

Attendees

CIC members in attendance:

- Anne Coan
- Bill Kreutzberger
- TJ Lynch
- Andy McDaniel
- Douglas Wakeman
- John Fear

CIC members attending by phone:

- Doug Durbin
- Carla Seiwert

CIC meeting facilitator:

- Andy Sachs

NCDENR NCDP Team members in attendance:

- Steve Kroeger
- Carrie Ruhlman
- Tammy Hill
- Mike Templeton
- Jim Hawhee
- Connie Brower
- Christopher Ventaloro
- Rich Gannon
- Jeff Manning

Other NCDENR staff in attendance:

- Cyndi Karoly
- Jucilene Hoffman

Meeting notes

All questions, comments and answers are paraphrased

1. **Welcome & Introductions** (Andy Sachs & Steve Kroeger)

- a. CIC members, DWR staff and audience attendees provide names and affiliations.
- b. Andy S. presents meeting objectives:
 - i. Understand DWR's need for CIC
 - ii. Make sure DWR & CIC are aligned on CIC's role and methods of operation
 1. Anne C. asks: Our role is advisory to the Division?
 - a. Andy Sachs answers: yes
 - iii. CIC members identify topics for future meetings
- c. Introductions (Andy Sachs, Facilitator):
 - i. Andy McDaniel – NCDOT
 - ii. Anne Coan – NC Farm Bureau Federation

1. Comments that NC nutrient issues related to agriculture go back to the Neuse rules
 - iii. Bill Kreuzberger – CH2M Hill
 1. Input back to Chowan rule
 - iv. Douglas Wakeman – Professor, School of Business (Economist), Meredith College
 - v. John Fear – Deputy Director, NC Water Resources Research Institute
 - vi. T.J. Lynch – City of Raleigh Public Utilities Department, Lower Neuse Basin Association
- Later over the phone:
- vii. Douglas Durbin – Cardno ENTRIX
 - viii. Carla Seiwert – EPA Region IV
- d. Welcome & Overview of Nutrient Criteria Development Plan (NCDP) (Steve Kroeger)
- i. Steve K. welcomes CIC members and provides a brief overview of the NCDP.
 1. Today's meeting is for the CIC members to gain an understanding of the NCDP, water quality criteria & standards, the NCDP timeline, and the CIC's role in this process.
 2. The old NCIP (Nutrient Criteria Implementation Plan) was rescinded by EPA.
 3. The new NCDP tasks the Division with developing
 - a. Science Advisory Council (SAC) – to offer guidance on nutrient criteria development.
 - b. Criteria Implementation Committee (CIC) – to provide guidance on the implementation of SAC criteria recommendations.
 4. NCDP goals:
 - a. Establish SAC & CIC
 - b. Develop numeric/narrative nutrient criteria for
 - i. High Rock Lake
 - ii. Albemarle Sound
 - iii. Central Cape Fear River
 - iv. Lake/Reservoir Systems
 - v. Stream/River Systems
 - vi. Estuary Systems
 5. Other thoughts:
 - a. We must consider costs associated with monitoring
 - b. EPA NSTEMPS program is providing us with some money and assistance with data analysis
- e. Ground rules (Andy Sachs & Carrie Ruhlman)
- i. Andy S. discusses the suggested ground rules, asks for suggestions for modifications and gets buy-in from CIC members.
 - ii. Carrie R. discusses the state's ability to reimburse CIC members for their in-state travel expenses.
 1. Andy M. asks if we anticipate holding meetings outside of the Triangle area?

