Chesapeake Bay Program
Science. Restoration. Partnership.

Watershed Technical Workgroup Meeting

October 1st, 2026
10:00 AM-12:00PM

Visit the meeting webpage for meeting materials and additional information.

Purpose: This was the monthly meeting of the Watershed Technical Workgroup. Agenda topics included relevant announcements, approval of the nominations for WTWG at-large positions, a continued discussion on CAST update frequency, an update on Expert Panel Protocol revisions, initial brainstorming for workgroup workplans, and an overview of the CWGT September presentation on the Phase 7 Model review process.

Summary of Actions & Decisions

Decision: The WTWG approved the September WTWG meeting minutes.
Action: The WTWG will have a joint meeting with the previous Federal Facilities Workgroup participants in November. Please reach out to Auston Smith (Smith.Auston@epa.gov) with any requests for the November or other upcoming quarterly meetings with Federal Facilities Workgroup participants.
Action: A summary of the agroforestry (silvopasture and alleycropping) practices is available to help aid in the reporting of these practices. A Word version has also been posted in the case that a jurisdiction would like to tailor this document to include state-specific reporting information.
Action: There is currently an effort underway to update BMP cost profiles. The WTWG will continue to remain informed of this effort. WTWG members with specific requests or suggestions of literature to be included in an initial literature review should contact Eugenia Hart (Eugenia.Hart@tetratech.com) and Auston Smith (Smith.Auston@epa.gov).
Action: Auston Smith, EPA, will reach out to jurisdictions to flag any questions on the Phase 7 calibration history submissions. Jurisdictions interested in meeting to discuss any of the items flagged should reach out to Auston Smith (Smith.Auston@epa.gov). *Emails sent by Auston on October 5th.*
Action: Auston Smith and Jess Rigelman will follow up with Bill Keeling, VA DEQ, regarding a request for consistent nomenclature in the source data sheet and Appendix A.
Decision: The WTWG, with a quorum of voting members present, approved Karl Wilson (USDA) and Kevin Du Bois (DoW) as at-large members through December 2028. The positions for our other at-large members will extend through December 2027 to maintain a staggering of at-large membership. The current list of WTWG members is accessible under the "membership" heading on the WTWG page.
Action: Given that there are still open at-large positions, please reach out to Auston Smith (Smith.Auston@epa.gov) if you are interested in becoming an at-large member.
Action: A list of options for CAST model update frequency will be distributed to the group for their review ahead of the November meeting. The list will be updated to 1) remove the option to update CAST every two years and 2) to include an option to update CAST in 2032 and 2037. The WTWG will finalize their recommendation to the Clean Water Goal Team for CAST model update frequency at the November

WTWG meeting. *Complete. Please review the email sent by Caroline Kleis (Kleis.Caroline@epa.gov) regarding the proposed options and decision expected at the November meeting.*
Action: Please continue to submit comments on the draft updated Expert Panel Protocol to Auston Smith (Smith.Auston@epa.gov). Auston will review all the feedback submitted and integrate comments or suggestions into another draft for WTWG review, anticipated in mid-late November.
Action: The WTWG will continue to work on the Workgroup Workplan assignment from the Clean Water Goal Team. In the near term, WTWG leadership and staff will work to develop a high level bulleted list of items we expect to include in the Workplan. The WTWG will discuss this high level list at their November meeting before submitting it to the Clean Water Goal Team by Nov 30th.
Action: Given that the WTWG was not able to walk through and discuss the presentation on the Phase 7 Model review process in it's entirety, the WTWG will revisit this agenda item at a future WTWG meeting.

Meeting Minutes

I. Introductions & Announcements

Lead: Sushanth Gupta, MWCOG & Auston Smith, EPA

- Approval of the September WTWG Meeting Minutes- Sushanth Gupta, MWCOG
  - The WTWG approved the September WTWG meeting minutes.
- EPA 2025 Assessment and Milestone Evaluation Release - Auston Smith, EPA
  - Auston Smith, EPA, noted that there will not be a corresponding press release related to the EPA 2025 Assessment and Milestone Evaluation. However, necessary partners and agencies have been informed of this release. You can access the documents here.
- 2026 Progress Schedule- Auston Smith, EPA
  - Auston Smith, EPA, thanked the group for the submission of the point source and non-point source QAPPs. Auston and team are reviewing the QAPPs. Auston also noted that wastewater and BMP submissions are ongoing, and land use and federal data are also being submitted.
  - Federal Facility Data Reminder Email
    - Auston Smith, EPA, reminded the group that a data call has been sent to federal agencies and submissions are ongoing. However, we will follow up and confirm submissions at the November WTWG meeting.
    - Auston Smith, EPA, gave a final reminder to WTWG members to fill out the poll (if applicable) indicating availability for a December verification call.
- Reminder of Upcoming November Federal Facility Focused Meeting & Topics- Auston Smith, EPA
  - Auston Smith, EPA, reminded the group that the November WTWG meeting will include participants from federal agencies and will begin with federally focused items. Items on this agenda will include a check-in on the federal data submissions, an additional discussion on the potential development of an Action Team to establish federal planning targets, and any other topics of interest. WTWG members with topic requests for upcoming federal facility focused WTWG meetings should reach out to Auston.
- Silvopasture and Alleycropping BMP Summary Sheet- Ruth Cassilly, MDA

- Ruth Cassilly, MDA and Co-Coordinator of the Chesapeake Agroforestry Network, informed the group that a summary document for the silvopasture and alleycropping BMPs has been created. In addition to a PDF version, Ruth also informed the group that a Word Doc version was available so that states could make any relevant modifications to the document to add in state specific tracking and reporting information. This summary document touches on the EPEG report content and functions similarly to an entry in the BMP Quick Reference Guide, which is undergoing edits.

