



**Minutes
Wastewater Treatment Workgroup (WWTWG)
Teleconference
Tuesday, May 5, 2015, 10:00 AM – 12:00 PM**

Summary of Action and Decision Items

DECISION: The March and April meeting minutes were approved as written.

ACTION: CBP Staff will consolidate EPA's comments and VA DEQ's comments and provide them to Sue Kriebel. Virginia Beach will then have until May 18th to submit a formal response to comments for Wastewater Treatment Workgroup review.

ACTION: Ning Zhou will share the list of no-discharge zones in Chesapeake Bay watershed. States should review the BMP proposal and Virginia Beach's response to comments once it has been distributed.

ACTION: CBP staff will provide Workgroup members with Appendix F from the Watershed Model and any other, more recent, documentation of the decisions and assumptions that are currently informing wastewater allocations in the Watershed Model.

ACTION: Jurisdictions should continue to contact Ning in order to work out any questions related to biosolids and spray irrigation data, and to provide the data they have in order to keep this effort moving forward.

Welcome, Introductions, and Announcements—Tanya Spano (Chair)

- Tanya convened the meeting and David Wood (CRC) verified call participants.

DECISION: The March and April meeting minutes were approved as written.

- Spano: When there is a deadline embedded within the presentations, it is helpful to pull those deadlines out and make them more clear in the minutes.

Boat Pump-Out Facilities BMP

Since the last meeting, the Urban Stormwater Workgroup has deferred to the WWTWG regarding endorsement of the proposed BMP, and EPA has submitted formal comments. A final decision as to whether or not to endorse the proposed approach for crediting Boat Pump-Out Facilities within the Watershed Model will be made at a later meeting.

Jaime Bauer (VA DEQ) provided a recap of VA DEQ's comments and concerns:

- 1) How will the baseline year for these loads be established in order to avoid double counting? No-discharge zones were in place prior to the TMDL, so that could be an issue.
- 2) How does Virginia Beach propose to separate out loads from Type III MSDs from the loads from Type I and Type II MSDs. Type III discharges are illicit and therefore credit can not be given for eliminating those loads.

- Sue Kriebel (VA Beach): We would like to provide a written response to EPA's comments and VA DEQ's comments within the next few weeks.

ACTION: CBP Staff will consolidate EPA's comments and VA DEQ's comments and provide them to Sue Kriebel. Virginia Beach will then have until May 18th to submit a formal response to comments for Wastewater Treatment Workgroup review.

Discussion:

- Norm Goulet (NVRC, USWG Chair): When the Urban Stormwater Workgroup (USWG) was going through the Gray Infrastructure expert panel report process, EPA requested that SSOs be removed from the crediting process because they are considered illicit discharges and therefore couldn't be credited. I think you will run into those same kinds of problems with this report, especially with the Type III MSDs.
- Spano: Personally, I think when EPA talks about concerns over accounting for these loads in an MS4 annual report, Virginia Beach ought to consider that concern, but ultimately that process shouldn't be a barrier to accounting for a real load reduction.
- Spano: Is this BMP being pursued in any other states?
 - Ning Zhou (VT, Coordinator): There are a total of 5 no-discharge zones in the Chesapeake Bay watershed.
- Spano: Does Maryland have any particular concerns with this proposal?
 - Greg Busch (MDE): I would be interested in seeing the plans for how this practice would get incorporated into the Phase 6 Watershed Model. Would this potentially be an explicit load that we account for and then assign reductions to? Or would it have to be accounted for separately?

ACTION: Ning Zhou will share the list of no-discharge zones in Chesapeake Bay watershed. States should review the BMP proposal and Virginia Beach's response to comments once it has been distributed.

Rapid Infiltration Project *Greg Busch, MDE*

Greg Busch presented a [graphic representation](#) of a Rapid Infiltration project in order to advance the discussion on whether or not it should be included in wastewater load tracking.

Discussion:

- Dave Schepens (DE DNREC): Do you use advanced treatment prior to discharge into the infiltration basins?
 - Busch: There is some consideration of moving to advanced treatment on these, but not currently.
- Schepens: We require advanced treatment on ours. I am afraid if rapid infiltration basins are accounted for in the model that it will not account for our advanced pre-treatment and it would increase our total load.
 - Busch: I don't see this as an additional load as much as a new accounting for a reduction.
- Zhou: The current version of the Watershed Model does not consider groundwater, but Phase 6 will. If we want to approach this in a simple way, we can apply the septic system attenuation reductions that are being developed by the expert panel to these rapid infiltration basins in some way.

