

April 4, 2005

CALIFORNIA WATER AND ENVIRONMENTAL MODELING FORUM

**Final**  
**MINUTES OF THE STEERING COMMITTEE**

For March 18, 2005

(This meeting was held at the CH2M-Hill office in Sacramento.)

**I. SUMMARY**

**A. ACTION ITEMS**

1. **2006 Asilomar Main Activity room** – The E.D. will check on what is best and available.
2. **Joint Poster Session** – The E.D. will check to see if the IEP would like to have a joint poster session with us at Asilomar next year.
3. **Joint Social** – The E.D. will check with IEP and see if they would like a joint social with us at Asilomar next year.
4. **Long-Term Water Management Planning** – All be thinking about what our next steps should be.
5. **CEQA/NEPA Workshop** – The E.D. will check with Russ Brown of JSA to see if he can facilitate a workshop on this subject.
6. **Biological/Ecological Workshop** – All be thinking of this and bring ideas to the next Steering Committee meeting.
7. **Briefing Paper for CALFED** – Prepare a 1-page briefing paper on areas that CWEMF could coordinate model development and applications with CALFED, in particular with the Science Program
8. **Mailing to CALFED** – The E.D. will mail CWEMF brochures to the 300-400 persons on the CALFED mailing list.
9. **State of the Estuary Conference** – The E.D. will check and see how CWEMF might participate in this.

**B. MOTIONS PASSED OR TABLED –**

1. A motion passed stating that CWEMF shall appoint a committee to be available to assist agencies involved with Reclamation's "San Joaquin River CALSIM II Revisions" in developing appropriate and desirable peer review activities.

**C. REFERENCES HANDED OUT**

1. Executive Directors Report
  2. Financial Summary for the period 1994-2005.
  3. Proposed list of San Joaquin River workshops
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## II. MINUTES

1. **INTRODUCTIONS AND WELCOME** – The meeting was opened with 15 persons in attendance and five proxies. A quorum was declared.

2. **SECRETARY'S REPORT** – The minutes for the January 21, 2005 meeting were approved with minor changes from the draft.

3. **TREASURER'S REPORT** – Lisa provided information that was summarized in a one-page handout that showed the CWEMF financial situation to date (excluding the 2005 Asilomar finances and the payment to the ED). The general fund contains \$72,192, and the peer review fund contains \$20,930. The handout showed the amounts for the entire CWEMF life, from 1994 - 2005, for the costs for workshops, dues collected, and expenses. This handout was provided for information only and will be updated as appropriate.

### 4. **EXECUTIVE DIRECTORS REPORT** –

a. **General** - Much of the ED report has been included throughout the report where appropriate, to keep similar topics together.

b. **Website** – We had 21,213 hits on our CWEMF website in 2004.

c. **SPAM** – Rich is working on getting the SPAM items you may have received from the CWEMF mailing list.

### 5. **2005 ANNUAL MEETING REVIEW**

#### a. **Asilomar** –

(1) **General** - There were 143 participants this year, representing 45 organizations. There was lots of positive feedback. Some attendees wanted more time for questions at the sessions. There was an income of \$22,280 and a cost of \$6285, for a net gain of \$15,995. Rich has reserved and added a third day for the 2006 Asilomar annual meeting, which will be on the dates of Feb. 28 – March 2, 2006. The Power Point presentations for the 2005 meeting will be posted on the Forum web site.

(2) **Student Help** - It was suggested that one or more student assistant(s) would be recruited to help the E.D. at the next conference in exchange for room and board and registration waiver.

(3) **Session Comments** - It was suggested that we develop a stronger inter-tie between our website and the IEP's website, so that we may see each other's agendas more easily. This would have helped them to see our 2005 agenda, where we had the session on environmental restoration which would have been of interest to them (i.e. Hetch Hetchy and Salton Sea restorations). Possibly we could get our agenda onto the IEP agenda so they could attend one of our sessions if they did not have their own session at that time. It was thought that next year it might not be a good idea to have a 3 PM session on Thursday unless the IEP includes it in their program. It is generally preferred that the

number of concurrent sessions be limited to two, but three concurrent sessions could also work for some combinations of subject matter.

(4) **Main Room** – There was discussion on which room we should have our main speaker presentation and business meeting in. The choices discussed were the Chapel, Fred Farr room, and Heather room. There were pros and cons for each location. Rich will explore what is available for next year. Lighting for the posters is also a consideration for the room.

(5) **IEP Considerations** – Rich is checking on the following –

- Asking IEP if they would like to have a joint poster session with us
- Asking IEP if they would like complimentary adult refreshments with us at a social (so we can co-mingle better.)

