



# Meeting Summary

## Levee Performance Scope

### Definition Work Group Meeting #2

**September 14, 2009, 9:00 am – 3:00 pm**

**Location: MWH American River Room  
3321 Power Inn Road, Suite 300  
Sacramento, CA 95826**

#### WORK GROUP ATTENDANCE:

Name	Affiliation	Status
Steve Chainey	CA Department of Water Resources (DWR)	Partner
Les Harder	SAFCA	Partner
Gil Labrie	Brannan-Andrus LMD	Partner
Mary Perlea	U.S. Army Corps of Engineers	Partner
Ron Heinzen	SJAFCA	Partner
Jeff Twitchell	Sutter County	Partner
Bill Darsie	RD 17 & Sherman Island	Alternate
Gary Hester	DWR	CVFMP Program Manager
Roger Lee	DWR	CVFPO*
Joseph Bartlett	DWR	CVFPO*
Mike Inamine	DWR	DWR Lead
Mary Jimenez	MWH Americas Inc. (MWH)	Technical Lead
Josh Yang	MWH	Team
Dorian Fougères	Center for Collaborative Policy (CCP)	Facilitator
Nicole Ugarte	CCP	Facilitation Support / Note-taker

\*Central Valley Flood Planning Office

#### Absent:

Peter Buck	SAFCA	Partner
Stuart Edell	Butte County Public Works, Sutter Butte Flood Control Agency	Partner
Reggie Hill	Lower San Joaquin Levee District	Partner
Chris Neudeck	RD 17 and Sherman Island	Partner
Dan Tibbitts	Landowner/ West Side Levee District	Partner
Ken Kirby	DWR	CVFMP Program Manager

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### ACTION ITEMS:

1. **Send comments and suggestions for the CVFPP Glossary to Mary Jimenez**  
([mary.j.jimenez@us.mwhglobal.com](mailto:mary.j.jimenez@us.mwhglobal.com))
  - Document emailed to Work Group 9/15/09
  - Suggested revisions and comments should be captured in track changes
2. **Review Draft Deliverable #1 and send comments to Mary Jimenez (email above)**
  - Document emailed to Work Group 9/15/09
  - Suggested revisions and comments should be captured in track changes with clarifying language
3. **Review and add to Draft Deliverable #3**
  - Send additions and comments to Mary Jimenez (email above)

### FUTURE MEETINGS SCHEDULE:

The following meeting dates were agreed upon. Meeting facilitator to send Microsoft Outlook calendar invitations on the following schedule:

- Monday, September 28 10:30 am – 4:30 pm, Center for Collaborative Policy, 815 S St., Sacramento
- Thursday, October 8, 9 am – 3 pm, MWH American River Room, 3321 Power Inn Road, Suite 300, Sacramento

### MEETING OBJECTIVES:

- Review revised Charter, Work Plan, and Glossary
- Revise Draft Deliverable #1
- Review and refine Draft Deliverable #3
- Review and refine Draft Deliverable #4

### SUMMARY:

#### Welcome and Greetings

Dorian Fougères, Facilitator with CCP, opened the meeting and reviewed the agenda and meeting materials.

#### Recruitment Update

Ron Heinzen was introduced to the Work Group as the representative for SJAFCA. Dan Tibbitts (representing the perspectives of landowners and West Side Levee District) was unable to attend. Les Harder (already a partner representing SAFCA) was designated to also represent the interests of TRLIA.

#### Review of Revised Materials

Mr. Fougères noted the changes in the Charter and Work Plan per the Work Group's requests during Meeting 1. The remaining meeting dates (September 28<sup>th</sup> and October 8<sup>th</sup>) were scheduled based on the Partners' schedules.

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Mary Jimenez, Technical Lead with MWH, presented the group with the latest version of the Central Valley Flood Protection Plan (CVFPP) Glossary, revised August 31, 2009. Gary Hester, CVFMP Program Manager, explained the purpose of the Glossary was to serve the Regional Conditions Group, which comprised members across disciplines. The Partners requested that the Internal Team compile the Work Group's suggestions for revising the Glossary and make this available to each other. The Partners also requested a brief update of the other Work Groups for the next meetings.

### Revision of Draft Deliverable #1

The group was presented with the Draft Deliverable #1 Outline developed during Meeting 1 of key factors that affect levee performance. The Partners slightly consolidated the list of key factors, and then prioritized the key factors into three levels of importance (Critical, Important, and Less Important) for each of the three main failure mechanisms (Internal Erosion, External Erosion, and Slope Stability).

- The group clarified the 'Less Important' category as meaning that the factor is less essential or less prevalent throughout the study area, not that the factor does not occur.
- Some factors also required a separate prioritization for specific regions, such as Earthquakes, Subsidence, and Levee Modification. The partners decided that it made the most sense to prioritize key factors for the Delta separate from the rest of the study area for some factors.

The chart of priorities is embedded below.

