California Wetland Monitoring Workgroup
(CWMW)
DRAFT Meeting Minutes
9:30 – 4:00
February 6, 2018
Dept. of Water Resources
3500 Industrial Blvd
West Sacramento, CA 95691

In Attendance

Jennifer Siu, U.S. Environmental Protection Agency
Josh Collins, San Francisco Estuary Institute
Kris Jones, Dept. of Water Resources
Megan Cooper, Coastal Commission
Hilde Spautz, CDFW
Xavier Fernandez, San Francisco RWQCB
Shakoora Azimi-Gaylon, Delta Conservancy
Cara Clark, MLML - CCWG
Melissa Scianni, U.S. Environmental Protection Agency
Cristina Grosso, San Francisco Estuary Institute
Cliff Harvey, State Water Board
Joe Morgan, U.S. EPA
Chris Gurney, NFWF
Tom Cavanaugh, USACE
Brendan Reed, State Water Board

By Phone, webcast:
Megan Fitzgerald, USEPA
Elaine Blok, USFWS – NWI
Paul Hann, State Water Board
Jane Schafer-Kramer, DWR - NHD
Leana Rosetti, USEPA

Review of Meeting Minutes

The November 2017 minutes were presented for approval. One correction was requested by Cara Clark. A motion to approve as corrected was made by Josh Collins, and seconded by Bill Orme. Minutes were approved with no "Nays." The February and May meeting minutes will be reviewed at the August meeting.

Wetlands Portal Update[1]

A discussion of wetland Portal topics included: Target audience; organization of the portal; and accessibility of content.

ACTION ITEMS:

1. Work-gourp co-chairs will meet on February 13 to discuss portal updates. Shakoora will attend for CWMW.
2. Christina Grosso will demonstrate new dashboards to Kris Jones.
3. Paul Hann, Tony Hale and Christina Grosso will begin discussions on web search optimization for the Wetland Portal, WRAMP, EcoAtlas and associated content.

DWR National Hydrography Dataset Stewardship

Jane Schafer-Kramer provided a presentation on DWR's stewardship of the NHD for California (attached). This presentation will be presented at the February meeting of the Water Quality Monitoring Council. Parallel mapping efforts at other agencies was acknowledged, and some technical obstacles to collaboration with some platforms was discussed; e.g., integration of USFS LIDAR mapping in Tahoe Basin with NHD would pose significant technical challenges.

ACTION ITEM:

4. Kris Jones will confer with Jane Schafer-Kramer, Josh Collins, Paul Hann, and Shakoora Azimi-Gaylon to prepare for the Council presentation to emphasize collaboration opportunities.

Project Tracker & Performance Measure Reporting Grant

The Delta Conservancy has identified as a goal having all state funded projects from all state agency sponsors entered into Project Tracker, and is conducting outreach to support that goal: "It won't work unless all participate." Outreach to CDFW's Lake and Streambed Alteration Program is proposed, to inform LSA of Project Tracker and make LSA aware of its capabilities.

ACTION ITEM: Christina Grosso will present on Performance Measures at the next CWMW meeting, with a summary of input from 401 and other programs.

[1] Note: The order of the meeting presented in the draft agenda was changed. The National Hydrography Data Set presentation was postponed until later in the meeting.

Special Recognition of Bill Orme on the Occasion of His Retirement

After many years of dedicated service as the State Water Boards Chief of the 401 Certification and Wetlands Unit, Bill Orme has announced that he will be retiring at the end of February. Bill was an founding member of the CWMW, and has been instrumental in bringing the Workgroup to the success it enjoys today. Co-Chair Shakoora Azimi-Gaylon, on behalf of the CWMW, expressed the Workgroup's gratitude for Bill's invaluable contributions and support.

Update: Revisions to the CRAM Tech Bulletin

A long-overdue revision of the CWMW's 2009 Technical Bulletin, Using CRAM (California Rapid Assessment Method) to Assess Wetland Projects as an Element of Regulatory and Management Programs, is under way with USEPA funding. The project is being led by Eric Stein of SCCWRP, along with staff of MLML and SFEI. The CWMW discussed priorities for this revision and ideas for organization and content as presented in an outline. and is expected to be ready for review in the Fall of 2018.

In a related topic, it was noted that funding as not yet been found to update eCRAM for depressional, vernal pool, and slope modules, despite the pending release of updated field books for those modules..

