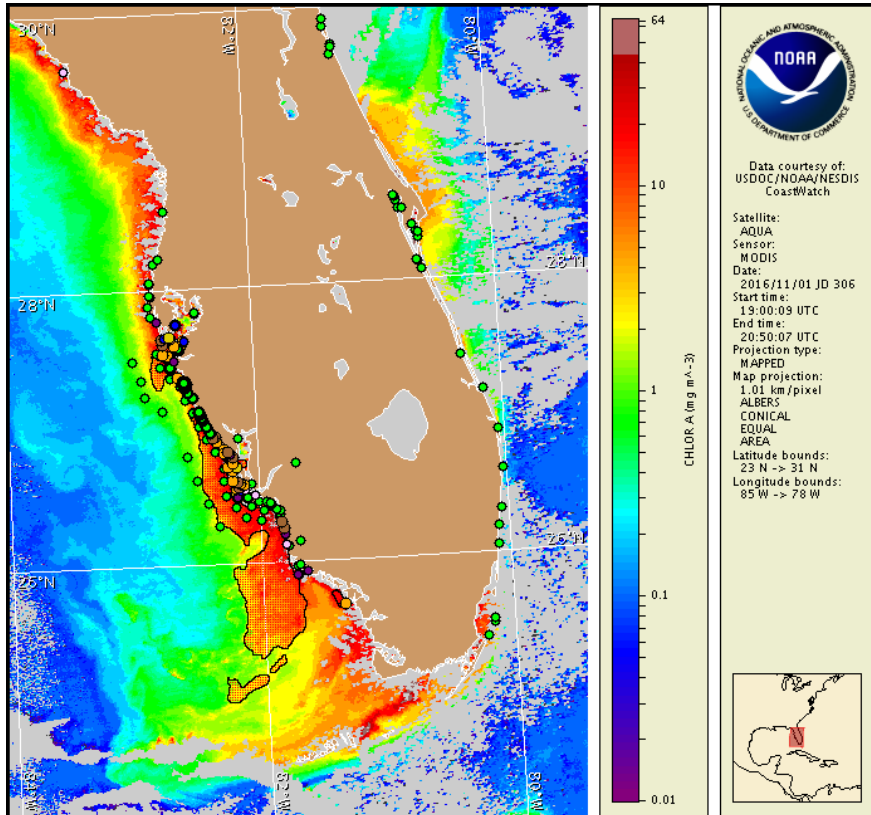
Thursday, 03 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 31, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 24 to November 2: 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:

[http://tidesandcurrents.noaa.gov/hab/hab\\_publication/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_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: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida, and not present in the Florida Keys. *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, November 3 through Monday, November 7 is listed below:

### County Region: Forecast (Duration)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Central Lee:** Very Low (Th-M)

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

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

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

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

**Central Collier:** Very Low (Th-M)

**Central Collier, bay regions:** Very Low (Th-M)

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

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

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

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at [http://tidesandcurrents.noaa.gov/hab/hab\\_health\\_info.html](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Over the past several days, reports of dead fish were received from Pinellas, Manatee, and Lee counties.

## Analysis

Recent samples collected along- and offshore the coast of southwest Florida from Pinellas to Monroe counties, identified up to 'medium' *K. brevis* concentrations from northern Manatee to central Lee County and up to 'low a' *K. brevis* concentrations alongshore Collier County (FWRI, MML, SCHD, CCENRD; 10/24-11/2). No new samples have been received from northern Monroe County since 'medium' *K. brevis* concentrations were detected at Pavilion Key (MML; 10/25). 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, 11/1) indicates the presence of elevated to very high (2 to >20  $\mu\text{g/L}$ ) chlorophyll with the optical characteristics of *K. brevis* alongshore from southern Pinellas to southern Manatee County. A separate patch of elevated to very high (2 to >20  $\mu\text{g/L}$ ) chlorophyll with the optical characteristics of *K. brevis* is visible alongshore southern Sarasota County to central Collier County, and offshore from central Collier County to 35 miles north of the Florida Keys.

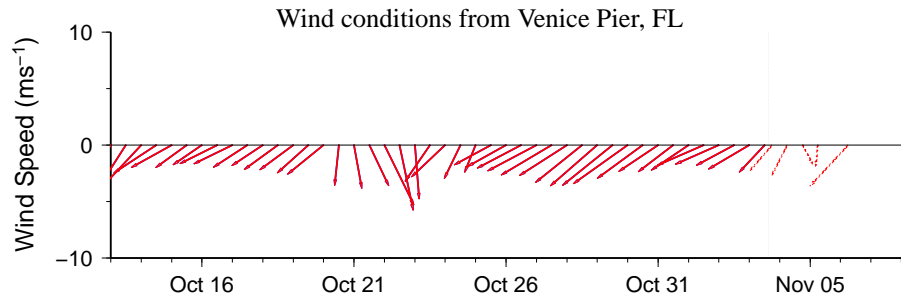
Forecasted winds today through Monday (11/3-11/7) may promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Davis, Lalime

