Criteria Implementation Committee (CIC) Meeting – 8/31/2020
NC Nutrient Criteria Development Plan

Attendees

CIC members in attendance:

Andy McDaniel
Anne Coan
John Fear
T.J. Lynch
Bill Kreutzberger
Douglas Wakeman
Carla Seiwert
Douglas Durbin
Peter Raabe

CIC meeting facilitator:

Jenny Halsey

NCDEQ DWR staff in attendance:

Jim Hawhee
Jeff Manning
Bongghi Hong
Pam Behm
Nora Deamer
Susan Meadows
Peter Johnston
Karen Higgins
Nick Coco
Mike Templeton
Dan Wiltsie
John Huisman

Meeting notes

All questions, comments and answers are paraphrased

This meeting was held as a conference call/WebEx meeting

1. **Convene** (Jenny Halsey)
    a. Rollcall: CIC members and DWR staff provide names and affiliations.
    b. Desired outcomes:
    a. Discuss High Rock Lake (HRL) proposed site-specific criteria from Science Advisory Committee (SAC).
    b. Rule making process and fiscal note development presentation (DWR staff, Jeff Manning/Jim Hawhee).
    c. CIC charter reminder: Main role to give advice on items from SAC and assist DWR in fiscal note preparation.
2. **Overview of meeting objectives** (Jim Hawhee):
    a. Within their document the SAC provides an executive summary of their findings with regards to various uses, including aesthetic uses, fisheries uses, drinking water protection, etc.
    b. Next steps are to get CIC's perspective on the rules particularly as they relate to the regulated areas/entities that the CIC members might represent.

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c. Beyond today, DWR's intent is to move to rule making as soon as possible. Hopefully in the next month or two, DWR can formulate rule language and associated assessment language and take that to the EMC WQC (Water Quality Committee). This will entail developing a regulatory impact analysis (fiscal note/analysis).
d. Ideally, we phase the HRL recommendation process out of NCDP and go to EMC where rule making takes place and will be implemented.

3. **Overview of SAC chlorophyll-a recommendations for HRL** (Jim Hawhee)
   a. "Proposed chlorophyll a criterion for HRL is a seasonal geomean of 35 µg/L, not to be exceeded more than once in three years, for growing season months of April-October based on protection of all uses while maintaining the productivity of the sport fishery…" Encourages CIC members to focus on this sentence from SAC document and provided an attached table (table 4.4).
   b. Another element in the document is a supplemental request of the CIC for consideration. Three questions pitched by the SAC:
      i. Sample size
      ii. Spatial assessment
      iii. Statistical test of confidence
   c. Comments/Questions:
      a. Peter R.: Requested to see the "SAC's Supplemental Request of CIC" slide containing the 3 questions.
      b. Bill K.: Q: Looking at the paragraph (SAC Proposal slide), says it applies every month of the year, but be assessed with growing season data (Apr-Oct). Would like to hear the staffs' interpretation of what that means.
      c. Jim H.: Let's stay on topic of fiscal analysis and then can open time for broader discussion. For now let's go back to see if Peter R. got his question/comment resolved and we'll come back to your question.
      d. Peter R.: He's good, just couldn't initially find the table in the document.
      e. Anne C.: So, CIC won't be providing any supplemental information on this SAC request? I thought those were pretty important questions. Is DWR just going to make those decisions?
      f. Jim H.: When SAC was completing this document, we did have a discussion with them and felt this was outside the CIC's charter, in terms of us asking for their practical take on the implications of the standards as they are proposed and looking at the fiscal implications, which this group was selected to do. Feels these are scientific questions that the SAC themselves should have addressed if they wanted to include them as part of their recommendation. He interprets it as they were interested in the CIC's perspective, but they did not provide a proposal that included them. After 5 years we are ready to move forward with the proposal they did give us. Mainly what we are looking for from the CIC, are there any

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showstoppers here that would keep us from moving forward with this package to the EMC. Feels these specific scientific issues were the role of the SAC and they declined to do that.

g. Jenny H.: Time-Check (1:30pm) and keeping us on track. Will move on to the fiscal note presentation.