- Additional announcements:
  - Tetra Tech BMP Cost Profile Update
    - Auston Smith, EPA, noted that the EPA CBPO is working with Eugenia Hart to update the BMP cost profiles on CAST. Auston will work to assist Eugenia with the startup of this work, which will involve reaching out to Workgroups to schedule an initial meeting in Nov to summarize the effort and to seek initial feedback on the BMPs where a cost update will be most useful. Cost profiles are the major focus, However, if there are low hanging efficiency data sets associated, that could also be explored. Eugenia Hart, Tetra Tech, expressed that it would be helpful to reach out with or begin brainstorming any recent literature as Phase 1 of the literature review continues through December. As a part of this effort, a more regionally localized cost profile will be sought to focus in on the Chesapeake Bay Watershed.
  - Phase 7 Calibration History Analysis
    - Auston Smith, EPA, mentioned the ongoing effort by CBPO to look over Phase 7 calibration history data, in advance of potential future updates to the Phase 7 Model. Auston noted that he will be reaching out via email with questions that resulted from the analysis of the Phase 7 calibration history. Auston will also ask in this email if jurisdictions would like to meet to discuss any of the records that have been flagged.
  - Question on Source Data Long Names
    - Bill Keeling, VA DEQ, noted that long names in the source data do not match the templates, so it is causing confusion by having different nomenclature in different places. Bill requested that the source data mirror Appendix A in terms of names/efficiencies instead of using something different.
  - Upcoming CAST Deployment
    - Jess Rigelman, J7 LLC/CBPO Contractor, informed the group that a necessary CAST deployment will be made to update some back-end items to better support reports that are run on CAST. This will take place on Wednesday, October 7th, at 11AM and, as such, CAST will be down for a short period of time.

Decisions:

1. The WTWG approved the September WTWG meeting minutes.

Actions:

1. The WTWG will have a joint meeting with the previous Federal Facilities Workgroup participants in November. Please reach out to Auston Smith (Smith.Auston@epa.gov) with any requests for the November or other upcoming quarterly meetings with Federal Facilities Workgroup participants.

2. A summary of the agroforestry (silvopasture and alleycropping) practices is available to help aid in the reporting of these practices. A Word version has also been posted in the case that a jurisdiction would like to tailor this document to include state-specific reporting information.
3. There is currently an effort underway to update BMP cost profiles. The WTWG will continue to remain informed of this effort. WTWG members with specific requests or suggestions of literature to be included in an initial literature review should contact Eugenia Hart (Eugenia.Hart@tetratech.com) and Auston Smith (Smith.Auston@epa.gov).
4. Auston Smith, EPA, will reach out to jurisdictions to flag any questions on the Phase 7 calibration history submissions. Jurisdictions interested in meeting to discuss any of the items flagged should reach out to Auston Smith (Smith.Auston@epa.gov). *Emails sent by Auston on October 5th.*
5. Auston Smith and Jess Rigelman will follow up with Bill Keeling, VA DEQ, regarding a request for consistent nomenclature in the source data sheet and Appendix A.

Discussion Notes:

Agroforestry BMP Summary Sheet

Bill Keeling (in chat): I thought p6/CAST 23 was to be used through PY30?

Auston Smith: Bill, that is my understanding. I think it's still a partnership decision on whether they will be on a timeline that, by 2030, they can release 2029 Progress on the new Model. But that seems very ambitious. So, my expectation is that it would be 2030 Progress year released in the 2031 calendar year.

Ruth Cassilly: Whenever the new Model is released, then these can be credited. So, if you begin tracking them now, keeping a record of them, then that is the case.

Jess Rigelman: Please do report them. We would love them for the Phase 7 history. You won't get credit in this Progress, but you will get credit in the Progress iterations for Phase 7 when that is released.

Auston Smith: Jess, correct me if I'm wrong. You will get credit appropriately applied because it will be in the calibrated history as well. If you choose to only begin to submit this after Phase 7 is released, you may see problems.

Jess Rigelman: Yes.

BMP Cost Profile Updates

Scott Heidel: Are you cross referencing any of the grant programs, like 319, to get what the full cost of a stream restoration project is per linear foot for the total package design (permit acquisition as well as construction)?

Eugenia Hart: That's a really good question. I can't remember off the top of my head, but I think it is mostly installation and maintenance. It can really be whatever you guys want it to be. We haven't started looking yet, so that's something to think about when we come to you in November. If that's something you want us to look at for the design costs, definitely bring that up and we can include that.

Scott Heidel: Thank you. Just from historical implementation, we've seen a fairly significant disconnect with the current costs that are listed in CAST with reality. So, this is a great project. Thank you!

Norm Goulet (in chat): For Virginia numbers consult with DEQ and the SLAG grant costs.

Auston Smith: Thank you, Scott. We are going to be looking to update a lot of the aspects of the cost profiles as they exist within CAST. So, if you have specific thoughts on where stream restoration in particular could be enhanced or looked into, please let us know. If it's some category outside of the implementation cost or the operations and maintenance cost, we just might need to plan for that update in a particular way. Thanks for your thoughts there.

