

NADP Spring 2026 Business Meeting (Virtual)

NOS Minutes

Wednesday, May 27, 2026, 11:00 AM – 4:30 PM CDT

Attendees (47): Abby Carr, Alexander Nyhus, Amanda Cole, Amelia Jiménez, Anthony Ward, Cameron Ritonia, Casey Lanham, Cheryl Sue, Chris Bauknecht, Christa Dahman, Courtney Stanley, Dana Grabowski, Ella Osby, Emmi Felker-Quinn, Eric Hebert, Greg Beachley, Hazel Cathcart, Jason Lynch, Jason O'Brien, Jeff Collett, Jess Trevino, Kat McKinnon, Katie Blaydes, Kenneth Brice, Kenny Yan, Kulbir Banwait, Liam TrinhNguyen, Mark Kuether, Martin Shafer, Maya Giordano, Melissa Puchalski, Mike Bell, Naomi Tam, Nate Topie, Nichole Miller, Noel Deyette, Pablo Sánchez, Richard Tanabe, Rodolfo Sosa Echeverria, Sarah Benish, Sarah Janssen, Stacy Knapp, Timothy Sharac, Vid Grande, Vincent Vetro, Winston Luke, Zac Najacht

Motions

1. Nominate the next NOS secretary to be Greg Beachley.

100% yes, motion passed.

Welcome, Logistics, and Introductions (Noel Deyette)

- Noel welcomed everyone and had new participants introduce themselves.
- Sarah Benish introduced herself as the NADP Coordinator.

Network Optimization Changes Updates

- **MDN Teflon bottle updates / AMNET Updates**
 - Noel noted that this agenda item was covered the day before in MELD. There were no additional information or comments.
- **MDN 2-week Pilot Network Update (Mike Bell)**
 - To reduce costs while maintaining data quality, at the beginning of the calendar year, Mercury Deposition Network (MDN) sites had the option to switch from biweekly to weekly sampling.
 - Initial results from a yearlong study of multiple comparison sites show strong agreement in precipitation and mercury deposition, consistent with expectations.
 - A final data analysis is still pending before fully committing to a path forward.
 - Ella Osby has a poster on this at the Spring scientific symposium June 9-12, 2026. (Available here: https://nadp.slh.wisc.edu/conf/2026/posters/EOsby_NADP_Poster_2026.pdf)
- **NADP Data Tool (Mike Bell)**
 - Mike created a new NTN data tool for better data visualization/awareness.
 - A beta version will be presented at TDep and Joint which looks at weekly variation in data quality and trends for each network.
 - It is expected to be available for all site sponsors within the next couple months.

DMAG updates (Zac Najacht/ Mark Kuether)

- Mark noted that the Data Management Advisory Group (DMAG) has ensured that the database, data review apps, metadata, and web report are up to date for the new MDN 2-week protocol.
- **PFAS-NTN Subnetwork (PFN) updates**
 - The webpage is being worked on. Christa Dahman and Martin Shafer are helping produce the analytical report.
 - The network will use data from two sources (PFAS data stored in Clinisys CLS and NTN precipitation web page data) which will be combined with a Python script and written to the database.
 - The database, API code, and web development are being finalized for PFN. Sample types will be slightly different than NTN (only wet, dry, or trace).
 - Maps will be determined after everything else is worked out.
 - DISCUSSION: Jason O'Brien asks if there is a timeframe when PFN will have its own section on the webpage. Mark says a late June or July timeframe. The lab is currently analyzing samples from January, and the first publicly available data will be from April. Data prior to that will be pilot data, with continued discussion on how that will be published.
- There are some errors in the animated NTN maps and MDN data that are being corrected.
 - Any maps being corrected will be backed up first and made clear to researchers how to access.

- MDN data will be recalculated and reposted due to classification errors and deposition discrepancies. Monthly and annual numbers will be altered.

Site Liaison Updates (Ella Osby)

- With Richard Tanabe retiring in July, Ella has a new role as program operations supervisor. Nichole Miller moved to NADP assistant coordinator. A site support website with internal resources has been created by Richard to help with the transitions.
- The January rollout for ALPHA Ammonia Monitoring Network (AMoN) samplers has gone well, with just a few minor issues (e.g., loosened weld nut) that have been addressed with additional operator training.
- The NTN field form was updated to transition to automatic first data process and the new bucket weighing protocol.
- There are new site operation alerts for notification to operators if sites are paused due to government shutdowns or weather.
- There is a call for site photos (in landscape) for the 2027 calendar.

