

Presented to an advisory committee of the DRBC on July 23, 2026. Contents should not be published or re-posted in whole or in part without the permission of DRBC.

# Wasteload Allocation Study: Facilities, flows, concentrations, & ranked loads

## Water Quality Advisory Committee

**July 23, 2026**

*Zoom*

**Matthew Amato, PhD**

Joseph Fogarty, PhD

Li Zheng, PhD

Thomas Amidon, BCES

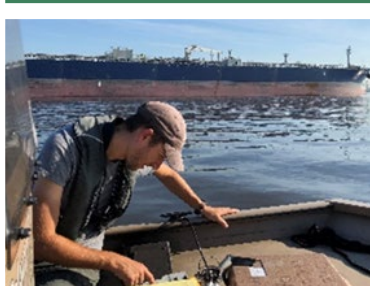
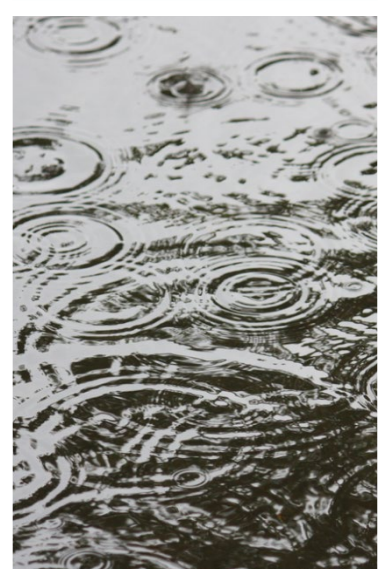
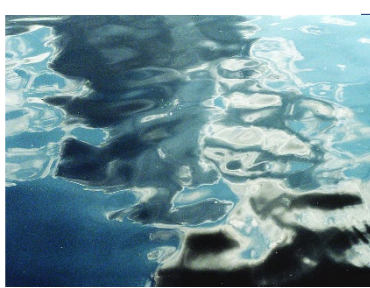
Namsoo Suk, PhD

Sarah Beganskas, PhD



**Delaware River Basin Commission**

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



# Facilities and flows in Delaware



## Included in WLA Study

| NPDES ID      | Facility Name              | Permitted |
|---------------|----------------------------|-----------|
| DE0020320-001 | City of Wilmington         | 134.00    |
| DE0020338-001 | Kent County Levy Court     | 20.00     |
| DE0000256-601 | Delaware City Refining     | 13.00     |
| DE0050547-001 | Middletown-Odessa-Townsend | 5.00*     |
| DE0021512-001 | City of Lewes              | 1.50      |
| DE0021555-001 | Delaware City STP          | 0.57      |
| DE0021491-001 | Milton STP                 | 0.35      |

\*Permitted flow for MOT reflects known expansion plans according to DNREC

## Notes / Questions

- Ongoing discussions with DNREC about how to account for Delaware City Refining in the WLA Study

| NOT INCLUDED IN WLA STUDY |                                        |
|---------------------------|----------------------------------------|
| DE0000051-001             | DuPont Edgemoor                        |
| DE0000558-016             | Calpine Mid-Atlantic Generation        |
| DE0000612-001             | Formosa Plastics                       |
| DE0000655-001             | General Chemical (Drawbridge Claymont) |
| DE0021539-001             | Port Penn STP                          |
| DE0050911-001             | Occidental                             |

