



Clean Water Goal Team (CWGT)

Monday, July 27th, 2026
1:00 - 4:00 PM

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

Purpose: This is the monthly meeting of the Clean Water Goal Team (CWGT). The CWGT heard multiple updates, informational presentations and follow-ups from the 2-day June hybrid meeting. There were two decisional items: 1) confirmation of nominees for Co-Chairs of Monitoring Workgroup and Co-Chairs of Data, Analysis & Reporting Workgroup and 2) approval of the charge for the Criteria Assessment Protocol (CAP) Action Team.

Actions & Decisions

Action: The CWGT will hold a hybrid meeting [September 28-29](#) with in-person participation at the CBP Office in Annapolis, MD. CWGT leadership will share a calendar invite, RSVP form and hotel room block information soon. An agenda outline was shared with members for travel approval purposes. If you did not receive it and need that, or any other details, please reach out to CWGT Staffers.

Decision: Jimmy Webber and Amanda Shaver were confirmed as Co-chairs for the Data, Analysis and Reporting Workgroup.

Decision: Cindy Johnson, Tom Parham and Meighan Wisswell were confirmed as Co-Chairs for the Monitoring Workgroup.

Decision Requested: CWGT voting members (excluding those eligible for re-nomination) are asked to vote by **Friday, August 7th** via a poll to rank the [at-large voting member nominees](#). The top three nominees will be confirmed at the August 24th CWGT meeting for terms through December 2027.

Action: CWGT will discuss remaining questions on Scenario Base Year. An office hours session may be hosted in late August/early September for further discussion prior to the requested decision at the September CWGT meeting.

Action: CWGT will discuss remaining questions on the proposed hydrologic and critical period ahead of a requested decision at the September CWGT meeting. If you have additional questions or concerns about the information that was shared, please reach out to CWGT leadership.

Action: Two LUWG office hours sessions about the Chesapeake Bay Land Change Model will be held on [August 12th](#) and September 16th for additional detailed discussions ahead of a requested decision to approve the CBLCM at the September CWGT meeting. Please reach out to Peter Claggett (pclaggett@usgs.gov) with any questions.

Decision: CWGT approved the Criteria Assessment Protocol (CAP) Action Team [workplan timeline](#) and charge to determine assessment methods for all dissolved oxygen criteria.

Action: A first draft of the Clean Water Management Strategy is planned to be completed by August 21st to be circulated prior to the September CWGT meeting.

Action: CWGT members should complete the survey to rank RENPS challenges and management approaches, if they have not already, by Friday, July 31st. If you are a recently nominated non-voting member and did not receive the survey link prior to the meeting, please reach out to Jeremy and Petra.

Minutes

I. Welcome and Announcements

Lead: Lee McDonnell, CWGT Co-Chair

II. Business, Workgroup & Phase 7 Decision Updates

Lead: Jeremy Hanson, CWGT Coordinator

Jeremy Hanson provided the group with relevant announcements and updates, which are on the [posted slides](#) and at the bottom of the [agenda](#). 2025 progress is expected to be released in early August, followed by EPA's Milestone Evaluation and 2025 Assessment. The new [Governance and Management Framework](#) (GMF) is posted and a [webinar](#) outlining key parts of the GMF was held July 28th, a recording of which is [posted](#).

Materials: [Coordinator Updates Presentation](#), [CWGT June 2026 Meeting Actions & Decisions](#)

Actions:

1. The CWGT will hold a hybrid meeting September 28-29 with in-person participation at the CBP Office in Annapolis, MD. CWGT leadership will share a calendar invite, RSVP form and hotel room block information soon. An agenda outline was shared with members for travel approval purposes. If you did not receive it and need that, or any other details, please reach out to CWGT Staffers.

III. Confirmation of Nominees for DAR and Monitoring Chairs and Introduction of Nominees for CWGT At-Large Voting Members

Lead: Jeremy Hanson, CWGT Coordinator

Nominees for all positions introduced themselves or were introduced. Co-Chairs for DAR and Monitoring Workgroups were confirmed. Jeremy Hanson and Lee McDonnell outlined the proposed process for confirming the CWGT at-large voting member nominees and corrected the term limit for the three available positions will conclude December 2027. There was a question on whether the two at-large voting member nominees who do not get chosen may be

automatically nominated for non-voting member positions, which will need to be discussed further.

