Science Panel Meeting
For *Ceriodaphnia dubia* Quality Assurance Study

Minutes of Meeting #4
Held remotely on Wednesday October 20, 9:00 to 11:00 am

List of Participants:
Facilitators:
Ken Schiff, Alvina Mehinto (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 45 attendees in the webcast.

Agenda Item #1 –Opening Remarks and Review of the Agenda
Ken Schiff of SCCWRP called the meeting to order at 9:03 AM and welcomed the attendees. Ken noted a new agenda item having Steve Boggs from the California Environmental Laboratory Accreditation Program (CA ELAP) give an overview of the California accreditation process for the *Ceriodaphnia* test. The Science Panel members provided brief self-introductions.

Agenda Item #2–Minutes of Science Panel Meeting #3
Howard Bailey motioned to approve the previous meeting minutes, and Teresa Norberg-King seconded. All panel members voted aye to approve the minutes. These approved minutes will be posted to the project website.

Agenda Item #3–Steve Boggs (CA ELAP)
Steve Boggs described the CA ELAP program, which focuses on review of lab performance records on a two-year cycle. Steve also described the evolution of the program, which initially focused on verification of proper record keeping and now also includes a more technical assessment to ensure that the protocol is properly conducted. The accreditation program does not compare or grade laboratories. Accredited labs are required to run an annual Performance Evaluation Sample test. Failure to pass the test once leads to the submission of an improvement plan, while two failures will lead to loss of accreditation.

As the only person assessing toxicity testing labs for all the various test methods in CA, Steve described the materials he currently uses and will follow up with the Panel to share these materials.

Agenda Item #4 - Inventory of the historical data and lab methods
Alvina Mehinto presented a summary of data successfully collected and the proposed steps to collect additional information. The option of moving forward with additional testing to collect information not currently available (e.g., measured ionic composition, quantitative assessment of brood board health parameters) was discussed. The Panel recommended to compile as

much data as possible and complete all data analyses of the existing information before developing a study plan for additional lab testing.

Agenda Item #5 - Exploration of data collected
Alvina presented a series of summary data graphs. There were many questions and comments from the Panel regarding the intra-laboratory variability. The Panel expressed concern for the relatively high mean number of neonates per female in some laboratories, and the wide range of variability in the number of neonates per female in some laboratories. The Panel also provided recommendations for additional data visualizations and exploratory analyses. SCCWRP, who has conducted a 100% audit of the data, agreed to review the numbers and guarantee that the unusual numbers are accurate as provided in the pdfs submitted by the laboratories.

Agenda Item #6 – Data analysis
Alvina presented the plan for future data analysis. The Panel indicated that it was premature to conduct complex modeling exercises with the existing data. Instead, the Panel unanimously recommended a more thorough exploratory analysis with iterative discussions with the Panel as analysis progressed. The Panel asked to review and discuss the interim products with SCCWRP in closed sessions before future public meetings.

Agenda Item #6 - Next steps and closing remarks
Ken summarized the next two steps:

- An initial analysis plan will be re-formulated with a more iterative approach
- Since the Science Panel and Stakeholder Committee disagree about the need for new testing at this time, SCCWRP will put together a strategy for new testing based on stakeholder needs, which will then be presented to the Science Panel.

The meeting was adjourned at 11:07.