REGION 3
PHILADELPHIA, PA 19103

October 15, 2026

Mr. Steven Williams, Director
Division of Watershed Stewardship
Department of Natural Resources
and Environmental Control
285 Beiser Boulevard, Suite 102
Dover, Delaware 19904

Dear Mr. Williams:

The U.S. Environmental Protection Agency has reviewed the Delaware Department of Natural Resources and Environmental Control's 2026 Integrated Report and supporting information submitted as final on July 23, 2026. DNREC published the draft 2026 Integrated Report for public notice and comment from March 6, 2026, until April 6, 2026. The EPA has reviewed and determined that the portion of the Integrated Report (Category 5) constituting Delaware's list of water quality-limited segments still requiring Total Maximum Daily Loads meets the requirements of Section 303(d) of the Clean Water Act and EPA's implementing regulations. The EPA therefore approves DNREC's 2026 Section 303(d) list. The enclosed approval rationale describes the applicable statutory and regulatory requirements and summarizes the EPA's review of Delaware's compliance with those requirements.

The EPA commends you and your staff for the thorough work and exemplary effort in developing your 303(d) list. The EPA looks forward to working with DNREC staff in preparation for the next Section 303(d) list submission due April 1, 2028, along with implementation of the EPA's Vision for the Clean Water Act 303(d) Program.

If you have any questions, please contact me or have your staff contact Jessica Martinsen, Chief of Standards and TMDLs Section at 215-814-5144 or martinsen.jessica@epa.gov.

Sincerely,

CATHARINE MCMANUS
Digitally signed by CATHARINE MCMANUS
Date: 2026.10.15 16:09:17 -04'00'

Catharine McManus, Director
Water Division

ENCLOSURE

1. Rationale for EPA Approval of Delaware's 2026 Clean Water Act Section 303(d) List

DELAWARE DEPARTMENT OF
NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL

285 Beiser Blvd,
Suite 102
Dover, DE 19904
302-739-9939

dnrec.delaware.gov

Jessica Martinsen,
Section Chief,
Standards and TMDLs Section,
U.S. Environmental Protection Agency, Region III,
Four Penn Center, 1600 John F Kennedy Blvd,
Philadelphia, PA 19103-2852.

RE: Submission of the State of Delaware's 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs (The Integrated Report).

Dear Ms. Martinsen,

The electronic copy of the State of Delaware's 2026 Combined Integrated Report (IR) and database of assessment have been submitted using The Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS). The electronic report and our database assessment tables are provided in Adobe® Acrobat format (.pdf). An Excel version of the pdf tables are also provided for better accessibility and usability. Submission of these materials fulfill the reporting requirements set forth under Sections 305(b) and 303(d) of the Federal Clean water Act. This final version includes updates to specific listings and Delaware's responses to all comments received during the open public comment period.
Should you have any questions concerning this document, please contact Sakinat Ahmad at sakinat.ahmad@delaware.gov.

Sincerely,

Joshua Barth,
Environmental Program Manager-II,
Watershed Assessment and Management Section.

State of Delaware 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs

(The Integrated Report)

**Division of Watershed Stewardship,
Watershed Assessment and Management Section, Watershed Assessment Branch, Water Quality Assessment/Total Maximum Daily Load Program**

May 2026

Primary Authors:

Water Quality Assessment/Total Maximum Daily Load Program

- Sakinat Ahmad
- Bhanu Paudel
- Lori Brown
- Joshua Barth

Watershed Approach to Toxics Assessment and Restoration Program

- John Cargill

Other DNREC Contributors:

- Michael Bott — Watershed Assessment and Management Section
- Alison Rogerson — Wetland Monitoring and Assessment Program
- Amy Cannon — Watershed Approach to Toxics Assessment and Restoration Program
- Andrew Bell — Delaware's Recreational Beach Monitoring Program
- Brittany Sturgis — Habitat and Biology Program
- June Hazewski — Wetlands and Waterways Section, DNREC Division of Water

This page intentionally left blank

Executive Summary

The State of Delaware's 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing a Total Maximum Daily Load (TMDL) (herein "the Integrated Report" or "IR2026") provides a statewide assessment of water resources, highlights Delaware's initiatives in water resources management, pollution control efforts and provides a list of waters that need TMDLs or other restoration approaches to meet water quality standards. The document fulfills the reporting requirements set forth under Sections 305(b) and 303(d) of the Federal Clean water Act of 1977, as amended in 1981 and 1987 (33. U.S.C §§ 1251 et seq.). This Integrated Report summarizes statewide water quality assessments and includes tables to show the results of water quality analyses. The provided tables (Appendices B – E) show the designated use support findings for data from the period of January 1, 2020, through December 31, 2024, as well as the resulting Section 303(d) List of Waters Needing TMDLs.

The Delaware's Department of Natural Resources and Environmental Control (herein "DNREC" or "the Department") has been working closely with the Environmental Protection Agency (EPA) to update Delaware's 303(d) listing information in EPA's Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS) database. ATTAINS allows EPA and stakeholders to track the conditions of surface waters on a national scale. As part of that effort, the Department has been working to automate the assessment process, converting the tabular list of impaired waters into an updatable database that can export templates in a format more compatible with ATTAINS. The Department also strives to accurately document Assessment Units (AU) spatially so information can be easily accessed in Geographical Information Systems (GIS) and other mapping tools. This formatting has taken a significant amount of time to develop and is still being modified to enhance accuracy. Once completed, it will allow for easier integration with ATTAINS and Integrated Reports going forward.

For IR2026, there were 27 changes to the ATTAINS database as shown in Appendix C. Changes indicate any change in a parameter's status since the previous cycle. Under the Clean Water Act, "listing" a waterbody is an indication that the waterbody is not fully meeting its designated use, thus "impaired", and needs further controls to support the designated use. Once listed, a TMDL or other restoration approach must be developed that will return the waterbody to supporting the designated use. Delisting a waterbody for a pollutant indicates that the pollutant is no longer causing an impairment and previously listed waterbody now supports a designated use and thus "attains the use." For the purposes of the Integrated Report, "segment" and "AUs" are interchangeable, describing a particular waterbody or portion of a waterbody. Assessments are conducted on parameters associated with specific segments/AUs. For example, one segment (which can be an entire waterbody or a section of larger waterbody) may be assessed for four Fish Consumption parameters (dieldrin, dioxin and furan compounds, and PCBs), nitrogen, phosphorous, and bacteria. That segment would thus have seven segment/parameter combinations.

In the past, the Integrated Reports used the single parameter "nutrients" for a combined assessment of nitrogen (N) and phosphorus (P). This parameter was refined in the 2024 cycle and replaced by "nitrogen (N)" and "phosphorus (P)" as independent parameters. Assessments in this cycle are thus based on N and P meeting threshold concentrations (i.e. 3 mg/L and 0.2 mg/L respectively) and will remain that way going forward.

For the Indian River, Indian River Bay, and Rehoboth Bay of the Inland Bays drainage basins, assessments in tidal waters were also based on Dissolved Inorganic Nitrogen (DIN) and Dissolved Inorganic Phosphorus (DIP) concentrations meeting their seasonal criteria (i.e. 0.14 mg/L and 0.01 mg/L respectively from March-October) in addition to the N and P parameters.

For the first time, freshwater copper data were assessed using Biotic Ligan Model (BLM) in IR2026. Twenty-eight monitoring stations were not meeting freshwater copper criteria, causing 26 AUs associated with those stations to be listed for copper.

Dissolved Oxygen (DO) continues to be assessed using discrete (grab) samples. Seven additional segments (DE010-001-01, DE040-002-01, DE120-002, DE140-L01, DE060-001, DE220-001, and DE280-E01) containing continuous monitoring stations maintained by the United States Geological Survey (USGS) were also assessed based on continuous dissolved oxygen criteria (4 mg/L or 3 mg/L for Murderkill River). If this criterion was violated by more than 1% of the continuous DO data, then the AU was listed.

Overall, there are 1,532 different AU/parameter/use combinations. Of those assessed this cycle, 588 were meeting criteria, 178 were not meeting criteria or were the cause of listing, 16 were delisted, and eight were relisted from the previous cycle. Also, one AU/parameter/use combination was removed due to refinement from nutrient to nitrogen and phosphorus. Due to the lack of new data, there were 762 unassessed AU/parameter/use combinations. For those combinations that were not assessed, the previous cycle decisions remain in effect. A summary of changes in AU/parameter combinations is presented in Appendix C.

As in previous cycles, for the 2026 assessments, the Department incorporated the Fish Consumption Advisories that were previously issued by the Delaware Department of Health and Social Services (DHSS) and DNREC on February 20th, 2018. Although updated fish tissue data has been collected for all impaired watersheds within the state between 2019 and 2024, the data is still being analyzed for advisories. Preliminary results of the data assessments have shown that mean concentrations have not increased for contaminants of interest. As a result, the 2018 Fish Consumption Advisories are a conservative representation of current conditions and corresponding meal advice.

The Department has been using a strategy called the Watershed Approach to Toxics Assessment and Restoration (WATAR) to address toxic pollutant issues in Delaware. In March 2018, the Department issued a report entitled “An Evaluation of Clean Water Act Section 303(d) Listings of Delaware Waters Affected by Fish Consumption Advisories” (2018 IR, Appendix Three). The evaluation considered information gathered from the WATAR and Fish Tissue Advisory programs to perform detailed trend analyses of pollutants in fish tissue that aren’t already incorporated into an existing TMDL (e.g. Delaware River PCB TMDL). The trend analyses showed that, in many cases, pollutants are expected to drop below health risk thresholds in a reasonable amount of time if the trajectory of the trend continues. As a result, the report recommended that several segments be placed into a new, Delaware-specific, category of impairment known as monitored natural recovery (mnr). That category is shown in this report as Category 5mnr. As suggested in the category name, expectations are that the aquatic systems are recovering naturally due to the reduction/removal of primary contaminant sources within the watersheds. The Department will continue to monitor fish tissue in those waters but expects the contaminant levels to decrease enough for future evaluations to recommend delisting those contaminants. This type of evaluation will continue as new/updated monitoring data is collected, and new segments/AUs will be placed

into Category 5mnr when possible.

The aforementioned report, prepared with data collected up to 2016, also identified four waterbody segments (Red Clay Creek Mainstem, Delaware River, Upper Saint Jones, and Silver Lake (Dover)) where the trend analyses showed that concentrations of particular pollutants were increasing or were otherwise not expected to reach acceptable levels in the near future. Consequently, the Department placed Red Clay Creek on its priority list for TMDL development. DNREC has developed a boundary condition TMDL for dichloro-diphenyl-trichloroethane (DDT), dieldrin, and dioxins/furans in the Red Clay Creek Mainstem. The TMDL is currently being finalized and prepared for public notice/comment before final submittal. In general, listed contaminants in fish tissue data collected from the Saint Jones River and Silver Lake segments since publication of the 2016 IR, have consistently remained stable or have shown reductions, resulting in the assigning of those segments to category 5mnr. The Department has commenced the development of an Advanced Restoration Plan (ARP) to address all toxic impairments related to Fish Consumption in the entire St. Jones River Watershed, including dieldrin, dioxins/furans, Polychlorinated Biphenyls (PCBs), mercury, and DDT.

An ARP can be completed by states in advance of a TMDL if agreed upon by the EPA and so long as contaminant trends continue to show improvement towards attainment. DNREC's ARP framework was modeled after actions already being undertaken by its WATAR program. The documentation allows Delaware to take credit for its program's successes within the 303(d)-reporting structure and within its biannual Integrated Report. Waters with developed ARPs will move from Category 5 to Category 5r, indicating that an ARP has been developed and acknowledged by EPA. For Delaware to adequately document its actions that have resulted in contaminant reduction and to comply with Clean Water Act requirements, the Department has worked with the EPA to create its first ARP for one of its Category 5mnr waters (C&D Canal Watershed).

Contents

Executive Summary i

Contents iv

Abbreviations and Acronyms 1

1 Introduction 3

2 Background 4

2.1 Total Waters 4

2.2 Water Pollution Control Programs 5

2.3 Cost/Benefit Assessment 8

2.4 Special State Concerns and Recommendations 9

3 Monitoring Program 11

3.1 Surface Water Monitoring Program 11

3.2 Ambient Groundwater Monitoring 12

3.3 Public Health Issues 12

3.3.1 Delaware Source Water Protection Program 12
3.3.2 Delaware's Recreational Beach Monitoring Program 13
3.3.3 Fish Consumption Advisories 13

3.4 Wetlands Monitoring and Assessment Program 13

4 Assessment Methodologies and Results 15

4.1 Data and Guidance for Assessment 15

4.1.1 Data Considered 15
4.1.2 Data Quality and Quantity 15
4.1.3 Data Sources 15
4.1.4 Use of EPA's Integrated Assessment Guidance when assessing monitoring data 16

4.2 Assessment Methodology 17

4.2.1 Dissolved Oxygen Aquatic Life Use Support and Assessments of DO Criteria Attainment 18
4.2.2 Nutrient Enrichment Assessment 19
4.2.3 Assessments of Total Suspended Solids in the Tidal Inland Bays Watershed 20
4.2.4 Temperature Assessments 20
4.2.5 Aquatic Life Assessments for Toxicity 20
4.2.6 Primary Contact Recreation Use Assessments 22
4.2.7 Assessment of Harvestable Shellfish Waters Use Support 23
4.2.8 Listing Criteria for Waters and Fish Consumption Advisories 24
4.2.9 Assessments of Aquatic Life Use Support using site-specific data that results from environmental assessments and other programs 26
4.2.10 Assessments of Biology and Habitat 26
4.2.11 Setting Priorities for Water Quality Limited Assessment Units Still Needing TMDLs 27

4.2.12 Rationale Used to Designate a Lower Category for Assessment Units Previously Designated for TMDL Development ... 27
4.2.13 Flow Charts for Designated Use Attainment ... 29

4.3 Assessment Results ... 32
4.3.1 Dissolved Oxygen in Surface Water and Listing Criteria ... 32
4.3.2 Nutrients in Surface Water and Listing Criteria ... 33
4.3.3 Total Suspended Solids in Inland Bays Water and Listing Criteria ... 33
4.3.4 Toxic Chemical in Surface Water and Listing Criteria. ... 33
4.3.5 Enterococcus Bacteria in Surface Water ... 34
4.3.6 Toxic Pollutants in Fish Tissue ... 34
4.3.7 Overview of Assessment Unit and Listing Support for Water Quality Parameters ... 37

4.4 Trends Analysis for Surface Waters ... 37

4.5 Long Term Changes in Water Quality Parameters ... 42

4.6 Groundwater Assessment ... 42

5 Public Participation ... 44

5.1 Comments by US EPA Region 3 ... 44

5.2 Comments by Delaware Center for the Inland Bays ... 46

6 References ... 49

Appendices ... 50

Appendix A: Assessment Unit and Stations Associations ... 51
Table A1: Assessment Unit Coding System ... 51
Figure A1: Delaware's Historic Watersheds. ... 53
Table A2: Assessment Unit Descriptions ... 54
Table A3: Stations by Assessment Unit ... 85

Appendix B: Individual Parameter Assessments ... 89
Table B1: Dissolved Oxygen Assessment ... 90
Table B2: Dissolved Oxygen Assessment for Continuous Monitoring Data ... 94
Table B3: Total Nitrogen Assessment ... 95
Table B4: Total Phosphorus Assessment ... 99
Table B5: Dissolved Inorganic Nitrogen Assessment ... 103
Table B6: Dissolved Inorganic Phosphorus Assessment ... 104
Table B7: Total Suspended Solids Assessment ... 105
Table B8: Ammonia Assessment ... 106
Table B9: Zinc Assessment ... 110
Table B10: Marine Copper Assessment ... 112
Table B11: Freshwater Copper Assessment using Biotic Ligand Model (BLM) ... 113
Table B12: Arsenic Assessment ... 115
Table B13: Lead Assessment ... 117
Table B14: Enterococcus Assessment ... 119

Appendix C: Changes Between the 2024 IR Cycle and the 2026 IR Cycle ... 128
Table C1: Parameter Status Summary ... 128
Table C2: Changes Between the 2024 IR Cycle and the 2026 IR Cycle ... 129

Appendix D: Use/Parameter Summary ... 215

Table D1: Summary of 2026 Assessment Results by Designated Use 216

Appendix E: Clean Water Act Section 305(b) and Section 303(d) Lists 222

Table E1: The State of Delaware 2026 Clean Water Act Section 305(b) List of Assessed Waters 223

Table E2: The Final Determination for the State of Delaware 2026 Clean Water Act Section 303(d) List of Waters Needing TMDLs 305

Appendix F: Trend Analysis Plot for Surface Water 325

Appendix G: Indian River Bay Watershed Groundwater Assessment 343

Appendix H: External Data

Appendix I: Public Participation

Public Notice Documentation

Submitted Comments

Abbreviations and Acronyms

Table 1: Abbreviations and Acronyms used in this Integrated Report

Abbreviation/Acronym	Term
ALUS	Aquatic Life Use Support
ARP	Advance Restoration Plan
ATTAINS	Assessment and Total Maximum Daily Load Tracking and Implementation System
AU	assessment unit
BEACH Act	Beaches Environmental Assessment and Coastal Health Act
BI	Biological Index
BLM	Biotic Ligand Model
C&D Canal	Chesapeake and Delaware Canal
CBP	Chesapeake Bay Program
CDF	Confined Disposal Facilities
CFR	Code of Federal Regulations
CIB	Center for the Inland Bays
CPI	Consumer Price Index
CTAC	Citizen and Technical Advisory Committee
CWA	Clean Water Act
DDT	Dichloro-Diphenyl-Trichloroethane
DelDOT	Delaware Department of Transportation
DHSS	Department of Health and Social Services
DO	Dissolved Oxygen
DIN	Dissolved Inorganic Nitrogen
DIP	Dissolved Inorganic Phosphorous
DNREC or the Department	Delaware Department of Natural Resources and Environmental Control
DRBC	Delaware River Basin Commission
ELS	Environmental Laboratory Section
EPA	U.S. Environmental Protection Agency
ERES	Waters of Exceptional Recreational or Ecological Significance
FDA	U.S. Food and Drug Administration
GAM	Generalized Additive Model
GAMN	General Assessment Monitoring Network
GDP	Gross Domestic Product
GIS	Geographic Information Systems
HI	Habitat Index
IBI	Index of Biotic Integrity

Abbreviation/Acronym	Term
Integrated Report	The State of Delaware 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs
IR2026	2026 Integrated Report
ISSC	Interstate Shellfish Sanitation Conference
LCL	Lower Confidence Limit
mg/L	milligrams per liter
µg/L	micrograms per liter
mnr	Monitored Natural Recovery
MS4	Municipal Separate Storm Sewer System
N	Nitrogen
NOAA	National Oceanic and Atmospheric Administration
NPS	Nonpoint Source
NSSP	National Shellfish Sanitation Program
P	Phosphorous
PCB	Polychlorinated Biphenyls
ppt	parts per thousand
SDA	Station Daily Average
SOP	Standard Operating Procedure
STORET	STOrage and RETrieval Data Warehouse
SWAPP	Source Water Assessment and Protection Program
TKN	Total Kjeldahl Nitrogen
TN	Total Nitrogen
TMDL	Total Maximum Daily Load
TP	Total Phosphorous
TSS	Total Suspended Solids
UCL	Upper Confidence Limit
URL	Uniform Resource Locator
U.S.	United States
USACE	U.S. Army Corps of Engineers
WATAR	Watershed Approach to Toxics Assessment and Restoration
WQP	Water Quality Portal
WQS	Water Quality Standards
WQX	Water Quality Exchange
WRC	University of Delaware Water Resources Center

1 Introduction

The State of Delaware's 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters needing a Total Maximum Daily Load (TMDL) (herein "the Integrated Report" or "IR2026") provides a statewide assessment of water resources, highlights Delaware's initiatives in water resources management, pollution control efforts and provides a list of waters that need a TMDL or other restoration approaches to meet water quality standards. The document fulfills the reporting requirements set forth under Sections 305(b) and 303(d) of the Federal Clean Water Act of 1977, as amended in 1981 and 1987 (33. U.S.C §§ 1251 et seq.). This Integrated Report summarizes statewide water quality assessments and includes tables to show the results of water quality analyses. The provided tables (Appendices B – E) show the designated use support findings for data from the period of January 1, 2020, through December 31, 2024, as well as the resulting Section 303(d) List of Waters Needing TMDLs.

To streamline the 2026 Integrated Report, many departmental programs and other resources not specifically required in the report are briefly described with URLs provided for further information.

2 Background

2.1 Total Waters

Table 2: Total waters of Delaware

State Population[1]	1,051,917
State Surface Area	1,981 square miles
Number of Basins	5
Number of Watersheds	45
Perennial River Miles (NHD Code 46006)[2]	2,363
Intermittent Stream Miles (NHD Code 46003)[2]	1,093
Ditches and Canals Miles (NHD Code 33600)[2]	1,014
Number of Border Miles	87
Perennial Lake/Pond Acres[2]	11,440
Square Miles of Estuarine Waters[3]	783
Number of Ocean Coastal Miles	25
Acres of Nontidal Wetlands	166,597
Acres of Tidal Wetlands	129,754

[1] Population values from https://www.census.gov/data/tables/time-series/demo/popest/2020s-counties-total.html
[2] Values based on National Hydrography Dataset (NHD) Data for Delaware Waters.
[3] DRBC. 2020 Delaware River and Bay Water Quality Assessment. Delaware River Basin Commission. West Trenton, NJ. December 2020.

2.2 Water Pollution Control Programs

The Delaware Department of Natural Resources and Environmental Control (DNREC) has several programs related to water pollution control.

The Water Quality Standards (WQS) Program
This program works with stakeholders and co-regulators to set the Designated Uses and Criteria for Delaware's waters to protect them as required under the Clean Water Act (CWA), Environmental Protection Agency (EPA) regulations and Delaware Code. The WQS Program updates DNREC's Surface Water Quality Standards (7 DE Admin. Code 7401) through the Triennial Review process (most recently completed on January 1, 2023), and completes the Integrated Report to meet its CWA Section 305(b) and 303(d) requirements every even number year.

State of Delaware Total Maximum Daily Load (TMDL) Program
Section 303(d) of the Federal Clean Water Act (CWA) requires States to develop a list of water bodies for which existing pollution control activities are not sufficient to attain applicable water quality standards (303(d) List) and to develop Total Maximum Daily Loads (TMDLs) for pollutants of concern. A TMDL sets a limit on the amount of a pollutant that can be discharged into a waterbody such that water quality standards are met. The State of Delaware TMDL Program in association with the Watershed Approach to Toxics Assessment and Restoration (WATAR) Program develops TMDLs or other restoration approaches for those waters that don't meet their designated uses due to pollutants and are thus part of the 303(d) list of impaired waters. The TMDL program has completed TMDLs for most of the watersheds in the state for excessive nutrients and bacteria and continues to work with the WATAR program to develop new TMDLs and ARPs.

In March 2018, the Department issued a report entitled "An Evaluation of Clean Water Act Section 303(d) Listings of Delaware Waters Affected by Fish Consumption Advisories" (2018 IR, Appendix Three), which highlighted the tendency of some pollutants to drop below health risk level in a reasonable amount of time. This finding led to the creation of a Delaware-specific IR category – Category 5mnr (monitored natural recovery). This report also identified four AUs (Red Clay Creek Mainstem, Upper Saint Jones, Silver Lake and Lower Saint Jones) where the trend analyses showed that concentrations of pollutants are increasing or are otherwise not expected to reach acceptable levels in the near future. Consequently, the Department has developed TMDL for DDT, dieldrin, and dioxins/furans in the Red Clay Creek, and is now finalizing the document for public comment. Also, the Department began developing an ARP for all listed toxics in the St Jones Watershed.

Additionally, the Department is updating nutrient TMDL for the Buntings Branch watershed. In 2014, Maryland Department of the Environment (MDE) revised its TMDLs for nitrogen and phosphorus for Bishopville Prong along four other tidal tributaries in Northern Coastal Bays system, Worcester County, Maryland, requesting a reduction in the upstream nutrient load from Buntings Branch. DNREC accepted EPA's recommendation to update its 2004 TMDL after confirming that implementing MDE's reductions would be sufficient to meet Delaware's applicable water quality standards and nutrient target values in Buntings Branch. As a result, DNREC is developing a new nutrient TMDL for Buntings Branch, which will meet Delaware's applicable Water Quality Standards and MDE's upstream load allocation.

The DNREC Division of Watershed Stewardship's Drainage Programs
This program manages and implements regulatory and non-regulatory programs to improve drainage, stormwater, water quality and dam safety. The program partners with several organizations including landowners, Tax Ditch Organizations, Federal, State and Local agencies to improve drainage and water quality across the state.

DNREC Division of Watershed Stewardship's Nonpoint Source (NPS) Program
The NPS program addresses nonpoint source pollution through educational programs, publications and partnerships with other Delaware organizations. The Delaware NPS Program also administers a competitive grant made possible through Section 319 of the Clean Water Act, providing funding for projects designed to reduce nonpoint source pollution.

DNREC Division of Water's Wastewater, Stormwater (i.e. National Pollutant Discharge Elimination Systems permits), and Biosolids Management Programs
These programs are housed within the Division of Water's Commercial and Government Services Section (CGS). The CGS Section regulates the construction/operation of wastewater treatment facilities, industrial stormwater facilities, and Municipal Separate Storm Sewer Systems (MS4). They work with individuals, municipalities and industries to ensure that wastewater, stormwater, and biosolids are managed appropriately and that residual wastes are beneficially reused.

DNREC Division of Water's Residential Services Section (RSS)
RSS is responsible for drinking water wells, septic systems and other residential activities that impact groundwater resources. The RSS Programs include the Wastewater Disposal Program, The Water Supply Program, Innovative/Alternative Systems and Private Water Wells.

DNREC Division of Water's Resource Protection Section (RPS)
RPS evaluates and protects the water resources of Delaware through technical assistance, field monitoring and sampling services, and regulatory implementation. The RPS Programs include the Professional Licensing Program, the Planning and Legal Group, the Resource Evaluation and Protection Program, The Compliance and Enforcement Program, and Grants Funding Resources. More information about the programs discussed in this section can be found on DNREC's website using individual program's URL as listed in table 3.

Table 3: DNREC water pollution control programs and web addresses

Program	Web Address
Water Quality Standards	https://dnrec.delaware.gov/watershed-stewardship/assessment/standards/
305(b) Reports and 303(d) Lists	https://dnrec.delaware.gov/watershed-stewardship/assessment/reports/
Total Maximum Daily Loads	https://dnrec.delaware.gov/watershed-stewardship/assessment/tmdls/
Watershed Approach to Assessment and Restoration (WATAR)	https://dnrec.delaware.gov/waste-hazardous/remediation/watar/
Drainage Programs	https://dnrec.delaware.gov/watershed-stewardship/drainage/
Nonpoint Source Program	https://dnrec.delaware.gov/watershed-stewardship/nps/
Wastewater Treatment Facilities	https://dnrec.delaware.gov/water/commercial-government/wastewater-facilities/
Spray Irrigation Systems	https://dnrec.delaware.gov/water/commercial-government/spray-irrigation-systems/
Land Treatment of Waste	https://dnrec.delaware.gov/water/commercial-government/land-treatment/
Underground Injection Systems	https://dnrec.delaware.gov/water/commercial-government/uic/
Municipal Separate Storm Sewer Systems (MS4s) Permits	https://dnrec.delaware.gov/water/surface-water/npdes/municipal-storm-sewers/
Residential Services Section	https://dnrec.delaware.gov/water/residential/
Resource Protection Section	https://dnrec.delaware.gov/water/resource-protection/
National Pollutant Discharge Elimination System (NPDES)	https://dnrec.delaware.gov/water/commercial-government/npdes/

Inter-agency and Inter-State partnerships

DNREC works closely with several external partners to address water quality issues that cross jurisdictional boundaries. For example, the Department works with the Delaware Department of Health and Social Services (DHSS) Division of Public Health to evaluate data for toxins in fish and then coordinate Fish Consumption advisories statewide. The Department works with the Nutrient Management Commission to manage and/or reduce nonpoint sources of nutrient inputs to Delaware's waters. DNREC also works closely with the Delaware Department of Transportation (DelDOT) to implement NPDES-related PCB TMDL requirements and to develop and implement MS4 permits in Kent County, New Castle County, and Sussex County.

The Department is an active member of the Delaware River Basin Commission that works in the Delaware River and Delaware Bay to regulate both flow and water quality. Delaware is also working closely with partners and stakeholders from six states and Washington DC to implement the Chesapeake Bay TMDL though Watershed Implementation Plans that will help restore the Chesapeake Bay's water quality.

2.3 Cost/Benefit Assessment

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's water's" (33 U.S.C. §1251). Under Section §305(b) of the CWA, states are required to estimate the environmental, economic and social costs and benefits of activities needed to achieve the CWA objective. DNREC is developing a robust cost/benefit estimate as required. The previous estimate used was compiled with the help of the University of Delaware Water Resources Agency (UD WRA, 2016). While the 2016 estimate was comprehensive, the lifespan of those estimates are dated. DNREC recognizes that quantifying the costs/benefits of the environmental, economic, and social costs needed to achieve the CWA objective are complex. Due to this complexity the following estimates are provided for the 2026 IR.

The State of Delaware expends a significant amount of financial and human resources towards the goal of ensuring that Delaware waters are drinkable, fishable, and swimmable. Despite being a small state, Delaware has extensive water resources including over 380 miles of coastline along the Atlantic Ocean and the Delaware River Estuary, 2,363 miles of perennial rivers and 1,093 miles of intermittent streams. These waters provide drinking water, recreational benefits, and environmental protection for Delawareans. They also provide substantial regional economic benefits.

According to the latest Marine Economy Report by the National Oceanic and Atmospheric Administration (NOAA), Delaware's marine economy generates approximately $1 billion in wages and contributes $1.9 billion to the State's Gross Domestic Product (GDP) – a 93% increase in a decade (NOAA, 2024). Researchers at the University of Delaware's Water Resources Agency (WRA) have estimated that Delaware's water resources contribute approximately $7 billion to the regional economy, including about 70,000 jobs and over $2 billion in wages (Narvaez and Kauffman, 2012).

Sustaining such an economic engine comes at a significant cost. As outlined within Section 2.2 of the 2026 IR, DNREC runs multiple programs, across multiple divisions, to monitor, assess, manage, regulate, and enforce water quality improvement throughout the State. These various programs cost the State of Delaware an approximate cost of $9.3 million. These costs are a fraction of the actual cost of improving water quality in the State. A more accurate representation of fact would include other forms of benefits and costs that could be difficult to quantify in dollar terms.

2.4 Special State Concerns and Recommendations

TMDLs and ARPs

DNREC has worked to manage water quality issues in and out Delaware's borders. Work performed includes TMDL development and implementation. This work involved partnership with stakeholders, including other state and federal agencies as well as non-governmental organizations. Toxics TMDLs for zinc have been implemented successfully in the Christina Basin, bringing zinc levels into compliance with applicable water quality standards. The Department also worked with internal and external partners to reduce the bioavailability of PCBs in Mirror Lake, leading to major reductions in PCBs within fish tissue evident in less than a year. Continued TMDL implementation is still needed to ensure lasting gains as well as achieve and maintain applicable standards in all Waters of the State.

The Department has been addressing the remaining waterbodies needing TMDLs or alternatives for toxic pollutants. The WATAR Program, described in Section 2.2 above, is involved in tracking pollution sources and using appropriate and cost-effective approaches to remediate. Based on DNREC's TMDL prioritization list, DNREC developed a TMDL to address DDT, dieldrin and dioxins/furans contamination in the Red Clay Creek this cycle. The Department also updated Buntings Branch nutrient TMDL to meet both Delaware nutrient target and Maryland's upstream nutrient target for Bishopville Prong. Both TMDLs are currently being prepared for public comment before being sent to EPA for approval.

The Department has also commenced the development of an ARP to address all toxic impairments related to Fish Consumption in the entire St. Jones River Watershed, including dieldrin, dioxins/furans, PCBs, mercury, and DDT, leveraging experience from the C&D Canal ARP development. The Department believes working to expand the successes and lessons learned from the WATAR program will be important to reduce impacts of pollution statewide.

Climate Change

Due to its low-lying topography and coastal geography, Delaware is highly vulnerable to the impacts of climate change and as such, climate change remains an important issue long term in Delaware. Climate change impacts several aspects of Delaware including water quality, with increasing risk of saltwater intrusion to drinking water aquifer and rivers, more frequent and intense flooding that increases contamination of waterbodies, sea-level rise and heavier rain falls overwhelming storm drains and increasing contamination potential.

The Department is leading Delaware's effort to reduce Greenhouse gas emission and increase the States's resilience. According to Delaware's Greenhouse Gas Inventory, Delaware has reduced Greenhouse Gas Emission by 30% with a 50% reduction goal by 2030 and achieving net zero status in 2050. The Department leads the State's Climate Actions and has several programs that help reduce Greenhouse emissions in general, with some being directly targeted towards water quality improvement. In 2021, Delaware started the Tree for Every Delawarean Initiative (TEDI) with a goal of planting one million trees in the state by 2030. TEDI provides funding and technical support for tree planting statewide, through an annual competitive grant process. According to the TEDI tracker, over 360,000 trees have been planted across the State. Trees help reduce runoffs, prevent erosion, filter pollutants, improve groundwater recharge, and moderate water temperature.

Delaware's climate efforts are based on the Delaware's Climate Action plan – the State's blueprint

for actionable strategies and goals to reduce greenhouse gas emissions, renewable energy production and protection of natural resources (including water resources), communities, and people from the impacts of climate change. The Department published the 2025 Delaware Climate Action Plan in December 2025. This is an update to the 2021 plan, setting the direction for climate change solutions for the next couple of years.

Environmental Justice

DNREC acknowledges the disproportionate impacts of environmental hazards on minority and low-income communities throughout the state. The Department has integrated environmental justice efforts into all its programs including permitting, contaminant cleanup, clean water and septic initiatives, and environmental monitoring in an effort to ensure that everyone has an equal seat at the table when decisions are now being made. To further ensure wider dissemination of information and engage more Delaware residents, the Department is now translating public notices and other public engagement resources to multiple languages based on target audience. Beginning in the 2024 IR Cycle, the Department began translating all CWA related public notices to Spanish and Haitian Creole, with a goal of increasing awareness and understanding of Delaware's water quality status.

3 Monitoring Program

3.1 Surface Water Monitoring Program

The purpose of Delaware's Surface Water Quality Monitoring Program is to collect data on the chemical, physical and biological characteristics of Delaware's surface waters. The information that is collected under this program is used to:

- Describe general surface water quality conditions in the state.
- Identify long term trends in surface water quality.
- Determine the suitability of Delaware surface waters for Water Supply, Recreation, Fish and Aquatic Life, and other uses.
- Monitor achievement of Surface Water Quality Standards.
- Identify and prioritize high quality and degraded surface waters.
- Calculate annual nutrient loads and track progress toward achieving TMDL targets.
- Evaluate the overall success of Delaware's water quality management efforts.
- Inform decisions by other stakeholders and programs.

Delaware maintains a General Assessment Monitoring Network (GAMN) that currently has 134 stations. Twenty-one of the stations are monitored monthly and the remaining stations are monitored either six or twelve times per year on a rotating cycle. Each station is monitored for conventional parameters such as nutrients, bacteria, dissolved oxygen, pH, alkalinity, and hardness. Some stations are also monitored for dissolved metals. DNREC's Environmental Laboratory Section (ELS) collects and analyzes these samples in accordance to the Delaware Ambient Surface Water Quality Monitoring Program's Quality Assurance Program Plan (QAPrP) (https://documents.dnrec.delaware.gov/Watershed/Assessment/Monitoring/2024-Quality-Assurance-Program-Plan.pdf) and their Quality Manual and associated Standard Operating Procedures (SOPs). During this cycle, the Department updated its QAPrP and it has been approved by the EPA. The data from this monitoring is uploaded into EPA's Water Quality Exchange (WQX) by ELS and publicly accessible through the National Water Quality Monitoring Council's Water Quality Portal (WQP) (https://www.waterqualitydata.us/) and used for this report and other efforts by interested parties.

More information about Delaware's Water Quality Monitoring Program is available online (https://dnrec.delaware.gov/watershed-stewardship/assessment/water-quality-monitoring/). In addition to uploading data to the WQX and publishing through the WQP, the Department also works in cooperation with the University of Delaware to share available water quality data in a more user-friendly format at the Delaware Water Quality Portal (https://cema.udel.edu/applications/waterquality/).

3.2 Ambient Groundwater Monitoring

DNREC's Division of Water monitors ambient groundwater quality around the state to help support the goals of the Department. The data collected through these efforts are used to address several objectives including:

- Monitoring long-term water-level trends in a statewide monitoring network and at allocated facilities.
- Establishing baseline water quality in watersheds throughout the state.
- Monitoring groundwater quality of permitted facilities.
- Making recommendations to the Department management for future policy considerations.

More details about groundwater monitoring can be found on the Division of Water's website (https://dnrec.delaware.gov/water/resource-protection/water-quality-monitoring/).

3.3 Public Health Issues

Previous EPA IR memos recommend that States should provide information on public health issues, especially as it relates to drinking water supply, beach use, and fish/shellfish advisories. The Department addresses public health issues through various programs related to drinking water supplies, beach use and fish/shellfish advisories.

3.3.1 Delaware Source Water Protection Program

The Source Water Assessment and Protection Program (SWAPP) was created by Congress as part of the Safe Drinking Water Act Amendments of 1996. The goal of the SWAPP is to better protect public drinking water resources by providing local and state governments, and the public with more information about those resources. The susceptibility of each source of public drinking water to various types of contamination will be determined and published. Congress has provided funding though the U.S. EPA to the states to support their efforts in conducting these assessments.

DNREC has the lead role in the development and implementation of the Delaware's SWAPP. DHSS Division of Public Health and the University of Delaware's Water Resources Agency, Institute for Public Administration, closely support its work. A SWAPP Citizen and Technical Advisory Committee (CTAC) was formed at the start of this program in 1998 and continues to assist in developing and implementing Delaware's SWAPP and ensures public involvement.

Table 4: Programs and agencies supporting Delaware SWAPP

Program	Web Address
Delaware Source Water Protection Program	http://delawaresourcewater.org/
Delaware Department of Natural Resources and Environmental Control	https://dnrec.delaware.gov/water/commercial-government/water-allocation/assessment-and-protection/
Delaware Department of Health and Human Services Office of Drinking Water	http://dhss.delaware.gov/dhss/dph/hsp/odw.html
University of Delaware Water Resources Agency, Institute for Public Administration	http://www.wrc.udel.edu/

3.3.2 Delaware's Recreational Beach Monitoring Program

DNREC's Recreational Water Program protects the health of swimmers in a number of ways:

- In the event of persistent water quality exceedances, shoreline surveys are conducted adjacent to recreational beaches to identify actual and potential sources of pollution.
- Water samples are collected at least weekly at all guarded beaches and some unguarded beaches during the swimming season (mid-May through mid-September).
- Water samples are analyzed to determine the levels of enterococci bacteria in recreational waters. Enterococcus is one of several indicator organisms that signal the presence of potentially harmful bacteria and viruses.
- Signs have been posted at popular public access points around Rehoboth Bay, Indian River Bay, Little Assawoman Bay, and Delaware Bay to educate potential swimmers of the risks associated with swimming in poor quality waters.
- The Program exhibits at health fairs and other public outreach events to display educational material and provide informational handouts to educate the public on the risk of illness from recreational water contact and to equip individuals to make informed decisions on recreational water activities, especially for those in the at-risk population for related illnesses, by explaining the risk and the steps that can be taken to reduce the risk, as well as to encourage the public to prevent fecal pollution of beaches and waterways.

Up to date information about swimming advisories, as well as educational information, is available online at https://recwaters.dnrec.delaware.gov/.

3.3.3 Fish Consumption Advisories

Fishing is an important activity in Delaware's inland and coastal waters. Among the benefits provided by fishing are quality recreational opportunities, direct and indirect input to the local economy, food for recreational anglers and food for the commercial marketplace. Fish are a good source of readily digestible protein, they are low in fat and sodium, and the unique type of fats found in fish are believed to provide cardiovascular benefits. Despite the general benefits of fishing and fish consumption, there is concern regarding the presence of chemical toxins in the flesh of finfish and shellfish taken from Delaware waters and the associated health risk to anglers and their families who consume their catch. The existence of chemicals in the edible portion of some fish has resulted in public advisories. These advisories are a result of joint action taken by DNREC and the DHSS Division of Public Health. Information about the latest advisories that are in effect is online at: https://dnrec.delaware.gov/fish-wildlife/fishing/consumption- advisories/.

3.4 Wetlands Monitoring and Assessment Program

The goal of DNREC's Wetland Monitoring and Assessment Program (WMAP) is to track wetland acreage and assess the condition, or health, of wetlands and the functions and ecosystem benefits that wetlands provide. This information is used to inform the citizens of Delaware and to improve existing education, restoration, protection, and land use planning efforts. The Delaware Wetland Management Plan guides the WMAP in the areas of protocol development, wetland monitoring and assessment activities, research, and application of information. Information is available at https://www.epa.gov/sites/default/files/2021-05/documents/de_wetland_program_plan_2021-2025.pdf.

The WMAP works closely with other states through the EPA's Mid-Atlantic Wetlands Program to establish and conduct research methods and share information. Primary objectives include:

- Increase the acreage and function of wetlands statewide.
- Research how wetlands are being impacted by and how to prepare for rising water levels and increased storm events.
- Assess the current condition of wetlands by watershed and identify major stressors that are impacting wetlands.
- Perform research to improve our understanding of wetland functions, the impact of stressors, and the ecosystem services provided by wetlands to humans and the environment.
- Evaluate the performance of wetland restoration and other compensatory wetland mitigation in replacing wetland acreage and function.
- Educate other state agencies, partners, and the general public to improve efforts to protect and restore wetlands.
- Integrate monitoring and assessment data into watershed restoration plans and other conservation strategies.
- Meet requirements of the Clean Water Act.

Projects below highlight the WMAP's productivity within the state and nation:

- Developed Delaware's nationally recognized Monitoring and Assessment Protocols.
- Developed a collaborative Delaware Wetland Management Plan.
- Completed wetland health condition reports for all watersheds in Delaware from 1999-2021.
- Coordinates the update of statewide wetland maps and Status and Trends report every decade.
- Collaboratively developed restoration plans for the Nanticoke Watershed (2008) and the Inland Bays Watershed (2020).
- Hosts Delaware Wetlands Conference biennially for professionals and scientists throughout the Mid-Atlantic region.

Links to more information about Delaware's wetlands including Wetland Health Reports, the Delaware Wetland Management Plan, a review of Delaware's Wetland program and many other resources are online at: https://dnrec.delaware.gov/watershed-stewardship/wetlands/.

4 Assessment Methodologies and Results

4.1 Data and Guidance for Assessment

4.1.1 Data Considered

Readily available data and information for the period of January 1, 2020, through December 31, 2024, were considered for the assessment of most designated uses. Data collected representing samples from lakes, rivers, streams, and estuaries were assessed using the same methods. Given that adequate water quality data may not be available in all cases, determinations of use attainment are made with an abundance of caution. Furthermore, a public request for data was made in advance of the assessment process. Data were used for assessment and listing purposes if they were sent to the Department by September 8, 2025, met the Tier-I data status of the Department's external data policy (https://documents.dnrec.delaware.gov/Watershed/Assessment/External-Data-Policy.pdf) and met the assessment methodology requirements described herein. The request was made via email to specific organizations, posted on the Department's website, and advertised in the News Journal.

4.1.2 Data Quality and Quantity

The Department utilized a variety of internal and external sources for updating assessments. For data to be considered, quality assurance and control methods must be used for collection and analyses of samples. Data from DNREC's Environmental Laboratory Section (ELS) are considered usable since samples are collected and analyzed in accordance with the DNREC ELS Quality Manual and associated SOPs.

4.1.3 Data Sources

4.1.3.1 Internal Data Sources

The Department routinely collects water quality samples within GAMN stations throughout the state. DNREC's GAMN stations' data are collected and analyzed by the Department, but the data are hosted by the EPA and the USGS via the National Water Quality Portal (https://www.waterqualitydata.us). The analyzed parameters are joined with their respective Assessment Unit (AU) IDs, major basins, and watersheds. All analyses are performed to determine the assessment status in terms of the station location and associated with the appropriate AUs. These routine water quality samples provide the data for use in the 305(b) assessments. The Department considers data from the most recent five-year period, thus, at each station, there are usually data from 30 sampling dates or more. The Department considers small datasets on a case-by-case basis when evaluating water quality conditions.

4.1.3.2 External Data Sources

External data sources include any data sources not outlined within the State of Delaware Ambient Surface Water Quality Monitoring Plan.

For the 2026 assessment, the Department considered any information received before September 8, 2025. External data was considered per the DNREC external data policy which is available at https://documents.dnrec.delaware.gov/Watershed/Assessment/External-Data-Policy.pdf. DNREC provides case-specific technical and science-based rationale for using or not using external data received for assessment purposes.

The DRBC prepares 305(b) assessment reports every two years for the Delaware River and Delaware Bay. When provided, Delaware incorporates the most recent attainment determinations made by the DRBC for the shared waters of the Delaware River and Delaware Bay into its Integrated Report. Delaware continues to work cooperatively with the DRBC, member states and stakeholders to develop and implement TMDLs in waters of the Delaware River and Delaware Bay that are determined to be impaired.

The Chesapeake Bay Program (CBP) completes assessments for waters within the Chesapeake Bay watershed in cooperation with New York, Pennsylvania, Maryland, Virginia, West Virginia, Washington, D.C. and Delaware. Water quality criteria that are assessed by the CBP are dissolved oxygen, chlorophyll-a, and shallow water bay grasses/water clarity. The Upper Nanticoke River segment (NATF) specifically pertains to Delaware's waters. Details regarding those assessment results can be found in the Chesapeake Bay Water Quality Standards Attainment Indicator Application (https://wqs.chesapeakebay.net/wqs_attainment_indicator/) as well as in the Water Quality Standards Attainment and Monitoring page for Chesapeake Progress (https://www.chesapeakeprogress.com/clean-water/water-quality).

4.1.4 Use of EPA's Integrated Assessment Guidance when assessing monitoring data

U.S. EPA has guidance for preparation of Integrated Reports at the following URL: https://www.epa.gov/tmdl/integrated-reporting-guidance. Delaware utilizes this guidance in its assessment process. The core recommendation of the guidance is to categorize all waters of the state according to the following five categories:

- Category 1: All designated uses are met.
- Category 2: Some of the designated uses are met but there is insufficient data to determine if remaining designated uses are met.
- Category 3: Insufficient data to determine whether any designated uses are met.
- Category 4: Water is impaired or threatened but a TMDL is not needed.
    - 4A: All TMDLs for this AU have been completed and EPA approved. Class 4A waters have all necessary TMDLs approved, but one or more impairments exist, despite the approved TMDLs.
    - 4B: Other required control measures are expected to result in the attainment of surface water quality standards in a reasonable period of time.
    - 4C: The impairment or threat is not caused by a pollutant.
- Category 5: Water is impaired or threatened and a TMDL is needed for at least one pollutant or stressor.
    - Category 5mnr: Delaware-specific category showing water is impaired, but contaminant trends support monitored natural recovery (mnr) for short term attainment of water quality goals.
    - Category 5R: Water is impaired, and an Advance Restoration Plan has been developed and acknowledged by EPA.

The Department created the sub-Category 5mnr based on recommendations in a March 2018 report titled "An Evaluation of Clean Water Act Section 303(d) listings of Delaware Waters Affected by Fish Consumption Advisories". That evaluation recommended that a subcategory of impaired waters be created for those segments where fish tissue contaminants were expected to reach target levels within approximately five to ten years without implementing a TMDL. As implied by the name, the Department plans to continue monitoring fish tissue in those

waterbodies in accordance with Watershed Approach to Toxic Assessment and Restoration (WATAR)/Fish Consumption Advisory program protocols until such time that the contaminants in the fish are no longer a concern. When the data supports removing the Fish Consumption advisories, the Department will consider that information for delisting decisions. The Department also pursues remediation and other regulatory efforts in affected watersheds in accordance with the WATAR program, as discussed in other sections of this report and online at https://dnrec.delaware.gov/waste-hazardous/remediation/watar/. Waters in Category 5mnr remain in EPA Category 5 and as such will require a TMDL at a future date if expected decreases do not actually occur. If trends continue to decrease, then an Advance Restoration Plan (ARP) will be developed, and the water will be moved to Category 5R.

The Department has worked with the EPA to transition Delaware's 305(b) assessment and 303(d) listing information into EPA's Assessment, TMDL Tracking and Implementation System (ATTAINS) database. This database allows EPA and stakeholders to track the conditions of the Nation's surface waters. As part of that effort, the Department has converted the tabular list of impaired waters into a format more compatible with the ATTAINS database and geographical information systems (GIS). The Department has now fully transitioned to ATTAINS but is continuing to update spatial and assessment data to more accurately represent Delaware's waters and conditions.

The Department assesses data for a varying suite of parameters based upon available data for each AU. Data is primarily collected at each of the identified monitoring stations throughout the state. Based on the assessment results, each AU/parameter combination is assigned the appropriate EPA category, as identified above. This gives the Department more information about specific parameters of concern and allows more detailed tracking of those concerns over time. Each of Delaware's monitored waterbody AUs are assigned to the appropriate category for each designated use and then get assigned a final categorization for the AU. If there are multiple stations within an AU and one or more show impairment, then the entire AU is considered impaired.

4.2 Assessment Methodology

Herein, the word "average" regarding any parameters means a daily average (if there are multiple samples per day). Otherwise, a discrete value is considered the "average" for that day.

It is important to distinguish between marine and freshwater. For the purpose of this methodology, and per Delaware's Surface Water Quality Standards, salinity less than 5 ppt is considered freshwater and salinity 5 ppt or above is considered to be marine water. Application of fresh or marine criteria in stations with fluctuating salinity conditions will be performed based on the current five-year salinity data. Stations' salinity data at the date/time of collection will be used when applying fresh vs marine water criteria, especially when applying for single sample.

While individual parameters within an AU can be meeting criteria/thresholds, for a designated use to be considered "fully supporting" all assessments for all stations' associated parameters that fall in the AU must meet their criteria/threshold. If any parameters at any of the stations fail, then the AU would fail and is considered "not fully supporting" for that designated use. For an AU to be "fully supporting," all parameters assessed for all identified designated uses must be meeting criteria/thresholds.

4.2.1 Dissolved Oxygen Aquatic Life Use Support and Assessments of DO Criteria Attainment

The following types of Dissolved Oxygen (DO) data were available and used for analysis:

- Field measurements taken by personnel using handheld DO probes; and
- Continuous monitoring data collected using multiparameter monitoring systems that are typically deployed for several days, weeks, or months. In order to get a more accurate picture of dissolved oxygen dynamics and other water quality parameters, the Department continues to increase its use of continuous monitoring systems.

For purposes of DO compliance in an assessment unit, where there is no continuous monitoring data, the field measurements for that day (as available) are representative of the daily average. The methodology used to determine if DO Aquatic Life Use Support (ALUS) is meeting criteria consists of comparing measured DO concentrations, represented as the minimum DO concentration and the daily average DO concentration, to two different standards. DO concentrations are considered to meet ALUS if the 10th percentile of available daily average data is above the applicable criteria of 5.0 mg/L for marine waters and 5.5 mg/L for fresh waters. The statewide minimum DO criterion for surface waters is 4.0 mg/L (at any time).

Daily average dissolved oxygen criteria in the Murderkill River from Route 1 bridge to the confluence with Delaware Bay from May 16 to September 30 shall not be lower than 3 mg/L, while one hour minimum DO shall not be lower 1 mg/L. For data period from October 1 to May 15, the State DO criteria applies.

For continuous DO data, stations were considered compliant if the minimum criterion was not violated by more than 1% of the measurements. In addition, daily averages were computed from the continuous monitoring data and 10th percentile of the daily average were compared with applicable above mentioned fresh or marine water criterion. Hence, when analyzing continuous DO data, concentrations were considered to meet ALUS if minimum DO criterion was not violated by more than 1% of continuous DO measurement and 10th percentile of daily average were greater than the fresh or marine waters criteria.

The 10th percentile of available discrete DO data is the lowest dissolved oxygen concentrations of the field measurement collected from a station. For example, if 10th percentile from one station equals 5.5 mg/L, then one would assume the lowest 10% of that station's data are equal to or lower than 5.5. If X10 value is lower than criteria, then the station fails to comply with the criteria. Comparing that value (i.e. X10) with the criteria is the stringent approach.

In summary, if the following conditions are met for all stations within an AU, the AU is considered "fully supporting" ALUS for dissolved oxygen, and if any station within an AU is not meeting those conditions, then the AU is considered "not fully supporting" ALUS. In summary, the following represent conditions in which a station or AU would not meet ALUS:

- If the 10th percentile DO from a station is lower than the daily average DO criteria – 5 mg/L for marine and 5.5 mg/L for freshwater.
- If two or more samples from a station in five years are less than the minimum DO criteria i.e., 4 mg/L throughout the state or in case of Murderkill River Watershed, from May 16 to September 30, daily average of 3 mg/L and hourly minimum of 1 mg/L, from Oct 1 to May

15 the State criteria would apply.
- If the minimum DO criteria is violated by more than 1% of continuous monitoring data from a station or 10th percentile of daily average from continuous monitoring are lower than fresh or marine water criteria.
- If one or more sampling stations in a specific AU are not meeting the above-mentioned criteria, then that AU will be considered impaired in terms of DO.

4.2.2 Nutrient Enrichment Assessment

From a statewide perspective, nutrient over enrichment is one of the leading causes of water quality impairment. While nutrients are essential to the health of aquatic ecosystems, excessive nutrient loadings to surface waters can lead to an undesirable proliferation of aquatic flora, which in turn can result in oxygen depletion and associated impacts to fish and macroinvertebrate populations. Excessive aquatic plant growth can also preclude or seriously curtail water dependent activities such as fishing and boating when plant densities become so great that uses are not physically possible.

4.2.2.1 Total Nitrogen and Total Phosphorus Assessment

For most of the waters of the state, the Department has developed and implemented nutrient TMDLs to achieve DO targets. The state utilizes threshold values of 3 mg/L for total nitrogen and 0.2 mg/L for total phosphorus to meet TMDL goals. These threshold values were developed in order to implement the narrative provisions in Delaware's Surface Water Quality Standards. For stations with sampling events on at least ten different days during the five-year assessment period, data were averaged, and lower confidence limits calculated at 95% confidence level (i.e. $\alpha = 0.05$) were compared to the threshold values.

- Stations whose lower confidence limits for the 5-year average total nitrogen or total phosphorus levels were above established threshold levels will not be fully supporting the Aquatic Life use.
- AUs with one or more stations whose lower confidence limit for the average nutrient concentrations were above the established threshold values do not fully support the Aquatic Life use.

Any of the following conditions will also result in an AU being listed as impaired:

1. Documented cases of nuisance algal blooms or excessive macrophyte growth. These cases violate Section 4.1.1.3 of Delaware's Surface Water Quality Standards which require waters of the state to be free from substances that may result in a dominance of nuisance species.
2. If detailed, site-specific monitoring studies indicated a strong linkage between nutrient levels and indicators of eutrophication such as high chlorophyll-a concentrations, extreme daily variation in DO levels, and high sediment oxygen demand.
3. For waters of exceptional recreational or ecological significance (ERES), if a long-term trend analysis indicates a statistically significant increase in nutrient levels over time. Such increases are inconsistent with the short-term goal of "holding the line" on water quality in ERES waters. Such increases are also inconsistent with the long-term goal of restoring those waters, to the extent feasible, to their natural state.

4.2.2.2 Dissolved Nutrient Assessment in Inland Bays

For tidal portions of the Indian River, Indian River Bay, and Rehoboth Bay watersheds, the water

quality criterion for dissolved inorganic nitrogen is a seasonal average of 0.14 mg/L, and for dissolved inorganic phosphorus a seasonal average of 0.01 mg/L. For stations where sampling events occurred on at least ten different days during the assessment period, the available data for the period between March 1 and October 31 from each station were averaged and 95% confidence level were calculated. The lower confidence limit is compared to the above seasonal criteria to assess attainment of desired dissolved nutrient levels in those waters. AUs with one or more stations whose lower confidence limit were above the seasonal criteria, do not fully support the Aquatic Life use.

4.2.3 Assessments of Total Suspended Solids in the Tidal Inland Bays Watershed

For tidal portions of the Indian River, Indian River Bay, and Rehoboth Bay watersheds, the water quality criterion for total suspended solids (TSS) is a seasonal average of 20mg/L between March 1 and October 31. For those stations where sampling events occurred on at least ten different days during the assessment period, the available data for the months of March through October from each station were averaged and 95% confidence level were calculated. The lower confidence limit on the averages was compared to the above value to assess attainment of desired TSS levels in these waters. AUs with one or more stations whose lower confidence limits were above the seasonal criteria, do not fully support the Aquatic Life use.

4.2.4 Temperature Assessments

Delaware's Surface Water Quality Standards indicate that, in freshwater, no human induced increase of the daily maximum temperature above 86 degrees F (30.0 degrees C) shall be allowed. For marine waters, no human-induced increase of the daily maximum temperature above 87 degrees F (30.6 degrees C) shall be allowed. Stations for which two or more sampling events were above the criteria and whose AUs receive thermal discharges do not support the Aquatic Life use.

4.2.5 Aquatic Life Assessments for Toxicity

Currently, the Department performs water column data assessment for ammonia, copper, lead, arsenic, and zinc at certain monitoring stations. Per Delaware regulation, acute aquatic life criteria for toxic pollutants are applied as one-hour average concentrations not to be exceeded more than once in any three-year period. Chronic criteria for toxic pollutants are applied as four-day average concentrations not to be exceeded more than once in any three-year period. Some criteria are based on a formula that accounts for factors like pH, hardness, temperature or in the case of the Biotic Ligand Model (BLM), multiple chemicals of interest. The Department collects additional required parameters to calculate criteria and toxic chemicals at the same date and time. While some other chemical criteria are based on measured quantities of the pollutant alone. For this cycle, formulas were used for ammonia, lead, copper, and zinc in freshwater; fixed criteria were used for copper, zinc and lead in marine waters; and fixed criteria were used for arsenic in fresh and marine waters. Single sample analysis was performed for all toxics data, and meeting or not meeting of criteria was based on comparison of relevant criteria at the time of measurement. For tidally influenced sites, salinity data collected at the time of sampling was used to determine the appropriate criteria (fresh or marine) to compare the toxicity measurement against. Where two or more sampling events were above the fixed or calculated criteria in three years at a station within an AU, it was determined that the Aquatic Life use was not fully supported in the AU for the pollutant of interest.

4.2.5.1 Ammonia Assessment

In freshwater, ammonia's toxicity is controlled by both the temperature and pH of the water. Delaware's ammonia criteria should not be exceeded more than one time in a three- year period. Equation 1 was used to determine chronic ammonia criteria for each sampling event at each station. A station was deemed not supporting for the ALUS if two or more sampling results within three years from that same station resulted in exceedances of the calculated criteria.

Equation 1:

$$CCC = 0.8876 \times \left(\frac{0.0278}{1 + 10^{7.688-pH}} + \frac{1.1994}{1 + 10^{pH-7.688}}\right) \times (2.126 \times 10^{0.028\times(20-MAX(T,7)})$$

Where:
CCC = Ammonia Chronic Criteria
pH= pH of interest
T= temperature degrees Celsius

4.2.5.2 Zinc Assessment

Freshwater zinc acute and chronic criteria were based on hardness and were calculated using Equations 2 and 3 below. Measured freshwater dissolved zinc concentrations was compared to the calculated acute and chronic criteria using Equations 2 and 3 below. When two or more sampling events from the same station resulted in exceedances of the calculated criteria within three years, the station was deemed not supporting for ALUS. A marine zinc chronic criterion of 81 µg/L was used for waters with salinity greater than 5 ppt (i.e. marine).

Equation 2:

$$Zinc\ Acute\ Criteria = 0.978 \times EXP^{(0.8473\times LN(hardness)+0.884)}$$

Equation 3:

$$Zinc\ Chronic\ Criteria = 0.986 \times EXP^{(0.8473\times LN(hardness)+0.884}$$

Where:
EXP = e = 2.71828
LN = natural log base e

4.2.5.3 Copper Assessment

The dissolved copper criterion for marine waters is fixed at 3.1 µg/L. When two or more sampling events from the same station resulted in exceedances of the criteria within three years, the station was deemed not supporting for ALUS.

For freshwater, EPA has an approved BLM to be used to calculate the freshwater copper criterion. BLM is a predictive model requiring the input of water temperature, pH, Humic Acid (HA) fraction, dissolved organic carbon, major cations (calcium, magnesium, sodium, and potassium), major anions (sulphate and chloride), alkalinity, and sulfide data. A Humic Acid fraction of 10% and sulfide of 1.0E-10 mg/L was used to run the model.

4.2.5.4 Lead Assessment

Similar to zinc, the dissolved lead freshwater criteria are based on hardness in surface water and were calculated using equations 4 and 5 below. Measured lead concentrations were compared

with the calculated acute and chronic criteria using Equations 4 and 5 below.

Equation 4:

$$Lead\ Acute\ Criteria = (1.46203 - \ln(Hardness) \times 0.145712 \times EXP^{(1.273 \times LN(hardness) - 1.46}$$

Equation 5:

$$Lead\ Chronic\ Criteri = (1.46203 - \ln(Hardness) \times 0.145712 \times EXP^{(1.273 \times LN(hardness) - 4.705}$$

Lead data for marine waters were compared with the marine acute and chronic criteria of 210 µg/L and 8.1 µg/L, respectively. Water column lead data were compared with the forementioned criteria and when two or more samples exceeded the criteria it was deemed not supporting Aquatic Life.

4.2.5.5 Arsenic Assessment

Delaware's acute and chronic surface water quality standards for dissolved arsenic in freshwater are 340 µg/L and 150 µg/L, respectively. For marine waters, those standards are 69 µg/L and 36 µg/L, respectively. Water column dissolved arsenic data were compared with the forementioned criteria and when two or more samples exceeded the criteria in three years, it was deemed not supporting Aquatic Life.

Dissolved arsenic concentrations in freshwater stations in Brandywine Creek, Red Clay Creek, White Clay Creek, and Christina River were assessed for Public Water Supply use as well. The stations' dissolved arsenic concentrations were compared with EPA drinking water criterion maximum contaminated level (MCL) value of 10 µg/L. When 2 or more measurements exceeded that criterion, the station does not fully support Public Water Supply uses.

4.2.6 Primary Contact Recreation Use Assessments

Because Delaware has designated all surface waters of the state for both primary and secondary contact recreation uses, the more stringent primary contact recreational use standard was utilized for listing decisions. Water samples were collected and analyzed for total enterococcus fecal indicator bacteria multiple times each year at each monitoring station. Sampling for primary contact designated use is designed to capture the ambient bacterial water quality condition to represent the condition of the associated AU.

Where at least ten sampling events occurred on different days during the assessment period, the geometric mean and single-sample value of the available enterococcus (colonies/100 mL) data for each monitoring station were compared to the criteria shown in Table 6. For determination of fresh or marine criteria for single-sample value, salinity data collected at the time of sampling was used for any tidally influenced site. When the geometric mean was greater than the criteria or when more than ten percent of samples for a monitoring station were more than the single-sample value, the assessment unit was considered not supporting for the primary contact recreation designated use.

Table 5: Delaware's Primary Contact Recreation Criteria

Water Type	Single sample value (Enterococcus colonies/100 ml) Criteria for Primary Contact Use	Geometric Mean (Enterococcus colonies/100 ml) Criteria for Primary Contact Use
Fresh	185	100
Marine	104	35

In addition, samples were collected for all guarded beaches and many unguarded beaches throughout the state. Sampling occurs more frequently from mid-May through mid-September as part of beach monitoring activities pursuant to the Beaches Environmental Assessment and Coastal Health (BEACH) Act but includes both BEACH Act and non-BEACH Act recreational beaches. The assessment of the water quality at recreational beaches for primary contact recreation use is not designed to monitor ambient water quality of an AU, rather this sampling focuses on the condition of nearshore waters. These conditions can vary spatially and temporally, based on nearby inputs such as wildlife, resuspension of indicator bacteria in shoreline sediment and other environmental factors. In order to determine these inputs, the state conducted extensive sanitary surveys of these recreational beaches to identify both point and nonpoint sources of bacteria, including whether the source is of anthropogenic or wildlife origins. The result of this work has shown that beaches are not impacted by point sources, with inputs instead originating primarily from wildlife. Delaware's narrative criteria for primary contact recreation identify that the numeric standards apply to "enterococcus bacteria determined by the Department to be of non-wildlife origin based on best scientific judgment using available information." For the reasons stated above, data collected for designated beaches is used by the state for notification to the public of short-term changes in water quality and not for long-term assessments of ambient water quality to determine impairments of assessment units.

4.2.7 Assessment of Harvestable Shellfish Waters Use Support

Delaware is a member of the Interstate Shellfish Sanitation Conference (ISSC), the administrative body of the National Shellfish Sanitation Program (NSSP). Delaware's Shellfish Sanitation Regulations are administered as per ISSC/NSSP standards and practices. Section 3.2.1.3 of said regulations specifies data collection/closure criteria for Delaware shellfish waters, which include parameters constituting administrative closure of shellfish waters. Parameters that would trigger administrative closures in compliance with ISSC/NSSP standards may include theoretical pollution loading, sanitary shoreline survey information and numerical coliform data. All Delaware shellfish waters designated as other-than-Approved, which may include Prohibited, Seasonally Approved, Conditionally Approved, or Restricted, are so designated based on administrative decisions. Specifically, these criteria include:

- Theoretical pollution loading, which is determined to be the potential for intermittent pollution discharges, making detection of said theoretical releases non-detectable via conventional sampling methodology.
- Sanitary shoreline survey findings, which indicate potential for theoretical pollution loading, also non-detectable via conventional sampling methodology.
- The dilution of theoretical virus discharges from point sources; however, not corresponding to increases in total coliform levels.

In order to comply with ISSC/NSSP requirements, Delaware samples all shellfish waters not administratively closed for fecal coliform bacteria. Delaware's Shellfish Program is assessed under the auspices of the U.S. Food and Drug Administration, as per ISSC/NSSP standards and practices, and submits bacteriological water quality data to the U.S. Food and Drug Administration to demonstrate compliance.

To assess the harvestable shellfish designated use, the Department considers the data and reports to FDA for waters that are not administratively closed. Waters that were administratively closed for shellfish harvesting as a result of coliform exceedances during the assessment period were assessed as Category 5. During this assessment period, no waters were administratively closed for shellfish harvesting due to coliform exceedances.

4.2.8 Listing Criteria for Waters and Fish Consumption Advisories

DNREC utilizes fish tissue and water data for toxic contaminant listing purposes. In developing Delaware's Integrated 305(b) Report and 303(d) List, the issuance of any Fish Consumption advisory will be interpreted as a violation of Section 4.5.9.2.3 and Section 4.1.1.3 of Delaware's Surface Water Quality Standards. Those two narrative provisions provide that:

1. Waters of the state shall be maintained to prevent adverse toxic effects on human health resulting from ingestion of chemically contaminated aquatic organisms.
2. Any pollutants, including those of a thermal, toxic, corrosive, bacteriological, radiological, or other nature, that may interfere with attainment and maintenance of designated uses of the water, may impart undesirable odors, tastes, or colors to the water or to aquatic life found therein, may endanger public health, or may result in dominance of nuisance species.

4.2.8.1 Fish tissue data

Fish tissue data evaluations and risk assessments were conducted in accordance with Delaware's Technical Procedures for Evaluating Human Health Risk Associated with the Consumption of Chemically Contaminated Fish and Shellfish (DNREC 2017).

In general, individual fish sample weights and lengths were recorded in the field at each sample location. Fish samples were subsequently prepared for contaminant analysis by filleting or otherwise retaining the edible portions to be analyzed and then homogenizing the resulting subsamples to produce a uniform sample (per species, per location). The homogenized tissue samples are shipped to a contracted commercial laboratory for chemical analysis.

Delaware's risk assessment procedures consider both cancer and non-cancer effects and also consider different receptors including an average adult angler, women of childbearing age, and young children. It is important to note that Delaware's procedures assume that health risk among various chemicals is additive, meaning that the risk associated with individual chemicals in the fish tissue combine to produce an aggregate risk for all chemicals in the fish tissue. Aggregate risk for cancer is considered separately from aggregate risk for non-cancer effects.

A key feature of Delaware's technical procedure is to back-calculate a "safe" number of meals that can be consumed per unit of time while maintaining an aggregate cancer risk and non-cancer risk at low levels. "Low levels" in Delaware's procedures equate to an aggregate cancer risk less than 1-in- 100,000 (i.e., 10-5) and an aggregate non-cancer risk less than 1 (i.e., Hazard Index < 1).

One benefit of considering aggregate risk is that the contribution of each chemical to the

aggregate risk can then be easily calculated. Chemicals responsible for greater than 10% of the aggregate risk are referred to as "risk drivers". Knowing the risk drivers is important from a water quality and waste remediation perspective because it provides focus for regulatory and non-regulatory programs.

All AUs for which Fish Consumption advisories are in place as of the publishing of the Integrated Report were considered not supporting Fish Consumption designated use for each of the risk driving chemicals of concern included in each advisory, hence listed on Delaware's 303(d) list. If Fish Consumption advisories are lifted/removed, or any chemical of concern is removed from an advisory for more than one [consecutive] monitoring cycle, then the chemical/segment pair will be removed from Delaware's 303(d) list for the Fish Consumption designated use.

4.2.8.2 Surface water data

Occasionally, surface water is collected and analyzed for toxic contaminants in addition to, or in lieu of, fish tissue. Samples are generally collected as grab samples, which represent a "snapshot" of information (specific to that place/time/conditions). The data is useful (along with sediment and/or fish tissue data) for contaminant trackback studies, for understanding partitioning behavior of chemical contaminants and for calculation of site specific BAFs and BSAFs. Surface water data can also be used to justify the impairment of an AU. In such cases, however, it is important to assess water quality criteria exceedances in terms of magnitude (the measured concentration), duration (the averaging period associated with the criterion) and frequency (how often the criterion can be exceeded).

Per Delaware regulation, acute aquatic life criteria are applied as one-hour average concentrations not to be exceeded more than once in any three-year period. Chronic criteria are applied as four-day average concentrations not to be exceeded more than once in any three-year period. Human health water quality criteria are expressed in terms of concentration only. They do not explicitly include duration and frequency. However, human health water quality criteria are designed to protect against long-term exposure to low concentrations. For instance, in the case of toxic pollutants that are known or probable human carcinogens, the assumed exposure duration is a lifetime (i.e., 70 years for the average individual). The frequency implicit in these criteria is continuous. Taken together, these factors are normally used to interpret human health water quality criteria as annual averages.

When appropriate quality and quantity of surface water sample data is available for comparison to applicable criteria, and when criteria are exceeded at the specified frequency over the specified duration, then a segment may be considered a candidate for listing. Within the context of this methodology, a candidate for listing means simply that additional factors need to be considered to make a final use support determination. DNREC seeks to make the best possible scientific determination based upon the totality of information available at the time. The analysis and integration of this information ultimately depend on the application of sound science and professional judgment. Some factors that may be considered in making a final determination include, but are not limited to:

- The magnitude of any exceedance (e.g., 2 times the criterion vs 20 times the criterion)
- The number and density of surface water quality data points included in the assessment/AU (e.g., 30 samples over one river mile vs 3 samples over one river mile)
- Weather/water body conditions at the time that data was collected (e.g., high flow/turbid water vs. low flow/clear water)

- The existence of fish tissue data and associated human health risk assessment from the subject water body (fish bioaccumulate contaminants over time and space, not just a "snapshot"); and/or
- The potential to collect fish tissue samples during the next monitoring cycle.

4.2.9 Assessments of Aquatic Life Use Support using site-specific data that results from environmental assessments and other programs

In the normal course of business, the Department requests, receives and evaluates water quality data for various environmental programs. Similar data may also come from other parties (e.g., state, federal or local agencies). The Department compares those site-specific studies' water quality data with the applicable water quality standard(s) and makes assessment and listing decisions for the affected AUs.

- If the data show no water quality criteria are exceeded and no uses are impaired, no further listing action will be taken.
- If the data are ambiguous or inconclusive, the AU will be listed and due to insufficient will be further examined to determine designated use support.
- If water quality criteria are exceeded or uses are impaired as a result of a contaminated site, and the owners of the site are making substantial progress (as determined by the Department) toward correcting the pollution problem, the AU will be listed with a low priority for a TMDL.
- If it appears that there is a water quality problem related to a contaminated site, and substantial progress is not likely in the near future, the AU will be listed in Category 5 (impaired and requiring TMDL).

4.2.10 Assessments of Biology and Habitat

Beginning in 1991, DNREC has used biological and habitat indices to assess and classify the health of perennial, non-tidal streams throughout the State. The biological index (BI), also known as an index of biotic integrity (IBI), is a multi-metric approach (Barbour, et.al., 1999) with metrics calculated based on the abundance and diversity of macroinvertebrates found in the stream. The habitat index (HI) consists of abiotic and biotic structural characteristics of the stream and the contiguous land known to influence the structure and function of the biological community in the stream. Both the biological and habitat indices result in multiple metric scores that places the stream into condition classification categories of "excellent," "good," "moderately degraded" or "severely degraded." Sites that are classified as moderately or severely degraded have historically been recommended for inclusion in the State's 303(d) list of impaired waters.

Delaware's habitat and biology assessments primarily took place in the 1990s and early 2000s. Due to more pressing contaminant concerns in the state, work on habitat and biology indices stalled, and some stream segments have not been re-evaluated in nearly 20 years. DNREC, with the assistance of the EPA Region 3, has made it a priority to revitalize Delaware's Habitat and Biology Program.

Between 2022 and 2025, more than 70 existing and new sites in the Piedmont ecoregion have been evaluated for stream health. Geologically, Delaware exists within two ecoregions, the Northern Piedmont and the Middle-Atlantic Coastal Plain, and the protocols used in assessing stream health are specific to each ecoregion. With 3 years of new data to characterize and assess streams, Delaware has been working with EPA to develop a new statistically valid IBI for the

Piedmont region. As of November 2025, the IBI development is showing much progress but is still in the exploratory stage. The government shutdown in October and November delayed progress. It is anticipated that the Piedmont IBI will be tested, calibrated and finalized by the end of 2026. A re-evaluation of Coastal Plain ecoregion of Delaware is expected to begin once the Piedmont region has been completed.

As new or updated assessments are developed, appropriate measures will be taken to address these listings. If it is determined that establishment of a TMDL is not required because there is no longer impairment or an impairment/threat is not caused by a pollutant, the Department may change the status of habitat assessment and/or biological integrity parameters in those AUs accordingly (as noted in Table 7) and address water quality issues through restoration efforts as funding is available. If specific pollutants can be determined, TMDLs, ARPs or other actions will be taken to address them.

4.2.11 Setting Priorities for Water Quality Limited Assessment Units Still Needing TMDLs

The Department has set TMDL and ARP priority rankings for assessment units that remain in Category 5 or 5mnr. Justification for the priority rankings is outlined below. For AUs in Category 5mnr, concentrations of toxic contaminants of concern in fish tissue are expected to drop below screening criteria within approximately five to ten years. As such, a priority ranking of "Low" is assigned, and ARPs will be drafted as new monitoring data become available from WATAR and DNRECs Fish Consumption Advisory Program. To date, all AU/parameter pairs listed prior to 2014 have been evaluated for a Category 5mnr designation. For AUs in Category 5, priority is given to the segments where information is sufficient to develop TMDLs, where the magnitude of exceedances is greatest, and/or where DNREC has otherwise committed to extending its resources (e.g., addressing "low" priority pollutants from an AU at the same time as addressing a "high" priority pollutant from the same AU).

As an example, in 2018, Delaware prioritized development of TMDLs for Red Clay Creek dioxins/furans and St. Jones River and Silver Lake dioxins/furans based upon increasing contaminant trends in fish tissue (e.g. DNREC assigned those segment/contaminant pairings a "high" priority). In the Red Clay Creek, two other contaminant impairments (dieldrin and DDX) had been previously assigned a "low" priority ranking. Regardless, Delaware prepared the TMDL calculations and associated report for all three contaminant impairments in the Red Clay Creek at the same time.

As another example, St. Jones River fish data collected in 2019 exhibited a decreasing trend of dioxins/furans in both prioritized ("high") segments. Consequently, the segment/contaminant pairings were changed to a category 5mnr, which prompted development of an ARP instead of a TMDL. Additional impaired, but "low" priority, St. Jones River segments will also be included in the ARP documentation, since the watershed information is already being gathered. This practice promotes efficiency in addressing all of Delaware's toxic contaminant listings/impairments.

4.2.12 Rationale Used to Designate a Lower Category for Assessment Units Previously Designated for TMDL Development

The Department may move AU/Parameter combination from prior 303(d) Lists (equivalent to Category 5) to another category based on any of the following factors and will document the reasons for doing so on a case-by-case basis. Once a TMDL has been approved by the EPA, it is in

place until it has been rescinded by the Department following applicable Departmental procedures.

Table 6: Lower listing category designation rationale

Factor	Listing category
The assessment and interpretation of more recent or more accurate data demonstrate that the applicable WQS(s) is being met.	Move to Category 1
The results of more sophisticated water quality modeling demonstrate that the applicable WQS(s) is being met.	Move to Category 1
Demonstration that flaws in the original analysis of data and information led to the water being incorrectly listed.	Move to Category 1
The development of a new listing methodology, consistent with state WQSs and federal listing requirements, and a reassessment of the data that led to the prior listing, concluding that WQSs are now attained.	Move to appropriate category
A demonstration pursuant to 40 CFR 130.7(b)(1)(ii) that there are effluent limitations required by state or local authorities that are more stringent than technology-based effluent limitations required by the CWA and that these more stringent effluent limitations will result in the attainment of WQSs for the pollutant causing the impairment.	Move to category 4A or 4B until data and analysis support move to Category 1
A demonstration pursuant to 40 CFR 130.7(b)(1)(iii) that there are other pollution control requirements required by state, local, or federal authority that will result in attainment of WQSs for a specific pollutant(s) within a reasonable time.	Move to category 4B until data and analysis either support move to Category 1 or a return to Category 5 if attainment of WQS is no longer expected within a reasonable time
Documentation that the state included on a previous Section 303(d) List an impaired water that was not required to be listed by EPA regulations, e.g., waters where there is no pollutant associated with the impairment.	Move to Category 1 or Category 4C as appropriate
Approval or establishment by EPA of a TMDL since the last Section 303(d) List.	Move to Category 4A until data and analysis support move to Category 1

Other factors may also be used to change categories on a case-by-case basis, subject to EPA approval and appropriate stakeholder involvement.

4.2.13 Flow Charts for Designated Use Attainment

Figure 1: Assessment of Aquatic Life Use Support Using Dissolved Oxygen Criteria

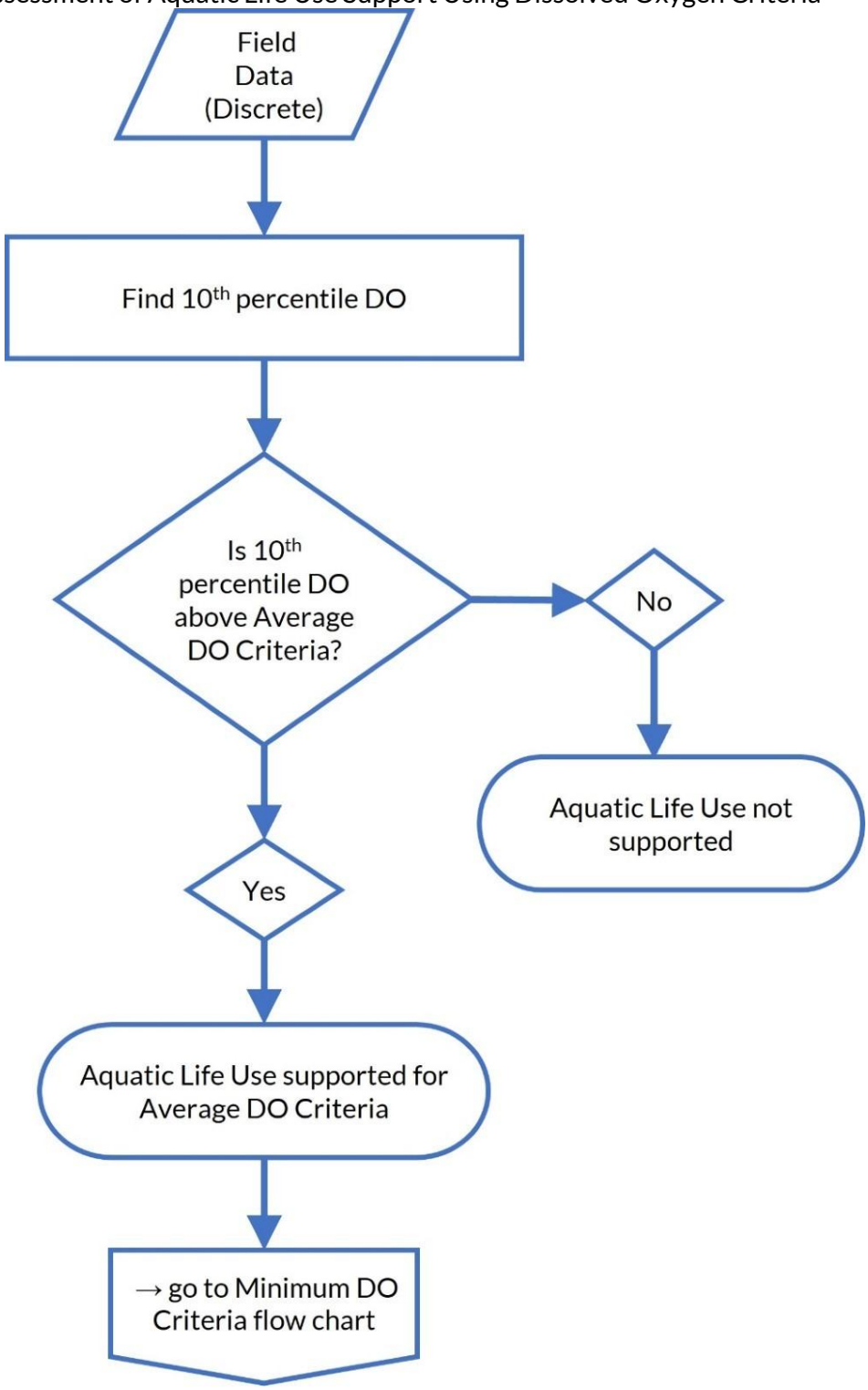


Figure 2: Assessment of Aquatic Life Use Support Using Minimum Dissolved Oxygen Criteria and Continuous Monitoring Data

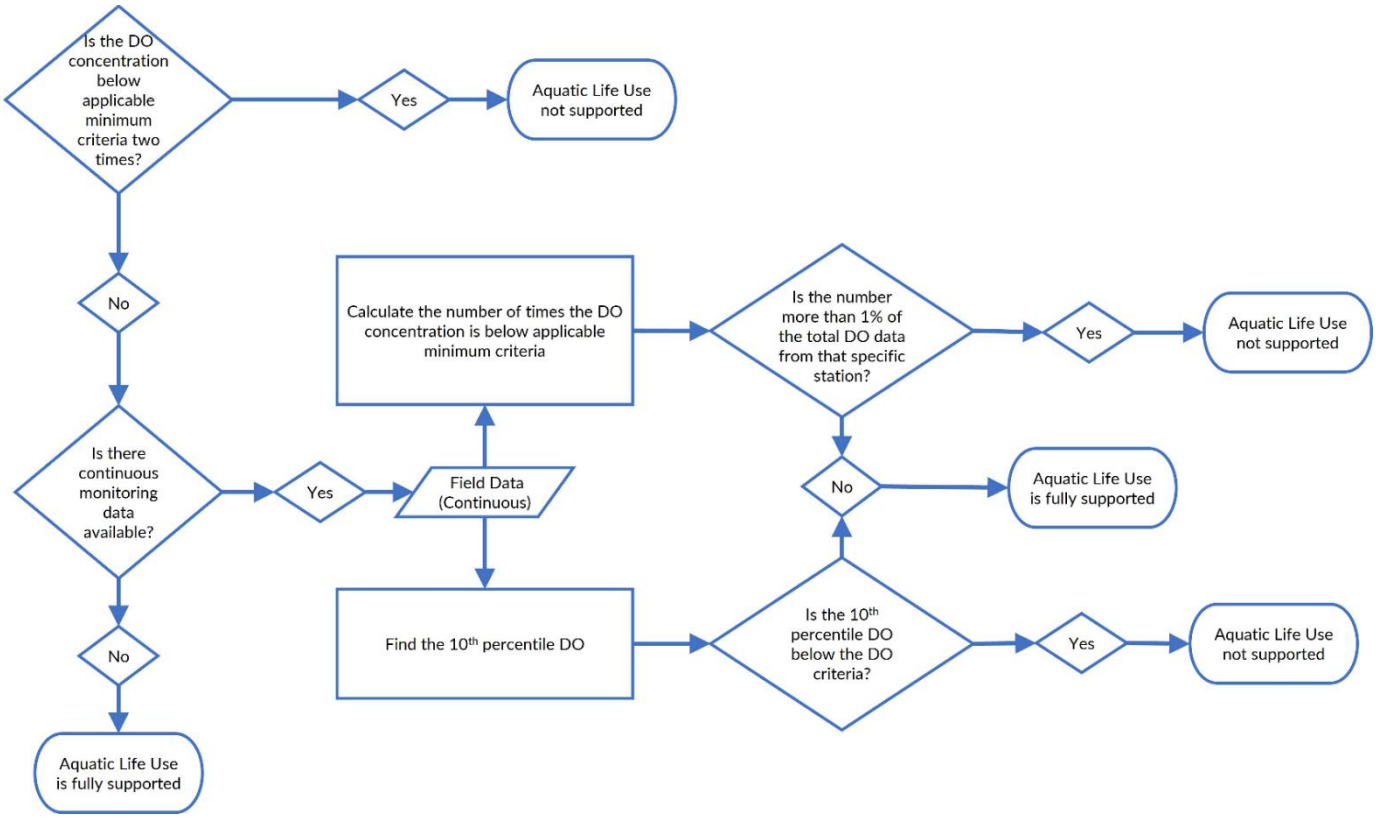
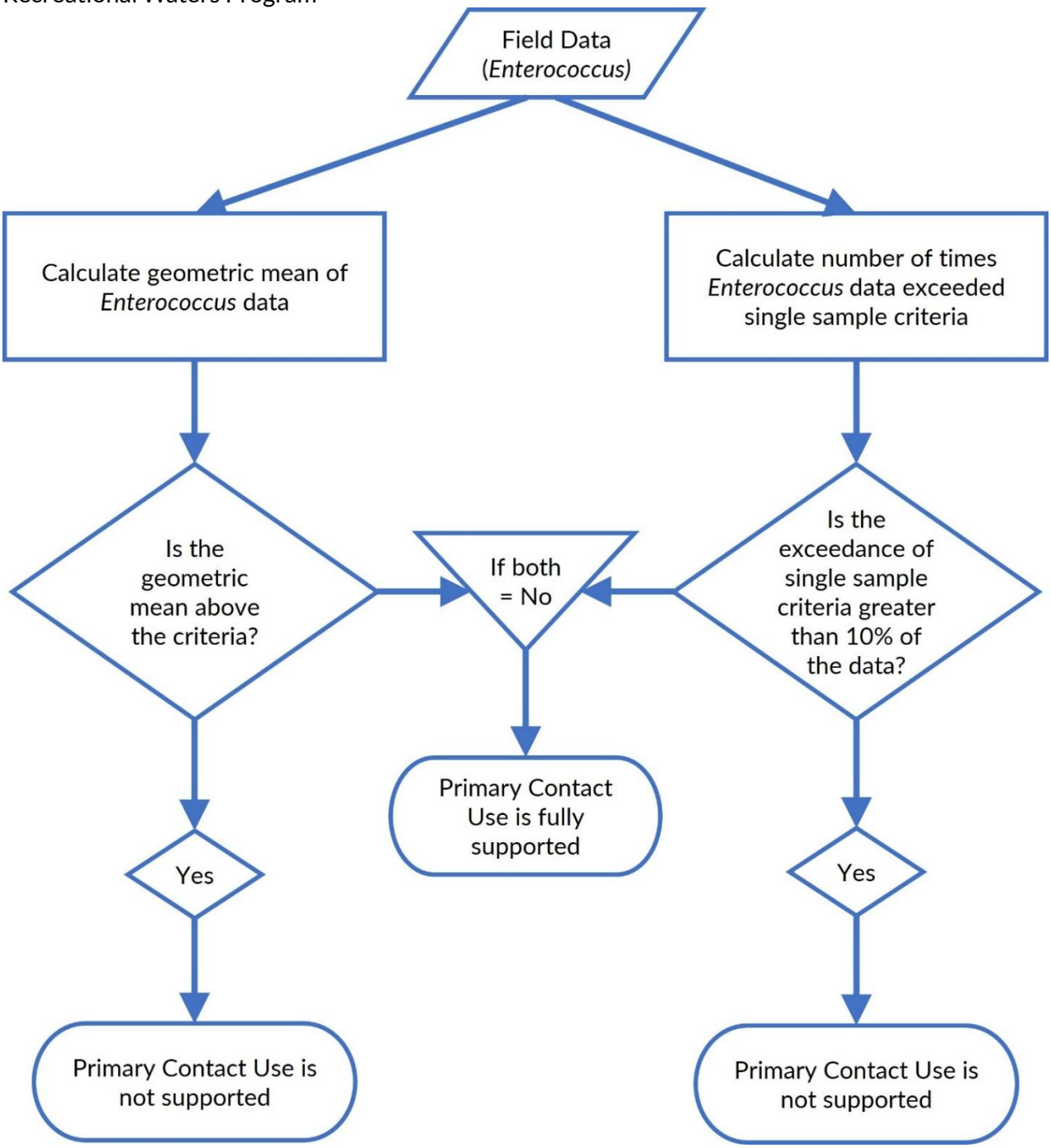


Figure 3: Assessment of Primary Contact Use Support for Assessment Units Outside of the Recreational Waters Program



4.3 Assessment Results

4.3.1 Dissolved Oxygen in Surface Water and Listing Criteria

4.3.1.1 Discrete (Grab Sample) Dissolved Oxygen and Listing Criteria

DO concentrations were compared with the minimum criteria of 4 mg/L throughout the State (except May16 – September 30 hourly minimum of 1 mg/L in Murderkill River Watershed from Rt. 1 Bridge to the confluence with Delaware Bay), 10th percentile of 5.5 mg/L freshwater and 5.0 mg/L marine water concentrations. The result of analyzed data is presented in Appendix B.

4.3.1.2 Continuous Dissolved Oxygen in Surface Water and Listing Criteria

In addition to discrete DO data, seven segments were also assessed based on continuous DO monitoring data provided by the USGS. These segments were DE010-001-01, DE040-002-01, DE120-002, DE140-L01, DE060-001. DE220-001 and DE280-E01. The criteria stated a minimum DO level of 4 mg/L, or hourly average 1 mg/L in the time and region of Murderkill River watershed stated in section 4.3.1.1, could not be violated by more than 1% to be considered attaining. In addition, 10th percentile of daily average DO could not violate the forementioned fresh and marine criteria. Four continuous water quality monitoring stations in AUs DE010-001-01, DE120-002, DE220-001, and DE060-001 were not meeting continuous DO criteria. The result of analyzed data is presented in Appendix B.

4.3.1.3 Center for Inland Bays Continuous Dissolved Oxygen in Surface Water

The Delaware Center for the Inland Bays (CIB) provided continuous bottom water (i.e. 6 inches above the bottom sediment) DO data for seven sites in Delaware's Inland Bays (see details of all sites in Appendix H). This data was collected in accordance with an EPA approved Quality Assurance Plan. However, the data was considered Tier-II Supporting Data per the Department's External Data Policy. Past research identified DO concentrations in the benthic zone are significantly different to the water column DO, which are also evident in CIB's transect data. Eutrophic systems like the Inland Bays would have higher benthic metabolism and processes compared to the water column, which would enhance consumption of oxygen and fluctuating DO concentrations. Data collected from benthic zones alone is not representative of the entire system and using them for listing purpose can skew impairment decision.

Tier-II data are considered as supporting data that informs management decisions on a case by case basis. For instance, with the presence of other stressor indicators, Wharton's Bluff station's data was used for listing decisions in the 2026 cycle despite being Tier-II data. Wharton's Bluff is in Indian River - AU DE140-004. The AU has had history of fish kills resulting in Wharton's Bluff data being used in the IR2022 and IR2024 cycles for a DO listing decision. The Department continues to list this AU based on Wharton's Bluff data and other supporting evidences. The Department will continue collaborating with the CIB on DO monitoring projects to offer insight into station placement and representativeness of ambient conditions. The Department has analyzed the data provided by CIB and the results can be found in Appendix H.

The Department's analysis of Wharton's Bluff site data showed there were 24059 continuous DO data records for this cycle. Assessment of the data showed that 12.5% of the available data from the site did not meet the minimum concentration of DO criteria and the segment DE140-004 was listed only based on this information. The result of analyzed data is presented in Appendix B.

4.3.2 Nutrients in Surface Water and Listing Criteria

In the past, Delaware's Integrated Reports assessed the parameter "nutrients" which was refined in 2024 and replaced by "nitrogen (N)" and "phosphorus (P)." For the 2026 IR cycle, Delaware's assessments of segments were thus based on Total Nitrogen (TN) and Total Phosphorus (TP) meeting threshold concentrations of 3 mg/L and 0.2 mg/L respectively. In the Inland Bays, in addition to TN and TP, assessments were also based on Dissolved Inorganic Nitrogen (DIN) and Dissolved Inorganic Phosphorus (DIP) concentrations meeting their respective seasonal criteria of 0.14 mg/L and 0.01 mg/L.

4.3.2.1 Total Nitrogen and Total Phosphorus in Surface Water

Out of the 135 water quality monitoring stations, lower confidence limit value for TN concentration was greater than the TN threshold of 3 mg/L at 32 monitoring stations. The lower confidence value for TP was greater than 0.2 mg/L at 2 monitoring stations. For this cycle, those stations with lower confidence limit value greater than the threshold for TN and TP were identified as not meeting the threshold. The result of analyzed data is presented in Appendix B.

4.3.2.2 Inland Bays Dissolved Nutrient in Surface Water

The tidal portions of the Inland Bays drainage basin have seasonal (March to October) DIN and DIP criteria. Out of the 14 monitoring stations, DIN was greater than the criteria at 5 monitoring stations, whereas DIP was higher than the criteria at 2 monitoring stations. The result of analyzed data is presented in Appendix B.

4.3.3 Total Suspended Solids in Inland Bays Water and Listing Criteria

Delaware has seasonal (March to October) total suspended solids criteria in tidal portions of Inland Bays drainage basin. Out of 14 water quality monitoring stations, lower confidence limit for total suspended solids was greater than the seasonal criteria at 6 monitoring stations and those stations were listed in this cycle. The result of analyzed data is presented in Appendix B.

4.3.4 Toxic Chemical in Surface Water and Listing Criteria.

4.3.4.1 Ammonia in Surface

Ammonia criteria were calculated based on water pH and temperature. Single sample ammonia criteria were calculated and compared with ammonia concentration measured during each single sample event. There were no AUs listed based on ammonia. The result of analyzed data is presented in Appendix B.

4.3.4.2 Zinc in Surface Water and Listing Criteria

Fresh and marine water zinc concentrations were compared with the respective criteria. Zinc exceeded the criteria at one monitoring station and was listed in this cycle. The result of analyzed data is presented in Appendix B.

4.3.4.3 Copper in Surface Water and Listing Criteria

Copper in marine water was compared with the marine copper criteria. During the present cycle marine copper concentration exceeded the criteria at three monitoring stations and were listed in this cycle. The result of analyzed data is presented in Appendix B.

Biotic Ligand Model (BLM) was used to compute freshwater copper criteria using single sample

values of 10 different parameters, i.e. temperature, pH, dissolved organic carbon, calcium, magnesium, sodium, potassium, sulfate, chloride, and alkalinity. BLM model predicted that 28 monitoring stations exceeded the copper criteria and those were listed in this cycle. The result is presented in Appendix B.

4.3.4.4 Lead in Surface Water and Listing Criteria

Lead concentrations were compared with the fresh and marine lead criteria at 75 monitoring stations. Out of 75, 2 freshwater monitoring stations (Station IDs: 307371 and 304741) exceeded freshwater lead criteria. The Department believes further review of the stations is needed before placing them in Category 5. Station 307371 has low to no flow throughout the year, suggesting sampling bias. The Department has recently moved sampling to another location within the same AU and will assess as new data becomes available. Data from Station 304741 shows some inconsistencies, hence, requiring further review. As the Department works to fully understand issues at these stations, they are placed in Category 3 for further review and determination in the 2028 IR cycle. The result of analyzed data is presented in Appendix B.

4.3.4.5 Arsenic in Surface Water and Listing Criteria

Dissolved arsenic was a new parameter assessed for the Public Water Supply designated use in IR2026. Previously, dissolved arsenic was assessed in several locations related to the Fish Consumption designated use, but it was determined that the Fish, Aquatic Life, and Wildlife designated use was more appropriate based on the Department's current methodology. None of the concentrations exceeded the criteria for Fish, Aquatic Life, and Wildlife designated and Public Water Supply uses, hence there were no listings based on arsenic concentration in this cycle. The result of analyzed data is presented in Appendix B.

4.3.5 Enterococcus Bacteria in Surface Water

Enterococcus bacteria in surface water were analyzed using single sample and geometric mean criteria. If the sample failed either one of the criteria, then the station was listed. For this cycle, out of 135 stations sampled, 117 stations were not meeting criteria and hence listed. The result of analyzed data is presented in Appendix B.

4.3.6 Toxic Pollutants in Fish Tissue

As in the previous two cycles, no new updates to Fish Consumption advisories were used in the 2026 assessments. Instead, the Department incorporated the Fish Tissue Advisories that were last updated by the DHSS and DNREC on February 20th, 2018. Although updated fish tissue data has been collected for all impaired watersheds within the state between 2019 and 2024, the data is still being analyzed, and risk assessments are being conducted to determine advisories. Preliminary results of the data assessments have shown that, for the contaminants of interest, mean concentrations have not increased. Hence, the 2018 fish advisories are a conservative representation of current conditions and corresponding meal advice.

The Department has been using a WATAR strategy to address toxic pollutant issues in Delaware. In March 2018, the Department issued a report entitled "An Evaluation of Clean Water Act Section 303(d) Listings of Delaware Waters Affected by Fish Consumption Advisories." The evaluation considered information gathered from the WATAR and Fish Tissue Advisories programs to perform detailed trend analyses of pollutants in fish tissue that aren't already incorporated into an existing TMDL (e.g. Delaware River PCB TMDL). The trend analyses showed that, in many cases, pollutants are expected to drop below health risk thresholds in a reasonable

amount of time if the trajectory of the trend continues. As a result, the report recommended that several segments be placed into a new, Delaware-specific category of impairment known as monitored natural recovery (mnr). That category is shown in this report as Category 5mnr. As suggested in the category name, expectations are that the aquatic systems are recovering naturally due to the reduction/removal of primary contaminant sources within the watersheds. The Department will continue to monitor fish tissue in those waters but expects the contaminant levels to decrease enough for future evaluations to recommend delisting those contaminants. This type of evaluation will continue with data from other watersheds, and new watersheds will be placed into Category 5mnr when justified.

The aforementioned report also identified four AUs where the trend analyses showed that concentrations of pollutants are increasing or are otherwise not expected to reach acceptable levels in the near future (Red Clay Creek Mainstem, Upper Saint Jones, Silver Lake and Lower Saint Jones). Red Clay Creek Mainstem remains in Category 5, and the Department is currently developing TMDL for the impairments. Since March 2018, the Upper Saint Jones, Silver Lake, and Lower Saint Jones impairments have shown reductions in contaminant concentrations. Consequently, they are included within Category 5mnr, and the Department has commenced the development of an ARP for the entire St. Jones watershed.

An ARP can be completed by states in advance of a TMDL if agreed upon by the EPA and so long as contaminant trends continue to show improvement towards attainment. DNREC's ARP framework was modeled after actions already being undertaken by its WATAR program. The documentation allows Delaware to take credit for its program's successes within the 303(d)-reporting structure and within its biannual Integrated Report. Waters with developed ARPs will move from Category 5mnr to Category 5r, indicating that an ARP has been developed and acknowledged by EPA. For Delaware to adequately document its actions that have resulted in contaminant reduction and to comply with Clean Water Act requirements, the Department has worked with the EPA to create its first ARP for one of its Category 5mnr waters (C&D Canal Watershed). More information about specific ARPs is summarized below, including updated trend plots, where appropriate.

4.3.6.1 Advanced Restoration Plan (ARP) for Chesapeake and Delaware Canal (C&D Canal) Watershed

On September 4, 2024, EPA provided acknowledgement/concurrence with DNREC's ARP for the C&D Canal Watershed. The C&D Canal Watershed was assigned to DNREC's Category 5mnr in 2018 for dioxins/furans (aka TCDD TEQs or DxF TEQs) and dieldrin. PCBs are also included in the C&D Canal Watershed evaluation and restoration plan, even though the watershed is also part of the Delaware River and Bay PCB TMDL.

Delaware's action items as documented in the C&D Canal ARP include:

- Continued implementation of the WATAR program.
- Continued fish tissue monitoring in the C&D Canal Watershed every 5 to 6 years.
- Assistance with jurisdictional implementation of PCB Pollutant Minimization Plans as required by NPDES and MS4 permits.
- Interagency coordination with the State of Maryland who shares the watershed with Delaware.
- Monitoring of continued or new regulatory actions by DNREC's Remediation Section at sites with continued sources of pollutants of concern.

- Regular re-evaluation of trends as data is collected, with adaptive management approaches, if necessary.
- Updates on watershed activities and new trend plots in WATAR Annual Reports and/or Integrated Reports, as necessary.

Additional fish tissue data was collected as part of routine monitoring in 2024. Per the action items noted above, new fish tissue contaminant trend plots have been prepared and are presented in figure 1. The target level for DxF TEQs is less than 0.35 pptr. The target level for dieldrin is less than 3 ppb. The target level for PCBs is less than 27 ppb.

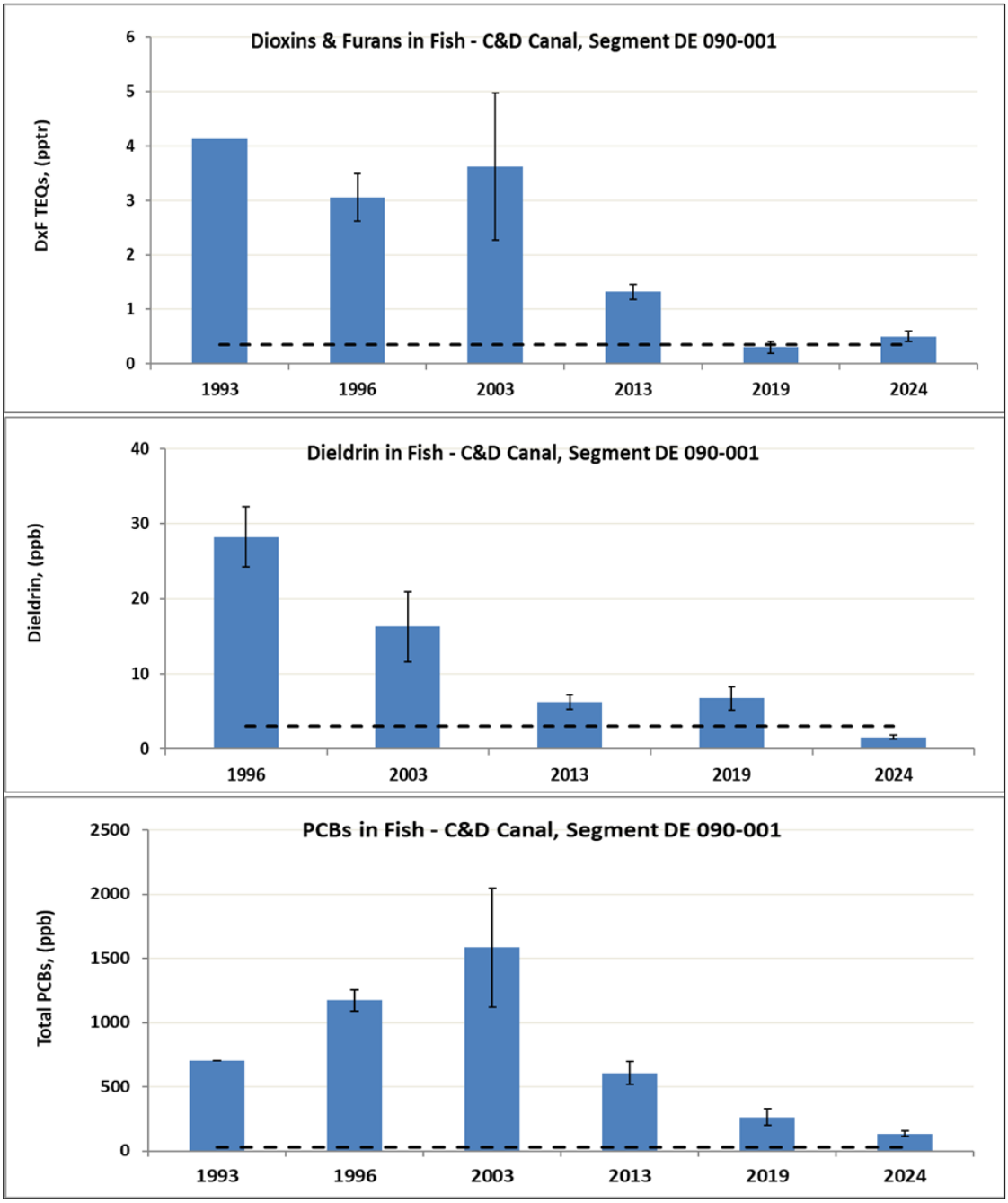


Figure 4: fish tissue contaminant trend plots for Dioxins & Furans, Dieldrin, and PCBs in the C&D Canal (DE090-001)

In addition, DNREC coordinated with the United States Army Corps of Engineers (USACE) in May 2024 to collect appropriate data to ensure that the draining and modification of one of its former Confined Disposal Facilities (CDF) within the watershed would not impact water quality. Specifically, a former facility located along Cox Neck Rd in Delaware City is intended to be rehabilitated for use to store dredged sediments related to USACE's C&D Canal Navigation Maintenance Project and Delaware City's Branch Canal. In accordance with the C&D Canal Watershed ARP, DNREC requested that the existing ponded water be sampled and analyzed prior to its discharge to the C&D Canal. Additionally, DNREC requested that samples of the existing sediment in the former CDF be analyzed to ensure that excavation and subsequent berm construction would not expose potentially buried contaminants from prior dredging activities to construction workers or ecological receptors in the watershed.

4.3.7 Overview of Assessment Unit and Listing Support for Water Quality Parameters

During the current Integrated Report cycle, ten water quality parameters were analyzed to identify whether the water body supports identified designated uses. For the first time, freshwater copper data was assessed using biotic ligand model (BLM). BLM was used to calculate single sample freshwater copper criteria. Appendix B shows the assessment units or segments "meeting or not meeting" for freshwater copper.