Materials: Nominee Bios/Resumes - [DAR Co-Chairs](#), [Monitoring Co-Chairs](#), [CWGT At-Large Voting Members](#)

Decisions:

1. Jimmy Webber and Amanda Shaver were confirmed as Co-Chairs for the Data, Analysis and Reporting Workgroup.
2. Cindy Johnson, Tom Parham and Meighan Wisswell were confirmed as Co-Chairs for the Monitoring Workgroup.

Actions:

1. CWGT voting members (excluding those eligible for re-nomination) are asked to vote by **Friday, August 7th** via a poll to rank the [at-large voting member nominees](#). The top three nominees will be confirmed at the August 24th CWGT meeting for terms through December 2027.

Discussion:

- Matt Stover, MDE (in chat): I agree with Kevin's comments on Amanda wholeheartedly! She would be an asset as cochair of DAR!
- Peter Tango, USGS (in chat): Great panel of candidates that I have had the pleasure of working with over the years. Wonderful assets of wisdom and knowledge and vision for our new workgroups with DAR and Monitoring.
- Kevin DuBois, DoW (in chat): Will the two nominees who don't get picked for At-Large seats become automatically nominated for non-voting member seats?
 - Lee McDonnell responded that will need further discussion since we'd previously talked about keeping non-voting members to only workgroup chairs and advisory committee representatives.

IV. Scenario Base Year Update

Lead: Alex Gunnerson, Koniag/CBPO Contractor

Alex shared a brief update on action items related to Scenario Base Year from the June CWGT hybrid meeting. Regarding the confidence in datasets, Alex outlined comparisons for each different dataset (see table below) for more detailed understanding of the differences if either scenario base year option (2010 or 2022) was chosen. Alex then outlined two options for how to deal with the distribution of growth, given concerns raised at prior meetings that the previous method was unfair to basins that did not grow. Those options are outlined on the [posted slides](#).

Materials: [Presentation](#)

Actions:

1. CWGT will discuss remaining questions on a Scenario Base Year. An office hours session may be hosted in late August/early September for further discussion prior to the requested decision at the September CWGT meeting.

Discussion:

- KC Filippino, HRPDC asked what is included in “growth” in this context and what model is used?
 - Alex responded that this includes growth in all parameters and datasets mentioned, not just land use. It’s looking in aggregate, not at one particular dataset.
- Olivia Martin, SAC asked what year WIPs would be based on. Thinking about the controlling for growth issues and how that ties together.
 - Lee responded that ultimately it will be a 2040 projection for the targets and WIPs.
 - Alex clarified that the options for how to deal with growth presented here are just for determining what the 12-year period between 2010 and 2022 would look like. It would not change how growth after the scenario base year is accounted for.

V. Hydrologic & Critical Period Update

Lead: Robin Glas, USGS

Robin shared a brief update on further analysis conducted on the hydrologic and critical period after requests from the June CWGT hybrid meeting. Robin walked through recent runs with different weighting scenarios varying mean and high flow, all of which resulted in the same top-ranked hydrologic period of 1998-2007. Multiple trend tests showed no statistically significant trend or step change in recent decades, suggesting recent variability indicates a complex, station-specific response rather than a new hydrologic regime. For the critical period analysis, 2004-2006 was the only 3-year period within 1998-2007 that met the target return period criteria. The proposed hydrologic and critical periods from this analysis score better than (i.e. closer fit to reference distribution) or similar to the previous/current 1991-2000 hydrologic period and 1993-1995 critical period when looking at multiple metrics.

There were questions about the trend tests to determine if recent decades suggest a new hydrologic regime, whether the flows are treated as a composite or individually in the model (re: slide 6), and how the wettest and driest years on record fit in the analysis. There was discussion on the appropriate next steps, given Robin’s analysis has now resulted in one proposed set of hydrologic and critical periods, in addition to requests to consider the fact that we have more data and clearer statistics than the previous evaluation and factor in DO attainment into determining the critical period.

Materials: [Presentation](#)

Actions:

1. CWGT will discuss remaining questions on the proposed hydrologic and critical period ahead of a requested decision at the September CWGT meeting. If you have additional questions or concerns about the information that was shared, please reach out to CWGT leadership.

Discussion:

- Scott Heidel, PADEP asked how the flows get modeled after being composited (in reference to slide 6).
 - Robin responded that slide 6 shows ten-year average flow anomalies all based on observed stream flow, so there is no modeling. The intent was to zoom in on recent years to see why the most recent years are not showing up as good hydrologic period candidates.

