



Clean Water Goal Team (CWGT)

Monday, September 28th – Tuesday, September 29th, 2026

[Visit the meeting webpage for meeting materials and additional information.](#)

Purpose: This was the second hybrid meeting of the Clean Water Goal Team (CWGT). The meeting covered the below primary focuses, with several key decisions.

- Day One: Phase 7 Decisions
- Day Two: Management Strategies and Workgroup Workplans

Day 1: Phase 7 Decisions

Monday, September 28th | 10:00AM – 5:00 PM

I. Introductions and Announcements

Lead: Lee McDonnell and Greg Sandi, CWGT Co-Chairs

CWGT Chairs welcomed meeting participants and gave an overview of the two-day agenda and objectives. They also shared brief introductions of new members, shared ground rules to make the most of the hybrid meeting, and provided clarifications on recent Governance and Structure updates to ensure a shared understanding from all participants.

Materials: [Day 1 Introductory Slides](#)

Discussion:

- Dave Montali, Tetra Tech asked about the nuances of non-voting members on workgroups. Is it right to think that when something is being discussed that anyone in the meeting should express consent, or just the voting member?
 - Lee McDonnell responded that for all of the workgroups, it's only voting members that would be involved in decision-making. There are no designated non-voting members on workgroups within CWGT.

II. Interactive Kickoff Activity

Lead: Jeremy Hanson, CWGT Coordinator

Jeremy led the group through an interactive activity to practice a mock decision-making process as outlined in the new Governance and Management Framework.

III. Land Use Change Model

Lead: Peter Claggett, USGS

Peter presented an update on the Chesapeake Bay Land Change Model (CBLCM) forecasts used for simulating future development for the Phase 7 model. Peter gave an overview of the purpose of the CBLCM, the review process, and key changes from the land use change model in Phase 6.

CWGT was originally asked to approve this during the meeting, but due to a delay in the solar forecast's final run, LUWG and USWG could not call a vote to approve the CBLCM at the Sept 23rd meeting. LUWG and USWG will request a vote via email by October 9th for this approval and the CWGT will do so afterwards. LUWG is also having ongoing discussions about the inclusion of proposed data centers in the CBLCM and will update the Goal Team if they choose to call a vote or there is additional action needed.

Materials: [Presentation](#), [Map Viewer](#) (with latest FAQ linked in top right corner)

Actions:

1. CWGT members will be asked to vote via email by October 16th to approve the final land use forecast in the Chesapeake Bay Land Change Model (CBLCM) for the “Business as Usual” scenario for Phase 7. A request will be sent on October 13th following the receipt of LUWG and USWG approvals.
 - a. **Post-meeting update:** CWGT Leadership decided to hold this decision at the October 26th CWGT meeting instead of a vote by email.

Discussion:

- Amanda Shaver asked if the proposed number for data centers is built into the model.
 - Peter responded data centers were researched, but the LUWG is still in discussions on how to incorporate them. Peter's personal opinion is that the partnership should consider them, but not necessarily include them in the Phase 7 land use change model business as usual scenario.
- Erik Michelsen noted the model is built based on where patterns are anticipated. It seems if you've got the access to the zoning, that that's going to be probably more accurate reflection of where that development will occur.
 - Peter responded for Phase 6 we looked into using zoning data. Only Maryland had generalized zoning data and we incorporated that into the baseline scenario. There is a paper cited where we looked at the trend scenario with and without zoning. The scenario without zoning was more accurate. It is also a big lift to collect zoning data where it exists, and there are different levels of enforcement across jurisdictions. So, for this time we decided to leave it out of the baseline, but jurisdictions can ask to use it for developing alternate scenarios for Policy BMPs.
- Suzanne Trevena asked if there is a trend where we're seeing overlap of solar with urban (e.g. panels in parking lots).
 - Peter responded what we're simulating is only ground-based solar fields that are 1 megawatt or bigger. Not rooftop or canopy (like in parking lots).
- KC Filippino commented when the data center issue came up at the last office hours, her understanding was the data is poor and unpredictable due to changing landscapes, potential moratoriums and localities making their own decisions.
 - Peter responded that's kind of why he would suggest not to include them.
 - Peter confirmed that a separate scenario could be developed to look at data centers, if the partnership decides they wanted to do so.

- Erik Michelsen noted many MD jurisdictions have highly ground-truthed surface data for impervious cover. It might be valuable to crosscheck your data with local datasets that are probably more refined.
 - Peter responded what they're using now is 1-meter land use data, which is really good. It's a tight fit for residential parcels, but commercial is less of a good fit. We're open to using any data to ground-truth and evaluate.
- Lew Linker asked about projections beyond 2040 for population, considering a potential inflection point – is it adjusted in the future, or do we extrapolate out in a linear way for human populations?
 - Peter responded that the demographic cohort component analyses go to 2050/2055. Beyond that, we are extrapolating county by county kind of linearly through time. We're not going to fully capture that potential inflection point.
- Olivia Martin asked where data centers are in the land use.
 - Peter responded they are classified as structures and are lumped together in Impervious Non-roads with other structures.
- Amanda Barber asked (in chat): Is this data specific to the CB watershed or New York as a whole?
 - Peter responded the simulated domain is the 205 counties within and adjacent to the watershed. We were simulating the full state of NY and the mid-Atlantic, but for time and ability-sake we only have adjacent counties.
- Cindy Dybala (in chat): So solar is a land use change, that is why it is important?
- Cindy Dybala (in chat): Data centers seem important to me b/c together they are a significant land use and impervious land use change in addition to other commercial development.
 - Peter responded it's not clear that the employment projections that drive commercial growth that are used in the model included growth associated with data centers or not. We may be double counting if we consider them additionally. We do include data centers in the high-res land use. My team has told me that just because some data exists for some specific subset of development, doesn't mean we should automatically parse them out and include them in this forecast.
 - Cindy responded that in the climate arena for modeling and data collection, the speed at which data centers are being adopted dwarfs any of the inputs to the models. In other situations, the data isn't keeping up with the pace of this one big change.
 - Peter responded that the LUWG has considered there are many things to be done to better track and understand data center growth (e.g. a STAC workshop, assistance to localities to navigate data center development, etc.). I just want to clarify the role of the 2040 land use and implications if data centers are involved there.
- Jackie Pickford (in chat): The LUWG will be making a decision on whether to "burn in" the data center footprint for the "Business As Usual" scenario or allow them to be mapped by the high-res land use/land cover in the 2025/2026 update. We'll be sending a notification to the LUWG today or tomorrow about this, and we plan to notify the CWGT of the decision results once we hear from everyone.
 - Peter added that we're mapping the watershed again with 2025/2026 imagery. If there's an update to CAST after 2029 then all the data centers up to 2026 would be in CAST in that update. Having a more frequent update to CAST would be one means of keeping up to speed better with these land use change phenomenon outside of the CBLCM.

IV. Break

V. E3 Scenario Sector Inputs

Lead: Auston Smith; Workgroup Representatives; Greg Sandi, CWGT Co-Chair

The CWGT heard updates since the August CWGT meeting from sector workgroups on their recommendations for inputs to the E3 scenario for the Phase 7 model. Two small updates included a change to Abandoned Mine Reclamation (decision below) and Private Oyster Aquaculture.

Concerns were raised that the TN and TP Concentrations from Significant and Non-significant Plants in the wastewater scenario, which were unchanged from Phase 6, were not low enough. The WWTWG rationale was that even if lower concentrations are possible at specific plants, they are not widely achievable due to physical limitations. Continued concerns were raised that any perceived regulatory implication of E3 should not be considered. There was a Stop/1 shared when seeking consensus and the discussion and decision was pushed to Day 2.

Extensive discussion occurred on the input assumptions for certain forestry/agriculture Land Use Change (LUC) BMPs. Forestry Workgroup and Agriculture Workgroup presented their differing recommendations for forest buffers, grass buffers, tree planting and agroforestry and highlighted additional LUC BMPs that affect ag land conversion rate, which AgWG previously agreed to cap at 15%. An alternate option was also walked through, which was developed by CWGT leadership that keeps the FWG proposal for all the ag BMPs but reduces the acreage of some of the other ag LUC BMPs that don't deliver as much of a load in order to stick to the 15% LUC cap. A pulse check vote on which recommendation was preferred yielded no consensus, so the discussion was pushed to Day 2.

See Day 2 agenda item for continued notes and decisions.

Materials: [Presentation \(original\)](#), [Presentation \(edited after Day 1 discussion\)](#), [Ag/Forestry Recommendation Comparison Memo](#)

Decisions:

1. CWGT approved via consent removing the AMR BMP recommendation from the developed sector E3 inputs.

Actions:

1. WWTWG Leadership will put together a document compiling the flows from jurisdictions' WIPs, as referenced in the E3 scenario, for further reference.

Discussion:

- Urban Stormwater
 - Dave Montali suggested a possibility to not include Abandoned Mine Reclamation (AMR) in the E3 scenario at all given there isn't much Abandoned Mine Land left that isn't forested over, in addition to other considerations about the lack of these lands in multiple jurisdictions.
 - Suzanne Trevena asked for confirmation that if it goes away from the E3 scenario, states can still report it as a BMP. Lee confirmed.

