



## DRAFT CALL SUMMARY

### Wastewater Treatment Workgroup (WWTWG) Teleconference

Tuesday, March 6, 2018, 10:00 AM – 12:00 PM

Calendar Page: [Link](#)

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#### **Summary of Actions and Decisions:**

**Action:** The WWTWG will provide comments on the draft February call summary by next Friday, March 16. The updated draft minutes will be presented for final approval at the April 3, 2018 WWTWG conference call.

#### **Actions:**

1. The WWTWG will review the preliminary forecast analysis, identify any concerns with the current approach, and provide feedback on the proposed default methodology to Ning Zhou by COB, Thursday, March 15. WWTWG members providing feedback to Ning Zhou should also copy Tanya Spano ([tspano@mwcog.org](mailto:tspano@mwcog.org)) and Michelle Williams ([williams.michelle@epa.gov](mailto:williams.michelle@epa.gov)).
2. The WWTWG will also be asked to agree on a process and schedule for submitting actual local wastewater flow/load Year 2025 data – where available; and decide whether there is a need for this projection from other groups in the Partnership, and perhaps devise a simplified approach.
3. The WWTWG will then be asked to approve use of the actual data or the default forecasted wastewater results at the April 3<sup>rd</sup> WWTWG conference call.

**Action:** Discussion of optimization needs and suggestions for nonpoint source wastewater practices will be considered for a future WWTWG conference call. This discussion would include identifying opportunities to innovate for the future and future directions for the wastewater sector.

10:00 AM      **Welcome, Introductions, and Announcements** —Tanya Spano (Chair)

**Action item:** Approval of February minutes.

**Action:** The WWTWG will provide comments on the draft February call summary by next Friday, March 16. The updated draft minutes will be presented for final approval at the April 3, 2018 WWTWG conference call.

10:10 AM      **2025 Forecasted Conditions for Wastewater Loads** – Ning Zhou, consultant

Ning presented preliminary CBP work to develop a standardized methodology for forecasting wastewater flows and loads, including septic and municipal WWTP loads, to reflect 2025 expected conditions. Where existing local 2025 projection data is not available, this forecast method is intended to provide default wastewater flows and loads that will be available to the jurisdictions via CAST and to inform their baseline 2025 conditions and aid in the development of their Phase III WIPs.

**Actions Requested:**

1. The WWTWG will review the preliminary forecast analysis, identify any concerns with the current approach, and provide feedback on the proposed default methodology to Ning Zhou by COB, Thursday, March 15.
2. The WWTWG will also be asked to agree on a process and schedule for submitting actual local wastewater flow/load Year 2025 data – where available; and
3. The WWTWG will then be asked to approve use of the actual data or the default forecasted wastewater results at the April 3<sup>rd</sup> WWTWG conference call.

*Discussion:*

- Tanya Spano: We will just be reviewing this data this month and hopefully will approve at our April conference call.
- Ning provided an overview of the draft data, using the simple approach that was presented at the last conference call. Using 2016 average concentrations, 5-year average for flows (2012-2016), and population estimates based on growth factors and county population estimates. This included gathering plant information from WIP IIs, and removing plants that have been retired since listing in WIP IIs. Divided into sig and non-sig, and industrial vs municipal
- Marya Lelevel: Can you give a link to the GIS data that was used in getting this data so that we can do QA/QC in MD? We are interested in how the population estimates were calculated.
  - Ning Zhou: I and Peter can give you more detail on that.
  - Lelevel: Can you give a list of facilities that were deleted from this spreadsheet because they were closed?

**Action:** Ning Zhou and Peter Claggett will provide an updated link to available GIS data used for the 2025 wastewater forecast analysis, as well as an update to the provided data table to indicate closed facilities that were excluded from the analysis.

- Mohsin Siddique: I'm concerned that growth is the same for DC and the suburbs. Can we talk about that?
  - Zhou: Yes. This is a first cut and needs a lot of input to improve the projections.
- Claggett: The GIS approach included taking the discharge points and associating them with the SSAs. We have 30 m resolution rasters of housing and employment developed from the 2010 census. We divided these rasters into polygons that we used to estimate population and employment by polygon. From there we can estimate which points in the polygon—points equal plants—service that polygon. We used the Partnership-approved CBCLM to overlay over the SSAs for 101 runs to estimate the growth in housing and employment for each SSA per plant. The original dataset that Ning had contained 3900 points. Using the 2012 clean water needs survey (EPA), the points could be reduced to 660 or so. That raised questions about why all the additional plants were not included in that survey. The association between the points and the polygons was 559 points within 1 miles of a polygon. The remaining plants had very small flows. Moving forward with the analysis requires cleaning up the data and identifying what these really-small points are—are they really wastewater facilities, or are they ground injection sites or septic systems? This point association analysis currently is very problematic.
- Claggett: The SSAs are spatially disconnected polygons in many cases, after apportioning the housing and employment by flow. Many of these polygons have no discharge points, which is necessary to do this analysis for the areas served.