SNiPiT Update (Jeff Collett)

- Colorado State University in collaboration with NPS and WSLH has been working on getting the Sampler for Nitrogen and Phosphorus in Total (SNiPiT) working for total phosphorous (TP).
- A separate SNiPiT sampler is attached to the NTN sampler since it's preserved with sulfuric acid to prevent microbe growth.
- A Skalar continuous flow analyzer was acquired, with a long flow cell for increased sensitivity (method detection limit ~0.2ug P/L).
- There have been continued issues with the precharged sample acidification affecting instrument results, particularly with over acidification of low-volume samples. A solution to this has not been discovered and troubleshooting continues, including whether acidification is necessary.
- There was also phosphorous likely leaching from the PVC sampler, causing high background levels. New SNiPiT prototypes made of Delrin were tested and seem better, but testing is ongoing.
- DISCUSSION: Emmi Felker-Quinn asks why microbial immobilization is a problem. Jeff states that it might not be and may need to think about filtering the sample and seeing if P is more organic or inorganic. Emmi also worries about biofilms in bottles if not doing digestion in the sampler. Maybe shipping the sampler will be needed. Christa Dahman mentions she has a poster on TP analyzed via ICP-MS at the Spring scientific symposium that may suggest losses due to microbial activity rather than fixation.

CASTNET Updates (Melissa Puchalski)

- Melissa and the Clean Air Status and Trends Network (CASTNET) are traversing the EPA reorganization.
- BLM was lost as a partner in 2025 and 5 sites in Wyoming were closed.
- Three sites have opened: One in Florida, one with the Choctaw Nation of Oklahoma, and CDR119 reopened in West Virginia.
- All filter pack data through 2025 were loaded into EPA's Air Quality System.

- Every EPA site now has particulate matter (PM) sensors: PurpleAirs and QuantAQ MODULAIRs in collocation. PurpleAir data go to the EPA's fire and smoke map.
- New ozone analyzers and transfer standards will be deployed at all EPA sites later this year.
- New N-CON precipitation collectors that are PFAS-capable will be installed at EPA sponsored sites.
- Continued studies include Water Soluble Organic Nitrogen, NASA Pandora spectrometer deployment for satellite validation, and modeling support for the Chesapeake Bay Program.

CAPMoN Updates (Jason O'Brien)

- The Environment and Climate Change Canada science and technology branch went through a reorganization, and the Canadian Air and Precipitation Monitoring Network (CAPMoN) is now in the Atmospheric Composition Monitoring Division. The CAPMoN operations and data analysis groups are now in different sections.
- For cost savings, the number of sites reduced to 26, and precipitation sampling was changed from daily to weekly for most sites.
- Co-located NADP sites remain constant, with 5 MDN, 3 AMoN, and 2 NTN.
- Continuous PM2.5 continues to be deployed, particularly to sites prone to wildfires.
- Field studies to compare going from daily to weekly filter pack sampling are completed and data analysis and SOPs are being finalized.
- The lab backlog is continuing to be addressed, with estimated completion of 2028.
- CAPMoN is transitioning to an electronic sample history form.
- New Teledyne N400 ozone analyzers have been received and are starting to be deployed. Ozone calibrators will be replaced this and next year.

USGS External Precipitation Chemistry QA Project / 1-week 2-week Colocated Update (Noel Deyette)

- MDN and NTN samples are sent quarterly to various laboratories for comparison, with hopes of getting more labs involved after labs left in 2026. Due to the government shutdown, only 3 MDN shipments were sent in 2025.
- MDN results showed higher variability in 2025, which supports the decision to move MDN sample preparation from the New York Water Science Center Laboratory to the M3 Research Laboratory due to its trace element clean lab.
- NTN results were generally strong, with low variability for most analytes. The NADP laboratory did well compared to other labs.
- A continuing one-week versus two-week precipitation sampling comparison study at NY20 showed good agreement, with potassium having the greatest variability.
- A data release containing 2023-2025 data is planned for fall, including a scientific investigations report.
- Quarterly samples will be continued, although there will likely be a cut back on the total number of field audit samples.
- A PFAS QA program is being developed in collaboration with Christa Dahman.

EEMS Field Survey Update (Eric Hebert)

- A new database was created in 2024 that is completely web based. Anyone can be given access to it to see or download site visit reports.
- With it, site visit schedules, records, and photos can be searched and downloaded.
- Richard Tanabe asks if there are plans to make more available to view online for NADP (such as photos), since currently they can only be downloaded. Eric says that can be addressed.

Sample Receiving and Data updates (Zac Najacht)

- The NTN field form (FORF) edits have been completed to remove manual precipitation entries, update the bucket weighing section to exclude the lid, and add more radio buttons.
- To simplify data entry of the field form, the AI-based software program ABBYY Optical Character Recognition (OCR) is being tested to do automatic first entries of scanned forms. A reviewer will then manually compare those entries to the forms.
- Set up costs were provided by WSLH, and minimal annual-use costs will be covered by NADP.
- It is working well, and the plan is to implement it in mid-June to test alongside current manual entry.
- Zac showed a video of the web-based process, including being able to pull up a scan to compare what was entered and see questionable records that are automatically highlighted.
- The scanned FORFs will be stored in both the network directory and in OnBase to easily search and pull up forms, such as by lab ID, operator, site id, dates, etc., or by custom queries.
- DISCUSSION: Christa Dahman asks if ABBYY is doing the weight calculation. Zac says if the math is incorrect in the total, it will show up in red. Christa also asks how much effort it is to make any changes to the form. Zac says any major changes would need ABBYY's involvement, but little tweaks can be done ourselves.

