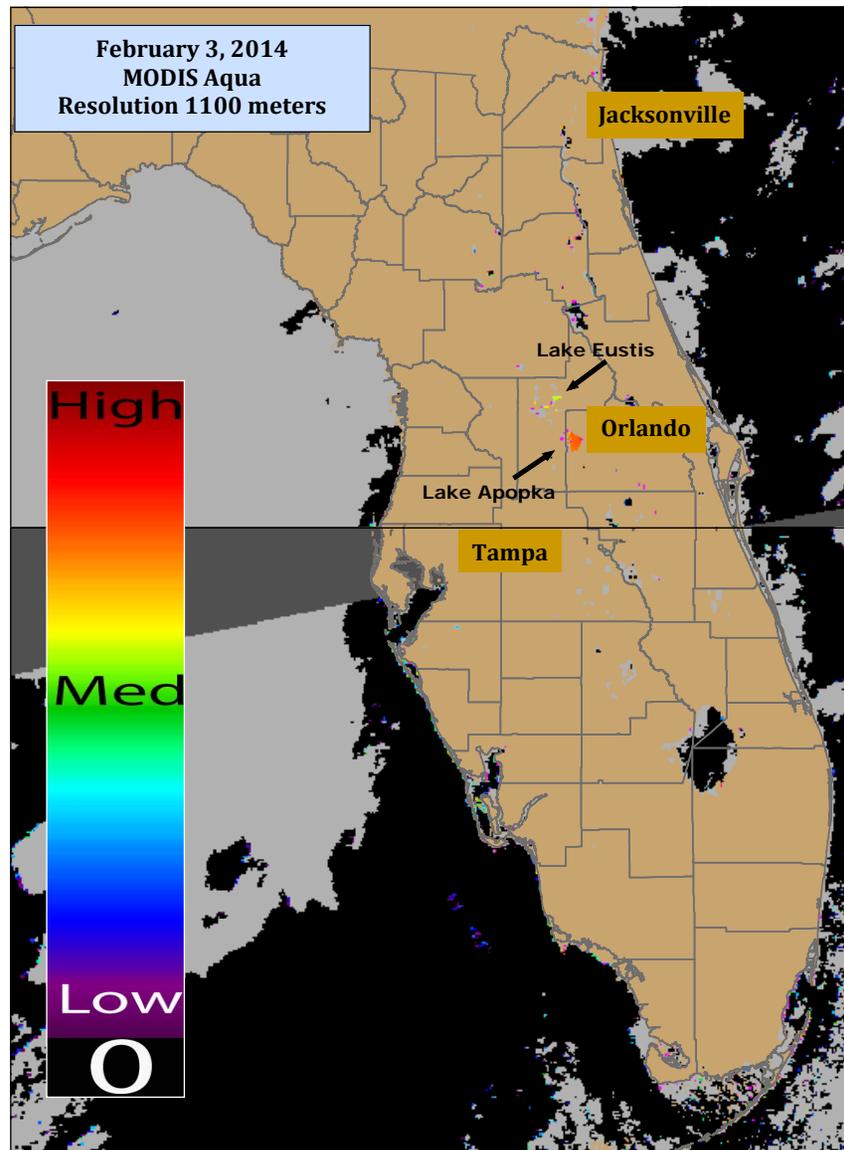


To report an illness related to a freshwater, estuarine, marine toxin or harmful algal bloom, please contact the Florida Poison Information Center at 1-800-222-1222. Images/data obtained from Florida Fish and Wildlife Research Institute, Florida Water Management Districts, National Oceanic and Atmospheric Administration (NOAA), NOAA National Climatic Data Centers and National Weather Centers. Support to produce this report from NOAA/NASA Contract NNH08ZDA001N.



## CyanoHAB Conditions Report

- Lake Apopka (Orange/Lake Counties) displayed a high estimated elevated chlorophyll-a concentration.
- Lake Eustis (Lake County) displayed medium estimated elevated chlorophyll-a concentrations.
- Other large water features in Florida were unremarkable on the 1100 meter resolution MODIS image.

## Florida joins states in brief challenging water ruling

### TALLAHASSEE DEMOCRAT

### Case involves Chesapeake Bay cleanup plan, Bondi says it's a states-rights land-use issue

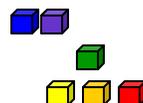
February 5, 2014: The State of Florida is siding with the American Farm Bureau and other pro-agricultural and development groups trying to block a plan to restore water quality in the Chesapeake Bay. Attorney General Pam Bondi, along with attorneys general in 20 other states, filed a brief Monday with the Third Circuit U.S. Court of Appeals, asking that it overturn a lower federal court ruling upholding the legality of the Chesapeake Bay Clean Water Blueprint .... The Farm Bureau and National Home Builders sued the [EPA] to overturn the water-pollution limits on which the blueprint is based, but a federal judge in Pennsylvania found the limits - known as total maximum daily load — were legal. In a 99-page ruling, the judge also praised the “cooperative federalism” between the six bay states, the District of Columbia and the federal government.

