

# 22<sup>nd</sup> Annual NJDEP/A&WMA Regulatory Update Conference



November 17, 2023



# Welcome!

Dr. Ron Poustchi  
NJDEP

Mike Schaffer  
A&WMA-NCNJ

Joann Held  
A&WMA-NCNJ

# Annual Regulatory Update Conference

- Joint venture between NJDEP and the Northern and Central New Jersey Chapter of Air & Waste Management Association
- Opportunity for regulated community to hear directly from NJDEP staff on the latest Department initiatives in environmental regulations
- 22<sup>nd</sup> Year! Virtual for the fourth year – enables more people to participate
- Honored to have Commissioner Shawn LaTourette provide the opening remarks on the “State of the Department”
- Speakers include NJDEP leadership in major program areas

# AWMA- NCNJ Leadership Team



Northern and Central New Jersey Chapter



**Chapter Chair (Incoming)**  
**Sunila Gupta**  
Haley & Aldrich, Inc.



**Secretary**  
**Student Liaison Comm.**  
**Gabi Carrasco**  
Haley & Aldrich, Inc.



**Program Chair**  
**Chris Whitehead**  
Enviro-Sciences  
(of Delaware), Inc.



**Past Chair**  
**Michael Schaffer**  
Phillips 66



**Past Chair**  
**Joann Held**  
Site Remediation  
Professional Licensing Board



**Program Committee**  
**Ron Poustchi**  
NJDEP



**Director**  
**Mary Hewitt Daly**  
Surrey Environmental Consulting

**Treasurer**  
**Fran Lindsley-Matthews**  
Buckeye Partners



**Program Committee**  
**Paul Eisen**  
Proactive Environmental  
Solutions, LLC.



**Student Liaison Comm.**  
**Jyoti Agarwal**  
Covanta



# Conference Agenda (available as handout)

## **9:00 – 9:10 am - Welcoming Remarks by AWMA-NCNJ; Morning Session Moderators: Mike Schaffer and Joann Held**

- 9:10 – 9:45 am - Commissioner Shawn LaTourette – Opening Remarks, “State of the Department”
- 9:45 – 10:20 am - Assistant Commissioner Paul Baldauf – Air, Energy and Materials Sustainability – Updates on Air, Energy and Materials Sustainability
- 10:20 – 10:55 am - Assistant Commissioner David Haymes – Contaminated Site Remediation and Redevelopment – Updates on Contaminated Site Remediation and Redevelopment

## ***10:55 – 11:05 am - Morning Break***

- 11:05 – 11:40 am - Director Frank Steitz - Air Quality Updates and Initiatives
- 11:40 – 12:15 pm - Director Richelle Wormley and Director Mike Hastry - Compliance and Enforcement Updates and Initiatives

## ***12:15 – 1:00 pm - Lunch Break***

## **1:00 – 1:05 pm - Afternoon Session Moderators: Chris Whitehead and Dr. Ron Poustchi**

- 1:05 – 1:40 pm - Director Kandyce Perry - Environmental Justice Updates and Initiatives
- 1:40 – 2:15 pm - Director Janine MacGregor – Sustainable Waste Management Updates and Initiatives

## ***2:15 – 2:25 pm - Afternoon Break***

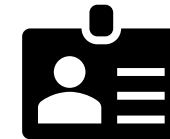
- 2:25 – 3:00 pm - Director Peg Hanna – Climate Change Mitigation and Monitoring Updates and Initiatives
- 3:00 – 3:35 pm - Bureau Chief Kimberly Cenno – Water Monitoring, Standards and Pesticides Control Updates and Initiatives
- 3:35 – 4:10 pm - Bureau Chief Metthea Yepsen, Division of Science & Research - Updates on Current and Recently Completed Research Projects

## **4:10 – 4:15 pm - Closing Remarks**

**Q&A session to follow each presentation**

# Reminders

- Keep yourself on mute and video off
- Use question feature to type in your question
- Add your name and affiliation to the questions
- Moderators will try to get as many question as we can within the allotted session





# Commissioner Shawn LaTourette

Opening Remarks  
“State of the Department”



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# Questions?



