

Status of DRBC Water Quality Assessments



Delaware River Basin Commission

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

Toxics Advisory Committee

Presented to an advisory committee of the DRBC on July 26, 2018. Contents should not be published or re-posted in whole or in part without the permission of DRBC.

DRBC Water Quality Assessments

- 1. Delaware River and Bay Water Quality Assessment Report**
- 2. Technical Report for the Estuary and Basin (TREB) – Chapter 3**

Delaware River and Bay Water Quality Assessment Report

- * Completed every even-numbered year since 1998
- * As a condition of DRBC CWA 106 Grant
- * Assess mainstem Delaware River & Bay
- * Specifically compare surface water quality observations to criteria
- * 5 year data window
- * All readily available data
 - DRBC data
 - Data from others, States, USGS, NOAA, NPS, PWD
- * Help inform states on their 303d listing decisions

Water Quality Assessment Report Modernization

- * **Targeting the 2020 Report**
- * **Primarily scripted assessment**
 - Automated retrieval and processing of data
- * **Refine thresholds for translating how percentage of observations not meeting criteria corresponds to supporting / not supporting the use**

Toxics in 2018 WQA Report



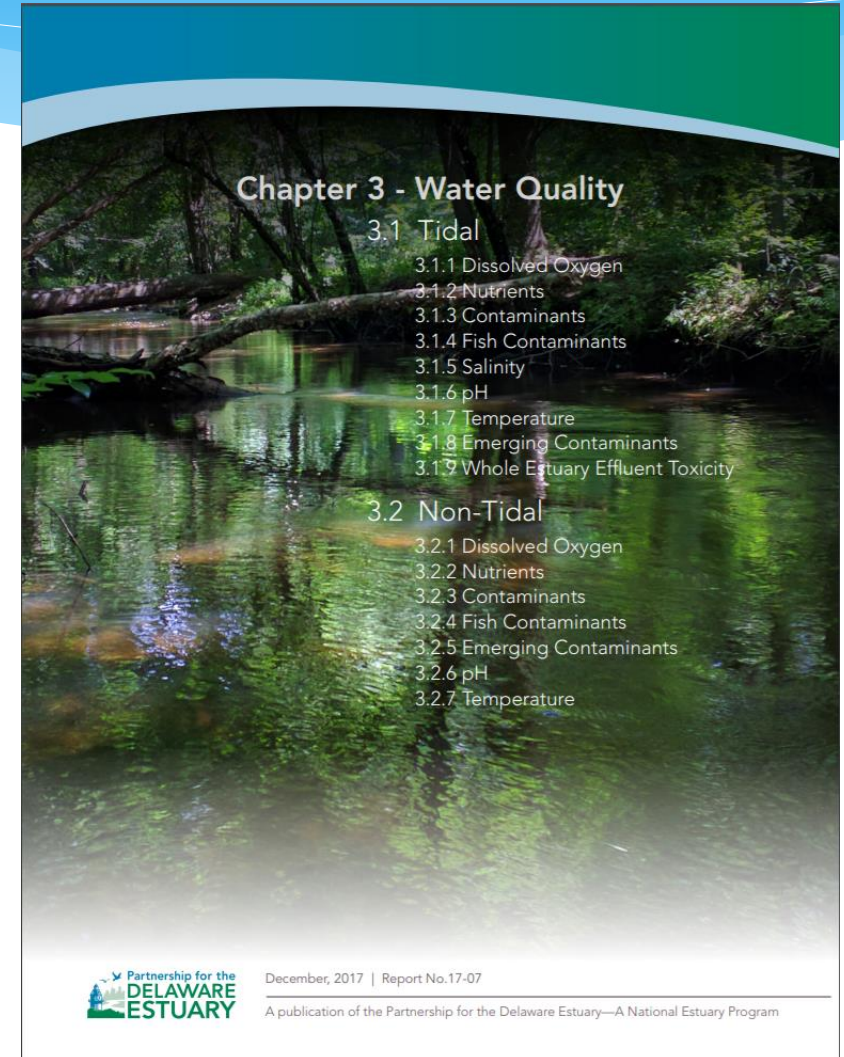
* Warrant further assessment

- * **Polycyclic aromatic hydrocarbons (PAHs)** (low detection limits and mixtures)
- * **Whole Effluent Toxicity** (effects based monitoring)
- * Current Use Pesticides, PFAS, PPCP – included in previous WQA reports
- * **Zones 2 through 6 - DRBC SQO**
 - * **Copper** (evaluating assessment of bioavailability by BLM)
 - * **Aluminum** (evaluating assessment of bioavailability by MLR)
- * **Zone 1** - To ensure attainment and maintenance of downstream water quality standards and to facilitate consistent and efficient implementation and coordination of water quality-related management actions in shared interstate waters, an assessment methodology based on the most stringent of basin state standards in Zones 1A through 1E is used in the 2018 assessment
 - * **Al, Cd, Cu, Hg, PCBs**

Technical Report for the Estuary and Basin (TREB)

- * Cooperative effort with Partnership for the Delaware Estuary (PDE)
- * Approximately every 5 years
- * Basin-wide
- * Looking at indicators, rather than criteria
- * Long term trends
 - Full period of record
- * Most recent published in 2017

<https://s3.amazonaws.com/delawareestuary/TR/EB+douments/TREB+2017+complete.pdf>



- * Chapter 3 Water Quality
 - * 3.1 Tidal
 - * 3.1.3 Contaminants
 - * 3.1.4 Fish Contaminants
 - * 3.1.8 Emerging Contaminants
 - * 3.1.9 Whole Effluent Toxicity
 - * 3.2 Non-Tidal
 - * 3.2.3 Contaminants
 - * 3.2.4 Fish Contaminants
 - * 3.2.5 Emerging Contaminants

Actions and Needs

- * Coordination to ensure the use of appropriate analytical techniques and assessment methodologies to evaluate the effects of contaminants on water quality
- * Future work should evaluate the sources as well as the fate and effects of PPCP in the Delaware River water column, sediments and biota
- * Continued efforts to monitor not only effluents from discharges but also the ambient environment
- * Pollution minimization efforts are necessary to bring about the needed reductions in contaminants
- * Cooperation to reduce emissions of bioaccumulative contaminants should continue and be expanded