Not present to medium concentrations of *Karenia brevis* (commonly known as 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.

Health information, from the Florida Department of Health and other agencies, is available at 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).

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

**Respiratory irritation:** Collier  
**Dead fish:** Lee and Collier  
**Discolored water:** None

### Definition of respiratory irritation levels.

<table>
<thead>
<tr>
<th>RESPIRATORY IRRITATION LEVEL</th>
<th>AFFECTED POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>X</td>
</tr>
<tr>
<td>Very low</td>
<td>X</td>
</tr>
<tr>
<td>Low</td>
<td>X</td>
</tr>
<tr>
<td>Moderate</td>
<td>X  X  X</td>
</tr>
<tr>
<td>High</td>
<td>X  X  X  X</td>
</tr>
</tbody>
</table>

In the map above, the highest level of potential respiratory irritation forecast is displayed as a layer for each day from 05-10-18 to 05-14-18. See next page for a table of the respiratory irritation forecasts.
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.
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.
Wind conditions from Naples, FL

Wind conditions from Venice Pier, 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/xnx4y.
Analysis

Summary of Recent Water Samples:

**K. brevis Cell Concentrations:**

**Range:** Not Present through Medium  
**Date:** 04/30-05/08  
**Source:** FWRI, MML, SCHD, CCPCD

**Imagery:**

Recent ensemble imagery (MODIS Aqua, 5/7) shows elevated to high chlorophyll (2-17 µg/L) alongshore southwest Florida with some the optical characteristics of *K. brevis* present along- and offshore central and southern Lee County, and south of Collier County.

**Forecasts:**

Forecasts winds will minimize the potential for respiratory irritation at the coast and transport of surface *K. brevis* concentrations today through Monday, May 13.

Keeney, Kavanaugh
Karenia brevis cell concentration sampling data from 04/30/18 through 05/08/18. 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_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 (05/07/18).

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