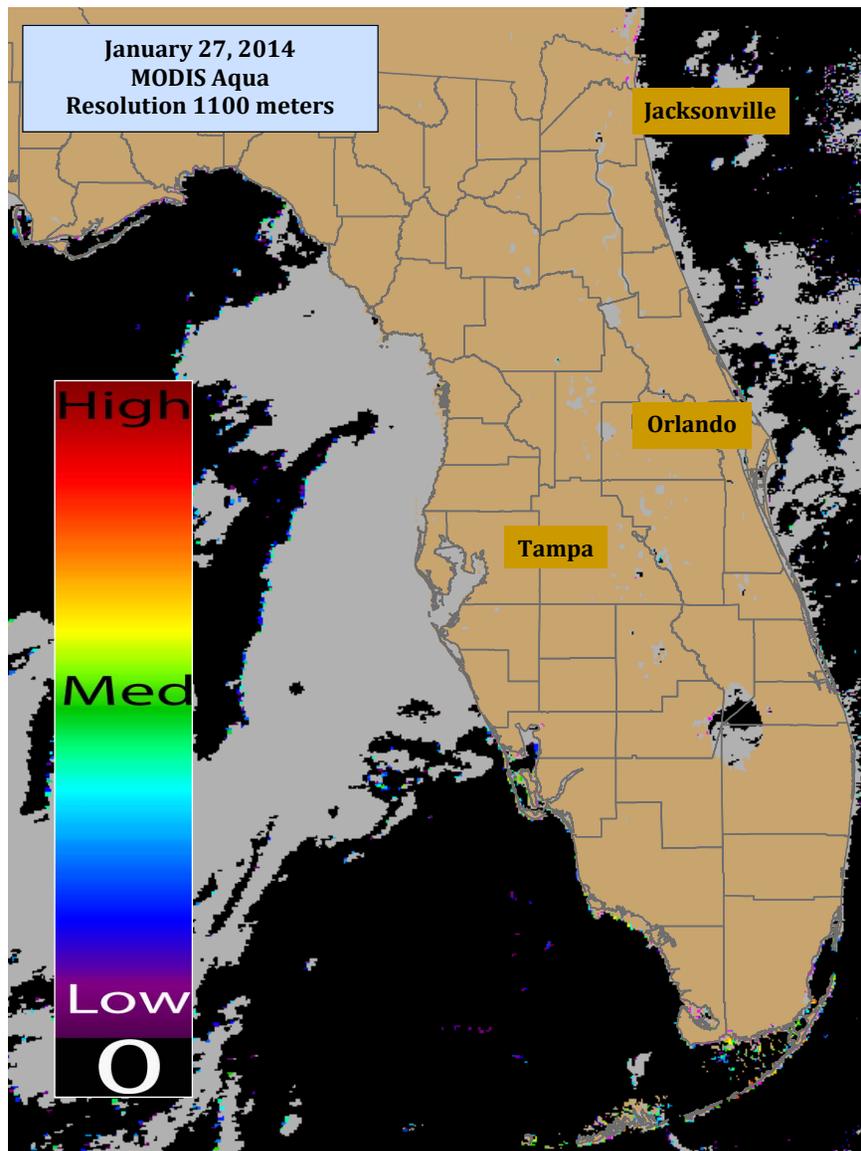


To report an illness related to a freshwater, estuarine, marine toxin or harmful algal bloom, please contact the Florida Poison Information Center at 1-800-222-1222. Images/data obtained from Florida Fish and Wildlife Research Institute, Florida Water Management Districts, National Oceanic and Atmospheric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



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

CyanoHAB Conditions Report

- Large water features in Florida were unremarkable on the 1100 meter resolution MODIS image.