Source Data Names

Jess Rigelman: It's not necessarily a direct translation in that there are a lot fewer BMPs in the source data than there are in NEIEN. We probably can come up with a compromise. I can't promise until I look at it that it will be exactly what you want, but I will work with you and Auston to hopefully resolve the issue and see what we can do and come back to the group.
Auston Smith: Thanks, Jess. Bill, we will reach out. Thanks a lot!

CAST Re-Run

Joseph Schell (in chat): What are the changes to the reports?
Jess Rigelman: There are no changes to the reports. It's just some of the back-end architecture so that we can better support delivering them in a timely manner on the site.
Joseph Schell (in chat): Understood thanks!

II. Approval of Nominees for WTWG At-Large Members

Lead: Auston Smith, EPA; WTWG Nominees

Auston Smith, EPA, reminded the group of the nominees for WTWG at-large positions, which were announced at the September meeting. Following the September meeting, the call for nominations was extended, and no additional nominations were received by 9/17/2026. Given that the number of nominees is smaller than the available at-large positions, the group sought consent approval of Karl Wilson (USDA) and Kevin Du Bois (DoW) as At-Large members through December 2028. No objections were raised, and Kevin and Karl were confirmed as WTWG at-large members! Kevin provided some introductory remarks to the group.

Decisions:

1. The WTWG, with a quorum of voting members present, approved Karl Wilson (USDA) and Kevin Du Bois (DoW) as at-large members through December 2028. The positions for our other at-large members will extend through December 2027 to maintain a staggering of at-large membership. The current list of WTWG members is accessible under the "membership" heading on the WTWG page.

Actions:

1. Given that there are still open at-large positions, please reach out to Auston Smith (Smith.Auston@epa.gov) if you are interested in becoming an at-large member.

III. CAST Model Update Frequency

Lead: Auston Smith, EPA

At the August Clean Water Goal Team meeting, the Clean Water Goal Team tasked the Watershed Technical Workgroup with investigating considerations and developing options for the frequency of future updates to CAST. The tentative timeline would be as follows: The WTWG would present options to the CWGT to consider at the November CWGT meeting and CWGT would seek consensus by December 2026. The WTWG began initial discussions on this topic at the September 2026 WTWG meeting.

This month, Auston Smith, EPA, went over initial thoughts shared at the September WTWG meeting, provided additional clarity on specific data sets, defined a CAST update, and pointed the group to relevant historical context to help inform their decision. The group continued to discuss potential options for update frequency, ahead of a final recommendation which will be discussed and put forward in November.

Actions:

1. A list of options for CAST model update frequency will be distributed to the group for their review ahead of the November meeting. The list will be updated to 1) remove the option to update CAST every two years and 2) to include an option to update CAST in 2032 and 2037. The WTWG will finalize their recommendation to the Clean Water Goal Team for CAST model update frequency at the November WTWG meeting. *Complete. Please review the email sent by Caroline Kleis (Kleis.Caroline@epa.gov) regarding the proposed options and decision expected at the November meeting.*

Discussion Notes:

Andrew Leight (in chat): Those dates for Ag Census will be when the Census is conducted. Data will be available ~2 years after.
Caroline Kleis: There is an important distinction in the chat from Andrew that the dates for the ag census will be when the census is conducted, but the data will be available two years after.
Auston Smith: Thank you. Great flag, A.K.
Norm Goulet: The CAST update in 2029, that will still be Phase 6. Is that as certain as we can get or is that still up to date relative to the decisions we are making here? The reason why I ask that is we are going to have a coalescence of high-res data and the Ag Census available for that 2029 update. I'm concerned that if we don't do the update in 2029, we probably won't get the land use again until 2034, so that land use is going to be "old in the tooth" to say the least. We are taking on the order of 10 years old.
Auston Smith: That's a concern that the partners and public in general make us aware of- ensuring that the land use data stays in touch with the Model as much as we can. I might call on my colleague, Jackie, to provide some additional insight on land use work that is going on in the Land Use Workgroup and associated Urban Stormwater Workgroup. But, I'll add that they are working to decide on when various data sets are ready, and I think it's a Partnership decision still on when they could be formally incorporated. It would be difficult to finalize a Model and your WIPs in 2029 and then have the land use changed that your WIP was not set upon. Jackie, can you add context there?
Jackie Pickford: Norm, you read my mind with your comments. Thanks, Auston, that was a good overview. I will just add that the LUWG is currently voting on a recommendation to the CWGT to update the model on the frequency that could include the most up to date land use land cover data as well as the Census of Ag data and the land use forecasts. In terms of our production schedule, we plan to map the high res land use land cover using the 25/26 imagery. That will be released probably around 2028 and, assuming we have continued funding, we'd probably do another round after that once the NAIP imagery is available, which I think would be in 2029/2030. Then, of course, it would be about a year or two later that the updated land use data would come out after the NAIP imagery comes out.
Scott Heidel (in chat): Sounds like 2029 lines up well with land use and ag then, and with a five year schedule from there on.
Norm Goulet: Unfortunately, these things are always moving targets. There are always delays. I think we want to make sure that we take advantage of when these major data sets are updated. We sometimes do run into a situation where some of the information is so old that it becomes

problematic, and I want to try and avoid that. Right now, for instance, a big topic of discussion within the Land Use Workgroup is data centers and whether or not we should "burn in" the existing 2022-2025 data centers, as opposed to using the projection data. So, if we don't do an update in 2029, we are going to have some issues with some land uses that are drivers in the Modeling. I see Scott put a comment in the chat. If we can work something along those lines, I don't have a problem with it. I am just really concerned that we have to get that 2029 update in there.

