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TECHNICAL REPORT FOR THE ESTUARY AND BASIN

Water Quality

Chapter 4 authors

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Delaware River Basin Commission

DELAWARE • NEW JERSEY
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4.1



TECHNICAL REPORT FOR THE ESTUARY AND BASIN

Water Quality

4.1.1 Tidal – Chemistry and Nutrients

4.1.1.1 Dissolved Oxygen

4.1.1.2 Nutrients

4.1.1.3 Salinity

4.1.1.4 pH

4.1.1.5 Temperature

4.1.2 Non-Tidal – Chemistry and Nutrients

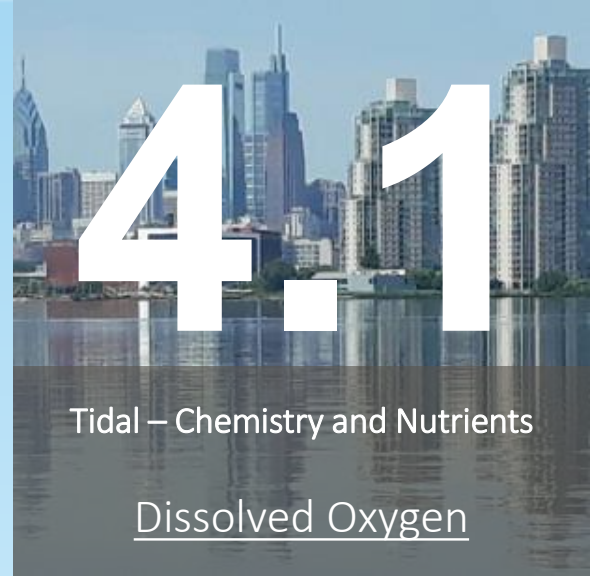
4.1.2.1 Dissolved Oxygen

4.1.2.2 Nutrients

4.1.2.3 pH

4.1.2.4 Temperature

JULY DAILY AVERAGE DISSOLVED OXYGEN AT BEN FRANKLIN BRIDGE 1965-2020



Tidal – Chemistry and Nutrients

Dissolved Oxygen

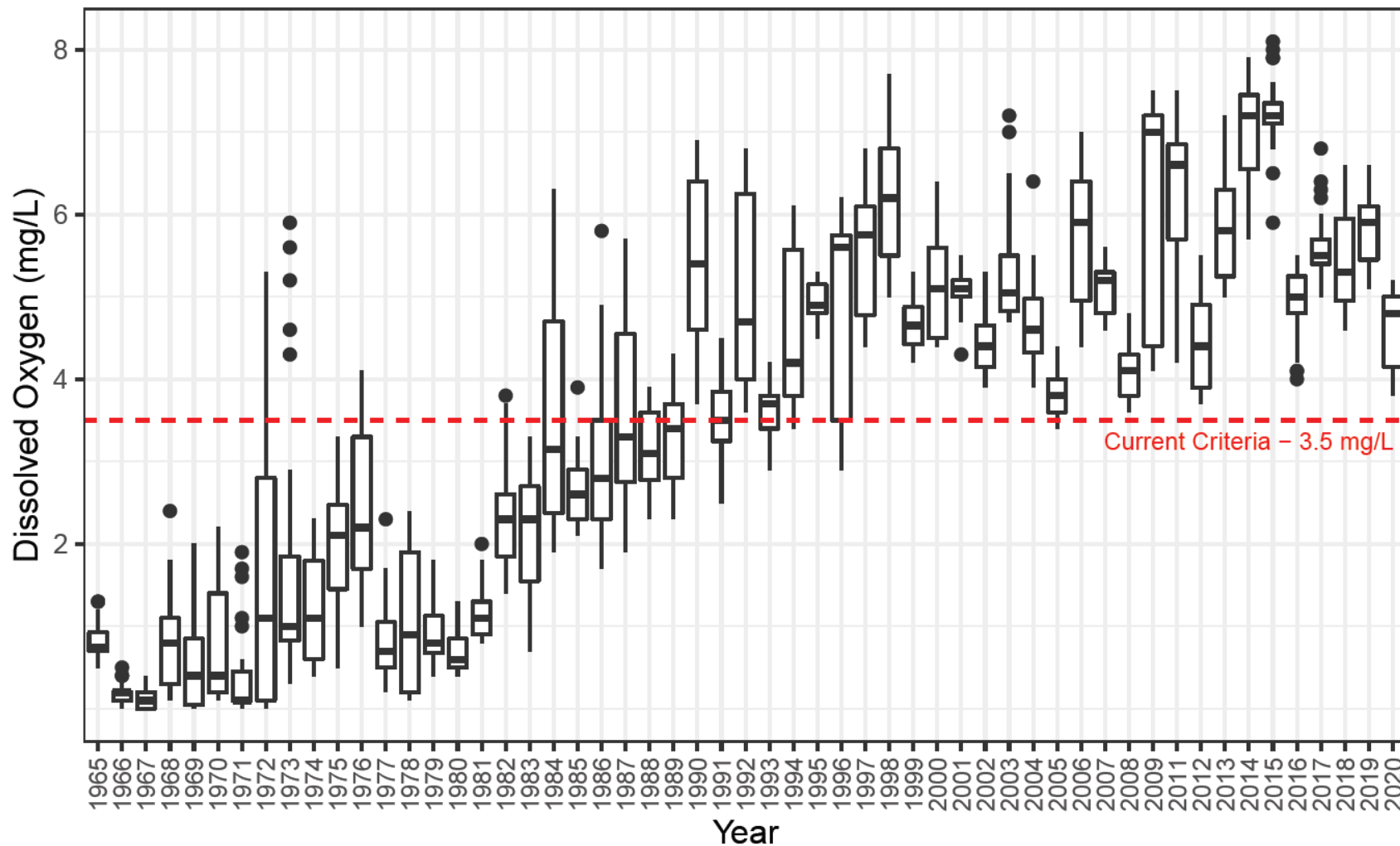


Figure 4.1.2 Delaware Estuary July daily mean dissolved oxygen concentrations by year at USGS at Ben Franklin Bridge, 1965 through 2020.