# Facilities and flows in New Jersey



## Included in WLA Study

| NPDES ID       | Facility Name                           | Zone | Permitted |
|----------------|-----------------------------------------|------|-----------|
| NJ0005002-WTPA | PSEG Fossil, Burlington Generating Sta  | 2    | 0.0207    |
| NJ0020923-001A | Trenton Sewer Utility                   | 2    | 20.00     |
| NJ0021610-001A | Riverton STP                            | 2    | 0.22      |
| NJ0021709-002A | Central Ave. WTP, Burlington TWP        | 2    | 3.65      |
| NJ0022519-001A | Riverside Sewerage Authority            | 2    | 1.00      |
| NJ0023361-001A | Willingboro Water Pollution Control Plt | 2    | 5.22      |
| NJ0023507-001A | Delran TWP Sewer Utility Department     | 2    | 2.50      |
| NJ0023701-001A | Florence Township STP                   | 2    | 2.50      |
| NJ0024007-001A | Cinnaminson Sewerage Authority T2       | 2    | 2.00      |
| NJ0024015-001A | Mount Holly WPCF                        | 2    | 7.68      |
| NJ0024660-002A | Burlington City STP                     | 2    | 2.70      |
| NJ0025178-001A | Mt. Laurel Hartford RD WPCF             | 2    | 6.00      |
| NJ0026301-001A | Hamilton TWP WPCF                       | 2    | 16.00     |
| NJ0027481-001  | Beverly Sewerage Authority              | 2    | 1.00      |
| NJ0031810      | FIELDSBORO WWTP                         | 2    | 0.10      |
| NJ0024449-001A | Palmyra STP                             | 3    | 1.05      |
| NJ0024678-001A | Bordentown SA Black's Creek STP         | 3    | 3.00      |
| NJ0024996-001  | Moorestown TWP WWTP                     | 3    | 3.88      |
| NJ0026182-001A | CCMUA Delaware 1 WPCF                   | 3    | 80.00     |
| NJ0069167      | MAPLE SHADE TWP PARK AVE WWTP           | 3    | 3.40      |
| NJ0004219-001  | Chemours Company Repauno                | 4    | 1.97      |

| NPDES ID       | Facility Name                         | Zone | Permitted |
|----------------|---------------------------------------|------|-----------|
| NJ0005029-001  | Paulsboro Refining Company            | 4    | 7.15      |
| NJ0005045-001A | Polymer Additives Inc. (VSC)          | 4    | 0.94      |
| NJ0005240-001A | Bridgeport Disposal LLC               | 4    | 0.129     |
| NJ0022021      | SWEDESBORO WTP                        | 4    | 0.35      |
| NJ0024686-001A | GCUA                                  | 4    | 27.00     |
| NJ0027545-001A | Logan Township MUA                    | 4    | 2.75      |
| NJ0030333      | GREENWICH TOWNSHIP STP                | 4    | 1.00      |
| NJ0004286-001  | Mexichem Specialty Resins             | 5    | 0.58      |
| NJ0005100-662A | Chambers Works, Tier-2                | 5    | 3.77      |
| NJ0021598-001A | Pennsville Sewerage Authority         | 5    | 1.88      |
| NJ0021601-001A | Carneys Point STP                     | 5    | 1.30      |
| NJ0024023-001A | Penns Grove Sewerage Authority        | 5    | 0.75      |
| NJ0024635      | FORMER US ARMY PEDRICKTOWN            | 5    | 0.03      |
| NJ0024856-001A | Salem City WW Treatment Facility      | 5    | 1.40      |
| NJ0025411-461B | Hope Creek Generating Station         | 5    | 0.015     |
| NJ0050423      | HANCOCKS BRIDGE STP                   | 5    | 0.05      |
| NJ0062201-001A | Canton Village STP                    | 5    | 0.05      |
| NJ0004766-001A | SURFSIDE PRODUCTS LLC                 | 6    | 0.16      |
| NJ0024651-001A | Cumberland County Utilities Authority | 6    | 7.00      |
| NJ0029467-001A | Millville WTP                         | 6    | 5.00      |
| NJ0102849      | BAYSIDE STATE PRISON                  | 6    | 0.61      |

# Facilities and flows in New Jersey



- Most NJ facilities and flows for WLA Study are confirmed by NJDEP
- Ongoing discussions
  - Account for a few dischargers that were previously left out
  - Incorporate a new discharge
  - Determine relevance of a few discharges
- **Facilities and flows will be finalized this month**