- Holly Walker responded that, as Dave pointed out, Delaware doesn't have any Abandoned Mine Land, so she is concerned with applying AMR to any lands in Delaware since they don't have any.
 - Erik Michelsen added that hearing Dave say it's hard to justify having it in the model, and taking from Peter's presentation earlier about special carve outs being complicated, he would support the case for removing it entirely.
 - Rosa Hance (in chat): Can you explain the tree canopy changes in red?
 - David Wood responded these are all increases in extent for tree canopy expansion. The tree canopy expansion BMP was new. USWG adopted recommendations of the FWG here.
 - Amanda Barber (in chat): What is the basis for only 70% shoreline protected?
 - David Wood (in chat): For shoreline: The VIMS shoreline management model was used, which estimates that 82.5% of shoreline ft would be suitable for living shoreline. This was adjusted downward to 70% following USWG member feedback and based on data from VIMS on shoreline erosion rates in Virginia which found that 80% of shorelines measured were eroding at a rate of >0 ft per year, but only 30% were eroding at a rate of >1 ft per year.
 - Greg Sandi asked for any stops or holds on the urban stormwater scenario. None were shared.
- Wastewater
 - Lee McDonnell asked for further detail on how flows are being used in different jurisdictions' WIPs, as is referenced in the E3 scenario.
 - Jamie responded that the WWTWG can create a document that pulls together all of them into one document to be referenced. Noting it would apply to Ph III WIPs, so if they change then this would need an update.
 - Olivia Martin asked for a reminder on why exfiltration was not included.
 - Jamie responded that the group talked about this a lot, but we couldn't determine what was achievable since this is new. Time for people to implement practices and then be able to identify what an E3 would look like for that was necessary.
 - Olivia Martin asked why the concentrations for significant and non-significant plants were kept the same from Phase 6.
 - Jamie responded that the concentrations remain the active definition of Limit of Technology (LOT). High performing facilities have site specific conditions that help them get lower. However, we're looking at what is achievable across WWTPs across the watershed that are actually broadly applicable.
 - Erik Michelsen noted examples in Maryland where innovative funding mechanisms and practices were able to lower concentrations.
 - Jamie noted Virginia had a similar pilot program. It was successful for those that could take advantage, but was not broadly applicable.
 - A suggestion to lower these concentrations for the E3 scenario was raised and ample discussion occurred on the ability to meet lower concentrations and the nature of what E3 is supposed to be.
 - Multiple people shared concern that that level of performance is not widely achievable. The physical limitations of sites, including temperature, were reiterated. It's difficult to make these achievable across the entire watershed, even with the fullest possible extent.

- Additional concerns were shared that while E3 is theoretical, there is closer association with a regulatory paradigm and NPDES permits within the wastewater sector. Setting a lower concentration might disincentivize jurisdictions that are trying to implement these innovative practices.
- Others noted that E3 is hypothetical and should lead us to the maximum controllable load available to us. The potential for regulatory decisions should not be a decision-making end point for the E3 scenario. This is supposed to include anything that is possible. We need to separate out the exercises of E3, Planning Targets and WIPs.
- Dave Montali noted we're not changing E3 from Phase 6 in this recommendation. Most of the states are implementing their WIPs. The limits in the permits are well above what we're calling E3. In order to determine a lower concentration for this, you'd likely have to determine the % of WWTPs that are achieving lower concentrations and incorporate monitoring data. I don't know that we could quantify it.
- Marel King suggested there could be a LOT+ for collective or individual plans to acknowledge the extra potential to achieve something better when the funding is available to do something.
- It was suggested to add a percentage of permits to meet a lower concentration to capture the ability for some to operate at lower concentrations (i.e. set x% of facilities at x mg/L and the other portion remaining at the currently proposed concentration).
 - Concerns were raised that that strays into regulation and singles out specific facilities or jurisdictions.
 - Additional concerns were raised that data would need to be collected for this. We can't just pick a number out of thin air.
- Rosa Hanse (in chat): We haven't verified that each stream restoration is performing up to the 50% reduction for the E3 scenario in the last presentation... so why would we allow for individual facility variation for wastewater?
- Joe Wood (in chat): I think this exercise is intended to force us to imagine what is possible on wastewater; and I think that is what the other sectors are asked to do. I don't see that process captured here. "The E3 Scenario estimates the fullest possible extent of management practice implementation".
- Lisa Blazure asked for clarification on the septic system recommendations.
 - Jamie responded we updated this based on the [2018 expert panel report](#) that included higher potential efficiencies for systems. It was 69% before.
 - Lisa asked for clarification on which percentages apply to new systems, existing systems or all systems.
 - Jamie clarified the percentages refer to nitrogen reductions not percentage of systems.
 - Alex Gunnerson clarified (in chat): Wanted to clarify the response to septic question earlier today: the 75% TN efficiency would be applied to all septic systems, not just new systems. This is consistent with what was done in P6.
- Greg Sandi asked for any stops or holds on the wastewater scenario.
 - Joe Wood (in chat): I'm a 1 for now. I don't see why the limiting standard for what 'everyone could do' ; Why is it not the best everyone can do? Yes there are limiting factors in some places, but those also don't apply

everywhere; and to the point we need the data- I agree the data would be helpful but as of right now we are asserting no one can go beyond those limits.

- Joe Wood added that he has concerns with the wastewater scenario and whether it's a true E3 scenario. The conversations around regulations following this doesn't feel appropriate for this process. It's not so much the number that bothers him, but the context.
- Alex Gunnerson (in chat): Joe, you may find [these minutes](#) from the WWTWG during Phase 6 E3 discussions to be useful context as you consider the question of how insignificant facilities should be treated in Phase 7 E3, particularly the comment on page 2 from NYSDEC.
- The discussion and decision was pushed to Day 2.
- Oysters
 - Olivia Martin asked about the units in the scenario since some practices are written in acres and some in number of oysters.
 - Olivia Caretti responded that it has to do with how these practices are being managed and reported. For the two restoration BMPs, the practice deploys oysters or substrate over acreage over the bay bottom, so the acres translate to an increase in oyster biomass. However, for the harvest and aquaculture BMPs, the practices are putting oysters in the water and then they're being removed. Those are reported on a per bushel basis because the nutrients are being assimilated in the individual oyster.
- Forestry/Agriculture
 - Eric Hughes shared additional context on what was done previous phases and included documents to reference in response to questions received at the Sept 15th CWGT Office Hours: [8/28/17 WQGIT call summary](#) listing decision to approve Ag E3 Scenario; Row 33 of the associated [P6 ag E3 scenario spreadsheet](#): "Total land use change not to exceed 15%"; [8/10/09 WQGIT call summary](#); [TMDL Appendix J](#).
 - Amanda Barber (in chat): Farm viability is an important factor. NRCS RFB buffer minimum width is 35 ft.
 - Agroforestry
 - KC Filippino asked why agroforestry practices were zero in the AgWG Proposal.
 - Eric Hughes responded that this was a new BMP for Phase 7 and in AgWG discussions it was determined that the planting of trees would be captured in the tree planting BMP and not the agroforestry BMP.
 - Elizabeth Hoffman (in chat): Tree planting was treated as a proxy for capturing agroforestry via AgWG.
 - Erik Michelsen asked why agroforestry isn't in the sum of Land Use Change (LUC) BMPs.
 - Katie Brownson responded that it is not a LUC BMP, it's an efficiency BMP.
 - Elizabeth Hoffman added that it was done that way since it doesn't take land out of ag production and so it can stack with other practices on that land.
 - Erik responded that it seems that number could be higher then.

- KC Filippino asked why when you're comparing the two proposals in the additional LUC BMPs that affect conversion rate, it says matches proposal but has different numbers.
 - Eric Hughes responded there are a series of calculations with an order of operations, which are outlined in the [memo](#). So, if we have a BMP that is earlier in that order implemented at a greater rate, then the total number of "available acres" decreases.
- Buffer Width
 - Lisa Blazure noted she is leaning towards the AgWG recommendation - What I struggle with is the 30m FWG proposal. For a lot of farms with animals, their pasture is along streams for water and shade reasons. If we don't have a reduction in animal numbers too, then we're concentrating animals in a smaller space and we'd have enhanced nutrient concentrations in those areas. I am surprised to hear the reporting of 100 acre buffers is considered a typical response.
 - Katie Brownson responded that the riparian buffer BMP is credited out to 300 ft and states do report out more than 100 ft. We are crediting buffers bigger than 100 ft, so 100 ft is the average.
 - Elizabeth Hoffman noted that not all states are able to report to that level of specificity, so she's not sure that we can make assumptions on the width for all the reported data.
 - Lisa Blazure commented that there needs to be some consistency across sectors, noting that the urban E3 had a 30ft buffer and 80/20 split for forest/grass.
 - Katie Brownson responded that that the physical limitations that are allowed to be considered are physically there in urban, but not as clear in Ag.
 - Eric Hughes responded that the definition of E3 states "few physical limitations," but that is not well defined. At what point are we considering something a physical limitation?
 - Dave Montali noted that the credit in the model is for a 35 ft buffer, so the AgWG proposal is going beyond that to ~60 ft. I think we still need to have ag land, we can't have loss of all ag land.
- Olivia Martin asked why there is any forest/grass buffer split and it isn't all forest buffer, given that E3 dictates going with the most effective BMPs within a category.
 - Eric Hughes responded that there are physical limitations like saltwater intrusion, wetlands, utility rights of way, etc. that sometimes prevent forest buffers from being planted. So, grass buffers would be the highest efficiency BMP possible there.
 - Katie Brownson added that FWG started at 100% forest buffers and we thought the AgWG's proposal did consider some legitimate limitations, so we reduced our proposal.
 - Joe Wood (in chat): Were those limitations on forested buffers quantified? or just a best estimate? I don't think loss of ag land is a physical limitation.
- Amanda Barber (in chat): Like wastewater experts are best able to set E3 scenarios for WWTP, I think the ag sector is best able to determine ag land conversion assumptions. Agreed 100' buffers are a hard sell on pasture and almost never applied to cropland in NY.