# Assistant Commissioner Paul Baldauf

Air, Energy and Materials Sustainability

Updates on Air, Energy and Materials Sustainability

# Regulatory Updates

## November 2023



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22nd Annual Regulatory Update Conference  
NJDEP and A&WMA-NCNJ  
November 17, 2023



# Air, Energy and Materials Sustainability

Organizational Structure Under  
Assistant Commissioner  
Paul Baldauf, P.E.

Division of Air Quality and Radiation  
Protection  
Francis Steitz, Director

Division of Climate Change, Mitigation and  
Monitoring  
Peg Hanna, Director

Division of Sustainable Waste Management  
Janine MacGregor, Director

Division of Air Enforcement  
Richelle Wormley, Director

Division of Waste, UST Compliance and  
Enforcement  
Michael Hastry, Director

# Air Quality and Climate Change

## Regulatory Actions

## Adopted Rules

Control and Prohibition of CO<sub>2</sub> Emissions Rule, N.J.A.C. 7:27-27F (53 N.J.R. 1945(a) (Dec. 6, 2021), 55 N.J.R. 14(a) (Jan. 3, 2023))

- CO<sub>2</sub> emission limit for new fossil fuel-powered EGUs and a 3-tiered emission limit applicable to existing EGUs
- Ban on combustion of No. 4 and No. 6 heavy fuel oils

## Regulatory Actions

Mobile Cargo Handling Equipment at  
Port and Intermodal Rail Yards, N.J.A.C.  
7:27-34 (54 N.J.R. 7(a) (Jan. 3, 2022), 55  
N.J.R. 142(b)(Feb. 6, 2023))

## Adopted Rules

- Equipment must meet performance standards that reflect best available control technology



## Regulatory Actions

### Adopted Rules

Model Year 2027 or Later Heavy-Duty New Engine and Vehicle Standards and Requirements; Diesel Vehicle Inspection Tests and Procedures, N.J.A.C. 7:28A (54 N.J.R. 2007(a) (Nov. 7, 2022), 55 N.J.R. 1005(a) (May 15, 2023))

- Incorporate California's emission standards and supporting requirements for new model year 2027 and later gasoline and diesel engines and vehicles with a gross vehicle weight rating (GVWR) greater than 8,500 pounds
- Ensure that all medium-duty and heavy-duty vehicles are subject to the same emission inspection procedures and standards

## Regulatory Actions

### Proposed Rules (Pending)

Advanced Clean Cars II program and other amendments (55 N.J.R. 1773(a) (Aug. 21, 2023))

Main components:

- Require manufacturers of passenger cars and light-duty trucks to meet an annual zero-emission vehicle (ZEV) requirement intended to increase the percentage of ZEVs sold in New Jersey that meet the new minimum technical requirements.
- More stringent multi-pollutant exhaust emission standards that manufacturers of internal combustion engine passenger cars, light-duty trucks, and medium-duty vehicles must meet.

## Other Matters

Appliance and Equipment Efficiency  
Standards: **guidance forthcoming**

Consumer Products and Architectural  
and Industrial Maintenance Coatings;  
**rulemaking pending**

