Conditions Report

Not present to background concentrations of *Karenia brevis* (commonly known as red tide) are present alongshore southwest Florida, were detected in medium concentration offshore portions of southwest Florida, and are not present in the Florida Keys. No respiratory irritation associated with *K. brevis* is expected in this region.

Recently Reported Impacts (Listed by County):

**Respiratory irritation:** None

**Dead fish:** 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>None</td>
</tr>
<tr>
<td>Very low</td>
<td>Chronic respiratory condition</td>
</tr>
<tr>
<td>Low</td>
<td>Sensitive to red tide</td>
</tr>
<tr>
<td>Moderate</td>
<td>General public (mild symptoms)</td>
</tr>
<tr>
<td>High</td>
<td>General public (intense symptoms)</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.
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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.
Analysis

Summary of Recent Water Samples:

**K. brevis Cell Concentrations:**

**Range:** Not Present through Medium

**Date:** 12/13-12/19

**Source:** FWRI, MML, SCHD, CCPCD

**Imagery:**

Recent ensemble imagery has been obscured by clouds, preventing analysis. MODIS Aqua imagery from 12/20 shows elevated chlorophyll (2 to 5 µg/L) offshore of southwest Florida from northern Lee to Monroe counties. There is no anomalous chlorophyll containing the optical characteristics of *K. brevis* in recent imagery.

**Forecasts:**

Northerly winds (5-20 kn) forecast today through Wednesday (12/23-25) will promote southward transport of any remaining surface *K. brevis* concentrations.
Karenia brevis cell concentration sampling data from 12/13/19 through 12/19/19. 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 (12/20/19).