- Multiple people noted that this set of practices has to be coupled with and put in the context of the rest of the ag practices.
 - The other ag and forestry practices were presented and there were no questions or comments.
- Multiple people noted the lack of a consistent understanding of the definition of E3 and “Physical Limitations”.
 - Joe Wood (in chat): When it comes to picking a number, I don't feel qualified to determine which of these are sufficient, but I do think we need some consistency around what are 'physical limitations' and what constitutes a 'few'.
- Alternate Scenario
 - Lisa Blazure asked why an alternative wasn't developed for the buffer percentage and width since that seems to be the issue with most disagreement. Others agreed an alternative should include compromises on buffers and the other practices listed on the first slide.
 - Erik Michelsen reiterated concerns on the agroforestry scenario, recommending that any alternate proposal should strike the agroforestry altogether.
 - The 15% LUC cap was discussed, noting it was a decision made prior to 2017 by the WQGIT at the time. It was proposed that this decision could be revisited by the CWGT.
 - It was noted that a reservation like this was not set for any other sectors.
 - It was noted that the 15% cap was not just to ensure there wasn't too much loss of productive ag land, but also to ensure enough acres existed for applying BMPs.
 - Amanda Barber (in chat): 14.3% seems close enough to 15% without going over. Do these percentages take into account progress to date? Conversion has already occurred.
- KC Filippino asked about the magnitude of this issue. How big of a difference in load between the recommended scenarios is there?
 - Olivia Martin suggested Peter Tango could be part of the answer to that question in terms of the water quality standards.
 - Dave Montali responded that most aspects are probably not a huge difference, but the buffers likely have the most impact on loads. He proposed a 25m buffer width as a compromise in the middle.
- Katie Brownson noted both the AgWG and FWG recommendations are less than the Phase 6 E3 scenario for buffers.
- Olivia Martin raised concerns that if we don't have enough of a controllable load that we will be forced into use sustainability analysis, which would force us to change a designated use of the bay away from fishable and swimmable. Or, as was proposed at the Sept 15th office hours, E3 would have to be revisited.
 - Lee McDonnell confirmed the first step would be to revisit E3.
 - Peter Tango noted that this discussion is tweaking E3, which is just one end of the range for the controllable load. In all likelihood, the scenario determined to meet water quality standards will fall somewhere in the middle so there is likely a fair margin.
 - Suzanne Trevena asked whether we wouldn't know the answer to whether a scenario exists within the controllable load that meets water quality standards until the model is finalized.

- Lee McDonnell confirmed.
- Lew Linker added that we will likely have a sense before the model is finalized. In his opinion, all the recommended scenarios presented would likely achieve water quality standards.
- Lew Linker asked if we can't come to a decision then would the Phase 6 E3 be used? Lee McDonnell confirmed yes. Bo Williams noted that would not have agroforestry since it was new in Phase 7.
- Robert Sabo (in chat): Can we just run both scenarios and report the range of the model outputs for the E3 scenario?
- Lee McDonnell proposed that CWGT leadership would work on a revision to the alternate scenario to discuss on Day 2 and that the group come back to finalize the rest of the E3 scenario, including the wastewater recommendations then.
- KC Filippino asked, after the Hydrologic & Critical Period decision, whether that gives us more time on the E3 decision.
 - Lee McDonnell responded that just because we're extending that part of the timeline, he would still like to get the rest of the decision on E3 done tomorrow since that is needed for all of the partnership review. We want to be able to run scenarios as soon as we can.

VI. Decisional Item Flex Time

This time was used for continued discussion on E3 Scenario Sector Inputs.

VII. Lunch

VIII. Scenario Base Year

Lead: Auston Smith, EPA CBPO; Lee McDonnell, CWGT Co-Chair

Auston gave background information on the purpose of the scenario base year and how it is utilized. Lee McDonnell shared that based on a pulse check ahead of the meeting, CWGT members were leaning towards 2022A and he outlined further details on how that method would account for growth. Lee called for CWGT consent for "Does the CWGT support changing Scenario Base Year to 2022 and accounting for growth using method 2022A?" and votes were recorded.

Materials: [Presentation](#), [Handout](#)

Decisions:

1. CWGT approved via consent changing Scenario Base Year to 2022 and accounting for growth using method 2022A.

Discussion:

- Lisa Blazure asked: with the knowledge in this group, how much growth has happened in the WV and NY portions of the bay?
 - Lee responded there is not a lot. The main conversion is from ag land to a bit of developed. In NY, it's potentially some ag land ceasing.
 - Lisa asked for confirmation that it is not a big lift then to put that small amount of growth on the other jurisdictions.
 - Lee noted an example for NY with a fictitious comparison of 1985 vs 2010 where their lack of growth meant that what they could control decreased and they actually were penalized for not having any growth there, because they did not

- have availability for BMPs to be put on the ground, even though they're doing all other things right. So, there was a reason why they got a special consideration.
- Norm Goulet asked what the future looks like for those jurisdictions to 2050. A long-term of no growth and a long-term of growth are two different things.
 - Lee responded that if you look historically, there is a little bit of WV that has grown and the rest has not.
 - Dave Montali noted the model has 6/8 WV counties not growing. Only Berkeley and Jefferson County are growing.
 - Dave Montali shared: I don't like 2022b at all. The reason for special allocations for WV was not about growth. The issue is that WV and NY water quality is better than everywhere else and we have no economic benefit from the Bay, so moving away from the hockey stick made sense for us.
 - Lee responded that 2022B is kind of like we're acknowledging there's some kind of horse trading going on before we get to see the horses.
 - Dave responded: I'm in favor of sticking with 2010. We've improved our understanding of 2010 with an improved land use since then. Why go through all this trouble? To me, it's simpler to stick where we are.
 - Dave asked: What I don't understand is how did this all change when e.g. 65% of your growth happened at the expense of ag. I don't understand the impact of that to planning targets.
 - Lee responded that the bottom line is we need to account for growth in the areas where it occurred. Growth is a change in load, not just urbanization.
 - Erik Michelsen asked if the exercise of 2022 minus 2010 has to happen in either case to figure out what the growth load is.
 - Lee confirmed that for a base year of 2010 it would be accounted for and for a base year of 2022a then that becomes the new baseline with growth built in and accounted for. Just the landscape would look different in 2022a.
 - Lee reminded CWGT that the sole use for this is just running E3 and no action. This is not run for other things. We'd be using the 2040 land use change scenario for setting planning targets.
 - Erik responded that it will, however, call out specifically what that growth load is. I haven't seen that number pinned down in terms of discussions about progress before.
 - Lee responded that at this point we can't look at that number because we don't have a final P7 model. We will look at that.
 - Lisa Blazure asked, after the vote occurred, why non-voting members were included in this vote but not for the E3 vote.
 - Lee responded that the E3 vote had already moved on from not being able to achieve consensus among all members.
 - Jeremy Hanson noted this is the first time we're doing this and we'll continue to clarify and streamline the process as we go.
 - Lisa noted it was confusing and we should consult the Governance and Operations Team to help clarify things.

IX. Hydrologic and Critical Period

Lead: Robin Glas, USGS; Lee McDonnell, CWGT Co-Chair

Lee McDonnell reminded the CWGT on the analysis and prior discussions on the Hydrologic & Critical Period for the Phase 7 model. Based on a pulse check ahead of the meeting, CWGT members were leaning towards changing the Hydrologic Period to 1998-2007 and Critical Period

to 2004-2006. Robin Glas, who performed the analysis, responded to a concern that there were periods of drought and extreme wetness within the proposed periods. Lee called for CWGT consent for “Does the CWGT support changing the Hydrologic Period to 1998-2007 and Critical Period to 2004-2006?”

After the decision was completed, Lee outlined the initial understanding of delays to model development as a result of changing the hydrologic and critical periods. From initial discussions with modeling staff and STAC, Lee shared tentative options for how the model review process could be approached. CWGT members shared feedback and engaged in discussion, including questions about why the 1991-2000 hydrology still needed to be ran and reviewed, the capacity of STAC to conduct the review and how concurrent vs. separate reviews could work.

Materials: [Presentation](#), [Handout](#)

Decisions:

1. CWGT approved via consent changing the Hydrologic Period to 1998-2007 and Critical Period to 2004-2006.

Actions:

1. CWGT will continue to discuss the plan for the Phase 7 model review at the October CWGT meeting, with continued input from STAC on their review.