ACTION ITEMS:

5. CWMW participants should send any comments on the outline to Eric Stein as soon as possible.
6. SFEI will develop cost estimates for eCRAM updates.

Update: CRAM Validation Studies

Kevin O'Connor and Melissa Scianni provided an update on recently completed CRAM Validation studies.

Validation studies apply CRAM modules that have passed the verification stage of development to assessment areas that represent a broad geographic area and a that show a wide range of condition. These data are then compared to Level 3 data sets. If level 3 data shows significant correlation to the CRAM data, we find that the module being tested "validated," and thus can be used with greater confidence.

The Depressional, Vernal Pool and Slope modules were the subject of these recent validation studies. In the course of the investigations, numerous minor changes to various metrics were proposed improve

"binning" within the metrics, but overall results showed significant correlations to level 3 data for all modules being tested. It was reported that revised field books are ready for release upon approval from CWMW. It was also reported that updated eCRAM modules have not been produced because funding for that developmental step has not yet been obtained.

The CWMW discussed the issue of whether to withhold publication of the updated field books until eCRAM updates are complete, or to publish in advance of eCRAM availability

The CWMW approved by assent the release of updated field books for the Slope, Vernal Pool and Depressional modules that reflect these changes. CWMW also directs that a statement be published at www. CRAMwetlands.org along with the revised field books informing practitioners and others that eCRAM is for these modules is not yet available, but will be developed when funding is obtained.

The validation reports will also be available at www.CRAMwetlands.org.

The CWMW also recognizes again the need to develop consistent funding for eCRAM development and maintenance.

ACTION ITEMS:

7. Bill Orme, Cliff Harvey: Seek DWQ discretionary funds for eCRAM.
8. All: Continue to seek or develop reliable financial support for eCRAM.

Wetland Program Plan Update

Leanna Rosetti of USEPA presented the signed 2017-2022 California Wetland Program Plan. Each signatory agency discussed it priorities for, and obstacles to, implementation of the Plan.

- State Water Board is engaged in most elements in the Planned Activities Tables, with a focus on CRAM and L2 Committee coordination. The need for eCRAM funding was emphasized.
- Delta Conservancy is engaged in most elements in the Planned Activities Tables with a focus on EcoAtlas and Project Tracker. The need to work to revitalize L3 committee was emphasized.
- Coastal Conservancy's focus is incorporating CRAM and WRAMP into their grant programs and working on regional efforts (e.g. Bayland Goals, WRP Regional Strategy). They emphasize a need to engage more with L3 Committee. They also state a need to clarify their role in some of the tasks.
- Department of Fish and Wildlife notes that the Table represents many of the Department's goals. They emphasize incorporation of CRAM and WRAMP into their grant programs, and notes that the Department's regulatory programs are not engaged with items on Program Plan.

Possible facilitation by the Water Quality Monitoring Council for engagement by other workgroups in Plan priorities was discussed.

Suggestions for future versions of the Plan include addition of a "Priority Activities" table.

ACTION ITEM: Kris Jones will report on the Plan and this discussion to the WQMC, emphasizing that the Plan serves state needs first, with USEPA acting more as an observer than as a driver. Kris will also facilitate outreach to other workgroup chairs and members on engagement with the Plan

EcoAtlas Business Plan[2]

- The Business Plan agenda item was moved to later in the meeting due to technical issues. Tony Hale of SFEI reports that the EcoAtlas Business Plan has been finalized and presented to WQMC. The WQMCl plans to send a letter to CWMW endorsing Business Plan. The next step is to convene implementation committee.

Updates

L2 Committee

The quarterly L2 report is attached to these minutes. The L2 committee is preparing a revised recommendation on best practices for conducting a CRAM assessment, clarifying that in order to obtain the most reliable and consistent data possible, assessments should be conducted by at least two trained practitioners.

Other Reports - Announcements

- Strategic Growth Council Meeting – The CWMW co-chairs discussed EcoAtlas funding with the Strategic Growth Council, and are waiting for a response.
- A $200,000.00 proposal for a NEIEN Grant to support eCRAM has been submitted by SFEI and Delta Conservancy.
- National Monitoring and Assessment Workgroup reports taht National Wetland Condition Assessment data will be out later this year for 2016 assessment. The USEPA wants to hear how agencies are using data. The USEPA will be developing a monitoring and assessment SharePoint site that will include CRAM information. The USEPA's Region 10 is offering a series of monitoring and assessment webinars for states and tribes. Jennifer Siu will send out an announcement for webinars.

