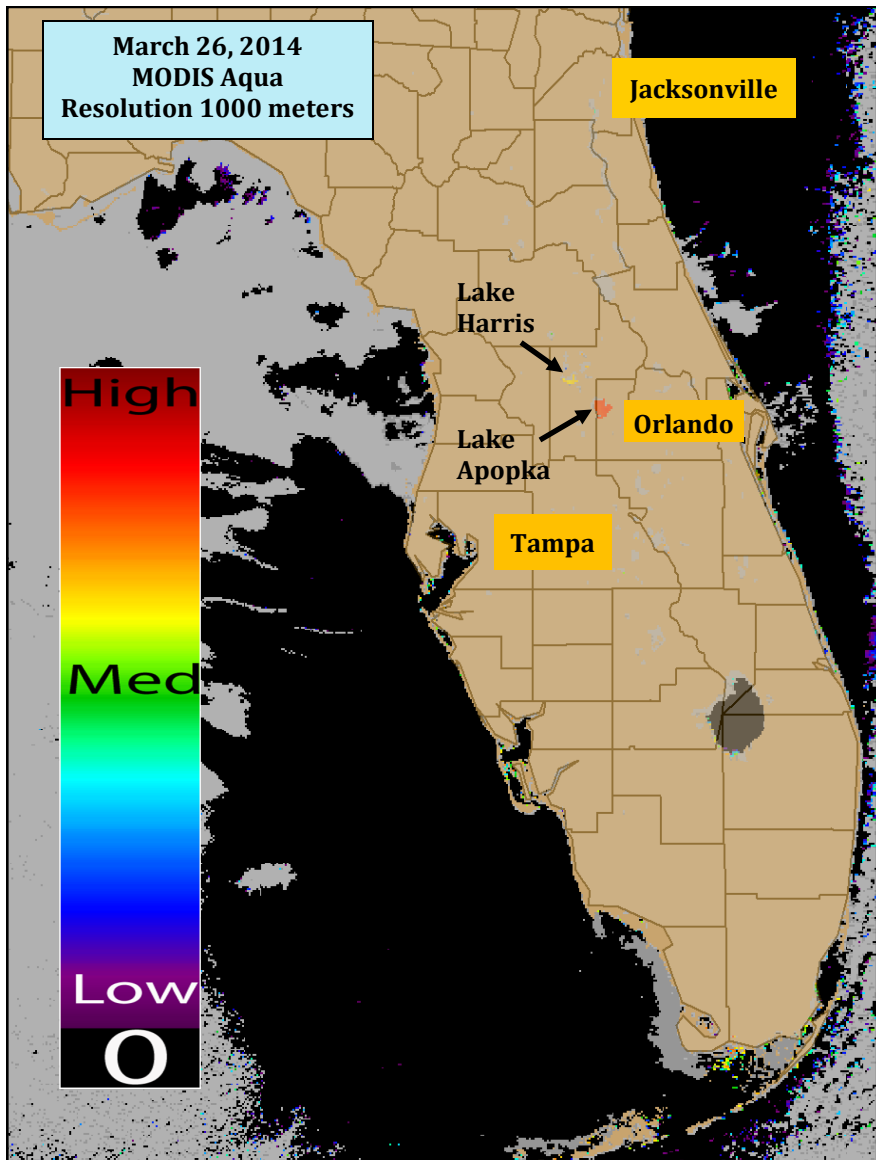


To report an illness related to a freshwater, estuarine, marine toxin or harmful algal bloom, please contact the Florida Poison Information Center at 1-800-222-1222.

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 Harris (Lake County) displayed medium estimated elevated chlorophyll-a concentrations.

Springs bill passes ...

the Current Florida
Smartly Covering Politics & Policy
Springs bill passes with most opponents taking the polite role
By Bruce Ritchie
Published: March 31, 2014 at 6:43 PM

While environmentalists expressed support of a Senate springs bill on Monday, a representative of the Florida Home Builders Association stayed in the audience, huddling with representatives of developers and utilities groups. SB 1576 cleared its second committee stop with no opposing votes. But that doesn't mean that powerful groups at the Capitol are OK with the legislation. They're just being polite.... Springs across the state have turned green from algae, fueled by nitrogen in groundwater flowing to springs. Sources of nitrogen can include sewage treatment plant spray fields, septic tanks, livestock farms, fertilizer and dirty stormwater runoff. SB 1576 would require the setting of minimum flows for springs and require remediation plans that could involve hooking up homes on septic tanks to sewer systems. The bill also provides an estimated \$365.8 million towards springs projects and sewer hookups. The revenue previously was estimated at \$378 million by Senate staff and likely will be adjusted to match actual appropriations of less than \$100 million now in the House and Senate proposed spending plans. The bill is drawing public opposition from some property rights advocates and septic tank owners who say it would allow for the creation of responsible management entities to take over operations of septic tanks. The Florida Home Builders Association opposes the bill because it in effect has a moratorium on new septic systems in "outstanding" springs areas with high nitrogen levels where sewer is not available "The bottom line is this legislation provides a timeline for getting the work done," said Jake Varn, a lawyer who is helping write the bill. "It provides the funding. And it identifies the sources of the (nitrogen) problem." And Sen. David Simmons, R-Altamonte Springs and one of five Senate chairmen backing the bill, said the bill doesn't require utilities to take over septic tanks or do any of the things that opponents claim. He said the bill only requires remediation studies of septic tanks. Sen. Bill Montford, D-Tallahassee and chairman of the Senate Committee on Agriculture, said after the meeting he doesn't think opposition will stop the bill from passing both the House and Senate.... The bill passed his committee by a 5-0 vote and has one more committee stop. A similar House bill, HB 1313, has not been heard in its first committee. For the complete article, see <http://www.thefloridacurrent.com/article.cfm?id=37045208>

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

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

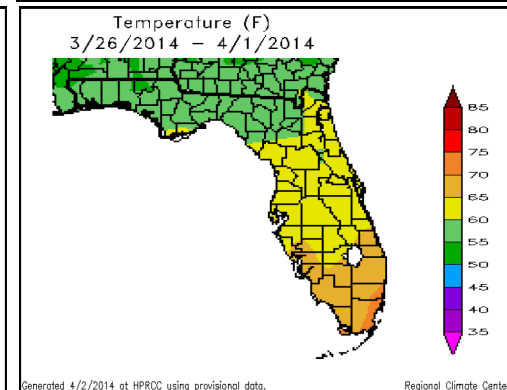
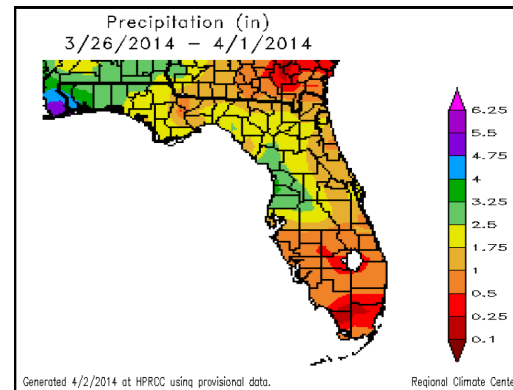
Interpreting Moderate Resolution Imaging Spectroradiometer Data

- 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 that 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. 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. However, 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 - 03/26/14 to 04/01/14

- 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.

March 26, 2014 MODIS Aqua True



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/climate>

For information, please contact:
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