



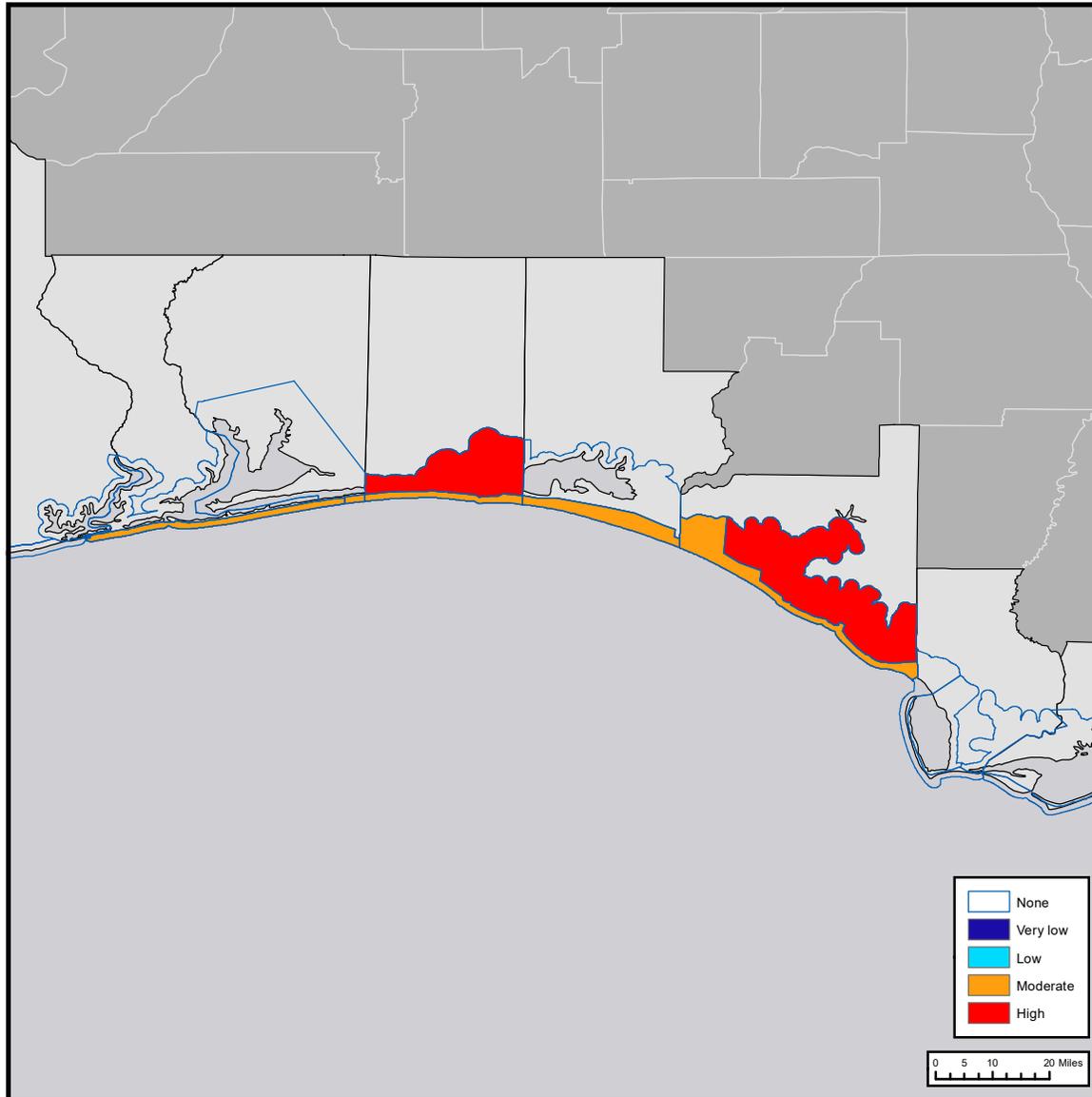
# Gulf of Mexico Harmful Algal Bloom Bulletin

Thursday, November 1, 2018  
 NOAA National Ocean Service  
 NOAA Satellite and Information Service  
 NOAA National Weather Service

## Region: Northwest Florida to Louisiana



Instructions for viewing this geospatial pdf are available at: <https://go.usa.gov/xn9g2>.



