Conditions Report

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

Recently Reported Impacts (Listed by County):

**Respiratory irritation:** Collier
**Dead fish:** Lee, Collier

**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>None</td>
</tr>
<tr>
<td>Very low</td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>Moderate</td>
<td>High</td>
</tr>
</tbody>
</table>

**Additional Resources**

**Health Information:**


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
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 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://www.weather.gov/marine/stheastmz.
Summary of Recent Water Samples:

**K. brevis** Cell Concentrations:

- **Range:** Not Present through High
- **Date:** 09/30-10/09
- **Source:** FWRI, MML, SCHD, CCPCD

Imagery:

**Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, October 15.**

Recent satellite imagery (MODIS Aqua, 10/8) is mostly obscured by clouds alongshore southwest Florida, limiting analysis. Patches of elevated to very high chlorophyll (1 to >20 µg/L) are present alongshore from Lee to Collier counties. A patch with the optical characteristics of *K. brevis* is present along- and up to 20 miles offshore central Collier County, corresponding with recent sampling and beach reports.

Forecasts:

Offshore winds (5-15 kn) forecast today through Tuesday (10/10-15) will reduce the potential for respiratory irritation at the coast.

Keeney, Jima
Karenia brevis cell concentration sampling data from: 09/30/19 through 10/09/19. 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. Detailed sample information can be obtained through the Florida FWC Fish and Wildlife Research Institute: http://myfwc.com/REDTIDESTATUS.

MODIS Aqua satellite chlorophyll image (10/08/19).

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