Radiation Protection rule amendments:  
**rulemaking pending**

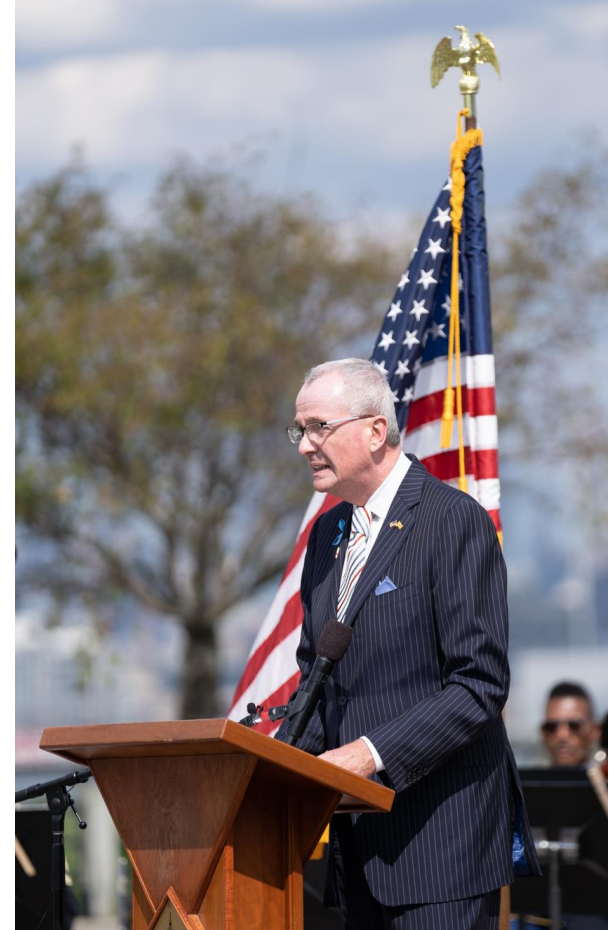
Hazardous waste rule amendments:  
**rulemaking pending**



# Sustainable Waste Management

## Stakeholder sessions held; rulemaking pending

- Food waste (stakeholder sessions held 12/9/21 and 2/24/22)
- Single-use plastic bag ban, polystyrene foam food service product ban, and single-use plastic straws by request (stakeholder sessions held 12/9/21 and 2/23/22)
- E-waste (stakeholder session held 2/14/22)
- A-901, dirty dirt (stakeholder sessions held 12/14/21 and 3/1/22)
- Recycling rules (stakeholder session held 12/2/21)
- Recycled content (tentatively scheduled 11/17/22)



Thank you!



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# Questions?





# Assistant Commissioner David Haymes

Contaminated Site Remediation & Redevelopment  
Updates on Contaminated Site Remediation & Redevelopment



# Contaminated Site Remediation & Redevelopment (CSRR) Update

A&WMA

November 17, 2023



David Haymes,  
Assistant Commissioner



# Mission



**To reduce the number of contaminated sites in New Jersey to ensure the protection of public health and the environment and ready sites for redevelopment.**

Contaminated Site Remediation & Redevelopment (CSRR) oversees all necessary actions performed by responsible parties to investigate and clean up any known or suspected discharge of contaminants and ensures remediations are completed in accordance with applicable laws, regulations, and standards. In addition, using public funds, the program implements remediations at contaminated sites where the responsible party is unable or unwilling to perform the necessary actions.