There were 16 AU/parameter combinations in the 2026 assessments that are now meeting criteria or threshold and were delisted. Conversely, there were eight AU/parameter combinations identified as causes of impairment and relisted in the current cycle. It is important to note that seven AU/parameter combinations for ammonia and copper were removed last cycle due to being assessed under the wrong criteria based on salinity and were returned this cycle and assessed using appropriate criteria. Because of this, they appear as "added" in ATTAINS but have remained in DNREC's internal database.

A new designated use was also included for seven AUs assessed for arsenic this cycle. These AUs now have the Fish, Aquatic Life, and Wildlife use and the Public Water Supply use associated with them and are meeting criteria for both.

Due to the lack of new data, 762 AU/parameter combinations were not assessed, and the last assessed cycle's decisions remain in effect. A summary of changes in AU/parameter combinations is presented in Appendix C. A summary of assessment results by designated use is presented in Appendix D.

4.4 Trends Analysis for Surface Waters

As an integral part of tracking watershed progress toward achieving TMDL targets, DNREC performs trend analysis of nutrients periodically. With the availability of more data, a new trend analysis was performed this cycle, and the result is presented in this section. The trend analysis of nutrient condition (concentration and load) was performed for various locations throughout the State. Delaware's TMDL targets for TN and TP are 3 mg/l and 0.2 mg/l respectively. For this report, the estimation of the direction and magnitude of trends in TN and TP concentrations as well as their associated uncertainties are presented. The analysis was performed using an R statistical package called "Exploration and Graphics for RivEr Trends (EGRET)" (Hirsch and DeCicco, 2014). This package was built based on a multiple regression method called "Weighted Regressions on Time, Discharge, and Season (WRTDS)", (Hirsch et al, 2010). As the name indicates, the WRTDS

method estimates daily concentration by establishing a regression relationship among concentration, stream flow, and time of the year (season). The authors described the method as being able to "detect and describe temporal trends that may not conform to linear or quadratic functional forms. This method does not only provide estimates of the time series of annual mean concentration and fluxes, but also time series of "flow-normalized" mean concentration and fluxes which integrate over the probability distribution of discharge to remove the effect of interannual streamflow variability" (Hirsch et al, 2015). Furthermore, the new add-on package to EGRET, EGRETci - Exploration and Graphics for RivEr Trends Confidence Intervals (Hirsch et al, 2016) for analyzing uncertainties associated with the estimated trends, was also performed with the results included. The WRTDS method is a widely accepted tool for trend analysis and is used by the USGS to assess water quality changes regularly in non-tidal tributaries of the Chesapeake Bay Watershed.

The WRTDS method uses two types of long-term data records - the daily stream flow measurements and water quality samples collected at freshwater stream sites. Nutrients and Flow data from twelve C1 monitoring sites in Delaware, located in the freshwater stream segments and co-located with the USGS stream gauging stations, were used for this analysis. Figure 5 shows the location of the selected C1 sites, and Table 8 lists the C1 sites and nearby USGS stream gaging stations.

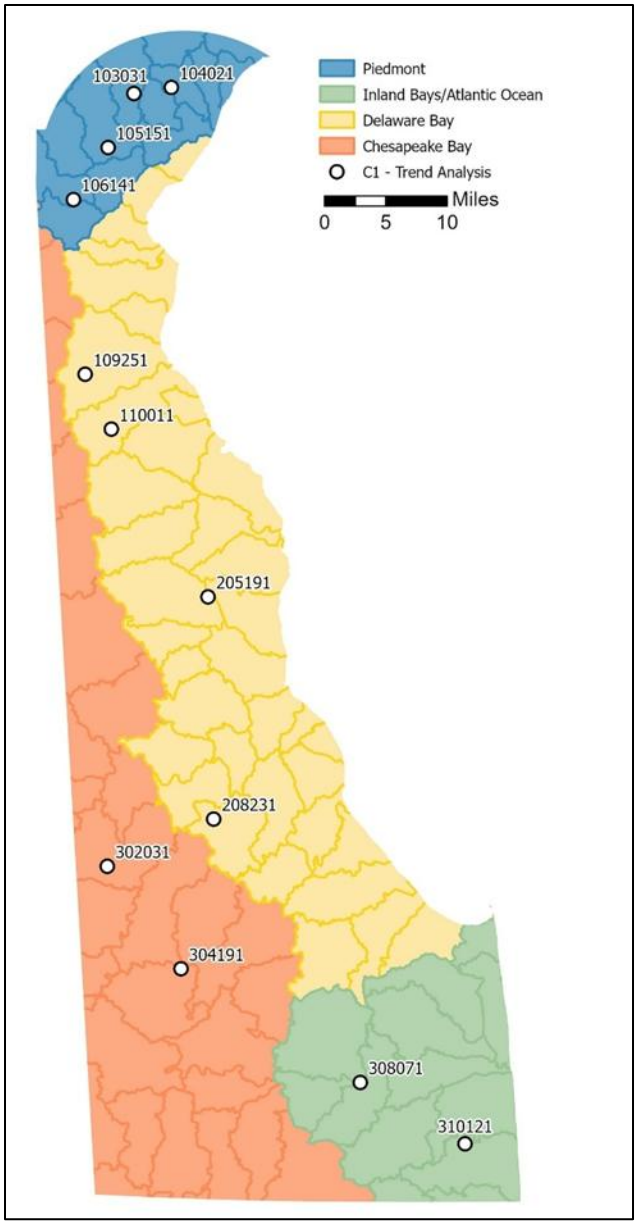


Figure 5: The Selected Twelve C1 Monitoring Sites used in WRTDS for Trend Analysis

Nitrogen and phosphorus concentration data were loaded directly into R-software through EGRET package from the Water Quality Portal (formerly STORET) under National Water Quality Monitoring Council (https://www.waterqualitydata.us/). Flow data from appropriate USGS gages were also directly retrieved in the R-software (https://waterdata.usgs.gov/state/Delaware/). This analysis focused on Total Nitrogen (TN) and Total Phosphorus (TP). Non-detect values were taken out and duplicates were averaged before performing the trend analysis. It should be noted that prior to 2005, TN was not directly measured, instead, nitrogen species including nitrate-nitrite nitrogen, ammonia nitrogen, organic nitrogen, and/or total Kjeldahl nitrogen (TKN) were measured. Therefore, for the data collected prior to 2005, TN was computed as the sum of the concentrations of nitrate-nitrogen and TKN. TP was directly measured throughout the recorded period.

Table 7: Selected C1 Monitoring Sites and Their Co-located USGS Stream Gage Sites

C1 Site ID	Location Description	USGS Stream Gage ID	USGS Stream Gage Name	Drainage Area (mi2)
103031	Red Clay Creek at Lancaster Pike (Rt. 48)	1480000	RED CLAY CREEK AT WOODDALE, DE	47.0
104021	Brandywine River at New Bridge Rd. (Rd. 279)	1481500	BRANDYWINE CREEK AT WILMINGTON, DE	314.0
105151	White Clay Creek at Delaware Park Blvd.	1479000	WHITE CLAY CREEK NEAR NEWARK, DE	89.1
106141	Christina River at Sunset Lake Rd. (Rt. 72)	1478000	CHRISTINA RIVER AT COOCHS BRIDGE, DE	20.5
109251	Appoquinimink River's tributary, Deep Creek Branch at Summit Bridge Rd. (Rt. 71)	1483155	SILVER LAKE TRIBUTARY AT MIDDLETOWN, DE	1.7
110011	Blackbird Creek at Blackbird Station Rd. (Rd. 463)	1483200	BLACKBIRD CREEK AT BLACKBIRD, DE	4.1
205191	St. Jones River at Silver Lake at Spillway (Dover City Park)	1483700	ST JONES RIVER AT DOVER, DE	31.9
208231	Beaverdam Branch at Deep Grass Ln. (Rd. 384), Mispillion River	1484100	BEAVERDAM BRANCH AT HOUSTON, DE	3.0
302031	Marshyhope Creek at Fishers Bridge Rd. (Rd. 308)	1488500	MARSHYHOPE CREEK NEAR ADAMSVILLE, DE	46.8
304191	Nanticoke River at Rifle Range Rd. (Rd. 545)	1487000	NANTICOKE RIVER NEAR BRIDGEVILLE, DE	75.4
308071	Indian River at Millsboro Pond outlet at John Williams Hwy. (Rt. 24)	1484525	MILLSBORO POND OUTLET AT MILLSBORO, DE	61.7
310121	Little Assawoman Bay, Beaver Dam Ditch at Beaver Dam Rd. (Rd. 368)	1484695	BEAVERDAM DITCH NEAR MILLVILLE, DE	2.2

The period of the data record used for the analysis varies from site to site and this information is listed in Table 8. For stream flow data, the record length is determined by the sampled TN and TP record length. The daily mean flow records were obtained from the USGS website (https://maps.waterdata.usgs.gov/mapper/index.html).

The direction of the estimated TN and TP trends are presented in Table 8, and the uncertainties of the estimates in terms of likelihood (in arrow forms) are also included. TN shows strong improving condition at four sites in Red Clay Creek, White Clay Creek, Christina River, and Beaverdam Ditch of Little Assawoman Bay, while Blackbird Creek and Silver Lake at St. Jones River show improving condition. A worsening condition or strong upward trend was observed at three sites in Beaverdam Branch - Mispillion River, Appoquinimink River, and Marshyhope Creek. For TP, a strong improving trend was seen at three sites in White Clay Creek, Brandywine River, and Christina River, while three sites in Red Clay Creek, Blackbird Creek, and Beaverdam Branch - Mispillion River showed improving condition. A worsening condition or upward trend for TP was identified at Appoquinimink River site.

Changes in TN and TP concentrations with discharge, monthly fluctuation in TN and TP concentrations, overall discharge statistics, and estimated TN and TP trends plots for individual

sites are presented in Figures F1 through F36 in Appendix F. From Figure F1 to F36, each site's changes in TN or TP concentration, changes in discharge, and trend results are represented by three figures. For example, Figures F1 through F3 highlight the Red Clay Creek Watershed. Figures F1 and F2 showed changes in TN and TP concentrations with flow (discharge) in m^3/s (top left panel), changes in TN and TP concentrations from 1998 to 2024 (top right panel), monthly variation in TN and TP concentrations over the duration (bottom left panel), changes in discharge during sampling event vs overall discharge at the station (bottom right panel). Then Figure F3 showed trend results for TN and TP in the watershed. The depiction of concentration changes with discharge, overall discharge at the site, and trends are presented accordingly for other sites in the subsequent figures.

Table 8: Trend Analysis Results for TN and TP Concentrations at the C1 Monitoring Sites

C1 Site ID	Location description	Period (water year)	TN Trend		TP Trend	
103031	Red Clay Creek at Lancaster Pike (Rt. 48)	1999 - 2024	↓↓	Very Likely Downward Trend	↓	Likely Downward Trend
104021	Brandywine Creek at New Bridge Rd. (Rd. 279)	1999 - 2024	··	No Trend	↓↓	Very Likely Downward Trend
105151	White Clay Creek at Delaware Park Blvd.	1999 - 2024	↓↓	Very Likely Downward Trend	↓↓	Very Likely Downward Trend
106141	Christina River at Sunset Lake Rd. (Rt. 72)	1999 - 2024	··	No Trend	↓↓	Very Likely Downward Trend
109251	Deep Creek Br. at Summit Bridge Rd. (Rt. 71), of Appoquinimink River	2008 - 2024	↑↑	Very Likely Upward Trend	↑↑	Verly Likely Upward Trend
110011	Blackbird Creek at Blackbird Station Rd. (Rd. 463)	2002 - 2024	↓	Likely Downward Trend	↓	Likely Downward Trend
205191	Silver Lake at Spillway (Dover City Park) of St. Jones River	1999 - 2024	↓	Likely Downward Trend	↑	Likely Upward Trend
208231	Beaverdam Branch at Deep Grass Ln. (Rd. 384), Mispillion River	1999 - 2024	↑↑	Very Likely Upward Trend	↓	Likely Downward Trend
302034	Marshyhope Creek at Fishers Bridge Rd. (Rd. 308)	1998 - 2023	↑↑	Very Likely Upward Trend	··	No Trend
304191	Nanticoke River at Rifle Range Rd. (Rd. 545)	1999 - 2024	··	No Trend	↑	Likely Upward Trend
308071	Millsboro Pond at John Williams Hwy. (Rt. 24)	1999 - 2024	··	No Trend	··	No Trend
310121	Beaver Dam Ditch at Beaver Dam Rd. (Rd. 368) in Little Assawoman Bay	1999 - 2023	↓↓	Very Likely Downward Trend	··	No Trend

The Department also performs trend analysis for nutrients at the tidal stations of the Inland Bays periodically. The last analysis was carried out in 2020 using the Generalized Additive Model (GAM). Detailed explanation of the statistical methods and models for Generalized Additive Model to Analyze Long Term Total Nitrogen and Phosphorus Concentrations can be found in the

2020 Integrated Report, while the summary is as follows:

> *The Generalized Additive Model (GAM) was used to analyze long term (1998 – 2019) TN and TP trends in the fourteen tidal stations of Inland Bays. TN concentrations were decreasing in most of the stations except in station 306181 at Swan Creek. Decreasing trends of TN and TP in tidal stations of the Inland Bays can be attributed to full implementation of the requirements of the Inland Bays TMDLs for point sources and its partial implementation for the nonpoint sources. Even though TN concentration were decreasing, four of the stations' concentration were higher than the target value of 1 mg/L in Inland Bays, whereas some of the stations' recent years concentrations were higher than target value. The trend of TP concentration followed the flow pattern. TP concentrations in most of the stations were higher during peak flow, thus were cyclic in nature following flow events throughout the twenty years. Similar to TN concentrations, TP concentrations in recent years in some of the stations were higher than the target value of 0.1 mg/L. Linear regression modeling techniques are more frequently used to identify long term trends in the water quality data, which sometime miss the temporal cycling trend or temporal changes in the data. GAM analysis of tidal stations data with the inclusion of smooth functions allows the model shapes from linear to nonlinear, including patterns that changes direction over time, thus helped to identify changes of concentration over time in the Inland Bays.*

4.5 Long Term Changes in Water Quality Parameters

The abstract from Paudel and Brown's 2022 paper "Long Term (1998–2019) Changes in Water Quality Parameters as a Function of Freshwater Inflow in a River–Bay Continuum" highlights a study conducted to understand long-term changes in water quality as a function of freshwater inflow in Inland Bays. The full manuscript and analysis can be found at this URL: https://doi.org/10.3390/hydrology9080138.

> *"Freshwater inflow is important in transporting nutrients to a bay. We hypothesized that freshwater inflow was transporting dissolved nitrogen and phosphorus to the Delaware's Inland Bays. We analyzed long term (1998- 2019) water quality data collected from Indian River, Indian River Bay, Lewes- Rehoboth Canal, Little Assawoman Bay and Rehoboth Bay watersheds. Freshwater inflow altered nitrite+nitrate (N-NO2_3) concentrations in all but Lewes-Rehoboth Canal watershed, whereas phosphate (P-PO4) concentrations in all watersheds were altered by freshwater inflow and metabolic processes in the water. The average N-NO2_3 and P-PO4 were higher than the standard (0.14 and 0.01 mg/L for N-NO2_3+NH4-N and P-PO4, respectively) for growing seasons (March-October) i.e., 0.83+0.14 & 0.09 mg/L in Indian River; 0.79+0.10 & 0.06 mg/L in Indian River Bay; 0.21+0.15 & 0.09 mg/L in Lewes- Rehoboth Canal; 0.49+0.10 & 0.11 mg/L in Little Assawoman Bay; 1.0+0.08 & 0.06 mg/L in Rehoboth Bay. Average total suspended solids in the Indian River (33 mg/L), Indian River Bay (22 mg/L), and Lewes-Rehoboth Canal (31 mg/L) were higher than the standard concentrations, i.e., 20 mg/L for the Inland Bays. With the evidence of higher dissolved nutrients and low dissolved oxygen concentrations, need for nutrient load reduction and water quality monitoring are paramount for the sustainable management of Inland Bays."*

4.6 Groundwater Assessment

A groundwater data report "Re-assessment of water quality from potable wells in the surficial aquifer in the Indian River Bay watershed, Sussex County, Delaware: Results of sampling, 2024, with comparisons to previous sampling in 2001–2003" has been submitted to U.S. EPA Region 3 pursuant to 305(b) reporting obligations for groundwater quality. This report, received from the

Division of Water, is included in IR2026 as Appendix G to supplement the Department's overall 305(b) assessment. This information cannot be utilized in surface water assessments conducted for the IR but can serve as supplemental information about water quality conditions in that watershed.

The Division of Water has been working to establish a new and improved framework for the systematic characterization of spatial, temporal, and aquifer-specific trends in ambient groundwater quality. The new framework puts a focus on the surficial aquifer, and the water-quality data collected from domestic wells in the Indian River Bay watershed are in alignment with this objective.

The reassessment showed that groundwater in this watershed remained diluted, slightly acidic, and dominated by calcium, magnesium, and sodium cations balanced by chloride, bicarbonate, and nitrate anions. Most of the samples were oxic, with low iron concentrations, and reflected geochemical conditions shaped by both natural processes and anthropogenic inputs. The report also highlights slight improvement in nitrate contamination with concentrations exceeding the U.S. EPA's Primary Maximum Contaminant Level (10 mg/L) in 25.5% of wells in 2024 compared to 32% in 2001–2003. This indicates localized improvement but persistent nonpoint-source influence.

5 Public Participation

The Department informed the public regarding process and progress of this Integrated Report using its website, an email list of interested parties and public notices placed in local newspapers. Interested parties had 30 days from the start of the public notice process (March 6th, 2026) to provide comments via email. Key comments have been excerpted with the Department's responses in bold italics below. All original public comments are included in Appendix I. This section contains any comments requiring response followed by the Departments responses in bold italics.

5.1 Comments by US EPA Region 3

Edited Comments by US EPA Region 3. Department responses are bold italics after the comment.

1. Section 4.3.4.4 Lead in Surface Water and Listing Criteria:
   a. This section states that out of 75 stations, 2 exceeded lead criteria, but were listed in Category 3. We note that an additional station exceeded criteria and was listed in Category 5. We discussed reviewing and correcting as necessary.

      The Department has reviewed the listings and will be keeping the two waterbodies in Category 3. Please see reason in the response to question b below.

   b. We discussed the need for a basis for the 2 waterbodies if they are to remain in Category 3, and the available data to list the waters in Category 5 directly within the IR.
      The first station is 307371 (AU DE050-006-03) in Broad Creek watershed. DNREC presented details about this site to EPA previously. Station 307371remains dry throughout the year with very low flow or no flow. Therefore, the Department decided to stop sampling there in Fall 2025. A new monitoring station further upstream in the same AU has been established, and DNREC is waiting for more data to come from the new site for future assessment, hence keeping the AU as Category 3.

      For station 304741 in AU DE240-004-0, DNREC presented the station's data to EPA previously, highlighting that the station's last 11 years data showed only 2 samples exceeding the criteria. Because of the lack of a viable source in this AU, DNREC is unsure if the two readings are due to reporting error hence, the Department's decision to keep this AU in Category 3 while assessing the issue.

   c. DNREC's appendices show that one of the two Category 3 listings (DE220-005-01-Murderkill River) exceeds aquatic life criteria once out of 64 samples. Following the assessment method, we discussed whether these data suggest attainment (Category 2) since two or more exceedances are needed for an aquatic life impairment which may result in moving the waters from Category 3 to Category 2.
      Yes, the data suggests attainment according to DNREC's assessment methodology. The AU is meeting criteria and has been moved to category 2.

2. DE220-005-06 and DE220-005-03 (Upper Murderkill River) for Dissolved Oxygen were nested into Category 4A from 5, however, these AUs were originally listed in 1998 and have been in Category 5 since. We discussed including the possibility for a demonstration

on how the existing TMDLs are designed to achieve the applicable water quality standards in these waterbodies.
The Action ID 25100 was initially added to these AU/parameter combinations because in the TMDL documents, the Upper Murderkill segments are identified as DE220-500 and are not broken out. We felt that if the unsplit AU was identified in the TMDL, then all components of the AU should be considered. The TMDL document specifies Fan Branch (currently identified as AU DE220-005-03), Black Swamp (currently identified AU DE220-005-06), and Headwaters to Corsey's Pond (currently identified DE220-005-01). DNREC has split their assessment units over time due to various parameter assessments and sometimes information was disassociated. DNREC will review further to determine if this an appropriate action.

3. According to DE WQS, the Murderkill's daily average dissolved oxygen criteria is 3 mg/L, while the minimum is 1 mg/L. Sections 4.3.1.1. and 4.3.1.2 state that the minimum criteria in the Murderkill is 3 mg/L, while section 4.2.1 states that the Murderkill daily average criteria is 3, while the minimum is 1. We discussed ensuring that the dissolved oxygen assessments applied the correct criteria.
The Dissolved Oxygen assessments applied correctly and the write up has been corrected.

4. We discussed the regulatory requirement in 303(d) that states that existing and readily available water quality-related data and information must be used in developing the list unless they provide a rationale not to use them. See 40 CFR 130.7(b)(5) and 40 CFR 130.7(b)(6)(iii). When a final IR is submitted to EPA for review and action, the EPA evaluates the IR including the technical, science-based rationale for decisions not to use available data or information to develop the CWA 303(d) list. Below are a couple specific areas that were included as part of this discussion.
   - DCIB data - We discussed providing an explanation of why the sampling methodology that DCIB used could not support a WQS attainment determination.
     A detailed response is provided in section 5.2 as response to CIB's comment

   - White Clay Wild and Scenic River Stream Watch Monitoring data - We discussed why a lack of analytical methods would not support a WQS attainment determination.

     White Clay Wild and Scenic River Stream Watch Monitoring data was categorized as Tier II (supporting data) and was not used in developing the State's 303(d) list because analytical method documentation was not provided as specified in the External Data Policy published alongside the call for data. Analytical method information is necessary to evaluate data quality, including accuracy, precision, detection limit, and comparability to water quality criteria. Without this information, it is impossible to determine that:
     - ***Analytical methods are EPA-approved or scientifically approved standards***
     - ***Detection limits are sufficient to assess compliance with criteria***
     - ***QA/QC procedure were adequate to ensure data reliability.***

     Analytical method submissions are essential to ensure data integrity for valuable data comparisons.

     Instead of using them for listing decisions, White Clay Wild and Scenic River Stream Watch Monitoring data was used as supporting information and included in the IR appendix to provide additional context, and transparency. Supporting data may also be considered qualitatively to inform broader understanding of water quality conditions in the state

waters.

5.2 Comments by Delaware Center for the Inland Bays

Edited Comments by the Delaware Center for the Inland Bays. Department responses are bold italics after the comment

On behalf of the Delaware Center for the Inland Bays (Center), I wish to thank the Delaware Department of Natural Resources and Environmental Control (DNREC) for using the Center's continuous water quality data collected in 2023-2024 for the upper Indian River (DE140-004) in your assessments for this 305(b)/303(d) Integrated Report. The Center created and continues to develop a network of continuous water quality measurements to better understand the rapidly changing water quality conditions in the Inland Bays. By providing enhanced temporal and spatial resolution, our continuous water quality network data proves to add to data collected by DNREC and other outside agencies.

Thank you for your comment on draft 2026 305(b)/303(d) Integrated Report. The Department appreciates the Delaware Center for the Inland Bays continued support in improving water quality conditions in the Inland Bays.

The Center's high-frequency monitoring network was a high-priority recommendation of the Inland Bays Environmental Monitoring Plan (updated July 2023) developed by the Scientific and Technical Advisory Committee (STAC), with input from DNREC. The plan is a component of the Inland Bays Comprehensive Conservation and Management Plan, to which DNREC is a signatory. Data were collected by the Center since 2020 from stations in the upper and middle portions of the Indian River, Pepper Creek, Guinea Creek, and eastern Little Assawoman Bay. One station, with additional stations added in Rehoboth Bay and Indian River Estuary. In 2024, the Center started collecting data on the concept of representativeness for the DNREC assessment units per DNREC request. This three year study should be completed in 2026. The network will continue to be improved as our understanding of spatial and temporal heterogeneity grows. We will continue to share our dataset with DNREC, so you all have access to the most complete data available.

During the 2020 report draft commenting period, the Center's STAC recommended the inclusion of continuous DO data in the 2022 report narrative. We appreciate the inclusion in the 2026 report of this unique data type which can expand the understanding of water quality. While the 2024 draft Integrated Report considered data collected through 2022, only one of the Center's five monitoring stations active during the reporting period was accepted for use in the assessments. This 2026 report retains this precedence, but we appreciate the inclusion of the methodologies that clearly explains there is a difference in data collection methodologies which limits a direct comparison of the two datasets. We appreciate the recognition that there is no data quality question of the Center's dataset. The continuous DO data collected by the Center, as referenced in Appendix H, continues to suggest that the tidal portions of these tributaries show ecologically concerning levels of DO that threaten the Inland Bays biodiversity and regularly fall below the state's threshold.

The Center's additional data collection efforts will allow for greater comparability between DNREC and Center methods in terms of collection frequency. As our monitoring network continues to evolve and reach milestones set by DNREC for data inclusion, the Center looks forward to when the data will be accepted in future assessments.
The Center wishes to continue to work closely with DNREC as new analytical methodologies are

considered for future 305(b)/303(d) reports. The Center reiterates the following concerns from 2022 about current methodologies:

1. To determine Aquatic Life Use Support (ALUS) with regard to DO, the state's current methodology compares measured DO concentrations to two different standards: the minimum at all times (4.0 mg/L minimum standard) and daily averages (5.0 mg/L minimum standard for marine waters). For purposes of DO compliance with the daily average criteria in a segment, continuous monitoring data is averaged on a daily basis for each station.

   We do not feel the use of daily averages for continuous DO data is appropriate. In eutrophic estuaries, diel cycling of DO concentration in the water column is typical. Continuous data collected mid-summer from the upper Indian River from 2020 to 2025 shows that DO fluctuates on a daily basis from supersaturated during the day to extremely hypoxic at night (see plot below). Yet, daily averages generally exceed 5 mg/L, suggesting there is no impairment. We recommend that this standard be evaluated and alternatives considered to better protect living resources, given living resources inhabiting these waters are exposed to long time periods at suboptimal and potentially lethal DO levels.

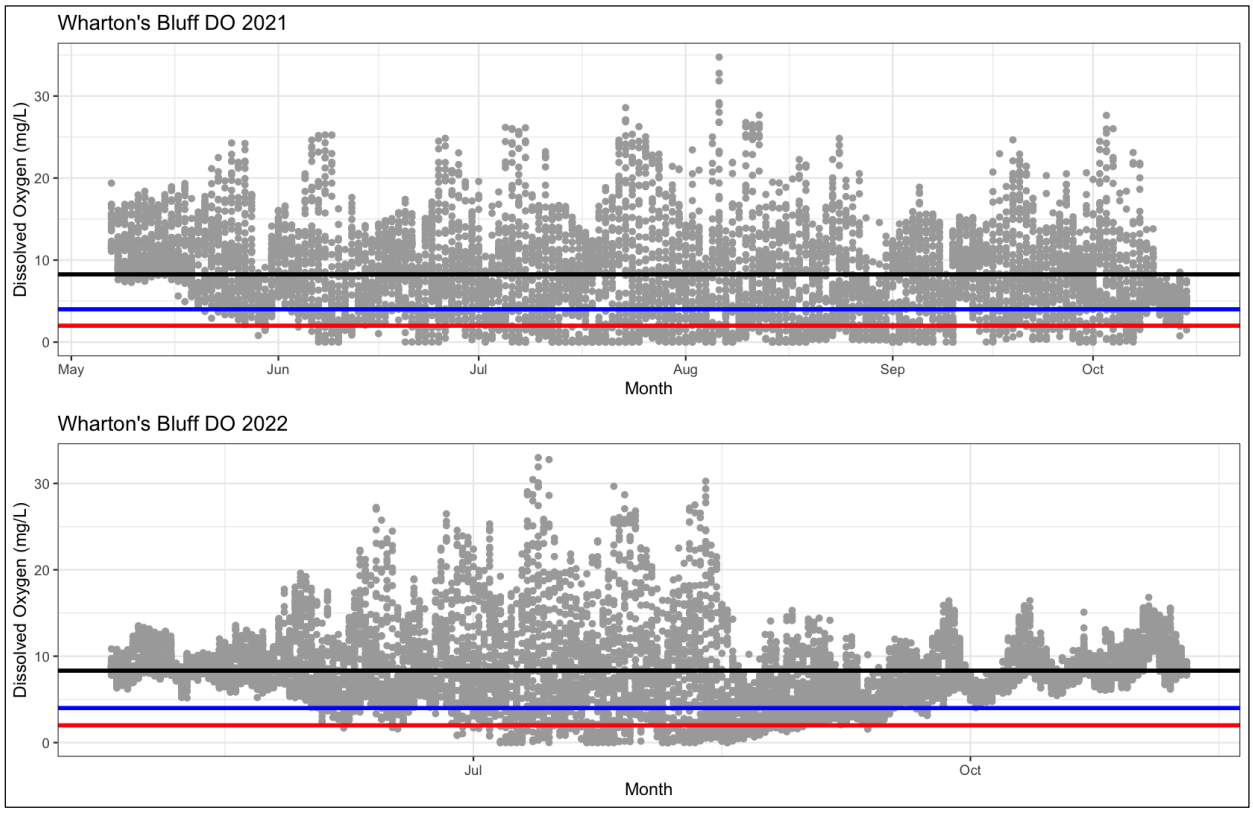


Figure 1. Dissolved oxygen concentrations at the Center's Wharton's Bluff station from 2021 and 2022 in the top and bottom panels, respectively. Black lines represent the mean DO concentration; blue lines represent the 4 mg/L DO threshold and red lines represent the 2 mg/L DO threshold.

In the 2024 Integrated Report (Section-5, Public Participation), DNREC stated the assessment methodology would be edited to clarify continuous DO data analysis as DNREC does not take

daily averages of continuous DO data. Therefore, the assessment methodology was updated and publicly noticed for comment on August 8, 2025. This resulted in Section 4.2.1 being included within the 2026 Draft Integrated Report. Please reference the aforementioned Section within the 2026 Integrated Report for clarity on continuous DO data analysis. DNREC apologizes for any confusion. The average of continuous DO data were not solely used in determining listing decision.

2. The biological significance of a low dissolved oxygen event depends not only upon its magnitude (i.e., either the average or minimum DO concentration) but also upon the duration of the hypoxic event. When DO dips below 4 or 5 mg/L for a very brief time during the night, it may have little significant impact on biota. However, long-term exposure to DO below 2 mg/L can affect survivorship, predator/prey interactions, and other cascading effects. While not a new finding, continuous data collected by the Center from the Indian River, Pepper Creek, and Guinea Creek in 2020, 2021, 2022, 2023, and 2024 show that DO frequently remains well below the 4 mg/L for hours at a time during the diel cycle for the period sampled (typically April - October). Data from the Wharton's Bluff station, for example, show that between June and October 2022, DO concentration remained at or below 4.0 mg/L for a period of at least six consecutive hours on 49 days. Worse, DO was ≤ 2.0 mg/L for at least six consecutive hours on 16 days, a much more concerning threshold for benthic organisms. Thus, an assessment methodology that includes both magnitude, duration, and frequency of hypoxic events should be considered.

   In summary, we value our continued collaboration with DNREC and appreciate the use of the Center's data in your assessment.

   The Department's DO analysis partially aligns with magnitude and frequency approach. The Department assesses how many times (frequency) minimum DO criteria (magnitude) are violated, which is assessed to identify if 1% or more of total continuous DO data is less than the State minimum criteria of 4 mg/L.

   DNREC understands biogeochemical processes, benthic metabolism, water column processes, and how sediment oxygen demand fluctuates dissolved oxygen concentration during day and nighttime. These processes would significantly differ with depth, especially oxygen measurements close to the bottom sediment are significantly different to the water column oxygen concentrations in a eutrophic system. Therefore, DNREC looks forward to continuing discussion with the CIB and investigating more in future analysis.

6 References

- Martha Corrozi Narvaez and Gerald Kauffman. 2012. "Economic Benefits and Jobs Provided by Delaware Watersheds". University of Delaware Institute for Public Administration, Newark, DE. Available at: https://www.wrc.udel.edu/wp-content/uploads/2021/02/Economic-Benefits-and-Jobs-from-Delaware-Watersheds-2012.pdf
- National Oceanic and Atmospheric Administration (NOAA), Office for Coastal Management. 2024. "NOAA Regional and State Report on the U.S. Marine Economy.", Charleston, SC: NOAA Office for Coastal Management. Available at: https://coast.noaa.gov/data/digitalcoast/pdf/econ-report-regional-state.pdf
- University of Delaware Water Resources Agency 2016. "Economic Benefits of Improved Water Quality in Delaware", Newark, Delaware.

Appendices

The following appendices contain supplemental materials that support the 2026 Integrated Report.

Appendix A: Assessment Unit and Stations Associations

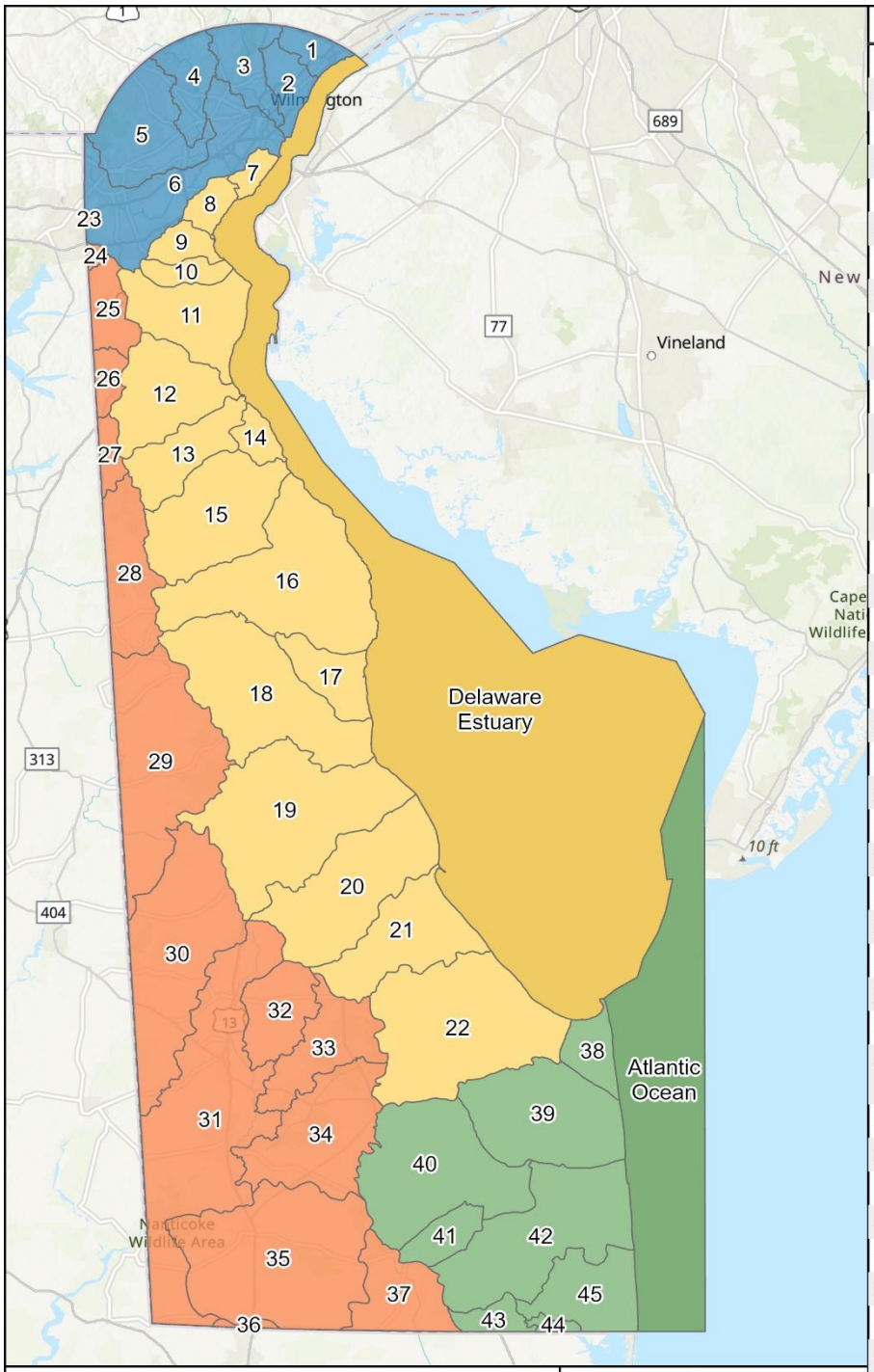
Table A1: Assessment Unit Coding System

Reference table showing the major assessment group coding in relation to Delaware's major basins and historic watersheds. The number associated with the historic watershed name corresponds to a location on the watershed map.

Major Basin	Historic Watershed (Number)	Major AU Grouping
Piedmont	Brandywine Creek (3)	DE040
	Christina River (6)	DE120
	Naamans Creek (1)	DE230
	Red Clay Creek (4)	DE260
	Shellpot Creek (2)	DE300
	White Clay Creek (5)	DE320
Chesapeake Bay	Broad Creek (35)	DE050
	C&D West (25)	DE090
	C&D West (25)	DE100
	Bohenia Creek (26)	DE100
	Sasafrass River (27)	DE100
	Chester River (28)	DE100
	Choptank River (29)	DE110
	Marshyhope Creek (30)	DE200
	Nanticoke River (31)	DE240
	Gum Branch (32)	DE240
	Gravelly Branch (33)	DE240
	Deep Creek (34)	DE240
	Pocomoke River (37)	DE250
Delaware Bay	Appoquinimink River (12)	DE010
	Army Creek (8)	DE020
	Blackbird Creek (13)	DE030
	Broadkill River (22)	DE060
	Cedar Creek (21)	DE080
	C&D East (11)	DE090
	Dragon Run Creek (10)	DE130
	Leipsic River (16)	DE160
	Broadkill River (22)	DE170
	Little River/Creek (17)	DE190
	Mispillion River (20)	DE210
	Murderkill River (19)	DE220
	Red Lion Creek (9)	DE270
	Saint Jones River (18)	DE290
	Smyrna River (15)	DE310
	Delaware River (7)	DE330

Major Basin	Historic Watershed (Number)	Major AU Grouping
	Delaware Bay (14)	DE340
Inland Bays	Buntings Branch (43)	DE070
	Indian River (40)	DE140
	Indian River Bay (42)	DE140
	Iron Branch (41)	DE150
	Lewes and Rehoboth Canal (38)	DE170
	Little Assawoman Bay (45)	DE180
	Rehoboth Bay (39)	DE280
	Assawoman Bay (44)	DE350

Figure A1: Delaware's Historic Watersheds.



Number	Name
1	Naamans Creek
2	Shellpot Creek
3	Brandywine Creek
4	Red Clay Creek
5	White Clay Creek
6	Christina River
7	Delaware River
8	Army Creek
9	Red Lion Creek
10	Dragon Run Creek
11	C & D Canal East
12	Appoquinimink River
13	Blackbird Creek
14	Delaware Bay
15	Smyrna River
16	Leipsic River
17	Little Creek
18	St. Jones River
19	Murderkill River
20	Mispillion River
21	Cedar Creek
22	Broadkill River
23	Elk Creek
24	Perch Creek
25	C & D Canal West
26	Bohemia Creek
27	Sassafras River
28	Chester River
29	Choptank River
30	Marshyhope Creek
31	Nanticoke River
32	Gum Branch
33	Gravelly Branch
34	Deep Creek
35	Broad Creek
36	Wicomico
37	Pocomoke River
38	Lewes-Rehoboth Canal
39	Rehoboth Bay
40	Indian River
41	Iron Branch
42	Indian River Bay
43	Buntings Branch
44	Assawoman
45	Little Assawoman

Table A2: Assessment Unit Descriptions

Reference table showing assessment units, water type and location descriptions.

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE010-001-01	Lower Appoquinimink River	Saline Tidal Reach, excluding Hangmanâ€™s Run	STREAM/CREEK/RIVER	4.5	Miles
DE010-001-02	Upper Appoquinimink River	Freshwater Tidal Reach	STREAM/CREEK/RIVER	5.3	Miles
DE010-001-03-01	Drawyer Creek	From the headwaters of Drawyer Creek to the confluence with the Appoquinimink River, including Shallcross Lake	STREAM/CREEK/RIVER	2.1	Miles
DE010-001-03-02	Drawyer Creek	Tributary of Drawyer Creek--from the confluence of the headwaters to the confluence with the mainstem	STREAM/CREEK/RIVER	2.2	Miles
DE010-001-03-03	Drawyer Creek	Western tributary of the headwaters of Drawyer Creek to its confluence	STREAM/CREEK/RIVER	2.3	Miles
DE010-001-03-04	Drawyer Creek	Tidal Portion	STREAM/CREEK/RIVER	4.5	Miles
DE010-002-01-01	Wiggins Mill Pond to confluence with Silver Lake	From the headwaters of Wiggins Mill Pond to the confluence with Noxontown Pond	STREAM/CREEK/RIVER	2.2	Miles
DE010-002-01-02	Wiggins Mill Pond to confluence with Silver Lake	From the confluence of the headwaters of Wiggins Mill Pond to the confluence with Noxontown Pond	STREAM/CREEK/RIVER	1.4	Miles
DE010-002-02-01	Deep Creek to confluence with Silver Lake	From the headwaters of Deep Creek to confluence with Silver Lake, excluding Silver Lake	STREAM/CREEK/RIVER	2.4	Miles
DE010-002-02-02	Deep Creek to confluence with Silver Lake	First western tributary after the headwaters of Silver Lake	STREAM/CREEK/RIVER	2.2	Miles
DE010-002-02-03	Deep Creek to confluence with Silver Lake	Deep Creek. -- from the confluence of the headwaters to Appoquinimink River	STREAM/CREEK/RIVER	1.8	Miles
DE010-L01	Noxontown Pond	Pond southwest of Odessa	LAKE/RESERVOIR/POND	178.3	Acres
DE010-L02	Silver Lake	Lake adjacent to Middletown, below Deep Creek	LAKE/RESERVOIR/POND	41.3	Acres
DE010-L03	Shallcross Lake	Lake above Drawyer Creek	LAKE/RESERVOIR/POND	50.1	Acres

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE020-001-01	Lower Army Creek	Segment from Route 13 to mouth at Delaware River tidal freshwater segment	STREAM/CREEK/RIVER	2.4	Miles
DE020-002	Upper Army Creek	Nontidal segment from headwaters to Route 13	STREAM/CREEK/RIVER	1.3	Miles
DE020-003-01	Lower Army Creek	First tributary on Army Creek after the headwaters	STREAM/CREEK/RIVER	0.8	Miles
DE020-003-02	Tributary to Army Creek	Unnamed Tributary to Army Creek, monitored by STORET station 114051	STREAM/CREEK/RIVER	0.7	Miles
DE020-003-03	Tributary to Army Creek	Unnamed Tributary to Army Creek monitored by STORET Station 114041	STREAM/CREEK/RIVER	1.1	Miles
DE030-001	Lower Blackbird	Tidal segment from Route 13 to mouth of the Delaware River	STREAM/CREEK/RIVER	12.5	Miles
DE030-002-01	Upper Blackbird	Nontidal segment from headwaters to Route 13	STREAM/CREEK/RIVER	0.9	Miles
DE030-002-02	Upper Blackbird	First eastern tributary after the headwaters to the confluence with Blackbird Creek	STREAM/CREEK/RIVER	2.5	Miles
DE030-002-03	Upper Blackbird	Upper Blackbird Creek--from the confluence of the headwaters to the confluence with Barlow Branch	STREAM/CREEK/RIVER	3.5	Miles
DE030-003	Sandom Branch tributaries on the mainstem	Sandom Branch to the confluence with Blackbird Creek (upper half)	STREAM/CREEK/RIVER	1.2	Miles
DE040-001	Lower Brandywine	Mainstem Lower Brandywine	STREAM/CREEK/RIVER	3.8	Miles
DE040-002-01	Upper Brandywine	From State Line to Wilmington	STREAM/CREEK/RIVER	6.9	Miles
DE040-003-01	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Eastern tributary of Beaver Creek, from headwaters to the confluence with mainstem Beaver Creek	STREAM/CREEK/RIVER	2.4	Miles
DE040-003-02	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Tributary originating in Pennsylvania on the western side of Brandywine Creek	STREAM/CREEK/RIVER	0.7	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE040-003-03	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Tributary of Brandywine Creek, off Route 100 (near PA-DE border)	STREAM/CREEK/RIVER	1.4	Miles
DE040-003-04	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Tributary of Brandywine Creek just below Beaver Creek	STREAM/CREEK/RIVER	0.5	Miles
DE040-003-05	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Eastern tributary of the headwaters of Rocky Run (upper half)	STREAM/CREEK/RIVER	1.0	Miles
DE040-003-06	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Eastern tributary of the headwaters of Rocky Run (lower half)	STREAM/CREEK/RIVER	1.0	Miles
DE040-003-07	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	From the confluence of the headwaters of Wilson Run to the next larger stream order (lower half)	STREAM/CREEK/RIVER	0.7	Miles
DE040-003-08	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	From the confluence of the headwaters of Wilson Run to the next larger stream order (upper half)	STREAM/CREEK/RIVER	1.5	Miles
DE040-003-09	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Wilson Run, from start of the third order stream to the confluence with Brandywine Creek	STREAM/CREEK/RIVER	1.0	Miles
DE040-003-10	Brandywine Creek tributary from the headwaters at PA-DE line to the confluence with the Christina River	Tributary of Wilson Run on Montchanin Road from the headwaters to the first confluence	STREAM/CREEK/RIVER	0.5	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE050-001-01	Lower Broad Creek	Lower Broad Creek, including Collins and Culvert Ditch, Holly Ditch, and Rossakatum and Cooper Branches	STREAM/CREEK/RIVER	22.3	Miles
DE050-001-02	Lower Broad Creek	Cooper Branch--from the start of the third order stream on Rossakatum Branch to the confluence of Broad Creek	STREAM/CREEK/RIVER	2.6	Miles
DE050-002-01	Tussocky Branch	Tributary west of Laurel, excluding Portsville and Tussock Ponds	STREAM/CREEK/RIVER	4.0	Miles
DE050-002-02	Tussocky Branch	Tussocky Branch--from the confluence of Mill Creek to the confluence with Broad Creek	STREAM/CREEK/RIVER	3.0	Miles
DE050-003	Little Creek	Tributary south of Laurel, excluding Horseyâ€™s Pond	STREAM/CREEK/RIVER	2.4	Miles
DE050-004-01	Chipman Pond Branch	Tributary northeast of Laurel, excluding Chipman Pond	STREAM/CREEK/RIVER	5.9	Miles
DE050-004-02	Chipman Pond Branch	Jobs Ditch--from the headwaters to the confluence with Dukes and Jobs Branch	STREAM/CREEK/RIVER	1.1	Miles
DE050-004-03	Chipman Pond Branch	Mirey Branch--from the start of the third order stream to the confluence with Elliott Pond Branch	STREAM/CREEK/RIVER	2.1	Miles
DE050-004-04	Chipman Pond Branch	Dukes Ditch--from the headwaters to the confluence with Dukes and Jobs Branch	STREAM/CREEK/RIVER	2.5	Miles
DE050-005-01	James Branch	James Branch, including Pepper Pond Branch, Hitch Pond Branch, and Grays Branch	STREAM/CREEK/RIVER	17.8	Miles
DE050-005-02-01	Trussum Pond Branch	From the headwaters to the confluence with James Branch, excluding Trussum Pond	STREAM/CREEK/RIVER	3.2	Miles
DE050-005-02-02	Trussum Pond Branch	Wards Branch--from the confluence of the headwaters to the confluence with James Branch	STREAM/CREEK/RIVER	3.5	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE050-006-01	Trap Pond Branch	From the headwaters of Trap Pond including Saunders and Thompson Branches	STREAM/CREEK/RIVER	7.2	Miles
DE050-006-03	Raccoon Prong	Headwaters of Raccoon Pond and Trap Pond	STREAM/CREEK/RIVER	5.3	Miles
DE050-L01	Portsville Pond	Pond west of Laurel on Tussocky Branch	LAKE/RESERVOIR/POND	17.6	Acres
DE050-L02	Tussock Pond	Pond southwest of Laurel	LAKE/RESERVOIR/POND	6.3	Acres
DE050-L03	Horseys Pond	Pond south of Laurel on Little Creek tributary	LAKE/RESERVOIR/POND	58.3	Acres
DE050-L04	Records Pond	Pond adjacent to Laurel	LAKE/RESERVOIR/POND	83.9	Acres
DE050-L05	Chipman Pond	Pond located north of Laurel on Chipman Branch	LAKE/RESERVOIR/POND	54.8	Acres
DE050-L06	Trussum Pond	Pond southeast of Laurel on James Branch	LAKE/RESERVOIR/POND	55.0	Acres
DE050-L07	Trap Pond	Pond east of Laurel on Hitch Pond Branch	LAKE/RESERVOIR/POND	94.6	Acres
DE050-L08	Raccoon Pond	Pond east of Laurel on Hitch Pond Branch	LAKE/RESERVOIR/POND	17.5	Acres
DE060-001	Lower Broadkill	From the confluence with Beaver Dam Creek to mouth at Delaware Bay, excluding Red Mill Pond	STREAM/CREEK/RIVER	8.2	Miles
DE060-002	Beaverdam Creek	From the headwaters to the confluence with Broadkill River	STREAM/CREEK/RIVER	8.7	Miles
DE060-003	Upper Broadkill River	Broadkill River from below Waggamons Pond to the confluence with Beaver Dam Creek	STREAM/CREEK/RIVER	4.8	Miles
DE060-004	Round Pole Branch	Tributary from the headwaters to confluence with Upper Broadkill River	STREAM/CREEK/RIVER	4.9	Miles
DE060-005-01	Ingrams Branch	From the headwaters to Waggamons Pond, including Diamond Pond	STREAM/CREEK/RIVER	7.6	Miles
DE060-005-02	Ingrams Branch	Ingrams Branch-- western tributary of the headwaters	STREAM/CREEK/RIVER	1.7	Miles
DE060-006	Pemberton Branch	From the headwaters to Waggamons Pond	STREAM/CREEK/RIVER	4.5	Miles
DE060-007-01	Lower Red Mill Branch	From Red Mill Pond to the confluence with Lower Broadkill River	STREAM/CREEK/RIVER	5.9	Miles
DE060-007-02-01	Martin Branch	From the headwaters to Red Mill Pond	STREAM/CREEK/RIVER	2.0	Miles
DE060-007-02-02	Martin Branch	Tributary above Red Mill Pond--from start	STREAM/CREEK/RIVER	0.4	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
		of the second order stream to the confluence with Red Mill Pond			
DE060-007-03	Heronwood Branch	From the headwaters to Red Mill Pond	STREAM/CREEK/RIVER	0.9	Miles
DE060-008	Primehook Creek	Entire Creek	STREAM/CREEK/RIVER	7.6	Miles
DE060-L01	Red Mill Pond	Pond located on Martin Branch	LAKE/RESERVOIR/POND	191.6	Acres
DE060-L02	Waggamons Pond	Pond adjacent to Milton	LAKE/RESERVOIR/POND	41.6	Acres
DE060-L03	Waples Pond and Reynolds Pond	Ponds located on Sowbridge Branch of Primehook Creek	LAKE/RESERVOIR/POND	93.6	Acres
DE070-001	Buntings Branch	From the headwaters of Sandy Branch to Buntings Branch to the MD-DE State line	STREAM/CREEK/RIVER	4.8	Miles
DE080-001	Lower Cedar Creek	Tidal segment from Cedar Creek Mill Pond to mouth at Delaware Bay	STREAM/CREEK/RIVER	9.4	Miles
DE080-002	Upper Cedar Creek	From the headwaters to Cedar Creek Mill Pond, including Church Branch and Cedar Mill Pond, Cubbage Pond, Clendaniel Pond and Hudson Pond	STREAM/CREEK/RIVER	12.1	Miles
DE080-003	Slaughter Creek	From the headwaters to The Confluence with Cedar Creek	STREAM/CREEK/RIVER	10.6	Miles
DE090-001	C&D Canal	C&D Canal from the MD Line to Delaware River	STREAM/CREEK/RIVER	11.9	Miles
DE090-002-01	Chesapeake & Delaware Canal tributaries	Scott Run-- from the headwaters to the confluence with Chesapeake & Delaware Canal	STREAM/CREEK/RIVER	5.7	Miles
DE090-002-02	Chesapeake & Delaware Canal tributaries	Crystal Run--from the headwaters to the confluence with Chesapeake & Delaware Canal	STREAM/CREEK/RIVER	1.8	Miles
DE090-002-03	Chesapeake & Delaware Canal tributaries	Joy Run--from the headwaters to the confluence with Chesapeake & Delaware Canal	STREAM/CREEK/RIVER	2.6	Miles
DE090-002-04	Chesapeake & Delaware Canal tributaries	Eastern tributary on Lums Pond--from the headwaters to the confluence with Lums Pond	STREAM/CREEK/RIVER	0.4	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE090-002-05	Chesapeake & Delaware Canal tributaries	Unnamed Tributary referred to as "Southesat Creek," outflowing from Lums Pond to C&D Canal	STREAM/CREEK/RIVER	0.8	Miles
DE090-L01	Lums Pond	Pond south of Newark	LAKE/RESERVOIR/POND	197.6	Acres
DE100-001-01	Cypress Branch, including tributaries	Mainstem	STREAM/CREEK/RIVER	2.9	Miles
DE100-001-02	Cypress Branch, including tributaries	Cypress Branch--from the confluence of Black Stallion Ditch to the MD-DE line	STREAM/CREEK/RIVER	2.6	Miles
DE100-001-03	Cypress Branch, including tributaries	Tributary of Cypress Branch--from the confluence of the headwaters to the confluence with the mainstem	STREAM/CREEK/RIVER	1.5	Miles
DE100-002-01	Sewell Branch, including tributaries	Mainstem	STREAM/CREEK/RIVER	4.5	Miles
DE100-002-02	Sewell Branch, including tributaries	From the confluence of the headwaters to the confluence with Sewell Branch	STREAM/CREEK/RIVER	0.9	Miles
DE100-003-01	Gravelly Run, including tributaries	Mainstem	STREAM/CREEK/RIVER	1.6	Miles
DE100-003-02	Gravelly Run, including tributaries	Gravelly Run--from the confluence of Jamison Branch to the MD-DE line	STREAM/CREEK/RIVER	1.1	Miles
DE100-003-03	Gravelly Run, including tributaries	Tributary of Gravelly Run--from the headwaters to the confluence with the mainstem	STREAM/CREEK/RIVER	0.7	Miles
DE100-003-04	Gravelly Run, including tributaries	Tributary of Gravelly Run--first western tributary upstream of Gravelly Run	STREAM/CREEK/RIVER	1.3	Miles
DE100-003-05	Gravelly Run, including tributaries	Tributary of Gravelly Run--second eastern tributary from the headwaters of Gravelly Run to the mainstem	STREAM/CREEK/RIVER	1.3	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE100-003-06	Gravelly Run, including tributaries	Gravelly Run--from the start of the third order stream to the confluence with Jamison Branch	STREAM/CREEK/RIVER	1.0	Miles
DE100-004-01	Elk River tributaries	First eastern tributary after the headwaters of Great Bohemia Creek	STREAM/CREEK/RIVER	1.6	Miles
DE100-004-02	Elk River tributaries	Eastern tributary of the headwaters of Back Creek to its confluence	STREAM/CREEK/RIVER	1.8	Miles
DE100-005-01	Sassafras River tributaries	Western tributary of the headwaters of Sassafras River to its confluence	STREAM/CREEK/RIVER	2.3	Miles
DE100-005-02	Sassafras River tributaries	From the confluence of the headwaters of Sassafras River to the next larger stream order	STREAM/CREEK/RIVER	1.2	Miles
DE110-001-01	Tappahanna Ditch	Mainstem	STREAM/CREEK/RIVER	1.8	Miles
DE110-001-02	Tappahanna Ditch	From start of the fourth order stream to the confluence with Tidy Island Creek	STREAM/CREEK/RIVER	3.3	Miles
DE110-001-03	Tappahanna Ditch	Start of third order stream on Tappahanna Ditch to the confluence of the next larger stream order	STREAM/CREEK/RIVER	3.0	Miles
DE110-001-04	Tappahanna Ditch	First western tributary after the headwaters of Tappahanna Ditch to its confluence	STREAM/CREEK/RIVER	0.9	Miles
DE110-001-05	Tappahanna Ditch	Tidy Island Creek--from the confluence with Tappahanna Ditch to the MD-DE line	STREAM/CREEK/RIVER	0.6	Miles
DE110-001-06	Tappahanna Ditch	Choptank River--from the start of the third order stream to the confluence with Choptank River	STREAM/CREEK/RIVER	0.9	Miles
DE110-001-07	Tappahanna Ditch	Seventh eastern tributary upstream of Tappahanna Ditch	STREAM/CREEK/RIVER	1.4	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE110-001-08	Tappahanna Ditch	Tributary of Tappahanna Ditch--western tributary of the headwaters to its confluence	STREAM/CREEK/RIVER	0.3	Miles
DE110-001-09	Tappahanna Ditch	Second western tributary after the headwaters of Tappahanna Ditch to its confluence	STREAM/CREEK/RIVER	0.8	Miles
DE110-002-02	Culbreth Marsh Ditch	Luther Marvel Prong--from the confluence of the headwaters to the confluence with Culbreth Marsh Ditch	STREAM/CREEK/RIVER	1.2	Miles
DE110-002-03	Culbreth Marsh Ditch	From the confluence of Powell Ditch to the confluence with Ross Prong	STREAM/CREEK/RIVER	1.3	Miles
DE110-002-04	Culbreth Marsh Ditch	Culbreth Marsh Ditch--from start of the fourth order stream to the confluence with Mud Millpond (lower half)	STREAM/CREEK/RIVER	1.7	Miles
DE110-002-05	Culbreth Marsh Ditch	Culbreth Marsh Ditch--from start of the fourth order stream to the confluence with Mud Millpond (upper half)	STREAM/CREEK/RIVER	2.0	Miles
DE110-002-06	Culbreth Marsh Ditch	Culbreth Marsh Ditch--from the confluence of Ross Prong to the confluence with the next larger stream order	STREAM/CREEK/RIVER	1.8	Miles
DE110-002-07	Culbreth Marsh Ditch	Culbreth Marsh Ditch--from the confluence of Mud Millpond to the confluence of Cow Marsh Creek	STREAM/CREEK/RIVER	2.0	Miles
DE110-002-08	Culbreth Marsh Ditch	Third western tributary upstream of Culbreth Marsh Ditch	STREAM/CREEK/RIVER	1.8	Miles
DE110-002-09	Culbreth Marsh Ditch	Ross Prong--from the confluence of the headwaters to the confluence with Culbreth Marsh Ditch	STREAM/CREEK/RIVER	2.6	Miles
DE110-003-01	Cow Marsh Creek	Mainstem	STREAM/CREEK/RIVER	1.6	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE110-003-02	Cow Marsh Creek	First upstream tributary on Meredith Branch	STREAM/CREEK/RIVER	0.4	Miles
DE110-003-03	Cow Marsh Creek	From the confluence of the headwaters of Sangston Prong to the confluence Gravelly Branch	STREAM/CREEK/RIVER	2.0	Miles
DE110-003-04	Cow Marsh Creek	Tributary of Gary Mill Pond Branch--from the confluence of the headwaters to the confluence with Gary Mill Pond Branch	STREAM/CREEK/RIVER	0.5	Miles
DE110-003-05	Cow Marsh Creek	First eastern tributary after the headwaters of Wildcat Branch	STREAM/CREEK/RIVER	0.9	Miles
DE110-003-06	Cow Marsh Creek	Willow Grove Prong--from the start of the third order stream to the confluence with Cow Marsh Creek	STREAM/CREEK/RIVER	1.2	Miles
DE110-003-07	Cow Marsh Creek	Tributary of Cow Marsh Creek--first eastern tributary upstream of Cow Marsh Creek	STREAM/CREEK/RIVER	1.4	Miles
DE110-003-08	Cow Marsh Creek	Cow Marsh Ditch--from start of third order stream to the confluence with Cow Marsh Creek	STREAM/CREEK/RIVER	1.4	Miles
DE110-003-09	Cow Marsh Creek	Cow Marsh Ditch--from the confluence of the headwaters to the confluence with the next larger stream order	STREAM/CREEK/RIVER	1.6	Miles
DE110-003-10	Cow Marsh Creek	Bullock Prong--mainstem to the confluence with Price Prong	STREAM/CREEK/RIVER	1.5	Miles
DE110-003-11	Cow Marsh Creek	Third tributary upstream of Cow Marsh Ditch--from the headwaters to the confluence with Cow Marsh Ditch	STREAM/CREEK/RIVER	2.4	Miles
DE110-003-12	Cow Marsh Creek	Iron Mine Prong--from the confluence of Black Swamp to the next larger stream order	STREAM/CREEK/RIVER	4.1	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE110-003-13	Cow Marsh Creek	Meredith Branch--from the start of the third stream order to the confluence with the next larger stream order	STREAM/CREEK/RIVER	2.2	Miles
DE110-003-14	Cow Marsh Creek	White Marsh Branch--from the start of the third order stream to the confluence with Gravelly Branch and Sangston Prong	STREAM/CREEK/RIVER	3.1	Miles
DE110-003-15	Cow Marsh Creek	Cow Marsh Creek--from the confluence of Iron Mine Prong to the confluence with Choptank River	STREAM/CREEK/RIVER	5.0	Miles
DE110-L01	Mud Mill Pond	Pond south of Marydel	LAKE/RESERVOIR/POND	39.8	Acres
DE120-001	Lower Christina River	Mainstem Lower Christina River	STREAM/CREEK/RIVER	1.7	Miles
DE120-002	Mid Christina River	Between White Clay Creek and Brandywine River	STREAM/CREEK/RIVER	7.0	Miles
DE120-003-01	Upper Christina River	Mainstem Upper Christina River	STREAM/CREEK/RIVER	6.6	Miles
DE120-003-02-01	Lower Christina Creek	Tributary from Smalleys Pond overflow to White Clay Creek	STREAM/CREEK/RIVER	1.0	Miles
DE120-003-03	Upper Christina River	Tributary downstream of Smalleys Pond on the Christina River	STREAM/CREEK/RIVER	0.7	Miles
DE120-004-01	Lower Christina Creek	Mainstem Lower Christina Creek	STREAM/CREEK/RIVER	3.0	Miles
DE120-004-02	Lower Christina Creek	From the confluence of West Branch Christina River to the confluence with the mainstem	STREAM/CREEK/RIVER	6.7	Miles
DE120-004-02-01	Belltown Run	From the headwaters above Becks Pond to the confluence with the Christina River	STREAM/CREEK/RIVER	4.7	Miles
DE120-004-02-03	Belltown Run	Western tributary of the headwaters of Belltown Run to its confluence	STREAM/CREEK/RIVER	0.8	Miles
DE120-004-03-01	Muddy Run	From the headwaters above Sunset Pond to the confluence with Belltown Run below Becks Pond	STREAM/CREEK/RIVER	7.5	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE120-004-03-02	Muddy Run	From the headwaters of Iron Hill Run to the next larger stream order	STREAM/CREEK/RIVER	1.5	Miles
DE120-004-03-03	Muddy Run	Eastern tributary of the headwaters of Iron Hill Run to the next larger stream order	STREAM/CREEK/RIVER	0.5	Miles
DE120-004-03-04	Muddy Run	Eastern tributary above Sunset Pond to the confluence of the next larger stream order	STREAM/CREEK/RIVER	1.8	Miles
DE120-005-01	West Branch	West Branch including Persimmon Run and Stine Haskell Branch	STREAM/CREEK/RIVER	3.2	Miles
DE120-006-01	Upper Christina Creek	Mainstem Upper Christina Creek	STREAM/CREEK/RIVER	1.4	Miles
DE120-006-02	Upper Christina Creek	From the confluence of the headwaters of Upper Christina River to the confluence of West Branch	STREAM/CREEK/RIVER	4.8	Miles
DE120-006-03	Upper Christina Creek	First western tributary after the headwaters of the Upper Christina River to mainstem Upper Christina River（upper half)	STREAM/CREEK/RIVER	0.5	Miles
DE120-006-04	Upper Christina Creek	First western tributary after the headwaters of the Upper Christina River to mainstem Upper Christina River（lower half)	STREAM/CREEK/RIVER	0.4	Miles
DE120-007-01-01	Little Mill Creek and Willow Run	From the confluence of Willow Run and Chestnut Run to the confluence with the Christina River	STREAM/CREEK/RIVER	0.5	Miles
DE120-007-01-02	Little Mill Creek and Willow Run	First western tributary after the headwaters of Little Mill Creek to the confluence with mainstem Little Mill Creek	STREAM/CREEK/RIVER	1.9	Miles
DE120-007-01-03	Little Mill Creek and Willow Run	From the headwaters of Willow Run to the confluence with the Christina River	STREAM/CREEK/RIVER	0.3	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE120-007-01-04	Little Mill Creek and Willow Run	From the confluence of the headwaters of Little Mill Creek to the confluence of Chestnut Run	STREAM/CREEK/RIVER	2.9	Miles
DE120-007-01-05	Little Mill Creek and Willow Run	Little Mill Creek--from the confluence of Chestnut Run to the confluence with the Christina River	STREAM/CREEK/RIVER	3.5	Miles
DE120-007-02-01	Chestnut Run	From the headwaters of Chestnut Run to the confluence with the Christina River	STREAM/CREEK/RIVER	1.3	Miles
DE120-007-02-02	Chestnut Run	Eastern tributary of the headwaters of Chestnut Run to the confluence of the next larger stream order	STREAM/CREEK/RIVER	1.0	Miles
DE120-007-02-03	Chestnut Run	Left tributary of the headwaters of Chestnut Run to the confluence of the next larger stream order	STREAM/CREEK/RIVER	0.4	Miles
DE120-L01	Smalleys Pond	Smalleys Pond east of Newark	LAKE/RESERVOIR/POND	17.6	Acres
DE120-L02	Becks Pond	Becks Pond southeast of Newark	LAKE/RESERVOIR/POND	27.8	Acres
DE120-L03	Sunset Pond	Sunset Pond south of Newark	LAKE/RESERVOIR/POND	45.5	Acres
DE130-001	Lower Dragon Run Creek	From dam at the water supply pond to the mouth of Delaware River	STREAM/CREEK/RIVER	3.2	Miles
DE130-002-01	Upper Dragon Run Creek	From headwaters to water supply pond	STREAM/CREEK/RIVER	0.4	Miles
DE130-002-02	Upper Dragon Run Creek	From the confluence of the headwaters to the water supply dam	STREAM/CREEK/RIVER	4.1	Miles
DE140-001	White Creek	Saline tidal waters extending from the north end of Assawoman Canal to the Indian River Bay	STREAM/CREEK/RIVER	4.1	Miles
DE140-002	Blackwater Creek	Saline tidal waters from the headwaters to the confluence with Indian River Bay	STREAM/CREEK/RIVER	7.2	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE140-003	Pepper Creek, including tributaries	Pepper Creek including Vines Creek McCrays Branch, and Deep Hole Branch	STREAM/CREEK/RIVER	22.5	Miles
DE140-004	Indian River	Saline tidal portion of river from Millsboro Pond to Power Plant intake	STREAM/CREEK/RIVER	3.9	Miles
DE140-005	Swan Creek	Freshwater tidal river from the headwaters of Swan Creek to the confluence with Indian River	STREAM/CREEK/RIVER	6.5	Miles
DE140-006	Stockley Branch	From the confluence of Alms House Ditch with Stockley Branch to the confluence with Millsboro Pond	STREAM/CREEK/RIVER	4.8	Miles
DE140-007	Eli Walls Tax Ditch	From the headwaters of McGee Ditch, Eli Walls Tax Ditch, and Gills Branch to the confluence with Morris Millpond	STREAM/CREEK/RIVER	11.3	Miles
DE140-008	Deep Branch, including tributary	Deep Branch, including Peterkins Branch, White Oak Swamp Ditch, Sockorockets Ditch, Welsh Branch, and Simpler Branch	STREAM/CREEK/RIVER	15.5	Miles
DE140-009-01	Mirey Branch, including tributaries	Mirey Branch, including Sheep Pen Ditch, and Narrow Drain	STREAM/CREEK/RIVER	10.7	Miles
DE140-009-02	Mirey Branch, including tributaries	Mirey Branch-- from the confluence of the headwaters to the confluence with Sheep Pen Ditch	STREAM/CREEK/RIVER	5.9	Miles
DE140-010	Betts Pond Branch	From the headwaters of the tributaries of Ingrams Pond and Betts Pond to the confluence with Millsboro Pond, excluding Betts and Millsboro Pond	STREAM/CREEK/RIVER	16.1	Miles
DE140-E01	Lower Indian River Bay	From inlet to Pepper Creek	BAY	12.3	Square Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE140-E02	Upper Indian River Bay	Upper portion of estuary from power plant cooling water intake to Pepper Creek, including Island Creek	BAY	1.0	Square Miles
DE140-L01	Millsboro Pond	Pond north of Millsboro	LAKE/RESERVOIR/POND	134.0	Acres
DE140-L02	Betts Pond	Pond northwest of Millsboro	LAKE/RESERVOIR/POND	32.9	Acres
DE140-L03	Ingrams Pond	Pond west of Millsboro	LAKE/RESERVOIR/POND	57.3	Acres
DE140-L04	Morris Mill Pond	Pond between Millsboro and Georgetown	LAKE/RESERVOIR/POND	44.2	Acres
DE150-001-01	Iron Branch	From the headwaters of Iron Branch and Whartons Branch to the confluence with Indian River	STREAM/CREEK/RIVER	7.1	Miles
DE150-001-02	Iron Branch	Whartons Ditch--from the start of the third order stream to the confluence with Whartons Branch	STREAM/CREEK/RIVER	3.6	Miles
DE160-001	Lower Leipsic River	From dam at Garrisons Lake to mouth at Delaware River	STREAM/CREEK/RIVER	13.1	Miles
DE160-002-01	Upper Leipsic River	From headwaters to Garrisons Lake, excluding Masseys Mill Pond	STREAM/CREEK/RIVER	1.3	Miles
DE160-002-02	Upper Leipsic River	From the start of the third order stream on Pinks Branch to the confluence with Garrison Lake	STREAM/CREEK/RIVER	3.3	Miles
DE160-002-03	Upper Leipsic River	Tributary of Leipsic River--from the confluence of the headwaters to the confluence with Leipsic River	STREAM/CREEK/RIVER	0.9	Miles
DE160-003-01	Leipsic River tributary from the dam at Garrisons Lake to mouth at Delaware Bay	From the confluence of the headwaters of Alston Branch to the confluence Leipsic River	STREAM/CREEK/RIVER	1.7	Miles
DE160-003-02	Leipsic River tributary from the dam at Garrisons Lake to mouth at Delaware Bay	Tributary of Leipsic River--eastern tributary of the headwaters to its confluence	STREAM/CREEK/RIVER	1.3	Miles
DE160-003-03	Dyke Branch	Dyke Branch from headwaters to confluence with Leipsic River	STREAM/CREEK/RIVER	4.9	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE160-004	Muddy Branch	Muddy Branch from headwaters to the confluence with Leipsic River	STREAM/CREEK/RIVER	7.8	Miles
DE160-L01	Garrisons Lake	Lake south of Smyrna	LAKE/RESERVOIR/POND	83.8	Acres
DE160-L02	Masseys Mill Pond	Pond south of Clayton	LAKE/RESERVOIR/POND	38.6	Acres
DE170-001	Lewes and Rehoboth Canal	Tidal waters from the confluence of Delaware Bay to the confluence with Rehoboth Bay	STREAM/CREEK/RIVER	9.0	Miles
DE180-001	Little Assawoman Canal	Saline tidal waters from the confluence with White Creek to the confluence with little Assawoman Bay	STREAM/CREEK/RIVER	4.3	Miles
DE180-002-01	Miller Creek	From the headwaters of Miller Creek to the confluence with Little Assawoman bay	STREAM/CREEK/RIVER	4.1	Miles
DE180-002-02	Miller Creek	Beaver Dam Ditch--from the confluence of Blackwater Creek to the confluence with the next larger stream order	STREAM/CREEK/RIVER	5.2	Miles
DE180-003-01	Dirickson Creek	From the headwaters of Dirickson Creek to the confluence with Little Assawoman bay	STREAM/CREEK/RIVER	3.7	Miles
DE180-003-02	Dirickson Creek	Bearhole Ditch--from the confluence. of the headwaters to the confluence with Batson Branch	STREAM/CREEK/RIVER	2.5	Miles
DE180-003-03	Dirickson Creek	Agricultural Ditch--from the confluence of the headwaters to the confluence with Dirickson Creek	STREAM/CREEK/RIVER	3.0	Miles
DE180-E01	Little Assawoman Bay	Estuary from the confluence with Assawoman Canal to the confluence with Assawoman Bay	BAY	2.4	Square Miles
DE190-001-01	Lower Little River	From the confluence of Upper Little River and Pipe Elm Branch with the Lower Little River to the mouth at Delaware Bay	STREAM/CREEK/RIVER	2.4	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE190-001-02-01	Upper Little River	From the headwaters to the confluence with Lower Little River	STREAM/CREEK/RIVER	3.7	Miles
DE190-001-02-02	Upper Little River	Morgan Branch--from the confluence of the headwaters to the confluence with the next larger stream order	STREAM/CREEK/RIVER	1.9	Miles
DE190-001-02-03	Upper Little River	Start of the third order stream near the headwaters of Little River to the confluence with Morgan Branch	STREAM/CREEK/RIVER	2.1	Miles
DE190-001-03	Pipe Elm Branch	From the headwaters to the confluence with Little River	STREAM/CREEK/RIVER	2.5	Miles
DE200-001-01	Marshyhope Creek	From the headwaters to the State Line	STREAM/CREEK/RIVER	3.4	Miles
DE200-001-02	Marshyhope Creek	Tributary to Black Arm Prong--third tributary upstream of Black Arm Prong	STREAM/CREEK/RIVER	0.6	Miles
DE200-001-03	Marshyhope Creek	Marshyhope Creek--from the confluence of Prospect Branch to the confluence with the MD-DE line	STREAM/CREEK/RIVER	9.1	Miles
DE200-001-04	Marshyhope Creek	From the confluence of Black Prong and Marshyhope Ditch to the confluence of Prospect Branch	STREAM/CREEK/RIVER	1.1	Miles
DE200-002-01	Marshyhope Creek tributaries from the headwaters to the State line	Marshyhope Ditch	STREAM/CREEK/RIVER	2.7	Miles
DE200-002-02	Marshyhope Creek tributaries from the headwaters to the State line	First tributary upstream of Prong No. 2--from the eastern headwater to its confluence	STREAM/CREEK/RIVER	1.7	Miles
DE200-002-03	Marshyhope Creek tributaries from the headwaters to the State line	Point Branch--from the headwaters to the confluence with the first tributary downstream	STREAM/CREEK/RIVER	1.1	Miles
DE200-002-04	Marshyhope Creek tributaries from the headwaters to the State line	Tributary of Tomahawk Branch--third eastern tributary downstream of the headwaters	STREAM/CREEK/RIVER	0.7	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE200-002-05	Marshyhope Creek tributaries from the headwaters to the State line	Tributary of Tomahawk Branch--first eastern tributary upstream	STREAM/CREEK/RIVER	0.6	Miles
DE200-002-06	Marshyhope Creek tributaries from the headwaters to the State line	Tributary of Salisbury Creek--from the MD-DE line to the confluence with Salisbury Creek	STREAM/CREEK/RIVER	0.9	Miles
DE200-002-07	Marshyhope Creek tributaries from the headwaters to the State line	Salisbury Creek--from the start of the third order stream to the confluence with Cattail Branch (upper half)	STREAM/CREEK/RIVER	1.1	Miles
DE200-002-08	Marshyhope Creek tributaries from the headwaters to the State line	Salisbury Creek--from the start of the third order stream to the confluence with Cattail Branch (lower half)	STREAM/CREEK/RIVER	0.8	Miles
DE200-002-09	Marshyhope Creek tributaries from the headwaters to the State line	Prospect Branch--western tributary of the headwaters to its confluence	STREAM/CREEK/RIVER	1.8	Miles
DE200-002-10	Marshyhope Creek tributaries from the headwaters to the State line	Prong No. 2--from the start of the third order stream to the confluence with Bright-Haines Glade Branch	STREAM/CREEK/RIVER	1.8	Miles
DE200-002-11	Marshyhope Creek tributaries from the headwaters to the State line	From the confluence of the headwaters of Green Branch to the confluence with Marshyhope Creek	STREAM/CREEK/RIVER	5.2	Miles
DE200-002-12	Marshyhope Creek tributaries from the headwaters to the State line	Tributary of Salisbury Creek--from the MD-DE line to the confluence with Salisbury Creek	STREAM/CREEK/RIVER	1.3	Miles
DE200-002-13	Marshyhope Creek tributaries from the headwaters to the State line	Short and Hall Ditch--from the confluence of the headwaters of with Marshyhope Creek	STREAM/CREEK/RIVER	1.4	Miles
DE200-002-14	Marshyhope Creek tributaries from the headwaters to the State line	Brights Branch--from the start of the third order stream to the MD-DE line	STREAM/CREEK/RIVER	1.4	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE200-002-15	Marshyhope Creek tributaries from the headwaters to the State line	Bright-Haines Glade Branch--from the start of the fourth order stream and Prospect Branch to the confluence with Marshyhope Creek	STREAM/CREEK/RIVER	1.2	Miles
DE200-002-16	Marshyhope Creek tributaries from the headwaters to the State line	Cattail Branch--from the start of the fourth order stream to the confluence with Salisbury Creek (upper half)	STREAM/CREEK/RIVER	1.5	Miles
DE200-002-17	Marshyhope Creek tributaries from the headwaters to the State line	Cattail Branch--from the start of the fourth order stream to the confluence with Salisbury Creek (lower half)	STREAM/CREEK/RIVER	1.3	Miles
DE200-002-18	Marshyhope Creek tributaries from the headwaters to the State line	Tributary to Black Arm Prong--second tributary after the headwaters	STREAM/CREEK/RIVER	0.6	Miles
DE200-002-19	Marshyhope Creek tributaries from the headwaters to the State line	Eastern tributary of the headwaters of Cattail Branch to its confluence	STREAM/CREEK/RIVER	0.7	Miles
DE200-002-21	Marshyhope Creek tributaries from the headwaters to the State line	Tributary to Cattail Branch--fourth western tributary downstream of the headwaters of Cattail Branch	STREAM/CREEK/RIVER	0.7	Miles
DE200-002-23	Marshyhope Creek tributaries from the headwaters to the State line	Tributary to Cattail Branch--third western tributary upstream of Salisbury Creek	STREAM/CREEK/RIVER	1.1	Miles
DE200-002-24	Marshyhope Creek tributaries from the headwaters to the State line	Tributary to Tomahawk Branch--first western tributary after the headwaters	STREAM/CREEK/RIVER	1.6	Miles
DE210-001	Lower Mispillion	From dam at Silver Lake to mouth at Delaware Bay	STREAM/CREEK/RIVER	11.5	Miles
DE210-002-01	Upper Mispillion	From the headwaters to Silver Lake in Milford, excluding Silver, Haven, and Griffith Lakes; Blairs, Abbotts, and Tub Mill Ponds	STREAM/CREEK/RIVER	1.3	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE210-002-02	Upper Mispillion	Tantrough Branch--from the headwaters to the confluence with Blairs Pond	STREAM/CREEK/RIVER	4.1	Miles
DE210-002-03	Upper Mispillion	Beaverdam Branch--western tributary of the headwaters to its confluence	STREAM/CREEK/RIVER	3.2	Miles
DE210-003	Johnson Branch including its tributaries	Johnson Branch--from the confluence of the headwaters to the confluence with Haven Lake	STREAM/CREEK/RIVER	5.3	Miles
DE210-004	Mispillion River tributary from the headwaters to Silver Lake	Lednum Branch---eastern tributary of the headwaters to its confluence	STREAM/CREEK/RIVER	1.7	Miles
DE210-005	Mispillion Tributaries From Dam At Silver Lake To The Mouth	King's Causeway Branch	STREAM/CREEK/RIVER	2.2	Miles
DE210-L01	Tub Mill Pond	Pond north of Milford	LAKE/RESERVOIR/POND	10.3	Acres
DE210-L02	Silver Lake	Silver Lake at Milford	LAKE/RESERVOIR/POND	29.0	Acres
DE210-L03	Haven Lake	Lake west of Milford; upstream of Silver Lake	LAKE/RESERVOIR/POND	85.4	Acres
DE210-L04	Griffith Lake	Lake west of Milford; upstream of Haven Lake	LAKE/RESERVOIR/POND	39.2	Acres
DE210-L05	Blairs Pond	Pond southwest of Milford	LAKE/RESERVOIR/POND	31.2	Acres
DE210-L06	Abbotts Mill Pond	Pond southwest of Milford	LAKE/RESERVOIR/POND	15.9	Acres
DE220-001	Lower Murderkill	From the confluence with Spring Creek to the mouth at Delaware Bay	STREAM/CREEK/RIVER	7.6	Miles
DE220-002-01	Spring Creek	From the headwaters to the confluence with Murderkill River, excluding Andrews Lake and McGinnis Pond	STREAM/CREEK/RIVER	14.7	Miles
DE220-002-02	Spring Creek	Tributary of Hudson River--from the headwaters to the confluence with the next larger stream order	STREAM/CREEK/RIVER	0.6	Miles
DE220-002-03	Spring Creek	Pratt Branch--eastern tributary of the headwaters to its confluence	STREAM/CREEK/RIVER	0.8	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE220-002-04	Double Run	Double Run to the confluence with Spring Creek.	STREAM/CREEK/RIVER	5.9	Miles
DE220-003-01	Mid Murderkill River	From McCauley and Coursey Pond to the confluence with Spring Creek	STREAM/CREEK/RIVER	9.1	Miles
DE220-003-02	Mid Murderkill River	Ash Gut-- from the headwaters to the confluence with the next larger stream order	STREAM/CREEK/RIVER	1.2	Miles
DE220-004-01	Browns Branch	From the headwaters adjacent to Harrington to the confluence with McCauley Pond	STREAM/CREEK/RIVER	7.7	Miles
DE220-004-02	Browns Branch	Tributary of Browns Branch-- from the confluence of the headwaters with the confluence with Browns Branch	STREAM/CREEK/RIVER	1.8	Miles
DE220-005-01	Upper Murderkill River	From the headwaters to the confluence with Coursey pond, excluding Killens and Coursey Ponds	STREAM/CREEK/RIVER	5.9	Miles
DE220-005-02	Upper Murderkill River	Spring Branch--tributary on Coursey Pond	STREAM/CREEK/RIVER	3.3	Miles
DE220-005-03	Upper Murderkill River	Fan Branch--from the headwaters to the confluence with Murderkill River	STREAM/CREEK/RIVER	2.6	Miles
DE220-005-04	Upper Murderkill River	Tributary of Black Swamp Creek--from the headwaters to its confluence	STREAM/CREEK/RIVER	0.8	Miles
DE220-005-05	Upper Murderkill River	Beaver Dam Branch--from the confluence of the headwaters to the confluence with Murderkill River and Black Swamp Creek	STREAM/CREEK/RIVER	1.5	Miles
DE220-005-06	Upper Murderkill River	Black Swamp Creek--from the headwaters of Black Swamp to the confluence with the next larger stream order	STREAM/CREEK/RIVER	1.7	Miles
DE220-L01	McGinnis Pond	Pond east of Viola	LAKE/RESERVOIR/POND	38.3	Acres
DE220-L02	Andrews Lake	Pond West of Frederica	LAKE/RESERVOIR/POND	20.7	Acres

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE220-L03	Coursey Pond	Pond southwest of Frederica	LAKE/RESERVOIR/POND	59.8	Acres
DE220-L04	Killens Pond	Pond southwest of Felton	LAKE/RESERVOIR/POND	78.9	Acres
DE220-L05	McCauley Pond	Pond northeast of Harrington	LAKE/RESERVOIR/POND	57.2	Acres
DE230-001-01	Lower Naamans Creek	From the mouth at the Delaware River, upstream to the first railroad bridge crossing	STREAM/CREEK/RIVER	0.4	Miles
DE230-001-02-01	North Branch and South Branch	Upper Naamans Creek, including all tributaries on the North Branch and South Branch	STREAM/CREEK/RIVER	7.6	Miles
DE230-001-02-02	North Branch and South Branch	First tributary after the headwaters of South Naamans Creek to the mainstem	STREAM/CREEK/RIVER	1.1	Miles
DE240-001	Lower Nanticoke River	From the head of tide in Middleford to the MD-DE State line	STREAM/CREEK/RIVER	13.1	Miles
DE240-002-01	Upper Nanticoke River	From the headwaters of the Nanticoke River to the head of tide at Middleford	STREAM/CREEK/RIVER	8.9	Miles
DE240-002-02	Upper Nanticoke River	Tributary of White Marsh Branch--first western tributary downstream of the headwaters of White Marsh Branch	STREAM/CREEK/RIVER	2.3	Miles
DE240-002-03	Upper Nanticoke River	Kent-Sussex Line Branch--from the start of the third order stream to the confluence with Nanticoke River (lower half)	STREAM/CREEK/RIVER	1.7	Miles
DE240-002-04	Upper Nanticoke River	Kent-Sussex Line Branch--from the start of the third order stream to the confluence with Nanticoke River (upper half)	STREAM/CREEK/RIVER	1.9	Miles
DE240-002-05	Upper Nanticoke River	Nanticoke Branch--from the confluence of Polk Branch to the confluence with Gum Branch	STREAM/CREEK/RIVER	3.4	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE240-002-06	Upper Nanticoke River	Grubby Neck Branch--from the confluence of Polk Branch to the confluence with Gum Branch	STREAM/CREEK/RIVER	0.4	Miles
DE240-002-07	Upper Nanticoke River	Nanticoke Branch--from the confluence of Kent-Sussex Line Branch to the confluence with Cart Branch	STREAM/CREEK/RIVER	4.0	Miles
DE240-002-08	Upper Nanticoke River	Nanticoke River--from the start of the third order stream to the confluence with Kent-Sussex Line Branch.	STREAM/CREEK/RIVER	3.2	Miles
DE240-002-09	Upper Nanticoke River	Tributary to Marsh Branch--first eastern tributary after the headwaters to its confluence	STREAM/CREEK/RIVER	0.3	Miles
DE240-003	Clear Brook Branch	From the headwaters of Clear Brook, Friedel Prong, and Bucks Branch to the confluence with Williams Pond	STREAM/CREEK/RIVER	15.2	Miles
DE240-004-01	Deep Creek Branch	From the headwaters above Concord Pond to the confluence with the Nanticoke River, excluding Concord Pond	STREAM/CREEK/RIVER	6.4	Miles
DE240-004-02	Deep Creek Branch	McColleys Branch--from the confluence of New Ditch to the confluence with Deep Creek	STREAM/CREEK/RIVER	2.4	Miles
DE240-004-03	Deep Creek Branch	Deep Creek--from the start of the third order stream to the confluence with Deep Creek and McColleys Branch	STREAM/CREEK/RIVER	1.8	Miles
DE240-004-04	Deep Creek Branch	Tyndall Branch--from the start of the third order stream on Stoney Creek to the confluence of Tyndall Branch and Deep Creek	STREAM/CREEK/RIVER	5.6	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE240-005-01	Gravelly Branch	From the headwaters of Gravelly Branch above Collins Pond to the confluence with the Nanticoke River, excluding Collins Pond	STREAM/CREEK/RIVER	5.8	Miles
DE240-005-02	Gravelly Branch	Prong No. 1--from the start of fourth order stream to the confluence with Gravelly Branch on Nanticoke River	STREAM/CREEK/RIVER	2.0	Miles
DE240-005-03	Gravelly Branch	Maple Branch-- from the start of the third order stream to the confluence with Prong No. 1	STREAM/CREEK/RIVER	0.7	Miles
DE240-005-04	Gravelly Branch	Maple Branch-- from the start of the third order stream to the confluence with Prong No. 1	STREAM/CREEK/RIVER	1.1	Miles
DE240-006-01	Bridgeville Branch	From the headwaters of Bridgeville Branch to the confluence with Nanticoke River	STREAM/CREEK/RIVER	3.6	Miles
DE240-006-02	Bridgeville Branch	Bridgeville Branch---from the start of the third order stream to the confluence with Nanticoke River	STREAM/CREEK/RIVER	2.1	Miles
DE240-007-01	Gum Branch	From the headwaters located northeast of Woodland Ferry to the confluence with Nanticoke River	STREAM/CREEK/RIVER	3.8	Miles
DE240-007-02	Gum Branch	Gum Branch.--from the start of the third order stream to the confluence with Nanticoke River	STREAM/CREEK/RIVER	2.2	Miles
DE240-008	Lewes Creek	Lewes Creek, including Butler Mill Branch and Chapel Branch	STREAM/CREEK/RIVER	10.9	Miles
DE240-010-01	Gum Branch on Upper Nanticoke River	Gum Branch--from the confluence of Stallion Head Branch to the confluence with West Branch Gum Branch	STREAM/CREEK/RIVER	3.3	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE240-010-02	Gum Branch on Upper Nanticoke River	Toms Dam Branch--from the start of the third order stream to the confluence with Gum Branch	STREAM/CREEK/RIVER	4.5	Miles
DE240-L01	Craigs Pond	Pond southwest of Seaford and below Butler Mill Branch	LAKE/RESERVOIR/POND	16.5	Acres
DE240-L02	Concord Pond	Pond east of Seaford on Deep Creek Branch	LAKE/RESERVOIR/POND	77.7	Acres
DE240-L04	Williams Pond	Pond located in Seaford and below Middleford	LAKE/RESERVOIR/POND	86.2	Acres
DE240-L05	Hearns Pond	Pond located north of Seaford on Clear Brook Branch	LAKE/RESERVOIR/POND	61.0	Acres
DE250-001-01	Pocomoke River	Pocomoke River, from headwaters to the MD-DE State line	STREAM/CREEK/RIVER	4.7	Miles
DE250-001-02	Pocomoke River	Pocomoke River--from the confluence of Bald Cypress Branch and Gum Branch to the MD-DE line	STREAM/CREEK/RIVER	1.0	Miles
DE250-001-03	Pocomoke River	Pocomoke River--from start of the third order stream to the confluence with Bald Cypress Branch and Gum Branch	STREAM/CREEK/RIVER	5.1	Miles
DE250-002	Pocomoke River tributaries from the headwaters to MD-DE State line	Bald Cypress Branch--from the confluence of the headwaters to the confluence with the next larger stream order	STREAM/CREEK/RIVER	3.6	Miles
DE260-001-02	Red Clay Creek Mainstem	From the confluence of West Branch Red Clay Creek to the confluence with White Clay Creek (lower half)	STREAM/CREEK/RIVER	6.3	Miles
DE260-001-03	Red Clay Creek Mainstem	From the confluence of West Branch Red Clay Creek to the confluence with White Clay Creek (upper half)	STREAM/CREEK/RIVER	6.5	Miles
DE260-002-01	Burroughs Run	From PA-DE line to the confluence with Red Clay Creek	STREAM/CREEK/RIVER	2.7	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE260-003-01	Red Clay Creek tributaries located in the watershed but NOT on the mainstem	Second tributary below Burroughs Run to the confluence with Red Clay Creek	STREAM/CREEK/RIVER	1.3	Miles
DE260-003-02	Red Clay Creek tributaries located in the watershed but NOT on the mainstem	Western tributary of the headwaters of Hyde Run to the confluence with the next larger stream order	STREAM/CREEK/RIVER	1.5	Miles
DE260-L01	Hoopes Reservoir	Hoopes Reservoir	LAKE/RESERVOIR/POND	187.9	Acres
DE270-001-01-01	Lower Red Lion	From U.S. Route 13 to the mouth at Delaware River	STREAM/CREEK/RIVER	2.3	Miles
DE270-001-01-02	Lower Red Lion	First tributary downstream of Doll Run from the headwaters to the confluence with Red Lion Creek	STREAM/CREEK/RIVER	1.1	Miles
DE270-001-02-01	Upper Red Lion	From the headwaters to the location where Route 13 intersects Red Lion Creek	STREAM/CREEK/RIVER	3.1	Miles
DE270-001-02-02	Upper Red Lion	First tributary after the headwaters of Red Lion Creek	STREAM/CREEK/RIVER	1.0	Miles
DE280-001-01-01	Chapel Branch	From the headwaters of Chapel Branch to the confluence of Herring Creek, including Hopkins Prong, Unity Branch, Phillips Branch, and Guinea Creek	STREAM/CREEK/RIVER	17.6	Miles
DE280-001-01-02	Chapel Branch	Chapel Branch--from the start of the second order stream to the confluence with Herring Creek	STREAM/CREEK/RIVER	4.5	Miles
DE280-002	Love Creek, including tributaries	Love Creek, Bundicks Branch and Goslee Creek to the confluence with Rehoboth Bay	STREAM/CREEK/RIVER	11.3	Miles
DE280-E01	Rehoboth Bay	Near coastal waters extending north from the confluence with Indian River Bay at Burton Island	BAY	13.9	Square Miles
DE280-L01	Burton Pond	Pond northeast of Millsboro	LAKE/RESERVOIR/POND	40.3	Acres

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE290-001-01	Lower Saint Jones	From Old Lebanon Bridge to the mouth of Delaware Bay	STREAM/CREEK/RIVER	7.6	Miles
DE290-001-02-01	Upper Saint Jones	From the dam at Silver Lake to Old Lebanon Bridge at Road 357	STREAM/CREEK/RIVER	5.2	Miles
DE290-001-02-02	Upper Saint Jones	Tributary of Silver Lake in Dover	STREAM/CREEK/RIVER	0.5	Miles
DE290-001-02-03	Upper Saint Jones	Puncheon Branch--from the confluence of the headwaters to the confluence with the Saint Jones River	STREAM/CREEK/RIVER	3.4	Miles
DE290-002-01	Isaac Branch	From the headwaters to the confluence with Saint Jones River, excluding Moores Lake	STREAM/CREEK/RIVER	8.4	Miles
DE290-002-02	Isaac Branch	From the confluence of Allabands Mill Stream to the confluence with Saint Jones River	STREAM/CREEK/RIVER	1.8	Miles
DE290-002-03	Isaac Branch	From the confluence of the headwaters of Almhouse Branch to the confluence of Isaac Branch	STREAM/CREEK/RIVER	3.6	Miles
DE290-002-04	Isaac Branch	Second tributary upstream of Wyoming Lake on Isaac Branch	STREAM/CREEK/RIVER	1.1	Miles
DE290-003-01	Fork Branch	From the headwaters to Silver Lake in Dover	STREAM/CREEK/RIVER	2.7	Miles
DE290-003-02	Fork Branch	Cahoon Branch--from the confluence of the headwaters to the confluence with the next larger stream order	STREAM/CREEK/RIVER	2.2	Miles
DE290-003-03	Fork Branch	Maidstone Branch- from the confluence of the third order stream to the confluence with Cahoon Branch	STREAM/CREEK/RIVER	2.9	Miles
DE290-003-04	Fork Branch	Tributary to Maidstone Branch---from the confluence of the headwaters to the confluence with Maidstone Branch	STREAM/CREEK/RIVER	0.5	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE290-003-05	Fork Branch	Fork Branch--from the start of the third order stream to the confluence with Silver Lake in Dover	STREAM/CREEK/RIVER	6.2	Miles
DE290-003-06	Fork Branch	From the start of the third order stream on Cahoon Branch to the confluence with Maidstone Branch	STREAM/CREEK/RIVER	2.3	Miles
DE290-004-01	Tidbury Branch	From below Derby Pond to the confluence with the Saint Jones River	STREAM/CREEK/RIVER	4.8	Miles
DE290-004-02	Tidbury Branch	From the confluence of the headwaters of Tidbury Creek to the confluence with Derby Pond	STREAM/CREEK/RIVER	3.1	Miles
DE290-004-03	Tidbury Branch	Tributary of Tidbury Creek--from the headwaters to the confluence with Tidbury Creek	STREAM/CREEK/RIVER	0.9	Miles
DE290-004-04	Tidbury Branch	Red House Branch--from the confluence of the headwaters to the confluence with Derby Pond	STREAM/CREEK/RIVER	1.4	Miles
DE290-L01	Moores Lake	Lake east of Camden	LAKE/RESERVOIR/POND	29.8	Acres
DE290-L02	Silver Lake	Silver Lake at Dover	LAKE/RESERVOIR/POND	168.5	Acres
DE290-L03	Derby Pond	Pond south of Wyoming	LAKE/RESERVOIR/POND	23.0	Acres
DE290-L04	Isaac Branch	Wyoming Mill Pond	LAKE/RESERVOIR/POND	47.0	Acres
DE300-001-01	Lower Shellpot Creek	From the head of tide below the east set of railroad tracks to the mouth of the Delaware River	STREAM/CREEK/RIVER	1.2	Miles
DE300-001-02-01	Upper Shellpot Creek	From the headwaters to the head of tide below the east set of railroad tracks	STREAM/CREEK/RIVER	6.6	Miles
DE300-001-02-02	Upper Shellpot Creek	Western tributary of the headwaters to the confluence of the next larger stream order	STREAM/CREEK/RIVER	1.6	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE300-001-02-03	Upper Shellpot Creek	From the headwaters of Matson Run to the confluence with mainstem Shellpot Creek	STREAM/CREEK/RIVER	1.9	Miles
DE300-001-03-01	Shellpot Creek tributaries located in the watershed but NOT on the mainstem	Western tributary of the headwaters of Stoney Creek to the confluence with mainstem Stoney Creek	STREAM/CREEK/RIVER	0.9	Miles
DE300-001-03-02	Shellpot Creek tributaries located in the watershed but NOT on the mainstem	From the confluence of the headwaters of Stoney Creek to the mouth of the Delaware River	STREAM/CREEK/RIVER	1.8	Miles
DE310-001	Lower Smyrna River	From the head of tide to the Delaware River	STREAM/CREEK/RIVER	7.2	Miles
DE310-002-01	Mill Creek	From the headwaters to Lake Como	STREAM/CREEK/RIVER	1.1	Miles
DE310-002-02	Mill Creek	Providence Creek--from the confluence of the headwaters of Mill Creek to the confluence with Lake Como	STREAM/CREEK/RIVER	4.5	Miles
DE310-003-01	Smyrna River tributary	Tributaries from the headwaters to the confluence with Delaware Bay	STREAM/CREEK/RIVER	0.8	Miles
DE310-003-02	Smyrna River tributary	From the confluence of the headwaters of Paw Paw Branch to the confluence with Providence Creek	STREAM/CREEK/RIVER	3.0	Miles
DE310-003-03	Smyrna River tributary	First eastern tributary after the headwaters of Paw Paw Branch to the confluence with Smyrna River	STREAM/CREEK/RIVER	1.6	Miles
DE310-003-04	Smyrna River tributary	Eastern tributary of the headwaters of Sawmill Branch to its confluence	STREAM/CREEK/RIVER	0.7	Miles
DE310-003-05	Smyrna River tributary	Sawmill Branch--from the confluence of the headwaters to the next larger stream order	STREAM/CREEK/RIVER	5.5	Miles
DE310-003-06	Duck Creek	Duck Creek from (but not including) Duck Creek Pond to the confluence with Mill Creek and the Smyrna River.	STREAM/CREEK/RIVER	3.6	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE310-L01	Lake Como	Lake Como in Smyrna	LAKE/RESERVOIR/POND	52.7	Acres
DE320-001-01	White Clay Creek Mainstem	White Clay Creek from the PA-DE line to the confluence with the Christina River	STREAM/CREEK/RIVER	11.7	Miles
DE320-001-03	White Clay Creek Mainstem	Tidal White Clay from the River mouth to Rt4	STREAM/CREEK/RIVER	3.0	Miles
DE320-002-02	Mill Creek	From the confluence of the headwaters of Mill Creek to the confluence with the next larger stream order	STREAM/CREEK/RIVER	1.8	Miles
DE320-002-03	Mill Creek	Second western tributary-- From the headwaters of mainstem Mill Creek	STREAM/CREEK/RIVER	0.0	Miles
DE320-002-04	Mill Creek	From the confluence of the headwaters of Mill Creek to the confluence with White Clay Creek (upper half)	STREAM/CREEK/RIVER	4.6	Miles
DE320-002-05	Mill Creek	From the confluence of the headwaters of Mill Creek to the confluence with White Clay Creek (lower half)	STREAM/CREEK/RIVER	4.9	Miles
DE320-003-01	Pike Creek	From the headwaters to the confluence with White Clay Creek	STREAM/CREEK/RIVER	1.2	Miles
DE320-003-02	Pike Creek	Third eastern tributary after the headwaters of Pike Creek (upper half)	STREAM/CREEK/RIVER	0.4	Miles
DE320-003-03	Pike Creek	Third eastern tributary after the headwaters of Pike Creek (lower half)	STREAM/CREEK/RIVER	0.4	Miles
DE320-003-04	Pike Creek	Second eastern tributary after the headwaters of Pike Creek	STREAM/CREEK/RIVER	1.1	Miles
DE320-003-05	Pike Creek	From the confluence of the headwaters of Pike Creek to the confluence with White Clay Creek	STREAM/CREEK/RIVER	5.5	Miles

Assessment Unit ID	Assessment Unit Name	Location Description	Water Type	Size	Units
DE320-004-01	Middle Run	From the headwaters to the confluence with White Clay Creek	STREAM/CREEK/RIVER	5.0	Miles
DE320-004-02	Middle Run	Eastern tributary of the headwaters of Middle Run to the confluence of the next larger stream order (upper half)	STREAM/CREEK/RIVER	0.2	Miles
DE320-004-03	Middle Run	Eastern tributary of the headwaters of Middle Run to the confluence of the next larger stream order (lower half)	STREAM/CREEK/RIVER	0.2	Miles
DE320-004-04	Middle Run	Western tributary of the headwaters of Middle Run to the confluence with the mainstem	STREAM/CREEK/RIVER	1.6	Miles
DE320-005-01	White Clay Creek tributaries from the headwaters to the confluence with the Christina River	First tributary after State line to the confluence of White Clay Creek, along Thompson Station Road	STREAM/CREEK/RIVER	2.1	Miles
DE320-005-02	White Clay Creek tributaries from the headwaters to the confluence with the Christina River	Tributary off The Hunt at Louviers	STREAM/CREEK/RIVER	2.1	Miles
DE320-005-04	White Clay Creek tributaries from the headwaters to the confluence with the Christina River	First tributary after Pike Creek--from the headwaters to the confluence with White Clay Creek	STREAM/CREEK/RIVER	0.8	Miles
DE350-E01	Assawoman Bay	Portion of the estuary up to the MD-DE State line	BAY	0.4	Square Miles
DEDRBCZone5	Delaware River Basin Zone 5	From the Pennsylvania- Delaware line to Liston Point, Delaware.	BAY	32.7	Square Miles
DEDRBCZone5c	Delaware River Basin Zone 5c	Lower portion of DRBC Zone 5	BAY	30.5	Square Miles
DEDRBCZone6	Delaware River Basin Zone 6	From Liston Point to the confluence with the Atlantic Ocean	BAY	684.4	Square Miles

Table A3: Stations by Assessment Unit

Reference table showing monitoring stations in relation to Major Basin, Historic Watershed, and Assessment Unit. Stations with an asterisk (*) are USGS continuous monitoring stations.

Major Basin	Historic Watershed	Assessment Unit ID	Station
Piedmont	Brandywine Creek	DE040-001	104011
		DE040-002-01	104021
			104051
			1481500*
	Christina River	DE120-001	106291
		DE120-002	106021
			1480065*
		DE120-003-01	106031
		DE120-004-02	106141
		DE120-006-02	106191
		DE120-007-01-05	106281
	Naamans Creek	DE230-001-02-01	101021
			101031
			101061
	Red Clay Creek	DE260-001-02	103041
		DE260-001-03	103011
			103031
		DE260-002-01	103061
	Shellpot Creek	DE300-001-01	102041
		DE300-001-02-01	102051
			102081
	White Clay Creek	DE320-001-01	105031
			105151
			105171
Chesapeake Bay	Broad Creek	DE050-001-01	307031
		DE050-006-03	307371
		DE050-L03	307171
		DE050-L04	307011
		DE050-L07	307081
	Chester River	DE100-002-01	112021
	Choptank River	DE110-001-02	207081
		DE110-002-04	207091
		DE110-003-14	207111
		DE110-003-15	207021
	Deep Creek	DE240-004-01	304741
		DE240-L02	304311
	Gravelly Branch	DE240-005-01	316011
			316031

Major Basin	Historic Watershed	Assessment Unit ID	Station
	Marshyhope Creek	DE200-001-03	302031
	Nanticoke River	DE240-001	304151
			304471
		DE240-002-01	304191
		DE240-002-07	304681
		DE240-003	304371
			304381
		DE240-L04	304321
	Pocomoke River	DE250-001-02	313011
Delaware Bay	Appoquinimink River	DE010-001-01	109091
			109121
			1483177*
		DE010-001-02	109041
			109171
		DE010-001-03-04	109071
		DE010-002-02-02	109251
		DE010-L01	109131
		DE010-L03	109191
	Army Creek	DE020-001-01	114011
			114021
		DE020-003-02	114051
		DE020-003-03	114041
	Blackbird Creek	DE030-001	110031
			110041
		DE030-002-03	110011
	Broadkill River	DE060-001	303041
			303061
			1484272*
		DE060-002	303171
			303181
		DE060-003	303031
		DE060-004	303311
		DE060-005-01	303011
			303021
		DE060-006	303341
		DE060-L01	303051
		DE060-L03	303331
	C & D Canal East	DE090-001	108021
		DE090-002-05	108051
		DE090-L01	108111
	Cedar Creek	DE080-001	301031
			301091

Major Basin	Historic Watershed	Assessment Unit ID	Station
		DE080-002	301021
		DE210-001	208061
	Dragon Run Creek	DE130-001	111011
		DE130-002-02	111031
	Leipsic River	DE160-001	202031
		DE160-002-01	202191
		DE160-L01	202021
	Little Creek	DE190-001-01	204031
		DE190-001-02-03	204041
	Mispillion River	DE210-001	208021
		DE210-002-03	208231
		DE210-L02	208211
		DE210-L06	208181
	Murderkill River	DE220-001	206101
			206141
			206231
			1484080*
		DE220-002-01	206091
		DE220-002-04	206561
		DE220-004-01	206041
		DE220-005-01	206011
		DE220-L03	206451
		DE220-L05	206361
	Red Lion Creek	DE270-001-01-01	107031
		DE270-001-02-01	107011
	Smyrna River	DE310-001	201041
		DE310-002-02	201021
		DE310-003-01	201161
		DE310-003-02	201161
		DE310-003-06	201051
		DE310-L01	201011
	St. Jones River	DE290-001-01	205011
			205041
		DE290-001-02-01	205091
		DE290-003-05	205151
		DE290-L01	205181
		DE290-L02	205191
		DE290-L03	205211
Inland Bays/Atlantic Ocean	Buntings Branch	DE070-001	311041
	Indian River	DE140-004	306181
		DE140-006	308281
		DE140-E02	306331

Major Basin	Historic Watershed	Assessment Unit ID	Station
			306341
		DE140-L01	308071
			1484525*
	Indian River Bay	DE140-002	308361
		DE140-003	308091
		DE140-E01	306121
			306321
		DE180-001	312011
		DE280-E01	306111
			1484680*
	Iron Branch	DE150-001-01	309041
	Lewes-Rehoboth Canal	DE170-001	305011
			305041
	Little Assawoman	DE180-002-02	310121
		DE180-003-01	310031
		DE180-E01	310011
			310071
	Rehoboth Bay	DE280-001-01-01	308051
		DE280-002	308371
		DE280-E01	306091
		DE280-L01	308031

Appendix B: Individual Parameter Assessments

Table B1: Dissolved Oxygen Assessment

Results of dissolved oxygen sample data collected from January 2020 through December 2024 assessed for the 2026 IR cycle. Statewide minimum dissolved oxygen criteria is 4 mg/L, except hourly average of 1 mg/L and daily average of 3 mg/L May 16 – Sept 30 in Murderkill River watershed from Route 1 Bridge to the confluence with Delaware Bay. Average dissolved oxygen criteria for freshwater segment is 5.5 mg/L, while for marine segment it is 5 mg/L.

