**Minimum Design Criteria (MDC) Team  
03/24/2014  
Triangle J COG, Durham**

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| **Attendees** | | | | | |  |
| ***Team Members*** | |  | | |  | ***Others*** |  |
| Eban Bean  Bradley Bennett  Jonathan Bivens Tim Clinkscales Tracy Davis Boyd Devane Hunter Freeman Mike Gallant Joe Hinton  Marc Houle Ron Horvath Bill Hunt |  | | Brian Lipscomb Annette Lucas  Mike MacIntyre Todd Miller  Cameron Moore Tom Murray Robert Patterson Derek Pielech Peter Raabe JD Solomon Toby Vinson Rob Weintraub |  | | Dan McLawhorn, City of Raleigh Susan Locklear, City of Raleigh Mark Senior, City of Raleigh Sarah Bruce, Triangle J COG Sarah Collins, NC League of Municipalities Betsy Bailey, PENC Tracy Davis, NC DEMLR  Julie Ventaloro, NC DEMLR |

**Direction from Rep. Millis/Session Law**Session Law 2013-82 (House Bill 480) says MDCs must be presented to legislature in Sept. 2014. We don’t want to sacrifice quality by trying to do this too quickly, so plan is to show progress on specific items to the Legislature on or before that date.   
We should be clear about which MDCs are required and which are recommendations.  
The MDCs that are required need to be tied to an existing rule or statute.  
We should communicate with Rep. Millis if any new legislation is needed as the result of Team’s work.

15A NCAC 2H .1008 was promulgated in 1995. Our understanding of stormwater management has changed a lot in the years since. For example, the current Rule mentions only wet detention ponds, infiltration basins, and vegetative filter strips, but we recognize that there are better alternatives available such as bioretention. How can we tie our new MDCs for bioretention areas to the rule?? That’s a challenge. There may also be some language in the rule that we want to remove -- design standards for filter strips, for example.

**MDC Team Charter**[see handout]  
A. Requirements from MDC session law  
 1. Develop minimum design criteria: siting, site preparation, design, construction, and maintenance of stormwater BMPs.

2. Consult with EMC regarding fast-track permitting process.  
 [Sidenote – Fast-track permitting could free up staff to do more compliance work in the field.]

3. Specify types of professionals qualified to prepare a permit application.

4. Establish a process for establishing liability for professionals.

B. Deliverables of MDC Team  
 1. Standard formats and processes for individual and overall BMP Manual chapters, including updates as well as training for the design community.

2. Updated MDCs for each of the BMPs in the stormwater manual based on goal of protecting state water quality standards. These will replace existing “Minimum Design Elements” in 13 chapters of BMP Manual.

3. Fast-track stormwater permitting process

4. Recommend rule changes to accommodate updates to stormwater BMP design criteria.

C. Membership Responsibilities  
Members will review materials before each meeting.   
Materials will be limited to 40 pages and will be given out 2 weeks in advance of next meeting.

D. Team Meetings and Operations  
DEMLR staff will facilitate team meetings and produce minutes.   
Meetings will be held the fourth Monday from 10-1 every month.