# Facilities and flows in Pennsylvania



## Included in WLA Study

| NPDESID        | Facility Name                           | Permitted |
|----------------|-----------------------------------------|-----------|
| PA0026689-001  | PWD Northeast                           | 210       |
| PA0026671-001  | PWD Southwest                           | 200       |
| PA0026662-001  | PWD Southeast                           | 112       |
| PA0027103-001  | Delcora                                 | 44.0      |
| PA0026468-001  | Lower Bucks County JMA                  | 10.0      |
| PA0026701-002  | Morrisville Borough Municipal Authority | 8.00*     |
| PA0244449-001  | FPL Energy Marcus Hook                  | 4.32      |
| PA0012637-201  | Monroe Energy                           | 3.50      |
| PA0013714-108  | Exelon Generating Company, Eddystone    | 3.045     |
| PA0027294-001  | Bristol Borough Water & Sewer Authority | 2.70      |
| PA0051713-001  | Evonik Degussa                          | 1.80      |
| PA0012769-009  | Rohm & Haas Chemicals, Bristol          | 1.70      |
| PA0028380-001A | Tinicum TWP                             | 1.40      |
| PA0244856-001  | Fairless Hill landfill                  | 0.30      |
| PA0245399-203  | Morrisville KTC WWTP (sewage outfall)   | 0.163     |
| PA0013323-001  | Boeing                                  | 0.087     |
| PA0026450-001  | Bristol Township                        | 3.75      |