- Schepens: This is what Delaware has been complaining about in our community systems. They are being treated like septic systems in the Model but we have regulations on them that require that they have lower loads.
 - Zhou: That is another category we tried to create, that is the large septic systems. Since most of those large systems have monitoring data, it could be directly input rather than estimated.
 - Montali: That seems like an accounting problem. Is there monitoring data available?
 - Schepens: Yes
 - Montali: But they aren't reported under the wastewater loads?
 - Schepens: They are treated as a septic tank.
 - Montali: The attenuation factors that will be used for septic systems should be available. There ought to be a way we report what goes to the ground, report those attenuation factors, and then maybe subtract from the onsite loads in some way.
 - Schepens: That is what I'm asking. There are reductions happening.
- Montali: Can we handle this similar to spray irrigation?
 - Zhou: I think so.
- Schepens: It is not just subsurface attenuation, it is with the treatment plant. There is treatment to the point where it is not the same as septic tank effluent.
- Busch: From my perspective, this presentation is just on rapid infiltration projects, ones with full on municipal sewer systems. Nothing I'm saying here was meant to apply to community septic systems; that is for the attenuation panel work.
- Spano: So you have 4 facilities in Maryland that if not included in the wastewater load tracking, would not be accounted for.
 - Busch: Yes, but it is my understanding that while they are not being explicitly accounted for currently, the loads are implicit within the Model.
- Marcia Degen (VDH): Is it safe to say that if there isn't a discharge permit associated with a facility, the Model assumes everyone else is on onsite?
 - Schepens: That has been my understanding.
- Degen: I would think that as we identify the community systems, we could subtract those populations from the conventional systems.
 - Busch: That is not my understanding of the modeling. We have the NPDES permits, and then we have three categories of subsurface systems. But the rapid infiltration systems and spray irrigation fall somewhere in between those subsurface systems.
- Degen: A critical piece is if there is a sewer overlay that the Model can pick up. I don't know if they have that.
 - Jeff Sweeney (EPA): We have the best sewer overlay we can get, which comes from the states and localities. In some states, the default is that if you are not on sewer, you are on septic. Other states tell us how many septic systems they have. If you want to account for your systems, we can use that info, but you have to guarantee you provide that each and every year. You can account for community systems, you just have to tell us what is there, and guarantee you can provide it each and every year.
- Spano: It strikes me that we might need to have a step back and look at these issues. Does anyone have any issue with what Maryland has laid out here as far as how these systems are working, and the inherent logic?
- Schepens: What is the separation distance?
 - Busch: I would have to look into that and get back to you.
- Ron Furlan (PA DEP): Is this the load to the edge of stream, or load delivered to the Bay?
 - Busch: Just an edge of stream attenuation.
 - Furlan: There is a big argument about what actually reaches the Bay.

- Busch: My hope is that with the septic attenuation panel that there will be some light shed on that.
- Spano: So Maryland is asking for rapid infiltration loads to be included in your wastewater load tracking?
 - Busch: We really are just asking for technical approval, and making sure that everyone is okay with this concept.
- Schepens: I would caution against bundling spray irrigation with rapid infiltration basins. Spray irrigation is dependent upon plant uptake. That could result in a big differences.
 - Busch: That is fine. I think the treatment is different, so you are right.
- Zhou: We haven't talked about where to put spray irrigation loads yet, whether it is wastewater allocation or load allocation.
 - Sweeney: It just needs to make sense, but it should be able to fit in there somewhere. Where did the best professional judgment come from?
 - Busch: It is based off of an EPA document from when the plant initially opened up. There are downstream monitoring wells but I don't think we have a formal accounting from those.
 - Sweeney: That's good. That would just need to be included in your documentation with a citation.
- Mary Levelev (MDE): Where are the loads from spray irrigation currently?
 - Sweeney: How do you submit it to us? Do you submit it as spray irrigation?
 - Levelev: I don't recall. I think it was part of the groundwater discharge.
 - Sweeney: So there is no explicit accounting, it is all implicit right not.
 - Zhou: I think that is a good question, Marya. This workgroup can recommend where to put the spray irrigation load, whether they want to put it as a wastewater allocation or load allocation?
- Spano: I think it might behoove us to look at all the loads we have, what is accounted for where, and remind ourselves of where everything is to make sure we have a good understanding.
 - Levelev: I think that is a good idea. To think about not only where the loads will go but where upgrades happen that we are getting credit for those.
- Spano: What are thoughts on that? That discussion might warrant a face-to-face meeting.
 - Valerie Rourke (VA DEQ): We don't have a lot of rapid infiltration basins in Virginia, but I think Dave Schepens made a good point. If you are going to incorporate rapid infiltration, you need to account for any pre-treatment. In Virginia we determine how much treatment is needed based on existing groundwater at the site, so it will be case by case. We work backwards from the groundwater to see how much we need to pretreat.
 - Furlan: We are assuming that crops take up nearly all of the nutrients from spray irrigation, so your load to the Bay would be close to zero. So someone wants credit for removing that load?
 - Zhou: We are still separating them. We realize spray irrigation and rapid infiltration have unique features. There is plant uptake associated with spray irrigation and we need to consider that.