4. **Fiscal note presentation** (Jim Hawhee and Jeff Manning in for Julie Ventaloro)
   a. Flow chart of the rule making process and where the fiscal note fits in. This is 1-2 year process. From the presentation:

      Rule drafting > stakeholder input > **begin drafting FN** > WQC approves rule > **OSBM** (Office of State Budget & Management) **approves FN** > **EMC approves rule & FN** for public comment > Rule published in Register (60 day comment period) > public hearing(s) > EMC adopts rule > RRC approves > OAH enters rule into NCAC.

   b. Fiscal note is a regulatory impact analysis (RIA). A tool to identify, quantify and communicate the anticipated effects of rule changes and weighs the benefits of regulatory changes against their costs.
   c. The why, what, who, how much, uncertainties and bang for our buck of RIA's.
   d. Rules need a baseline and policy does not qualify. What does qualify as a baseline: state regs, state statutes or federal regs.
   e. Impacts = costs & benefits resulting from rule changes.
   f. Regulatory Impact Analysis is intended to summarize what problems rule changes are addressing, what are the expected outcomes, costs and benefits, and who is affected.
   g. Comments/Questions:
      a. Andy M.: Is the scope of that rule making process only to integrate the SAC recommendation into the water quality standard, i.e., instead of 40 µg/L shift over to 35 µg/L geomean or is the rule making process going to include something additional, like a nutrient management strategy?
      b. Jim H.: We anticipate bringing proposed criteria to EMC and only looking at the change to the standard. A nutrient management strategy will follow which addresses how to meet the standard. This is another regulatory package.
      c. Andy M.: There will be separate rule making from changes in strategy versus the nutrient management strategy. What is DWR's impression of the CIC's role in the nutrient management strategy rule making process?
      d. Jim H.: Good question. Not sure there is a clear role for the CIC, as a body, to continue on to contribute to the nutrient management strategy.
      e. Andy M.: Thought the CIC would have more input because it seems the most valuable input from them would be related to a nutrient management strategy. Until we know what the assumed implementation plan is it's going to be challenging with any kind of accuracy to estimate cost on just changing the number from 40 to 35 without knowing how to go about doing that.

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f. Anne C.: Same question. It's hard to know what the fiscal analysis would be without knowing what the implementation is going to look like.
g. T.J.L.: Agrees with Andy and Anne. The change in the standard alone doesn't necessarily have a fiscal impact, but if there is a nutrient management strategy that comes out of that it could have a fiscal impact and that's where the CIC's sweet spot is. In terms of commenting on that and helping the state with that issue.
h. Pam B.: This is part of the struggle we always had. The CIC came about as part of stakeholder comment and reviewing the nutrient criteria development plan and it's a struggle to understand where the standards development starts and stakeholder process comes in.
i. Doug D.: Seems like there is something of a nexus the CIC has about this issue. I'm thinking when we talk about comparing the baseline. Compare 35 µg/L as a geomean once every 3 years to 40 µg/L at all times. Perhaps it wouldn't result in High Rock Lake being any more impaired on a spatial perspective but could mean the lake is more impaired in terms of how long it takes the lake to get to compliance. How much or what kind of restoration is needed? That comes through with the management strategy, but if you talk about the regulatory impact assessment dealing with uncertainty. Part of the uncertainty that is associated with the change from 40 to 35 is not knowing how much farther the regulated community has to go attain that new number. Maybe in the end it's the same amount of nutrient regulation/ nutrient strategy. Right now the CIC doesn't know how the regulated community will get to 35 from 40.
j. Jim H.: Based on some of our discussions with OSBM, we weren't able to identify any immediate regulatory impacts by changing just the standard alone. We can't monetize changes, but we can quantify changes to put them in real world terms for the EMC as they consider changing the standard. One tool we've used in the past is the nutrient reduction curve for meeting the existing 40 or for meeting the new geomean of 35. If we can demonstrate those two curves and provide some examples among them might be sufficient in terms of the fiscal note to demonstrate the relative change in effect.
k. Bill K.: Want to react to something Pam said: I think it would be useful to put some of this in the context of potential scenarios of nutrient management to provide more perspective on what the change has. That could be talked about in the context of those curves you mentioned. For Pam, the intent wouldn't be to circumvent the stakeholder process with nutrient management, but just provide more comprehensive discussion of the potential impacts of this change.
l. Jim H.: Good point. We have to find a way to walk the line between commenting on how nutrient management strategies have been done in the past, but we can't commit the EMC to any sort of regulatory pathway before we bring that second rule making package. But I hear you, and maybe we can provide some general