## Notes / Questions

- Met with PADEP who confirmed facilities flows and loads for WLA Study

\*Permitted flow reflects known expansion plans according to PADEP

### NOT INCLUDED IN WLA STUDY

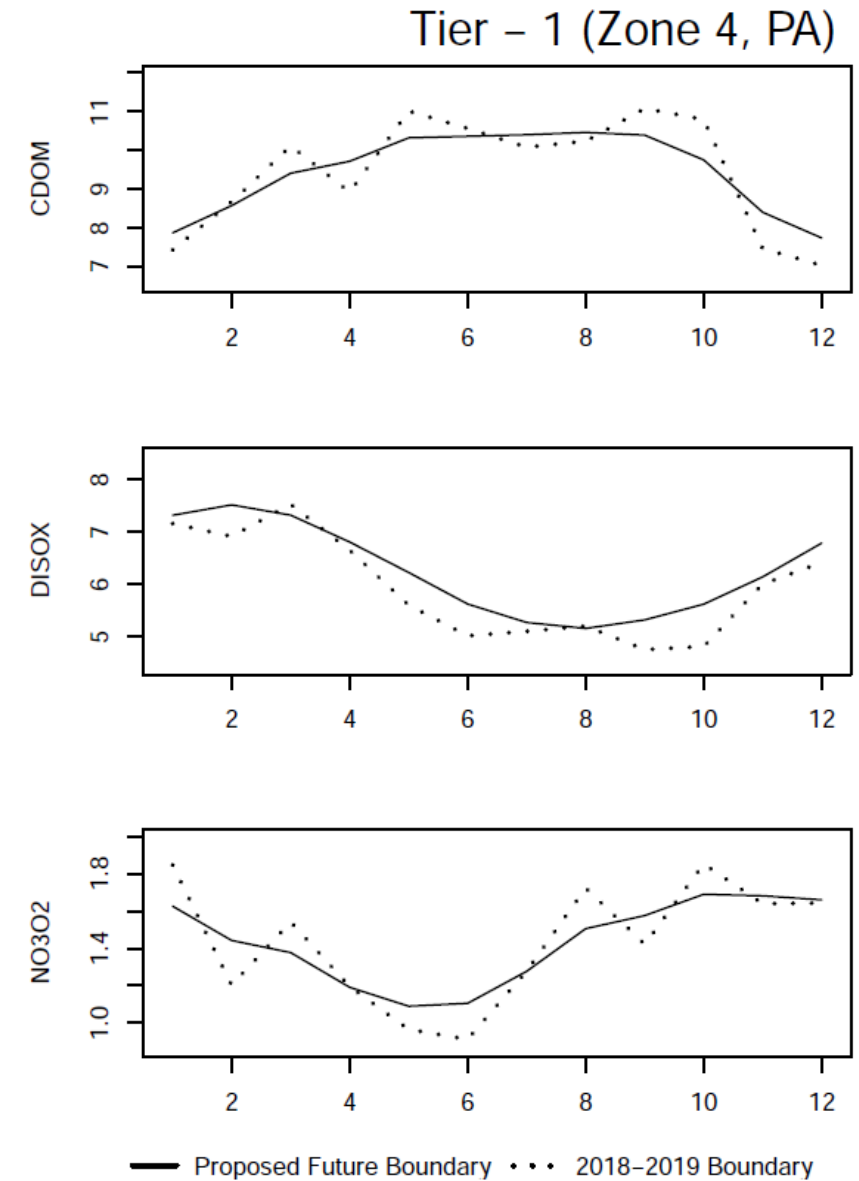
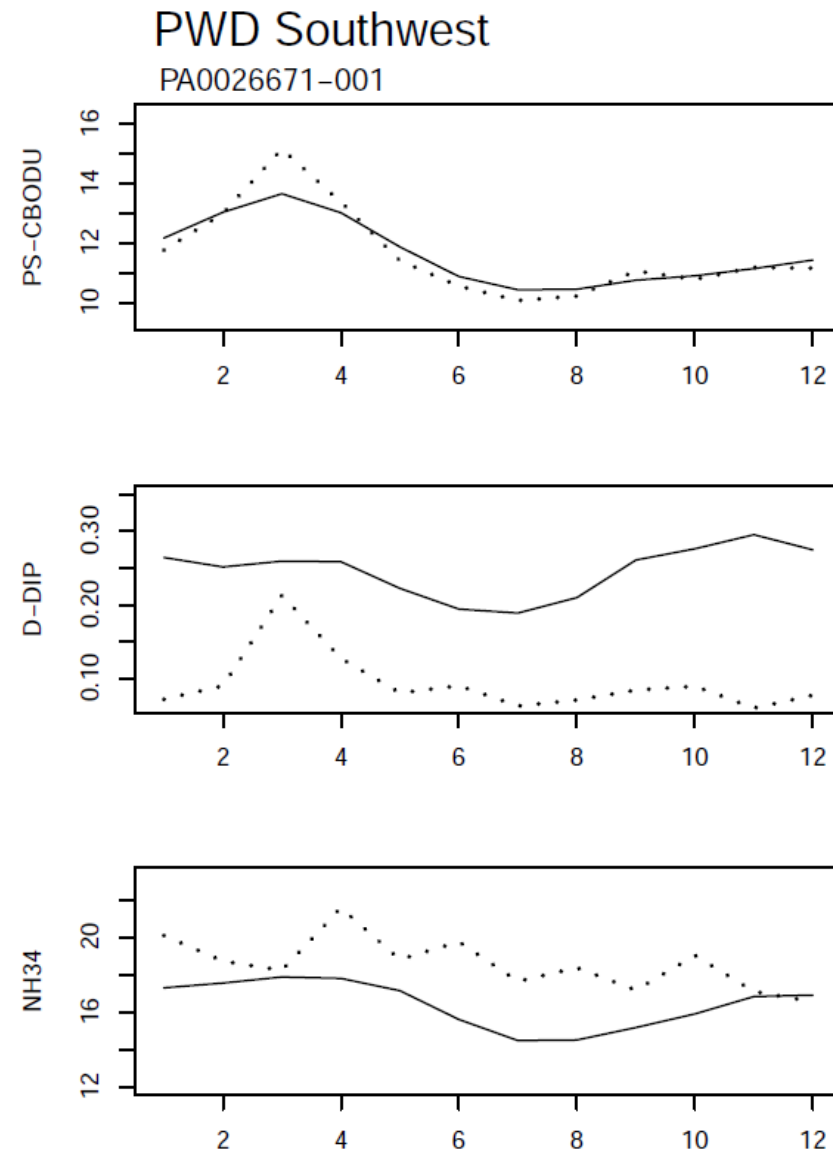
|                   |                                          |
|-------------------|------------------------------------------|
| PA0013463-102     | US Steel, Fairless-102 IMP NCCW          |
| PA0013463-103     | US Steel, Fairless-103                   |
| PA0043818-001     | GROWS Landfill, Waste Management         |
| PA0244856-005     | Waste Management Fairless Hills Landfill |
| PA0244902         | Waste Management Tullytown               |
| PA0244929-001,002 | Waste Management Grows North             |
| PA0245399-103     | Morrisville KTC WWTP (IW outfall)        |