# CSRR Priorities



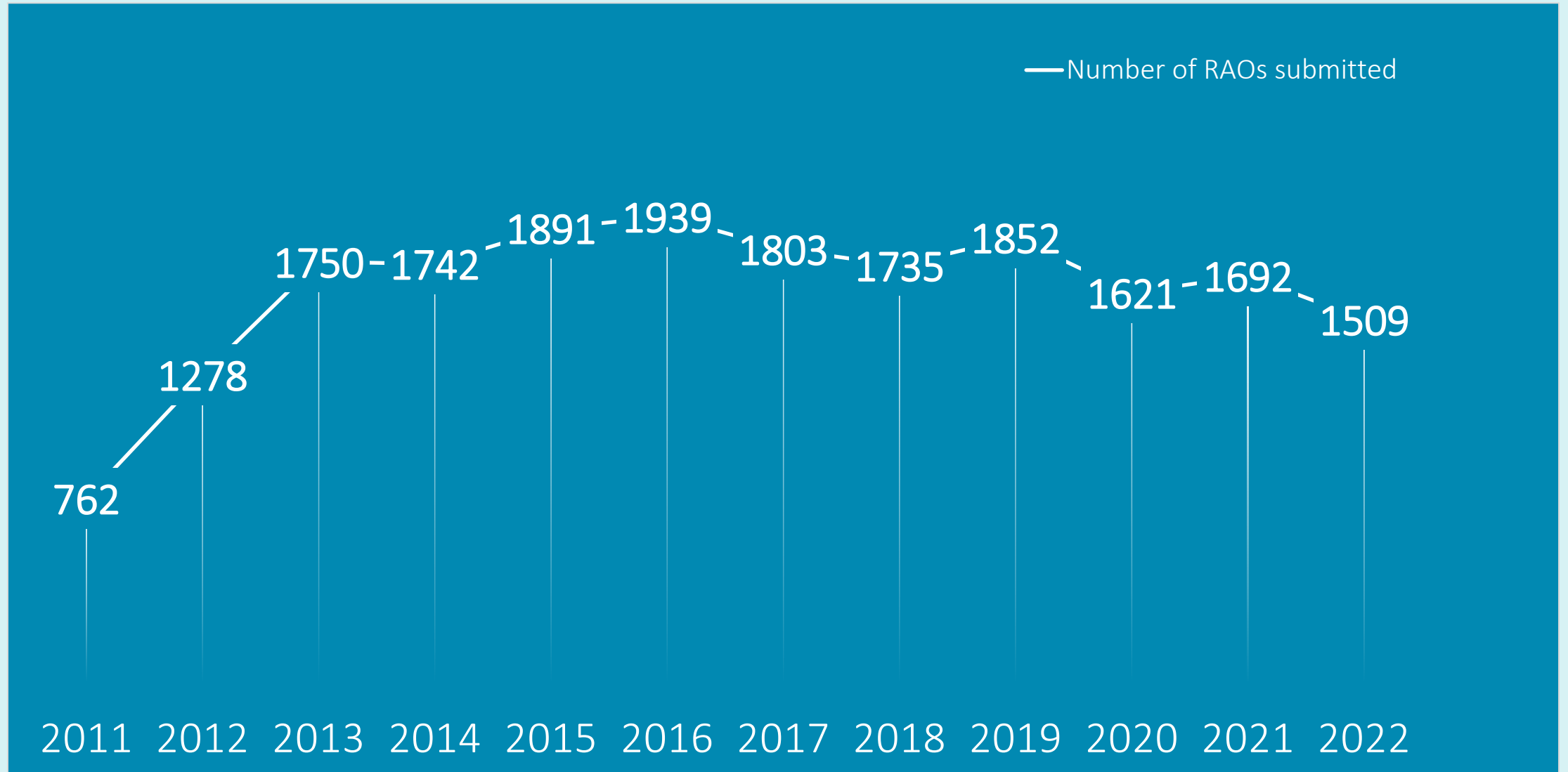
- Protect receptors
- Continue to increase the efficiency of the LSRP program
- Complete additional publicly funded remediations
- Investigate and remediate sites with emerging contaminants
- Prepare sites for redevelopment
- Ensure the program's continued financial health

# Active, New, and Closed Cases (2012-2022)



Year	Total Active	Total New	Total Closed
CY 2012	14,369	9,612	4,735
CY 2013	14,577	5,287	4,236
CY 2014	13,795	4,928	5,036
CY 2015	14,245	5,390	4,638
CY 2016	14,357	5,129	4,540
CY 2017	14,223	4,975	5,003
CY 2018	13,707	4,862	5,061
CY 2019	13,531	4,918	4,791
CY 2020	13,841	4,228	3,645
CY 2021	14,461	4,474	3,706
CY 2022	13,712	4,080	3,984

# Response Action Outcomes (2011-2022)



# Remedial Action Permits



Ground Water Remedial Action Permits	Jan. 2023- Oct. 2023
Average Number of Days for Application to be <i>Administratively</i> Complete	24.77
Average Number of Days for Application to be <i>Technically</i> Complete	294.23
Average Number of Days for DEP Total Process Time	269.25
Average Number of Days for Permits to be Issued	287.3
Soil Remedial Action Permits	Jan. 2022- Oct. 2023
Average Number of Days for Application to be <i>Administratively</i> Complete	38.51
Average Number of Days for Application to be <i>Technically</i> Complete	297.77
Average Number of Days for DEP Total Process Time	259.5
Average Number of Days for Permits to be Issued	314.46