Discussion:

- Robert Sabo shared a vote of a 2, with a clarifying question/concern. In the 1999 to 2002 period, we had a multi-year drought and then 2003 and 2004 were extremely wet. So that just gave me a little bit of pause about shifting to that baseline that had some of those more anomalous flow years in terms of extreme drought to high flows.
 - Lee responded that within Robin’s analysis the hydrologic period is closest to the long-term average. The anomalies mentioned on Potomac flow in the critical period wouldn’t affect how we divide loads.
 - Robin showed the spread for individual basins for the hydrologic base period. This is the tightest. For all the other years, the spread is much wider. Additionally, for the critical period, Robin did a check on each individual water year to see if this was driven by a single storm or event, and it was not. They are three wet years even with some droughts as expected in the summer.
- Norm Goulet asked about the intent of the 1991-2000 hydrologic period review.
 - Lee responded that it is to have a more direct comparison of what is changing between Phase 6 and Phase 7.
 - Dave Montali added that this lets some of the review occur early and will give the Modeling Team time to get started working on what they need to do for the hydrologic & critical period change.
 - Lew Linker added that we can take a quarter to finish up the direct Phase 6 to Phase 7 comparisons so the partnership can see how expected changes actually show up in the model.
 - Lee added that the bigger hiccup will be when we change over to the estuarine model because of all the additional data points we will be using in terms of scenarios and seeing if they meet water quality standards.
 - Norm asked whether that would save us time or not.
 - Lew responded he doesn’t think it will save us time because workgroups will want to see all the stuff still.

- KC Filippino noted concerns that this may open up doors to being able to compare two models and choose what we like.
- Lee responded that is absolutely not the purpose of that part of the review.
- Dave Montali asked, in Option A, why the review of the 1991-2000 hydrologic period model is limited to 2 months. There is no other partnership review until Sept. Two months may not be enough, especially for groups like AMT.
 - Lee responded we can play with these dates. Part of what we were trying to do is get partnership review and coherent comments before it went to STAC.
 - Bo Williams added that the purpose of the shorter period is so that all the comments can be accounted for at the right time and addressed.
 - Dave asked whether it would be a more formalized partnership review, then. He thought this part would be more informal.
 - Amanda Shaver asked if there is a possibility where we could have a less formal review of the 1991-2000 and take some of that time towards the new model? For VA, we'd be looking for 6-8 months of partnership review with the new model.
 - Lee responded this was developed talking with representatives from STAC. We can truncate some of it.
 - Amanda noted that for something like the 4D Interpolator, we've had so much engagement even before the STAC review, so that could be happening concurrently.
 - Lee responded that the 4D interpolator and the translation of how we get model output produced in the same manner as we've gathered monitoring data in that time frame is another piece.
- Olivia Martin asked if STAC has reviewed this proposal and if EPA funding for them is sufficient for the work associated with it.
 - Lee responded that we developed this with Larry Sanford last week, so STAC has not fully reviewed it yet. The STAC Review committee will need to discuss in October.
 - Lee confirmed this is informational. We will invite Larry Sanford to the October CWGT meeting.
 - Meg Cole (in chat): STAC Phase 7 WG meeting next Tuesday, Oct 6th.
- Marel King noted the difference between Option A and C is whether the 1991-2000 and 1998-2007 reviews are occurring concurrently or separately and asked what the workload or capacity requirements are of a current vs separate review for STAC.
 - Larry Sanford responded that it does not make sense to break the review up into two pieces. It would cost more and be more of a hassle. It makes more sense as a single review and we think we can do that with our resources. Like Lee said, I have not had a chance to run this by the review committee

X. Break

XI. Phase 7 Review Expectations

Lead: Auston Smith, EPA

Auston gave an overview of the timeline for lead-up activities and partnership model review, the proposed definition of a “Phase 7 Flaw”, the proposed Comment Aggregation Tool (CAT) to receive review comments and general workgroup review roles. Note that the actual timeline for review is in flux given the decision by CWGT to change to a different Hydrologic & Critical Period, however Auston outlined the relative timing and durations of different review “sprints.”

Materials: [Presentation](#)

Actions:

1. If you have edits to the "Phase 7 Flaw" definition, please share them with Auston Smith (Smith.Auston@epa.gov) by Tuesday, October 13th if possible.
2. Workgroup leads should provide feedback to Auston Smith in the next month on the Phase 7 model review roles outlined for your group.

Discussion:

- Larry Sanford asked if the watershed model would include below fall line.
 - Auston Smith responded that the below and above fall line inputs will be incorporated—the whole system. Lew Linker added that this would cover the Watershed Model, the Main Bay Model, and assessment approach if STAC wants.
 - Larry Sanford followed up with a question on who would be responsible for the review of the Main Bay Model.
 - Auston Smith responded that the partnership review would be the review of the full suite of modeling tools—watershed and estuarine. Should be clarified that the presentation here is for the partnership review and not STAC, though this material will be the same.
- Olivia Devereux asked if the review of the Watershed Model will include the Non-Tidal Network Monitoring stations. Olivia asked what would happen with the hydrological period that is not part of the Watershed Model and CAST. Olivia mentioned that this was a problem for CAST previously and the errors were never addressed.
 - Lew Linker responded that the goal is to avoid this issue in Phase 7. He noted that the Watershed model will review CAST, CalCAST, and the Dynamic Watershed Model—airshed included.

XII. Connecting Watersheds to Tidal Water Quality Tool

Lead: Alex Gunnerson, CBPO Contractor

Alex Gunnerson, CBPO Contractor gave a deeper dive demo of the [Connecting Watersheds to Tidal Water Quality Tool](#) that was introduced at the August CWGT meeting. This is all based on the Phase 6 model geographic isolation runs and 2017 progress as the baseline. It is an exploratory draft tool, which has not been independently verified or peer reviewed. Alex noted potential improvements for consideration. Alex answered questions and led discussion with CWGT members on the potential applications of this tool and the appropriate audience and messaging.

Materials: [Documentation](#), [Draft Tool](#)

Actions:

1. Request for update to the Connecting Watersheds to Tidal Water Quality Tool's splash page to better communicate the state of this tool and emphasize that it is not verified. *Completed.*
2. If you have further comments on the Connecting Watersheds to Tidal Water Quality Tool, please share them with Alex Gunnerson (agunnerson@chesapeakebay.net).

Discussion:

- KC Filippino asked why similar influences from New York are being captured in the Elizabeth River (Virginia). Additionally, KC mentioned that not enough of the local areas and watersheds are included in this level of tool.
 - Alex Gunnerson responded that the Phase 7 Main Bay Model grid is a much better resolution than the current one used for the tool. Alex believes that this would resolve

- the local components and efforts. Alex mentioned that the influence from the Susquehanna plays an outsized role in this tool as the tool does not take into account the in-situ efforts from VIMS. Alex noted that the work and modeling done by VIMS assumes that there is a water quality issue impacting habitat suitability and local factors are not limiting it.
- Dave Montali followed up with a comment on how this would likely be seen in many places across the bay where people might want to improve water quality by working upstream when that won't always be the cause for improvement. Dave noted that the use of eutrophication units instead of Chlorophyll-*a* might allow the incorporation of criteria assessment by taking the percentage towards an *x* goal and determine where we are not attaining and where more work might be needed.
 - Larry Sanford recommended doing a confirmation check that the percentages do in fact add up to 100.
 - Alex noted that the values presented are in fact normalized numbers by best attempt of making eutrophication units with Chlorophyll-*a* values—calculated by normalizing the total Chlorophyll-*a* for a segment by the total Chlorophyll-*a* in a segment-shed.
 - Joe Wood followed up with a question on whether watershed area was taken into account in the calculations.
 - Alex responded that the values presented were raw values, even though they are normalized, they do not take into account the area of the watershed. He mentioned that a move to Phase 7 Land-River Segments would help with this. He noted that being able to get to the point of using dissolved oxygen, or standardize the Chlorophyll-*a* productivity to somehow translate to the dissolved oxygen goals, might help with being able to question the influence towards attainment deficit.
 - Joe asked if this would consider the diversity of loads across the landscape or maybe the effectiveness of the region.
 - Alex responded that nothing more is being done beyond the raw accumulation of the values, nor looking for the influence of high loading sources. This approach is a relatively simple approach and to prime conversations for when Phase 7 is ready.
 - Lee McDonnell added that this looks at how portions of the landscape are affecting portions of the bay—relative effectiveness. Right now, this is only used for Deep Water and Deep Channel. Lee mentioned that the process for determining relative effectiveness will be performed on Phase 7 to observe each segment against each segment, like a tracer analysis, and to identify places of local control.
 - Alex added that the use of the term “local control” at the watershed scale in tool is not so “local” and that the team is open to suggestions.
 - Lew Linker stated that it makes sense that the fate of the tidal fresh would remain entirely within that segment, but that is not the case for all segments. This could be an indicator for local watershed effect, especially within the Bay. For instance, we get a lot of loads from the ocean and in the mid-1990s, there was a quarter of nitrogen and phosphorus load from the ocean, acting as an outsized influence in our observations.
 - Olivia Martin added that there is mixing occurring and local controls could be harder to identify. If the plan is for wide use of the tool, this might not be ready for release.
 - Alex responded that the tool is not intended for general audiences. Instead, the tool is intended for managers, practitioners, etc., and to help with determining how and where to focus efforts. Next steps include incorporating multiple lines of evidence that might be able to fill in gaps like more local stations.
 - Lew noted that this will be brought to the October Quarterly meeting so that the expert modelers can provide feedback and review the tool. Lew added that the incorporation of the Phase 7 model would provide a much finer segmentation and

better interpretation of input loads. The Phase 7 fall lines will be much better than in Phase 6, introducing loads much better just all around.