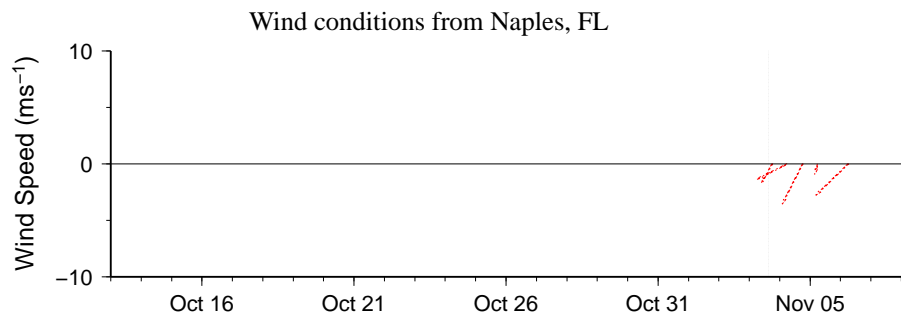
## Wind Analysis

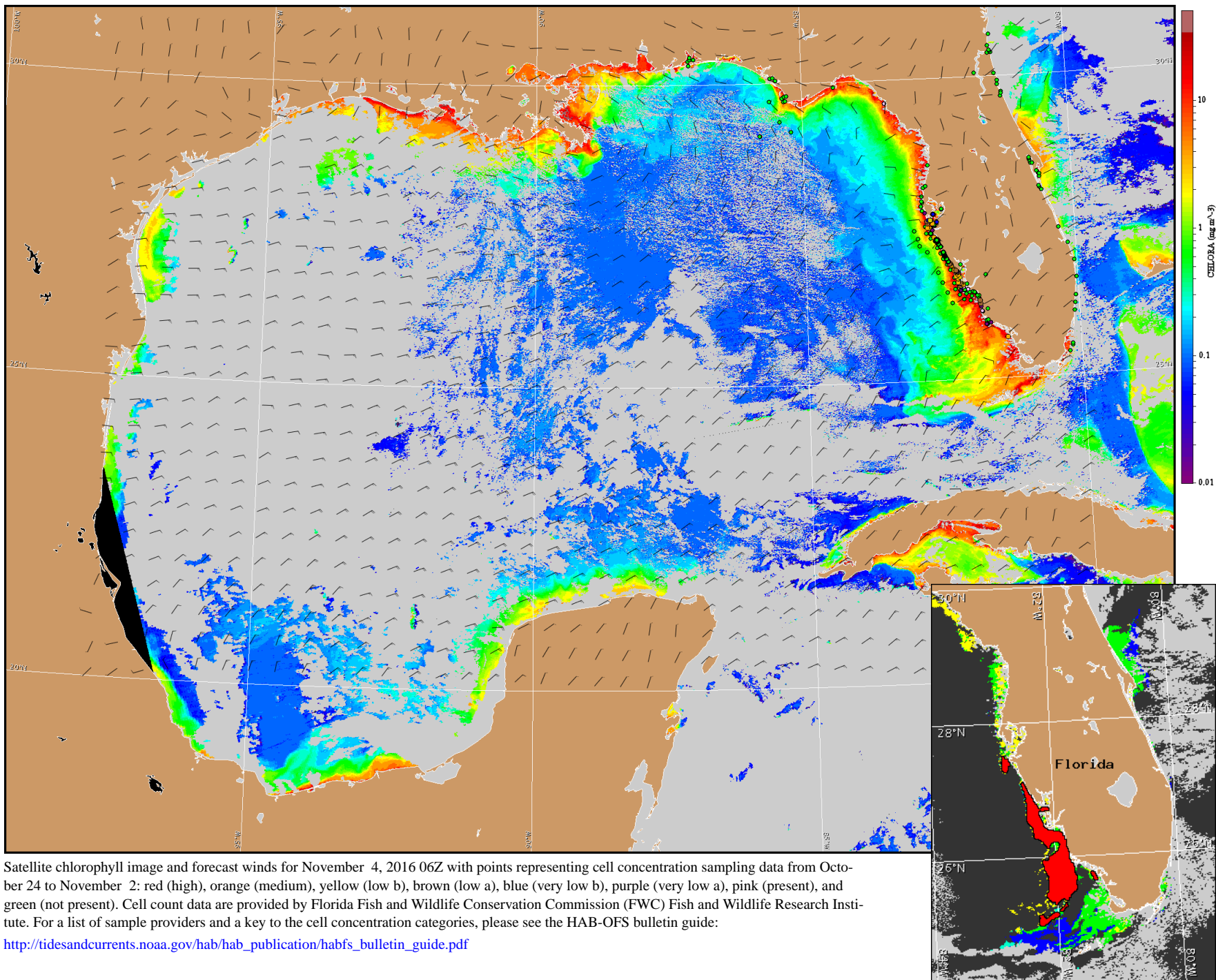
**Englewood to Tarpon Springs (Venice):** North to northeast winds (5-15kn, 3-8m/s) today through Friday afternoon, becoming north to northwest winds (5-15kn) late Friday afternoon. Northeast winds (10-20kn, 5-10m/s) Saturday through Monday.

**Chokoloskee to Bonita Beach:** Northeasterly winds (5-15kn) today 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 November 4, 2016 06Z with points representing cell concentration sampling data from October 24 to November 2: 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).