Indianapolis, Indiana, October 21, 2014

### Tuesday, October 21, 8:30 - 10:00 AM

# Welcome and logistics for meeting and downtown Indianapolis, Marty Risch

- The meeting was officially opened at 8:33 am by Melissa Puchalski
- o Introductions from around the room
- State of the NADP, David Gay, NADP Coordinator
  - Highlights:
    - Budget is down 3%
    - Coop program dollars almost match federal program dollars
    - Methyl mercury data, dating from 2002-2013, will be released in the next few weeks
  - o NTN:
    - 5 sites added, 0 sites lost, 266 total sites
    - The Tennessee Valley Authority (TVA) are out of the monitoring business, no longer supporting 5 NTN sites. PO is working on finding support for those sites
    - LA12 was re-established on 7/19/14
  - o AIRMoN:
    - Bag sampling is going well
  - o MDN:
    - 4 sites added, 2 sites lost, 119 total sites
    - Puerto Rico will be starting up any day
    - TN12 only operates in spring and summer. Question put forward for NOS is will they accept data even though TN12 will never make the map?
  - o AMoN:
    - 3 sites added, 0 sites lost, 67 total sites
    - There is a possibility that more sites will be coming into network this next year
    - Coupler changed
  - AMNet:
    - New sites in network
  - Litterfall Mercury Monitoring Initiative:
    - 13 active sites
    - Collecting monthly litterfall
    - Have added Puerto Rico
    - David Gay and Marty Risch are writing a "State of the Network" paper that will be coming out soon.
  - Digital Rain Gage Status:
    - 90% of network is now digital
    - 36 of 312 sites are still using the Belfort rain gage
  - o Program Office Highlights:
    - Molly Woloszyn is new to the PO
    - The first NADP Quarterly newsletter was published for September 2014 and can be found at <a href="http://nadp.sws.uiuc.edu/newsletter/nl1/">http://nadp.sws.uiuc.edu/newsletter/nl1/</a>
    - The PO would like the subcommittees to suggest items to be sent out over social media, such as Facebook and tweets.

Indianapolis, Indiana, October 21, 2014

- TDEP Maps for dry N, total N, and wet N are now on the web along with a TDEP Fact Sheet
- There are currently > 800 publications that have used or referenced NADP
- o Talks & Travels:
  - International Conference on Global Mercury, Korea
  - Air Pollution Workshop, Guadalajara Mexico
  - CENSARA, ammonia discussion, St. Louis, MO
  - National Water Monitoring Council Conference, Cincinnati, OH
  - National Tribal Forum, Washington
  - National Association of Ag Extension Agents,
  - 3<sup>rd</sup> International Conference on Earth Science, San Francisco, CA
  - National Monitoring Conference, Atlanta, GA
  - ESA meeting, Sacramento, CA
  - APMMN meeting, Vietnam
  - EPRI Science Meeting, Indianapolis, IN
  - Upcoming trips include GIST Meeting, Vietnam
- o John "Jack" Sanford died, old time NADP guy, made samplers

## • CAL STATUS Report, Chris Lehmann

- Site Operations and Site Support:
  - NTN had 9 new sites, 6 sites closed, 49 sites had significant issues, leading cause of problems are power equipment (20) and E-gages (19)
  - AIRMoN had 6 new sites. Bag sampling began at all sites on 10/1/14.
  - AMoN had 6 new sites. No sites have significant issues. They are now using a new coupler
- o Training Webinars for all networks are trailing off
- Equipment: A new Hach/Lachat instrument will be replaced. A new upgraded ICP will be delivered this week.
- 1,483 archived samples were distributed
- o The 2013 QA Report is in internal review
- o The 2014 QA Plan in online
- o IDL/MDL table was updated with minimal changes and is available online
- Data deliverables are doing well, NTN, AIRMON and AMON are current through August of 2014
- New data report is in CSV format with sites summary, QA Codes and validation codes
- Other activities for the CAL had been a study on elemental and organic carbon in precipitation; ammonia flux measurements, and a study in the Brooks Range, AK

## • HAL Statue Report, Bob Brunette

- o The US signed the Global Mercury Emissions Treaty
- The total Hg wet deposition maps show high deposition in coastal zones
- USGS Hg Methylation sensitivity map shows low deposition, but that does not mean there is no effect
- o MDN Site Support Information:
  - 11 Belforts and 107 digital gages in network