- Joe Wood highlighted the importance of being careful with our communication and messaging of the product. Joe explained that there is a long history of effectiveness across the watershed and many places have already been told that the influence from their community is less important than others. This tool could have the potential of flipping that and people's understanding.

XIII. Workgroup Updates *Moved from Day 2 Agenda

Lead: Petra Baldwin, Caroline Kleis and Gabriel Duran (CWGT Staffers)

Petra, Caroline and Gabriel provided the group with relevant announcements and updates from their respective workgroups, which are written on the [posted slides](#). Member Orientation Slides have been developed and are [posted](#). Note these will continue to be updated with additional topical information, when able. At-large membership selection processes are ongoing for some groups, so a full roster of workgroup membership, per previous request, will be shared once those have been completed.

Materials: [Workgroup Updates Presentation](#), [Member Orientation Slides](#)

XIV. Wrap-Up

Lead: Lee McDonnell and Greg Sandi, CWGT Co-Chairs

CWGT Leadership provided a recap of the day's discussions and noted adjustments to the Day 2 agenda to accommodate continued discussion time needed for E3.

Day 2: Management Strategies and Workgroup Workplans

Tuesday, September 29th | 9:00 AM – 2:30 PM

I. Introductions and Announcements

Lead: CWGT Leadership

CWGT Chairs welcomed meeting participants, shared a recap of Day 1 and gave an overview of today's agenda and objectives. The group was informed that a compromise for the Ag/Forestry land use change BMPs in the E3 Scenario was under development, and additional context was shared on the nature of this compromise, which was revisited later in the afternoon.

Materials: [Day 2 Introductory Slides](#)

Discussion:

- None.

II. Tiered Implementation Discussion

Lead: Kaylyn Gootman, EPA CBPO; Kurt Stevenson, Virginia Tech; Joe Wood, CBF; Breakout Group Leads

Kaylyn Gootman, EPA gave an overview of the planning target development process as it stands now, noting opportunities for how a tiered implementation approach could fit in. Kaylyn shared current shared definitions and understandings of Tiered Implementation and outlined the habitat suitability analysis effort. Kurt Stevenson, VTech and Joe Wood, CBF walked through a potential framework for adjusting the planning process utilizing a focus on living resource response. This is not a shift away from the TMDL framework - it just considers a staged approach to have the biggest impact first as we work towards our ultimate goals. Kurt and Joe shared examples of where this might work and how “waypoints” can be identified along the way.

CWGT members discussed key questions (slides 25-28) in breakout groups and then shared highlights and additional comments as a full group. A few key discussion points included how headwater states and non-tidal areas would be incorporated in this approach, how level of effort may change, and how priority areas would be identified.

Materials: [Tiered Implementation Presentation](#), [Tiered Approach Vision Presentation](#)

Actions:

1. Request for a description of all the “tools in the toolbox” to help form an adequate foundation of key concepts and tools that are necessary in understanding tiered implementation. CWGT leadership/staff will work to compile this baseline information.
2. CWGT will hold continued discussions on tiered implementation at future meetings. There will also be a [November 18th](#) STAC meeting on tiered implementation if you’d like to attend.
3. If you have additional thoughts on the Tiered Implementation [discussion questions](#) or other feedback related to CWGT’s future discussions on the topic, please share them with Bo Williams (Williams.James@epa.gov).

Discussion:

Pre-Breakout Group Discussion

- Tish Robertson asked for clarity on how this approach is better than utilizing existing water quality standards.
 - Kurt Stephenson responded that they are talking about the same thing. The waypoints are the achievement of the water quality criteria. For example, with D.O., the question would be ‘what do we need to do in pollutant control to hit and improve D.O. targets in priority areas?’
 - Joe Wood agreed, noting that tiered implementation is just shifting a lens to those criteria and seeing those as feedbacks to our operation.
 - Tish responded that they wouldn’t be the only part of the approach, but rather layering on top of something like the Habitat Suitability Index. Kurt confirmed that the Habitat Suitability Index helps you decide the prioritization, and Joe reiterated that it is a starting point for where you consider those water quality criteria.
- Olivia Martin asked if the EPA has provided WIP expectations and if other estuarine scientists have been engaged in this process.
 - Lee McDonnell confirmed that there has not been guidance issued for Phase IV WIPs. Lee also noted that this is just an initial evaluation, directed by the PSC, and there will be other opportunities to hear additional viewpoints from estuarine scientists and others in the future.
 - Kurt Stephenson confirmed that estuarine scientists were involved from the beginning. STAC initiated this idea, so people like Rich Batiuk, Bill Dennison, Gary Shenk, and others were involved in the writing of the Prospectus.

- Meg Cole (in chat): Co-authors on prospectus: Kurt Stephenson, Denise Wardrop, Leonard Shabman, Kenny Rose, William Dennison, Jeremy Testa, Rich Batiuk, and Zach Easton. [Link to doc.](#)
- Scott Heidel noted in the chat: You should start with the lowest hanging fruit to get rapid restoration rather than starting with the most impaired and not seeing any restoration for decades, like the current situation we are in.
- Larry Sanford suggested building on existing areas that partners have already identified as focal points, as well as beginning with areas that have good data already.
- Lew Linker suggested double-checking slide 8 and slide 9 and confirming it resembles what is displayed in the Connecting Watersheds to Tidal Water Quality Tool for both the York and the mesohaline Choptank.
- Dave Montali expressed concerns that this is not a full partnership effort in the sense that some states (NY, DC, and WV) don't have choices to make regarding Tiered Implementation. This is more about what MD and VA can do and if they can target effectively. He also expressed that he is more interested in the demonstration of progress at the designated use scale/waypoints and showing progress better than we are currently.
- Robert Sabo (in chat): One important aspect of this approach—whether focusing on near coastal waters or upstream rivers and streams—is that it provides states with opportunities to remove waterbodies from their state-designated impairment lists and TMDLs in coastal plain regions. If the prioritization of impaired rivers and streams can be formally integrated into this tiered framework, it could enable Pennsylvania, West Virginia, New York, and the piedmont/Appalachian regions of Maryland and Virginia to participate more fully and benefit from expanded opportunities within this structure.
- Kaylyn provided an overview of the breakout session focus and discussion questions.

Summary of Breakout Group Discussions

Please Note: The following information represents a summary of the perspectives shared from the breakout groups and are not reflective of every discussion within the breakout group. Summaries consist of highlights shared during the full group report out, as well as high level questions and comments from the respective breakout group's notes.

Virtual Group

- Group Report Out- Key Takeaways
 - Highlighted the importance of clarifying misunderstandings related to this approach. The group needs to talk through what is/is not the intention of Tiered Implementation.
- Additional Highlights from Group Notes:
 - Concerns about additional burden on jurisdictions, especially in headwater states.
 - An interesting component of Tiered Implementation is that resources are focused in areas where people can see impacts.
 - Question asked on if the Habitat Goal Team is also involved and on board with this effort.
 - Importance of having more local indicators, beyond CAST, to guide and measure our work.
 - We should ask MD and VA if they want this or if it would be helpful. There are other components, such as having willing landowners, that would need to be considered.
 - While there are lots of questions, there is also a lot of opportunity!

In-Person Group (Park Service Room)

- Group Report Out- Key Takeaways
 - We should consider how we will get the upper states involved.
 - Another highlight was planning targets and if we are going to be looking at the final load amount or taking the summation of all those. What are the states going to have the opportunity to do/not do?
- Additional Highlights from Group Notes:
 - How would we show incremental progress for headwater states?
 - Everyone defines certain aspects of this differently. We need clarity around what ecological improvement, tidal, shallow water, etc., means to everyone, and we need to ensure metrics are equally applicable to all partners.
 - Discussion over whether or not this effort should be focused only on tidal waters or the whole Watershed. Clarification on this point is needed.
 - Confusion shared over how the Habitat Suitability Analysis is incorporated into this approach.
 - Need to define roles and have a better sense of how the whole Partnership is involved. Is it STAC, Workgroups, just Clean Water Goal Team? Need to have a sense of what is being assigned, to whom, and when.
 - How would we measure and credit with this approach?
 - Discussion over how this will factor into the WIP planning process. Discussion over what we are actually committing to by the 2040 deadline and how that may/may not change with this approach.
 - Comments shared from MD participant (via email): 1) We are not accepting pushing off the 2040 deadline, 2) We recognize that there will need to be some reallocation of loads, but we are not accepting substantial shifts away from deep trench that pushes responsibility away from PA and to MD and VA, and 3) We DO support tiered implementation from the perspective of interim goals between now and 2040 that resonate more with the general public (i.e. shallow water and living resources)

In-Person Group (CBPO Lobby)

- Group Report Out- Key Takeaways
 - Similar discussion to other groups about what this approach means for VA and MD, versus other states in the watershed.
 - One thing that seems interesting/needed is a better understanding of all the criteria, what criteria the TMDL focuses on, and where we are at with assessing it. It would be good to have a better understanding of what the goals are for all of the segments where the criteria apply.
- Additional Highlights from Group Notes:
 - Clarity needed on what this means for the jurisdictions and what we mean when we talk about tidal, shallow areas, non-tidal areas.
 - Emphasis that there shouldn't be additional responsibility with this approach, especially for MD and VA.
 - Assumption that if we meet deep water/deep channel D.O. that we meet all the others. We will have the results of the 4D interpolator to compare to.
 - There is an increased complexity to planning targets with this approach. Principles/guidance needed.
 - Need to listen closely to the estuarine scientists as segments are not isolated and influence each other.

