Science Panel Meeting
for *Ceriodaphnia dubia* Quality Assurance Study

Minutes of Meeting #2
Held remotely on Friday February 19, 2021, 9:00 AM to 11:00 AM

List of Participants:
Facilitators:
Ken Schiff and Alvina Mehinto (SCCWRP)

Expert Science Panel:
Toxicologist, Industry - Howard Bailey (Nautilus Environmental, Canada)
Toxicologist, Government -Teresa Norberg-King (US Environmental Protection Agency)
Toxicologist, Academic - Robert Brent (James Madison University)
Quality Assurance - Leana Van der Vliet (Environment and Climate Change, Canada)
Biostatistician - John Bailer (Miami University of Ohio)

Invited speakers:
John Wheeler (SWRCB)
Mitch Mysliwiec (Larry Walker and Assoc/CASA)
Kaitlyn Kalua (CA Coastkeeper)

There were 59 attendees in the virtual public audience.

Agenda Items #1 and #2 - Welcome and Science Panel Introductions
Ken Schiff of SCCWRP called the meeting to order at 9:02 AM and welcomed the attendees. The Science Panel members provided brief self-introductions.

Agenda Item #3- Background and Rationale for the Study
John Wheeler of the SWRCB provided an overview of California's new Toxicity Provisions, including an evaluation of the Test of Significant Toxicity (TST) statistical approach.

John described the SWRCB's motivation for the study, including an overarching goal to investigate test conditions and factors that can be controlled to reduce within-test variability and improve a laboratory's performance. He elaborated that the study is not: (a) a method validation study to determine whether C. dubia should be used in California regulatory programs (that has already been established), and (b) a study to estimate false positives or false negatives rates using the TST (that work had already been completed). The outcome of the study is a staff report to the SWRCB, and possible regulatory outcomes including either a method implementation guidance document or rulemaking that requires all laboratories to make changes to the method implementation.

John finished by defining that the scope of work with current funding will evaluate historical data and lab methods. Additional funding will be used for laboratory analyses of split samples to assess method controls.

The Science Panel shared their initial perspectives and discussed elements of previous studies that could influence the study design for the current project (e.g., performance characteristics to consider, TST simulations to assess error rates). The Science Panel also requested additional supporting materials to better understand the context of the study, including Appendix J of the Toxicity Provisions and the Fox et al. 2019 paper [*note: these documents were sent to the Expert Science Panel following the meeting*]. Clarifications were provided regarding the timeline to secure additional funding. Public comments submitted online during the presentation were addressed live during this agenda item.

Agenda Item #4- Stakeholder perspectives
Two members of the Stakeholder Committee, Mitch Mysliwiec (from LWA representing the California association of Sanitation Agencies or CASA) and Kaitlyn Kalua (from California Coastkeeper Alliance representing Non-Governmental Organizations) were invited to give their perspective on the study. Both expressed their support in the study and the importance for a transparent and non-biased approach to assess variability and ensure that many laboratories can successfully perform the test. Mitch also provided an update on CASA's initiative to provide funding to conduct laboratory testing. The Science Panel thanks them for their presentations.

Agenda Item #5- Charges to the Panel
Ken Schiff of SCCWRP presented the charges to the panel. The charge included:

- Assist in design of the study and approve the Workplan
- Review interim milestones and recommend improvements for future activities
- Obtain consensus on testing method guidance recommendations
- Approve the final report

All members accepted these charges.

Agenda Item #6- Project Scope and Study Workplan
Alvina Mehinto of SCCWRP presented an overview of the three project tasks

- Identify potential sources of variability
- Optimize test methods and parameters to reduce variability
- Evaluate efficacy of test methods and QA refinements

The Expert Science Panel discussions focused on refining Task 1 and the lab technique information and historical data needed from the laboratories to identify potential sources of variability. The Expert Science Panel reviewed the list of SCCWRP's suggested parameters and added other parameters to consider. The Panel also emphasized the need for detailed surveys and phone interviews to collect lab method information, which may not be readily available from either SOPs or historical data bench sheets. The Expert Science Panel also provided suggestions for further data analysis techniques. Final comments from the Expert Science Panel revolved around the challenge of method sensitivity relative to method variability, and the relationship of test variability relative to ecological variability.

The next steps in the process will be:

- SCCWRP will draft a written workplan
- The Draft Workplan will be vetted by the Stakeholder Committee
- The Final Draft Workplan will be presented to the Expert Science Panel in April

The meeting was adjourned at 11:00 AM.