

**Joint Sub-Committee Meeting
Truckee, CA
October 19, 2010**

1. Welcome, Introduction, Approval of Spring Minutes.

Motion: Approval of Spring Minutes, moved by Greg Wetherbee, seconded by Pam Padgett. Motion carried

2. Program Office Report – David Gay

- 3 NTN Sites shutdown (LA12, OH15, MA site), still 247 sites total.
- MDN has lost more sites (MDN is more state supported), 11 sites lost, 3 sites just started (or just about to start), 114 total MDN sites.
- AMNet has added 1 site
- AIRMoN has not changed
- Maps: Added maps with one precipitation gradient (mostly noticeable with MDN)
- Income is about as predicted, expenses were low, end up with a slight surplus.
- State Budgets are tight. We have done well keeping most sites going, though we can expect more losses next year.
- New Ammonia Network will be proposed to be accepted during this meeting.
- Several sites in danger of closing: 1 NTN, 2 MDN, AMNet might lose some sites as they start receiving bills
- New Western Administrative Advisor: Dr. Larry Curtis
- Gulf Oil Update: EPA is putting together a report using NADP observations (NTN and MDN)
- NED News: Chinese company Qingdao PuRen has created a collector very similar to the ACM. Available for purchase
- Data Completion: 2009 data final, with Maps, NTN and MDN data through April 30, 2010
- Visits: Great Lakes Mercury Project, North American Lake Management Society, Taiwan (AMNet), Wisconsin MDN Review

3. QA Report – Mark Rhodes

- Program Office Review on Aug. 31, 5 findings, 8 recommendations. Results going straight to Executive Meeting.
- Site Surveys in 2010: 0 AIRMoN, 22 MDN, 53 NTN, 8 collocated
- Documents for Review:
 - NTN Operations Manual

- MDN Operations Manual
- Guidelines for Evaluation and Approval
- Pending Documents:
 - AIRMON Operations Manual
 - Training videos
 - Program Office SOPs
- Other QA Documents:
 - AMoN SOPs done
 - Siting criteria and site installation pending
- AMNET: sops and siting criteria in progress
- Field Forms and rain gauge charts are being put in electronic form. Progress is slow but moving forward.
- Data Quality Objective Group formed

4. PRISM Presentation Introduction – Mark Rhodes and Greg Wetherbee

- Mark introduced Chris Daly and his role with PRISM

5. PRISM Applications for NADP Mapping – Chris Daly, Oregon State

- 5 FTE research team at OSU in PRISM Climate Group
- Developing PRISM for almost 20 years
- PRISM Climate Group provides USDA's official spatial climate data
- PRISM climate datasets are the most advanced in the world
- PRISM: Parameter-elevation Regressions on Independent Slopes Model
- Generates gridded estimates of climactic parameters
- PRISM accounts for spatial variations in climate due to elevation, terrain orientation, terrain profile, moisture regime, coastal proximity, two-layer atmosphere, topographic position
- PRISM is the only model that can produce the Oregon Annual Precipitation map due to elevation changes of Cascade Mountains
- Plotting PRISM, DAYMET and WORLDCLIM vs Runoff plus ET: PRISM matches Runoff plus ET best.
- PRISM mapping is completed up through September 2010 (June is preliminary and Jul, Aug, Sept are provisional)
- 4 km vs 800 m timeset: 800 m dataset has long-term perspective, updated annually, greatest strength is west of Rockies, 4 km has short-term perspective, updated monthly, greatest strength is east of Rockies
- What's Ahead: New Project with USDA Risk Management Agency (Federal Crop Insurance Program)
- Ongoing Support needed for PRISM Mapping to continue
- PRISM Annual Precipitation Maps were shown 2000 to 2009

6. AMoN Network Approval Presentation – Cari Furiness and Melissa Rury

- Progress Made: 12 point plan was submitted, ad-hoc committee was formed, finalized siting criteria document, finalized extraction of Radiello Passive Ammonia Diffusion Gas Samplers, 4 new sites
- 12-point plan overview was presented: Objectives, Network Operations documents, Data management
- Budget and Staff commitments: AMoN Coordinator – Chris Lehman
- Committee Recommendations and responses:
 - Committee Members: Cari Furiness, Greg Wetherbee, Dave MacTavish, Rich Grant
 - Operation Protocols: SOP Development is well developed, Field Operations looking at site selection criteria, Identifying site liaison and budget for him/her.
 - Laboratory Operations: Provide rationale for not re-using sorbent cores
 - Data Management: Define protocols for post-processing of data and provide a TAT for when data is available
 - Products: Online database describes method and data calculation references, provide table with data from intercomparison of methods
 - Quality Assurance
 - Field Operations: provide rationale for discontinuing triplicate sampling at all but 5% of sites, provide justification for Radiello samplers, identify who will develop QAP and topics to be covered
 - Laboratory Operations: detail how CAL will be affected by addition of AMoN
 - Data Management: Detail process for data review and how reports will be created and distributed
 - External QA/QC Programs: detail procedures for measuring bias, specify how sites that are not co-located with NADP or CASTNET sites will be visited
 - Budget and Staff Support: Executive Committee should be provided with details of costs to assess impact of AMoN on PO and CAL operations, define how AMoN site set-up and operator training will be accomplished
 - Funding: Detail level of sponsor commitment, define level of support at which Network will be shutdown, define risk to NADP if funding becomes insufficient
 - Final To-Dos: Data post-processing SOP, Inter-comparison data
- Recommend acceptance of Passive Ammonia Monitoring Network Plan, with changes noted in 12-point plan

