

# Nutrient Scientific Advisory Board Meeting #19 Minutes

Friday, June 1, 2012

TJCOG - 4307 Emperor Blvd, Durham NC, 27703

9:30 am -12:00 pm

## Attendees

Members: Matt Flynn, John Cox, David Phlegar, Trish D'Arconte, Bill Hunt (& Kathy Debusk, alt), Andy McDaniel, (Matt Lauffer's alt), Josh Johnson, Grady McCallie, Larry Band, Michael Layne

Non-Members: Andy Sachs (facilitator), Jason Robinson (DWQ), Rich Gannon (DWQ), John Huisman (DWQ), Adugna Kebede (DWQ), Brian Lowther (DWQ), Mike Schlegel (TJCOG), Heather Saunders (TJCOG), Terry Hacket (Orange Co), Alix Matos (Cardno ENTRIX), Trevor Clements (Tetra Tech), Sandra Wilbur (Durham), Forrest Westall (UNRBA), Haywood Phthisic (LNBA), Erin Wynia (NC League of Munis),

## Agenda

- **Status of Model Contract**
  - May 23<sup>rd</sup> pre-submittal meeting with consultants
  - Qualification statements received
- **Status of July Annual Report**
- **Prioritize Future Measures**
- **Process for Obtaining Information from Local Governments for Model**

## List of Materials

- June Meeting Plan #19
- May NSAB Draft Minutes - Meeting #18
- Table of Expected Data Needs for Jordan Lake Watershed TMDL Modeling (attached)

## Convene

- Board members and guests introduced themselves.
- The minutes for the Board's May meeting were passed out. It was requested that Board members review these outside of the meeting and send any revisions to the Board and DWQ.
- The Board agreed on July 6<sup>th</sup> as the next meeting date.
- The Board agreed to end the meeting 30 minutes early to allow for the Board's Consultant Selection Panel to meet to discuss RFQ reviews.

## Status of Model Contract

Jason Robinson of DWQ gave an update on the Jordan Watershed Model Contract:

### ***RFQ Pre-Submittal Meeting, May 23<sup>rd</sup>***

- Representatives for five consultants attended: Limnotech, CH2MHill, RTI International, Tetra Tech, and ECT Inc.
- TJCOG opened the meeting.
- DWQ and the SAB Consultant Selection Panel gave a brief background and overview of the project
- The consultants did not ask many questions or make many comments.

- A question was raised about the availability of local data, e.g. land-use data and existing BMP information (this prompted full NSAB June an agenda item summarized below).

**Consultant Qualification Submittals**

- Four consultants submitted qualifications to TJCOG by May 31<sup>st</sup>.
- The Selection Panel plans to review the qualifications in the upcoming week.
- The Panel will discuss and choose which consultants to invite to interviews that will be held on June 27<sup>th</sup>.

**Status of July Annual Report**

Jason gave an update on the Board’s second annual report due to the Secretary by July 1<sup>st</sup>.

- DWQ made minimal progress on the report since last Board meeting due to workload.
- A draft report will be distributed for the Board’s review at least a week prior to submission.

**Prioritize Future Measures**

The Board turned their attention to the May 3rd version of the document of tables of load-reducing practices. Table 1 lists *Load-Reducing Practices That Currently Have Accounting Methods Accepted by DWQ* . All Board members voted their support for the practices listed in this Table 1 be used to achieve load-reductions from existing development, using the listed accounting methods.

Tables 2a-e are categories of *Potentially Credible Nutrient Load-Reducing Practices*. Table 2a, *Potential Stormwater Practices* has already been prioritized based on current NCSU research that is expected to produce acceptable accounting methods within the next year or two (presented by Bill Hunt at the Board’s May meeting). The Board was therefore asked to focus on prioritizing the measures listed in 2b-2e based on availability of information on the practices as well as the practicality and cost-effectiveness of the implementation of the practices by local governments and other entities. A Board member recognized that evaluating and prioritizing the 48 potential practices could get complicated. Board members Kathy DeBusk, Josh Johnson, and Dave Phlegar agreed to serve on a sub-committee that would continue to explore potential practices and their associated accounting. The following is a brief summary of the full Board’s discussion of Tables 2b-2e:

**Table 2b: Potential Ecosystem Restoration Practices**

**Stream Restoration**

- The Board decided that this potential nutrient-reducing practice should be separated into two categories based on the nutrient-removal method: 1) bank stabilization and erosion prevention, and 2) nutrient absorption in the floodplain via re-connection and/or restoration.
- Trish D’Arconte brought up the need to streamline the 401 and 404 permitting process .
- Trish made a point about double-counting and Rich agreed.
- Trand to explore adding BMPs in-line at the end of a stormwater pipes entering intermittent streams.
- Conditions upstream of the stream restoration should be considered.
- Nutrient removal accounting associated with stream restoration projects would need to be a result of negotiations with the regulated entities and literature review of the various nutrient-reducing mechanisms of the practice. Accounting matrices or a sliding scale for the different types and levels of stream restoration should be considered.

