



Data, Analysis & Reporting (DAR)

Workgroup Meeting

Wednesday, August 26th, 2025
10:00 – 11:30 AM

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

This meeting was recorded for internal use only to assure the accuracy of meeting notes.

Purpose: This is the inaugural *Data, Analysis and Reporting Workgroup* (DAR WG) meeting. We will introduce DAR Leadership and signatory members. DAR leaders will solicit nominations for Expert At-Large Membership. DAR Leaders will review the Governance and Management Framework (GMF) and connections to the Revised Watershed Agreement. DAR Leaders will solicit feedback on WG expectations and operations.

Minutes

I. Welcome, Introductions & Announcements (10:00 - 10:05 AM)

Lead: **Jimmy Webber** (U.S. Geological Survey, USGS) DAR Co-Chair, **Amanda Shaver** (Virginia Department of Environmental Quality, VADEQ) DAR Co-Chair, and **Kaylyn Gootman** (U.S. Environmental Protection Agency, EPA) DAR Coordinator.

Upcoming Conferences, Meetings, Workshops and Webinars

- [Restore America's Estuaries' 2026 Coastal & Estuarine Summit](#) – September 22-25, 2026. San Francisco, California.

II. Leadership Team Introductions and Membership (10:05 – 10:20 AM)

Material: Meeting webpage [here](#).

Jimmy Webber: Associate Coordinator of the USGS Chesapeake Bay Studies Program, working closely with Ken Hyer on the overall coordination of USGS Chesapeake science efforts. I manage resources supporting about 100 USGS scientists working on watershed agreement objectives. Prior to this role, I spent 12 years as a USGS scientist focused on surface water quality studies, particularly nutrient and sediment studies in small agricultural settings. I also helped lead the analysis and communication for the non-tidal Chesapeake Bay Water Quality Network, focusing on load and trend analysis.

Amanda Shaver: Water Quality Assessment and Chesapeake Bay Monitoring Supervisor with the VA DEQ. I have been with VADEQ for almost 25 years, all within the assessment program, starting as a regional assessor combining data for the integrated report. I now oversee central and regional office teams preparing the biennial report for EPA. I have been involved with the

Chesapeake Bay Program for nearly 10 years across various STAR venues (Scientific, Technical Assessment and Reporting), including CAP, and recently worked on the Beyond 2025 effort to revise outcome language for water quality standards attainment, monitoring (WQ,SAM), toxics, and SAV monitoring networks.

Jimmy Webber: Under the guidance of the GMF, all WGs are establishing a voting body of up to 15 members, comprising 9 signatory seats that represents the 7 jurisdictions (New York, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, and West Virginia), a federal representative, and a representative from the Chesapeake Bay Commission (CBC). This will be accompanied by multiple expert at-large seats that represent stakeholders with a diverse set of backgrounds, expertise, organizations, etc. All members must possess technical expertise aligned with DAR objectives. Meetings will occur monthly on the *fourth Wednesday from 10:00 AM to 12:00 PM* and remain open to the public.

III. Governance and Management Framework (GMF) (10:20 – 10:35 AM)

Material: Meeting webpage [here](#).

Amanda Shaver: The GMF outlines the rules, structures, membership criteria, and voting procedures guiding all Chesapeake Bay Program (CBP) Goal Teams (GT) and WGs (WG). The GMF incorporates ethical behavior guidelines, signatory member engagement standards, and meeting best practices, all of which to support consensus-based decision-making. The primary objective is to achieve unanimous consensus among voting members prior to elevating any recommendations to the Clean Water Goal Team (CWGT).

In instances where formal decision-making is necessary, a quorum of two-thirds of the designated voting members must be present. Under the GMF's formal consensus scale (ranging from 1 to 5), the WG strives to ensure all members land within the 3-to-5 range, indicating support or agreement. If a member registers a dissenting position (a score of 1 or 2), the dissenting member must articulate their technical concerns, after which the leadership team will modify the proposal and call for consensus again. A formal decision threshold requires a two-thirds majority of the total designated voting membership for goal teams and WGs.