SPECIFIC CONDUCTIVITY AT BEN FRANKLIN BRIDGE 1964-2020

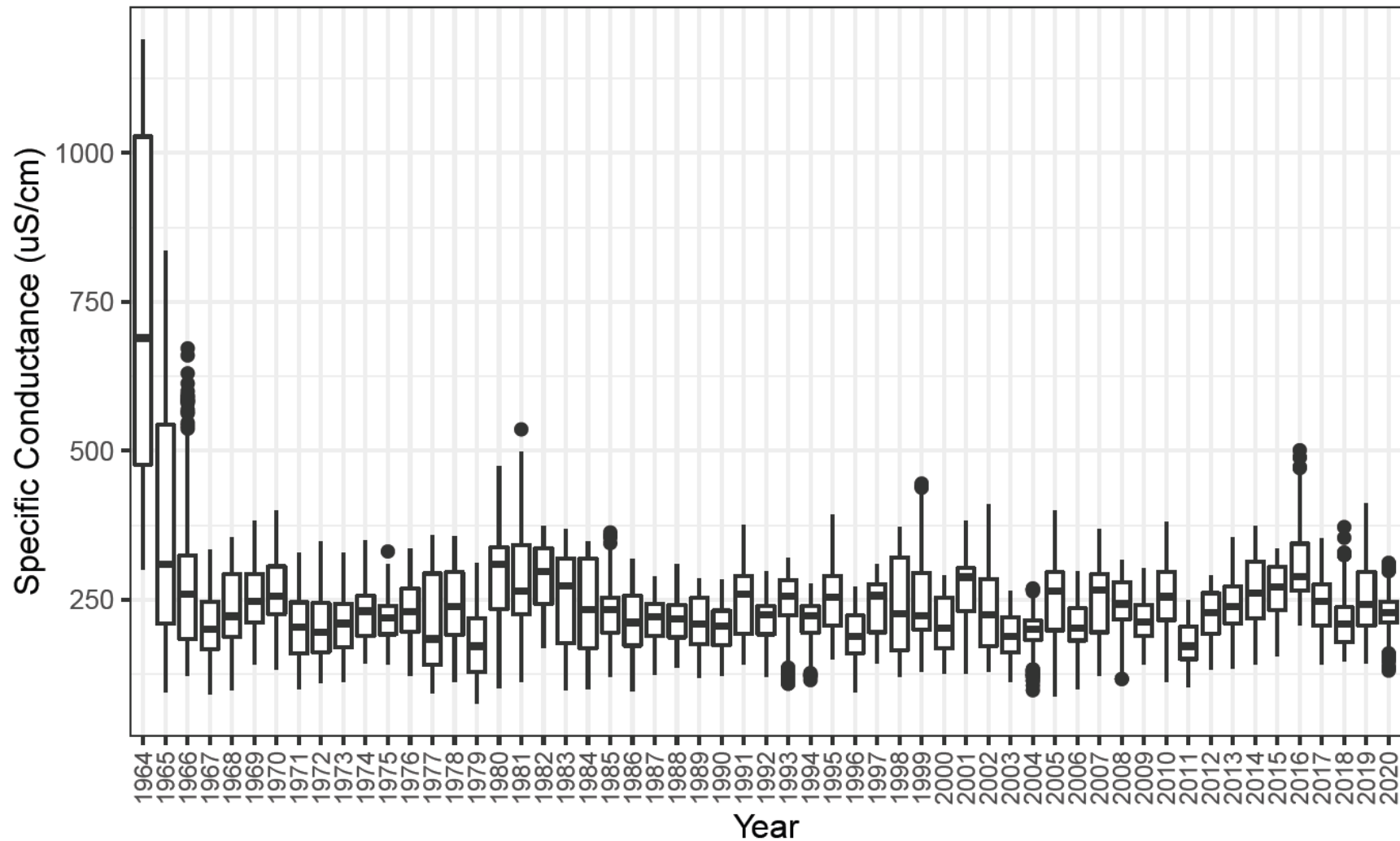


Figure 4.1.13 Long-term specific conductivity box and whisker plots at USGS 01467200, Ben Franklin Bridge.