The image above is the top layer in a series of maps for 11-01-18 to 11-05-18 displaying the highest level of potential respiratory irritation forecasts in each region.

### Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as red tide) are present along- and offshore portions of northwest 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.

#### Recently Reported Impacts (Listed by County):

**Respiratory irritation:** none  
**Dead fish:** Okaloosa

#### Definition of respiratory irritation levels.

RESPIRATORY IRRITATION LEVEL	AFFECTED POPULATION				
	NONE	CHRONIC RESPIRATORY CONDITION	SENSITIVE TO RED TIDE	GENERAL PUBLIC (MILD SYMPTOMS)	GENERAL PUBLIC (INTENSE SYMPTOMS)
None	X				
Very low		X			
Low		X	X		
Moderate		X	X	X	
High		X	X	X	X

### Additional Resources

#### Health Information:

**Florida Department of Health:**  
<http://www.floridahealth.gov/environmental-health/aquatic-toxins/red-tide.html>  
**Other resources:** <https://go.usa.gov/xQNWp>

#### Recent, Local Observations and Data:

**Mote Marine Laboratory Daily Beach Conditions:**  
<http://visitbeaches.org>  
**Florida Fish and Wildlife Conservation Commission:**  
<http://myfwc.com/redtidestatus>

State Name	County Region	Thu 11/01	Fri 11/02	Sat 11/03	Sun 11/04	Mon 11/05		
<b>Louisiana</b>								
	<b>ST. TAMMANY Parish-Gulf Coast</b>							
	<b>ORLEANS Parish-Gulf Coast</b>							
	<b>ST. BERNARD Parish-Gulf Coast</b>							
	<b>PLAQUEMINES Parish-Gulf Coast</b>							
<b>Mississippi</b>								
	<b>HANCOCK County-Gulf Coast</b>							
	<b>HANCOCK County-Bay Regions</b>							
	<b>HARRISON County-Gulf Coast</b>							
	<b>East HARRISON County-Bay Regions</b>							
	<b>West HARRISON County-Bay Regions</b>							
	<b>JACKSON County-Gulf Coast</b>							
<b>Alabama</b>								
	<b>BALDWIN County-Gulf Coast</b>							
	<b>BALDWIN County-Bay Regions</b>							
	<b>MOBILE County-Gulf Coast</b>							

The table lists the highest level of potential respiratory irritation forecast. *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.