# Remedial Action Permit Stakeholdering



- RAP Stakeholder Group
- Effective Collaborative Communication Committee (ECCC)

# Remediation Process Improvement Initiative (RPII)



- Remediation Process Improvement Initiative (RPII) is a collaborative effort between the Department, LSRPs, the regulated community, and other interested stakeholders
- Build upon the success of the LSRP program
- We all recognize that aspects of the remediation process can and should be improved



# RPII Work groups



Three work groups were formed to address issues raised by the RPII stakeholder group:

1. A process for discussing CSRR comments/deficiency letters and technical disagreements
2. Developing guidance/training for LSRPs on the importance of documentation and the avoidance of common mistakes
3. Evaluating CSRR's current processes and criteria for conducting additional reviews

# RPII Work groups



*A process for discussing CSRR comments/deficiency letters and technical disagreements*

Re-established the Technical Review Panel (TRP) to help resolve technical disputes between DEP and LSRPs

# RPII Work groups



*Developing guidance/training for LSRPs on the importance of documentation and the avoidance of common mistakes*

Work group identified topics for training. Two upcoming training sessions on the following topics:

1. Tracking Areas of Concern and presentation of data
2. Remedial action permit applications, remedial action reports, and receptor evaluations

# RPII Work groups



*Evaluating CSRR's current processes and criteria for conducting additional reviews*

Work group determined that it would be helpful to develop flowcharts showing the inspection and review process in the Bureau of Inspection and Review

# Brownfield Development Area (BDA) Program



- CSRR works with selected communities affected by multiple brownfields to design and implement remediation and reuse plans for these properties simultaneously.
- CSRR has relaunched the Brownfield Development Area Program. Applications accepted through April 30, 2024!
- Application and supporting documents are available at:  
<https://www.nj.gov/dep/srp/brownfields/bda/>

## **Remediation Standards (N.J.A.C. 7:26D)**

- Formal proposal/adoption of interim soil and soil leachate standards for PFAS (PFNA, PFOA, PFOS, and GenX) and methanol
- Also including interim ground water quality standard (GWQS) for GenX at N.J.A.C. 7:9C
- Anticipate early 2024 publication of rule proposal in the New Jersey Register



## **SRRA 2.0 Rulemaking (N.J.A.C. 7:26C and 7:26E)**

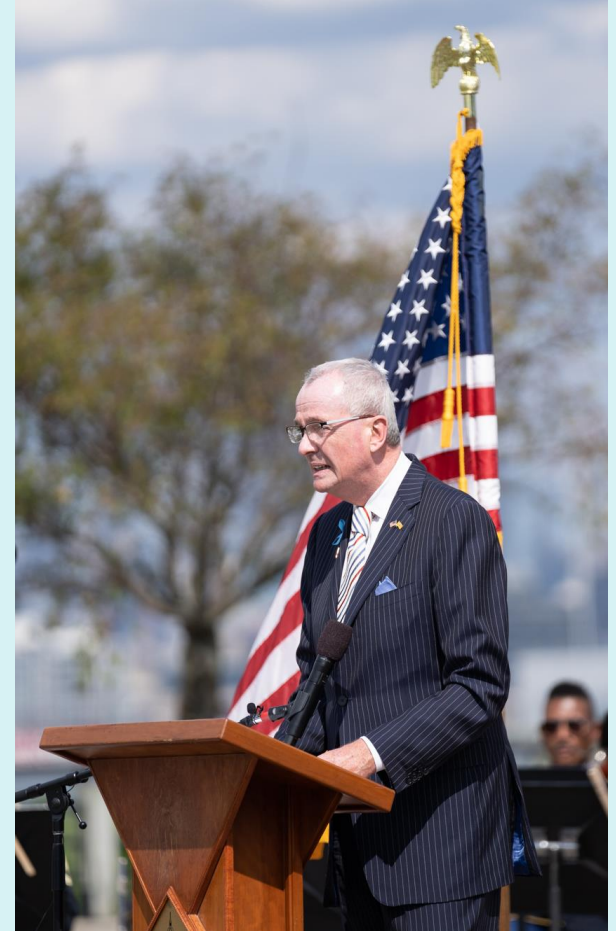
- Rule amendments to:
  - Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C
  - Technical Requirements for Site Remediation, N.J.A.C. 7:26E
- Anticipate early 2024 publication of rule proposal in the New Jersey Register

# Contaminated Site Remediation & Redevelopment (CSRR) Update

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Questions?