Auston Smith: Yes, the high-res land use is available in 2029. I think that if the Watershed Technical Workgroup wants to ensure that a 2030 update is in the list of proposals that we want to put forward to the Clean Water Goal Team, we can certainly do that. I'd like folks' thoughts, not having been through a Phase update myself. When you complete Phase 7 Model review, and you've completed planning targets, and you are producing your WIP to reach those planning targets, you're doing that on the Phase 7 land use that would not be the 2029 version. When you were to update the land use in 2029, 2030, would that immediately take away some of the validity in your recently released Phase IV WIP? It just seems like a difficult message to me.

Dave Montali: You can easily see coalescence at '29, '34, and '39 of the Census and the land use. If we go through all this work and try to put something out in '29, prior to even using what we've set up for Phase 7, it's going to be counter productive. Even though, if we don't do it, we're getting a little behind. I don't know what the answer is. When we first thought about this, I thought we should do it in '34 because everything is available. But, things get delayed. So, if processing the Ag Census or processing the land use takes another year instead of the two years we are counting on, then everything gets messed up. Rather than those coalescent years, maybe it's a '32 or '37 option where we take advantage of something more recent but it's going to have two or three years of latency with it.

Auston Smith: Dave, leaning on what I thought A.K. put in the chat, if we were to say '32 and '37, those wouldn't capture those ag censuses because they aren't really available for processing and incorporation until a year or two afterwards.

Dave Montali: '32 would capture the '29 land use update and the '27 Ag Census. It'd just be a little older.

Norm Goulet: I was just thinking, if Peter and Jackie got it right in terms of growth projections, there shouldn't be much of a difference between the 2029 projection versus what we are currently producing now. If the projections are aligned, the numbers are going to match fairly well, and there's really nothing to explain.

Jess Rigelman (in chat): We also need time to process the Ag census internally once it is released.

Auston Smith: Thanks, Norm. I'll remind the group that Arianna put a suggestion forward to the group that rather than picking a year based on what is available, it would be when the X, Y, and Z data sets are available. 2035 or 2036, we update the model then. That would be kind of how we phrase the proposal to the Clean Water Goal Team as an option. So maybe as a counter to 2035, I think I heard some folks wanting to be specific on data sets rather than the year.

Tom Butler: I have two questions. The first question Bill asked in the chat, and I would also like clarification on this. Are we using Phase 6 CAST 23 through 2030?

Auston Smith: It is up to the partnership of whether it is 2030 Progress or 2031 Progress. I think there is a very slim chance that the Partnership will have everything done, agreed to, and ready to roll out midway through 2029 so that it can be stood up for Progress data to be submitted for a formal release of Phase 7 in 2030. It seems difficult to me. So, I will just tentatively say that I am going to bet that the first Progress year on Phase 7 would be 2030 Progress, released in 2031.

Tom Butler: Thank you. That leads to my second question. For the '29 update, is it being proposed to update the input deck right before the Phase 7 release? I was just trying to figure out what the '29 was. If it had an implication for Phase 6, I thought that that window had closed on

updates. It could certainly be a decision people could revisit. But then if it is adding to Phase 7, that seems like a different one, because this discussion has been around Phase 7. So, I just was seeking clarity as to whether it is proposed for Phase 6 or to change the inputs for Phase 7.
Auston Smith: Unless anyone has major pushback, I am just going to go ahead and say Phase 6 would be completely out of the question. That ship would have sailed. It would be a half a year at least from 2030, and Phase 7 is about to be released. That would need to be the Model in question that would get this land use update. No way could it be Phase 6. Great question, Tom. Then again, that begs the question of, if Phase 7 was just released, are we putting it on pause for this update? That seems like a difficult turnaround and message.
Bill Keeling (in chat): Whenever the transition year we are looking at providing reporting for p6 and p7. At least when we transitioned from p5 to p6 we provided progress for each.
Jess Rigelman: I know we had two separate versions of NEIEN at the time. Now it is no longer NEIEN. We reported to each of them separately, and there was a Phase 5 version and a Phase 6 version. That is not going to be the case for Phase 6 and Phase 7. You will be reporting your progress to the CAST reporting portal, and it is the appendix, whether we use the Phase 6 Appendix versus the Phase 7 Appendix to process that. So, you don't have to submit two separate versions of Progress. It is just one version that will be processed differently based on a different geography set for land river segments and the Appendix, which should transition that, so it should be simpler on your side as far as reporting.
Bill Keeling: There are certain BMPs, like Urban Nutrient Management, where we in Virginia might want to submit a whole new history once Phase 7 becomes the official model, using just the Phase 7 nomenclature. That's what I am wondering about.
Jess Rigelman: You can submit it using the new nomenclature now, and it maps to the old version in Phase 6, and it maps to the new version in Phase 7. So, all of that should be accounted for. So, either you use the old names, and it gets mapped to the new names in Phase 7, or you use the new names now, and it gets mapped to the old names in Phase 6. So, I am hoping that is accounted for in the Appendix, but if you review that and think it does not, then we can make some concessions there to fix that. But, that should be taken care of. So, you can make that transition whenever you want is what I am trying to say.
Bill Keeling: Ok, if you say so.
Auston Smith: Let us know if you have questions, Bill, as you dive into that.

