

Emerging & Reemerging Contaminants Panel and Discussion

What are emerging contaminants? How did they get in the Raritan and why should we care? A panel of researchers and field experts will explore ECs and their potential impacts followed by questions.

The Panel Participants

- **Dr. Keith Cooper**, Biochemistry & Microbiology, SEBS, Rutgers
- **Dr. Brian Buckley**, Environmental and Occupational Health Sciences Institute, Rutgers
- **Dr. Sandra Goodrow**, Science/Research/Environmental Health, NJDEP
- **Dr. Donnell Fennell**, Institute of Earth, Ocean and Atmospheric Sciences, Rutgers
- **Dr. John Reinfelder**, Environmental Sciences, SEBS, Rutgers

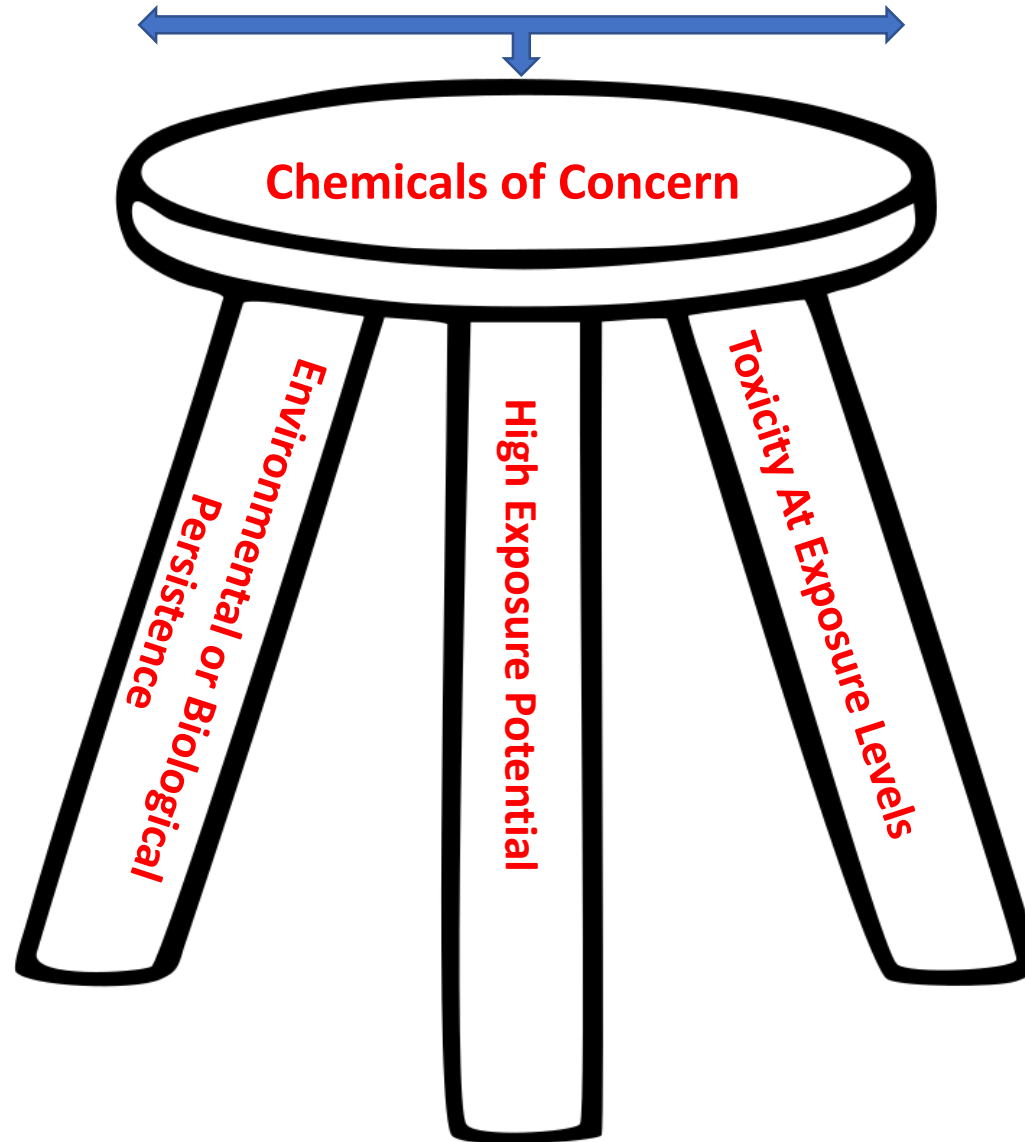
LEGACY CONTAMINANTS

PCBs,
2,3,7,8-Dioxins/Furans
DDT/DDE

PAHs
BTEX – Gasoline
VOCs

Metals: Lead, Arsenic,
Mercury, Copper,
Aluminum etc.
Asbestos

Manufacturing facilities:
chemical, dyes,
pesticides



EMERGING CONTAMINANTS

Polyfluorinated
alkylated Substances
(PFASs)

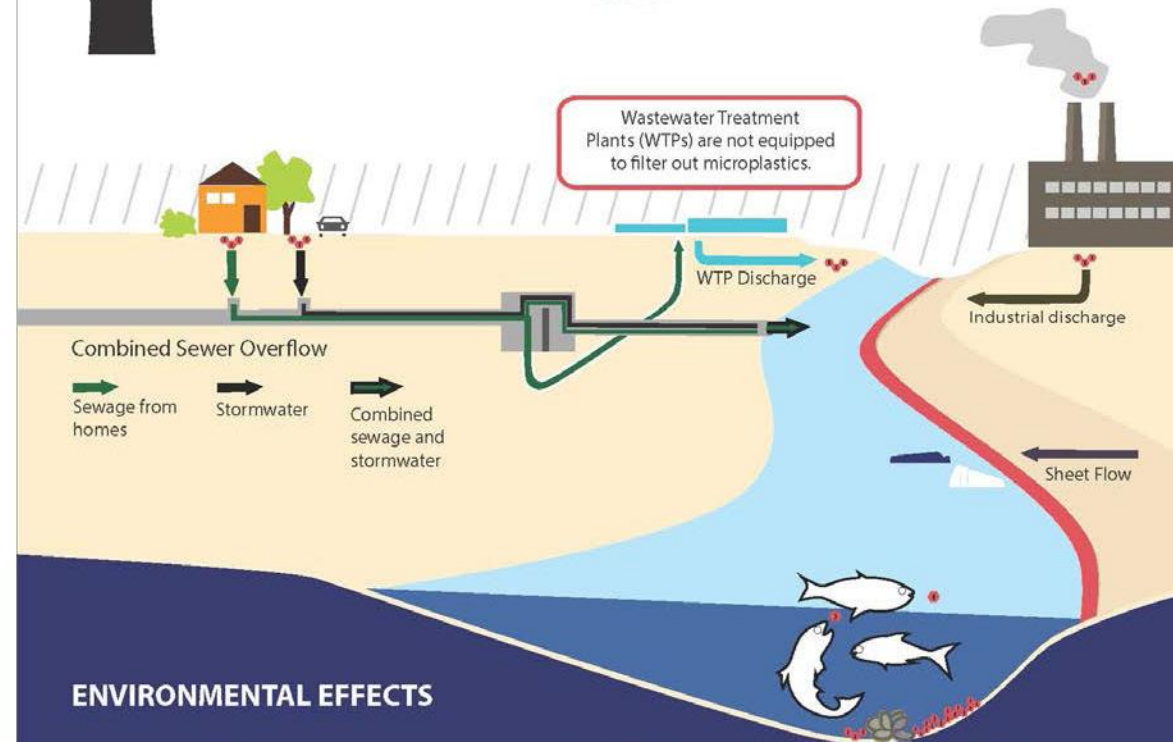
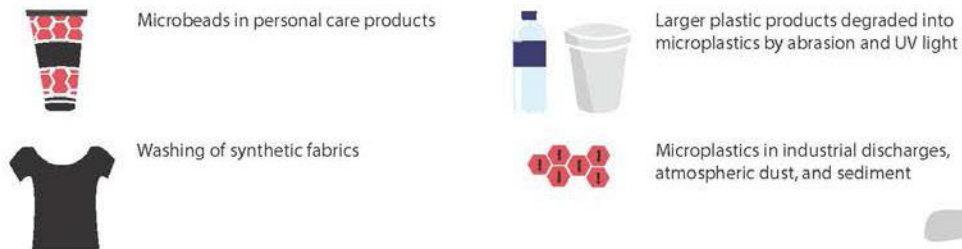
Pharmaceuticals and
Nanomaterials

