MINUTES
Wastewater Treatment Workgroup (WWTWG)
Teleconference
Tuesday, August 4, 2015, 10:00 AM – 12:00 PM

Summary of Action and Decision Items

ACTION: Greg Busch (MDE) will write out Maryland's uptake equation and send it out to Wastewater Treatment Workgroup members for their review.

ACTION: Ning Zhou (VT, CBPO) will add a clause about the impact of the attenuation "Zone" to the rapid infiltration and large onsite systems methodology, pending forthcoming recommendations from the Onsite Systems Attenuation expert panel.

ACTION: Matt will change the code from MWL to LAW (Land applied wastewater) to clarify what falls under the category.

ACTION: Final revisions to methodologies for biosolids, ag and non-ag spray irrigation, RI basins, and large monitored onsite systems will be due April 1, 2016.

ACTION: Quentin will send an inventory of the sewer and septic data the CBPO GIS team has received from the states and localities, so members may verify that they provided all of the most accurate information.

DECISION: The WWTWG approved the proposed approach for estimating sewer and septic splits on federal facilities.

DECISION: The WWTWG approved the proposed approach for estimating populations on sewer versus septic on lands where no other data was available. The WWTWG would like to recognize the opportunity to review and revise over the coming year of Phase 6 Watershed Model development.

ACTION: Any WWTWG members who wish to serve on task force or want to recommend others from your state, please contact Ning Zhou or David Wood (CRC).

ACTION: David will make the requested changes to the SOW to correct the typo, adjust the schedule, and clarify language about when the practice can be reported for progress by jurisdictions.

DECISION: The WWTWG approved the proposed SOW for the Boat Pump-out Task Force pending inclusion of the requested edits.

DECISION: The WWTWG conditionally approved the proposed membership of the task force, but recognized a desire to increase the size and representation of the group.

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

Implementing New Wastewater Loads – *Matt Johnston, UMD/CBPO*

Matt provided overviews of proposed methodologies for including loads from rapid infiltration, spray irrigation, biosolids and non-traditional onsite systems in the Phase 6 modeling tools.

Discussion:

- Tanya Spano (Chair): Because we do not believe manure and biosolids are the same in the way they hold nutrients, I think there will have to be a distinction.
    - Matt Johnston (UMD/CBPO): We don't have the ability to do that. To develop the ability to say biosolids are wholly different from manure in the way they are distributed, that is a huge effort and we would need to do that next year. It couldn't be done by October 1.
    - Spano: It's more that they behave differently.
    - Johnston: Well that is fine. We break it down by the different nutrient constituents. The unique chemical composition will be retained. We use the state data to estimate pounds of nitrogen. We just then combine the pounds of nitrogen from biosolids with that of manure.
    - Spano: It is more the phosphorus (P) that is the issue. We have studies that P in certain types of biosolids are bound and not migrating out.
    - Johnston: That is why we break out species of P in the spreadsheet.
    - Spano: That will be something we will need to talk more closely about.
    - Johnston: That is a great point. I will come back to this group with the table we can adjust in the model. For every source of organic P, that table defines what percent is available for crops. That number can be unique to biosolids.
- Spano: Do other states have an issue with the non-agriculture spray irrigation approach?
    - Dave Schepens (DE DNREC): I'd have to see the equations. They may be the same as what Delaware uses.
    - Dave Montali (WV DEP): For the work we are doing this year that approach is fine.
    - Allan Brockenbrough (VA DEQ): The uptake assumptions are likely very similar.
- Spano: Matt, I suggest you send the workgroup, more specificity about Maryland's uptake equation and have them confirm they are ok with that being the presumptive estimation method.

ACTION: Greg Busch (MDE) will write out Maryland's uptake equation and send it out to Wastewater Treatment Workgroup members for their review.

- Schepens: On Rapid Infiltration (RI) basins, we test for nutrients prior to the water going into the basin. Some systems would be 5mg/L or 10mg/L at the discharge prior to the basin. Then we would also get the attenuation? Same for large monitored onsite?
    - Johnston: Exactly, you would provide the gallons and concentration data. The Watershed Model will start with a number that multiplies the gallons you provide times the concentration. It is all based on what you provide in the spreadsheet. On top of that, it adds in concentration.