**6. LONG-TERM WATER MODELING PLANNING** – The latest CWEMF report on this topic has already been incorporated into Vol. 4 of the Administrative Review Draft of the California Water Plan Reference Guide. The CWEMF report is also on the Forum's web site. Comments should be sent to [cwemf@cwemf.org](mailto:cwemf@cwemf.org) and [jrlund@ucdavis.edu](mailto:jrlund@ucdavis.edu). To proceed further we would need buy-in from other agencies. SC members could test the concept with their respective agencies, or to develop a focus group to do so. Is the report detailed enough? Are there still major areas we need to include? The next step is talk to various individuals. Kamyar is supportive. Get the suggestions of upper mid-level management for how to proceed. We are not pushing or promoting it. Let's take small steps as we proceed. Wait till key agencies say it makes sense, and for their staff to participate. Input is invited from anyone involved in water planning. Does the Steering Committee want to take the effort a step further? Jay's original charge is completed with the publication of the current report on this topic. The question now is, do the agencies support it? If we decide to proceed further, CWEMF will host a workshop to define long-term goals, and to find financial and institutional support. At this point in time we should also start thinking about updating our Year 2000 Modeling Protocols report, to include long-term modeling planning.

#### **7. SAN JOAQUIN CALSIM II ENHANCEMENTS BY RECLAMATION** –

There is a high level of interest in this topic. Earlier at Asilomar a proposal was made to peer review these new developments. At today's meeting there was much discussion on the possibility of having workshops and peer reviews on this topic, and if possible how and in what order. These enhancements may affect several current studies. One discussion involved the possibility of having a limited workshop for a selected panel, followed by a review by that panel, with a closing open workshop. The DWR and USFWS are currently reviewing this enhancement.

Major model enhancements are:

- More detailed simulation of the operation of the eastside reservoirs
- Improved simulation of Vernalis Electrical Conductivity
- Land use based agricultural demands on east side of San Joaquin valley

These model improvements have not been released, but eventually will be incorporated into an updated CALSIM II. An external review would help interested parties understand the limitations and impacts of these improvements. (The recent Dan Steiner presentation at a Board hearing did incorporate these enhancements.) The question arose as to whether CALSIM II with these improvements could now be available to all, before it is officially released with the USBR's stamp of approval. The answer was no. But it is reported that the U S Bureau of Reclamation (Reclamation) is very happy with the results so far, and feels that the improvements are ready for review. Some today expressed a desire to just know what the improvements are, for now. The external peer review desired by DWR and the USFWS is scheduled to be done by May, but the release date is not set.

The question arose as how could the CWEMF help in the workshop and peer review efforts. Reclamation would like the CWEMF's help, and in fact would like the CWEMF to take the lead in the workshop and review efforts that would occur after the internal workshops described below. Reclamation has experts at their Denver Technical Service Center who may be available for this review, plus additional experts if needed. Reclamation support of this review would necessarily be limited to funding Reclamation staff because there is insufficient time to develop a contract with others. This presumes the need to conduct this review in the next two or three months.

So one scenario is to have the USBR's two experts on the review committee, balanced by external experts. For historical perspective, CWEMF generally agrees that some internal experts should be on peer review committees for complex undertakings, who can provide much-needed site information to the external experts. If you just have all external experts then a large amount of time has to be spent in training them on site information. This has been discussed several times at different CWEMF meetings. For example, the peer review experts are going to have to know about CALSIM II and how it operates, and this would take the external experts a fair amount of time to learn about. The internal experts can help them to understand how the new enhancements relate to CALSIM II.

It was mentioned it would help things if the Reclamation management could be given a proposed format for the review. Paul Hutton, Lloyd Peterson, Jay Lund, Nigel Quinn, Peter Vorster, and Tara Smith volunteered to develop a review plan. On Reclamation's acceptance the Steering Committee would be asked to vote on CWEMF support of the review process.

A motion was then made as follows: *"The CWEMF shall appoint a committee to be available to assist agencies involved with the San Joaquin River CALSIM II revisions in developing appropriate and desirable peer-review activities. This committee will report to the Steering Committee. This committee shall include the following persons: (1) Lloyd Peterson); (2) Jay Lund (chair), (3) Tara Smith, (4) Peter Vorster, and (5) Nigel Quinn"*. Marianne Guerin seconded. This motion passed unanimously.