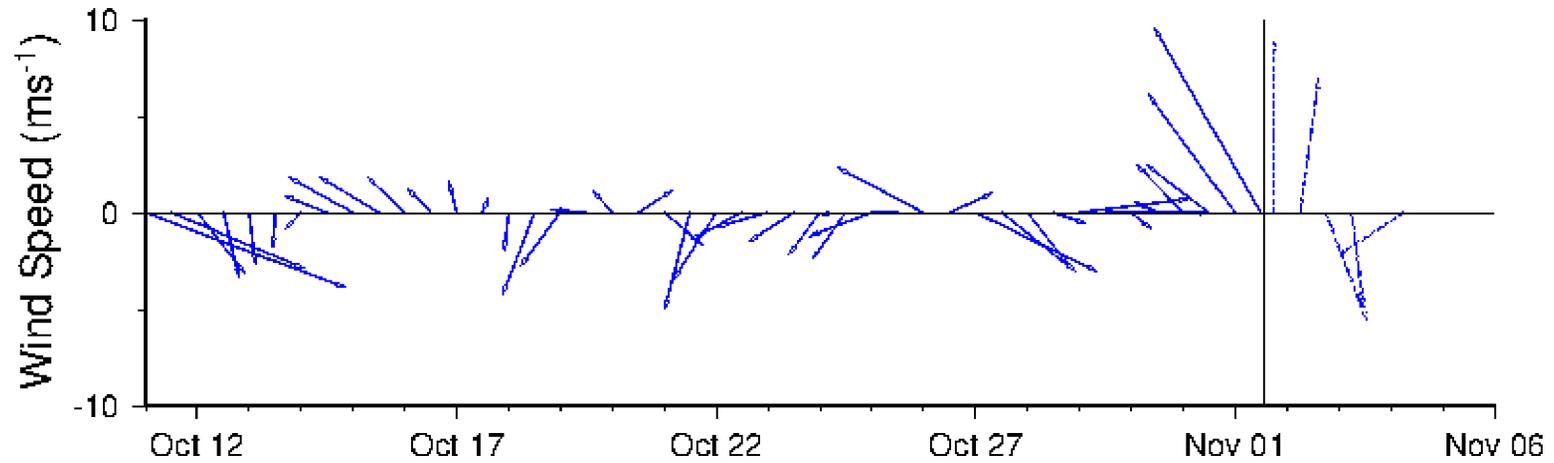
Cells are marked 'none' if *K. brevis* was detected, but no respiratory irritation is forecasted in the region. Cells are blank if no *K. brevis* has been detected in the region.

State Name	County Region	Thu 11/01	Fri 11/02	Sat 11/03	Sun 11/04	Mon 11/05		
Florida								
	ESCAMBIA County-Gulf Coast	moderate	very low	low	low	moderate		
	ESCAMBIA County-Bay Regions							
	SANTA ROSA County-Gulf Coast	moderate	very low	low	low	moderate		
	SANTA ROSA County-Bay Regions							
	OKALOOSA County-Gulf Coast	moderate	very low	very low	very low	moderate		
	OKALOOSA County-Bay Regions	high	moderate	moderate	moderate	moderate		
	WALTON County-Gulf Coast	moderate	very low	very low	very low	moderate		
	WALTON County-Bay Regions							
	BAY County-Gulf Coast	moderate	very low	very low	very low	moderate		
	BAY County-Bay Regions	high	moderate	moderate	moderate	moderate		
	GULF County-Gulf Coast							
	GULF County-Bay Regions							
	FRANKLIN County-Gulf Coast							
	FRANKLIN County-Bay Regions							
	WAKULLA County-Gulf Coast							
	WAKULLA County-Bay Regions							
	JEFFERSON County-Gulf Coast							
	TAYLOR County-Gulf Coast							