ACTION: Ning Zhou (VT, CBPO) will add a clause about the impact of the attenuation "Zone" to the rapid infiltration and large onsite systems methodology, pending forthcoming recommendations from the Onsite Systems Attenuation expert panel.

- Schepens: We have utilities that provide wastewater services for subdivisions. They would fall under the Municipal Wastewater Loads (MWLs)?
- Johnston: Yes, but we can change that code. Does MWL make sense here for the code?

ACTION: Matt will change the code from MWL to LAW (Land applied wastewater) to clarify what falls under this category.

ACTION: Final revisions to methodologies for biosolids, ag and non-ag spray irrigation, RI basins, and large monitored onsite systems will be due April 1, 2016.

- Montali: We are going to put out a watershed model this fall (2015). If the expert panels work isn't finalized before October 1, we would have a backup of the Phase 5.3.2 model assumptions. There could certainly be an additional refinement by April 1, 2016. A lot of these LAW's attenuate like onsite systems. How do they handle P, since they aren't dealt with in onsite?
    - Johnston: I don't know how we handle that. If the panel isn't evaluating it, we will need a solution. We could provide a P attenuation value for maybe urban turfgrass.
    - Montali: We are getting into a detailed algorithm for P from agricultural lands and we will need to talk about it for non-ag lands.
- Schepens: We test for nitrogen and phosphorus. We would put the concentration for our P as well. Would we be able to provide an input for that?
    - Johnston: You would be able to input both. We would need to figure out what to multiply the states input by for P since there is no attenuation rate for P from septic systems.
- Johnston: We have good biosolids and spray irrigation data from the states and we have a good method for spray irrigation on ag land, but the method is less clear for non-ag lands. I would separate spray irrigation on non-ag out from the others and not deal with it until April 1, 2016.
- Montali: There isn't a big enough load to impact the calibration in the first run. Next year's model will be the one that is ultimately locked down.
- Johnston; Biosolids is the most significant piece and this group needs to reach agreement on the method by October 1, 2015.
- Marcia Degen (VDH): As we move these loads into LAW loads, how is it counted in offsets for onsite loads? Somehow of another, we will need to be able to tie these large systems to offsets from small systems.
    - Ning Zhou (VT/CBPO): We need to develop an assumption methodology to work this out. We track onsite systems by population, but the populations move. In the next month we need to discuss assumptions on how to separate those out, e.g. how many hours people are at work versus on household loads etc.
        - Spano: Cautionary note: I really continue to have concerns when we attempt to duplicate at low levels of details what is happening on the landscape. Parsing this down to such a level of precision, I question it.
- Degen: I think as states provide data on larger systems, the onsite loads should be reduced by some percent. A generic conversion between the two.
    - Spano: I think that makes a lot more sense than making assumptions across the watershed.
    - Johnston: There are lumpers and splitters. On this one, I tend to agree with you. I think breaking out large monitored onsite systems will cause more trouble than its worth. Estimating what should be on the ground in 2025 will cause some headaches.
- Schepens: If you take large systems, you may know the number of homes, but you would need to subtract that number of homes away from the onsite septics.

- Montali: I would think the solution to the issue is making sure that there is a sewer service area boundary for large systems. If you have that, the process of estimating the number of septics and loads, will have those already taken out. There wouldn't be any need to offset them. If it turns out they give the same load to the Bay as individual systems, then you have to question the need to break them out.

Sewer and Septic Methodology for Phase 6 – *Quentin Stubbs, USGS*

Quentin provided a briefing on the options for identifying the populations on sewer versus septic systems in the Phase 6 Watershed Model and will solicit feedback from workgroup members.

Discussion:

- Brockenbrough: We have areas that had historically been septic but were connected to sewer. The last version of the Model didn't have those updates. Can we make sure they are in there?
    - Quentin Stubbs (USGS): Yes, if you have those updates, send them to us and the GIS team can work to make sure those are updated. A request was put out to localities about a year ago to provide updated information and I don't know where we are with aggregating that data.

ACTION: Quentin will send an inventory of the sewer and septic data the CBPO GIS team has received from the states and localities, so members may verify that they provided all of the most accurate information.