[2] Note: The order of the meeting presented in the draft agenda was changed. The National Hydrography Data Set presentation was postponed until later in the meeting.

Future Agenda Items

- EcoAtlas business plan (Josh/Tony)
- WRAMP training approach (Josh/Kevin)
- Delta CARI (Josh)
- State of the State's Wetlands Report (Chris)
- CRAM Survey Results (Brendan)
- Tech Bulletin Update (Melissa)- **May**
- Bay Area RMP/Permitting Program Update (Josh/Jen/Melissa)
- L1 Committee formulation (Hilde, Josh)
- DEDUCE (Shakoora)
- State Board Dredge and Fill update (Ana)
- Performance Measure Reporting in EcoAtlas (Shakoora)- **May**
- eCRAM updates (Josh)- **May**

ATTACHMENTS:

- L2 Quarterly Report for November 2017 to February 2018
- 2017-2022 Signed California Wetland Program Plan
- NHD Stewardship in California Presentation

Quarterly Report
Level 2 - Rapid Assessments Committee
February 6, 2018

The Level 2 Assessments Committee (L2) of the California Wetland Monitoring Workgroup (CWMW) provides this report for attachment to the February 6, 2018 CWMW meeting minutes.

Announcements:

L2 Meeting dates for the remainder of 2018 are now set for: April 24, July 31, and October 30.

The L2 committee provided comments on the section of a draft SWAMP QA plan clarifying and updating information regarding CRAM found in that plan.

Training Update:

2018 TRAINING CALENDAR: Eleven CRAM courses are now set for 2018: Five 5-Day practitioner courses, Two 2-day Managers' classes, one 1-day refresher class, and one 3-day vernal pool class. Training dates for 2018 publicly posted classes are not available at the CRAM website: www.cramwetlands.org .

Additional classes for private or agency sponsors that are not publicly advertised may also take place from time to time. For example, the Perennial Streams Assessment (PSA) program may sponsor a class in May of 2018 for its staff.

EPISODIC MODULE – FIRST TEST CLASSES SCHEDULED: Moss Landing Marine Labs, in cooperation with SCCWRP, CSU Monterrey, and USEPA are conducting validation studies for the Episodic Riverine module in California and Arizona. A 3-day episodic class is to be held in late February in Phoenix, AZ, and another is being scheduled for the summer in Southern California. These courses will be the first test of new curricula for this module, and will contribute material that will be incorporated into future 5-day practitioner courses in California.

WEB UPDATES: Minor clarifications and revisions to the CRAM course descriptions have been approved by L2. The new descriptions are now posted under the Training tab at the CRAM website. Revised text on maintaining currency for practitioners is to be developed by I2 and will be reported to CWMW in the next quarter. Minor updates to the course enquiry page are also to be completed in the next quarter.

NEW TRAINERS: Two journey level trainers have completed all requirements to become fully qualified CRAM trainers, and have been approved by L2:

1. Stephanie Freed (Associate Regulatory Permitting Specialist with WRA), sponsored b by Sarah Pearce.

Stephanie Freed
CRAM Trainer endor

2. Michelle Stevens, PhD, (CSU Sacramento faculty), also sponsored by Sarah Pearce.

Michelle Stevens
CRAM Trainer endor

Scheduled for approval at the next quarterly meeting: Linnea Spears-Lebrun (ICF), sponsored by Lindsay Teunis (ICF).

The L2 committee welcomes these new trainers and looks forward to working with them.

CRAM-A-GANZA: The annual intercalibration exercises for CRAM trainers will take place June 4 – 6 at Camp Pendleton. Further details to be announced.

Technical Bulletin Update

Kevin O'Connor and Cara Clark presented the working outline for the Technical Bulletin update. L2 generally approves the outline, and looks forward to contributing to the document as it develops. This outline will be presented to CWMW at the February 6 meeting.

Request for CWMW Concurrence and Decision: How Many Trained Practitioners are Required to Conduct a CRAM Assessment?

As noted in the previous quarterly report, L2 requested that CWMW remove the term "Draft" from the CRAM Data Quality Assurance (QA) Plan posted at Cramwetlands.org, and declare that this plan is now "Final."

Subsequently, it has come to L2's attention that inconsistency in one quality assurance guideline exists between the CRAM Manual (version 6.1), the current Technical Bulletin and the current CRAM QAQC plan (for more detail, see appendix 1 below). This point of inconsistency is found in the specifications for the composition of a field team for conducting CRAM assessments: *Should the team be comprised of at least one trained practitioner, or two?*

Discussions within L2 showed that even among qualified and experienced trainers, some understood the guidance to be for one, and some understood it to be for two.