- It was suggested that the CWGT engage source sector workgroups on what is most needed to achieve agricultural and urban non-point source pollution challenges.

In-Person Group (Oyster Conference Room)

- Group Report Out- Key Takeaways
 - Discussion on the role of the Bay Program in incentivizing the target process. There seems to be a disconnect in how we would approach planning targets.
 - Also expressed the need to work closely with and listen to local jurisdictions in the process.
 - Importance of finding a way to incentivize and magnify efforts taking place all over the Watershed, not just tidal areas. How do we meaningfully engage the headwater states?
- Additional Highlights from Group Notes:
 - Concern shared about the idea that VA and MD will have to do more with this approach.
 - It was noted that this method was also applied in the Corsica, and only modest statistically significant improvement was shown in the tidal waters due to mixing. So perhaps we should also consider efforts in the nontidal.
 - Suggestion that this approach allows us to reorient on the most effective basins and consider other endpoints and outcomes that could also lead to change where we are focusing our efforts and funding.
 - We should focus on small wins that are happening locally. Local governments have better data and a better understanding of local conditions. There should be more collaboration among local governments and states for the next iteration of WIPs. Local governments are implementing BMPs to address local level needs, but they aren't necessarily all being counted. Collaboration among feds and local governments also needed.
 - Need to also consider the communication aspect of this and how to communicate planning and targets. Progress is being made but may not be represented in the reporting.
 - Suggestion for a hybrid component that includes the tributaries in the headwater states.
 - Acknowledgement that the current effort is focused on tidal waters, but the CWGT should discuss other opportunities in the Watershed not currently considered in this charge.
 - Request for clarity on the next steps. Indication that we are potentially spinning our wheels on this topic.

Full Group Discussion

- Dave Montali shared that, from a headwaters perspective, we still need planning targets for deep channel. For states that have choices, we have to figure out a way to adjust. This is about tidal, so there's no need to expand it above fall lines. We don't have choices of where we are going to work.
 - Erik Michelsen responded that if Dave's interpretation that this gives MD and VA more flexibility is the case, then that's probably agreeable. This may be contrary to where some of the interpretations have been. Is that the group's opinion that that is in fact what we would do?
- Lee McDonnell reiterated that there are a lot of assumptions. One assumption is that deep Water/ Deep Channel is the hardest to get to. If we met those criteria, we would meet all

the others by default. We haven't been able to assess the short duration criteria which focus on shallow water. So, we are either going to validate what we thought of before or we may come up with different things that need to be considered. We should look at everything that we can.

- Marel King expressed that we have to think about what this means in terms of level of effort, noting she was never seeing this in terms of requiring more level of effort. It was just a matter of where we put our level of effort and sequence our actions at a given time. If we are going to do the work anyway, let's do the work in the local areas where the local community will get those benefits too.
 - Dave Montali expressed that while that's fair game, what we are talking about is the tidal segments.
 - Marel King responded by noting there was some discussion in her group about how the headwaters could see themselves in this approach.
 - Norm Goulet expressed that there is still uncertainty around the level of effort until we are able to get to the spotlight plots and evaluate all of the criteria, so it is too soon to assume that the level of effort will not change.
- Sarah Lane expressed concern that we are not working off the same set of baseline and agreed upon ideas/definitions/assumptions. MD has a BLUF statement and other things, but that was developed on a different set of baseline assumptions. We all need to agree on what exactly tiered implementation means.
- In response to the question of how to get upstream states involved, Kurt noted that one opportunity is the waypoints, but another is the new WIP process. This is an opportunity to expand what we mean about accountability, not just for the prioritized areas, but for the watershed. If we include monitoring data as part of our METRIC tool as part of what we are accountable for, that does have implications for upstream states. It gives them an extra tool/check on what they are doing and whether it is working. It could give someone an opportunity to pursue a metric beyond CAST. There's no reason that this opportunity couldn't be expanded upstream. Kurt asked what could be done to clarify? What would be helpful to bring us together with a common understanding?
 - KC Filippino asked, how do we understand priority areas? It was noted that priority areas are defined in the METRIC tool or habitat tracker, but a better understanding of what would be a priority would be a huge clarifier.
 - Lee McDonnell noted that, with the habitat suitability analysis, GIS Targeting Portal, and other work, we have more information than we did before. There's a lot more information to lead us to prioritization. It makes it more complex, but it makes our decision making more informed.
 - Amanda Shaver suggested that more foundational information, in terms of the criteria, where it applies in each segment, revisiting the METRIC tool and attainment deficit tools would be helpful for the group.
 - Kaylyn Gootman confirmed this request for a primer on the "tools in the toolbox".
 - Dave Montali suggested that we do a mock procedure to try and figure out waypoints, using the tools we have. What do we think we will get done by 2030, 2035?
 - Tish Robertson (in chat): What is the advantage of prioritizing segments over designated uses? The first tier (waypoint) could be attainment of all waters meeting Migratory Fish Spawning Nursery. Second tier could be attainment of all water meeting Open Water. Maybe third tier could be attainment of all SAV/Water clarity restoration goals. Fourth tier could be DC/DW. This would keep the jurisdictions from having to select specific segments--which is going to be a more complicated calculus than what available science can tell us.

- Olivia Martin mentioned that, when we did the Phase III WIPs, EPA expected the states to have local area planning goals, and each state determined what that meant to them. VA did soil and water conservation district areas for ag and planning district commissions for urban. PA did it by county did it by county, and they had tiers. DE was only three counties, so they just did it county by county. MD, NY, and WV did another approach. How is this different? Is this using that as a jumping off point?
 - Lee McDonnell suggested we could be more intentional about how we discuss planning targets and layer in these options.
 - Marel King noted that she thought these tools would identify candidates for priorities. But, as part of the WIP process, the jurisdictions could apply their own priority candidates. Who ultimately makes the decision about the priority areas?
 - Joe Wood suggested that, when thinking about this, we should begin with our current framework/default. There are gaps. If you look at Choptank and Pamunkey River, in “CAST World”, we are there, but in the real world we are not. Need to think about how we can do things to address clear blind spots. In the past, we relied on a single lens. The decision making process to get there would be valuable.
 - KC Filippino asked for more specificity on what “continued discussion” means when we have this on future agendas.
- Larry Sanford informed the group that the STAC meeting in November is going to be about tiered implementation.
 - Meg Cole (in chat): Link to STAC Nov meeting page where you can register to attend the 3-hour focused discussion the tiered implementation:
<https://www.chesapeake.org/stac/events/november-2026-meeting/>

III. Break

IV. Approval of CWGT Management Strategy

Lead: Jeremy Hanson, Kaylyn Gootman, Keith Bollt

Jeremy Hanson reminded members of the components and process for Management Strategy development and gave an overview of the Goal-wide parts of the Clean Water Goal Management Strategy. Jeremy Hanson, Keith Bollt and Kaylyn Gootman provided additional information on each of the three Clean Water outcomes’ sub-chapters (RENPS, TEC and WQ,SAM), highlighting key changes in the most recent [draft of the Management Strategy](#).

Materials: [Presentation](#), [CWGT Draft Management Strategy](#)

Decisions:

1. The CWGT approved via consent the draft CWGT Management Strategy for recommendation to the Policy Steering Committee.

Discussion:

- Question about where responsible parties are designated
 - Who will be responsible as the lead and as a supporting party will be something that is represented in the workplans. That isn’t set in stone yet. Those details will be worked out in the workplan.
- Clarification for lingering items in RENPS workplans
 - “Under” on the slide means that is where Jeremy would see that item being included if it goes into a workplan.

- Question about toxics leadership
 - The coordinator of the Toxic Contaminants Workgroup is Keith Bollt, and the chair is Tony Timpano. The chair for the Plastic Pollution Workgroup are Tish Robertson and Kelly Somers, and the coordinator is Matt Robinson.

V. Lunch

VI. Primer on New Workgroups

Lead: Peter Tango, USGS

Peter provided an overview of the four groups under the Water Quality, Standards Attainment and Monitoring (WQ,SAM) Outcome whose functions previously existed as STAR workgroups. The key roles and responsibilities of each group – Monitoring Workgroup; Data, Analysis and Reporting (DAR) Workgroup; Criteria Assessment Protocol (CAP) Action Team; and Bay Oxygen Research Group (BORG) Action Team – are outlined on the posted slides.

Materials: [Presentation](#)

Discussion:

- None.

VII. Expectations for Workgroup Workplans

Lead: Lee McDonnell, CWGT Co-Chair

Lee presented key points for the workgroup workplans to be developed. Lee highlighted that workplans should cover 3-years from July 2027-July 2030 and workgroup workplans will roll up into Outcome Workplans. The posted slides include more detail on the workplan template and timeline for development. CWGT leadership answered questions on what should be included, clarifications on the timeline, how additional changes can be incorporated after development and more.

Materials: [Presentation](#)

Actions:

1. Workgroups and outcome leads should review the timeline for the development of the workgroup level and outcome level workplans. Most immediately, workgroups are asked to provide high level ideas for the workgroup workplans by the end of November, for discussion at the December CWGT meeting.
2. CWGT leadership will follow up with additional guidance for workgroup and outcome leads on writing responsibilities and clearer expectations for what is needed at different stages of development.