- Spano: This is if you do not have a service area?
    - Zhou: If we have a sewer service area map from a county, we will use that. But if no information is provided, we will need to estimate it. They will use the population density to estimate how large the sewer service area will be.
- Spano: It would occur to me that since you have all the significant wastewater treatment plants (WWTP), that you should do some comparison with those so that the information is linked with plants.
    - Stubbs: Yes, that would be a component.
    - Zhou: We used to assign the loads and trace it back to federal facilities. But for WWTP, many federal facilities have been privatized, and the permits were transferred to the city. We just don't know if we still need to track this. If it is not important information, we need to update the way we track the information.
- Montali: I would agree with the proposed approach.
- Spano: You would keep the federal designation, but they wouldn't be accountable for it at the agency level?
- Brockenbrough: Looks good to me, most of our federal facilities are on central sewer.
- Spano: Any questions or can we support the recommendations?
    - No objections were raised.

DECISION: The WWTWG approved the proposed approach for estimating sewer and septic splits on federal facilities.

- Montali: For the period of review, will you be able to provide the end results of your approach, in GIS format to the states so that in 2016, they can see if it works for them? I assume these GIS coverages will be at various points in time because it has to be done for the whole history correct?

    - Stubbs: Correct. There are some chances that the data they send may not be applicable, or is missing a component that makes it not useful to the Model, and we are working on a way to document that.
- Spano: Questions or can we endorse the recommended approach?
    - No objections were raised.

DECISION: The WWTWG approved the proposed approach for estimating populations on sewer versus septic on lands where no other data was available. The WWTWG would like to recognize the opportunity to review and revise over the coming year of Phase 6 Watershed Model development.

Onsite Systems Attenuation Panel Update – *Vic D'Amato, Tetra Tech*

Vic provided a brief update on the current status of the panel as they work to finalize their recommendations. The full report will be brought before the workgroup in September.

Discussion:
There were no questions or comments on the presentation.

Boat Pump-Out Task Force – *Ning Zhou, Coordinator*

Ning reviewed the draft membership and statement of work for the task force, and asked workgroup members for any feedback before the proposal is forwarded to the WQGIT.

Discussion:
- Spano: I noticed one grammatical error in opening paragraph.
- Zhou: The format of the SOW is consistent with standard SOW's we use at CBPO.
- Zhou: Panel members have not yet been finalized. Several members have been confirmed from Virginia and Maryland, but we are awaiting confirmation from other states. We will have a representative from EPA Region 3 No Discharge Zone program, and from the CBP modeling team (likely Matt Johnston of Jeff Sweeney).

ACTION: Any WWTWG members who wish to serve on task force or want to recommend others from your state, please contact Ning Zhou or David Wood (CRC).

- Montali: The "by October 1" item on the schedule seems like a stretch. Also, I'd recommend that the March 1 deadline should be split to state that a report should be submitted by February 1 and that approval must be obtained by April 1.
- John Paine (AECOM): This is getting very tied into the details of the Model. Please specifically state when the practice is available for reporting by the jurisdictions.
    - Montali: You won't be able to submit it for progress reporting until a final report is approved. The provisional recommendation is to the modeling team to build into the calibration
- Paine: Once these recommendations are in place, would they still be submitting as a direct reduction?
    - Zhou: That will be determined by the task force. If states want to track this annually, there will be monitoring data. If it is not a significant reduction, one time monitoring may be sufficient.
- Montali: Because this is for Phase 6, the first time this practice could be reported for progress is the 2018 year, but planning can begin with this practice once the report is approved.

ACTION: David will make the requested changes to the SOW to correct the typo, adjust the schedule, and clarify language about when the practice can be reported for progress by jurisdictions.

- Spano: Any other comments or concerns with SOW, is it endorsed?

DECISION: The WWTWG approved the proposed SOW for the Boat Pump-out Task Force pending inclusion of the requested edits.

- Spano: If we only have the confirmed members, can we live with the four person task force plus a modeling representative and an EPA R3 regulatory representative?

DECISION: The WWTWG conditionally approved the proposed membership of the task force, but recognized a desire to increase the size and representation of the group.

Adjourn

Next conference call:
September 1, 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
John Paine	AECOM
Dave Schepens	DE DNREC
Greg Busch	MDE
Marya Levelev	MDE
Quentin Stubbs	USGS
Vic D'Amato	Tetra Tech
Sue Kreibel	City of Virginia Beach
Matt Johnston	UMD, CBPO
Marcia Degen	Virginia Dept. Of Health
Allan Brockenbrough	Virginia DEQ
Dave Montali	WV DEP