E. Tentative Schedule   
[see handout]  
Provide a product to Legislature by September 1, 2014.  
Each month, we’ll start a new practice while we’re wrapping up MDCs for the practice from last meeting.  
**General Discussion** *Dan McLawhorn* - There is a parallel process with DWR/Upper Neuse River Foundation to establish nutrient credit values for trading purposes for these very practices. Does there need to be some linkage between these two groups? Forrest Westhall would be appropriate contact for this.   
*Mike G.* – For every practice, we should state what we expect nutrient removals to be, so would be easy for designer to know what nutrient credit they will get for different BMPs.  
*Annette* – BMP Manual chapters currently state what those nutrient removals are.  
*Bradley* – Boyd Devane is our DWR rep, so we do have that linkage.  
*Sarah Bruce* – The Stormwater Association of North Carolina (SWANC), an affiliate of League of Muni’s, had its first official meeting in January. Group includes stormwater professionals from muni’s and professional organizations and will have policy development focus. Sarah will send this group information on becoming a member; currently there is a free trial. Sarah will send Annette a link – Annette will send out that link to MDC Team.  
*Mike G.* – If combining two BMPs to reduce nitrogen, Chapter 3 discusses what nutrient credit is for treatment trains; is that what we’re talking about?  
*Annette* – Yes, you would use that equation if you’re in certain river basins.  
*Mike G.* – We would need a standardized method of calculating this.  
*Bradley*– The nutrient rules require that certain tools be developed. Would it be useful if we gave Team an overview of the nutrient rules?  
*Rob W.* – A little confused. How does what we’re doing with this Team relate to nutrients?   
*Annette* – This is how I see it. We have to state what the minimum design criteria area. Typically, we’ve used 85% TSS, but there are other ways to measure a practice’s effectiveness. For example, in some basins, there are nutrient removal concerns, so as we go through practices, we’ll talk about designs and also nutrient credits. Fortunately, we have professors here that do this sort of research, so we’ll have data available to us. There is one way to design the practice (85% TSS is goal), then we can extrapolate what other credits should be regarding nutrient control and runoff reduction. We’ll have one design, but with different credits.  
*Bradley* – We will be able to tie some of the work we do on nutrients to existing nutrient rules.  
*Robert P.* – It’s important as we’re going through the MDC to remember that different parts of the state have different rules to deal with.  
*Peter* – We can also tie MDCs to statutes (including nutrient standards) as well as rules. There needs to be some flexibility in our MDCs.  
*JD* - Maps would be helpful for our meetings.  
*Bill* – A bioretention cell designed to remove 85% TSS can look totally different from one designed to remove 40% N/P.  
*Annette* – Majority of local governments use our BMP Manual. Our tool needs to serve their needs too, so we do need to think about nutrients in our work.  
*Ron*  – I thought we were to establish MDCs for a device. What’s the MDC for 85% removal? What’s the MDC for 40% N removal? Design engineer will determine what standard they have to meet; then they look to our MDC to decide how to get that done using our tools.   
*Annette* – Things will become more clear when we get into a practice. What’s in the BMP Manual will be used to determine how much nutrients each device can get. MDC is applied to how you design the BMP; local governments that want to go beyond our MDC’s can do that.  
*Robert P.*– Remind group that nutrient standards are state standards, not local requirements.  
*Annette* - To summarize, our Team will develop MDCs that will be incorporated into the BMP Manual. We will include credits for both TSS removal and nutrient removal.  
*Todd*  - We ought to include other pollutants (for example, bacteria).  
*Bill* – We could address those pollutants in a qualitative rather than quantitative way.  
*JD* – Minimum means minimum across the state. Don’t know if we have to go through all different pollutants of concern in each area.  
*Annette* –This group can come up with minimums. DEMLR/DWR is still responsible for overseeing nutrient program, so we could extrapolate.  
*Peter*  – “MDC” is not an engineering term. As a group, we need to be clear about what we mean by MDC.  
*Robert P.* – If we just come up with minimum criteria, no one could get a design approved in Jordan or Falls, so we have to take nutrients into account.  
*Jonathan*  – Our team should work on what we need to meet state law. Our BMPs don’t have to meet all regional requirements.   
*Peter*– It is a treatment train concept – are we talking about functional design? May need multiple practices to meet the minimum state regulation.  
*Tim* – Goal for Team is for projects that are not unique to not have to wait for 30, 60, 90 days to get a permit [referring to fast-track permitting program].  
*Annette* – This group’s minimum responsibility is to address TSS. If we want to, we can assign nutrient removal numbers to each practice. If the group doesn’t want to do this, DEMLR staff will work with NC State separately. However group wants to do it.  
*Eban*– There won’t be much variability between site preparation, siting, and maintenance among different practices.   
*Todd*– MDCs should take into account all state standards.  
*Mike G.* – Need to address specifically what to do if site drain to SA waters.  
*JD* – How will rules review process impact MDC Team? How do we coordinate?  
*Bradley* – If this team wants to make rule recommendations, those could be folded into rules review process. We (DEMLR) will keep Team informed as rules go through review process.  
*Rob*– There are 13 BMPs listed. Can we have a column for Minimum, and additional columns for Jordan nutrient, SA, etc? Don’t want to get bogged down on those other columns if we’re supposed to be working on minimums that apply across the state.   
*Tim* – We have this Team because of how design standards were interpreted in the past in relation to SA waters.  
*Annette* – I’m not one of those people who want to know details of every step of process; I prefer to jump in and see how it goes. Most devices will be designed mostly the same way despite pollutant of concern, so I think we’ll find it easier than we think right now.   
*Hunter*– Dry detention itself does not meet any of our standards. But in combination with other devices, it could. Are we starting with rule? Or are we starting with device?  
*Tim* - Before you get to the BMP, what is the minimum rule you need to meet as far as performance standard? That is what we’re doing on this Team.  
*Jonathan* – How do you know which projects could fall under fast track?  
*Annette* – Proposing Team take up fast-track in January 2015.  
*Jonathan* – Soil changes during the life of the project. So putting infiltration basin in same spot sediment basin was might not take into account change to soil during construction. Look at constructability issues before design BMP.   
*Hunter*– Before get into devices, we should talk about overall fast-track program. What will those performance standards be? There will be a definition of MDC for the overall program, and there will be a different definition of MDC for each device. Start discussion with which projects would meet fast-track?  
*Bradley*– Does Team want a presentation on our rules at the next meeting to help us get a baseline for minimum design?  
*Annette* – I don’t think our Team can be successful if we take on all these issues at once. Fast track permitting is one of our tasks, but is not our entire task.  
*Tim* – Maybe the State needs to define what they think minimum design criteria is, and then Team can discuss that.  
*Robert P* - Do we need to roll MDC design criteria into existing low-density fast track permitting process?  
*Annette* – I will email Team a list of design criteria that are in the BMP Manual already.  
  
 **How do we involve and inform the public about the MDC Team’s actions?**  
*Mike M.* – Use BMP Manual Listserv.  
Put minutes up on MDC website  
*Mike G.* - Wait for each chapter to be done, then notice it.  
*Annette* - We have gotten criticism for making changes to the Manual too frequently.  
*Tracy Davis* –Propose discussing timeline with General Assembly. Good to have materials and minutes on our website for transparency. But hold off on saying folks can begin implementing MDCs until General Assembly okays it.  
*Tim* – If there are things being implemented that do not meet state code, we should go ahead and begin implementing those corrections now and not hold off until rules passed in 2016.  
*JD* – Reiterate our meetings are public. Invite comments during meetings as well as public comment period.  
  
  
**Action Items**Sarah Bruce - send Annette info regarding SWANC– Annette will send out that info to MDC Team.  
Annette - Decide if DENR staff will give Team an overview of nutrient/stormwater rules at the next meeting.  
Annette - Bring maps to meetings.  
Annette - Email Team a list of design criteria that are in the BMP Manual already.  
Annette – Team members should come to next meeting with suggestions of how to improve Charter. Team – Email Annette with ideas for definition of “Minimum Design Criteria.”  
Team – Review materials and agenda prior to next meeting.

**Next Meeting – April 28, 2014**  
Definition of “minimum design criteria”  
Organization of BMP Manual  
General MDCs for every device  
Wet detention pond chapter