- Dave Montali: This data is limited in WV—we report non-significant plants only by design load, not based on monitoring data—reported every year at WIP II levels. With significant plants, the association with polygons is more easily accommodated in WV.
- Will Hunley: A lot of the plants aren't represented for growth factors. What growth factors are assumed in those cases?
  - Zhou: We used county projections where we did not have growth factors.
  - Hunley: In large regional facilities, the polygon approach might not be viable because the flows are sent back and forth between larger facilities.
- Levelv: The clean water needs survey only identified facilities that had needs. It's possible that the survey did not include facilities that did not have needs.
- Spano: for COG, I want to stress the spatial coverage of where local data exists. The CBP does not need to create a local flow method—that's something that states and local governments should be providing. For any states that need this coverage, feel free to speak up. COG has better data than CBP does that we'd rather use, and a lot of our pressures are not geographically driven. There is also a difference between projecting for planning purposes vs projecting for projection purposes. I think the base years here are very critical assumptions that will be less useful going forward. We think we have better data and we will use that in lieu of CBP-provided data for all of our projections.
  - Zhou: We use state submitted data as a first choice, and if nothing is available, we estimate. For this, we also used all the state and local data that we could find. If you have better data we would definitely want to include that.
  - Spano: For areas like MD/DC/VA shared plants, we would also want to check if there are discrepancies reported for shared plants among the states.
- Will Hunley: I second the need to use the local data first. For the lower James, it looks like the data here for 2025 are way off. You may be using the TMDL numbers instead of the WIP II numbers that we would like to use.
- Levelv: No comments now, we will have to discuss internally with MDE.
- Spano: I have a question about the physical features of these facilities. How accurate do we need to be here? The plants are reporting on WW progress, and those are associated with the land river segments. Why do we need additional specificity beyond what's already available.
  - Claggett: This came out of our benchmark LU scenarios, including no action and growth management, and there is a discrepancy between what the 2025 growth projections show for land use vs what's available in the watershed model for future scenarios. We don't want the partners to think that they can just shift all the extra load to WW and have no consequences for loading to the bay. We wanted to build in that capacity to show the effects of growth or no growth.
- Spano: if WW plants are bound by the TMDL loads with caps in their permits and they can't exceed those caps, then does it matter if those load caps won't be reached until 2045-2050? How much of a concern is this for the states in drafting your WIPs?
  - Allan Brockenbrough: We would like an accurate projection for VA.
  - Montali: This isn't a big deal for us 7 years out. There are caps and we won't be doing anything differently, since our loads are under the caps. I don't know that this approach is going to get us what we want. This might be an issue when we get to the 2040s and 2050s, but we would expect some new tech to allow us to keep the loads flat.
  - Levelv: MD has pretty good data already for our WIPs. We would like to see links to this database to evaluate whether this projection matches what we have estimates for.
  - George Mwangi: I don't see an extreme need for this in DE but I will need to confirm with our WIP team in DE.

- Maria Schumack: I will have to check back with the PA WIP team but don't currently see any need for this data.
- Spano: I also don't see this as a need for DC—they know what's happening and they don't intend to change any load allocations. There seems to be a disconnect with what the LUWG wants and what is actually needed at the state level. We will have to coordinate with the LUWG to clarify that ask.
- Hunley: I think we should delay this because we're not sure about the end value of this process, and this is a large workload for us.
- Spano: we can defer this pending further discussion and come back to this discussion at the next call. There is an ask from some folks for this information, so we want to make sure what is actually being asked for and what will be delivered.

**Actions:**

4. The WWTWG will review the preliminary forecast analysis, identify any concerns with the current approach, and provide feedback on the proposed default methodology to Ning Zhou by COB, Thursday, March 15. WWTWG members providing feedback to Ning Zhou should also copy Tanya Spano ([tspano@mwecog.org](mailto:tspano@mwecog.org)) and Michelle Williams ([williams.michelle@epa.gov](mailto:williams.michelle@epa.gov)).
5. The WWTWG will also be asked to agree on a process and schedule for submitting actual local wastewater flow/load Year 2025 data – where available; and decide whether there is a need for this projection from other groups in the Partnership, and perhaps devise a simplified approach.
6. The WWTWG will then be asked to approve use of the actual data or the default forecasted wastewater results at the April 3<sup>rd</sup> WWTWG conference call.