context on what our strategies look like and what the change in standard, from a qualitative perspective, might mean.

m. Andy M.: Now might be a good time to address Bill's first question he had regarding the application of the 35 µg/L year-round and what that means from the Division's perspective?
n. Jim H.: Not fully discussed this yet and don't have an answer.
o. Anne C.: Does DWR do year-round sampling now in its assessment unit?
p. Jim H.: In HRL we do not. We're on a once every 5-year rotation. Whereas Falls and Jordan are monitored year-round, every month of the year.
q. Bill K.: Sometime in the 80s or 90s the rule was clarified to make sure that chlorophyll-a applied year-round. In Falls and Jordan Lakes they were only monitoring chlorophyll a in summer months. And there were more exceedances sampling that way then sampling year-round. A little history. The old standard was changed at one point to apply year-round.
r. Jeff M.: We need standards that protect all the time and what this standard is doing is being a surrogate for nutrients. If it's not applicable all the time, then we still have to answer the question of what we do the rest of the time. Assessment is a different part from just the standard.
s. Lauren P.: You're protecting the health at any time of the year, but the way you do that is by assessing it on this growing season because that's when the relevant growth is occurring & by attaining that in a seasonal component you are ensuring long health if you add that level. That blends what Jeff said about year-long protections and ties it to the science that was used and information on seasonal data.
t. Andy M.: Would be helpful to have clarity on this question because it could potentially impact the CIC's work. There are 2 processes that have relationships to the Water Quality Standard: Use-support assessment process & others like, modeling/TMDL development/wastewater permitting that could also be affected by whether or not the process is comparing the 35 µg/L year-round or 35 µg/L per the growing season. Is that 35 µg/L year-round referring to a geomean? Many cases when interpreting output models, its not done in the same fashion as the use-support. The use-support process seems clear with this standard, but not clear how that 35 year-round could be affected by water quality modeling or other types of activities. It would be helpful if we got a better handle on this.
u. Jim H.: Andy, can you lay out the question that you want clarity on?
v. Andy M.: How is the Division going to interpret the 35 µg/L year-round in management activities?
w. Bill K.: How is year-round based on seasonal data?
x. Nora D.: We asked the SAC the same question and they never answered it.

y. Jim H.: We don't have an answer for CIC today on this question. Maybe we need additional discussion of NCDP? We want to hear from this group (CIC), are there any significant implementation challenges coming because of this proposal? Our intent is to move this to the regulatory realm sooner than later. But we want to vet that through this group before doing so as its been charged. To the CIC: Do you see any meaningful challenges to implementing this standard as it has been proposed by the SAC?

z. Anne C.: For clarification: The Department sent in comments to EPA's Nutrient Criteria for Lakes and Reservoirs. In that they say that geomeans are appropriate as measure for values such as fecal coliform, but not appropriate for ranges seen in chlorophyll a and so my question is: does DWR plan to propose this as a geomean even though their comments sent don't think geomeans are appropriate?

aa. Jim H.: There were a lot of eyes on that document, but our comments to EPA were an amalgamation of staff members' technical comments that went forward. There are varying staff perspectives on the application of geomeans. However, we have been working on this proposal with the SAC for a very long time and we need to move this recommendation forward.

bb. Peter R.: Reading over the SAC's report, it seems they do not feel that chlorophyll a indicates that much, so by changing the standard, is it going to do anything? Does this new standard yield results that protect ecological function? And throughout the SAC report they keep saying there is not a very good connection to this or that. We seem to be regulating chlorophyll a as a pollutant when it is an indicator of ecosystem imbalance. Is this path we're on going to get us where we need to be?