Plastic Materials and
Microplastic Formation

New Organo-metallic
Catalysts and compounds

Microplastics in Surface Waters

SOURCES

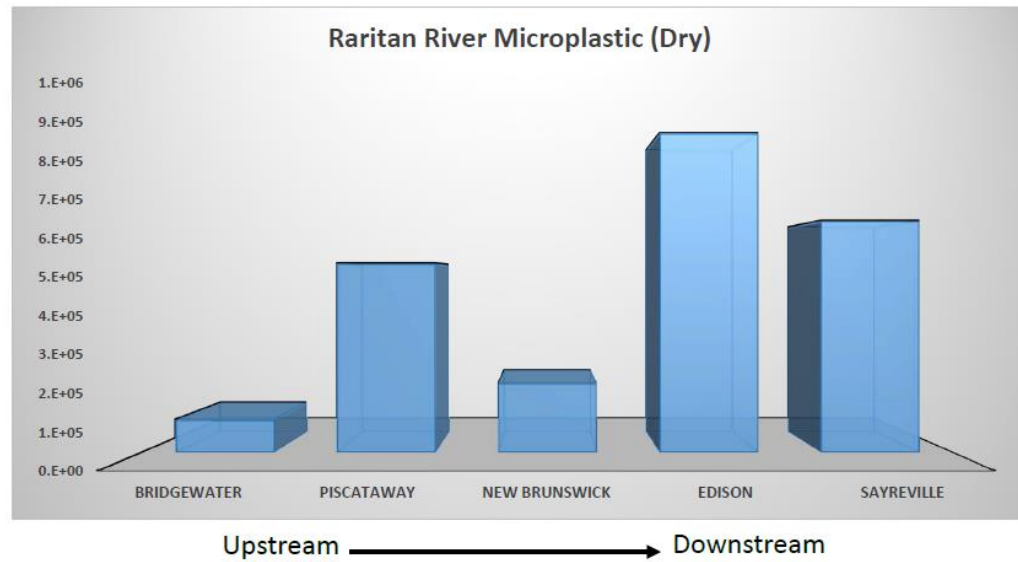


ENVIRONMENTAL EFFECTS

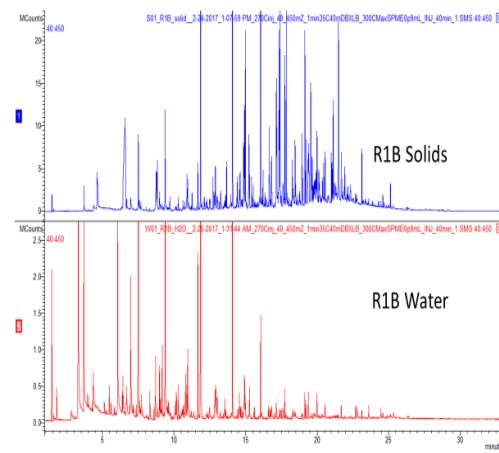


Fig. 1. Sources, transport, and potential bioaccumulation of microplastics and associated persistent organic compounds (POPs) released into the environment.

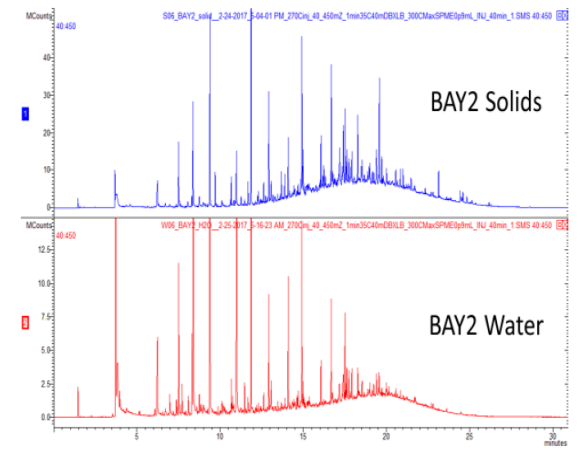
A.