Discussion:

- Question about how workgroup workplans and outcome workplans are different and who is responsible for those.
 - Workgroup workplans are up to the workgroups to develop. That could fall on coordinators, chairs and outcome leads. The outcome workplans would be put together by the outcome leads which was identified during the management strategy process. Jeremy for RENPS, Peter and Breck for WQ,SAM and Keith for Toxics.

- The workgroup and outcome workplans will build up. There will be a workgroup workplan and then Clean Water Goal Team workplan.
- Kaylyn Gootman offered to review the outcome to make sure the DAR Workgroup is represented.
- There is a bi-weekly Goal Team chairs meeting to spur collaboration. If there are things that should be talking across goal teams, people should give them to Lee and Greg to bring up at that meeting.
- Concern about completing deliverables during the holiday season, November and December. Also, concern about working on workplans before the PSC has approved the draft Strategic Plan.
 - The workplan and the strategic plan are separate so it is unlikely that the PSC will have any strategic plan updates that won't align with the workplans. The high-level ideas due in November can be bullet points. They are looking for more fleshed out ideas by the end of January for RENPS-related workgroups.
- Question about how soon the CWGT will provide feedback on the high-level ideas.
 - At the CWGT December Meeting, which is the second week of December. There won't be a presentation of the high-level ideas, but they will go through them workgroup by workgroup to ask questions and provide feedback.
- Clarification about detail of high-level ideas.
 - They are looking for actions and ensuring people are on board for what they are looking for.
- Clarification about the outcome level workplans and how they differentiate from the workgroup workplans.
 - They will consolidate workgroup workplan elements into the outcome workplans. They will also include goal team level additions into those outcome workplans.
 - The three outcome workplans should be the sum of the workgroup, action team and goal team workplans.
- Request to review the workgroups that are assigned to each management approach within the outcomes. This should be the lead groups and any assisting groups listed on the slides for cross-reaching management approaches.
- Question about whether workplans are living documents.
 - They are managed by the goal teams so that is at the discretion of the goal team. There does need to be a way to ensure and track accountability throughout the three-year period.
- There is a planning calendar that was created in June that provides a higher-level insight into actions and decisions. It will be updated and could be used at the workgroup level.
 - Shared in chat by Bo Williams: [Planning calendar](#) and [schedule of decisions and deliverables](#).
- Question about whether workgroup workplans are included in the Strategic Plan.
 - PSC would approve revisions to the strategic plans but the workplans would be a goal team decision.
- Discussion Questions:
 - Jeremy plans on editing the workplan template to make it tailored to the clean water management approaches.
 - Kaylyn wants to make sure the action teams and workgroups are coordinating so things are not duplicative and responsibilities are clear. This could be a good agenda item for the upcoming CWGT coordinators/chairs meeting. CWGT leadership plans to do their best to make sure the process is transparent for

workgroups and action teams. There will be background work and coordination to be done by the workgroup chairs.

- Question about whether goal team funding opportunities will return especially in the context of the “resources needed” section of the workplan.
 - The partnership is going through a prioritization process. There may be opportunities through that, but it doesn’t seem likely that something will return in the same way as before. Greg and Lee will advocate for things on workplans as needed.
- Question about whether the workplans are locked in place or if they can be edited over the three-year period.
 - The goal team can change the workplans after they are approved. They will be adaptively managed.
- Question about whether due dates can be adjusted if necessary.
 - Yes, there are things that can alter the schedule throughout the process. Those things need to be communicated to the PSC.
- Question about conversation around creating a new draft model with the updated hydrology and when that timeline would be finalized.
 - Those were ideas that need more refinement. They can be outlined in the tasks section of the workplan.
- Question about whether the workgroup workplans are in the GMF.
 - Some other goal teams have one outcome per workgroup, which is not how the Clean Water Goal Team is structured. The workgroup workplans are a management tool that our goal team is using since there are so many workgroups.
- Question about the priority setting timeline.
 - The GO Team is seeking approval on the priority setting framework at the November 5th PSC meeting and the December 8th Executive Council meeting. The setting of the priorities will happen in 2027. They are just seeking approval on the process itself for now.

VIII. E3 **Scenario Sector Inputs** *Continued Discussion from Day 1

Lead: Lee McDonnell, Co-Chair, CWGT Members

After a pulse check vote on which sector’s recommendation for land use change BMPs was preferred yielded no consensus on Day 1, the discussion was pushed to Day 2, and a revised compromise proposal was developed by CWGT leadership. Lee McDonnell, EPA, walked through the plan for returning to this discussion/decision. The group first revisited the wastewater recommendations, before discussing and approving the compromise for land use change BMPs, and approving the rest of the E3 recommendations. The revised compromise proposal was approved via supermajority with 8 Support, 2 Stand Aside and 5 Oppose.

Materials: [Presentation \(edited after Day 1 discussion\)](#), [Final Approved E3 Scenario Inputs](#)

Decisions:

1. The CWGT approved by supermajority vote moving forward with the wastewater E3 proposal as was presented on 9/28 and provided by the WWTWG. A Vote Tracker is [posted](#).
2. The CWGT approved by supermajority vote moving forward with the revised (9/29) Ag/Forestry compromise E3 proposal. A Vote Tracker is [posted](#).

3. The CWGT approved via consent the remaining E3 scenario inputs. A compilation of the final approved inputs is [posted](#).

Actions:

1. Request for a clearer definition of E3 and clearer protocol for how to develop recommendations for cross-sector BMPs to aid the process for future phases of the model.

Discussion:

- Wastewater
 - Joe Wood, who expressed concern with the wastewater proposals on Day 1, provided his remaining concerns. Joe noted that 1) the definition of E3 is based on something that is not cost related. If you look at the justification on the E3 slides for Wastewater, it includes things specifically related to cost, which is fundamentally against a cost limited framework; 2) The E3 recommendations for Wastewater include clear justifications related to regulatory compliance. However, the E3 is not a regulatory tool. This is not our best E3 Scenario for Wastewater; it could be adjusted in many different ways. Propose considering a modification on the nonsignificant municipal plants.
 - Lee thanked Joe for his comments and asked, for the Wastewater E3 proposal, does the CWGT support moving forward with the proposal as was presented on 9/28 and provided by the WWTWG?
 - While it was proposed to update the nonsignificant municipal facilities assumptions, this proposal was not further discussed, given previously voiced WWTWG concerns that those values were already ambitious.
 - A role call supermajority vote was conducted.
 - Marel King registered similar reservations to Joe.
 - One “oppose” registered from Joe Wood.
 - Decision: The CWGT approved moving forward with the wastewater E3 proposal as was presented on 9/28 and provided by the WWTWG.
- Ag/Forestry E3 Compromise
 - Emily Dekar (in chat): I would like to see us hold a vote on the current proposed AgWG E3 Scenario prior to bringing up a compromise scenario based on the support shown yesterday. Due to the LUC practices in question (Forested Buffers on Cropland, Pasture and Agroforestry practices) being agricultural practices, they should be considered as such, and developed by the Agricultural Experts for E3.
 - Lee acknowledged this comment, thanking Emily for providing it. However, it was determined that the group would walk through the compromise and vote on the proposed compromise.
 - Lee walked the group through the proposed compromise for select ag/forestry BMPs.
 - Amanda Barber, prior to today’s meeting, spent some time digging in to the E3 Scenario. Amanda read the definition of E3, noting that it should be “an estimate of the application of management actions to the fullest possible extent practicable”. Other concerns were shared: WWTWG considered the impacts of weather in their discussion, and they characterize widely achievable performance when they discussed E3 at the wastewater level. We know technology can treat wastewater to make it potable, yet we did just approve those workgroup expert opinions on E3. In the developed sector yesterday, there was discussion about 30% of turf grass acres within the 35 foot riparian area being buffered. No

discussion about how those percentages were determined. Also found it interesting the developed sector will be smaller in Phase 7 than Phase 6. It sounded like people were suggesting the AgWG didn't follow E3 rules or definitions, but ag BMP implementation rates disregard cost, disregard weather, they may even disregard farm viability, and they most certainly disregard other goals to preserve and maintain ag land and food security for the region. Amanda used specific examples to explain this for NY counties. Farm ownership and weather dependency were also noted as barriers to implementation in ag sector. Concluded by expressing confusion over why E3 scenarios were created by the FWG for non forestry BMPs and supporting the AgWG E3 Scenario as initially presented.