Thank you!



# Morning Break





AIR & WASTE MANAGEMENT  
ASSOCIATION

SINCE 1907

Northern and Central New Jersey Chapter

# Announcements

- The link to the slides will be e-mailed through NJDEP listserv to registered attendees. Slides will also be posted on AWMA-NCNJ website. [NJ Events \(mass-awma.net\)](#)
- Please complete the survey form and e-mail your responses to [sgupta@haleyaldrich.com](mailto:sgupta@haleyaldrich.com). You can also just send an e-mail with the following input:
  - Feedback on the conference
  - Topic(s) of interest for future programs
  - Thank you for your input and feedback!
- If you are not an AWMA member, please consider becoming one.
  - [Join A&WMA \(awma.org\)](#)
- **We are looking for members to become more involved and be part of the leadership team! Please connect with one of our leadership team members if interested.**



# Director Frank Steitz

Air Quality Updates and Initiatives

# Air and Waste Management Association Air Quality Regulatory Update

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Frank Steitz  
November 17, 2023





# **Paul Baldauf Assistant Commissioner**

## **Air, Energy and Materials Sustainability**

Division of Air Quality and Radiation  
Protection  
Francis Steitz, Director

Division of Climate Change, Mitigation and  
Monitoring  
Peg Hanna, Director

Division of Sustainable Waste Management  
Janine MacGregor, Director

Division of Air Enforcement  
Richelle Wormley, Director

Division of Waste and UST Compliance and  
Enforcement  
Michael Hastry, Director

# Francis Steitz Director

## Division of Air Quality and Radiation Protection

### Air Quality Regulation, Planning, Discharge Prevention Element

Kenneth Ratzman, Assistant Director

- Bureau of Air Permits, Danny Wong, Bureau Chief
- Bureau of Evaluation and Planning, Sharon Davis, Bureau Chief
- Bureau of Release Prevention, Paul Komosinsky, Bureau Chief

### Radiation Protection Element

Patrick Mulligan, Assistant Director

- Bureau of Environmental Radiation, Jenny Goodman, Bureau Chief
- Bureau of Nuclear Engineering, Ann Pfaff, Bureau Chief
- Bureau of X-Ray Compliance, Arthur Robinson, Bureau Chief

**Peg Hanna**  
**Director**

## **Division of Climate Change, Mitigation and Monitoring**

### Climate Change, Clean Energy and Sustainability Element

Vacant, Assistant Director

- Bureau of Climate Change and Clean Energy, Helaine Barr, Bureau Chief
- Bureau of Sustainability, Ky Asral, Bureau Chief

### Air Monitoring and Mobile Sources Element

Vacant, Assistant Director

- Bureau of Mobile Sources, Melissa Evanego, Bureau Chief
- Bureau of Air Monitoring, Luis Lim, Bureau Chief