A.



B.



PFAS Alternatives

- EPA Stewardship Program – phase out long chain PFASs by end of 2015

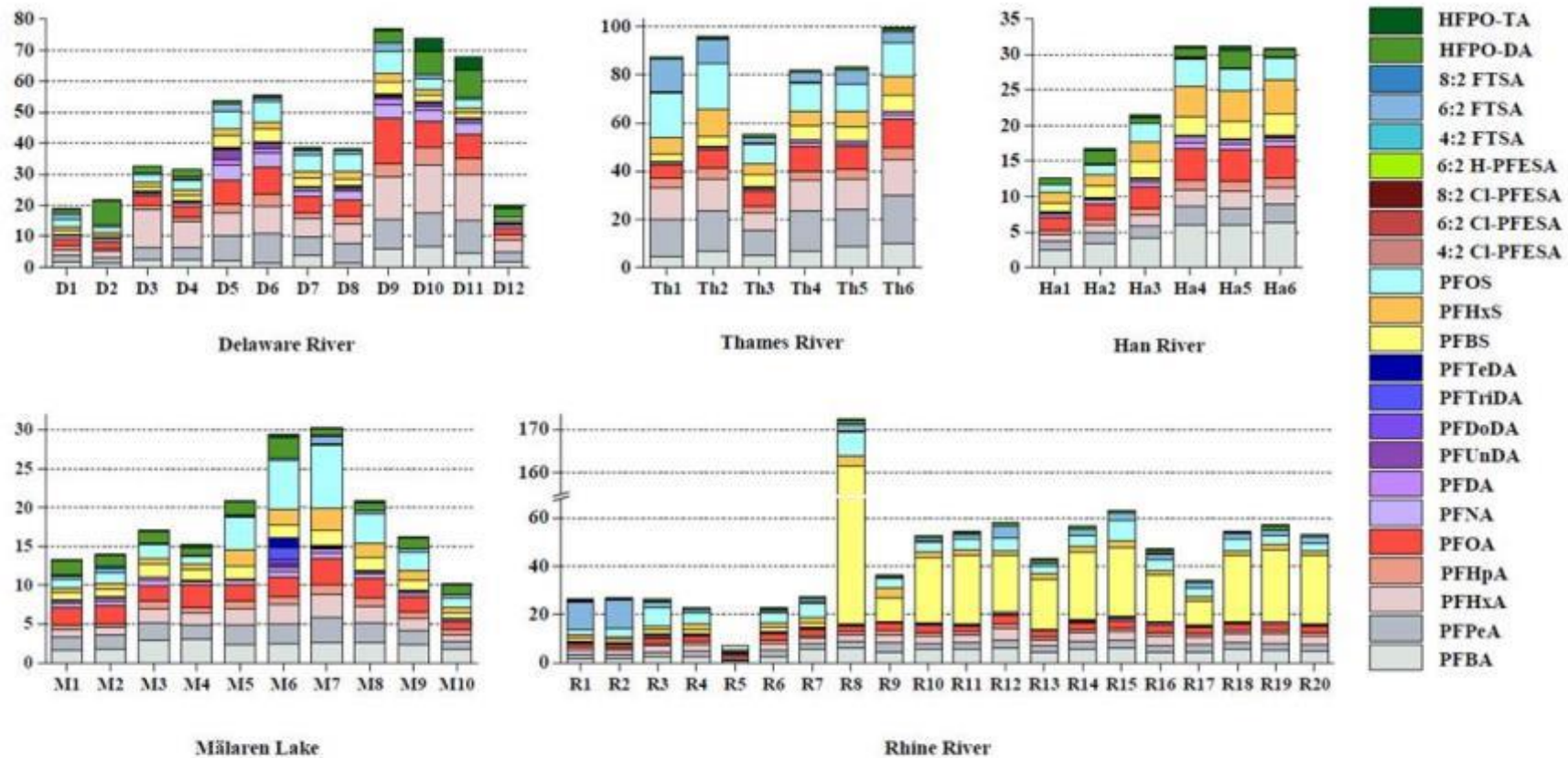


Figure S3 PFAS concentrations (ng/L) in surface waters from rivers and lakes in other countries

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