

Wastewater Treatment Workgroup Conference Call

October 4, 2016

Meeting Minutes

Summary of Action and Decision Items

ACTION: The WWTWG will schedule a conference call in mid-October to reach a decision upon the proposed E3 scenario. Workgroup will further discuss proposed changes to the E3 definition for non-significant facilities and flow.

Introduction and Announcements

- The Onsite Wastewater Treatment Systems Nutrient Attenuation Panel was approved by the Modeling Workgroup for use in the Beta 4 version of the Model. There is still some data needed from the Bay Program's GIS team, and those maps will be appended to the final report. Maryland is still undergoing research to try to subcategorize the panel recommendations based on proximity to tidal waters.
- The Biosolids Task Force met in September to refine the biosolids application method. Changes will be incorporated into the Beta 4 version of the model. Details will be provided once they are available.

E3 Scenario

Jeff Sweeney (EPA) provided an overview of how the other source sector workgroups have updated their E3 Scenarios.

Discussion:

- Marya Levelov (MDE): Other sources seem to use existing efficiencies but apply them to all possible lands where stormwater BMPs could be applied, and agriculture seems to be similar.
 - Sweeney: Efficiencies are very different because about half of the BMPs have been reinvestigated or added since the last time E3 was defined. So we have dozens more categories of BMPs, and in some cases there are new tiers with improved efficiencies.
- Ed Stone (MDE): Is it difficult to do an analysis of the wastewater treatment plants (WWTPs) that are stated to be below 3mg/L for N and the percentage of their design flow total and see if that is a statistically significantly lower design flow than the percentage of WWTPs operating above 3mg/L? If it is statistically significantly different, you could make the argument that it is not as conclusive.
- Tanya Spano (MWCOC): Taking my hat off as chair, I believe that the characterization that an E3 TN concentration of 3mg/L is not supportable. I haven't done a thorough review of the data, but I have done some checking with facility operators, and they are operating between 50-75% of design capacity. They are spending money and electricity and using tank capacity to operate at the lower concentration. They just got started doing this. It is an abuse of the data to assume that the small record, without consideration of capacity, are in support of the change. I do think there are other areas we are not looking at E3 that would be comparable. For instance, wouldn't the same logic that urban stormwater and agriculture are using be that we would have all our septic systems be converted to advanced treatment systems in an E3 scenario?

- Dave Montali (WV DEP): We made a decision about what E3 was in 2010. Has the technology changed substantively since 2010 to the point where it's improper to keep it the same?
 - Charles Bott (HSCD): The technology is certainly developing, but the focus of those efforts is not to go to lower effluent concentrations. It is doing N removing with less energy and resources.
- Montali: I don't think we need to change E3 for significant facilities. It sounds like the technology hasn't substantively changed for concentration, you can do better N removal in the southern jurisdictions, and I see nothing to support changing P concentrations. On the other hand, I agree that E3 should be applied to onsite systems, and philosophically, we should probably say that the E3 concentration for nonsignificant facilities should be the same as for the significant facilities. If money were no object, if they could afford an operator, there is no reason a nonsignificant facilities couldn't do the same things.
 - Ning Zhou (VT): For nonsignificant facilities, the old definition was to use 8mg/L for N.
- Montali: I don't want to make life tougher, but if we are assuming no constraints, and if given enough money, a nonsignificant facility could reach the same treatment levels.
 - Bott: I agree with Dave. If money is no object, these smaller facilities can achieve the exact same level as the significant plants. The same with septic systems.
- Dave Schepens (DE DNREC): We just went through a regulatory review on onsite systems and it took 5 years to get through because we tried to incorporate some of what we need to do for the WIPs. When we put these numbers out there, the public gets ahold of it, they are going to think that we can go down to 2mg/L for N without understanding that this was a "money is no object" scenario. Delaware does not see any reason to change this scenario at this time.
- Bott: One item that is missing from this, is the fact that we know water consumption effects concentration. There is good data suggesting wastewater strength goes up because consumption goes down. As sewage gets stronger we see this as increasing effluent organic N. Plants won't be able to get to that level. We know how to remove it, but nobody is heading in that direction, because that is really potable reuse.
- Rashid Ahmed (NYSDEC): We found that the proposed E3 treatment level is not achievable in upstate New York because of temperature. We think this scenario should recognize that.
- Matt Richardson (VA DEQ): We don't support the proposed draft E3, we would like to remain with the previous E3 definition.
- Spano: I am hearing that for the significant municipal plants, the proposed changes to E3 are not supported. We do not believe there is justification or rationale for supporting that proposal and our position is to stay with existing E3.
- Sweeney: I will tell you that you are not technically following the definition of E3 if you make that decision. If you have facilities that can achieve the E3 treatment level, then you haven't truly defined a representative E3 scenario. My fear is this will set off a chain reaction that other sectors will back off their definitions as well. The definition of E3 for the wastewater sector did not have an impact on allocations last time around.
 - Spano: Based on the language and what has been said, I believe that we are in fact meeting that E3 standard. I think we can defend that position and clearly articulate our rationale.
- Spano: We did talk about non-significant facilities. The CBPO didn't propose any changes to that. We have heard the suggestion that we could technically set the E3 scenario for the non-

significant facilities at the same level as significant. Would folks be comfortable revising the scenario to make that change?

