To: Obrecht, Daniel V.[ObrechtD@missouri.edu]
From: Robichaud, Jeffery
Sent: Thur 10/1/2015 3:01:38 PM
Subject: RE: Table 6 in Graham and Jones 2009

Thanks Dan!

Jeffery Robichaud

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From: Obrecht, Daniel V. [mailto:ObrechtD@missouri.edu]
Sent: Thursday, October 01, 2015 9:59 AM
To: 'Osborn, Mark' <mark.osborn@dnr.mo.gov>; Robichaud, Jeffery <Robichaud.Jeffery@epa.gov>
Cc: 'Graham, Jennifer' <jlgraham@usgs.gov>
Subject: Table 6 in Graham and Jones 2009

While double checking the data set used for the 2009 paper I found that there are a few errors in Table 6, which will affect Table 3 in the Draft Rationale for Missouri Numeric Nutrient Criteria document. I don't think the errors change things dramatically, but there will need to be some tweaks to the document so the values will match up with the data set I'm sending to EPA.

1) The values listed as being Mean Chlorophyll in the tables are actually Median Chlorophyll-a values. Given the Missouri rationale focuses on CHL-a and not Total CHL, the only required tweak to the rationale would be replacing the term Mean with Median. For all three categories of MC concentrations the Median CHL-a value is lower than the Mean value, so using median is

more protective.

2) The ranges that appear in the tables are actually the Total CHL ranges. To make everything match up nicely, Table 3 in the rationale should have the ranges changed to the following:

ND category = 1 to 252 CHL-a MC 0.1 – 1 = 1 to 267 CHL-a MC >1 = 2 to 131 CHL-a

Because the ranges are not really used for setting criteria this change should not impact the rationale.

3) The 46 ug/L CHL value listed for the MC>1 category should be 49 ug/L. This seems to have been a simple typo in the 2009 paper.

I also noticed in my version of Table 3 of the rationale that the units for microcystin is listed as ng/L, I'm pretty sure that should be µg/L.

Dan