- Katie Brownson agreed that the E3 guidance is vague and can be interpreted in different ways. Katie provided additional reflections and concerns. Also acknowledged that the FWG is in favor of keeping land in production, and the recommendations were in response to the E3 charge and should not be misinterpreted that the FWG thinks this land should come out of production. Katie noted that the FWG's interpretation of the E3 in Appendix J is that, generally, the implementation levels cannot be achieved for many practices. Looking from a purely water quality perspective, FWG's main concerns would be around reducing the buffer width from 35 to 20 m, and the fact that the partnership has an approved panel that recommends and credits 30 m buffers. So, if we are saying that a 30m buffer is not plausible in a completely hypothetical scenario, that's problematic because it doesn't align with the partnership approved panel. FWG also has some concerns about the reduction of ag tree planting target. To get at the 3% number, we were looking at what we agreed to do under the 2025 Watershed Agreement target acreage for forest restoration. So, we are even under what we said we would do in the Watershed Agreement. To put in context- just yesterday we approved over 1 million acres in the developed sector, so this is way less than what we said we would do in the developed sector. Don't think we would have much heartburn over the agroforestry compromise; FWG thought that was low hanging fruit in terms of keeping the ag production amount lower. If the group wants to reduce the agroforestry number, it would be good to understand why we aren't comfortable of that.
- Anne Hairston-Strang (FWG Co-Chair) expressed appreciation for all the work and thought that has gone into the ag proposal and their deep dive. Reiterated that she would be a whole lot more comfortable if we could have 30m buffers even if we went back on the percentage. The Chesapeake Bay Model is an international/national standard. Given the riparian water quality research, there's scientific support for the 30 m buffer width. Understands the reasoning for limiting acres, but buffer width should be prioritized because of the messaging.
- Erik Michelsen expressed concerns about the inclusion of any level of agroforestry- feels like it's a backdoor way to exceed the 15% threshold in terms of the acreage that could be affected by this approach. Concern shared with dictating the nature of the agricultural practice on agricultural properties. Suggested that, if the group moves forward on this, they should first take a vote on the 15% threshold so that the group could go on the record that there is a willingness of the team to go above the threshold that was set forth previously. Erik reiterated a concern that it may be closer to 18% if you include agroforestry.
- Olivia Martin asked if these meet the Chesapeake Bay Watershed Agreement goals. She expressed that if they aren't even meeting the Bay Agreement goals, then that would be a problem.

- Katie confirmed that the FWG did do that for the forestry practices.
- Olivia asked Eric Hughes if the AgWG did the same thing. Eric responded, no, since that wasn't the ask of the exercise.
- Jeremy Hanson re-read some of the outcomes in the Watershed Agreement for reference. Kevin Du Bois reiterated that the wetland restoration goal was 3,000 acres.
- Lee called for the following decision: Do you Support, Oppose or Stand Aside on the Compromise Ag/Forestry E3 Proposal? Voting members were polled for a supermajority vote.
 - Clarification was needed on what is needed for approval. Jeremy Hanson, reading from slides outlining the GMF, explained that a decision is approved if 10 members take a position of support or stand aside. Given the numbers were exactly at 10, those who voted to stand aside were asked if, with that understanding, they wanted to make any revisions to their votes.
 - Scott Settle changed West Virginia's vote to support. No other changes were made to the recorded votes.
 - Joe Wood offered a reflection: We are getting to a place where E3 is going to meet all water quality standards, so a lot of debates are inconsequential from that standpoint. The thing that is making people most upset is the idea that we are putting down on paper what is possible. There are not a lot of significant implications, but maybe a note should be included that the E3 is a messy process.
 - Marel King expressed that she thinks it is unfortunate that we've gotten to this point. Also acknowledged that this piece of the ag E3 has taken the attention, but we didn't take the time to recognize the aggressive nature of the other practices that were included in the ag E3 scenario.
 - Elizabeth Hoffman requested that, in future votes, we encourage those opposed to note what they are in opposition of, so those concerns can be registered.
 - Lee agreed, noting we will do better at that in the future.
 - Amanda Barber (in chat): Good suggestion regarding notating why for opposing votes. Thank you everyone.
- Overall Package of E3 Recommendations
 - Lee McDonnell asked if any CWGT members oppose moving forward with the remaining E3 Scenarios:
 - Oysters
 - Urban Stormwater (with removal of abandoned mine reclamation per CWGT decision 9/28)
 - Natural Sector Forestry
 - Remaining Ag practices
 - No opposition from CWGT members, so this was approved.

IX. Wrap Up

CWGT Leadership provided a recap of the day's discussions and noted key action items coming out of the two-day meeting.

Discussion:

- Clarification from Jess Blackburn that the STAC meeting is November 18th.

X. Adjourn

Next Meeting: Monday, October 26th 1-4pm

Attendance

Lee McDonnell, EPA CBPO (CWGT Co-Chair)
Greg Sandi, MDE (CWGT Co-Chair)
Jeremy Hanson, CRC (CWGT Coordinator)
Petra Baldwin, CRC (CWGT Co-Staffer)
Caroline Kleis, CRC (CWGT Co-Staffer)
Gabriel Duran, CRC (CWGT Co-Staffer)
Holly Walker, DNREC
Jonathan Champion, DC DOEE
Sarah Lane, MD DNR
Elizabeth Hoffman, MDA
Cassie Davis, NYSDEC
Cass Klingaman, NYSDEC
Scott Heidel, PADEP
Ashley Hullinger, PADEP
Kate Bresaw, PADEP
Kevin McLean, VADEQ
Amanda Shaver, VADEQ
Scott Settle, WVDEP
Dave Montali, Tetra Tech/WVDEP
Marel King, CBC
Norah Carlos, CBC
Suzanne Trevena, EPA R3
Bo Williams, EPA CBPO
KC Filippino, HRPDC
Joe Wood, CBF
Emily Dekar, USC
Erik Michelsen, Anne Arundel Co. DPW
Lisa Blazure, Stroud
Kevin DuBois, DoW
Amanda Barber, AAC
Cindy Dyballa, LGAC
Olivia Martin, SAC
Robert Sabo, STAC
Rachel Owrutsky, DNREC
Clint Gill, DDA
Andrea Krug, DC DOEE
Cecilia Lane, DC DOEE
Christina Lysterly, MDE
Becky Monahan, MDE
Kathy Stecker, MDE
Dylan Burgevin, MDE
Tom Parham, MD DNR
Anne Hairston-Strang, MD DNR
Alisha Mulkey, MDA
John Lancaster, PADEP
Arianna Johns, VADEQ
Tish Robertson, VADEQ

Auston Smith, EPA CBPO
Kaylyn Gootman, EPA CBPO
Lew Linker, EPA CBPO
Tom Butler, EPA CBPO
Eric Hughes, EPA CBPO
Megan Thyng, EPA CBPO
Sarah Brzezinski, EPA CBPO
Lucinda Power, EPA CBPO
Keith Boltt, EPA CBPO
Kelly Gable, EPA
Patrick Woolford, EPA
Tracy Clarke, EPA
Kelly Somers, EPA
Alex Gunnerson, EPA Contractor
Breck Sullivan, USGS
Peter Tango, USGS
Robin Glas, USGS
Jimmy Webber, USGS
Peter Claggett, USGS
Andy Fitch, USGS
Jackie Pickford, USGS
Michelle Katoski, USGS
Labeeb Ahmed, USGS
Mark Bennett, USGS
Sophie Waterman, USGS
Katie Brownson, USFS
Jay Lazar, NOAA
Norm Goulet, NVRC
Sushanth Gupta, MWCOG
Caitlin Grady, GWU
Jamie Mitchell, HRSD
David Wood, CSN
Erin Sonnenburg, CRC
Tou Mathews, CRC
Meg Cole, CRC
Bill Dennison, STAC
Larry Sanford, STAC
Jen Nelson, AAC
Jess Blackburn, SAC
Kurt Stephenson, VT
Olivia Caretti, ORP
H. Ward Slacum, Jr., ORP
Mary Stack, ICPRB
Rosa Hance, CCWC
Sara Ramotnik, CCWC
Jennifer Fetter, PSU
Eugenia Hart, TetraTech

Tony Timpano, VADEQ
Cynthia Johnson, VADEQ
Meighan Wisswell, VADEQ
Callie Sams, WVDEP
Maggie Woodward, CBC
Megan Beaver, CBC

Mike LaSala, LandStudies
Caitlin Bolton, MWCOG
Keisha Sedlacek, CBF
Kristen Saacke Blunk, Headwaters LLC
Lisa Ochsenhirt, AquaLaw
Erin Letavic, HRG Inc.
Pat Thompson
Karl Blankenship

Acronyms

AgWG: Agriculture Workgroup
AMR: Abandoned Mine Reclamation
AMT: Agricultural Modeling Team
BMP: Best Management Practice
BORG: Bay Oxygen Research Group Action Team
CAP: Criteria Assessment Protocol Action Team
CAST: Chesapeake Assessment Scenario Tool
CBLCM: Chesapeake Bay Land Change Model
CBP: Chesapeake Bay Program
CWGT: Clean Water Goal Team
DAR: Data, Analysis and Reporting Workgroup
DO: Dissolved Oxygen
E3: Everything, by Everyone, Everywhere
EPA: Environmental Protection Agency
FWG: Forestry Workgroup
GMF: Governance and Management Framework
LUC: Land Use Change

LUWG: Land Use Workgroup
NRCS: USDA Natural Resources Conservation Service
RENPS: Reducing Excess Nitrogen, Phosphorus and
Sediment Outcome
RFB: Riparian Forest Buffer
SAC: Stakeholders Advisory Committee
STAC: Scientific and Technical Advisory Committee
TEC: Toxic & Emerging Contaminants
TMDL: Total Maximum Daily Load
TN: Total Nitrogen
TP: Total Phosphorus
WIP: Watershed Implementation Plan
WQGIT: Water Quality Goal Implementation Team
WQ,SAM: Water Quality, Standards Attainment and
Monitoring
WWTP: Wastewater Treatment Plant
WWTWG: Wastewater Treatment Workgroup