			Dissolved Oxygen						
Watershed	**Assessment Unit ID**	**Station ID**	**Count**	**Average (mg/L)**	**Minimum (mg/L)**	**10th Percentile**	**Salinity Average (ppt)**	**Less than 4 mg/L**	**Attainment**
Naamans Creek	DE230-001-02-01	101021	41	9.79	7.24	7.74	0.24	0	Meeting Criteria
Naamans Creek	DE230-001-02-01	101031	41	9.82	7.27	7.52	0.20	0	Meeting Criteria
Naamans Creek	DE230-001-02-01	101061	41	10.22	6.72	8.20	0.17	0	Meeting Criteria
Shellpot Creek	DE300-001-01	102041	41	7.80	4.07	4.72	0.36	0	Not Meeting Criteria
Shellpot Creek	DE300-001-02-01	102051	63	10.46	7.73	8.09	0.28	0	Meeting Criteria
Shellpot Creek	DE300-001-02-01	102081	41	10.33	7.81	8.27	0.23	0	Meeting Criteria
Red Clay Creek	DE260-001-03	103011	42	10.55	7.93	8.32	0.19	0	Meeting Criteria
Red Clay Creek	DE260-001-03	103031	64	10.54	7.93	8.27	0.21	0	Meeting Criteria
Red Clay Creek	DE260-001-02	103041	42	10.66	8.14	8.42	0.24	0	Meeting Criteria
Red Clay Creek	DE260-002-01	103061	42	10.94	8.25	8.62	0.15	0	Meeting Criteria
Brandywine Creek	DE040-001	104011	42	10.52	7.73	8.26	0.18	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104021	63	10.54	7.41	8.30	0.19	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104051	41	10.65	7.76	8.44	0.19	0	Meeting Criteria
White Clay Creek	DE320-001-01	105031	42	10.40	7.17	8.10	0.17	0	Meeting Criteria
White Clay Creek	DE320-001-01	105151	64	10.44	7.33	7.95	0.18	0	Meeting Criteria
White Clay Creek	DE320-001-01	105171	42	10.31	7.61	7.95	0.17	0	Meeting Criteria
Christina River	DE120-002	106021	42	9.21	5.42	6.48	0.25	0	Meeting Criteria
Christina River	DE120-003-01	106031	42	9.53	6.38	7.11	0.15	0	Meeting Criteria
Christina River	DE120-004-02	106141	64	10.11	7.12	7.78	0.17	0	Meeting Criteria
Christina River	DE120-006-02	106191	42	10.70	7.41	8.49	0.13	0	Meeting Criteria
Christina River	DE120-007-01-05	106281	42	10.14	7.01	8.17	0.33	0	Meeting Criteria
Christina River	DE120-001	106291	60	9.49	5.22	6.55	0.43	0	Meeting Criteria
Red Lion Creek	DE270-001-02-01	107011	42	9.61	4.47	7.57	0.13	0	Meeting Criteria
Red Lion Creek	DE270-001-01-01	107031	41	8.65	5.04	6.18	0.30	0	Meeting Criteria
C & D Canal East	DE090-001	108021	42	9.39	6.54	7.13	3.20	0	Meeting Criteria
C & D Canal East	DE090-L01	108111	40	10.12	6.48	8.65	0.10	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109041	42	9.33	4.91	6.14	2.49	0	Meeting Criteria
Appoquinimink River	DE010-001-03-04	109071	42	9.13	5.24	6.21	2.55	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109091	59	9.38	5.73	6.42	5.60	0	Meeting Criteria

Dissolved Oxygen

Watershed	Assessment Unit ID	Station ID	Count	Average (mg/L)	Minimum (mg/L)	10th Percentile	Salinity Average (ppt)	Less than 4 mg/L	Attainment
Appoquinimink River	DE010-001-01	109121	42	9.08	4.70	6.22	4.16	0	Meeting Criteria
Appoquinimink River	DE010-L01	109131	42	10.31	6.62	7.57	0.18	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109171	42	9.03	3.56	6.17	2.91	1	Meeting Criteria
Appoquinimink River	DE010-L03	109191	41	9.50	4.98	7.26	0.14	0	Meeting Criteria
Appoquinimink River	DE010-002-02-02	109251	64	9.89	7.80	8.33	0.14	0	Meeting Criteria
Blackbird Creek	DE030-002-03	110011	64	9.56	4.75	5.93	0.14	0	Meeting Criteria
Blackbird Creek	DE030-001	110031	41	9.12	4.22	6.12	2.53	0	Meeting Criteria
Blackbird Creek	DE030-001	110041	42	8.95	5.04	6.33	4.30	0	Meeting Criteria
Dragon Run Creek	DE130-001	111011	42	8.33	3.31	5.11	1.50	1	Not Meeting Criteria
Dragon Run Creek	DE130-002-02	111031	41	6.95	2.70	4.19	0.19	2	Not Meeting Criteria
Chester River	DE100-002-01	112021	42	8.52	5.23	6.27	0.16	0	Meeting Criteria
Army Creek	DE020-001-01	114011	39	7.88	3.32	5.03	0.61	1	Not Meeting Criteria
Army Creek	DE020-001-01	114021	41	8.76	5.48	6.43	0.18	0	Meeting Criteria
Army Creek	DE020-003-03	114041	39	7.94	4.21	4.63	0.25	0	Not Meeting Criteria
Army Creek	DE020-003-02	114051	40	9.85	6.60	8.00	0.26	0	Meeting Criteria
Smyrna River	DE310-L01	201011	42	9.81	5.10	7.65	0.12	0	Meeting Criteria
Smyrna River	DE310-002-02	201021	42	9.29	6.49	7.68	0.11	0	Meeting Criteria
Smyrna River	DE310-001	201041	42	8.76	3.91	6.03	6.18	1	Meeting Criteria
Smyrna River	DE310-003-06	201051	42	8.80	4.36	6.69	1.87	0	Meeting Criteria
Smyrna River	DE310-003-02	201161	41	9.60	6.54	7.75	0.11	0	Meeting Criteria
Leipsic River	DE160-L01	202021	41	9.66	6.12	7.27	0.11	0	Meeting Criteria
Leipsic River	DE160-001	202031	42	8.24	4.37	5.60	9.31	0	Meeting Criteria
Leipsic River	DE160-002-01	202191	41	9.68	7.39	8.00	0.12	0	Meeting Criteria
Little Creek	DE190-001-01	204031	42	8.31	3.13	5.08	9.59	1	Meeting Criteria
Little Creek	DE190-001-02-03	204041	42	6.59	3.54	4.57	0.27	2	Not Meeting Criteria
St. Jones River	DE290-001-01	205011	60	8.65	5.56	6.06	19.91	0	Meeting Criteria
St. Jones River	DE290-001-01	205041	41	8.26	5.01	5.46	10.45	0	Meeting Criteria
St. Jones River	DE290-001-02-01	205091	42	8.33	3.97	5.01	4.08	1	Not Meeting Criteria
St. Jones River	DE290-003-05	205151	42	8.39	4.82	5.74	0.11	0	Meeting Criteria
St. Jones River	DE290-L01	205181	42	9.90	6.16	8.42	0.13	0	Meeting Criteria
St. Jones River	DE290-L02	205191	47	9.59	4.76	7.30	0.12	0	Meeting Criteria
St. Jones River	DE290-L03	205211	42	10.22	5.24	7.61	0.21	0	Meeting Criteria
Murderkill River	DE220-005-01	206011	64	9.33	6.74	7.53	0.13	0	Meeting Criteria
Murderkill River	DE220-004-01	206041	42	8.83	6.90	7.60	0.10	0	Meeting Criteria
Murderkill River	DE220-002-01	206091	42	7.64	2.97	3.63	2.88	4	Not Meeting Criteria
Murderkill River	DE220-001	206101	60	8.37	4.99	5.90	20.13	0	Meeting Criteria

Dissolved Oxygen

Watershed	Assessment Unit ID	Station ID	Count	Average (mg/L)	Minimum (mg/L)	10th Percentile	Salinity Average (ppt)	Less than 4 mg/L	Attainment
Murderkill River	DE220-001	206141	39	7.37	2.40	3.28	11.64	5	Not Meeting Criteria
Murderkill River	DE220-001	206231	39	7.15	2.44	3.11	4.03	7	Not Meeting Criteria
Murderkill River	DE220-L05	206361	42	10.58	6.89	8.69	0.11	0	Meeting Criteria
Murderkill River	DE220-L03	206451	42	10.08	6.08	8.55	0.10	0	Meeting Criteria
Murderkill River	DE220-002-04	206561	42	8.79	5.71	6.08	0.22	0	Meeting Criteria
Choptank River	DE110-003-15	207021	42	8.91	6.62	6.97	0.10	0	Meeting Criteria
Choptank River	DE110-001-02	207081	42	8.71	5.56	5.96	0.11	0	Meeting Criteria
Choptank River	DE110-002-04	207091	42	8.83	6.05	6.68	0.11	0	Meeting Criteria
Choptank River	DE110-003-14	207111	42	8.85	6.57	7.07	0.11	0	Meeting Criteria
Mispillion River	DE210-001	208021	42	9.37	5.82	6.73	0.46	0	Meeting Criteria
Cedar Creek	DE210-001	208061	60	8.37	4.89	5.57	21.89	0	Meeting Criteria
Mispillion River	DE210-L06	208181	42	9.54	5.14	6.51	0.11	0	Meeting Criteria
Mispillion River	DE210-L02	208211	42	10.22	7.58	8.04	0.10	0	Meeting Criteria
Mispillion River	DE210-002-03	208231	64	9.40	6.19	8.14	0.23	0	Meeting Criteria
Cedar Creek	DE080-002	301021	42	10.02	7.81	8.37	0.13	0	Meeting Criteria
Cedar Creek	DE080-001	301031	42	8.92	5.32	6.05	1.28	0	Meeting Criteria
Cedar Creek	DE080-001	301091	42	8.42	4.51	5.64	21.34	0	Meeting Criteria
Marshyhope Creek	DE200-001-03	302031	54	9.11	5.49	6.86	0.15	0	Meeting Criteria
Broadkill River	DE060-005-01	303011	42	8.01	5.39	6.80	0.73	0	Meeting Criteria
Broadkill River	DE060-005-01	303021	42	8.62	6.45	7.23	0.67	0	Meeting Criteria
Broadkill River	DE060-003	303031	42	9.64	6.97	7.55	0.13	0	Meeting Criteria
Broadkill River	DE060-001	303041	42	8.60	5.17	5.77	5.63	0	Meeting Criteria
Broadkill River	DE060-L01	303051	41	10.16	7.72	8.10	0.10	0	Meeting Criteria
Broadkill River	DE060-001	303061	45	8.32	4.73	5.91	21.19	0	Meeting Criteria
Broadkill River	DE060-002	303171	42	8.78	6.80	7.41	0.13	0	Meeting Criteria
Broadkill River	DE060-002	303181	41	8.11	3.31	5.51	0.18	2	Not Meeting Criteria
Broadkill River	DE060-004	303311	42	7.89	3.77	5.72	0.12	1	Meeting Criteria
Broadkill River	DE060-L03	303331	41	10.41	6.77	8.45	0.14	0	Meeting Criteria
Broadkill River	DE060-006	303341	42	9.33	7.64	8.21	0.11	0	Meeting Criteria
Nanticoke River	DE240-001	304151	42	9.39	7.18	7.60	0.16	0	Meeting Criteria
Nanticoke River	DE240-002-01	304191	54	8.75	5.49	6.49	0.10	0	Meeting Criteria
Deep Creek	DE240-L02	304311	42	9.46	6.44	7.60	0.10	0	Meeting Criteria
Nanticoke River	DE240-L04	304321	42	9.67	7.23	7.72	0.10	0	Meeting Criteria
Nanticoke River	DE240-003	304371	42	8.15	3.50	5.47	0.13	1	Not Meeting Criteria
Nanticoke River	DE240-003	304381	42	8.86	6.75	7.42	0.10	0	Meeting Criteria
Nanticoke River	DE240-001	304471	42	9.52	6.96	7.77	0.14	0	Meeting Criteria

Dissolved Oxygen

Watershed	Assessment Unit ID	Station ID	Count	Average (mg/L)	Minimum (mg/L)	10th Percentile	Salinity Average (ppt)	Less than 4 mg/L	Attainment
Nanticoke River	DE240-002-07	304681	42	9.15	6.67	7.18	0.13	0	Meeting Criteria
Deep Creek	DE240-004-01	304741	42	9.23	6.67	7.46	0.10	0	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305011	42	8.18	5.11	5.81	25.29	0	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305041	42	8.34	5.27	6.21	27.19	0	Meeting Criteria
Rehoboth Bay	DE280-E01	306091	38	8.58	6.31	6.58	28.74	0	Meeting Criteria
Indian River Bay	DE280-E01	306111	42	8.49	5.77	6.63	29.71	0	Meeting Criteria
Indian River Bay	DE140-E01	306121	56	8.68	5.53	6.57	28.05	0	Meeting Criteria
Indian River	DE140-004	306181	40	9.78	4.56	7.08	13.71	0	Meeting Criteria
Indian River Bay	DE140-E01	306321	60	8.59	6.28	6.99	30.74	0	Meeting Criteria
Indian River	DE140-E02	306331	37	8.85	3.80	5.61	21.64	1	Meeting Criteria
Indian River	DE140-E02	306341	37	9.08	5.28	5.63	20.13	0	Meeting Criteria
Broad Creek	DE050-L04	307011	42	10.41	7.29	9.13	0.10	0	Meeting Criteria
Broad Creek	DE050-001-01	307031	42	9.40	6.40	7.82	0.15	0	Meeting Criteria
Broad Creek	DE050-L07	307081	41	9.46	4.83	7.33	0.15	0	Meeting Criteria
Broad Creek	DE050-L03	307171	42	9.74	6.51	7.64	0.11	0	Meeting Criteria
Broad Creek	DE050-006-03	307371	25	8.31	4.68	6.01	0.21	0	Meeting Criteria
Rehoboth Bay	DE280-L01	308031	41	9.45	5.02	6.95	0.19	0	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	42	8.71	5.41	6.70	11.34	0	Meeting Criteria
Indian River	DE140-L01	308071	63	9.83	4.74	7.21	0.23	0	Meeting Criteria
Indian River Bay	DE140-003	308091	42	9.54	6.79	7.96	0.10	0	Meeting Criteria
Indian River	DE140-006	308281	42	8.76	3.67	6.10	0.10	1	Meeting Criteria
Indian River	DE140-005	308341	42	9.38	7.70	7.98	0.10	0	Meeting Criteria
Indian River Bay	DE140-002	308361	39	8.62	4.83	5.51	0.18	0	Meeting Criteria
Rehoboth Bay	DE280-002	308371	39	9.30	5.51	7.43	0.38	0	Meeting Criteria
Iron Branch	DE150-001-01	309041	42	9.48	6.36	7.38	0.10	0	Meeting Criteria
Little Assawoman	DE180-E01	310011	42	8.67	5.39	6.55	25.55	0	Meeting Criteria
Little Assawoman	DE180-003-01	310031	41	9.12	5.36	6.62	12.13	0	Meeting Criteria
Little Assawoman	DE180-E01	310071	42	8.80	5.65	6.40	24.23	0	Meeting Criteria
Little Assawoman	DE180-002-02	310121	64	8.50	3.55	5.50	0.29	1	Meeting Criteria
Buntings Branch	DE070-001	311041	41	9.11	4.86	6.39	0.11	0	Meeting Criteria
Indian River Bay	DE180-001	312011	42	8.40	5.51	5.96	25.17	0	Meeting Criteria
Pocomoke River	DE250-001-02	313011	36	8.62	5.03	6.52	0.11	0	Meeting Criteria
Gravelly Branch	DE240-005-01	316011	41	9.71	7.49	7.98	0.10	0	Meeting Criteria
Gravelly Branch	DE240-005-01	316031	42	8.52	6.50	6.99	0.10	0	Meeting Criteria

Table B2: Dissolved Oxygen Assessment for Continuous Monitoring Data

Results of continuous dissolved oxygen data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Numeric Station IDs are USGS monitoring stations. Descriptive Station IDs followed by an "*" are CIB monitoring stations. Continuous dissolved oxygen data was compared with the minimum DO criteria mentioned in table B1.

			Continuous Dissolved Oxygen						
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (mg/L)**	**Minimum (mg/L)**	**Failed Samples**	**Percent Failure**	**10th percentile**	**Attainment**
Appoquinimink River	DE010-001-01	1483177	170461	8.46	2.6	4494	2.64	4.96	Not Meeting Criteria
Brandywine Creek	DE040-002-01	1481500	174257	10.77	6.6	0	0.00	8.32	Meeting Criteria
Broadkill River	DE060-001	1484272	173111	7.66	1.3	16753	9.68	4.21	Not Meeting Criteria
Christina River	DE120-002	1480065	173431	9.31	2.8	30122	17.37	5.63	Not Meeting Criteria
Indian River	DE140-L01	1484525	174961	10.61	0.5	1056	0.60	7.92	Meeting Criteria
Murderkill River	DE220-001	1484080	431940	6.93	1	49318	11.42	3.21	Not Meeting Criteria
Indian River Bay	DE280-E01	1484680	171442	8.68	4.4	0	0.00	6.60	Meeting Criteria
Indian River	DE140-004	Whartons Bluff*	24059	8.54	0.01	3017	12.54	-	Not Meeting Criteria

Table B3: Total Nitrogen Assessment

Results of total nitrogen sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Station Lower Confidence Limit (LCL) was compared with Statewide TN threshold of 3 mg/L.

			Total Nitrogen				
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (mg/L)**	**LCL**	**UCL**	**Attainment**
Naamans Creek	DE230-001-02-01	101021	41	1.51	1.41	1.60	Meeting Threshold
Naamans Creek	DE230-001-02-01	101031	41	1.06	0.95	1.17	Meeting Threshold
Naamans Creek	DE230-001-02-01	101061	41	1.49	1.37	1.62	Meeting Threshold
Shellpot Creek	DE300-001-01	102041	41	1.75	1.60	1.91	Meeting Threshold
Shellpot Creek	DE300-001-02-01	102051	62	1.26	1.18	1.34	Meeting Threshold
Shellpot Creek	DE300-001-02-01	102081	41	1.10	1.01	1.19	Meeting Threshold
Red Clay Creek	DE260-001-03	103011	42	2.74	2.57	2.91	Meeting Threshold
Red Clay Creek	DE260-001-03	103031	64	3.05	2.91	3.18	Meeting Threshold
Red Clay Creek	DE260-001-02	103041	42	3.55	3.37	3.73	Not Meeting Threshold
Red Clay Creek	DE260-002-01	103061	42	1.93	1.83	2.04	Meeting Threshold
Brandywine Creek	DE040-001	104011	42	2.94	2.80	3.09	Meeting Threshold
Brandywine Creek	DE040-002-01	104021	63	2.89	2.76	3.03	Meeting Threshold
Brandywine Creek	DE040-002-01	104051	41	2.67	2.48	2.86	Meeting Threshold
White Clay Creek	DE320-001-01	105031	42	3.77	3.54	4.01	Not Meeting Threshold
White Clay Creek	DE320-001-01	105151	64	2.79	2.56	3.01	Meeting Threshold
White Clay Creek	DE320-001-01	105171	42	3.44	3.24	3.65	Not Meeting Threshold
Christina River	DE120-002	106021	42	1.92	1.76	2.08	Meeting Threshold
Christina River	DE120-003-01	106031	42	1.19	1.12	1.26	Meeting Threshold
Christina River	DE120-004-02	106141	64	1.74	1.65	1.83	Meeting Threshold
Christina River	DE120-006-02	106191	42	2.40	2.27	2.54	Meeting Threshold
Christina River	DE120-007-01-05	106281	42	1.25	1.14	1.36	Meeting Threshold
Christina River	DE120-001	106291	60	2.16	2.05	2.28	Meeting Threshold
Red Lion Creek	DE270-001-02-01	107011	42	0.87	0.79	0.94	Meeting Threshold
Red Lion Creek	DE270-001-01-01	107031	41	1.93	1.78	2.07	Meeting Threshold
C & D Canal East	DE090-001	108021	42	1.92	1.81	2.03	Meeting Threshold
C & D Canal East	DE090-L01	108111	40	1.11	1.03	1.19	Meeting Threshold
Appoquinimink River	DE010-001-02	109041	42	1.50	1.33	1.67	Meeting Threshold
Appoquinimink River	DE010-001-03-04	109071	42	1.62	1.43	1.80	Meeting Threshold
Appoquinimink River	DE010-001-01	109091	59	1.56	1.45	1.66	Meeting Threshold
Appoquinimink River	DE010-001-01	109121	42	1.58	1.48	1.68	Meeting Threshold
Appoquinimink River	DE010-L01	109131	42	1.57	1.39	1.75	Meeting Threshold
Appoquinimink River	DE010-001-02	109171	42	1.48	1.34	1.63	Meeting Threshold

Total Nitrogen

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	LCL	UCL	Attainment
Appoquinimink River	DE010-L03	109191	41	1.88	1.67	2.08	Meeting Threshold
Appoquinimink River	DE010-002-02-02	109251	64	4.88	4.69	5.06	Not Meeting Threshold
Blackbird Creek	DE030-002-03	110011	64	1.38	1.24	1.52	Meeting Threshold
Blackbird Creek	DE030-001	110031	41	1.45	1.33	1.58	Meeting Threshold
Blackbird Creek	DE030-001	110041	42	1.27	1.17	1.38	Meeting Threshold
Dragon Run Creek	DE130-001	111011	42	1.56	1.38	1.74	Meeting Threshold
Dragon Run Creek	DE130-002-02	111031	41	0.99	0.86	1.12	Meeting Threshold
Chester River	DE100-002-01	112021	42	1.92	1.74	2.10	Meeting Threshold
Army Creek	DE020-001-01	114011	39	1.91	1.26	2.57	Meeting Threshold
Army Creek	DE020-001-01	114021	41	1.77	1.53	2.01	Meeting Threshold
Army Creek	DE020-003-03	114041	39	0.91	0.79	1.02	Meeting Threshold
Army Creek	DE020-003-02	114051	40	1.54	1.39	1.70	Meeting Threshold
Smyrna River	DE310-L01	201011	42	1.40	1.19	1.61	Meeting Threshold
Smyrna River	DE310-002-02	201021	42	1.52	1.33	1.72	Meeting Threshold
Smyrna River	DE310-001	201041	42	1.44	1.31	1.56	Meeting Threshold
Smyrna River	DE310-003-06	201051	42	1.85	1.64	2.06	Meeting Threshold
Smyrna River	DE310-003-02	201161	41	3.48	3.26	3.70	Not Meeting Threshold
Leipsic River	DE160-L01	202021	41	1.67	1.45	1.90	Meeting Threshold
Leipsic River	DE160-001	202031	42	1.22	1.11	1.33	Meeting Threshold
Leipsic River	DE160-002-01	202191	41	3.39	3.22	3.56	Not Meeting Threshold
Little Creek	DE190-001-01	204031	42	1.90	1.77	2.03	Meeting Threshold
Little Creek	DE190-001-02-03	204041	42	1.31	1.23	1.39	Meeting Threshold
St. Jones River	DE290-001-01	205011	60	1.10	0.90	1.29	Meeting Threshold
St. Jones River	DE290-001-01	205041	41	1.55	1.36	1.74	Meeting Threshold
St. Jones River	DE290-001-02-01	205091	42	1.82	1.62	2.02	Meeting Threshold
St. Jones River	DE290-003-05	205151	42	1.21	1.09	1.34	Meeting Threshold
St. Jones River	DE290-L01	205181	42	3.79	3.31	4.27	Not Meeting Threshold
St. Jones River	DE290-L02	205191	47	1.32	1.20	1.44	Meeting Threshold
St. Jones River	DE290-L03	205211	42	2.59	2.31	2.87	Meeting Threshold
Murderkill River	DE220-005-01	206011	64	3.14	2.93	3.36	Meeting Threshold
Murderkill River	DE220-004-01	206041	42	3.21	3.05	3.37	Not Meeting Threshold
Murderkill River	DE220-002-01	206091	42	2.53	2.17	2.88	Meeting Threshold
Murderkill River	DE220-001	206101	59	0.99	0.86	1.12	Meeting Threshold
Murderkill River	DE220-001	206141	39	1.64	1.41	1.86	Meeting Threshold
Murderkill River	DE220-001	206231	39	2.39	2.07	2.72	Meeting Threshold
Murderkill River	DE220-L05	206361	42	4.11	3.83	4.39	Not Meeting Threshold
Murderkill River	DE220-L03	206451	42	3.18	2.85	3.50	Meeting Threshold

Total Nitrogen

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	LCL	UCL	Attainment
Murderkill River	DE220-002-04	206561	42	3.30	2.83	3.76	Meeting Threshold
Choptank River	DE110-003-15	207021	42	1.62	1.54	1.69	Meeting Threshold
Choptank River	DE110-001-02	207081	42	1.24	1.09	1.38	Meeting Threshold
Choptank River	DE110-002-04	207091	42	2.39	2.24	2.54	Meeting Threshold
Choptank River	DE110-003-14	207111	42	5.38	5.05	5.71	Not Meeting Threshold
Mispillion River	DE210-001	208021	42	3.68	3.25	4.11	Not Meeting Threshold
Cedar Creek	DE210-001	208061	60	1.01	0.86	1.16	Meeting Threshold
Mispillion River	DE210-L06	208181	42	4.76	4.33	5.18	Not Meeting Threshold
Mispillion River	DE210-L02	208211	42	3.63	3.16	4.10	Not Meeting Threshold
Mispillion River	DE210-002-03	208231	64	5.38	5.09	5.67	Not Meeting Threshold
Cedar Creek	DE080-002	301021	42	3.21	2.74	3.68	Meeting Threshold
Cedar Creek	DE080-001	301031	42	3.15	2.71	3.59	Meeting Threshold
Cedar Creek	DE080-001	301091	42	1.19	0.96	1.41	Meeting Threshold
Marshyhope Creek	DE200-001-03	302031	54	3.56	3.38	3.74	Not Meeting Threshold
Broadkill River	DE060-005-01	303011	42	26.12	21.44	30.79	Not Meeting Threshold
Broadkill River	DE060-005-01	303021	42	21.68	17.35	26.01	Not Meeting Threshold
Broadkill River	DE060-003	303031	42	3.49	3.10	3.88	Not Meeting Threshold
Broadkill River	DE060-001	303041	42	2.65	2.30	2.99	Meeting Threshold
Broadkill River	DE060-L01	303051	41	1.96	1.70	2.23	Meeting Threshold
Broadkill River	DE060-001	303061	45	0.88	0.72	1.05	Meeting Threshold
Broadkill River	DE060-002	303171	42	7.55	6.96	8.14	Not Meeting Threshold
Broadkill River	DE060-002	303181	41	3.50	2.39	4.61	Meeting Threshold
Broadkill River	DE060-004	303311	42	3.45	3.09	3.81	Not Meeting Threshold
Broadkill River	DE060-L03	303331	41	3.72	3.20	4.24	Not Meeting Threshold
Broadkill River	DE060-006	303341	42	8.92	8.39	9.44	Not Meeting Threshold
Nanticoke River	DE240-001	304151	42	3.59	3.28	3.89	Not Meeting Threshold
Nanticoke River	DE240-002-01	304191	54	5.36	5.06	5.67	Not Meeting Threshold
Deep Creek	DE240-L02	304311	42	2.49	2.28	2.71	Meeting Threshold
Nanticoke River	DE240-L04	304321	42	3.78	3.17	4.39	Not Meeting Threshold
Nanticoke River	DE240-003	304371	42	3.52	3.07	3.96	Not Meeting Threshold
Nanticoke River	DE240-003	304381	42	9.24	8.81	9.66	Not Meeting Threshold
Nanticoke River	DE240-001	304471	42	3.53	3.29	3.78	Not Meeting Threshold
Nanticoke River	DE240-002-07	304681	42	4.08	3.90	4.26	Not Meeting Threshold
Deep Creek	DE240-004-01	304741	42	2.17	2.08	2.26	Meeting Threshold
Lewes-Rehoboth Canal	DE170-001	305011	42	0.63	0.56	0.70	Meeting Threshold
Lewes-Rehoboth Canal	DE170-001	305041	42	0.54	0.48	0.59	Meeting Threshold
Rehoboth Bay	DE280-E01	306091	36	0.34	0.30	0.38	Meeting Threshold

Total Nitrogen

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	LCL	UCL	Attainment
Indian River Bay	DE280-E01	306111	42	0.30	0.28	0.33	Meeting Threshold
Indian River Bay	DE140-E01	306121	56	0.44	0.41	0.48	Meeting Threshold
Indian River	DE140-004	306181	40	2.79	2.18	3.39	Meeting Threshold
Indian River Bay	DE140-E01	306321	60	0.29	0.27	0.31	Meeting Threshold
Indian River	DE140-E02	306331	37	1.11	0.96	1.25	Meeting Threshold
Indian River	DE140-E02	306341	37	1.41	1.25	1.58	Meeting Threshold
Broad Creek	DE050-L04	307011	42	4.47	4.16	4.77	Not Meeting Threshold
Broad Creek	DE050-001-01	307031	42	4.72	4.29	5.15	Not Meeting Threshold
Broad Creek	DE050-L07	307081	41	1.97	1.72	2.22	Meeting Threshold
Broad Creek	DE050-L03	307171	42	3.01	2.55	3.46	Meeting Threshold
Broad Creek	DE050-006-03	307371	25	1.52	1.30	1.74	Meeting Threshold
Rehoboth Bay	DE280-L01	308031	41	1.69	1.29	2.09	Meeting Threshold
Rehoboth Bay	DE280-001-01-01	308051	42	1.56	1.36	1.77	Meeting Threshold
Indian River	DE140-L01	308071	63	2.96	2.74	3.18	Meeting Threshold
Indian River Bay	DE140-003	308091	42	2.01	1.69	2.33	Meeting Threshold
Indian River	DE140-006	308281	42	1.63	1.47	1.79	Meeting Threshold
Indian River	DE140-005	308341	42	2.72	2.55	2.89	Meeting Threshold
Indian River Bay	DE140-002	308361	39	3.53	3.11	3.96	Not Meeting Threshold
Rehoboth Bay	DE280-002	308371	39	2.71	2.36	3.06	Meeting Threshold
Iron Branch	DE150-001-01	309041	42	2.70	2.22	3.19	Meeting Threshold
Little Assawoman	DE180-E01	310011	42	0.55	0.50	0.60	Meeting Threshold
Little Assawoman	DE180-003-01	310031	41	1.47	1.22	1.72	Meeting Threshold
Little Assawoman	DE180-E01	310071	41	0.62	0.56	0.67	Meeting Threshold
Little Assawoman	DE180-002-02	310121	64	1.70	1.56	1.84	Meeting Threshold
Buntings Branch	DE070-001	311041	41	3.10	2.59	3.61	Meeting Threshold
Indian River Bay	DE180-001	312011	42	0.54	0.49	0.60	Meeting Threshold
Pocomoke River	DE250-001-02	313011	36	2.42	2.14	2.71	Meeting Threshold
Gravelly Branch	DE240-005-01	316011	41	3.01	2.52	3.50	Meeting Threshold
Gravelly Branch	DE240-005-01	316031	42	2.03	1.93	2.14	Meeting Threshold

Table B4: Total Phosphorus Assessment

Results of total phosphorus sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Station Lower Confidence Limit (LCL) was compared with Statewide TP threshold of 0.2 mg/L.

			Total Phosphorus				
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (mg/L)**	**LCL**	**UCL**	**Attainment**
Naamans Creek	DE230-001-02-01	101021	41	0.04	0.03	0.04	Meeting Threshold
Naamans Creek	DE230-001-02-01	101031	41	0.05	0.04	0.06	Meeting Threshold
Naamans Creek	DE230-001-02-01	101061	41	0.05	0.04	0.06	Meeting Threshold
Shellpot Creek	DE300-001-01	102041	41	0.11	0.10	0.13	Meeting Threshold
Shellpot Creek	DE300-001-02-01	102051	63	0.06	0.04	0.07	Meeting Threshold
Shellpot Creek	DE300-001-02-01	102081	40	0.04	0.03	0.05	Meeting Threshold
Red Clay Creek	DE260-001-03	103011	42	0.07	0.06	0.09	Meeting Threshold
Red Clay Creek	DE260-001-03	103031	64	0.07	0.06	0.09	Meeting Threshold
Red Clay Creek	DE260-001-02	103041	42	0.09	0.07	0.11	Meeting Threshold
Red Clay Creek	DE260-002-01	103061	42	0.04	0.02	0.07	Meeting Threshold
Brandywine Creek	DE040-001	104011	42	0.08	0.07	0.09	Meeting Threshold
Brandywine Creek	DE040-002-01	104021	63	0.10	0.07	0.12	Meeting Threshold
Brandywine Creek	DE040-002-01	104051	41	0.06	0.05	0.07	Meeting Threshold
White Clay Creek	DE320-001-01	105031	42	0.06	0.05	0.08	Meeting Threshold
White Clay Creek	DE320-001-01	105151	64	0.06	0.03	0.09	Meeting Threshold
White Clay Creek	DE320-001-01	105171	42	0.06	0.04	0.09	Meeting Threshold
Christina River	DE120-002	106021	42	0.08	0.07	0.09	Meeting Threshold
Christina River	DE120-003-01	106031	42	0.06	0.05	0.07	Meeting Threshold
Christina River	DE120-004-02	106141	64	0.05	0.04	0.07	Meeting Threshold
Christina River	DE120-006-02	106191	42	0.04	0.01	0.07	Meeting Threshold
Christina River	DE120-007-01-05	106281	42	0.05	0.02	0.07	Meeting Threshold
Christina River	DE120-001	106291	60	0.08	0.07	0.10	Meeting Threshold
Red Lion Creek	DE270-001-02-01	107011	42	0.05	0.03	0.07	Meeting Threshold
Red Lion Creek	DE270-001-01-01	107031	41	0.13	0.11	0.15	Meeting Threshold
C & D Canal East	DE090-001	108021	42	0.15	0.13	0.17	Meeting Threshold
C & D Canal East	DE090-L01	108111	40	0.05	0.04	0.06	Meeting Threshold
Appoquinimink River	DE010-001-02	109041	42	0.15	0.13	0.17	Meeting Threshold
Appoquinimink River	DE010-001-03-04	109071	42	0.16	0.14	0.17	Meeting Threshold
Appoquinimink River	DE010-001-01	109091	59	0.16	0.13	0.20	Meeting Threshold
Appoquinimink River	DE010-001-01	109121	42	0.13	0.12	0.14	Meeting Threshold
Appoquinimink River	DE010-L01	109131	42	0.08	0.07	0.09	Meeting Threshold
Appoquinimink River	DE010-001-02	109171	42	0.15	0.14	0.17	Meeting Threshold

Total Phosphorus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	LCL	UCL	Attainment
Appoquinimink River	DE010-L03	109191	41	0.06	0.05	0.07	Meeting Threshold
Appoquinimink River	DE010-002-02-02	109251	64	0.06	0.04	0.09	Meeting Threshold
Blackbird Creek	DE030-002-03	110011	64	0.07	0.06	0.08	Meeting Threshold
Blackbird Creek	DE030-001	110031	41	0.19	0.16	0.22	Meeting Threshold
Blackbird Creek	DE030-001	110041	42	0.15	0.14	0.17	Meeting Threshold
Dragon Run Creek	DE130-001	111011	42	0.13	0.11	0.14	Meeting Threshold
Dragon Run Creek	DE130-002-02	111031	41	0.08	0.06	0.09	Meeting Threshold
Chester River	DE100-002-01	112021	42	0.20	0.17	0.23	Meeting Threshold
Army Creek	DE020-001-01	114011	39	0.18	0.15	0.22	Meeting Threshold
Army Creek	DE020-001-01	114021	41	0.07	0.05	0.08	Meeting Threshold
Army Creek	DE020-003-03	114041	39	0.09	0.06	0.12	Meeting Threshold
Army Creek	DE020-003-02	114051	40	0.05	0.03	0.07	Meeting Threshold
Smyrna River	DE310-L01	201011	42	0.11	0.10	0.13	Meeting Threshold
Smyrna River	DE310-002-02	201021	42	0.14	0.13	0.16	Meeting Threshold
Smyrna River	DE310-001	201041	42	0.19	0.16	0.21	Meeting Threshold
Smyrna River	DE310-003-06	201051	42	0.19	0.16	0.22	Meeting Threshold
Smyrna River	DE310-003-02	201161	41	0.07	0.06	0.08	Meeting Threshold
Leipsic River	DE160-L01	202021	41	0.21	0.18	0.24	Meeting Threshold
Leipsic River	DE160-001	202031	42	0.20	0.17	0.22	Meeting Threshold
Leipsic River	DE160-002-01	202191	41	0.15	0.13	0.16	Meeting Threshold
Little Creek	DE190-001-01	204031	42	0.25	0.22	0.27	Not Meeting Threshold
Little Creek	DE190-001-02-03	204041	42	0.12	0.11	0.14	Meeting Threshold
St. Jones River	DE290-001-01	205011	60	0.11	0.09	0.13	Meeting Threshold
St. Jones River	DE290-001-01	205041	41	0.16	0.14	0.19	Meeting Threshold
St. Jones River	DE290-001-02-01	205091	42	0.16	0.14	0.18	Meeting Threshold
St. Jones River	DE290-003-05	205151	42	0.19	0.16	0.21	Meeting Threshold
St. Jones River	DE290-L01	205181	42	0.07	0.06	0.08	Meeting Threshold
St. Jones River	DE290-L02	205191	47	0.14	0.12	0.16	Meeting Threshold
St. Jones River	DE290-L03	205211	42	0.07	0.06	0.09	Meeting Threshold
Murderkill River	DE220-005-01	206011	64	0.10	0.08	0.12	Meeting Threshold
Murderkill River	DE220-004-01	206041	42	0.05	0.04	0.06	Meeting Threshold
Murderkill River	DE220-002-01	206091	42	0.14	0.12	0.15	Meeting Threshold
Murderkill River	DE220-001	206101	60	0.11	0.09	0.13	Meeting Threshold
Murderkill River	DE220-001	206141	39	0.15	0.13	0.16	Meeting Threshold
Murderkill River	DE220-001	206231	39	0.21	0.17	0.24	Meeting Threshold
Murderkill River	DE220-L05	206361	42	0.07	0.06	0.08	Meeting Threshold
Murderkill River	DE220-L03	206451	42	0.11	0.09	0.14	Meeting Threshold

Total Phosphorus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	LCL	UCL	Attainment
Murderkill River	DE220-002-04	206561	42	0.10	0.09	0.12	Meeting Threshold
Choptank River	DE110-003-15	207021	42	0.10	0.08	0.13	Meeting Threshold
Choptank River	DE110-001-02	207081	42	0.13	0.10	0.16	Meeting Threshold
Choptank River	DE110-002-04	207091	42	0.13	0.09	0.18	Meeting Threshold
Choptank River	DE110-003-14	207111	42	0.12	0.08	0.16	Meeting Threshold
Mispillion River	DE210-001	208021	42	0.08	0.06	0.10	Meeting Threshold
Cedar Creek	DE210-001	208061	60	0.11	0.09	0.13	Meeting Threshold
Mispillion River	DE210-L06	208181	42	0.06	0.04	0.09	Meeting Threshold
Mispillion River	DE210-L02	208211	42	0.05	0.04	0.05	Meeting Threshold
Mispillion River	DE210-002-03	208231	64	0.05	0.04	0.06	Meeting Threshold
Cedar Creek	DE080-002	301021	42	0.02	0.02	0.03	Meeting Threshold
Cedar Creek	DE080-001	301031	42	0.09	0.08	0.11	Meeting Threshold
Cedar Creek	DE080-001	301091	42	0.12	0.10	0.15	Meeting Threshold
Marshyhope Creek	DE200-001-03	302031	54	0.13	0.08	0.18	Meeting Threshold
Broadkill River	DE060-005-01	303011	42	0.28	0.21	0.34	Not Meeting Threshold
Broadkill River	DE060-005-01	303021	42	0.23	0.18	0.28	Meeting Threshold
Broadkill River	DE060-003	303031	42	0.04	0.03	0.06	Meeting Threshold
Broadkill River	DE060-001	303041	42	0.11	0.10	0.13	Meeting Threshold
Broadkill River	DE060-L01	303051	41	0.07	0.06	0.09	Meeting Threshold
Broadkill River	DE060-001	303061	45	0.07	0.06	0.09	Meeting Threshold
Broadkill River	DE060-002	303171	42	0.05	0.04	0.06	Meeting Threshold
Broadkill River	DE060-002	303181	41	0.16	0.11	0.20	Meeting Threshold
Broadkill River	DE060-004	303311	42	0.07	0.04	0.09	Meeting Threshold
Broadkill River	DE060-L03	303331	41	0.05	-0.01	0.12	Meeting Threshold
Broadkill River	DE060-006	303341	42	0.03	0.01	0.06	Meeting Threshold
Nanticoke River	DE240-001	304151	42	0.09	0.08	0.10	Meeting Threshold
Nanticoke River	DE240-002-01	304191	54	0.08	0.04	0.11	Meeting Threshold
Deep Creek	DE240-L02	304311	42	0.05	0.04	0.06	Meeting Threshold
Nanticoke River	DE240-L04	304321	42	0.10	0.08	0.11	Meeting Threshold
Nanticoke River	DE240-003	304371	42	0.18	0.12	0.23	Meeting Threshold
Nanticoke River	DE240-003	304381	42	0.07	0.05	0.08	Meeting Threshold
Nanticoke River	DE240-001	304471	42	0.07	0.06	0.08	Meeting Threshold
Nanticoke River	DE240-002-07	304681	42	0.07	0.05	0.09	Meeting Threshold
Deep Creek	DE240-004-01	304741	42	0.03	0.03	0.04	Meeting Threshold
Lewes-Rehoboth Canal	DE170-001	305011	42	0.06	0.05	0.06	Meeting Threshold
Lewes-Rehoboth Canal	DE170-001	305041	42	0.05	0.04	0.05	Meeting Threshold
Rehoboth Bay	DE280-E01	306091	38	0.03	0.03	0.04	Meeting Threshold

Total Phosphorus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	LCL	UCL	Attainment
Indian River Bay	DE280-E01	306111	42	0.03	0.03	0.04	Meeting Threshold
Indian River Bay	DE140-E01	306121	56	0.04	0.03	0.04	Meeting Threshold
Indian River	DE140-004	306181	40	0.17	0.07	0.27	Meeting Threshold
Indian River Bay	DE140-E01	306321	60	0.03	0.03	0.04	Meeting Threshold
Indian River	DE140-E02	306331	37	0.06	0.05	0.07	Meeting Threshold
Indian River	DE140-E02	306341	37	0.07	0.05	0.09	Meeting Threshold
Broad Creek	DE050-L04	307011	42	0.08	0.06	0.09	Meeting Threshold
Broad Creek	DE050-001-01	307031	42	0.09	0.08	0.10	Meeting Threshold
Broad Creek	DE050-L07	307081	41	0.14	0.10	0.18	Meeting Threshold
Broad Creek	DE050-L03	307171	42	0.09	0.08	0.11	Meeting Threshold
Broad Creek	DE050-006-03	307371	25	0.12	0.09	0.15	Meeting Threshold
Rehoboth Bay	DE280-L01	308031	41	0.02	0.02	0.02	Meeting Threshold
Rehoboth Bay	DE280-001-01-01	308051	42	0.06	0.04	0.09	Meeting Threshold
Indian River	DE140-L01	308071	63	0.03	0.03	0.03	Meeting Threshold
Indian River Bay	DE140-003	308091	42	0.07	0.06	0.08	Meeting Threshold
Indian River	DE140-006	308281	42	0.04	0.03	0.04	Meeting Threshold
Indian River	DE140-005	308341	42	0.02	0.01	0.02	Meeting Threshold
Indian River Bay	DE140-002	308361	39	0.05	0.04	0.06	Meeting Threshold
Rehoboth Bay	DE280-002	308371	39	0.06	0.05	0.07	Meeting Threshold
Iron Branch	DE150-001-01	309041	42	0.05	0.04	0.06	Meeting Threshold
Little Assawoman	DE180-E01	310011	42	0.03	0.03	0.03	Meeting Threshold
Little Assawoman	DE180-003-01	310031	41	0.10	0.07	0.14	Meeting Threshold
Little Assawoman	DE180-E01	310071	42	0.03	0.02	0.03	Meeting Threshold
Little Assawoman	DE180-002-02	310121	64	0.07	0.06	0.07	Meeting Threshold
Buntings Branch	DE070-001	311041	41	0.10	0.07	0.14	Meeting Threshold
Indian River Bay	DE180-001	312011	42	0.03	0.03	0.04	Meeting Threshold
Pocomoke River	DE250-001-02	313011	36	0.13	0.10	0.16	Meeting Threshold
Gravelly Branch	DE240-005-01	316011	41	0.02	0.02	0.02	Meeting Threshold
Gravelly Branch	DE240-005-01	316031	42	0.04	0.04	0.04	Meeting Threshold

Table B5: Dissolved Inorganic Nitrogen Assessment

Results of dissolved inorganic nitrogen sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Lower Confidence Limit (LCL) was compared with Inland Bays seasonal DIN criteria of 0.14 mg/L.

Dissolved Inorganic Nitrogen							
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (mg/L)**	**LCL**	**UCL**	**Attainment**
Indian River	DE140-004	306181	27	1.158	0.724	1.592	Not Meeting Criteria
Indian River Bay	DE140-E01	306121	22	0.085	0.037	0.132	Meeting Criteria
Indian River Bay	DE140-E01	306321	25	0.083	0.003	0.162	Meeting Criteria
Indian River	DE140-E02	306331	24	0.457	0.218	0.696	Not Meeting Criteria
Indian River	DE140-E02	306341	26	0.534	0.304	0.765	Not Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305011	28	0.103	0.053	0.153	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305041	26	0.141	0.072	0.210	Meeting Criteria
Indian River Bay	DE180-001	312011	27	0.100	0.047	0.153	Meeting Criteria
Little Assawoman	DE180-003-01	310031	15	0.464	0.185	0.744	Not Meeting Criteria
Little Assawoman	DE180-E01	310011	17	0.039	0.022	0.056	Meeting Criteria
Little Assawoman	DE180-E01	310071	16	0.057	0.028	0.087	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	26	0.888	0.619	1.157	Not Meeting Criteria
Indian River Bay	DE280-E01	306111	17	0.058	0.030	0.087	Meeting Criteria
Rehoboth Bay	DE280-E01	306091	15	0.130	0.040	0.220	Meeting Criteria

Table B6: Dissolved Inorganic Phosphorus Assessment

Results of dissolved inorganic phosphorus sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Lower Confidence Limit (LCL) was compared with Inland Bays seasonal DIP criteria of 0.01 mg/L.

Dissolve Inorganic Phosphorus							
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (mg/L)**	**LCL**	**UCL**	**Attainment**
Indian River	DE140-004	306181	8	0.012	0.005	0.018	Meeting Criteria
Indian River Bay	DE140-E01	306121	7	0.008	0.004	0.011	Meeting Criteria
Indian River Bay	DE140-E01	306321	8	0.018	0.007	0.028	Meeting Criteria
Indian River	DE140-E02	306331	7	0.014	0.002	0.026	Meeting Criteria
Indian River	DE140-E02	306341	7	0.012	0.002	0.021	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305011	11	0.034	0.014	0.054	Not Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305041	10	0.021	0.012	0.031	Not Meeting Criteria
Indian River Bay	DE180-001	312011	8	0.013	0.002	0.023	Meeting Criteria
Little Assawoman	DE180-003-01	310031	9	0.045	-0.013	0.103	Meeting Criteria
Little Assawoman	DE180-E01	310011	5	0.012	-0.002	0.027	Meeting Criteria
Little Assawoman	DE180-E01	310071	4	0.013	-0.010	0.035	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	8	0.014	0.008	0.019	Meeting Criteria
Indian River Bay	DE280-E01	306111	7	0.015	0.002	0.028	Meeting Criteria
Rehoboth Bay	DE280-E01	306091	6	0.016	0.002	0.030	Meeting Criteria

Table B7: Total Suspended Solids Assessment

Results of total suspended solids sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Lower Confidence Limit (LCL) was compared with Inland Bays seasonal TSS criteria of 20 mg/L.

Total Suspended Solids

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	LCL	UCL	Attainment
Lewes-Rehoboth Canal	DE170-001	305011	28	20.75	16.72	24.77	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305041	28	29.90	24.20	35.60	Not Meeting Criteria
Rehoboth Bay	DE280-E01	306091	27	26.31	14.50	38.12	Meeting Criteria
Indian River Bay	DE280-E01	306111	28	22.15	17.17	27.13	Meeting Criteria
Indian River Bay	DE140-E01	306121	38	25.24	20.61	29.86	Not Meeting Criteria
Indian River	DE140-004	306181	28	56.66	42.25	71.06	Not Meeting Criteria
Indian River Bay	DE140-E01	306321	40	25.78	20.06	31.49	Not Meeting Criteria
Indian River	DE140-E02	306331	27	36.69	28.09	45.30	Not Meeting Criteria
Indian River	DE140-E02	306341	27	36.99	29.16	44.81	Not Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	28	14.73	9.96	19.50	Meeting Criteria
Little Assawoman	DE180-E01	310011	28	16.68	11.85	21.51	Meeting Criteria
Little Assawoman	DE180-003-01	310031	28	22.87	18.31	27.43	Meeting Criteria
Little Assawoman	DE180-E01	310071	28	12.50	9.17	15.84	Meeting Criteria
Indian River Bay	DE180-001	312011	28	14.81	11.36	18.26	Meeting Criteria

Table B8: Ammonia Assessment

Results of ammonia sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Failed samples indicate number of times each sample exceeded the criteria.

			Ammonia					
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (mg/L)**	**Salinity Average (ppt)**	**Criteria Average (mg/L)**	**Failed Samples**	**Attainment**
Naamans Creek	DE230-001-02-01	101021	41	0.045	0.24	2.44	0	Meeting Criteria
Naamans Creek	DE230-001-02-01	101031	41	0.038	0.20	1.96	0	Meeting Criteria
Naamans Creek	DE230-001-02-01	101061	41	0.043	0.17	2.19	0	Meeting Criteria
Shellpot Creek	DE300-001-01	102041	41	0.541	0.36	2.53	0	Meeting Criteria
Shellpot Creek	DE300-001-02-01	102051	63	0.036	0.28	1.97	0	Meeting Criteria
Shellpot Creek	DE300-001-02-01	102081	41	0.025	0.23	2.23	0	Meeting Criteria
Red Clay Creek	DE260-001-03	103011	42	0.044	0.19	1.97	0	Meeting Criteria
Red Clay Creek	DE260-001-03	103031	64	0.059	0.21	2.05	0	Meeting Criteria
Red Clay Creek	DE260-001-02	103041	42	0.062	0.24	1.99	0	Meeting Criteria
Red Clay Creek	DE260-002-01	103061	42	0.032	0.15	2.11	0	Meeting Criteria
Brandywine Creek	DE040-001	104011	42	0.059	0.18	1.77	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104021	63	0.061	0.19	1.86	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104051	41	0.045	0.19	2.08	0	Meeting Criteria
White Clay Creek	DE320-001-01	105031	42	0.044	0.17	2.27	0	Meeting Criteria
White Clay Creek	DE320-001-01	105151	64	0.052	0.18	2.13	0	Meeting Criteria
White Clay Creek	DE320-001-01	105171	42	0.050	0.17	2.17	0	Meeting Criteria
Christina River	DE120-002	106021	42	0.076	0.25	2.39	0	Meeting Criteria
Christina River	DE120-003-01	106031	42	0.120	0.15	2.73	0	Meeting Criteria
Christina River	DE120-004-02	106141	64	0.068	0.17	2.60	0	Meeting Criteria
Christina River	DE120-006-02	106191	42	0.032	0.13	2.63	0	Meeting Criteria
Christina River	DE120-007-01-05	106281	42	0.080	0.33	1.74	0	Meeting Criteria
Christina River	DE120-001	106291	60	0.146	0.43	1.92	0	Meeting Criteria
Red Lion Creek	DE270-001-02-01	107011	42	0.058	0.13	2.85	0	Meeting Criteria
Red Lion Creek	DE270-001-01-01	107031	41	0.245	0.30	2.81	0	Meeting Criteria
C & D Canal East	DE090-001	108021	36	0.137	2.56	2.54	0	Meeting Criteria
C & D Canal East	DE090-L01	108111	40	0.106		2.05	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109041	39	0.116	2.20	2.49	0	Meeting Criteria
Appoquinimink River	DE010-001-03-04	109071	38	0.167	2.16	2.58	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109091	30	0.135	3.22	2.52	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109121	33	0.122	3.13	2.63	0	Meeting Criteria

Ammonia

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	Salinity Average (ppt)	Criteria Average (mg/L)	Failed Samples	Attainment
Appoquinimink River	DE010-L01	109131	42	0.067	0.18	2.01	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109171	36	0.135	2.35	2.49	0	Meeting Criteria
Appoquinimink River	DE010-L03	109191	41	0.101	0.14	2.47	0	Meeting Criteria
Appoquinimink River	DE010-002-02-02	109251	64	0.054	0.14	2.99	0	Meeting Criteria
Blackbird Creek	DE030-002-03	110011	64	0.087	0.14	2.19	0	Meeting Criteria
Blackbird Creek	DE030-001	110031	35	0.112	1.76	2.17	0	Meeting Criteria
Blackbird Creek	DE030-001	110041	28	0.120	2.85	2.12	0	Meeting Criteria
Dragon Run Creek	DE130-001	111011	40	0.173	1.31	2.84	0	Meeting Criteria
Dragon Run Creek	DE130-002-02	111031	41	0.094	0.19	2.85	0	Meeting Criteria
Chester River	DE100-002-01	112021	42	0.091	0.16	2.80	0	Meeting Criteria
Army Creek	DE020-001-01	114011	39	0.144	0.61	2.61	0	Meeting Criteria
Army Creek	DE020-001-01	114021	41	0.077	0.18	2.70	0	Meeting Criteria
Army Creek	DE020-003-03	114041	39	0.148	0.25	2.79	0	Meeting Criteria
Army Creek	DE020-003-02	114051	40	0.078	0.26	2.86	0	Meeting Criteria
Smyrna River	DE310-L01	201011	42	0.048	0.12	2.56	0	Meeting Criteria
Smyrna River	DE310-002-02	201021	42	0.041	0.11	3.13	0	Meeting Criteria
Smyrna River	DE310-001	201041	17	0.172	3.27	2.60	0	Meeting Criteria
Smyrna River	DE310-003-06	201051	39	0.173	1.56	2.86	0	Meeting Criteria
Smyrna River	DE310-003-02	201161	41	0.180	0.11	3.25	0	Meeting Criteria
Leipsic River	DE160-L01	202021	41	0.085	0.11	2.43	0	Meeting Criteria
Leipsic River	DE160-001	202031	7	0.151	2.90	3.17	0	Meeting Criteria
Leipsic River	DE160-002-01	202191	41	0.062	0.12	2.69	0	Meeting Criteria
Little Creek	DE190-001-01	204031	14	0.347	2.72	2.84	0	Meeting Criteria
Little Creek	DE190-001-02-03	204041	42	0.101	0.27	2.94	0	Meeting Criteria
St. Jones River	DE290-001-01	205011	2	0.229	0.64	3.79	0	Meeting Criteria
St. Jones River	DE290-001-01	205041	9	0.170	2.18	2.63	0	Meeting Criteria
St. Jones River	DE290-001-02-01	205091	30	0.159	1.68	2.34	0	Meeting Criteria
St. Jones River	DE290-003-05	205151	42	0.072	0.11	2.64	0	Meeting Criteria
St. Jones River	DE290-L01	205181	42	0.067	0.13	1.99	0	Meeting Criteria
St. Jones River	DE290-L02	205191	47	0.066	0.12	2.00	0	Meeting Criteria
St. Jones River	DE290-L03	205211	42	0.071	0.21	1.72	0	Meeting Criteria
Murderkill River	DE220-005-01	206011	64	0.057	0.13	2.72	0	Meeting Criteria
Murderkill River	DE220-004-01	206041	42	0.134	0.10	3.16	0	Meeting Criteria
Murderkill River	DE220-002-01	206091	34	0.186	1.45	2.44	0	Meeting Criteria
Murderkill River	DE220-001	206141	4	0.140	1.66	2.40	0	Meeting Criteria

Ammonia

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	Salinity Average (ppt)	Criteria Average (mg/L)	Failed Samples	Attainment
Murderkill River	DE220-001	206231	28	0.485	2.03	2.13	1	Meeting Criteria
Murderkill River	DE220-L05	206361	42	0.078	0.11	2.33	0	Meeting Criteria
Murderkill River	DE220-L03	206451	42	0.058	0.10	2.29	0	Meeting Criteria
Murderkill River	DE220-002-04	206561	42	0.094	0.22	2.94	0	Meeting Criteria
Choptank River	DE110-003-15	207021	42	0.099	0.10	3.09	0	Meeting Criteria
Choptank River	DE110-001-02	207081	42	0.093	0.11	2.89	0	Meeting Criteria
Choptank River	DE110-002-04	207091	42	0.087	0.11	3.10	0	Meeting Criteria
Choptank River	DE110-003-14	207111	42	0.079	0.11	3.20	0	Meeting Criteria
Mispillion River	DE210-001	208021	42	0.123	0.46	2.66	0	Meeting Criteria
Mispillion River	DE210-L06	208181	42	0.142	0.11	2.73	0	Meeting Criteria
Mispillion River	DE210-L02	208211	42	0.035	0.10	2.32	0	Meeting Criteria
Mispillion River	DE210-002-03	208231	64	0.162	0.23	3.00	1	Meeting Criteria
Cedar Creek	DE080-002	301021	42	0.049	0.13	1.40	0	Meeting Criteria
Cedar Creek	DE080-001	301031	42	0.083	1.28	1.68	0	Meeting Criteria
Marshyhope Creek	DE200-001-03	302031	54	0.109	0.15	3.08	0	Meeting Criteria
Broadkill River	DE060-005-01	303011	42	0.311	0.73	2.20	1	Meeting Criteria
Broadkill River	DE060-005-01	303021	42	0.077	0.67	2.01	0	Meeting Criteria
Broadkill River	DE060-003	303031	42	0.052	0.13	2.79	0	Meeting Criteria
Broadkill River	DE060-001	303041	24	0.125	2.26	2.25	0	Meeting Criteria
Broadkill River	DE060-L01	303051	41	0.261	0.10	2.07	0	Meeting Criteria
Broadkill River	DE060-002	303171	42	0.027	0.13	3.28	0	Meeting Criteria
Broadkill River	DE060-002	303181	41	0.045	0.18	2.93	0	Meeting Criteria
Broadkill River	DE060-004	303311	42	0.088	0.12	3.30	0	Meeting Criteria
Broadkill River	DE060-L03	303331	41	0.047	0.14	1.50	0	Meeting Criteria
Broadkill River	DE060-006	303341	42	0.031	0.11	3.26	0	Meeting Criteria
Nanticoke River	DE240-001	304151	42	0.068	0.16	2.69	0	Meeting Criteria
Nanticoke River	DE240-002-01	304191	54	0.085		3.05	0	Meeting Criteria
Deep Creek	DE240-L02	304311	42	0.058		2.66	0	Meeting Criteria
Nanticoke River	DE240-L04	304321	42	0.075	0.10	2.49	0	Meeting Criteria
Nanticoke River	DE240-003	304371	42	0.078	0.13	3.03	0	Meeting Criteria
Nanticoke River	DE240-003	304381	42	0.060	0.10	3.18	0	Meeting Criteria
Nanticoke River	DE240-001	304471	42	0.045	0.14	2.52	0	Meeting Criteria
Nanticoke River	DE240-002-07	304681	42	0.062	0.13	3.06	0	Meeting Criteria
Deep Creek	DE240-004-01	304741	42	0.044		3.14	0	Meeting Criteria
Indian River	DE140-004	306181	4	0.181	3.10	2.47	0	Meeting Criteria

Ammonia

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (mg/L)	Salinity Average (ppt)	Criteria Average (mg/L)	Failed Samples	Attainment
Broad Creek	DE050-L04	307011	42	0.078	0.10	2.38	0	Meeting Criteria
Broad Creek	DE050-001-01	307031	42	0.066	0.15	2.64	0	Meeting Criteria
Broad Creek	DE050-L07	307081	41	0.057	0.15	2.11	0	Meeting Criteria
Broad Creek	DE050-L03	307171	42	0.061	0.11	2.33	0	Meeting Criteria
Broad Creek	DE050-006-03	307371	25	0.115	0.21	3.18	0	Meeting Criteria
Rehoboth Bay	DE280-L01	308031	41	0.085	0.19	2.25	0	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	10	0.029	1.63	4.14	0	Meeting Criteria
Indian River	DE140-L01	308071	63	0.041	0.23	2.60	0	Meeting Criteria
Indian River Bay	DE140-003	308091	42	0.187	0.10	3.40	0	Meeting Criteria
Indian River	DE140-006	308281	42	0.079		3.05	0	Meeting Criteria
Indian River	DE140-005	308341	42	0.030	0.10	3.37	0	Meeting Criteria
Indian River Bay	DE140-002	308361	39	0.136	0.18	2.41	0	Meeting Criteria
Rehoboth Bay	DE280-002	308371	39	0.061	0.38	2.29	0	Meeting Criteria
Iron Branch	DE150-001-01	309041	42	0.112	0.10	3.36	0	Meeting Criteria
Little Assawoman	DE180-003-01	310031	6	0.168	1.84	3.22	0	Meeting Criteria
Little Assawoman	DE180-002-02	310121	64	0.182	0.29	2.50	0	Meeting Criteria
Buntings Branch	DE070-001	311041	41	0.143	0.11	3.35	0	Meeting Criteria
Pocomoke River	DE250-001-02	313011	36	0.118	0.11	3.20	0	Meeting Criteria
Gravelly Branch	DE240-005-01	316011	41	0.046		3.05	0	Meeting Criteria
Gravelly Branch	DE240-005-01	316031	42	0.058		3.09	0	Meeting Criteria

Table B9: Zinc Assessment

Results of zinc sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Failed samples indicate number of times each sample exceeded the criteria.

			Zinc					
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Salinity Average (ppt)**	**Average (µg/L)**	**Chronic Criteria Average (µ/L)**	**Failed Samples**	**Attainment**
Red Clay Creek	DE260-001-03	103011	42	0.19	13.11	146.11	0	Meeting Criteria
Red Clay Creek	DE260-001-03	103031	64	0.21	12.63	153.09	0	Meeting Criteria
Red Clay Creek	DE260-001-02	103041	42	0.24	19.97	174.10	0	Meeting Criteria
Red Clay Creek	DE260-002-01	103061	42	0.15	3.00	114.53	0	Meeting Criteria
Brandywine Creek	DE040-001	104011	40	0.18	2.52	123.68	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104021	63	0.19	3.11	122.62	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104051	41	0.19	2.76	123.99	0	Meeting Criteria
White Clay Creek	DE320-001-01	105031	40	0.17	3.25	143.57	0	Meeting Criteria
White Clay Creek	DE320-001-01	105151	64	0.18	5.02	125.40	0	Meeting Criteria
White Clay Creek	DE320-001-01	105171	41	0.17	4.43	136.44	0	Meeting Criteria
Christina River	DE120-002	106021	42	0.25	8.73	123.99	0	Meeting Criteria
Christina River	DE120-003-01	106031	42	0.15	6.23	74.68	0	Meeting Criteria
Christina River	DE120-004-02	106141	64	0.17	10.38	88.89	1	Meeting Criteria
Christina River	DE120-006-02	106191	41	0.13	3.54	89.09	0	Meeting Criteria
Christina River	DE120-007-01-05	106281	42	0.33	33.44	160.00	0	Meeting Criteria
Christina River	DE120-001	106291	59	0.43	5.22	145.53	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109041	38	2.49	5.41	393.07	0	Meeting Criteria
Appoquinimink River	DE010-001-03-04	109071	39	2.55	4.31	371.29	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109091	51	5.60	6.33	81.00	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109121	38	4.16	4.71	441.31	0	Meeting Criteria
Appoquinimink River	DE010-L01	109131	32	0.18	2.54	103.95	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109171	38	2.91	5.37	387.04	0	Meeting Criteria
Appoquinimink River	DE010-L03	109191	41	0.14	7.44	96.14	0	Meeting Criteria
Appoquinimink River	DE010-002-02-02	109251	64	0.14	5.96	94.27	0	Meeting Criteria
St. Jones River	DE290-L02	205191	1	0.12	0.90	63.11	0	Meeting Criteria
Murderkill River	DE220-005-01	206011	64	0.13	9.70	69.73	0	Meeting Criteria
Murderkill River	DE220-004-01	206041	42	0.10	17.78	66.50	1	Meeting Criteria
Murderkill River	DE220-002-01	206091	38	2.88	5.44	227.20	0	Meeting Criteria
Murderkill River	DE220-001	206101	26	20.13	10.18	81.00	0	Meeting Criteria
Murderkill River	DE220-001	206141	21	11.64	12.34	81.00	1	Meeting Criteria

Zinc

Watershed	Assessment Unit ID	Station ID	Sample Count	Salinity Average (ppt)	Average (µg/L)	Chronic Criteria Average (µ/L)	Failed Samples	Attainment
Murderkill River	DE220-001	206231	35	4.03	8.74	252.68	0	Meeting Criteria
Murderkill River	DE220-L05	206361	40	0.11	4.34	79.10	0	Meeting Criteria
Murderkill River	DE220-L03	206451	40	0.10	4.65	74.79	0	Meeting Criteria
Murderkill River	DE220-002-04	206561	42	0.22	3.86	90.11	0	Meeting Criteria
Marshyhope Creek	DE200-001-03	302031	54	0.15	16.99	55.32	0	Meeting Criteria
Nanticoke River	DE240-001	304151	41	0.16	19.85	53.10	1	Meeting Criteria
Nanticoke River	DE240-002-01	304191	54	0.10	18.81	54.45	1	Meeting Criteria
Deep Creek	DE240-L02	304311	42	0.10	8.58	37.57	0	Meeting Criteria
Nanticoke River	DE240-L04	304321	40	0.10	9.04	65.76	1	Meeting Criteria
Nanticoke River	DE240-003	304371	42	0.13	11.12	66.49	1	Meeting Criteria
Nanticoke River	DE240-003	304381	42	0.10	15.47	76.83	1	Meeting Criteria
Nanticoke River	DE240-001	304471	42	0.14	6.85	49.50	0	Meeting Criteria
Nanticoke River	DE240-002-07	304681	42	0.13	17.47	51.67	0	Meeting Criteria
Deep Creek	DE240-004-01	304741	42	0.10	14.41	30.09	1	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305011	4	25.29	30.95	81.00	0	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305041	2	27.19	19.85	81.00	0	Meeting Criteria
Rehoboth Bay	DE280-E01	306091	1	28.74	32.50	81.00	0	Meeting Criteria
Indian River Bay	DE280-E01	306111	6	29.71	14.01	81.00	0	Meeting Criteria
Indian River Bay	DE140-E01	306121	3	28.05	22.87	81.00	0	Meeting Criteria
Indian River	DE140-004	306181	8	13.71	10.21	81.00	0	Meeting Criteria
Indian River Bay	DE140-E01	306321	4	30.74	23.08	81.00	0	Meeting Criteria
Indian River	DE140-E02	306331	2	21.64	34.15	81.00	0	Meeting Criteria
Indian River	DE140-E02	306341	2	20.13	31.40	81.00	0	Meeting Criteria
Broad Creek	DE050-L04	307011	39	0.10	14.80	57.59	1	Meeting Criteria
Broad Creek	DE050-001-01	307031	42	0.15	19.40	62.01	1	Meeting Criteria
Broad Creek	DE050-L07	307081	39	0.15	4.99	40.04	0	Meeting Criteria
Broad Creek	DE050-L03	307171	41	0.11	14.32	44.50	1	Meeting Criteria
Broad Creek	DE050-006-03	307371	25	0.21	10.89	35.68	0	Meeting Criteria
Rehoboth Bay	DE280-L01	308031	41	0.19	4.86	56.46	0	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	21	11.34	10.30	81.00	0	Meeting Criteria
Indian River	DE140-L01	308071	62	0.23	6.38	47.90	0	Meeting Criteria
Indian River Bay	DE140-003	308091	42	0.10	17.28	68.86	1	Meeting Criteria
Indian River	DE140-006	308281	42	0.10	8.16	40.37	0	Meeting Criteria
Indian River	DE140-005	308341	42	0.10	6.74	28.11	0	Meeting Criteria

Zinc								
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Salinity Average (ppt)**	**Average (µg/L)**	**Chronic Criteria Average (µ/L)**	**Failed Samples**	**Attainment**
Indian River Bay	DE140-002	308361	39	0.18	8.96	91.14	0	Meeting Criteria
Rehoboth Bay	DE280-002	308371	38	0.38	4.98	64.47	0	Meeting Criteria
Iron Branch	DE150-001-01	309041	42	0.10	13.17	60.64	0	Meeting Criteria
Little Assawoman	DE180-E01	310011	4	25.55	21.68	81.00	0	Meeting Criteria
Little Assawoman	DE180-003-01	310031	17	12.13	11.21	81.00	0	Meeting Criteria
Little Assawoman	DE180-E01	310071	3	24.23	34.30	81.00	0	Meeting Criteria
Little Assawoman	DE180-002-02	310121	63	0.29	11.19	79.16	0	Meeting Criteria
Buntings Branch	DE070-001	311041	41	0.11	24.87	69.89	1	Meeting Criteria
Indian River Bay	DE180-001	312011	4	25.17	25.04	81.00	0	Meeting Criteria
Gravelly Branch	DE240-005-01	316011	41	0.10	10.37	37.51	0	Meeting Criteria
Gravelly Branch	DE240-005-01	316031	42	0.10	16.73	29.43	3	Not Meeting Criteria

Table B10: Marine Copper Assessment

Results of marine copper sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Single sample copper concentration was compared with marine copper criteria of 3.1 µg/L. Failed samples indicate number of times each sample exceeded the criteria.

Marine copper						
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (µg/L)**	**Failed Samples**	**Attainment**
Appoquinimink River	DE010-001-02	109041	3	0.69	0	Meeting Criteria
Appoquinimink River	DE010-001-03-04	109071	4	0.81	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109091	29	1.10	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109121	9	1.04	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109171	6	0.66	0	Meeting Criteria
Murderkill River	DE220-002-01	206091	8	0.48	0	Meeting Criteria
Murderkill River	DE220-001	206101	58	2.33	3	Not Meeting Criteria
Murderkill River	DE220-001	206141	35	0.96	1	Meeting Criteria
Murderkill River	DE220-001	206231	11	0.44	0	Meeting Criteria
Rehoboth Bay	DE280-E01	306091	38	2.65	0	Meeting Criteria
Indian River Bay	DE280-E01	306111	42	0.29	0	Meeting Criteria
Indian River Bay	DE140-E01	306121	56	0.70	0	Meeting Criteria
Indian River	DE140-004	306181	36	1.12	0	Meeting Criteria
Indian River Bay	DE140-E01	306321	60	1.71	0	Meeting Criteria

Marine copper						
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (µg/L)**	**Failed Samples**	**Attainment**
Indian River	DE140-E02	306331	37	9.20	1	Meeting Criteria
Indian River	DE140-E02	306341	37	6.70	1	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	32	2.21	3	Not Meeting Criteria
Little Assawoman	DE180-E01	310011	42	2.80	0	Meeting Criteria
Little Assawoman	DE180-003-01	310031	35	1.19	0	Meeting Criteria
Little Assawoman	DE180-E01	310071	42	2.00	0	Meeting Criteria
Indian River Bay	DE180-001	312011	42	3.08	2	Not Meeting Criteria

Table B11: Freshwater Copper Assessment using Biotic Ligand Model (BLM)

Results of freshwater copper sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle.

Freshwater copper				
Watershed	**Assessment Unit ID**	**Station ID**	**No of times criteria failed**	**Attainment**
Red Clay Creek	DE260-001-03	103011	0	Meeting Criteria
Red Clay Creek	DE260-001-03	103031	0	Meeting Criteria
Red Clay Creek	DE260-001-02	103041	0	Meeting Criteria
Red Clay Creek	DE260-002-01	103061	5	Not Meeting Criteria
Brandywine Creek	DE040-001	104011	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104021	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104051	0	Meeting Criteria
White Clay Creek	DE320-001-01	105031	1	Meeting Criteria
White Clay Creek	DE320-001-01	105151	0	Meeting Criteria
White Clay Creek	DE320-001-01	105171	0	Meeting Criteria
Christina River	DE120-002	106021	2	Not Meeting Criteria
Christina River	DE120-003-01	106031	1	Meeting Criteria
Christina River	DE120-004-02	106141	1	Meeting Criteria
Christina River	DE120-006-02	106191	2	Not Meeting Criteria
Christina River	DE120-007-01-05	106281	0	Meeting Criteria
Christina River	DE120-001	106291	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109041	0	Meeting Criteria
Appoquinimink River	DE010-001-03-04	109071	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109091	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109121	0	Meeting Criteria

Freshwater copper

Watershed	Assessment Unit ID	Station ID	No of times criteria failed	Attainment
Appoquinimink River	DE010-L01	109131	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109171	0	Meeting Criteria
Appoquinimink River	DE010-L03	109191	0	Meeting Criteria
Appoquinimink River	DE010-002-02-02	109251	1	Meeting Criteria
Murderkill River	DE220-005-01	206011	1	Meeting Criteria
Murderkill River	DE220-004-01	206041	8	Not Meeting Criteria
Murderkill River	DE220-002-01	206091	0	Meeting Criteria
Murderkill River	DE220-001	206101	0	Meeting Criteria
Murderkill River	DE220-001	206141	0	Meeting Criteria
Murderkill River	DE220-001	206231	0	Meeting Criteria
Murderkill River	DE220-L05	206361	2	Meeting Criteria
Murderkill River	DE220-L03	206451	3	Not Meeting Criteria
Murderkill River	DE220-002-04	206561	3	Not Meeting Criteria
Marshyhope Creek	DE200-001-03	302031	9	Not Meeting Criteria
		304011	1	Meeting Criteria
Nanticoke River	DE240-001	304151	1	Meeting Criteria
Nanticoke River	DE240-002-01	304191	13	Not Meeting Criteria
Deep Creek	DE240-L02	304311	4	Not Meeting Criteria
Nanticoke River	DE240-L04	304321	2	Not Meeting Criteria
Nanticoke River	DE240-003	304371	2	Not Meeting Criteria
Nanticoke River	DE240-003	304381	5	Not Meeting Criteria
Nanticoke River	DE240-001	304471	2	Not Meeting Criteria
Nanticoke River	DE240-002-07	304681	24	Not Meeting Criteria
Deep Creek	DE240-004-01	304741	15	Not Meeting Criteria
Indian River	DE140-004	306181	0	Meeting Criteria
Broad Creek	DE050-L04	307011	0	Meeting Criteria
Broad Creek	DE050-001-01	307031	3	Not Meeting Criteria
Broad Creek	DE050-L07	307081	2	Not Meeting Criteria
Broad Creek	DE050-L03	307171	3	Not Meeting Criteria
Broad Creek	DE050-006-03	307371	4	Not Meeting Criteria
Rehoboth Bay	DE280-L01	308031	0	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	4	Not Meeting Criteria
Indian River	DE140-L01	308071	3	Not Meeting Criteria
Indian River Bay	DE140-003	308091	4	Not Meeting Criteria
Indian River	DE140-006	308281	6	Not Meeting Criteria
Indian River	DE140-005	308341	13	Not Meeting Criteria
Indian River Bay	DE140-002	308361	0	Meeting Criteria

Freshwater copper				
Watershed	**Assessment Unit ID**	**Station ID**	**No of times criteria failed**	**Attainment**
Rehoboth Bay	DE280-002	308371	0	Meeting Criteria
Iron Branch	DE150-001-01	309041	11	Not Meeting Criteria
Little Assawoman	DE180-003-01	310031	0	Meeting Criteria
Little Assawoman	DE180-002-02	310121	2	Meeting Criteria
Buntings Branch	DE070-001	311041	7	Not Meeting Criteria
Gravelly Branch	DE240-005-01	316011	10	Not Meeting Criteria
Gravelly Branch	DE240-005-01	316031	17	Not Meeting Criteria

Table B12: Arsenic Assessment

Results of arsenic sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Failed samples indicate number of times each sample exceeded the criteria.

Arsenic									
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (µg/L)**	**Chronic Criteria (µg/L)**	**Salinity Average (ppt)**	**Failed Samples**	**Attainment**	**Attainment for drinking water supply**
Shellpot Creek	DE300-001-02-01	102051	18	0.38	150	0.25	0	Meeting Criteria	
Red Clay Creek	DE260-001-03	103031	30	0.28	150	0.22	0	Meeting Criteria	Meeting Criteria
Red Clay Creek	DE260-001-02	103041	1	0.27	150	0.23	0	Meeting Criteria	Meeting Criteria
Red Clay Creek	DE260-002-01	103061	2	0.15	150	0.16	0	Meeting Criteria	Meeting Criteria
Brandywine Creek	DE040-002-01	104021	30	0.36	150	0.19	0	Meeting Criteria	Meeting Criteria
White Clay Creek	DE320-001-01	105151	29	0.23	150	0.17	0	Meeting Criteria	Meeting Criteria
Christina River	DE120-004-02	106141	32	0.37	150	0.16	0	Meeting Criteria	Meeting Criteria
Christina River	DE120-001	106291	30	0.70	150	0.62	0	Meeting Criteria	Meeting Criteria
Appoquinimink River	DE010-001-01	109091	27	1.26	36	6.56	0	Meeting Criteria	
Appoquinimink River	DE010-002-02-02	109251	29	0.27	150	0.15	0	Meeting Criteria	
Blackbird Creek	DE030-002-03	110011	19	0.36	150	0.14	0	Meeting Criteria	
St. Jones River	DE290-001-01	205011	9	2.86	36	20.83	0	Meeting Criteria	
St. Jones River	DE290-L02	205191	14	0.59	150	0.11	0	Meeting Criteria	
Murderkill River	DE220-005-01	206011	32	0.41	150	0.12	0	Meeting Criteria	
Murderkill River	DE220-002-01	206091	1	0.11	150	2.92	0	Meeting Criteria	
Murderkill River	DE220-001	206101	17	2.60	36	20.25	0	Meeting Criteria	
Cedar Creek	DE210-001	208061	13	3.11	36	24.19	0	Meeting Criteria	
Mispillion River	DE210-002-03	208231	17	0.21	150	0.32	0	Meeting Criteria	
Marshyhope Creek	DE200-001-03	302031	17	0.41	150	0.13	0	Meeting Criteria	

Arsenic

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (µg/L)	Chronic Criteria (µg/L)	Salinity Average (ppt)	Failed Samples	Attainment	Attainment for drinking water supply
Broadkill River	DE060-001	303061	10	2.80	36	23.18	0	Meeting Criteria	
Nanticoke River	DE240-002-01	304191	17	0.35	150	0.10	0	Meeting Criteria	
Lewes-Rehoboth Canal	DE170-001	305011	26	3.40	36	25.88	0	Meeting Criteria	
Lewes-Rehoboth Canal	DE170-001	305041	20	3.31	36	27.70	0	Meeting Criteria	
Rehoboth Bay	DE280-E01	306091	20	3.75	36	29.40	0	Meeting Criteria	
Indian River Bay	DE280-E01	306111	29	3.58	36	29.80	0	Meeting Criteria	
Indian River Bay	DE140-E01	306121	31	3.60	36	27.90	0	Meeting Criteria	
Indian River	DE140-004	306181	24	2.97	36	13.73	0	Meeting Criteria	
Indian River Bay	DE140-E01	306321	33	3.57	36	31.00	0	Meeting Criteria	
Indian River	DE140-E02	306331	25	3.84	36	21.60	0	Meeting Criteria	
Indian River	DE140-E02	306341	25	3.83	36	20.22	0	Meeting Criteria	
Rehoboth Bay	DE280-L01	308031	40	0.22	150	0.19	0	Meeting Criteria	
Rehoboth Bay	DE280-001-01-01	308051	25	1.96	36	10.47	0	Meeting Criteria	
Indian River	DE140-L01	308071	62	0.27	150	0.23	0	Meeting Criteria	
Indian River Bay	DE140-003	308091	41	0.41	150	0.10	0	Meeting Criteria	
Indian River	DE140-006	308281	42	0.52	150	0.10	0	Meeting Criteria	
Indian River	DE140-005	308341	12	0.14	150	0.10	0	Meeting Criteria	
Indian River Bay	DE140-002	308361	39	0.81	150	0.18	0	Meeting Criteria	
Rehoboth Bay	DE280-002	308371	37	0.26	150	0.38	0	Meeting Criteria	
Iron Branch	DE150-001-01	309041	42	0.85	150	0.10	0	Meeting Criteria	
Little Assawoman	DE180-E01	310011	28	4.14	36	26.58	0	Meeting Criteria	
Little Assawoman	DE180-003-01	310031	30	2.53	36	11.51	0	Meeting Criteria	
Little Assawoman	DE180-E01	310071	35	3.93	36	25.24	0	Meeting Criteria	
Little Assawoman	DE180-002-02	310121	62	1.11	150	0.29	0	Meeting Criteria	
Buntings Branch	DE070-001	311041	41	0.74	150	0.11	0	Meeting Criteria	
Indian River Bay	DE180-001	312011	31	3.89	36	26.34	0	Meeting Criteria	

Table B13: Lead Assessment

Results of lead sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Failed samples indicate number of times each sample exceeded the criteria.

			Lead					
Watershed	**Assessment Unit ID**	**Station ID**	**Sample Count**	**Average (µg/L)**	**Chronic Criteria Average (µg/L)**	**Salinity Average (ppt)**	**Failed Samples**	**Attainment**
Red Clay Creek	DE260-001-03	103011	17	0.08	3.17	0.19	0	Meeting Criteria
Red Clay Creek	DE260-001-03	103031	35	0.10	3.23	0.20	0	Meeting Criteria
Red Clay Creek	DE260-001-02	103041	14	0.09	3.62	0.22	0	Meeting Criteria
Red Clay Creek	DE260-002-01	103061	10	0.07	2.11	0.14	0	Meeting Criteria
Brandywine Creek	DE040-001	104011	32	0.11	2.59	0.18	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104021	50	0.16	2.58	0.19	0	Meeting Criteria
Brandywine Creek	DE040-002-01	104051	22	0.10	2.46	0.18	0	Meeting Criteria
White Clay Creek	DE320-001-01	105031	14	0.13	2.84	0.16	0	Meeting Criteria
White Clay Creek	DE320-001-01	105151	25	0.11	2.30	0.16	0	Meeting Criteria
White Clay Creek	DE320-001-01	105171	15	0.08	2.50	0.15	0	Meeting Criteria
Christina River	DE120-002	106021	38	0.15	2.70	0.25	0	Meeting Criteria
Christina River	DE120-003-01	106031	42	0.23	1.40	0.15	0	Meeting Criteria
Christina River	DE120-004-02	106141	59	0.16	1.72	0.17	0	Meeting Criteria
Christina River	DE120-006-02	106191	9	0.09	1.42	0.12	0	Meeting Criteria
Christina River	DE120-007-01-05	106281	34	0.21	3.59	0.33	0	Meeting Criteria
Christina River	DE120-001	106291	56	0.22	3.40	0.43	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109041	21	0.10	13.35	3.10	0	Meeting Criteria
Appoquinimink River	DE010-001-03-04	109071	29	0.16	11.51	2.62	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109091	36	0.11	8.10	5.92	0	Meeting Criteria
Appoquinimink River	DE010-001-01	109121	19	0.11	13.76	4.25	0	Meeting Criteria
Appoquinimink River	DE010-L01	109131	6	0.09	1.59	0.11	0	Meeting Criteria
Appoquinimink River	DE010-001-02	109171	24	0.15	12.27	3.06	0	Meeting Criteria
Appoquinimink River	DE010-L03	109191	16	0.12	1.71	0.13	0	Meeting Criteria
Appoquinimink River	DE010-002-02-02	109251	8	0.07	1.86	0.14	0	Meeting Criteria
St. Jones River	DE290-L02	205191	1	0.14	0.82	0.10	0	Meeting Criteria
Murderkill River	DE220-005-01	206011	64	0.26	1.28	0.13	1	Meeting Criteria
Murderkill River	DE220-004-01	206041	40	0.12	1.20	0.10	0	Meeting Criteria
Murderkill River	DE220-002-01	206091	37	0.23	7.00	2.55	0	Meeting Criteria
Murderkill River	DE220-001	206101	20	0.83	8.10	17.28	0	Meeting Criteria
Murderkill River	DE220-001	206141	14	0.46	8.10	9.13	0	Meeting Criteria
Murderkill River	DE220-001	206231	31	0.24	9.29	3.54	0	Meeting Criteria

Lead

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (µg/L)	Chronic Criteria Average (µg/L)	Salinity Average (ppt)	Failed Samples	Attainment
Murderkill River	DE220-L05	206361	29	0.10	1.48	0.11	0	Meeting Criteria
Murderkill River	DE220-L03	206451	36	0.13	1.38	0.10	0	Meeting Criteria
Murderkill River	DE220-002-04	206561	41	0.17	1.80	0.22	0	Meeting Criteria
Marshyhope Creek	DE200-001-03	302031	25	0.15	0.87	0.13	0	Meeting Criteria
Nanticoke River	DE240-001	304151	35	0.12	0.85	0.15	0	Meeting Criteria
Nanticoke River	DE240-002-01	304191	27	0.16	0.84	0.10	1	Meeting Criteria
Deep Creek	DE240-L02	304311	16	0.09	0.54	0.10	0	Meeting Criteria
Nanticoke River	DE240-L04	304321	29	0.16	1.18	0.10	0	Meeting Criteria
Nanticoke River	DE240-003	304371	41	0.18	1.19	0.13	0	Meeting Criteria
Nanticoke River	DE240-003	304381	25	0.11	1.40	0.10	0	Meeting Criteria
Nanticoke River	DE240-001	304471	35	0.10	0.79	0.12	0	Meeting Criteria
Nanticoke River	DE240-002-07	304681	9	0.12	0.80	0.14	0	Meeting Criteria
Deep Creek	DE240-004-01	304741	10	0.25	0.42	0.10	2	Not Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305011	4	1.72	8.10	26.59	0	Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305041	6	1.71	8.10	27.56	0	Meeting Criteria
Rehoboth Bay	DE280-E01	306091	2	2.55	8.10	31.78	0	Meeting Criteria
Indian River Bay	DE280-E01	306111	5	1.95	8.10	31.03	0	Meeting Criteria
Indian River Bay	DE140-E01	306121	4	3.15	8.10	29.07	0	Meeting Criteria
Indian River	DE140-004	306181	8	0.84	8.10	10.49	0	Meeting Criteria
Indian River Bay	DE140-E01	306321	8	1.66	8.10	30.77	0	Meeting Criteria
Indian River	DE140-E02	306331	5	2.18	8.10	23.52	0	Meeting Criteria
Indian River	DE140-E02	306341	4	2.14	8.10	23.06	0	Meeting Criteria
Broad Creek	DE050-L04	307011	31	0.12	0.94	0.10	0	Meeting Criteria
Broad Creek	DE050-001-01	307031	35	0.15	1.05	0.10	0	Meeting Criteria
Broad Creek	DE050-L07	307081	40	0.23	0.61	0.15	0	Meeting Criteria
Broad Creek	DE050-L03	307171	32	0.11	0.73	0.10	0	Meeting Criteria
Broad Creek	DE050-006-03	307371	25	0.46	0.54	0.21	10	Not Meeting Criteria
Rehoboth Bay	DE280-L01	308031	33	0.13	1.10	0.16	0	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	16	0.31	8.10	7.69	0	Meeting Criteria
Indian River	DE140-L01	308071	38	0.14	0.73	0.23	1	Meeting Criteria
Indian River Bay	DE140-003	308091	26	0.14	1.19	0.11	0	Meeting Criteria
Indian River	DE140-006	308281	28	0.16	0.58	0.10	0	Meeting Criteria
Indian River	DE140-005	308341	25	0.14	0.38	0.10	0	Meeting Criteria
Indian River Bay	DE140-002	308361	37	0.13	1.79	0.18	0	Meeting Criteria
Rehoboth Bay	DE280-002	308371	38	0.24	1.16	0.38	0	Meeting Criteria
Iron Branch	DE150-001-01	309041	35	0.18	1.08	0.10	0	Meeting Criteria

Lead								
Watershed	Assessment Unit ID	Station ID	Sample Count	Average (µg/L)	Chronic Criteria Average (µg/L)	Salinity Average (ppt)	Failed Samples	Attainment
Little Assawoman	DE180-E01	310011	4	1.55	8.10	29.19	0	Meeting Criteria
Little Assawoman	DE180-003-01	310031	16	0.61	8.10	10.49	0	Meeting Criteria
Little Assawoman	DE180-E01	310071	4	1.49	8.10	27.94	0	Meeting Criteria
Little Assawoman	DE180-002-02	310121	57	0.13	1.48	0.29	0	Meeting Criteria
Buntings Branch	DE070-001	311041	41	0.22	1.28	0.11	0	Meeting Criteria
Indian River Bay	DE180-001	312011	7	1.64	8.10	26.89	0	Meeting Criteria
Gravelly Branch	DE240-005-01	316011	16	0.11	0.52	0.10	1	Meeting Criteria
Gravelly Branch	DE240-005-01	316031	15	0.12	0.43	0.10	1	Meeting Criteria

Table B14: Enterococcus Assessment

Results of enterococcus sample data collected from January 2020 through December 2024 and assessed for the 2026 IR cycle. Percent failure column indicates percent of the sample that failed single sample value. Geometric mean values of 100 and 35 for fresh and marine waters, respectively, and single sample values of 185 and 104 for fresh and marine waters were used for assessment purpose.

Enterococcus											
Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Naamans Creek	DE230-001-02-01	101021	41	748.28	8	10500	23	243.77	0.24	56.10	Not Meeting Criteria
Naamans Creek	DE230-001-02-01	101031	41	851.90	13	12000	27	268.46	0.20	65.85	Not Meeting Criteria
Naamans Creek	DE230-001-02-01	101061	41	373.13	6	6130	17	120.84	0.17	41.46	Not Meeting Criteria
Shellpot Creek	DE300-001-01	102041	41	918.78	10	12000	22	279.42	0.36	53.66	Not Meeting Criteria
Shellpot Creek	DE300-001-02-01	102051	63	499.39	2	9680	20	105.74	0.28	31.75	Not Meeting Criteria
Shellpot Creek	DE300-001-02-01	102081	41	535.31	6	12000	14	95.43	0.23	34.15	Not Meeting Criteria
Red Clay Creek	DE260-001-03	103011	42	436.03	6	2910	15	134.35	0.19	35.71	Not Meeting Criteria
Red Clay Creek	DE260-001-03	103031	64	618.60	2	12000	22	114.64	0.21	34.38	Not Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Red Clay Creek	DE260-001-02	103041	42	341.71	2	2220	17	117.70	0.24	40.48	Not Meeting Criteria
Red Clay Creek	DE260-002-01	103061	42	438.13	2	4840	13	96.42	0.15	30.95	Not Meeting Criteria
Brandywine Creek	DE040-001	104011	42	412.11	6	4840	13	116.25	0.18	30.95	Not Meeting Criteria
Brandywine Creek	DE040-002-01	104021	63	410.55	2	6130	16	74.27	0.19	25.40	Not Meeting Criteria
Brandywine Creek	DE040-002-01	104051	41	400.79	8	4840	11	98.60	0.19	26.83	Not Meeting Criteria
White Clay Creek	DE320-001-01	105031	42	414.13	6	4840	13	114.41	0.17	30.95	Not Meeting Criteria
White Clay Creek	DE320-001-01	105151	64	964.14	13	24200	31	218.26	0.18	48.44	Not Meeting Criteria
White Clay Creek	DE320-001-01	105171	42	264.50	10	2480	12	121.14	0.17	28.57	Not Meeting Criteria
Christina River	DE120-002	106021	42	415.09	22	2345	19	184.83	0.25	45.24	Not Meeting Criteria
Christina River	DE120-003-01	106031	42	397.94	8	5170	14	104.82	0.15	33.33	Not Meeting Criteria
Christina River	DE120-004-02	106141	64	520.84	4	4110	24	150.39	0.17	37.50	Not Meeting Criteria
Christina River	DE120-006-02	106191	42	677.00	12	5790	21	198.01	0.13	50.00	Not Meeting Criteria
Christina River	DE120-007-01-05	106281	42	727.62	15	4840	27	312.68	0.33	64.29	Not Meeting Criteria
Christina River	DE120-001	106291	60	483.81	13	3970	24	158.36	0.43	40.00	Not Meeting Criteria
Red Lion Creek	DE270-001-02-01	107011	42	748.58	8	4840	24	252.29	0.13	57.14	Not Meeting Criteria
Red Lion Creek	DE270-001-01-01	107031	41	720.32	12	2830	19	266.92	0.30	46.34	Not Meeting Criteria
C & D Canal East	DE090-001	108021	42	142.23	6	2240	7	55.58	3.20	16.67	Not Meeting Criteria
C & D Canal East	DE090-L01	108111	40	47.33	2	352	3	19.35	0.10	7.50	Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Appoquinimink River	DE010-001-02	109041	42	558.87	13	4840	26	226.93	2.49	61.90	Not Meeting Criteria
Appoquinimink River	DE010-001-03-04	109071	42	575.76	17	3970	28	261.63	2.55	66.67	Not Meeting Criteria
Appoquinimink River	DE010-001-01	109091	59	352.34	13.5	4840	27	125.69	5.60	45.76	Not Meeting Criteria
Appoquinimink River	DE010-001-01	109121	42	267.98	10	2090	16	105.68	4.16	38.10	Not Meeting Criteria
Appoquinimink River	DE010-L01	109131	42	80.29	2	977	3	21.64	0.18	7.14	Meeting Criteria
Appoquinimink River	DE010-001-02	109171	42	514.05	10.5	4840	25	198.29	2.91	59.52	Not Meeting Criteria
Appoquinimink River	DE010-L03	109191	41	71.87	2	1230	4	18.59	0.14	9.76	Meeting Criteria
Appoquinimink River	DE010-002-02-02	109251	64	604.33	15	3970	37	256.71	0.14	57.81	Not Meeting Criteria
Blackbird Creek	DE030-002-03	110011	64	537.44	2	4840	23	103.60	0.14	35.94	Not Meeting Criteria
Blackbird Creek	DE030-001	110031	41	911.61	39	3470	31	462.68	2.53	75.61	Not Meeting Criteria
Blackbird Creek	DE030-001	110041	42	297.06	15	1730	22	170.49	4.30	52.38	Not Meeting Criteria
Dragon Run Creek	DE130-001	111011	42	364.86	6	3110	17	132.19	1.50	40.48	Not Meeting Criteria
Dragon Run Creek	DE130-002-02	111031	41	159.54	4	922	8	75.39	0.19	19.51	Not Meeting Criteria
Chester River	DE100-002-01	112021	42	338.70	10	3470	14	114.06	0.16	33.33	Not Meeting Criteria
Army Creek	DE020-001-01	114011	39	607.43	10	3970	17	183.07	0.61	43.59	Not Meeting Criteria
Army Creek	DE020-001-01	114021	41	849.92	15	4840	27	367.29	0.18	65.85	Not Meeting Criteria
Army Creek	DE020-003-03	114041	39	733.82	10	3970	26	349.63	0.25	66.67	Not Meeting Criteria
Army Creek	DE020-003-02	114051	40	813.72	22	3970	21	381.63	0.26	52.50	Not Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Smyrna River	DE310-L01	201011	42	259.61	4	4840	9	43.30	0.12	21.43	Not Meeting Criteria
Smyrna River	DE310-002-02	201021	42	206.48	2	2600	10	60.71	0.11	23.81	Not Meeting Criteria
Smyrna River	DE310-001	201041	42	511.19	10	1960	29	250.99	6.18	69.05	Not Meeting Criteria
Smyrna River	DE310-003-06	201051	42	785.12	71	3470	33	487.17	1.87	78.57	Not Meeting Criteria
Smyrna River	DE310-003-02	201161	41	257.49	10	2480	12	113.83	0.11	29.27	Not Meeting Criteria
Leipsic River	DE160-L01	202021	41	131.83	4	1095	7	43.70	0.11	17.07	Not Meeting Criteria
Leipsic River	DE160-001	202031	42	207.67	10	1100	23	108.97	9.31	54.76	Not Meeting Criteria
Leipsic River	DE160-002-01	202191	41	431.07	22	2410	22	220.23	0.12	53.66	Not Meeting Criteria
Little Creek	DE190-001-01	204031	42	860.95	10	3450	36	428.16	9.59	85.71	Not Meeting Criteria
Little Creek	DE190-001-02-03	204041	42	185.86	2	690	15	86.88	0.27	35.71	Not Meeting Criteria
St. Jones River	DE290-001-01	205011	60	150.18	10	1540	24	75.77	19.91	40.00	Not Meeting Criteria
St. Jones River	DE290-001-01	205041	41	546.95	30	2600	27	243.40	10.45	65.85	Not Meeting Criteria
St. Jones River	DE290-001-02-01	205091	42	539.30	29	3470	30	279.33	4.08	71.43	Not Meeting Criteria
St. Jones River	DE290-003-05	205151	42	332.26	10	2090	12	128.24	0.11	28.57	Not Meeting Criteria
St. Jones River	DE290-L01	205181	42	284.81	2	3970	8	57.05	0.13	19.05	Not Meeting Criteria
St. Jones River	DE290-L02	205191	47	259.73	7	2600	11	67.22	0.12	23.40	Not Meeting Criteria
St. Jones River	DE290-L03	205211	42	98.94	2	615	7	38.73	0.21	16.67	Not Meeting Criteria
Murderkill River	DE220-005-01	206011	64	736.27	24	4840	38	330.91	0.13	59.38	Not Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Murderkill River	DE220-004-01	206041	42	496.81	19	3970	24	212.41	0.10	57.14	Not Meeting Criteria
Murderkill River	DE220-002-01	206091	42	486.83	15	3470	18	193.65	2.88	42.86	Not Meeting Criteria
Murderkill River	DE220-001	206101	60	104.05	10	364	18	65.78	20.13	30.00	Not Meeting Criteria
Murderkill River	DE220-001	206141	39	349.95	4	1660	26	156.48	11.64	66.67	Not Meeting Criteria
Murderkill River	DE220-001	206231	39	625.44	15	3470	25	278.56	4.03	64.10	Not Meeting Criteria
Murderkill River	DE220-L05	206361	42	47.29	2	570	1	20.14	0.11	2.38	Meeting Criteria
Murderkill River	DE220-L03	206451	42	69.11	2	648	6	24.58	0.10	14.29	Not Meeting Criteria
Murderkill River	DE220-002-04	206561	42	642.19	8	4840	26	251.30	0.22	61.90	Not Meeting Criteria
Choptank River	DE110-003-15	207021	42	164.92	10	1450	9	72.28	0.10	21.43	Not Meeting Criteria
Choptank River	DE110-001-02	207081	42	337.92	6	2600	17	113.31	0.11	40.48	Not Meeting Criteria
Choptank River	DE110-002-04	207091	42	332.44	2	3970	14	89.18	0.11	33.33	Not Meeting Criteria
Choptank River	DE110-003-14	207111	42	513.12	11.5	4840	15	143.50	0.11	35.71	Not Meeting Criteria
Mispillion River	DE210-001	208021	42	657.90	2	4840	14	108.14	0.46	33.33	Not Meeting Criteria
Cedar Creek	DE210-001	208061	60	186.97	10	4350	16	65.33	21.89	26.67	Not Meeting Criteria
Mispillion River	DE210-L06	208181	42	91.30	4	690	5	39.14	0.11	11.90	Not Meeting Criteria
Mispillion River	DE210-L02	208211	42	94.04	2	1630	3	15.70	0.10	7.14	Meeting Criteria
Mispillion River	DE210-002-03	208231	64	758.95	17	4840	39	334.07	0.23	60.94	Not Meeting Criteria
Cedar Creek	DE080-002	301021	42	23.99	2	265.5	2	9.28	0.13	4.76	Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Cedar Creek	DE080-001	301031	42	367.74	12	1840	21	170.26	1.28	50.00	Not Meeting Criteria
Cedar Creek	DE080-001	301091	42	99.10	10	504	10	59.46	21.34	23.81	Not Meeting Criteria
Marshyhope Creek	DE200-001-03	302031	54	313.84	4	3110	10	63.02	0.15	18.52	Not Meeting Criteria
Broadkill River	DE060-005-01	303011	42	408.02	13	1370	23	199.61	0.73	54.76	Not Meeting Criteria
Broadkill River	DE060-005-01	303021	42	1000.57	40	4840	34	493.31	0.67	80.95	Not Meeting Criteria
Broadkill River	DE060-003	303031	42	87.75	2	870	5	32.96	0.13	11.90	Not Meeting Criteria
Broadkill River	DE060-001	303041	42	752.18	20	11200	24	299.23	5.63	57.14	Not Meeting Criteria
Broadkill River	DE060-L01	303051	41	150.15	2	4840	1	22.77	0.10	2.44	Meeting Criteria
Broadkill River	DE060-001	303061	45	111.50	10	2360	5	36.70	21.19	11.11	Not Meeting Criteria
Broadkill River	DE060-002	303171	42	477.17	24	3110	19	211.43	0.13	45.24	Not Meeting Criteria
Broadkill River	DE060-002	303181	41	414.10	15	3970	19	175.86	0.18	46.34	Not Meeting Criteria
Broadkill River	DE060-004	303311	42	393.79	4	2600	19	132.26	0.12	45.24	Not Meeting Criteria
Broadkill River	DE060-L03	303331	41	91.00	2	1370	3	14.17	0.14	7.32	Meeting Criteria
Broadkill River	DE060-006	303341	42	1063.59	24	3970	27	505.06	0.11	64.29	Not Meeting Criteria
Nanticoke River	DE240-001	304151	42	301.44	15	3970	9	105.94	0.16	21.43	Not Meeting Criteria
Nanticoke River	DE240-002-01	304191	54	407.67	6	3975	13	83.46	0.10	24.07	Not Meeting Criteria
Deep Creek	DE240-L02	304311	42	58.24	2	593	2	23.95	0.10	4.76	Meeting Criteria
Nanticoke River	DE240-L04	304321	42	96.46	2	1630	3	29.49	0.10	7.14	Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Nanticoke River	DE240-003	304371	42	723.84	45.5	3400	28	417.10	0.13	66.67	Not Meeting Criteria
Nanticoke River	DE240-003	304381	42	601.49	10	4840	22	226.02	0.10	52.38	Not Meeting Criteria
Nanticoke River	DE240-001	304471	42	214.06	13	4840	5	73.57	0.14	11.90	Not Meeting Criteria
Nanticoke River	DE240-002-07	304681	42	206.81	4	2090	8	72.62	0.13	19.05	Not Meeting Criteria
Deep Creek	DE240-004-01	304741	42	111.52	2	731	6	47.02	0.10	14.29	Not Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305011	42	130.74	10	1720	9	53.82	25.29	21.43	Not Meeting Criteria
Lewes-Rehoboth Canal	DE170-001	305041	42	60.59	10	305	5	38.12	27.19	11.90	Not Meeting Criteria
Rehoboth Bay	DE280-E01	306091	38	34.43	10	161	2	19.75	28.74	5.26	Meeting Criteria
Indian River Bay	DE280-E01	306111	42	26.43	10	266	1	15.91	29.71	2.38	Meeting Criteria
Indian River Bay	DE140-E01	306121	56	38.72	10	292	3	23.53	28.05	5.36	Meeting Criteria
Indian River	DE140-004	306181	40	127.01	10	950	12	62.56	13.71	30.00	Not Meeting Criteria
Indian River Bay	DE140-E01	306321	60	27.14	10	109	2	18.36	30.74	3.33	Meeting Criteria
Indian River	DE140-E02	306331	37	65.24	10	573	5	31.17	21.64	13.51	Not Meeting Criteria
Indian River	DE140-E02	306341	37	74.59	10	529	6	42.01	20.13	16.22	Not Meeting Criteria
Broad Creek	DE050-L04	307011	42	297.78	4	4840	7	48.62	0.10	16.67	Not Meeting Criteria
Broad Creek	DE050-001-01	307031	42	215.71	6	3970	7	75.44	0.15	16.67	Not Meeting Criteria
Broad Creek	DE050-L07	307081	41	261.68	2	2830	7	55.11	0.15	17.07	Not Meeting Criteria
Broad Creek	DE050-L03	307171	42	165.05	2	2830	3	24.30	0.11	7.14	Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Broad Creek	DE050-006-03	307371	25	661.02	8	4840	9	133.30	0.21	36.00	Not Meeting Criteria
Rehoboth Bay	DE280-L01	308031	41	93.74	2	821	4	19.05	0.19	9.76	Meeting Criteria
Rehoboth Bay	DE280-001-01-01	308051	42	1195.31	20	19900	24	267.73	11.34	57.14	Not Meeting Criteria
Indian River	DE140-L01	308071	63	176.47	2	2675	7	22.17	0.23	11.11	Not Meeting Criteria
Indian River Bay	DE140-003	308091	42	951.22	2	4840	25	248.44	0.10	59.52	Not Meeting Criteria
Indian River	DE140-006	308281	42	110.68	2	2240	3	29.44	0.10	7.14	Meeting Criteria
Indian River	DE140-005	308341	42	606.76	10	3470	22	182.16	0.10	52.38	Not Meeting Criteria
Indian River Bay	DE140-002	308361	39	503.14	8	2830	16	170.45	0.18	41.03	Not Meeting Criteria
Rehoboth Bay	DE280-002	308371	39	1413.06	18.5	4840	23	608.03	0.38	58.97	Not Meeting Criteria
Iron Branch	DE150-001-01	309041	42	522.68	2	4840	19	135.91	0.10	45.24	Not Meeting Criteria
Little Assawoman	DE180-E01	310011	42	107.32	10	1420	3	25.81	25.55	7.14	Meeting Criteria
Little Assawoman	DE180-003-01	310031	41	414.32	10	4880	15	127.27	12.13	36.59	Not Meeting Criteria
Little Assawoman	DE180-E01	310071	42	102.73	10	1450	5	33.87	24.23	11.90	Not Meeting Criteria
Little Assawoman	DE180-002-02	310121	64	815.65	6	4840	44	321.61	0.29	68.75	Not Meeting Criteria
Buntings Branch	DE070-001	311041	41	828.31	24	4840	23	340.05	0.11	56.10	Not Meeting Criteria
Indian River Bay	DE180-001	312011	42	108.99	10	1865	5	39.75	25.17	11.90	Not Meeting Criteria
Pocomoke River	DE250-001-02	313011	36	490.66	2	3110	14	129.79	0.11	38.89	Not Meeting Criteria
Gravelly Branch	DE240-005-01	316011	41	207.55	4	2410	9	82.90	0.10	21.95	Not Meeting Criteria

Enterococcus

Watershed	Assessment Unit ID	Station ID	Sample Count	Average (CFU)	Min (CFU)	Max (CFU)	Count Greater than Criteria	Geomean	Salinity Average (ppt)	Percent Failure	Attainment
Gravelly Branch	DE240-005-01	316031	42	164.78	2	1840	9	40.42	0.10	21.43	Not Meeting Criteria

Appendix C: Changes Between the 2024 IR Cycle and the 2026 IR Cycle

Table C1: Parameter Status Summary

Summary status table of individual assessed and unassessed parameters based on all potential parameters and assessment units. The table shows the count of parameters falling into each category; details for individual parameters associated with specific assessment units are provided in other tables. “Not Assessed” refers to parameters unassessed in the 2026 cycle but have been assessed previously.