- Board members repeated prior meeting desire to develop a process to get approval of innovative measures before 2014.

**Table 2c: Potential Agriculture Practices**

- Members raised technical concerns on various practices.
- Some of the Board questioned the need for this table since there is a separate Jordan Agriculture Rule (15A NCAC 02b .0264) that requires collective compliance by the agricultural community, and there is a Jordan Watershed Oversight Committee (WOC) that assists in the implementation of that rule.
- Most of the Board agreed that these practices should be included to give local governments the option of utilizing these practices on agricultural lands where they go beyond the collective compliance requirements of the Agricultural Rule, and could therefore be credited towards existing development reduction requirements. They made the point, however, that the agriculture experts should be the ones to set the technical standards. Therefore, the Board will need to work with the Watershed Oversight Committees responsible for assisting in the implementation of the Agriculture Rules.

**Other Practices**

- A Board member suggested adding the removal of bulk solids to the tables.
- A Board member suggested adding algal turf-scrubbers that physically or chemically remove algae from streams and other water bodies to the tables.
- The approval process of proprietary devices and their accounting should be reviewed and made more practical if possible.

**Process for Obtaining Information from Local Governments for Model**

- The need for obtaining local data from local governments and other entities such as land-use layers and information on existing BMPs from local governments was brought up during the consultant pre-submittal meeting.
- The panel had compiled a draft list of potentially useful data (meeting handout) that will be emailed to the stormwater, planning, and GIS staff of local governments, associations, and state and federal entities (including DOT). The Board was asked to comment on the draft list. Those receiving the list will be asked to indicate which data on the list that they have, and the form and accuracy of the data, as well as a contact person for the data. They will be asked to submit this back to TJCOG to provide to the selected contractor. Actual data submittal will occur later, after the type of model is chosen.
- A Board member asked if groundwater data should be included. It was explained there is minimal groundwater data available, and it's not directly accounted for in most watershed modeling.
- It was recognized that some local governments won't have a lot of the requested data.
- It was suggested that a sub-committee be formed to pursue and collect the available data.

**Potential Future Agenda Items**

- Remodel contract update and consultant selection
- Continue prioritizing potential load-reducing practices

**Next Meeting**

- Unless specifically rescheduled, the first Friday of each month, 9:30 – 12:00 at TJCOG.

**Table 1. Expected Data Needs for Jordan lake Watershed TMDL Modeling**

Item Number	Description	Comments
1	Agricultural land runoff studies (nitrogen and phosphorus) and/or land application rates	Prefer runoff studies.
2	Developed land runoff studies (nitrogen and phosphorus) and/or land application rates	Prefer runoff studies.
3	DOT runoff studies, land application rates, and other related system coefficients	Prefer runoff studies.
4	Runoff/Event Mean Concentration studies for direct use in model	Likely related to MS4 permit requirements. Non-urban also.
5	Septic use	Location, population and household estimates, population density, flow quantity, failure etc, summarized service areas and their nitrogen and phosphorus contributions. Source: Counties/DWR (Public Water Supply Section)
6	Intakes – Potable/industrial withdrawals	(1) daily or monthly intake amounts, (2) inception date, and (3) geographic location of intake (i.e. latitude and longitude coordinates). Source: DWR/individual municipalities and industries
7	Land cover/Land use	<ul style="list-style-type: none"> <li>• E911 address points from each county (can use this to estimate septic density as well as development density)</li> <li>• Parcels or property boundaries</li> <li>• Aerial photography (including oblique)</li> <li>• Satellite images</li> <li>• Locations of golf courses, ball fields, and other managed pervious areas</li> <li>• Any kind of land use or land cover including zoning, impervious surfaces or planimetrics, tree/forest canopy/cover, etc.</li> <li>• NCDOT Land cover Source: Local governments</li> </ul> <p>Contractor can get and process Census TIGER data, NLCD, NAIP data, and state LIDAR</p>

Item Number	Description	Comments
8	Point source discharge flow and quality DMR data	Both major and minor dischargers - Flow, effluent water quality data. Source: NCDWQ and individual dischargers
9	Atmospheric deposition of Nitrogen	Contractor can retrieve and process this. Source: NCDWQ/ CASTNET/ NADP
10	Daily average stream flow	Contractor can download and process this. Source: USGS
11	Meteorological data (e.g. precipitation, solar radiation, temperature, wind)	Contractor can download and process this. Source: NCDC, NCSCO
12	GIS NED for topography. NHD for reaches. STATSGO or SSURGO for hydrologic soil group determination	Contractor can acquire and process this. Source: Various
13	Sanitary sewer overflows	Source: NCDWQ and/or local governments
14	Stream water quality	Source: NCDWQ and Local governments
15	Stormwater: BMPs and drainage networks	Stormwater BMP types and locations Stormwater drainage networks Source: Local governments
16	Impoundments	Lakes, ponds, and other impoundments Source: Local governments and USGS (?)
17	Sanitary sewer networks	Sanitary sewer networks Source: Local governments