# Characterizing "baseline" effluent quality: eDMR Data Analysis



- At the first Co-Regulators Workgroup meeting (March 26, 2026), the States were asked to provide five years of discharge monitoring report (DMR) data (2021–2025)
- DRBC analyzed these data to develop baseline effluent concentrations for the WLA model, including **CBOD**, **NH<sub>3</sub>/NH<sub>4</sub>**, **NO<sub>3</sub>/NO<sub>2</sub>**, and **dissolved inorganic phosphorus (DIP)**
- Baseline concentrations were calculated as:
  - **Monthly averages** for large dischargers
  - **Annual averages** for small dischargers
- For model constituents without recent monitoring data, values from the **2018–2019 intensive monitoring period** were retained.
- These results were distributed and discussed during the last Co-Regulators Workgroup Meeting (July 13, 2026); they are currently under review by the States

# Example PS Discharger with Lower Total Oxygen Demand than 2018-2019



Units are mg/L

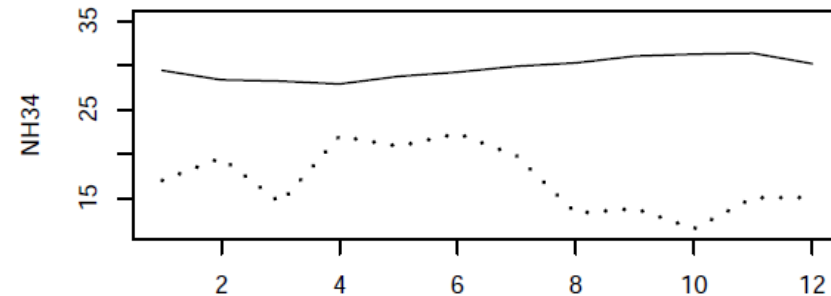
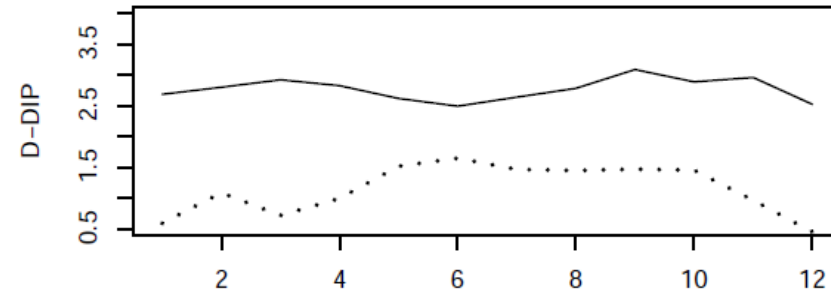
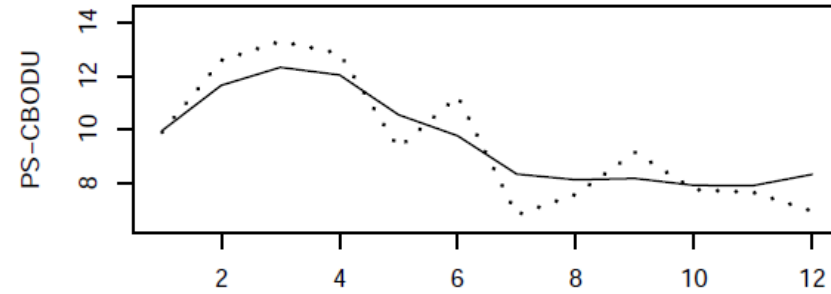
\*DRAFT\*