Walkthrough of Proposed Options

Auston Smith: The Phase 6 way was updating CAST every two years. Do we want that to be one of the options that we send back to the Clean Water Goal Team? Or is there just no interest in even having that as an option moving forward?
Bill Keeling (in chat): No
Auston Smith: Ok, I see one answer immediately in the chat of a no. We're not taking a vote on this. I'm just doing a pulse check. I don't want to put forward a proposal to the Clean Water Goal Team that we don't want. So, we can we make a decision on these in November, but I don't want to bring the every two years option back to the group next month if we don't want it there. I have a single data point on the pulse check, and it's making me think maybe we shouldn't include it. So, if anyone has strong feelings otherwise, please let me know in these next couple weeks.
Dave Montali: I think that '30 is a nonstarter. A two-time option could be '32 and '37. You aren't getting the latest. If we do '35 or '36, we're really operating on the last available data from 10 years ago. I don't want to advocate for too many of these things, but I think the Clean Water Goal Team will hear that point from a number of people. If it's one time, maybe 2035 is a good projection. Or we do one time when they're all available, so maybe that's 2034. But if you want two times, then it ought to be '32 and '37-ish timeframe.
Auston Smith: Dave, while you are unmuted, how do you feel about an update every two years?

Dave Montali: No good.
Auston Smith: Okay, that is really helpful. Maybe that staggered '32/'37 could be one of the options that we bring back next month.
Dylan Burgevin (in chat): What land use and ag census years will the p7 model be using as of the 2030 release?
Jackie Pickford (chat): In terms of land use, if there is a 2030 or 2032 update, we could incorporate the 2028/29 LULC (which would be based on 2025/26 imagery)
Norm Goulet: Dave, based on what you are saying, are you ok with 10 year old land use data? I am really curious to know what the states think of that. I don't have a dog in the fight, but it seems to me that 10 year old land use data is problematic.
Dave Montali: It depends on how much things change and what those changes create. It takes a lot of energy to deal with things when we don't know what's going to come out of it. My thought with doing it two times in that period is to pick up stuff that was more along the lines of four or five years old. So, if we did '32, we would use the 28/29 imagery. The Ag Censuses are '22, '27, and so on, and they take two years to process. So, Phase 7 is using the '22 Ag census. An update in '32 would use the '27 Census and the '28/'29 land use.
Norm Goulet: Thanks.
Auston Smith: Other thoughts there to Norm's question? How do folks feel about 2032 and 2037 given 10 year old land use data? I don't want to use complete silence as support, but I get the sense that it could replace our top option there at the very least. I have one more direct question- is there any voting member that has a firm belief that 2030 with additional options should be one of the updates that we put forward?
Dave Montali: I think it's ok to put it as an option. I think the Clean Water Goal Team can wrestle with how this adversely effects our WIP and planning targets.
Norm Goulet (in chat): Agree, option to them
Auston Smith: Right now, it's sounding like maybe we'll put forward four options. We'll do a 2030, we'll do a 2032/37, and then we'll kind of have this separated out 2035, whether it's 2035 or whether it's data set specific in maybe 2036. Are there any other options that people think should be considered? Any other data sets that should be considered in those options?
Peter Claggett: What about 2029, 2034, and 2039? Those are the years that will have both the Land Use and the Ag Census in hand. So, in '29, we could do it before the launch. Before 2030, it could be updated. In 2034, we'll have 2030 high-res land use, and we'll have 2032 Ag Census. From a Land Use perspective, the critical years to keep everything as current as possible would be '29, '34 and '30.
Auston Smith: We were discussing how 2029 could be incorporated into Phase 7. I thought that Phase 6 is completely off the table. That's not being adjusted again to then translate into Phase 7. Phase 7 would be rolling out, ideally in the 2030 time frame. So, would the idea be that in 2029, 2030, your team has the data set, and it is immediately used to revise the Phase 7 model? My initial problem with that is that the WIPs will have just been created using the old land use. So, that makes messaging, I think, somewhat difficult. Norm made the comment, however, maybe they won't be that different, and so it wouldn't be that difficult to message. Just giving you some catch-up context.
Peter Claggett: The idea of updating CAST between when the models are created and the target end year, which is in our case 2040, is for adaptive management, right? So, updating CAST is not changing the calibration. It's not changing anything except, from a land use perspective, you're updating stuff, and the forecasting provides basically a compass bearing for where you are headed. So, the states will have established their WIPs already, and then the new data comes in. Then you ask, are you still on track or did the compass bearing change a little bit? So, you need just need to take that into consideration. Just like if we updated in '34, you do the same thing. So it's not like the rug is being pulled out. We're not going to sit on data for a decade and then tell