## 8. SAN JOAQUIN DATABASE AND MODELING TOOLS

George handed out a list of potential workshops related to water supply, ag drainage, TMDLs, and related facilities in the San Joaquin Valley. The proposed workshops were built around the following topic:

*The agencies that provide water supply to and agricultural drainage from the San Joaquin Valley are searching for operational flexibility within their systems. This is so as to be able to continue their operations while at the same time achieving the total maximum daily loads (TMDLs) that are being formulated for the valley. The TMDLs are affected by the flow rates in the valley's streams (which provide dilution water) and by the timing, volumes, and pollutant concentrations of the drainage water that enter the valley's streams. Mathematical models (models) are currently used in some of these efforts.*

*Simultaneously, the CVRWQCB is formulating the TMDLs for the valley. Currently there are five TMDLs for the valley, and these are for salt, boron, selenium, organo-phosphorus pesticides, and dissolved oxygen. The achievement of these TMDLs is affected by the water supply operations and agricultural drainage conditions described above, among other things. Also, there is a concern over achieving one TMDL at the expense of another. Some mathematical models have been used in the formulations of these TMDLs.*

*Water Quality monitoring programs are important in all of the above modeling efforts. Monitoring will be comprehensively discussed in the workshop because of its importance during any peer review of modeling output.*

Some of the topics of the potential workshops can be summarized as follows:

- Conceptual model of current and future conditions/operations in the SJV, management questions that involve modeling, and current modeling problems that need resolution
- Inventory of current models used throughout the SJV
- Current monitoring programs, databases, GIS use, and model output visualization
- Current and upcoming TMDLs in the SJV
- Modeling/TMDL activities in other large scale geographical areas of the U.S.

It was suggested to combine the first three topics into one workshop, possibly lasting two days. Presenting the metadata on the current monitoring programs was suggested for inclusion. Peter Vorster and Nigel Quinn volunteered to help George get started on the workshops. George mentioned that he would be calling others as the need arises to get contacts of who can serve as speakers, and to refine the topics of the workshops. There was discussion on how much of the SJV to cover with the workshops. The preliminary thoughts were to cover the entire SJV to past Bakersfield. Tentatively, the workshop was set for June or July.

(Note: In developing these workshops there will be an effort to see where common ground may exist between agencies and stakeholders to have some modeling and related workshops for the San Joaquin Valley that will be a benefit to the participants. It is possible that some agencies may not be able to participate at this time due to time or manpower constraints. Items of a sensitive nature are not expected to be presented.)

## 9. PEER REVIEW –

a. **IGSM2** – A past peer review was done on the IGSM model, and some deficiencies were noted and corrected. This led to the development of a new model. The past peer review cost the CWEMF about \$20,000. The CWEMF made a report from the first peer review. For the new IGSM2 model we could have a new workshop and peer review. What does the IGSM2 User’s Group think of having a peer review? Are they supportive? The model is freely available and well documented. Any peer review should include the algorithms and calibrations. IGSM2 has been used for wetlands, the valley’s Eastside, an application in Oregon, and pending uses in Yolo County and Kings County.

b. **Other Peer Reviews** – A peer review of some biological models had been suggested by someone previously, possibly by the IEP. We have about \$20,000 in the peer review fund. How much will we spend on any peer review resulting from the Item (7) topic above (Reclamation’s CALSIM II enhancements). We should try to leverage our peer review dollars. Should we send out an email asking for matching funds from agencies who are interested in having peer reviews done? Whoever wants a peer review done should try to see if matching funds could be made available. The Stockton D.O. is another potential modeling effort for peer review. Several models are involved there. On Re-circulation, none of the model codes currently recognize this. Conceptual models were mentioned.

## 10. TECHNICAL WORKSHOPS –

- **IGSM2** – on hold for now
- **Long-Term Strategic Planning** – possible workshop in Spring
- **CEQA/NEPA** – Jones & Stokes is involved in this a lot. Rich will contact Russ Brown to see if he would be willing to facilitate. Possible this could involve definitions in the morning, followed by modeling in the afternoon. Possibly have in late summer. (Matt and Rich to lead?)
- **How to Prevent Litigation (or, Modeling for Litigation)** – Get attorney’s perspective. Possibly Scott Morris might be interested (civil engr + attorney)
- **Sacramento Valley Hydrology** – Get the Sacramento Valley hydrology consistent with CALSIM. Workshop possibly in late summer. Cover problems with CALSIM there. Cover GIS. Include DWR’s northern and central Districts. Include surface water and groundwater, as these will both be put into CALSIM. Have a workshop first. Todd Hillaire, Andy Draper may be interested.
- **Modeling Uncertainty (or a workshop on CALSIM Sensitivity Study?)** - Should we have a workshop on Uncertainty Analysis. Marianne volunteered to help on an uncertainty workshop. She said there are “model overlay tools”

that can help in modeling uncertainty. K.T. also volunteered to help in an uncertainty workshop. Or, for an alternate workshop, look at uncertainty analyses, conservation of mass in CALSIM. Ask Sushil.

