



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

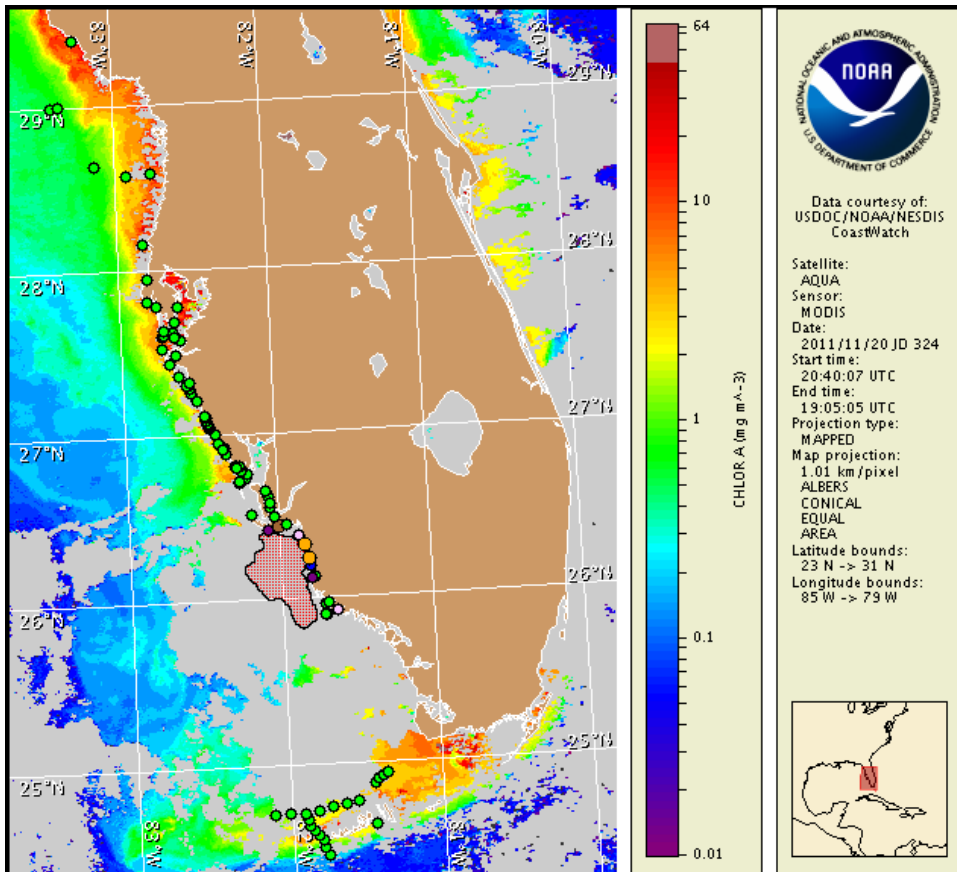
Monday, 21 November 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 17, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 11 to 21 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:  
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

A harmful algal bloom has been identified alongshore northern Collier County and in the eastern Sanibel Island region of southern Lee County. This bloom extends offshore southern Lee and northern Collier Counties. Very low impacts are possible alongshore northern Collier County and in the eastern Sanibel Island region today through Tuesday. No additional impacts are expected at the coast in southwest Florida today through Tuesday, November 22. This report will be updated next on Wednesday, November 23.

## Analysis

\*Due to the upcoming Federal Holiday, the next bulletin will be issued on Wednesday, November 23.\*

The harmful algal bloom first identified on 9/26 was newly identified at the coast in northern Collier County late last week. The bloom is presently located alongshore and offshore southwest Florida from southern Sanibel Island in Lee County to northern Collier County. 'Very low' to 'medium' *Karenia brevis* concentrations are present alongshore northern Collier County between Barefoot Beach and Naples Pier (FWRI, CCPCPD; 11/17). 'Very low' to 'low' *K. brevis* concentrations are also present alongshore southern and southeastern portions of Sanibel Island in Lee County (FWRI; 11/16). No *K. brevis* was detected last week in central Collier County at Big Marco Pass where concentrations were previously 'very low' (FWRI; 11/7, 11/17). All other samples collected alongshore from Pinellas through northern Monroe counties, offshore Sarasota, northern Lee and northern Monroe counties, and throughout the Florida Keys region indicate that *K. brevis* is not present (FWRI, MML, SCHD; 11/10-17). No reports of impacts have been received alongshore southwest Florida over the past several days.

