



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

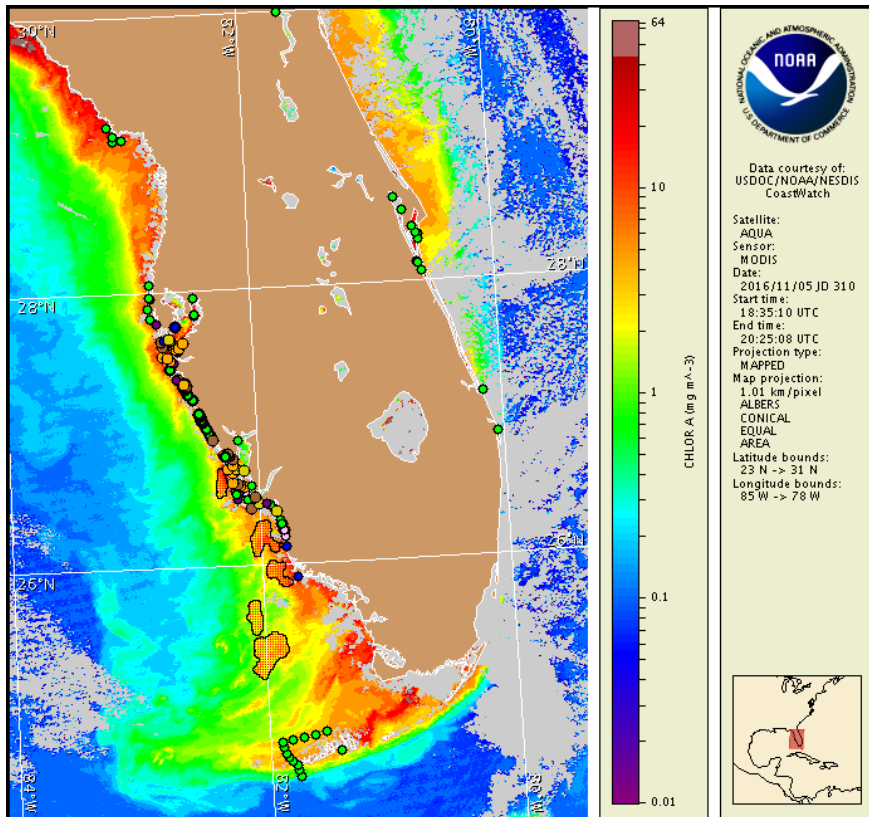
Monday, 07 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 3, 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 28 to November 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:

[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 Monday, November 7 through Thursday, November 10 is listed below:

### County Region: Forecast (Duration)

**Southern Pinellas:** Very Low (M-Tu, Th), Low (W)

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

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

**Southern Manatee:** Very Low (M-Tu, Th), Low (W)

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

**Northern Sarasota:** Very Low (M-Tu, Th), Moderate (W)

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

**Southern Sarasota:** Low (M-Tu, Th), Moderate (W)

**Northern Charlotte:** Very Low (M-Tu, Th), Low (W)

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

**Southern Charlotte:** Very Low (M-Tu, Th), Low (W)

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

**Northern Lee:** Very Low (M-Tu, Th), Moderate (W)

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

**Central Lee:** Very Low (M-Tu, Th), Moderate (W)

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

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

**Northern Collier:** Very Low (M-Tu, Th), Low (W)

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

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

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 respiratory irritation were received from Sarasota County, and dead fish were received from Sarasota 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 southern Charlotte counties and up to 'low b' *K. brevis* concentrations alongshore central and southern Lee County (FWRI, MML, SCHD, CCENRD; 10/28-11/5). *K. brevis* concentrations alongshore northern Collier County have decreased to 'very low b' (FWRI, CCENRD; 11/2-11/3). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Respiratory irritation has been reported from Manasota Beach in southern Sarasota County. Dead fish have been reported from Sarasota and Lee counties (FWRI; 11/4-11/7).

Recent ensemble imagery (MODIS Aqua, 11/5) indicates the presence of elevated to high (2-14  $\mu\text{g/L}$ ) chlorophyll with the optical characteristics of *K. brevis* alongshore from southern Pinellas to central Lee County. Elevated (2-9  $\mu\text{g/L}$ ) chlorophyll with the optical characteristics of *K. brevis* is visible alongshore southern Lee County to central Collier County.

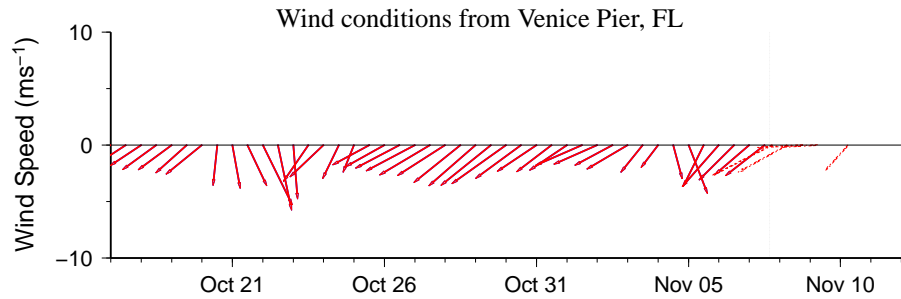
Forecasted winds today through Thursday (11/7-11/10) may promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Lalime, Keeney