Parameter Status Summary

Status Categories	Count
Changed to Cause	9
Changed to Meeting Criteria	17
Changed to Removed	1
New - Cause	24
New - Meeting Criteria	41
New - Refined	2
No Change - Cause	145
No Change - Insufficient Information	1
No Change - Meeting Criteria	530
Not Assessed	762
Grand Total	**1532**

Table C2: Changes Between the 2024 IR Cycle and the 2026 IR Cycle

Table showing parameters within assessment units that changed from the 2024 cycle to the 2026 cycle. Changes include new parameters, refined parameters, removed parameters, and parameters changed from either meeting criteria/thresholds and acting as a cause for impairment.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE010-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE010-001-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE010-001-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	Listed 2014. Delisted 2024.
DE010-001-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996. Delisted 2018. Relisted 2020. Delisted 2022. Relisted 2024 due to USGS continuous monitoring data.
DE010-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2006. Relisted 2018. Delisted 2020. Relisted 2024.
DE010-001-01	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE010-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 2002. EPA TMDL for PCBS in DelawareRiver Zone 6 and tributaries.
DE010-001-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE010-001-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE010-001-02	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	
DE010-001-02	Fish Consumption	DIOXIN	2022	Not Assessed	Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2018.
DE010-001-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE010-001-02	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE010-001-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-02	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	EPA TMDL for PCBS in DelawareRiver Zone 6 and tributaries.
DE010-001-02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE010-001-03-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1996. Delisted 2008. Relisted 2014. Delisted 2018.
DE010-001-03-01	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2008. Relisted 2010.
DE010-001-03-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996. Delisted 2014.
DE010-001-03-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE010-001-03-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE010-001-03-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE010-001-03-04	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE010-001-03-04	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	2024 New parameter.
DE010-001-03-04	Fish Consumption	DDT	2022	Not Assessed	Delisted 2016 as DDT is no longer a

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
		(DICHLORODIPHENYLTRICHLOROETHANE)			contaminant of concern in fish consumption advisories for these waters.
DE010-001-03-04	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2018.
DE010-001-03-04	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-03-04	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008. Relisted 2014. Delisted 2018.
DE010-001-03-04	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2008. Relisted 2010.
DE010-001-03-04	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-03-04	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE010-001-03-04	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE010-001-03-04	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE010-001-03-04	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 2002. EPA TMDL for PCBS in DelawareRiver Zone 6 and tributaries.
DE010-001-03-04	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE010-002-01-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE010-002-01-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE010-002-01-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE010-002-01-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE010-002-01-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE010-002-01-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE010-002-01-02	Fish, Aquatic Life, and	NUTRIENTS	2012	Not Assessed	Listed 2002.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife				
DE010-002-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1996. Delisted 2002. Relisted 2012. Delisted 2014. Relisted 2016. Delisted 2018.
DE010-002-02-01	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Delisted 2020.
DE010-002-02-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 2002. Delisted 2018.
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE010-L01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE010-002-02-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 2002. Refined from Nutrients 2024.
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 2002. Refined from Nutrients 2024. Delisted 2024.
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE010-002-02-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE010-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE010-002-02-02	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE010-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE010-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2006.
DE010-L01	Fish, Aquatic Life, and	LEAD	2026	No Change -	New parameter 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Meeting Criteria	
DE010-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE010-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE010-L01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE010-L02	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2018	Not Assessed	Delisted 2016 as DDT is no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L02	Fish Consumption	DIELDRIN	2018	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-L02	Fish Consumption	DIOXIN	2018	Not Assessed	Delisted 2016 as these are no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L02	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2006.
DE010-L02	Fish Consumption	FURAN COMPOUNDS	2018	Not Assessed	Delisted 2016 as these are no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996. EPA TMDL in place since 2003 for nutrients. Online at https://documents.dnrec.delaware.gov/swc/wa/Documents/Xia/Appo_NutrientsTMDL_TechReport_2003.pdf
DE010-L02	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2018	Not Assessed	Delisted 2016 as PCB is no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE010-L03	Fish, Aquatic Life, and Wildlife	COPPER	2026	Changed to Meeting Criteria	Listed 2016. Removed 2024. Should not have been assessed under the marine criteria. 2026 Assessed under freshwater criteria.
DE010-L03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE010-L03	Primary Contact	ENTEROCOCCUS	2026	No Change -	Listed 1996. Delisted 2004.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Recreation			Meeting Criteria	
DE010-L03	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE010-L03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-L03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-L03	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE020-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE020-001-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE020-001-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Delisted 2016 as dieldrin is no longer a contaminant of concern in fish consumption advisories for these waters.
DE020-001-01	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996. Delisted 2016. Relisted 2022.
DE020-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2010. Relsited 2022.
DE020-001-01	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-001-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE020-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2012. Refined from Nutrients 2024.
DE020-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2012. Refined from Nutrients 2024.
DE020-001-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 2006. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE020-001-01	Fish Consumption	TOXAPHENE	2022	Not Assessed	Delisted 2016 as toxaphene is no longer a contaminant of concern in fish consumption advisories for these waters.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE020-002	Fish Consumption	DIELDRIN	2018	Not Assessed	Delisted 2016 as dieldrin is no longer a contaminant of concern in fish consumption advisories for these waters.
DE020-002	Fish Consumption	DIOXIN	2018	Not Assessed	Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-002	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 2006. Delisted 2012.
DE020-002	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 2002.
DE020-002	Fish Consumption	FURAN COMPOUNDS	2018	Not Assessed	Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-002	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1998. Delisted 2012.
DE020-002	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2018	Not Assessed	Listed 2006. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE020-002	Fish Consumption	TOXAPHENE	2018	Not Assessed	Delisted 2016 as toxaphene is no longer a contaminant of concern in fish consumption advisories for these waters.
DE020-003-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE020-003-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE020-003-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2008. Relisted 2018. Delisted 2022.
DE020-003-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2006. Delisted 2020. Relisted 2024.
DE020-003-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2018. Refined from Nutrients 2024.
DE020-003-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2018. Refined from Nutrients 2024.
DE020-003-03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE020-003-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 2006. Delisted 2008. Relisted 2018.
DE020-003-03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Delisted 2020. Relisted 2024.
DE020-003-03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2018. Refined from Nutrients 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE020-003-03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2018. Refined 2024.
DE030-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE030-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2024.
DE030-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE030-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2020. Refined from Nutrients 2024.
DE030-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2020. Refined from Nutrients 2024.
DE030-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008. Relisted 2010.
DE030-002-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010.
DE030-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE030-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE030-002-03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE030-002-03	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE030-002-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE030-002-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008. Relisted 2010. Delisted 2022.
DE030-002-03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2024.
DE030-002-03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE030-002-03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE030-003	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE030-003	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2004.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE030-003	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2006.
DE030-003	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE030-003	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2006.
DE040-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE040-001	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE040-001	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016.
DE040-001	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2016.
DE040-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE040-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2016. Relisted 2020.
DE040-001	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2016.
DE040-001	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE040-001	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE040-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE040-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE040-001	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE040-001	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE040-002-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE040-002-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE040-002-01	Public Water Supply	ARSENIC	2026	New - Meeting Criteria	2026 New parameter use.
DE040-002-01	Fish, Aquatic Life, and	COPPER	2026	New - Meeting	2026 New parameter.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Criteria	
DE040-002-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016.
DE040-002-01	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE040-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE040-002-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2006. Relisted 2008. Delisted 2020. Relisted 2024.
DE040-002-01	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE040-002-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE040-002-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE040-002-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE040-002-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE040-002-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE040-002-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE040-003-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE040-003-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE040-003-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE040-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE040-003-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE040-003-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE040-003-05	Fish, Aquatic Life, and	HABITAT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	ASSESSMENT			
DE040-003-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE040-003-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE040-003-07	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE040-003-08	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE040-003-08	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE040-003-09	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE040-003-10	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE050-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE050-001-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE050-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2010.
DE050-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	Changed to Cause	Listed 1996. Delisted 2016. Relisted 2026.
DE050-001-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE050-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE050-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE050-001-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE050-001-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002. Delisted 2010.
DE050-001-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2016.
DE050-001-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE050-001-02	Fish, Aquatic Life, and	NUTRIENTS	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife				
DE050-002-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-002-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-002-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE050-002-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-003	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-004-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-004-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-004-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-004-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE050-004-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-004-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE050-004-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE050-005-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE050-005-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-005-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-005-02-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-005-02-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1998.
DE050-006-01	Primary Contact	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Recreation				
DE050-006-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-006-03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE050-006-03	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE050-006-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	Changed to Meeting Criteria	Listed 2002. Delisted 2026.
DE050-006-03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2006. Relisted 2008. Delisted 2018. Relisted 2024.
DE050-006-03	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Insufficient Information	2024 New parameter. Listed 2024. Placed in Category 3 because this station is currently being review by lab staff and may be relocated due to changes in hydrology.
DE050-006-03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE050-006-03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE050-006-03	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE050-L01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-L01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-L02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002.
DE050-L02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE050-L03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE050-L03	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE050-L03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE050-L03	Primary Contact Recreation	ENTEROCOCCUS	2026	Changed to Meeting Criteria	Listed 1996. Delisted 2004. Relisted 2024. Delisted 2026.
DE050-L03	Fish, Aquatic Life, and	LEAD	2026	No Change -	New parameter 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Meeting Criteria	
DE050-L03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2018. Delisted 2022. Refined from Nutrients 2024.
DE050-L03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2018. Delisted 2022. Refined from Nutrients 2024.
DE050-L03	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE050-L04	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE050-L04	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE050-L04	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002. Relisted 2006. Delisted 2008.
DE050-L04	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2008. Relisted 2024.
DE050-L04	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE050-L04	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE050-L04	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE050-L04	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE050-L05	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002.
DE050-L05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-L06	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE050-L06	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-L06	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE050-L07	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	Listed 2012. Delisted 2018.
DE050-L07	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE050-L07	Fish, Aquatic Life, and	DISSOLVED	2026	No Change -	Listed 2002. Delisted 2014.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	OXYGEN		Meeting Criteria	
DE050-L07	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2002. Relisted 2024.
DE050-L07	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE050-L07	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE050-L07	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE050-L07	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE050-L08	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE050-L08	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE050-L08	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE060-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	Remove 2024 - no marine criteria. Returned 2026.
DE060-001	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE060-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024. Relisted 2026 due to USGS continuous monitoring data.
DE060-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE060-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE060-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE060-002	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE060-002	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 2002. Delisted 2008. Relisted 2012. Delisted 2016. Relisted 2024.
DE060-002	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE060-002	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE060-002	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE060-003	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE060-003	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2012.
DE060-003	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed in 1998. Delisted 2004. Relisted 2006. Delisted 2012. Relisted 2024.
DE060-003	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1998. Delisted 2016. Relisted 2018. Refined from Nutrients 2024.
DE060-003	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE060-004	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE060-004	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012.
DE060-004	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2006. Relisted 2008. Delisted 2022. Relisted 2024.
DE060-004	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed in 1996. Refined from Nutrients 2024.
DE060-004	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed in 1996. Refined from Nutrients 2024. Delisted 2024.
DE060-005-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE060-005-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Relisted 2014. Delisted 2020.
DE060-005-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE060-005-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed in 1996. Refined from Nutrients 2024.
DE060-005-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	Changed to Cause	Listed in 1996. Refined from Nutrients 2024. Delisted 2024. Relisted 2026.
DE060-005-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1998.
DE060-005-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE060-006	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE060-006	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE060-006	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE060-006	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed in 1996. Refined from Nutrients 2024.
DE060-006	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE060-007-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2002.
DE060-007-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002. Delisted 2004.
DE060-007-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE060-007-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2006.
DE060-007-02-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2006.
DE060-007-02-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE060-007-02-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE060-007-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE060-007-03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE060-008	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 2012.
DE060-008	Fish Consumption	MERCURY	2018	Not Assessed	Listed 2010. Delisted 2018 as it is no longer a contaminant of concern in fish tissue.
DE060-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE060-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE060-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2006.
DE060-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE060-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE060-L02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE060-L03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE060-L03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2006. Relisted 2012. Delisted 2014.
DE060-L03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2006. Relisted 2012. Delisted 2016.
DE060-L03	Fish Consumption	MERCURY	2022	Not Assessed	Mercury listing in Waples Pond Only. Listed 2010. Delisted 2018 as Mercury is no longer a contaminant of concern in fish tissue.
DE060-L03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1998. Delisted 2016. Relisted 2020. Refined from Nutrients 2024.
DE060-L03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2016. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.
DE070-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE070-001	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE070-001	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Cause	Listed 2014. Removed 2024. Should not have been assessed under the marine criteria. 2026 Assessed under freshwater criteria. Listed 2026.
DE070-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE070-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE070-001	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE070-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	DNREC, EPA and MDE are working to implement the MD TMDL for Delaware's portion of this shared waterbody - Updating the DE TMDL. Listed 1996. Delisted 2008. Relisted 2012. Delisted 2014. Listed 2022. Refined from Nutrients. Delisted 2024.
DE070-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	DNREC, EPA and MDE are working to implement the MD TMDL for Delaware's

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
					portion of this shared waterbody - Updating the DE TMDL. Listed 1996. Delisted 2008. Relisted 2012. Delisted 2014. Listed 2022. Refined from Nutrients. Delisted 2024.
DE070-001	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE080-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	Remove 2024 - no marine criteria. Returned 2026.
DE080-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2020.
DE080-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE080-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	Changed to Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Relisted 2020. Refined from Nutrients 2024. Delisted 2026.
DE080-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.
DE080-002	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE080-002	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2004. Delisted 2022.
DE080-002	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022.
DE080-002	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	Changed to Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2026.
DE080-002	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE080-003	Fish Consumption	DIOXIN	2018	Not Assessed	Listed 2010. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE080-003	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 2004.
DE080-003	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 2006.
DE080-003	Fish Consumption	FURAN COMPOUNDS	2018	Not Assessed	Listed 2010. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE080-003	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 2006.
DE080-003	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2018	Not Assessed	Listed 2010. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE090-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE090-001	Fish Consumption	CHLORDANE	2022	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE090-001	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2022	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE090-001	Fish Consumption	DIELDRIN	2024	Not Assessed	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	Fish Consumption	DIOXIN	2024	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE090-001	Primary Contact Recreation	ENTEROCOCCUS	2026	Changed to Cause	Listed 2026.
DE090-001	Fish Consumption	FURAN COMPOUNDS	2024	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE090-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE090-001	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2024	Not Assessed	Listed 2002. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE090-002-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE090-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1998.
DE090-002-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE090-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE090-002-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE090-002-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE090-002-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE090-002-05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 2012.
DE090-002-05	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	Not Assessed	
DE090-002-05	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	Not Assessed	
DE090-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE090-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE090-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed in 1996. Delisted 2004.
DE090-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE090-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE100-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE100-001-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE100-001-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE100-001-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-001-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE100-001-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE100-001-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE100-001-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-002-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE100-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022.
DE100-002-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2016. Relisted 2024.
DE100-002-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE100-002-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE100-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-002-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1998.
DE100-002-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE100-003-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE100-003-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE100-003-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE100-003-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-003-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE100-003-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE100-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1996.
DE100-003-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE100-003-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE100-003-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE100-003-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE100-003-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE100-003-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-003-06	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE100-003-06	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE100-003-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1996.
DE100-003-06	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE100-004-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE100-004-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-005-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-005-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE100-005-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1996. Delisted 2008.
DE110-001-01	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-001-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996. Delisted 2012.
DE110-001-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE110-001-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE110-001-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE110-001-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018. Relisted 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE110-001-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE110-001-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-001-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-001-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-001-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE110-001-03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-001-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-001-03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE110-001-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-001-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-001-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-001-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-001-07	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1998.
DE110-001-07	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-001-08	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-001-08	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-001-09	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-001-09	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE110-002-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-002-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE110-002-03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-002-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-002-03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE110-002-04	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE110-002-04	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE110-002-04	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018. Relisted 2024.
DE110-002-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE110-002-04	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-002-04	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-002-05	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2018	Not Assessed	Listed 1998.
DE110-002-05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1996. Delisted 2008.
DE110-002-05	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-002-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2018	Not Assessed	Listed 1998.
DE110-002-05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996. Delisted 2012.
DE110-002-05	Fish, Aquatic Life, and Wildlife	TEMPERATURE	2018	Not Assessed	Listed 1998. Delisted 2018 as there are no point source discharges.
DE110-002-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-002-06	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE110-002-06	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-002-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-002-06	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE110-002-07	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-002-07	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-002-08	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-002-08	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-002-09	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-002-09	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE110-003-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE110-003-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE110-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-003-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-003-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-05	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-003-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE110-003-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-003-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-07	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-003-08	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-09	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-10	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-11	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-12	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-13	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE110-003-13	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE110-003-14	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE110-003-14	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE110-003-14	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE110-003-14	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE110-003-14	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE110-003-14	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE110-003-15	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE110-003-15	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE110-003-15	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE110-003-15	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE110-003-15	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE110-003-15	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE110-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE110-L01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE110-L01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE120-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE120-001	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE120-001	Public Water Supply	ARSENIC	2026	New - Meeting Criteria	2026 New parameter use.
DE120-001	Fish Consumption	CHLORDANE	2022	Not Assessed	Listed 2016.
DE120-001	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE120-001	Fish Consumption	DDD (DICHLORODIPHENYLDICHLOROETHANE)	2022	Not Assessed	Listed 2016.
DE120-001	Fish Consumption	DDE (DICHLORODIPHENYLDICHLOROETHYLENE)	2022	Not Assessed	Listed 2016.
DE120-001	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2022	Not Assessed	Listed 2016.
DE120-001	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-001	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2016.
DE120-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE120-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2022. Relisted 2024.
DE120-001	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2016.
DE120-001	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE120-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-001	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-001	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE120-002	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE120-002	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE120-002	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2002. 2016 delisted in error. 2018 restored category 5 Listing. 2024 state category 5mnr added based on 2018 analysis for the evaluation of Fish Consumption Advisories.
DE120-002	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	Changed to Cause	Listed 2008. Delisted 2010. Relisted 2016. Delisted 2022. Relisted 2026 due to USGS continuous monitoring data.
DE120-002	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE120-002	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE120-002	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE120-002	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE120-002	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-002	Fish, Aquatic Life, and	ZINC	2026	No Change -	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Meeting Criteria	
DE120-003-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE120-003-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE120-003-01	Fish Consumption	CHLORDANE	2022	Not Assessed	Delisted 2016 because Chlordane is no longer a contaminant of concern in fish consumption advisories for these waters.
DE120-003-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE120-003-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2018. 2024 state category 5mnr added based on 2018 analysis for the evaluation of Fish Consumption Advisories.
DE120-003-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2004. Delisted 2006.
DE120-003-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018. Relisted 2024.
DE120-003-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE120-003-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE120-003-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-003-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-003-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Prior to 2016, EPA TMDL for PCBS in Delaware River Zone 5 and tributaries. Delisted 2016 because PCBs are no longer a contaminant of concern in fish consumption advisories for these waters.
DE120-003-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE120-003-02-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE120-003-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE120-003-02-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE120-003-02-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-003-02-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE120-003-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE120-004-01	Fish, Aquatic Life, and Wildlife	COPPER	2018	Not Assessed	Listed 2016.
DE120-004-01	Fish Consumption	DIELDRIN	2018	Not Assessed	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-004-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 2002. Delisted 2006.
DE120-004-01	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2020.
DE120-004-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996. Delisted 2012.
DE120-004-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2018	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-004-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE120-004-02	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE120-004-02	Public Water Supply	ARSENIC	2026	New - Meeting Criteria	2026 New parameter use.
DE120-004-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE120-004-02	Fish, Aquatic Life, and Wildlife	COPPER	2026	Changed to Meeting Criteria	Listed 2016. Delisted 2026.
DE120-004-02	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-004-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2006.
DE120-004-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2020. Relisted 2024.
DE120-004-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE120-004-02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE120-004-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-004-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-004-02	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-004-02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE120-004-02-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE120-004-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE120-004-02-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-004-02-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-004-02-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE120-004-02-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-004-03-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-004-03-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-004-03-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-004-03-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE120-005-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-005-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE120-006-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-006-01	Fish, Aquatic Life, and	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife				
DE120-006-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE120-006-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE120-006-02	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE120-006-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE120-006-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE120-006-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE120-006-02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE120-006-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-006-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-006-02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE120-006-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-006-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE120-006-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-007-01-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2016	Not Assessed	Listed 1998.
DE120-007-01-01	Fish Consumption	CHLORDANE	2016	Not Assessed	Listed 2016.
DE120-007-01-01	Fish Consumption	DIELDRIN	2016	Not Assessed	Listed 2016.
DE120-007-01-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2016	Not Assessed	Listed 1996. Delisted 2002.
DE120-007-01-01	Primary Contact Recreation	ENTEROCOCCUS	2016	Not Assessed	Listed 1996.
DE120-007-01-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2016	Not Assessed	Listed 1998.
DE120-007-01-01	Fish Consumption	HEPTACHLOR	2016	Not Assessed	Listed 2016.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
		EPOXIDE			
DE120-007-01-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2016	Not Assessed	Listed 1996. Delisted 2012.
DE120-007-01-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2016	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-007-01-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-007-01-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-007-01-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE120-007-01-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE120-007-01-05	Fish Consumption	CHLORDANE	2022	Not Assessed	Listed 2016.
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE120-007-01-05	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016.
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002.
DE120-007-01-05	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE120-007-01-05	Fish Consumption	HEPTACHLOR EPOXIDE	2022	Not Assessed	Listed 2016.
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-007-01-05	Fish Consumption	POLYCHLORINATED BIPHENYLS	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
		(PCBS)			
DE120-007-01-05	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE120-007-02-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-007-02-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-007-02-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE120-007-02-03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-007-02-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE120-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2004.
DE120-L01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-L01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE120-L01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2012	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-L02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-L02	Fish Consumption	MERCURY	2012	Not Assessed	
DE120-L02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2002.
DE120-L02	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2012	Not Assessed	Listed 2002. Delisted 2010 due to removal of advisory. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-L03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE120-L03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE120-L03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE130-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE130-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1998.
DE130-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2006. Relisted 2008. Delisted 2010. Relisted 2024.
DE130-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE130-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE130-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE130-002-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010. Relisted 2012. Delisted 2020.
DE130-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE130-002-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE130-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE130-002-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996.
DE130-002-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2012. Delisted 2020. Relisted 2024.
DE130-002-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE130-002-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE140-001	Fish, Aquatic Life, and Wildlife	COPPER	2018	Not Assessed	Delisted 2020.
DE140-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1996. Delisted 2008. Relisted 2010. Delisted 2018.
DE140-001	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2008.
DE140-001	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996.
DE140-002	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE140-002	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE140-002	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE140-002	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2022.
DE140-002	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE140-002	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-002	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	Changed to Cause	Listed 2002. Refined from Nutrients 2024. Delisted 2024. Error in 2024 - should not have been delisted. Relisted 2026.
DE140-002	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE140-002	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE140-002	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE140-003	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE140-003	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE140-003	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE140-003	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2010.
DE140-003	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE140-003	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-003	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-003	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-003	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE140-003	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE140-004	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	New - Meeting Criteria	2026 New parameter.
DE140-004	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE140-004	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	Listed 2014. Delisted 2020. Relisted 2022. Delisted 2024.
DE140-004	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	Change - Cause	Listed 2002. Delisted 2012. Relisted 2022. Delisted 2024. Relisted 2026 based on external data.
DE140-004	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Relisted 2022.
DE140-004	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-004	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen. Listed 2026 due to dissolved inorganic nitrogen.
DE140-004	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE140-004	Fish, Aquatic Life, and Wildlife	TEMPERATURE	2022	Not Assessed	Listed 1996. EPA TMDL December 2004.
DE140-004	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Cause	Listed 1996. Inland Bays Nutrient TMDLs addressed Suspended Solids.
DE140-004	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE140-005	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE140-005	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE140-005	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE140-005	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE140-005	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE140-005	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-005	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE140-005	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-005	Fish, Aquatic Life, and Wildlife	TEMPERATURE	2022	Not Assessed	Listed in 1996. Delisted in 2002 as sole point source discharger was removed.
DE140-005	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE140-005	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE140-006	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE140-006	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE140-006	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE140-006	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	Changed to Meeting Criteria	Listed 2002. Delisted 2004. Relisted 2024. Delisted 2026.
DE140-006	Primary Contact Recreation	ENTEROCOCCUS	2026	Changed to Meeting Criteria	Listed 1996. Delisted 2008. Relisted 2024. Delisted 2026.
DE140-006	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-006	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE140-006	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE140-006	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE140-006	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE140-007	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE140-007	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE140-008	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE140-008	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE140-008	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE140-009-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE140-009-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2004.
DE140-009-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE140-009-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE140-009-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2004.
DE140-010	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE140-010	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE140-010	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE140-E01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE140-E01	Fish, Aquatic Life, and Wildlife	COPPER	2026	Changed to Meeting Criteria	Listed 2014. Delisted 2020. Relisted 2022. Delisted 2026.
DE140-E01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE140-E01	Primary Contact Recreation	ENTEROCOCCUS	2026	Changed to Meeting Criteria	Listed 1996. Delisted 2010. Relisted 2024. Delisted 2026.
DE140-E01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-E01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-E01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	Changed to Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic phosphorus. Delisted 2026.
DE140-E01	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Cause	Listed 2006. TMDL in place for Suspended Solids in Inland Bays TMDL of 2006. Delisted 2022. Relisted 2024.
DE140-E01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE140-E02	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE140-E02	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	Delisted 2020.
DE140-E02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2010. Relisted 2012. Delisted 2013.
DE140-E02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2024.
DE140-E02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-E02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen.
DE140-E02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-E02	Fish, Aquatic Life, and Wildlife	TEMPERATURE	2022	Not Assessed	Listed 1996. EPA TMDL December 2004.
DE140-E02	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Cause	Listed 2014.
DE140-E02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE140-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE140-L01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE140-L01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE140-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002. Relisted 2004. Delisted 2006. Relisted 2020. Delisted 2024.
DE140-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2006. Relisted 2024.
DE140-L01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE140-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.
DE140-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE140-L01	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE140-L01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE140-L02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2004.
DE140-L02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE140-L03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE140-L03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE140-L04	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE150-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE150-001-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE150-001-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Cause	Listed 2016.
DE150-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE150-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2020. Relisted 2022.
DE150-001-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE150-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE150-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE150-001-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE150-001-02	Fish, Aquatic Life, and Wildlife	COPPER	2018	Not Assessed	Listed 2016.
DE150-001-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1998.
DE150-001-02	Primary Contact	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2020.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Recreation				
DE150-001-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2018	Not Assessed	Listed 1998.
DE150-001-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996.
DE150-001-02	Fish, Aquatic Life, and Wildlife	TEMPERATURE	2018	Not Assessed	Listed in 1998. Delisted 2018 as there are no point source discharges.
DE160-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	New - Meeting Criteria	2026 New parameter.
DE160-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2024.
DE160-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE160-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE160-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE160-002-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE160-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2010.
DE160-002-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2018. Relisted 2024.
DE160-002-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE160-002-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE160-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE160-002-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1998.
DE160-002-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE160-003-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE160-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE160-003-03	Fish, Aquatic Life, and	DISSOLVED	2012	Not Assessed	Listed 2004.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	OXYGEN			
DE160-003-03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2006.
DE160-003-03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2006.
DE160-004	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2004.
DE160-004	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2006.
DE160-004	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2006.
DE160-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE160-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2010.
DE160-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2006. Relisted 2024.
DE160-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE160-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE160-L02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2012.
DE160-L02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE160-L02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE170-001	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE170-001	Fish, Aquatic Life, and Wildlife	COPPER	2024	Not Assessed	Delisted 2020.
DE170-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Llisted 1996. Delisted 2002. Relisted 2004. Delisted 2022.
DE170-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2022. Relisted 2024.
DE170-001	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE170-001	Fish, Aquatic Life, and	NITROGEN	2026	No Change -	Listed 1996. Refined from Nutrients 2024.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Meeting Criteria	Delisted 2024.
DE170-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic phosphorus.
DE170-001	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	New - Cause	Listed 2026.
DE170-001	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE180-001	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE180-001	Fish, Aquatic Life, and Wildlife	COPPER	2026	Changed to Cause	Listed 2026.
DE180-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022.
DE180-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024.
DE180-001	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE180-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-001	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Meeting Criteria	
DE180-001	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE180-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2016	Not Assessed	Listed 1996. Delisted 2016.
DE180-002-01	Primary Contact Recreation	ENTEROCOCCUS	2016	Not Assessed	Listed 1996.
DE180-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2016	Not Assessed	Listed 1996.
DE180-002-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE180-002-02	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE180-002-02	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE180-002-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	Changed to Meeting Criteria	Listed 1996. Delisted 2026.
DE180-002-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE180-002-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE180-002-02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE180-002-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE180-002-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE180-002-02	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE180-002-02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE180-003-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	New - Meeting Criteria	2026 New parameter.
DE180-003-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE180-003-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	Delisted 2020.
DE180-003-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2010.
DE180-003-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE180-003-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE180-003-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen.
DE180-003-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE180-003-01	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Meeting Criteria	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE180-003-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE180-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE180-003-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE180-E01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE180-E01	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	Delisted 2020.
DE180-E01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008. Relisted 2010. Delisted 2014.
DE180-E01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2006. Relisted 2024.
DE180-E01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE180-E01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-E01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-E01	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Meeting Criteria	
DE180-E01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE190-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	New - Meeting Criteria	2026 New parameter.
DE190-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	Changed to Meeting Criteria	Listed 1996. Delisted 2026.
DE190-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE190-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE190-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE190-001-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE190-001-02-01	Primary Contact	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Recreation				
DE190-001-02-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE190-001-02-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE190-001-02-03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE190-001-02-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE190-001-02-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996.
DE190-001-02-03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2024.
DE190-001-02-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE190-001-02-03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE190-001-02-03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE190-001-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2010.
DE190-001-03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010. Relisted 2012.
DE190-001-03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE200-001-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2018	Not Assessed	Listed 1998.
DE200-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1996. Delisted 2008.
DE200-001-01	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2008.
DE200-001-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2018	Not Assessed	Listed 1998.
DE200-001-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2018	Not Assessed	Listed 1996. Delisted 2014. Relisted 2018.
DE200-001-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-001-03	Fish, Aquatic Life, and	AMMONIA, TOTAL	2026	No Change -	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Meeting Criteria	
DE200-001-03	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE200-001-03	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE200-001-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE200-001-03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2008. Relisted 2024.
DE200-001-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE200-001-03	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE200-001-03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Delisted 2014. Relisted 2018. Refined from Nutrients 2024.
DE200-001-03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE200-001-03	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE200-001-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-001-04	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE200-001-04	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002.
DE200-001-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-001-04	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE200-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE200-002-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002.
DE200-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE200-002-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-03	Fish, Aquatic Life, and	HABITAT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	ASSESSMENT			
DE200-002-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-002-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-07	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-002-07	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-08	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-09	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-10	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-002-10	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-11	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-002-11	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-12	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-002-12	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-13	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-14	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-15	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1998.
DE200-002-15	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2018	Not Assessed	Listed 1998.
DE200-002-15	Fish, Aquatic Life, and	TEMPERATURE	2018	Not Assessed	Listed 1998. Delisted 2018 as there are no

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife				point source discharges.
DE200-002-16	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-002-16	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-17	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1998.
DE200-002-17	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2018	Not Assessed	Listed 1998.
DE200-002-17	Fish, Aquatic Life, and Wildlife	TEMPERATURE	2018	Not Assessed	Listed 1998. Delisted 2018 as there are no point source discharges.
DE200-002-18	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-19	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-21	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE200-002-21	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-23	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE200-002-24	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE210-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	Remove 2024 - no marine criteria. Returned 2026.
DE210-001	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE210-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2020.
DE210-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE210-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE210-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE210-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2006.
DE210-002-01	Primary Contact	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Recreation				
DE210-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE210-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE210-002-03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE210-002-03	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE210-002-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE210-002-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE210-002-03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE210-002-03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE210-002-03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE210-003	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2006.
DE210-003	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE210-003	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2006.
DE210-004	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2006.
DE210-004	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE210-004	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2006.
DE210-005	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2004.
DE210-005	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2006.
DE210-005	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2006.
DE210-L01	Fish, Aquatic Life, and	DISSOLVED	2012	Not Assessed	Llisted 2006. Delisted 2008.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	OXYGEN			
DE210-L01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE210-L02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE210-L02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE210-L02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2006.
DE210-L02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE210-L02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE210-L03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2006.
DE210-L03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002. Delisted 2004.
DE210-L03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE210-L04	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE210-L05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2002.
DE210-L05	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE210-L05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE210-L06	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE210-L06	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2012.
DE210-L06	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1998. Delisted 2006. Relisted 2024.
DE210-L06	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1998. Refined from Nutrients 2024.
DE210-L06	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Refined from Nutrients 2024. Delisted 2024.
DE220-001	Fish, Aquatic Life, and	AMMONIA, TOTAL	2026	No Change -	Remove 2024 - no marine criteria. Returned

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Meeting Criteria	2026.
DE220-001	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE220-001	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Cause	Listed 2014.
DE220-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996. Listed 2026 due to USGS continuous monitoring data.
DE220-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE220-001	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE220-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2018. Delisted 2020. Refined from Nutrients 2024.
DE220-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2018. Delisted 2020. Refined from Nutrients 2024.
DE220-001	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE220-002-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE220-002-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE220-002-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	
DE220-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996. Delisted 2014. Relisted 2022.
DE220-002-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE220-002-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE220-002-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE220-002-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE220-002-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE220-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE220-002-02	Fish, Aquatic Life, and	HABITAT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	ASSESSMENT			
DE220-002-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE220-002-04	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE220-002-04	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE220-002-04	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE220-002-04	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE220-002-04	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE220-002-04	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Refined from Nutrients 2024.
DE220-002-04	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024.
DE220-002-04	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE220-003-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE220-003-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE220-003-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE220-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE220-004-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	Listed 2004. Delisted 2018.
DE220-004-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE220-004-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2008.
DE220-004-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1998.
DE220-004-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE220-004-01	Fish, Aquatic Life, and	NITROGEN	2026	Changed to Cause	Listed 1998. Delisted 2016. Refined from

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife				Nutrients 2024. Relisted 2026.
DE220-004-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2016. Refined from Nutrients 2024.
DE220-004-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE220-004-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE220-004-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE220-005-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE220-005-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE220-005-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE220-005-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2004. Delisted 2006.
DE220-005-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE220-005-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	Changed to Meeting Criteria	*2024 New parameter. Listed 2024. Placed in Category 3 to review stormwater specific data. Meeting criteria 2026.*
DE220-005-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE220-005-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE220-005-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE220-005-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE220-005-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2018	Not Assessed	Listed 1998.
DE220-005-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2018	Not Assessed	Listed 1998.
DE220-005-03	Fish, Aquatic Life, and Wildlife	TEMPERATURE	2018	Not Assessed	Listed 1998. Delisted 2018 as there are no point source discharges.
DE220-005-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE220-005-05	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE220-005-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE220-005-06	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1998.
DE220-005-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE220-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002. Delisted 2008.
DE220-L01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1998. Delisted 2006.
DE220-L01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1998.
DE220-L02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2002. Delisted 2006.
DE220-L02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002.
DE220-L03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE220-L03	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE220-L03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE220-L03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2004. Relisted 2024.
DE220-L03	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE220-L03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	Changed to Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2026.
DE220-L03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE220-L03	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE220-L04	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE220-L04	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE220-L05	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE220-L05	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE220-L05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE220-L05	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2004.
DE220-L05	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE220-L05	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE220-L05	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE220-L05	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE230-001-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE230-001-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2002. Delisted 2012.
DE230-001-02-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE230-001-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE230-001-02-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE230-001-02-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE230-001-02-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE230-001-02-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE230-001-02-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-001	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE240-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2010.
DE240-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2004. Relisted 2014.
DE240-001	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE240-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Delisted 2014. Relisted 2016. Refined from Nutrients 2024.
DE240-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2016. Refined from Nutrients 2024. Delisted 2024.
DE240-001	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE240-002-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-002-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE240-002-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE240-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016. Relisted 2024.
DE240-002-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE240-002-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE240-002-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE240-002-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE240-002-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-002-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-002-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE240-002-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE240-002-05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-05	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016.
DE240-002-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-002-05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1998.
DE240-002-06	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-002-07	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-002-07	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE240-002-07	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-07	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016. Relisted 2024.
DE240-002-07	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE240-002-07	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE240-002-07	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE240-002-07	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE240-002-07	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE240-002-08	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE240-002-08	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-08	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016.
DE240-002-08	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-002-08	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE240-002-09	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-003	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-003	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE240-003	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	Changed to Cause	Listed 1996. Delisted 2006. Relisted 2016. Delisted 2020. Relisted 2026.
DE240-003	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2006. Relisted 2010.
DE240-003	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE240-003	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE240-003	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE240-003	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE240-004-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-004-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE240-004-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2012. Delisted 2018.
DE240-004-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2016. Relisted 2024.
DE240-004-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Cause	2024 New parameter. Listed 2024. Data collected prior to assessment period did not show exceedances and there were no obvious sources. DNREC will maintain Category 5, but investigate.
DE240-004-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-004-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-004-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	Delisted 2024.
DE240-004-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE240-004-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-004-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-005-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-005-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE240-005-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE240-005-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2008. Relisted 2024.
DE240-005-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE240-005-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-005-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-005-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Cause	Listed 2014.
DE240-005-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2008.
DE240-005-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-005-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE240-005-02	Fish, Aquatic Life, and Wildlife	ZINC	2012	Not Assessed	Listed 2014.
DE240-005-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-005-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-006-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE240-006-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE240-006-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE240-006-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996.
DE240-006-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE240-006-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-006-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE240-007-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE240-007-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE240-007-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE240-007-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-007-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE240-008	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE240-008	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE240-008	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE240-010-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-010-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE240-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE240-L01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE240-L01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE240-L02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-L02	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE240-L02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE240-L02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	
DE240-L02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE240-L02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-L02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-L02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE240-L04	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE240-L04	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE240-L04	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE240-L04	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2006.
DE240-L04	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE240-L04	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024.
DE240-L04	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE240-L04	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE240-L05	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE240-L05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE250-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE250-001-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2020.
DE250-001-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE250-001-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE250-001-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2008.
DE250-001-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2020. Relisted 2024.
DE250-001-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE250-001-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE250-001-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE250-001-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2008.
DE250-001-03	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2020.
DE250-001-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE250-001-03	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE250-002	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2006.
DE250-002	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2004.
DE250-002	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE250-002	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2004.
DE260-001-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE260-001-02	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE260-001-02	Public Water Supply	ARSENIC	2026	New - Meeting Criteria	2026 New parameter use.
DE260-001-02	Fish Consumption	CHLORINATED PESTICIDES	2022	Not Assessed	TMDL Target date changed from 2009 to 2017 in the 2012 Cycle, per the WATAR plan. Delisted 2016 as these are not contaminants of concern in fish tissue advisories.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE260-001-02	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE260-001-02	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2022	Not Assessed	Levels at State Line exceed human health and aquatic life criteria and decline downstream in a response fully explained by simple dilution, indicating sources are in Pennsylvania. The extensive sampling occurred in 2015 as part of the WATAR. DNREC is working with Pennsylvania and US EPA to address this issue.
DE260-001-02	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016.
DE260-001-02	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2002.
DE260-001-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE260-001-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024.
DE260-001-02	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2002.
DE260-001-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE260-001-02	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE260-001-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listd 1996. Refined from Nutrients 2024.
DE260-001-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE260-001-02	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE260-001-02	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	Listed 1996. TMDL 2004. Delisted 2014.
DE260-001-03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE260-001-03	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE260-001-03	Public Water Supply	ARSENIC	2026	New - Meeting Criteria	2026 New parameter use.
DE260-001-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE260-001-03	Fish Consumption	CHLORINATED PESTICIDES	2022	Not Assessed	TMDL Target date changed from 2009 to 2017 in the 2012 Cycle, per the WATAR plan. Delisted 2016 as these are not contaminants of concern in fish tissue advisories.
DE260-001-03	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE260-001-03	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2022	Not Assessed	Levels at State Line exceed human health and aquatic life criteria and decline downstream in a response fully explained by simple dilution, indicating sources are in Pennsylvania. The extensive sampling occurred in 2015 as part of the WATAR. DNREC is working with Pennsylvania and US EPA to address this issue.
DE260-001-03	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016.
DE260-001-03	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2002.
DE260-001-03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE260-001-03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024.
DE260-001-03	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2002.
DE260-001-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Delisted 2014 per Tetra Tech Report for EPA and Delaware DNREC.
DE260-001-03	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE260-001-03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	Changed to Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2026.
DE260-001-03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE260-001-03	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE260-001-03	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	Listed 1996. TMDL 2004. Delisted 2014.
DE260-002-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE260-002-01	Fish, Aquatic Life, and	ARSENIC	2026	New - Meeting	2026 New parameter.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife			Criteria	
DE260-002-01	Public Water Supply	ARSENIC	2026	New - Meeting Criteria	2026 New parameter use.
DE260-002-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE260-002-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Cause	2026 New parameter. Listed 2026.
DE260-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE260-002-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2020. Relisted 2024.
DE260-002-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE260-002-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE260-002-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE260-002-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE260-003-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE260-003-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE260-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE260-L01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	This segment was listed in 1996, apparently based on earlier reports but no data were used for the listing. No data has been collected in the interim. The Department will study the segment to determine if a listing is appropriate.
DE270-001-01-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE270-001-01-01	Fish Consumption	CHLORINATED BENZENES	2022	Not Assessed	Listed 1996. Delisted 2002 based on improved conditions.
DE270-001-01-01	Fish, Aquatic Life, and Wildlife	CHRONIC TOXICITY	2022	Not Assessed	Listed Based on 2011 journal article. Likely cause is a federal superfund site. The Department is working with EPA on the

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
					cleanup and possible TMDL.
DE270-001-01-01	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE270-001-01-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2024.
DE270-001-01-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002. Delisted 2020. Relisted 2024.
DE270-001-01-01	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE270-001-01-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-01-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-01-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 2002. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE270-001-01-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE270-001-02-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE270-001-02-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2014.
DE270-001-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE270-001-02-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE270-001-02-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-02-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-02-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 2014. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE270-001-02-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	New - Meeting Criteria	2026 New parameter.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2026 New parameter.
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Cause	Listed 2016.
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2004. Relisted 2012. Delisted 2018.
DE280-001-01-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen.
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Meeting Criteria	
DE280-001-01-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE280-001-01-02	Fish, Aquatic Life, and Wildlife	COPPER	2012	Not Assessed	Listed 2016.
DE280-001-01-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2004. Relisted 2012. Delisted 2018.
DE280-001-01-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE280-001-01-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE280-001-01-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE280-002	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE280-002	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE280-002	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE280-002	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE280-002	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024.
DE280-002	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE280-002	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-002	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-002	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE280-002	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE280-E01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE280-E01	Fish, Aquatic Life, and Wildlife	COPPER	2026	No Change - Meeting Criteria	Listed 2014. Delisted 2020. Relisted 2022. Delisted 2024.
DE280-E01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2006. Relisted 2016. Delisted 2018.
DE280-E01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Meeting Criteria	
DE280-E01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE280-E01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-E01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-E01	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2026	No Change - Meeting Criteria	
DE280-E01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE280-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE280-L01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE280-L01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE280-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2016. Delisted 2022.
DE280-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	Changed to Meeting Criteria	Listed 2024. Delisted 2026.
DE280-L01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE280-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2018. Relisted 2022. Refined from Nutrients 2024. Delisted 2024.
DE280-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2018. Relisted 2022. Refined from Nutrients 2024. Delisted 2024.
DE280-L01	Fish, Aquatic Life, and Wildlife	TOTAL SUSPENDED SOLIDS (TSS)	2024	Not Assessed	
DE280-L01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	
DE290-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	New - Meeting Criteria	2026 New parameter.
DE290-001-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	
DE290-001-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-01	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2024.
DE290-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE290-001-01	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-01	Fish Consumption	MERCURY	2022	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE290-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE290-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE290-001-01	Fish Consumption	POLYCHLORINATE	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
		D BIPHENYLS (PCBS)			Delaware River Zone 6 and tributaries.
DE290-001-02-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE290-001-02-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2022	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE290-001-02-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-02-01	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2002.
DE290-001-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996.
DE290-001-02-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996.
DE290-001-02-01	Fish Consumption	FURAN COMPOUNDS	2022	Not Assessed	Listed 2002.
DE290-001-02-01	Fish Consumption	MERCURY	2022	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE290-001-02-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE290-001-02-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE290-001-02-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE290-001-02-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE290-001-02-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE290-001-02-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE290-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 1996. Delisted 2002.
DE290-002-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE290-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE290-002-02	Fish, Aquatic Life, and	BIOLOGICAL	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	INTEGRITY			
DE290-002-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE290-002-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE290-003-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2016	Not Assessed	Listed 1996.
DE290-003-01	Primary Contact Recreation	ENTEROCOCCUS	2016	Not Assessed	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2016.
DE290-003-01	Fish Consumption	MERCURY	2016	Not Assessed	Listed 2014.
DE290-003-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2016	Not Assessed	Listed 1996. Delisted 2012.
DE290-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE290-003-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE290-003-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE290-003-05	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE290-003-05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2024.
DE290-003-05	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2014. Delisted 2016. Relisted 2024.
DE290-003-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Listed 1998.
DE290-003-05	Fish Consumption	MERCURY	2022	Not Assessed	Listed 2014.
DE290-003-05	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-003-05	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-003-06	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE290-004-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE290-004-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002.
DE290-004-01	Primary Contact	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Recreation				
DE290-004-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE290-004-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE290-004-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE290-004-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE290-004-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE290-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE290-L01	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2022	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE290-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2002.
DE290-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2006. Delisted 2008. Relisted 2024.
DE290-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE290-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE290-L01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE290-L02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE290-L02	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE290-L02	Fish Consumption	DIOXIN	2022	Not Assessed	Listed 2002.
DE290-L02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE290-L02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2006. Delisted 2012. Relisted 2024.
DE290-L02	Fish Consumption	FURAN	2022	Not Assessed	Listed 2002.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
		COMPOUNDS			
DE290-L02	Fish, Aquatic Life, and Wildlife	LEAD	2026	New - Meeting Criteria	2026 New parameter
DE290-L02	Fish Consumption	MERCURY	2022	Not Assessed	Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-L02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-L02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-L02	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE290-L02	Fish, Aquatic Life, and Wildlife	ZINC	2026	New - Meeting Criteria	2026 New parameter.
DE290-L03	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE290-L03	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE290-L03	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2004. Relisted 2024.
DE290-L03	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE290-L03	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE290-L04	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2018	Not Assessed	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories. 2022 updated to correct Cat 5 listing to include 5mnr.
DE290-L04	Fish Consumption	DIOXIN	2018	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE290-L04	Fish Consumption	FURAN COMPOUNDS	2018	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE290-L04	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2018	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DE300-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE300-001-01	Fish Consumption	CHLORDANE	2022	Not Assessed	Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE300-001-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016.
DE300-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Cause	Listed 1996. Delisted 2016. Relisted 2018.
DE300-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE300-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE300-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE300-001-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 2002. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE300-001-02-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE300-001-02-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	New - Meeting Criteria	2026 New parameter.
DE300-001-02-01	Fish Consumption	CHLORDANE	2022	Not Assessed	Listed 2016.
DE300-001-02-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2012.
DE300-001-02-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE300-001-02-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024.
DE300-001-02-01	Fish Consumption	HEPTACHLOR EPOXIDE	2022	Not Assessed	Listed 2016.
DE300-001-02-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE300-001-02-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE300-001-02-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 2016. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE300-001-02-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE300-001-02-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE300-001-02-03	Fish, Aquatic Life, and	BIOLOGICAL	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	INTEGRITY			
DE300-001-02-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE300-001-03-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE300-001-03-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE300-001-03-02	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 2010.
DE300-001-03-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE300-001-03-02	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 2008. Delisted 2012.
DE310-001	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	Remove 2024 - no marine criteria. Returned 2026.
DE310-001	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2024.
DE310-001	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 2002.
DE310-001	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE310-001	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE310-002-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2002. Delisted 2008.
DE310-002-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2010.
DE310-002-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012.
DE310-002-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE310-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Listed 1998.
DE310-002-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2002. Delisted 2008.
DE310-002-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2010. Relisted 2024.
DE310-002-02	Fish, Aquatic Life, and	HABITAT	2022	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	ASSESSMENT			
DE310-002-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE310-002-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE310-003-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2022	Not Assessed	
DE310-003-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2004. Delisted 2014. Relisted 2018. Delisted 2022.
DE310-003-01	Primary Contact Recreation	ENTEROCOCCUS	2022	Not Assessed	Listed 1998. Delisted 2022.
DE310-003-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	New - Refined	Listed 1998. Delisted 2020. Relisted 2022. Refined from Nutrients 2026. Delisted 2026.
DE310-003-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2026	Changed to Removed	Listed 1998. Delisted 2020. Relisted 2022. Refined 2026.
DE310-003-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	New - Refined	Listed 1998. Delisted 2020. Relisted 2022. Refined from Nutrients 2026. Delisted 2026.
DE310-003-02	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	2024 Freshwater. Should be assessed for ammonia.
DE310-003-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE310-003-02	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2004. Delisted 2014. Relisted 2018. Delisted 2024.
DE310-003-02	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1998.
DE310-003-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE310-003-02	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Delisted 2020. Refined from Nutrients 2024. Listed 2024.
DE310-003-02	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE310-003-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE310-003-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE310-003-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE310-003-05	Fish, Aquatic Life, and	BIOLOGICAL	2012	Not Assessed	Listed 1998.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	INTEGRITY			
DE310-003-05	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2004. Delisted 2014. Relisted 2018.
DE310-003-05	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1998.
DE310-003-05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1998. Delisted 2020.
DE310-003-06	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE310-003-06	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2004. Delisted 2014. Relisted 2018. Delisted 2024.
DE310-003-06	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1998.
DE310-003-06	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Refined from Nutrients 2024.
DE310-003-06	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024.
DE310-L01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE310-L01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	Listed 2006. Delisted 2022.
DE310-L01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Delisted 2022. Relisted 2024.
DE310-L01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE310-L01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE320-001-01	Fish, Aquatic Life, and Wildlife	AMMONIA, TOTAL	2026	No Change - Meeting Criteria	
DE320-001-01	Fish, Aquatic Life, and Wildlife	ARSENIC	2026	No Change - Meeting Criteria	2024 New parameter.
DE320-001-01	Public Water Supply	ARSENIC	2026	New - Meeting Criteria	2026 New parameter use.
DE320-001-01	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2022	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-01	Fish, Aquatic Life, and Wildlife	COPPER	2026	New - Meeting Criteria	2026 New parameter.
DE320-001-01	Fish Consumption	DIELDRIN	2022	Not Assessed	Listed 2016.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE320-001-01	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2026	No Change - Meeting Criteria	
DE320-001-01	Primary Contact Recreation	ENTEROCOCCUS	2026	No Change - Cause	Listed 1996. Changed to Category 3 in 2020 to look into submitted Volunteer Data. Delisted 2022. Relisted 2024.
DE320-001-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2022	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-01	Fish, Aquatic Life, and Wildlife	LEAD	2026	No Change - Meeting Criteria	New parameter 2024.
DE320-001-01	Fish, Aquatic Life, and Wildlife	NITROGEN	2026	No Change - Cause	Listed 1996. Refined from Nutrients 2024.
DE320-001-01	Fish, Aquatic Life, and Wildlife	PHOSPHORUS	2026	No Change - Meeting Criteria	Refined from Nutrients 2024. Delisted 2024.
DE320-001-01	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2022	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE320-001-01	Fish, Aquatic Life, and Wildlife	ZINC	2026	No Change - Meeting Criteria	Listed 1999. Delisted 2004 based on improved water quality.
DE320-001-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2016	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-03	Fish Consumption	CHLORDANE	2016	Not Assessed	Listed 2016.
DE320-001-03	Fish Consumption	DDD (DICHLORODIPHENYLDICHLOROETHANE)	2016	Not Assessed	Listed 2016.
DE320-001-03	Fish Consumption	DDE (DICHLORODIPHENYLDICHLOROETHYLENE)	2016	Not Assessed	Listed 2016.
DE320-001-03	Fish Consumption	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	2016	Not Assessed	Listed 2016.
DE320-001-03	Fish Consumption	DIELDRIN	2016	Not Assessed	Listed 2016.
DE320-001-03	Primary Contact Recreation	ENTEROCOCCUS	2016	Not Assessed	Listed 1996. Delisted 2020.
DE320-001-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2016	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-03	Fish, Aquatic Life, and	NUTRIENTS	2016	Not Assessed	Listed 1996.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife				
DE320-001-03	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2016	Not Assessed	Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE320-001-03	Fish, Aquatic Life, and Wildlife	ZINC	2016	Not Assessed	Listed 1999. Delisted 2004 based on improved water quality.
DE320-002-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE320-002-02	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE320-002-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE320-002-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 2014.
DE320-002-04	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE320-002-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Delisting per Tetra Tech Report for EPA.and Delaware DNREC.
DE320-002-04	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012. Changed to Category 3 in 2020 to look into submitted Volunteer Data.
DE320-002-05	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE320-002-05	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE320-002-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	
DE320-002-05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012. Changed to Category 3 in 2020 to look into submitted Volunteer Data.
DE320-003-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE320-003-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE320-003-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DE320-003-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-04	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-05	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Listed 1998.
DE320-003-05	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE320-003-05	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE320-003-05	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996.
DE320-004-01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996.
DE320-004-01	Fish, Aquatic Life, and Wildlife	NUTRIENTS	2012	Not Assessed	Listed 1996. Delisted 2012. Changed to Category 3 in 2020 to look into submitted Volunteer Data.
DE320-004-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	
DE320-004-03	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	
DE320-004-03	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	
DE320-004-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	
DE320-005-01	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Listed 1998.
DE320-005-02	Fish, Aquatic Life, and Wildlife	BIOLOGICAL INTEGRITY	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-005-04	Fish, Aquatic Life, and Wildlife	HABITAT ASSESSMENT	2012	Not Assessed	Per Tetra Tech Report for EPA and Delaware DNREC.
DE350-E01	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1998.
DEDRBCZone5	Fish, Aquatic Life, and Wildlife	ARSENIC	2012	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5	Fish, Aquatic Life, and	CHRONIC	2012	Not Assessed	Bioassays performed in 2005, 2007, and

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
	Wildlife	TOXICITY			2008 indicate no chronic toxicity in Zone 5 mainstem samples. Chronic toxicity, listed in 2002, Delisted in 2012 based on 2011 journal article.
DEDRBCZone5	Fish Consumption	DIELDRIN	2012	Not Assessed	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dieldrin to be more specific.
DEDRBCZone5	Fish Consumption	DIOXIN	2012	Not Assessed	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dioxin to be more specific.
DEDRBCZone5	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2004 based on 2004 DRBC 305(b) assessment.
DEDRBCZone5	Fish Consumption	FURAN COMPOUNDS	2012	Not Assessed	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Furan Compounds to be more specific.
DEDRBCZone5	Fish, Aquatic Life, and Wildlife	IRON	2012	Not Assessed	Surface water levels of iron in the segment sometimes exceed the applicable criterion. The Department believes further study of surface water iron levels and a determination of whether a use impairment is resulting from those levels is an appropriate response to the available information.
DEDRBCZone5	Fish Consumption	MERCURY	2012	Not Assessed	Listed 2002. Delisted 2014. Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2012	Not Assessed	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Polychlorinated Biphenyls (Pcbs) to be more specific.
DEDRBCZone5c	Fish, Aquatic Life, and Wildlife	ARSENIC	2012	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5c	Fish, Aquatic Life, and Wildlife	CHRONIC TOXICITY	2012	Not Assessed	Bioassays performed in 2005, 2007, and 2008 indicate no chronic toxicity in Zone 5 mainstem samples. Chronic toxicity, listed in 2002, Delisted in 2012 based on 2011 journal article.
DEDRBCZone5c	Fish Consumption	DIELDRIN	2012	Not Assessed	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dieldrin to be more specific.

Assessment Unit ID	Use	Parameter	Last Cycle AU Assessed	Status Change	Status Comment
DEDRBCZone5c	Fish Consumption	DIOXIN	2012	Not Assessed	Listed 2002.
DEDRBCZone5c	Fish, Aquatic Life, and Wildlife	DISSOLVED OXYGEN	2012	Not Assessed	Listed 2006. Delaware will work with the DRBC, EPA, other States and Stakeholders to develop and implement a TMDL in these waters.
DEDRBCZone5c	Primary Contact Recreation	ENTEROCOCCUS	2012	Not Assessed	Listed 1996. Delisted 2004 based on 2004 DRBC 305(b) assessment.
DEDRBCZone5c	Fish Consumption	FURAN COMPOUNDS	2012	Not Assessed	Listed 2002.
DEDRBCZone5c	Fish, Aquatic Life, and Wildlife	IRON	2012	Not Assessed	Surface water levels of iron in the segment sometimes exceed the applicable criterion. The Department believes further study of surface water iron levels and a determination of whether a use impairment is resulting from those levels is an appropriate response to the available information.
DEDRBCZone5c	Fish Consumption	MERCURY	2012	Not Assessed	Listed 2002. Delisted 2014. Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5c	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2012	Not Assessed	Listed 1996.
DEDRBCZone6	Fish Consumption	DIOXIN	2018	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone6	Primary Contact Recreation	ENTEROCOCCUS	2018	Not Assessed	Listed 1996. Delisted 2004 based on 2004 DRBC 305(b) assessment.
DEDRBCZone6	Fish Consumption	FURAN COMPOUNDS	2018	Not Assessed	Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone6	Fish Consumption	MERCURY	2018	Not Assessed	Listed 2002. TMDL Target date of 2012 changed to 2016 in the 2012 Cycle. Changed to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DEDRBCZone6	Fish Consumption	POLYCHLORINATED BIPHENYLS (PCBS)	2018	Not Assessed	Listed 1996.

Appendix D: Use/Parameter Summary

Table D1: Summary of 2026 Assessment Results by Designated Use

Summary table of parameter status by assessment unit in relation to their designated uses. The table indicates the number of stations used on each assessment unit to perform the assessment and if the parameter is or is not meeting the threshold or criteria (Y=Yes; N=No; I=Insufficient Information; R=Removed). Station counts with an asterisk (*) indicate a USGS continuous monitoring station for dissolved oxygen as well as standard grab samples. Parameters with superscripts are not meeting criteria or threshold due to one of multiple factors tests for that parameter ([1] = continuous DO monitoring; [2] = dissolved inorganic nitrogen; [3] = dissolved inorganic phosphorus).

2026 Assessed Parameters Meeting Criteria or Threshold (Yes/No)

		Fish, Aquatic Life and Wildlife									Primary Use	Public Water Supply
Assessment Unit ID	Station Count	Dissolved Oxygen	Ammonia	Nitrogen	Phosphorous	Total Suspended Solids	Zinc	Lead	Copper	Arsenic	Enterococcus	Arsenic
DE010-001-01*	3	N	Y	Y	Y		Y	Y	Y	Y	N	
DE010-001-02	2	Y	Y	Y	Y		Y	Y	Y		N	
DE010-001-03-04	1	Y	Y	Y	Y		Y	Y	Y		N	
DE010-002-02-02	1	Y	Y	N	Y		Y	Y	Y	Y	N	
DE010-L01	1	Y	Y	Y	Y		Y	Y	Y		Y	
DE010-L03	1	Y	Y	Y	Y		Y	Y	Y		Y	
DE020-001-01	2	N	Y	Y	Y						N	
DE020-003-02	1	Y	Y	Y	Y						N	
DE020-003-03	1	N	Y	Y	Y						N	
DE030-001	2	Y	Y	Y	Y						N	
DE030-002-03	1	Y	Y	Y	Y					Y	N	
DE040-001	1	Y	Y	Y	Y		Y	Y	Y		N	
DE040-002-01*	3	Y	Y	Y	Y		Y	Y	Y	Y	N	Y
DE050-001-01	1	Y	Y	N	Y		Y	Y	N		N	

2026 Assessed Parameters Meeting Criteria or Threshold (Yes/No)

		Fish, Aquatic Life and Wildlife									Primary Use	Public Water Supply
Assessment Unit ID	Station Count	Dissolved Oxygen	Ammonia	Nitrogen	Phosphorous	Total Suspended Solids	Zinc	Lead	Copper	Arsenic	Enterococcus	Arsenic
DE050-006-03	1	Y	Y	Y	Y		Y	I	N		N	
DE050-L03	1	Y	Y	Y	Y		Y	Y	N		Y	
DE050-L04	1	Y	Y	N	Y		Y	Y	Y		N	
DE050-L07	1	Y	Y	Y	Y		Y	Y	N		N	
DE060-001*	3	N	Y	Y	Y					Y	N	
DE060-002	2	N	Y	N	Y						N	
DE060-003	1	Y	Y	N	Y						N	
DE060-004	1	Y	Y	N	Y						N	
DE060-005-01	2	Y	Y	N	N						N	
DE060-006	1	Y	Y	N	Y						N	
DE060-L01	1	Y	Y	Y	Y						Y	
DE060-L03	1	Y	Y	N	Y						Y	
DE070-001	1	Y	Y	Y	Y		Y	Y	N	Y	N	
DE090-001	1	Y	Y	Y	Y						N	
DE090-002-05	1	N		Y	Y							
DE090-L01	1	Y	Y	Y	Y						Y	
DE080-001	2	Y	Y	Y	Y						N	
DE080-002	1	Y	Y	Y	Y						Y	
DE210-001	1	Y	Y	N	Y					Y	N	
DE100-002-01	1	Y	Y	Y	Y						N	

2026 Assessed Parameters Meeting Criteria or Threshold (Yes/No)

		Fish, Aquatic Life and Wildlife									Primary Use	Public Water Supply
Assessment Unit ID	Station Count	Dissolved Oxygen	Ammonia	Nitrogen	Phosphorous	Total Suspended Solids	Zinc	Lead	Copper	Arsenic	Enterococcus	Arsenic
DE110-001-02	1	Y	Y	Y	Y						N	
DE110-002-04	1	Y	Y	Y	Y						N	
DE110-003-14	1	Y	Y	N	Y						N	
DE110-003-15	1	Y	Y	Y	Y						N	
DE120-001	1	Y	Y	Y	Y		Y	Y	Y	Y	N	Y
DE120-002*	2	N	Y	Y	Y		Y	Y	N		N	
DE120-003-01	1	Y	Y	Y	Y		Y	Y	Y		N	
DE120-004-02	1	Y	Y	Y	Y		Y	Y	Y	Y	N	Y
DE120-006-02	1	Y	Y	Y	Y		Y	Y	N		N	
DE120-007-01-05	1	Y	Y	Y	Y		Y	Y	Y		N	
DE130-001	1	N	Y	Y	Y						N	
DE130-002-02	1	N	Y	Y	Y						N	
DE140-004	1	Y	Y	N	Y	N	Y	Y	Y	Y	N	
DE140-005	1	Y	Y	Y	Y		Y	Y	N	Y	N	
DE140-006	1	Y	Y	Y	Y		Y	Y	N	Y	Y	
DE140-E02	2	Y		N	Y	N	Y	Y	Y	Y	N	
DE140-L01*	2	Y	Y	Y	Y		Y	Y	N	Y	N	
DE140-002	1	Y	Y	N	Y		Y	Y	Y	Y	N	
DE140-003	1	Y	Y	Y	Y		Y	Y	N	Y	N	
DE140-E01	2	Y		Y	Y	N	Y	Y	Y	Y	Y	

2026 Assessed Parameters Meeting Criteria or Threshold (Yes/No)

		Fish, Aquatic Life and Wildlife									Primary Use	Public Water Supply
Assessment Unit ID	Station Count	Dissolved Oxygen	Ammonia	Nitrogen	Phosphorous	Total Suspended Solids	Zinc	Lead	Copper	Arsenic	Enterococcus	Arsenic
DE180-001	1	Y		Y	Y	Y	Y	Y	N	Y	N	
DE280-E01	1	Y		Y	Y	Y	Y	Y	Y	Y	Y	
DE150-001-01	1	Y	Y	Y	Y		Y	Y	N	Y	N	
DE160-001	1	Y	Y	Y	Y						N	
DE160-002-01	1	Y	Y	N	Y						N	
DE160-L01	1	Y	Y	Y	Y						N	
DE170-001	2	Y		Y	N	N	Y	Y		Y	N	
DE180-002-02	1	Y	Y	Y	Y		Y	Y	Y	Y	N	
DE180-003-01	1	Y	Y	N	Y	Y	Y	Y	Y	Y	N	
DE180-E01	2	Y		Y	Y	Y	Y	Y	Y	Y	N	
DE190-001-01	1	Y	Y	Y	N						N	
DE190-001-02-03	1	N	Y	Y	Y						N	
DE200-001-03	1	Y	Y	N	Y		Y	Y	N	Y	N	
DE210-001	1	Y	Y	N	Y					Y	N	
DE210-002-03	1	Y	Y	N	Y					Y	N	
DE210-L02	1	Y	Y	N	Y						Y	
DE210-L06	1	Y	Y	N	Y						N	
DE220-001*	4	N	Y	Y	Y		Y	Y	N	Y	N	
DE220-002-01	1	N	Y	Y	Y		Y	Y	Y	Y	N	
DE220-002-04	1	Y	Y	Y	Y		Y	Y	N		N	

2026 Assessed Parameters Meeting Criteria or Threshold (Yes/No)

		Fish, Aquatic Life and Wildlife									Primary Use	Public Water Supply
Assessment Unit ID	Station Count	Dissolved Oxygen	Ammonia	Nitrogen	Phosphorous	Total Suspended Solids	Zinc	Lead	Copper	Arsenic	Enterococcus	Arsenic
DE220-004-01	1	Y	Y	N	Y		Y	Y	N		N	
DE220-005-01	1	Y	Y	Y	Y		Y	Y	Y	Y	N	
DE220-L03	1	Y	Y	Y	Y		Y	Y	N		N	
DE220-L05	1	Y	Y	N	Y		Y	Y	Y		Y	
DE230-001-02-01	3	Y	Y	Y	Y						N	
DE240-001	2	Y	Y	N	Y		Y	Y	N		N	
DE240-002-01	1	Y	Y	N	Y		Y	Y	N	Y	N	
DE240-002-07	1	Y	Y	N	Y		Y	Y	N		N	
DE240-003	2	N	Y	N	Y		Y	Y	N		N	
DE240-004-01	1	Y	Y	Y	Y		Y	N	N		N	
DE240-005-01	2	Y	Y	Y	Y		N	Y	N		N	
DE240-L02	1	Y	Y	Y	Y		Y	Y	N		Y	
DE240-L04	1	Y	Y	N	Y		Y	Y	N		Y	
DE250-001-02	1	Y	Y	Y	Y						N	
DE260-001-02	1	Y	Y	N	Y		Y	Y	Y	Y	N	Y
DE260-001-03	2	Y	Y	Y	Y		Y	Y	Y	Y	N	Y
DE260-002-01	1	Y	Y	Y	Y		Y	Y	N	Y	N	Y
DE270-001-01-01	1	Y	Y	Y	Y						N	
DE270-001-02-01	1	Y	Y	Y	Y						N	
DE280-001-01-01	1	Y	Y	N	Y	Y	Y	Y	N	Y	N	

2026 Assessed Parameters Meeting Criteria or Threshold (Yes/No)

		Fish, Aquatic Life and Wildlife									Primary Use	Public Water Supply
Assessment Unit ID	Station Count	Dissolved Oxygen	Ammonia	Nitrogen	Phosphorous	Total Suspended Solids	Zinc	Lead	Copper	Arsenic	Enterococcus	Arsenic
DE280-002	1	Y	Y	Y	Y		Y	Y	Y	Y	N	
DE280-E01	2	Y		Y	Y	Y	Y	Y	Y	Y	Y	
DE280-L01	1	Y	Y	Y	Y		Y	Y	Y	Y	Y	
DE300-001-01	1	N	Y	Y	Y						N	
DE300-001-02-01	2	Y	Y	Y	Y					Y	N	
DE310-001	1	Y	Y	Y	Y						N	
DE310-002-02	1	Y	Y	Y	Y						N	
DE310-003-01	1	Y		Y	Y							
DE310-003-02	1	Y	Y	N	Y						N	
DE310-003-06	1	Y	Y	Y	Y						N	
DE310-L01	1	Y	Y	Y	Y						N	
DE290-001-01	2	Y	Y	Y	Y					Y	N	
DE290-001-02-01	1	N	Y	Y	Y						N	
DE290-003-05	1	Y	Y	Y	Y						N	
DE290-L01	1	Y	Y	N	Y						N	
DE290-L02	1	Y	Y	Y	Y		Y	Y		Y	N	
DE290-L03	1	Y	Y	Y	Y						N	
DE320-001-01	3	Y	Y	N	Y		Y	Y	Y	Y	N	Y

Appendix E: Clean Water Act Section 305(b) and Section 303(d) Lists

Table E1: The State of Delaware 2026 Clean Water Act Section 305(b) List of Assessed Waters
(downloaded from ATTAINS on April 29, 2026)

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE010-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2006. Relisted 2018. Delisted 2020. Relisted 2024.
DE010-001-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2002			Listed 2002. EPA TMDL for PCBS in DelawareRiver Zone 6 and tributaries.
DE010-001-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2018. Relisted 2020. Delisted 2022. Relisted 2024 due to USGS continuous monitoring data.
DE010-001-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-001-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE010-001-01	DIELDRIN	Cause	5	N		Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	DIOXIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2014. Delisted 2024.
DE010-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-001-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE010-001-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE010-001-02	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2002			EPA TMDL for PCBS in DelawareRiver Zone 6 and tributaries.
DE010-001-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2018.
DE010-001-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-001-02	FURAN COMPOUNDS	Meeting Criteria	2	N		Fish Consumption				Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-02	DIOXIN	Meeting Criteria	2	N		Fish Consumption				Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE010-001-02	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-001-02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-001-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-001-03-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2008. Relisted 2010.
DE010-001-03-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014.
DE010-001-03-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008. Relisted 2014. Delisted 2018.
DE010-001-03-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-001-03-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-001-03-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-001-03-04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2008. Relisted 2010.
DE010-001-03-04	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2002			Listed 2002. EPA TMDL for PCBS in DelawareRiver Zone 6 and tributaries.
DE010-001-03-04	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE010-001-03-04	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE010-001-03-04	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008. Relisted 2014. Delisted 2018.
DE010-001-03-04	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-001-03-04	DIELDRIN	Cause	5	N		Fish Consumption	2018		Low	Listed 2018.
DE010-001-03-04	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-03-04	DIOXIN	Cause	5	N		Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-03-04	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE010-001-03-04	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as DDT is no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-001-03-04	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE010-001-03-04	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-002-01-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE010-002-01-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE010-002-01-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE010-002-01-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE010-002-01-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE010-002-01-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE010-002-01-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-002-02-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Delisted 2020.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE010-002-02-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002. Relisted 2012. Delisted 2014. Relisted 2016. Delisted 2018.
DE010-002-02-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2018.
DE010-002-02-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE010-002-02-02	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002. Refined from Nutrients 2024.
DE010-002-02-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Refined from Nutrients 2024. Delisted 2024.
DE010-002-02-02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-002-02-02	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE010-002-02-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-002-02-02	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE010-002-02-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-002-02-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-002-02-02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE010-002-02-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-L01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1998. Delisted 2006.
DE010-L01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE010-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE010-L01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-L01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE010-L01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE010-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE010-L02	POLYCHLORINATED BIPHENYLS (PCBS)	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as PCB is no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. EPA TMDL in place since 2003 for nutrients. Online at https://documents.dnrec.delaware.gov/swc/wa/Documents/Xia/Appo_NutrientsTMDL_TechReport_2003.pdf
DE010-L02	DIELDRIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-L02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2006.
DE010-L02	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as DDT is no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L02	FURAN COMPOUNDS	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as these are no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L02	DIOXIN	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as these are no longer a contaminant of concern in fish consumption advisories for these waters.
DE010-L03	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-L03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE010-L03	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE010-L03	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2016. Removed 2024. Should not have been assessed under the marine criteria. 2026 Assessed under freshwater criteria.
DE010-L03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE010-L03	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004.
DE010-L03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE010-L03	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE020-001-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2016. Relisted 2022.
DE020-001-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2012. Refined from Nutrients 2024.
DE020-001-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2012. Refined from Nutrients 2024.
DE020-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2010. Relsited 2022.
DE020-001-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2006			Listed 2006. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE020-001-01	DIELDRIN	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as dieldrin is no longer a contaminant of concern in fish consumption advisories for these waters.
DE020-001-01	TOXAPHENE	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as toxaphene is no longer a contaminant of concern in fish consumption advisories for these waters.
DE020-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE020-001-01	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-001-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE020-001-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE020-001-01	DIOXIN	Cause	5	N		Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-002	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE020-002	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2012.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE020-002	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2012.
DE020-002	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2006			Listed 2006. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE020-002	TOXAPHENE	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as toxaphene is no longer a contaminant of concern in fish consumption advisories for these waters.
DE020-002	DIOXIN	Meeting Criteria	2	N		Fish Consumption				Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-002	DIELDRIN	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 as dieldrin is no longer a contaminant of concern in fish consumption advisories for these waters.
DE020-002	FURAN COMPOUNDS	Meeting Criteria	2	N		Fish Consumption				Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-003-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE020-003-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006. Delisted 2020. Relisted 2024.
DE020-003-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2008. Relisted 2018. Delisted 2022.
DE020-003-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2018. Refined from Nutrients 2024.
DE020-003-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2018. Refined from Nutrients 2024.
DE020-003-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE020-003-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Delisted 2020. Relisted 2024.
DE020-003-03	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2018			Listed 2006. Delisted 2008. Relisted 2018.
DE020-003-03	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2018. Refined from Nutrients 2024.
DE020-003-03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2018. Refined 2024.
DE020-003-03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE030-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE030-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2016. Delisted 2020. Refined from Nutrients 2024.
DE030-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2016. Delisted 2020. Refined from Nutrients 2024.
DE030-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE030-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE030-002-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010.
DE030-002-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2008. Relisted 2010.
DE030-002-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE030-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE030-002-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2024.
DE030-002-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008. Relisted 2010. Delisted 2022.
DE030-002-03	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE030-002-03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE030-002-03	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE030-002-03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE030-002-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE030-003	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.
DE030-003	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE030-003	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE030-003	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE030-003	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE040-001	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE040-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE040-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE040-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2016. Relisted 2020.
DE040-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE040-001	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE040-001	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE040-001	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-001	DIELDRIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE040-001	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE040-001	DIOXIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE040-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE040-001	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE040-002-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE040-002-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE040-002-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE040-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2006. Relisted 2008. Delisted 2020. Relisted 2024.
DE040-002-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE040-002-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-002-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE040-002-01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE040-002-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter use.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE040-002-01	ARSENIC	Meeting Criteria	2	N		Public Water Supply				2026 New parameter use.
DE040-002-01	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE040-002-01	DIOXIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE040-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE040-002-01	DIELDRIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE040-002-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE040-003-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-07	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-08	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-08	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-09	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-10	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE050-001-01	ENTEROCOCCUS	Cause	4A	N	TMDL Approved or established by EPA (4a)	Primary Contact Recreation	1996			Listed 1996. Delisted 2016. Relisted 2026.
DE050-001-01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE050-001-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE050-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2010.
DE050-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-001-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-001-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE050-001-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE050-001-02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2016.
DE050-001-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1998.
DE050-001-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2010.
DE050-001-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-002-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-002-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-002-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-003	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-004-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE050-004-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-004-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-004-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-004-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-004-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-004-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-005-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-005-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-005-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE050-005-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-005-02-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE050-006-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-006-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-006-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2006. Relisted 2008. Delisted 2018. Relisted 2024.
DE050-006-03	DISSOLVED OXYGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2026.
DE050-006-03	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE050-006-03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE050-006-03	LEAD	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				2024 New parameter. Listed 2024. Placed in Category 3 because this station is currently being review by lab staff and may

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
										be relocated due to changes in hydrology.
DE050-006-03	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-006-03	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE050-006-03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-L01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-L02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE050-L02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE050-L03	ENTEROCOCCUS	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Primary Contact Recreation				Listed 1996. Delisted 2004. Relisted 2024. Delisted 2026.
DE050-L03	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2018. Delisted 2022. Refined from Nutrients 2024.
DE050-L03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2018. Delisted 2022. Refined from Nutrients 2024.
DE050-L03	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE050-L03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-L03	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE050-L03	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-L03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-L04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2008. Relisted 2024.
DE050-L04	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002. Relisted 2006. Delisted 2008.
DE050-L04	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE050-L04	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE050-L04	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE050-L04	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-L04	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE050-L04	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-L05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE050-L05	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-L06	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-L06	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-L06	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE050-L07	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2002. Relisted 2024.
DE050-L07	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2012. Delisted 2018.
DE050-L07	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE050-L07	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE050-L07	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2014.
DE050-L07	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE050-L07	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE050-L07	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE050-L08	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE050-L08	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE050-L08	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE060-001	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2022. Relisted 2024. Relisted 2026 due to USGS continuous monitoring data.
DE060-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE060-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE060-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE060-001	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE060-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Remove 2024 - no marine criteria. Returned 2026.
DE060-002	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002. Delisted 2008. Relisted 2012. Delisted 2016. Relisted 2024.
DE060-002	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE060-002	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE060-002	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE060-002	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-003	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed in 1998. Delisted 2004. Relisted 2006. Delisted 2012. Relisted 2024.
DE060-003	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998. Delisted 2016. Relisted 2018. Refined from Nutrients 2024.
DE060-003	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE060-003	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2012.
DE060-003	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-004	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2006. Relisted 2008. Delisted 2022. Relisted 2024.
DE060-004	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE060-004	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed in 1996. Refined from Nutrients 2024.
DE060-004	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed in 1996. Refined from Nutrients 2024. Delisted 2024.
DE060-004	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-005-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE060-005-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-005-01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed in 1996. Refined from Nutrients 2024.
DE060-005-01	PHOSPHORUS	Cause	4A	N	TMDL Approved or established by EPA (4a)	Fish, Aquatic Life, and Wildlife	1996			Listed in 1996. Refined from Nutrients 2024. Delisted 2024. Relisted 2026.
DE060-005-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Relisted 2014. Delisted 2020.
DE060-005-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE060-005-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE060-006	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed in 1996. Refined from Nutrients 2024.
DE060-006	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE060-006	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE060-006	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-006	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-007-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE060-007-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 2002. Delisted 2004.
DE060-007-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE060-007-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE060-007-02-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2006.
DE060-007-02-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE060-007-02-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE060-007-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE060-007-03	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE060-008	MERCURY	Meeting Criteria	2	N		Fish Consumption				Listed 2010. Delisted 2018 as it is no longer a contaminant of concern in fish tissue.
DE060-008	DISSOLVED OXYGEN	Cause	5	N		Fish, Aquatic Life, and Wildlife	2012		Low	Listed 2012.
DE060-L01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2006.
DE060-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE060-L01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE060-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE060-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-L02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE060-L03	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1998. Delisted 2006. Relisted 2012. Delisted 2016.
DE060-L03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2006. Relisted 2012. Delisted 2014.
DE060-L03	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998. Delisted 2016. Relisted 2020. Refined from Nutrients 2024.
DE060-L03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2016. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.
DE060-L03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE060-L03	MERCURY	Meeting Criteria	2	N		Fish Consumption				Mercury listing in Waples Pond Only. Listed 2010. Delisted 2018 as Mercury is no longer a

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
										contaminant of concern in fish tissue.
DE070-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE070-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				DNREC, EPA and MDE are working to implement the MD TMDL for Delaware's portion of this shared waterbody - Updating the DE TMDL. Listed 1996. Delisted 2008. Relisted 2012. Delisted 2014. Listed 2022. Refined from Nutrients. Delisted 2024.
DE070-001	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014. Removed 2024. Should not have been assessed under the marine criteria. 2026 Assessed under freshwater criteria. Listed 2026.
DE070-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE070-001	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE070-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE070-001	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE070-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				DNREC, EPA and MDE are working to implement the MD TMDL for Delaware's portion of this shared waterbody - Updating the DE TMDL. Listed 1996. Delisted 2008. Relisted 2012. Delisted 2014. Listed 2022. Refined from Nutrients. Delisted 2024.
DE070-001	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE080-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2020.
DE080-001	NITROGEN	Meeting Criteria	2	Y	Applicable WQS attained;	Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Relisted 2020. Refined from Nutrients 2024. Delisted 2026.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
					based on new data					
DE080-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.
DE080-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE080-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Remove 2024 - no marine criteria. Returned 2026.
DE080-002	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2004. Delisted 2022.
DE080-002	NITROGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2026.
DE080-002	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE080-002	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2022.
DE080-002	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE080-003	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE080-003	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE080-003	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.
DE080-003	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2010			Listed 2010. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE080-003	DIOXIN	Cause	5	N		Fish Consumption	2010	5mnr	Low	Listed 2010. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE080-003	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2010	5mnr	Low	Listed 2010. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	DIELDRIN	Cause	5R	N		Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
										March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	DIOXIN	Cause	5R	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	FURAN COMPOUNDS	Cause	5R	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	5R	N		Fish Consumption	2002		Low	Listed 2002. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE090-001	CHLORDANE	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE090-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE090-001	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE090-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE090-001	ENTEROCOCCUS	Cause	5	N		Primary Contact Recreation	2026		Low	Listed 2026.
DE090-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE090-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE090-002-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE090-002-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE090-002-05	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2012			Listed 2012.
DE090-002-05	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE090-002-05	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE090-L01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE090-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012. Refined from Nutrients 2024.
DE090-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE090-L01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed in 1996. Delisted 2004.
DE090-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE100-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE100-001-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE100-001-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE100-001-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE100-001-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE100-001-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE100-001-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-001-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2016. Relisted 2024.
DE100-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022.
DE100-002-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE100-002-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE100-002-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE100-002-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE100-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE100-003-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE100-003-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE100-003-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE100-003-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE100-003-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE100-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1996.
DE100-003-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-06	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE100-003-06	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE100-003-06	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE100-003-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1996.
DE100-004-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE100-004-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-005-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-005-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-005-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-001-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE110-001-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018. Relisted 2024.
DE110-001-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-001-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-001-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-001-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE110-001-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-03	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-001-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-001-03	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE110-001-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE110-001-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-07	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE110-001-07	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-08	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-08	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-09	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-09	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-03	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-002-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-002-03	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE110-002-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018. Relisted 2024.
DE110-002-04	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-002-04	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-002-04	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE110-002-04	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE110-002-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-05	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE110-002-05	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1996. Delisted 2008.
DE110-002-05	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE110-002-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-05	TEMPERATURE	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2018 as there are no point source discharges.
DE110-002-05	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-06	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018.
DE110-002-06	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-002-06	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE110-002-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-07	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-07	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-08	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-08	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-09	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-09	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE110-003-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-003-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE110-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE110-003-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-05	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-07	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-08	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-09	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-10	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-11	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-12	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-13	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-13	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-14	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE110-003-14	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE110-003-14	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE110-003-14	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE110-003-14	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-14	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE110-003-15	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2022. Relisted 2024.
DE110-003-15	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE110-003-15	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE110-003-15	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE110-003-15	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-15	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE110-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE110-L01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE110-L01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE120-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2022. Relisted 2024.
DE120-001	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-001	DIELDRIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-001	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-001	DDD (DICHLORODIPHENYLDICHLOROETHANE)	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE120-001	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-001	DIOXIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-001	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-001	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE120-001	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter use.
DE120-001	ARSENIC	Meeting Criteria	2	N		Public Water Supply				2026 New parameter use.
DE120-001	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE120-001	DDE (DICHLORODIPHENYLDICHLOROETHYLENE)	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-001	CHLORDANE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-002	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE120-002	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE120-002	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-002	DISSOLVED OXYGEN	Cause	4A	N	TMDL Approved or established by EPA (4a)	Fish, Aquatic Life, and Wildlife	2008			Listed 2008. Delisted 2010. Relisted 2016. Delisted 2022. Relisted 2026 due to USGS continuous monitoring data.
DE120-002	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE120-002	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-002	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE120-002	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE120-002	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-002	DIELDRIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. 2016 delisted in error. 2018 restored category 5 Listing. 2024 state category

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
										5mnr added based on 2018 analysis for the evaluation of Fish Consumption Advisories.
DE120-003-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-003-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-003-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2014. Delisted 2018. Relisted 2024.
DE120-003-01	POLYCHLORINATED BIPHENYLS (PCBS)	Meeting Criteria	2	N		Fish Consumption				Prior to 2016, EPA TMDL for PCBS in Delaware River Zone 5 and tributaries. Delisted 2016 because PCBs are no longer a contaminant of concern in fish consumption advisories for these waters.
DE120-003-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2004. Delisted 2006.
DE120-003-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-003-01	CHLORDANE	Meeting Criteria	2	N		Fish Consumption				Delisted 2016 because Chlordane is no longer a contaminant of concern in fish consumption advisories for these waters.
DE120-003-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE120-003-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-003-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-003-01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE120-003-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-003-01	DIELDRIN	Cause	5	N		Fish Consumption	2018	5mnr	Low	Listed 2018. 2024 state category 5mnr added based on 2018 analysis for the evaluation of Fish Consumption Advisories.
DE120-003-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-003-02-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE120-003-02-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE120-003-02-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-003-02-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-003-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2020.
DE120-004-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-004-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2006.
DE120-004-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE120-004-01	DIELDRIN	Cause	5	N		Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-004-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE120-004-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2020. Relisted 2024.
DE120-004-02	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-004-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2006.
DE120-004-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-004-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-004-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-004-02	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter use.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-004-02	ARSENIC	Meeting Criteria	2	N		Public Water Supply				2026 New parameter use.
DE120-004-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-004-02	DIELDRIN	Cause	5	N		Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-004-02	COPPER	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 2016. Delisted 2026.
DE120-004-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE120-004-02-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE120-004-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-004-02-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE120-004-02-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-03-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-004-03-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-03-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-03-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-005-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE120-005-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-006-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-006-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE120-006-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-006-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-006-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-006-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-02	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE120-006-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-006-02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-006-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-006-02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE120-006-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-007-01-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-007-01-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE120-007-01-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE120-007-01-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-01	CHLORDANE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-01	DIELDRIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-007-01-01	HEPTACHLOR EPOXIDE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-007-01-05	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-007-01-05	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE120-007-01-05	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-007-01-05	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE120-007-01-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-05	CHLORDANE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-05	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-007-01-05	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE120-007-01-05	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE120-007-01-05	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-05	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE120-007-01-05	HEPTACHLOR EPOXIDE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-05	DIELDRIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE120-007-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-007-02-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-02-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-007-02-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-007-02-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-L01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-L01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE120-L01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE120-L02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-L02	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE120-L02	POLYCHLORINATED BIPHENYLS (PCBS)	Meeting Criteria	2	N		Fish Consumption				Listed 2002. Delisted 2010 due to removal of advisory. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE120-L02	MERCURY	Meeting Criteria	2	N		Fish Consumption				
DE120-L03	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE120-L03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE120-L03	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE130-001	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE130-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE130-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE130-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2006. Relisted 2008. Delisted 2010. Relisted 2024.
DE130-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE130-002-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2012. Delisted 2020.
DE130-002-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE130-002-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE130-002-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2012. Delisted 2020. Relisted 2024.
DE130-002-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE130-002-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE130-002-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE130-002-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE130-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE140-001	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2008.
DE140-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008. Relisted 2010. Delisted 2018.
DE140-001	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE140-001	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisted 2020.
DE140-002	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-002	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2022.
DE140-002	NITROGEN	Cause	4A	N	TMDL Approved or established by EPA (4a)	Fish, Aquatic Life, and Wildlife	2002			Listed 2002. Refined from Nutrients 2024. Delisted 2024. Error in 2024 - should not have been delisted. Relisted 2026.
DE140-002	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE140-002	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE140-002	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-002	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-002	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE140-002	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-002	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-003	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-003	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2010.
DE140-003	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-003	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-003	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE140-003	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE140-003	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-003	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-003	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-003	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-004	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Relisted 2022.
DE140-004	TOTAL SUSPENDED SOLIDS (TSS)	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Inland Bays Nutrient TMDLs addressed Suspended Solids.
DE140-004	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen. Listed 2026 due to dissolved inorganic nitrogen.
DE140-004	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE140-004	TEMPERATURE	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. EPA TMDL December 2004.
DE140-004	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012. Relisted 2022. Delisted 2024. Relisted 2026 based on external data.
DE140-004	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE140-004	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-004	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2014. Delisted 2020. Relisted 2022. Delisted 2024.
DE140-004	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE140-004	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-005	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-005	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-005	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-005	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE140-005	TEMPERATURE	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed in 1996. Delisted in 2002 as sole point source discharger was removed.
DE140-005	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-005	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-005	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-005	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-005	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE140-005	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-006	ENTEROCOCCUS	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Primary Contact Recreation				Listed 1996. Delisted 2008. Relisted 2024. Delisted 2026.
DE140-006	DISSOLVED OXYGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2004. Relisted 2024. Delisted 2026.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE140-006	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE140-006	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE140-006	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE140-006	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-006	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-006	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE140-006	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-006	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-007	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-007	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE140-008	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-008	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE140-008	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE140-009-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-009-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE140-009-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-009-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE140-009-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE140-010	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-010	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE140-010	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE140-E01	ENTEROCOCCUS	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2024. Delisted 2026.
DE140-E01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE140-E01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-E01	PHOSPHORUS	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic phosphorus. Delisted 2026.
DE140-E01	TOTAL SUSPENDED SOLIDS (TSS)	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006. TMDL in place for Suspended Solids in Inland Bays TMDL of 2006. Delisted 2022. Relisted 2024.
DE140-E01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-E01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-E01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE140-E01	COPPER	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 2014. Delisted 2020. Relisted 2022. Delisted 2026.
DE140-E02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2024.
DE140-E02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2010. Relisted 2012. Delisted 2013.
DE140-E02	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen.
DE140-E02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE140-E02	TOTAL SUSPENDED SOLIDS (TSS)	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2014			Listed 2014.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE140-E02	TEMPERATURE	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. EPA TMDL December 2004.
DE140-E02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE140-E02	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-E02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-E02	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisted 2020.
DE140-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2006. Relisted 2024.
DE140-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002. Relisted 2004. Delisted 2006. Relisted 2020. Delisted 2024.
DE140-L01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.
DE140-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2020. Refined from Nutrients 2024. Delisted 2024.
DE140-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-L01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE140-L01	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-L01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE140-L01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE140-L01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE140-L02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004.
DE140-L02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE140-L03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE140-L03	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE140-L04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE150-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2020. Relisted 2022.
DE150-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE150-001-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE150-001-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE150-001-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE150-001-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE150-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE150-001-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE150-001-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE150-001-02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2020.
DE150-001-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE150-001-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE150-001-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE150-001-02	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE150-001-02	TEMPERATURE	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed in 1998. Delisted 2018 as there are no point source discharges.
DE160-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE160-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2024.
DE160-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE160-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE160-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE160-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2010.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE160-002-01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE160-002-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE160-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2018. Relisted 2024.
DE160-002-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE160-002-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE160-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE160-002-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE160-003-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE160-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE160-003-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.
DE160-003-03	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE160-003-03	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE160-004	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.
DE160-004	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE160-004	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE160-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2010.
DE160-L01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE160-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE160-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2006. Relisted 2024.
DE160-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE160-L02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE160-L02	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE160-L02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2012.
DE170-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2014. Relisted 2016. Delisted 2022. Relisted 2024.
DE170-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Llisted 1996. Delisted 2002. Relisted 2004. Delisted 2022.
DE170-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE170-001	PHOSPHORUS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic phosphorus.
DE170-001	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisted 2020.
DE170-001	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE170-001	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE170-001	TOTAL SUSPENDED SOLIDS (TSS)	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	Listed 2026.
DE170-001	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2022. Relisted 2024.
DE180-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022.
DE180-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-001	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-001	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE180-001	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	Listed 2026.
DE180-001	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-001	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE180-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE180-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2016.
DE180-002-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE180-002-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE180-002-02	DISSOLVED OXYGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2026.
DE180-002-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE180-002-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE180-002-02	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE180-002-02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-002-02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE180-002-02	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE180-002-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-002-02	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE180-003-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE180-003-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2010.
DE180-003-01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen.
DE180-003-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE180-003-01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisted 2020.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE180-003-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE180-003-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-003-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE180-003-01	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-003-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE180-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE180-003-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE180-E01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2006. Relisted 2024.
DE180-E01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-E01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE180-E01	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-E01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE180-E01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisted 2020.
DE180-E01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE180-E01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008. Relisted 2010. Delisted 2014.
DE180-E01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE190-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2026.
DE190-001-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE190-001-01	PHOSPHORUS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE190-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE190-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE190-001-02-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010.
DE190-001-02-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE190-001-02-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE190-001-02-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE190-001-02-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2024.
DE190-001-02-03	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE190-001-02-03	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE190-001-02-03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE190-001-02-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE190-001-02-03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE190-001-02-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE190-001-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2012.
DE190-001-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2010.
DE190-001-03	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE200-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE200-001-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2014. Relisted 2018.
DE200-001-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2008.
DE200-001-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE200-001-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE200-001-03	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2014. Relisted 2018. Refined from Nutrients 2024.
DE200-001-03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE200-001-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2008. Relisted 2024.
DE200-001-03	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE200-001-03	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE200-001-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-03	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE200-001-03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE200-001-03	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE200-001-04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE200-001-04	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE200-001-04	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE200-001-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE200-002-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE200-002-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE200-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE200-002-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-07	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-07	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-08	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-09	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-10	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-10	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-11	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-11	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-12	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-12	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-13	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-14	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-15	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE200-002-15	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-15	TEMPERATURE	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2018 as there are no point source discharges.
DE200-002-16	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-16	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE200-002-17	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE200-002-17	TEMPERATURE	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2018 as there are no point source discharges.
DE200-002-17	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-18	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-19	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-21	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-21	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-23	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-24	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE210-001	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE210-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE210-001	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE210-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2020.
DE210-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Remove 2024 - no marine criteria. Returned 2026.
DE210-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2006.
DE210-002-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE210-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE210-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-002-03	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE210-002-03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE210-002-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE210-002-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE210-002-03	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE210-002-03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE210-002-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-003	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.
DE210-003	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE210-003	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-004	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.
DE210-004	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE210-004	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-005	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006.
DE210-005	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE210-005	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE210-L01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE210-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Llisted 2006. Delisted 2008.
DE210-L02	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE210-L02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE210-L02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2006.
DE210-L02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE210-L02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE210-L03	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE210-L03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2006.
DE210-L03	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 2002. Delisted 2004.
DE210-L04	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE210-L05	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE210-L05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE210-L05	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE210-L06	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012.
DE210-L06	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed 1998. Delisted 2006. Relisted 2024.
DE210-L06	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998. Refined from Nutrients 2024.
DE210-L06	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Refined from Nutrients 2024. Delisted 2024.
DE210-L06	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE220-001	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Listed 2026 due to USGS continuous monitoring data.
DE220-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Remove 2024 - no marine criteria. Returned 2026.
DE220-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2018. Delisted 2020. Refined from Nutrients 2024.
DE220-001	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE220-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2018. Delisted 2020. Refined from Nutrients 2024.
DE220-001	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-001	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE220-001	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE220-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE220-002-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2014. Relisted 2022.
DE220-002-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE220-002-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE220-002-01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-002-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-002-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-002-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE220-002-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE220-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-002-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-002-04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE220-002-04	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-002-04	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-002-04	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE220-002-04	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE220-002-04	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024.
DE220-002-04	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-002-04	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE220-003-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE220-003-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE220-003-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-004-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed 1998.
DE220-004-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2004. Delisted 2018.
DE220-004-01	NITROGEN	Cause	4A	N	TMDL Approved or established by EPA (4a)	Fish, Aquatic Life, and Wildlife	1998			Listed 1998. Delisted 2016. Refined from Nutrients 2024. Relisted 2026.
DE220-004-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2016. Refined from Nutrients 2024.
DE220-004-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2008.
DE220-004-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE220-004-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-004-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE220-004-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-004-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE220-005-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE220-005-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE220-005-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2004. Delisted 2006.
DE220-005-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE220-005-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter. Listed 2024. Placed in Category 3 to review stormwater specific data. Meeting criteria 2026.
DE220-005-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-005-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE220-005-01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE220-005-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-03	DISSOLVED OXYGEN	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE220-005-03	TEMPERATURE	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2018 as there are no point source discharges.
DE220-005-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-05	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-06	DISSOLVED OXYGEN	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE220-005-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-L01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1998. Delisted 2006.
DE220-L01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1998			Listed 1998.
DE220-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2008.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE220-L02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE220-L02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 2002. Delisted 2006.
DE220-L03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2004. Relisted 2024.
DE220-L03	NITROGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2026.
DE220-L03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE220-L03	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE220-L03	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-L03	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE220-L03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-L03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-L04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE220-L04	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE220-L05	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE220-L05	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE220-L05	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-L05	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004.
DE220-L05	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE220-L05	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE220-L05	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE220-L05	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE230-001-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2012.
DE230-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE230-001-02-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE230-001-02-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE230-001-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE230-001-02-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE230-001-02-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE230-001-02-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE230-001-02-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-001	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2014. Relisted 2016. Refined from Nutrients 2024.
DE240-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2016. Refined from Nutrients 2024. Delisted 2024.
DE240-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2004. Relisted 2014.
DE240-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2010.
DE240-001	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE240-001	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-001	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016. Relisted 2024.
DE240-002-01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE240-002-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE240-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE240-002-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-002-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-002-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE240-002-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-05	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016.
DE240-002-05	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1998.
DE240-002-05	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-06	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-07	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016. Relisted 2024.
DE240-002-07	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE240-002-07	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE240-002-07	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-07	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-002-07	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE240-002-07	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-07	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-002-07	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-002-08	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004. Relisted 2012. Delisted 2016.
DE240-002-08	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-002-08	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002. Relisted 2016. Delisted 2018.
DE240-002-08	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-08	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-09	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-003	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2006. Relisted 2010.
DE240-003	DISSOLVED OXYGEN	Cause	4A	N	TMDL Approved or established by EPA (4a)	Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2006. Relisted 2016. Delisted 2020. Relisted 2026.
DE240-003	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE240-003	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE240-003	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-003	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-003	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE240-003	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-004-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2016. Relisted 2024.
DE240-004-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE240-004-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-004-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2012. Delisted 2018.
DE240-004-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-004-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-004-01	LEAD	Cause	5	N		Fish, Aquatic Life, and Wildlife	2024		Low	2024 New parameter. Listed 2024. Data collected prior to assessment period did not show exceedances and there were no obvious sources. DNREC will maintain Category 5, but investigate.
DE240-004-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisted 2024.
DE240-004-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-004-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-004-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-005-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2008. Relisted 2024.
DE240-005-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-005-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-005-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-005-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-005-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-005-01	ZINC	Cause	5	N		Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE240-005-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE240-005-02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2008.
DE240-005-02	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE240-005-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-005-02	ZINC	Cause	5	N		Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE240-005-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-005-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-006-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE240-006-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-006-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-006-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE240-006-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-006-02	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-006-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-007-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-007-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE240-007-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-007-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE240-007-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-008	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE240-008	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-008	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE240-010-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-010-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE240-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE240-L01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE240-L01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE240-L02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-L02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE240-L02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE240-L02	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				
DE240-L02	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-L02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-L02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-L02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-L04	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 2002. Delisted 2006.
DE240-L04	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024.
DE240-L04	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2016. Relisted 2018. Refined from Nutrients 2024. Delisted 2024.
DE240-L04	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-L04	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-L04	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-L04	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE240-L04	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE240-L05	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE240-L05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE250-001-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2020.
DE250-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE250-001-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE250-001-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2020. Relisted 2024.
DE250-001-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE250-001-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE250-001-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE250-001-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE250-001-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE250-001-03	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2020.
DE250-001-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2008.
DE250-001-03	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE250-001-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE250-002	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2004			Listed 2004.
DE250-002	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004.
DE250-002	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2006			Listed 2006.
DE250-002	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-001-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2022. Relisted 2024.
DE260-001-02	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE260-001-02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. TMDL 2004. Delisted 2014.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE260-001-02	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listd 1996. Refined from Nutrients 2024.
DE260-001-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE260-001-02	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002		High	Listed 2002.
DE260-001-02	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE260-001-02	DIELDRIN	Cause	5	N		Fish Consumption	2016		High	Listed 2016.
DE260-001-02	HABITAT ASSESSMENT	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE260-001-02	CHLORINATED PESTICIDES	Meeting Criteria	2	N		Fish Consumption				TMDL Target date changed from 2009 to 2017 in the 2012 Cycle, per the WATAR plan. Delisted 2016 as these are not contaminants of concern in fish tissue advisories.
DE260-001-02	DIOXIN	Cause	5	N		Fish Consumption	2002		High	Listed 2002.
DE260-001-02	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	N		Fish Consumption	2014		High	Levels at State Line exceed human health and aquatic life criteria and decline downstream in a response fully explained by simple dilution, indicating sources are in Pennsylvania. The extensive sampling occurred in 2015 as part of the WATAR. DNREC is working with Pennsylvania and US EPA to address this issue.
DE260-001-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE260-001-02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE260-001-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE260-001-02	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter use.
DE260-001-02	ARSENIC	Meeting Criteria	2	N		Public Water Supply				2026 New parameter use.
DE260-001-03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2022. Relisted 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE260-001-03	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE260-001-03	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. TMDL 2004. Delisted 2014.
DE260-001-03	NITROGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2026.
DE260-001-03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE260-001-03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE260-001-03	CHLORINATED PESTICIDES	Meeting Criteria	2	N		Fish Consumption				TMDL Target date changed from 2009 to 2017 in the 2012 Cycle, per the WATAR plan. Delisted 2016 as these are not contaminants of concern in fish tissue advisories.
DE260-001-03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE260-001-03	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter use.
DE260-001-03	ARSENIC	Meeting Criteria	2	N		Public Water Supply				2026 New parameter use.
DE260-001-03	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002		High	Listed 2002.
DE260-001-03	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	N		Fish Consumption	2014		High	Levels at State Line exceed human health and aquatic life criteria and decline downstream in a response fully explained by simple dilution, indicating sources are in Pennsylvania. The extensive sampling occurred in 2015 as part of the WATAR. DNREC is working with Pennsylvania and US EPA to address this issue.
DE260-001-03	HABITAT ASSESSMENT	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisted 2014 per Tetra Tech Report for EPA and Delaware DNREC.
DE260-001-03	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE260-001-03	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE260-001-03	DIOXIN	Cause	5	N		Fish Consumption	2002		High	Listed 2002.
DE260-001-03	DIELDRIN	Cause	5	N		Fish Consumption	2016		High	Listed 2016.
DE260-001-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2014. Relisted 2016. Delisted 2020. Relisted 2024.
DE260-002-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE260-002-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE260-002-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE260-002-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE260-002-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE260-002-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE260-002-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter use.
DE260-002-01	ARSENIC	Meeting Criteria	2	N		Public Water Supply				2026 New parameter use.
DE260-002-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE260-003-01	HABITAT ASSESSMENT	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE260-003-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-L01	ENTEROCOCCUS	Insufficient Information	3	N		Primary Contact Recreation				This segment was listed in 1996, apparently based on earlier reports but no data were used for the listing. No data has been collected in the interim. The Department will study the

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
										segment to determine if a listing is appropriate.
DE270-001-01-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002. Delisted 2020. Relisted 2024.
DE270-001-01-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2024.
DE270-001-01-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-01-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-01-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2002			Listed 2002. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE270-001-01-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE270-001-01-01	CHRONIC TOXICITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	2012		Low	Listed Based on 2011 journal article. Likely cause is a federal superfund site. The Department is working with EPA on the cleanup and possible TMDL.
DE270-001-01-01	DIOXIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE270-001-01-01	CHLORINATED BENZENES	Meeting Criteria	2	N		Fish Consumption				Listed 1996. Delisted 2002 based on improved conditions.
DE270-001-01-01	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE270-001-01-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE270-001-02-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-02-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE270-001-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE270-001-02-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2014			Listed 2014. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE270-001-02-01	DIELDRIN	Cause	5	N		Fish Consumption	2014		Low	Listed 2014.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE270-001-02-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE270-001-02-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE270-001-02-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE280-001-01-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE280-001-01-01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024. Listed 2024 due to dissolved inorganic nitrogen.
DE280-001-01-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-001-01-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2004. Relisted 2012. Delisted 2018.
DE280-001-01-01	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE280-001-01-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE280-001-01-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-001-01-01	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-001-01-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE280-001-01-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE280-001-01-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE280-001-01-02	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE280-001-01-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2004. Relisted 2012. Delisted 2018.
DE280-001-01-02	COPPER	Cause	5	N		Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE280-001-01-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE280-002	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2022. Relisted 2024.
DE280-002	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE280-002	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE280-002	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-002	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE280-002	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE280-002	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE280-002	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-002	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-002	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-E01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-E01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE280-E01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-E01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2014. Delisted 2020. Relisted 2022. Delisted 2024.
DE280-E01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2006. Relisted 2016. Delisted 2018.
DE280-E01	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-E01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE280-E01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE280-E01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				
DE280-L01	ENTEROCOCCUS	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Primary Contact Recreation				Listed 2024. Delisted 2026.
DE280-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2016. Delisted 2022.
DE280-L01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2018. Relisted 2022. Refined from Nutrients 2024. Delisted 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE280-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2018. Relisted 2022. Refined from Nutrients 2024. Delisted 2024.
DE280-L01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE280-L01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE280-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-L01	TOTAL SUSPENDED SOLIDS (TSS)	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-L01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE280-L01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 New parameter.
DE290-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE290-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2024.
DE290-001-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE290-001-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE290-001-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996	5mnr		Listed 1996. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE290-001-01	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-01	DIOXIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-01	MERCURY	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE290-001-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE290-001-01	DIELDRIN	Cause	5	N		Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
										March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE290-001-02-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE290-001-02-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE290-001-02-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Relisted 2016. Delisted 2018. Refined from Nutrients 2024.
DE290-001-02-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996	5mnr		Listed 1996. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE290-001-02-01	DIELDRIN	Cause	5	N		Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-02-01	DIOXIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-001-02-01	MERCURY	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE290-001-02-01	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-001-02-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-001-02-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Not a contaminant of concern in fish consumption advisories for these waters.
DE290-001-02-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-001-02-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-001-02-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-002-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE290-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE290-002-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE290-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE290-002-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-002-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010. Relisted 2014. Delisted 2016.
DE290-003-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE290-003-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE290-003-01	MERCURY	Cause	5	N		Fish Consumption	2014		Low	Listed 2014.
DE290-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2010. Relisted 2014. Delisted 2016. Relisted 2024.
DE290-003-05	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2024.
DE290-003-05	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-003-05	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-003-05	MERCURY	Cause	5	N		Fish Consumption	2014		Low	Listed 2014.
DE290-003-05	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-003-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-06	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2002			Listed 2002.
DE290-004-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE290-004-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE290-004-01	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE290-004-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2002.
DE290-L01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE290-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Refined from Nutrients 2024. Delisted 2024.
DE290-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006. Delisted 2008. Relisted 2024.
DE290-L01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE290-L01	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE290-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-L02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2006			Listed 2006. Delisted 2012. Relisted 2024.
DE290-L02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-L02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE290-L02	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996	5mnr		Listed 1996. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE290-L02	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-L02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-L02	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE290-L02	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE290-L02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-L02	MERCURY	Meeting Criteria	2	N		Fish Consumption				Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE290-L02	DIOXIN	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-L02	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE290-L03	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2004. Relisted 2024.
DE290-L03	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE290-L03	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2014. Refined from Nutrients 2024.
DE290-L03	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-L03	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE290-L04	POLYCHLORINATED BIPHENYLS (PCBS)	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE290-L04	DIOXIN	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE290-L04	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories. 2022 updated to correct Cat 5 listing to include 5mnr.
DE290-L04	FURAN COMPOUNDS	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DE300-001-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2002			Listed 2002. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE300-001-01	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2016. Relisted 2018.
DE300-001-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE300-001-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE300-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE300-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE300-001-01	DIELDRIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE300-001-01	CHLORDANE	Meeting Criteria	2	N		Fish Consumption				Delisted 2018 per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE300-001-02-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	2016			Listed 2016. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE300-001-02-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2022. Relisted 2024.
DE300-001-02-01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE300-001-02-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2012. Refined from Nutrients 2024.
DE300-001-02-01	DIELDRIN	Cause	5	N		Fish Consumption	2012		Low	Listed 2012.
DE300-001-02-01	CHLORDANE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE300-001-02-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE300-001-02-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE300-001-02-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE300-001-02-01	HEPTACHLOR EPOXIDE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE300-001-02-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-02-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-02-03	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-02-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-03-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-03-02	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2008. Delisted 2012.
DE300-001-03-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2010			Listed 2010.
DE300-001-03-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-03-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-001	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2024.
DE310-001	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2020. Refined from Nutrients 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE310-001	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE310-001	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	2002			Listed 2002.
DE310-001	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Remove 2024 - no marine criteria. Returned 2026.
DE310-002-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2008.
DE310-002-01	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012.
DE310-002-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2010.
DE310-002-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2002. Delisted 2008.
DE310-002-02	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE310-002-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Refined from Nutrients 2024.
DE310-002-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed 1996. Delisted 2010. Relisted 2024.
DE310-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-002-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE310-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-01	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1998. Delisted 2022.
DE310-003-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2004. Delisted 2014. Relisted 2018. Delisted 2022.
DE310-003-01	NITROGEN	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2020. Relisted 2022. Refined from Nutrients 2026. Delisted 2026.
DE310-003-01	PHOSPHORUS	Meeting Criteria	2	Y	Applicable WQS attained; based on new data	Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2020. Relisted 2022. Refined from Nutrients 2026. Delisted 2026.
DE310-003-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE310-003-02	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed 1998.
DE310-003-02	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2004. Delisted 2014. Relisted 2018. Delisted 2024.
DE310-003-02	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Delisted 2020. Refined from Nutrients 2024. Listed 2024.
DE310-003-02	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2020. Refined from Nutrients 2024.
DE310-003-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-02	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2024 Freshwater. Should be assessed for ammonia.
DE310-003-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-04	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed 1998.
DE310-003-05	DISSOLVED OXYGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	2004			Listed 2004. Delisted 2014. Relisted 2018.
DE310-003-05	NUTRIENTS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1998. Delisted 2020.
DE310-003-05	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-06	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed 1998.
DE310-003-06	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2004. Delisted 2014. Relisted 2018. Delisted 2024.
DE310-003-06	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024.
DE310-003-06	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024.
DE310-003-06	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE310-L01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Delisted 2022. Relisted 2024.
DE310-L01	NITROGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE310-L01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2022. Refined from Nutrients 2024.
DE310-L01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 2006. Delisted 2022.
DE310-L01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE320-001-01	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE320-001-01	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1999. Delisted 2004 based on improved water quality.
DE320-001-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996. Changed to Category 3 in 2020 to look into submitted Volunteer Data. Delisted 2022. Relisted 2024.
DE320-001-01	NITROGEN	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996. Refined from Nutrients 2024.
DE320-001-01	PHOSPHORUS	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Refined from Nutrients 2024. Delisted 2024.
DE320-001-01	DIELDRIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE320-001-01	COPPER	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter.
DE320-001-01	DISSOLVED OXYGEN	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE320-001-01	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				2026 New parameter use.
DE320-001-01	ARSENIC	Meeting Criteria	2	N		Public Water Supply				2026 New parameter use.
DE320-001-01	LEAD	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				New parameter 2024.
DE320-001-01	AMMONIA, TOTAL	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE320-001-01	BIOLOGICAL INTEGRITY	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-01	HABITAT ASSESSMENT	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-03	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996. EPA TMDL for PCBS in Delaware River Zone 5 and tributaries.
DE320-001-03	ZINC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Listed 1999. Delisted 2004 based on improved water quality.
DE320-001-03	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2020.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE320-001-03	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE320-001-03	HABITAT ASSESSMENT	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-03	DIELDRIN	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	BIOLOGICAL INTEGRITY	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-001-03	DDE (DICHLORODIPHENYLDICHLOROETHYLENE)	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	CHLORDANE	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	DDD (DICHLORODIPHENYLDICHLOROETHANE)	Cause	5	N		Fish Consumption	2016		Low	Listed 2016.
DE320-002-02	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-002-02	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-002-03	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-002-04	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE320-002-04	NUTRIENTS	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Changed to Category 3 in 2020 to look into submitted Volunteer Data.
DE320-002-04	HABITAT ASSESSMENT	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Delisting per Tetra Tech Report for EPA.and Delaware DNREC.
DE320-002-04	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE320-002-05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE320-002-05	NUTRIENTS	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Changed to Category 3 in 2020 to look into submitted Volunteer Data.
DE320-002-05	HABITAT ASSESSMENT	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				
DE320-002-05	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE320-003-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE320-003-01	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE320-003-02	BIOLOGICAL INTEGRITY	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-03	HABITAT ASSESSMENT	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-03	BIOLOGICAL INTEGRITY	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-04	HABITAT ASSESSMENT	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-04	BIOLOGICAL INTEGRITY	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-003-05	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE320-003-05	NUTRIENTS	Cause	4A	N		Fish, Aquatic Life, and Wildlife	1996			Listed 1996.
DE320-003-05	BIOLOGICAL INTEGRITY	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-003-05	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-004-01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1996			Listed 1996.
DE320-004-01	NUTRIENTS	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Listed 1996. Delisted 2012. Changed to Category 3 in 2020 to look into submitted Volunteer Data.
DE320-004-02	BIOLOGICAL INTEGRITY	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE320-004-03	BIOLOGICAL INTEGRITY	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				
DE320-004-03	HABITAT ASSESSMENT	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				
DE320-004-04	HABITAT ASSESSMENT	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				
DE320-005-01	HABITAT ASSESSMENT	Cause	5	N		Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-005-02	BIOLOGICAL INTEGRITY	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE320-005-04	HABITAT ASSESSMENT	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Per Tetra Tech Report for EPA and Delaware DNREC.
DE350-E01	ENTEROCOCCUS	Cause	4A	N		Primary Contact Recreation	1998			Listed 1998.
DEDRBCZone5	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Polychlorinated Biphenyls (Pcbs) to be more specific.
DEDRBCZone5	DIELDRIN	Cause	5	N		Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dieldrin to be more specific.
DEDRBCZone5	CHRONIC TOXICITY	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Bioassays performed in 2005, 2007, and 2008 indicate no chronic toxicity in Zone 5 mainstem samples. Chronic toxicity, listed in 2002, Delisted in 2012 based on 2011 journal article.
DEDRBCZone5	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Furan Compounds to be more specific.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DEDRBCZone5	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5	IRON	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Surface water levels of iron in the segment sometimes exceed the applicable criterion. The Department believes further study of surface water iron levels and a determination of whether a use impairment is resulting from those levels is an appropriate response to the available information.
DEDRBCZone5	MERCURY	Meeting Criteria	2	N		Fish Consumption				Listed 2002. Delisted 2014. Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004 based on 2004 DRBC 305(b) assessment.
DEDRBCZone5	DIOXIN	Cause	5	N		Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dioxin to be more specific.
DEDRBCZone5c	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996.
DEDRBCZone5c	DISSOLVED OXYGEN	Cause	5	N		Fish, Aquatic Life, and Wildlife	2006		Low	Listed 2006. Delaware will work with the DRBC, EPA, other States and Stakeholders to develop and implement a TMDL in these waters.
DEDRBCZone5c	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004 based on 2004 DRBC 305(b) assessment.
DEDRBCZone5c	MERCURY	Meeting Criteria	2	N		Fish Consumption				Listed 2002. Delisted 2014. Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5c	CHRONIC TOXICITY	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Bioassays performed in 2005, 2007, and 2008 indicate no chronic toxicity in Zone 5 mainstem samples. Chronic toxicity, listed in 2002, Delisted in 2012 based on 2011 journal article.