# Example PS Discharger with Higher Total Oxygen Demand than 2018-2019

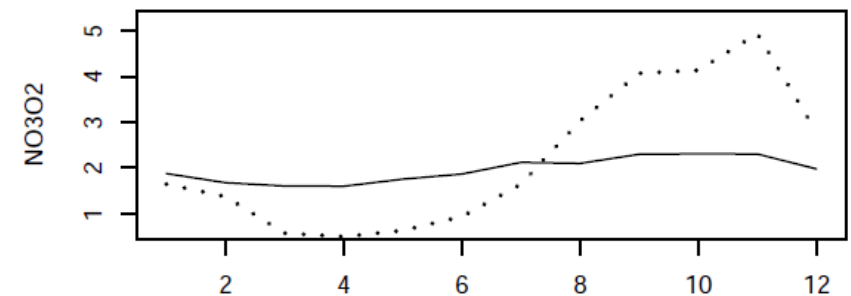
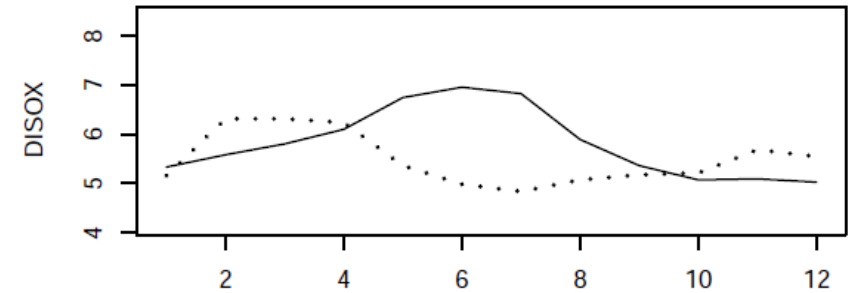
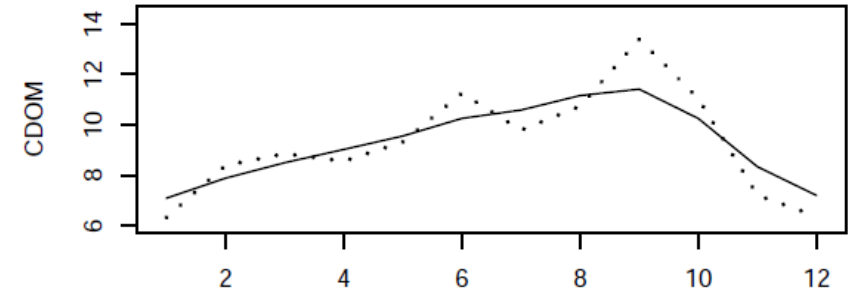


Delaware #1 Water Pollution Control Facility (Camden)

NJ0026182-001A



Tier - 1 (Zone 3, NJ)



