

Environmental Effects Subcommittee Meeting Notes Savannah GA April 12 & 13

Name change and changes to the charges.

A recommendation for these changes was passed and endorsed by the Joint Subcommittee. The supporting documents are attached.

Mercury Brochure

A near-final version of a 4-page brochure was distributed by David Gay. The subcommittee had a few minor corrections and suggestions but recommended that the Program Office complete the project and print copies for final distribution. The motion was supported by the Joint Subcommittee with the amendment that comments from those not present during the discussion be forward to David by Friday the 22nd. A PDF version of the brochure will be posted on the website

Soil Monitoring Network

A proposal to develop a national program to use soils as indicators/monitors for ecological changes due to atmospheric deposition was discussed. Greg Lawrence, (USGS), Gary Lear (EPA – CAMD) and Pam Padgett (FS) agreed to develop a detailed proposal for such a network for further discussion at the Executive Committee meeting in June.

Outreach CD/Web information

This project was first proposed at the DC Fall meeting as a way both providing educational information on atmospheric deposition and the importance of the NADP long term monitoring to both national and regional assessment. Although strongly endorsed by the committee, we have yet to find an individual interested and with the time to taking the project on. Aside from on going conversations, no motions for action items were entertained.

Website Forums

The Program office maintains a forum section available to members who know it is there. The combined EES and DMAS recommended that a link be provided from the home page to the forums page and that users be encouraged to use the forums as a means of communicating with the standing committees and with one another. The motion was endorsed by the Joint Subcommittees.

Ideal Network Design

- 1.) Modification of the Data Access page to yield more information on the intended use of data downloaded by users. The proposed modification would replace the current typed in section with a longer, more specific list of possible uses, thus enabling us to better analyze how the data is being used and by which groups. A draft report of an analysis of the current page is attached (see attachment 1).
- 2.) Design project. The combined DMAS and EES subcommittees endorsed an ambitious project to analyze whether the current network is meeting the needs of the users, given the fact that the original intent of the network has greatly expanded over the years. Once the current network analysis is completed, assuming gaps in the network exist, a second set of analyses would be conducted to develop a strategic approach for new sites designed to address emerging issues (for example: coastal eutrophication, urbanization effects on nature ecosystems, attenuation with elevation). Pam agreed to draft a planning document for future discussion. The Joint Subcommittees endorsed the plan.

The current information request sheet looks like this:

The dataset Bob sent me was from the “Intended Use” section of the info sheet. The analysis I conducted was using the information from the “brief descriptions” section for 2004

Annual Data for Custom Site List

Data Selection Criteria: Start Year: -- start year -- End Year: -- end year -- Type of Data: -- data type -- Report Format: -- report format -- Seasons to Return: <input type="checkbox"/> Calendar Year (Jan - Dec) <input type="checkbox"/> Water year (Oct - Sep)		Intended Use: Please select the category that best describes how you will use this data Research/Assessment: <input type="checkbox"/> Atmospheric Deposition <input type="checkbox"/> Ecosystem Processes <input type="checkbox"/> Watershed Studies <input type="checkbox"/> Aquatic Effects <input type="checkbox"/> Terrestrial Effects <input type="checkbox"/> Materials Effects Education: <input type="checkbox"/> College/University <input type="checkbox"/> K-12 <input type="checkbox"/> Individual <input type="checkbox"/> NSTA module user <input type="checkbox"/> Other Brief description of specific application <div style="border: 1px solid black; height: 80px; width: 100%;"></div>
<input type="button" value="Get Data"/> <input type="button" value="Reset"/>		

[Comments and Suggestions](#) | [Use Conditions](#)

The “Research Assessment” and “Education” sections are mutually exclusive so that you cannot enter both a research area (i.e. Atmospheric Deposition) and an education (i.e. College/University). They are coded 1-11. I did not use the NSTA category. The Intended Use designations (1-10) were separated into separate worksheets. After reviewing the written “brief descriptions” I came up with 13 application categories:

1. Class assignment
2. Independent research/monitoring
3. Specific site info
4. Teaching

EES Spring 2005 - Attachment 1

5. Modeling and mapping
6. Background for proposals
7. Trend analysis
8. Permit applications including NEPA and EIS applications
9. Data analysis
10. Nonsense or unknown
11. Curious/interested
12. Tribal, local, state reporting
13. Federal agency

Each written description was coded into 1 category (1 through 13). This was a *very* subjective exercise. For example I tried to keep the “research/monitoring” category only for independent or discovery- type research rather than “research for a term paper” and therefore a “class assignment” type research, but when the comment only stated “research”, unless it was misspelled (which happened occasionally) I put it into category 2.