Historic Data Cleanup – Ning Zhou, VT

Ning asked the jurisdictions to provide updates on their historic data cleanup efforts and [summarized](#) some possible data problems based upon one-on-one meetings with state partners.

Updates:

- Rashid Ahmed (NY DEC): New York has started work but we don't have any significant updates. We have gotten some non-significant facilities to include some monitoring.
- Ron Furlan (PA DEP): Ning just got Pennsylvania's section 106 report and some of the data we are capturing from non-significant facilities. I have objected to doing this data cleanup because I think it will bring in more uncertainty to the Model since we don't have good data. We have had discussions with folks in the CAFO project and are working on contracting out someone to find some of this data.
- Ning Zhou: Delaware has pulled some ICIS data and compared it with some DMR reports.
- Greg Busch (MDE): Maryland has gone through everything with DMR data, we will just have a few corrections. Now we are scouring our permitting database to look for opening dates and closing dates back to 1985.
- Dave Montali (WV DEP): We are following Ning's guidance. We did a lot of this work for non-significant facilities back when the TMDL was being developed. We are reviewing significant facilities monitoring data for recent years to make sure everything is okay. We do not have any intention to try to make up numbers for non-significant facilities for which we don't have data. We are looking at start and end dates for non-significant facilities and if we don't have good data, we will use the default values.
- Art Buehler (VA DEQ): Virginia has accumulated historical data and are sorting it so we can cross check it with what Ning has.

Discussion:

- Spano: Ning, I request that you put some notion of how big of an issue it really is. Include the load differences in pounds or something.
 - Ning: I don't know how to put this in terms of pounds or an error range. Some numbers are pretty tiny, but the things that shouldn't be there should be removed.
 - Montali: From my experience, for our state it was a large portion of our load, and it was a double counting concern.
- Spano: Are we finding out anything that would indicate that the loads as accounted for in the TMDL were inaccurate? I think we need to pose that question as we do this cleanup in case it needs to be reflected as an update to the TMDL.
 - Montali: I think in the end it may be a wash, but I think it is important we all take a stab at getting this right.
- Montali: If we are going to use actual monitoring data for non-significant facilities, it ought to be commensurate with what we are doing with the significant facilities. I would caution against saying actual monitoring data is better. I would say sophisticated monitoring data is better. In some cases I recommend the default process because there are situations when it has less uncertainty.
- Spano: The presumption is the data is always best, but if the reporting and monitoring is not as rigorous, maybe that is not as good. The DMR testing and requirements were for a different purpose, they were not designed to develop a load.
- Levelev: If there are concerns about default numbers we are using now, do we need to revisit them? I agree with the infrequent monitoring, and that data may not always be very accurate.
- Zhou: I want to make clear, we are not asking states to revise the default values, we just opened the door for states to make improvements to the data if they want to, because this is the opportunity.
- Spano: This is an option for if the states find issues or find better data, that they have the opportunity. But if for instance, DMR data is not better, you would not want to use it.

- Zhou: At the end, when we finish this whatever assumptions and decisions are made should be documented and we would include it as an appendix in the Phase 6 Model. Appendix F is the documentation for the decisions currently informing the Model, but that is an old document.

ACTION: CBP staff will provide Workgroup members with Appendix F from the Watershed Model and any other, more recent, documentation of the decisions and assumptions that are currently informing wastewater allocations in the Watershed Model.