— Proposed Future Boundary ••• 2018-2019 Boundary

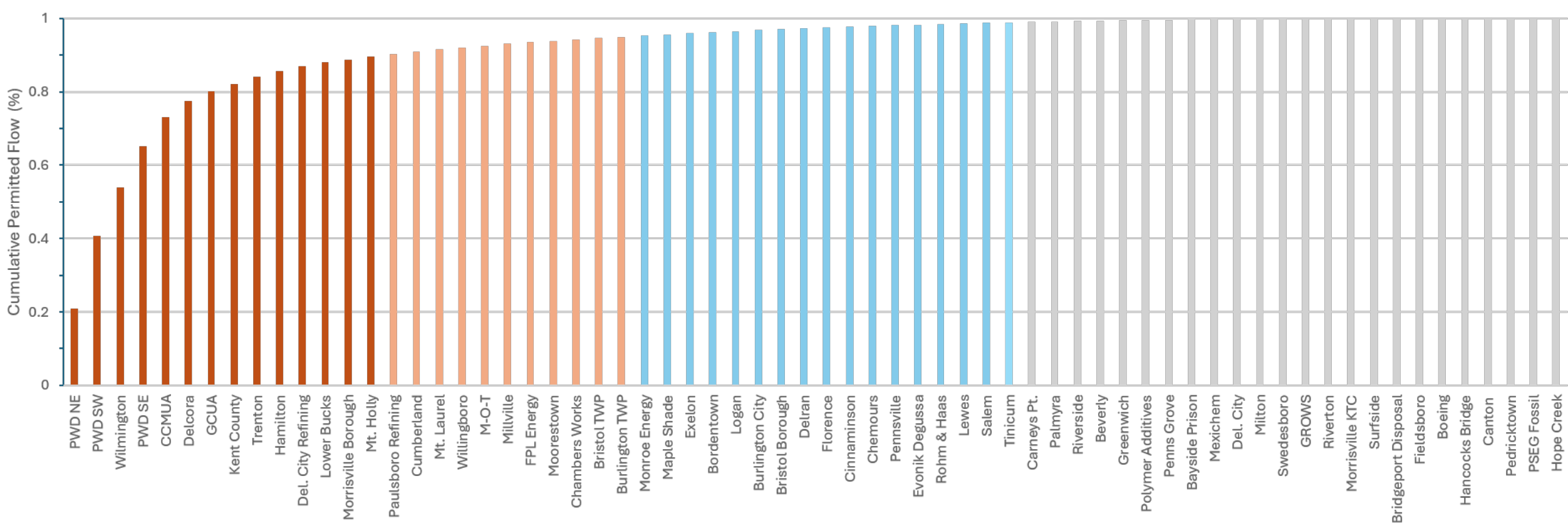
Units are mg/L

\*DRAFT\*

Presented to an advisory committee of the DRBC on April 23, 2026. Contents should not be published or re-posted in whole or in part without the permission of DRBC.

# Ranking Point Source Discharges by Flow, Load, and Concentration





### PS Dischargers in top 90% (n = 14):

PWD NE  
PWD SW  
Wilmington  
PWD SE  
CCMUA  
Delcora  
GCUA  
Kent County  
Trenton  
Hamilton  
Del. City Refining  
Lower Bucks  
Morrisville Borough  
Mt. Holly

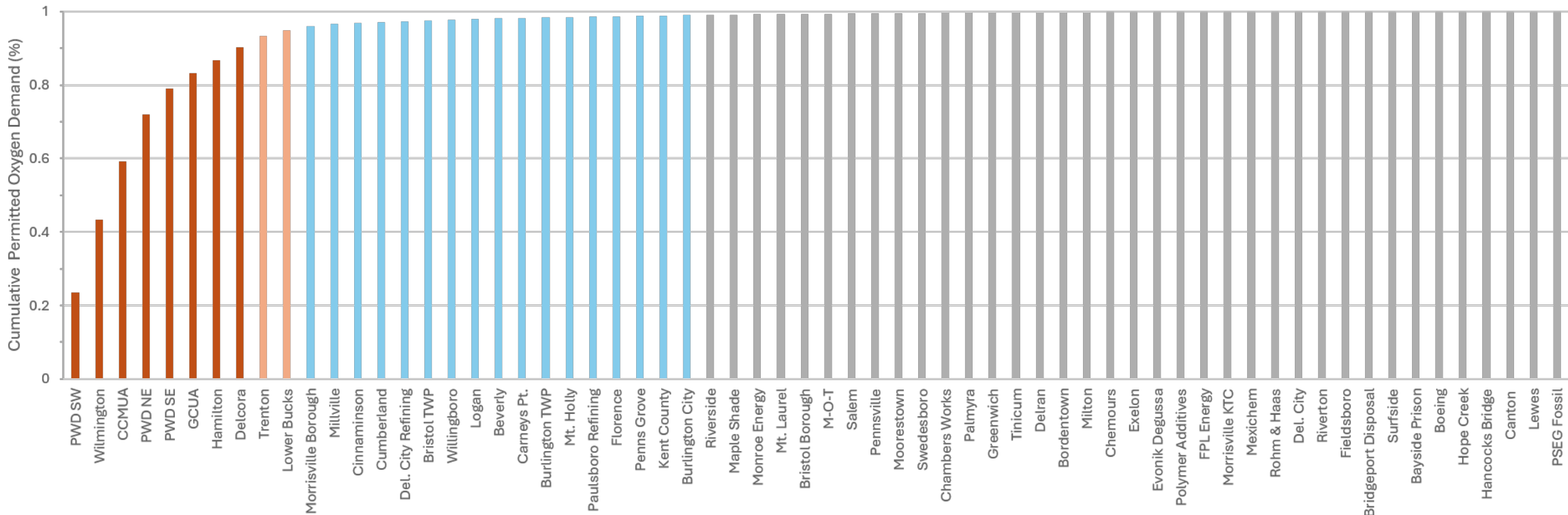
### PS Dischargers in top 95% (n = 25):

Incl. PS Dischargers in top 90%  
Paulsboro Refining  
Cumberland  
Mt. Laurel  
Willingboro  
M-O-T  
Millville  
FPL Energy  
Moorestown  
Chambers Works  
Bristol TWP  
Burlington TWP