- a. Carrie R. responds we are open to suggestions, but we prefer to only use free facilities.
 2. Anne C. requests that we make sure any facilities are handicap accessible.
 - iii. Questions & comments
 1. Anne C. asks question regarding the use of alternates. She wants to know how far in advance CIC members need to notify NCDENR staff.
 - a. Carrie R. responds that we just need the alternate to show up, we don't need notice.
 2. Anne C. requests that the CIC select a "media representative" from among the members that will act as the point-of-contact for media requests.
 - a. All CIC members agree to this.
 - iv. Andy S. discusses the CIC charter and asks if CIC members would like to revise or adopt it.
 1. Bill K. asks what will be used to measure the success of the CIC? Does the CIC have a deliverable, or will they only advise?
 - v. Andy S. asks the group for their thoughts on what success means.
 1. Giving good advice
 2. Providing ideas to be considered as part of the criteria
 3. Presenting feasible implementation strategies
 4. Communicating with the SAC
 5. Have CIC & SAC members sit-in on each other's meetings
 6. Achievable/realistic implementation agreement
 7. Provide fiscal information based on experiences
 8. Anne C. asks: Is our goal to provide a list of suggested implementation strategies?
 9. Bill K. comments that maybe use deliverables as a framework for an implementation plan
 10. Steve K. comments that we do need to work on defining what success is and that this is a new process for all of us so our definition of success may need to develop as we proceed.
 11. Anne C. comments that CIC members may not all agree on any one implementation strategy and that the final deliverable may consist of a set of recommendations.
 - vi. Andy S. asks if charter is acceptable to the group?
 1. CIC members approve charter.
2. **The SAC, the CIC and The Process** (Steve Kroeger, Carrie Ruhlman, Andy Sachs)
- a. Steve K. discusses what the SAC is working on and what the timeline for this project is.
 - i. High Rock Lake is being worked on first
 1. SAC is looking at chlorophyll-a first
 - a. We already have a model for chlorophyll-a

2. SAC will also look at other potential causal/response variables
 3. Any criteria recommended by the SAC must be implementable
 - ii. Albemarle Sound
 1. Albemarle Sound project is ahead of schedule
 2. We are using NSTEPS to conduct data review
 - iii. Central Cape Fear River
 1. Don't expect to start working on the Central Cape Fear River until sometime in 2016
 2. Initial data analysis/review must be completed prior to SAC beginning work on this
- b. Carrie R. gives presentation entitled "Getting to Nutrient Criteria"
 - i. Reviews the process outlined for the SAC to develop scientifically sound and defensible water quality criteria
 - ii. Describes how the CIC will complement the SAC's efforts
 - CIC will focus
 1. Application of recommended criteria
 2. Feasibility of implementing recommended criteria
 3. Implications associated with adopting recommended criteria
 - iii. Questions/comments:
 1. John F. asks: If a key piece of information is missing for this process, will we have an opportunity to request and/or obtain it somehow?
 - a. Carrie R. responds: Yes.
 2. Anne C. asks: Are all waters of the state classified the same?
 - a. Connie B. answers: There is a base level of protection (Class C) for all waters of the state, but different waters may have different classifications that protect for additional uses. This will be dealt with more as the SAC does more work.
 3. Andy M. asks: What do the double arrows on the flow chart represent?
 - a. Carrie R. responds: It represents the interaction between the SAC and the CIC. The CIC will be able to communicate with the SAC to offer guidance on whether something they are considering is realistically unachievable.

3. **Nutrient Criteria Development – How & What?** (Connie Brower)

- a. Connie B. gives a brief presentation to discuss what is necessary to create approvable nutrient water quality standards
 - i. Any criteria developed by the state is only implementable if it is given final approval by the EPA
 - ii. Despite decades of nutrient control measures being in place the waters of the state are still experiencing nutrient related problems (the water is still turning green!)
 - iii. What is a water quality standard?

1. Water quality standards define the goals for a water body by designating its uses, setting criteria to protect those uses, and establishing provisions to protect water quality from pollutants.
 - iv. Four components of a water quality standard:
 1. Designated Uses
 - a. We have designated uses for the waters of the state, but the SAC can add uses to waters if they deem it necessary
 2. Water Quality Criteria
 - a. Must address magnitude, frequency and duration
 - b. May be numeric or narrative
 3. Antidegradation
 - a. Requirements to maintain and protect uses and high quality waters
 4. General Policies
 - a. These address implementation issues. The CIC may want to look at these general policies.
 - v. Important to note that the Clean Water Act has no provisions for feasibility or fiscal realism.
 - b. Questions/comments?
 - i. None
4. **High Rock Lake – Background and Existing Information** (Carrie Ruhlman standing in for Pam Behm)
- a. Carrie R. provides a brief history of the HRL watershed.
 - i. HRL is an impounded reservoir that was created in 1928.
 - ii. Owned and operated by Alco Power Generating, Inc.
 - iii. HRL is impaired for chlorophyll-a, pH and turbidity
 - iv. HRL and Falls Lake are the only reservoirs that have a model; a TMDL is in place for Jordan Lake.
 - v. What is a Nutrient Management Strategy?
 1. Similar to a TMDL
 - a. Requires reductions
 - b. Allocations to sources
 2. Requires state rule making
 - a. Stakeholder process, public hearings
 - b. Fiscal analysis
 - c. EMC approval
 - vi. Existing tools
 1. Watershed model (where and how much?)
 2. Nutrient response model (What reductions are necessary?)
 - vii. HRL Technical Advisory Committee
 1. Lists members