A spokesman for Bondi said she joined the brief because the current ruling threatens state rights. “As stated in the brief that Florida joined along with 20 other states, the decision on appeal ‘defies the limits of the Clean Water Act and strips States of their traditional right to make land-use decisions necessary to comply with federal water quality standards,’ ” said Whitney Ray, press secretary for Bondi. Chesapeake Bay Foundation President Will Baker blasted Florida and other distant states ... for joining in the appeal ... “To say we are outraged is a vast understatement,” Baker said in a conference call Tuesday. “We find it almost beyond belief for any state outside of the Chesapeake Bay watershed to try to sue to stop us from cleaning up our waters ...” The opposing states’ amicus brief raised constitutional concerns, stressed that states have a right to manage their own lands and argued the EPA exceeded its authority in its setting of pollution limits for the bay. “The District Court’s approval of the Chesapeake Bay TMDL also opens the door for EPA to dictate land-use management decisions across the country,” the brief said. See: <http://www.tallahassee.com/article/20140205/NEWS01/302050025/Florida-joins-states-brief-challenging-water-ruling>

**\*\* Due to background levels of *K. brevis* off Florida’s SW coast, status reports for Florida red tide will be suspended until bloom conditions reoccur.**

MODIS Images display a chlorophyll-a index generated with a Moderate Resolution Imaging Spectroradiometer provided by the National Aeronautics and Space Administration (NASA)

- Very low likelihood of a bloom
- May indicate clouds or missing data
- Low estimated chlorophyll-a concentrations
- Medium estimated chlorophyll-a concentrations
- Higher estimated chlorophyll-a concentrations



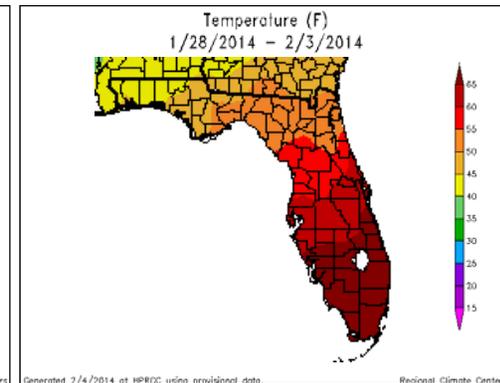
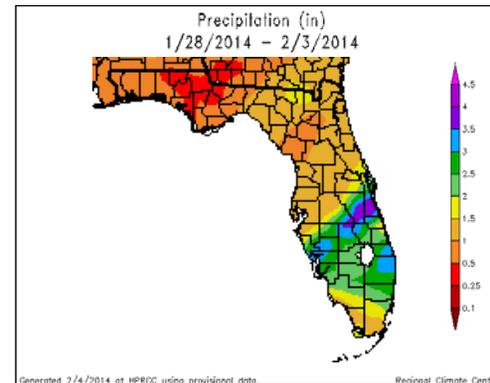
## Interpreting Moderate Resolution Imaging Spectroradiometer Data

- The Moderate Resolution Imaging Spectroradiometer (MODIS) is deployed by NASA onboard the Terra (EOS AM) and Aqua (EOS PM) satellite. It passes over the earth, collecting new imagery every 1-2 days.
- This imagery is used as a surveillance tool. Data collected by the MODIS sensor are used to generate a chlorophyll-a index which is used to forecast harmful algal blooms. The results are not specific to any one HABs species and should be followed-up with onsite field observations. Data is only suggestive of a potential HAB event.
- MODIS uses a spectral band which is much coarser than MERIS, therefore only select larger water bodies in FL are visible using this technology.
- MODIS is better at depicting low to medium chlorophyll-a concentrations so once a potential bloom is depicted, a switch in algorithms may be used to improve the visibility. MODIS has a few spectral bands which have higher resolution that are more comparable to MERIS although these bands do not cover all of FL.
- Several environmental factors may affect how results can be interpreted. For example, areas with abundant aquatic vegetation may present with a high Chl-a index resulting in a false positive bloom reading.
- The sensor identifies biomass near the surface (in the upper few feet of water). As a result, it may underestimate the total biomass for blooms that are mixed or dispersed through the water column.
- While patches of red or warm colors may indicate higher chlorophyll-a concentrations, these data have not been verified in most cases using ground-truth methods.

## Weather Conditions: Precipitation and Temperature - 01/28/14 to 02/03/14

- Weather conditions can impact the duration and location of blooms and the satellite imagery shown in this report may no longer be relevant.
- Images represent the last image taken with a realization that blooms may have moved, dissipated or intensified.
- Cloud coverage can obscure imagery and create patches or gray areas on map and obscure bloom detection.

### February 3, 2014 MODIS Aqua True Color Images



To review HABs satellite reports in the Gulf of Mexico and marine waters visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>



For Individual Weather Station Data, visit: <http://www.sercc.com/perspectives>

For information, please contact: Andrew Reich, Public Health Toxicology Program at 850.245.4187 or [andy.reich@flhealth.gov](mailto:andy.reich@flhealth.gov)