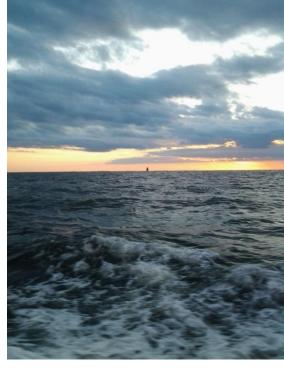
### **Contaminants of Emerging Concern**

#### Ron MacGillivray, Ph.D.

Senior Environmental Toxicologist ron.macgillivray@drbc.nj.gov **MACC** 

May 12, 2020









Presented to an advisory committee of the DRBC on May 12, 2020. Contents should not be published or re-posted in whole or in part without permission of the presenter and DRBC.

# Objectives

- What are the occurrences and sources of Contaminants of Emerging Concern (CEC) in the Delaware River and Bay?
- What are the risks to designated uses in Delaware River and Bay from CEC?
- What actions can be identified to minimize CEC impacts in the Delaware River and Bay?



### Update

 DRBC CEC monitoring from 2004 to 2018 through pilot and special studies in surface water, fish, sediment and wastewater has generated a data set that has and can continue to prioritize future studies and actions.
CEC studied include PFAS, PPCP, hormones, and PBDE

https://www.nj.gov/drbc/quality/reports/cecs.html



## Lessons From Other CEC Strategies

- CEC in aquatic environments require very different monitoring tools than pollutants that are acutely toxic to aquatic life and humans.
- Chemical-specific approaches cannot efficiently monitor all emerging contaminants.
- CEC at low concentrations and in mixtures present challenges to water quality assessment.
- Integrate effects-based tools, passive sampling, non-targeted chemical analysis and traditional targeted chemical analysis in monitoring and prioritization of CEC.



# **DRBC Seeking External Funds**

#### PACZM Proposal Submitted

### PFAS in Surface water, Sediment and Fish in the Pennsylvania Coastal Zone

\* Oct 2020 (18 months)



## How can MACC Help?

- With DRBC Toxics Advisory Committee (TAC) help coordinate with basin states and stakeholders.
- What CEC data are state agencies and others collecting in Delaware River?
- Advice on CEC monitoring for PFAS, PPCP, hormones, and PBDE in surface water, fish tissue, sediment and wastewater.
- Identify new CEC for which no Delaware River and Bay occurrence data yet exist.
- Collaborate on seeking external funds.