If you would like more information on the GMF, please visit the GMF 101 webinar that was prepared by the Governance & Operations WG ([link](#)).

IV. Discussion: What do you want to get out of DAR WG? (10:35 – 11:00 AM)

Jimmy Webber: The DAR WG's overarching mandate is to advance the scientific understanding and interpretation of monitored conditions across both non-tidal and tidal. The WG's charge is split into two primary objectives: first, curating and advancing trend analyses of changing water quality loads in the watershed alongside tidal water quality trends in the estuary and its tributaries; and second, translating these monitored observations into actionable products to drive management and policy decision-making. This expanded scope represents an evolution from the former Integrated Trends Analysis Team (ITAT), which was primarily restricted to tidal water quality trends, by integrating non-tidal watershed dynamics. Achieving these objectives necessitates a highly collaborative, interdisciplinary approach that leverages expertise across federal, state, and local agencies, non-governmental organizations (NGOs), academia, and private consulting firms to directly inform partnership progress toward clean water goals.

Q: *Jeff Chanut:* What is the difference between the former Integrated Trends Analysis Team (ITAT) and DAR? What drove this change?

- **A:** *Jimmy Webber:* Historically, ITAT's mandate was focused almost exclusively on generating, analyzing, and reporting tidal water quality trends, with secondary efforts to connect those estuary responses to watershed inputs. Under the new CW Goal, the DAR WG is designated as the central home for all water quality load and trend analyses, spanning both the non-tidal and tidal. Previously, watershed loads and trends were discussed under the Non-Tidal Network WG (NTN WG). In the current restructuring, the NTN WG has been sunset and integrated into the broader Monitoring WG, which is tasked strictly with data collection logistics, network operations, QA/QC (Quality Assurance/Quality Control), and method standardization. All analytical, interpretative, and reporting responsibilities have been transferred to DAR, bridging the gap between non-tidal and tidal research but expanding our analytical scope.
- **Comment:** *Rebecca Murphy:* To build on that, ITAT was indeed focused on computing and explaining tidal trends. Integrating watershed and tidal trends into a single WG represents an excellent advancement. To ensure continuity and build a strong foundation, the DAR WG must systematically synthesize, report, and summarize historical findings and explanations generated by ITAT, NTN, and USGS science teams. Making these past findings easily accessible will prevent the loss of foundational knowledge and serve as a valuable resource for the broader partnership.
- **Comment:** *Amanda Shaver:* The expanded scope is reflected directly in targets 1, 3, and 4 of the WQSAM outcome. Specifically, Target 1 focuses on data analysis and communication to clarify what various products convey about trends and goals. Target 3 represents a key intersection with the RENPS outcome (Reducing Excess Nitrogen, Phosphorus & Sediment), focusing on the rate of improvement utilizing the water quality standards attainment indicator tool. Target 4 governs the reporting of status, loads, trends, and explanatory factors across non-tidal and tidal systems. The DAR WG is central to coordinating these efforts across the partnership.

Comment: *Liz Chudoba:* How can we ensure that community science and the data collected through the Chesapeake Monitoring Cooperative (CMC) are thoughtfully integrated into these trend analyses from the very beginning, rather than trying to retroactively incorporate them after the formal assessment processes have already been completed?

- **A:** *Jimmy Webber:* While the WG will continue to maintain and produce its primary sentinel products, including the tidal trends network and non-tidal loads and trends, we are highly committed to exploring methods to leverage local, state, and community-collected datasets. The specific methodologies, workflows, and protocols required to systematically ingest and apply CMC community science data from the outset of our analyses should be explicitly defined and targeted within our upcoming three-year technical work plan

Q: *Jamie Shallenberger:* When we discuss data, is the data that fuels the CAST model (Chesapeake Assessment Scenario Tool) part of the universe that we are discussing here, or are we talking strictly about environmental, observed monitoring data?