4.1

Tidal – Chemistry and Nutrients

Salinity



DAILY TEMPERATURE RESIDUALS AT BEN FRANKLIN BRIDGE AND REEDY ISLAND 1964-2020

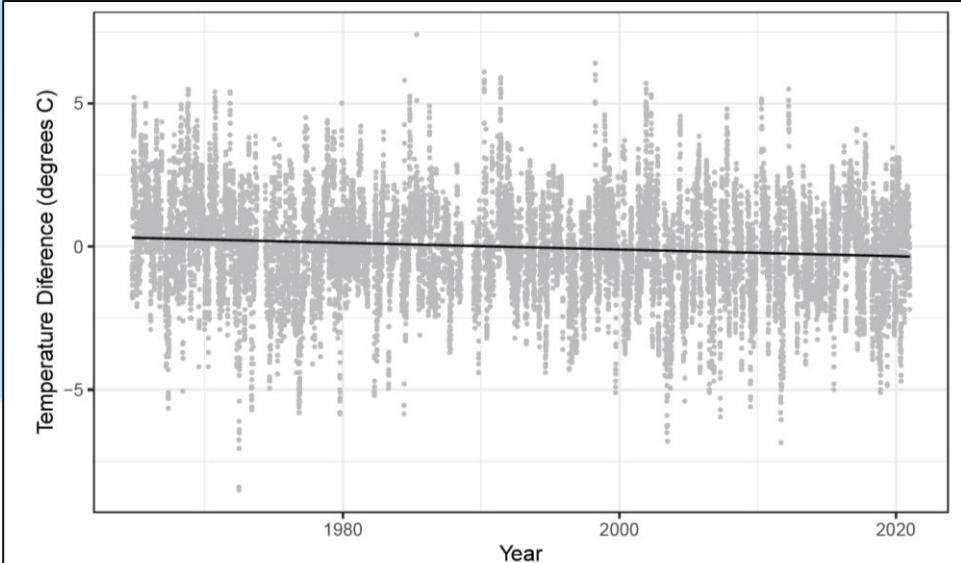