Class assignments were usually clearly stated as such. The only exception is that many instructors are using NTN data for demonstration of Data Analysis procedures. If they indicated that the exercise was for learning data analysis procedures, then the comment went into 9.

Anytime the comment included the name of a **Specific Site** or location (i.e. western Pennsylvania) it went into the Site Specific category.

Use of the data for **Teaching** or demonstration purposes was also often clearly stated, but I also included things like “presentation” in this category

Modeling and mapping was usually used only when specifically stated, although users often just indicated the model they were running i.e. CMAC, so I may have missed a few I didn’t recognized. Some of the mapping uses were probably class assignments.

Background for proposals had to be clearly stated before a comment went into this category. There were several comments that may have been for proposal purposes, but I tended to put them elsewhere if not specifically noted.

Trend analysis was often stated directly. In some cases the trend analysis was stated as being for a particular project. If it specifically stated trend analysis for the “state of Virginia Air Resources” I usually included it in category 12 – state reporting.

Permit applications including NEPA and EIS; although few, each Intended Use category had a couple. When the comment was a NEPA document for the Forest Service I generally put it in this category even though the Forest Service was specifically named. There were several “consultant” comments that were probably related to permits, but I usually didn’t include them in category 8 unless that said as much.

Data Analysis: I was surprised by the number of class assignments that instructed the students to download NADP data for classroom exercises. Therefore I separated these from the regular

category 1's. Some of the comments regarding data analysis were also from researchers so this category is a combination of research efforts and classroom uses.

Nonsense or unknown, is pretty obvious. Some were humorous and only one was obscene, most were just something to type to get past the gate. There were far fewer in this category than I expected.

Curious/interested, is also obvious and many folks did enter one or the other.

Tribal, local or state reporting is a category that is probably under represented. I suspect many of the "data analysis", "modeling and mapping" comments were actually for reporting purposes. Also some of the "site specific" requests may have been for reporting purposes as well

Federal Agency was added after the first round of analysis. By far the biggest agency represented was USGS, followed by EPA, NPS and dragging up the rear was the Forest Service.

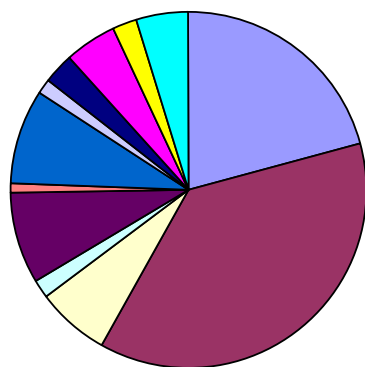
The analysis looked at the overall "intended use" numbers just as Chris had done earlier and then the proportion of application categories within each intended use. The pie charts are in 2 groups. I did not show the analysis of the K-12 data. The first group of figures is the application by intended use. The intended use is shown as a title for each figure and the applications are the slices of the pie. There are 2 sheets of pie charts resulting from this analysis. As you can see "research is a major slice of most intended uses. It would be very helpful to the outreach effort if we had a better understanding of what they mean by "research". This could be done a couple of ways – one approach is illustrated at the end with the recommended reformatting of the intended use page.

The second analysis looked at the relative percentage of applications within the research/assessment intended uses. This is on the 3rd sheet of pie charts. The figure at the top shows the total distributions of the intended uses that designated a topic rather than an education level. So, there were nearly 2500 data request from folks that checked one of the research/assessment boxes, of which, 1165 were for use in Atmospheric Deposition studies and 264 were for use in Ecosystem Processes studies. The figures below illustrate the relative proportion of written descriptions that fell into my application categories. A couple in interesting things emerged here. The "research and monitoring" application was roughly equivalently represented in all 6 intended uses, but half of the folks that were using the data for "proposal background" were intending it for Terrestrial effects work, likewise half of the folks working on "trend analysis" were looking at Atmospheric Deposition – which makes sense. Us Federal folks were being cagey however. About half of us didn't want you to know exactly what we were doing with the data.

Another thing that came out of the reading of each comment was that a bunch of people use the website to access rainfall data – and rainfall data alone (as you may have seen in the more humorous comments) This really wasn't captured in the analysis, but I think it might be valuable to include some was of capturing in the modified data request sheet.