- Montali: Philosophically, there is no reason to break them out separately.
 - Spano: My observation would be the same.
- Schepens: As far as Delaware is concerned, I would have to stick with “no-change” as I did earlier. We don’t have any background at this point on changing non-significant facilities.
- Levelev: Maryland is upgrading some minor facilities to ENR, we can double check internally if there are any objections, but I would think we would agree that if that is needed we are okay with lower concentrations for minors.
- Schepens: There are concerns with just saying ok without really vetting this.
 - Richardson: I completely agree with Delaware. Virginia feels the same way at this point. We don’t see a need for any change.
- Spano: As chair, I know people are not comfortable with this, but I think Dave Montali got to the factual basis that we need to support our position. Our like or dislike is not appropriate as the basis for the decision. What are Virginia’s permit limits?
 - Schepens: We are at 10mg/L TN in small systems.
 - Richardson: We are at 3mg/L TN for some of them.
 - Spano: We already have plants where what is E3 definition is in the permits. If they have 3mg/L in their permits, of course they are operating beneath that level.
 - Montali: If there are non-significant facilities permitted at their design flow to meet the 3mg/L E3 scenario, we would be very wrong in saying E3 for non-significant facilities is 8mg/L.
 - Levelev: Maryland’s are permitted at 4mg/L and designed to meet 3mg/L.
- Spano: This is new information and a new request. There are varying degrees of comfort in taking a position on this.
- Spano: Looking at septic systems, where do we stand?
 - Sweeney: The E3 scenario we used last time was that 10% of systems are connected and the other 90% are all upgraded to advanced treatment systems.
- Spano: Was the existing E3 for septic assume denitrifying septic tanks? I think we would need to look and see what concentration that takes us down to.
- Spano: From my perspective, we’ve identified a position on significant facilities and have more information we need to put together on the non-significant facilities. We need to verify how E3 was applied to septic systems, because if it didn’t apply the newest technology, we need to consider that.
- Levelev: I think the whole Workgroup had an issue with using current flow in the definition as well.
- Spano: I will ask folks, I think we need one more shot at this before we can finalize a full proposal. Are you collectively with me on trying to schedule another conference call in the next week or so?
- Sweeney: I think it is important that for those who want to stick with the current definition that they inform their WQGIT representative so they are aware of how to defend that position at the WQGIT face-to-face meeting.

- Levelev: I want to go back to how sources were doing it. Other sectors had expert panels look at this. We said a STAC workshop should look at our E3 definition. For BMPs, once they approve new efficiencies for progress runs, they apply it to more acres to make an E3. That is a very different effort.
- Montali: When we did planning targets last time, we took 2010 no action and 2010 E3 to define controllable load. Is flow really an issue for us here?
 - Sweeney: My understanding is that the wastewater E3 definition was not used in the allocation of planning targets out to the jurisdictions.
- Spano: My concern would be by agreeing current progress year flow in E3, I want to make sure that wasn't somehow creating an artificially low load cap in these scenarios because we have design capacities.
- Montali: I think we need guidance on what we need to decide about flow.

ACTION: The WWTWG will schedule a conference call in mid-October to reach a decision upon the proposed E3 scenario. Workgroup will further discuss proposed changes to the E3 definition for non-significant facilities and flow.

Adjourned

List of Call Participants

| Name | Affiliation |
|-------------------------|--|
| Tanya Spano (Chair) | Metropolitan Washington Council of Governments |
| Ning Zhou (Coordinator) | Viginia Tech, CBPO |
| David Wood (Staff) | CRC, CBPO |
| Dave Schepens | DE DNREC |
| Bryan Ashby | DE DNREC |
| Jeff Sweeney | EPA, CBPO |
| Joel Blanco | EPA, R3 |
| Greg Busch | MDE |
| Marya Levelev | MDE |
| Ed Stone | MDE |
| Rashid Ahmed | NYSDEC |
| Janice Vollero | PA DEP |
| Matt Richardson | VA DEQ |
| Angela Redwine | VDH |
| Dave Montali | WV DEP |
| Charles Bott | HRSD |
| Nasser Ameen | MWCOG |