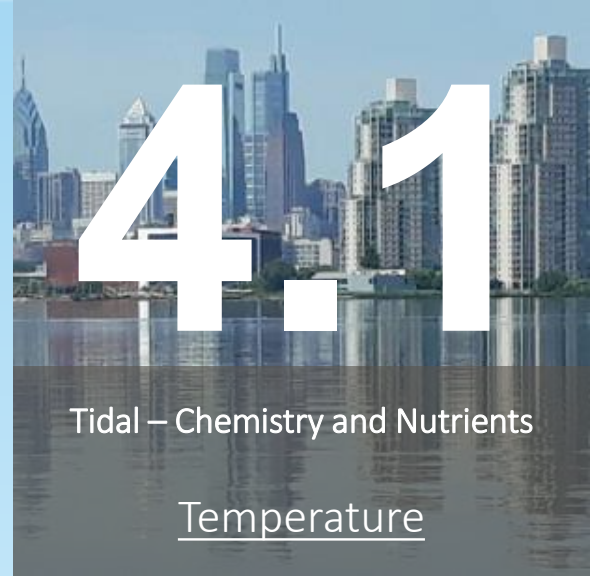


Figure 4.1.21 Delaware River summer residuals at USGS 01467200, Ben Franklin Bridge.

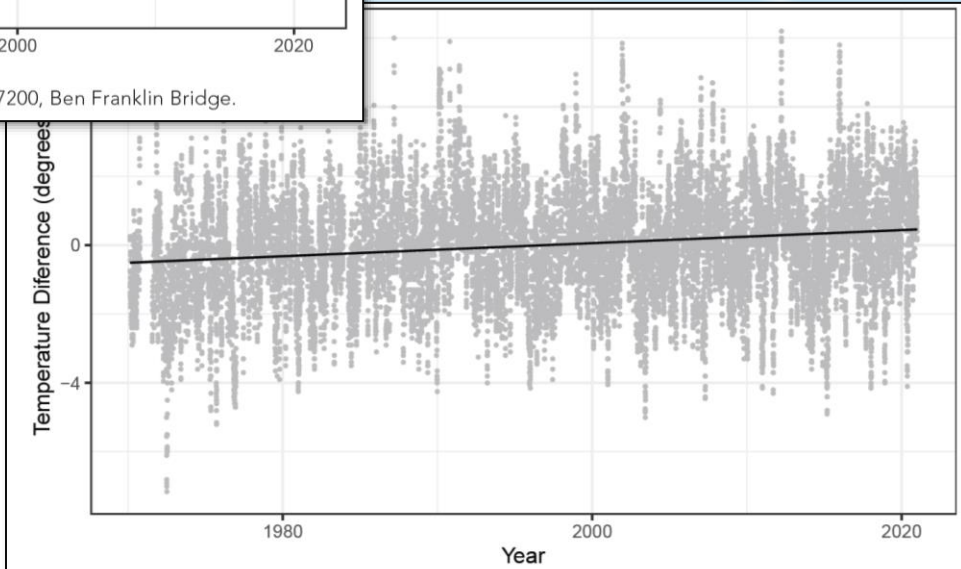
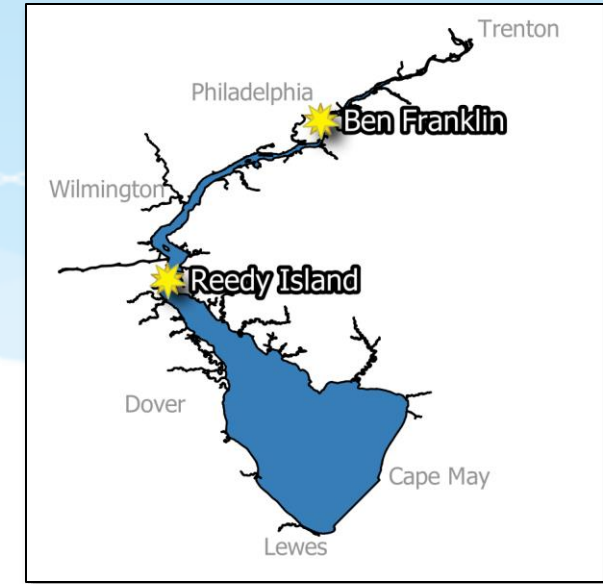