- *A: Jimmy Webber:* The primary guiding light and core focus of the DAR WG will be observed, monitored environmental response data. However, in order to explain water quality trends and the factors driving changes over time, we must leverage watershed model datasets, such as landscape conditions, nutrient inputs, and agricultural management practices. Furthermore, there is a strong partnership-wide push to better understand and explain the discrepancies between modeled water quality conditions and observed, monitored loads. A key task for the DAR WG will be evaluating why modeled and monitored trends align well in certain sub-watersheds but diverge in others, extracting scientific insights from these comparisons.
- *A: Kaylyn Gootman:* To clarify, analyzing modeled loads versus monitored loads is a major topic of interest across the partnership. The DAR WG will certainly be tasked with putting our collective brainpower together to address this modeling-monitoring comparison.
- *Comment: Amanda Shaver:* There is also an important crossover with the Monitoring WG regarding data management and QA/QC. As we generate these robust datasets, establishing rigorous data management best practices is critical. We must ensure that the data supporting our analyses is highly accurate, easily accessible to the public, and archived in a manner that allows for fully reproducible scientific analyses. This will be a key state agency perspective we bring to this WG.
- *Comment: Jimmy Webber:* Additionally, we should leverage focal, place-based study efforts, such as small-scale agricultural monitoring catchments. Extracting insights and localized knowledge from these intensive, smaller-scale study areas will greatly enhance our understanding of the specific biophysical factors and lag times affecting water quality response, complementing our broad, region-wide monitoring networks.

V. Current Work and Connections to the Revised Watershed Agreement

(11:00 – 11:15 AM)

Material: Meeting webpage [here](#).

Kaylyn Gootman: The Clean Water Goal comprises three distinct outcomes: RENPS; WQSAM; and Toxics and Emerging Contaminants (TEC). The DAR WG possesses a direct technical connection to two of these outcomes:

1. Under the RENPS Outcome, DAR supports Target 3, which mandates demonstrating net reductions in nutrients and sediment through multiple lines of evidence, including modeling and monitoring data. This target is supported by three key DAR management approaches: sustaining and advancing data analysis to inform science-based management; improving monitoring-to-model integration and transparency; and developing unified progress narratives and communication products tailored to diverse audiences and geographic scales.
2. Under the WQSAM Outcome, DAR leads or supports multiple targets. Target 1 (maintaining core network operations) is addressed through a management approach to sustain and strengthen partnership monitoring networks. Target 2 (developing and expanding criteria assessment approaches) is led by the Criteria Assessment Protocol (CAP) Action Team, with DAR providing secondary support. Target 3 (maintaining or exceeding the rate of improvement in water quality trends and attainment) is supported

by two management approaches: decision rules for assessing water quality criteria (led by CAP, supported by DAR) and maintaining/exceeding the standards attainment indicator (led primarily by DAR, focusing on analysis and tracking of the attainment indicator). Target 4 (analyzing and reporting status, loads, trends, and explanatory factors) is managed through three specific approaches that fall squarely within DAR's core mandate.

Regarding the strategic planning timeline, the partnership is currently drafting the overarching management strategies, which will organize clean water as a dedicated chapter, with separate work plans for each individual outcome. These work plans will be structured as three-year cycles, with the first two spanning July 2027 through June 2030, and July 2030 through June 2033. The process includes annual progress check-ins with the Policy Steering Committee (PSC), technical reviews, a program cost review, and a symposium to document achievements and challenges. A comprehensive strategy and program evaluation in 2040 will ultimately guide revisions to the watershed agreement. Over the coming year, the DAR WG's primary objective will be to collaboratively develop its detailed three-year technical work plan, leaning heavily on the expertise of both voting members and interested partners to establish the WG's technical roadmap.

