AQMEII4 Activity 3 Participant Call June 23, 2020

Participants:

Paul Makar, Jesse Bash, Olivia Clifton, Roberto San Jose, Jon Pleim, Kiran Alapaty, Johannes Fleming, Chris Holmes, Donna Schwede

- Data updates
  - A change log has been added to the data site to track updates to data sets; FAQ to be added in the future
  - Several data sets have been added to or corrected (thanks Jon Pleim, Jesse Bash and Johannes Fleming)
  - Still reaching out for additional data
    - Latent heat flux
    - Additional soil moisture
    - CO2 is needed for photosynthesis models
  - Soil moisture units still need to be made consistent - currently a mix of volumetric units and fractional saturation
  - Please send an email to Donna Schwede (schwede.donna@epa.gov) with data issues
- Fortran Data and Scripts have NOT been updated yet for revised data
  - plan to do that by the end of the week
  - an email will be sent out indicating when the new files have been uploaded
- Note that in some cases, additional information on units, measurement heights and depths, etc are in the metadata file for the site
- Updated Activity Description document
  - Land use/soil information table updated with information and to split out soil to a separate column
- Modeling updates

Name	Organization	Model	Status
Kiran Alapaty	US EPA	CMAQ-STAGE+	Ra, Rb formulations based on TKE w/ STAGE model have been tested for one case
Jesse Bash	US EPA	CMAQ-STAGE	All data sets have been run; developed stochastic post-processor to identify driving variables and graphing function
Johannes Fleming	CAMS/ECMWF		Able to read in all of the data; EMWF land model turned out to be too complicated so box model developed; some calculations are done in NWP and need to be put in box model

Paul Makar	ECCC	GEM-MACH - Robichaud	Can also use CO2
Paul Makar	ECCC	GEM-MACH - Zhang	Zhang scheme is set up to calculate its own meteorological variables (e.g. u*) that could be used/compared against observed values
Jon Pleim	US EPA	CMAQ-M3DRY	Hungarian site focus so far; latent heat flux has been very valuable; vegetation is less important than soil b/c sparse vegetation
Jon Pleim	US EPA	Photosynthesis model	Needs CO2
Roberto San Jose	Tech Univ of Madrid	WRF/Chem - Wesely (basically)	Extracted deposition model from WRF-Chem to make box model
David Simpson	EMEP	EMEP	Will start later in the summer

Missing data - maybe define a period with good data for analysis

How much of the data is missing? Summarize this? Would vary by model depending on the input needs

Not really a good way to fill the data gaps for many variables. Surface pressure might be a less sensitive parameter to filling than other variables. Look at filling this.