Assessment Unit ID	Parameter	Status	IR Cat	Delisted (Y/N)	Delisting Reason	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DEDRBCZone5c	DIELDRIN	Cause	5	N		Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dieldrin to be more specific.
DEDRBCZone5c	DIOXIN	Cause	5	N		Fish Consumption	2002		Low	Listed 2002.
DEDRBCZone5c	FURAN COMPOUNDS	Cause	5	N		Fish Consumption	2002		Low	Listed 2002.
DEDRBCZone5c	ARSENIC	Meeting Criteria	2	N		Fish, Aquatic Life, and Wildlife				Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone5c	IRON	Insufficient Information	3	N		Fish, Aquatic Life, and Wildlife				Surface water levels of iron in the segment sometimes exceed the applicable criterion. The Department believes further study of surface water iron levels and a determination of whether a use impairment is resulting from those levels is an appropriate response to the available information.
DEDRBCZone6	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	4A	N		Fish Consumption	1996			Listed 1996.
DEDRBCZone6	ENTEROCOCCUS	Meeting Criteria	2	N		Primary Contact Recreation				Listed 1996. Delisted 2004 based on 2004 DRBC 305(b) assessment.
DEDRBCZone6	DIOXIN	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.
DEDRBCZone6	MERCURY	Cause	5	N		Fish Consumption	2002	5mnr	Low	Listed 2002. TMDL Target date of 2012 changed to 2016 in the 2012 Cycle. Changed to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DEDRBCZone6	FURAN COMPOUNDS	Meeting Criteria	2	N		Fish Consumption				Not a contaminant of concern in fish consumption advisories for these waters.

Table E2: The Final Determination for the State of Delaware 2026 Clean Water Act Section 303(d) List of Waters Needing TMDLs

(downloaded from ATTAINS on April 29, 2026)

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE010-001-01	DIELDRIN	Cause	5	Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-01	DIOXIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-03-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-001-03-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-001-03-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-001-03-04	DIELDRIN	Cause	5	Fish Consumption	2018		Low	Listed 2018.
DE010-001-03-04	FURAN COMPOUNDS	Cause	5	Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-001-03-04	DIOXIN	Cause	5	Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE010-002-01-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-002-02-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-002-02-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE010-L02	DIELDRIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE020-001-01	FURAN COMPOUNDS	Cause	5	Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-001-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE020-001-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE020-001-01	DIOXIN	Cause	5	Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE020-003-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE030-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE030-002-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE030-003	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE030-003	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-001	FURAN COMPOUNDS	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE040-001	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-001	DIELDRIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE040-001	DIOXIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE040-002-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-002-01	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE040-002-01	DIOXIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE040-002-01	DIELDRIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE040-003-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE040-003-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-07	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-08	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-08	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-09	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE040-003-10	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-001-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE050-001-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-004-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-004-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-004-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE050-006-03	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE050-L03	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE050-L07	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE060-005-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE060-007-02-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE060-008	DISSOLVED OXYGEN	Cause	5	Fish, Aquatic Life, and Wildlife	2012		Low	Listed 2012.
DE070-001	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014. Removed 2024. Should not have been assessed under the marine criteria. 2026 Assessed under freshwater criteria. Listed 2026.
DE080-003	DIOXIN	Cause	5	Fish Consumption	2010	5mnr	Low	Listed 2010. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE080-003	FURAN COMPOUNDS	Cause	5	Fish Consumption	2010	5mnr	Low	Listed 2010. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	DIELDRIN	Cause	5R	Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	DIOXIN	Cause	5R	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	FURAN COMPOUNDS	Cause	5R	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE090-001	POLYCHLORINATED BIPHENYLS (PCBS)	Cause	5R	Fish Consumption	2002		Low	Listed 2002. EPA TMDL for PCBS in Delaware River Zone 6 and tributaries.
DE090-001	ENTEROCOCCUS	Cause	5	Primary Contact Recreation	2026		Low	Listed 2026.
DE090-002-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE090-002-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE090-002-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-001-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-001-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1996.
DE100-003-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-003-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1996.
DE100-004-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-004-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-005-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-005-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE100-005-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE110-001-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-07	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-08	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-08	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-09	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-001-09	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-05	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-07	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE110-002-07	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-08	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-08	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-09	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-002-09	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-05	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-07	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-08	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-09	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-10	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-11	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-12	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-13	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE110-003-13	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-14	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE110-003-15	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-001	DIELDRIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-001	DDD (DICHLORODIPHENYLDICHLOROETHANE)	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-001	FURAN COMPOUNDS	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-001	DIOXIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-001	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-001	DDE (DICHLORODIPHENYLDICHLOROETHYLENE)	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-001	CHLORDANE	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-002	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE120-002	DIELDRIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. 2016 delisted in error. 2018 restored category 5 Listing. 2024 state category 5mnr added based on 2018 analysis for the evaluation of Fish Consumption Advisories.
DE120-003-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-003-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-003-01	DIELDRIN	Cause	5	Fish Consumption	2018	5mnr	Low	Listed 2018. 2024 state category 5mnr added based on 2018 analysis for the evaluation of Fish Consumption Advisories.
DE120-003-02-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-003-02-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-003-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-01	DIELDRIN	Cause	5	Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-004-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE120-004-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02	DIELDRIN	Cause	5	Fish Consumption	2006	5mnr	Low	Listed 2006. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE120-004-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-02-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-03-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-03-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-004-03-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-02	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE120-006-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-006-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-01	CHLORDANE	Cause	5	Fish Consumption	2016		Low	Listed 2016.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE120-007-01-01	DIELDRIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-01	HEPTACHLOR EPOXIDE	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-05	CHLORDANE	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-05	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-01-05	HEPTACHLOR EPOXIDE	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-007-01-05	DIELDRIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE120-007-02-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-02-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE120-007-02-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE130-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE140-003	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE140-005	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE140-006	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE140-009-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE140-L01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE150-001-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE150-001-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE150-001-02	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE160-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE160-002-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE160-003-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE160-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE170-001	TOTAL SUSPENDED SOLIDS (TSS)	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	Listed 2026.
DE180-001	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	Listed 2026.
DE180-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE180-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE180-003-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE190-001-02-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE190-001-02-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE190-001-02-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-03	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE200-001-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-001-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE200-002-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-07	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-07	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-08	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-09	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-10	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-10	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-11	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-11	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-12	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-12	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-13	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-14	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-15	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-16	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-16	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-17	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-18	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE200-002-19	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-21	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-21	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-23	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE200-002-24	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-002-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-003	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE210-004	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-001	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE220-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-002-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-002-04	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE220-003-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-004-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE220-004-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-004-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE220-005-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-05	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-L03	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE230-001-02-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE230-001-02-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-001	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-002-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-06	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-07	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-07	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-002-08	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-08	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-002-09	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-003	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE240-004-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-004-01	LEAD	Cause	5	Fish, Aquatic Life, and Wildlife	2024		Low	2024 New parameter. Listed 2024. Data collected prior to assessment period did not show exceedances and there were no obvious sources. DNREC will maintain Category 5, but investigate.
DE240-004-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-004-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-004-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-005-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-005-01	ZINC	Cause	5	Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE240-005-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-005-02	ZINC	Cause	5	Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE240-005-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-005-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-006-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-007-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-010-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-010-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE240-L02	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE240-L04	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE250-001-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE250-001-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE250-002	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-001-02	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002		High	Listed 2002.
DE260-001-02	DIELDRIN	Cause	5	Fish Consumption	2016		High	Listed 2016.
DE260-001-02	DIOXIN	Cause	5	Fish Consumption	2002		High	Listed 2002.
DE260-001-02	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	Fish Consumption	2014		High	Levels at State Line exceed human health and aquatic life criteria and decline downstream in a response fully explained by simple dilution, indicating sources are in Pennsylvania. The extensive sampling occurred in 2015 as part of the WATAR. DNREC is working with Pennsylvania and US EPA to address this issue.
DE260-001-03	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002		High	Listed 2002.
DE260-001-03	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	Fish Consumption	2014		High	Levels at State Line exceed human health and aquatic life criteria and decline downstream in a response fully explained by simple dilution, indicating sources are in Pennsylvania. The extensive sampling occurred in 2015 as part of the WATAR. DNREC is working with Pennsylvania and US EPA to address this issue.
DE260-001-03	DIOXIN	Cause	5	Fish Consumption	2002		High	Listed 2002.
DE260-001-03	DIELDRIN	Cause	5	Fish Consumption	2016		High	Listed 2016.
DE260-001-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-002-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2026		Low	2026 New parameter. Listed 2026.
DE260-002-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-003-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE260-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE270-001-01-01	CHRONIC TOXICITY	Cause	5	Fish, Aquatic Life, and Wildlife	2012		Low	Listed Based on 2011 journal article. Likely cause is a federal superfund site. The Department is working with EPA on the cleanup and possible TMDL.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE270-001-01-01	DIOXIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE270-001-01-01	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE270-001-01-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE270-001-02-01	DIELDRIN	Cause	5	Fish Consumption	2014		Low	Listed 2014.
DE270-001-02-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE280-001-01-01	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE280-001-01-02	COPPER	Cause	5	Fish, Aquatic Life, and Wildlife	2016		Low	Listed 2016.
DE280-001-01-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-001-01	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-01	DIOXIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-01	DIELDRIN	Cause	5	Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-02-01	DIELDRIN	Cause	5	Fish Consumption	2016	5mnr	Low	Listed 2016. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE290-001-02-01	DIOXIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-001-02-01	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-001-02-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-001-02-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-001-02-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE290-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-002-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-002-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-01	MERCURY	Cause	5	Fish Consumption	2014		Low	Listed 2014.
DE290-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-05	MERCURY	Cause	5	Fish Consumption	2014		Low	Listed 2014.
DE290-003-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-003-06	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-01	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-004-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE290-L02	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-L02	DIOXIN	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002.
DE290-L04	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. Changed 2018 to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories. 2022 updated to correct Cat 5 listing to include 5mnr.
DE300-001-01	DIELDRIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE300-001-02-01	DIELDRIN	Cause	5	Fish Consumption	2012		Low	Listed 2012.
DE300-001-02-01	CHLORDANE	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE300-001-02-01	HEPTACHLOR EPOXIDE	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE300-001-02-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE300-001-02-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-02-03	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-02-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-03-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-03-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE300-001-03-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-04	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE310-003-05	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-001-01	DIELDRIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	DIELDRIN	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	DDE (DICHLORODIPHENYLDICHLOROETHYLENE)	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	CHLORDANE	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	DDT (DICHLORODIPHENYLTRICHLOROETHANE)	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE320-001-03	DDD (DICHLORODIPHENYLDICHLOROETHANE)	Cause	5	Fish Consumption	2016		Low	Listed 2016.
DE320-002-02	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Assessment Unit ID	Parameter	Status	IR Cat	Use	First Listing	Org IR Cat	Priority Ranking	Comments
DE320-002-02	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-002-03	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-002-04	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	2014		Low	Listed 2014.
DE320-002-05	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-003-05	BIOLOGICAL INTEGRITY	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-003-05	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE320-005-01	HABITAT ASSESSMENT	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DEDRBCZone5	DIELDRIN	Cause	5	Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dieldrin to be more specific.
DEDRBCZone5	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Furan Compounds to be more specific.
DEDRBCZone5	DIOXIN	Cause	5	Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dioxin to be more specific.
DEDRBCZone5c	DISSOLVED OXYGEN	Cause	5	Fish, Aquatic Life, and Wildlife	2006		Low	Listed 2006. Delaware will work with the DRBC, EPA, other States and Stakeholders to develop and implement a TMDL in these waters.
DEDRBCZone5c	DIELDRIN	Cause	5	Fish Consumption	2002		Low	Listed 2002. 2016 Changed from "Chlorinated Pesticides" to Dieldrin to be more specific.
DEDRBCZone5c	DIOXIN	Cause	5	Fish Consumption	2002		Low	Listed 2002.
DEDRBCZone5c	FURAN COMPOUNDS	Cause	5	Fish Consumption	2002		Low	Listed 2002.
DEDRBCZone6	MERCURY	Cause	5	Fish Consumption	2002	5mnr	Low	Listed 2002. TMDL Target date of 2012 changed to 2016 in the 2012 Cycle. Changed to Monitored Natural Recovery per March 1, 2018 Evaluation of Fish Consumption Advisories.
DE220-005-03	DISSOLVED OXYGEN	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.
DE220-005-06	DISSOLVED OXYGEN	Cause	5	Fish, Aquatic Life, and Wildlife	1998		Low	Listed 1998.

Appendix F: Trend Analysis Plot for Surface Water

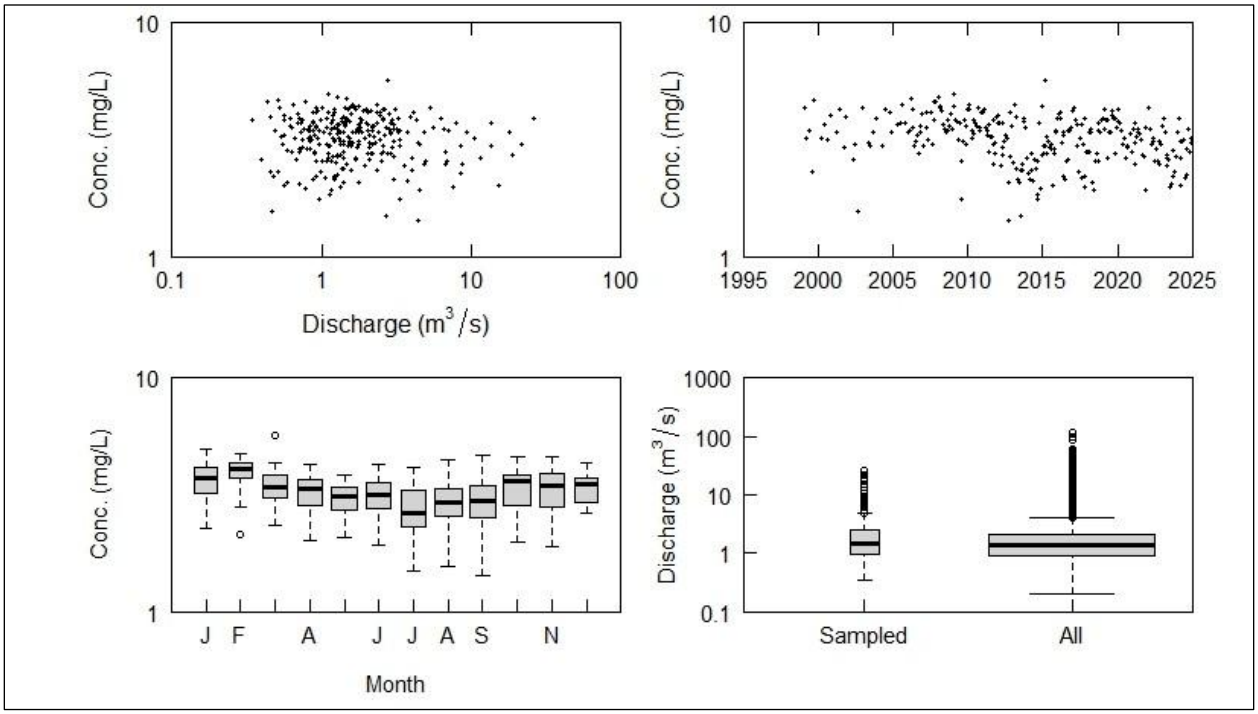


Figure F1: (a) TN concentration changes with discharge (top left) (b) TN concentration changes over time (top right) (c) Monthly TN changes over time (bottom left) (d) Changes in discharge during sampled date vs overall changes in discharge (bottom right) at Wooddale Station, Red Clay Creek Watershed, Delaware.

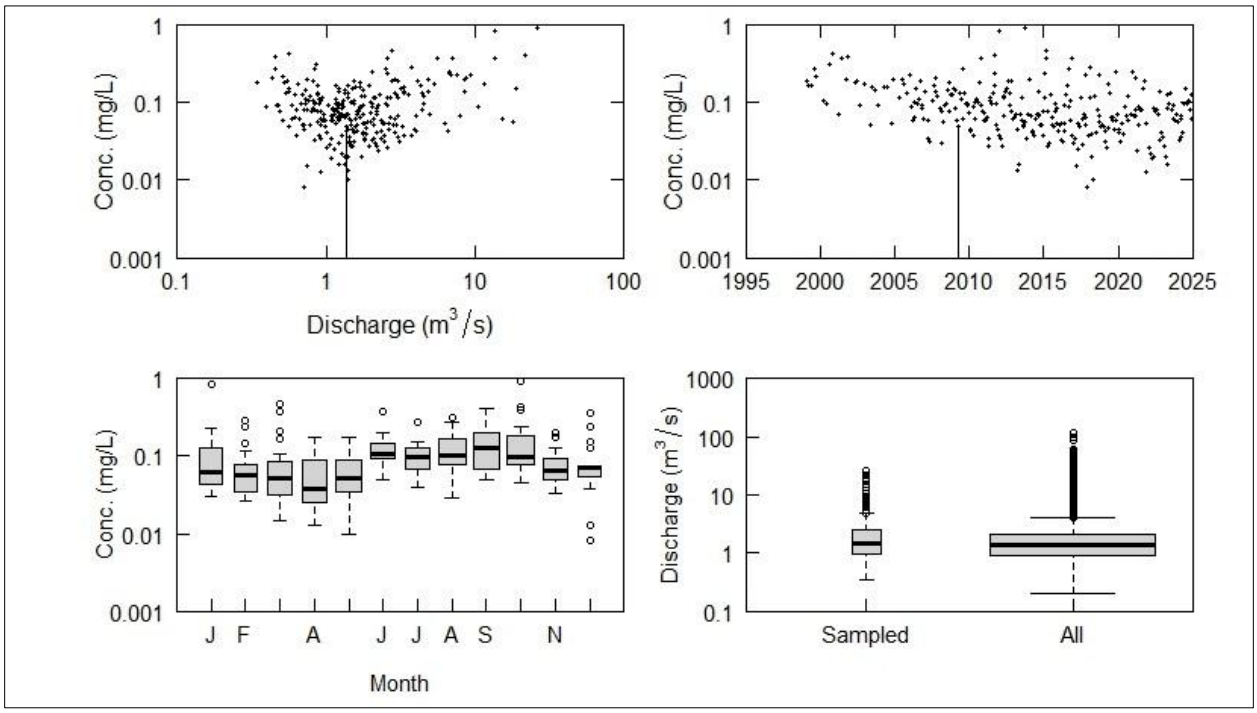


Figure F2: (a) TP concentration changes with discharge (top left) (b) TP concentration changes over time (top right) (c) Monthly TP changes over time (bottom left) (d) Changes in discharge during sampled date vs overall changes in discharge (bottom right) at Wooddale Station, Red Clay Creek Watershed, Delaware.

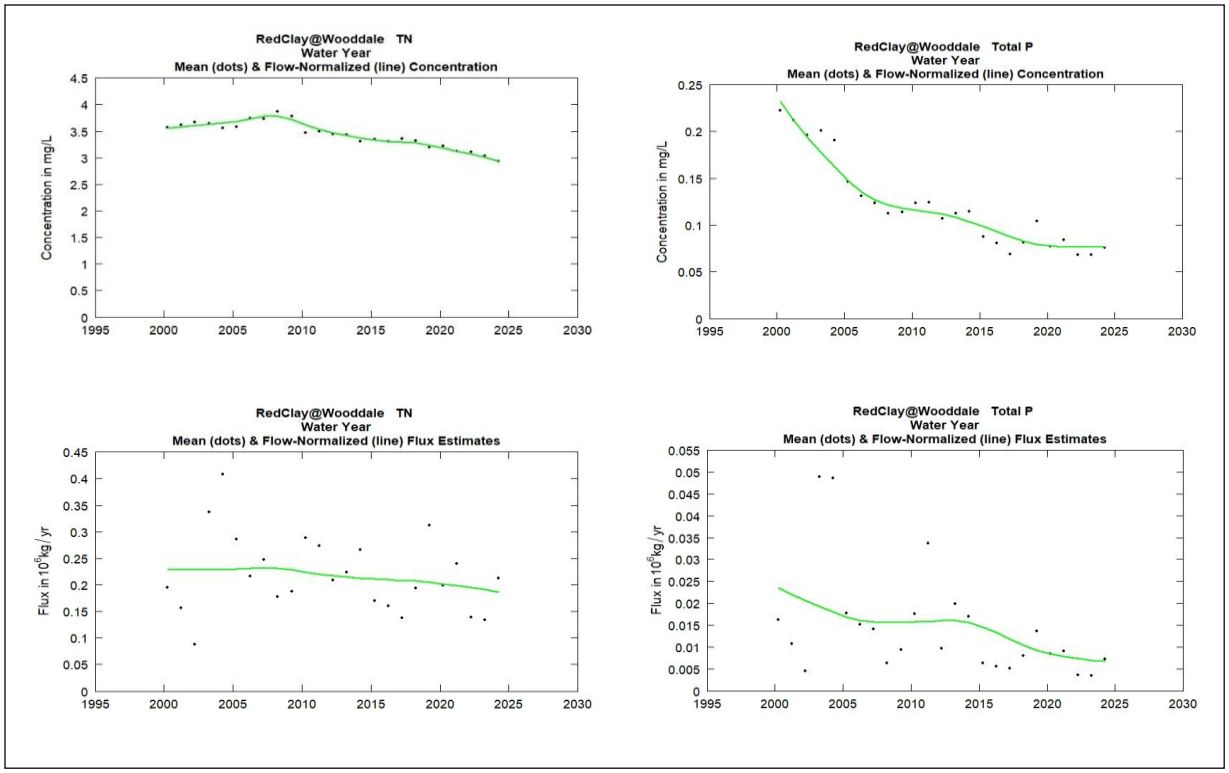


Figure F3: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Wooddale Station, Red Clay Creek Watershed, Delaware.

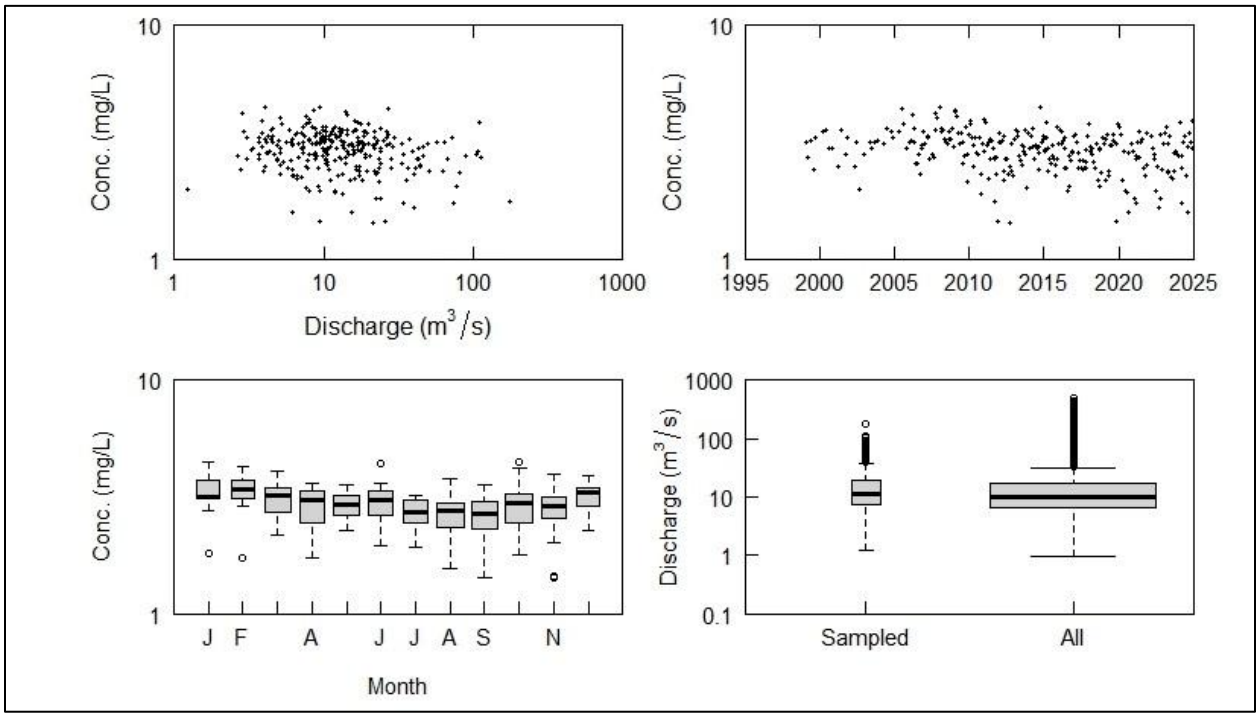


Figure F4: (a)TN concentration changes with discharge (top left) (b) TN concentration changes over time (top right) (c) Monthly changes in TN over time (bottom left) (d) Changes in discharge during sampled date vs overall changes in discharge (bottom right) at Brandywine Creek, Wilmington, Delaware

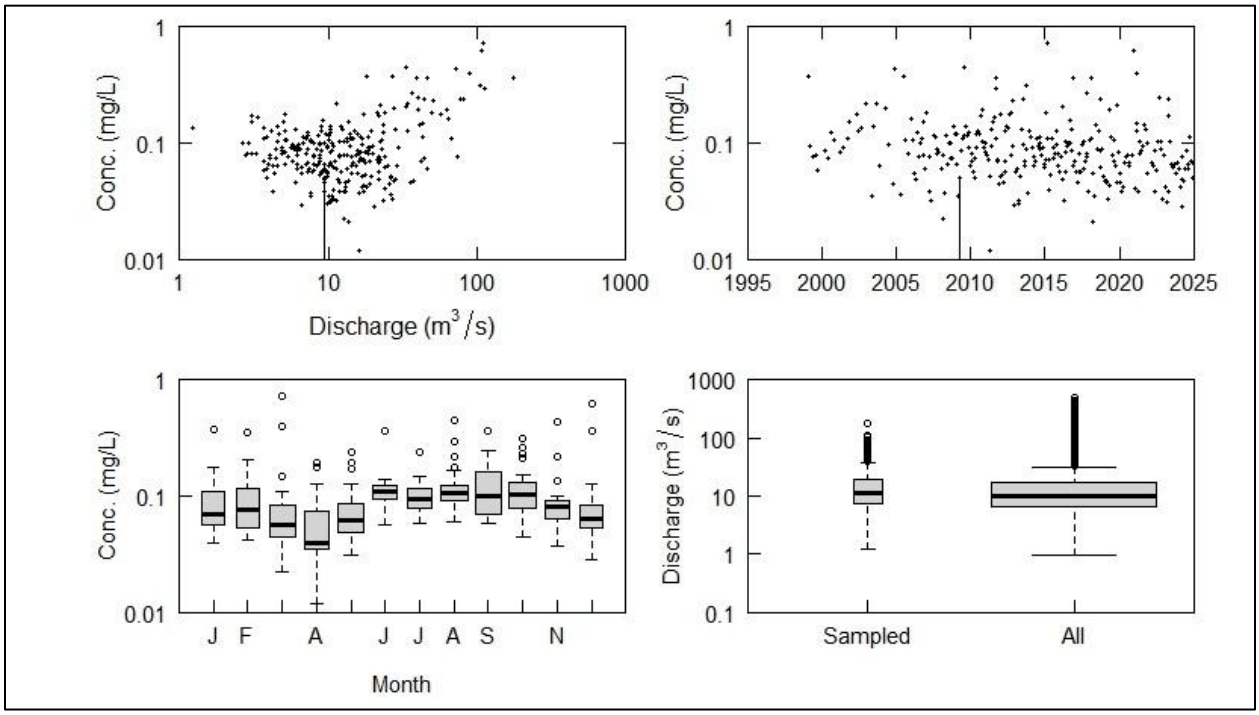


Figure F5: (a) TP concentration changes with discharge (top left) (b) TP concentration changes over time (top right) (c) Monthly changes in TP over time (bottom left) (d) Changes in discharge during sampled date vs overall changes in discharge (bottom right) at Brandywine Creek, Wilmington, Delaware

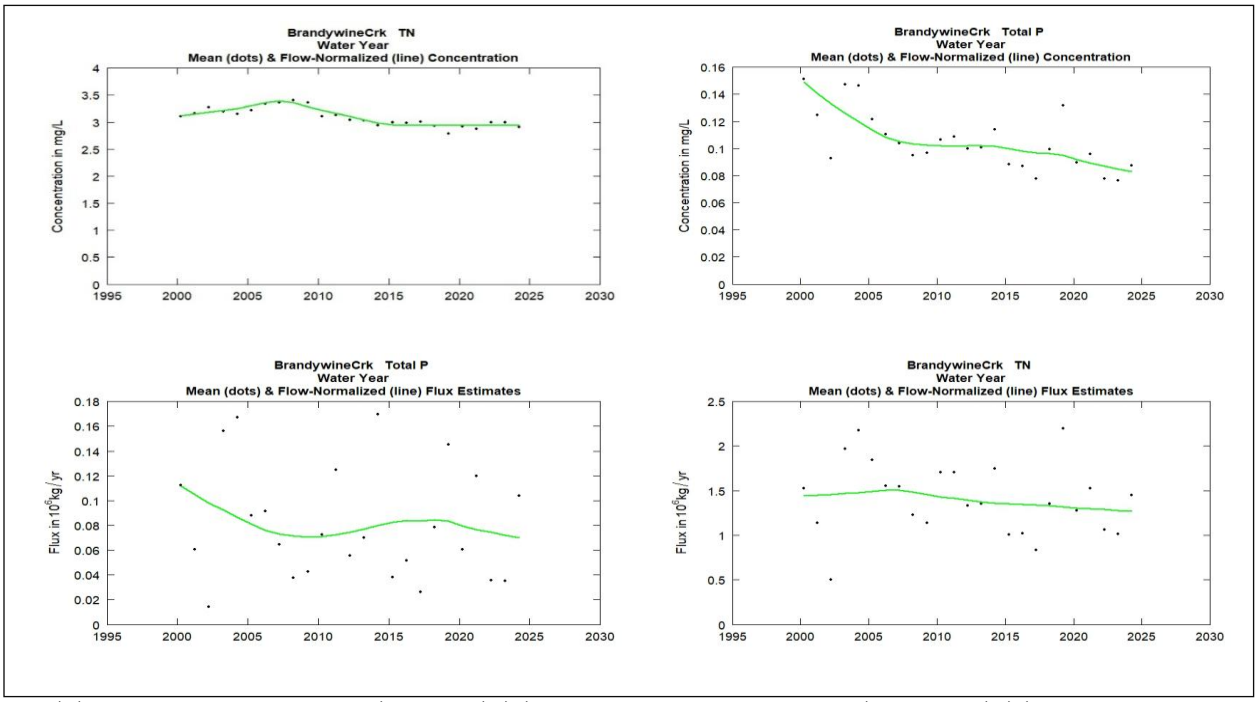


Figure F6: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total P loading rate (bottom left) (d) Total N loading rate over time (bottom right) at Brandywine Creek, Wilmington, Delaware

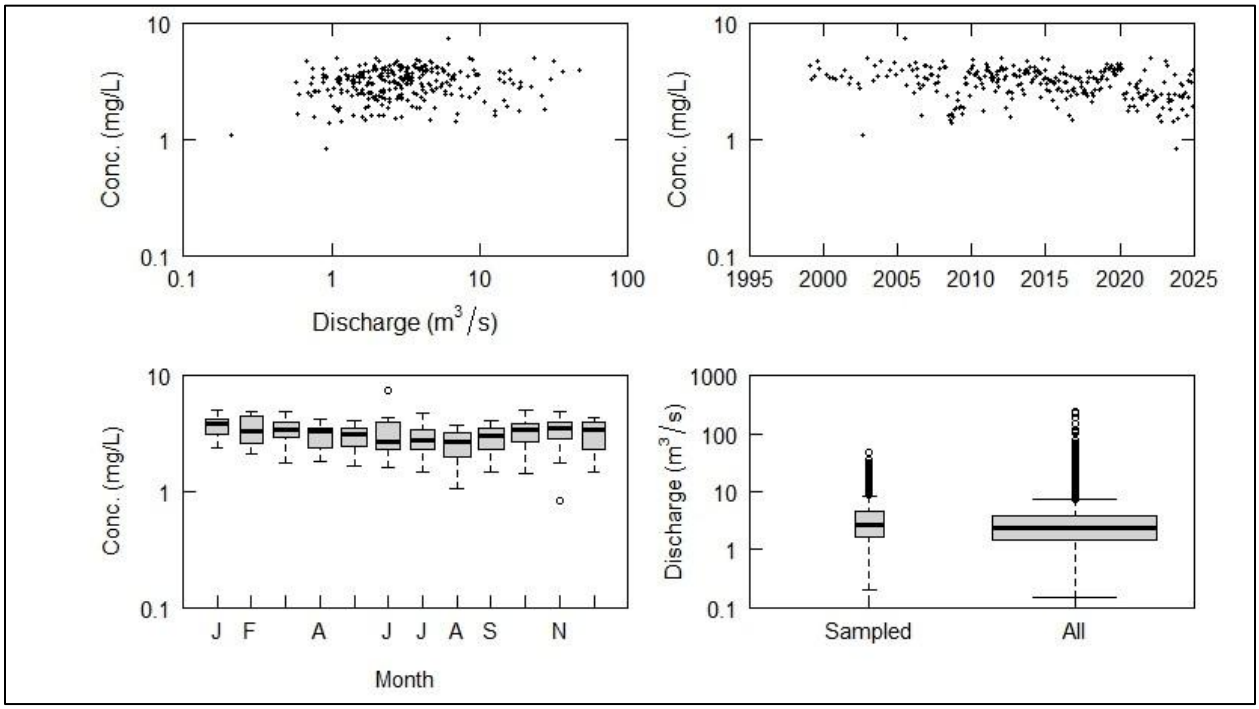


Figure F7: (a) TN concentration changes with discharge (top left) (b) TN concentration changes over time (top right) (c) Monthly changes in TN over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) White Clay Creek at Delaware Park Blvd, Newark, Delaware

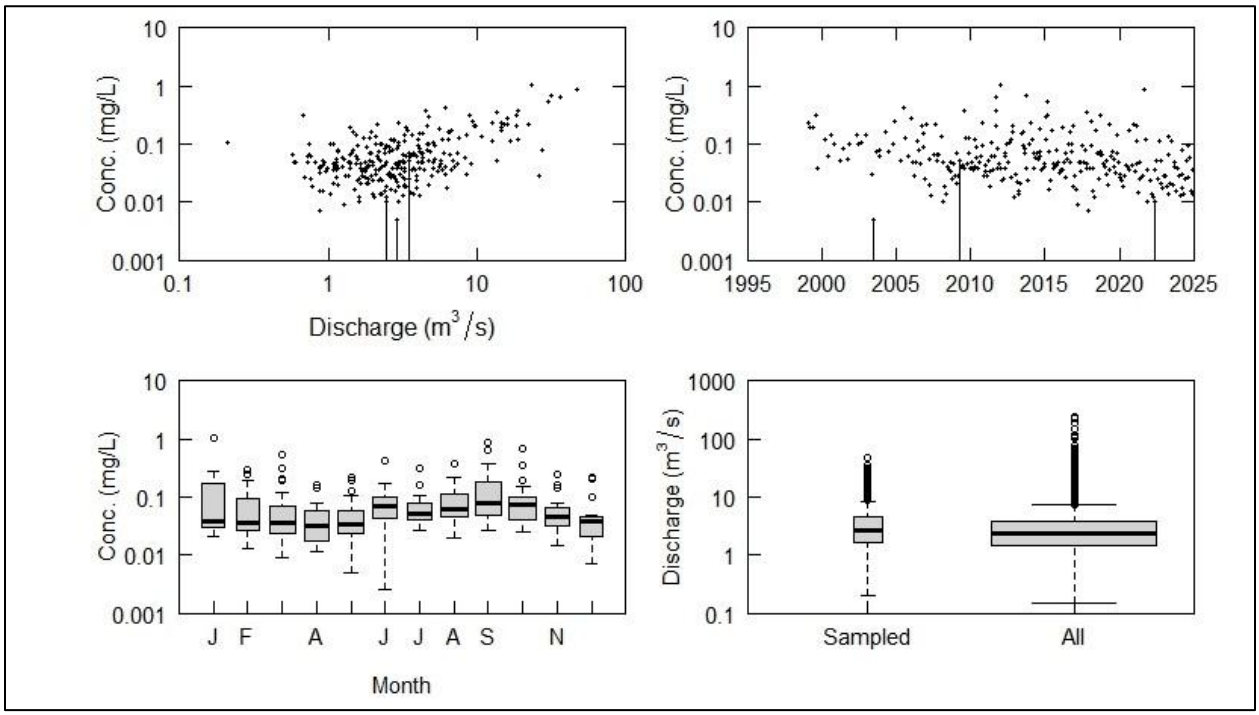


Figure F8: (a) TP concentration changes with discharge (top left) (b) TP concentration changes over time (top right) (c) Monthly changes in TP over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) White Clay Creek at Delaware Park Blvd, Newark, Delaware

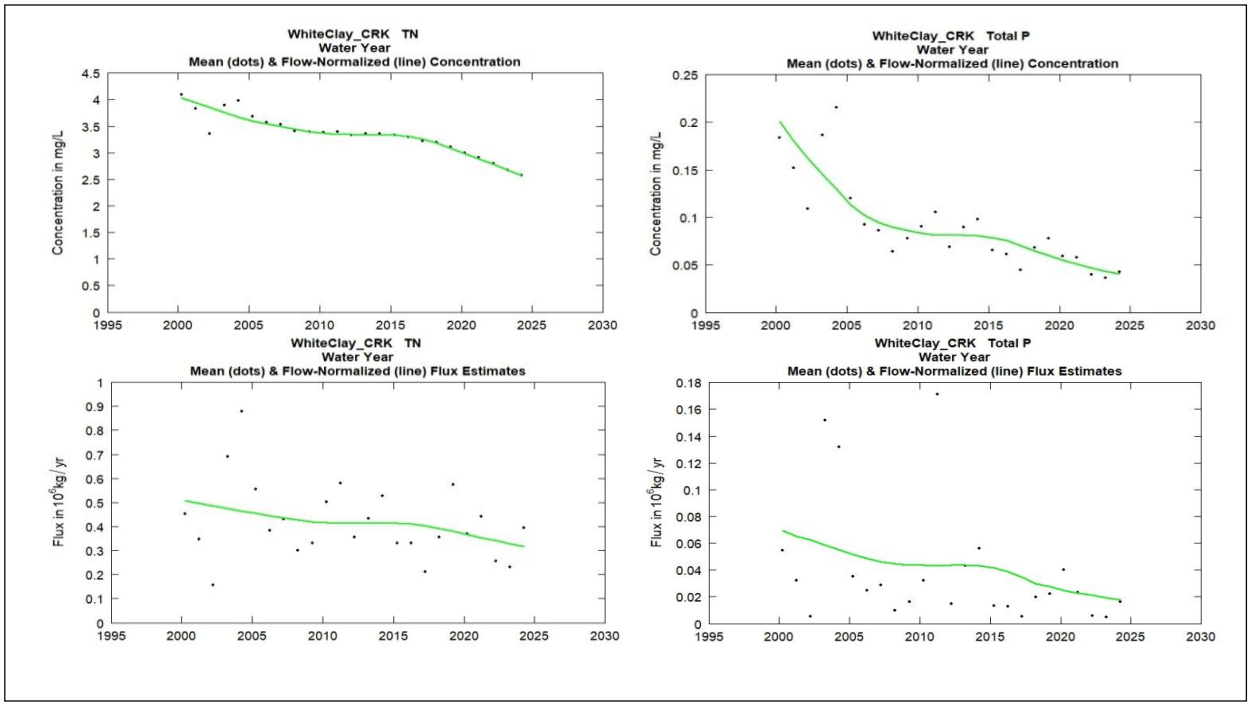


Figure F9: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Delaware Park Blvd, White Clay Creek, Newark, Delaware

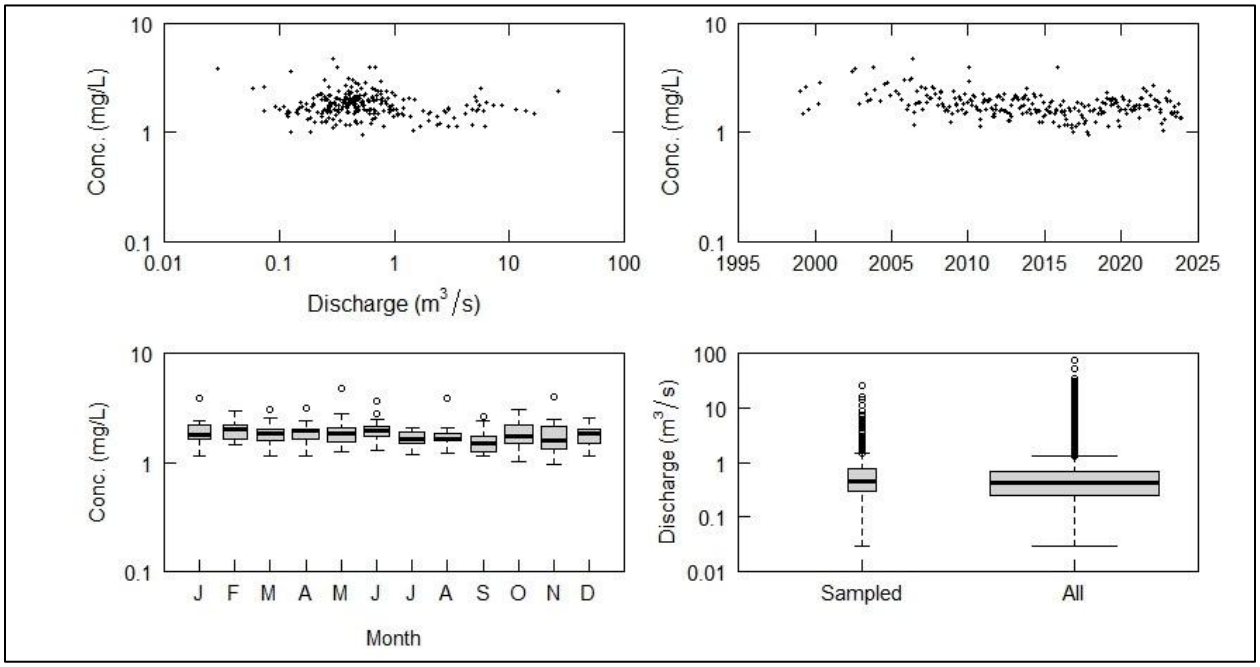


Figure F10: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Christina River at Coochs Bridge, Delaware

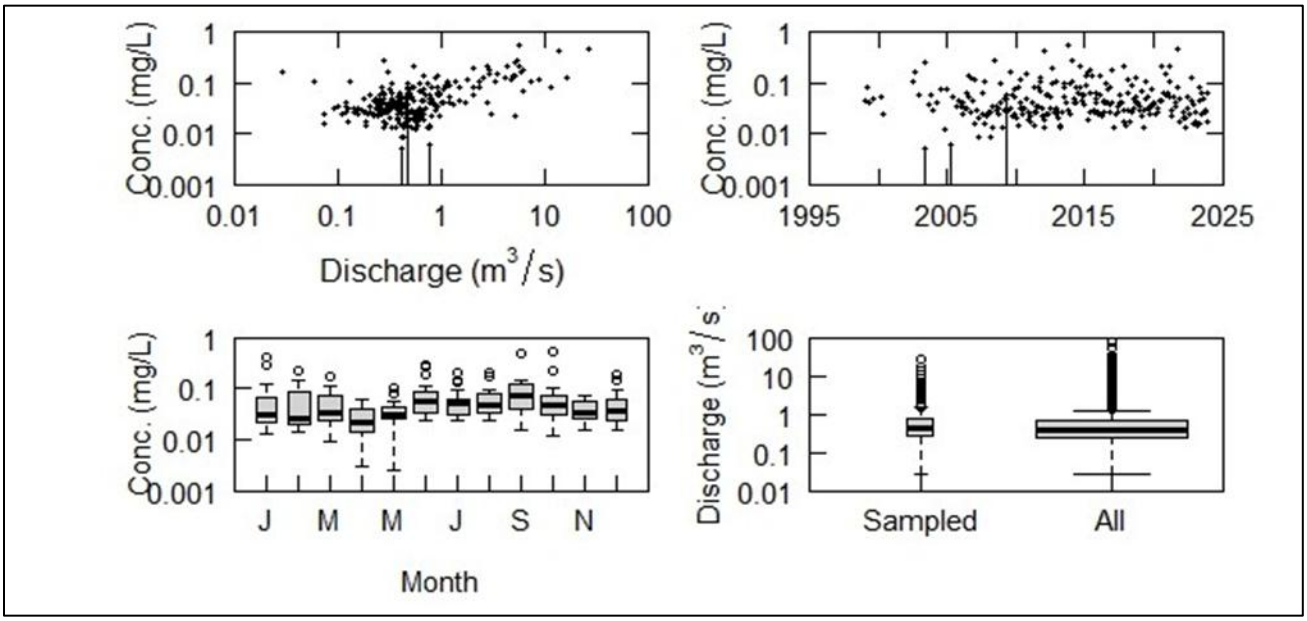


Figure F11:6(a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Coochs Bridge, Christina River, Delaware

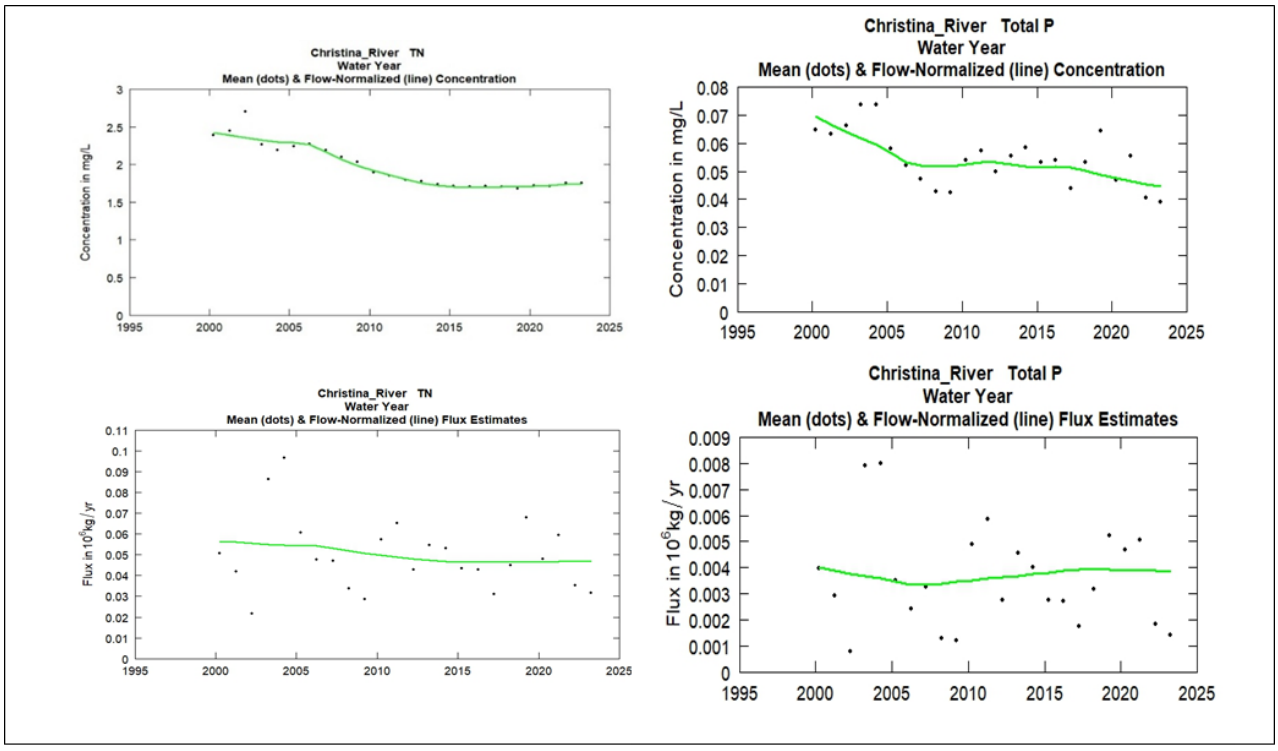


Figure 7(a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Coochs Bridge, Christina River, Delaware

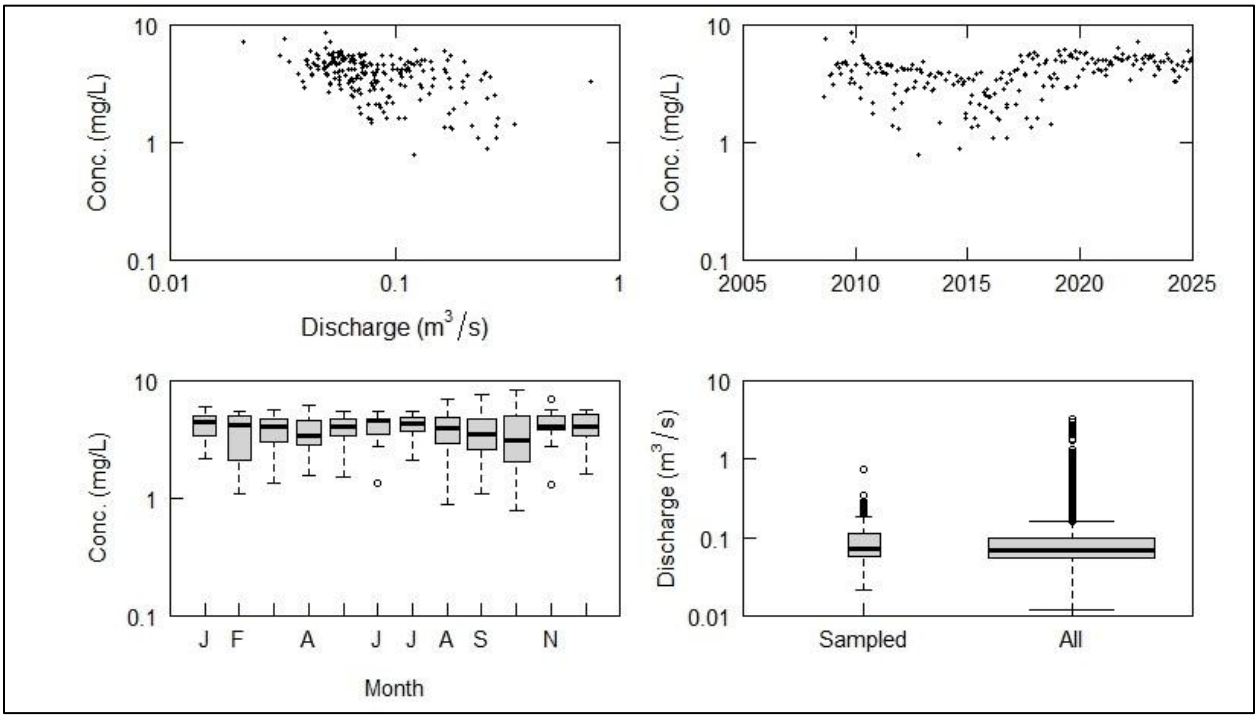


Figure F13: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Silver Lake Station in Appoquinimink River Watershed, Middletown, Delaware

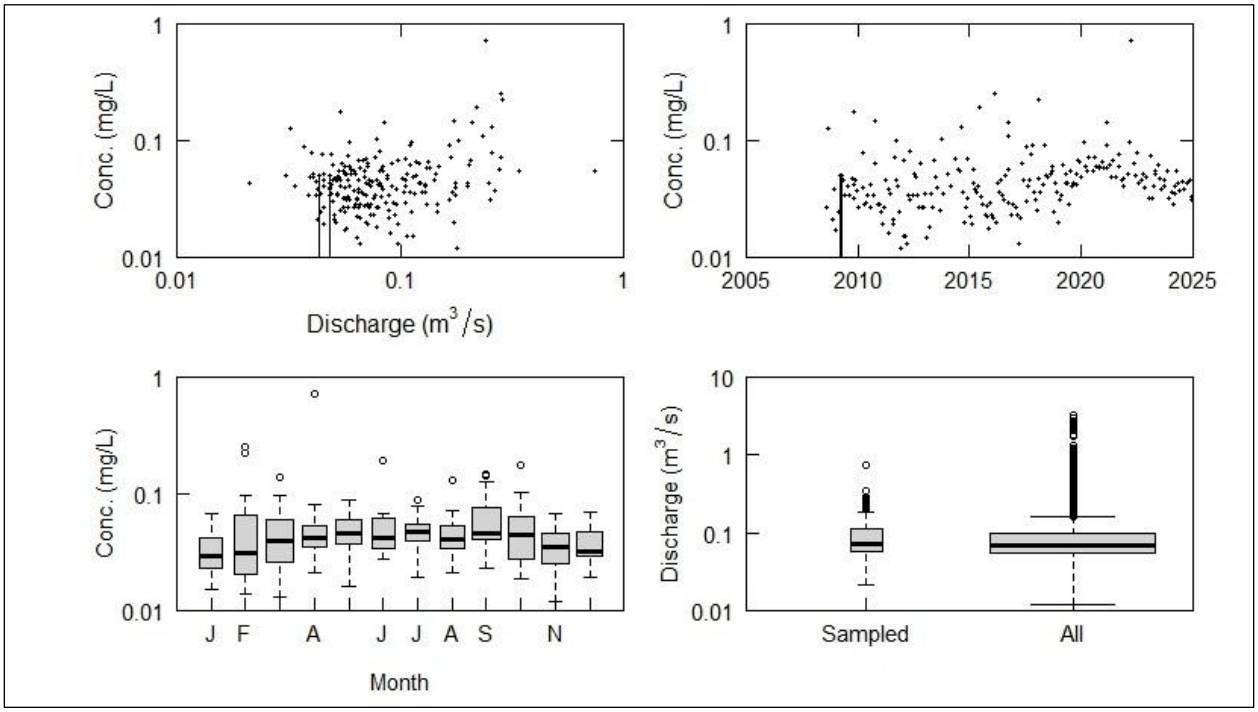


Figure F14: (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Silver Lake Station in Appoquinimink River Watershed, Middletown, Delaware

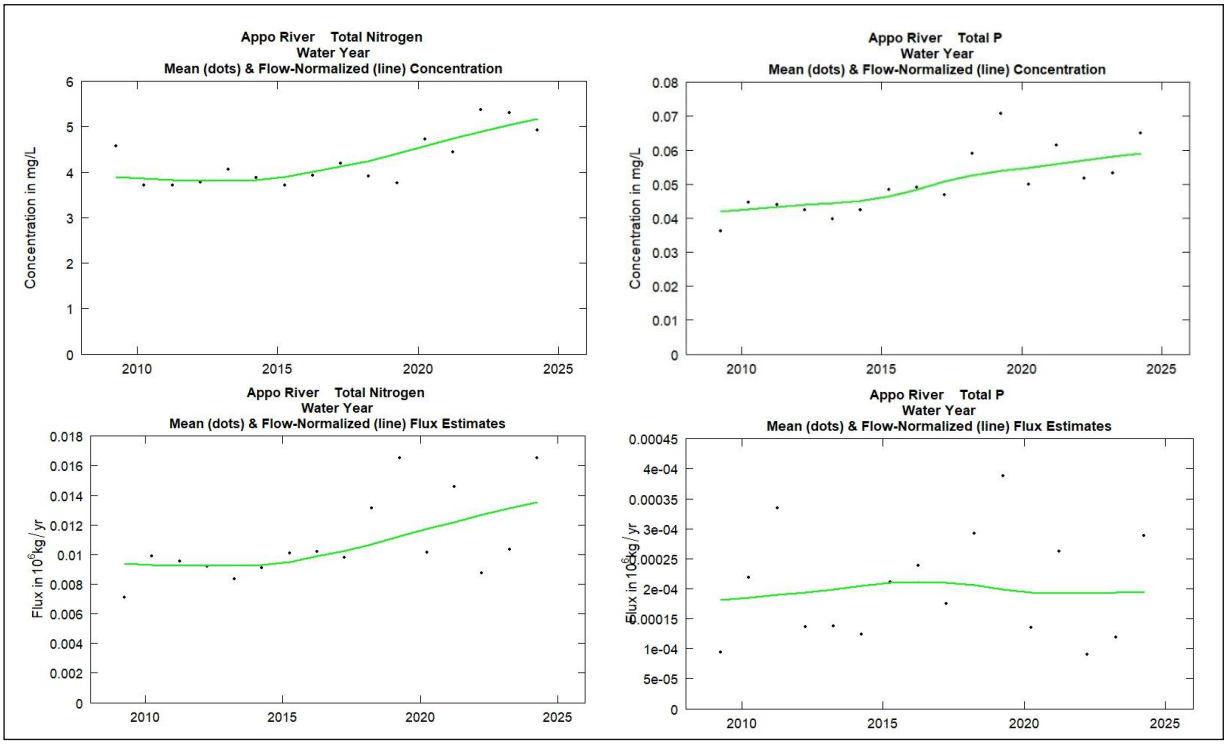


Figure F15: (a) Total Phosphorus trend over time (top left) (b) Total Nitrogen trend over time (top right) (c) Total Phosphorus loading rate over time (bottom left) (d) Total Nitrogen loading rate (bottom right) over time at Silver Lake Station in Appoquinimink River Watershed, Middletown, Delaware

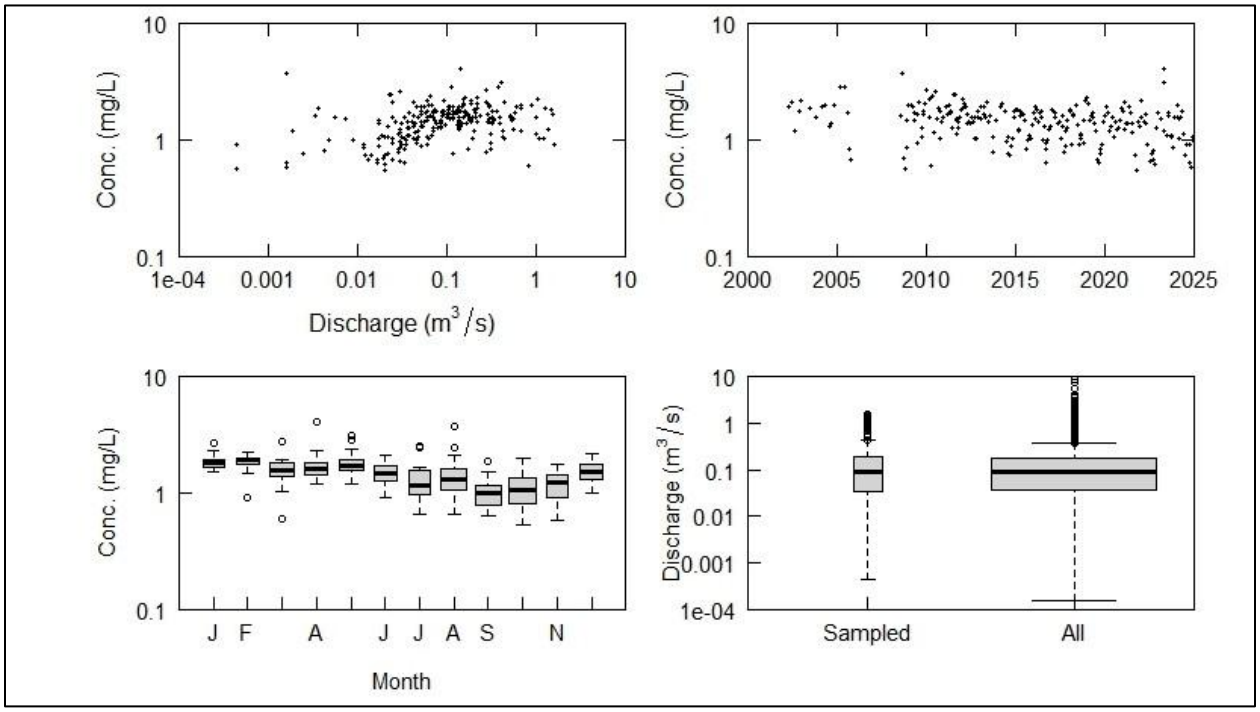


Figure F16 (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Blackbird Creek, Delaware.

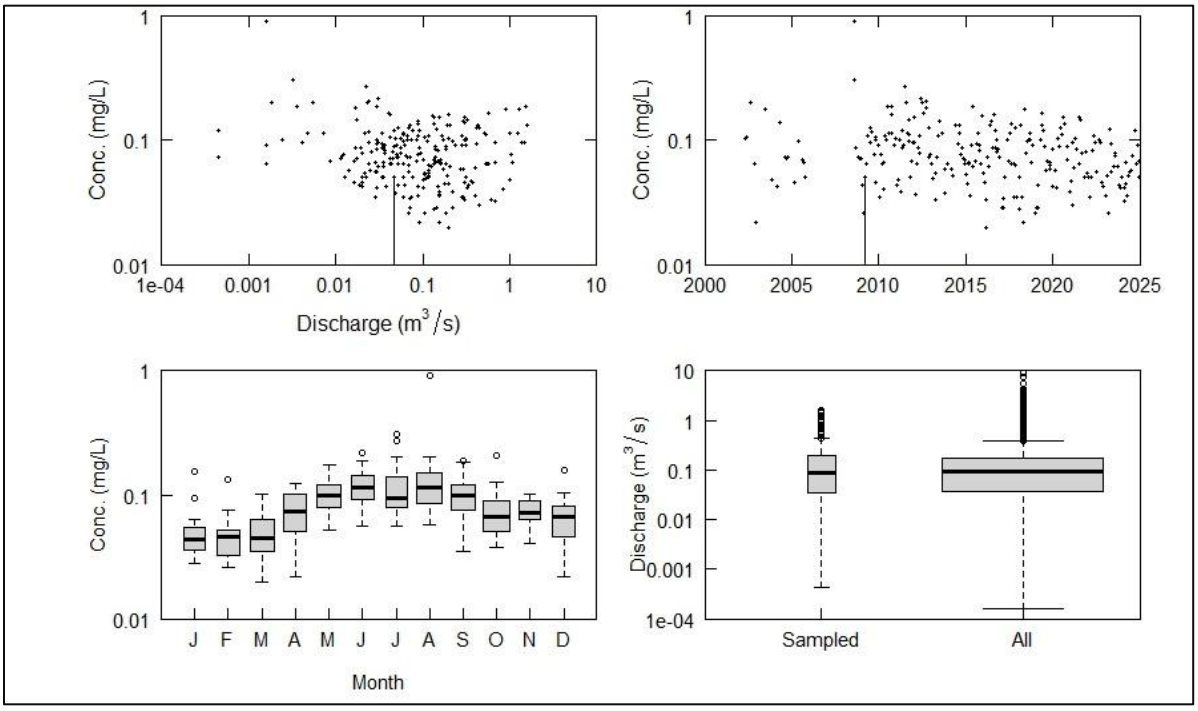


Figure F17: (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes (bottom right) in discharge at Blackbird Creek, Delaware

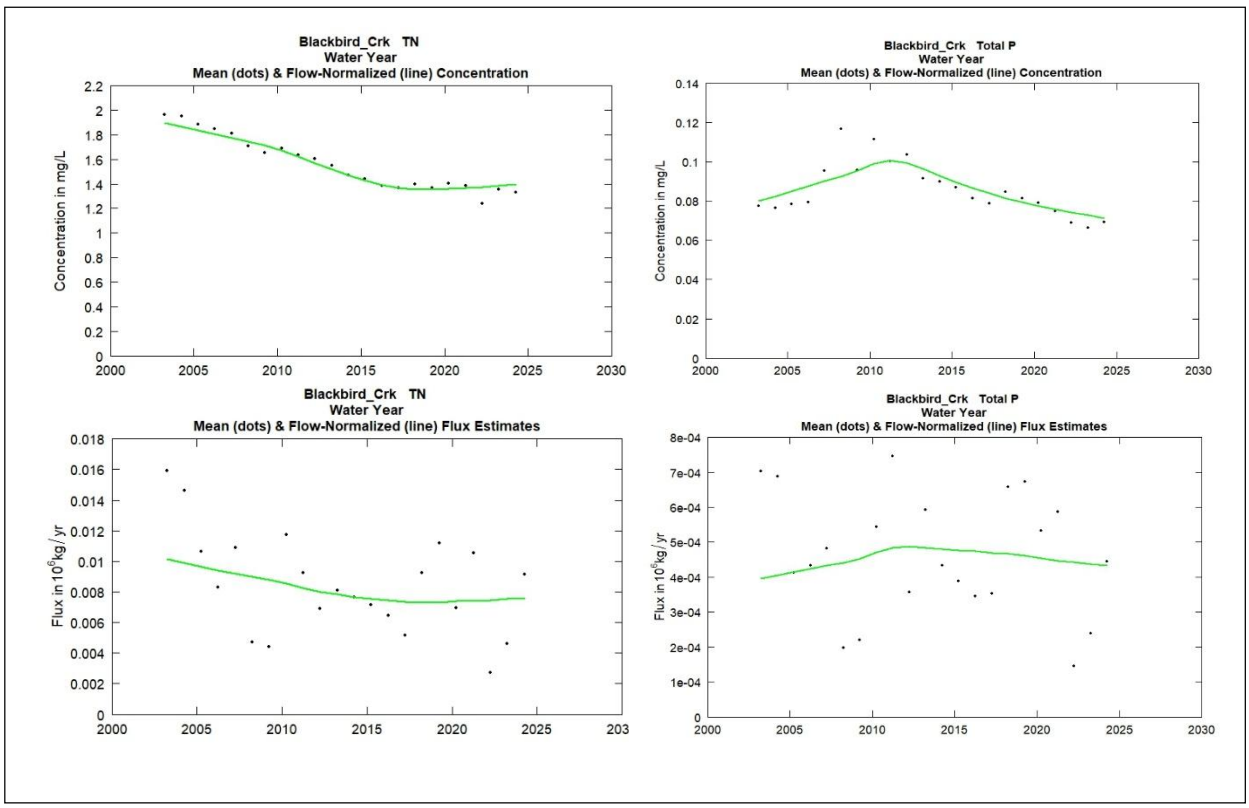


Figure F18: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Blackbird Creek, Delaware

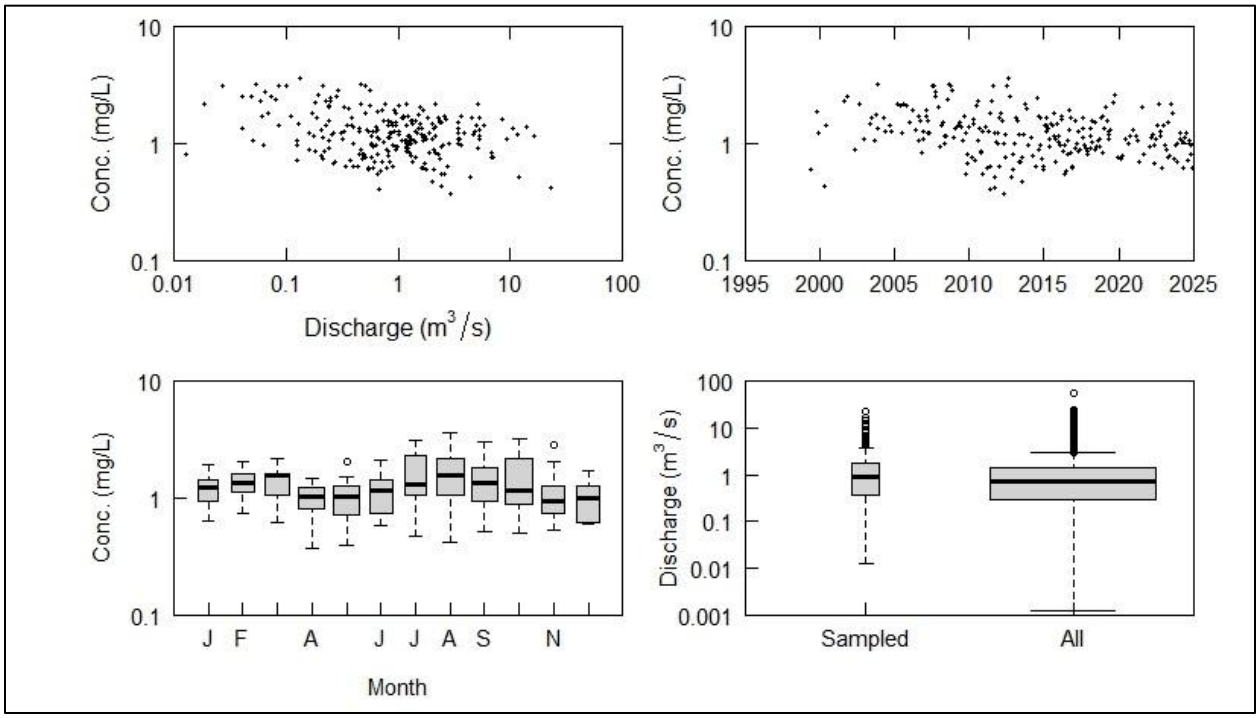


Figure F19: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Silver Lake, St. Jones River, Dover, Delaware

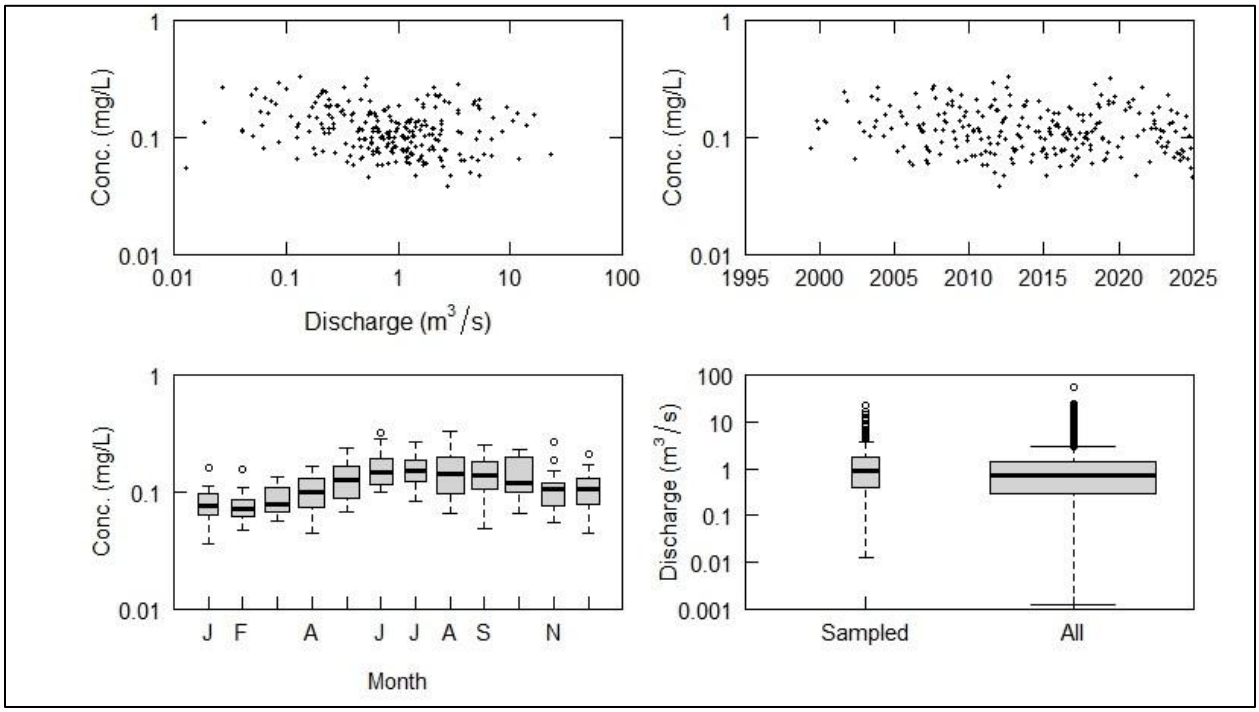


Figure F80: (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Silver Lake, St. Jones River, Dover, Delaware

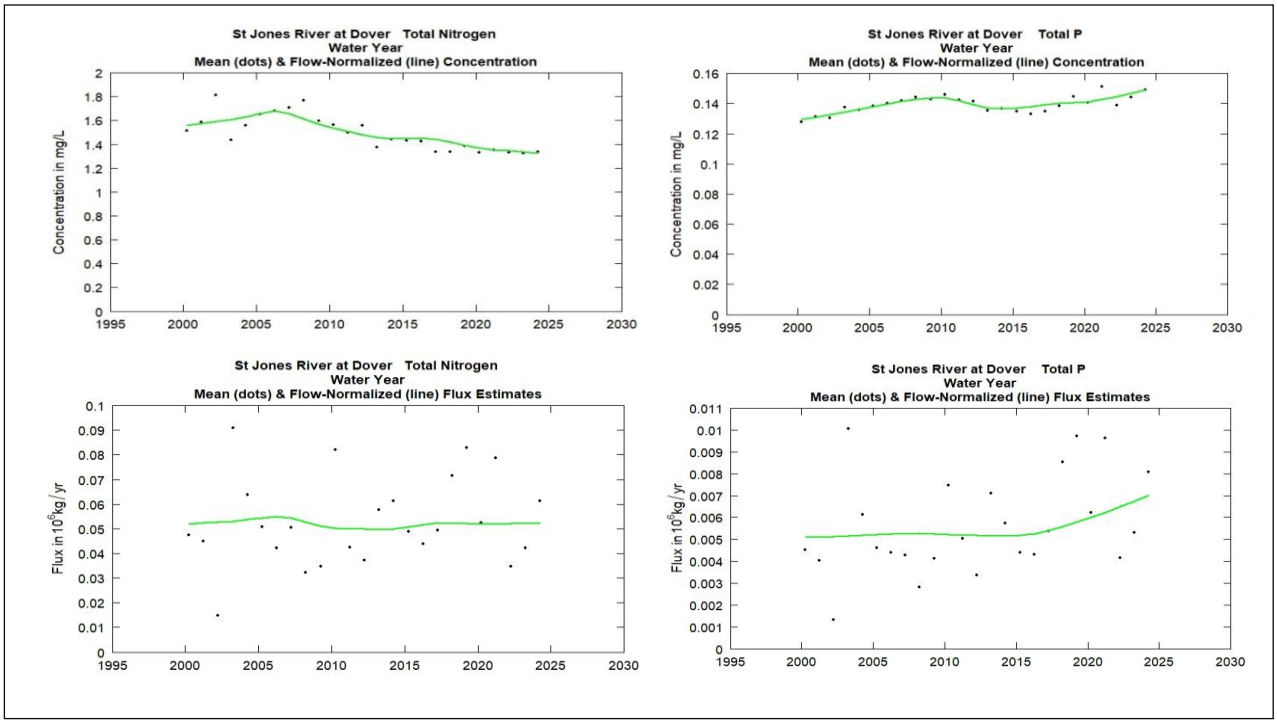


Figure F21: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Silver Lake, St. Jones River, Dover, Delaware

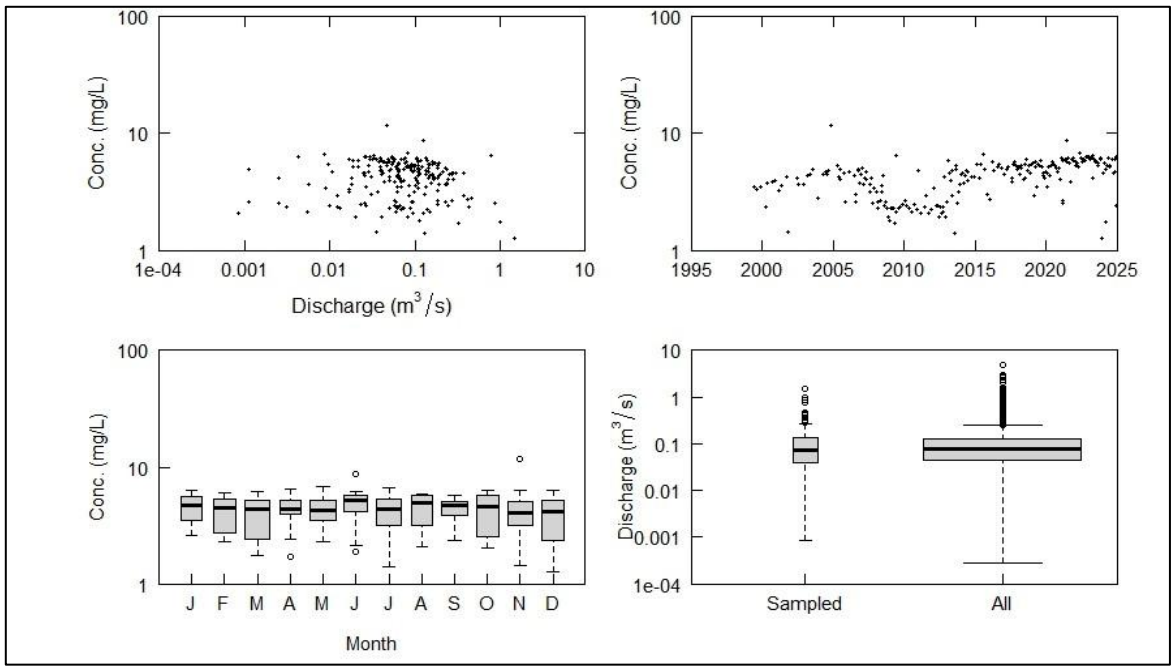


Figure F22: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Beaverdam Branch at Houston, Mispillion River, Delaware.

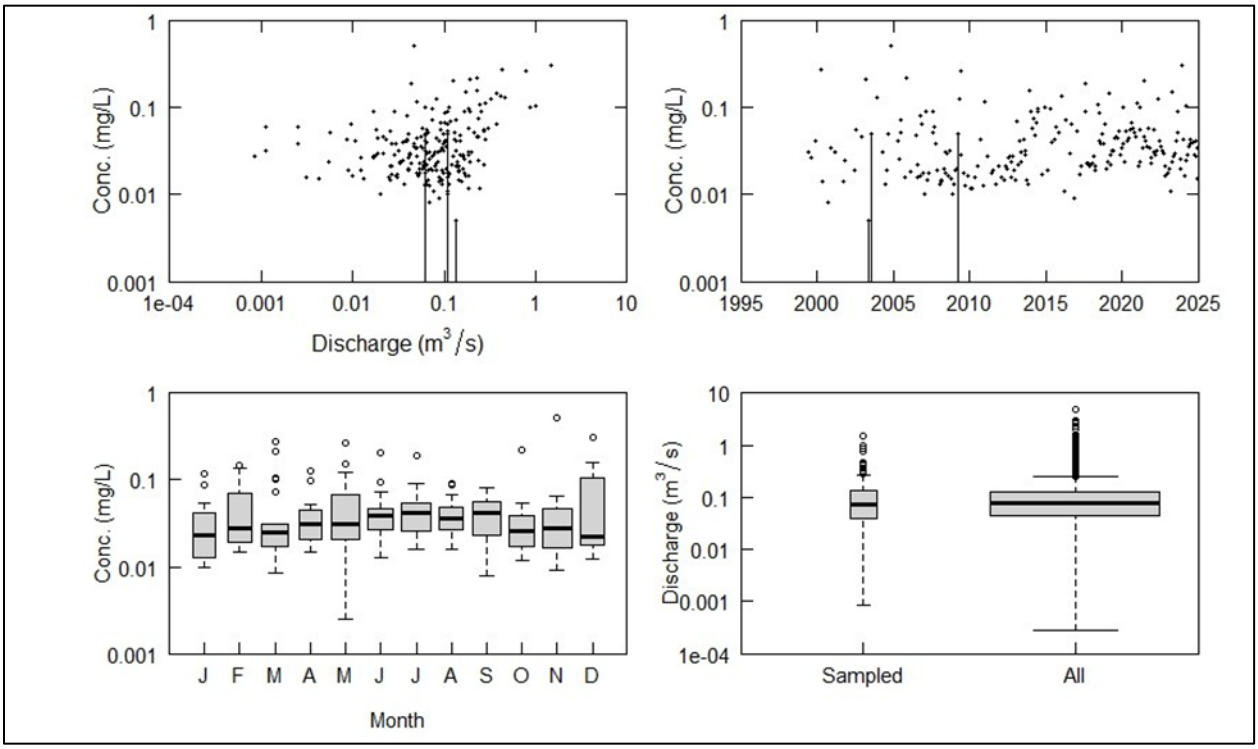


Figure F23: (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Beaverdam Branch Houston, Mispillion River, Delaware.

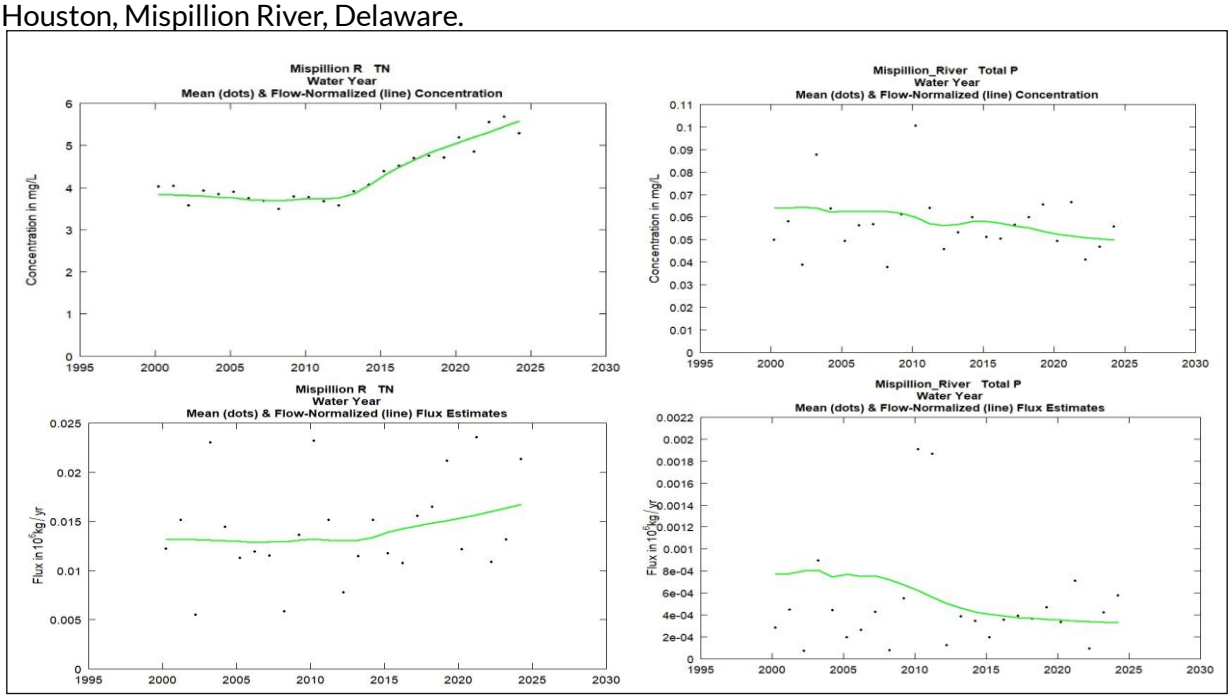


Figure F24: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate over time (bottom right) at Beaverdam Branch Houston, Mispillion River, Delaware.

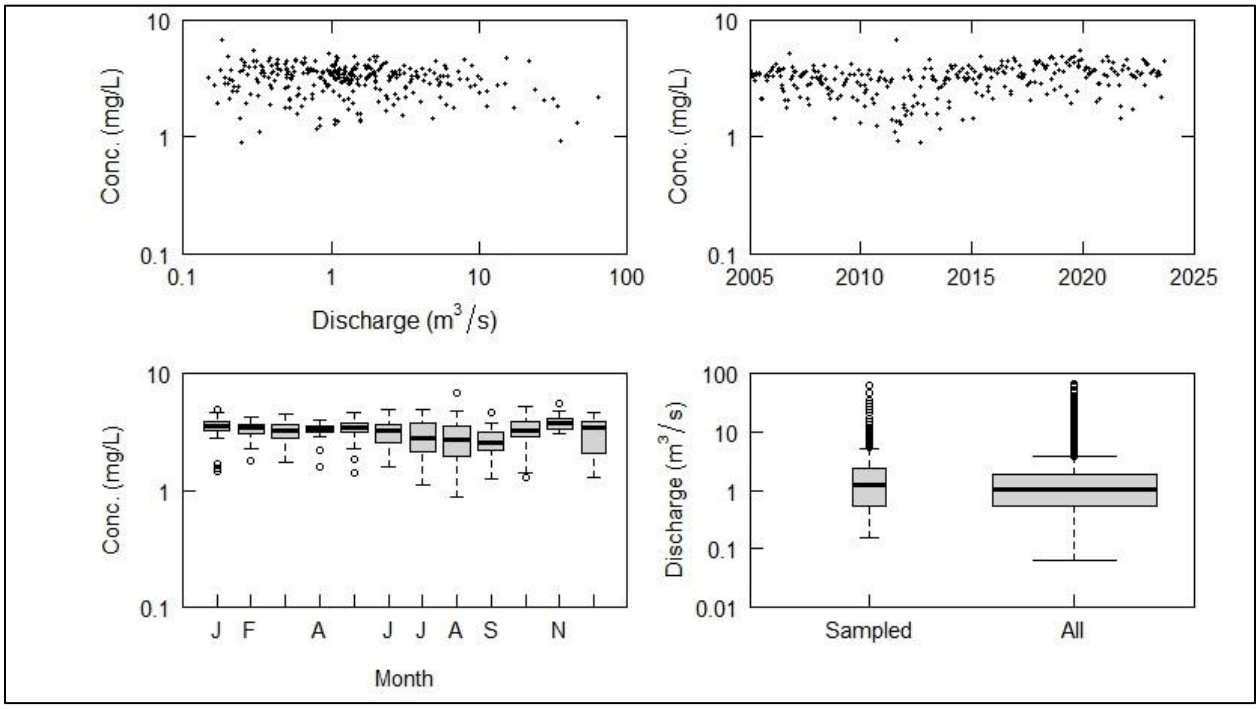


Figure F25: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Marshyhope Creek near Adamsville, Delaware

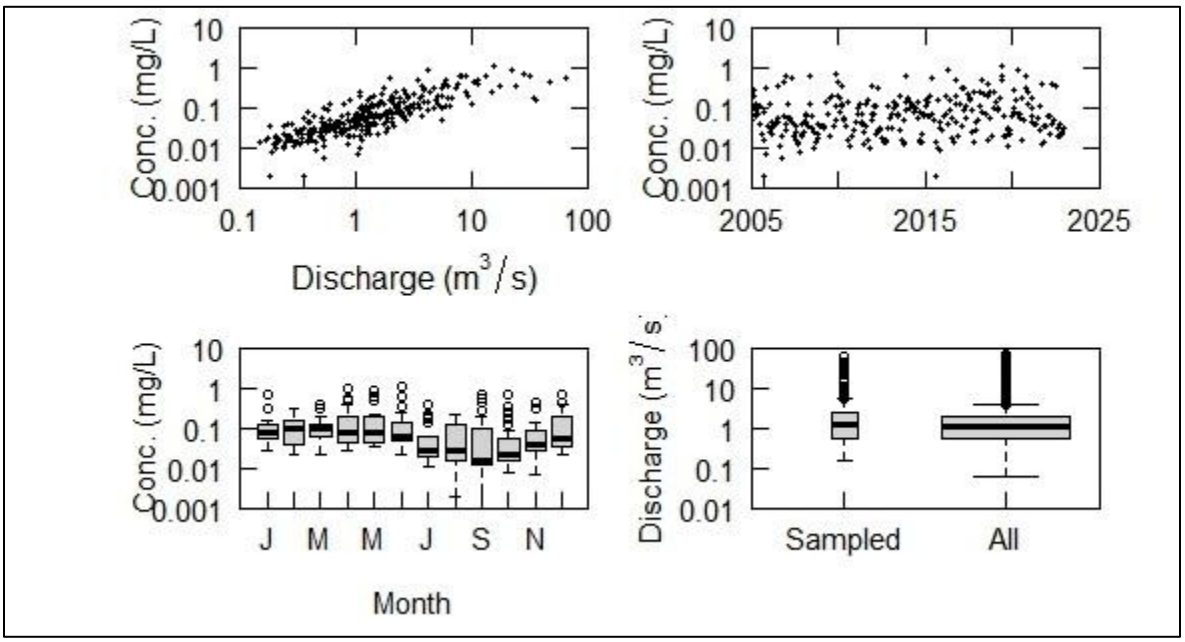


Figure F26 (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Marshyhope Creek near Adamsville, Delaware

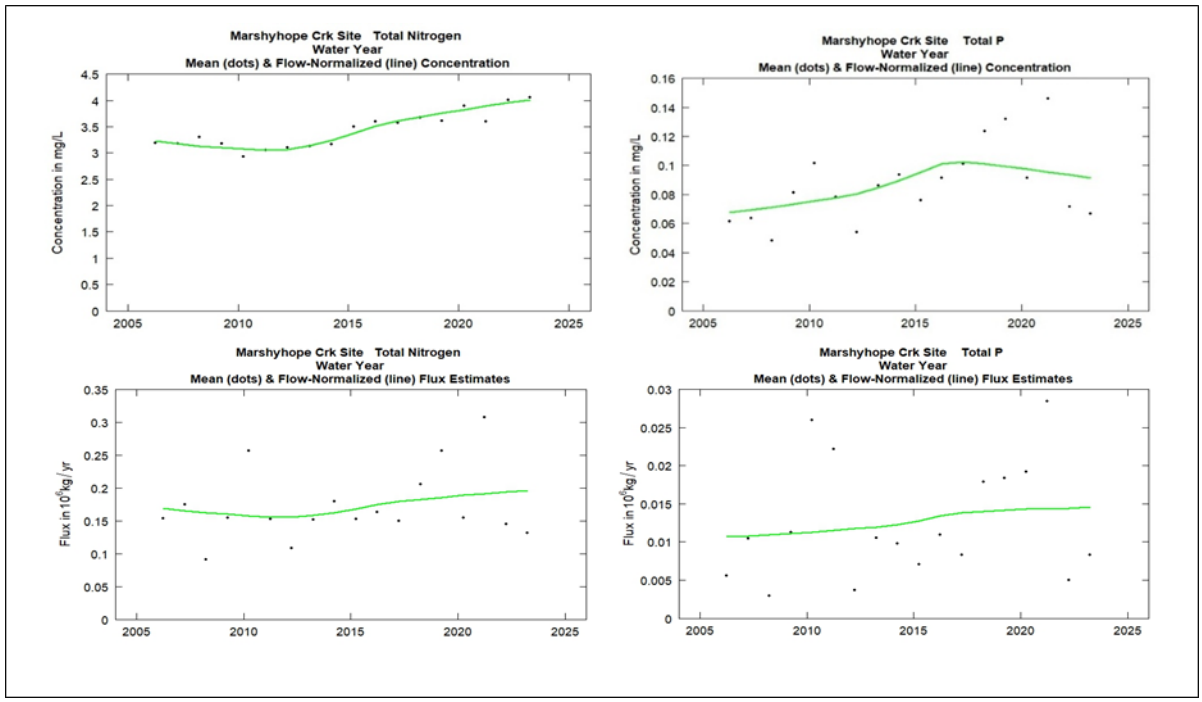


Figure F27: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Marshyhope Creek near Adamsville, Delaware.

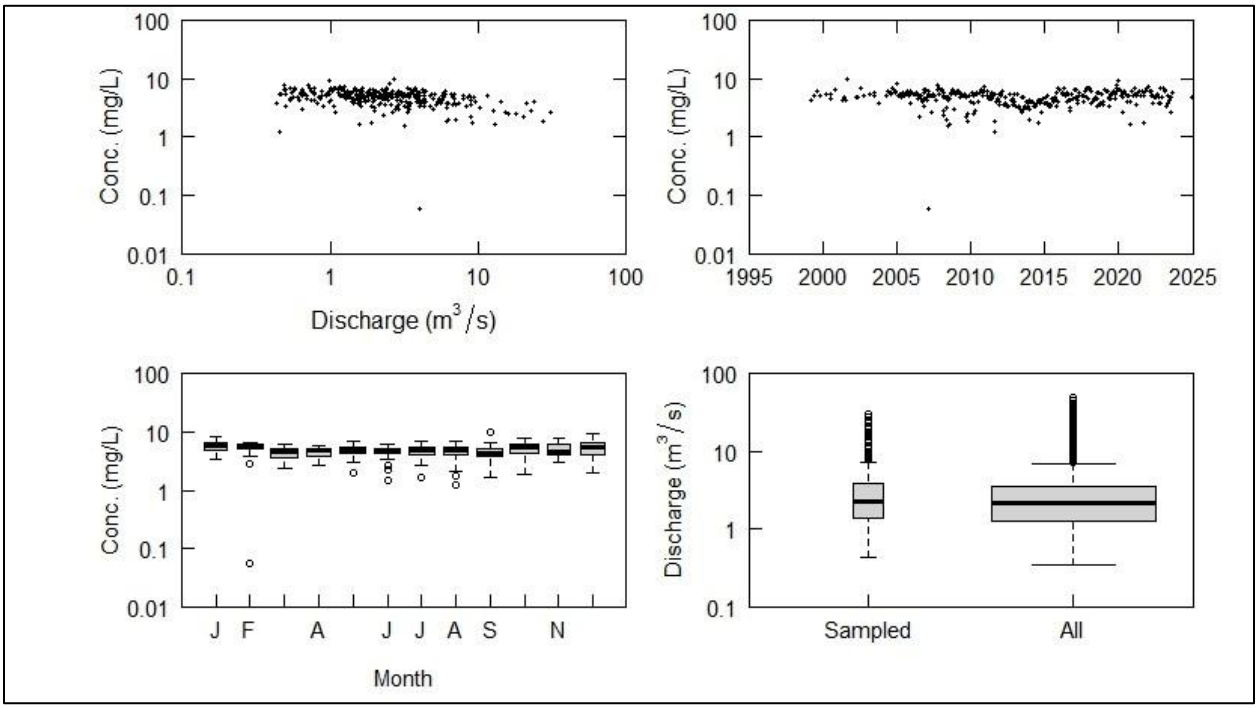


Figure F28: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Nanticoke River, Bridgeville, Delaware.

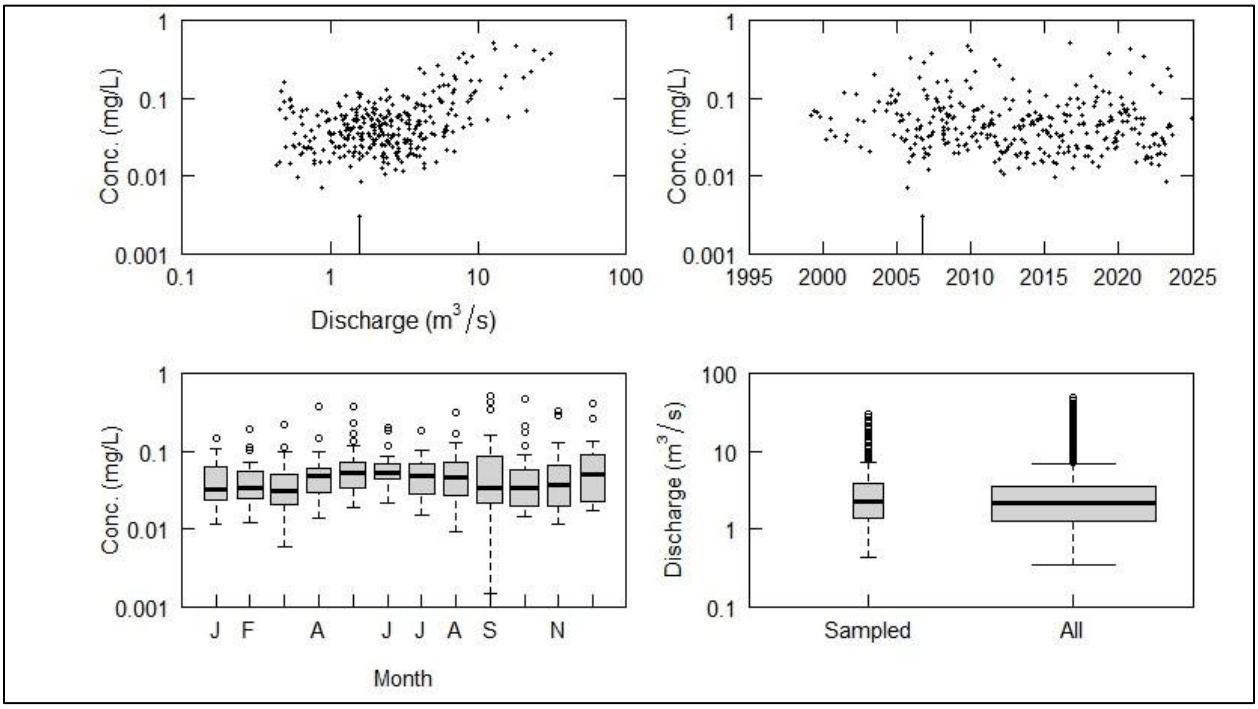


Figure F29: (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Nanticoke River, Bridgeville, Delaware

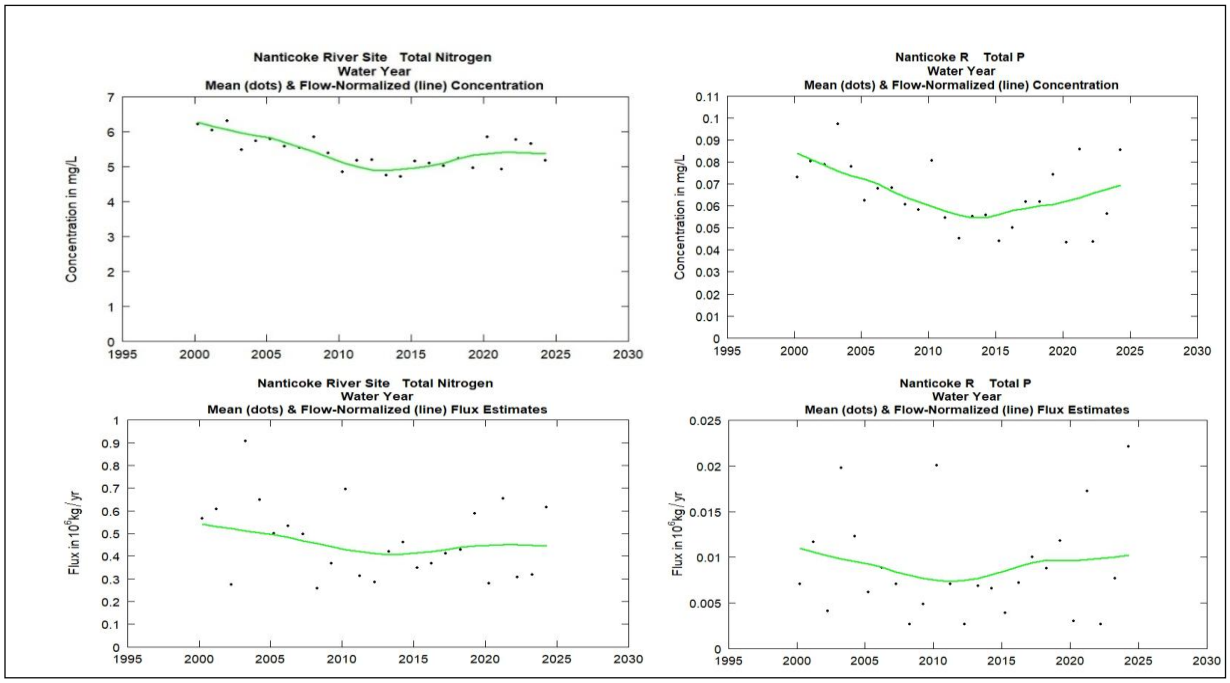


Figure F30: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Nanticoke River, Bridgeville, Delaware.