- viii. Next steps
 - 1. Staff running scenarios to evaluate model performance
 - 2. Model reports are on website
- b. Questions/comments?
 - i. None

5. **High Rock Lake Stakeholder Process** (Rich Gannon)

- a. Rich G. discusses the HRL rulemaking stakeholder process
 - i. Current and projected factors associated with the process
 - 1. Earliest stakeholder start-up would be Spring 2016
 - a. 1⁺-year process
 - 2. Expect to receive SAC's nutrient criteria recommendations in Summer 2016
 - a. DWR would then set the nutrient criteria and any necessary translators for nitrogen and phosphorus
 - b. How do we make this fit?
 - c. Could begin stakeholder process now, but would have to deal with current limitations such as lack of staff due to vacant positions
 - 3. H97 (2015 Session) -Section 14.5 (e)
 - a. Waiting to see if bill passes (Solar Bees)
 - ii. Open questions for HRL
 - 1. What is the role of the CIC with regard to stakeholders?
 - a. Provide guidance on how to apply goals of adaptive management
 - 2. How will NCDENR interpret H97 Section 14.5 (e)?
 - 3. DENR HRL management interests post-2015 legislature?
 - iii. Scenarios to consider
 - 1. Engage CIC in Fall of 2015
 - a. Implications of lake N & P model findings
 - b. H97 does not proceed
 - i. Joint CIC/stakeholders in Summer 2016
 - c. H97 passes to Session Law
 - i. Wait for direction from NCDENR
 - ii. Extend timeframes to evaluate implications of bill
- b. Questions/comments
 - i. John F. asks: How does this mesh up with the Rules Review process?
 - 1. Jeff M. responds: We will have to work it out as there is still a lot to be done
 - 2. Rich G. responds: General timeframe for re-adoption of rules is Fall/Winter of 2015
 - 3. Jeff M. responds: Any nutrient criteria will probably be rolled into the Triennial Review process.
 - ii. Carrie R. asks: What are your thoughts on Rich's presentation? When do you want to get involved?

1. Andy M responds: Intrigued by adaptive management. Should get ideas on stages that might be implemented.
2. Anne C. comments: We should see data for HRL model results/ranges as soon as possible.
3. Bill K. comments: We need to see ideas generated by the SAC. It might be better that the stakeholder process has not started yet. Might be able to set boundaries for the stakeholder process.
4. Rich G. comments: The CIC could start thinking of recommendations to make based on existing nutrient management strategies (Jordan & Falls)
5. Andy M. comments: Experience with stakeholders is that it is hard to get them to do anything without having something to react to. CIC may want to brainstorm with DWR.
6. Doug D. comments: The CIC may be able to act as an intermediate between the SAC and the stakeholders.

6. **What's Important to CIC** (Andy Sachs)

- a. Andy S. asks the CIC members what their thoughts are on their role as part of the NCDP.