11:00 AM      **Scenario Optimization Tool for CAST** – Daniel Kaufman, CRC

Danny gave an overview of the development of an optimization tool for scenarios run in Phase 6 CAST. The initial development will be described, as well as the major developmental steps anticipated for final development. In addition, a discussion will consider an exploration of the options available to the CBP partnership in order to best serve decision making at all scales from the state-basin to local levels.

**Feedback Requested:** The WWTWG will be asked to identify any specific features that should be included in the development of this tool in order to appropriately characterize wastewater optimization issues/options.

*Discussion:*

- Danny Kaufman: In the interim while the CAST optimization is developed, the WWTWG and other groups might also be interested in using tools like WMOST for interim optimization needs.
- Spano: I want the members to be able to give feedback on the kinds of things that this tool might need to account for from the WW perspective. I mentioned at the last WQGIT meeting that optimization as a tool for WW doesn't feel intuitive. The way I think about optimization is more of a conceptual process, and regional considerations, which practices are best for WW vs septic, etc., implications of new technologies. It doesn't strike me that a spreadsheet approach is enough to capture all the decisions that have to be made in the WW sector.
- Kaufman: have the WWTWG members been using CAST in that way? If so, we can work on how WW can be viewed, modeled and accessed in CAST. If you see this changing the way you use CAST I would be interested in that feedback as well.

- Zhou: WWTPs might not be a part of this, but other practices like septic practices, biosolids, spray irrigations—those would include optimization considerations. And we have seen that biosolids and rapid infiltration have benefits for phosphorus and other co-benefits for soil health.
- Spano: I'd like to key this up for discussion at a future meeting. I think some of the suggestions that Ning has should be queued for a future meeting where we can discuss where we think WW is going in the next few years. There is an opportunity to innovate for the future and we can have some discussions of how to plan for that. We can have that discussion at a future call, next month or later in the spring.
- Kaufman: There is no immediacy for feedback. There is a lot of interest throughout the Bay Program, and I will be investing full effort ahead to do this. There is an option to build this tool to allow you to look at alternative scenarios, and compare implications of those alternative scenarios.
- Tanya: We might want to consider that, and also for a face to face meeting this following spring or early summer—that could be a topic of discussion.

**Action:** Discussion of optimization needs and suggestions for nonpoint source wastewater practices will be considered for a future WWTWG conference call. This discussion would include identifying opportunities to innovate for the future and future directions for the wastewater sector.

11:40 AM      **Updates & Topics for Next/April 3<sup>rd</sup> WWTWG Call**

- Review of Wastewater Hockey Stick Assumptions
- Finalizing documentation of 2010 No-Action & E3 Decision Rules
- Recommendation to the WQGIT to approve the SSO and bypass flows/loads for incorporation into a future watershed model
- State updates on wastewater aspects of Phase III WIP developments
- WWTWG Vice Chair – Calling for nominations
- Other WWTWG topics?

*Discussion*

- Will Hunley: For the hockey stick issue, I'm interested to see what the actual loads were that came out of the relative effectiveness approach, and how they were aggregated and calculated.
- Spano: We can make a note to look at the assumptions and data that went into the hockey stick approach.
- Zhou: The 2017 progress runs were just released in draft form. The progress data is handled by Suchith. The summary is different than what I have done in that past. We can discuss that at an upcoming call and I am available to help answer any questions about that data and address issues.

11:45 AM      **Adjourned**

**Next conference call:**

Tuesday, April 3, 2018 (10:00 am to 12:00 pm)

Call Participants

Tanya Spano, MWCOG  
Michelle Williams, CRC

Rashid Ahmed, NYS DEC  
Maria Schumack, PA DEP  
Meghan Browning, WV DEP  
Mincy Ramsey, WV DEP  
Dave Montali, TetraTech  
Marya Levelev, MDE  
Yen-der Chang, MDE  
Jack Hayes, DNREC  
Allan Brockenbrough, VA DEQ  
Matt Richardson, VA DEQ  
Will Hunley, HRSD  
Mohsin Siddique, DC Water  
Joel Blanco, EPA R3  
Lana Sindler, MW COG  
Nasser Ameen, MWCOG  
Mukhtar Ibrahim, MWCOG  
Peter Claggett, USGS  
George Mwangi, DNREC  
Danny Kaufman, CRC  
Ning Zhou, Consultant