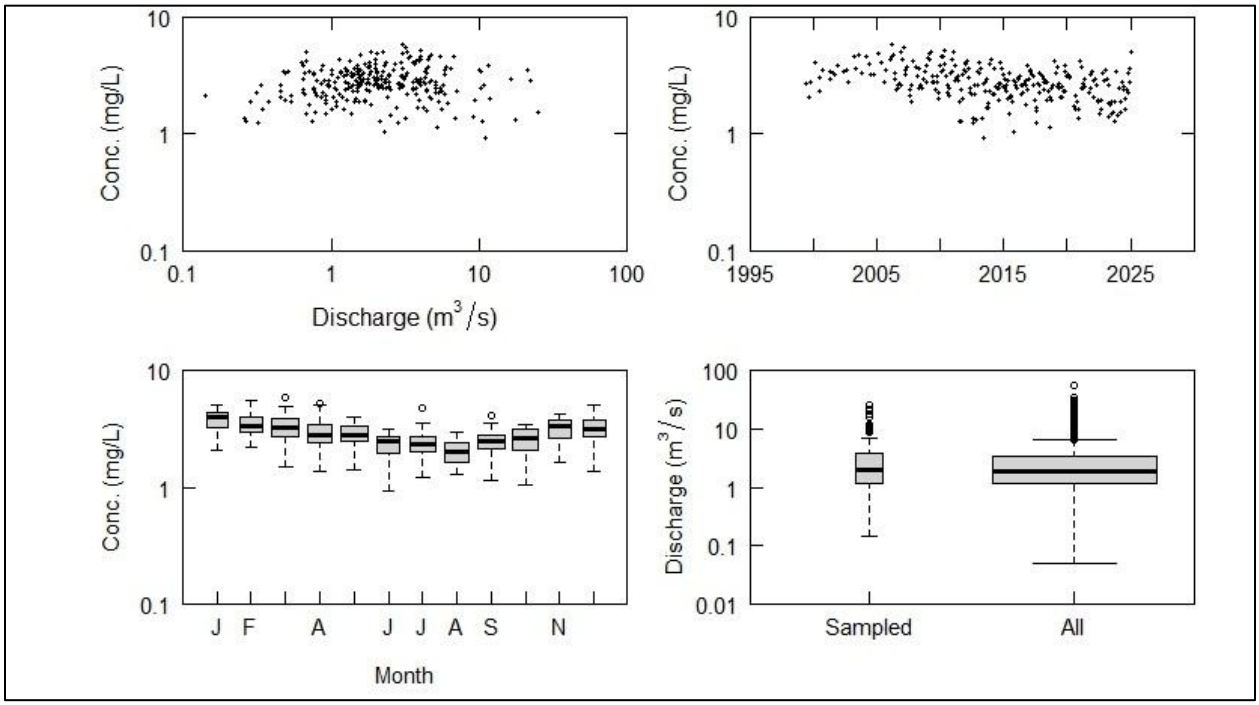


Figure F91: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Millsboro Pond Outlet, Indian River, Delaware

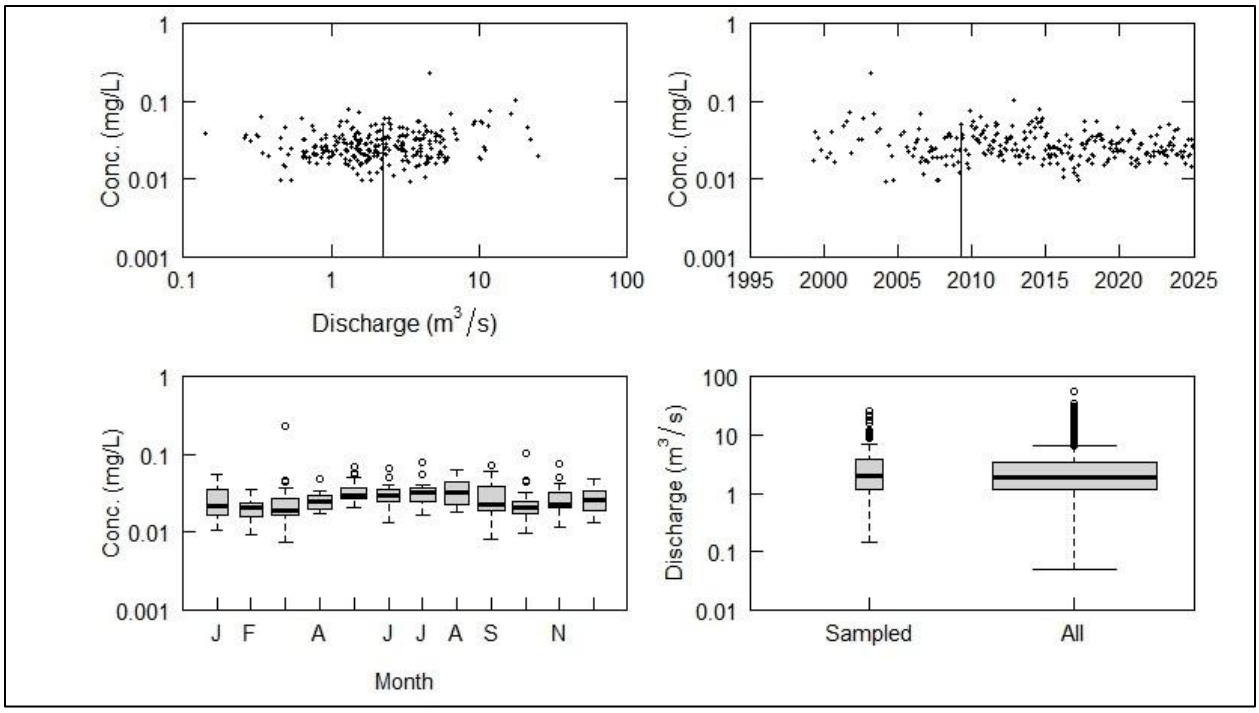


Figure F102: (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Millsboro Pond Outlet, Indian River, Delaware.

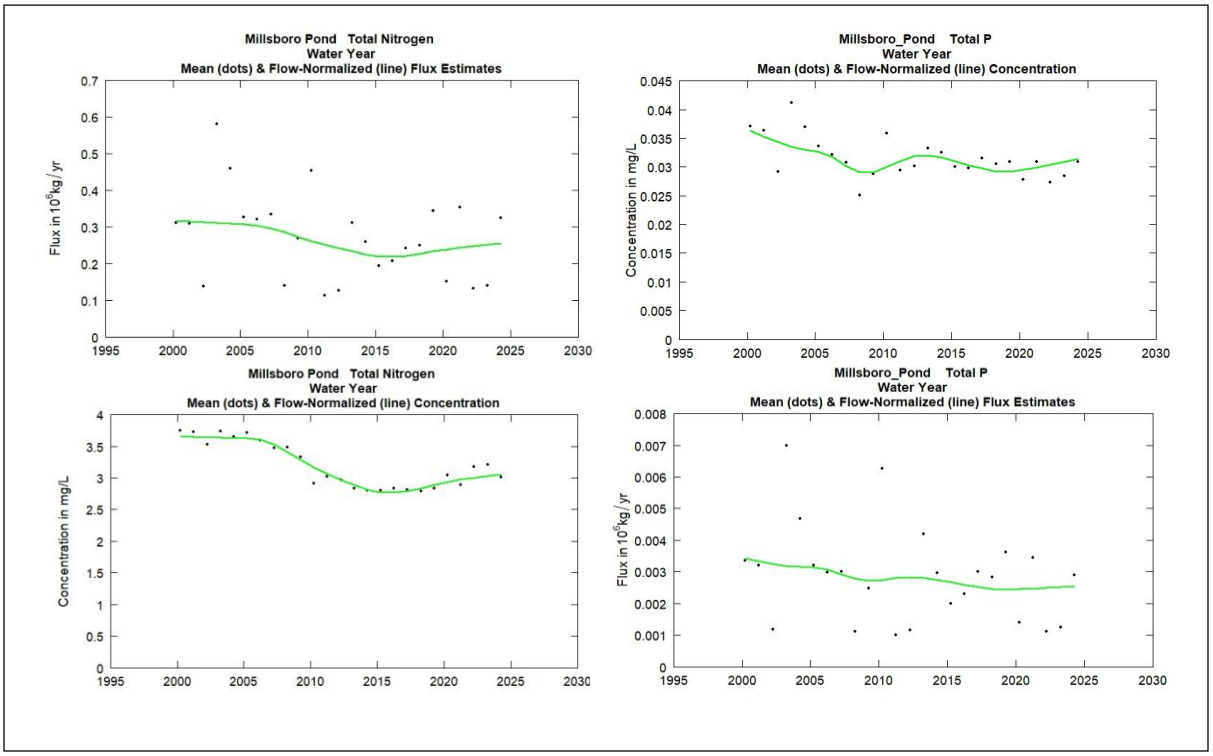


Figure F33: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Millsboro Pond Outlet, Indian River, Delaware.

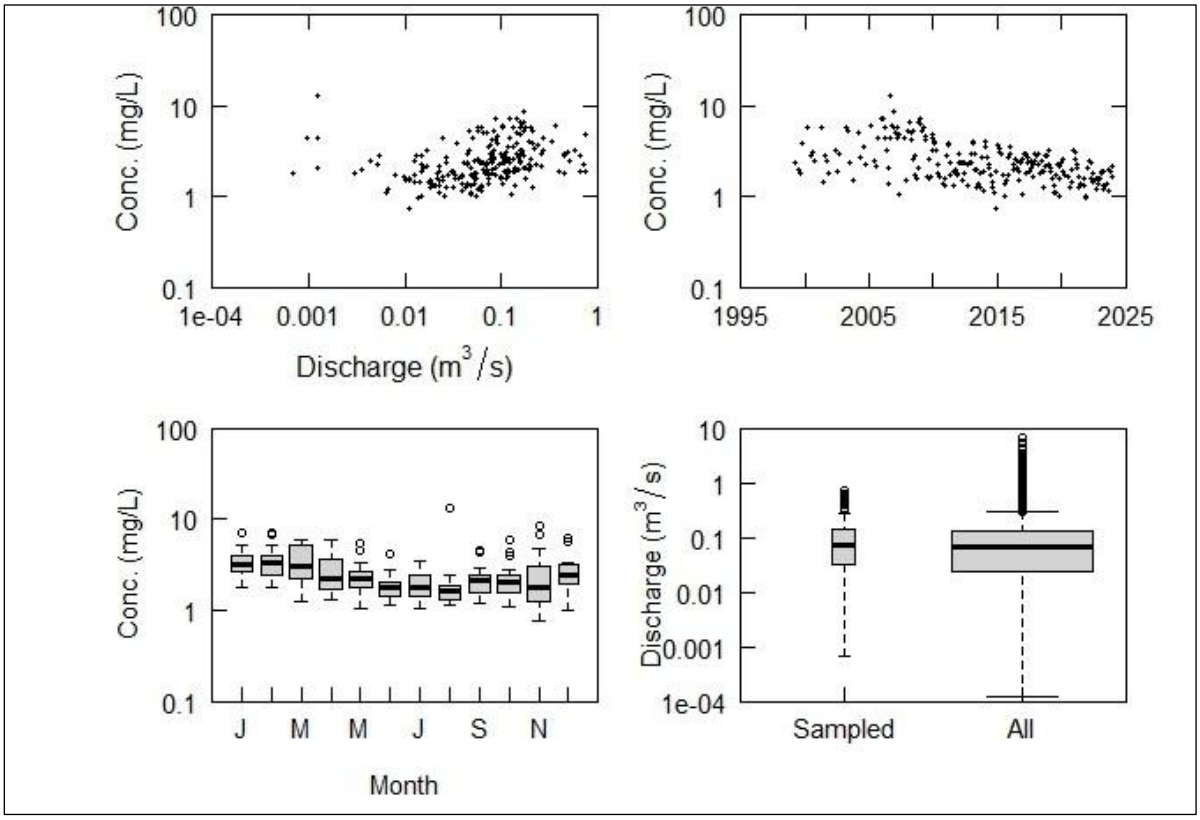


Figure F34: (a) Total Nitrogen concentration changes with discharge (top left) (b) Total Nitrogen concentration

changes over time (top right) (c) Monthly changes in Total Nitrogen over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Beaverdam Ditch, Little Assawoman Bay, Millville, Delaware

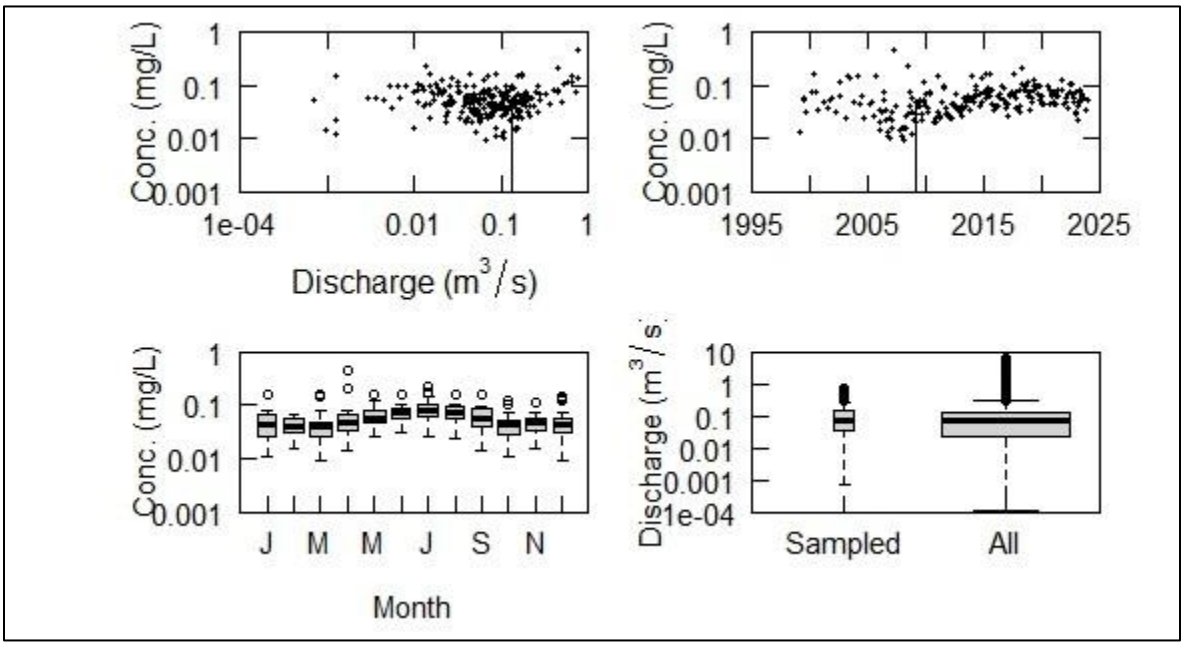


Figure F35: (a) Total Phosphorus concentration changes with discharge (top left) (b) Total Phosphorus concentration changes over time (top right) (c) Monthly changes in Total Phosphorus over time (bottom left) (d) Changes in discharge during sampled date Vs overall changes in discharge (bottom right) at Beaverdam Ditch, Little Assawoman Bay, Millville, Delaware.

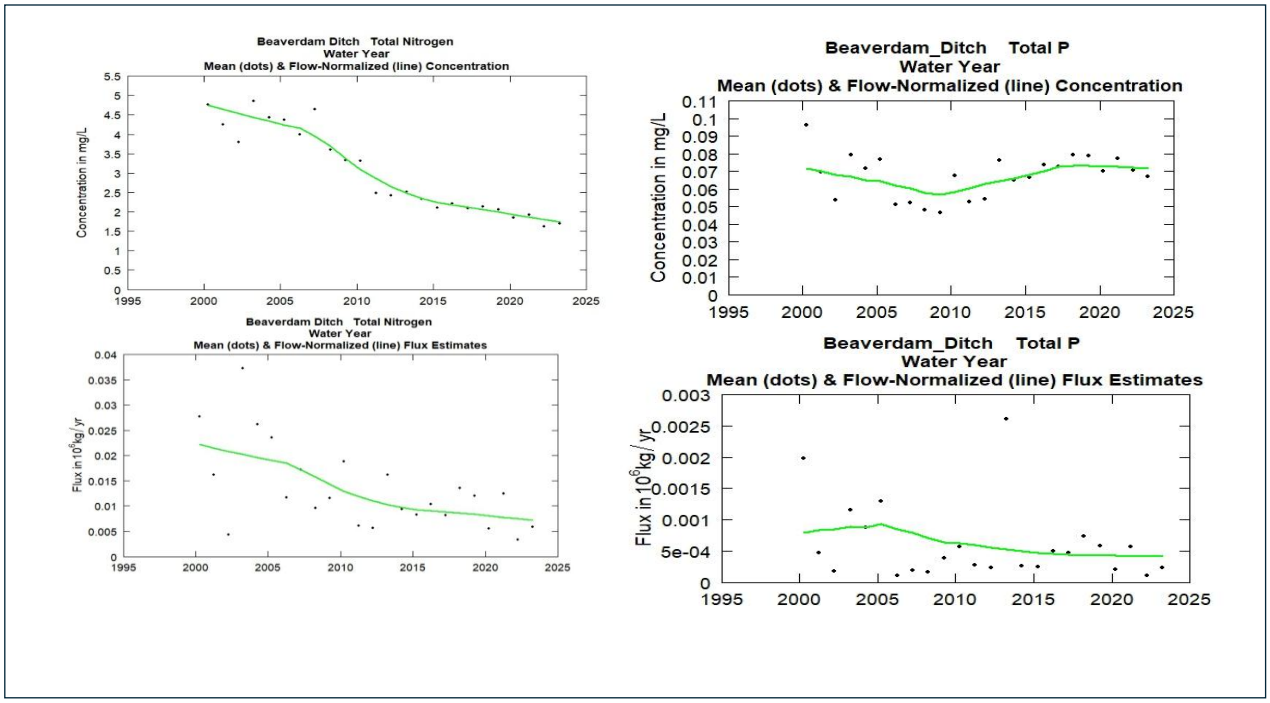


Figure F36: (a) Total Nitrogen trend (top left) (b) Total Phosphorus trend (top right) (c) Total Nitrogen loading rate (bottom left) (d) Total Phosphorus loading rate (bottom right) over time at Beaverdam Ditch, Little Assawoman Bay, Millville, Delaware.

Appendix G: Indian River Bay Watershed Groundwater Assessment

DELAWARE DEPARTMENT OF
NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL

Re-assessment of water quality from potable wells in the surficial aquifer in the Indian River Bay watershed, Sussex County, Delaware: Results of sampling, 2024, with comparisons to previous sampling in 2001–2003

Prepared by

June Hazewski
DNREC Division of Water
Wetlands and Waterways

2025

State of Delaware

Matt Meyer, Governor

Department of Natural Resources and Environmental Control (DNREC)

Gregory Patterson, Secretary

DNREC Division of Water

Steven M. Smailer, P.G., Director

Disclaimer

Any mention of trade or product names in this report is for descriptive purposes only and does not imply endorsement by the Department of Natural Resources and Environmental Control (DNREC).

Suggested Citation

Hazewski, J., 2025, Re-assessment of water quality from potable wells in the surficial aquifer in the Indian River Bay watershed, Sussex County, Delaware: Results of sampling, 2024, with comparisons to previous sampling in 2001–2003: Department of Natural Resources and Environmental Control, Division of Water, 40 p.

Contents

Abstract....1
Introduction....1
Purpose and Scope....3
Previous Work....4
Acknowledgements....5
Description of Study Area....5
Watershed Characteristics....5
Surficial Hydrogeologic Framework....6
Methods of Study....8
Well Network....8
Groundwater Sampling Procedure....8
Laboratory Analyses....9
Quality Assurance and Quality Control....10
Data Analysis....10
Results and Discussion....11
General Groundwater Quality....11
Major-Ion Chemistry....16
Nutrient Results....18
Nitrate....18
Ammonia....21
Phosphorus....21
Temporal Comparison of Groundwater Quality....22
Summary and Conclusions....31
Current Groundwater Quality....31
Major-Ion Chemistry....31
Nutrient Occurrence....31
Temporal Trends (2001–2003 vs. 2024)....31
Conclusions....32
Management Implications....32
References....33

Figures

Figure 1. Map of the Indian River Bay Watershed (IRBW) including sampling locations. 2
Figure 2. Map of the IRBW showing 2017 land use data. Sourced from Delaware's Land Use and Land Cover [LULC] spatial dataset (Aerial Information Systems, 2023). 5
Figure 3. Land use in the Indian River Bay Watershed based on 2017 data. 6
Figure 4. Map of the IRBW showing the well network of Kasper and Strohmeier (2007) and the subset of domestic wells with nitrate concentrations > 1 mg/L. 8
Figure 5. Map of resampled wells with nitrate concentrations above the PMCL (10 mg/L) 13
Figure 6. Map of resampled wells with sodium concentrations above the HA (20,000 µg /L). 13
Figure 7. Plots showing relationships between (a) Total Dissolved Solids and Specific Conductance, ...(b) Nitrate and Specific Conductance, (c) Nitrate and Calcium + Magnesium, and (d) Nitrate and Potassium + Chloride. Graphs reflect the removal of anomalous values as follows: two high specific conductance samples (989.3 µS/cm and 783.83 µS/cm) in (b); one high calcium sample (63.5 mg/L) in (c); two high chloride samples (409 mg/L and 244 mg/L) in (d). 14
Figure 8. Piper diagram showing major-ion chemistry (as percentages of total milliequivalents per liter, or meq/L) for all samples with complete chemical analyses (n=51). 16
Figure 9. Piper diagram showing major-ion chemistry (as percentages of total milliequivalents per liter, or meq/L) for samples with nitrate concentrations greater than 10 mg/L and complete chemical analyses (n=13). 17
Figure 10. Scatter plot of Calcium + Magnesium versus Nitrate. Calculated Pearson correlation coefficient = 0.65. 18
Figure 11. Scatter plot of nitrate (mg/L) versus sample depth. Sample depth is based on the depth of the well screen midpoint, represented in feet below ground surface (ft bgs). 19
Figure 12. Percentile diagram of nitrate (mg/L) distributions versus sample depth (ft bgs) showing maximum, 75th percentile, 50th percentile, 25th percentile, and minimum values; X denotes the mean; circles denote outliers. [PMCL, Primary Maximum Contaminant Level] 19
Figure 13 (left). Frequency histogram of nitrate detections. [ND, not detected above method detection limit; mg/L, milligrams per liter; PMCL, Primary Maximum Contaminant Level] 20
Figure 14 (above). Percentile diagram of nitrate distributions for each recharge-potential setting, showing maximum, 75th percentile, 50th percentile, 25th percentile, and minimum values; X denotes the mean; circles denote outliers. [mg/L, milligrams per liter; PMCL, Primary Maximum Contaminant Level] 20
Figure 15. Frequency histogram of phosphorus detections. [ND, not detected above method detection limit; mg/L, milligrams per liter] 21
Figure 16. Scatter plot of phosphorus (mg/L) versus sample depth. Sample depth is based on the depth of the well screen midpoint, represented in feet below ground surface (ft bgs). 22
Figure 17. Temporal comparison of key groundwater constituents in the IRBW, as reported by Kasper and Strohmeier (2007) and the 2024 dataset. Plots represent unpaired comparisons of the complete (255 wells) 2007 dataset to the 51-well dataset included in this report. Maximum, 75th/50th/25th percentiles, and minimum values are shown; X, mean; circles, outliers. 24
Figure 18. Direct paired comparison of nitrate concentrations (mg/L) in 51 wells sampled in 2001–2003 (as reported by Kasper and Strohmeier, 2007) and 2024. Maximum, 75th/50th/25th percentiles, and minimum values are shown; X, mean; circles, outliers. 28

Figure 19. Map of 51 resampled wells showing where nitrate concentrations increased versus decreased between Kasper and Strohmeier's 2007 report and the 2024 resampling. 28

Tables

Table 1. Comparison of Land Use in the IRBW between 1997 and 2017. 6
Table 2. Project analytes, analytical methods, and related information. 9
Table 3. Summary statistics for water quality from domestic wells in the surficial aquifer of the Indian River Bay watershed, 2024 (n=51). 15
Table 4. Summary Statistics and Temporal Trends for Key Groundwater Constituents in the IRBW. Comparison of results reported by Kasper and Strohmeier (2007) to 2024 sampling. 25

Appendices

Appendix 1. Water quality data for domestic wells within the surficial aquifer in the Indian River Bay Watershed, 2024.....37

Re-assessment of water quality from potable wells in the surficial aquifer in the Indian River Bay watershed, Sussex County, Delaware: Results of sampling, 2024, with comparisons to previous sampling in 2001–2003

By June Hazewski

Abstract

This study reassessed groundwater quality within the surficial (Columbia) aquifer of the Indian River Bay Watershed (IRBW) in Sussex County, Delaware, through the resampling of domestic wells originally sampled between 2001 and 2003. Baseline water quality data from 255 wells reported by Kasper and Strohmeier (2007) provided the foundation for this effort, with 51 wells resampled in 2024 to evaluate current conditions and temporal trends spanning more than two decades. Laboratory analyses focused on nutrients, major ions, and related constituents, consistent with methods employed in the earlier study.

Groundwater in the IRBW remains generally dilute, slightly acidic, and dominated by calcium, magnesium, and sodium cations balanced by chloride, bicarbonate, and nitrate anions. Despite modest improvement, nitrate contamination persists: concentrations exceeded the U.S. Environmental Protection Agency's Primary Maximum Contaminant Level (10 mg/L) in 25.5% of wells in 2024 compared to 32% in 2001–2003. A statistically significant reduction in median nitrate concentrations was observed (Wilcoxon signed-rank $p = 0.021$), indicating localized improvement but persistent nonpoint-source influence. Most samples were oxic, exhibited low iron concentrations, and reflected geochemical conditions shaped by both natural processes and anthropogenic inputs.

Findings from this resampling demonstrate that, while overall groundwater quality in the surficial aquifer has remained relatively stable over the last two decades, nutrient enrichment – particularly nitrate – continues to affect portions of the IRBW, primarily in areas dominated by agriculture or septic influence. These results provide critical long-term data for evaluating the effectiveness of nutrient management practices and for supporting ongoing efforts to protect groundwater resources and surface water quality in Delaware's Inland Bays region.

Introduction

The Indian River Bay watershed (IRBW) located in Sussex County, Delaware (Figure 1), contains a coastal lagoon, tidal and non-tidal streams, and ponds enriched with nitrogen (N) and phosphorus (P) (Kasper and Strohmeier, 2007). In accordance with Section 303(d) of the Clean Water Act, the Department of Natural Resources and Environmental Control (DNREC) established Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus concentrations in the IRBW (7 DE Admin. Code 7407). These TMDLs address both point- and nonpoint-source discharges and are designed to restore and maintain surface water quality standards within the watershed. The nonpoint-source component of the TMDL mandates reductions of up to 85% for nitrogen and 65% for phosphorus (7 DE Admin. Code 7407), representing some of the most stringent nutrient load reductions implemented

statewide. This underscores the critical influence of groundwater discharge and overland flow on surface water impairments in the IRBW.

Previous investigations of groundwater quality in Delaware's Inland Bays region, which includes the IRBW, have documented elevated nitrate concentrations (Andres, 1991a,b; Denver, 1989, 1993; Fleming et al., 2017; Ritter and Chirnside, 1982, 1984; Robertson, 1977, 1979; Walch et al., 2023). The Delaware Center for the Inland Bays cited excessive (> 50% higher than the TMDL goal) phosphorus loading to the Indian River Bay (Walch et al., 2023).

To assess the status of groundwater quality in the IRBW, DNREC initiated a study from 2001 to 2003 that involved sampling wells completed in the Columbia aquifer - the unconfined (water-table) aquifer of Delaware's Coastal Plain (Andres, 1987; Talley, 1988). This effort, reported by Kasper and Strohmeier (2007), followed a gap of over 20 years since the last comprehensive groundwater assessment of the IRBW was completed. The study aimed to (i) characterize the current spatial distribution of major ions and nutrients (nitrate as N, ammonia as N, and phosphorus) in the Columbia aquifer and (ii) establish a well network for ongoing groundwater monitoring and trend analysis.

This report details the results of a 2024 resampling campaign designed to reassess groundwater quality within the IRBW. The study area is contextualized by detailed land use characterization, hydrogeologic framework delineation, and groundwater recharge potential mapping (Andres, 2004; Andres, 1991c). The well selection criteria, sampling protocols, analytical methodologies, and quality assurance/quality control (QA/QC) procedures are described within the Methods of Study section. Data are presented in tabular format with appropriate qualifiers, and a comprehensive statistical summary is provided. Data are evaluated against U.S. EPA standards for potable water (U.S. EPA, 2024).

Geochemical interpretations of major-ion assemblages are framed in relation to established hydrogeochemical models and prior regional studies (Andres, 1991a; Denver, 1986, 1989, 1993; Hamilton et al., 1993; Soroka et al., 2024). Spatial distributions of nitrate and phosphorus are analyzed in the context of redox conditions, lithologic controls, and recharge dynamics (Andres et al., 2002). Finally, temporal trend analyses compare the 2024 dataset with the findings of Kasper and Strohmeier (2007) to identify statistically significant changes in groundwater quality parameters over the intervening two decades.

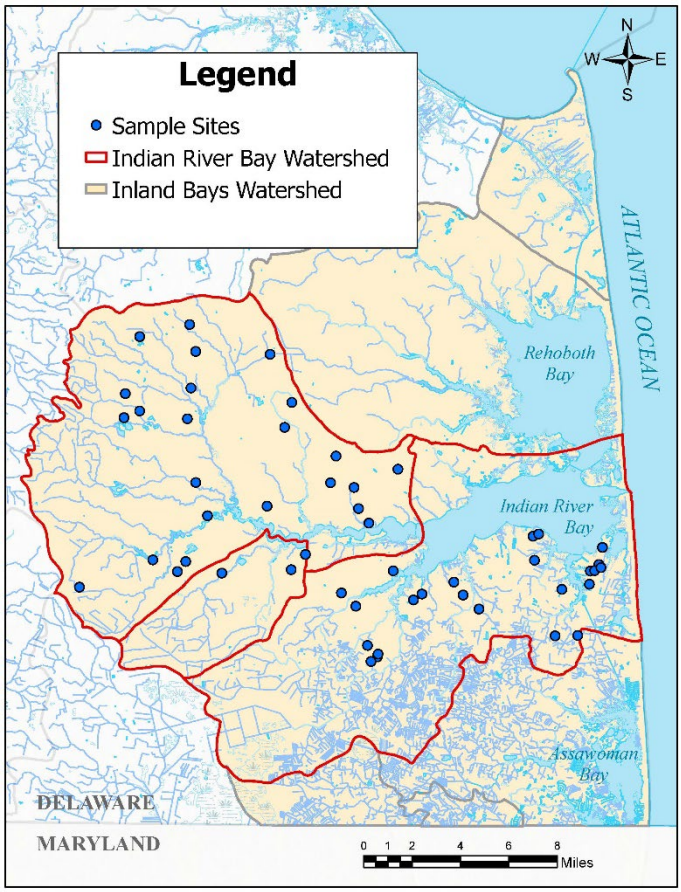


Figure 1. Map of the Indian River Bay Watershed (IRBW) including sampling locations.

Purpose and Scope

The Coastal Plain Physiographic Province covers about 96% of Delaware and contains a regional surficial aquifer long recognized as one of the state's most vital groundwater resources (Johnston, 1973). This aquifer provides a major source of potable water, recharges deeper confined aquifers, and sustains baseflow to streams (Denver et al., 2004). Most domestic wells in Delaware's Coastal Plain are screened within the surficial aquifer, and many public water suppliers also rely on it where saturated thickness permits (Shedlock et al., 1993). Consequently, the quantity and quality of groundwater in this aquifer have substantial public health, environmental, and economic implications.

Protecting the surficial aquifer is challenging due to its high vulnerability to contamination, attributable to flat regional topography, well-drained soils, a shallow water table, and predominantly sandy lithology (Denver et al., 2004). Among anthropogenic contaminants, nitrate is the most pervasive regionally (Denver et al., 2014; Hallberg and Keeney, 1993). Nitrate presence is redox-dependent, persisting under oxidizing conditions (dissolved oxygen > 1 mg/L) and typically absent or reduced to ammonium under anoxic conditions (Denver et al., 2004). According to the U.S. EPA (2024), nitrate concentrations exceeding 10 mg/L (as N) in drinking water pose a public health risk due to methemoglobinemia ("blue-baby syndrome") in infants under six months (U.S. EPA, 2024). This Maximum Contaminant Level (MCL) applies to public water supplies; however, monitoring private (domestic) wells is generally done at the discretion of the well owner. Watershed-scale studies in Delaware have reported nitrate concentrations above the MCL in 36–38% of samples from domestic wells screened in the surficial aquifer (Kasper, 2023; Kasper and Strohmeier, 2007).

The interactions between groundwater and surface water are significant in this region because many Coastal Plain streams incise the sandy geologic units containing the surficial aquifer, resulting in hydraulic connectivity to the groundwater flow system. Groundwater discharge to streams can constitute up to 80% of total streamflow (Johnston, 1976), meaning that degraded groundwater quality directly impacts surface water quality.

TMDLs have been established for several Delaware watersheds to address nutrient inputs from point and nonpoint sources, with groundwater-derived nitrate being a major nonpoint contributor. Because the IRBW TMDL requires some of the most substantial nitrogen load reductions statewide (7 DE Admin. Code 7407), long-term groundwater monitoring is critical for evaluating progress.

In alignment with the goal of long-term monitoring, this study had four primary objectives: (i) reassess water quality from potable wells screened in the surficial aquifer within the IRBW; (ii) document the spatial distribution of nitrate and major ions; (iii) evaluate temporal trends by comparing current data with the 2001–2003 dataset of Kasper and Strohmeier (2007); and (iv) investigate nitrate sources using geochemical approaches. The scope of this study is confined to sampling existing private potable wells, with success contingent on access granted by well owners.

Findings presented in this report provide critical, updated information on groundwater quality, and help to evaluate the effectiveness of nitrate-reducing best management practices (BMPs). Finally, as delineated in grant reporting to U.S. EPA Region III, the DNREC's Division of Water is working to establish a new statewide framework for systematically characterizing spatial, temporal, and aquifer-specific trends in ambient groundwater quality, and this project supports these broader efforts.

Previous Work

Between 2001 and 2003, the Delaware Department of Natural Resources and Environmental Control (DNREC) Division of Water conducted a comprehensive assessment of groundwater quality in the surficial aquifer within the Indian River Bay Watershed (IRBW) (Kasper and Strohmeier, 2007). Findings from this study established a large-scale baseline for groundwater quality in the IRBW. The original sampling network consisted of 255 wells - 200 domestic, 22 public-supply, 14 monitoring, 12 agricultural, and 7 commercial wells - selected to capture a range of land use and hydrogeologic settings (Kasper and Strohmeier, 2007).

A primary objective of the 2001–2003 investigation was to characterize the occurrence and spatial distribution of nitrate as nitrogen (hereafter "nitrate") in the surficial aquifer. Nitrate ultimately emerged as the most significant groundwater quality concern in the IRBW, with concentrations ranging from below the method detection limit to 43 mg/L and a median of 6.41 mg/L (Kasper and Strohmeier, 2007). Approximately one-third of samples exceeded the U.S. Environmental Protection Agency's Maximum Contaminant Level (MCL) of 10 mg/L for nitrate in drinking water (Kasper and Strohmeier, 2007). Geochemical evidence suggested that elevated nitrate concentrations were predominantly associated with agricultural sources, consistent with regional land use patterns (Kasper and Strohmeier, 2007).

Because nitrate is a redox-sensitive constituent, concentrations were evaluated in conjunction with dissolved oxygen (DO) levels. The study area encompassed both oxidizing conditions (DO > 1 mg/L), which favor nitrification and nitrate stability, and reducing conditions (DO < 1 mg/L), under which nitrate may be denitrified or reduced to ammonia (Denver et al., 2004). These findings highlighted the role of redox gradients in controlling nutrient speciation.

In contrast, phosphorus (P) concentrations were generally low across the study area. Elevated phosphorus was primarily associated with reducing (anoxic) conditions and was most prevalent in areas where the surficial aquifer is locally confined by fine-grained units such as the Cypress Swamp and Omar formations (Andres, 1991a). These conditions suggest that elevated phosphorus may be derived from natural sources and mobilized under low redox potential (Kasper and Strohmeier, 2007).

The persistence of elevated nitrate concentrations, variable redox conditions across the study area, and the potential for phosphorus mobilization under confined, anoxic conditions highlight the complexity of nutrient dynamics in the surficial aquifer system.

Beyond nutrients, Kasper and Strohmeier (2007) also reported that most major ions remained at relatively low concentrations compared to U.S. EPA secondary standards. Iron was frequently detected under anoxic conditions, whereas chloride and sodium concentrations were highest near coastal portions of the study area, suggesting possible saltwater intrusion or other anthropogenic influence (Kasper and Strohmeier, 2007).

Collectively, the results of the 2001–2003 study provide an essential baseline for understanding groundwater quality in the IRBW. However, changing land use, agricultural practices, and nutrient management methods over the past two decades, paired with the susceptibility of unconfined aquifers to contamination, underscored the need for a reassessment.

Acknowledgements

Special thanks are extended to the residents of the Indian River Bay Watershed who generously provided access to their properties for the collection of groundwater samples.

Emilee Brooks, working as a DNREC intern, assisted with the collection of all samples for this project. Analytical support was provided by staff from DNREC's Environmental Laboratory Section (ELS). Carter Chambers is acknowledged for preparing all maps included in this report.

This project was funded in part by the U.S. Environmental Protection Agency (Region III) under Section 106(e) of the Clean Water Act. This report is intended to fulfill DNREC's reporting requirements for groundwater quality pursuant to section 305(b).

Description of Study Area

Watershed Characteristics

The Indian River Bay Watershed (IRBW) encompasses approximately 188 square miles in southeastern Sussex County, Delaware (Figure 1). Land-surface elevations range from near mean sea level to about 50 feet above mean sea level. The watershed's hydrology is characterized by a network of tidal and non-tidal streams that incise the surficial aquifer, along with several millponds and an extensive drainage ditch system. The IRBW is tidally influenced by Rehoboth Bay to the north, Little Assawoman Bay to the south, and the Atlantic Ocean to the east, establishing a dynamic hydrologic interface between groundwater and surface water systems. The region has a humid climate with average annual precipitation of roughly 46 inches (NOAA, 2025), about 33% of which recharges the surficial aquifer (DNREC, 2001).

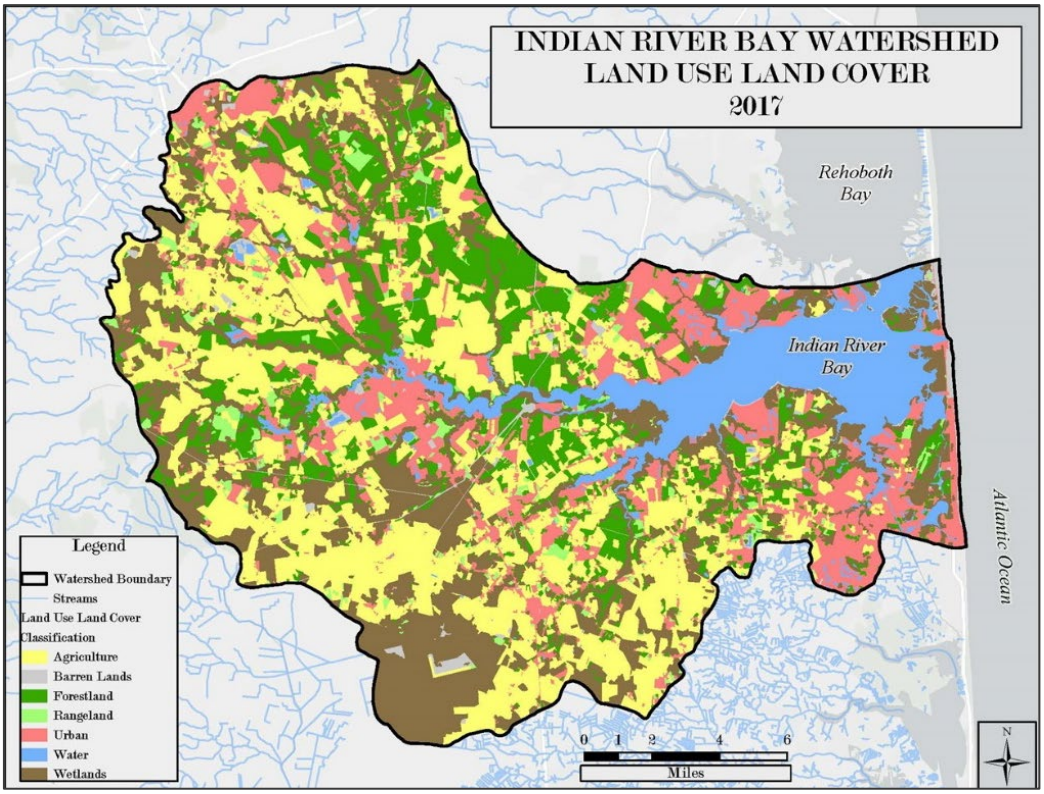


Figure 2. Map of the IRBW showing 2017 land use data. Sourced from Delaware's Land Use and Land Cover [LULC] spatial dataset (Aerial Information Systems, 2023).

Land use patterns have shifted over recent decades, influencing hydrologic and water quality conditions. Based on 1997 land-use data as referenced in the 2007 report by Kasper and Strohmeier, agriculture was the predominant land use type, occupying about 37% of the watershed area (DOSPC, 1999). Wetlands and forested lands combined to make up 38%, with the remaining land consisting of urban areas (13%), open water bodies (9%), range land (2%), and barren land (<1%) (DOSPC, 1999).

By 2017, agricultural land had declined by 5%, wetlands and forested areas decreased by 3% combined, and urban areas increased by 6% (Figures 2 and 3; Table 1) (Aerial Information Systems, 2023). These land use changes since the 2001–2003 sampling effort represent one potential impact on groundwater conditions within the IRBW.

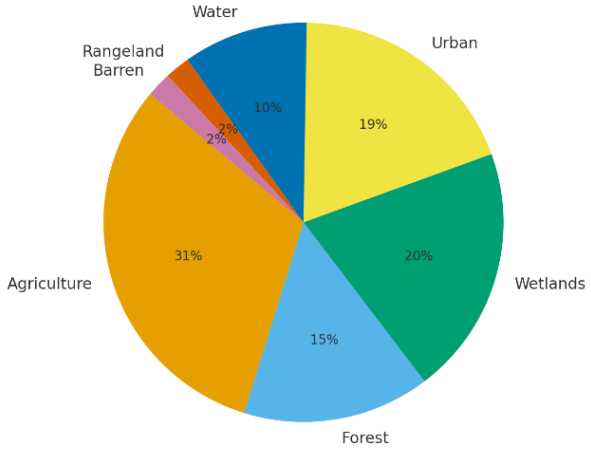


Figure 3. Land use in the Indian River Bay Watershed based on 2017 data.

Table 1. Comparison of Land Use in the IRBW between 1997 and 2017.

	1997(%)	2017(%)	Change(%)
Agriculture	37	32	-5
Forest	22	15	-7
Wetland	16	20	+4
Forest + Wetland	38	35	-3
Urban	13	19	+6
Water	9	10	+1
Rangeland	2	2	0
Barren	1	2	+1

Surficial Hydrogeologic Framework

The study area lies within the Atlantic Coastal Plain Physiographic Province, which consists of a seaward-dipping wedge of unconsolidated to semi-consolidated sedimentary deposits overlying crystalline basement rocks (Andres, 1987; Talley, 1988). Near-surface sediments of this province form the Columbia aquifer, a regionally significant unconfined aquifer system with high hydraulic conductivity that serves as a primary source of potable water in Delaware (Andres, 1987; Talley, 1988 ; Andres and Klingbeil, 2006). Within the IRBW, the Columbia aquifer comprises a lithologically-complex assemblage of Quaternary and Neogene lithostratigraphic units, including Holocene alluvial and estuarine deposits, the Pleistocene- to Holocene-age Cypress Swamp Formation, the Pleistocene-age Lynch Heights, Scotts Corners, and Omar Formations, the Pliocene-age Beaverdam Formation, and the upper Miocene-age Bethany Formation (Andres and Howard, 2000; Ramsey, 2001; Andres et al., 2003).

The upper surficial portion of the Columbia aquifer consists of late Pleistocene to Holocene formations – Omar, Lynch Heights, Scotts Corners, and Cypress Swamp - composed primarily of heterogeneous mixtures of sand, silt, and clay (Andres and Howard, 2000; Ramsey, 2001; Andres et al., 2003). These units are typically thin across the study area and are considered minor components of the aquifer system in terms of total saturated thickness. However, discontinuous fine-grained beds within these formations may function as leaky confining units, particularly in low-lying areas, strongly influencing unsaturated zone flow dynamics and recharge variability (Andres, 1991a).

The Beaverdam Formation and Bethany Formation subcrop the surficial units and serve as the subsurface portion of the Columbia aquifer (Ramsey and Schenck, 1990). The Beaverdam Formation forms the primary water-

bearing unit in much of the study area, constituting the bulk of the aquifer's saturated thickness. This formation consists predominantly of medium to coarse sand with variable quantities of gravel, fine sand, silt, and clay occurring in discontinuous lenses and interbedded layers (Andres, 1991a). The underlying Bethany Formation is predominantly composed of silt with interbedded fine to coarse sands (Ramsey and Schenck, 1990). In areas where confining beds are present within the Bethany Formation, they define the hydrostratigraphic base of the Columbia aquifer; where these confining layers are absent or discontinuous, the sands of the Bethany Formation may be hydraulically connected to those of the overlying Beaverdam Formation, forming a locally thick, laterally extensive unconfined aquifer (Andres, 1987; Talley, 1988).

The thickness of the Columbia aquifer varies across eastern Sussex County, ranging from approximately 75 feet to over 200 feet, depending on topographic position, stratigraphic layering, and the extent of incision by paleochannels or modern fluvial systems (Andres, 1987; Talley, 1988). The geologic units containing the surficial aquifer system also exhibit considerable thickness variability, ranging from less than 20 feet in thin zones to over 220 feet in some areas based on mapping by Andres and Klingbeil (2006). The thickest sections correlate with sand-on-sand contacts between the surficial aquifer and the underlying Pocomoke aquifer, where these formations effectively function as a single unconfined hydrogeologic unit. Conversely, thin aquifer zones correspond with the “surficial confined” hydrogeomorphic region described by Shedlock et al. (1993, 1999), where a shallow water table aquifer and a deeper confined aquifer are separated by confining layers of the Omar and Cypress Swamp formations (Andres and Klingbeil, 2006). These formations are dominated by fine-grained sediments such as silts and clays, which reduce vertical hydraulic conductivity and create semi-permeable barriers. These confining beds are spatially correlated with areas of poor drainage and an extensive ditch network, indicating impeded natural recharge and enhanced surface water runoff (Andres, 2004). The spatial distribution and thickness of these confining units strongly influence groundwater flow paths, recharge rates, and the potential for contaminant transport within the surficial aquifer system.

Groundwater recharge potential in Kent and Sussex Counties was mapped using subsurface observations and hydraulic testing to assess the water-transmitting properties of the shallow subsurface (Andres, 1991c; 2004). The resulting recharge potential maps indicate that within the IRBW, 40% of the land area is classified as having “fair” recharge potential, 33% as “good,” 21% as “poor,” and 6% as “excellent” (Andres et al., 2002). Extensive areas of “fair” and “poor” recharge potential, particularly in the southern portion of the study area, coincide with fine-grained, low-permeability deposits of the Cypress Swamp and Omar Formations, which limit vertical infiltration and contribute to spatial variability in groundwater recharge and contaminant transport (Andres, 2004).

Hydraulic head measurements and groundwater flow modeling indicate a predominant south-to-north hydraulic gradient, with groundwater discharging into tidal streams and coastal bays (He and Andres, 2015). Cross-sectional profiles further illustrate groundwater-surface water interactions along incised stream valleys, where the surficial aquifer is hydraulically connected to surface water bodies. This connection facilitates substantial baseflow contributions to streamflow, which have been reported to account for as much as 80% of total stream discharge in some areas (Johnston, 1976).

Methods of Study

Well Network

Groundwater samples were collected from a randomly selected subset of domestic wells previously sampled during Kasper and Strohmeier's 2001–2003 sampling effort. A total of 51 domestic wells were sampled, exceeding the minimum sample size of 30 recommended by Gilliom et al. (1995) for regional groundwater quality assessments and land-use impact studies. Wells were selected from Kasper and Strohmeier's (2007) dataset using well type and nitrate concentration as selection criteria. The scope of this study was limited to domestic wells, with nitrate concentrations indicative of anthropogenic influence, defined as nitrate (as nitrogen) levels > 1 mg/L (Dubrovsky et al., 2010). Of the 255 wells in the original network, 162 wells met these criteria (Figure 4).

Random numbers were generated using Microsoft Excel's "RAND()" function and applied to each record. The dataset was then sorted in ascending order by the random numbers, and wells were subsequently numbered 1 through 162. The top 50 wells on this sorted list were designated as preliminary sampling sites for this study.

Once this list was established, well owners were contacted to request access for groundwater sampling. Because access to private wells was voluntary, the final sampling network depended on homeowner participation. When permission to sample a randomly selected well was unobtainable, a nearby well from the list was substituted to maintain sample size and spatial coverage. This approach preserved scientific integrity and allowed for logistical feasibility. Figure 1 shows the locations of all wells sampled during this study.

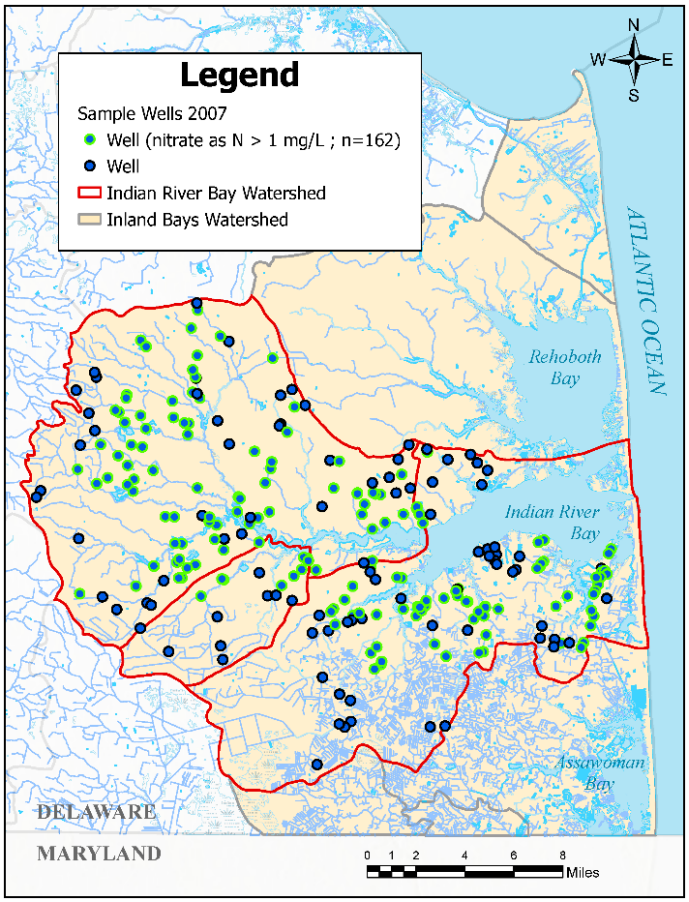


Figure 4. Map of the IRBW showing the well network of Kasper and Strohmeier (2007) and the subset of domestic wells with nitrate concentrations > 1 mg/L.

Groundwater Sampling Procedure

Groundwater sampling was conducted in July and August of 2024, following the Quality Assurance Project Plan (QAPP) developed for the 2001–2003 sampling effort (Kasper and McCleary, 2001). Groundwater samples were collected from existing potable domestic wells at a raw-water spigot prior to any water treatment system. When water treatment systems were present, a pre-treatment water spigot was used to obtain untreated groundwater.

Wells were purged before sampling to evacuate stagnant water from the plumbing system and bladder tank, ensuring the collection of groundwater samples representative of in-situ aquifer conditions. During well purging, field

Table 2. Project analytes, analytical methods, and related information.

[Analytical methods, containers, preservation methods, and holding times are from EPA (2001); **$CaCO_3$**, calcium carbonate; **N**, nitrogen; **SiO_2**, silicon dioxide; **P**, polyethylene; **G**, glass; **°C**, degrees Celsius; **H_2SO_4**, sulfuric acid; **HNO_3**, nitric acid]

Analyte	Analytical method	Container	Preservation	Holding time
Alkalinity as $CaCO_3$	2320	P, G	Cool, 4°C	14 days
Chloride	4500	P, G	None required	28 days
Ammonia as nitrogen	350.1	P, G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Nitrate+nitrite as nitrogen	353.2	P, G	Cool, 4°C	48 hours
Phosphorus	4500	P, G	Cool, 4°C, H_2SO_4 to pH<2	28 days
Silica as SiO_2	4500	P	Cool, 4°C	28 days
Sulfate	375.4	P, G	Cool, 4°C	28 days
Calcium	200.7	P, G	HNO_3 to pH<2	6 months
Iron	200.7	P, G	HNO_3 to pH<2	6 months
Magnesium	200.7	P, G	HNO_3 to pH<2	6 months
Potassium	200.7	P, G	HNO_3 to pH<2	6 months
Sodium	200.7	P, G	HNO_3 to pH<2	6 months

parameters - temperature, pH, dissolved oxygen (DO), and specific electrical conductance (SEC) - were measured using an In-Situ Aqua TROLL 600 Multiparameter Sonde. Field measurements were deemed stable when they met the following criteria: temperature ± 0.2°C, pH ± 0.1 S.U., DO ± 0.3 mg/L, and SEC ± 3% when >100 µS/cm. Stabilized field data for each well are provided in Appendix 1.

At each site, sampling equipment was flushed with raw groundwater prior to sample collection. Groundwater samples for laboratory analysis were filtered in the field using 45-µm pore-size capsules and stored in laboratory-prepared Nalgene sample bottles. Samples for cation analysis (Ca^{2+}, Mg^{2+}, Na^{+}, K^{+}, Fe^{2+}/Fe^{3+}) were preserved with nitric acid (HNO_3); samples for phosphorus (P) and ammonia (NH_3 as N) analysis were preserved with sulfuric acid (H_2SO_4); and samples for nitrate plus nitrite (NO_3^- + NO_2^- as N), chloride (Cl^-), silica (SiO_2), sulfate (SO_4^{2-}), and alkalinity ($CaCO_3$) contained no preservatives (Table 2). Immediately after collection, samples were placed in iced coolers with a temperature blank and were delivered to the DNREC Environmental Laboratory Section on the day of collection. Field logs documenting sampling activities are maintained on file and available upon request.

Laboratory Analyses

Laboratory analyses were performed by the DNREC's Environmental Laboratory Section (ELS) located in Dover, DE. Project analytes and the respective analytical methods used by the ELS are summarized in Table 2.

Quality Assurance and Quality Control

Project-specific quality assurance (QA) procedures and quality control (QC) measures were based on the Quality Assurance Project Plan (QAPP) utilized in the original 2001–2003 study (Kasper and McCleary, 2001). In addition, the ELS operated under a Quality Assurance Management Plan (QAMP; McCleary, 1999) to guide all analytical activities. Laboratory QC analyses conducted alongside field samples included method blanks, laboratory duplicates, and spiked duplicates, with all results compared against established acceptance criteria. Detection and quantitation limits were defined for each analyte, and laboratory QC reports are maintained on file at DNREC and are available for inspection upon request.

Field QA procedures included standardized sample collection and handling protocols, maintenance of a documented chain of custody, and frequent calibration of water-quality meters used to collect field data. Although field duplicates were not collected during this study, precision was supported through consistent sampling protocols, stable field instrument performance, and extensive laboratory QC procedures.

All data underwent review and validation to ensure consistency with QA/QC requirements before inclusion in this report. While the absence of field duplicates limits direct assessment of sampling precision, the combination of field standardization and laboratory QC measures provides confidence that the dataset is reliable and directly comparable to the 2001–2003 results.

Data Analysis

Where applicable, analytical results were compared to U.S. Environmental Protection Agency (EPA) Primary Maximum Contaminant Levels (PMCLs) (U.S. EPA, 2024), Secondary Maximum Contaminant Levels (SMCLs) (40 CFR §143.3), and Health Advisories (HAs) established for public water-supply systems (U.S. EPA, 2018). PMCLs are enforceable standards, whereas SMCLs and HAs are non-enforceable guidelines intended to protect aesthetic and health-related qualities of drinking water (U.S. EPA, 2024). Concentrations of hardness (as calcium carbonate, $CaCO_3$) were evaluated with respect to the U.S. Geological Survey (USGS) water hardness scale (2018). Because no drinking water standard exists for phosphorus, results were evaluated with respect to the U.S. EPA's (2008) recommended threshold for preventing excessive plant growth in streams (0.1 mg/L). Dissolved oxygen (DO) concentrations were used as an indicator to differentiate between oxidizing conditions (DO≥1 mg/L) and reducing conditions (DO<1 mg/L) following Denver et al. (2004).

Major-ion chemistry of shallow groundwater was characterized using Piper (1944) diagrams, which plot major cations and anions on two ternary diagrams and project them onto a central diamond-shaped field to facilitate interpretation of geochemical trends, groupings, and hydrogeochemical facies (Alley, 1993). For this study, concentrations of major cations and anions were converted to milliequivalents per liter (meq/L) and expressed as percentages of total meq/L. Only samples with complete chemical analyses were included. Piper diagrams were constructed in Microsoft Excel using an analytical template designed by Stosch (2025).

Spatial patterns were evaluated using thematic maps of selected water quality parameters. Graphical analyses included scatter plots, frequency histograms, and percentile diagrams. Scatter plots were used to examine correlations and potential trends among variables. Frequency histograms characterized the distribution of individual parameters, while percentile diagrams evaluated variability in parameter concentrations with respect to factors such as sample depth.

Hardness (in mg/L) is the only calculated parameter included in this report, and was computed following Hounslow (1995) as:

Hardness =

$$\left(\text{Ca (mg/L)} \times \left(\frac{\text{MW } CaCO_3}{\text{AW Ca}}\right)\right) + \left(\text{Mg(mg/L)} \times \left(\frac{\text{MW } CaCO_3}{\text{AW Mg}}\right)\right)$$

where MW $CaCO_3$ is the molecular weight of calcium carbonate (100.088), AW Ca is the atomic weight of calcium (40.08), and AW Mg is the atomic weight of magnesium (24.312) (Hounslow, 1995). Hardness concentrations were calculated to evaluate general groundwater characteristics and, therefore, are not included in Appendix 1.

Results and Discussion

Results are presented in four sections: (i) general groundwater quality, (ii) major-ion chemistry, (iii) nutrient results, and (iv) temporal comparison of groundwater quality. Table 3 presents the summary statistics for all field measurements, nutrients, and major-ion constituents from the 51 wells sampled in 2024. Minimum, 25th percentile, 50th percentile (median), 75th percentile, and maximum values are reported. Values below the method detection limit were treated as zeroes in these calculations, following the methodology of Kasper and Strohmeier (2007). Such entries are denoted with an 'E' to indicate an estimated concentration.

General Groundwater Quality

Groundwater in the Columbia aquifer in the IRBW is generally dilute. The median total dissolved solids (TDS) concentration was 80 mg/L (range: 30–640 mg/L) (Table 3). Only two samples (≈4%) exceeded the U.S. EPA secondary maximum contaminant level (SMCL) of 500 mg/L.

Specific electrical conductance (SEC) was measured in the field during well sampling and ranged from 46.39 to 989.3 microsiemens per centimeter (µS/cm) (median: 120.14 µS/cm) (Table 3). SEC values display a strong positive correlation with TDS concentration (R^2 = 0.9992), where SEC increases along with increasing TDS (Figure 7a). SEC also displays a weak positive correlation with nitrate concentration (R^2 = 0.1436) (Figure 7b). Figure 7b reflects the removal of two anomalous high SEC values (989.3 µS/cm and 783.83 µS/cm).

The median field pH was 5.185 standard units (S.U.), which falls below the SMCL range (6.5-8.5) (Table 3). A total of 49 (≈96%) samples had pH values below 6.5, indicating slightly acidic conditions within the IRBW.

Dissolved oxygen (DO) concentrations indicated predominantly oxidizing conditions in the IRBW, with a median of 5.6 mg/L. Measurements taken at 49 (≈96%) of the well sites showed DO levels greater than or equal to 1 mg/L, which is the general threshold between oxidizing (oxic) and reducing (anoxic) conditions (Denver et al., 2004). DO is a key control on redox-sensitive constituents in groundwater, such as nitrogen and iron (Denver, 1989). These oxic conditions are consistent with low concentrations of iron observed in the dataset.

Low iron concentrations are common in oxidizing conditions, when DO levels are elevated. Iron was detected above the method detection limit in only one sample (≈2%) (111327; 35.1 µg/L), and this detection was well below the SMCL of 300 µg/L. Iron concentrations were below the method detection limit in the remaining 50 samples (≈98%), consistent with the generally oxic conditions observed in field-measured DO values.

Nitrate is the only analyte in this study with a PMCL (10 mg/L). Laboratory results are reported as nitrate + nitrite as nitrogen; however, because

nitrite concentrations are generally negligible, values are assumed to represent nitrate. According to the U.S. EPA (2024), consumption of water exceeding the nitrate PMCL poses health risks to infants, including methemoglobinemia ("blue-baby syndrome"), which can be fatal if untreated. Epidemiological studies have also suggested potential associations between nitrate exposure and increased risk of certain cancers, including bladder and ovarian cancers (Weyer et al., 2001) and non-Hodgkin's lymphoma (Ward et al., 1996). Nitrate was detected in all 51 samples (100%) and exceeded the PMCL in 13 (≈25.5%) samples, the locations of which are shown in Figure 5. Significant nitrate detections were expected in this study, as only wells with previous nitrate concentrations > 1 mg/L were considered for resampling. As such, the median nitrate concentration was 6.02 mg/L, and the mean was 8.09 mg/L (Table 3). Nitrate shared a weak positive correlation with SEC (R^2 = 0.1436) (Figure 7b), a moderately positive relationship with Calcium + Magnesium (R^2 = 0.4029) (Figure 7c), and a statistically insignificant, very weakly positive, correlation with Potassium + Chloride (R^2 = 0.0015) (Figure 7d). In general, positive correlations between these groundwater constituents are consistent with agricultural land use (Clune and Denver, 2012). Specifically, Calcium + Magnesium has been associated with lime applied to agricultural fields to buffer the pH of acidic soils, and Potassium + Chloride from potash, which is often applied to increase the availability of potassium (Clune and Denver, 2012; Denver, 1986).

Chloride concentrations exceeded the SMCL of 250 mg/L in one sample (≈2%), collected from domestic well 163704. In addition to a chloride concentration of 409 mg/L, this sample also returned the highest sodium (165,000 µg/L), magnesium (32300 µg/L), and TDS (640 mg/L) concentrations in this study. This well is located in a residential area bordering Indian River Bay, and these elevated concentrations are consistent with possible saltwater intrusion. The median chloride concentration was 20 mg/L, and the mean was 38 mg/L.

Sodium concentrations exceeded the HA (20,000 µg/L) in 12 samples (≈23.5%), the locations of which are shown in Figure 6. The median sodium concentration was 13,300 µg/L. Elevated sodium may be consistent with possible influence from septic-system effluent (Denver, 1989) or poultry manure applied to agricultural fields (Denver, 1986).

Sulfate concentrations were below both the SMCL (250 mg/L) and the HA level (500 mg/L) in all samples (100%). Sulfate concentrations ranged from non-detect to 98.5 mg/L, with a median of 8.1 mg/L and a mean of 10.53 mg/L. The highest concentration was observed in well 4387, which also showed elevated chloride (244 mg/L), nitrate (21.3 mg/L), and potassium (21,200 µg /L). These co-occurring elevated concentrations are consistent with possible influence from large-scale fertilizer application in nearby agricultural fields.

With respect to the USGS (2018) water hardness scale, 41 samples (80.4%) were classified as "soft" (< 60 mg/L), 8 samples (15.6%) as "moderately hard" (61–120 mg/L), one sample (≈2%) as "hard" (121–180 mg/L), and one sample (≈2%) as "very hard" (> 180 mg/L). The two samples exceeding 120 mg/L, collected from wells 4387 and 163704, also exhibited elevated chloride (244 mg/L and 409 mg/L) and TDS (510 mg/L and 640 mg/L), and were screened at intermediate depths (60 ft and 59 ft bgs, respectively). Overall, higher hardness in this study was associated with elevated TDS, chloride, sodium, and sulfate.

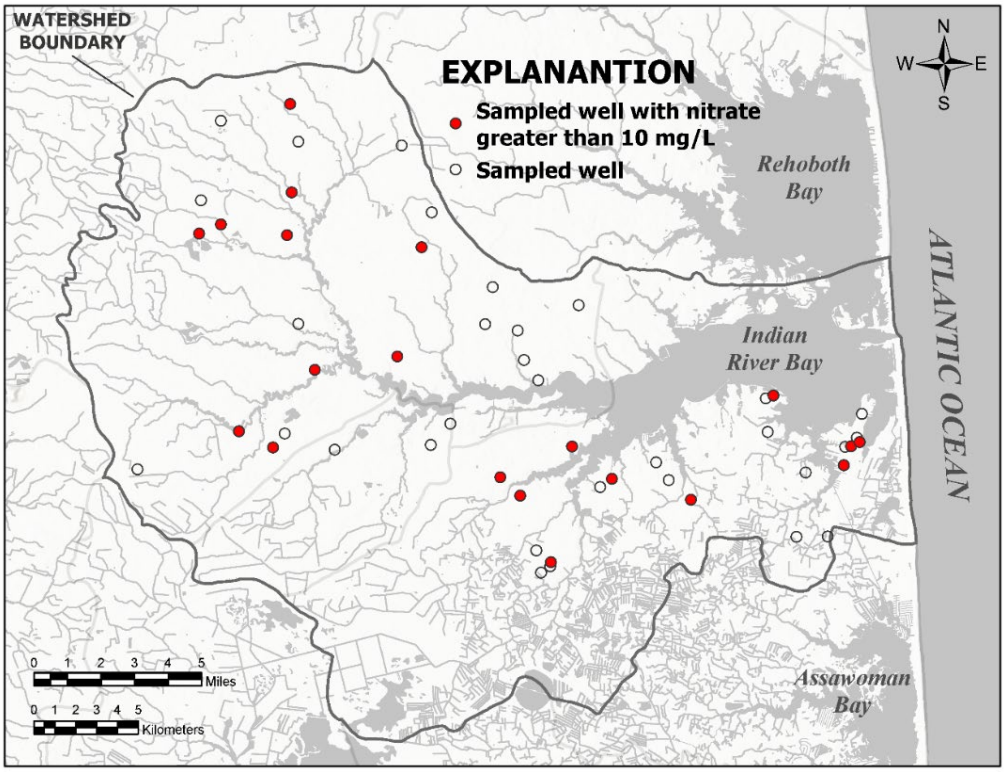


Figure 5. Map of resampled wells with nitrate concentrations above the PMCL (10 mg/L).

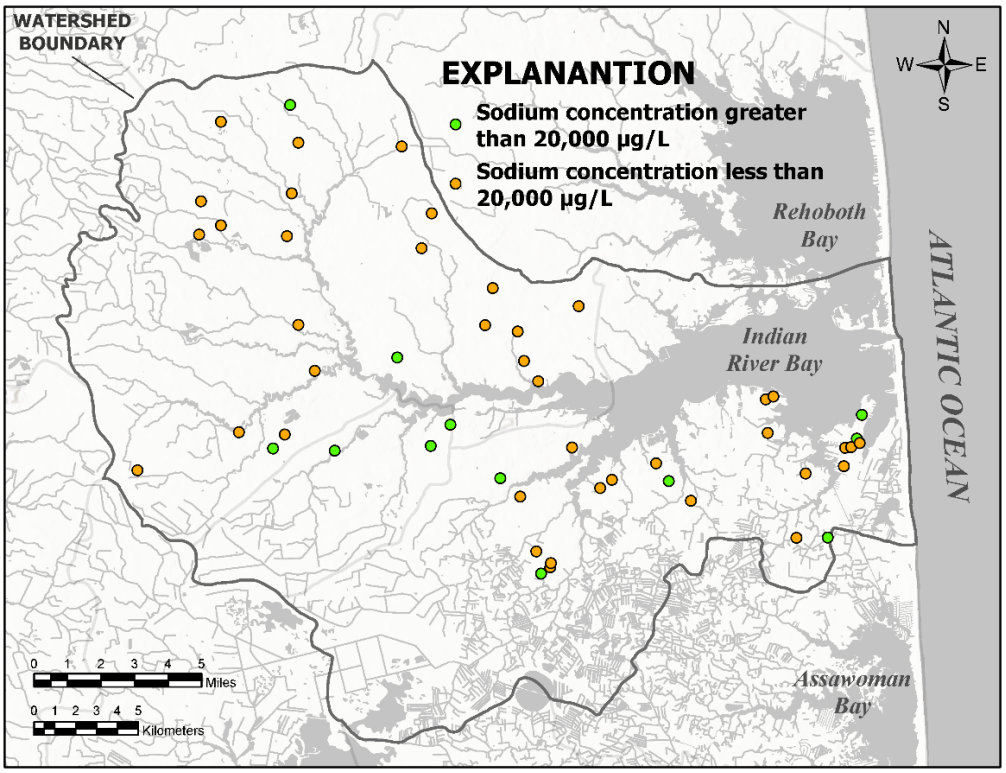


Figure 6. Map of resampled wells with sodium concentrations above the HA (20,000 µg /L).

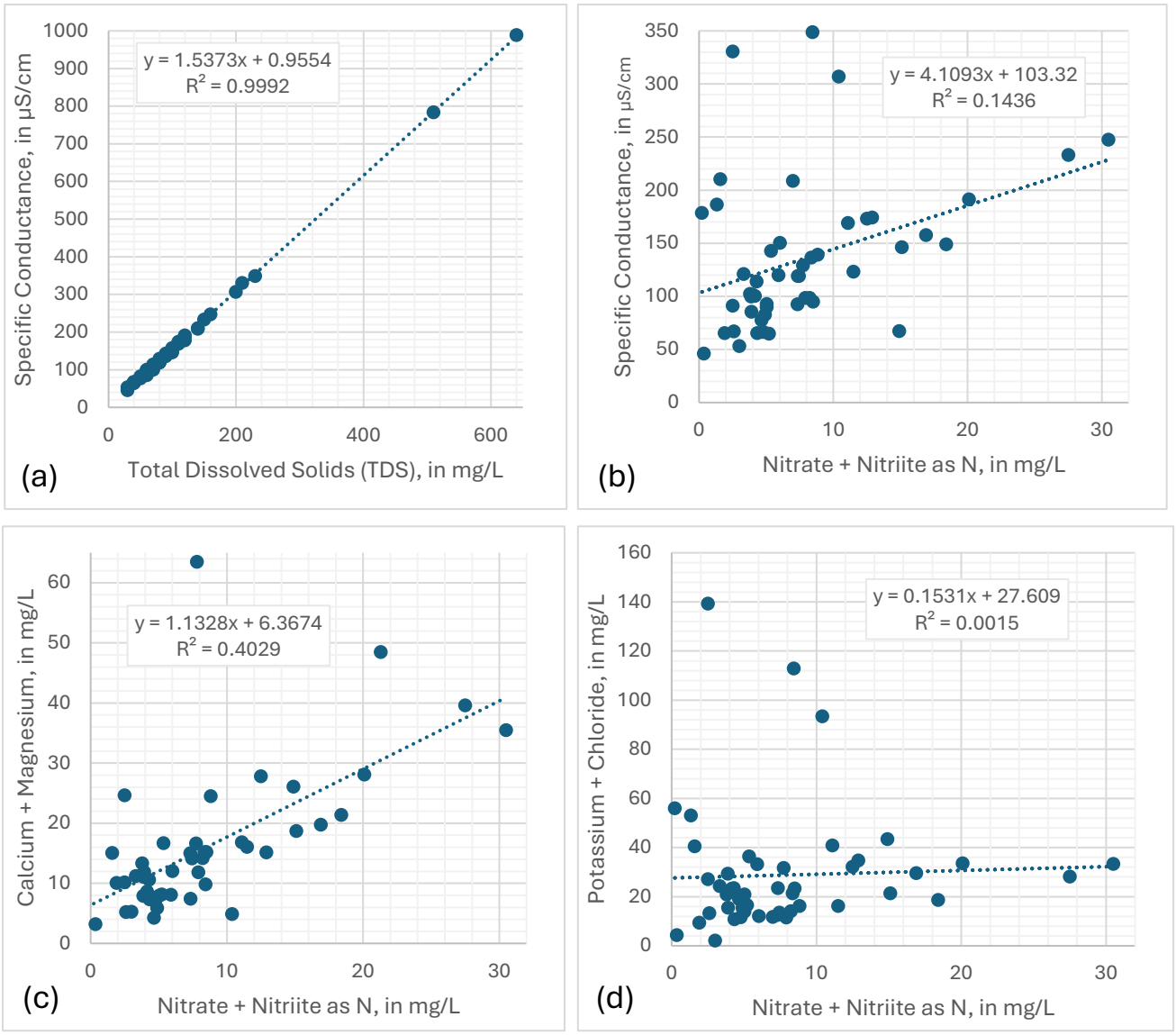


Figure 7. Plots showing relationships between (a) Total Dissolved Solids and Specific Conductance, (b) Nitrate and Specific Conductance, (c) Nitrate and Calcium + Magnesium, and (d) Nitrate and Potassium + Chloride. Graphs reflect the removal of anomalous values as follows: two high specific conductance samples (989.3 µS/cm and 783.83 µS/cm) in (b); one high calcium sample (63.5 mg/L) in (c); two high chloride samples (409 mg/L and 244 mg/L) in (d).

Table 3. Summary statistics for water quality from domestic wells in the surficial aquifer of the Indian River Bay watershed, 2024 (n=51).

[ft, feet; mg/l, milligrams per liter; µg/L, micrograms per liter; S.U., standard units; µS/cm, microsiemens per centimeter; °C, degrees Celsius; <, less than; E, estimated; PMCL, primary maximum contaminant level; SMCL, secondary maximum contaminant level; HA, health advisory; drinking water standards per U.S. EPA (2024).]

Parameter	Units	Drinking Water Standard (Type)	Min	Percentile			Max
				25th	50th	75th	
Sample depth	ft	—	31	55	60	67.5	97
Field Measurements							
Dissolved Oxygen	mg/L	—	0.37	4.025	5.6	7.14	9.66
pH	S.U.	6.5 to 8.5 (SMCL)	2.07	4.9	5.185	5.4275	7.57
Specific Conductance	µS/cm	—	46.39	91.925	120.14	173.93	989.3
Temperature	°C	—	14.87	15.995	16.35	16.67	22.78
Nutrients							
Ammonia as N	mg/L	—	< 0.01	< 0.01	< 0.01	< 0.01	0.035
Nitrate as N	mg/L	10 (PMCL)	0.219	3.92	6.02	9.615	30.5
Phosphorus (P)	mg/L	—	< 0.006	E 0.0095	E 0.013	E 0.0165	0.151
Major ions, elements, or properties							
Calcium	µg/L	—	< 1000	E 5060	E 7280	E 12850	34400
Magnesium	µg/L	—	< 1000	E 2520	E 3890	E 6070	32300
Sodium	µg/L	20,000 (HA)	4020	8555	13300	19200	165000
Potassium	µg/L	—	< 1000	E 1870	E 2310	E 3355	21200
Chloride	mg/L	250 (SMCL)	< 5	E 13.5	E 20	E 30.5	409
Sulfate	mg/L	250 (SMCL)	< 1.0	E 2	E 8.1	E 15.05	98.5
Iron	µg/L	300 (SMCL)	< 18.12	< 18.12	< 18.12	< 18.12	35.1
Silica	mg/L	—	8.6	14.65	17.9	21.75	29.5
Alkalinity	mg/L	—	< 2.3	E 4.1	E 6.9	E 11.4	93.9
Total Dissolved Solids	mg/L	500 (SMCL)	30	60	80	110	640

Major-Ion Chemistry

Groundwater chemistry in the IRBW is influenced by the dissolution of minerals in aquifer sediments, inputs from the land surface, and prevailing redox conditions (Soroka et al., 2024). Piper (1944) diagrams (Figures 8 and 9) illustrate the relative distribution of major cations (Ca^{2+}, Mg^{2+}, Na^{+} + K^{+}) and anions (HCO_3^{-}, SO_4^{2-}, Cl^{-} + NO_3^{-}) in shallow groundwater. The composite plot of all samples with complete analyses (Figure 8; n=51) reveals considerable variability and distinct hydrochemical trends.

Cation compositions generally fall into two groups: (1) waters with mixed Ca^{2+}, Mg^{2+}, and Na^{+} + K^{+}, showing no dominant type, and (2) waters distinctly enriched in Na^{+} + K^{+}. Waters with mixed Ca^{2+}–Mg^{2+}–Na^{+}+K^{+} composition generally occur in upland recharge areas dominated by agricultural and residential land uses, whereas Na^{+}+K^{+}-enriched waters are more common in low-lying, poorly drained settings where longer residence times exist and ion exchange processes are enhanced (Denver, 1989; Denver 1993; Andres, 1991a; Hamilton et al., 1993).

Anion compositions are dominated by Cl^{-} + NO_3^{-}, consistent with both evaporite dissolution and anthropogenic sources such as agricultural inputs, septic effluent, and road salt (Denver, 1986, 1989; Ator and Denver, 2012; Fleming et al.,

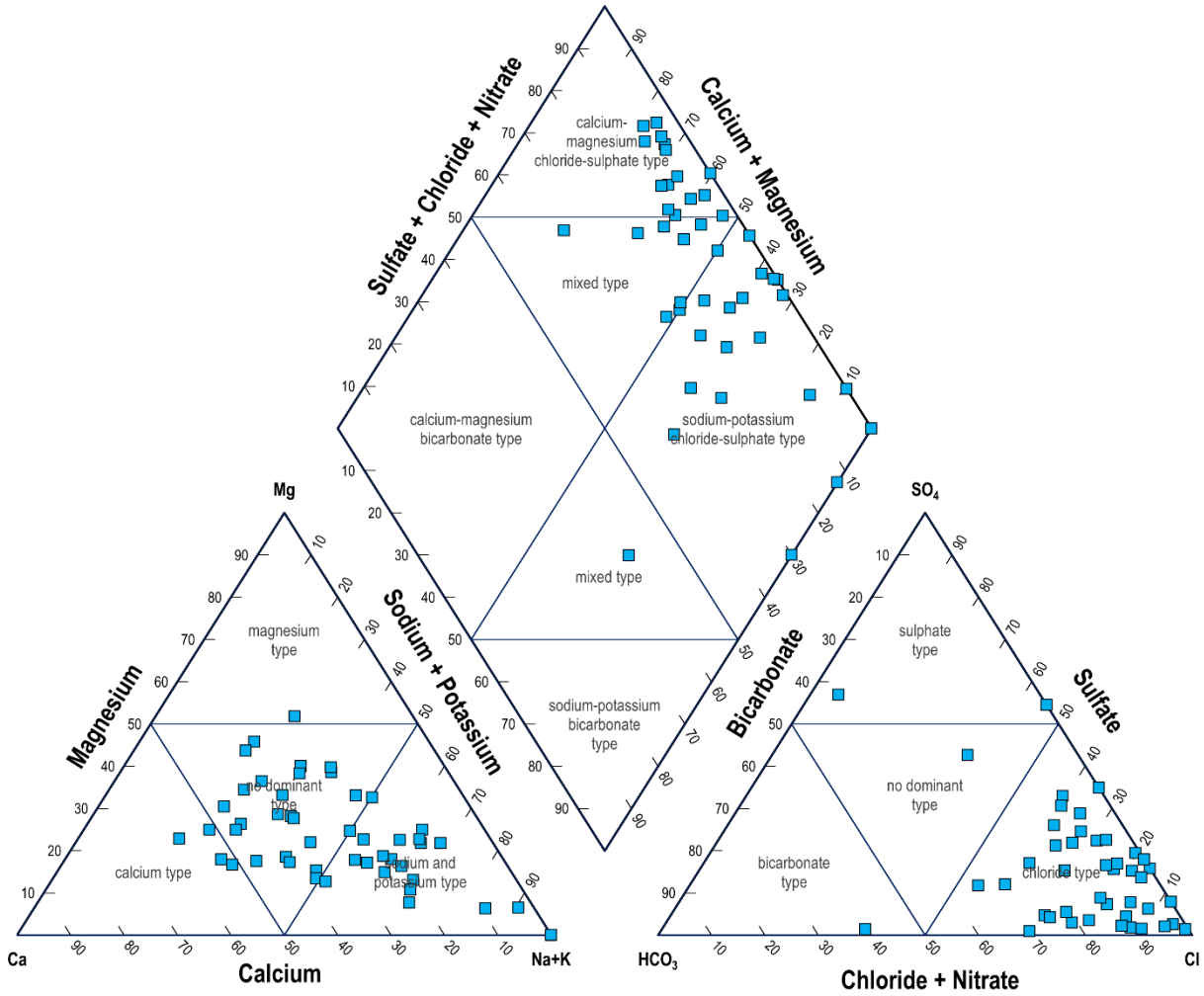


Figure 8. Piper diagram showing major-ion chemistry (as percentages of total milliequivalents per liter, or meq/L) for all samples with complete chemical analyses (n=51).

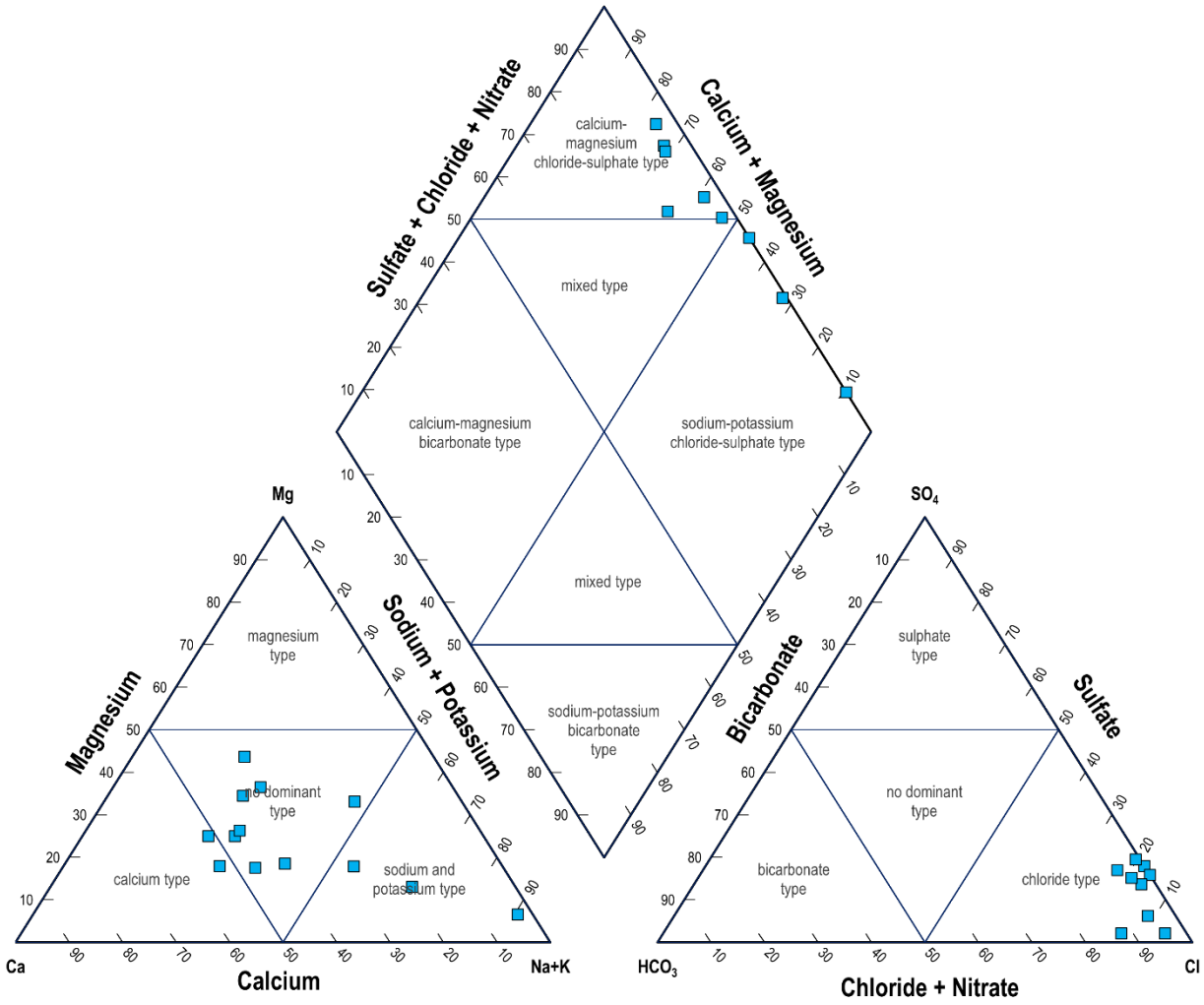


Figure 9. Piper diagram showing major-ion chemistry (as percentages of total milliequivalents per liter, or meq/L) for samples with nitrate concentrations greater than 10 mg/L and complete chemical analyses (n=13).

2017; Soroka et al., 2024). A smaller subset of samples exhibits elevated HCO_3^- or SO_4^{2-}, indicating localized influence of carbonate weathering or sulfate-bearing minerals (Shedlock et al., 1999; Fleming et al., 2017). Although the dataset shows relatively few outliers, variations within both the cation and anion groups reflect spatial heterogeneity in recharge, geochemistry, and land use across the IRBW (Figure 8).

Groundwater samples with nitrate concentrations exceeding the PMCL of 10 mg/L (n = 13) were typically dominated by Ca^{2+}, Mg^{2+}, and $Cl^- + NO_3^-$ (Figure 9), although $Na^+ + K^+$ occasionally appeared as the major cations. The prevalence of Ca^{2+} and Mg^{2+} has been linked to agricultural practices (Denver, 1989; Hamilton et al., 1993; Böhlke, 2002; Fleming et al., 2017), whereas Na^+ and Cl^- are commonly associated with septic and animal wastes, commercial fertilizers, saltwater intrusion, and road deicing salts (Denver, 1986, 1989; Ator and Denver, 2012; Fleming et al., 2017). Elevated Cl^- and K^+ have also been associated with urban land use (Fleming et al., 2017; Soroka et al., 2024) and potash fertilizer application (Shedlock et al., 1999).

The clustering of samples in Figure 9 resembles the “calcium-magnesium-nitrate water type”

previously documented in groundwater influenced by agricultural activities on the Delmarva Peninsula (Hamilton et al., 1993; Fleming et al., 2017; Soroka et al., 2024). In these high-nitrate samples, Cl^- + NO_3^- typically contributed more than 80% of total anions, while SO_4^{2-} and HCO_3^- each contributed ≤20% (meq/L). The depletion of bicarbonate likely reflects its consumption in acid-buffering reactions during nitrification (Denver, 1986).

Previous hydrochemical analyses of groundwater in southern Delaware have demonstrated a positive correlation between nitrate and Ca^{2+} + Mg^{2+} (Denver, 1989; Kasper and Strohmeier, 2007; Soroka et al., 2024), attributing this pattern to agricultural influence on shallow groundwater. The chemical analysis of samples collected for this study is consistent with these findings (Figure 7c, Figure 10). Reported Pearson correlation coefficients were 0.98 and 0.77 in prior studies (Denver, 1989; Kasper and Strohmeier, 2007, respectively); the coefficient for this dataset is 0.65. Although more moderate, this positive correlation still suggests a persistent agricultural signature on groundwater chemistry in the IRBW. The observed geochemical patterns provide context for interpreting nutrient behavior in the IRBW, as described in the following section.

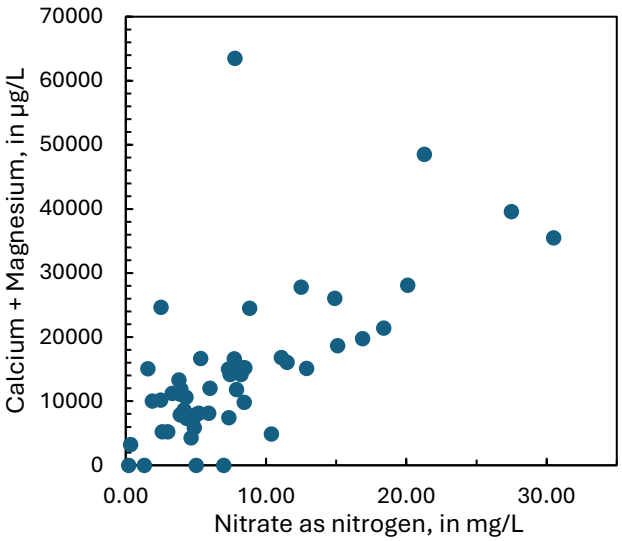


Figure 10. Scatter plot of Calcium + Magnesium versus Nitrate. Calculated Pearson correlation coefficient = 0.65.

Nutrient Results

Sources of nitrogen and phosphorus in the IRBW include agricultural fertilizer use, land application of animal manure, wastewater disposal practices (including septic systems), and atmospheric deposition. Within the Delmarva Peninsula, inorganic fertilizer and manure have been estimated to account for more than 95% of the nitrogen input (Denver et al., 2004). Inorganic fertilizers often contain nitrogen in the form of ammonia, while manure and septic-system effluent contain both ammonia and organic nitrogen (Denver, 1989). Phosphorus inputs are similarly associated with fertilizer, manure, and wastewater (Denver, 1986). These nutrients are of concern because elevated nitrogen and phosphorus concentrations can contribute to eutrophication in surface waters and may pose risks to drinking-water quality. In this study, dissolved nutrient concentrations of nitrate, ammonia, and phosphorus were measured in groundwater samples (see Table 2 for analytical methods). The occurrence, distribution, and controlling factors for each of these parameters are addressed in the following sections.

Nitrate

Nitrate concentrations in the IRBW ranged from 0.219 mg/L to 30.5 mg/L, with a median of 6.02 mg/L and a mean of 8.09 mg/L. The distribution of nitrate is positively skewed, as indicated by the frequency histogram of detections (Figure 13).

As noted previously, nitrate is a significant groundwater problem in the IRBW, exceeding the PMCL in 13 (≈25.5%) of the samples. In 49 samples (≈96%), nitrate exceeded 0.4 mg/L, a threshold distinguishing natural groundwater from water affected by anthropogenic activities (Hamilton et al., 1993). Spatially, PMCL exceedances occurred throughout the IRBW (Figure 5).

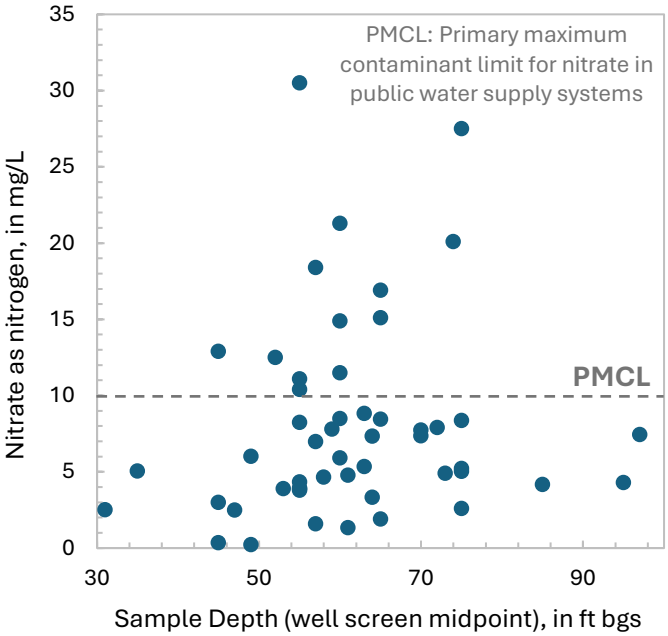


Figure 11. Scatter plot of nitrate (mg/L) versus sample depth. Sample depth is based on the depth of the well screen midpoint, represented in feet below ground surface (ft bgs).

Elevated nitrate concentrations were observed across all sampled depths in the Columbia aquifer (31–97 ft bgs), with no apparent trend in concentration versus sample depth (Figure 11). The highest nitrate concentration (30.5 mg/L) was detected in well 159625 at a depth of 55 ft bgs. The deepest PMCL exceedance (27.5 mg/L) occurred in well 92926 at 75 ft bgs. These results indicate that nitrate contamination is pervasive in both shallow and intermediate portions of the surficial aquifer.

For this study, sample depths were grouped into 5 categories: < 50 ft, 50–59 ft, 60–69 ft, 70–79 ft, and > 80 ft below ground surface (bgs). The 70–79 ft interval had the highest median nitrate concentration (9.67 mg/L), followed by the 60–69 ft (9.03 mg/L) and 50–59 ft (8.80 mg/L) ranges. Together, these intervals represent 40 of the 51 samples (78% of the dataset). Shallower (< 50 ft) and deeper (> 80 ft) wells had median nitrate concentrations of 4.07 mg/L and 5.30 mg/L, respectively, but these depth ranges were less common in the dataset (Figure 11; Figure 12).

In unconfined aquifers, nitrate concentrations typically increase under oxic conditions and decrease under anoxic conditions. Oxic groundwater preserves nitrate introduced from surface recharge, allowing it to persist along flow paths for decades (Andres, 1991a; Shedlock et al., 1999). In contrast, reducing environments can inhibit nitrate formation or promote its reduction to nitrogen gas, resulting in lower concentrations (Shedlock et al., 1999; Denver et al., 2004). In this study, oxic groundwater samples (DO ≥1 mg/L) had a median nitrate concentration of 8.18 mg/L, consistent with the stability of nitrate under oxidizing conditions. Two samples exhibited reducing conditions (DO < 1 mg/L), yet their nitrate concentrations were 4.16 mg/L and 7.35 mg/L – values near the dataset median (6.02 mg/L). The persistence of nitrate under both redox regimes likely reflects spatial heterogeneity in recharge sources and localized variability in aquifer geochemistry.

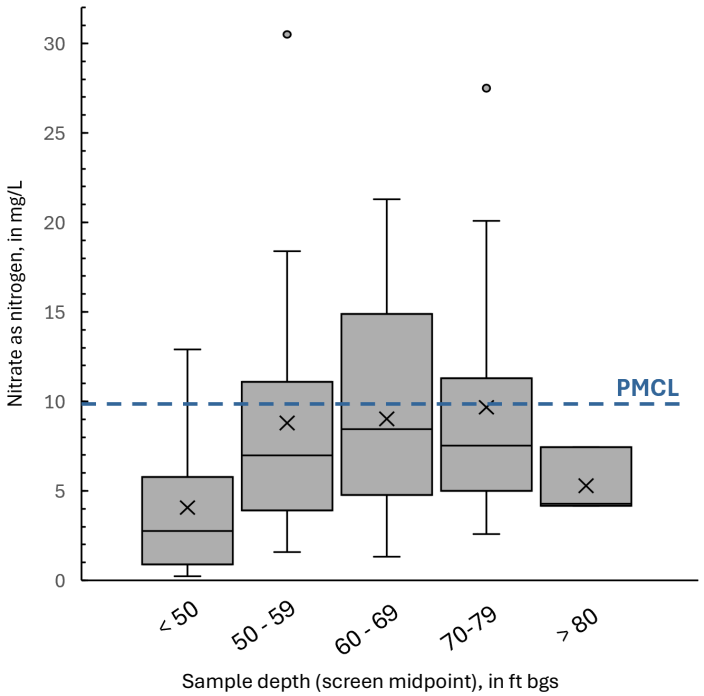


Figure 12. Percentile diagram of nitrate (mg/L) distributions versus sample depth (ft bgs) showing maximum, 75th percentile, 50th percentile, 25th percentile, and minimum values; X denotes the mean; circles denote outliers. [PMCL, Primary Maximum Contaminant Level]

Nitrate concentrations were evaluated in relation to mapped groundwater recharge potential (Andres et al., 2002). Exceedances of the PMCL were observed in all recharge-potential categories (Figure 14), indicating that nitrate contamination is not limited to a single hydrogeologic setting. Wells in good recharge-potential areas (n = 17) had the lowest median nitrate concentration (5.03 mg/L), with 23.5% of samples exceeding the PMCL. Wells located in poor recharge-potential areas (n = 7) exhibited a nearly identical median concentration (5.04 mg/L), though only one exceedance was observed (14%). In contrast, wells in excellent recharge-potential areas (n = 10) displayed a slightly higher median concentration (5.75 mg/L), but a relatively low exceedance rate of 10%. The highest nitrate levels were observed in wells situated within fair recharge-potential areas (n = 17), which had a median concentration of 8.5 mg/L and the highest proportion of PMCL exceedances (41%). These results suggest that recharge potential alone does not control nitrate occurrence, and that fair recharge areas may represent a balance between sufficient infiltration to mobilize nitrate and limited dilution capacity, resulting in elevated concentrations and frequent exceedances. As noted by Andres (1991a), determining the source of nitrate contamination in an individual well is often not possible, since land use at the wellhead may not reflect the true recharge area. Wells screened near the water table are more likely to represent overlying land use (Hamilton and Denver, 1990), while deeper wells may intercept groundwater that is recharged thousands of feet upgradient, reflecting land use at the recharge location rather than at the well site (Andres, 1991a; Denver, 1993; Hamilton and Denver, 1990). The occurrence of PMCL exceedances across all recharge classes underscores the complex and pervasive nature of nitrate in the IRBW.

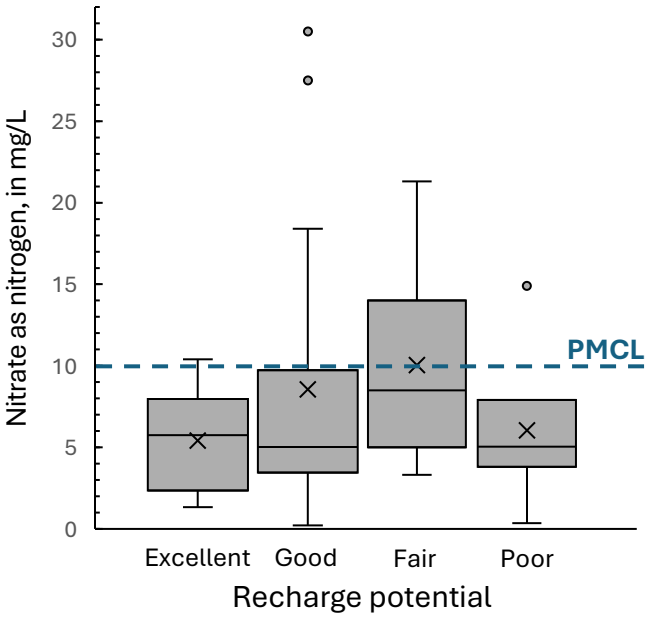


Figure 14 (above). Percentile diagram of nitrate distributions for each recharge-potential setting, showing maximum, 75th percentile, 50th percentile, 25th percentile, and minimum values; X denotes the mean; circles denote outliers. [mg/L, milligrams per liter; PMCL, Primary Maximum Contaminant Level]

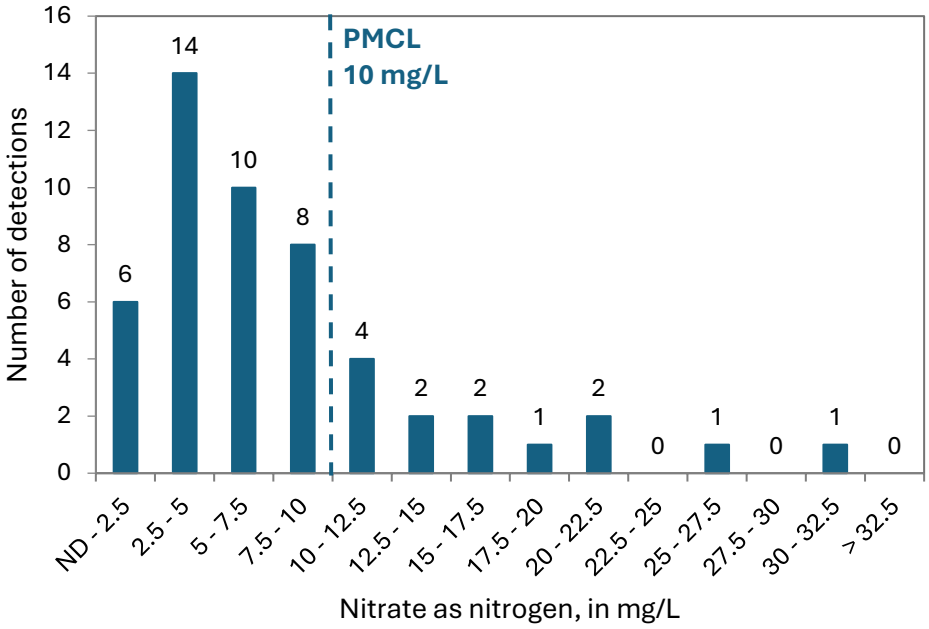


Figure 13 (left). Frequency histogram of nitrate detections. [ND, not detected above method detection limit; mg/L, milligrams per liter; PMCL, Primary Maximum Contaminant Level]

Ammonia

Ammonia was only detected above the method detection limit (0.01 mg/L) in one sample. The only elevated ammonia concentration (0.035 mg/L) was detected in well 160619 and was associated with low nitrate concentration (Appendix 1). As noted by Denver et al. (2004), ammonia is readily converted to nitrate under oxidizing conditions and, therefore, ammonia concentrations are relatively low (<1 mg/L) in the surficial aquifer of the Delmarva Peninsula. Well 160619 also had elevated phosphorus (0.151 mg/L). In some instances, elevated ammonia and phosphorus may be attributed to naturally occurring sources, such as organic-rich sediments in confining beds (Ator et al., 2004).

Phosphorus

Phosphorus concentrations ranged from non-detectable levels to 0.151 mg/L. Median and mean phosphorus concentrations were 0.013 and 0.016 mg/L, respectively. The phosphorus data, like the nitrate and ammonia data, are skewed (Figure 15). Phosphorus was non-detect (< 0.006 mg/L) in 7 of the samples (≈14%) (Figure 15). One sample collected from 160619 had a phosphorus concentration of 0.15 mg/L. This was the only sample where phosphorus was detected in a concentration greater than 0.1 mg/L (Figure 15), a recommended threshold to prevent excessive plant growth in streams (U.S. EPA, 2008). Well 160619 has a screen midpoint depth of 57 ft bgs. As with the nitrate data, there is no obvious trend between phosphorus concentration and sample depth (Figure 16).

In contrast with nitrate, phosphorus concentrations tend to be higher under reducing conditions than oxidizing conditions. Reducing conditions allow for the dissolution of phosphorus, while oxidizing conditions cause phosphorus to bind tightly to soil particles, resulting in less phosphorus mobility in the subsurface (Denver et al., 2004). In this study, the median phosphorus concentration for oxic groundwater conditions was 0.016 mg/L. The two samples displaying anoxic conditions had phosphorus concentrations of 0.016 and 0.018. While these values are not obviously

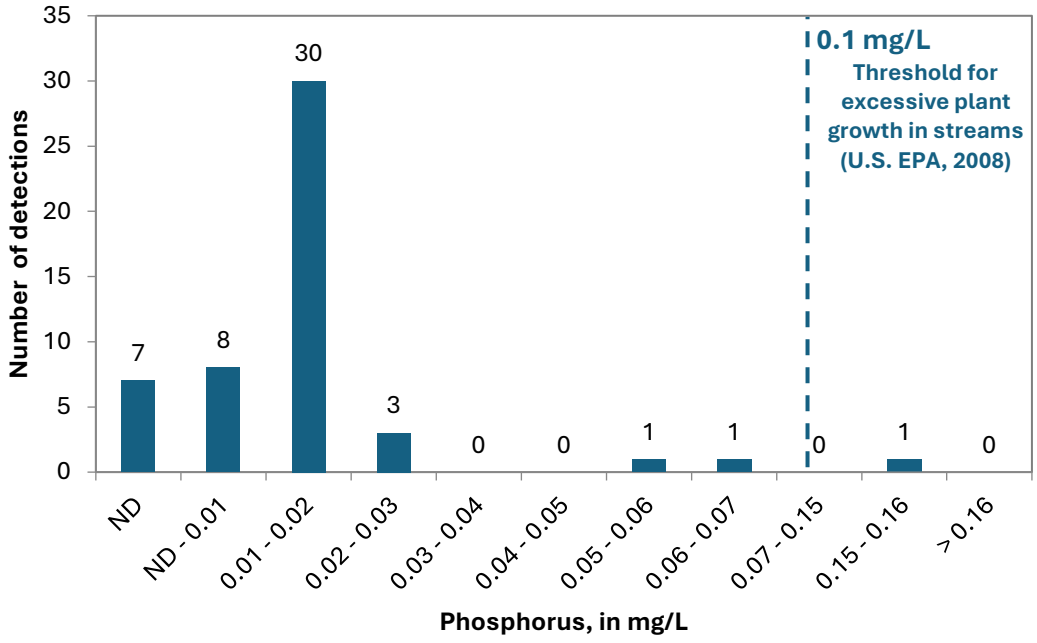


Figure 15. Frequency histogram of phosphorus detections. [ND, not detected above method detection limit; mg/L, milligrams per liter]

representative of the expected trend, this result is consistent with the underrepresentation of anoxic conditions in this study. Additionally, samples from wells in both excellent and poor recharge-potential settings had the highest median phosphorus concentrations (both 0.015 mg/L). Lower overall phosphorus concentrations align with the overall oxic conditions in the IRBW.

