

CALIFORNIA WATER AND ENVIRONMENTAL MODELING FORUM

**MINUTES OF THE STEERING COMMITTEE**

For November 18, 2016

(This meeting was held at the Solano Water District Office in Vacaville.)

Decisions	
Action Items	<ul style="list-style-type: none"> <li>• Have a conference call to get started on the “Issues with Bay-Delta Projects” workshop – Richard Denton’s group.</li> <li>• Send out Richard Denton’s handout to the Steering Committee – Elaine</li> <li>• Prepare the contract for the new website – Elaine, Tariq, and Stacy.</li> <li>• Contact potential keynote speakers for the annual meeting – Elaine</li> <li>• Prepare the content for the student session of the annual meeting – Holly and Mike</li> <li>• Contact Jamie and Tara on a possible dimensionality workshop for the annual meeting – Marianne</li> <li>• See if DWR (and perhaps USBR and SGMA) have an interest in making the stream/aquifer improvement to groundwater models - Tariq.</li> <li>• Talk to some USGS participants at the upcoming AGU meeting to see if they think the USGS might be interested at this time to participate on a workshop on stream/aquifer improvements – Ben</li> <li>• Update the modeling protocols document – Rich Satkowski (?)</li> </ul>
Parking Lot Items	<ul style="list-style-type: none"> <li>• (Located at end of minutes.)</li> </ul>
Motions	<ul style="list-style-type: none"> <li>• Authorized \$5,000 toward the development of the new website.</li> </ul>

REFERENCES HANDED OUT:

1. Executive Director’s report.
2. Minutes of the September 9 Steering Committee meeting.
3. Treasurer’s Trial Balance
4. Workshop Status Report
5. Summary of Sessions for the 2017 Annual Meeting
6. Issues with Bay-Delta Projects
7. Reduction Factors As a Function of Anisotropy and Degree of Penetration

**1. INTRODUCTIONS/DESIGNATION OF QUORUM** – The meeting was opened by Ben Bray, as Josue was out of town. There were 9 persons in attendance, 4 persons on the phone, and 1 proxy. A quorum was declared.

**2. EXECUTIVE DIRECTOR’S REPORT** – The tax forms have been submitted. Elaine’s comments related to the topics below are presented below with those topics.

**3. SECRETARY’S REPORT** – Some corrections to the minutes were discussed. A motion was made to accept the minutes as amended, and the motion was seconded and passed.

**4. TREASURER’S REPORT** –

- a. There is a total of about \$286,300 in our funds, consisting of \$225,000 in the general fund, \$16,100 in the peer review fund, and \$45,200 in the operating reserve.
- b. Our tax forms for the year are in good order.

## 5. TECHNICAL WORKSHOPS

### a. **Summary of Workshops held since the last annual meeting:**

- C2VSIM
- IWFM
- MODFLOW-OWHM
- PEST
- NHD +GIS training
- METRIC

b. **Natural Flows and Unimpaired Flows for the Sacramento-San Joaquin Delta** – In planning stage.

c. **SacWAM Workshop** – Tariq has talked to SEI. The workshop is still in the planning phase. Check out the website.

d. **Possible BDCP Workshop (Issues with Bay-Delta Projects)** – This topic was presented by Richard Denton and supported by his handout. The topic centers on the need for better presentations of “usable and understandable” model results to policy makers. In presenting model results to the policy makers are we adding information or adding confusion. A workshop may be the best way to expand and define in detail the questions that are arising and for which answers are needed. Some of the initial questions that have arisen and which were discussed today are present below.

- What is the best way to present model results? Think beyond just being data generators. Think of how to present information, not data.
- What are the best “usable” models?
- What is the appropriate type of information to present?
- How can model results be presented without overwhelming the viewers? What is too much and too little information? Where is the happy medium?
- What historic input conditions should be used in running the model? For example, should the 1976-1991 historic period be used when running current models, or should the historic condition be expanded or updated? Make sure that project comparisons use the same historic data period. Historical data is changing all of the time.
- How should model results be presented that are most useful to the policy makers. For example, don’t show long-term averages if they mask adverse short-term conditions (i.e. warm water temperatures that killed the fish, or short-term salinity exceedances that are averaged away). It’s OK to show long-term averages if the short-term adverse conditions within that time period are also shown. Don’t show long-term averages if the situation would not have been allowed to occur in reality (i.e. the exceedance of a short-term salinity standard that would have required an operational change when it occurred).

- How often should the number of critical, below normal, normal, and above normal years be changed as time moves forward? How does this affect the new flow standards? How does it affect the effect of climate change?
- Should the questions that are to be developed here be specific for the Delta, or generic to any modeling output presentation anywhere?
- What are modeling runs? Have specific definitions of what a CalSim run is, what a DSM-2 run is, etc.
- What professional tools exist in the marketplace for showing study results. Should we make more use of those? What are those tools (i.e. animation)? Can graphical artists help us?
- Should we hire a consultant to quiz modelers and policy makers to define what the questions are in more detail, and then follow up with a workshop directed at answering the questions?

