AQMEII-4 Activity 3 Participant Call – February 16, 2021

Attendees: Sam Silva, Johannes Fleming, Bin Cheng, Olivia Clifton, Dave Simpson, Christian Hogrefe, Jesse Bash, Chris Holmes, Kiran Alapaty

- Update on the Technical Note
  - Activity 1
  - Activity 3
    - Sections have been written on overview, approach, site descriptions, filtering of data
    - Chris provided slides on what is currently covered in the approach
      - Table 1 - any other models we should include in this table?
        - Should DOSE be included?
        - Johannes - should we refer to the schemes or the particular implementation in a model - e.g. they use Wesely but implemented slightly differently than the traditional Wesely
        - Roberto - using Wesely but not 1989 model
        - Olivia and Chris - we can reword the text to make sure that it is clear that there are different flavors/extensions to the Wesely
      - Table 3 - Planned sensitivity tests list
        - Would they sensitivities be run for the entire period or a short time?
          - Planned for the entire run - e.g. changes in temperature may have different effects at different temperature ranges
        - Magnitude of change in sensitivity tests will vary across tests - not normalized by the same amount
        - Are the responses linear? We would need multiple test levels for this.
        - LAI may be a factor of 2 uncertainty in the regional model
        - Land use - would be interesting also to look at bare soil as all of the sites are vegetated
        - Night test - would maybe be interesting to look at a percent reduction of radiation - to account for cloudiness
        - LAI in the grid model is different than the measured one - this might be interesting to look into (as well as other look up tables)
          - Would we specify what that value is or use the models' native values
        - ANOVA would be interesting as well
        - What about covarying parameters?
          - For tightly co-varying parameters, they should be adjusted - e.g. RH and VPD; LAI+WS+ustar
        - These tests will help us identify the most sensitive parameters for further study
        - Could vary the temperature in the pathway rather than across the site

- ○ Can add text to indicate this is a first level set
- Continued discussion of data screening and flagging
- Modeling updates
  - ○ Roberto
    - Auchencorth Moss - Vd seems to be increasing with time - Is this correct?; some data needs to be filtered still - Olivia : need to use the file labeled "Half hourly"; data have not been filtered yet
  - ○ Johannes
    - Also, found that Auchencorth and Israel site still are not correct in the current version