Figure 4.1.22 Delaware River summer residuals at USGS 01482800, Reedy Island Jetty.



*Ben
Franklin*

*Reedy
Island*

4.2



TECHNICAL REPORT FOR THE ESTUARY AND BASIN

Water Quality

4.2.1 Tidal – Contaminants

4.2.1.1 Contaminants

4.2.1.2 Fish Contaminant Levels

4.2.1.3 Emerging Contaminants

4.2.1.4 Whole Effluent Toxicity

4.2.2 Non-Tidal – Contaminants

4.2.2.1 Contaminants

4.2.2.2 Fish Contaminant Levels

4.2.2.3 Emerging Contaminants

PHARMACEUTICAL AND PERSONAL CARE PRODUCTS IN SURFACE WATER OF THE DELAWARE ESTUARY

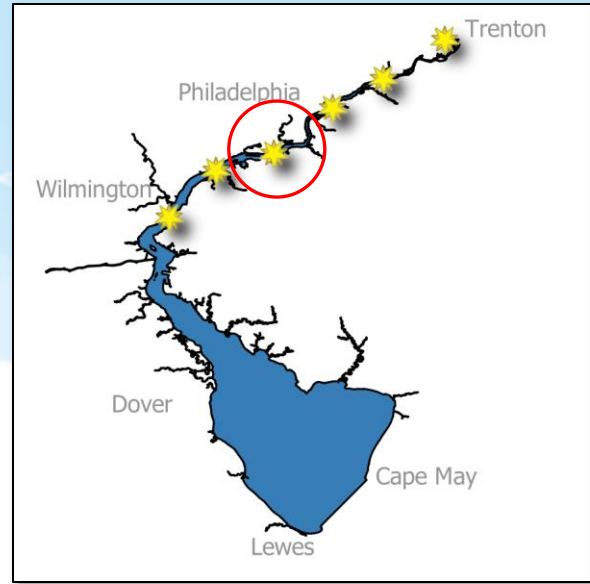
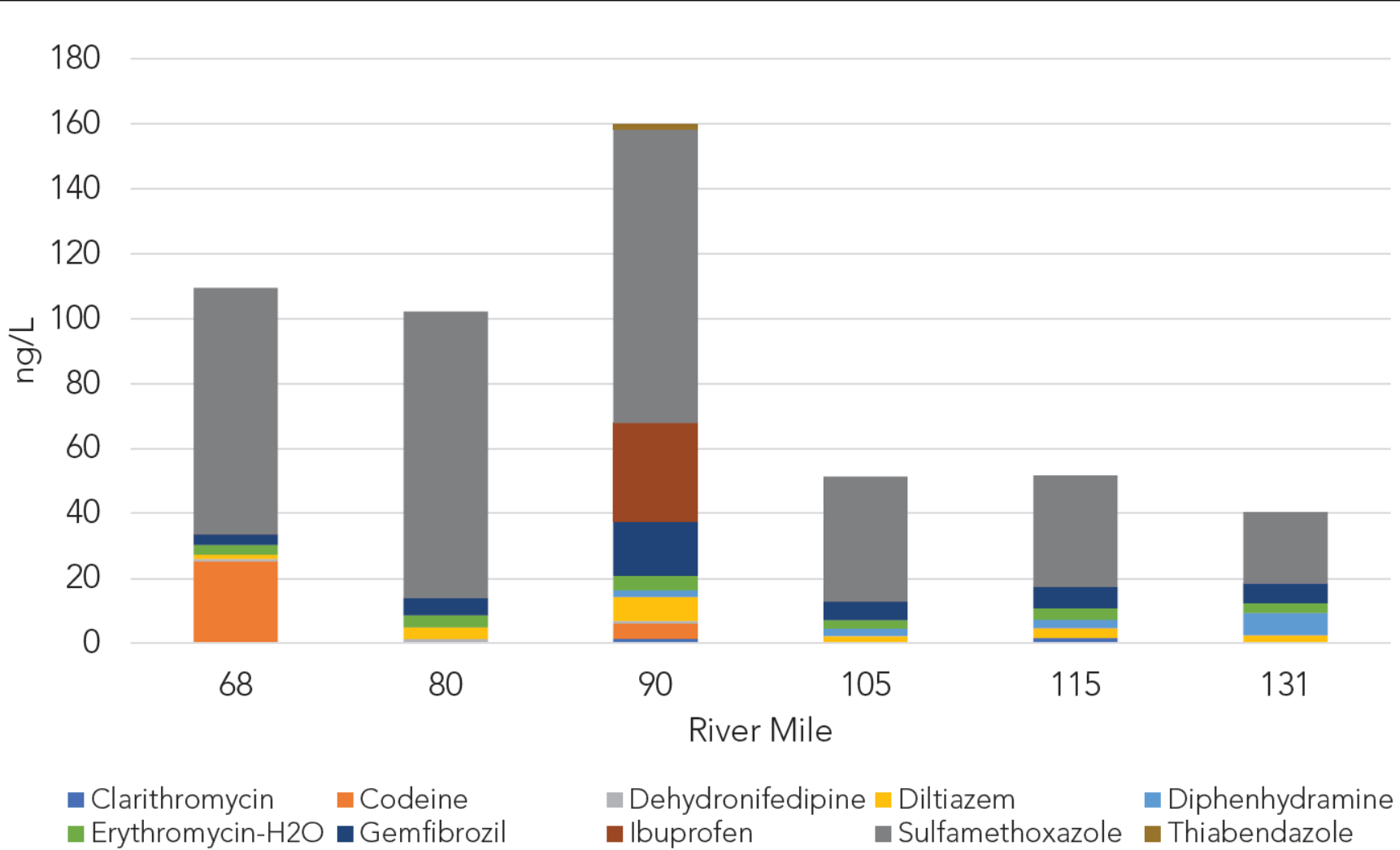


Figure 4.2.1 PPCP in surface water collected on September 25, 2017, from the Delaware River.

