

DMAG Spring 2025 Minutes

(04/24/2025)

Attendees: Mark Kuether, Zac Najacht, Dana Grabowski, Nichole Miller, Jean Steele, Chris Rogers, Amanda Cole, Tim Sharac, Bob Larson

Nathaniel Boerner no longer with NADP

Amy Mager no longer with NADP

Bob Larson joining DMAG

Liam Trinhnguyan (APHL fellow) joining NADP to provide support for TDEP modeling with Greg Beachley. He will also support NADP and help with Jeans transition out of NADP.

Jean Steele (APHL fellow) assignment to wrap up in January 2026.

Efforts and Transitions in relation to changes.

- Still working on producing the November 2024 detailed comparison between the new parallel process and legacy serial process. Developing a test environment has proving tricky.
- Casey continues to work on the MDN precip loading process, but continues to be frustrated by complications with the legacy code and data structures.
- Running Criteria report taking pause while we focus on network optimization. There was confusion over the estimated mapping criteria limits of 13 for one week samples, and 6 for two week samples. For clarification, if a site MISSES (or has invalid samples) for ~13 out of ~52 samples, then the criteria one limit of 75% will be reached. For two week samples, they would need to MISS (or have invalid samples) for ~6 samples out of ~26 samples to reach the 75% threshold.
- There are a lot of open questions about how samples would be collected, combined, and analyzed for two week NTN samples. Amanda raised concerns about adjusting how samples are combined and analyzed based on rainfall for each one week sample that is combined. Richard advised that those efforts were not likely to occur, with samples just being combined in total.
- OCR efforts summary – efforts and negotiations moving forward. The annual NADP costs would be minimal since SLH is footing the bill for the main integration. NADP currently performs three manual data form inspections. First and second data entry involve manually entering the data twice with two different people. The third operation involves a comparison to reduce human data entry errors. The OCR could reduce that to

possibly one or two operations by combining first data entry and data comparison steps. The exact workflow has yet to be worked out but the goal is to reduce labor.

- Amanda mentioned that ECCC is currently working with some electronic form data entry to upload the data directly to the ECCC from the field. It allows for some input validation, and provides fast feedback to ECCC when there are issues in the field. ECCC are still working out some of the operational details involving this process.
- David and Richard have discussed electronic device forms in the field in the past as a possible future step for NADP field operations.
- Zac and Mark will likely discuss this further with Amanda in the future.
- Front end of LIMS system completed for Litterfall for logging samples in.
- Litterfall notes application still being decided.
- Mark expressed his interest in moving the Litterfall data to the database at some point in the future. Richard advised that NADP might not be able to include prior USGS data.
- RE ECCC's research of AMON data with temperature and pressure, Mark advised his recommendation is to have NADP maintain it's role in providing "raw" data, and let researchers and other organizations adapt it to their needs. However, knowing about the research, it would be nice to include a reference to it on the web page. Amanda Cole advised that it was not a study that could be referenced, but there may be a report that NADP could add to their web site.
- Amanda also asked whether there was a known temperature correction factor associated with the Alpha samplers. Nichole advised that there was a correction factor that the lab takes into consideration and that Katie may present a graph on it during the Spring meeting. However, there is not a published correction factor with the Radiolo that Nichole was aware of. Amanda offered to send information that she had on Alphas to Katie if she wanted it.
- Mark gave an update on the Precip network saying that it was almost complete except for a remaining issue with the query used by the API. With regards to the public API, we are still working out potential security issues. Mark had created an initial roll out plan and had a public document about 50% completed.
- Mark said that he had reached out to Greg Beachley for help on integrating the NADP and PRISM precipitation data. Greg had provided some suggestions to Mark on how to handle this properly.

- Mark asked the group for feedback on extending interpolations into Canada. He presented a sample map and asked if the group felt comfortable with the interpolation given the relatively small number of Canadian sites on that map. No strong dissent was raised on that specific aspect. The group agreed that limiting AB32 and AB36 to dots was appropriate due to both their industrial nature and because there are no sites north to hem in the effect of the interpolation like Salt Lake City. Tim Sharac raised the point that Texas and Louisiana currently don't have sites in close proximity to the gulf coast, so those effects are not hemmed in either – so the maps are not perfect with regards to that aspect. Amanda raised the question whether BC22 should also be treated like AB32 and AB36 since the site is in immediate vicinity of a paper mill. She also asked about whether we would interpolate into Alaska with its proximity to BC. Bob suggested that the size may not lend itself as well since it's such a large area.
- Mark emphasized that part of the role the maps provide is a year by year trend comparison, and that effort relies on maintaining consistency as much as possible/reasonable.
- Chris Rogers asked about SOP production. Nichole advised that a formal Data Review SOP has been finalized. NTN and MDN SOPs are being edited. PRECIP Review is close to being finalized. MLN does not yet have a data SOP, but the lab still handles most of the data processing and Nichole will discuss that with the group. The SOP's are managed using a document organizer called OnBase. Nichole is trying to ensure SOP's are updated every two years. Mark added that having Jean practice using his documents was very helpful.
- Chris Rogers also inquired about NADP PO staffing. Richard said "Stretched". Nichole agreed that at current staffing, special / additional projects were beyond the groups labor constraints.