- Scott asked whether, in the next step when this does go into the model, do the composite flows get reverted back to the actual flows or is the composite distributed another way?
 - Lew responded that the model would revert back to using the actual flow for each basin. Basin to basin we will see change, e.g. the Susquehanna is very steady and close to the mean during the proposed reference period but some of the others have more deviation.
 - Scott responded that confirms some of his concerns, because in the same period, you're seeing some really, really low flows in other basins. Just wanted to make sure we weren't introducing modeling bias by using a composite when you have very different flows throughout that time period per basin.
 - Robin clarified that the composite is a weighted composite, so the Susquehanna, e.g., is weighted much more than others.
- Dave Montali, WVDEP/Tetra Tech asked for confirmation that the points on slide 6 are the center of a 10-year period, so for the proposed period we should be looking at the 2003 point.
 - Robin confirmed that is correct.
 - Dave noted that the Susquehanna and Potomac both show very close to the reference period for the 2003-centered 10-year period.
 - Robin agreed and added that the purpose of the analysis on this slide was to see whether there was evidence of a new flow regime in recent years. This shows some basins higher and some lower than the reference period, so with the lack of evidence for a new regime, it makes sense to stick with looking at what is closest to the long-term average.
- KC Filippino, HRPDC asked (in chat): Question about hydrologic and critical period, what are next steps? Since Robin presented such clear info, are we just going to vote on moving forward with 1998-2007 & 2004-2006 at the next meeting?
 - Lee responded that there are still questions before us, so further discussion should occur before calling for a decision on whether we move from our current hydrologic & critical period to the proposed best candidate from Robin's new analysis.
 - Norm Goulet, NVRC asked (in chat): what are the questions?
 - Lee responded that one aspect is just letting Robin's analysis sink in and another is understanding what would change if we moved away from the current hydrologic & critical period.
- Tish Robertson, VADEQ suggested that, recognizing the decision isn't based on dissolved oxygen criteria attainment, it may be helpful to understand how the 1993-1995 period compared to the 2004-2006 period in terms of level of attainment. It seems like that's a good question for people to grapple with as they understand what the critical period really means.
- KC Filippino commented (in chat): Sorry, back to hydrologic period etc, I hope we take into account the fact that we have more data, better analyses, clear statistics, etc compared to the last evaluation, and that we have the time factored in to have those discussions. It shouldn't be about what it means, but are we using the best available data and methods.
- Guido Yactayo, MDE (in chat): Thank you for your presentation. How do the wettest (2018) and driest years on record fit on your analysis?

VI. 2040 Land Change Forecast

Lead: Peter Claggett, USGS

Peter provided an introductory presentation on the 2040 land change forecast for the Phase 7 model, which the CWGT will be asked to approve at the September CWGT meeting. Peter noted the LUWG is reviewing the 2040 “business as usual” BAU scenario and the USWG is reviewing the forecast of solar fields for the 2040 BAU scenario, and he highlighted key upcoming meeting dates including two office hour sessions.

Peter outlined the role of the land use forecast, how the Chesapeake Bay Land Change Model is developed, and a preview of preliminary model results. The model is parameterized with high-resolution data, housing and job growth from 2010-2020 and development change from 2013-2022. Peter highlighted a few counties with higher and lower simulated growth and comparisons of observed vs. simulated growth. Outstanding updates include various refinements to model inputs and verification and validation of model outputs (slide 22). Peter confirmed the viewer is being transferred to another platform to accommodate some overlay capabilities for partners to use in their review.

Materials: [Presentation](#), [FAQs Document](#), [Journal Article](#), [CBLCM Output Viewer](#)

Actions:

1. Two LUWG office hours sessions about the Chesapeake Bay Land Change Model will be held on [August 12th](#) and September 16th for additional detailed discussions ahead of a requested decision to approve the CBLCM at the September CWGT meeting. Please reach out to Peter Claggett (pclaggett@usgs.gov) with any questions.

Discussion:

- Kevin McLean, VADEQ asked if a viewer with the ability to overlay layers could be provided.
 - Peter responded this was being made in another platform by Andy Fitch to accommodate that need. A test was shared with Arianna Johns.
- KC Filippino shared appreciated for Peter’s continued updates through other venues to workgroups. KC shared that they provided some TAZ data to hone in on what they suspect are non-growth areas as opposed to what’s being projected as growth areas. Looking forward to the next iteration.
- Holly Walker, DNREC (in chat): Yes, Delaware is still reviewing this.

