

Delaware River Basin Commission

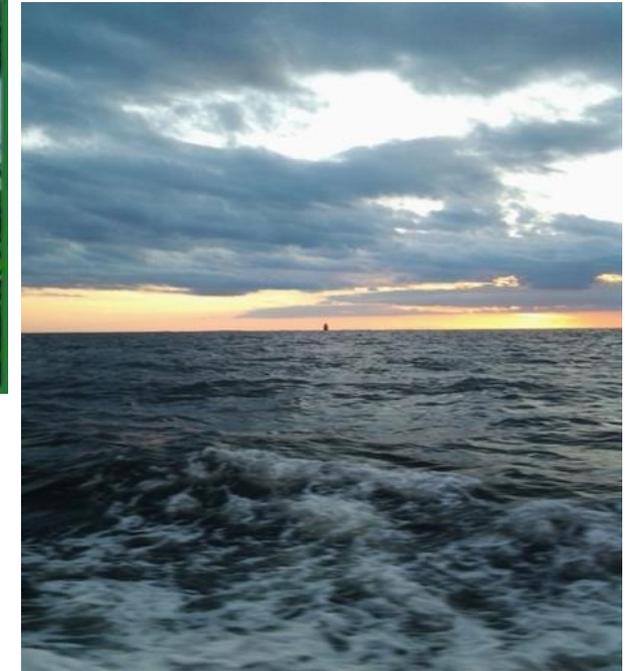


Delaware Estuary Microplastics Monitoring and Cleanup

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FOHR & Darby Creek Valley Ass.
Environmental Summit

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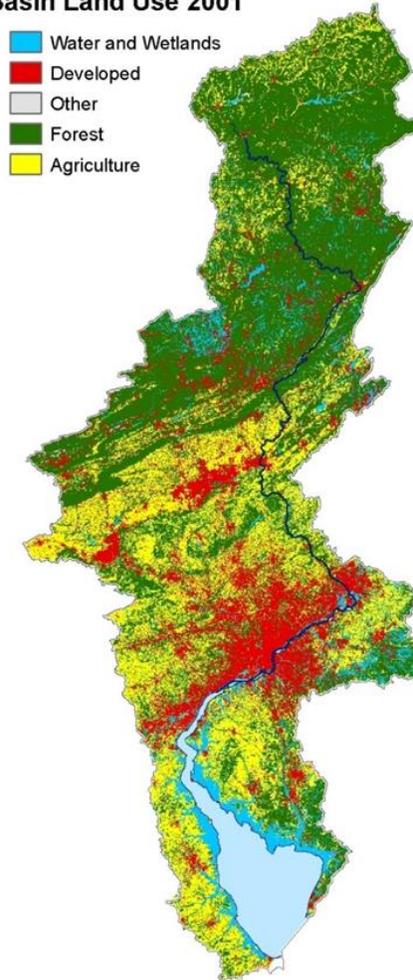
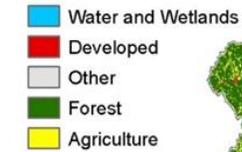
Why was the DRBC created in 1961?



- Water supply shortages and disputes over the apportionment of the basin's waters;
- Severe pollution in the Delaware River and its major tributaries;
- Serious flooding

Five Equal Members:
Delaware
New Jersey
Pennsylvania
New York
Federal Government

Basin Land Use 2001

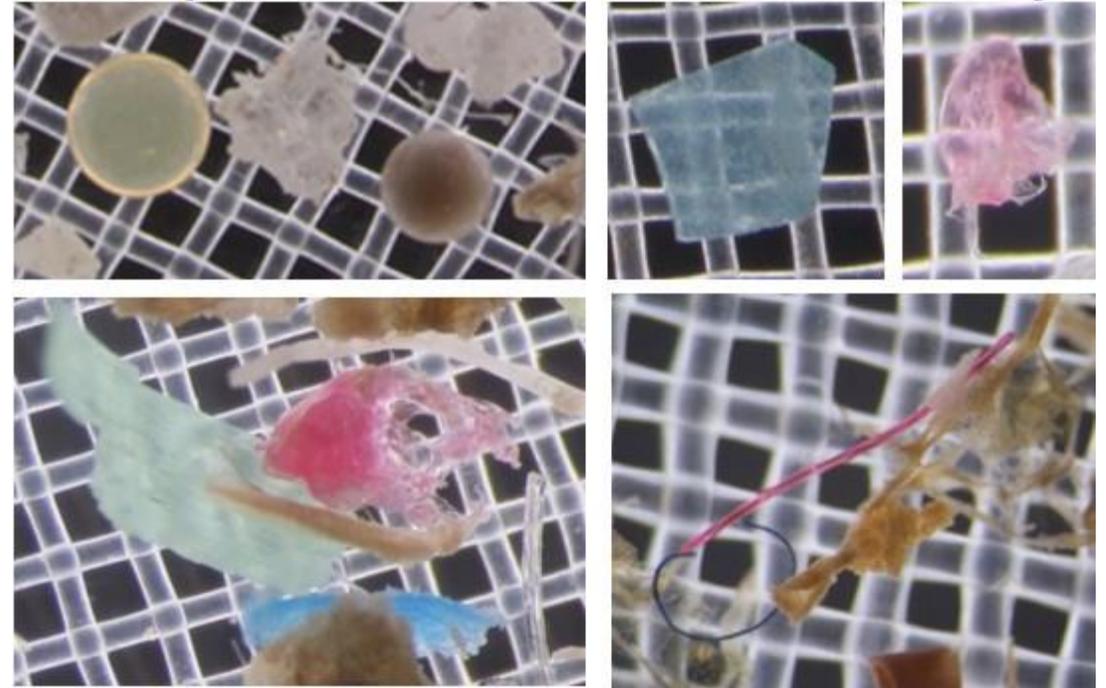


Microplastics



- **Small plastic pieces** less than five millimeters in size.
- * Microplastics include microfibers from synthetic textiles and microbeads in personal care products like face washes and toothpastes.
- * Microplastics are also from break down of tires, plastic bags, bottles and fishing line.
- * Potential impacts of microplastics on people and ecosystems have yet to be fully determined.

Microplastics collected from Delaware Bay



DRBC Microplastics Project



Collect surface water samples at

- * Four sites in the tidal Delaware River between Trenton and C&D Canal
- * One non-tidal Delaware River site at Trenton
- * Tributary sites
 - * Assunpink Creek
 - * Neshaminy Creek
 - * Pennypack Creek
 - * Frankford/Tacony Creek
 - * Schuylkill River
 - * Pennsauken Creek
 - * Mantua Creek
 - * Alloway Creek
 - * Christina River
 - * Brandywine River

- Samples to be collected in 2019
- Determination of the chemical composition of plastics at Temple University with analytical capabilities that include Fourier transform infrared spectroscopy (FT-IR)
- Data collected during microplastic monitoring efforts will be used to model microplastic dynamics by DRBC staff.
- Models will allow us to identify high plastic-loading tributaries, which will be targeted for cleanup efforts with partner organizations to be determined.

Delaware Watershed Conservation Fund



Questions



Contacts

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- Learn more at <https://www.nj.gov/drbc/quality/reports/microplastics.html>