- Spano: Is there a specific process in the Phase 6 Model through which Appendix F will be completely updated to include any new assumptions?
 - Zhou: Every new phase of the Model we have new documentation.
 - Sweeney: We had written into the grant guidance that you need documentation for how you did this historic data cleanup process and any decisions and assumptions you made. So that is a good point, Tanya.

Biosolids and Spray Irrigation Data – Ning Zhou, VT

Ning provided an update on the biosolids and spray irrigation data collection process and [reviewed](#) a recommended plan for developing default values (Slide 6).

Discussion:

- Zhou: For state biosolids data, we need to convert data into the format we need. We provided a data template, we just need to convert the state data sets. For spray irrigation, I need to know if other jurisdictions just don't have data, or if they have it and just need to send it in.
- Spano: No, this recommended plan for default values will not work for the majority of large urban facilities. We do not land apply biosolids in the local community because they are urbanized. This absolutely cannot be used. A concern I have is we are attempting to take default data and impose it on loads when there are nutrient management plans that define what nutrient load concentrations should be. The source of the data and the load implications need to look at different sources of information.
- Rourke: In Virginia we require that all biosolids land applications have a nutrient management plan, which is designed to ensure the rate of application meets the demands of the crops. I am at a loss as to why this would be included in the Model as an input for nonpoint sources because it is so highly regulated.
 - Spano: We were charged as a workgroup to account for biosolids, but that doesn't mean we necessarily go down this route.
- Ron Graber (DE DNREC): Ning sent a spreadsheet looking for a lot of information. Delaware has a considerable amount of data on their program, but the way I'm being asked to collect the info is not feasible for me. For spray irrigation program, you don't need a lot of the info you are asking for. Our program is predicated on the fact that the majority of data is taken up by the crop. Why do I need to break it down by all the components?
- Sweeney: First of all, I can assure you that we would not apply the Blue Plains loads to D.C. We just want you to take the data you have and inform us as to what to do with it. The Model accounts for animal nutrients, chemical nutrients and biosolids nutrients as well as atmospheric deposition. I have a feeling biosolids will end up as a pretty small portion, but we have been told it needs to be there as an explicit source. We need to fill in some holes but it will make sense at the end. You will get to weigh in on this until you feel it is reasonable. As far as nutrient management plans, we have been told that plant uptake accounts for the nutrients being applied, but if that were true, we wouldn't be here discussing Bay restoration. There are lots of compliance issues, and we have multiple sources of data telling us that excess nutrients are still

increasing. All in all, I think biosolids will be a small source, but it is large enough it needs to be explicitly accounted for.

- Furlan: Sludge management has not been based on nutrient content in the past, so that is a trouble we are running into. Pennsylvania is undergoing a significant change as far as our biosolids are concerned.
- Spano: I would suggest that if people have concerns, we work it out with Ning as to how things ought to be done.

ACTION: Jurisdictions should continue to contact Ning in order to work out any questions related to biosolids and spray irrigation data, and to provide the data they have in order to keep this effort moving forward.

Updates and other business

- Peat Treatment Systems, and Shallow Place Pressure Dispersal BMP Panels – *Ning Zhou*
 - Zhou: EPA issued a contract with Tetra Tech to start a second onsite systems expert panel. We are working on a panel and we will likely kick off meetings in the next month or two.
- Spano: Does anyone disagree with the idea of holding a potential face to face meeting in June or July to tackle these major issues?
- Schepens: Delaware may be out of picture, since we are not being allowed to make out of state travel.

Adjourn

Next conference call:

Tuesday, June 2, 2015

List of Call Participants

Name	Affiliation
Tanya Spano (Chair)	Metropolitan Washington Council of Governments
Ning Zhou (Coordinator)	VT, CBPO
David Wood (Staff)	CRC, CBPO
Dave Schepens	DE DNREC
Ron Graber	DE DNREC
Jeff Sweeney	EPA
Jenny Tribo	HRPDC
Greg Busch	MDE
Norm Goulet	NVRC, USWG Chair
Rashid Ahmid	NYSDEC
Ron Furlan	PA Dept. of Environmental Protection
Dharmendra Kumar	PA Dept. of Environmental Protection
Sue Kreibel	Virginia Beach Public Works
Marcia Degen	Virginia Dept. Of Health
Valerie Rourke	Virginia DEQ
Art Buehler	Virginia DEQ
Jaime Bauer	Virginia DEQ
Dave Montali	WV DEP