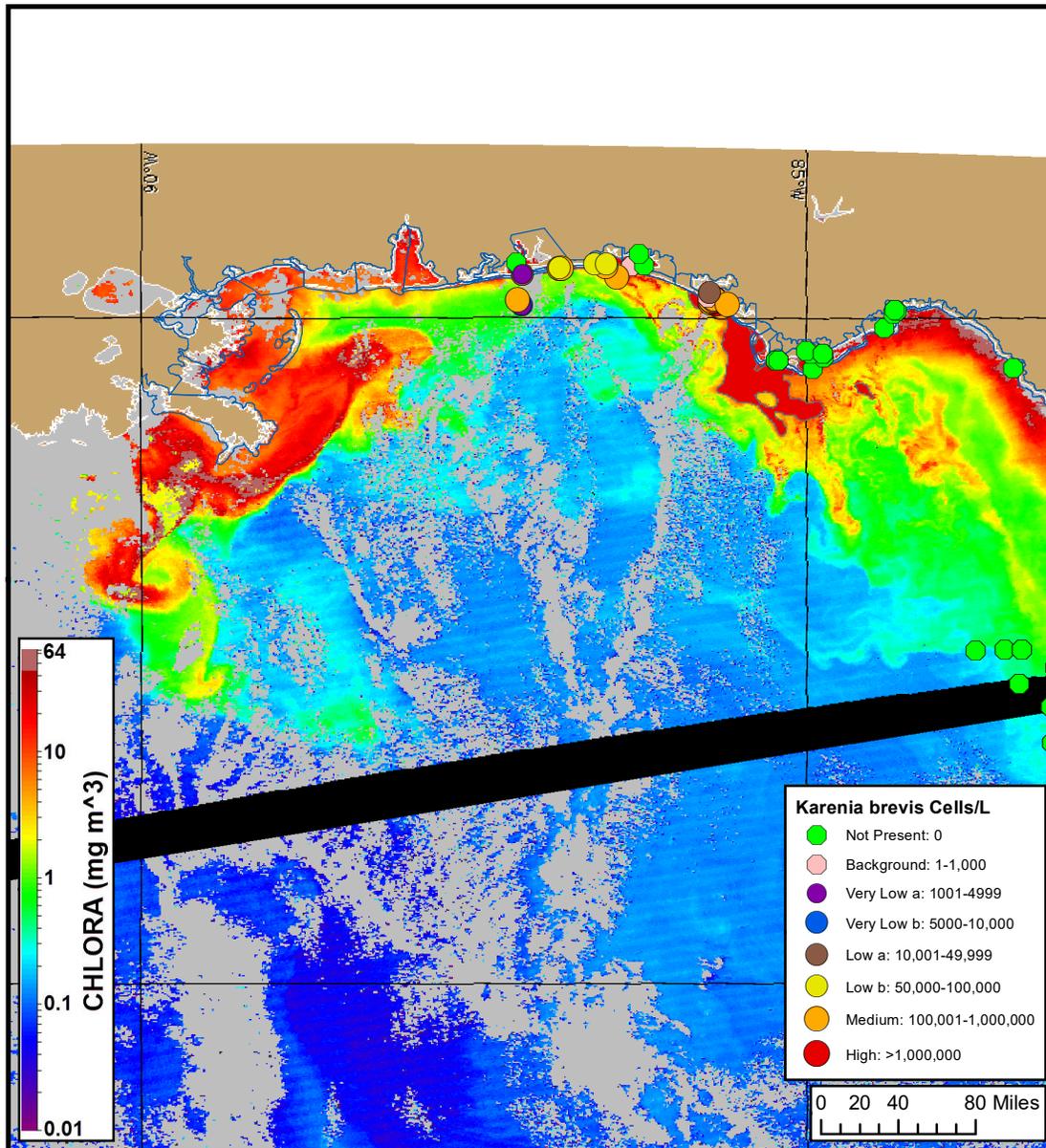
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### Wind conditions from Panama City Beach, FL



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). A text summary of the marine forecast by region is available from NWS at <https://go.usa.gov/xnx4X>.



*Karenia brevis* cell concentration sampling data from: 10/22/18 through 10/30/18. Cell count data are provided by Florida 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 the Florida FWC Fish and Wildlife Research Institute: <http://myfwc.com/REDTIDESTATUS>.

MODIS Aqua satellite chlorophyll image (10/31/18) with possible *K. brevis* HAB areas shown by red polygon(s).