At the February 5, 2018 meeting, L2 found that a recommendation for two practitioners should be set as a minimum standard for CRAM assessments under the CRAM QA plan. The rationales for this recommendation is as follows:

1. To date, all calibration, intercalibration and reliability tests of CRAM were conducted with data collected by teams with at least two trained practitioners. Thus we currently have no data that supports – or refutes – the reliability of assessment scores collected by teams led by only one trained practitioner.
2. CRAM by design relies on the conversation, in the field, between two trained practitioners to reach decisions for each metric. If only one member of the team is trained, the second and third members may not be able to knowledgeably apply the CRAM methodology even though they may be skilled and experienced wetland scientists (anecdotal evidence of this is documented).
3. The SWAMP endorsement of CRAM made reference to an earlier version of the QA plan that at least inferred reliance on only that one trained practitioner would be inadequate to conduct an assessment.

For these reasons, L2 recommends that CWMW approve the following statement to be incorporated into all CRAM documents, including the QA plan, the manual, the Technical Bulletin.

> *In order to assure achievement of the data quality standards presented in this Data Quality Assurance Plan, a field assessment team shall be made up of at least two qualified CRAM practitioners who have completed a 5-day CRAM practitioner training course or an equivalent course of study that has been approved by the Level 2 Committee.*
>
> *Teams may be comprised of three or more participants. Additional trained or untrained field team members may participate in the assessment, but all team members should hold training and experience that is pertinent to the wetland type being assessed. Teams ideally will include at least one member who is knowledgeable in plant identification for the area being assessed; additional members should include other specialists such as geologists, fluvial geomorphologists, biologists, or related fields of expertise.*

APPENDIX 1

Guidance on the composition of CRAM field teams is inconsistent in current CRAM documentation. A full version history of this evolution of this inconsistency has not been completely documented, but we can state that the problem emerged over a period of nearly eight years or more. Today, this inconsistency is causing some confusion for practitioners and should be resolved.

The CRAM Manual, version 6.1, says this:

p. 2, Executive Summary: "In essence, CRAM enables two or more trained practitioners (TPs) working together in the field for one half day or less to assess the overall health of a wetland…"

No other reference to the composition of the assessment team occurs in the Manual. While this infers that two or more are the norm, it is not a clearly stated requirement.

The current QA plan states (section 5.2 Team Members, p. 16)

"A field assessment team will **ideally** be made up of 2-3 practitioners who have received formal, classroom-based training in CRAM. However two is the minimum number to comprise a CRAM assessment team, and **at least one of which** must have received formal, classroom-based training in CRAM. The composition of field teams should ideally include some or all of the following expertise to ensure proper interpretation and scoring of CRAM metrics and submetrics…" *(emphasis added, cnh)*

While the QA plan states that "ideally" we would have two TPs, it also clearly states that one is the minimum.

The Tech Bulletin provides conflicting guidance:

Section 2.H, page 12 states: "CRAM assessments **should generally** be conducted by teams of at least two trained practitioners, preferably with complementary expertise..." *(emphasis added, cnh)*

Then in section 4.A, page 16, we find this pair of contradictory statements in the same paragraph:

"**In general**, the following quality assurance (QA) measures will be applied to all submitted CRAM assessments. Assessments **must meet** the following minimum requirements or they will be rejected by the designated Quality Assurance officer(s) and returned to the author for correction… (6th bullet point) At least two trained CRAM practitioners conducted the assessment…"

The statements "should generally," "in general" and "generally" are not clearly stated requirements; they seem more to be recommendations for best results. However, the section 4.A text states that AA reports must meet the standard of two TPs, and that reports submitted that were not done by two TPs should be "returned for correction" (although how you'd correct for that is not clear to me short of repeating the field work).

CONCLUSION: The current guidance from CWMW, which was derived from previous recommendations of the L2 committee that have changed over time, is not clearly stated and open to misinterpretation.

Today, L2 seeks to (1) develop clear, unequivocal guidance on the matter of the minimum standard qualifications for a CRAM field assessment team, based on best available data and experience, and (2) present that recommendation to the CWMW for approval; this recommendation would include specific edits to the documents cited above to clearly state the approved position.

Whatever is finally approved by CWMW can then be incorporated into all of the documents cited above, along with removal of the existing confusing text.