### PS Dischargers in top 99% (n = 42):

Incl. PS Dischargers in top 95%  
Monroe Energy  
Maple Shade  
Exelon  
Bordentown  
Logan  
Burlington City  
Bristol Borough  
Delran  
Florence

Cinnaminson  
Chemours  
Pennsville  
Evonik Degussa  
Rohm & Haas  
Lewes  
Salem  
Tinicum



### PS Dischargers in top 90% (n = 8):

PWD SW  
Wilmington  
CCMUA  
PWD NE  
PWD SE  
GCUA  
Hamilton  
Delcora

### PS Dischargers in top 95% (n = 10):

Incl. PS Dischargers in top 90%  
Trenton  
Lower Bucks

### PS Dischargers in top 99% (n = 27):

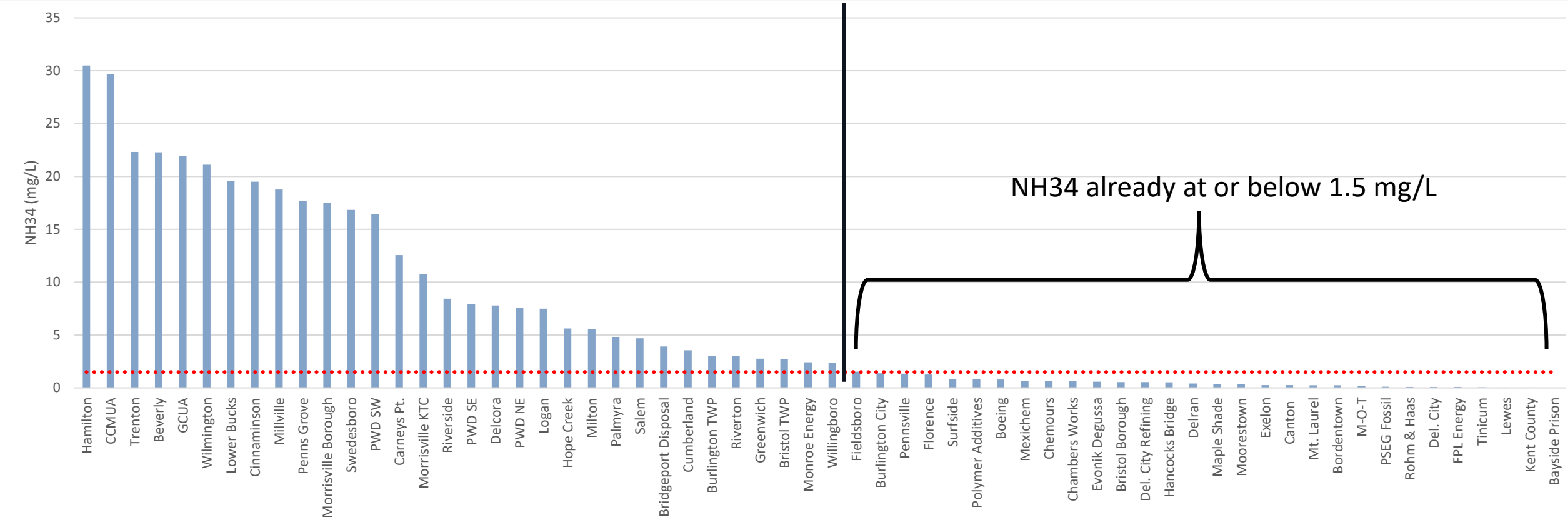
Incl. PS Dischargers in top 95%

Morrisville Borough  
Millville  
Cinnaminson  
Cumberland  
Del. City Refining  
Bristol TWP  
Willingboro  
Logan  
Beverly

Carneys Pt.  
Burlington TWP  
Mt. Holly  
Paulsboro Refining  
Florence  
Penns Grove  
Kent County  
Burlington City

\*DRAFT\*

*Oxygen Demand = CBOD + NBOD*



All PS Dischargers to the right of the vertical line have wastewater concentrations of ammonia at or below 1.5 mg/L (marked by the dotted red line).

Top 10 all have avg wastewater NH34 > 17 mg/L

Top 15 all have avg wastewater NH34 > 10 mg/L