you you're off track. We're going to keep as current as possible so you can keep adjusting like you're orienteering with a compass.
Auston Smith: With the new land use and that new CAST version, that would change planning targets, though. So, your WIPs would no longer be reflective of those changed targets, correct?
Jess Rigelman: No, it wouldn't change planning targets. Planning targets are set. It's just how you're getting to your WIPs. As we've done with every update of CAST, people tend to get further away from their planning targets. I'm not saying that that's what's going to happen. So, the WIP results would change because we'd have a new 2040 Land Use under the assumption WIPs are run on 2040. But planning targets are planning targets, and they're set.
Peter Claggett: Hopefully you guys have already decided this, but we learned in Phase 6 that you are always on the merry-go-round if you have an update every two years. I don't even think that should be an option, honestly.
Auston Smith: We've heard that from a couple of other partners, Peter, that we should remove that option. It seems very hectic based on the feedback I've heard. We are considering removing that and putting 2032 and 2037 update option in there for our November decision.
Peter Claggett: Why 2032? We may not have the next High-res Land Use, and we definitely won't have the next Census.
Dave Montali: It was an option because we were talking about doing it one time at the midpoint. If we just did 2035, then we would be really old on the Land Use and Ag Census, so it was just another way to say we are getting the new Land Use and Census in '29-ish, and we will put the new model out three years later based on that.
Peter Claggett: If we did that, then in '37 your Land Use would be 12 years out of date and your Ag Census would be 10 years out of date.
Dave Montali: Not with the '32-'37 option. 2032 you'd use the five-year-old stuff and 2037 you'd use five-year-old stuff.
Peter Claggett: I guess what I am saying is when you get to '37, we may not have the '35. So, the best you could do in '37 is the 2030 land use and the 2032 Ag Census. Updating it on Census years is just out of sync in my mind. Say 2036, the only land use that's going to be in there in 2036 is the 2025 land use. So, with 2037, then you go back to being five years out of date, but you're not minimizing the time that you're sitting on data if you do '32 and '37.
Dave Montali: As I said, it was in contrast to the one-time midpoint option. If we update CAST in 2035, we would still be operating on 21/22 imagery until we changed it in '35. So, it just seems to me like if we decide to change it after the partnership has gone through the Model review, all that stuff, and went through planning targets and WIPs, and then here's something new with unknown implications, it's going to be a real wheel spinner from the start. If the Clean Water Goal Team says we'll do that, then that's fine, and then we could change. The thoughts from the jurisdictions, and I think this is clear, is that every two years is not feasible. Just once throughout this period would be good enough. We all know what we need to do, but there'll be people that want to argue about the latency of the land use or the latency of the ag census. So maybe there's a two-time option. I'm not married to '32. I know that we're going to use 27/28 imagery to put out a land use product in '29. Then we can assume four years later that happens again. So, if you do one before we use Phase 7, then we could easily be talking about what to do in '34/'35 and be done with it. But if you don't, then maybe '31 instead of '32. You don't want to do it when we project that we'll have everything done because we'll always be fighting the deadline. To me, every two years is out. The idea of just one time may not be good enough for anybody. So, pick two times equally spaced in that period of use of Phase 7.
Peter Claggett: I agree with you, two times is good. You may want to have an option somewhere between '29-'31 which would be the first update and sometime between '35-'37 would be the next update. You could give blocks and say, with everything else going on, what's the best year in these two blocks?

Auston Smith: With the work going on in 2030, the level of work is pretty immense to incorporate this into the new Phase 7 Model, since it would be based on a completely different land use? I just wonder if it's not available until 2029, when could it really be incorporated and rolled out into Phase 7? As I've mentioned, the messaging around that is pretty difficult, I think.
Peter Claggett: From my perspective, we'll have the land use probably in hand in '28/early '29. We've already coded the whole process, the partnership's about to agree to the whole process on how we forecast everything, and we can run that model in a couple days. So, I don't see any problem from our end of, say in the summer/ early fall of '29, providing Jess with the inputs. The Ag Census, is taken in '27, and they usually deliver it in spring of 2 years later. Historically, USDA would be delivering it in the spring of '29.
Jess Rigelman: Nothing ever shows up on time. The Ag Census is supposed to show up then. The land use is supposed to show up then. Then it is a lot of work on my end. I can do it, but we all know if there's a Model update, it doesn't just involve the land use. Everybody wants something else built in there. I can't answer that until I know what this would involve. If the partnership wants it, it wants it and we will do it. The work that I have to do is probably minimal to the work that you and the partnership need to do to agree with the fact that you reviewed a Model and calibrated a Model, and reviewed your planning targets, got your planning targets ready, and then basically we pulled the rug out from under you and now it's all different from 2023 forward. So, yes, I can tell you it's a lot of work on my end. It's a lot of work on Joseph's end. I don't know who else would have to be involved in this, but I just know what goes into this. It's going to be more than the land use. The Partnership is basically just going to have to rethink everything that's done from now until 2029.
Bo Williams: It's a lot of work for the modelers. We also don't understand the level of effort that will occur. There's a fair amount of uncertainty in that as well. So, we can kind of make these general timeframes but, as she said, it generally takes longer than we assume. We're just talking about the CBPO modeling staff effort involved there, which is just a part of the picture. So, I guess I'm wondering if any jurisdiction could provide insight on their side of it and the effort that would go into doing an update, running through AMT decisions or other places that will involve decisions if there are new BMPs, and if that's just a big drag on capacity at a jurisdiction level that should otherwise be going to WIPs. So, I have a lot of skepticism that we could pull it off, not to say that we can't do it. Phase 7 is released, and then there's a target planning period thereafter, and then WIP planning would really start in earnest late '28 or early '29 when we're talking about starting over this again. So, we're doing WIP planning and Model updates at the same time? Is that the same people at the jurisdiction level? That's more a comment and maybe a question if each jurisdiction has a thought on their own capacity to do those things at the same time.
Scott Heidel: Excellent points and really important communication here on this. I have to agree with a lot of points Dave made and Bo just hit on. There is just going to be a huge lift. If it is concurrent to our WIPs, and if they will make our WIPs inaccurate immediately, that's very concerning. Regarding the level of lift, we're going to hopefully develop a StoryMap, for all of our counties that incorporate the countywide action plan, as well as county level modeling. To build on top of that, we're going to be incorporating our delisting strategy for targeted funding and rapid delisting, and things like that. So, this one's going to be very unique and new, and it's going to be a large task. So, if we can make this a little bit more streamlined where we can dedicate staff time to make our WIP actually a really awesome and useful document, I'd really appreciate that.
Auston Smith: Thanks, Scott. Are there any other comments, maybe particularly from jurisdictional partners on their expected level of effort or wants/needs during that '29 to '31 period? Seeing no comments, in summary, I will remove that top option; we'll replace it with '32 and '37, and we can have continued discussion in November about 2030 timeframe. I will really appreciate everyone's advanced thoughts before the November meeting on 2030, so we know