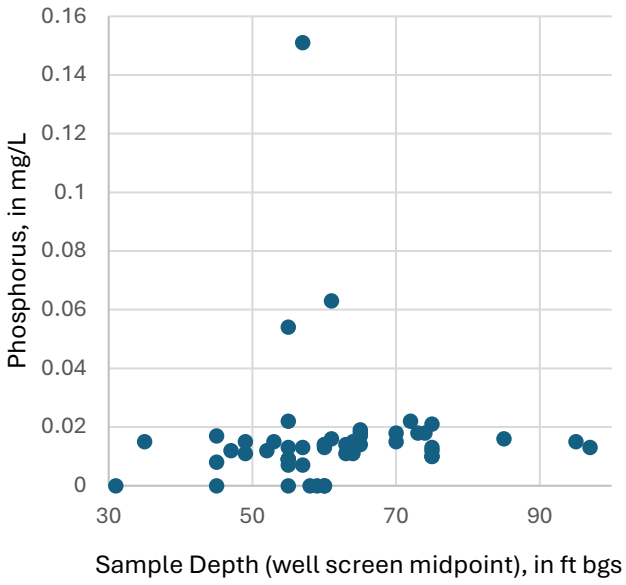


Figure 16. Scatter plot of phosphorus (mg/L) versus sample depth. Sample depth is based on the depth of the well screen midpoint, represented in feet below ground surface (ft bgs).

Temporal Comparison of Groundwater Quality

The dataset of Kasper and Strohmeier (2007) provides a valuable baseline for evaluating temporal changes in groundwater quality within the Indian River Bay Watershed (IRBW). Although the 2001–2003 study sampled 255 wells compared to 51 wells in this study, and included domestic, public, monitoring, agricultural, and commercial wells (while this study focused exclusively on domestic wells), the comparison provides insight into long-term trends. Given the differences in sample size and well type, temporal trends are discussed primarily in terms of relative percentages rather than absolute numerical comparisons. A summary of statistics and temporal trends is provided in Table 4, and boxplots comparing each analyte are shown in Figure 17. Trends for key analytes—nitrate, ammonia, and phosphorus—are discussed in detail in the "Nutrient Trends" section.

General Groundwater Quality Trends

Total Dissolved Solids (TDS)

TDS concentrations in the IRBW have increased slightly since 2001–2003. SMCL exceedances rose from 1% to 4%, and the median increased from 77 mg/L to 80 mg/L, while the overall range remained stable. These small changes suggest that bulk salinity of groundwater has remained relatively constant, and no major new sources of dissolved solids have emerged over the past two decades.

Specific Electrical Conductance (SEC)

SEC displayed minor changes, with the median decreasing from 149 µS/cm to 120.14 µS/cm and the overall reported range remaining similar (2007: 41–1389 µS/cm; 2024: 46.39–989.30 µS/cm). This stability indicates that the ionic strength of groundwater has not changed substantially, supporting the conclusion of largely stable aquifer chemistry for major ions.

pH

Slightly acidic conditions persist in the IRBW, with median pH increasing only marginally from 5.1 to 5.19, and the proportion of samples with pH < 6.5 remaining high (99% in 2001–2003 vs. 96% in 2024). These results indicate that natural acidification processes and buffering capacity of the Columbia aquifer remain consistent, and that pH remains below the SMCL range (6.5–8.5).

Dissolved Oxygen (DO)

Based on the threshold dissolved oxygen concentration (1 mg/L) between oxidizing (oxic) and reducing (anoxic) conditions, oxidizing

conditions prevail in the IRBW. Median DO increased from 3.5 mg/L to 5.6 mg/L, and the proportion of wells with DO ≥1 mg/L increased from 82% to 96%. This trend toward more oxidizing conditions may enhance the attenuation of redox-sensitive contaminants in the Columbia aquifer, including iron and reduced forms of nitrogen.

Iron

Iron concentrations declined markedly, with non-detects increasing from 44% to 98% of samples, and SMCL exceedances dropping from 12% to 0%. This decrease is consistent with increased DO concentrations, as iron solubility decreases under oxic conditions. This trend indicates reduced mobilization of iron within groundwater in the IRBW.

Nitrate

Nitrate remains the primary constituent of concern. PMCL exceedances declined from 32% to 25.5%, and median concentrations decreased slightly (6.41 mg/L to 6.02 mg/L), while mean concentrations increased marginally (7.73 mg/L to 8.09 mg/L). Nitrate was detected in all samples in 2024, compared to 92.5% in 2001–2003. However, widespread detections were expected in this study because a previous nitrate concentration > 1 mg/L was a limiting criterion to qualify for resampling. Nevertheless, these results suggest continued nonpoint-source loading from agricultural and residential activities, with widespread contamination persisting throughout the aquifer. Spatial and depth patterns indicate that nitrate transport is pervasive across the unconfined aquifer, with no clear attenuation with depth.

Chloride

Chloride concentrations have increased slightly, with the proportion of SMCL exceedances rising from 1% to 2%, and maximum concentrations increasing from 367 mg/L to 409 mg/L. This trend is consistent with potential contributions from saltwater intrusion, possibly enhanced by coastal hydrology or groundwater pumping near Indian River Bay.

Sodium

Sodium loading has increased, with HA exceedances rising from 10% to 23.5% and median concentrations increasing from 9,630 µg/L to 13,300 µg/L. Potential non-point sources of sodium in the Columbia aquifer include septic-system effluent, poultry manure application, and saltwater intrusion (Denver 1989). The increase reflects both anthropogenic inputs and potential hydrologic influences on shallow groundwater.

Sulfate

Sulfate concentrations increased modestly, with median values rising from 2.4 mg/L to 8.1 mg/L, and mean values increasing from 8.06 mg/L to 10.53 mg/L. Despite these changes, concentrations remain below the SMCL and HA, and maximum values decreased slightly from 135 mg/L to 98.5 mg/L. This suggests that while background sulfate loading has increased, peak concentrations have not intensified, consistent with minor inputs from fertilizer, manure, or natural geochemical sources.

Hardness

Comparison of data from the 2001–2003 and 2024 sampling efforts shows that water hardness has remained relatively consistent over the past two decades, with the majority of samples classified as soft in both studies. In 2024, 80.4% of samples were soft, 15.6% moderately hard, and approximately 4% hard or very hard, whereas in 2001–2003, 85.5% of samples were soft, 13.3% moderately hard, and 1.2% hard. Wells with higher hardness in both periods were associated with elevated chloride, TDS, sodium, and sulfate concentrations. These findings indicate that, although most groundwater in the IRBW remains soft, localized areas of elevated hardness persist.

Summary and Implications

Groundwater quality in the IRBW has remained largely stable over the past two decades. Modest increases in TDS, sodium, sulfate, and chloride concentrations (Figure 17; Table 4) indicate slight compositional changes, while higher dissolved oxygen and lower iron concentrations reflect more oxidizing conditions that limit the mobility of redox-sensitive constituents.

Slight increases in sodium and chloride, particularly near Indian River Bay, may indicate localized saltwater intrusion or anthropogenic inputs. Overall, the Columbia aquifer maintains generally good water quality, though persistent nitrate exceedances suggest ongoing nutrient loading from nonpoint sources. Nitrate remains the principal water quality concern, and this analyte is discussed in detail in the following section.

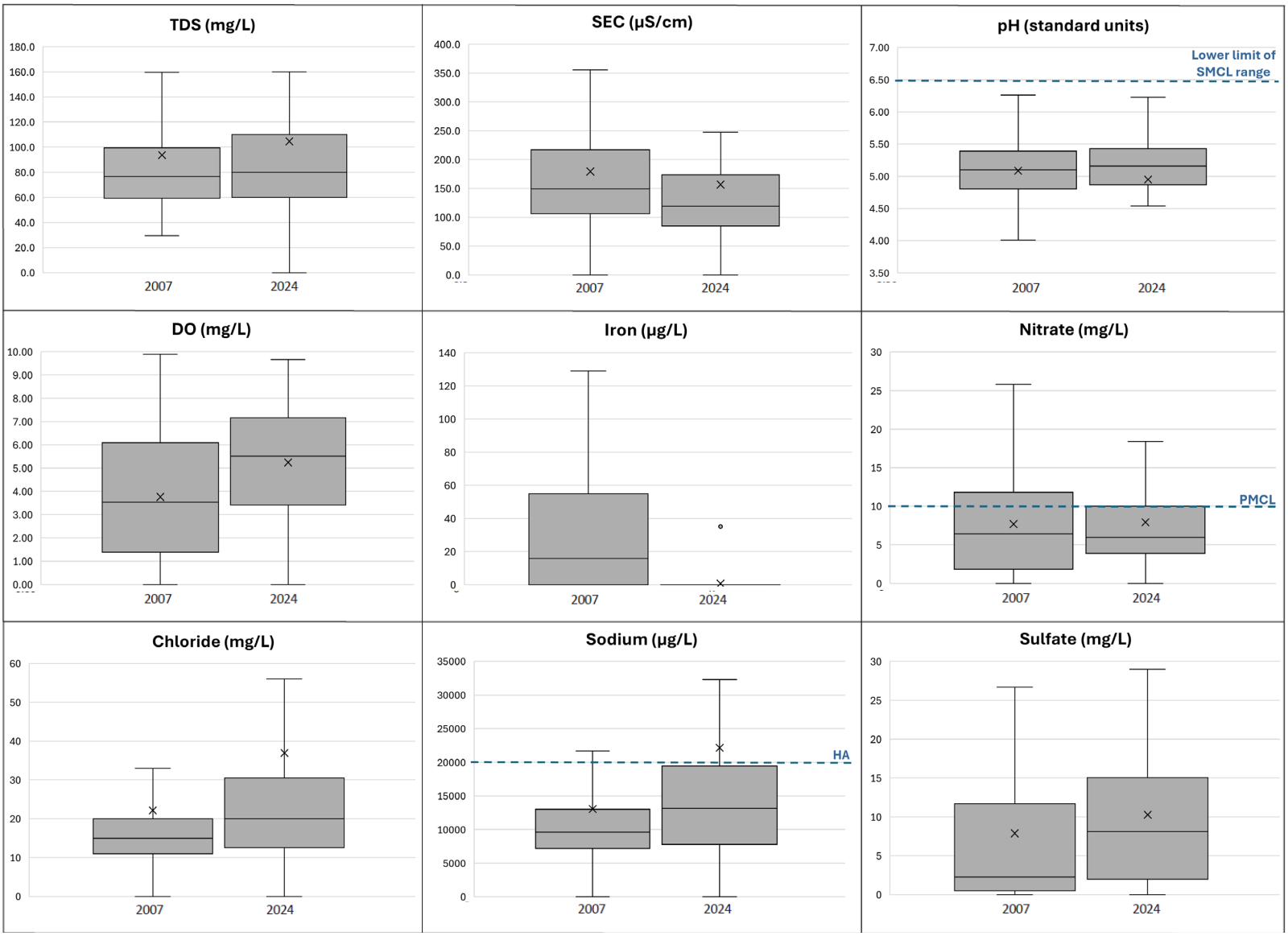


Figure 17. Temporal comparison of key groundwater constituents in the IRBW, as reported by Kasper and Strohmeier (2007) and the 2024 dataset. Plots represent unpaired comparisons of the complete (255 wells) 2007 dataset to the 51-well dataset included in this report. Maximum, 75th/50th/25th percentiles, and minimum values are shown; X, mean; circles, outliers.

Table 4. Summary Statistics and Temporal Trends for Key Groundwater Constituents in the IRBW. Comparison of results reported by Kasper and Strohmeier (2007) to 2024 sampling.

[SMCL, Secondary Maximum Concentration Limit; HA, Health Advisory; PMCL, Primary Maximum Concentration Limit]

Parameter	2007 Median	2007 Mean	2007 % Exceeding SMCL/HA	2024 Median	2024 Mean	2024 % Exceeding SMCL/HA	Trend / Interpretation
Total Dissolved Solids (mg/L)	76.54	93.66	1%	80	106.67	4%	Slight increase; aquifer remains dilute
Specific Electrical Conductance (µS/cm)	149	180.18	-	120.14	164.93	-	Minor decrease; overall ionic composition stable
pH (S.U.)	5.1	5.11	99% < 6.5	5.185	5.15	96% < 6.5	Slight increase; acidic conditions persist
Dissolved Oxygen (mg/L)	3.53	3.78	82% ≥1	5.6	5.35	96% ≥1	More oxidizing conditions; redox-sensitive constituents likely less mobile
Iron (µg/L)	15.4	955.11	12% >SMCL	ND	0.61	0% >SMCL	Decline reflects increasing DO; reduced mobilization of iron
Nitrate (mg/L)	6.41	7.73	32% >PMCL	6.02	8.09	25.5% >PMCL	Slight decrease in exceedances; persistent nonpoint-source loading
Chloride (mg/L)	15	22.27	1% >SMCL	20	38	2% >SMCL	Minor increase; consistent with saltwater intrusion or anthropogenic sources
Sodium (µg/L)	9,630	13,120.24	10% >HA	13,300	25,325.77	23.5% >HA	Increase; consistent with anthropogenic and/or saltwater influence
Sulfate (mg/L)	2.4	8.06	0%	8.1	10.46	0%	Slight increase; below SMCL/HA; likely influenced by agricultural inputs

Nutrient Trends

Nitrate

Nitrate continues to represent a key groundwater quality concern in the IRBW, with both the 2007 and 2024 datasets confirming widespread anthropogenic influence on shallow groundwater. However, several notable differences emerge when comparing the two studies. This discussion is divided into two sections - an unpaired comparison, and a direct paired comparison. The unpaired comparison analyzes general trends in the full datasets from Kasper and Strohmeier (2007) and this study. The paired comparison focuses only on the wells that were sampled in both studies.

Unpaired Comparison

During 2001–2003, nitrate exceeded the PMCL (10 mg/L) in 81 of 255 samples (32%), compared to 13 of 51 samples (25.5%) in 2024 (Table 4). Although this represents a slight reduction in the proportion of exceedances, nitrate remains elevated in a substantial fraction of samples, indicating persistent loading from nonpoint sources. Non-detects (7.5% in 2007) were not observed in 2024, which was expected because only wells with nitrate concentrations > 1 mg/L in the 2007 dataset were considered for resampling. However, the continued occurrence of elevated nitrate concentrations over the past two-decades suggests that nitrate levels in the Columbia aquifer have not declined significantly, despite fewer exceedances of the regulatory threshold.

The 2007 dataset reported a median nitrate concentration of 6.41 mg/L, slightly higher than the 6.02 mg/L median observed in 2024 (Table 4). However, the mean concentration increased from 7.73 mg/L in 2007 to 8.09 mg/L in 2024. The 2024 dataset was positively skewed with a maximum concentration of 30.5 mg/L, compared to 43 mg/L in the 2007 report. Together, these observations suggest that while extreme outlier values may have decreased, moderate-to-high nitrate concentrations remain common, keeping the overall mean slightly elevated.

Both studies found the highest nitrate concentrations in intermediate-depth wells (50–80 ft bgs), although the median concentrations in 2024 are slightly higher across these depth intervals (8.80–9.67 mg/L) compared to 2001–2003 (6.28–7.36 mg/L). Aside from the exclusion of low (< 1 mg/L) nitrate concentrations in this study, this trend may indicate continued nitrate loading and migration to slightly deeper portions of the aquifer. Similar to results reported by Kasper and Strohmeier, shallow (<50 ft bgs) and deep (>80 ft bgs) zones were underrepresented in 2024, limiting firm conclusions about vertical trends across the entire aquifer profile.

Both datasets confirm that nitrate concentrations are strongly controlled by redox conditions. In the 2007 report, median nitrate concentrations were 7.8 mg/L under oxic conditions (DO ≥ 1 mg/L) and only 0.14 mg/L under reducing conditions. When resampled in 2024, median nitrate concentrations under oxic conditions were similar (8.18 mg/L), but only two samples were collected under reducing conditions, with relatively high nitrate values (4.16 and 7.35 mg/L). This observation aligns with expected results, as zones with sustained reducing conditions - and therefore strong denitrification potential - were less represented in the 2024 study.

These findings suggest that while the proportion of wells exceeding the PMCL has declined since the 2001–2003 sampling effort, nitrate remains persistent across a wide range of depths under oxic conditions. This pattern is consistent with continued nonpoint source inputs (fertilizer, manure, septic effluent) and the long residence times of groundwater in the Columbia aquifer, which can delay improvements following changes in land-management practices. The persistence of elevated nitrate concentrations under oxic conditions indicates a sustained vulnerability of drinking water supplies to nitrate

contamination, underscoring the importance of nutrient management strategies in the watershed.

Paired Comparison

Although the comparison between the full dataset of Kasper and Strohmeier (2007) and the 2024 results highlights general trends in nitrate concentrations across the IRBW, variability in well type, distribution, and sample size introduces potential bias that can obscure localized temporal changes. Furthermore, because only wells with nitrate concentrations >1 mg/L in the 2007 dataset were considered for resampling, the 2024 dataset is inherently skewed towards higher nitrate conditions. To minimize these effects, analyses in this section are restricted to wells that were sampled in both 2001–2003 and 2024, enabling direct paired comparisons. By focusing on matched wells, the observed changes in nitrate concentrations can be more confidently attributed to temporal trends rather than spatial variability, providing a more robust assessment of how groundwater quality has evolved at specific locations over a two-decade interval. The analysis includes calculation of absolute and percent changes in nitrate concentration for each well, and evaluation of overall trends using the Wilcoxon signed-rank test to assess whether changes are statistically significant. Wells exhibiting increasing versus decreasing nitrate concentrations are shown in Figure 19.

Because the distribution of nitrate concentrations was non-normal and paired observations were available, the Wilcoxon signed-rank test - a nonparametric method proposed by Frank Wilcoxon in 1945 - was employed to evaluate whether median concentrations have changed over time. This statistical analysis is appropriate for paired samples, and its application in this study follows the methodology described in the original publication (Wilcoxon, 1945). Wells exhibiting no change in concentration (n = 1) were excluded from the analysis, consistent with standard procedure for the Wilcoxon signed-rank test.

For the 50 wells with nonzero differences, absolute differences between 2024 and 2001–2003 concentrations were ranked, and signed ranks were assigned according to the direction of change. The sum of negative ranks (W-) was 398.5, representing the smaller of the two rank sums. Using the normal approximation for n = 50 with continuity correction, the resulting z-score was -2.31, yielding a two-sided p-value of 0.021. A tie correction was applied to account for wells with identical absolute differences; the adjustment was minimal (tie sum = 6), and the corrected standard deviation (103.57) differed negligibly from the uncorrected value (103.59), indicating minimal impact on the test statistic.

These results demonstrate a statistically significant decrease in median nitrate concentrations between 2001–2003 and 2024. Median nitrate concentrations declined from 8.12 mg/L in the 2007 report to 6.02 mg/L in 2024. A side-by-side boxplot (Figure 18) corroborates the statistical findings, showing that most wells exhibited reduced nitrate concentrations although a small number of wells displayed minor increases.

The observed decline in nitrate concentrations between the 2007 report and the 2024 resampling effort may reflect a combination of environmental and anthropogenic factors affecting groundwater quality in the study area. Potential contributors include changes in land-use practices, such as reduced fertilizer application rates or the implementation of nutrient management strategies in agricultural areas, as well as improvements in wastewater treatment and septic system management. Hydrogeological factors, including natural attenuation processes, dilution from recharge,

and variations in groundwater flow paths, may also have influenced the observed patterns. Notably, the variability among wells - where a few wells showed slight increases in nitrate - highlights spatial heterogeneity in sources, subsurface transport, and residence times.

These results underscore the importance of longitudinal monitoring of groundwater quality to capture temporal trends and evaluate the effectiveness of management interventions. While the median decrease in nitrate suggests an overall improvement in water quality, continued monitoring is warranted to assess the persistence of low concentrations and to identify locations at risk for localized increases. Integrating statistical analyses with spatial and hydrogeological data can further inform targeted mitigation strategies and policy decisions for protecting groundwater resources.

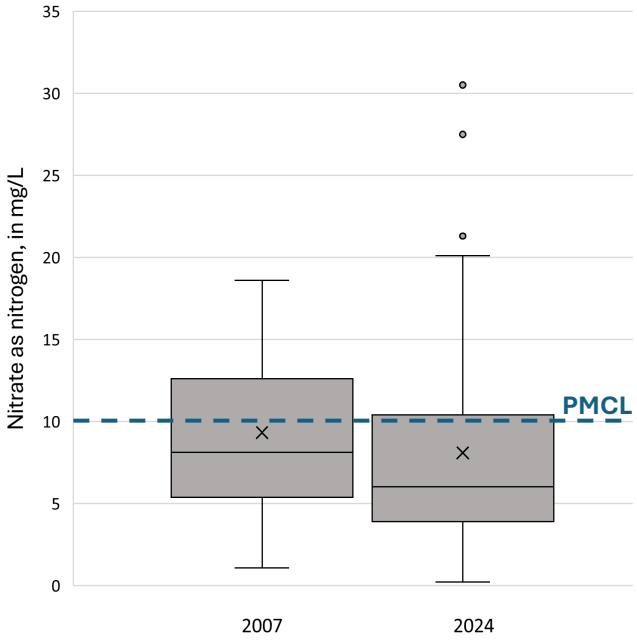


Figure 18. Direct paired comparison of nitrate concentrations (mg/L) in 51 wells sampled in 2001–2003 (as reported by Kasper and Strohmeier, 2007) and 2024. Maximum, 75th/50th/25th percentiles, and minimum values are shown; X, mean; circles, outliers.

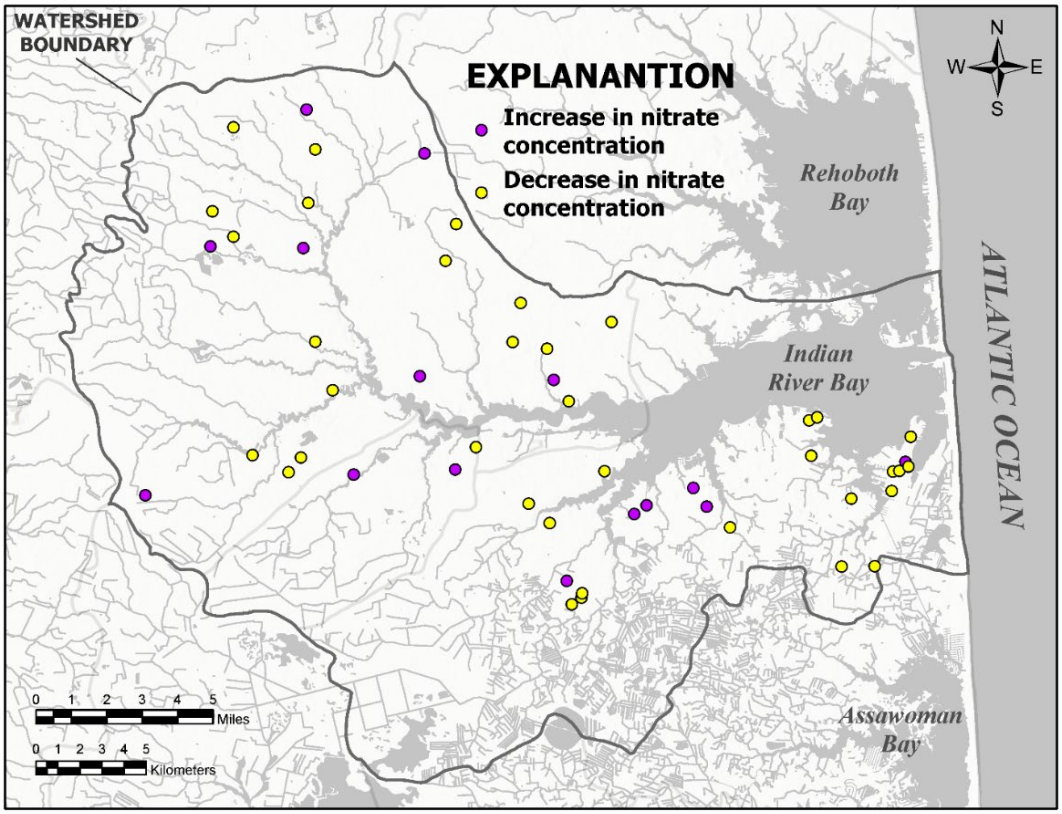


Figure 19. Map of 51 resampled wells showing where nitrate concentrations increased versus decreased between Kasper and Strohmeier's 2007 report and the 2024 resampling.

Summary of Unpaired and Paired Comparisons

Unpaired and paired analyses of nitrate data (2001–2003 vs. 2024) revealed broadly consistent results, indicating that nitrate concentrations in the IRBW have remained largely stable over the past two decades, with modest overall improvement. The percentage of samples exceeding the PMCL declined from 32% to 25.5%, and median concentrations decreased slightly from 6.41 to 6.02 mg/L. The paired analysis confirmed this trend, with most wells showing stable or decreasing concentrations (Figure 18), indicating limited but measurable improvement in some areas. However, persistent detections above background levels (> 0.4 mg/L) suggest that the aquifer continues to be under substantial pressure from nonpoint nitrogen inputs.

Ammonia

Ammonia concentrations in the Indian River Bay watershed were generally low in both the 2007 and 2024 studies, consistent with expectations for groundwater in oxidizing conditions. The 2007 report documented a measurable range of ammonia concentrations, from below detection to 0.662 mg/L, with median and mean values of 0.011 mg/L and 0.034 mg/L, respectively. Ammonia was not detected above the method detection limit in 36 samples (14%). Stratification by redox condition indicated slightly higher median concentrations under reducing conditions (0.019 mg/L) relative to oxidizing conditions (0.011 mg/L), consistent with the role of denitrification and the suppression of nitrification in reducing environments.

In contrast, the 2024 study reported ammonia at detectable levels in only one sample, with a concentration of 0.035 mg/L in well 160619. This detection was accompanied by a low nitrate concentration and elevated phosphorus, suggesting localized geochemical influences possibly related to organic-rich sediments. The near absence of detectable ammonia in the 2024 dataset aligns with the limited representation of reducing conditions relative to 2001–2003.

Combined, the two studies suggest that while low concentrations of ammonia can occasionally occur in the aquifer system, they are typically rare and of limited spatial extent. The broader geochemical framework - where ammonia is readily converted to nitrate under oxidizing conditions - was evident in both studies. However, the 2024 dataset suggests an even stronger dominance of oxidizing conditions in the aquifer compared to 2001–2003, resulting in fewer measurable ammonia detections.

This shift has important implications for nutrient cycling in the IRBW. The scarcity of ammonia indicates that most reduced nitrogen is rapidly transformed to nitrate, the more mobile and environmentally significant species in groundwater. Consequently, the risk to surface-water quality is tied less to ammonia accumulation and more to sustained nitrate transport under oxidizing conditions. The 2024 results therefore reinforce the conclusion that nitrate remains the primary nitrogen species of concern for groundwater quality and nutrient loading to the IRBW.

Phosphorus

Phosphorus concentrations in the Indian River Bay watershed were generally low in both the 2007 and 2024 datasets, although the distribution was skewed by occasional elevated detections. In 2001–2003, phosphorus ranged from below detection to 0.688 mg/L, with median and mean concentrations of 0.014 and 0.031 mg/L, respectively. Phosphorus was not detected above the method detection limit in 69 samples (27%), and 12 samples (4.7%) exceeded 0.1 mg/L, a threshold associated with the potential to stimulate excessive plant growth in surface waters (U.S. EPA, 2008). Median concentrations under anoxic conditions (0.037 mg/L) were nearly three times higher than those under oxic

conditions (0.013 mg/L), consistent with the expected release of phosphorus from sediments in reducing environments.

By comparison, phosphorus concentrations in 2024 ranged from below detection to 0.151 mg/L, with median and mean values of 0.013 and 0.016 mg/L, respectively. Non-detects (< 0.006 mg/L) occurred in seven samples (14%), a smaller proportion than in 2001–2003, suggesting slightly broader low-level detection across the aquifer. Only one well (160619) exceeded 0.1 mg/L, with a concentration of 0.151 mg/L. This well also contained elevated ammonia and low nitrate, suggesting possible localized phosphorus release from organic-rich sediments. Median concentrations under oxic conditions were 0.016 mg/L, while the two anoxic samples showed similar concentrations (0.016 and 0.018 mg/L). Although these results did not clearly reflect the expected pattern of higher phosphorus under reducing conditions, the small number of anoxic samples in the 2024 dataset limited the ability to assess this relationship robustly.

Both datasets indicate that phosphorus concentrations in the aquifer are generally low, with most values well below the 0.1 mg/L threshold of ecological concern. The 2007 dataset documented a wider range of concentrations, including multiple exceedances above 0.1 mg/L, whereas the 2024 dataset showed only a single exceedance. These differences may reflect localized geochemical heterogeneity, differences in sampling coverage, or potential temporal shifts in phosphorus mobility in the aquifer system.

The consistency of low median phosphorus concentrations across both studies suggests that phosphorus is less mobile in the surficial aquifer than nitrogen species. While reducing conditions can enhance phosphorus release, such conditions appear to be relatively uncommon in the IRBW, limiting widespread phosphorus transport. Consequently, phosphorus poses a more localized and intermittent concern compared to nitrate, reinforcing the interpretation that nitrate remains the dominant nutrient of concern for groundwater-derived inputs.

Summary and Implications

Results from both the 2001–2003 and 2024 investigations confirm that nitrate remains the principal groundwater contaminant of concern in the IRBW. Elevated nitrate concentrations, potentially driven by agricultural and residential nonpoint sources, continue to exceed the PMCL in a substantial fraction of wells. In contrast, ammonia and phosphorus occur at consistently low concentrations, reflecting predominantly oxic aquifer conditions that promote nitrification and limit phosphorus mobility. Additionally, the conversion of discharge from the City of Rehoboth Beach's wastewater treatment system to an ocean outfall in 2018 has effectively eliminated major point sources of nutrient loading to the Inland Bays (Walch et al., 2023), indicating that observed nutrient contamination in the IRBW is attributable to nonpoint sources. Overall, these findings underscore nitrate's continued dominance as the key nutrient impacting groundwater quality in the IRBW.

Summary and Conclusions

In 2024, groundwater samples were collected from 51 wells completed in the Columbia aquifer within the Indian River Bay Watershed (IRBW) to reassess water quality and evaluate temporal changes since the 2001–2003 investigation by Kasper and Strohmeier (2007). Samples were analyzed for field parameters (pH, temperature, dissolved oxygen, and specific electrical conductance) and laboratory parameters (major ions, silica, and nutrients). Nutrient analytes included nitrate, ammonia, and phosphorus. Results were compared to U.S. EPA drinking-water standards including Primary and Secondary Maximum Contaminant Levels (PMCLs and SMCLs, respectively) and Health Advisories (HAs), to assess current groundwater conditions and long-term trends. These results establish an updated baseline for groundwater quality in the surficial aquifer and support ongoing evaluation of nonpoint-source nutrient management under the IRBW Total Maximum Daily Loads (TMDLs).

Current Groundwater Quality

Groundwater in the IRBW remains generally dilute and slightly acidic, with a median total dissolved solids (TDS) concentration of 80 mg/L and a median pH of 5.19. Most samples were oxic (96% with DO ≥1 mg/L), consistent with correspondingly low iron concentrations. Specific electrical conductance (median 120 µS/cm) and hardness data (80% classified as soft) indicate stable bulk chemistry relative to 2001–2003. Localized increases in chloride, sodium, and TDS were observed near coastal areas, suggesting possible saltwater intrusion or anthropogenic inputs.

Major-Ion Chemistry

Piper diagrams show two dominant cation facies: mixed Ca^{2+}–Mg^{2+}–Na^{+}+K^{+} waters and Na^{+}+K^{+}-enriched waters, the latter reflecting ion exchange and longer residence times. The dominant anions (Cl^{-}+NO_3^{-}) are consistent with agricultural and septic influences. High-nitrate samples (> 10 mg/L) typically exhibit Ca^{2+}–Mg^{2+}–NO_3^{-}+Cl^{-} compositions, resembling the "calcium-magnesium-nitrate" water type characteristic of recharge influenced by agricultural activity. These hydrochemical signatures are consistent with those described by Kasper and Strohmeier (2007).

Nutrient Occurrence

Nitrate was detected in all samples (0.22–30.5 mg/L), exceeding the PMCL in 25.5% of wells. Elevated nitrate concentrations were observed across all depth intervals, with the highest median values (8.8–9.7 mg/L) in wells screened between 50 and 79 ft bgs. Ammonia and phosphorus were generally absent or present at very low concentrations, reflecting oxic aquifer conditions that suppress their mobility.

Temporal Trends (2001–2003 vs. 2024)

Comparisons with the 2001–2003 dataset indicate that groundwater chemistry in the IRBW has remained largely stable over the intervening two decades:

- **Nitrate:** PMCL exceedances declined from 32% to 25.5%, and median concentrations decreased slightly (6.41 to 6.02 mg/L). A paired analysis of 50 wells showed a statistically significant decrease in nitrate concentrations (Wilcoxon signed-rank p=0.021), although nitrate remains widespread and above background levels (> 0.4 mg/L) in nearly all samples.
- **Redox Conditions:** Median DO increased from 3.5 to 5.6 mg/L, and iron non-detects rose from 44% to 98%, indicating a shift toward more oxidizing aquifer conditions.
- **Salinity Indicators:** Slight increases in sodium (median 9,630 to 13,300 µg/L) and chloride (15 to 20 mg/L) suggest persistent anthropogenic inputs or localized saltwater influence.

- **Sulfate and Hardness:** Sulfate increased modestly (median 2.4 to 8.1 mg/L), but all values remained below health advisories or secondary standards. Water hardness remained predominantly soft, with localized areas of moderate hardness associated with higher TDS, chloride, and sodium.

Conclusions

1. **Overall Stability with Localized Changes** - Bulk groundwater chemistry in the IRBW has remained largely stable since 2001–2003, with slight increases in TDS, sodium, chloride, and sulfate, and a shift toward more oxidizing conditions.
2. **Persistent Nitrate Contamination** - Although the proportion of PMCL exceedances has declined slightly, nitrate concentrations remain elevated above natural background levels, indicating continued vulnerability of drinking water supplies to nonpoint-source nitrogen inputs.
3. **Limited Phosphorus Mobility** - Phosphorus concentrations remain low, with only isolated exceedances, reflecting restricted transport potential under the oxic conditions of the surficial aquifer.
4. **Need for Continued Monitoring** - Long-term groundwater monitoring at fixed sites is essential to evaluate BMP effectiveness, identify emerging problem areas, and guide nutrient reduction strategies aligned with TMDL goals.

Management Implications

Although the Columbia aquifer in the IRBW maintains good overall water quality, elevated nitrate and rising salinity indicate continued loading of contaminants to shallow groundwater. The persistence of long-term, widespread nitrate contamination from nonpoint sources such as agriculture and land use practices underscores the pervasive nature of nitrate in the surficial aquifer, and reflects the slow response of groundwater systems to management efforts. Elevated sodium and chloride concentrations near Indian River Bay suggest potential coastal saltwater intrusion or wastewater influences. These findings emphasize the persistence of legacy nutrient inputs and highlight the need for continued nutrient management, targeted monitoring in coastal areas, and evaluation of BMP effectiveness to mitigate further contaminant loading.

References

Alley, W. M., 1993, Establishing the conceptual framework, in Alley, W. M., ed., Regional Ground-Water Quality: New York, Van Nostrand Reinhold, Ch. 2, p. 23-60.

Andres, A. S., 1987, Geohydrology of the northern coastal area, Delaware - Sheet 2, Geohydrology of the Columbia aquifer: Delaware Geological Survey Hydrologic Map Series No. 5, scale 1:24,000.

Andres, A. S., 1991a, Results of the coastal Sussex County, Delaware ground-water quality survey: Delaware Geological Survey Report of Investigations No. 49, 28 p.

Andres, A. S., 1991b, Basic ground-water level and chemistry data from the coastal Sussex County, Delaware, ground-water quality survey: Delaware Geological Survey Open File Report No. 33, 31 p.

Andres, A. S., 1991c, Methodology for mapping groundwater recharge areas in Delaware's Coastal Plain: Delaware Geological Survey Open File Report No. 34, 18 p.

Andres, A. S., 2004, Ground-water recharge potential mapping in Kent and Sussex counties, Delaware: Delaware Geological Survey Report of Investigations No. 66, 14 p.

Andres, A. S., and Howard, C. S., 2000, The Cypress Swamp Formation, Delaware: Delaware Geological Survey Report of Investigations No. 62, 13 p.

Andres, A. S., Howard, C. S., Keyser, T. A., and Wang, L. T., 2002, Digital ground-water recharge potential map data for Kent and Sussex Counties, Delaware: Delaware Geological Survey Digital Product DP 02-01.

Andres, A.S., and Klingbeil, A.D., 2006, Thickness and transmissivity of the unconfined aquifer of eastern Sussex County, Delaware: Delaware Geological Survey Report of Investigations No. 70, 19 p.

Ator, S. W., Denver, J. M., and Brayton, M. J., 2004, Hydrologic and geochemical controls on pesticide and nutrient transport to two streams on the Delmarva Peninsula: U.S. Geological Survey Scientific Investigations Report 2004-5051, 34 p.

Ator, S.W., and Denver, J.M., 2012, Estimating contributions of nitrogen and herbicides from groundwater to headwater streams, Northern Atlantic Coastal Plain: Journal of the American Water Resources Association, v. 48, no. 6, p. 1075-1090.

Böhlke, J.,K., 2002, Groundwater recharge and agricultural contamination: Hydrogeology Journal, v. 10, no. 1, p. 153-179, accessed March 4, 2021, at https://doi.org/ 10.1007/s10040-001-0183-3.

Clune, J.W., and Denver, J.M., 2012, Residence time, themical and isotopic analysis of nitrate in the groundwater and surface water of a small, agricultural watershed in the Coastal Plain, Bucks Branch, Sussex County, Delaware: U.S. Geological Survey Scientific Investigations Report 2012-5235, 15p., http://pubs.usgs.gov/sir/2012/5235.

Denver, J. M., 1986, Hydrogeology and geochemistry of the unconfined aquifer, west-central and southwestern Delaware:

Delaware Geological Survey Report of Investigations No. 41, 100 p.

Denver, J.M., Ator, S.W., Debrewer, L.M., Ferrari, M.J., Barbaro, J.R., Hancock, T.C., Brayton, M.J., and Nardi, M.R., 2004, Water quality in the Delmarva Peninsula, Delaware, Maryland, and Virginia, 1999-2001: U.S. Geological Survey Circular 1228, 36 p.

Denver, J.M., Ator, S.W., Fischer, J.M., Harned, D.C., Schubert, Christopher, and Szabo, Zoltan, 2014, The quality of our Nation's waters—Water quality in the Northern Atlantic Coastal Plain surficial aquifer system, Delaware, Maryland, New Jersey, New York, North Carolina, and Virginia, 1988-2009: U.S. Geological Survey Circular 1353, 88 p., http://dx.doi.org/10.3133/cir1353.

Dubrovsky, N.M., Burow, K.R., Clark, G.M., Gronberg, J.M., Hamilton P.A., Hitt, K.J., Mueller, D.K., Munn, M.D., Nolan, B.T., Puckett, L.J., Rupert, M.G., Short, T.M., Spahr, N.E., Sprague, L.A., and Wilber, W.G., 2010, The quality of our Nation's waters—Nutrients in the Nation's streams and groundwater, 1992-2004: U.S. Geological Survey Circular 1350, 174 p.

DNREC, 1998, Total maximum daily load (TMDL) analysis for Indian River, Indian River Bay, and Rehoboth Bay, Delaware: Department of Natural Resources and Environmental Control, unpublished report, 3 sections, 2 appendices.

DNREC, 2001, Inland Bays/Atlantic Ocean Basin Assessment Report, 227 p.

DOSPC, 1999, 1997 land use and land cover data: Delaware Office of State Planning Coordination.

Aerial Information Systems, 2023, 2017 Land Use Land Cover (updated September 2023). Retrieved from https://de-firstmap-delaware.hub.arcgis.com/maps/delaware::delaware-landuse-landcover-multiple-years-/about

Fleming, B.J., Mensch, L.L., Denver, J.M., Cruz, R.M., and Nardi, M.R., 2017, Water quality in the surficial aquifer near agricultural area in the Delaware Coastal Plain, 2014: U.S. Geological Survey Scientific Investigations Report 2017-5054, 28 p., accessed September 13, 2021, at https://doi.org/10.3133/sir20175054.

Gilliom, R.J., Alley, W.M., and Gurtz, M.E., 1995, Design of the National Water-Quality Assessment Program: Occurrence and distribution of water-quality conditions: U.S. Geological Survey Circular 1112, 33 p.

Hallberg, G.R., and Keeney, D.R., 1993, Nitrate, in Alley, W.M., ed., Regional Ground-Water Quality, Van Nostrand Reinhold, New York, 634 p.

Hamilton, P. A., Denver, J. M., Phillips, P. J., and Shedlock, R. J., 1993, Water-quality assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia - effects of agricultural activities on, and distribution of, nitrate and other inorganic constituents in the surficial aquifer: U.S. Geological Survey Open-File Report 93-90, 87 p.

Hamilton, P. A., and Denver, J. M., 1990, Effects of land use on shallow ground-water quality, Delmarva Peninsula, Delaware, Maryland, and Virginia: Ground Water, v. 28, no. 5, p. 789.

He, C., and Andres, A.S., 2015, Simulation of groundwater flow and contaminant transport in eastern Sussex County, Delaware with emphasis on impacts of

spray irrigation of treated wastewater: Delaware Geological Survey Report of Investigations No. 79, 19 p.

Hounslow, A. W., 1995, Water quality data; analysis and interpretation: New York, Lewis Publishers, 397 p.

Johnston, R.H., 1973, Hydrology of the Columbia (Pleistocene) deposits of Delaware: An appraisal of a regional water-table aquifer: Delaware Geological Survey Bulletin No. 14, 78 p.

Johnston, R.H., 1976, Relation of ground water to surface water in four small basins of the Delaware Coastal Plain: Delaware Geological Survey Report of Investigations No. 24, 56 p.

Kasper, J.W., 2023, Water quality from domestic wells in the surficial aquifer, Nanticoke River watershed, Sussex and Kent County, Delaware: Results of sampling, 2021-22, with comparisons to previous sampling in 2011: Department of Natural Resources and Environmental Control, Division of Water, Commercial and Government Services Section, 34 p.

Kasper, J.W., and Strohmeier, S.A., 2007, Ground-water-quality survey of the Indian River Bay watershed, Sussex County, Delaware: Results of sampling, 2001-03: Department of Natural Resources and Environmental Control Document No. 40-08-05/07/03/01, 57 p.

Kasper, J. W., and McCleary, B. O., 2001 (as revised), Quality assurance project plan for a ground-water-quality survey of the Indian River, Indian River Bay, and Iron Branch watersheds, Sussex County, Delaware: Department of Natural Resources and Environmental Control, unpublished report, 21 p.

McCleary, B. O., 1999, Quality assurance management plan for laboratory and field operations: Department of Natural Resources and Environmental Control, unpublished report, 62 p.

NOAA National Centers for Environmental information, 2025, Climate at a Glance: Statewide Time Series, published September 2025.

Piper, A. M., 1944, A graphic procedure in the geochemical interpretation of water analyses: American Geophysical Union, Transactions, v. 27, p. 914-923.

Ramsey, K. W., 2001, Geologic map of the Ellendale and Milton quadrangles, Delaware: Delaware Geologic Map Series No. 11, scale 1:24,000.

Ramsey, K. W., and Schenck, S. W., 1990, Geologic map of southern Delaware: Delaware Geological Survey Open File Report No. 32, scale 1:100,000.

Ritter, W. F., and Chirnside, A. E. M., 1982, Groundwater quality in selected areas of Kent and Sussex counties, Delaware: Newark, Delaware, University of Delaware Agricultural Engineering Department, 229 p.

Ritter, W.F., and Chirnside, A.E.M.,1984, Impact of land use on ground-water quality in southern Delaware: Ground Water, v. 22, no. 1, p. 38-47.

Robertson, F.N., 1977, The quality and potential problems of ground water in coastal Sussex County, Delaware: Newark, Delaware, University of Delaware Water Resources Center, 58 p.

Robertson, F.N., 1979, Evaluation of nitrate in ground in the Delaware Coastal Plain: Ground Water, v. 17, no. 4, p. 328-337.

Shedlock, R.J., Hamilton, P.A., Denver, J.M., and Phillips, P.J., 1993, Multiscale approach to regional ground-water-quality assessment of the Delmarva Peninsula, *in* Alley, W.M., ed., Regional Ground-Water Quality, Van Nostrand Reinhold, New York, 634 p.

Shedlock, R.J., Denver, J.M., Hayes, M.A., Hamilton, P.A., Koterba, M.T., Bachman, L.J., Phillips, P.J., and Banks, W.S.L., 1999, Water-quality assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia: Results of investigations, 1987-91: U.S. Geological Survey Water-Supply Paper 2355-A, 41 p.

Soroka, A.M., Reyes, B., Fleming, B., and Brownley, M., 2024, Comparison of water quality in shallow groundwater near agricultural areas in the Delaware Coastal Plain, 2014 and 2019: U.S. Geological Survey Scientific Investigations Report 2024-5076, 23 p.

Stosch, H.-G., 2025, Excel template to plot hydrochemical data into a Piper diagram. Zenodo. https://doi.org/10.5281/zenodo.15812942

Talley, J. H., 1988, Geohydrology of the southern coastal area, Delaware - Sheet 2, Geohydrology of the Columbia aquifer: Delaware Geological Survey Hydrologic Map Series No. 7, scale 1:24,000

U.S. Environmental Protection Agency, 2024, National Primary Drinking Water Regulations (updated December 12 2024), https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations

U.S. Environmental Protection Agency, 2018, 2018 Edition of the Drinking Water Standards and Health Advisories Tables (amended March 2018), 20 p.

U.S. Environmental Protection Agency, 2008, Nitrogen and Phosphorus in Streams in Agricultural Watersheds, 9 p.

U.S. Geological Survey Water Science School, 2018, Hardness of Water, https://www.usgs.gov/water-science-school/science/hardness-water#overview

Ward, M. H., Mark, S. D., Cantor, K. P., Weisenburger, D. D., Correa-Villasenor, A., and Zahm, S. H., 1996, Drinking water nitrate and the risk of non-Hodgkin's lymphoma: Epidemiology, v. 7, no. 5, p. 465-471.

Walch, M., McGowan, A., Swanger, L., Chaney, C., and Gross, M., 2023, State of Delaware Inland Bays, 2021, Delaware Center for the Inland Bays, 104 p.

Weyer, P. J., Cerhan, J. R., Kross, B. C., Hallberg, G. R., Kantamneni, J., Breuer, G., Jones, M. P., Zheng, W., and Lynch, C. F., 2001, Municipal drinking water nitrate levels and cancer risk in older women: the Iowa women's health study: Epidemiology, v. 11, no. 3, p. 327-338.

Wilcoxon, F., 1945, Individual Comparisons by Ranking Methods, Biometrics Bulletin, v. 1, no. 6, p. 80-83. https://doi.org/10.2307/3001968

Appendix 1. Water quality data for domestic wells within the surficial aquifer in the Indian River Bay Watershed, 2024. Part 1: Well IDs 3975 – 11226.

[**Local ID**, well ID used in Kasper and Strohmeier's 2007 report; **Easting** and **Northing**: Delaware State Plane coordinates in meters (**m**), North American Datum of 1983 (NAD83); **ft bgs**, feet below ground surface; **µS/cm**, microsiemens per centimeter; **°C**, degrees Celsius; **mg/L**, milligrams per liter; **µg/L**, micrograms per liter; **TDS**, total dissolved solids; **<**, less than – used when concentration is below method detection limit (result reported as < MDL); **J**, estimated value – concentration is less than quantitation limit and greater than MDL; **—**, no data]

Well ID	Local ID	Easting (m)	Northing (m)	Sample Date	Midpoint of screen interval (ft. bgs)	Spec. Cond. (µS/cm)	pH	Temp. (°C)	Dissolved Oxygen (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Chloride, dissolved (mg/L)
3975	IRB-156	228950	63415.7	8/8/24	58	77.67	4.79	16.25	2.83	4.8	17
4387	IRB-247	212109	66741	8/22/24	60	783.83	4.99	16	7.92	4.3	244
32804	IRB-220	226255	65328.7	8/13/24	70	119.33	5.16	16.5	0.62	12.4	21
39259	IRB-153	229581	64646.1	8/5/24	31	330.7	5.43	16.38	7.2	4.7	135
43749	IRB-223	217538	58685.3	8/19/24	49	150.42	6.23	16.29	6.81	< 2.3	10
51355	IRB-070	228906	62731.4	8/8/24	64	121.2	5.16	16.04	4.83	5.6	22
58023	IRB-135	214116	64237.1	8/8/24	61	186.66	6.1	17.37	6.62	51.9	53
63402	IRB-052	215415	67961.4	8/20/24	64	92.64	5.35	16.42	9.11	5.3	11
64197	IRB-051	216638	67718	8/5/24	53	85.58	5.44	16.01	5.66	7.9	14
66064	IRB-255	217412	65870.5	8/20/24	95	114.1	5.6	16.19	6.61	16.1	21
71393	IRB-252	207447	63341.4	8/19/24	49	178.61	3.55	17.36	5.4	34.6	56
79795	IRB-154	229505	63595.7	8/13/24	97	119.35	5.49	16.62	3.21	6.6	12
80606	IRB-253	215696	69345.5	8/20/24	55	102.02	—	15.18	6.56	7.3	20
84089	IRB-184	205477	75530	7/11/24	57	208.88	5.36	15.74	7.34	< 2.3	10
88432	IRB-206	204728	72571.7	7/30/24	60	95.04	5.48	17.44	8.98	7.1	20
92926	IRB-215	220188	62194.2	7/24/24	75	233.35	5.34	18.09	7.51	5.8	26
95710	IRB-228	208070	76157.9	7/11/24	60	67.36	4.75	16.5	9.66	4.9	39
105358	IRB-143	206167	63944.7	8/26/24	65	157.7	4.93	16.74	4.83	7.5	25
107017	IRB-209	209012	66238.2	8/1/24	55	98.79	5.24	16.4	8.31	4.1	12
108046	IRB-038	217353	59516	8/13/24	60	123.34	4.91	16.63	5.6	3.5	14
110787	IRB-254	216874	66624	8/5/24	63	142.99	5.34	15.7	6.26	6.9	34
110928	IRB-042	218920	68671.9	8/20/24	75	64.88	4.61	16.15	7.08	3.5	14
111327	IRB-059	227130	60042.8	8/26/24	65	65.41	5.42	16.69	4.02	10.2	8
112226	IRB-155	229177	63440.7	8/19/24	85	100.63	2.07	16.28	0.37	10.5	21

Appendix 1 *(Continued)*. Water quality data for domestic wells within the surficial aquifer in the Indian River Bay Watershed, 2024. Part 1: Well IDs 3975 – 112226.

Ammonia as nitrogen, dissolved (mg/L)	Nitrate as nitrogen, dissolved (mg/L)	Phosphorus, dissolved (mg/L)	Silica as SiO2, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Calcium, dissolved (µg/L)	Iron, dissolved (µg/L)	Magnesium, dissolved (µg/L)	Potassium, dissolved (µg/L)	Sodium, dissolved (µg/L)	TDS (mg/L)
< 0.010	4.66	< 0.006	13.5	2	1820	< 18.2	2450	1960	13400	50
< 0.010	21.3	< 0.006	13.6	98.5	34400	< 18.2	14100	21200	126000	510
< 0.010	7.35	0.018	18.9	2.4	3240	< 18.2	4200	2480	18700	80
< 0.010	2.51	< 0.006	13.7	5.1	16200	< 18.2	8430	4280	51700	210
< 0.010	6.02	0.011	13.5	18.3	6080	< 18.2	5940	2120	32300	100
< 0.010	3.32	0.011	16.7	22.9	5230	< 18.2	6000	2350	16100	80
< 0.010	1.33	0.063	14.4	< 1.0	< 1000	< 18.2	< 1000	<1000	55000	120
< 0.010	7.33	0.015	18.5	14.7	10700	< 18.2	4300	1610	5340	60
< 0.010	3.9	0.015	23.8	10.7	7410	< 18.2	3650	1530	8230	60
< 0.010	4.29	0.015	13.6	12	6670	< 18.2	3940	2460	13700	70
< 0.010	0.219	0.015	20	1	< 1000	< 18.2	< 1000	<1000	45500	120
< 0.010	7.44	0.013	12.9	21.2	7450	< 18.2	6710	1490	9650	80
< 0.010	3.94	0.022	19.2	13.3	7970	< 18.2	3890	2100	8880	70
< 0.010	6.99	0.013	14.6	3.2	< 1000	< 18.2	< 1000	1770	16600	140
< 0.010	8.5	< 0.006	16	1.1	12700	< 18.2	2500	3360	7090	60
< 0.010	27.5	0.013	29.5	2.8	30600	< 18.2	8990	2180	14800	150
< 0.010	14.9	0.014	26.3	19.4	20400	< 18.2	5670	4370	21300	40
< 0.010	16.9	0.014	19.7	< 1.0	13000	< 18.2	6740	4530	6720	100
< 0.010	8.23	0.007 J	15.4	8.9	7660	< 18.2	6510	2080	4570	60
< 0.010	11.5	0.014	18.6	4.1	9940	< 18.2	6100	2200	7460	80
< 0.010	5.35	0.011	24.5	14.1	12000	< 18.2	4680	2340	16400	90
< 0.010	5.22	0.012	13	< 1.0	5520	< 18.2	2600	2560	4430	40
< 0.010	1.91	0.019	16.4	20.2	6290	35.1 J	3750	1350	6300	40
< 0.010	4.16	0.016	18.1	9.5	5460	< 18.2	3150	2210	12800	70

Appendix 1 *(Continued)*. Water quality data for domestic wells within the surficial aquifer in the Indian River Bay Watershed, 2024. Part 2: Well IDs 156299 – 188484.

Well ID	Local ID	Easting (m)	Northing (m)	Sample Date	Midpoint of screen interval (ft. bgs)	Spec. Cond. (µS/cm)	pH	Temp. (ºC)	Dissolved Oxygen (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Chloride, dissolved (mg/L)
156299	IRB-013	207958.4	71268.53	8/21/24	74	191.52	5.3	16.38	5.96	10	31
159113	IRB-063	215989.8	62241.81	8/5/24	55	307.23	4.67	16.5	5.07	< 2.3	88
159582	IRB-250	213019.8	70830.47	8/22/24	45	53.43	4.79	15.32	8.53	< 2.3	< 5
159625	IRB-138	204660.3	71322.27	7/30/24	55	247.57	4.68	15.6	2.89	< 2.3	27
160251	IRB-006	212259.8	74619.14	8/22/24	61	66.54	5.52	15.83	4.78	11.2	10
160538	IRB-097	208397.5	67963.22	8/1/24	55	100.05	5.07	16.13	6.15	7.9	27
160619	IRB-159	228306.6	60065.62	8/26/24	57	210.54	7.57	22.78	4.33	93.9	38
161412	IRB-181	207880.2	63860.86	7/30/24	75	90.1	5.09	16.18	4.11	12	18
163704	IRB-099	229392.1	63757.13	8/8/24	59	989.3	4.97	17.96	6.01	3.5	409
164571	IRB-019	221846.6	62818.12	8/26/24	75	67.16	5.53	15.99	2.92	12.9	12
166111	IRB-077	226041.4	63965.53	8/8/24	75	136.64	4.93	16.58	1	5.2	18
167036	IRB-098	213371.5	63444.65	8/1/24	45	174.47	4.54	15.66	2.79	< 2.3	28
168759	IRB-204	218687.7	63393.98	8/26/24	65	146.53	5.4	16.65	4.03	11.4	19
169545	IRB-043	227473	62457.4	7/23/24	73	82.99	5.21	15.6	2.41	12.8	14
171337	IRB-020	222331.9	62148.38	8/26/24	65	349.07	5.39	16	1.04	16.5	109
172645	IRB-054	208388.5	74759.73	8/22/24	45	46.39	5.01	15.57	5.42	8.9	< 5
172864	IRB-229	213391	72126.17	7/30/24	47	91.21	5.54	16.78	5.9	12.5	25
173433	IRB-221	225962.1	65212.11	8/13/24	60	120.14	4.89	14.87	4.06	6.3	31
174006	IRB-140	202345.5	62529.4	8/21/24	63	139.44	6.13	15.55	7.85	31.5	13
174021	IRB-211	217905.6	59070.46	8/13/24	72	98.52	4.76	16.35	9.13	2.7	9
174733	IRB-207	205474.7	71672.27	7/30/24	57	149.24	4.9	16.55	7.54	2.8	15
175485	IRB-175	209761.2	63260.53	8/21/24	35	93	4.9	16.92	1.75	7.9	14
176800	IRB-095	223159.5	61423.4	7/23/24	70	129.28	5.29	15.86	4.2	11.4	30
183883	IRB-245	216744	61555.12	7/24/24	55	169.33	4.96	18.79	8.06	2.9	36
184654	IRB-216	219745.6	61889.62	7/24/24	52	173.39	5.27	17.46	6.53	6.2	30
184953	IRB-203	217871.5	58924.93	7/23/24	55	102.53	4.86	17.4	2.53	4.1	19
188484	IRB-232	208143.7	72864.47	8/5/24	55	65.53	5.49	16.12	4.26	13.7	9

Appendix 1 *(Continued)*. Water quality data for domestic wells within the surficial aquifer in the Indian River Bay Watershed, 2024. Part 2: Well IDs 156299 – 188484.

Ammonia as nitrogen, dissolved (mg/L)	Nitrate as nitrogen, dissolved (mg/L)	Phosphorus, dissolved (mg/L)	Silica as SiO2, dissolved (mg/L)	Sulfate, dissolved (mg/L)	Calcium, dissolved (µg/L)	Iron, dissolved (µg/L)	Magnesium, dissolved (µg/L)	Potassium, dissolved (µg/L)	Sodium, dissolved (µg/L)	TDS (mg/L)
< 0.010	20.1	0.018	26.5	< 1.0	23300	< 18.2	4780	2560	13300	120
< 0.010	10.4	< 0.006	9.5	29	2050	< 18.2	2810	5370	71500	200
< 0.010	3	0.008 J	8.6	12.3	2530	< 18.2	2710	2120	4020	30
< 0.010	30.5	0.054	15.5	< 1.0	20300	< 18.2	15200	6330	10100	160
< 0.010	4.77	0.016	20.3	2	5640	< 18.2	1440	1680	7620	40
< 0.010	3.88	0.009 J	21.2	4.5	5230	< 18.2	2660	2400	14600	60
0.035	1.59	0.151	26	2.1	12500	< 18.2	2540	2550	42400	140
< 0.010	5.03	0.01	23.9	1.6	5660	< 18.2	2270	2900	12600	60
< 0.010	7.8	< 0.006	15.1	8.1	31200	< 18.2	32300	12600	165000	640
< 0.010	2.6	0.021	22.4	5.1	3770	< 18.2	1440	1220	10500	40
< 0.010	8.36	0.01	18.2	16.7	7150	< 18.2	8060	3350	13000	90
< 0.010	12.9	< 0.006	14.1	17.9	10900	< 18.2	4230	6700	20500	110
< 0.010	15.1	0.017	23.4	1.9	15200	< 18.2	3480	2310	12200	100
< 0.010	4.9	0.018	27.2	2.1	4490	< 18.2	1400	1370	16000	50
< 0.010	8.44	0.018	19.2	16.1	6920	< 18.2	2910	3880	71400	230
< 0.010	0.355	0.017	18.4	12.9	2140	< 18.2	1070	4330	5350	30
< 0.010	2.5	0.012	17.3	3.1	8340	< 18.2	1820	2130	11400	60
< 0.010	5.91	0.013	16.7	1	4500	< 18.2	3610	2240	17000	80
< 0.010	8.83	0.014	17.9	10.4	19800	< 18.2	4700	3240	5500	90
< 0.010	7.91	0.022	14.8	12.2	4890	< 18.2	6950	2500	5150	60
< 0.010	18.4	0.007 J	17.8	< 1.0	15800	< 18.2	5600	3630	9490	100
< 0.010	5.04	0.015	16.7	15.4	< 1000	< 18.2	< 1000	<1000	24300	60
< 0.010	7.74	0.015	24.3	7.5	13200	< 18.2	3420	1640	15000	80
< 0.010	11.1	0.009 J	13.6	14.1	8400	< 18.2	8410	4900	19700	110
< 0.010	12.5	0.012	24.6	18.2	21000	< 18.2	6810	2140	13500	110
< 0.010	3.8	0.009 J	14.7	17.3	7280	< 18.2	6040	1940	8950	70
< 0.010	4.34	0.013	22.3	< 1.0	6040	< 18.2	1290	1800	8890	40

Appendix H: External Data

Submitted Data and Reports

Public Notice Documentation

LocaliQ
DELAWARE
GANNETT

PO Box 631699 Cincinnati, OH 45263-1699

AFFIDAVIT OF PUBLICATION

Kim Stangl
Sd Soil Water Dnrec
97 Commerce WAY # 106
Dover DE 19904-7794

STATE OF DELAWARE, COUNTY OF NEW CASTLE

The Wilmington News Journal is a daily newspaper of general circulation, printed and published in the State of Delaware; that the publication, a copy of which is attached hereto, was published in the said newspaper in the issues dated:

08/08/2025

Sworn to and subscribed before on 08/08/2025

Legal Clerk

Notary, State of WI, County of Brown

My commission expires

Publication Cost:	$295.40	
Tax Amount:	$0.00	
Payment Cost:	$295.40	
Order No:	11559432	# of Copies:
Customer No:	905995	1
PO #:	Assessment Methodolo	

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

VICKY FELTY
Notary Public
State of Wisconsin

DNREC – Division of Watershed Stewardship
Watershed Assessment Branch

PUBLIC NOTICE

DELAWARE'S 2026 DRAFT 305(B) AND 303(D) WATERS ASSESSMENT METHODOLOGIES AND DATA SOLICITATION

This notice announces the availability and opportunity to comment on the Delaware Department of Natural Resources and Environmental Control's Draft Assessment and Listing Methodologies for Delaware's 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs (the Integrated Report). EPA's Integrated Reporting Guidance documents are available online at www.epa.gov/tmdl/identifying-and-listing-impairedwaters-under-clean-water-act.

The Department plans to have a draft Integrated Report ready for public comment by January 2026.

The Draft Assessment Methodologies document is available on the Department's website at https://documents.dnrec.delaware.gov/Watershed/Assessment/2026DRAFT-Integrated-Report-Assessment-Methodologies.pdf.

Related documents and prior Integrated Reports are available on the Department's website at dnrec.delaware.gov/watershed-stewardship/assessment/reports/.

Additionally, the Department is soliciting additional data or information from the public that may not already be considered for the Draft Integrated Report. The Department has developed an external data policy, explaining how any data received will be used. The policy can be found on the Department's website at https://documents.dnrec.delaware.gov/Watershed/Assessment/External-DataPolicy.pdf. Please contact the Department not later than September 8, 2025, to submit pertinent data and information.

All comments on the Assessment Methodologies document and any additional data received on or prior September 8, 2025, will be considered in developing the Integrated Report. Comments and data may be sent to Dr. Bhanu Paudel by mail at DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 or email at SurfaceWQS@delaware.gov. Electronic submissions are preferred.

Please call Dr. Paudel at (302) 739-9939 with questions or requests for additional information.

DNREC Notice No. WSS20250294
View DNREC's non-discrimination policy at
https://de.gov/titlevi

8/8-NJ

Arizona • Delaware • Florida • Maryland
Delaware Printing Company • Valley Newspapers
INDEPENDENT NEWSMEDIA
Celebrating & Connecting Our Communities

Proof of Publication

8/8/2025

State of Delaware:

County of Kent:

Before me, a Notary Public, for the County and State aforesaid. Tonda L. Parks, known to me to be such, who being sworn according to law deposed and says that she is the Associate Publisher of **Daily State News**, a daily newspaper published at Dover, County of Kent, and State of Delaware, and that the notice, a copy of which is hereto attached, as published in the **Daily State News** in its issue(s) of
BaytoBayNews.com: 8/8/2025
DSN: 8/8/2025 .

Tonda L. Parks
Associate Publisher
Independent Newsmedia Inc. USA

Sworn to and subscribed before me this 8/8/2025

ROXANNE BROOKS NOTARY PUBLIC STATE OF DELAWARE MY COMMISSION EXPIRES 03/09/2029

Roxanne Brooks

Notary Public this date of 8/8/2025

Name	DNREC WATERSHED ASSESSMENT SECTION
Order Number	27937
Ordered By	KIM STANGL
Order Date	8/5/2025
Description	DNREC/Watershed Assessment
Number Issues	2
Pub Count	2
Ad Cost	$190.20
First Issue	8/8/2025
Last Issue	8/8/2025
Publications	BaytoBayNews.com, DSN
Pub Dates	BaytoBayNews.com: 8/8/2025 DSN: 8/8/2025

DNREC-Division of Watershed Stewardship Watershed Assessment Branch

PUBLIC NOTICE

DELAWARE'S 2026 DRAFT 305(B) AND 303(D) WATERS ASSESSMENT METHODOLOGIES AND DATA SOLICITATION

This notice announces the availability and opportunity to comment on the Delaware Department of Natural Resources and Environmental Control's Draft Assessment and Listing Methodologies for Delaware's 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs (the Integrated Report). EPA's Integrated Reporting Guidance documents are available online at www.epa.gov/tmdl/identifying-and-listing-impaired- waters-under-clean-water-act.

The Department plans to have a draft Integrated Report ready for public comment by January 2026.

The Draft Assessment Methodologies document is available on the Department's website at https://documents.dnrec.delaware.gov/Watershed/Assessment/2026-DRAFT-Integrated-Report-Assessment-Methodologies.pdf.

Related documents and prior Integrated Reports are available on the Department's website at dnrec.delaware.gov/watershed-stewardship/assessment/reports/.

Additionally, the Department is soliciting additional data or information from the public that may not already be considered for the Draft Integrated Report. The Department has developed an external data policy, explaining how any data received will be used. The policy can be found on the Department's website at https://documents.dnrec.delaware.gov/Watershed/Assessment/External-Data-Policy.pdf. Please contact the Department not later than September 8, 2025, to submit pertinent data and information.

All comments on the Assessment Methodologies document and any additional data received on or prior September 8, 2025, will be considered in developing the Integrated Report. Comments and data may be sent to Dr. Bhanu Paudel by mail at DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 or email at SurfaceWQS@delaware.gov. Electronic submissions are preferred.

Please call Dr. Paudel at (302) 739-9939 with questions or requests for additional information.

DNREC Notice No. WSS20250294
View DNREC's non-discrimination policy at https://de.gov/titlevi
27937 DSN 8/8/2025

DNREC – Division of Watershed Stewardship
Watershed Assessment Branch

PUBLIC NOTICE

DELAWARE'S 2026 DRAFT 305(B) AND 303(D) WATERS ASSESSMENT METHODOLOGIES AND DATA SOLICITATION

This notice announces the availability and opportunity to comment on the Delaware Department of Natural Resources and Environmental Control's Draft Assessment and Listing Methodologies for Delaware's 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs (the Integrated Report). EPA's Integrated Reporting Guidance documents are available online at www.epa.gov/tmdl/identifying-and-listing-impaired-waters-under-clean-water-act.

The Department plans to have a draft Integrated Report ready for public comment by January 2026.

The Draft Assessment Methodologies document is available on the Department's website at https://documents.dnrec.delaware.gov/Watershed/Assessment/2026-DRAFT-Integrated-Report-Assessment-Methodologies.pdf.

Related documents and prior Integrated Reports are available on the Department's website at dnrec.delaware.gov/watershed-stewardship/assessment/reports/.

Additionally, the Department is soliciting additional data or information from the public that may not already be considered for the Draft Integrated Report. The Department has developed an external data policy, explaining how any data received will be used. The policy can be found on the Department's website at https://documents.dnrec.delaware.gov/Watershed/Assessment/External-Data-Policy.pdf. Please contact the Department not later than September 8, 2025, to submit pertinent data and information.

All comments on the Assessment Methodologies document and any additional data received on or prior September 8, 2025, will be considered in developing the Integrated Report. Comments and data may be sent to Dr. Bhanu Paudel by mail at DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 or email at SurfaceWQS@delaware.gov. Electronic submissions are preferred.

Please call Dr. Paudel at (302) 739-9939 with questions or requests for additional information.

DNREC Notice No. WSS20250294
View DNREC's non-discrimination policy at https://de.gov/titlevi

DNREC – Divizyon Administrasyon Basen Dlo

Sikisal Evalyasyon Basen Dlo

NOTIFIKASYON PIBLIK

PREMYE VÈSYON PWOJÈ 305(B) AK 303(D) AN 2026 NAN DELAWARE SOU METODOLOJI EVALYASYON DLO AK SOLISITASYON DONE

Notifikasyon sa a anonse disponiblite ak opòtinite pou fè kòmantè sou Premye Vèsyon Evalyasyon ak Metodoloji Referansman ki soti nan men Depatman Resous Natirèl ak Kontwòl Anviwònmantal la pou Rapò Konbine an 2026 nan Delaware sou Evalyasyon Basen Dlo (305 (b)) ak Detèminasyon pou Seksyon Lwa Dlo Pwòp 303 (d) Lis Mas Dlo ki Bezwen TMDLs (Rapò Entegre a). Dokiman sou Oryantasyon Rapò Entegre ki soti nan EPA a disponib anliy sou www.epa.gov/tmdl/identifying-and-listing-impaired- waters-under-clean-water-act.

Depatman gen plan pou l gen yon premye vèsyon Rapò Entegre prè pou kòmantè piblik apati Janvye 2026.

Dokiman Premye Vèsyon Metodoloji Evalyasyon disponib sou sit wèb Depatman an nan https://documents.dnrec.delaware.gov/Watershed/Assessment/2026-DRAFT-Integrated-Report-Assessment-Methodologies.pdf.

Dokiman ki lye ak ansyen Rapò Entegre disponib sou sit wèb Depatman an nan dnrec.delaware.gov/watershed-stewardship/assessment/reports/.

Adisyonèlman, Depatman an ap solisite done ouyben enfòmasyon adisyonèl nan men piblik la ki ka petèt poko konsidere pou Premye Vèsyon Rapò Entegre a. Depatman an te devlope yon politik done ekstèn, ki eksplike kijan nenpòt done yo resevwa pral itilize.
Ou ka jwenn regleman an sou sit wèb Depatman an nan https://documents.dnrec.delaware.gov/Watershed/Assessment/External-Data-Policy.pdf. Tanpri kontakte Depatman an pa pita pase 8 Septanm 2025, pou w soumèt done ak enfòmasyon apwopriye.

Tout kòmantè sou dokiman Metodoloji Evalyasyon ak nenpòt done adisyonèl ki resevwa nan dat oubyen anvan 8 septanm 2025 pral konsidere nan kad devlopman Rapò Entegre a. Ou ka voye kòmantè oubyen done bay Dr. Bhanu Paudel atravè lapòs nan DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 oubyen voye yon imel nan SurfaceWQS@delaware.gov. Nou prefere mesaj elektwonik.

Tanpri rele Dr. Paudel nan (302) 739-9939 ak kesyon oubyen demann pou enfòmasyon adisyonèl.

DNREC – División de Administración de Cuencas
Sección de Evaluación y Gestión de Cuencas

AVISO PÚBLICO

METODOLOGÍAS DE EVALUACIÓN DE AGUAS Y SOLICITUD DE DATOS PARA EL INFORME 305(b)/303(d) DE DELAWARE VERSIÓN PRELIMINAR 2026

Este aviso anuncia la disponibilidad y la oportunidad de enviar comentarios sobre la Versión Preliminar de las Metodologías de Evaluación y Listado del Departamento de Recursos Naturales y Control Ambiental (*Department of Natural Resources and Environmental Control*, DNREC), correspondientes al Informe Integrado de Evaluación de Cuencas 2026 de Delaware (305(b)) y a la Determinación conforme a la Sección 303(d) de la Ley de Agua Limpia (*Clean Water Act*, CWA), que identifica los cuerpos de agua que requieren la elaboración de Límites Máximos de Carga Diaria (*Total Maximum Daily Load*, TMDL). Los documentos de orientación de la Agencia de Protección Ambiental (*Environmental Protection Agency*, EPA) sobre la elaboración de informes integrados están disponibles en línea en www.epa.gov/tmdl/identifying-and-listing-impaired-waters-under-clean-water-act.

El Departamento tiene previsto contar con una versión preliminar del Informe Integrado disponible para comentarios públicos en enero de 2026.

El documento con las Metodologías de Evaluación – Versión Preliminar está disponible en el sitio web del Departamento en https://documents.dnrec.delaware.gov/Watershed/Assessment/2026-DRAFT-Integrated-Report-Assessment-Methodologies.pdf.

Los documentos relacionados y los Informes Integrados anteriores están disponibles en el sitio web del Departamento dnrec.delaware.gov/watershed-stewardship/assessment/reports/.

Además, el Departamento está solicitando datos o información adicional del público que aún no se haya considerado para la elaboración del Informe Integrado que se encuentra en su fase preliminar. El Departamento ha desarrollado una política de uso de datos externos, en la que se explica cómo se utilizarán los datos recibidos.

La política está disponible en el sitio web del Departamento en https://documents.dnrec.delaware.gov/Watershed/Assessment/External-Data-Policy.pdf. Le solicitamos comunicarse con el Departamento a más tardar el 8 de septiembre de 2025 para enviar datos e información pertinentes.

Todos los comentarios sobre el documento de Metodologías de Evaluación, así como cualquier dato adicional recibido hasta o antes del 8 de septiembre de 2025, se tomarán en cuenta en la elaboración del Informe Integrado. Los comentarios y datos pueden enviarse al Dr. Bhanu Paudel por correo postal a: DNREC / División de Administración de Cuencas, Sección de Evaluación y Gestión de Cuencas, 285 Beiser Blvd., Suite 102, Dover, DE 19904 o por correo electrónico a SurfaceWQS@delaware.gov. Se recomienda el envío electrónico.

Si tiene preguntas o desea solicitar información adicional, comuníquese con el Dr. Paudel al (302) 739-9939.

Submitted Comments

From: Ann Burruss, Conservation Committee Chair, Sierra Club Delaware Chapter
Dr. Michael Waldon, Member, Sierra Club Delaware Chapter
To: Dr. Bhanu Paudel, Watershed Assessment and Management Section
SurfaceWQS@delaware.gov
Date: September 6, 2025
RE: Comments on 2026 draft 305(b) and 303(d) listing methodology

On August 8, DNREC announced[1] the availability and opportunity to comment on "Delaware's 2026 Draft 305(b) and 303(d) Waters Assessment Methodologies and Data Solicitation." In our comments we will refer to DNREC's draft document as the "Draft Methodologies."

Thank you for the opportunity to comment on how the listings will be created. Allowing public comment on the methods used to develop the lists, in addition to commenting next year on the full draft Integrated Report (IR), demonstrates DNREC's sincere commitment to public involvement.

Overall Assessment

The 2026 Draft Methodologies are part of DNREC's compliance with Clean Water Act requirements for assessing Delaware water quality, and prioritizing pollution control efforts. Formalizing DNREC data acquisition and assessment processes facilitates the cyclical improvement of the biennial IR. Overall, the 2026 Draft Methodologies are clear, well written, and provide the detail required for development of the 2026 303(d) and 305(b) lists and IR. The decision diagrams are particularly valuable in clarifying how specific classifications will be performed.

Detailed Comments and Potential Improvements

1. Data Solicitation and Use:

- **Formalized External Data Policy:** The Draft Methodologies formalize the External Data Use Policy needed by both DNREC staff and contributors. The draft policy outlines requirements for external data to be considered "Tier-I" (for listing and assessment purposes), requiring precise documentation of methods and quality assurance plans. Data not meeting these criteria would be categorized as "Tier-II" and used only as supporting information.
- **Potential Deficiency:** The stringency of the External Data Policy could result in useful data being excluded, thus adding unnecessary uncertainty in classifications. While standardization is crucial, the strictness of the Tier-I requirements could be a deficiency if it inadvertently excludes valuable, albeit less formally documented, data from academic institutions, citizen science groups, or other organizations that may not have complete formal documentation of their methods or quality assurance procedures.
- **In the 2024 cycle**, the Department used data from the Center for the Inland Bays (CIB) but excluded data from other external sources (Adventure Scientist, University of

[1] https://dnrec.delaware.gov/public-notices/wss20250294/

Delaware Citizen Monitoring Program, White Clay Wild and Scenic River) because they were not raw data or were deemed "not representative of the entire waterbody" (e.g., bottom water samples). While the proposed policy aims to clarify this, DNREC should ensure that the policy's implementation fosters data sharing rather than creating barriers for comprehensive assessment.

- **Improvement suggested:**
    - **Citizen contributed data:** Data should not be lost because of a failure in formatting or because additional information is needed. In development of the 2026 Integrated Report, DNREC should correspond with all organizations submitting data that fails to meet DNREC data criteria to request additional missing or deficient information or documents. DNREC explicitly mentions working with CIB on "DO monitoring projects to offer insight on station placement and representativeness of ambient conditions". Such collaboration is vital and should *extend to other data contributors*. Describe these collaborations in the IR.
    - **Inter-agency Data Integration:** The Draft Methodologies state that DNREC will incorporate assessments from the Delaware River Basin Commission (DRBC) and the Chesapeake Bay Program (CBP) when provided. This is an essential cooperative step. DNREC did not receive these data in the 2024 cycle. Ensuring these data are consistently received and integrated will enhance the protection of our shared waterways. DNREC must be proactive in requesting additional information or revised data formats from contributors, and in acquiring inter-agency data as early as possible. Consider routing inter-agency data requests through the Office of the Secretary or regional EPA offices.

2. Assessment of Numeric and Narrative Non-Numeric Criteria:

- **Numeric Criteria:** The 2026 Draft Methodologies provide a clear approach to numeric criteria.
    - **Nutrient and Solids Assessment:** The Draft Methodologies outlines specific numeric criteria for assessing dissolved inorganic nitrogen (DIN) (0.14 mg/L) and dissolved inorganic phosphorus (DIP) (0.01 mg/L) in the Inland Bays, as well as total suspended solids (TSS) (20 mg/L). These are quantitative measures against which collected data are compared using statistical methods (e.g., 95% confidence levels).
    - **Human Health Criteria:** For human health criteria, the methodology focuses on long-term exposure, requiring at least two samples exceeding the criterion within a three-year period to identify a segment as a candidate for listing in Category 5.
- **Narrative Criteria:**
    - **Nuisance Species:** While the Delaware Surface Water Quality Standards (WQS) define "Nuisance Species" narratively as causing "unreasonable interference with the designated uses of the waters or the uses of adjoining land areas," including filamentous and blue-green algae, the 2026 Draft Methodologies primarily address this indirectly through numeric assessments of nitrogen and phosphorus (nutrients) and dissolved oxygen.

    - **Population Balance:** The Delaware Water Quality Standards[2] require assurance of “the protection and propagation of a balanced, indigenous population of fish, shellfish, aquatic vegetation, and wildlife, and provide for recreational activities in and on the water.”
    - **Designated Uses**: Delaware Water Quality Standards require[3] that waters must be free of any contaminants “that may interfere with attainment and maintenance of designated uses”
- **Improvement suggested:** The Draft Methodologies do not explicitly detail a direct assessment process for the *narrative* component of "nuisance species" or "unreasonable interference." An improvement should involve developing "narrative translators" or specific implementation processes, as seen in Minnesota's approach[4] for industrial and agricultural uses, which moved from numeric to narrative standards but developed detailed processes to interpret and apply them (e.g., for specific conductance). This could involve biological indicators, frequency/duration of algal blooms, or other qualitative/quantitative measures to directly assess the "nuisance" aspect beyond just nutrient concentrations.

3. Overlooked Important Contaminants:

Important contaminants are not addressed in the Draft Methodologies because Delaware has not established numerical criteria for these contaminants. Overlooking known contamination risks the failure to list impaired stream segments and consequently means impairment will not be addressed. When no numeric criterion has been established in the Delaware standards, the narrative criteria must be applied. One approach is to translate the narrative criteria into a numerical value for the contaminant of concern.

- **Significant Omission: Salt/Chloride:** Salt is one example of an overlooked contaminant. Salinization of our streams is a growing concern.[5] A critical deficiency in the Draft Methodologies is the absence of explicit methods for assessment of the impact of salt (chloride/salinity), and particularly road salt, on freshwater aquatic life. Delaware water quality criteria do not give a numerical criterion for chloride or salinity as a pollutant causing impairment of aquatic life. Despite this omission, there are well-documented environmental impacts of road salt. The USEPA guidance states

    > ”Dramatic increases in salt (sodium chloride) concentrations are occurring in freshwaters globally due to human activities such as road salt application, water softening, mining and oil extraction, wastewater from commercial and industrial processes, weathering of concrete, sea level rise, and fertilizer application. Too much salt in the environment is toxic and lethal to aquatic life, pollutes drinking water sources, and damages infrastructure”.[6]

[2] Section 5.6.3.4.1.3
[3] Section 4.1.1.3
[4] https://www.pca.state.mn.us/sites/default/files/wq-rule4-17d.pdf
[5] https://stroudcenter.org/salt/
[6] https://www.epa.gov/risk/salt

Research published after that EPA guidance has demonstrated even greater sensitivity to salt pollution. Impairment caused by road salt must not be ignored.

- **Improvement suggested:** Integrated Report comments in 2020 and 2024 by the White Clay Wild and Scenic River Stream Watch Monitoring Program suggested the use of 50 mg/L maximum chloride concentration. That suggestion is a reasonable translation of Delaware's narrative criteria. Translate the narrative criteria into a numerical value of 50 mg/L chloride concentration as the maximum 15 day average. Perform analyses of impairment caused by elevated chloride concentration in all freshwater segments with available data.

4. Water Quality Impacts in Freshwater and Coastal Wetlands:

It is unclear how the Draft Methodologies will assess and list impairment/use attainment in our state's wetlands. Nearly a quarter of Delaware is made up of wetlands with roughly half of all wetlands (52%) classed as non-tidal freshwater wetlands.[7] While the The Wetland Monitoring and Assessment Program (WMAP) and index of biotic integrity (IBI) development are important, the 2026 Draft Methodologies do not explicitly detail how *wetland-specific water quality impacts* are comprehensively assessed.

- **Improvement suggested:** DNREC should clearly articulate how the state's WQS, including narrative provisions regarding "natural conditions" and "nuisance species", are specifically applied and assessed for freshwater and coastal wetlands. Given the unique hydrological and ecological functions of wetlands, the methodologies should ensure that assessments account for site-specific characteristics and pollutants that disproportionately affect wetland health (such as road salt). The revitalized Habitat and Biology Program should explicitly include wetland-specific biological and physical indicators that can robustly assess changes in wetland integrity due to various pollutants.

In conclusion, the 2026 Draft Methodologies show progress in formalizing data acquisition and assessment. The writing is clear and appropriately detailed. To ensure comprehensive protection, assessment methodologies need to:

1. Be proactive in acquiring all available data.
2. Apply all criteria when assessing use attainment and impairment.
3. Translate narrative criteria to assess chloride impacts.
4. Assess impairment of freshwater and coastal wetlands.

[7] https://wmap.blogs.delaware.gov/2021/03/22/wetland-acreage-status-in-delaware/

Thank you for your comments on 2026 Draft Methodologies. We appreciate your time reviewing.

1. **Response on Data Solicitation and Use:**

We are not excluding any raw data, report, or any other documentation submitted as part of the Integrated Report. We have clarified in the external data policy that if the data does not meet Tier-I status then those will be presented as appendices in the Integrated Report and could be used as supporting evidence for water quality concerns within the State. Wharton's Bluff data from the Center for the Inland Bays is an example of data that was used as supporting evidence for assessment purposes. Fish kills within that segment, coupled with the supporting data for Wharton's Bluff were used for impairment determination. All other data from the Center for the Inland Bays was not used for assessments. The External Data Policy and future Integrated Reports intend to clarify this.

Consistency when comparing data is important when the data is used for regulatory decision-making purposes. Results obtained by different collection methods could result in contradicting conclusions. Assessments must be made with a standardized set of data.

The External Data Policy provides documentation to our partners what the standardized expectation will be. The intent is to explicitly state what data will be used for assessments to allow our external partners the ability to collect congruent data. This will only allow more data to be used for assessments in the future now that the standard for data use is explicitly stated.

Thank you for your suggestion in improving our data request effort. The Department appreciates your suggestions.

2. **Response on Assessment of Numeric and Narrative Non-Numeric Criteria:**

Thank you for reviewing the draft methodology related to Numeric and Narrative Non-Numeric criteria and reviewing Delaware Surface Water Quality Standard. The Department appreciates your suggestions.

3. **Response on Overlooked Important Contaminants:**

Thank you for your comment and suggestion regarding salt/chloride. The Department understands impacts of chloride on streams and its biota and will consider this suggestion within future Water Quality Standard reviews and updates. For a request for modification of water quality criteria to be approved, Section 9.1.2 of the Surface Water Quality Standards shall be met.

4. **Response on Water Quality Impacts in Freshwater and Coastal Wetlands:**

Thank you for your comment. The Department is continually improving the assessment methodology. The Department is working to identify a biological integrity index and indicators in order to measure habitat and biology of the State by selecting a few case study sites. Subsequent Integrated Reports intend to provide detail on this work.

Submitted Data and Reports

2026 DNREC Integrated Water Report Data Submission

Waterbody: White Clay Creek Watershed

Location: New Castle County, DE

Submitted by: Shane Morgan, Program Director, White Clay Creek Wild and Scenic River

Contact information:
smorgan@whiteclay.org
484-716-6836

Website: www.whiteclay.org

Date submitted: May 23, 2025

Table of Contents

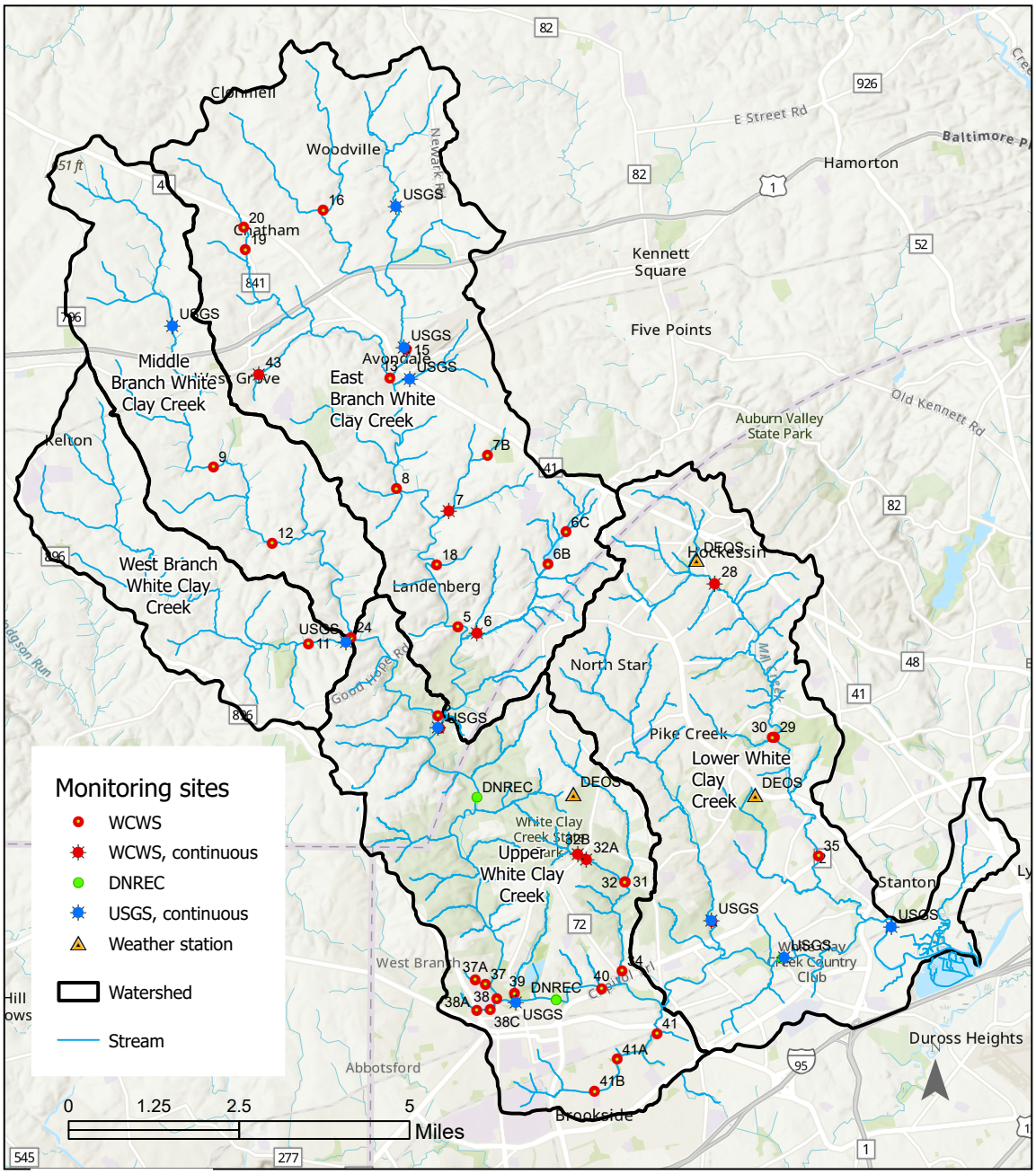
2026 DNREC Integrated Water Report Data Submission 1
Delaware Active Site List 3
White Clay Creek Active Sites Map 4
Hickory Hill Site on Mill Creek (WCLD28) Chlorides, Nitrates, and Orthophosphates 5
UT Middle Run Below Papermill Road (WCUD32A) Chlorides, Nitrates, and Orthophosphates 6
UT Middle Run Above Papermill Road (WCUD32B) Chlorides, Nitrates, and Orthophosphates 7
Hickory Hill Site on Mill Creek (WCLD28) Water Temperature 8
UT Middle Run Below Papermill Road (WCUD32A) Water Temperature 9
UT Middle Run Above Papermill Road (WCUD32B) Water Temperature 10
Hickory Hill Site on Mill Creek (WCLD28) Conductivity 11
UT Middle Run Below Papermill Road (WCUD32A) Conductivity 12
UT Middle Run Above Papermill Road (WCUD32B) Conductivity 13
Graphical Presentation of Recreational Season Fecal Indicator Bacteria Geometric Means 15
Bacteria Sampling Protocol 16
Monthly Year-Round Sampling Protocol 17
Definitions of Water Quality Thresholds 18
Acknowledgments 19

Delaware Active Site List

Site ID	Latitude	Longitude	Site Name	Continuous Monitoring Present
WCLD28	39.7787	-75.6949	Hickory Hill (Mill Creek)	Mayfly removed 9/2022; Hobo Temp Sensor installed 10/2022
WCLD29	39.7460	-75.6781	Northpoint Main (Mill Creek)	
WCLD30	39.7459	-75.6787	Northpoint Tributary (Mill Creek)	
WCUD31	39.715	-75.7188	Middle Run Main	
WCUD32	39.715	-75.7191	Unnamed Tributary to Middle Run	
WCUD32A	39.7197	-75.7297	Unnamed Tributary to Middle Run below Papermill Road	Mayfly removed 2024, HOBO installed 2025
WCUD32B	39.7209	-75.7320	Unnamed Tributary to Middle Run above Papermill Road	Mayfly removed 2024; Hobo installed 2022
WCUD37	39.6931	-75.7572	Fairfield Run	
WCUD38	39.6899	-75.7540	Bogy Run/Blue Hen Creek	
WCUD39	39.6910	-75.7491	Jenney's Run	
WCUD40	39.6923	-75.7252	WCC Main Stem@ Capitol Trail and A street	
WCLD42	39.7068	-75.6949	Lower Pike Creek	

White Clay Creek Active Sites Map

(link to interactive map:
https://udel.maps.arcgis.com/apps/webappviewer/index.html?id=4bd6252384a44beca0105e5ed4cd64d0

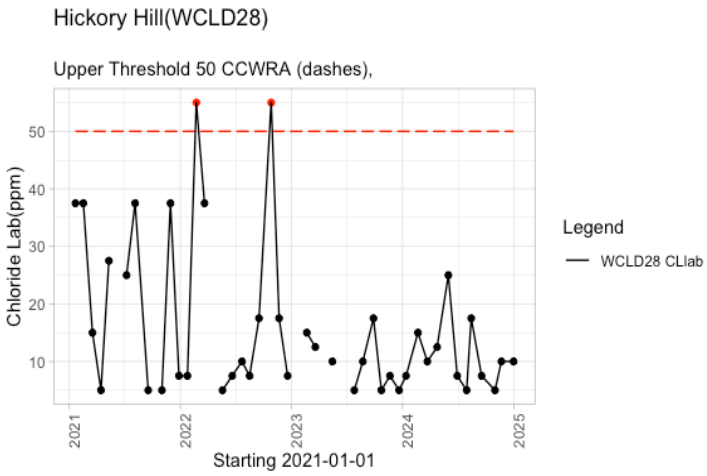


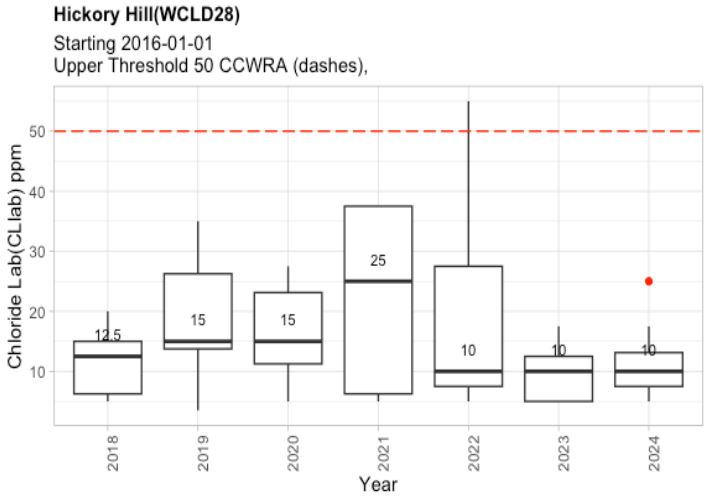
Stream Monitoring Sites in the White Clay Creek Watershed

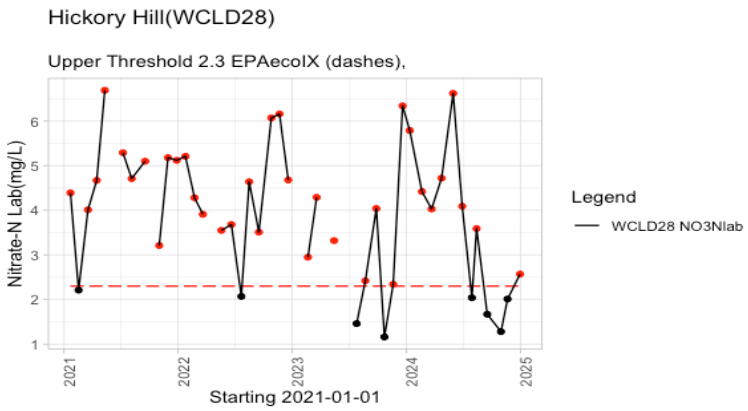
Map produced by the University of Delaware Water Resources Center, for the White Clay Watershed Association. Updated April 2025.

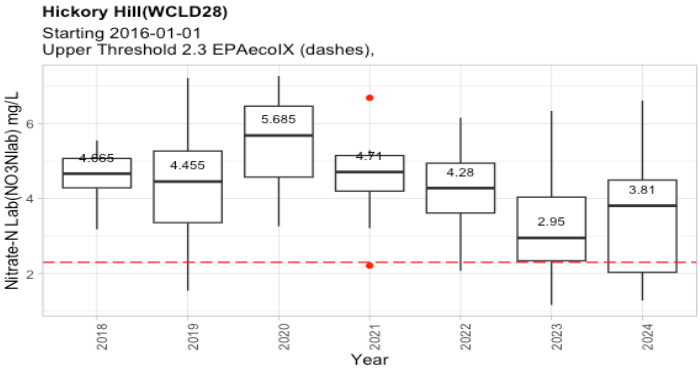
Hickory Hill Site on Mill Creek (WCLD28) Chlorides, Nitrates, and Orthophosphates

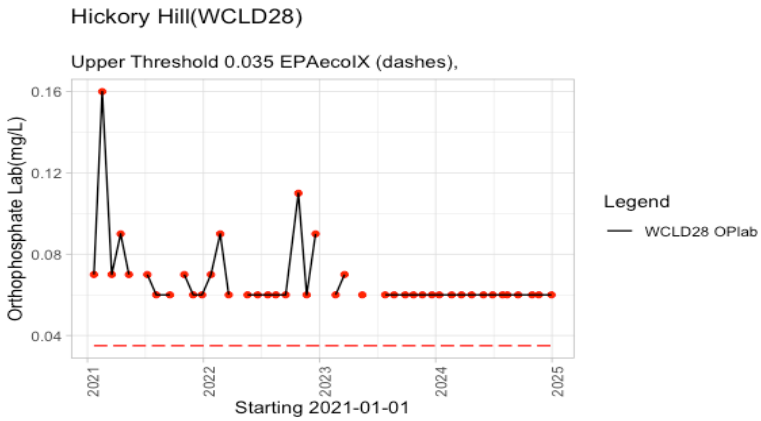
Graphic presentation of all data points for Chlorides (CL), Nitrates (NO3N), and Orthophosphate (OP) at baseflow (defined as <0.25" rain in a 48-hour period). Exceedance of standards indicates impairment. Individual site data for the 2-year reporting period are shown on the left. Box and whisker plots for the prior four-year period are shown on the right.

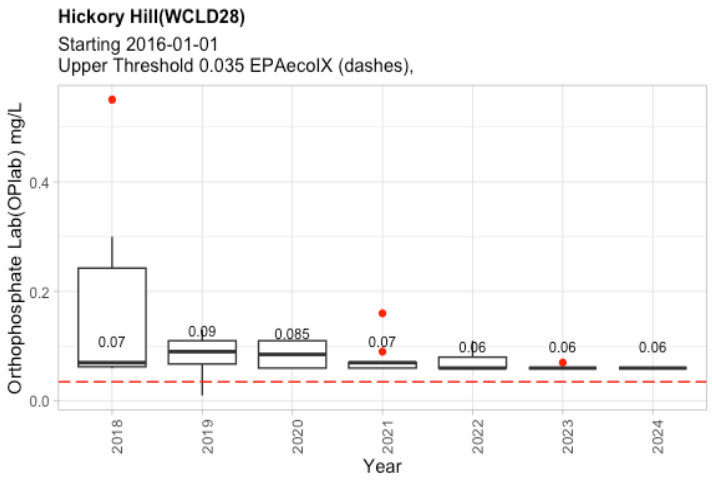






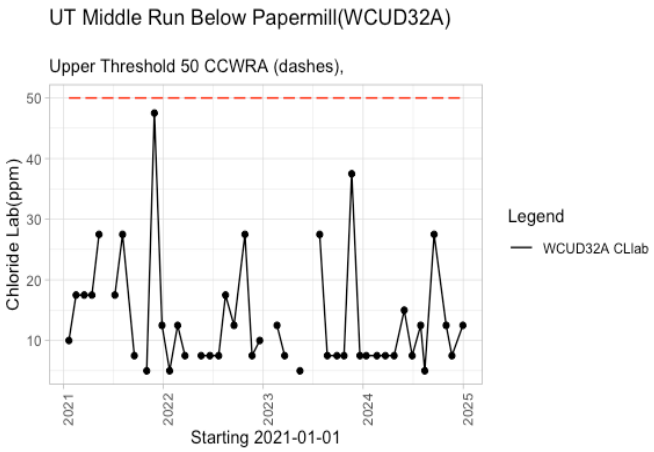


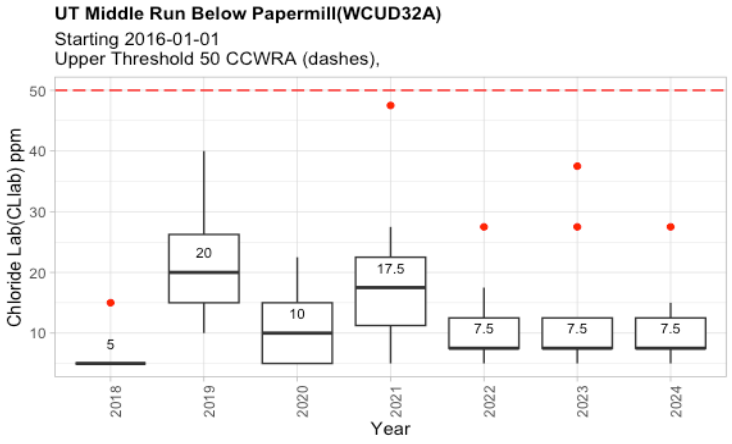


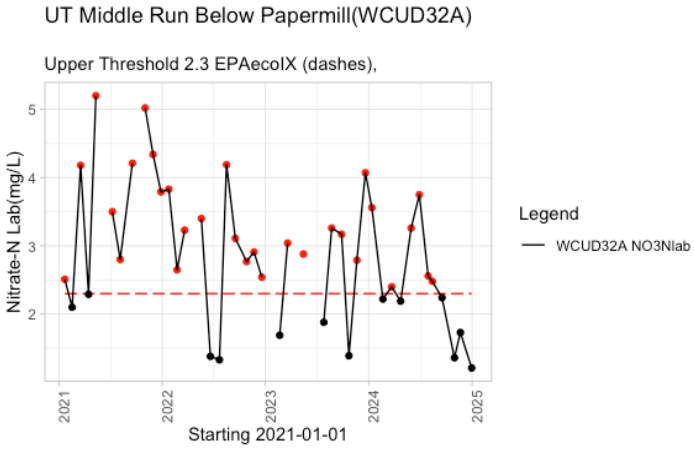


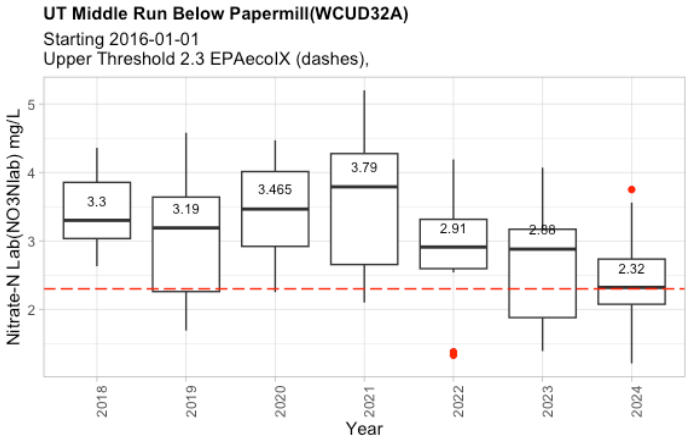
UT Middle Run Below Papermill Road (WCUD32A) Chlorides, Nitrates, and Orthophosphates

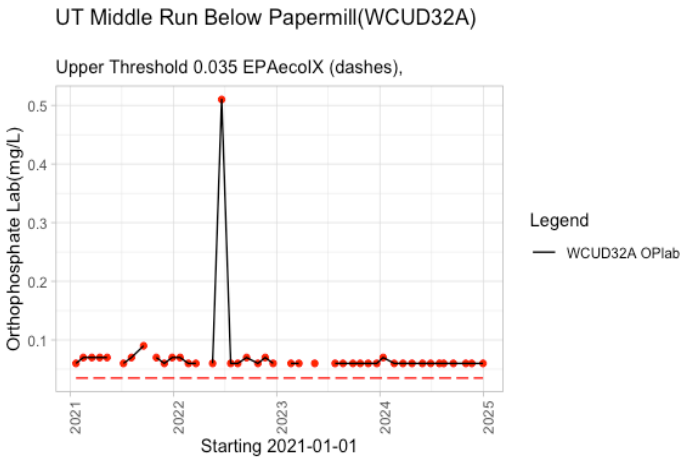
Graphic presentation of all data points for Chlorides (CL), Nitrates (NO3N), and Orthophosphate (OP) at baseflow (defined as <0.25" rain in a 48-hour period). Exceedance of standards indicates impairment. Individual site data for the 2-year reporting period are shown on the left. Box and whisker plots covering a 4-year period are shown on the right.

