

Network Operations Sub-Committee (NOS) Meeting

San Diego, California

October 31, 2017

Officers: NOS Chair: Gregory A. Wetherbee (USGS)
Vice Chair: David W. Schmeltz (USEPA)
Secretary: Richard H. Tanabe (Environment and Climate Change Canada)

Meeting called to order at 10:12

1. *Motion to approve minutes from Spring 2017 meeting moved by Greg Wetherbee, seconded by Eric Hebert. Minutes approved.*
2. USGS External QA Program Update – Greg Wetherbee
 - What's ahead for 2018
 - External QA program – 5 different programs
 - Field audit program on hold for 2018 – no expiration, operators should continue to submit, same for system blank
 - MDN inter laboratory program will be reduced in Jan 2018 – quarterly to select highest performing labs
 - Reduce costs and efforts to focus on CAL transition
 - WSLH has been added to NTN inter-lab program
 - Might be dropping a US Forest lab in NH
 - Collocated 1 site Arvada Gardens
 - NUANCE sub network – 5 sites, site sponsors want to continue
 - Publishing reports for stakeholders
 - Bromide data still not on the internet, need to come out with a DOI for the database
 - Revamp/reconstruct website – no more dynamic graphical output
 - Moving resources to assist in the transition, moving NED, etc.
3. QA Report – Mark Rhodes
 - External review: 2018 HAL review on hold due to PO transition
 - 2016 QA reports
 - Site Survey – posted, Cal –posted, AMNet –posted
 - QA Plan - CAL in progress
 - AMNet data management manual
 - Site support documents
 - AMoN annual checklist received 85/105
 - Site operator Quick Reference sheets developed
 - NTN/MDN sample change out; NTN sample decanting; AMoN sampler change out
 - Equipment testing
 - o D400 (ECCC) \$7900 w/o load cell, \$9000 w load cell
 - o Modified to accommodate multiple bucket sizes 10.1” to 10.8”
 - o 24VDC option and fit on a 2” pipe
 - o CAPMoN or Thies sensor
 - o Optional load cell with logging capability
 - Other studies: PETG bottles for MDN
 - o Advantages – no bottle blank correction

- Fewer leaks, fewer bottle breakage
- No bottles to clean, more shipping options, recyclable
- Disadvantages - single use
- Unknowns – cost, sample train design (Teflon funnel (\$50/per), 3D printing)
- OTT Pluvio 2-S
 - Mechanically and operationally similar to OTT Pluvio2/2-L which are approved gages. Need to investigate the differences between gages that are being run at Bondville.
- Sensor study at Bondville is still ongoing. Current study is various iterations of the Thies and CAPMoN 2-grid AC and 3-grid DC version. Mark Nilles – need to come to an outcome based on the types of settings of the various Thies configurations
- Sensor study is to end.
- 2537X report - White paper comparing 2537X, draft version, not ready yet

4. CAPMoN Update – Richard Tanabe

- Site Status
 - MDN - Continue with 5 sites. Added 1 MDN in Alberta – Sandy Steffens group
 - AMoN - 3 sites. Contract due for renewal this year, some uncertainty
 - NTN – Continue to support 1 site
- Equipment Update
 - Received 6 production models of next generation wet only precipitation collectors
 - Another 10 on order for March 2018 delivery
 - Adding OTT Pluvio2-L to inventory in anticipation of weekly sampling.
- Network Transition
 - Nearing end of Phase 1, a lot of the heavy lifting has been completed for us taking back sites from the regional offices
 - Continue weekly-daily inter-comparison at 2 sites
 - Weekly sampling at 2 sites now
 - Develop weekly sampling SOPs
 - Phase 2 will see the deployment of next generation wet only samplers. Conversion of remaining sites from daily to weekly
 - Thorough review of each of the sites, in terms of operations, costs, science

5. Litterfall Network Update – Doug Burns

- 26 locations for fall of 2017
- Data through 2015 in database, working towards 2016
- <https://www.sciencebase.gov/catalog/item/587007aae4b01a71ba0c5fa0>
- Atmospheric Hg deposition paper in the works
- It will continue as a transitional network
- Marty Risch has put together an SOP for the network
- Marty would like to remain involved in terms of the interpretation of the data
- Continue as a transitional network during the transition?
- Concern that possibility this will die on the vine if it remains as a transitional network. It was approved at Spring 2017 Joint to become a full network. Advantage as a network, it can go on the website as an official network, otherwise logistically not much difference between transition and full network. Recommendation to get the new PO in place and bring back to Spring meeting.

5. Field Site Auditing Program Changes – Greg Beachley

- New contract at the end of 2017 start date Feb 2018
- Move away from GSA bridge contract
- Easier for EPA to work with
- Reduce NADP site audit frequency from every 3 years to every 4 years
- Cost savings on travel

6. CAL and NED Relocation Workshop – Amy Ludtke

Ad hoc committee: Greg Wetherbee, Melissa Puchalski, Dave Schmeltz, Amy Ludtke, Richard Tanabe

Distribution & presentation of timeline (handout)

- Assumptions made for timeline
- Discussion
- Wrap up

The goal is to try and make the transition as seamless as possible. Committee making sure we aren't missing anything.