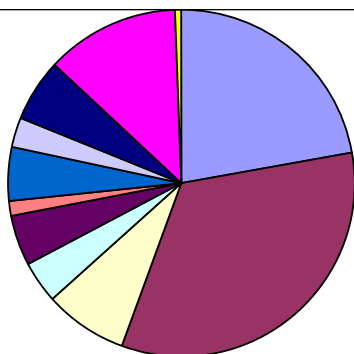
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Atmospheric Deposition

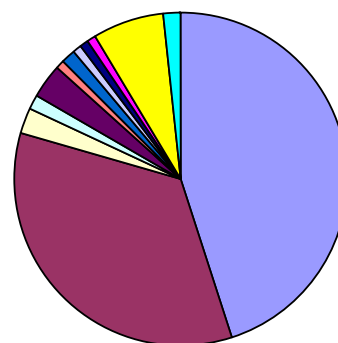


- Class assignment
- Independent Research/monitoring
- Specific site info
- Teaching
- Modeling & mapping
- Bkgd for proposal
- Trend analysis
- Permit application (NEPA and EIS)
- Data analysis
- Nonsense or unknown
- Curious/ interested
- Tribal, Local, state Federal reporting

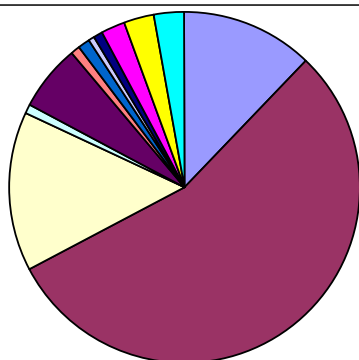
Aquatic effects



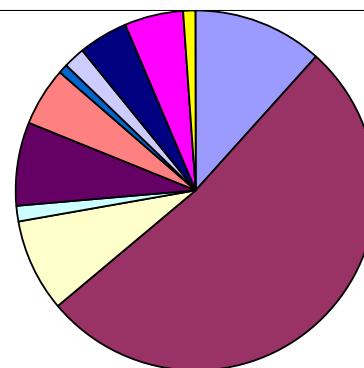
Terrestrial



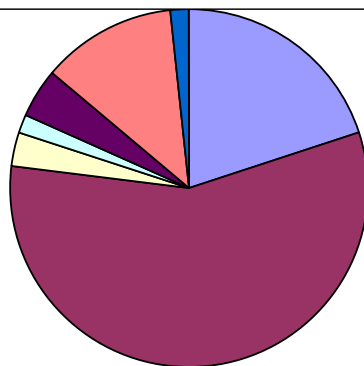
Watershed studies



Ecosystem studies

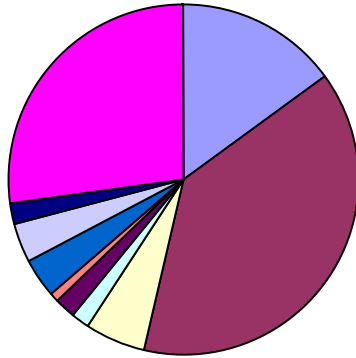


Materials



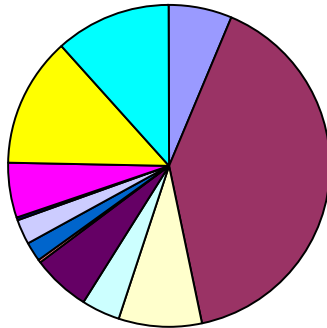
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Individual



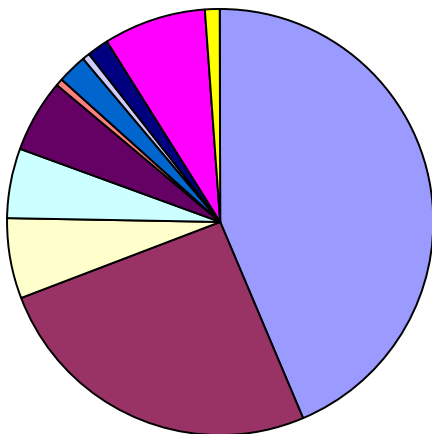
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Other



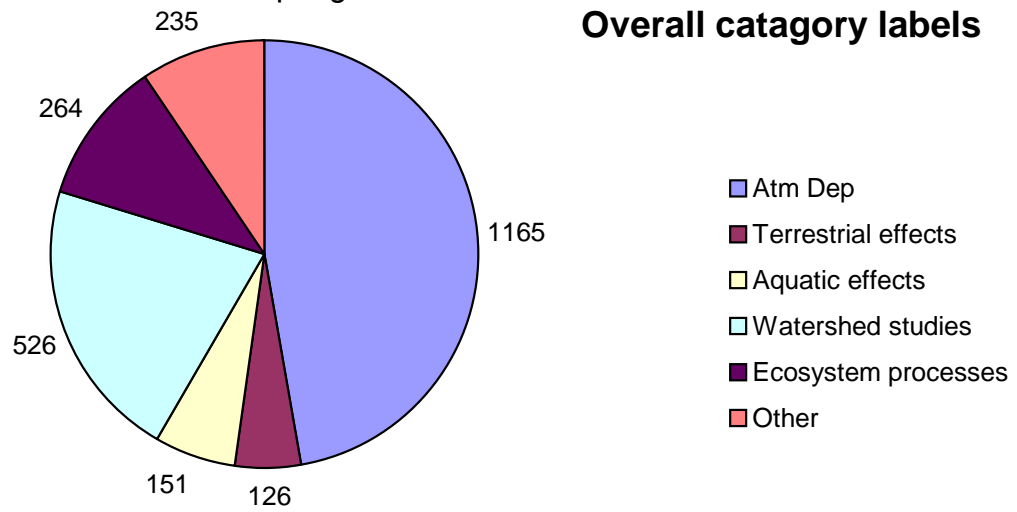
- Class Assignment
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College/University