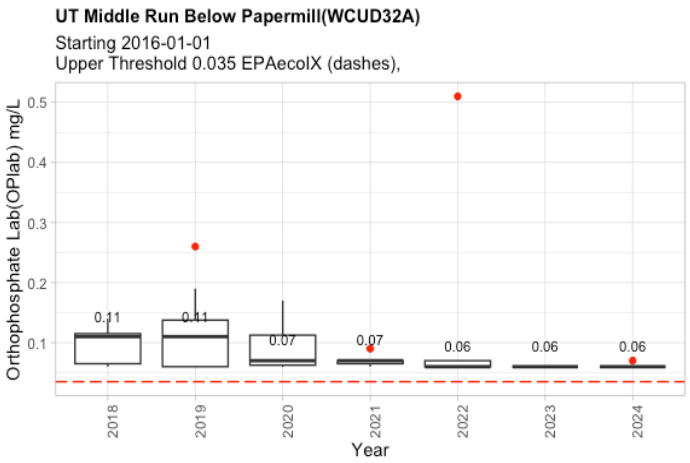






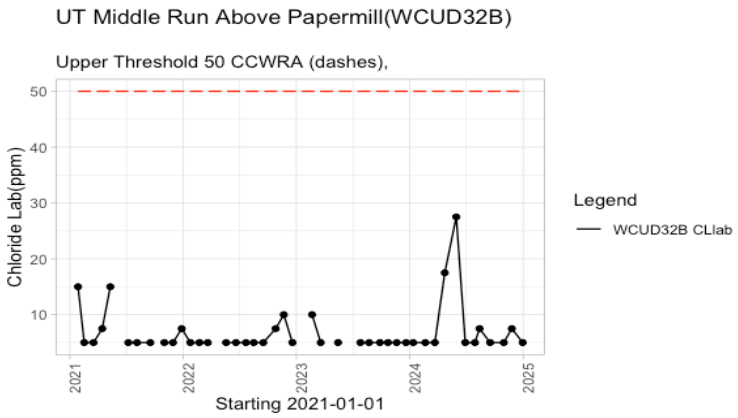


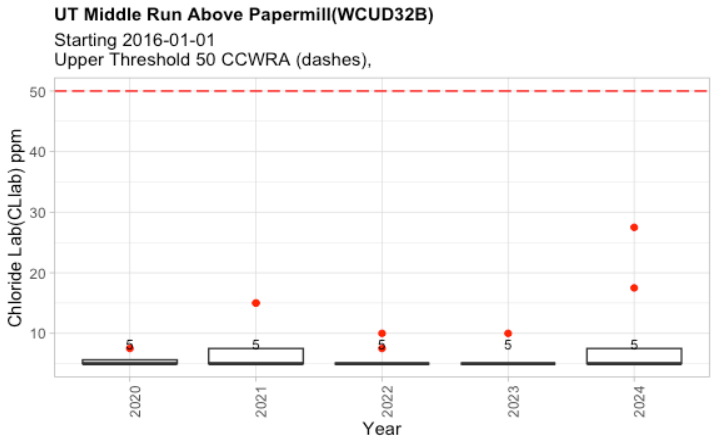


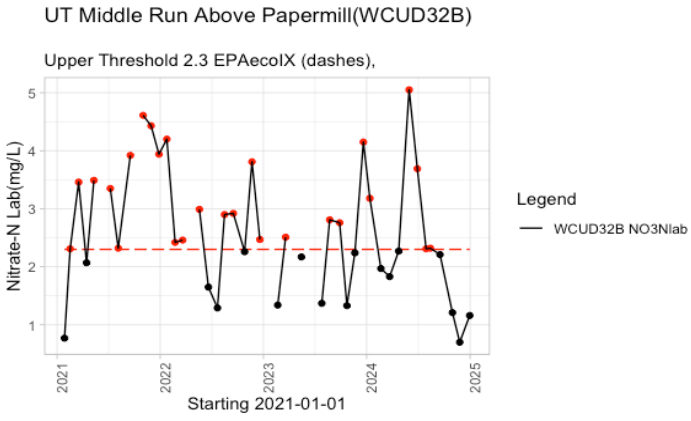


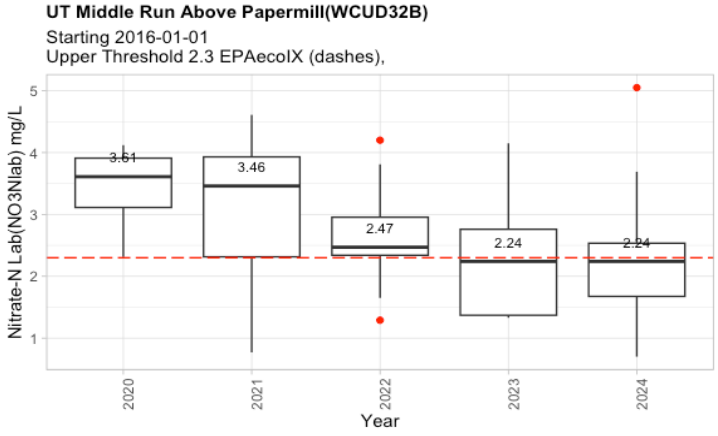
UT Middle Run Above Papermill Road (WCUD32B) Chlorides, Nitrates, and Orthophosphates

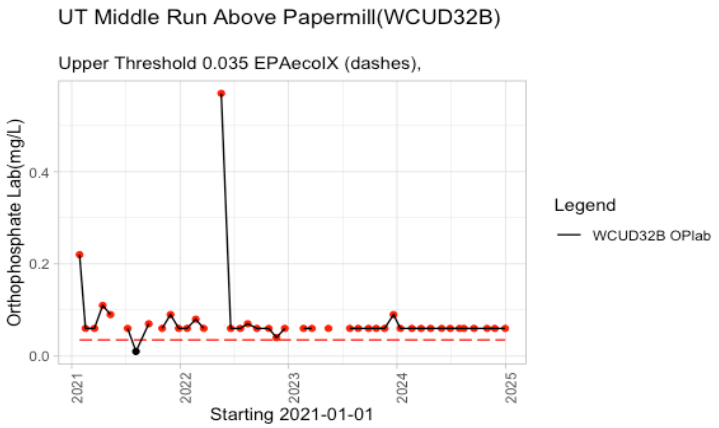
Graphic presentation of all data points for Chlorides (CL), Nitrates (NO3N), and Orthophosphate (OP) at baseflow (defined as <0.25" rain in a 48-hour period). Exceedance of standards indicates impairment. Individual site data for the 2-year reporting period are shown on the left. Box and whisker plots covering a 4-year period are shown on the right.

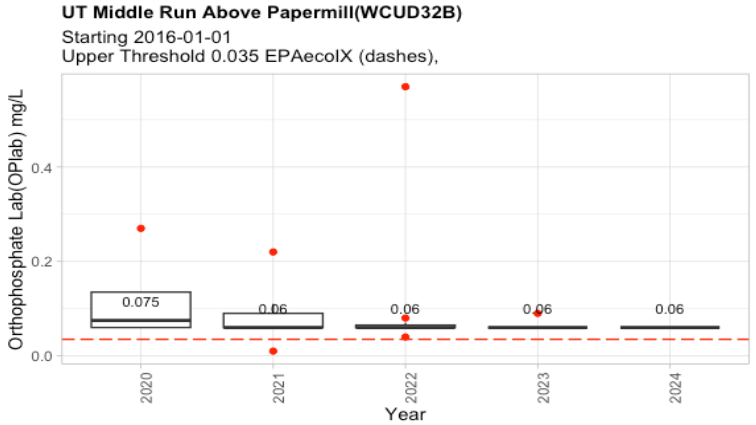






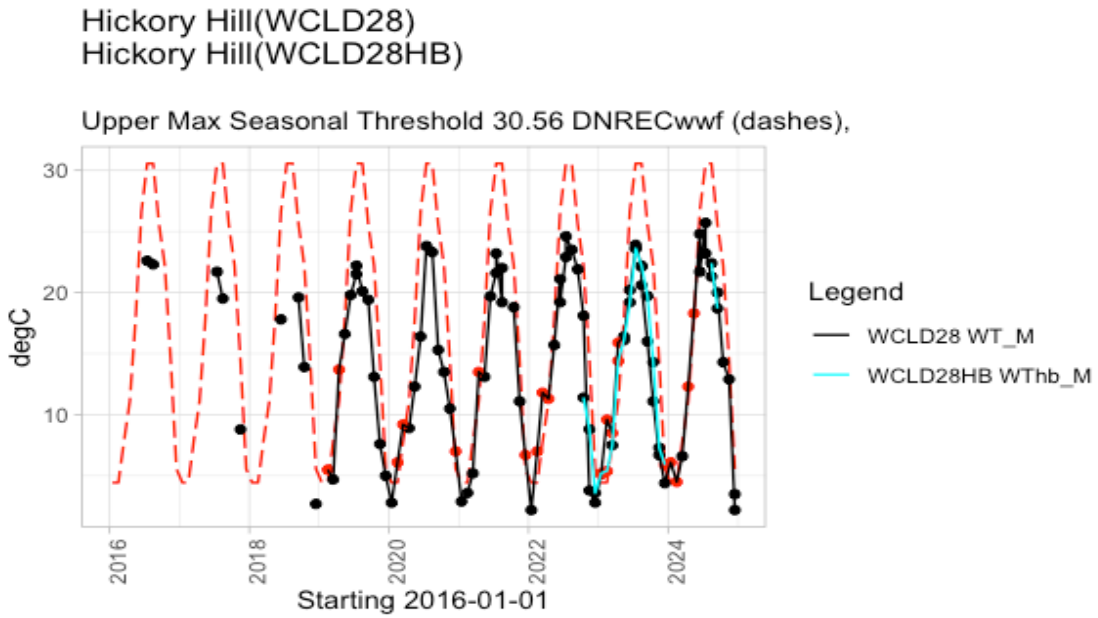


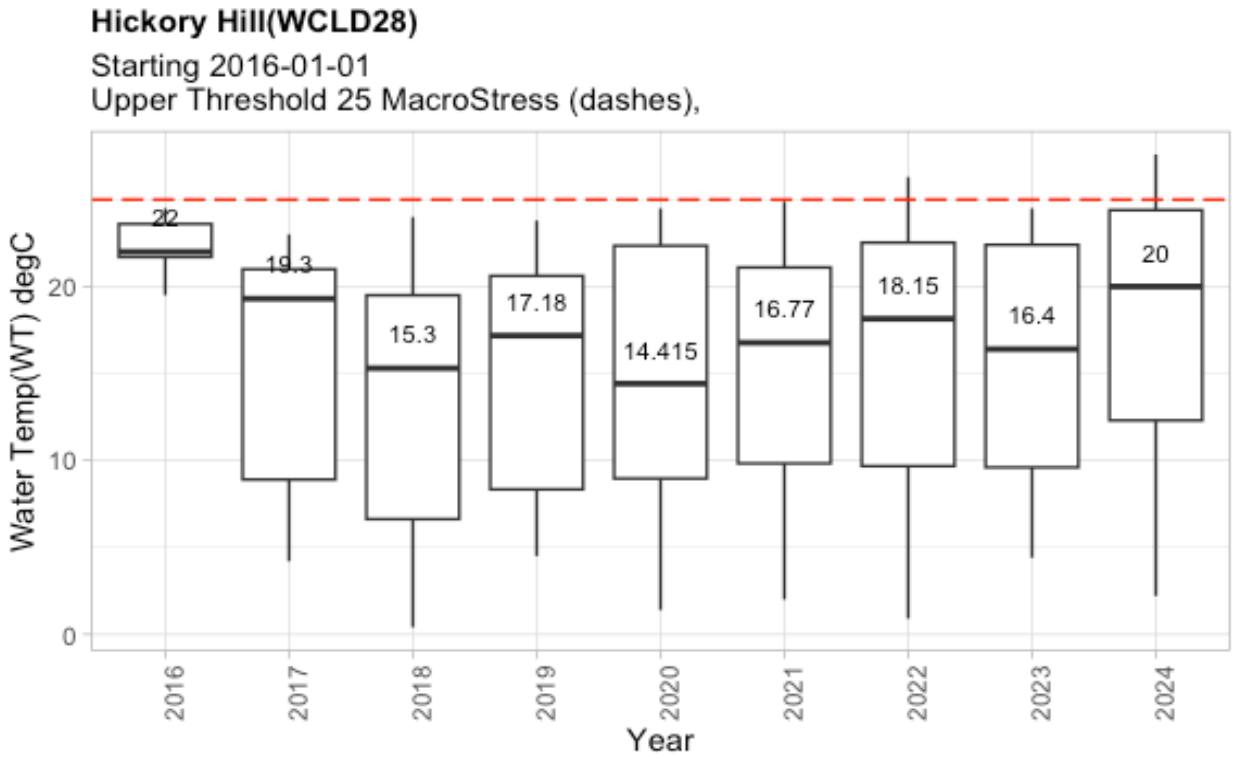




Hickory Hill Site on Mill Creek (WCLD28) Water Temperature

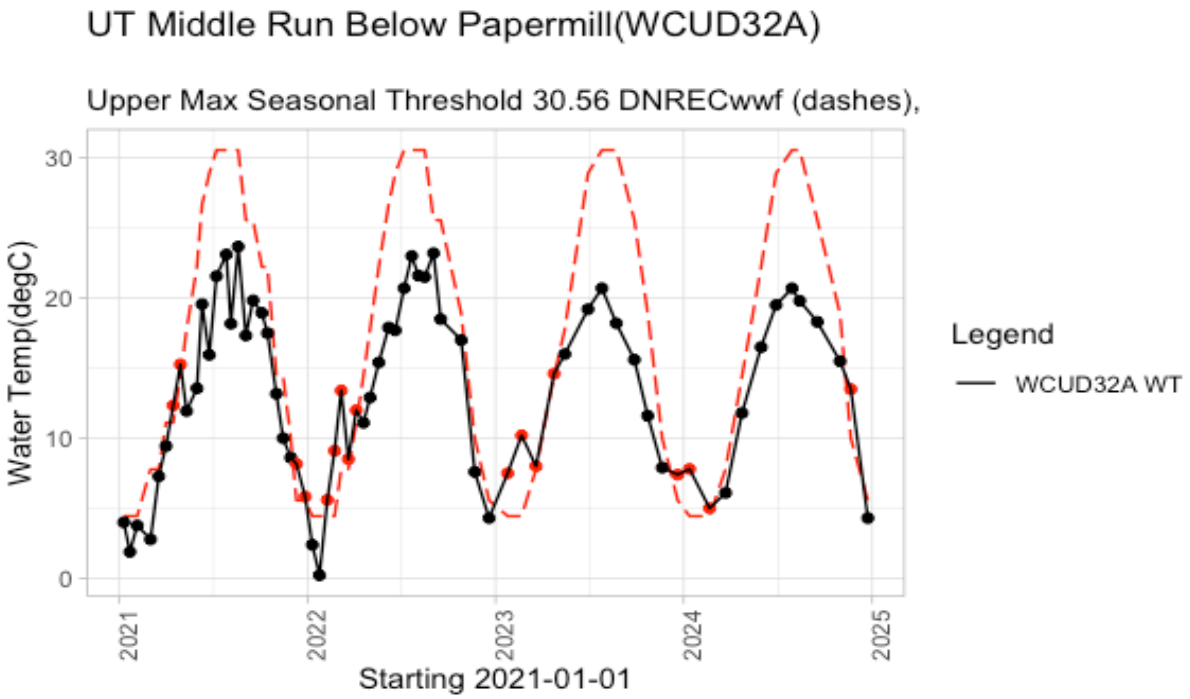
Graphic presentation of monthly average water temperature taken by in-stream continuous data loggers and monthly field readings (top). Box and whisker plot covering an extended time of monthly readings (bottom).

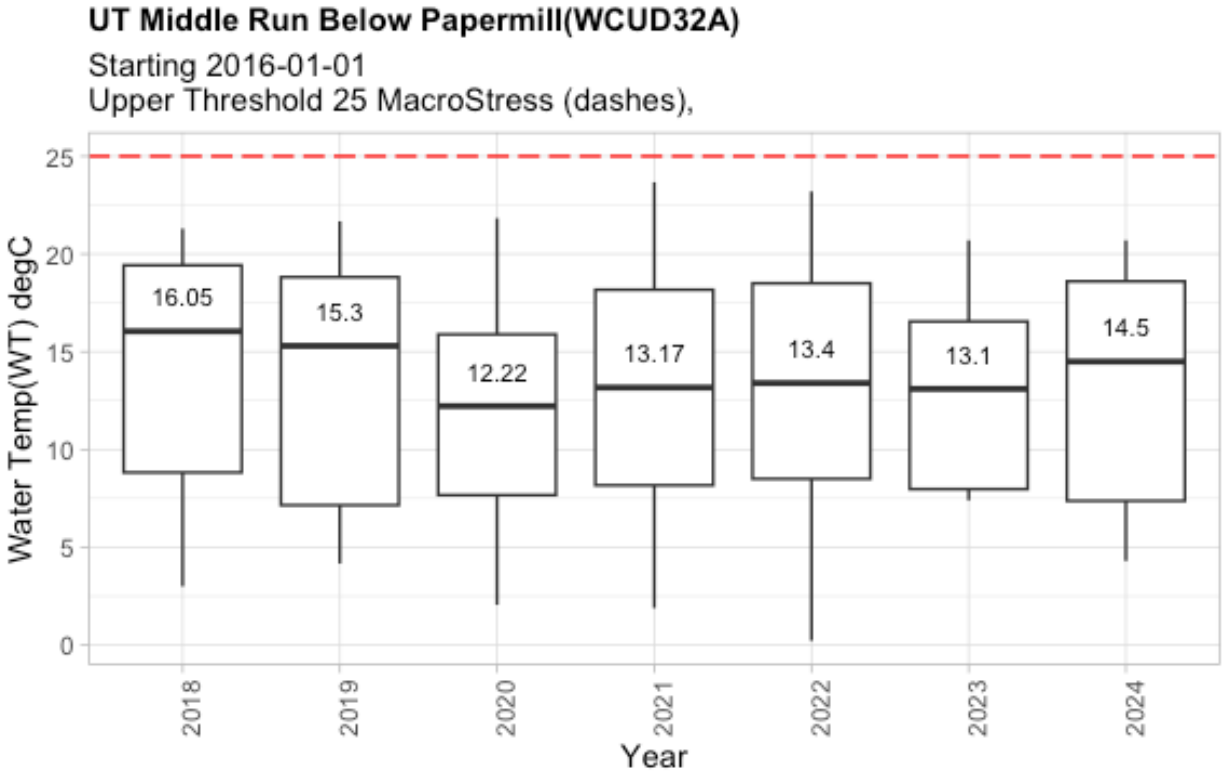




UT Middle Run Below Papermill Road (WCUD32A) Water Temperature

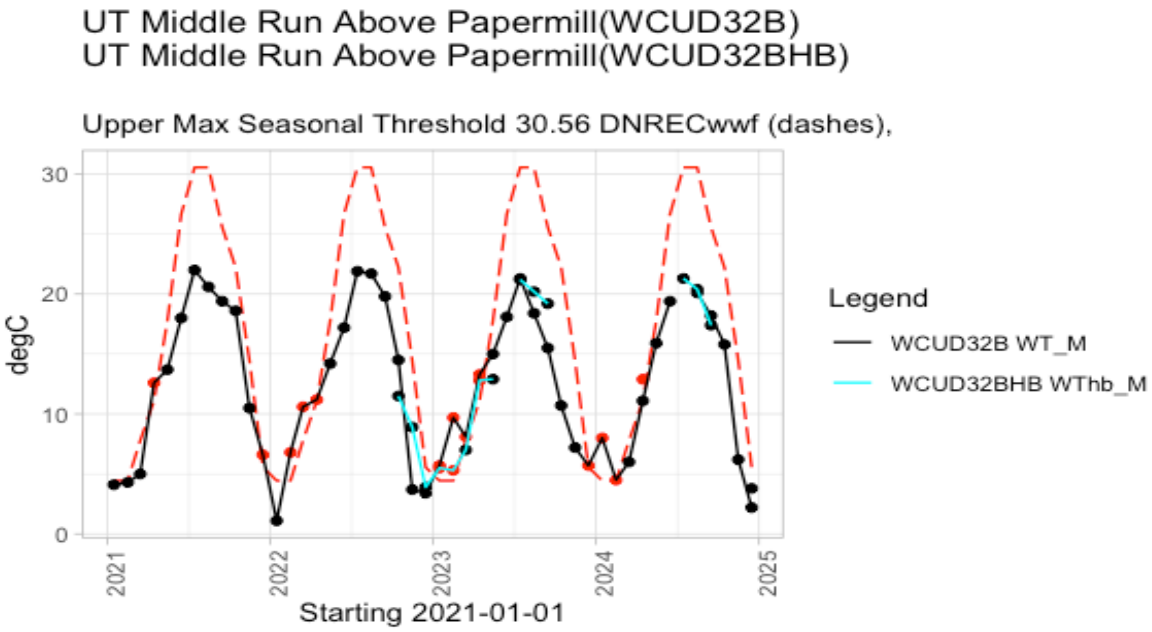
Graphic presentation of monthly average water temperature taken monthly with handheld meter (top). Box and whisker plot covering an extended time period (bottom).

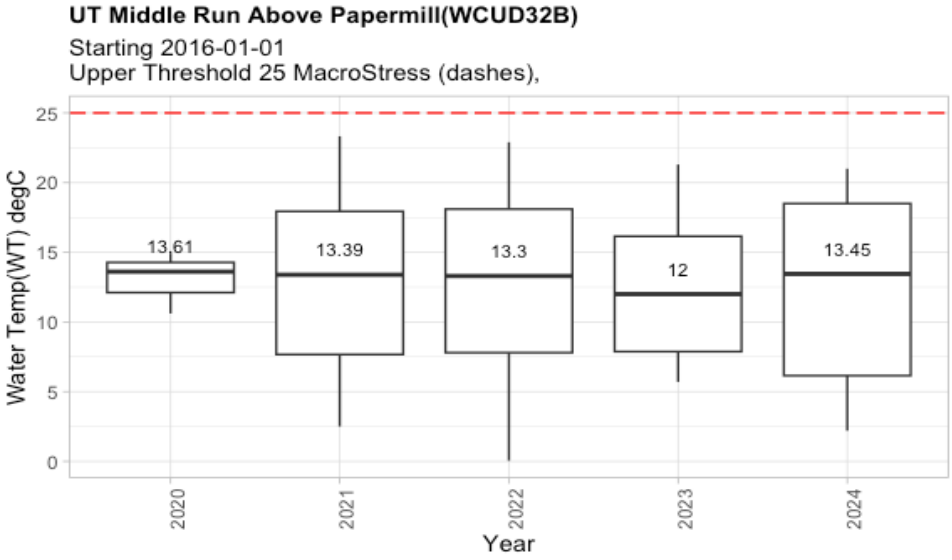




UT Middle Run Above Papermill Road (WCUD32B) Water Temperature

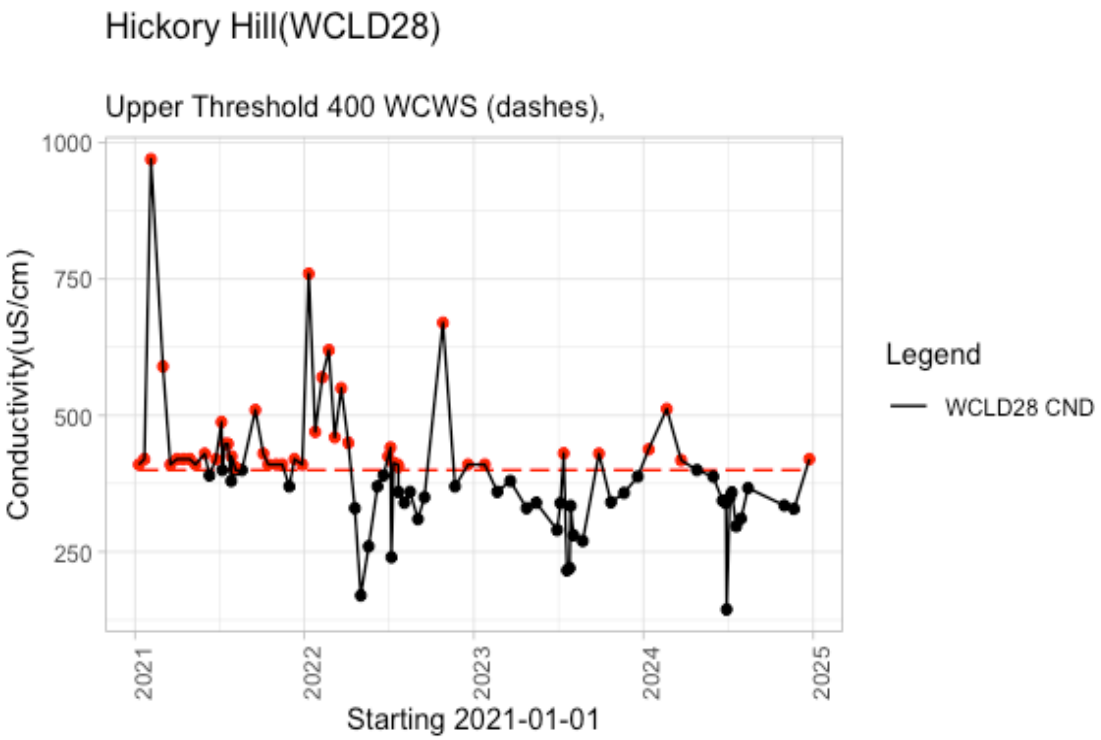
Graphic presentation of monthly average water temperature taken by in-stream continuous data loggers and bimonthly field readings (top). Box and whisker plots covering an extended time are shown on the bottom.

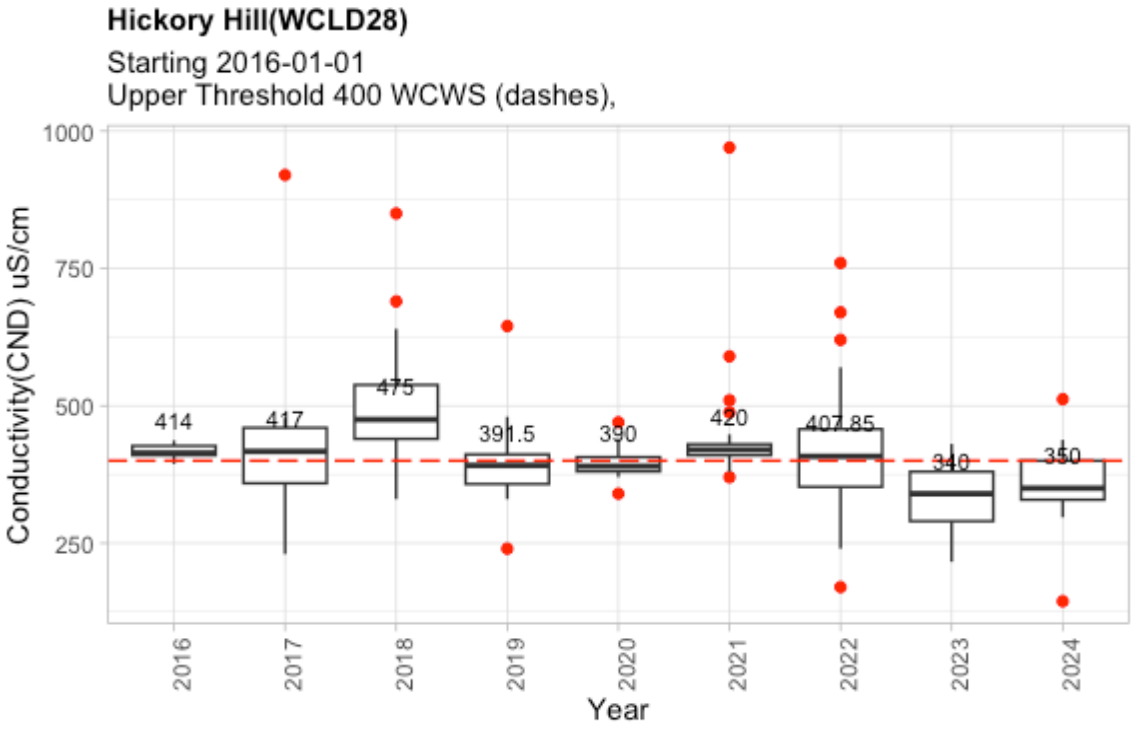




Hickory Hill Site on Mill Creek (WCLD28) Conductivity

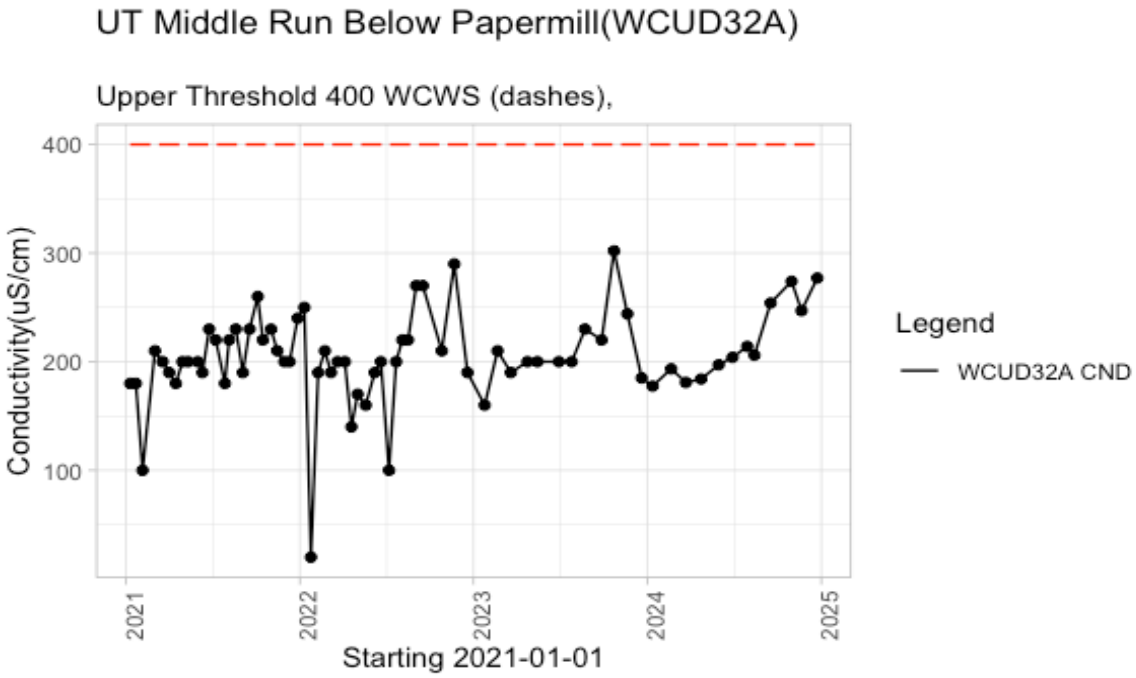
Graphic presentation of conductivity taken by bimonthly field measurements over a 4-year period (top). Box and whisker plot covering an extended time (bottom).

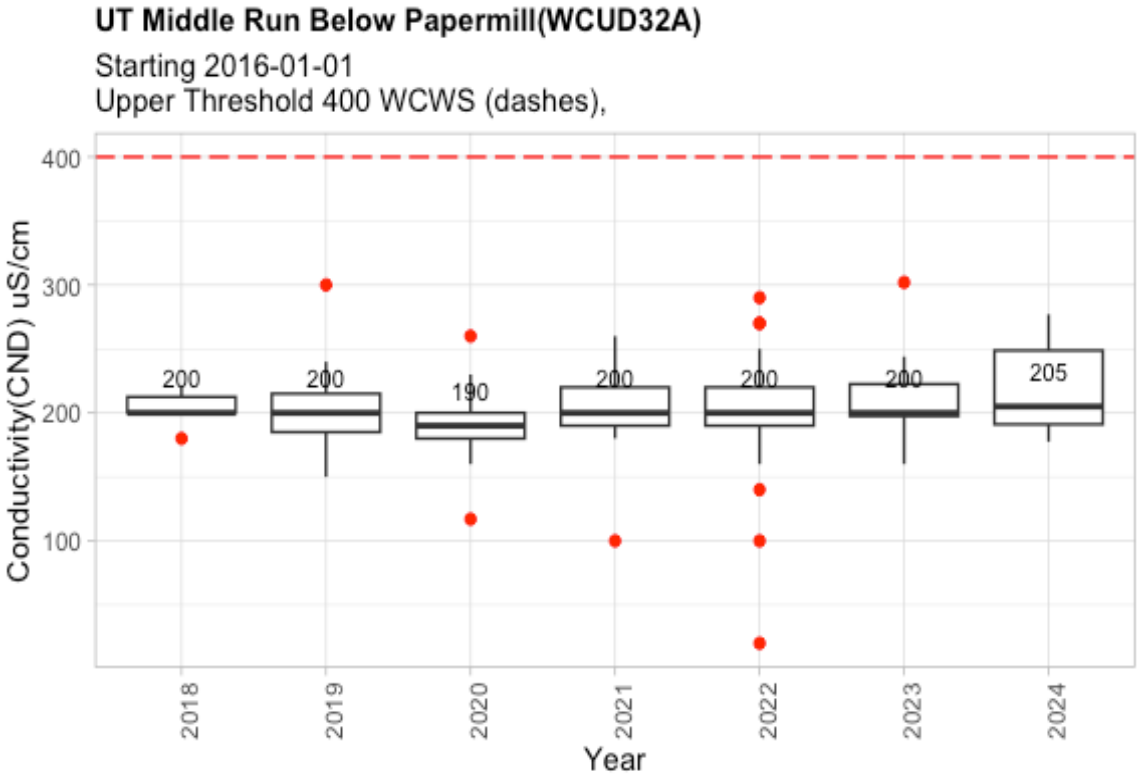




UT Middle Run Below Papermill Road (WCUD32A) Conductivity

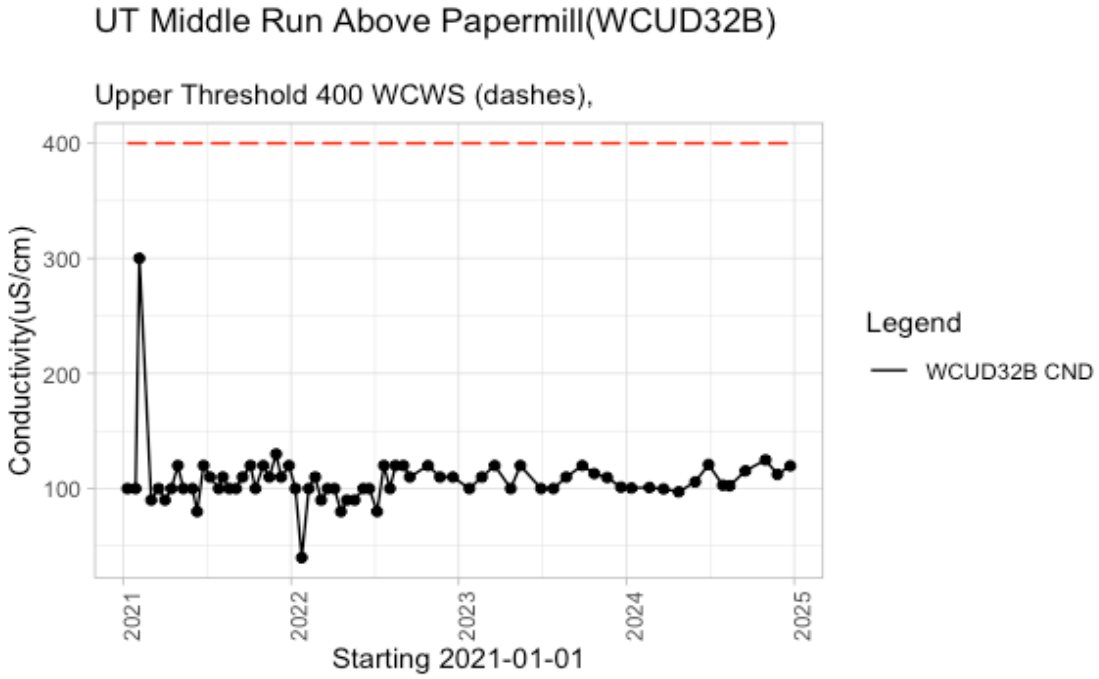
Graphic presentation of conductivity taken by bimonthly field measurements over 4-year period (top). Box and whisker plot covering an extended time bottom).





UT Middle Run Above Papermill Road (WCUD32B) Conductivity

Graphic presentation of conductivity taken by bimonthly field measurements over a 4-year period (top). Box and whisker plot covering an extended time (bottom).



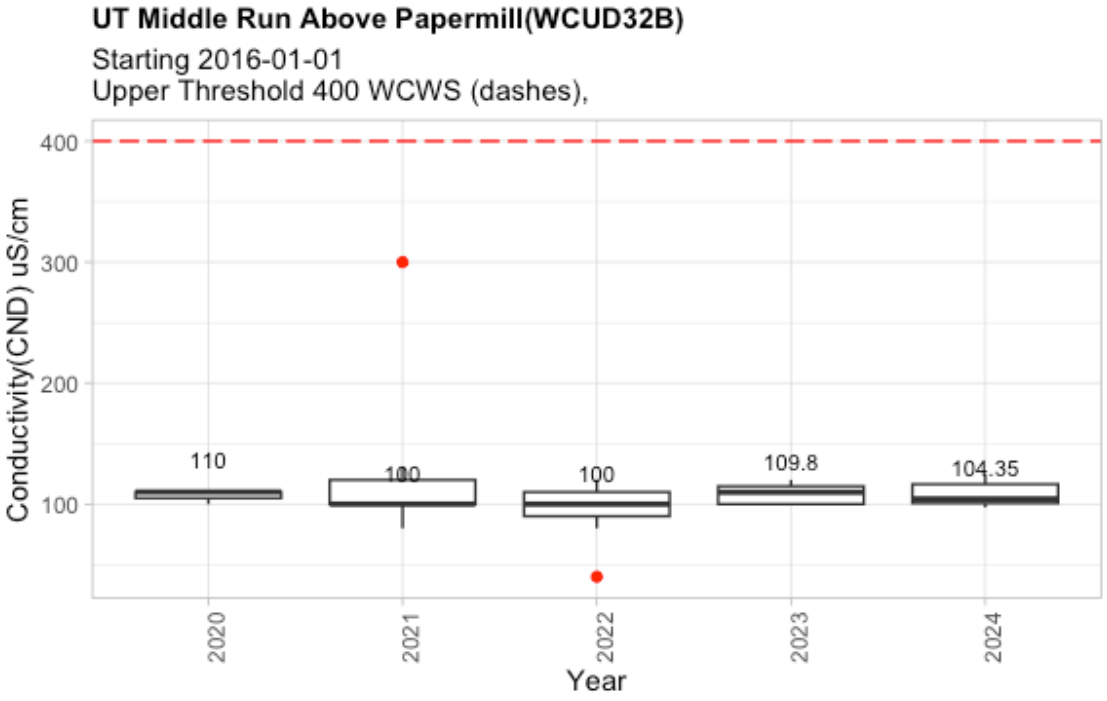


Table of Recreational Season Fecal Indicator Bacteria Geometric Means.

Table of geometric means for Enterococcus readings taken during multiple recreational seasons. The table is color coded to show sites that exceed EPAs recreational water quality threshold for primary contact 35 cfu/100ml by different orders of magnitude (ex. red = >800%); Only one site in 2024 met DNRECs threshold for primary contact (100 cfu/100ml).

Recreational Bacteria (Enterococcus) Geometric Means MPN/100ml

Site Name	Site ID	2016	2017	2018	2019	2020	2021	2022	2023	2024
Hickory Hill	WCLD28	551	1957	576	1696	1947	2263	1467	365	274
Northpointe Main on Mill	WCLD29	176	775	504	463	1693	2046	331	794	246
Northpointe Trib to Mill	WCLD30	292	1103	386	609	1407	1657	796	710	1083
Middle Run Main Stem	WCUD31	439	1146	1046	506	1825	1721	221	757	399
Middle Run Trib to Main	WCUD32	347	732	407	271	1120	1058	342	431	271
Fairfield Run	WCUD37	NA	NA	874	604	1243	1830	140	427	411
Bogy Run WCD (lower)	WCUD38	NA	NA	1405	1541	1608	1008	645	1476	626
Bogy Run NLR (upper)	WCUD38A	NA	NA	NA	NA	NA	NA	627	640	1176
Bogy Run Pencader	WCUD38C	NA	NA	NA	NA	NA	NA	NA	NA	929
Jenney's Run	WCUD39	NA	NA	899	807	1761	2117	1506	675	1318
Main @ Kirkwood & A	WCUD40	NA	NA	517	442	935	981	46	243	61
Lower Pike Creek	WCLD42	NA	NA	NA	965	945	1275	81	420	315

Methodology behind grading:
Because much of the data exceeded the EPA Recreational Water Quality Criteria, we considered any CFU under the Recreational Water Quality Criteria as “Good” and gave it a score of 100 or “A”. We then created five additional categories based on large increases over the criteria—i.e., up to 200%, 200-400%, 400-600%, 600-800%, and >800%.

The annual means were converted to a sub-index score by employing the following Recreational Water Quality Criteria for Enterococcus:
Enterococcus: 35 colony forming units per 100 milliliters (35 cfu/100 mL)

These criteria are for an Estimated Illness Rate (NGI) of 32-36 per 1,000 primary-contact recreators. The distribution of available data for Enterococcus was assessed in a separate histogram (Figure 73) using the recreational criteria defined above to then establish six WQIS-equivalent scoring categories (Table 52).

While E. coli is a strong indicator of human fecal contamination, enterococci's broader environmental tolerance, source diversity, and persistence contribute to their often-higher levels in freshwater environments. Factors like non-point source pollution, agricultural runoff, and urban runoff can further exacerbate these differences.

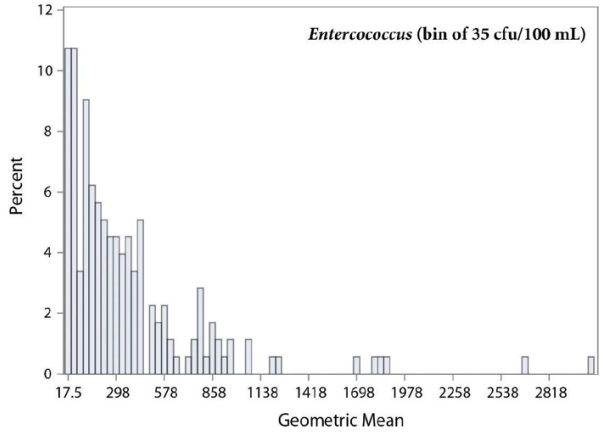
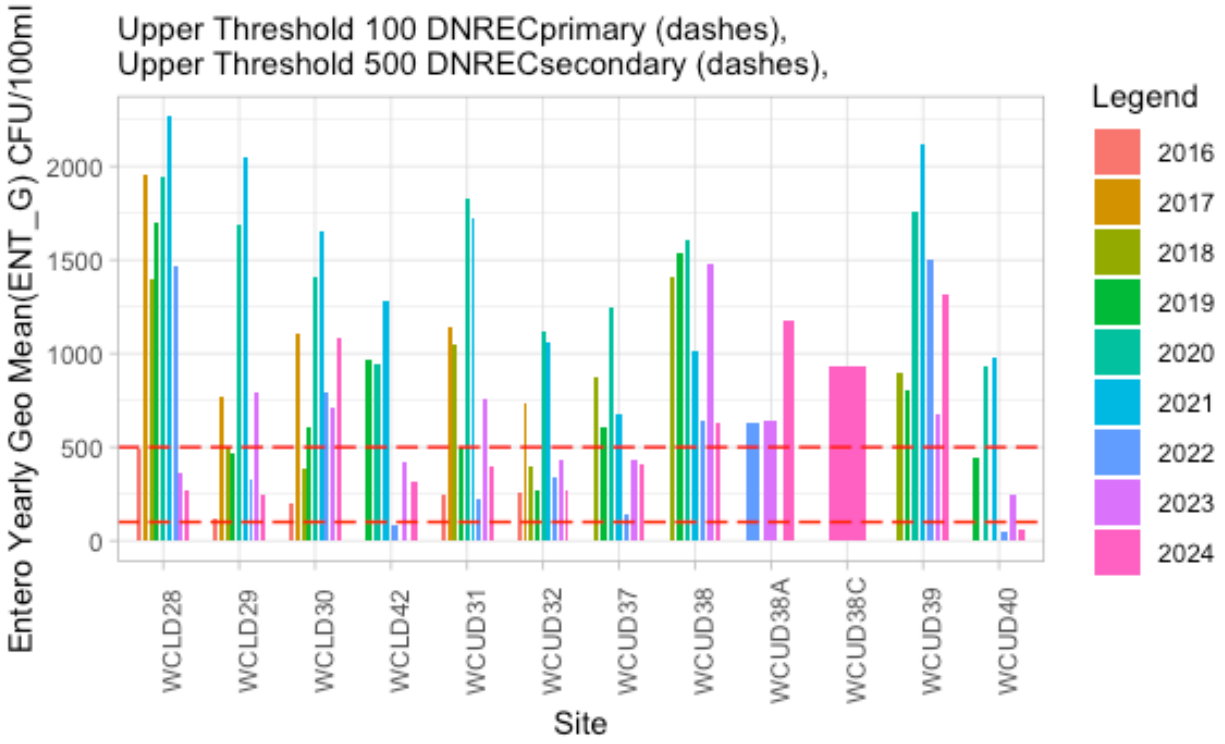


Table 52. Recreation sub-index scores and associated concentration ranges for Entercococcus and E. Coli. (White Clay Creek State of the Watershed Methodology Report, 2024)

Sub-Index Score value	*Concentration ranges (cfu/100mL)for each associated score value*	
	Enterococcus	
100	**< 35**	A
80	**35-105**	A-
60	**105-175**	B
40	**175-245**	C
20	**245-315**	D
0	**> 315**	F

Graphical Presentation of Recreational Season Fecal Indicator Bacteria Geometric Means

Enterococcus (ENT) samples were taken during multiple recreational seasons at baseflow (defined as <0.25" rain in a 48-hour period). A minimum of five samples were collected at each site within a 30-day period during the month of July to calculate geometric means (ENT_G). Exceedance of standards indicates impairment. All samples were processed at Stroud Water Research Center using the IDEXX Colilert method.



The graph above shows DNREC's thresholds for primary contact (100 CFU/100ml) and secondary contact (500 CFU/100ml). Bars above the dashed red lines exceed the thresholds for the associated recreational contact.

Bacteria Sampling Protocol

1. Check Precipitation. We are looking for less than .25 inches in the previous 48 hours.
   Visit: http://www.deos.udel.edu/
   Data>current conditions AND
   Data>daily summaries
   Look at data for nearest DEOS site to sampling location
2. Sample the furthest downstream site first and then move to the upstream sites.
3. Fill out the Field Notebook, including weather information.
4. Make sure that sample vessels are labeled as seen below with black indelible ink before sampling.

Name of responsible organization:	WCWA
Test(s) to be run:	E. coli, Enterococcus
Stream Name:	White Clay Creek
Date:	08082012
Site ID:	WCLEB06
Time (military time):	1320
Samplers Name:	Kelly Jacobs

5. Collecting the sample:
   a) Face upstream, and sample mid-channel, mid-depth. Avoid stagnant water and eddies.
   b) Do not disturb the bottom sediment. Do not collect sediment in your stream sample. If sediment is disturbed, wait a period before sampling.
   c) Open the sterile 1L whirl Pak bag just before sampling. Make sure nothing – including your fingers – encounters the inside surfaces of the bag.
   d) Hold the open bag from the top ties with the opening facing directly downward at the water. Then plunge the bag, open end first, below the water surface, and collect the water sample from 8-12" beneath the surface, but not against the substrate. If the stream is not that deep, collect the sample at mid-depth. Do this by facing the submerged bag into the current and away from you in an upstream dipping motion.
   e) Try to leave a little air space in the bag, but not more than a few inches. If the bag comes up completely full, pour off the excess water.
   f) Secure the bag using the yellow ties and place it into the cooler.
6. For every ten water samples you collect and send to a lab for analysis, you must collect one "replicate." Label the replicated by placing a -R after the site ID.
7. All samples must go on ice immediately and be brought to the lab within 6 hours from sampling time.

Monthly Year-Round Sampling Protocol

1. Visit all year-round monitoring stations once a month or every four weeks at baseflow (no more than .25" rain in last 48 hours). Check precipitation data at local DEOS site for rainfall before going out to sample. http://www.deos.udel.edu/data/monthly_retrieval.php

2. Label all grab sample containers with a sharpie prior to taking sample:
   White Clay Watershed Association (WCWA)
   Site ID
   date of collection
   time of collection (in military time)

   *if the sample is a replicate use SITE ID SL182 and make note of the actual SITE ID in the filed notes. Replicates should be taken every 10 samples.

3. Take instream measurements of water temperature and conductivity with handheld meter. Do not stir up dirt or if can't be avoided wait for it to settle before taking any measurements.

4. Take grab samples for lab analysis of nitrate, orthophosphate, and chloride at all sites (NO3N, OP, CL). Samples should be taken in a labeled 1 L container and brought to Brandywine Science Center, 204 Line Road, Kennett Square, PA 19348, 610-444-9850 – You will need to fill out a Chain of Custody Sheet obtained at the lab when dropping off samples (see sample in google folder)

5. Upload data from HOBO sensors: When out in the field, you will need to pull up the sensor (out of the water) and press down firmly on the center. If you are successful, you will see a red-light flash – this pairs the sensor with your mobile device. Make sure the Bluetooth on your phone is on. Open Hobo Connect App and select download data. Data goes in the data folder – you can open that folder, select the files, and email to Shane (smorgan@whiteclay.org) from on-site. Once data is downloaded, check battery strength and place it back into the water. If the battery is low, make a note of it in the field notes.

6. Complete Data Entry (after you return from every visit)

   - After every sampling event, when you return, upload data to the Google folder WQ_UD_INTERNS in the card uploads folder and share new files via email (to smorgan@whiteclay.org)
   - Field data should be input into the Field_Data_Entry_Sheet located in the Google folder WQ_UD_INTERNS. Enter data directly into the Google sheet online.
   - Upload any photos to the Google folder WQ_UD_INTERNS Photos Folder. Label each photo as SiteID_yyyymmdd_exposure (i.e., facing N, S, E, W, etc.)

Definitions of Water Quality Thresholds

Chlorides: While there are no instream standards, a threshold of 50 mg/L was selected based on Chester County Water Resources Authority and USGS data that correlates this threshold with poor index of biological integrity (IBI) scores. Furthermore, the DRBC also uses 50 mg/L as its threshold for interstate streams.[1]

Nitrates: DNREC does not have a water quality standard for Nitrate, but they have a water quality target set for TN between 1-3mg/ml. However, based on an analysis of nutrient concentrations from 1990 to 1998, for a stream that is not impaired by nutrients in this ecoregion (ecoregion IX), the EPA recommended a TN threshold of 2.225 mg/L.[3] More recent analysis, based on nutrient concentrations in Southeastern Pennsylvania streams from 2000 to 2019, raises this TN threshold slightly to 2.3 mg/L, which we selected for this report.[4]

Phosphates: DNREC does not have a water quality standard for Total Phosphorus, but they have a water quality target level of Total Phosphorus in DE Freshwater of 0.05-0.1mg/L. Natural background concentrations of total phosphorus are estimated to be 0.025 - 0.060 mg/L for this region.[5] An analysis of nutrient concentrations from 2000 to 2019 in streams in Southeastern Pennsylvania found that the maximum total phosphorus concentration for a stream that is not impaired by nutrients is 0.035 mg/L which is what we selected for this report.[4]

Fecal Indicator Bacteria - Enterococcus (ENT) and Escherichia coli (ECOLI): The US EPA has recommended recreational water quality standards for fecal indicator bacteria. We used these standards for this report.[5]

---

1. Delaware River Basin Commission (DRBC), Administrative Manual – Part III WATER QUALITY REGULATIONS WITH AMENDMENTS THROUGH DECEMBER 7, 2022, 18 CFR PART 410. https://www.nj.gov/drbc/library/documents/WQregs.pdf

2. Delaware Department of Natural Resources and Environmental Control (DNREC), Division of Watershed Stewardship, 7401 Surface Water Quality Standards. https://regulations.delaware.gov/AdminCode/title7/5000/7400/7401.shtml

3. USEPA. Ambient Water Quality Criteria Recommendations: Rivers and Streams in Ecoregion IX. 108 (2000). https://www.epa.gov/sites/default/files/documents/rivers9.pdf

4. Clune, J. W., Crawford, J. K. & Boyer, E. W. Nitrogen and Phosphorus Concentration Thresholds toward Establishing Water Quality Criteria for Pennsylvania, USA. Water 12, 3550 (2020).

5. Smith, R. A., Alexander, R. B. & Schwarz, G. E. Natural Background Concentrations of Nutrients in Streams and Rivers of the Conterminous United States. Environ. Sci. Technol. 37, 3039–3047 (2003). https://pubmed.ncbi.nlm.nih.gov/12901648/

6. USEPA. Recreational Water Quality Criteria. https://www.epa.gov/sites/default/files/2015-10/documents/rwqc2012.pdf (2012).

Acknowledgments

We gratefully acknowledge the National Park Service for their generous support, which makes this work possible. We want to thank the Water Resources Center at the University of Delaware for their assistance with GIS mapping and sampling and the Stroud Water Research Center for their technical support of the bacteria collection and analysis. We also enthusiastically thank citizen scientist Rob Tuttle for his valuable contributions to collecting, organizing, analyzing, and reporting our data using R software.

DELAWARE DEPARTMENT OF
NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL

Watershed Assessment Branch
285 Beiser Blvd, Suite 102
Dover, DE 19904
302-739-9921
dnrec.delaware.gov

Shane Morgan
Program Director
White Clay Creek Wild and Scenic River
P.O. Box 10
Landenberg, PA 19350

RE: Data Submittal for Delaware's 2026 Integrated Report

The Delaware Department of Natural Resources and Environmental Control's (DNREC) Watershed Assessment Branch (WAB) received your submitted water quality data on May 23, 2025, for consideration in the 2026 Integrated Report (IR). The DNREC WAB reviewed the Submitted Data per the July 28, 2025, External Data Policy, which was publicly posted as part of the 2026 Integrated Report Data Solicitation on August 8, 2025 (https://dnrec.delaware.gov/public-notices/wss20250294/). The Submitted Data was determined to be classified as Tier-II: Supporting Data for this reason:

Methodology: No analytical methodologies were part of the Submitted Data package to demonstrate equivalence to Environmental Protection Agency approved methodologies and congruence with State of Delaware methods for assessment purposes. This can be done by providing a Quality Assurance Program Plan, a Quality Assurance Project Plan, or a similar document that details the organization's methodologies.

All Tier-II data will be included as supporting data in the 2026 IR appendix. DNREC WAB appreciates White Clay Creek Wild and Scenic River's efforts in monitoring Delaware waters and invites you to submit data for future IRs. For future submissions, please reference the External Data Policy at: https://dnrec.delaware.gov/watershed-stewardship/assessment/reports/ to tailor your submission to the appropriate tier.

Please reach out to Josh Barth via email: Joshua.barth@delaware.gov or via cell: 302-535-0699, should you have any questions.

Sincerely,

Joshua Barth
Environmental Program Manager-II

Center for the Inland Bays (CIB) continuous DO data summary table

Site	Sampling Time	Data Count
Coastal Kayak Reef	Apr-Jul 2023; Apr-Oct 2024	21697
DCS Dock	Apr-Sep 2023; Apr-Oct 2024	24488
Fishers Dock	Apr-Sep 2023; Apr-Oct 2024	24564
Pasture Point	Jul-Oct 2024	7435
RBSA Dock	May-Sep 2023; Apr-Oct 2024	20449
Robbins Dock	Apr-Sep 2023; Apr-Oct 2024	22161
Whartons Bluff	Apr-Oct 2023; Apr-Oct 2024	24059

To review the raw continuous Dissolved Oxygen data, please contact the Delaware Center for the Inland Bays (CIB)

Result of Center for the Inland Bays CIB) Stations' continuous Dissolved Oxygen data. DNREC received raw data from CIB, and the raw data was analyzed by DNREC.

Site ID	Latitude	Longitude	Dissolved Oxygen Count	Dissolved Oxygen Average	Dissolved Oxygen Minimum	Dissolved Oxygen Fail	Dissolved Oxygen Percent Fial	Continuous Dissolved Oxygen Support	Parameter Attainment
Coastal Kayak Reef	38.47435	38.47435	21697	7.279303129	3.95	0	0	1	Meeting Criteria
DCS Dock	38.59131	38.59131	24488	7.02620998	0.22	2484	10.14374387	5	Not Meeting Criteria
Fishers Dock	38.56262	38.56262	24564	7.976614965	0.01	1993	8.11349943	5	Not Meeting Criteria
Pasture Point			7435	6.577876261	1.26	103	1.38533961	5	Not Meeting Criteria
RBSA Dock	38.68123	38.68123	20449	5.88841068	0.01	2340	11.44310235	5	Not Meeting Criteria
Robbins Dock	38.63887	38.63887	22161	6.808338974	0.01	2994	13.51022066	5	Not Meeting Criteria
Whartons Bluff	38.58619	38.58619	24059	8.54231722	0.01	3017	12.54000582	5	Not Meeting Criteria

DELAWARE DEPARTMENT OF
NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL

Watershed Assessment Branch
285 Beiser Blvd
Suite 102
Dover, DE 19904
302-739-9939
dnrec.delaware.gov

Taylor Hoffman
Science Coordinator
Delaware Center for the Inland Bays
39375 Inlet Rd
Rehoboth, DE 19971

November 25, 2025

RE: Data Submittal for 2026 Integrated Report Consideration

The Delaware Department of Natural Resources and Environmental Control's (DNREC) Watershed Assessment Branch (WAB) received your submitted Dissolved Oxygen data (Submitted Data) on September 8, 2025 for consideration in the 2026 Integrated Report. The DNREC WAB reviewed the Submitted Data per the July 28, 2025 External Data Policy, which was publicly posted as part of the 2026 Integrated Report Data Solicitation on August 8, 2025 (https://dnrec.delaware.gov/public-notices/wss20250294/). The Submitted Data was determined to be classified as Tier-II: Supporting Data. The reason for this determination is as follows.

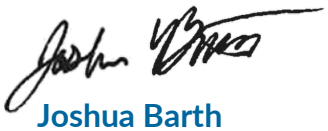
> Methodology: After reviewing the Delaware Center for the Inland Bays Quality Assurance Project Plan (QAPP), effective date: August 14, 2020, the DNREC WAB has determined that the Submitted Data is not congruent with State of Delaware assessment methods. Per Table 1 of the QAPP the data sondes are deployed from 1.5ft to 6in from the bottom of the water column. When comparing this methodology to the State of Delaware Standard Operating Procedures for Ambient Surface Water Sampling and Field Measurements there is a noticeable methodology difference. State of Delaware Standard Operating Procedures for Ambient Surface Water Sampling and Field Measurements specify that water quality monitoring samples are to be retrieved from several inches below the surface of the water. Due to the different sampling methods which naturally result in different Dissolved Oxygen concentrations, the Submitted Data will be accepted as Tier-II Supporting Data.

Per the External Data Policy, Tier-II Data on its own will not be used for listing or assessment purposes but it will be used to draw attention to water quality issues. The Indian River (DE140-004), within the area of Wharton's Bluff, had fish kills reported to the DNREC WAB the summer of 2021. The fish kill reports, coupled with the supporting Dissolved Oxygen data of Wharton's Bluff sampling site resulted in the Wharton's Bluff data being used for listing and assessment purposes in the 2022 and

2024 Integrated Report. Therefore, the 2026 Integrated Report will also use Wharton's Bluff sample site for listing and assessment purposes. This decision is consistent with previous Integrated Reports as documented within Section 4.2.1.3 of the 2024 Integrated Report. All other Submitted Data will be Tier-II data and included within the appendix of the 2026 Integrated Report.

The DNREC WAB is committed to working with the Delaware Center for the Inland Bays on water quality monitoring projects and methodology and we invite the Delaware Center for the Inland Bays to submit data for future Integrated Report cycles. Please reach out to Josh Barth via email: Joshua.barth@delaware.gov or via cell: 302-535-0699, should you have any questions.

Sincerely,



Joshua Barth
Environmental Program Manager-II

Appendix I: Public Participation

Public Notice Documentation

USA TODAY CO.

LocaliQ

PO Box 631699 Cincinnati, OH 45263-1699

AFFIDAVIT OF PUBLICATION

Kim Stangl
Sd Soil Water Dnrec
97 Commerce WAY # 106
Dover DE 19904-7794

STATE OF DELAWARE, COUNTY OF NEW CASTLE

The Wilmington News Journal is a daily newspaper of general circulation, printed and published in the State of Delaware; that the publication, a copy of which is attached hereto, was published in the said newspaper in the issues dated:

WIL delawareonline.com 03/06/2026
WIL Wilmington News Journal 03/06/2026

Sworn to and subscribed before on 03/06/2026

Legal Clerk

Notary, State of WI, County of Brown

My commission expires

Publication Cost:	$223.66
Tax Amount:	$0.00
Payment Cost:	$223.66
Order No:	12140431
Customer No:	905995
PO #:	WSS20260078

of Copies: 1

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

VICKY FELTY
Notary Public
State of Wisconsin

DNREC-Watershed Assessment & Management Section

PUBLIC NOTICE

DELAWARE'S DRAFT 2026 COMBINED WATERSHED ASSESSMENT REPORT (305(B)) AND DETERMINATION FOR THE CLEAN WATER ACT SECTION 303(D) LIST OF WATERS NEEDING TMDLS (THE INTEGRATED REPORT)

This notice announces the availability and opportunity to comment on Delaware Department of Natural Resources and Environmental Control's Draft 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs (the Integrated Report). EPA's Integrated Reporting Guidance documents are available online at https://www.epa.gov/tmdl/identifying-and listing-impaired-waters-underclean-water-act. Please contact the Department by April 6, 2026, to submit any comments.

The Draft Integrated Report is posted with this notice on the DNREC website at https://de.gov/dnrecnotices. Related documents and prior Integrated Reports are available on the Department's website at https://dnrec.alpha.delaware.gov/watershedstewardship/assessment/reports/.

All comments on the Draft Integrated Report document received on/prior April 6, 2026, will be considered for the final Integrated Report. Comments may be sent to Ms. Sakinat Ahmad by mail at DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 or email at SurfaceWQS@delaware.gov. Electronic submissions are preferred.

For additional information, please contact Ms. Sakinat Ahmad, Hydrologist, at (302)-608-5525 or via email at sakinat.ahmad@delaware.gov. View DNREC's non-discrimination policy at https://de.gov/titlevi. Encuentre la versión en español de este aviso en https://de.gov/dnrecavisos. Jwenn vésyon kreyòl avi sa a nan https://de.gov/dnrecavi.

DNREC Notice No. WSS20260078

3/6-NJ

Arizona • Delaware • Florida • Maryland
Delaware Printing Company • Valley Newspapers
INDEPENDENT NEWSMEDIA
Celebrating & Connecting Our Communities

Proof of Publication

3/6/2026

State of Delaware:

County of Kent:

Before me, a Notary Public, for the County and State aforesaid. Tonda L. Parks, known to me to be such, who being sworn according to law deposed and says that she is the Associate Publisher of **Daily State News**, a daily newspaper published at Dover, County of Kent, and State of Delaware, and that the notice, a copy of which is hereto attached, as published in the **Daily State News** in its issue(s) of
BaytoBayNews.com: 3/6/2026
DSN: 3/6/2026 .

Tonda L. Parks
Associate Publisher
Independent Newsmedia Inc. USA

Sworn to and subscribed before me this 3/6/2026

ROXANNE BROOKS NOTARY PUBLIC STATE OF DELAWARE MY COMMISSION EXPIRES 03/09/2029

Roxanne Brooks

Notary Public this date of 3/6/2026

Name	DNREC WATERSHED ASSESSMENT SECTION
Order Number	39173
Ordered By	KIM STANGL
Order Date	3/3/2026
Description	THE INTEGRATED REPORT
Number Issues	2
Pub Count	2
Ad Cost	$153.75
First Issue	3/6/2026
Last Issue	3/6/2026
Publications	BaytoBayNews.com, DSN
Pub Dates	BaytoBayNews.com: 3/6/2026 DSN: 3/6/2026

DNREC-Watershed Assessment & Management Section

PUBLIC NOTICE

DELAWARE'S DRAFT 2026 COMBINED WATERSHED ASSESSMENT REPORT (305(B)) AND DETERMINATION FOR THE CLEAN WATER ACT SECTION 303(D) LIST OF WATERS NEEDING TMDLS (THE INTEGRATED REPORT)

This notice announces the availability and opportunity to comment on Delaware Department of Natural Resources and Environmental Control's Draft 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs (the Integrated Report). EPA's Integrated Reporting Guidance documents are available online at https://www.epa.gov/tmdl/identifying-and-listing-impaired-waters-under-clean-water-act. Please contact the Department by April 6, 2026, to submit any comments.

The Draft Integrated Report is posted with this notice on the DNREC website at https://de.gov/dnrecnotices. Related documents and prior Integrated Reports are available on the Department's website at https://dnrec.alpha.delaware.gov/watershed-stewardship/assessment/reports/.

All comments on the Draft Integrated Report document received on/prior April 6, 2026, will be considered for the final Integrated Report. Comments may be sent to Ms. Sakinat Ahmad by mail at DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 or email at SurfaceWQS@delaware.gov. Electronic submissions are preferred.

For additional information, please contact Ms. Sakinat Ahmad, Hydrologist, at (302)-608-5525 or via email at sakinat.ahmad@delaware.gov. View DNREC's non-discrimination policy at https://de.gov/titlevi. Encuentre la versión en español de este aviso en https://de.gov/dnrecavisos. Jwenn vésyon kreyòl avi sa a nan https://de.gov/dnrecavi.

DNREC Notice No. WSS20260078

39173 DSN 3/6/2026

DNREC-Watershed Assessment & Management Section

PUBLIC NOTICE

DELAWARE'S DRAFT 2026 COMBINED WATERSHED ASSESSMENT REPORT (305(B)) AND DETERMINATION FOR THE CLEAN WATER ACT SECTION 303(D) LIST OF WATERS NEEDING TMDLS (THE INTEGRATED REPORT)

This notice announces the availability and opportunity to comment on Delaware Department of Natural Resources and Environmental Control's Draft 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs (the Integrated Report). EPA's Integrated Reporting Guidance documents are available online at https://www.epa.gov/tmdl/identifying-and-listing-impaired-waters-under-clean-water-act. Please contact the Department by April 4, 2026, to submit any comments.

The Draft Integrated Report is posted with this notice on the DNREC website at https://de.gov/dnrecnotices. Related documents and prior Integrated Reports are available on the Department's website at https://dnrec.alpha.delaware.gov/watershed-stewardship/assessment/reports/.

All comments on the Draft Integrated Report document received on/prior April 4, 2026, will be considered for the final Integrated Report. Comments may be sent to Ms. Sakinat Ahmad by mail at DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 or email at SurfaceWQS@delaware.gov. Electronic submissions are preferred.

For additional information, please contact Ms. Sakinat Ahmad, Hydrologist, at (302)-608-5525 or via email at sakinat.ahmad@delaware.gov. View DNREC's non-discrimination policy at https://de.gov/titlevi. Encuentre la versión en español de este aviso en https://de.gov/dnrecavisos. Jwenn vésyon kreyòl avi sa a nan https://de.gov/dnrecavi.

DNREC Notice No. WSS20260078

Seksyon Evalyasyon ak Administrasyon Mas Dlo nan DNREC

NOTIFIKASYON PIBLIK

PREMYE VÈSYON 2026 DELAWARE POU RAPÒ KONBINE EVALYASYON MAS DLO (305(B)) AK DESIZYON POU SEKSYON LWA DLO PWÒP 303(D) LIS MAS DLO KI BEZWEN TMDLS (RAPÒ ENTEGRE A)

Notifikasyon sa a anonse disponiblite ak opòtinite pou kòmante sou Premye Vèsyon 2026 ki soti nan Depatman Resous Natirèl ak Kontwòl Anviwònmantal nan Delaware a pou Rapò Konbine (305(b)) Evalyasyon Mas Dlo ak Desizyon pou Seksyon Lwa 303(d) Dlo Pwòp Lis Mas Dlo ki Bezwen TMDLs (Rapò Entegre a). Dokiman konsènan Direktiv Rapò Entegre EPA a disponib anliy nan https://www.epa.gov/tmdl/identifying-and-listing-impaired-waters-under-clean-water-act. Tanpri ou gen jiska 4 avril 2026 pou w kontakte Depatman an epi soumèt kòmantè.

Premye Vèsyon Rapò Entegre a pibliye ak notifikasyon sa a sou sit wèb DNREC a nan https://de.gov/dnrecnotices. Dokiman ki lye epi ansyen rapò entegre disponib sou sit wèb Depatman an nan https://dnrec.alpha.delaware.gov/watershed-stewardship/assessment/reports/.

Tout kòmantè sou dokiman Premye Vèsyon Rapò Entegre a dwe resevwa nan dat oubyen anvan 4 avril 2026 epi yo pral konsidere yo pou Rapò Entegre final la. Yo ka voye kòmantè bay Ms. Sakinat Ahmad pa lapòs nan adrès sa a: DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904 oubyen voye yon imel nan SurfaceWQS@delaware.gov. Nou prefere soumisyon elektwonik pa imel.

Pou enfòmasyon adisyonèl, tanpri kontakte Ms. Sakinat Ahmad, Idwològ, nan (302)-608-5525 oubyen atravè imel nan sakinat.ahmad@delaware.gov. Konsilte politik anti-diskriminasyon DNREC a nan https://de.gov/titlevi. Encuentre la versión en español de este aviso en (Jwenn vèsyon an espayòl avi sa a nan) https://de.gov/dnrecavisos. Jwenn vèsyon kreyòl avi sa a nan https://de.gov/dnrecavi.

Nimewo Avi DNREC . WSS20260078

Sección de Evaluación y Gestión de Cuencas Hidrográficas del DNREC

AVISO PÚBLICO

BORRADOR DEL INFORME INTEGRADO DE 2026 DE EVALUACIÓN DE CUENCAS HIDROGRÁFICAS DE DELAWARE (305(B)) Y DETERMINACIÓN RELATIVA A LA LISTA DE AGUAS QUE REQUIEREN TMDL CONFORME A LA SECCIÓN 303(D) DE LA LEY DE AGUA LIMPIA (INFORME INTEGRADO)

Este aviso da a conocer la disponibilidad del Borrador del Informe integrado de 2026 de evaluación de cuencas hidrográficas (305(b)) y la determinación relativa a la lista de aguas que requieren TMDL (cargas diarias máximas totales) conforme a la sección 303(d) de la Ley de Agua Limpia (Informe integrado) del Departamento de Recursos Naturales y Control Ambiental de Delaware, así como la oportunidad de enviar comentarios al respecto. Los documentos de Orientación sobre informes integrados de la EPA (Agencia de Protección Ambiental) pueden consultarse en línea en https://www.epa.gov/tmdl/identifying-and-listing-impaired-waters-under-clean-water-act. Si desea enviar algún comentario, póngase en contacto con el Departamento antes del 4 de abril de 2026.

El Borrador del Informe integrado se publica junto con este aviso en el sitio web del DNREC https://de.gov/dnrecnotices. Los documentos relacionados y los Informes integrados anteriores se encuentran disponibles en el sitio web del Departamento en https://dnrec.alpha.delaware.gov/watershed-stewardship/assessment/reports/.

Todos los comentarios sobre el Borrador del Informe integrado que se reciban antes del 4 de abril de 2026 se tendrán en cuenta para elaborar el Informe integrado definitivo. Los comentarios pueden enviarse a la Sra. Sakinat Ahmad por correo a DNREC/Division of Watershed Stewardship, Watershed Assessment and Management Section, 285 Beiser Blvd., Suite 102, Dover, DE 19904, o por correo electrónico a SurfaceWQS@delaware.gov. Se prefieren los envíos por vía electrónica.

Para obtener información adicional, comuníquese con la Sra. Sakinat Ahmad, hidróloga, al teléfono (302)-608-5525 o por correo electrónico a la dirección sakinat.ahmad@delaware.gov. Consulte la política de no discriminación del DNREC en https://de.gov/titlevi. Encuentre la versión en español de este aviso en https://de.gov/dnrecavisos. Jwenn vésyon kreyòl avi sa a nan https://de.gov/dnrecavi.

Aviso del DNREC n.º WSS20260078

Submitted Comments

April 6, 2026
Josh Barth
Delaware Department of Natural Resources and Environmental Control
Watershed Assessment and Management Section
285 Beiser Blvd., Suite 102
Dover, DE 19904

DELAWARE CENTER FOR THE INLAND BAYS
preserve • protect • restore

Dear Mr. Barth,

On behalf of the Delaware Center for the Inland Bays (Center), I wish to thank the Delaware Department of Natural Resources and Environmental Control (DNREC) for using the Center's continuous water quality data collected in 2023-2024 for the upper Indian River (DE140-004) in your assessments for this 305(b)/303(d) Integrated Report. The Center created and continues to develop a network of continuous water quality measurements to better understand the rapidly changing water quality conditions in the Inland Bays. By providing enhanced temporal and spatial resolution, our continuous water quality network data proves to add to data collected by DNREC and other outside agencies.

The Center's high-frequency monitoring network was a high-priority recommendation of the Inland Bays Environmental Monitoring Plan (updated July 2023) developed by the Scientific and Technical Advisory Committee (STAC), with input from DNREC. The plan is a component of the Inland Bays Comprehensive Conservation and Management Plan, to which DNREC is a signatory. Data were collected by the Center since 2020 from stations in the upper and middle portions of the Indian River, Pepper Creek, Guinea Creek, and eastern Little Assawoman Bay. One station, with additional stations added in Rehoboth Bay and Indian River Estuary. In 2024, the Center started collecting data on the concept of representativeness for the DNREC assessment units per DNREC request. This three year study should be completed in 2026. The network will continue to be improved as our understanding of spatial and temporal heterogeneity grows. We will continue to share our dataset with DNREC, so you all have access to the most complete data available.

During the 2020 report draft commenting period, the Center's STAC recommended the inclusion of continuous DO data in the 2022 report narrative. We appreciate the inclusion in the 2026 report of this unique data type which can expand the understanding of water quality. While the 2024 draft Integrated Report considered data collected through 2022, only one of the Center's five monitoring stations active during the reporting period was accepted for use in the assessments. This 2026 report retains this precedence, but we appreciate the inclusion of the methodologies that clearly explains there is a difference in data collection methodologies which limits a direct comparison of the two datasets. We appreciate the recognition that there is no data quality question of the Center's dataset. The continuous DO data collected by the Center, as referenced in Appendix H, continues to suggest that the tidal portions of these tributaries show ecologically concerning levels of DO that threaten the Inland Bays biodiversity and regularly fall below the state's threshold.

The Center's additional data collection efforts will allow for greater comparability between DNREC and Center methods in terms of collection frequency. As our monitoring network continues to evolve and reach milestones set by DNREC for data inclusion, the Center looks

forward to when the data will be accepted in future assessments.

The Center wishes to continue to work closely with DNREC as new analytical methodologies are considered for future 305(b)/303(d) reports. The Center reiterates the following concerns from 2022 about current methodologies:

1. To determine Aquatic Life Use Support (ALUS) with regard to DO, the state's current methodology compares measured DO concentrations to two different standards: the minimum at all times (4.0 mg/L minimum standard) and daily averages (5.0 mg/L minimum standard for marine waters). For purposes of DO compliance with the daily average criteria in a segment, continuous monitoring data is averaged on a daily basis for each station.

   We do not feel the use of daily averages for continuous DO data is appropriate. In eutrophic estuaries, diel cycling of DO concentration in the water column is typical. Continuous data collected mid-summer from the upper Indian River from 2020 to 2025 shows that DO fluctuates on a daily basis from supersaturated during the day to extremely hypoxic at night (see plot below). Yet, daily averages generally exceed 5 mg/L, suggesting there is no impairment. We recommend that this standard be evaluated and alternatives considered to better protect living resources, given living resources inhabiting these waters are exposed to long time periods at suboptimal and potentially lethal DO levels.

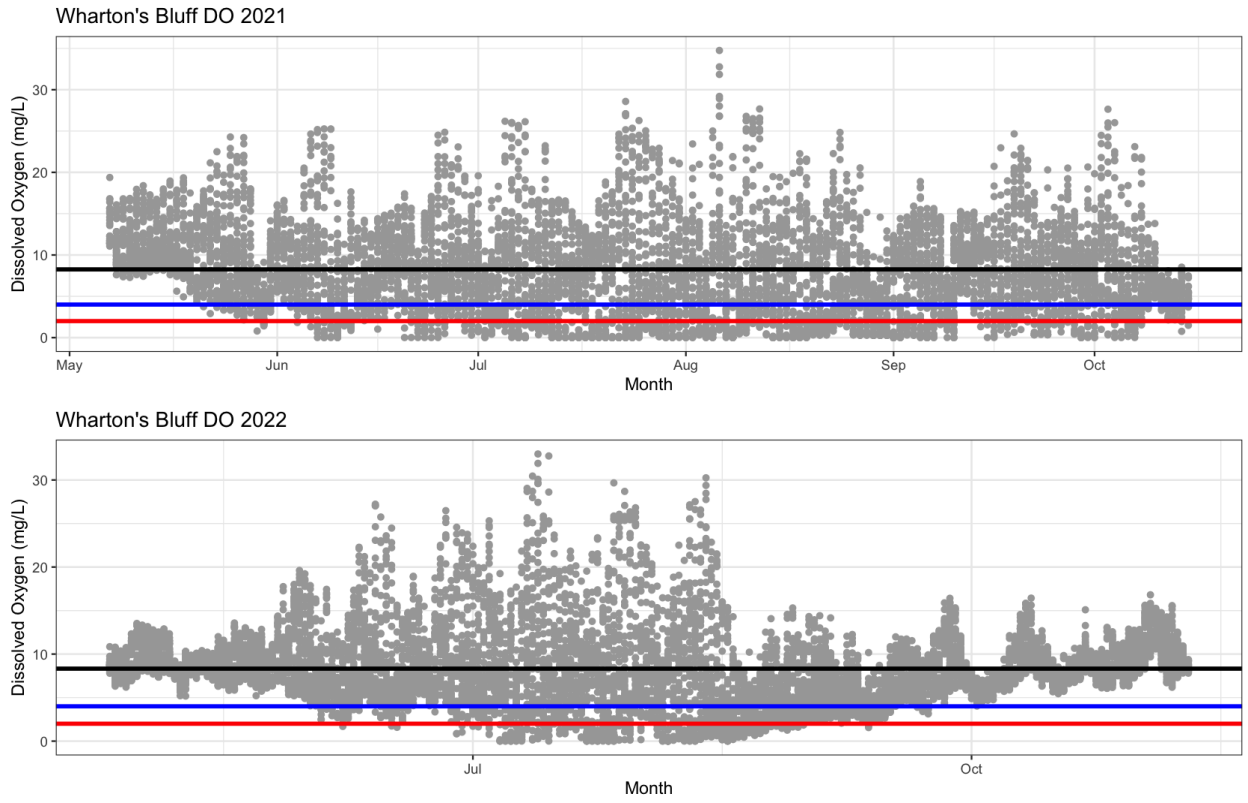


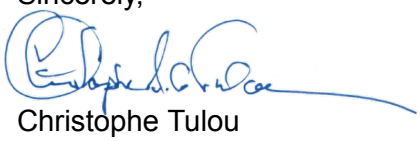
Figure 1. Dissolved oxygen concentrations at the Center's Wharton's Bluff station from 2021 and 2022 in the top and bottom panels, respectively. Black lines represent the mean DO

concentration, blue lines represent the 4 mg/L DO threshold and red lines represent the 2 mg/L DO threshold.

2. The biological significance of a low dissolved oxygen event depends not only upon its magnitude (i.e., either the average or minimum DO concentration) but also upon the duration of the hypoxic event. When DO dips below 4 or 5 mg/L for a very brief time during the night, it may have little significant impact on biota. However, long-term exposure to DO below 2 mg/L can affect survivorship, predator/prey interactions, and other cascading effects. While not a new finding, continuous data collected by the Center from the Indian River, Pepper Creek, and Guinea Creek in 2020, 2021, 2022, 2023, and 2024 show that DO frequently remains well below the 4 mg/L for hours at a time during the diel cycle for the period sampled (typically April - October). Data from the Wharton's Bluff station, for example, show that between June and October 2022, DO concentration remained at or below 4.0 mg/L for a period of at least six consecutive hours on 49 days. Worse, DO was ≤ 2.0 mg/L for at least six consecutive hours on 16 days, a much more concerning threshold for benthic organisms. Thus, an assessment methodology that includes both magnitude, duration, and frequency of hypoxic events should be considered.

In summary, we value our continued collaboration with DNREC and appreciate the use of the Center's data in your assessment.

Sincerely,



Christophe Tulou

Executive Director

Delaware Center for the Inland Bays

CC: Steve Williams, Director, DNREC Division of Watershed Stewardship

Meghan Noe Fellows, Directory Science and Restoration, Center for the Inland Bays

Taylor Hoffman, Science Coordinator, Center for the Inland Bays

Outlook

Follow up to March 31 meeting

From Martinsen, Jessica <Martinsen.Jessica@epa.gov>
Date Tue 4/14/2026 11:41 AM
To Barth, Joshua (DNREC) <joshua.barth@delaware.gov>
Cc Paudel, Bhanu (DNREC) <Bhanu.Paudel@delaware.gov>; Brown, Lori M. (DNREC) <LoriM.Brown@delaware.gov>; Ahmad, Sakinat (DNREC) <sakinat.ahmad@delaware.gov>; Krolik, Taylor <Krolik.Taylor@epa.gov>; Cudnik, Jillian <Cudnik.Jillian@epa.gov>; Fulton, Jennifer <Fulton.Jennifer@epa.gov>

Hi Josh,

Thank you for meeting with us on Tuesday, March 31, 2026, to discuss the Draft 2026 Integrated Report (IR) that was recently public noticed. We had a robust discussion based on our review and observations and any clarifying questions to inform our understanding. As a follow-up to that conversation, we are providing the summary of the key discussion points. We appreciate the time you and your staff took to discuss the Draft IR with us.

In addition to the topics below, there were some minor typos and suggested edits that we brought to your attention. Please reach out to us if you need more information on those.

1. Section 4.3.4.4 Lead in Surface Water and Listing Criteria:
    a. This section states that out of 75 stations, 2 exceeded lead criteria, but were listed in Category 3. We note that an additional station exceeded criteria and was listed in Category 5. We discussed reviewing and correcting as necessary.
    b. We discussed the need for a basis for the 2 waterbodies if they are to remain in Category 3, and the available data to list the waters in Category 5 directly within the IR.
    c. DNREC's appendices show that one of the two Category 3 listings (DE220-005-01-Murderkill River) exceeds aquatic life criteria once out of 64 samples. Following the assessment method, we discussed whether these data suggest attainment (Category 2) since two or more exceedances are needed for an aquatic life impairment which may result in moving the waters from Category 3 to Category 2.
2. DE220-005-06 and DE220-005-03 (Upper Murderkill River) for Dissolved Oxygen were nested into Category 4A from 5, however, these AUs were originally listed in 1998 and have been in Category 5 since. We discussed including the possibility for a demonstration on how the existing TMDLs are designed to achieve the applicable water quality standards in these waterbodies.
3. According to DE WQS, the Murderkill's daily average dissolved oxygen criteria is 3 mg/L, while the minimum is 1 mg/L. Sections 4.3.1.1. and 4.3.1.2 state that the minimum criteria in the Murderkill is 3 mg/L, while section 4.2.1 states that the Murderkill daily average criteria is 3, while the minimum is 1. We discussed ensuring that the dissolved oxygen assessments applied the correct criteria.
4. We discussed the regulatory requirement in 303(d) that states that existing and readily available water quality-related data and information must be used in developing the list unless they provide a rationale not to use them. See 40 CFR 130.7(b)(5) and 40 CFR 130.7(b)(6)(iii). When a final IR is submitted to EPA for review and action, the EPA evaluates the IR including the technical, science-based rationale for decisions not to use

available data or information to develop the CWA 303(d) list. Below are a couple specific areas that were included as part of this dicussion.

- DCIB data - We discussed providing an explanation of why the sampling methodology that DCIB used could not support a WQS attainment determination.
- White Clay Wild and Scenic River Stream Watch Monitoring data - We discussed why a lack of analytical methods would not support a WQS attainment determination.

Thank you again for the discussion. If you have any questions please don't hesitate to reach out to me and/or Taylor.

Respectfully,
Jessica

Jessica Martinsen
Chief, Standards and TMDLs Section
Water Division
US EPA Mid-Atlantic Region
Phone 215-814-5144
Cell 267-449-3848
Email martinsen.jessica@epa.gov

1. Summary

Meeting title	2026 Draft IR Discussion
Attended participants	8
Start time	3/31/26, 12:59:51 PM
End time	3/31/26, 1:57:35 PM
Meeting duration	57m 43s
Average attendance time	56m 11s

2. Participants

Name	First Join	Last Leave	In-Meeting Duration
Krolik, Taylor	3/31/26, 1:00:22 PM	3/31/26, 1:57:33 PM	57m 10s
Ettema, Leah	3/31/26, 1:00:14 PM	3/31/26, 1:57:32 PM	57m 18s
Cudnik, Jillian	3/31/26, 1:00:25 PM	3/31/26, 1:57:33 PM	57m 7s
Barth, Joshua (DNREC)	3/31/26, 1:00:29 PM	3/31/26, 1:57:33 PM	57m 3s
Brown, Lori M. (DNREC)	3/31/26, 1:00:30 PM	3/31/26, 1:57:35 PM	57m 4s
Paudel, Bhanu (DNREC)	3/31/26, 1:00:46 PM	3/31/26, 1:57:31 PM	56m 45s
Martinsen, Jessica	3/31/26, 1:02:34 PM	3/31/26, 1:57:32 PM	54m 57s
Ahmad, Sakinat (DNREC)	3/31/26, 1:05:27 PM	3/31/26, 1:57:33 PM	52m 6s

3. In-Meeting Activities

Name	Join Time	Leave Time	Duration
Krolik, Taylor	3/31/26, 1:00:22 PM	3/31/26, 1:57:33 PM	57m 10s
Ettema, Leah	3/31/26, 1:00:14 PM	3/31/26, 1:57:32 PM	57m 18s
Cudnik, Jillian	3/31/26, 1:00:25 PM	3/31/26, 1:57:33 PM	57m 7s
Barth, Joshua (DNREC)	3/31/26, 1:00:29 PM	3/31/26, 1:57:33 PM	57m 3s
Brown, Lori M. (DNREC)	3/31/26, 1:00:30 PM	3/31/26, 1:57:35 PM	57m 4s
Paudel, Bhanu (DNREC)	3/31/26, 1:00:46 PM	3/31/26, 1:57:31 PM	56m 45s
Martinsen, Jessica	3/31/26, 1:02:34 PM	3/31/26, 1:57:32 PM	54m 57s
Ahmad, Sakinat (DNREC)	3/31/26, 1:05:27 PM	3/31/26, 1:57:33 PM	52m 6s

Enclosure 1
Rationale for EPA Approval of
Delaware's 2026 Clean Water Act Section 303(d) List

1. Introduction

This document sets forth the U.S. Environmental Protection Agency's (EPA) reasoning for approving Delaware' 2026 Clean Water Act (CWA) Section 303(d) list (303(d) list). The EPA received Delaware's 2026 303(d) list on July 23, 2026, through the EPA's Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS), which is EPA's electronic system for receiving and tracking 303(d) list submissions.[1] Delaware submitted the 303(d) list and supporting documents and information through ATTAINS as a component of its Integrated Report (IR), *State of Delaware 2026 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs*, dated May 2026.

The EPA has conducted a complete review of Delaware's 2026 303(d) list and supporting documentation and information, including changes from the previous 303(d) list. Based on this review, the EPA has determined that the state's 303(d) list of water quality-limited segments (WQLSs)[2] still requiring TMDLs (i.e., Category 5 of the state's IR) satisfies the requirements of CWA Section 303(d) and the EPA's implementing regulations. Therefore, the EPA hereby approves Delaware's 2026 303(d) list.

2. The EPA's Analysis of Delaware's Submission

Section 303(d)(1) of the CWA and the EPA's implementing regulations at 40 CFR 130.7 require states, territories, and authorized Tribes (herein referred to as "states") to identify waters for which effluent limitations required by CWA Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard (WQS). States need not identify on their lists waters where the following controls are adequate to implement applicable standards: 1) technology-based effluent limitations required by the Act, 2) more stringent effluent limitations required by state or local authority, and 3) other pollution control requirements required by state, local, or federal authority. 40 CFR 130.7(b)(1) and (2). CWA 303(d) lists must identify WQLSs still requiring TMDLs. 40 CFR 130.7(b). The definition of "water quality limited segment" in 40 CFR 130.2(j) includes any segment where it is known that water quality does not meet applicable WQSs (referred to as "impaired waters"), and any segment that is not expected to meet applicable WQSs (referred to as "threatened waters"), "even after the application of the technology-based effluent limitations required by" the Act. The term "applicable WQSs" refers to those WQSs established under Section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements. 40 CFR 130.7(b)(3). An impaired or threatened water must be on the 303(d) list and requires a TMDL unless the state can

[1] ATTAINS data is publicly accessible via the EPA's How's My Waterway online tool and ATTAINS web and geospatial services. For more information, see: https://www.epa.gov/waterdata/get-data-access-public-attains-data.

[2] The EPA uses the term WQLS to reflect the combination of a water segment and an applicable water quality standard that is not attained or is threatened. For example, if a segment is not meeting three applicable water quality standards, then there are three WQLSs for that segment.

demonstrate that no pollutant(s) causes or contributes to the impairment[3] or one or more of the three types of requirements described earlier in this paragraph become stringent enough to implement applicable WQSs. In addition, in developing their CWA 303(d) lists, states must meet several procedural, submission, and content requirements as described in this decision document.

States must submit their 303(d) lists to the EPA on April 1 of every even-numbered year. 40 CFR 130.7(d)(1). The EPA must approve or disapprove the 303(d) list no later than 30 days after submission. The EPA approves a list only if it meets the requirements of 40 CFR 130.7(b). 40 CFR 130.7(d)(2). If the EPA approves the listing(s), the state must incorporate the listing(s) into its current Water Quality Management (WQM) plan. If the EPA disapproves a listing decision(s), the EPA must, no later than 30 days after the date of such disapproval, identify waters for inclusion on the 303(d) list. The EPA then must promptly issue a public notice seeking comment on the listing(s). After considering public comment and making any revisions the EPA deems appropriate, the EPA must transmit the listing(s) to the state, and the state must incorporate the listing(s) into its WQM plan. *Id.*

The statutory and regulatory requirements, and the EPA's review of the state's compliance with the requirements, are described in detail in this document. To the extent that any EPA-approved listing decisions are unchanged from prior approved 303(d) list actions, the EPA incorporates the reasoning of those previous list actions unless otherwise noted.

A. Supporting documentation for making listing determinations

EPA regulations at 40 CFR 130.7(b)(6) require states to include, as part of their submissions to the EPA, documentation to support the state's determination to include or not include waters on its 303(d) list. Such documentation must include, at a minimum, the information discussed in the subsections below.

i. Description of the methodology used to develop the 303(d) list. 40 CFR 130.7(b)(6)(i).

EPA regulations at 40 CFR 130.7(b)(6) require states to include a description of the methodology used to develop the 303(d) list.[4] The EPA does not approve or disapprove assessment methodologies. Instead, in acting on CWA 303(d) lists, the EPA evaluates whether the state, territory, or authorized tribe met listing requirements in determining whether applicable WQSs are met and included waters requiring TMDLs on its 303(d) list. 2024 Integrated Reporting Memorandum (IR Memo) at 15.

The EPA finds that Delaware has provided a description of its methodologies used for determining whether its waters are achieving the state's WQSs, satisfying the regulatory requirement to provide a "description of the methodology used to develop the list." 40 CFR 130.7(b)(6)(i). The description of Delaware's assessment methodologies can be found in *Section 4.2 Assessment Methodologies* of the IR. The EPA has considered the state's methodology as part of its review of the state's 303(d) list.

[3] *See* CWA Sections 303(d)(1)(A) and 303(d)(1)(C); 40 CFR 130.7(b)(4); 2006 Integrated Reporting Memorandum at 60; 2024 Integrated Reporting Memorandum at 18-19. EPA Integrated Reporting Memoranda may be found at https://www.epa.gov/tmdl/integrated-reporting-guidance-under-cwa-sections-303d-305b-and-314.

[4] The EPA's Integrated Reporting Memoranda provide more information on assessment methods. *See* 2006 Integrated Reporting Memorandum at 29.

ii. Description of the data and information used to identify waters. 40 CFR 130.7(b)(6)(ii).

EPA regulations at 40 CFR 130.7(b)(6)(ii) require states to provide a description of the data and information used to identify waters, including a description of the data and information used by the state as required by 40 CFR 130.7(b)(5). The EPA finds that Delaware has provided a description of the data and information that it assembled and evaluated. 40 CFR 130.7(b)(6)(ii). Delaware describes its state monitoring programs in *Section 3 Monitoring Program* and further details additional data and information it assembled and evaluated in *Section 4.1 Data and Guidance for Assessment* of the IR. The EPA has considered the state's description as part of its review of the state's 303(d) list.

iii. A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in 40 CFR 130.7(b)(5). 40 CFR 130.7(b)(6)(iii).

EPA regulations at 40 CFR 130.7(b)(6)(iii) require states to provide a rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in 40 CFR 130.7(b)(5). 40 CFR 130.7(b)(6)(iii). The EPA evaluates whether a state provides a technical, science-based rationale for decisions not to use data or information in developing the list.[5] The EPA finds Delaware provided a rationale where it did not use data or information it assembled and evaluated to develop its list. *See* 40 CFR 130.7(b)(6)(iii). Delaware's rationale can be found in *Section 4.1 Data and Guidance for Assessment*, *Section 4.3.1.3 Center for Inland Bays Continuous Dissolved Oxygen in Surface Water*, *Section 5 Public Participation*, and *Appendix H: External Data* of the IR. The EPA has considered the state's rationale as part of its review of the state's 303(d) list.

iv. Other reasonable information requested by the Region. 40 CFR 130.7(b)(6)(iv).

EPA regulations at 40 CFR 130.7(b)(6)(iv) require states to provide any other reasonable information requested by the EPA. Upon request by the EPA, each state must demonstrate good cause for not including a water or waters on the list. Consistent with 40 CFR 130.7(b)(6)(iv), good cause includes, but is not limited to:

- assessment and interpretation of more recent or accurate data in the record demonstrate that the applicable WQS is met;
- more sophisticated water quality modeling;
- flaws in the original analysis that led to the water being listed; or
- changes in conditions.

Good cause may also include, for example (see, e.g., 2006 IR Memo at 58-59):

- existence of an EPA-approved or EPA-established TMDL;
- demonstration that the impairment is being addressed through more stringent effluent limits or other pollution control requirements; or
- demonstration that the impairment is not caused by a pollutant.

The EPA finds Delaware provided additional reasonable information requested by the EPA. The EPA has considered this information as part of its review of the state's 303(d) list. For each WQLS removed from the 303(d) list, Delaware provided a reason to EPA, including that applicable WQSs were attained based on new data.

[5] 2024 IR Memo at FN 15 (citing court cases); 2006 IR Memo at 37 (the EPA evaluates whether there is a "reasonable technical rationale").

B. Public participation

EPA regulations require states to provide for public participation in the development of their 303(d) lists, including describing their process for involving the public and other stakeholders in their Continuing Planning Processes (CPPs). 40 CFR 130.7(a). States are expected to demonstrate how they considered public comments in their final decisions. The EPA considers the public comments and state responses as appropriate in its actions on 303(d) lists in determining whether a state has provided reasoned support for its submission. *See* 2006 IR Memo at 25-26.

The state's 2026 303(d) list submission to the EPA included a full list of public comments and the state's responses to comments. Delaware released its draft 2026 IR and the Section 303(d) list of impaired waters for public review and comment on March 6, 2026, with a public comment period open for 30 days until April 6, 2026. A notice of availability of the draft 2026 IR and the Section 303(d) list was published on Delaware's webpage on March 6, 2026. All materials including the IR narrative and supporting documentation and information were made available on Delaware's webpage.[6]

In addition to comments from the EPA, Delaware received comments from the Delaware Center for the Inland Bays (DCIB) regarding Delaware's assessment methodology for continuous dissolved oxygen data and Delaware's decision not to rely on certain data submitted to it from DCIB. Delaware addressed all comments received in a comment response document included within the final IR submission to the EPA. In addition, Delaware made several changes to the IR in response to public comment. For example, with regards to DCIB's comments, Delaware clarified its assessment methodology for dissolved oxygen within *Section 4.2.1 Dissolved Oxygen Aquatic Life Use Support and Assessments of DO Criteria Attainment* and *Section 5 Public Participation* and provided a rationale for not relying on DCIB's data.

In addition to the draft 2026 IR, Delaware provided the public with notice and an opportunity to comment on its assessment methodologies. In tandem, Delaware solicited water quality data and information from the public and provided its external data policy,[7] which explained how any data received would be evaluated and used. Delaware released its *Draft 305(b) and 303(d) Waters Assessment Methodologies and Data Solicitation* for public review and comment from August 8, 2025, through September 8, 2025.[8] Delaware's final assessment methodologies were incorporated into the 2026 IR.

The EPA concludes Delaware provided an opportunity for public comment on its 303(d) list consistent with 40 CFR 130.7(a). In addition, the state demonstrated how it considered public comments in its final decision.

[6] Delaware's public noticed draft 2026 IR can be found on Delaware's webpage: https://dnrec.delaware.gov/public-notices/wss20260078/

[7] Delaware's External Data Policy: https://documents.dnrec.delaware.gov/Watershed/Assessment/External-Data-Policy.pdf

[8] Delaware's 2026 Draft 305(b) and 303(d) Waters Assessment Methodologies and Data Solicitation: https://dnrec.delaware.gov/public-notices/wss20250294/

C. Assembling, evaluating, and using data and information

i. Assemble and evaluate data and information

States must assemble and evaluate all existing and readily available water quality-related data and information to develop the CWA 303(d) list. 40 CFR 130.7(b)(5). In reviewing a state's 303(d) list submission, the EPA considers whether the state has satisfied the requirements under 40 CFR 130.7(b)(5) to assemble and evaluate all existing and readily available water quality-related data and information when developing their CWA 303(d) list. This includes, at a minimum, all existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent CWA Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate non-attainment of applicable WQSs; (3) waters for which water quality problems have been reported by local, state, and federal agencies; members of the public; and academic institutions (these organizations and groups should be actively solicited for research they may be conducting or reporting); and (4) waters identified as impaired or threatened in any CWA Section 319 nonpoint source assessment submitted to the EPA. In addition to these minimum categories, states are required to assemble and evaluate any other water quality-related data and information that is existing and readily available. 40 CFR 130.7(b)(5).

The EPA has reviewed the state's submission, including the state's description of the data and information that it assembled and evaluated and finds that the state satisfied the requirement to assemble and evaluate all existing and readily available water quality-related data and information to develop its list under 40 CFR 130.7(b)(5).

Delaware's description of the data and information that is assembled and evaluated to develop its list can be found in *Section 3 Monitoring Program* and *Section 4.1 Data and Guidance for Assessment* of the IR. For the 2026 IR, Delaware assembled and evaluated data and information collected between January 1, 2020, through December 31, 2024. A large portion of these data were water quality samples that Delaware staff routinely collect at more than 130 General Assessment Monitoring Network (GAMN) stations throughout the state. Delaware's Surface Water Quality Monitoring Program uses the GAMN network to collect data on the chemical, physical, and biological characteristics of Delaware's surface waters. Delaware also assembled and evaluated data collected from other state programs including Delaware's Recreational Beach Monitoring Program and Delaware's Watershed Approach to Toxics Assessment and Restoration (WATAR) Program.

In addition to Delaware's monitoring programs, Delaware issued a public solicitation for water quality data prior to its public notice of the draft IR. This solicitation of data was open from August 8, 2025, until September 8, 2025. During the 2026 assessment cycle, Delaware received data from two external organizations as part of its data solicitation, and both data submissions were assembled and evaluated to develop its list.

ii. Use of data and information

States must use existing and readily available water quality-related data and information in developing the CWA 303(d) list, 40 CFR 130.7(b)(5), unless they provide a rationale not to use them, 40 CFR

130.7(b)(6)(iii). The EPA evaluates whether a state provides a technical, science-based rationale for decisions not to use data or information in developing the list.[9]

The EPA evaluated whether Delaware provided a technical, science-based rationale for any decisions not to use existing and readily available water quality-related data or information to make a WQS attainment status determination and concluded the state provided such a rationale for the purposes of 40 CFR 130.7(b)(6)(iii). In *Section 4.1.2 Data Quality and Quantity* of its IR, Delaware explains that for data to be considered, quality assurance and control methods must be used for collection and analyses of samples and that data from Delaware's Environmental Laboratory Section (ELS) are used if collected and analyzed in accordance with the ELS Quality Assurance Project Plan. To assist external partners with submitting data for use in Delaware's IR, Delaware published a new external data policy.[10] This policy provides information to external partners on the process for submitting data along with metadata requirements. The policy was created to improve transparency and communication as to whether and how external data are used for assessment purposes.

In addition, Delaware provided case-specific rationales for why certain data were not used to make WQS attainment status determinations. Delaware received data from two external partners: DCIB and White Clay Creek Wild and Scenic River. DCIB provided dissolved oxygen (DO) data collected from the bottom of the water column for seven sites in Delaware's Inland Bays. Delaware evaluated these data but decided not to use the majority of it to develop its list because Delaware determined that bottom water DO data were not representative of the waterbodies due to the higher benthic metabolism and subsequent increase in oxygen consumption and DO fluctuations that occur in these eutrophic bays. A detailed description of Delaware's decisions can be found in *Section 4.3.1.3 Center for Inland Bays (CIB) Continuous Dissolved Oxygen in Surface Water* of the IR.

Additionally, Delaware received water chemistry data including chlorides, nitrates, orthophosphates, water temperature, conductivity, and bacteria from White Clay Creek Wild and Scenic River. Delaware evaluated these data but decided not to use it to develop its list because analytical methodologies were not provided. Without analytical methods, Delaware could not verify basic quality assurance and quality control statistics including the precision and accuracy of the data, minimum detection limits, etc. The EPA determined that Delaware's rationales constitute technical, science-based rationales for its decision not to use certain existing and readily available water quality-related data or information for the purposes of 40 CFR 130.7(b)(6)(iii).

D. Identification of waters for inclusion on the 303(d) list

As noted above, EPA regulations at 40 CFR 130.7(b)(6) require states to provide documentation to support the state's determination to include or not include its waters on the 303(d) list. The EPA has reviewed the state's submission, including its assessment methodology and additional supporting documentation for its listing determinations.

[9] *See supra* FN 5.
[10] *See supra* FN 7.

i. Approval of identification of waters for inclusion on the 303(d) list

The EPA determined that the waters included on Delaware's 2026 303(d) list are listed consistent with the CWA Section 303(d) and 40 CFR 130.7 requirements, and the EPA is approving all waters the state included on the 303(d) list. The EPA's approval of the 303(d) list is based on the EPA's review of the state's submission including the description of the data and information concerning individual waters, documentation to support decisions to rely or not rely on particular data and information, and a description of how data and information were applied to make WQS attainment status determinations. The EPA also considered applicable public comments and responses. Delaware's 303(d) list of WQLSs can be found in ATTAINS and is also displayed in *Appendix E* of Delaware's IR.[11]

Delaware added 27 WQLSs to its 2026 303(d) list. Twenty-five WQLSs were added for copper, representing the first time Delaware assessed its freshwaters using its adopted, and EPA-recommended, Biotic Ligand Model. The remaining two WQLSs, the Chesapeake and Delaware (C&D) Canal for enterococcus and the Lewes and Rehoboth Canal for total suspended solids, were added based on new data showing that WQSs were not attained. Delaware ranked its new WQLSs as low priorities for TMDL development.

ii. Approval of exclusion of waters identified on previous 303(d) lists

Delaware's 2026 303(d) list submission delists two WQLSs. In reviewing the state's 2026 303(d) list, the EPA carefully considered the state's decision to remove these WQLSs from the 303(d) list submission, its justification for those removals, any applicable public comments and responses, and the methodology used in making those decisions. The EPA concludes that the state's decisions to remove WQLSs previously identified as part of the 303(d) list are reasonable, based on all existing and readily available water quality-related data and information, applicable WQSs, and sound science, and the removal decisions are properly justified.

The two WQLSs delisted include the Lower Christina Creek and the Lower Indian River Bay for copper. For each WQLS removed from the 303(d) list, Delaware provided a reason to EPA. In both cases, these WQLSs were removed from the 303(d) list because applicable water quality standards were attained based on new data.

E. Identification of pollutants causing or expected to cause a violation of applicable WQSs (40 CFR 130.7(b)(4))

As part of their CWA 303(d) lists, states are required to identify the pollutants causing or expected to cause violations of the applicable WQSs. 40 CFR 130.7(b)(4). This includes a pollutant that by itself, or in combination with other pollutants, causes or is expected to cause violations of applicable WQSs. States must identify on their 303(d) lists all pollutants that are known to be causing or are expected to cause violations of the applicable WQSs. 40 CFR 130.7(b)(4); *see also* 2024 IR Memo at 17-19. For listed waters, if the available data and information do not support identification of pollutants causing or expected to cause the exceedance, list submissions could identify the pollutant as "unknown."

[11] Notably, the EPA's approval applies to the Category 5 WQLSs presented in ATTAINS. In case of discrepancies that exist between ATTAINS and Delaware's IR, ATTAINS takes precedence.

Consistent with 40 CFR 130.7(b)(4), Delaware appropriately identified the pollutants that were causing or expected to cause a violation of the applicable WQS. For waters where the available data and information did not support identification of pollutants causing or expected to cause the exceedance, the state appropriately included the water on the 2026 303(d) list and identified the pollutant as "biological integrity." The EPA encourages the state to reassess and potentially refine that determination when additional data and information become available. *See, e.g.*, 2024 IR Memo.

As described in *Section 4.2.10 Assessment of Biology and Habitat* of the IR, Delaware is working to revitalize its Habitat and Biology Program through the development of a statistically valid index of biological integrity (IBI) for the Piedmont ecoregion of the state, followed by reevaluation of the Coastal Plain ecoregion dataset as well. Once developed, the EPA anticipates that Delaware will use biological monitoring as one of its core indicators to assess aquatic life. The EPA encourages Delaware to conduct biological monitoring with sufficient rigor to refine the existing indices of biotic integrity and use them to make WQS attainment status determinations and conduct stressor identification.

F. Priority ranking and two-year TMDL development (40 CFR 130.7(b)(4))

The CWA and EPA's regulations require states to establish a priority ranking for the waters on their CWA 303(d) list "taking into account the severity of the pollution and the uses to be made of such waters." CWA Section 303(d)(1)(A); 40 CFR 130.7(b)(4). The regulations at 40 CFR 130.7(b)(4) provide that this priority ranking must include "all listed water quality limited segments still requiring TMDLs" and further require that states submit their priority rankings to the EPA as a component of their biennial CWA 303(d) lists. Additionally, the regulations require that the priority ranking identify the waters targeted for TMDL development in the next two years. 40 CFR 130.7(b)(4).

Delaware's description of how all listed WQLSs are prioritized for TMDL development, including identification of waters targeted for TMDL development in the next two years, is included within the state's 303(d) list submission. In addition, Delaware described how its priority ranking accounts for the severity of pollution and the uses to be made of such waters.

Delaware's prioritization strategy is described in *Section 4.2.11 Setting Priorities for Water Quality Limited Assessment Units Still Needing TMDLs* of the IR. Delaware accounted for the severity of the pollution by designating WQLSs as high priorities for TMDL development where contaminant trends were increasing and/or the magnitude of WQS exceedances was high. Delaware also accounted for the uses to be made of such waters by selecting WQLSs as high priorities for TMDL development where concentrations of toxic contaminants in fish tissue were elevated, and therefore, represented a threat to human health via the consumption of fish. Additional factors Delaware used to designate WQLSs as high priorities for TMDL development included whether there was sufficient information to develop TMDLs or whether Delaware already committed to extending its resources in those waterbodies (e.g., addressing additional WQLSs in a waterbody with a high WQLS that is already being addressed). As such, in Delaware's 2026 IR, the WQLSs in the Red Clay Creek mainstem for dioxin, furans, dichlorodiphenyltrichloroethane (DDT), and dieldrin were designated as high priorities for TMDL development. In addition, *Section 4.3.6 Toxic Pollutants in Fish Tissue* of the IR explains that Delaware is actively developing those TMDLs for the Red Clay Creek mainstem, satisfying the requirement to identify waters targeted for TMDL development in the next two years for purposes of 40 CFR 130.7(b)(4). All other WQLSs were ranked as low priorities for TMDL development. These include

WQLSs in Category 5mnr where concentrations of toxic contaminants in fish tissue are expected to drop below screening criteria within approximately five to ten years.

The EPA's review of Delaware's submission finds that the state established a priority ranking for all waters on the CWA 303(d) list, taking into account the severity of the pollution and the uses to be made of such waters.[12] In addition, the state identified the waters targeted for TMDL development in the next two years.

3. Summary of the EPA's decision on the 2026 CWA 303(d) list

After careful review of Delaware's final CWA 303(d) list submission package, the EPA has determined that Delaware's 2026 303(d) list meets the requirements of CWA Section 303(d) and the EPA's implementing regulations. Therefore, the EPA approves Delaware's 2026 303(d) list.

[12] In addition to these two statutory factors, states may also consider other factors when prioritizing TMDLs. *See* 57 Fed. Reg. 33040, 33044-45 (July 24, 1992).