### Review and Refinement of Draft Deliverable #3

The group reviewed Draft Deliverable #3, a shortened list of key references pertaining to levee performance that had been previously provided to DWR for levee evaluations programs. Partners were asked to comment on the list as well as identify missing important documents. It was emphasized that Deliverable 3 is intended to be a short list of the most important references, though any document considered important should be suggested.

#### ***Partners gave the following comments on the existing materials:***

- #5 (DWR, Third Draft Interim Levee Design Criteria for Urban and Urbanizing Area State-Federal Project Levees, May 15, 2009): a new version is being tracked
- #8 (State of California Code of Regulations, Title 23 Waters, April 1, 1990): need to include applicable updates
- #13 (U.S. Army Corps of Engineers CECW-HS, Interim Vegetation Guidance for Control of Vegetation on Levees, June 12, 2007): replace with updated document
- #29: (Galloway G., Boland, J. Burby, R. J., Groves, C. B., Longville S., Link, L. E., Mount, J. F., Opperman, J., Seed, R.B., Sills, G. L., Smyth, J. J., Stork, R., Thomas, E., "A California Challenge-Flooding in the Central Valley," A Report to the Department of Water Resources, State of California, October 15, 2007): borderline applicability to levee performance
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#### ***Partners suggested the following:***

- Manuals from DHS, DWR, USACE
- Standard Assessment Model (SAM)
- Salmonid Recovery Plan (NMFS)
- Federal Levee Vegetation Team/ California Team Interim Report
- San Joaquin River Restoration Program
- CALFED ERP
- Delta Smelt, FWS

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- SAFCA : Vegetation management plans for the American River Floodway
- Sacramento Area Conservancy Forum
- SAFCA Proposed Life Cycle Management Plan for Levee Vegetation
- Cache Creek Settling Basin
- 1986 100-yr Flood Stages
- Corps criteria for PL 84-99 eligibility
- Legislation on levee inspections
- Delta: USACE 1985
- Southern California Bulletin Criteria
- AB 156 – Levee Inspections
- Background pieces of legislation
- Delta Atlas
- Safety Assurance Reviews
- SOP, encroachment designs
- DWR Lower San Joaquin Hydraulics
- Nationwide Levee Task Force guidelines
- HMP MOU 5 minimum levee standards
- SOP's from USACE, 4-11-08
- Geotechnical design guidance
- USACE EM on Slope stability
- USACE Seepage Task Force
- USACE Floodwall Design EM
- Requirement for vegetation balance from USACE
- Post- 97 Floods from DWR (FEAT Report)
- Missouri-Iowa Levee Breaks
- Levees v. Dams paper
- Rodents paper
- San Joaquin River Basin
- 23 flood control channels
- San Joaquin River Restoration Program – Any documents related to levees or floodway vegetation

### Next Steps

- The group decided to work on Draft Deliverable #4 together at the next Work Group meeting, rather than to take the work offline.
- Suggestions and comments on the Glossary, Draft Deliverable #1, or Draft Deliverable #3 should be sent to Ms. Jimenez via email in track changes.



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#### Draft Deliverable #1 Prioritization Chart

#### CATEGORY CODES

C	Critical
I	Important
LI	Less Important
*	Denotes difference of opinion among Partners

KEY FACTORS	INTERNAL EROSION	EXTERNAL EROSION	SLOPE STABILITY	NOTES/ CLARIFICATIONS
LEVEE FOUNDATION	C	C	C	
LEVEE GEOMETRY	C	C	C	
ENCROACHMENTS	I	LI	I	
VEGETATION COVER	LI	C	I	
VEGETATION ROOTS & TREEFALL	LI	LI	LI	
LAND USE PRACTICES	I	LI	I	
RODENTS	C	LI	LI	
HYRDAULIC HEAD	C	C	C	
IMPEDIMENTS TO FLOOD FIGHTING	I	I	I	
STRUCTURES OUTSIDE	C	LI	LI	
CONSTRUCTION & OTHER MANMADE ACTIVITIES	I	LI	LI	
UNREMIEDIATED PAST SEEPAGE DISTRESS	C	LI	LI	

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<b>LEVEE MATERIALS</b>	C	C	C	
<b>WATERSIDE EROSION</b>	C	C	C	
<b>PENETRATIONS</b>	C	LI	LI	
<b>CLOSURE STRUCTURES</b>	LI	LI	LI	
<b>EARTHQUAKES*</b>	LI	LI	LI	
• Delta	C*	LI	C*	
<b>SUBSIDENCE: Organic Soil Decomposition (Delta specific)</b>	LI	LI	LI	<b>Does not mean that it doesn't happen, just less important</b>
<b>SUBSIDENCE: Levee Settlement</b>	LI	LI	LI	
• Delta – consolidation	LI	I	LI	
• Upper San Joaquin – groundwater extraction	LI	I	LI	
<b>LEVEE MODIFICATIONS</b>	I	LI	I	
• Delta	I	LI	C	<b>Except properly-engineered Levee Improvements</b>
<b>RAIN DURATION/INTENSITY</b>	LI	I	LI	