- i. Responses

1. John F. comments: Nothing gets fixed quickly. We may not know for a while if something is working so we need to be cognizant of the length of time involved in implementation and how that can be expressed to the public.
 2. TJ Lynch comments: We need to understand the sources and make sure that we implement in a way that properly addresses those sources.
 3. Andy M. comments: It's important that we work toward maintaining high quality waters and recreational uses, but also consider the balance between supporting environmental concerns and other necessary factors.
 4. Anne C. comments: Always have to consider politics when considering feasibility. Not sure how that will impact CIC discussions.
 5. Doug W. comments: Not sure of my role at this point. I'm just taking things in right now so I can decide how my talents can be best applied in this group.
 6. Bill K. comments: Feasibility ultimately comes down to cost and schedule.
 7. Carrie R. comments: We should try to not repeat mistakes made in the past and consider what does and doesn't work based on CIC members experiences with implementation.
 - a. TJ Lynch comments: Look at efforts made in the Neuse. Don't make overly optimistic promises to the public.
 - b. Doug D. comments: It would be a great policy for DWR to maintain good records of communications throughout the process. Make sure to keep up with key points so that they can be carried along throughout the process.

- i. Andy M. asks Doug D. to expand on this.
- ii. Doug D. responds:
 - 1. Meeting minutes can be too lengthy so release periodic updates that highlight only the key points/ideas that need to be passed along as the process continues. This can be especially important as the length of time increases and people come and go. Without a way to pass on the ideas/decisions that have already been made, future efforts may be wasted on recreating what was already done.
 - 2. Keep up with updates. Don't slack off as time goes on.
 - 3. Milestone records
 - 4. We should document steps taken to reach decisions
- c. Anne C. comments: Look at collective compliance

7. **Future Meetings** (Andy Sachs)

- a. Andy S. asks the CIC members what they think the focus of future meeting should be.
 - i. Anne C. responds: Have Doug D. do a presentation on his experiences in Florida.
 - ii. TJ Lynch comments: We should talk more about what hasn't worked in the past
 - iii. Andy M. comments: the CIC should, at a minimum, keep up with the SAC meeting schedule.
 - iv. Bill K. comments: Wait a few weeks after SAC meetings before scheduling CIC meetings so DWR has time to digest what develops from the SAC discussions.
 - v. Anne C. comments: Talk about model scenario results for HRL
 - vi. Anne C. comments: Do a presentation on what is involved with fiscal notes.
- b. Andy S. asks the CIC members what they think are the topics that everyone should be up to speed on?
 - i. Carrie R. asks: Do you want more information on HRL?
 - ii. Anne C. responds: Explain what the technical advisory committee (TAC) did for HRL. (Staff provides this response after the Aug. 5 meeting):

The High Rock Lake technical advisory committee (TAC) was formed in 2005 to develop the modeling tools to support either a TMDL or nutrient management strategy. The idea was to pull together major stakeholders in the High Rock Lake watershed and get their input on the development of the models.

Participation in the TAC was open to the stakeholders on a voluntary basis. TAC members include various DWR staff, Alcoa, DHHS, DOT, Division of Soil and Water Conservation, Duke Energy, Keep Iredell Clean, Piedmont-Triad Regional Council, the Yadkin Riverkeeper, and the cities of Kernersville, Salisbury, and Winston-Salem.

The TAC first received training on the types of models we would be using. There were 9 3-hr meetings that were almost solely focused on training, meaning we

discussed the different types of models that are available and what they are used for. After we did the training, we then asked for input on modeling goals, the intensive monitoring plan, and model performance targets. The TAC also reviewed the draft models and associated documentation. Some TAC members hired a 3rd party consulting firm to thoroughly review the models for them.

The TAC process concludes when the tools are developed.

- iii. Doug D. comments: CIC should remain parallel with the SAC.
- iv. Carla S. comments: Mississippi is going through the same process. I will find out more about this and pass it along to the group.
- v. Bill K. comments: Might be good to have someone give an overview of how the different states are enacting nutrient management strategies related to the Chesapeake Bay. Maybe we can get someone from EPA or one of the states to speak about this.
 - 1. Connie B. responds: There was someone from EPA that gave a good presentation about this. Will try and connect with them.
- vi. Andy M. comments: Concerning the NCDP Gant chart, how can we keep up with this as time goes on?
 - 1. Steve K. responds: we have a timeline developed and will provide a condensed version of it soon.
- vii. Bill K. comments: Should consider how the CIC/SAC/DWR handle requests for more data or other items that may affect the timeline/schedule.