Indianapolis, Indiana, October 21, 2014

- Stable number for calls to Site Liason
- o All 9 findings from the 2012 HAL review have been address
- The database upgrade from Access to SQL should be live on 1/1/2015. This database will blend well with the metals data.
- Number of samples with QR codes has decreased slightly
- o Data delivery is on time for MDN and methyl mercury
- o The 2013 QA Reports has been submitted to the NADP PO
- The MDN evaporation study is continuing with controlled temperatures from 100-140°
   F.
- o The Trace Metals Initiative's 12 point plan was submitted in the fall of 2013.
  - They're having trouble finding "Working Advocates"
  - The 3-year triplicates for trace metals looks good
  - Supports EPA Rivers and Streams Assessment
- Upcoming HAL Activities:
  - Hg isotopic ratios in wet deposition
  - Pacific NW high elevation Hg deposition monitoring
  - Snow deposition Hg sample with analysis protocol
  - Low elevation radiation fog Hg wet deposition study
  - EPA region 6, 2015-2017, Post MATS Total Hg deposition

## Chris Rogers, NADP Chair

- Proposed that the DMOS subcommittee by eliminated and turned into a working group.
   This would alter the number of members eligible to vote on the Executive committee.
- Proposed changing the structure of the Spring and Fall annual NADP meetings
- Motion: To approve minutes from spring 2015 Meeting in Ft. Lauderdale, FL, moved by Greg Wetherbee, seconded by Bob Larson. Motion passed

### Meeting adjourned at 10:05 AM

# Tuesday, October 21, 1:30 - 4:00 PM

- Meeting reconvened at 1:40 PM
- Report of Subcommittees:
  - See each sub-committee's minutes for details and highlights
- Motion: by Chris Rogers to change the NADP Governance and Non Governance Documents as follows:
  - Suggestion to change DMAS to DMAG (data management advisory group). The PO data manager would be standing chair. This would help free up data manager's time to attend subcommittee meetings. Exec needs to pass this.
  - o Exec has 8 members voting, an even number, and making ties difficult.
    - 2 options: 1) Chair doesn't vote or 2) Ex Officio members could break tie
  - Add the officers of operational subcommittees to Exec meetings. Remove the NAPAP chair.

Indianapolis, Indiana, October 21, 2014

#### Motion passed

- Motion: by Chris Rogers, to change the NADP Governance Documents as follows:
  - Change the SOP approval process so that approvals are done by the QAAG. The QAAG is currently charged with approving QA documents and reports by the QA manager. This would allow immediate us of the new or modified SOP on an interim basis.
  - Motion passed
  - **Suggestion for consideration to Exec:** by Chris Rogers, to change the NADP Non Governance Documents as follows:
    - Reorganize the Spring Meeting to be Monday: Science 1, Tuesday: Science 2,
       Wednesday: Operational meetings and Joint, and Thursday: Executive.
    - Reorganize the Fall Meeting to have extra time for committee meetings.

# • USGS Independent QA Program, Greg Wetherbee

- WA99 and ND11 will be the 2 sites collocated for FY15
- Current studies include:
  - Climate Change Study
  - Bromide deposition
  - Sensor study
- o Site Support:
  - CA88 was moved to avoid irrigation
  - KY19 will be moved
- Started a tritium pilot deposition study
- Reports are current, the upcoming report will be 2013-2014

## Training status, Jason Karlstrom

- Main focus has been on Webinars
- There will be a sample validation training on 11/9/14
- o The goal is to put all training videos on the NADP website

# QA Report, Mark Rhodes

- o 2012 QA reports are complete
- o 2013 field surveys are in progress, others in review
- o QAAG updated QA documents, QMP, QAP, site selection governance documents
- The HAL external review will take place in 2015
- o Site surveys by EEMS: AIRMoN-2, MDN-16, NTN-29, Collocated-8, AMNet-5, AMoN-2
- Sensor Study Interim Results:
  - Environment Canada has a new sensor with 3 grids, runs on 24 VDC, is a replacement for the Theiss sensor, and could be swapped out on NCON. Much lower power usage compared to Theiss.
- o AMoN Travel Blanks are still an issue, need to track down outliers.
- The new Belfort rain gage has been tested at Bondville and does not match up well with the approved Ott. It came with no instructions, so Mark has been trying different filters.
- Methyl mercury data will be put online with new algorithm. All data treated the same.