VI. Discussion: DAR WG Operations

(11:15 – 11:45 AM)

Jimmy Webber: Here we want to facilitate an open discussion regarding the operational logistics, meeting structure, and engagement strategies for the monthly DAR meetings. One idea could be to structure the monthly calls to alternate focus, dedicating one month to non-tidal and the next to tidal conditions. This structure would be coordinated and aligned with the Monitoring WG, which is exploring a similar alternating agenda, ensuring that both groups focus on corresponding tidal or non-tidal themes concurrently. To maintain robust scientific exchange, we do plan to continue inviting technical presentations from the academic and research communities. To ensure these talks remain highly relevant to the WG's mandate, presenters will be asked to utilize a one-slide introductory template to explicitly define how their research connects to Clean Water outcomes and specific DAR objectives. Furthermore, to prevent leadership-driven agendas, we will aim to administer annual or bi-annual member surveys to solicit feedback on desired technical topics and scientific areas. Lastly, Elgin Perry and Rebecca Murphy recommended changing the WG's acronym to 'DART' (Data Analysis, Reporting, and Trends) to more explicitly reflect its analytical mission.

Comment: *Becky Monahan:* Working together will be central to this reorganization. The workflow between our groups appears linear or cyclical: monitoring data collection occurs first, followed by data ingestion, trends and reporting analysis, modeling, standards reassessment, and finally re-monitoring. Should we co-develop a simple, visual framework with the other WGs and action teams (AT) to map out where each group fits in this process, ensuring clear communication pathways and preventing a 'game of telephone'?

- **Response:** *Kaylyn Gootman:* That workflow concept and the cycle of monitoring, data analysis, and modeling is highly accurate. Developing a simple, shared framework or visual workflow with the other WG and AT leads is an excellent idea to ensure everyone understands their role in the loop and coordinates effectively.

- **Response:** *Jimmy Webber:* Agreed. We can be highly intentional in our agenda-setting by reaching out to and advertising our meetings to the leadership of overlapping groups. For instance, during months when we are discussing the integration of monitoring and modeling data, we should specifically invite representatives from the Modeling WG to participate and maintain those cross-group connections.

VII. Plans for DAR WG September Meeting

(11:45 – 12:00 PM)

Material: Meeting webpage [here](#).

Kaylyn Gootman: The meeting will focus on officially finalizing and introducing the signatory and at-large membership, providing an opportunity for members to introduce themselves and establish collaborative relationships. The leadership team will lead a detailed review of the WG's scope and purpose and outline the development timeline for the three-year work plan, which is slated for submission to the CWGT in the spring of 2027. Additionally, the September meeting will feature an invited technical presentation from a USGS scientist, who will trial the new one-slide presenter connection template. If the number of at-large nominations exceeds the 6 available seats, the finalized signatory representatives will conduct a formal vote to select the at-large members. To ensure procedural compliance, WG leaders are scheduled to meet with the Governance and Operations (GO) Team leads to obtain authoritative guidance on GMF rules regarding voting procedures, membership eligibility, and potential conflicts of interest, which will be communicated to the group prior to the September meeting.

VIII. Adjourn

(11:30 PM)

Next meeting: September 23rd from 10AM-12PM.

Attendance:

- Qian Zhang (UMCES)
- Cassandra Davis (NY DEC)
- James Webber (USGS)
- Gabriel Duran (CRC)
- Allison Welch (CRC)
- Amanda Shaver (VA DEQ)
- Matthew Stover (MDE)
- James Shallenberger (SRBC)
- Becky Monahan (MDE)
- Carly Maas (USGS)
- Joseph Morina (VA DEQ)
- Jonathan Duncan (PSU)
- Jeffrey Chanut (USGS)
- Helen Smith (Devereux Consulting)
- Rebecca Murphy (UMCES)
- Douglas Moyer (USGS)
- Elgin perry (Consultant)
- Cass Klingaman (NY DEC)
- Andrew Keppel (MD DNR)
- Anthony Buda (USDA)
- Melinda Cutler (MDE)
- Cassia Pianca (VIMS)
- Jeremy Hanson (CRC)
- Rachel Owrutsky (DNREC)
- Liz Chudoba (CMC)
- Margaret Mulholland (ODU)
- David Parrish (VIMS)
- Ashley Hullinger (PA DEP)
- Tom Parham (MD DNR)
- Efeturi Oghenekaro (DC DOEE)
- Tish Robertson (VA DEQ)
- Renee Karrh (MD DNR)
- Carol Cain (MD DNR)
- Klaus Huebert (MD DNR)
- Kaylyn Gootman (EPA)