cc. Bill K.: Differs with Peter because the focus of this document is to come up with a measure that helps and is appropriate as an integrated measure of use-support across many different use-supports. It is different than saying we want this standard to represent good ecosystem balance. Ecosystem balance doesn't necessarily relate directly to use-support. Could relate it to an early criterion that EPA came out with in the early 2000's which did not focus on use-support and therefor wasn't supported.

dd. Lauren P.: Overall attempt was to come up with something that reflects what information was available for High Rock Lake and tie it to use-support. To go back to the year-round question: the chlorophyll criterion being recommended is a growing season number geometric mean. It is that unit of time within the year. However the management strategy is implemented, the modelling effort would be tied to finding what loads of nitrogen and phosphorus equate to the 35 within the time-period. Understanding the issue within an NPDES format, you are not going to have variable loads in a month because of some critical condition their working for. In the end you result in year-wide loading reduction to achieve that shorter period

at growing season to meet that 35. So, even though this High Rock Lake criterion of 35 is shorter than a year, it affords year-round protection and management.

ee. Peter R.: In the fiscal note, if we suggest a standard and it is going to cost a lot of money to meet it, but there isn't much goal achieved in the end from it. From what he read in the SAC report they don't think there is a great correlation.

ff. Lauren P.: From my perspective of the document, the low correlation items didn't influence the overall recommendation/value selected. Where there was good correlation and balance what they did know about fisheries and such, those are what culminated and landed them on 35. Based on current available science and using good correlation.

gg. Peter R.: Sure, my question isn't about the science backing it up it's about the recommendation and getting to it. It is not a viable route. Concerned with measuring just chlorophyll a.

hh. Jim H.: So, this issue is going to keep coming up with other waterbodies (went on to explain the NCDP process), so is it a reason to not go forward?

ii. Peter R.: No, just wanted to point it out.

jj. Jim H.: We often hear concerns within reservoir systems that 40 is not the right standard. Hope that this results in a goal that's achievable in the regulatory realm.

kk. Doug D.: Another issue: How does this increase the difficulties of a waterbody to achieve this? It is clear how a waterbody can get on the 303(d) list, but what has the SAC said about how to get a waterbody off the 303(d) list? Is it once you are back to just having 1 year out of 3 and no more exceed 35 do you come off the list?

ll. Jim H.: Good question. Pam?

mm. Pam B.: As far as I know there was zero discussion of that.

nn. Anne C.: We're back to what would be the spatial assessment? How you get on and off the list? Back to the 3 items the SAC asked the CIC to weigh in on and at what point will DWR make a decision on those items?

oo. Jim H.: SAC recommendations are complete and they didn't address that issue. They are extra considerations.

pp. Anne C.: Thinks they are related to implementation. What would assessment units look like from a cost perspective.

qq. Bill K.: The 1 in 3 has not been brought up yet. Implementation associated with that and costs. How do you intend to sample & how to interpret that? That is part of the fiscal analysis, right? Is the Agency going to have to spend more money to list or delist?

rr. Andy M.: CIC does not have any idea of what DWR's interpretation of standard language format? What is the timeframe? How is DWR going to produce language?

ss. Jim H.: We have been meeting internally (NCDP) every 2 weeks and we intend to take the SAC recommendations, your comments today, develop language and take

that to the EMC, hopefully in January, unless there are some big snags you flag today.

tt. T.J.L.: Do you envision any of this will come back to the CIC for review before EMC?

uu. Jim H.: Possibly not, but we're listening.

vv. T.J.L.: Thinks the CIC should see DWR's language to give proper feedback.

ww. Andy M.: Looking at page 2 of the executive summary (SAC)…there's a conflicting statement that says criteria would apply in all months of the year. Is it 12 months of the year or April-October that the seasonal geomean of 35 would apply? We must guess at what the impacts would be.

xx. Clifton Bell.: The language about 12 months was to satisfy a rule for standards to apply year-round. If we included lower months that would only bring the number down, so the seasonal value is more helpful.