whether we want to include that as another option or not. Thanks everyone. That was a great, great discussion.
Bill Keeling (in chat): We had to deal with the numbers changing from WIP 3 planning using CAST17d to CAST19.
Bill Keeling (in chat): Sorry forgot to ask early on but is there an expected date of data delivery from USDA this year?
Auston Smith: Bill, I have not been in direct contact on the expected due date from USGS and their contractors, but I have not received an indication that it should be any later than November 1st. So by November 1st, I will try and work offline to solidify my own understanding of that since we've had delays in the past couple years, but I think we're on schedule.
Bill Keeling (in chat): Well that is better than last year.

IV. Update on Expert Panel Protocol Revisions

Lead: Auston Smith, EPA

Auston Smith, EPA, discussed the draft updated Expert Panel Protocol with the group and highlighted feedback received on the Expert Panel Protocol draft in advance of the call. Time was made for group discussion.

Actions:

1. Please continue to submit comments on the draft updated Expert Panel Protocol to Auston Smith (Smith.Auston@epa.gov). Auston will review all the feedback submitted and integrate comments or suggestions into another draft for WTWG review, anticipated in mid-late November.

Discussion Notes:

Norm Goulet: I am confused with that last bullet there. Contractual support meaning contractual support for the members or for the management of the Expert Panel? They are two very different things. I've run more expert panels than anyone in the Bay Program, and we've never once paid a panel member.
Auston Smith: My understanding is this would be to supplement the coordination and research with an external contractor. So, hypothetically, there is an overarching update that could be done to a suite of modeling practices, and it's just too much for the Agriculture Workgroup or the Urban Stormwater Workgroup to fit into their review, schedule, agenda, so forth. My thought is that, in close coordination with that Workgroup, a contractual service provider could lead this research effort constantly getting insight from the Workgroup. They would largely be coordinating it in close coordination with the expert panel chair and the elected representative from that jurisdictional reporting agency that submitted this request. So, they'd be kind of working together, and the idea would be that that contractor team would be leading the research effort and supporting the coordination with workgroups with that Expert Panel chair. Is that a little bit more clear?
Norm Goulet: That's only occurred once in the history of the Bay Program, and that was when Sarah Lane and Tom Simpson did that gigantic overhaul of BMPs. 99% of our Expert Panels are focused on a single BMP. At least within the Urban Stormwater Workgroup, we have always worked within the existing structure that we have by having our coordinator be the entity that coordinates the Expert Panel process. While your example does have a valid history, it is totally inconsistent with 90% of the operations of Expert Panels. To completely revise the Expert Panel document around that one piece of history is problematic. Our members in the workgroups are not

the experts on up and coming BMPs. That's why we bring in these outside folks. We can't have the members being the experts 90% of the time. Yeah, they may have some knowledge of it, but they are certainly not the leading experts to do this work. They oversee it. They provide comments. We use them frequently to guide the group in terms of what the states currently do or what the state thinks might be a problem, but to have the members be the experts for the Expert Panel is problematic.
Bill Keeling: I'm going to mirror some of what Norm said in terms of expecting workgroup members to constitute the majority of the panel. A little history here- the BMP protocol originated in the Tributary Strategy Workgroup for Phase 4.3. And in 2008, I, as the initial chair of the technical work group, worked with Dr. Hanson, who was the co-chair of the GIT at the time, and we included the Simpson and Weammert report. It basically morphed into what we have today as a protocol. The idea was to actually have scientists that were working on the BMPs or understood the science be the Panel because, as Norm said, most of us that are on these workgroups are not experts on BMPs or necessarily even scientists. So, it doesn't seem to make sense to me that that should be the majority of the membership instead of trying to get the knowledge base of the scientists that exist out there in this country that might be willing to participate. I can see contractual support for hiring a contractor to do literature reviews and things like that, but I don't know where else they would kind of fit in in terms of contractual obligations. To be honest, the current protocol, I believe as written is dependent on a member of the Watershed Technical Workgroup being part of the Panel and speaking for all in terms of reporting and tracking and things like that, which is impossible. I don't know what everybody else is doing. I can speak for Virginia, but I can't speak for the other states. So, it is not really working the way it was envisioned. I believe you're going to need more involvement of the Watershed Technical Workgroup and the entire membership at various stages, and to not depend on having a source sector workgroup show up with what they think is a finished product and expect approval when there may be questions that needed to be asked earlier that get bypassed. In particular, we should not be discharging a panel before all of the review and questions are answered. We should not be in a situation where they have to try to re-panel people to answer questions that should have been dealt with in the process to begin with.
Auston Smith: Thank you, Bill. Well received. I agree. I got to iron some of that out then.
Bill Keeling: I've had a unique history on this whole protocol thing for the entire time I've been at the Bay Program.
Auston Smith: I might be reaching out then. You got it.
Mark Dubin (in chat): I agree with Norm regarding the panel membership. Another reason is to provide an independent scientific review of the science of BMPs versus public agency appointees. I believe doing so otherwise undermines the intention of the expert panel process. Thank you.
Jess Rigelman: Yeah, I'm going to support everything Bill and Norm said about panel membership and then what Bill ended with there because that has been an issue. I get the results of some BMP panels, and I don't even know how to begin to incorporate this into the Model, which was the reason for the Technical Appendix in the first place. So, we have made strides, but we need to have panel members around to ask questions. I do want to get back to the contractual support. We have had people like Tetra Tech support in the past as far as coordination, literature, research, and to help with the writing of the final report. So, I just wanted to say I think that that is where that comes from. But I also want to support what Norm and Bill have said as far as panel membership in general.
Norm Goulet (in chat): The contracts were typically funded by WQGIT proposals
Auston Smith: If the lift is too big and it is determined that we don't have experts in-house, that would be one way contractual support could be utilized. If, hypothetically, we do think that we have enough experts in-house, but it is still a huge lift, I could see us redoing what you just said and using contractual support more for the coordination piece. So, I think we would need to

