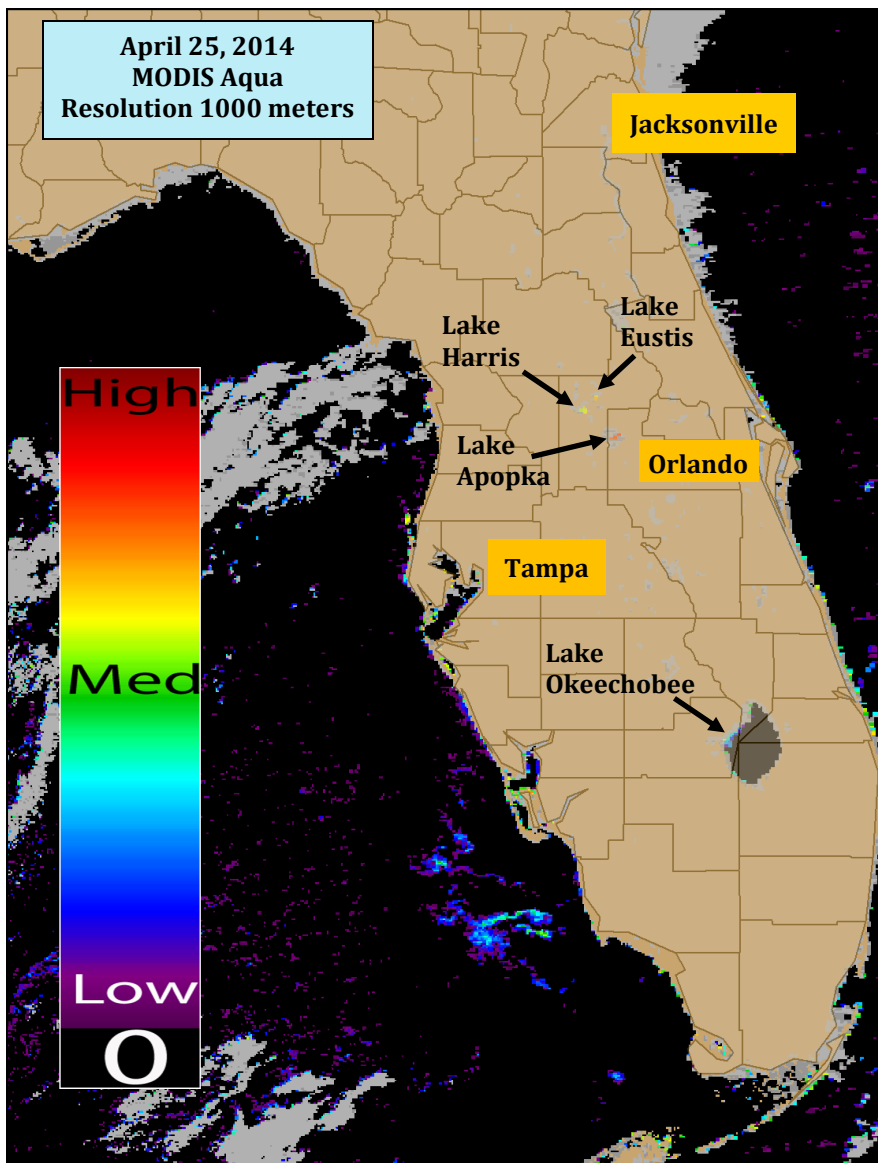


To report an illness related to a freshwater, estuarine, marine toxin or harmful algal bloom, please contact the Florida Poison Information Center at 1-800-222-1222.

Images/data are 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 comes from NOAA/NASA Contract NNH08ZDA001N.



CyanoHAB Conditions Report

- Lake Apopka (Orange/Lake Counties) displayed high estimated elevated chlorophyll-a concentrations.
- Lake Harris and Lake Eustis (Lake County) displayed medium estimated elevated chlorophyll-a concentrations.
- Lake Okeechobee (Okeechobee/Glades/Hendry/Palm Beach/Martin Counties) displayed low estimated elevated chlorophyll-a concentrations. South Florida Water Management District (SFWMD) staff reported seeing a surface bloom of algae on Monday, April 28. The wind was blowing from the southeast during the observations, and likely shored the algae on the northwest side of the Lake.
- Due to cloudy imagery, only a few water bodies could be assessed.