VII. Break

VIII. CAP Timeline Review and Approval

Lead: Tish Robertson, VADEQ, CAP Co-Chair

Tish shared an updated timeline for the Criteria Assessment Protocol (CAP) Action Team’s workplan for developing recommendations on assessing dissolved oxygen criteria. Through Jan 2027, CAP plans to focus on development of the 4D interpolator DO assessment protocol with a presentation to CWGT in February 2027. Through 2027, CAP will work on documentation, publication of the protocol and review of the SMLE protocol. Additional details on tasks and how CAP is approaching them are in the [posted slides](#). With no comments or reservations, the timeline was approved.

Materials: [Presentation](#)

Decisions:

1. CWGT approved the Criteria Assessment Protocol (CAP) Action Team [workplan timeline](#) and charge to determine assessment methods for all dissolved oxygen criteria.

Discussion:

- Lee McDonnell, CWGT Co-Chair noted the work outlined for 2028 is to develop a widget for usability of the 4D interpolator assessment, but the assessment rules would all be wrapped up by July 2027.

IX. Management Strategy Development Update

Lead: Jeremy Hanson, CWGT Coordinator

Jeremy Hanson, CWGT Coordinator provided an update on Management Strategy development with reminders about the overall timeline and how the various documents and sections feed into each other. Jeremy noted the snapshot of signatory programs and statutory authorities is being solicited across the partnership, so signatories should have received a request from Sarah Brzezinski on those sections. Jeremy clarified there will be outcome-level workplans that are a bundling of workgroup-specific workplans that CWGT is developing as well and gave more detail on expectations for different parties on different sections of the MS through a RACI Matrix. Kaylyn Gootman and Tony Timpano shared that development of the WQSAM and TEC sub-chapters, respectively, are progressing.

Jeremy shared initial draft RENPS Challenges and management approaches (MAs), which were shared with CWGT members prior to the meeting for preliminary ranking via a SurveyMonkey poll. Challenges were ranked on value/impact and level of influence we have as a partnership, two of which fell into the high impact and influence (tracking/reporting/verification of BMPs and adaptive management of targets with latest science and modeling tools and one in the low impact and influence (communications and coordination). Management Approaches were ranked on value/impact and level of urgency, the highest of which were increasing implementation of Ph 3 WIPs, exploring tiered implementation and assessing nutrient mass imbalances, but all showed some level of value and urgency. Full rankings and longer descriptions of the challenges and management approaches are in the [posted slides](#). Discussion included a suggestion to keep the MAs broader to ensure that new questions and concerns that come up (e.g. related to the model) fall under the scope of the MS and a note that indirect partnership influence (e.g. technical assistance policy at the state level being impacted by what practices CBP approves for credit) should also be considered.

Materials: [Overview Presentation](#), [Initial RENPS MS Poll Results](#)

Actions:

1. A first draft of the Clean Water Management Strategy is planned to be completed by August 21st to be circulated prior to the September CWGT meeting.
2. CWGT members should complete the survey to rank RENPS challenges and management approaches, if they have not done so already, by Friday, July 31st. If you are a recently nominated non-voting member and did not receive the survey link prior to the meeting, please reach out to Jeremy and Petra.

Discussion:

- Tony Timpano, TCW Chair shared an update on the TEC sub-chapter. A draft of challenges and management approaches was shared with TCW, and consent support will be sought at the next TCW meeting.
- Kaylyn Gootman, EPA CBPO shared an update on the WQ,SAM sub-chapter. They are working on a first draft, informed by fantastic feedback from partners. Now that Monitoring and DAR Workgroup leadership is in place, that will help loop those groups in more, in addition to additional outreach for further feedback.
 - Peter Tango, USGS (in chat): Thanks Kaylyn. We have made healthy progress on draft approaches to feed the discussions and review with our new workgroup leadership.
- Lee McDonnell, CWGT Co-Chair clarified that anything that groups want to work on should be included or covered in the management approaches, otherwise, we shouldn't be working on it. It is also important to consider, as we write workplans, what tasks specific workgroups can take on to produce something beneficial for the partnership that helps get to meeting our outcomes.
- KC Filippino, HRPDC noted that this group is often very reactionary, like revisiting decisions when there is new data, so keeping management approaches broader will ensure that it covers questions (especially around the model) that come up later that we may not know about right now.
- Sarah Lane, MDNR (in chat): To that point on technical assistance funding: The practices that CBP approves and uses for credit influences technical assistance policy at the state level, so there is indirect influence. It's not a completely separate task.
- KC Filippino suggested caution not to go too broad, though, like the communications management approach currently listed. Not sure how we're going to factor that into our approaches, since it's just something we are always striving for.
- Peter Tango noted that the goal/RENPS outcome itself is quite specific, considering it is an actual numeric reduction in nutrients. Some level of specificity seems valuable to attach to our work.
 - Jeremy Hanson noted that we'll certainly have an increasing level of detail in workplans. The templates instruct that management approaches should be specific enough that we can be held accountable to them.
 - Peter Tango mentioned phosphate bans, specifically, as a way to consider how an action or task could be tied numerically to nutrient reductions, if we're trying to be more specific.
 - Lew Linked, EPA CBPO responded that the impact of something like a phosphate ban can be seen in the model where a version is run with a ban on and off. The interesting thing with phosphorus bans is they saw reductions months before the actual ban went into place, since many companies started shifting ahead of time. But it was directly observational in point-source discharges.
 - Peter Tango noted having tools to make these projections is helpful.

