

From: "John Fio" <jlfio@hydrofocus.com>
To: "Bill Pfanner" <Bpfanner@energy.state.ca.us>
Date: 6/5/2008 4:42 PM
Subject: CPV Sentinel: Initial List of Modeling Questions

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Bill,

Below is the list of questions we discussed this afternoon. I think they are clear. I think it will be important for URS to recognize we do understand it is a "superposition" model, and that these questions are trying to assess whether the conceptual model represented by the numerical model is reasonable in light of the past 30 years of new information that has been developed, and whether any differences resulting from this new data have a significant influence on water level trends simulated by the model.

1. Report observed long-term water level trends: overall Mission Creek Subbasin and local conditions near site (if available). This is necessary to place simulated water level changes into the context of basin conditions.
2. Summarize recent aquifer test results and compare to distribution simulated by model (i.e., transmissivity and storage coefficient data that has been developed for the Mission Creek Subbasin since 1974). Compare data to transmissivity distribution simulated by model.
3. Report numerical solver and closure criterion; document closure criterion was met in every time-step (i.e., the model converged in every time step).
4. Report simulated volumetric water budget. This is important to assess the reasonableness of the model and the simulated water level changes.
5. Report physical basis for the general head boundaries. Document the conductance and head values employed and how they were determined. How sensitive are model results to the input parameters specified for the general head boundaries.
6. Report specified initial head values.
7. Report uncertainty in simulated water levels due to possible changes in the conceptual model:
 - a. New information on transmissivity and/or storage coefficient distributions.
 - b. Boundary Conditions - a no-flow boundary is employed to simulate Banning Fault. However, Figure 16 from Tyley (1974) and recent Mission Creek Springs modeling (Mayer et. al., 2007) indicate significant outflow from Mission Springs Subbasin across Banning Fault and into Garnet Hill Subbasin. What effect does ignoring outflow across the fault have on simulated trends in water level changes?

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From: "John Fio" <jlfio@hydrofocus.com>
To: "Bill Pfanner" <Bpfanner@energy.state.ca.us>
Date: 6/5/2008 3:52 PM
Subject: model file request

Hi Bill,

Below is the email that failed to reach you.

I can answer a number of my initial questions if I had the raw MODFLOW files. Just one of the Scenarios (i.e., Scenario A) will suffice. The files should be able to run in the DOS environment using the USGS' version of MODFLOW 2000. Most "graphical interface" software export the model files in this format, and I believe GMS has this capability. If CEC does not already have these files, it should not be difficult for the consultant to promptly create and email the files to CEC. If this could happen before Thursday afternoon, that would be helpful.

Thanks,

John

John Fio

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