What role can CWEMF have in the development of the above questions? The mission statement of CWEMF indicates that CWEMF would be an ideal organization to participate in this. Perhaps CWEMF can be involved in drilling down into answering some of the questions. Will the answers to the above questions be a “Best Management Plan” (BMP) for future modeling efforts in the Delta? The above effort may help support the development of the State Water Board’s proposed California Water Modeling Action Plan. The CWEMF modeling protocol document should probably be updated when some of the above questions are answered. A subgroup of volunteers, consisting of Richard Denton, Ben Bray, Mike Deas, Paul Hutton, and Rich Satkowski, will follow up in developing this workshop. The above persons will have a conference call to get started. Elaine will send Richard Denton’s handout to the Steering Committee. The tentative final goal is to get the detailed list of final questions written down and handed out, followed up by a workshop to answer the questions.

**6. CWEMF WEBSITE UPDATE** – Tariq gave a slide presentation of the potential new website. The estimate is \$3080 to create the new website. It will have 117 web pages and additional material can be added, and will use the PHP language. Tariq hopes to have a draft ready by the annual meeting, and will make a presentation there. Facebook will not be included now, because that would require an administrator. The website can be seen with desktop computer and smartphone. A motion was made to provide \$5,000 toward creating the website, which will leave some funding for unknown items. Tariq will administer the contract with Xiaojun. The motion was seconded and passed unanimously. Elaine and Stacy will work with Tariq to work out the details of the contract.

**7. 2017 ANNUAL MEETING** – Elaine has sent out the call for speakers. We don’t know if there will be a workshop yet. Perhaps a workshop will be on Richard Denton’s topic mentioned above on model results presentations. Also, in January Marianne will contact Jamie and Tara to see if they are interested in giving a workshop on dimensionality. Elaine will check with Phil Isenberg and Lester Snow to see if one of them can be the keynote speaker. Pop-up speaker priority will be given to those who have session talks or poster boards. Holly Canada will work

with Mike Deas on details for the student session. The awards committee consists of Ben, Mike, Marianne, and George.

#### **8. PRE-PROPOSAL: IMPROVING THE LEAKANCE COEFFICIENT USED IN MODFLOW (OR IWFM) –**

a. Hubert discussed what he thought would be an improvement between the stream/aquifer interaction in the ModFlow model. He handed out two papers entitled “Reduction factor as a function of anisotropy and degree of penetration”, which would provide a more theoretical accounting of streambed percolation than the use of a leakance coefficient. There was some discussion on analytical versus numerical methods. Hubert wondered if a CWEMF workshop or peer review could be developed on this stream/aquifer interaction topic.

b. There was some discussion as follows:

(1). CWEMF’s desire is to enhance models, and we appreciate Hubert's bringing a perceived problem to CWEMF. However, we have not on our own advocated model improvements through workshops or peer reviews in the past. We put on workshops and peer reviews when we are approached by outside modeling groups that request them.

(2). More time and information on this topic is needed before we can make a decision on what to do. What outside support do we have?

(3). Tariq will see if DWR (and perhaps USBR) have an interest in making this improvement to groundwater models. It may be a matter of priorities to them.

(4). Ben will talk to some USGS participants at the upcoming AGU meeting to see if they think the USGS might be interested at this time to participate on a workshop on this issue.

(5). If the DWR, USBR, SGMA, and USGS are not interested in participating and supporting a workshop on this issue at this time, then we will have to determine what the next step should be.

(6). Hubert said he would like CWEMF to tell him what additional information will be needed.

(7). We will have this as an agenda item at the next S.C. meeting.

**9. MODEL USER GROUPS** – The DSM-2 User Group is producing a professional document. The CalSim User Group is dormant for now. The IWFM User Group meeting will be in December.

#### **10. OTHER BUSINESS –**

a. Rich Satkowski said that the State Water Board has decided to fund the expert panel to advise on Delta modeling issues. The California Water Modeling Action Plan will not be funded by the Water Board, as it was thought that the Delta Stewardship Council should fund that.

b. Tariq mentioned that the DWR SGMA group is referencing CWEMF’s modeling protocols document, so we should get that brought up to date (change the cover sheet, and do a quick editing of the obvious). Tariq has sent a copy of the protocols to Rich Satkowski for this purpose.

**11. NEXT MEETING** – Jan 20, 2017.

**12. ADJOURN** – 12:15 pm.

Respectfully Submitted

George Nichol, Secretary, CWEMF

ATTENDANCE

Elaine Archibald	Executive Director	CWEMF
Tariq Kadir	Vice-Convener	DWR
Ben Bray	Past Convener	EBMUD
Stacy Tanaka	Treasurer	Watercourse Engineering
George Nichol	Secretary	Retired (Corps/SWRCB)
Hubert Morel-Seytoux		Hydroprose
Paul Hutton		MWD
Richard Denton		RD & Associates
Mike Deas		Watercourse Engineering

Proxies: Ann to Marianne.

On Phone: Yuan Liu, Marianne Guerin, Holly Canada, Rich Satkowski

Parking Lot Items	<ul style="list-style-type: none"><li>• Multi-Year Budget – Prepare a draft.</li><li>• Peer Review Process - Development of peer review administrative process.</li><li>• Investment Policy - Development of investment policy.</li><li>• Financial Transparency – Determine how best to show our financial transparency to outsiders.</li></ul>
-------------------	--