Calsim-III Hydrology Development Group

MEETING NOTES

October 8, 2004 (Wednesday)
9:30am - 12:30am
Resources Building, Rm 715

Agenda

1. Opening Remarks (Kadir)
2. CAlWater Watershed Delineations (Peltz-Lewis)
3. CalSimII-Hydrology Development for the Sacramento Valley (Draper)
4. Northern District Water Balance Process (Hillaire/Cervantes)
5. Central District Water Balance Process (Aguilar)
6. San Joaquin District Water Balance Process (McGinnis/Scruggs)
7. ***(Not addressed)*** *Setting up agenda/presenters for next meeting (Kadir/Brekke)*
    a. *Criteria for selecting new areas*
    b. *Feasibility of migrating to new areas*
    c. *Models impacted by new areas*
    d. *Others*
8. Closure

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1. Introductions

- Distributed 9/15/04 Meeting Notes

2. CalWater

- No notes...

3. CalSim II Hydrology Development for the Sacramento Valley

- Miscellaneous Points
    - CALSIM II does not adequately support sub-DSA analysis for interpreting demands and supplies.
        - Source-to-demand routing needs to be well thought-out with CALSIM results interpretation in mind.
    - Andy raised issues on computing Land-Use Based Demands:
        - Consumptive Use model's ET algorithm may be too "lumped"
        - Surface runoff algorithm should explicitly partition water to deep percolation or SW runoff
        - CU models should be consistent with those used by DPLA
        - Crop categories shouldn't be so limiting
            - Further issues on slides 14-15 for other issues.

        - Basin efficiencies are spatially coarse and out-dated during fall given changes in rice-straw decomposition practices
            - Futher issues on slide 18
    - Andy raised issues on representing Water Supplies:
        - "Local Water Supplies" are calculated as a closure term in the hydrologic mass balance on each DSA
            - *Levi Editorial: Be aware of the error term's "tributary area" and where the error variable (i.e. accretion/depletion variable) is to be placed within the CALSIM II schematic. For large DSA's with considerable data uncertainty and small flows, the error term may be large relative to modeled flows at the DSA "outflow" point. Placing the error term at this outflow point, which is traditional practice, can cause flow discontinuities and impossibilities during simulation.*
        - Minimum GW pumping is specified for areas reliant on GW and with limited access to SW; maximum GW pumping is loosely constrained and used to meet unmet demand.
            - *Levi Editorial: GW "supply" is not a dynamic constraint on GW pumping during depletion analysis or CALSIM II analysis. The HDG needs to develop a rationale for this assumption (if it is still reasonable given projected land use changes). It may be rational, implying that max/min pumping levels in CALSIM II are reflective of historical pumping activities, which are apparently sustainable in the Sac Valley (needs to be verified by the HDG). However, the GW pumping constraints of CALSIM II do not equate to GW "supply" accounting or supply-limited pumping.*
        - Sac Basin Deficiency mapping (contractor to source) is incorrect.

- **Items 4.-6.** (District water-balance methods presented; no notes)

Next Meeting Proposal: October 27