Motion: Accept AMoN (with changes recommended in 12-point plan) as an approved network within NADP.

Moved: John Sherwell, seconded Gary Lear, Motion carried

7. Previews of Sub-committee Agendas were presented
8. Break to Sub-committee meetings at 12:00pm.

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9. Call to Order at 1:30, 10/19/10
10. Sub-Committee Reports
 - Reports from the NOS, DMAS, EROS, and CLAD sub-committees were presented.
11. Revised NADP Map Products – Mark Rhodes and Others
 - Workgroup formed in Spring 2009
 - Presentations in joint EROS/CLAD sessions at fall 2009 and spring 2010 meetings
 - Initiative came from the undifferentiated areas of the western US.
 - For deposition they recommend using a 90% confidence level, for concentration they recommend using a 95% confidence level
 - They recommend lowering the thresholds, due to much of the data being below the current thresholds.
 - Six recommendations listed in the reports:
 - New map product of N+S, new maps for the entire data record
 - New map products of all NADP wet-deposition analytes using PRISM precipitation grids for the entire record of data for both NTN and MDN
 - Concentration should be generated at the 95% confidence level and replace existing maps.
 - Deposition should be generated at the 90% confidence level and replace existing maps.
 - Precipitation maps should be generated at the 95% confidence level and should replace existing maps.
 - Establish a log on the NADP website that would track any significant changes to the NADP networks.

**Motion: Accept recommendations 1 through 6 without a timeline.
Moved by Mark Nilles, seconded by Eric Prestbo, motion carried.**

Motion: To have a timeline for implementation of recommendations presented at the spring meeting to DMAS by David Gay.

Moved by Greg Wetherbee, seconded by Andy Johnson, motion carried

12. Colour Ramp – Mark Rhodes

- 12% of males are color blind and cannot tell the differences between the bins with our red-green bins.
- Alternative color ramps were presented, though no recommendations were made.

13. Neutron Activation of NTN Filters – New Application for an Old Technique – Greg Wetherbee

- Questions: What is the relative abundance of trace elements in wash-out particulates on NTN filters across the Nation? Can NTN filters be used by new customers to monitor concentrations of trace elements?
- Methodology: Make sample radioactive by bombarding with neutrons, then put the sample in a gamma spectrometer to measure gamma radiation. Elements radiate at specific wavelengths, intensity is a function of concentration.
- Detection limits are pretty good for many elements, however, current analysis is only semi-quantitative.
- Particulates and detritus are possible contaminants.
- Preliminary 10-minute exposure yields data for lighter elements only for samples from Arvada, CO
- Pilot Project Proposal:
 - CAL save some filters, ship to USGS, USGS analyze ppt records to find 2 weeks where “Large Region” received PPT (1 winter week, 1 spring/summer week), analyze by INAA
 - Cost is cheap (\$50 per sample)

14. CASTNET Update – Gary Lear

- CASTNET has a budget deficit of about 25%.
- Meteorology measurements will be discontinued. Removing of met equipment from almost all of the sites will begin in January 2011.
- Some sites will have to be completely shutdown.
- The deficit is mostly due to loss of EPA funding.
- Historical averages for met measurements will be used for dry deposition velocities.

- Deposition Science Committee Meeting proposed for next spring. The committee's focus will be looking to improve the understanding of dry deposition processes:
 - Would like to provide a better integration of wet and dry deposition number to arrive at total deposition.
 - Would like to provide a forum with operational guidance for CASTNET.

15. NADP Secretary Nominations and Appointment – Mark Nilles and Eric Prestbo

Andy Johnson was nominated to be Executive Committee Secretary. No other nominations were put forward.

Eric Prestbo moved, Cari Furiness seconded, motion carried.

16. Fall 2011 Meeting – Kathie Weathers

- Providence, RI and Portland, ME were suggested as locations for the fall meeting.
- A focus on education and outreach is suggested as a good focus for the meeting.
- Climate change and policy were suggested another possible focus.

17. Spring 2011 Meeting – Kathy Douglas and Gary Conley

- Spring meeting will likely be in Pensacola, FL. Hotel and dates have not yet been finalized.

18. Motion to adjourn at 3:30 on 10/19/10

Moved by Greg Wetherbee, seconded by Gary Conley, motion carried.