PFAS IN SURFACE WATER OF THE DELAWARE ESTUARY

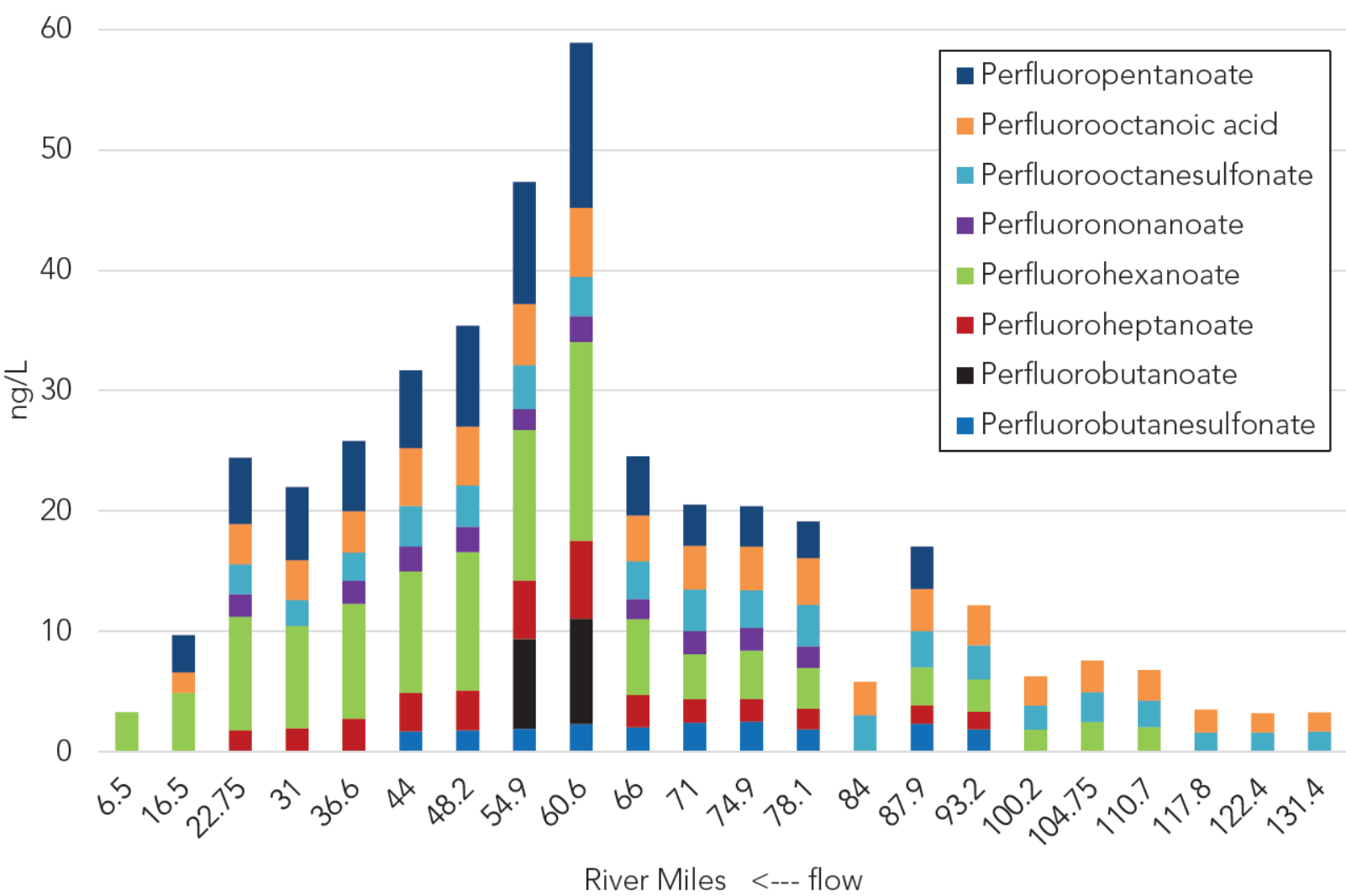


Figure 4.2.2 PFAS in surface water collected on September 20, 2021, from the Delaware River.



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TECHNICAL REPORT FOR THE ESTUARY AND BASIN

Water Quality

Aspects of Delaware Estuary water quality have **improved remarkably** from historical lows in the mid-20th century.

Further improvement is possible and continued work is necessary **to protect and enhance water quality** in the face of climate change, sea level rise, development, and other unforeseen stressors.



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