review and evaluate resources as we have them. On the panel membership, though, I'm hearing a consistent outcry on how that's phrased. So, I'll really take that to heart in this revision.

V. Workgroup Workplans: Initial Brainstorming

Lead: Auston Smith, EPA

The Clean Water Goal Team approved their draft Management Strategy to be submitted to the PSC at their September 28-29th Hybrid meeting. Given this new Management Strategy, workgroups under the Clean Water Goal Team are tasked with creating workgroup workplans outlining specific actions or deliverables the group will take on through 2030. Auston Smith, EPA, outlined what is requested of the WTWG and asked the group for initial feedback on items for inclusion in this Workplan.

Actions:

1. The WTWG will continue to work on the Workgroup Workplan assignment from the Clean Water Goal Team. In the near term, WTWG leadership and staff will work to develop a high level bulleted list of items we expect to include in the Workplan. The WTWG will discuss this high level list at their November meeting before submitting it to the Clean Water Goal Team by Nov 30th.

Discussion Notes:

Dave Montali: Could you go back to the slide with the template? When you talked about gaps and challenges, the intention is to list an action and then somehow say how does the action consider those gaps and challenges? Are you going to list them all down every time?

Auston Smith: I think so. Caroline, I might ask your opinion on this. I know that you've worked somewhat with Jeremy here.

Caroline Kleis: I'm not totally sure I have an immediate response to that, but I will say there will be more guidance on this template, and it will be more specified to the Clean Water goal. So, I expect that will come next week. So, we can we can give more information as we have it.

Dave Montali: I'm not paying a whole lot of attention to the overall management strategies, but I would have guessed that some of the things that any workgroup talks about relative to gaps and challenges are already talked about up at the goal levels. I'm just trying to figure out, do we really need to go through this approach with gaps and challenges when we're getting down to work plan items- things that we are going to do by a certain date? I'm just trying to learn what to do about the Modeling Workgroup's efforts along this line.

Auston Smith: Sounds good. Let's continue to stay in contact. I'm definitely going to be leaning upon Watershed Technical Workgroup's leadership team, the feedback from this workgroup, and the enhanced template and guidance the Clean Water Goal Team will be giving us on that. It's a little nebulous, I'll admit, Dave.

Dave Montali: Well, we love to write things and have to write and write and write. Maybe if there was something particular about a certain action and, for example, this target date is dependent upon getting all the inputs to the Phase 7 Model by a certain date or something like that, then maybe I'd put something in here. But, for us to go through and identify all the gaps and challenges, it just makes it a harder job.

Auston Smith: Got it. Loud and clear. Thank you. We'll appreciate that guidance from the Clean Water Goal Team. I think that the way you kind of outlined it is generally what we're going to be making the effort to do. I will just say I hope that we don't need to be exhaustive and it's general. So other questions, comments there?

VI. Phase 7 Model Review Process & CWGT Meeting Follow-Up

Lead: Auston Smith, EPA

Auston Smith, EPA, provided the group with a very brief summary of the presentation shared with the Clean Water Goal Team at their September Hybrid meeting on Phase 7 Review Expectations. Given time constraints, additional discussion on this topic was tabled to the November WTWG meeting.

Actions:

1. Given that the WTWG was not able to walk through and discuss the presentation on the Phase 7 Model review process in it's entirety, the WTWG will revisit this agenda item at a future WTWG meeting.

VII. Wrap-Up

Lead: Caroline Kleis, CRC

VIII. Adjourn

Next Meeting: November 5, 2026, from 10:00AM-12:00PM

Attendees:

Sushanth Gupta, MWCOG
Christina Lyerly, MDE
Auston Smith, EPA
Caroline Kleis, CRC
Bill Keeling, VA DEQ
John Lancaster, PA DEP
Arianna Johns, VA DEQ
Norm Goulet, NVRC
Eugenia Hart, Tetra Tech
Cass Klingaman, NYSDEC
Mallory Lentz, MD DNR
Dave Montali, Tetra Tech
Andrew Leight, MDA
Matt Kofroth, LCCD
Megan Thynge, EPA
Lori Brown, DNREC
Norah Carlos, CBC
Ruth Cassilly, MDA
Scott Heidel, PA DEP
Dylan Burgevin, MDE
Mark Dubin, VT Cooperative Extension
Sabine Miller, DOEE
Joseph Schell, DNREC
Elizabeth Hoffman, MDA
Emily Dekar, USC
Katie Brownson, USFS
Suzanne Trevena, EPA
Jess Rigelman, J7 LLC/CBPO Contractor
Kevin Du Bois, DoW
Josh Glace, Larson Design Group
Tyler Trostle, PA DEP
Jackie Pickford, USFS
Bo Williams, EPA
Tom Butler, EPA
Peter Claggett, USGS