yy. Bill K.: That is helpful, but don't use the same ambiguous language in the rule.

zz. Clifton Bell.: Regarding the questions the SAC asked of the CIC and addressing the socioeconomic impacts of these questions. For example, spatial assessment, there's section in the document discussing pros and cons of delineating assessment in different ways. Lumping them to have more stations or splitting them to meet the standard at every station.

aaa. Jim H.: Are there any fiscal note questions?
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bbb. John F.: Where I struggle with the fiscal aspect of this is when discussing the uncertainties and how they will impact the implementation of the rule making process. Can't understand what those uncertainties are and can't understand how the sampling is going to happen.

ccc. Jim H.: At this time DWR cannot commit a team to sampling monthly at HRL. Think about assessing it like we do now (sampling every 5 years). That's part of assessing the implementation challenges.

ddd. Anne C.: How are you going to do the 1 in 3, go back 15 years?

eee. Jim H.: Thinks in the SAC proposal we could extend the assessment beyond 5 years if needed to get the 3 different years of data.

fff. Chat from Clifton Bell: Section 4.2.2. of document: with North Carolina's existing practice for some other parameters, and the SAC would support this practice up to a total assessment period of 10 years.

ggg. Andy M.: Can you give us a timeline?

hhh. Jim H.: The general process we're envisioning his hearing from the CIC (today), briefing the WQC with proposal, then taking it to the EMC and through the rulemaking process.

iii. Andy M.: Thinks CIC is at a disadvantage to advise on fiscal implications if we don't have a draft WQ standard/rule language. CIC would benefit from seeing a draft WQ standard.

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jjj. T.J.L.: Do we know what that nutrient management plan will say? Will it impose new limits on wastewater treatment plants, stormwater rules, point-source or nonpoint-source impacts. Will the fiscal note go that far to include those things?

kkk. Jim H.: Because we don't have nutrient strategy proposal with limits in it, OSBM is not asking for a fiscal note on that topic. We are hoping for CIC feedback for DWR to then draft that WQ standard.

lll. Andy M.: We'd get more out of it after there's a draft of the language.

mmm. Jim H.: Maybe a timeline could be:

- Draft standard and assessment language in Sept/Oct.
- WQC of EMC in Jan, so maybe see the CIC in December; just a possibility.

5. **Update on Albemarle/Chowan** (Jim Hawhee)
   a. Bloom conditions again this year (since 2015).
   b. NSTEPS remote imagery project underway. We are pulling remote imagery and correlating chlorophyll a data and algal density data. Hopefully, the project will be done by the end of the year.
   c. We had resources to go ahead and expand this coastwide. This will hopefully be a good resource to draw upon when we get into estuarine criteria.
   d. Internal DWR Criteria deliberations:
      - Evaluation of dissolved oxygen criteria was declined.
      - Preliminary vetting of algal-related response parameters: chlorophyll a (considering), Phycocyanin (future), Advisory days (potential translator mechanism), Cyanotoxins (considering) and Algal density/biovolume (considering).

      aa. Andy M.: Which WQ standard would this fall?

      bb. Jim H.: Site-specific.
   e. Related Activities:
      - Coastal Habitat Protection Plan
      - Draft Chowan River Basin Plan: going to WQC next week to present as an information item, then public comment period and to the WQ/EMC in January.
6. **Update on EPA Draft National Criteria for Lakes** (Jim Hawhee)
   a. Proposed models that were based a few years of data collection through national coastal condition assessment; took comments from May- August.
   b. We provided comments back. We felt like it was more appropriate as a technical guidance rather than 304(a) criteria specifically.

      aa. Andy M.: Requested copies of the 2 slide decks to supplement his notes.

      bb. Anne C.: Will EPA's Lakes Criteria document affect High Rock Lake recommendations?

      cc. Jim H.: No.
7. **Closing** (Jenny Halsey)
   a. DWR will send out copies of the 2 presentations.

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b. DWR will be in touch regarding next steps of the SAC proposal and if there will be an additional CIC meeting.

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