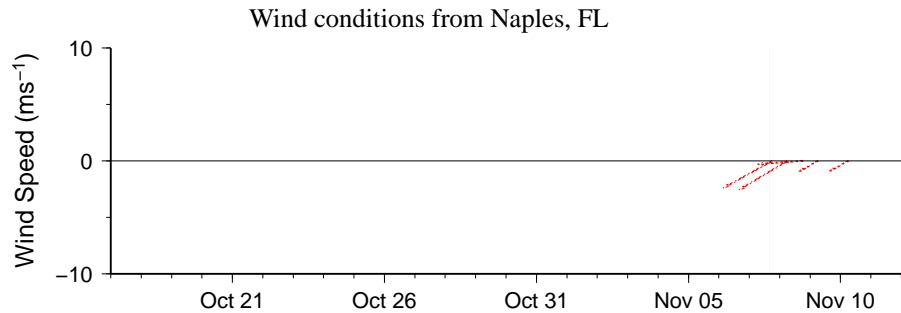
## Wind Analysis

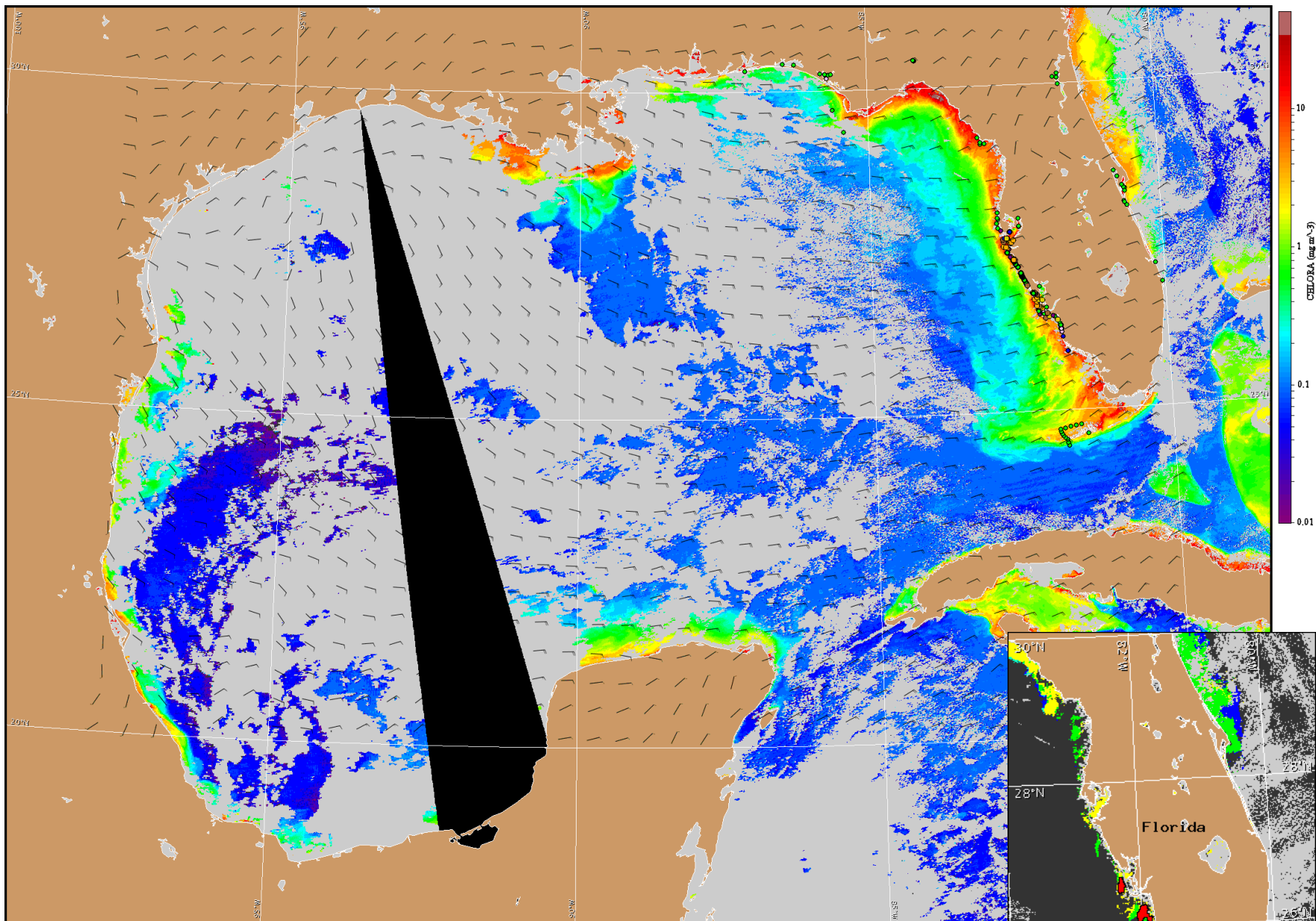
**Englewood to Tarpon Springs (Venice):** East to northeast winds (5-20kn, 3-10m/s) today through Tuesday night. Southeast winds (10kn, 5m/s) Wednesday becoming north in the afternoon through Wednesday night. Northeast to north winds (10-15kn, 5-8m/s) Thursday.

**Chokoloskee to Bonita Beach:** Northeast to east winds (10-20kn, 5-10m/s) today through Tuesday night. Southeast winds (5-10kn, 3-5m/s) Wednesday becoming east to northeast winds (5-10kn) Wednesday afternoon through Thursday.



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 8, 2016 06Z with points representing cell concentration sampling data from October 28 to November 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:

[http://tidesandcurrents.noaa.gov/hab/hab\\_publication/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf)

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