X. Wrap-Up

Lead: Caroline Kleis, WQGIT Co-Staffer

XI. Adjourn

Next Meeting: [Monday, August 24th 1-4pm](#)

Attendance

Lee McDonnell EPA CBPO (CWGT Co-Chair)
Jeremy Hanson, CRC (CWGT Coordinator)
Petra Baldwin, CRC (CWGT Co-Staffer)
Caroline Kleis, CRC (CWGT Co-Staffer)
Alex Gunnerson, CBPO Contractor
Robin Glas, USGS
Peter Claggett, USGS
Tish Robertson, VADEQ
Jonathan Champion, DC DOEE
Holly Walker, DNREC
Elizabeth Hoffman, MDA
Sarah Lane, MDNR
Cassie Davis, NYS DEC
Scott Heidel, PADEP
Ashley Hullinger, PADEP
Kate Bresaw, PADEP
Kevin McLean, VA DEQ
Dave Montali, WV DEP/Tetra tech
Scott Settle, WV DEP
Marel King, CBC
Suzanne Trevena, EPA R3
Bo Williams, EPA CBPO
KC Filippino, HRPDC
Kevin Du Bois, DoW
Joe Wood, CBF
Mike LaSala, LandStudies
Emily Dekar, Upper Susquehanna Coalition
Caitlin Grady, GWU
Norm Goulet, NVRC
Tony Timpano, VADEQ
Jamie Heiseig-Mitchell, HRSD
Meighan Wisswell, VADEQ
Jimmy Webber, USGS
Lisa Blazure, Stroud Water Research Center
Jennifer Weld, PSU
Erik Michelsen, Anne Arundel Co. DPW

Olivia Martin, SAC
Jess Blackburn, SAC
Christina Lyerly, MDE
Matt Stover, MDE
Kathy Stecker, MDE
Guido Yactayo, MDE
Tyler Trostle, PADEP
Arianna Johns, VADEQ
Rachel Owrutsky, DNREC
Clint Gill, DDA
Cass Klingaman, NYSDEC
Maggie Woodward, CBC
Katie Brownson, USFS
Kaylyn Gootman, EPA CBPO
Lew Linker, EPA CBPO
Eric Hughes, EPA CBPO
Megan Thyng, EPA CBPO
Sarah Brzezinski, EPA CBPO
Keith Bollt, EPA CBPO
Leah Ettema, EPA
Kelly Gable, EPA
Patrick Woolford, EPA
Ken Hyer, USGS
Peter Tango, USGS
Carly Maas, USGS
Jay Lazar, NOAA
Anthony Buda, USDA
David Wood, CSN
Gabriel Duran, CRC
Allison Welch, CRC
Megan Beaver, CBC
Mark Dubin, VCE
Eugenia Hart, TetraTech
Caitlin Bolton, MWCOG
James Shallenberger, SRBC
Terra Famuliner, RVARC

Acronyms

BMP: Best Management Practice
BORG: [Bay Oxygen Research Group](#)
CAP: [Criteria Assessment Protocol](#)
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
DO: Dissolved Oxygen
E3: Everything, by Everyone, Everywhere
EPA: Environmental Protection Agency

GMF: Governance and Management Framework
LUWG: [Land Use Workgroup](#)
RENPS: Reducing Excess Nitrogen, Phosphorus and Sediment Outcome
SAC: Stakeholders Advisory Committee
STAC: Scientific and Technical Advisory Committee
TEC: Toxic & Emerging Contaminants
WIP: Watershed Implementation Plan
WQ,SAM: Water Quality, Standards Attainment and Monitoring