

Calsim-III Hydrology Development Group

MEETING NOTES

September 1, 2004 (Wednesday)

1:00pm - 3:00pm

Bonderson Building (Large Conference Room, 2nd Floor)

Agenda

1. Introductions (Kadir/Brekke 10min)
 2. Goals for the Calsim-III Project (Chung/Guivetchi/Peterson 15min)
 3. Brief overview of the Calsim-III plan (Kadir 15min)
 4. Format for future meetings (Brekke 10min)
 5. Plan task: "Define Water Management Areas" (Kadir 35min)
 6. Setting up agenda/presenters for next meeting (Kadir/Brekke 15min)
 7. Other items (20 min)
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1. Introductions (Kadir)

2. Goals for the Calsim-III Project (Chung/Guivetchi/Peterson)

Chung:

- Address issues with Hydrology Data Development
- Data transfer system: Agency to agency, model to model
- Format, spatial resolution, temporal resolution
- Performance measures: ease, speed, accuracy
- Flexibility for handling various projection scenarios (mechanics of data development)

Guivetchi:

- Minimize duplication of data development effort (e.g., Modeling Branch, State Water Plan group, others...)
- Leverage each other's resources
- Disseminate data development products to other planning efforts
- Suspend focus on past approaches for data development (consider new paradigms)
- Define water budget boundaries of the smallest rational size that make sense in terms of supportable data and source/use mapping.
- How do we do water balance

Peterson:

- Improved documentation
- Recognize realities of staff turnover
- Consider maintenance of data development mechanics given staff turnover

3. Brief Overview of the Calsim-III Plan (Kadir)

Tariq presented an updated plan relative to the 6 August 2004 meeting. Plan items have been aggregated, renamed, and renumbered.

4. Format for Future Meetings (Kadir/Brekke)

Regarding methods selection for CALSIM-III hydrologic data development: there are ~10 to 20 methodology issues to be resolved before November 30. We've established a bi-weekly meeting schedule, on Wednesday mornings (9:30-12:30). General format for addressing issues is to have them introduced in one meeting and resolved at the next. This format will vary with issues. For example, the first issue involving water budget area selection will warrant more than two meetings (hopefully only 3, maybe 4).

5. Plan task: "Define Water Management Areas"

Small point - this agenda item should have been named "Define Water Budget Areas" simply because one of the proposed alternatives is "Water Management Areas".

Area definitions discussed:

- Depletion Study Areas (DSAs)
- Planning Areas (PAs) – currently used by CALAG modeling group
- Depletion Analysis Units (DAUs) – used by DWR DPLA, DWR Northern District for water budget analyses (Central and San Joaquin districts?)
- Water Management Areas (WMAs) – recently proposed by MBK and MWH, applied in San Joaquin hydrology refinements (Reclamation/MBK/MWH)
- Central Valley Groundwater-SurfaceWater Simulation Model (CVGSM) grid scales
- Bulletin 118 (State Groundwater Plan) analysis units (acronym?)
- Topographically-defined Units (aka, Watersheds, Hydrologic Watershed Units)
- Field-scale

Mike Tansey (Reclamation) felt that a scaled-up methodology beginning with the field level was possible. Future presentation.

6. Setting up agenda/presenters for next meeting

Next meeting 9/15/04, 9:30-12:30

Meeting Objectives:

1. Build consensus understanding on the origin and current users/dependencies(if any) on the area definitions listed below.
2. Adopt selection criteria for screening definition alternatives.

On 1., a list of speakers was identified to give briefings on currently available area definitions. **Speakers should plan on about 10 slides / 15 minutes per talk.** Each definition method warrants longer discussions, but the talks are limited in scope for the 9/15 meeting: we're just trying to introduce definitions, understand why they were initially developed, how they are presently used, and who gets impacted to what degree if we migrate away from them.

(2 hrs total) Boundary Definition approaches (Speakers)

- (20 min) DSAs (speakers Schreiner on origin; Kadir on use/dependency)
- (20 min) DAUs (speakers Roos on origin; Northern District (Cervantes?) on use/dependency)
- (20 min) WMAs (speakers Bourez and Draper on origin; initial applications)
- (20 min) Bulletin 118 (speaker to be determined – John Woodland?)
- (20 min) CVGSM Grid (speakers Mike M., Kadir)
- (20 min) Topographically-defined Units (speaker Matanga)

On 2., Rob Leaf proposed that selection criteria should be adopted to facilitate selection of a boundary definition approach.

- Some criteria expressed at the 9/1/04 meeting:
 - Definition should represent smallest rational area that's supported by available data and enables source/use mapping
 - End-user impact should be considered
 - Redundancy of data development effort across planning groups should be minimized.
 - Consideration should be given toward data development mechanics, with the goal to streamline development processes so that they can be applied to planning efforts considering ensembles of climate/land use scenarios (e.g., State Water Plan, Climate Change Work Team)
 - Consideration should be given toward CALSIM compatibility with secondary modeling efforts (river temperature modeling, others?)

7. Other Items

Kadir/Brekke will prepare and distribute meeting notes after each meeting.

Meeting Follow-up

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Rob Leaf suggestions on **types** of selection criteria (9/1/04)

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Attributes of system:

- Data availability
- Sources (spatial reach)
- Ownership
- Hydrologic constraints (SW/GW etc)
- Operational/facility constraints

Objective based:

- Level of detail/resolution required by subsequent models
- Level of detail/resolution required for analyses (both spatial and temporal - yet to be defined)

Component based:

- Compatability with other models
- Backward/forward compatability (forward based upon future model/hydrology development plans - i.e. extensibility)

Process based (note that these are not governing, but need to be considered in staging development over short and long term):

- Level of effort required for implementation
- Schedule limitations