## Analysis

### Summary of Recent Water Samples:

#### ***K. brevis* Cell Concentrations:**

**Range:** Not Present through High

**Date:** 10/22-10/30

**Source:** FWRI, MML

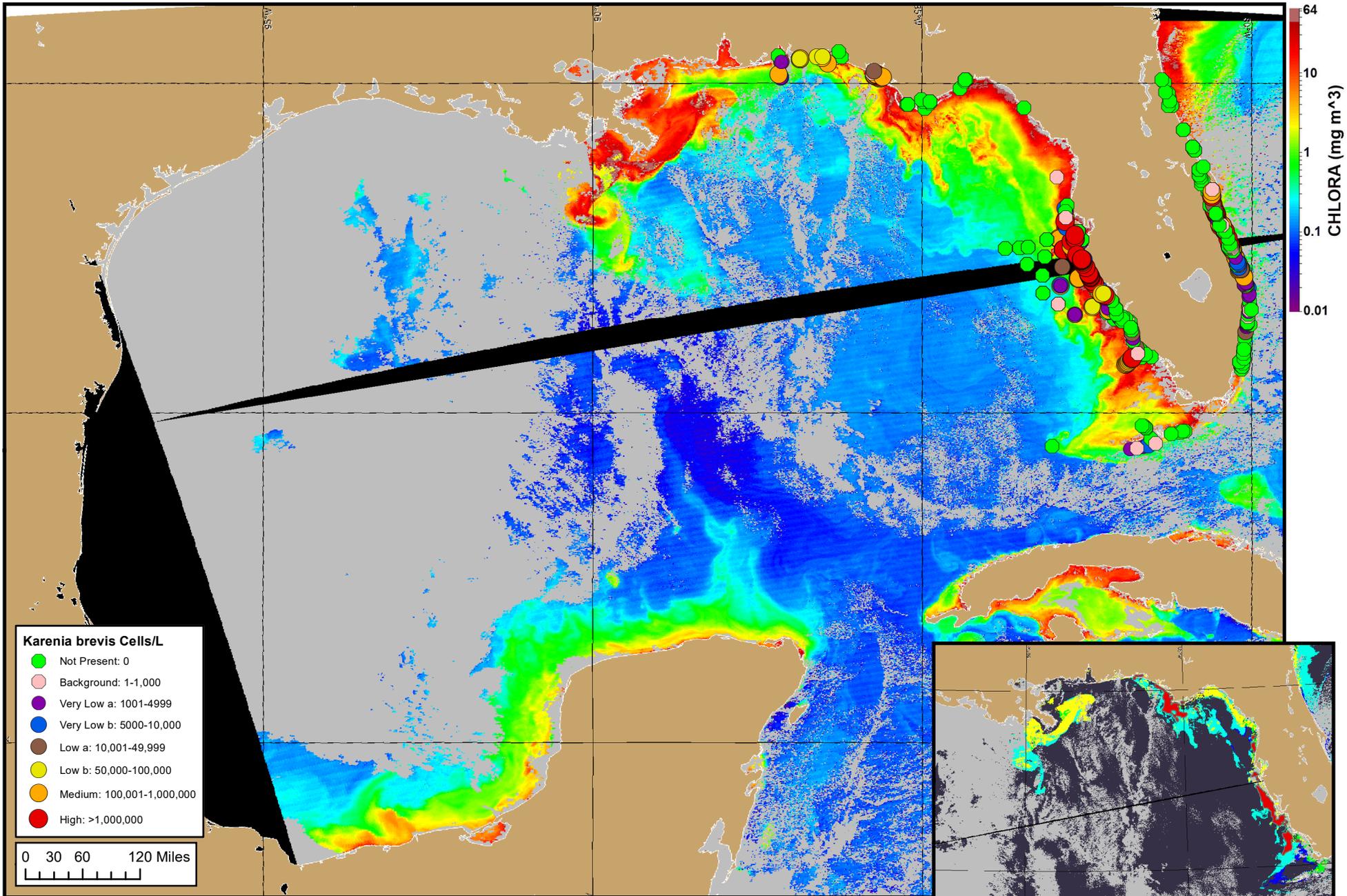
### Imagery:

In recent ensemble imagery (MODIS Aqua, 10/31), patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* are visible alongshore Walton to Franklin counties, extending 34 miles offshore Franklin County.

### Forecasts:

Onshore winds forecast today (11/1) may increase the potential for respiratory irritation at the coast. Offshore winds forecast Friday through Sunday (11/2-4) will reduce the potential for respiratory irritation at the coast and promote the westward transport of surface *K. brevis* concentrations.

Ludema, Davis



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MODIS Aqua satellite chlorophyll image (10/31/18).

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 4 analysis for interpretation).