Network Analytical and QA Updates

- NTN, AMoN (Katie Blaydes)
 - Staff hasn't changed much. Nichole Miller vacated her QA role, so that position is being filled.
 - The segmented flow analyzer validation is close to completion, with an expedited service date of September.
 - AMoN switched to ALPHA samplers on January 13, 2026. It went well, but several samplers were returned with the wrong cap; operators need to return with the laboratory cap. Communication was sent to operators.
 - Currently investigating shelf-life extension of filter coating solution and the wash and reuse of PTFE membrane filters.
- QA updates (Nichole Miller)
 - The Quality Assurance Plan was updated to include PFAS/PFN items. SOPs have also been updated for PFAS and other procedure changes.
 - The 2025 Quality Assurance Report is about to start internal reviews.
 - The recent proficiency tests for the lab overall had good results.
 - Any recent nonconforming events were minor.
 - The SOP review cycle increased from 1 year to 3 years.

- PFN (Christa Dahman and Martin Shafer)
 - PFN achieved official sub-network status on April 7th, 2026.
 - Preliminary reports will automatically be sent to site sponsors/operators.
 - April data should be finalized and posted to the web around August, with preliminary reports around July.
 - The first proficiency test occurred in May, with results expected later. It included 32 compounds of the 40 tested. It is the only test currently available, and alternative options are being investigated.
 - Upcoming priorities include looking at the ultra-short PFAS chain method, comparing filtering vs. no filtering, and improving the data flagging process.
 - A manuscript has been drafted for the 2020-2022 dataset. 2023-2024 data were reviewed, and 2025 data are awaiting review.
 - Several special projects and manuscripts are in the works in collaboration with USGS and the University of Minnesota Duluth around the Great Lakes, the New Jersey Department of Environmental Protection (precipitation and ambient air), SUNY Albany (cloud water), and Duke Forest and the Thain Family Forest (Tree canopy throughfall).
- MDN, MLN, Hg Passives (Christa Dahman)
 - Staffing is stable, and there were no major changes or non-conformance events in 2026.
 - 2025 pilot data for passive mercury are complete and presented in MELD. 2026 data are now set up to be reported directly to site sponsors/operators.
 - Mercury Litterfall Network (MLN) and MDN samples are progressing on the typical schedule.
 - There has been work testing Teflon bottles and plastic funnels, which has had promising results and will be presented in MELD.
 - There is a poster on metals testing of NTN samples at the Spring scientific symposium. (Available here: https://nadp.slh.wisc.edu/conf/2026/posters/MAnkney_NADP_Poster_2026.pdf)
- AMNet (Vid Grande)
 - There are no major updates; 7 sites are still active for the Atmospheric Mercury Network (AMNet).
 - NY98 was lost at the end of last year.
 - The 2025 data review was completed in March, and the 2026 data are coming in consistently.
 - Speciation equipment is going into storage and can go to anyone that is interested.

Passive Mercury Pilot Network Updates (Tim Sharac)

- The number of sites has increased to 14 and additional partners are interested in joining the network.
- The first full year of monitoring data were collected. Most sites so far show a decreasing average in gaseous elemental mercury (GEM) concentrations from Q1 to Q4.
- The comparison of Tekran and WSLH samplers have shown comparable results, but WSLH measured slightly higher GEM in Q2 through Q4.
- The trip and field blanks for each sampler look good.

- **DISCUSSION:** Mike Bell asks if environmental factors have been looked at which may be contributing to lower mercury at certain sites. Tim says certain parts of the country may have lower levels but will need to look into that some more.

Passive and Active Mercury Monitoring Project Plan (Sarah Janssen)

- USGS and NPS are conducting a one-year study comparing passive (MerPAS) and active mercury samplers to evaluate their reliability for long-term mercury monitoring.
- 3-month passive samplers will be paired with 2-week active samplers across the US in diverse environments and climate conditions.
- The study will compare both field performance and laboratory analyses, including mercury concentration measurements and mercury isotope analysis conducted by USGS and WSLH.
- Deployment is expected to be completed by August 2026, with the project finalized and published next year. Preliminary results are expected at the next MELD and NOS business meetings.

Nomination of NOS secretary

- Motion by Noel to nominate Greg Beachley as the next NOS secretary. Seconded by Jason Lynch. No other nominations. Mike Bell says great choice. Passes, 100% Yes.

Adjourn

No further discussion. Meeting concluded.