Draft outlines district's water plan



St. Augustine Record: January 25, 2014

PALATKA: By 2035, Northeast Florida's 18-county St. Johns Water Management District will need 200 million gallons per day more water than it does now because its population is expected to grow from 5.5 million to 6.5 million. But groundwater supplies are already reaching capacity and pressure is on the district to find more water. District engineers this week said their plan to fill that gap is to withdraw 155 million gallons per day from the St. Johns River. Jim Gross, of the district's Regulatory Engineering and Environmental Services, said district staff will accept public comments and suggestions about the plan until Feb. 20.

District engineers have studied the river for four years and evaluated what withdrawal levels can be sustainable, he said He said conservation and better management techniques could save 60 to 80 million gallons per day. And increasing the use of reclaimed water and alternative supplies could also reduce demand on clean water sources Environmentalists oppose nearly every plan to take St. Johns River water for public consumption, fearing that setting that precedent could cause saltwater intrusion, encourage more frequent algae blooms, change wildlife habitat and cause other destructive effects ... Gross said the district's 155 million gallons per day "can be withdrawn with no more than negligible or minor effect," because the river discharges 5 billion gallons per day to the ocean. "The National Academy of Sciences has given this a lot of high-level scrutiny," he said. "There is a margin of safety here that says the withdrawals can be done and can be done in a safe manner. This is a resource highly valued by the public." ...

Karl Hankin, said the district was using old population forecasts, giving a 30 million gallon-per-day difference in the calculations. "The forecast is foundational to the district's water supply plan. It's important to get it correct," he said. ... District technicians said the district's water supply plan is very different from the Central Florida Water Supply Plan presented last week. "The 155 million gallon per day taken in the district's plan will include the Central Florida water," one said.

See: <http://staugustine.com/news/local-news/2014-01-24/draft-outlines-districts-water-plan>

**** 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.**

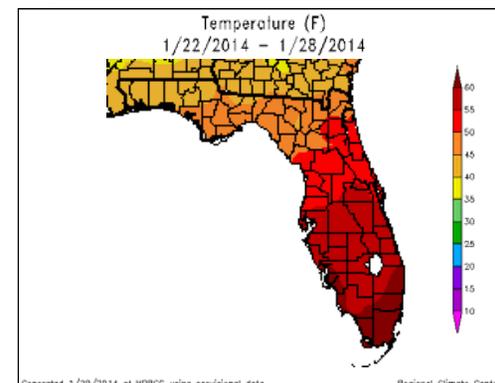
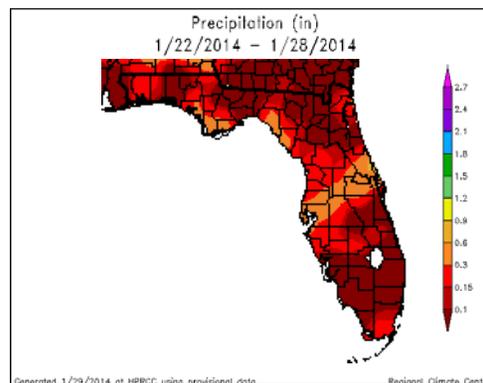
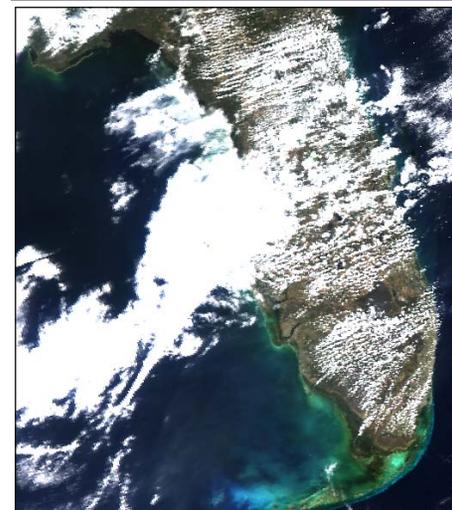
Interpreting Moderate Resolution Imaging Spectroradiometer Data

- 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 - 01/22/14 to 01/28/14

- 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.

January 27, 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/perspectives>

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