DEVELOPMENT OF QUALITY ASSURANCE RECOMMENDATIONS FOR THE *CERIODAPHNIA DUBIA* TOXICITY TEST

Joint meeting of the Stakeholder Advisory Committee and the Expert Science Panel

Minutes of Stakeholder Committee Meeting #8

Held remotely on Wednesday, December 21, 2022, 11:00 AM to 12:00 PM

List of Participants:

Facilitators:

- Ken Schiff (SCCWRP)

Stakeholder Committee members:

- State Water Board - Katie Fong (SWRCB)
- USEPA – Rochelle Cameron (EPA Region IX)
- Regional Water Quality Control Boards - Veronica Cuevas (RWQCB4)
- Wastewater Agencies – Jared Voskuhl (CASA)
- Stormwater Agencies - Jian Peng (Orange County Public Works/CASQA)
- Agriculture Organizations - Sarah Lopez (Central Coast Water Quality Preservation Inc)
- Private Laboratories – Peter Arth (Enthalpy)
- Public Laboratories - Josh Westfall (Los Angeles County Sanitation Districts)
- Non-Governmental Agencies - Annelisa Moe (Heal the Bay)

Expert Science Panel members:

- Teresa Norberg-King (formerly US EPA)
- Robert Brent (James Madison Univ)
- Howard Bailey (Nautilus Environmental)
- Leana Van der Vliet (Environment Canada)
- John Bailer (University of Miami Ohio)

There were 52 online attendees.

Agenda Item #1 – **Opening remarks, self-introductions, and review of the agenda**

Ken Schiff of SCCWRP called the meeting to order at 11:05 AM and welcomed the attendees. The Stakeholder Committee and Expert Science Panel members provided roll-call attendance.

Agenda Item #2 – Project Overview

Ken Schiff provided a brief review of the project goals and progress to this point.

Agenda Item #3 – Presentation of Baseline Interlaboratory Study (ILS) results

Ken gave a synopsis of the Baseline Interlaboratory Study including the design and some key result slides. The result highlights included:

- Significant differences between laboratories in mean neonate production per female was observed between labs using the unspiked SCCWRP-supplied waters.
- Despite the variability in mean neonate production between labs using unspiked water, less variability between labs was observed in IC50 values for spiked samples.
- A relationship was observed between the age of the female used to initiate the testing and the number of neonates that her offspring produce during testing.

Several Stakeholders suggested that SCCWRP perform the Test of Significant Toxicity (TST) comparing various test samples to the laboratory controls. The draft data packet produced by SCCWRP for the Science Panel was requested and Ken will distribute it to the Stakeholder Committee following the meeting. The slides from Ken's presentation were also requested.

Agenda Item #4 – Report on Findings and Recommendation from the Expert Science Panel

Leana Van der Vliet gave a presentation created by the Expert Science Panel. The key findings of the Panel were that there was considerable variability in mean neonate production between laboratories, which is not necessarily bad, especially given the similarities in IC50 values. The problem is more with a lack of consistency in these differences between rounds and within labs. Labs who had more consistent neonate production also had more consistent toxicity point estimates for the spiked samples. Dilution water type did not seem to be a major source of variability. Poor culture performance seemed to be the major driving factor for variability, but the cause in poor culture performance is unknown. Laboratories need to better document, report, and evaluate the health metrics of their brood boards. More time is needed to fully analyze the ILS data.

Some of the Stakeholders also stated they would like to have more time to finish the study. The State Board reiterated their previous statements about timing and that the *Ceriodaphnia dubia* reproduction endpoint promulgation goes into effect January 1, 2024, so no more time could be granted for this project. Another Stakeholder asked whether SCCWRP has analyzed the effect of test end trigger on the neonate production and whether there was any difference between culture water and test controls. Ken answered that SCCWRP had found that the test trigger made little difference in outcome and that labs were culturing their animals in the same water as they were using for controls. Another question was how the reproduction numbers in the ILS compared to the historical data. Ken answered that some labs were quite similar to historical outcomes and others not.

The Stakeholders indicated that they would like to review the data packet and then meet with the SCCWRP team to ask questions and possibly provide their insight into data interpretation. Ken will send out a Doodle pool to schedule that meeting in January.

The meeting adjourned at 12:07 PM.