

Christie, William M -FS

From: Norman, Steve -FS
Sent: Thursday, February 19, 2015 1:29 PM
To: Christie, William M -FS; Spruce, Joseph P. (SSC-ARTS)[COMPUTER SCIENCES CORP (SSC)]; hnw@geobabble.org; Hargrove, William W -FS
Subject: RE: SC bottoms --- USGS stream gages

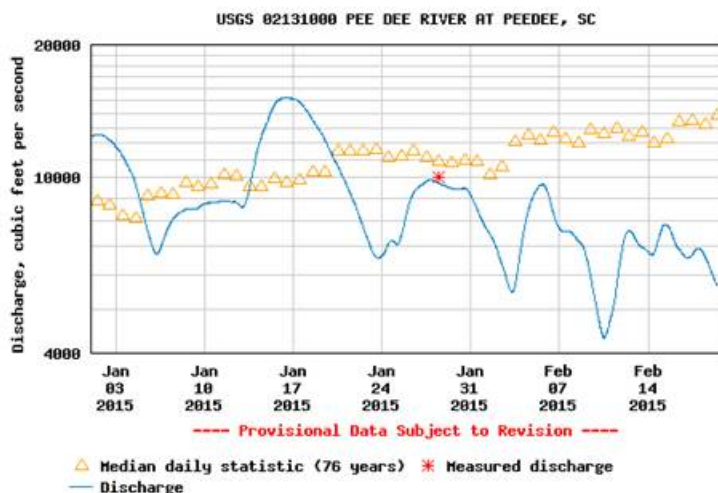
These are bottomlands, so the critical question is if they're inundated more than with the baselines, not if they are currently wet. As I mentioned in the initial email, the USGS product we have under physiography shows not unusually high flow here during the last 7 days, but this may not relate to our 24 day windows of the last few periods. In these environments, it's hard to know when water level measured by flow translates to standing water over the remotely observable ground surface, but...

from the USGS stream flow on the regionally relevant Pee Dee SC station, I note that high water (above the $\frac{3}{4}$ century baseline median) occurred at no time during the present ForWarn window, but it had in mid January for about 7 days, which, cloud permitting, still wouldn't have reduced period NDVI enough over the last several periods. Of course, if the period since 2000 was unrepresentative of the prior USGS baseline flow period, this flow is harder to interpret, but I attach the profile for 2013-2015 for comparisons with our 1 year baseline that shows the anomaly. From this, I'm not thinking that water can be the explanation at all. In fact, I'd think that with ForWarn's 1 year baseline, 2014 and 2013 could well have been reduced in greenness compared to 2015 from water levels over the last month, not vice versa. (The 1 year still has a baseline of 2013, right, or is the 1 year based on the eMODIS baseline for 2014?). Either way, I'm still holding onto winter-sensitive semi-evergreen as the most likely explanation. It has been cold, after all. (But not so cold to have permanent ice here for the last few periods).

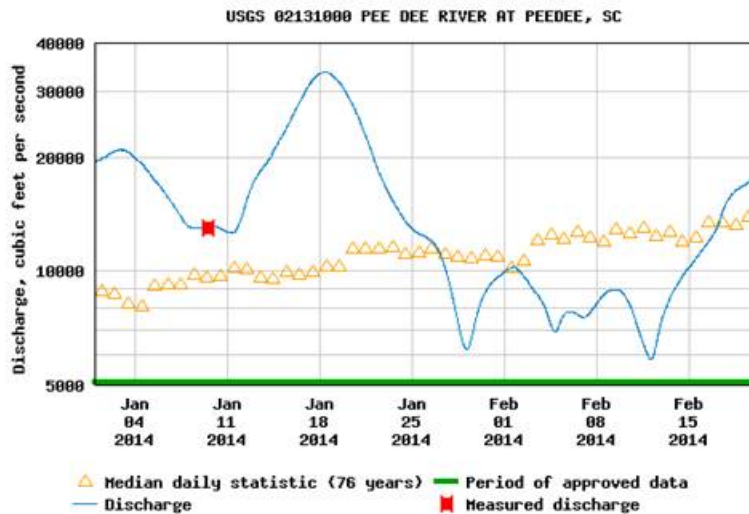
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http://waterdata.usgs.gov/nwis/uv?cb_00060=on&cb_00065=on&format=gif_default&site_no=02131000&period=&begin_date=2015-01-01&end_date=2015-02-19

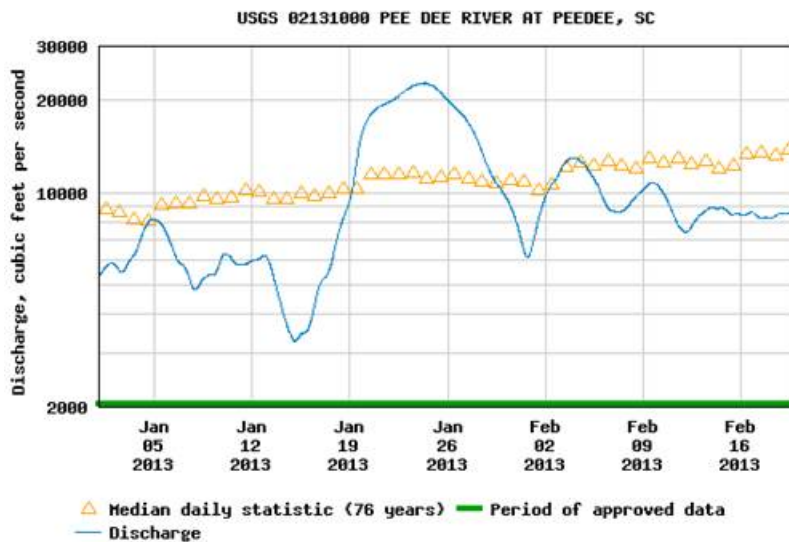
This is the graph for 2015: Note that water levels are currently low compared to 2014 and maybe quite similar to 2013. (note that y axis changes among graphs and is tricky to read). Flow has been perpetually below the mean for the entire MODIS window in 2015.



The graph below is for the same period in 2014



The graph below is for 2013:



From: Christie, William M -FS

Sent: Thursday, February 19, 2015 10:51 AM

To: Norman, Steve -FS; Spruce, Joseph P. (SSC-ARTS)[COMPUTER SCIENCES CORP (SSC)]; hnw@geobabble.org; Hargrove, William W -FS

Subject: RE: SC bottoms anomalous

Two more areas within the Landsat scene.



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