

**Science Panel Meeting
For *Ceriodaphnia dubia* Quality Assurance Study**

Draft Minutes of Meeting #6

Held remotely on Friday, June 24, 2022, 12:30 to 2:30 PM PDT

List of Participants:

Facilitators:

Alvina Mehinto, Ken Schiff (SCCWRP)

Expert Science Panel:

Toxicologist, Government -Teresa Norberg-King (US Environmental Protection Agency)

Toxicologist, Academic - Robert Brent (James Madison University)

Toxicologist, Industry - Howard Bailey (Nautilus Environmental, Canada)

Quality Assurance - Leana Van der Vliet (Environment and Climate Change, Canada)

Biostatistician - John Bailer (Miami University)

There were 51 attendees in the webcast.

Opening Remarks and Review of the Agenda

Ken Schiff kicked off the meeting a 12:31 PM. Alvina Mehinto started with roundtable introductions of the Expert Science Panel and invited speakers. Next, she reviewed the day's agenda and primary goal of discussing the draft study workplan for the first split sample laboratory intercalibration. No final decisions were to be made at today's meeting. Discussion will lead to a revision of the workplan to be approved at a future meeting.

Minutes of Science Panel Meeting #5

The minutes from the Expert Science Panel meeting #5 held April 12, 2022 were approval by the Panel without any modifications.

Baseline Testing Plan

Alvina Mehinto provided a brief overview of the baseline study plan and summarized the recommendations for modifications from the Stakeholder Advisory Committee.

In response to the stakeholder summary, the Panel members brought up a variety of issues including: which endpoints to focus the split sample dose-response measures on (mortality vs reproduction), ensuring the spiked sample dilution range will adequately cover the dose response to calculate endpoints of interest with precision (perhaps requiring another dilution), better describing the approach to calculating sample sizes, how best to deal with potential bias for laboratories who choose not to participate in the split-sample intercalibration, and clarification of the testing options outlined in the workplan.

Stakeholders Perspectives

Three stakeholders presented their perspectives to the Expert Science Panel.

The first Stakeholder was Peter Arth representing private laboratories, who stipulated:

- private laboratories preferred the three round of testing option based largely on capacity and timing
- The Quality Assurance Project Plan (QAPP) should provide more detail on data collection and frequency
- That some unmeasured laboratory techniques should also be captured as narrative responses as a means for identifying differences between laboratories

The second stakeholder was Mitch Mysliwicz representing the California Association of Sanitation Agencies (CASA), who explained:

- Based on the different source waters that comprise influent to the many CASA members, he desired to include split samples with varying conductivity and hardness
- CASA favors the reproduction endpoint over the mortality endpoint because this is the focus of the State's Toxicity Provisions, the endpoint CASA members have the most challenge with, and it is the endpoint with the most variability.

The third stakeholder was Katie Fong representing the State Water Resources Control Board (SWRCB), who stated:

- The SWRCB relies on the expertise and experience of the Panel for deciding the best study design and workplan
- She reiterated the study's main objectives: (A) Evaluating laboratory performance, (B) testing he factors that introduce variability, and (C) provide guidance to laboratories for reducing variability in *C. dubia* reproduction testing.

Expert Science Panel and Stakeholders Discussion

The Panel discussed the draft workplan to inform the final draft. Stakeholder Committee and public comments were addressed during this agenda item.

A variety of issues and suggestions were discussed including:

- The Panel emphasized this was not a study about false-positive rates, which would require a different design
- The use of a hard water dilution water sample in addition to a moderately hard water dilution water sample, which the Panel generally found unacceptable
- Adding a sixth dilution of the spiked sample to better bracket endpoints for enhanced EC50 calculations, which the Panel generally found acceptable

- A suggestion to use the historical data previously collected during the study to guide what appropriate concentrations for the spiked sample should be to best bracket the EC50 for all laboratories.
- The value of an extra dilution vs a duplicate sample for testing assuming insufficient resources were available for both, for which the Panel was split

Schedule and Next Steps

Alvina Mehinto described the next steps which will start with a closed session meeting of the Panel in July, followed by a public meeting in early August. Testing was aiming to begin in late August.