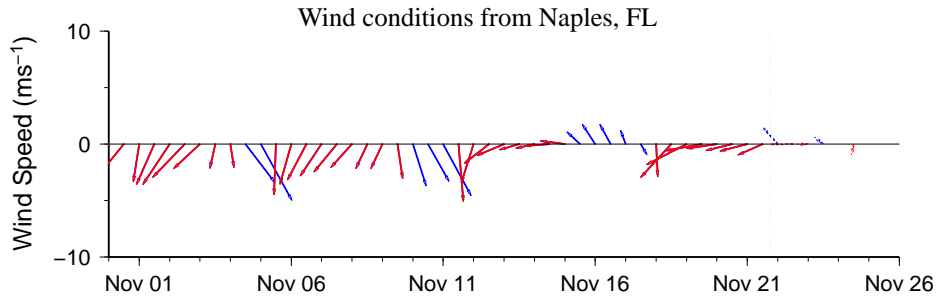
Recent MODIS imagery (11/18-20) is completely obscured in the southern Lee and Collier County regions where the bloom is presently located. Imagery from 11/17 continues to show high chlorophyll ( $>10\mu\text{g/L}$ ) along the coast from southern Lee County to the Cape Romano region, with the highest concentrations located between Bonita Beach and Naples. This is consistent with sample results. Elevated to very high chlorophyll (6 to  $>30\mu\text{g/L}$ ) continues to be visible in 11/17 imagery offshore southern Lee and northern to central Collier County extending ~15 miles from the coast. Offshore chlorophyll levels appeared to be highest ~7 miles offshore Bonita Beach south to Clam Pass. Also, a distinct elevated to very high chlorophyll feature (6 to  $>40\mu\text{g/L}$ ) was visible on 11/17 ~ 20-26 miles offshore northern Collier County from  $26^{\circ}12'8''\text{N } 82^{\circ}11'31''\text{W}$  at the northernmost tip to  $26^{\circ}2'37''\text{N } 82^{\circ}5'58''\text{W}$  at the southernmost tip. Conditions over the past few days were conducive to intensification of *K. brevis* concentrations at the coast. Continued sampling at the coast and offshore of southern Lee and Collier counties is highly recommended. Chlorophyll levels along southwest Florida between Pinellas and northern Lee County remain slightly elevated (2-4 $\mu\text{g/L}$ ), likely due to non-harmful algae.

Offshore winds through Tuesday should minimize impacts along Collier County beaches. The potential for impacts increases on Wednesday. Slight southerly transport may continue through Tuesday. Bloom intensification remains possible this week.

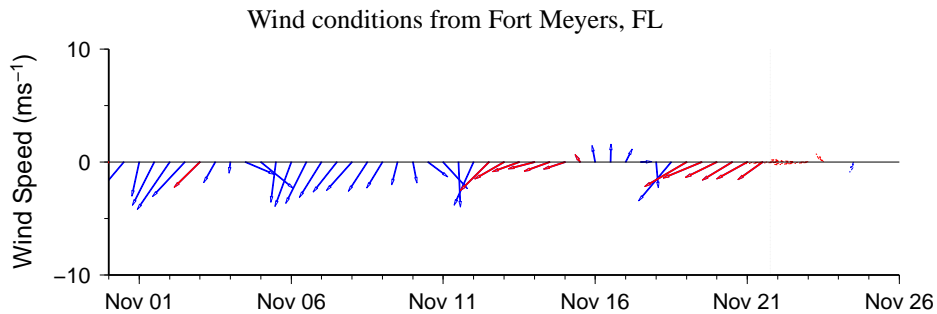
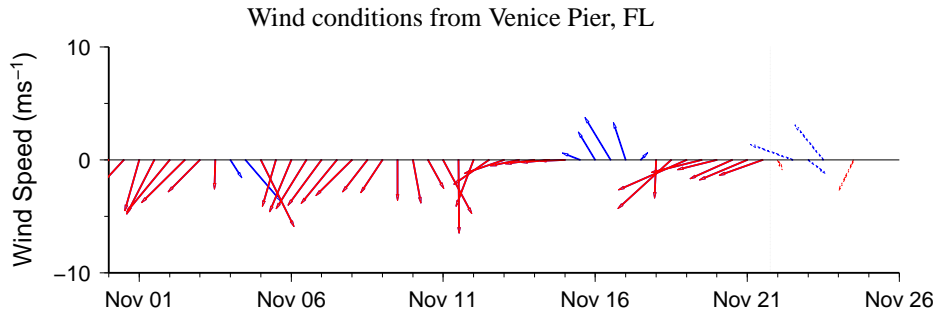
-Fisher, Yang

