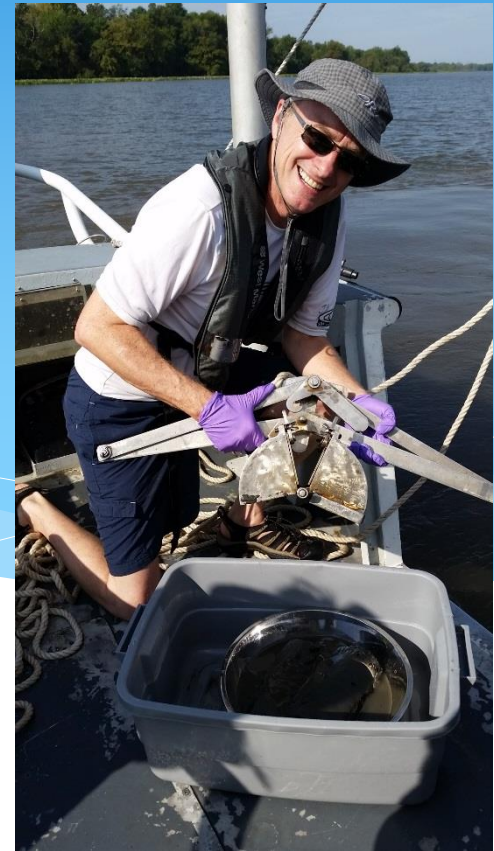


Contaminants of Emerging Concern Strategy



Delaware River Basin Commission

DELAWARE • NEW JERSEY
PENNSYLVANIA • NEW YORK
UNITED STATES OF AMERICA

Toxics Advisory Committee
Ron MacGillivray, Ph.D.

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Contaminants of Emerging Concern Delaware River and Bay

Surface Water Sampling

- Six tidal sites in 2007, 2008, 2009
PFAS, PPCP, hormones and sterols
PBDE, NP, Bisphenol A
2017 –PPCP and hormones

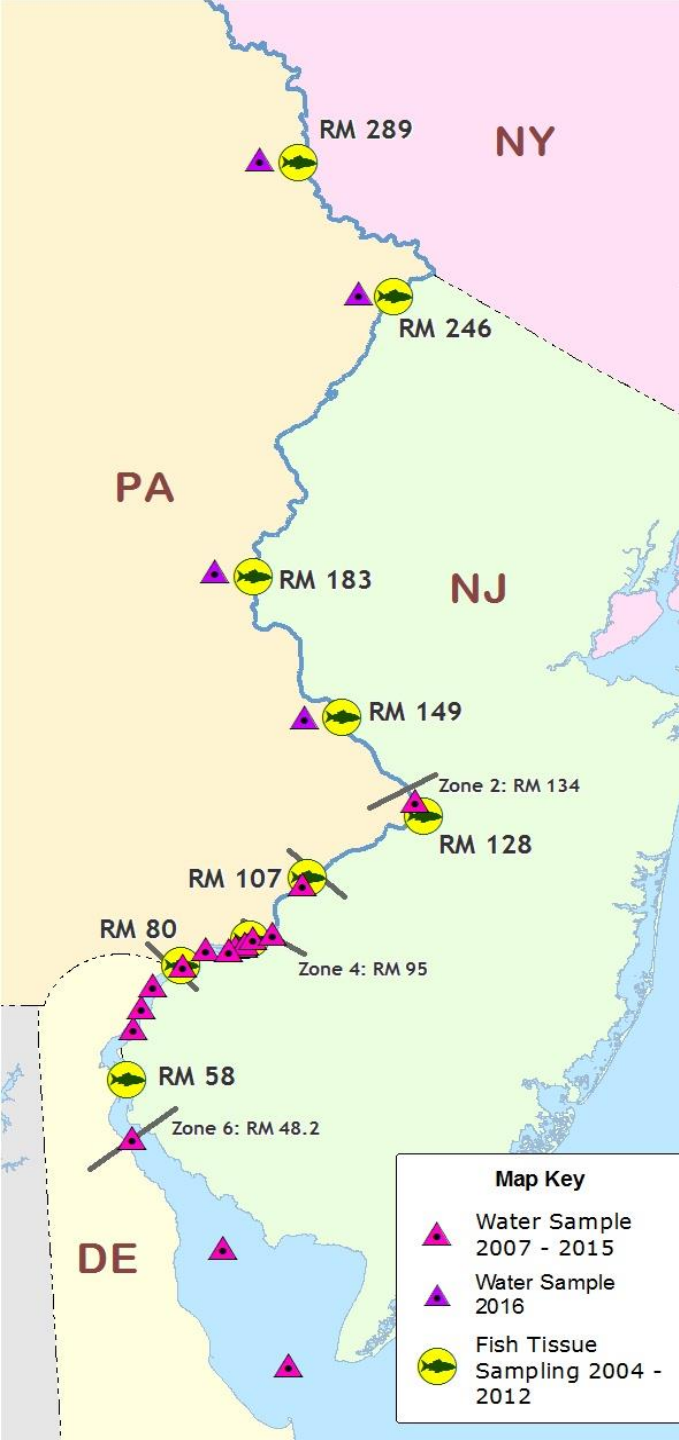
- Fifteen tidal sites in 2015 - PFAS
- Four non-tidal sites in 2016 - PFAS