# NADP Outreach, Molly Woloszyn

Indianapolis, Indiana, October 21, 2014

- The NADP has been working on their social media presence by starting a NADP newsletter, Facebook page, Twitter account (#nadp2014 for this conference) and a LinkedIn page.
- The newsletter has 1,100 subscribers.
  - Please forward newsletter to wider audience
  - 33% of recipients opened newsletter
  - 22% clicked a link
  - Next release will be Dec. 2014

# • AMNet Status Report, Mark Olson

- Sites added: AK03, ME97, & OH52, sites back in network: MD08 & OH02 for a total of 21 sites
- o 15 site visits in 2013
- o 12 site visits to 11 sites in 2014
- LADCO is funding 4 sites
- o All 2013 data is available online
- 2014 data review is in progress. Mark is continuing to have problems getting data from some sites
- WI07 is a collocated site with 3 instruments
- Need to improve data upload times
- o All QA documents are up-to-date.
- International trips include Taiwan for a site visit and Vietnam for training
- Next up is validate data, site visits, expansion into Asia, and continue collocated sites

# AMoN Statue Report, Melissa Puchalski

- o 2 sites added, UT09 & NY96, 0 sites lost, total of 67 sites
- No sites lost since April of 2011
- There are issues with travel blanks and an increase in variability. Problem is being investigated
- The accuracy of Radiello Samplers was looked into with collocated triplicate denuders that compared well with Radioello
- Supplemental research studies are: AMoN spatial variability study and a Coweeta flux study to quantify speciated dry N budget
- The ammonia flux database is being set up which will allow site specific flux estimates.
   The pilot study will be at 3 sites.
- The MARGA and enhanced ammonia analyzer collocated study will be with the new AMoN couplers.

### • Mercury Litterfall Status Report, Marty Risch

- General overview is that it's a fee-based monitoring program with a 5-year transition plan, started with a 12-point plan initiative.
- The benefits are that it's a low cost measurement of mercury dry supplements in wet deposition
- Most new Hg to the forest floor is from litterfall
- The site sponsor costs are \$2,600/year with a purchase order agreement with the USGS

Indianapolis, Indiana, October 21, 2014

- 8 collectors are set at each site with the collection period starting in August and ending when litterfall is complete
- 15 sites, including Puerto Rico
- Litterfall catch varies 20%
- Future activities include:
  - 32 sites in 17 states and territories
  - Looking for more participants
  - Make archive samples available
  - Publication

# Proposal for monitoring Hg Isotopes in the dry gas phase at NADP sites, Dave Krabbenhoft

- There has been tremendous expansion on how Hg isotopes can be used.
- Conceptual project design would be:
  - Measure Hg isotopes to learn about sources, pathway, and processes
  - The Hg cycle is understudied
  - The USGS as an ICPMS dedicated to Hg Isotopes, located and co-operated at the UW-Madison campus
  - Propose to conduct a seasonal assessment at NADP sites
  - Results will be published by USGS
- O Why will this work?
  - Hg sources are geogenic
  - Coal is isotopically different than other geogenic sources
  - Quantify contributions from other sources and pathway to show gaseous elemental Hg concentrations.
- o Sample prototype is a 12" enclosure that runs on 110 VAC with a 1-2 Amp draw
- o Plan is to deploy simultaneous samplers at all participating sites.
- USGS will bear all capital costs of samplers, shipping, receiving, and analytical costs.
- Motion: A motion to review David Krabbenhoft's plan of deploying GEM samplers at NADP sites
  for mercury isotopes will be reviewed by the NOS subcommittee for recommendation. Motion
  passed
- Motion: To nominate and appoint Donna Schwede as NADP Secretary. Motion passed
- Spring 2015 Meeting Location, Amy Ludtke
  - The NADP Spring 2015 meeting will take place 4/3 4/16/14 at the Asilomar Conference Center, Asilomar, CA
- Fall 2015 Acid Rain Conference, Doug Burns and David Gay
  - o The fall 2015 Acid Rain Conference will take place in Rochester, NY, 1019-10/23/14.
  - The NADP business meeting will be on Monday morning
  - The planning is coming along
- Meeting adjourned at 4:00 PM