

NOAA Sea Grant Water Resources Visioning Team

2021 Webinar Series

Contaminants of Emerging Concern (held May 26, 2021)

Q&A Responses

Setting the Stage: A Broad Overview of CECs, Steve Jones, New Hampshire Sea Grant & Michael Mezzacapo, Hawaii Sea Grant

Q: I wondered why the neonicotinoids were missing since they are used to coat most of the corn, soybean and wheat seeds that are used in millions of acres of farmland.

A: There is no one list that includes all of the emerging contaminants. There may never be one final list because we are continually adding chemicals and conducting more studies. This issue might stem from how we approve chemicals as a national policy and we might never catch up unless we improve how we approve these chemicals.

Microplastics in Aquatic Organisms, Carolyn Foley, Illinois-Indiana Sea Grant

Q: I first learned about CECs back in 2006. Why are these contaminants still called Contaminants of Emerging Concern? Is it time for a new name? Do you think the label 'CECs' prevent us from communicating the most helpful messages to the public and to elected officials?

A: One of the challenges is there is always a new contaminant and there is a concern that everyone is continually shifting to a new contaminant (similar to endangered species). It seems like there is a whole suite of contaminants that are not included because they are not studied as legacy contaminants or as some of the newest emerging contaminants.

A: The term contaminants of emerging concern can mean different things to different people. We have latitude when we consider what is included in contaminants of emerging concern.

Q: So we don't scare consumers away from eating seafood—which has many health benefits—I have been encouraged (in my seaweed contaminants research) to compare contaminant levels in seafood to store-bought food. That way, people don't simply switch to store-bought foods that may have less health benefits.

A: There have been some comparisons with beef and seafood and there are very similar contaminant levels. There is also a very site specific element where if you are in an old industrial area catching seafood, that might be different than in a remote area. Messaging is very important.

For example, [Michigan's Eat Safe Fish campaign](#).

A: We've funded a study on finfish species in Maine and looked at the beneficial sources from seafood and took a holistic approach to giving a balanced message about seafood.

Per- and Polyfluoralkyl Substances: Emerging Research to Enhance Management, Jamie DeWitt, East Carolina University

Q: Is the suite of PFAS identified in your work similar to the suite found around the U.S.? Or do they differ spatially?

A: One of the approaches taken is a combination of targeted and non-targeted approaches - which is more comprehensive than some of the EPA's efforts. It is hard to say if this is different from what has been discovered in other states. For example, Michigan has done a lot of work on monitoring.

Q: The network of scientists is wonderful. How are you connecting with the state agencies?

A: We work closely with the North Carolina Department of Environmental Quality. Two scientists are on an advisory board. We have great communication and have funding and communication through the general assembly.

Q: How do you feel about different state drinking water standards and levels regarding PFAS contamination?

A: An [article by Gloria Post](#) discussed this question, and she emphasized that the differences among states are not huge. We have seen that values for MCLs and health advisories have continued to decrease as we have gotten more information. So I am hopeful that the values continue to decrease as we continue to conduct more research.

Q: What are some questions typically asked by policy makers on PFAS ?

A: Typically about health effects, treatment methods, and cost (which we scientists can't often answer!).

Panel Discussion (Speakers were joined by two additional panelists Mary Donohue, Hawaii Sea Grant, and Sam Chan, Oregon Sea Grant)

Q: In what ways can we leverage extension to help our communities, states, and regions address CECs?

A: One of the challenges of working in this field is communicating that there may be different impacts of chemicals in different organisms that our stakeholders are concerned about (ex: oysters). The success that we have found is to be upfront and straightforward and acknowledge all of the stakeholders that could be involved with the chemical. The other successful area in extension is about our engagement and making connections. One of the ways we can do this is

by pulling together the many different agencies including some of the producers and water treatment facilities. It is helpful to pull together these groups into integrative studies. One other success is Sea Grant working with the American Veterinary Medical Association. The more connections we can make, and have it become part of our life, that reduces the amount of waste and shifts focus onto the stewardship concept. Some of the connections can be through touch points.

A: Understanding the diversity of populations that our extension agents work with, specifically their cultural differences around food sustenance, can help with understanding of various exposure pathway differences.

A: A lot of folks and myself are involved in engagement and we interact with community members as investigators. That is also a way to introduce change into communities or make changes at the state, local, or federal level.

A: This is a relatively new study that fits with the topic Mary discussed about microplastics being a mix of contaminants: Impacts to Larval Fathead Minnows Vary between Preconsumer and Environmental Microplastics. <https://setac.onlinelibrary.wiley.com/doi/abs/10.1002/etc.5036>

Q: Any words of advice for someone who might be new?

A: Reach out to your researchers at local labs and universities and partner with them. For example, takeback events for pharmaceuticals are usually held by the EPA and Schools of Pharmacy and they focus on reducing the human toxicity effects. Sea Grant participation in these events can broaden the focus to ecological effects. Also, wastewater utilities are looking for partners when it comes to outreach because they end up being the point source that requires a Clean Water Act permit. Sea Grant's extension agents can reach out and work with these facilities.

A: Reach out to the Sea Grant Water Resources Visioning Team and the broad array of individuals within the Sea Grant Network. This network is supportive and we can share information and studies. Also reach out to your respective State Departments of Health or similar agencies to better understand challenges.