TMDL Grant program



The Florida Department of Environmental Protection (DEP) is accepting applications for the TMDL Grant program. This program awards funding for projects designed to improve urban stormwater systems and reduce polluted runoff to impaired waters.

The deadline for application submittal for the July TMDL Grant review is close of business (5:00 p.m. EST) July 1, 2014.

Type of project eligible for this grant:

- The project reduces stormwater pollutant loadings from urban areas that discharge to waterbodies on the state's verified list of impaired waters.
- The project is at least at the 60% design phase and is permitted.
- The project includes storm event monitoring to determine the actual load reduction.
- The construction will be completed within three years of appropriation of the funds by the Legislature in order to ensure funds remain available.
- The applicant provides a minimum of 50% of the total project cost in matching funds and 25% of these matching funds must be from local government (Water Management Districts are not considered as local governments.)
- The grant funds are used for **construction** of best management practices, **monitoring** to determine pollutant load reductions, or **public education activities** specifically associated with the project and may only occur after the date of contract. Funds spent in advance of contract (but only after notification of the award) may be used for match, such as design, land acquisition, and other costs incurred by the applicant.

Criteria used for project ranking and selection:

- Impairment status of the receiving water body
- Estimated load reduction of the pollutants of concern
- Percentage of local matching funds
- Cost effectiveness based on the cost per pound of Total Nitrogen and/or Total Phosphorus removed per acre treated
- Inclusion of a robust educational component
- Whether the local government sponsor has implemented a dedicated funding source for stormwater management, such as a stormwater utility fee.

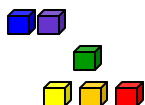
Please visit the DEP website for more information:

http://www.dep.state.fl.us/water/watersheds/tmdl_grant.htm

Status reports for Florida red tide are 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



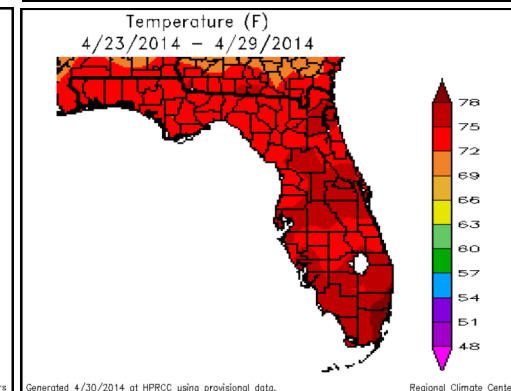
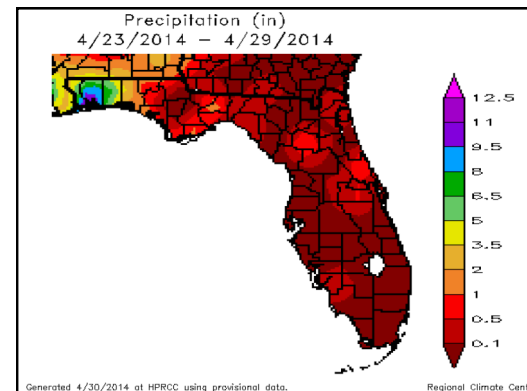
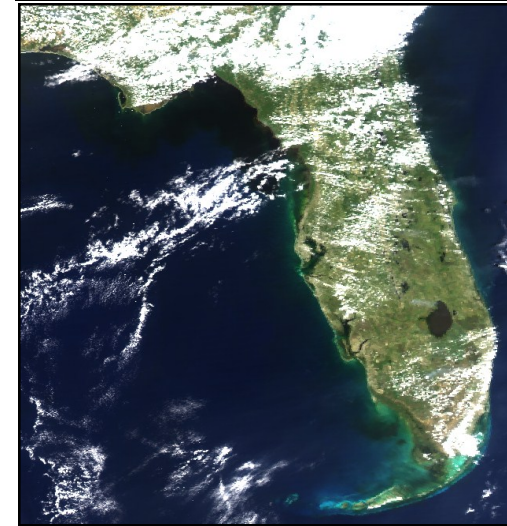
Interpreting Moderate Resolution Imaging Spectroradiometer Data

- 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 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 chlorophyll-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 - 04/23/14 to 04/29/14

- 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.

April 25, 2014 MODIS Aqua True Color Image



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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