**Richelle Wormley**  
**Director**

**Division of Air  
Enforcement**

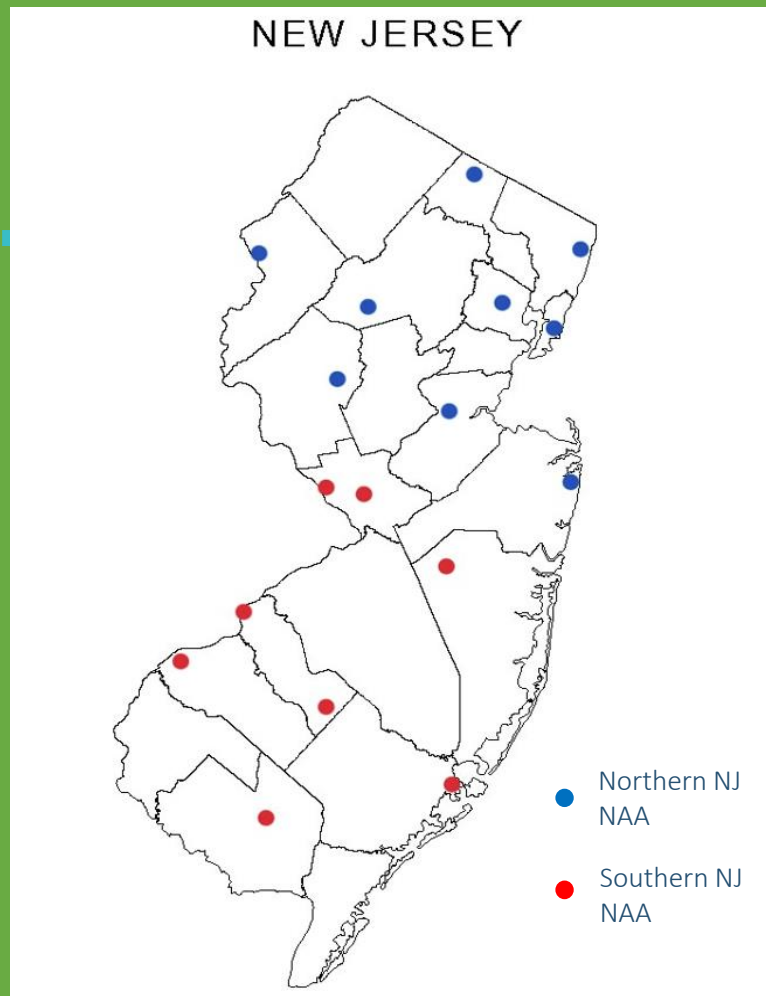
Bureau of Diesel Enforcement and Emission  
Measurements Larry Si, Bureau Chief

Bureau of Air Compliance and Enforcement –  
Northern  
Jeffrey Meyer, Bureau Chief

Bureau of Air Compliance and Enforcement  
– Southern  
James Scarvalli, Bureau Chief

Bureau of Air Compliance and Enforcement –  
Central  
Christopher Odgers, Bureau Chief

# New Jersey Ozone Season



- Northern NJ NAA (only) exceedance days: **4**
- Southern NJ NAA (only) exceedance days: **4**
- Both northern and southern NJ NAA exceedance days: **9**
- Wildfire smoke transport shaped a large portion of the ozone season, potentially enhancing ozone concentrations on exceedance days

STATE	# of Days NAAQS was Exceeded January 1 – September 7, 2023 NAAQS = 70 ppb
Connecticut	20
Delaware	4
Maryland	3
New Jersey	17
New York	15
Pennsylvania	11

## WARREN COUNTY SO<sub>2</sub> REDESIGNATION TO ATTAINMENT

- November 15, 2021: New Jersey requested USEPA re-designate the Warren County SO<sub>2</sub> Nonattainment Area to attainment for the 1971 Primary and Secondary SO<sub>2</sub> NAAQS.
- Nonattainment attributable to upwind coal-fired units at the Martins Creek and Portland Generating Facilities.
- Warren County attainment due to New Jersey's regulations for power plants, low sulfur fuel oil and efforts to address the two major emission sources located in Pennsylvania.
- October 2, 2023: USEPA finalized the redesignation of Warren County to attainment for the 1971 SO<sub>2</sub> NAAQS and 10-year maintenance plan.