Fish Sampling

- Nine sites 2004- 2012 – PFC,PBDE
2015 – PFAS & scheduled 2018

Sediment

- Eleven sites 2016 - PFAS



Contaminants of Emerging Concern Collaborative Projects - PFAS



DRBC, NJDEP & EPA-NERL - Detection, Evaluation, and Assignment of Multiple Poly- and Perfluoroalkyl Substances (PFAS) in Environmental Media from an Industrialized Area of New Jersey – DRBC staff collected surface water and sediment samples in tidal NJ Del R tribs as part of a larger survey - 2017

DRBC, NPS, Temple U. WET Ctr, Drexel U. & ANS of Drexel U.- Multi-scale Assessment & Modeling of Human and Ecosystem Risks for Improving Management of PFAS Contamination Throughout Watershed - proposal submitted to EPA 2018

Contaminants of Emerging Concern Collaborative Projects



DRBC & AXYS Analytical Services Ltd - behavior of the triclosan investigated under laboratory chlorination conditions and in a wastewater treatment plant - 2010

Pape J, M Woudneh, R Grace, G Cavallo, R MacGillivray, T Fikslin, and J Cosgrove. 2013. Fate of Triclosan In Tertiary Wastewater Treatment: Chlorination. Water Quality Research Journal of Canada Vol 48 No 4 pp 333–343

DRBC & Temple U. WET Ctr - Occurrence Survey for Emerging Contaminants of Concern in Pennsylvania Tributaries of the Delaware River 2013- 2014 – PPCP - manuscript in preparation

DRBC, PDE & Temple U. WET Ctr - Microplastics survey of surface water within Delaware Estuary and above head of tide at the Delaware and Schuylkill Rivers - proposed

Contaminants of Emerging Concern Strategy



2007 - DRBC vulnerability assessment report – after literature review including CEC data collection by USGS and others in DRB, proposed a target list of CEC with published analytical methods in surface water

2007-2017 – surveys and collaborative projects; participation in EPA-R3 PPCP/EC and SRBC-EC workgroups; WQX, presentations and webpage <https://www.nj.gov/drbc/quality/reports/cecs.html>

2018 – review CEC strategies in other areas (SF Bay RMP, Southern CA Coastal WRP, Oregon, Washington, Great Lakes, and Columbia River Toxics Reduction Working Group); consult with TAC; seek funding

Task: Initiate development a DRBC Contaminants of Emerging Concern Strategy