Timeline - Developed by ad hoc committee

- Shutdown date is September 1, 2018 at the latest. Originally started at March 1, 2018
- No longer require a transition lab

Assumptions that were made for timeline

- CAL has a turn around time of up to 60 days so last samples shipped to CAL 75 days\switch to bag sampling
- All network supplies owned by the network and not by the U of I
- All CAL laboratory equipment is owned by U of I

Questions for discussion

- Do these time periods and time lags seem reasonable?
- What are we missing?
- Are there tasks that could be dropped?
- Does switching to bag sampling seem reasonable?
- Should all or part of NED supplies be transferred?
- We currently have liquid archive from 2016-17.
- Suggestions for keeping site operators up to date on sample collection and shipping changes.

Discussion

Bucket or Bag?

Hebert – maintain consistency, stay with bucket sampling until the new lab is in place

Wetherbee – new lab has capability to wash bottles and caps, but not necessarily buckets. Initial investment of \$78K to start up bag sampling

Hebert – site operators will be confused

Butler – will switch to bag be temporary and then go back to buckets?

Wetherbee – once you go bag you never go back.

Lehman - ~90k for 2 bucket washers

Wetherbee – WSLH has a lot of space for laboratory, already have a wash room, no DI system in the building, has a loading dock area

Butler – a lot more small volume samples with the switch to bags
Prestbo – missing from the conversation is the new lab – financial implications-provide them criteria/timeline that they have to meet, their decision to make
Wetherbee – federal budgets decreasing, it may reduce long term shipping costs
Grande – shifting from CAL to WSLH – shift to bags, how to quantify which is the cause of the shift
Wetherbee – we have studied the shift between bags/buckets
Gay – whether you allow the new lab to consider bag sampling or not
Prestbo – buying equipment takes time
Schwede – we have set a deadline, but reasonable to go with 9/1. If you weren't going to a new lab, what is the groups thought on bags vs buckets, what's the long term view for how we do sampling
Olson – they need to be in the room
Schwede – discussion up to now, they were willing to get the equipment that would be provided
Prestbo – have they been to the CAL lab
Schwede – they have been in touch with Chris Lehmann, they were provided the information of the requirements
Prestbo – will they have an oh crap moment?
Wetherbee – between now and 2020 we'll have less \$\$, buckets come with higher costs for shipping
Lehmann – operators are the key to the network, what is best for the operator, for NTN staying with buckets is the best way to go
Grande – the oh crap moment will come with the site support
Nilles – scope of work was laid out in terms of the PO duties
Nilles - Big argument for buckets, why change if it isn't broken, opportunity, we are open to a switch to bag sampling
Ludtke – keep it at buckets
Lehmann – CAL can provide supplies while new lab does analytical until they have the capacity

Liquid archive - Do we want to store that/move it?

Schwede – more than adequate space to store both liquid/frozen archive
Lear – have samples from last two years for inter-comparison if required
Wetherbee – need a refrigerated truck, could move in winter
Nilles – are we moving 2 years and then build up the 5 years?
Lehmann – not worried about keeping the samples in the archive for now
Wetherbee – once the CAL receives the last sample, the CAL would focus on bucket cleaning
Lehmann – logistics of NTN is complex because it is big; the larger issue is AMoN
Ludtke – move last 2 years of archive, leave the previous 3 years

AMoN?

Lehmann – AMoN hasn't been addressed
Wetherbee – only air bench he saw was smaller, not sure how it compares
Lehmann – hybrid approach, CAL continues AMoN until they are capable
Schwede – the more questions that you can come up with the better

Site operator?

Prestbo – operators know nothing, they know Roger is gone
Schwede – message sent to listserv, that things were happening
Schwede – will send out a another message on path forward
Grande – mechanism to keep them up to date, but we don't know the updates. If shipping continues to CAL until June, then no point in informing them until April

Wetherbee – don't have the flexibility with PO, transition on IT level, i.e. e-gage data
Gay – send out 2-3 general letters with changes coming, approximate time lines. Transfer 1-800 number, transfer e-mail to WSLH, letter to inform update to contact information
Larson – website contact information to be updated

Bag sampling revisited?

