Science Advisory Panel for Constituents of Emerging Concern (CECs) in California's Aquatic Ecosystems

Final report-out meeting
12/12/22

Housekeeping

- Meeting starts at 8am
- Please contact Dan Ortiz (dano@sccwrp.org) if you've connection difficulties
- Please use the Q&A box if you have questions for the public comment period
- Presentation will be recorded and posted on SCCWRP website (https://www.sccwrp.org/about/research-areas/emerging-contaminants/cec-ecosystems-panel/)

Background

- State of California formed an emerging contaminants scientific advisory panel for ambient waters about 10 years ago
  - Panel produced a 2012 report
- 2012 Panel provided several major advances
  - Offered risk assessment framework to prioritize which chemicals should be monitored
  - Applied framework to identify specific chemicals for monitoring, although sparse data on CEC occurrence hampered this effort
  - Presented approach beyond monitoring individual chemicals leveraging recent advances in cell-line assays and non-targeted chemical analysis
- Field has expanded greatly over last decade
  - Much more data on prevalence, fate, effects for ambient CECs now
  - Considerable technological advances e.g., cell-line assays and non-targeted analysis
- A new Panel is needed
  - Re-evaluate CEC strategy based on this information and update recommendations
  - Funded by State Water Board and Ocean Protection Council

Panelists

- Dr. Jörg Drewes (Chair)
  - Civil Engineer, Technical University of Munich, Germany

- Dr. Paul Anderson
  - Independent Consultant

- Dr. Daniel Schlenk
  - Ecotoxicologist, UC Riverside

- Dr. Adam Olivieri
  - Risk Assessor, EOA Incorporated

- Dr. Nancy Denslow
  - Biochemist, University of Florida

- Dr. Shane Snyder
  - Analytical Chemist, Nanyang Technological University, Singapore

- Dr. Derek Muir
  - Environmental Chemist, Environment and Climate Change Canada

Overall Panel Schedule

- Meeting series #1: October 12-15, 2020 (by webinar)
  - Hear perspectives from many interested parties
  - Review charge questions
  - Working sessions to develop approach to address questions
- Periodic videoconference working meetings and offline work
- Meeting series #2: February 7-10, 2022 (by webinar)
  - Working meetings to address charge questions
  - Public interim progress report
- Working meeting: May 2-5, 2022
  - Refine and address charge questions
- Panel draft report released November 28, 2022
  - https://www.waterboards.ca.gov/water_issues/programs/cec/non_drinking_water.html
- Final public report-out of Panel findings and recommendations: today
- Final report to be released after report-out meeting

Today's schedule

- Introduction (Charles Wong, SCCWRP)
- CEC Challenges in State of California
  - Claire Waggoner (State Water Board)
  - Kaitlyn Kalua (Ocean Protection Council)
- Panel presentation on draft report findings and recommendations
  - Dr. Jörg Drewes (Panel Chair) and Panelists
- State response to Panel draft report
  - Erica Kalve (State Water Board)
  - Kaitlyn Kalua (Ocean Protection Council)
  - Anne Doherty (Department of Toxic Substances Control)
- Public Comment period
  - Please use the Q&A box to ask questions
  - Moderator will introduce questions to Panel
  - Further questions? Please contact Charles at charlesw@sccwrp.org
- Closing remarks (Charles Wong)

Charge questions

1. Which classes of CECs, including those with data gaps, have the potential to adversely impact marine, estuarine and freshwater wildlife, ecosystems, and beneficial uses in marine, estuarine and freshwater environments?
   a. Who are the leaders in the academic field for each of these classes of CECs?
   b. What are the applicable monitoring methods and reporting limits for these classes of CECs?

2. Update the risk prioritization framework developed in the 2012 report to address classes of chemicals, structurally-related chemicals (that may not be within the same class), and data-poor chemical classes (e.g., where there is either no monitoring trigger level or environmental concentration or predicted no-effect concentration)

3. What are the sources, pathways, and rate of inputs leading to the presence of classes of CECs in the marine, estuarine and freshwater ecosystems?

Charge questions (continued)

4. Considering the physical, chemical, and biological processes that affect the transport and fate of classes of CECs, what matrices (i.e., tissue, sediment, ambient water, and wastewater) should be screened in each of the three following ecosystems: marine, estuarine and freshwater?

5. What are the most important known and unknown biological effects for specific or classes of CECs and what approaches should be used to assess biological effects of classes of CECs to sentinel species in marine, estuarine and freshwater ecosystems?

6. How can state management agencies better address classes of CECs in the environment through implementation of the risk prioritization framework? Specifically, how can the State Water Board better address CECs?