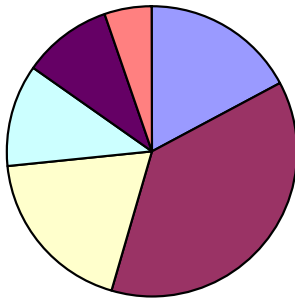


- Class assignment
- Independent Research/monitoring
- Specific site info
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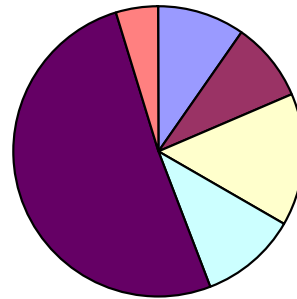
Overall catagory labels



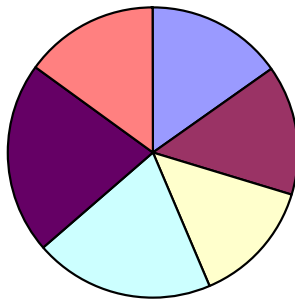
Class assignment



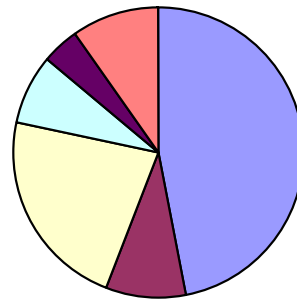
Background for Proposal



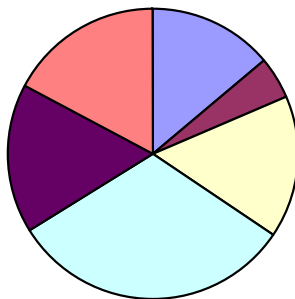
Research and monitoring



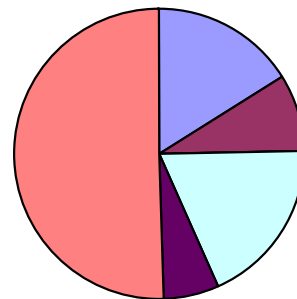
Trend analysis



Site specific



Federal Agency



Based this rough analysis I will toss out the recommendation to the END group that the Data Request Page be reformatted to include the following (word smithing obviously needed):

Tell us about you:

- ☐ Academic/Private Research or Teaching
- ☐ College/University Student
- ☐ Individual
- ☐ K-12 student
- ☐ Site Sponsor/Operator
- ☐ State/Local/Federal Researcher or Employee

Watcha goin to do?

- ☐ Background for a proposal or new project
- ☐ Characterize geographic or temporal trends in deposition (NRSP-3(1))
- ☐ Class assignment, project of paper
- ☐ Data for statistical analysis exercise
- ☐ Educational teaching or presentation
- ☐ GIS(Geographic information systems)/Mapping
- ☐ Literature citation for manuscript or publication
- ☐ Model development or evaluation
- ☐ Other _____
- ☐ Permit application, Environmental Impact Statement (EIS) or National Environmental Protection Act document (NEPA)
- ☐ Rainfall for a specific location
- ☐ Thesis/dissertation
- ☐ Tribal, local, state or federal reporting

Area of interest

- ☐ Animal health, domestic, wild, and aquatic (NRSP-3(2c))
- ☐ Aquatic ecosystems
- ☐ Atmospheric processes including deposition
- ☐ Determination of source-receptor relationships (NRSP-3(2f))
- ☐ Human health (NRSP-3(2d))
- ☐ Materials, effects of deposition (NRSP-3(2e))
- ☐ Other _____
- ☐ Productivity of terrestrial ecosystems, managed and natural (NRSP-3(2a))
- ☐ Public education and outreach (NRSP-3(3))
- ☐ Visibility (NRSP-3(2f))
- ☐ Water chemistry, surface, ground and estuaries (NRSP-3(2b))
- ☐ Watershed studies