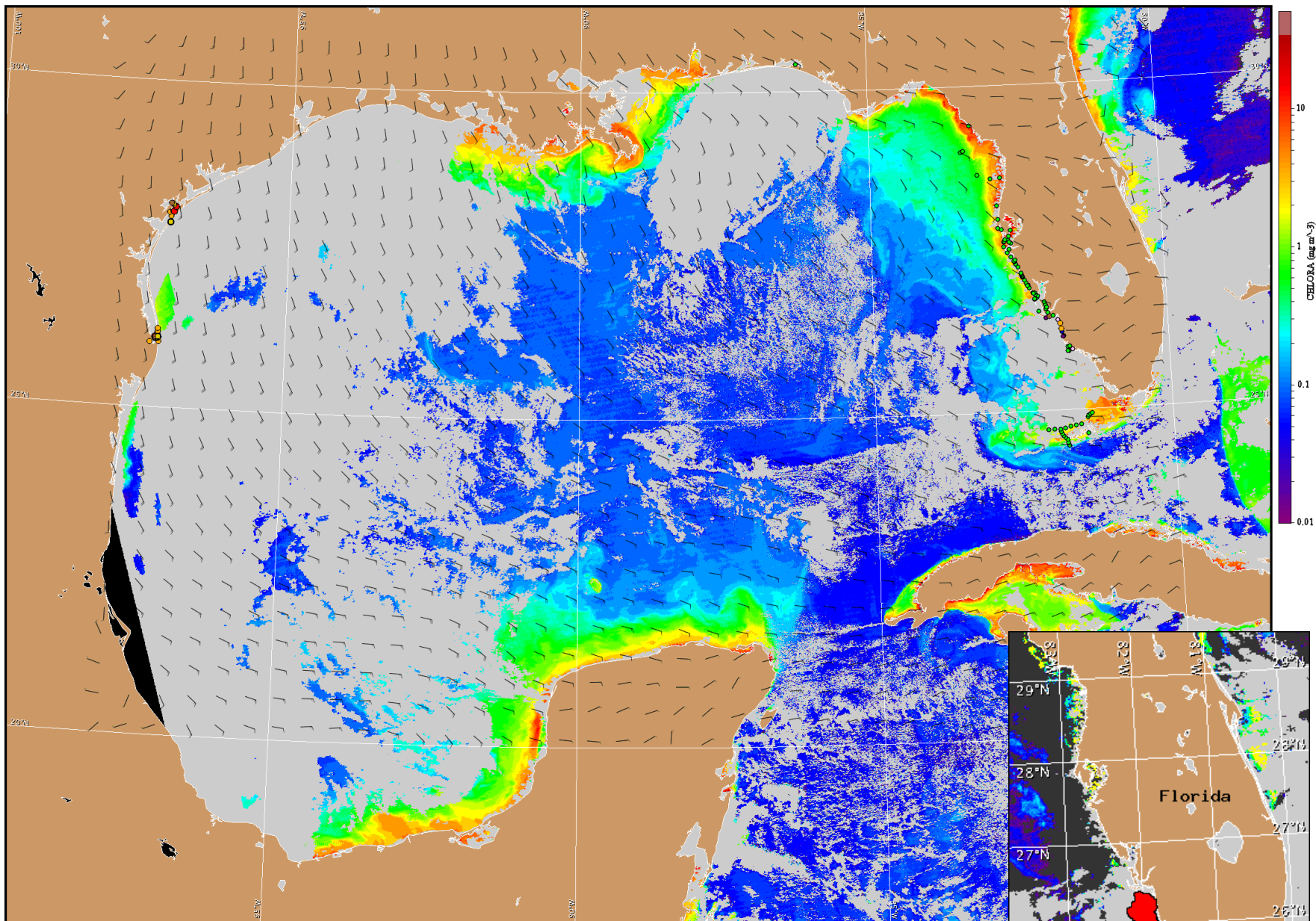
## Wind Analysis

**Southwest Florida: (Southern Lee through Collier counties)** East winds (10-15 kn, 5-8 m/s) today through Tuesday. South to southeast winds Wednesday, becoming southwest in the afternoon (5-10kn, 3-5m/s). **(Pinellas through Lee counties)** North winds today (10kn, 5m/s). East winds tonight (15kn, 8m/s). South winds Tuesday (5-10kn, 3-5m/s), becoming west in the afternoon. West winds becoming southeast Tuesday night (10kn, 5m/s). West winds Wednesday (10kn, 5m/s).



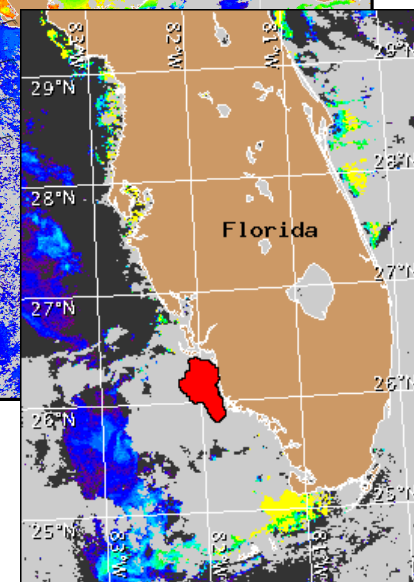
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for November 22, 2011 12Z with cell concentration sampling data from November 11 to 21 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data 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 of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).