- **Biological Modeling (or Ecological Modeling)** – Bring ideas to the next meeting. Peter Vorster will let Tara know of any ideas he has on this.
- **Fluvial Geomorphic Modeling** – We had a workshop on this before, with good results. We should contact Peter Vorster on this. Peter knows a fishery biologist who may have some ideas on this.
- **Hetch Hetchy** – The DWR has been mandated to have a workshop on this in the Spring. (This is not a CWEMF workshop.)
- **Terminal Lakes** – Peter Vorster might be able to present a session on this at Asilomar next year.

11. **MODEL USER GROUPS** – (It was mentioned that our web page should be made consistent for the different user's groups.)

- **MIKE User Group** –
- **ISGM2 User Group** – They will have another workshop/group meeting in a month. There is a new model code, with a release coming in about a month.
- **DSM2** – There will be a user group meeting on April 26. Mostly DWR will be presenting, but they are trying to get others to present also.
- **CALSIM II** – Meeting not planned yet. They are deciding on whether to meet bi-monthly or quarterly.

12. **WEBSITE** –

a. **Links to Data Sites**- Establish links to major data sites. Have a short description for each link. Ask Rich Jurich for suggestions.

b. **Publications** - What should we keep on there as regards publications? Rich will check with John Williams to see if the Stream Flow Modeling report should be kept on the web.

c. **Agendas** - Put agendas on the website.

d. **Officer Names** - Update officer names on the website.

e. **Modeling Inventory** – Should we set up a place on the CWEMF web site where people can present their info. Should we make a proposal to do an inventory of groundwater models. There is always a lot of discussion on this topic when it comes up at steering Committee meetings because we don't know the extent we could be involved with our volunteer organization. What would our obligations be as regards informing people when changes have occurred to model codes, etc. Could we put up \$10,000, and see if the Calif. GWA would put up matching funds? This needs more thought.

13. **COLLABORATION WITH CALFED** – Let's put together a list of things that we think that we could help CALFED with, and then approach them. Let's draft a one-page briefing paper of how we could help. Ask CALFED if they would like to be involved in any of our workshops. Let's talk to CALFED on the following two items: (1) what we do, and (2) our Long-Term Planning Strategy. Let's go to CALFED with specific items, and work with their individuals. Jay's Long-term Strategy Planning would be of interest to CALFED.

**14. GOALS FOR 2005 –**

- a. See the last page of the Executive Director's Report.
- b. Talk to CALFED
- c. Add electronic payment of CWEMF dues and fees through PAYPAL. The cost is minimal.
- d. Send CWEMF brochures to the 300-400 CALFED mailing list, with a letter of introduction of who we are, and our activities. List our upcoming workshops.
- e. State of the Estuary Conference – In the Fall. How can we participate in this?

**15. NEW SIGNIFICANT DEVELOPMENTS IN THE WATER COMMUNITY –**

**16. OTHER BUSINESS** – Rich mentioned the two new appointed members of the SWRCB. Ms. Tam Doduc is the engineer member who was appointed. The purchase of a portable PC for the E.D. was discussed. This would allow him to do much work during travel, such as while at Asilomar. No decision was yet made, but the idea seemed to receive wide approval of those present.

**17. ADJOURN** – 2:00 PM. Next meeting – May 20, at CCWD, 0930 – 1200. Have “Environmental Modeling Needs” as an agenda item, and invite Spreck. The location has since been moved to Davis (DFG Yolo office).

Respectfully Submitted  
George Nichol, Secretary, CWEMF

ATTENDANCE

K.T. Shum  
Rich Satkowski  
Tara Smith  
Nigel Quinn  
George Nichol  
Rob Tull  
Lloyd Peterson  
Jay Lund  
John Headlee  
Paul Hutton  
Marianne Guerin  
Les Grober  
Eric Berntsen  
Walter Bourez  
Matt Zidar

Convenor, EBMUD  
Executive Director, CWEMF  
Vice-Convenor, DWR  
LBNL, Past-Convenor  
Secretary, CWEMF  
CH2M-Hill  
USBR  
UCD  
USACE  
MWD  
CCWD  
CVRWQCB  
CVRWQCB  
MBK  
WRIMES

On Phone: Peter Vorster

Bay Institute