Lehmann – 6-9 mos to prep for bag sampling

Schmeltz – decision to make switchover to bags – what training is available and how to make the switch

Wetherbee – SOPs, videos are available

Hebert – has observed issues with bag sampling at the field operator level, i.e. bags in bags, breakage

Summary

Ludtke – we have discovered we don't have a lot of the answers

Wetherbee – mark up the timeline and provide feedback

7. Nomination of new NOS Secretary – Dave Schmeltz

- Motion to nominate Amy Ludtke by Dave Schmeltz, seconded by Kristi Morris

8. Motion to adjourn: @ 11:53 – moved by Dave Schmeltz, seconded by Richard Tanabe

33 people present

Minutes prepared by: Richard Tanabe, NOS Secretary

Transition Team: USGS, USEPA, NPS, other volunteer organizations		CAL (U of I) Key Dates	Transition Lab Key Dates	CAL (New) Key Dates		
Time Line for CAL Transition from U-of-I to Another Facility						
Hypothetical CAL Shutdown Dates						
Tasks / Events	Shutdown- minus (days)	01-Mar	01-Apr	01-May	Milestone	
					Dates	Comment
Transition Completed		120	6-29-18	7-30-18	8-29-18	Who Responsible
Transition lab(s) deliver final data to PO(new).	120	6-29-18	6-30-18	7-30-18		
Transition Team Delivers Cold Archive to CAL(new)	75	5-15-18	6-15-18	7-15-18		
CAL(new) starts receiving samples	60	4-30-18	5-31-18	6-30-18		
End sample shipments to transition lab(s)	60	4-30-18	5-31-18	6-30-18		
LIMS set up at CAL(new), if needed	55	4-25-18	5-26-18	6-25-18		
Shipping and Receiving tracking system set up at CAL(new)	40	4-10-18	5-11-18	6-10-18		
Blanks and PE samples analyzed (precip, AMoN) at CAL(new)	45	4-15-18	5-16-18	6-15-18		
Transition Team Delivers Database to CAL(new)	45	4-15-18	5-16-18	6-15-18		
PO(new) contracts with CAL(new)	30	3-31-18	5-1-18	5-31-18		
CAL(new) selected	7	3-8-18	4-8-18	5-8-18		
CAL(UofI) Shutdown		0	2018-03-01	2018-04-01	2018-05-01	
Transfer Database to PO(new)	-6	2018-02-23	2018-03-26	2018-04-25		
PO(UofI) Final Data Review	-7	2018-02-22	2018-03-25	2018-04-24		
Responses due to PO(new) for CAL(new) solicitation, if needed	-14	2018-02-15	2018-03-18	2018-04-17		
Last Data Delivered from CAL(UofI) to PO(UofI)	-15	2018-02-14	2018-03-17	2018-04-16		
Sites start bag sampling	-21	2018-02-08	2018-03-11	2018-04-10		
Transition Team Delivers NED to PO(new)	-24	2-5-18	3-8-18	4-7-18		
Archive samples transfer to temporary cold storage	-28	2018-02-01	2018-03-04	2018-04-03		
RFA responses and QA documents received/reviewed	-28	2018-02-01	2018-03-04	2018-04-03		
Transfer NED Equipment to Transition Team	-30	2018-01-30	2018-03-02	2018-04-01		
NIFA establishes agreement with PO(new)	-30	2018-01-30	1-30-18	1-30-18		
Transfer Cold Archive Samples to Transition Team (2016 & 2017 only)	-30	2018-01-30	2018-03-02	2018-04-01		
Ship bag-sampling kits to all sites	-30	2018-01-30	2018-03-02	2018-04-01		
USGS QA Project curtails MDN and Field Audit QA for 2018	-31	2018-01-30	2018-01-30	2018-01-30		
PO(new) releases RFA/SOW to potential bidder labs for CAL(new)	-55	2018-01-30	2018-03-02	2018-04-01		
PO(new) contract(s) / agreement(s) with transition laboratories	-60	2018-01-30	2018-03-02	2018-04-01		
PO(new) selection by NIFA	-70	2017-12-21	2017-12-21	2017-12-21		
Begin sample shipments to transition lab(s)	-75	2017-12-16	2018-01-16	2018-02-15		
CAL analyzes an allotment of 2015 archive samples, number TBD	-75	2017-12-16	2018-01-16	2018-02-15		
Last samples shipped to CAL(UofI)	-75	2017-12-16	2018-01-16	2018-02-15		
Transfer SITES database to Transition Team	-75	2017-12-16	2018-01-16	2018-02-15		
Transfer E-gage data collection platform to Transition Team	-75	2017-12-16	2018-01-16	2018-02-15		
Ship all clean supplies (buckets, lids, bottles) to sites	-80	2017-12-11	2018-01-11	2018-02-10		
Purchase/assemble bag sampling kits for all sites	-90	2017-12-01	2018-01-01	2018-01-31		
USGS QA Project begins transition lab intercomparison, if needed	-90	2017-12-01	2018-01-01	2018-01-31		
NADP agencies contracts for transition lab(s)	-90	2017-12-01	2018-01-01	2018-01-31		
Notify all site operators that they will ship to new lab(s) in 2 weeks	-90	2017-12-01	2018-01-01	2018-01-31		
CAL(UofI) begins cleaning and shipping all supplies to sites	Now	2017-12-01	2018-01-01	2018-01-31		
CAL(UofI) offers all liquid (not frozen archive) samples older than 1/1/2015 to researchers	Now	Now	Now	Now		
Modify chemistry and e-gage data systems for transfer	Now	Now	Now	Now		