# Air Permit Applicability Determinations

- **The Bureau of Stationary Sources (BoSS) has assumed the responsibility for making Air Permit Applicability Determinations.**
- **As when the Division of Air Enforcement Regional Offices (DAE REO) made applicability determinations, both units will coordinate to respond to challenging determination requests.**
- **Change made to:**
  - Centralize decision
  - Ensure consistency
  - Ensure determinations are memorialized in permits

# Steps in New Jersey Environmental Justice Rule

- **Step 1: EJ Rule Applicability Determination**
- **Step 2: Environmental Justice Impact Statement & Meaningful Public Participation**
- **Step 3: Department Decision**



# Step 1: EJ Rule Applicability Determination

(1) Located in Overburdened Community census block group in which:

- at least 35 percent of the households qualify as low-income households;
- at least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or
- at least 40 percent of the households have limited English proficiency

(2) Facility

- major sources of air pollution (e.g., power plants, cogeneration facilities);
- incinerators or resource recovery facilities;
- large sewage treatment plants (more than 50 million gallons per day);
- transfer stations or solid waste facilities;
- recycling facilities that receive at least 100 tons of recyclable material per day;
- scrap metal facilities;
- landfills; or
- medical waste incinerators, except those attendant to hospital and universities.



Scrap Yard

(3) Permit: solid waste and recycling, land use, water supply and pollution, and air pollution.

- Applies to individual permits (those permits for more substantial activities requiring deeper review) and excludes authorizations or approvals necessary to perform remediation and minor modification to major source air permits that do not increase emissions
- Applies to new facilities, expansions and Title V renewals only

Applicants seeking clarification regarding applicability of the rules to a specific activity, expansion, or otherwise, may seek an applicability determination pursuant to N.J.A.C. 7:1C-2.1(g).

**Note:** If the EJ rules are applicable, all permitting clocks are stopped until the completion of the EJ process.

# Step 2: Environmental Justice Impact Statement & Meaningful Public Participation

## Environmental Justice Impact Statement (EJIS) Assesses

- The potential environmental and public health stressors associated with the facility;
- The environmental or public health stressors already borne by the overburdened community;
- Any adverse environmental or public health stressors that cannot be avoided if the permit is granted; and
- Measures to avoid or minimize facility contributions to stressors in the OBC.

## EJIS plus Supplemental Information

- Supplement information required when a community is already subject to adverse cumulative stressors, or where a facility will create adverse cumulative stressors.

## Meaningful Public Participation

- The applicant conducts a public hearing in the overburdened community to present EJIS.
- Public Notice in multiple forms: newspaper, property owners within 200 feet, sign at facility, online and additional community-specific methods.
- There is a minimum 60-day public comment period, and applicants must respond to all public comments in writing.

## Step 3: Department Decision

**The Department considers the EJIS and any supplemental information, testimony, written comments, the applicant's response to comments, and determines whether the facility can avoid a disproportionate impact.**

**If the facility can avoid a disproportionate impact to the overburdened community, the Department would impose permit conditions necessary to ensure that a disproportionate impact remains avoided.**

**If the facility cannot avoid a disproportionate impact to the overburdened community, the Department would:**

- **Deny an application for a new facility unless it demonstrates it will serve a compelling public interest in the overburdened community.**
- **Expanded facilities/Major source renewals: authorize the applicant to proceed with Department permitting subject to appropriate conditions to address facility impacts to environmental and public health stressors.**

# Permit Conditions

## Permit Renewals

- Avoid impacts and where avoidance is not feasible, minimize facility contributions to stressors in the OBC.

## Permits for New and Expanded Facilities

- Beyond avoidance and minimization, we would consider additional feasible conditions that would reduce offsite stressors or provide a net environmental benefit that improves baseline environmental and public health stressors in the overburdened community.

## Localized Impact Control Technology

- Objective standards for major source components based on existing air program standards – will help address legacy sites that have lagged in technology upgrades.
- Focuses on technological feasibility rather than economic feasibility to drive pollution reduction through control technology.



# Guidance and Supportive Materials

The Office of Environmental Justice's [website](#) is updated to include the final copy of the rule and supportive materials.

## Policy

- [Environmental Justice Law](#)
- [Environmental Justice Rule](#)
- [Frequently Asked Questions](#)
- [EJ Rule Training Video](#)
  - [EJ Rule Training Presentation](#)
- [Glossary of Terms](#)

## Environmental Justice Mapping, Assessment and Protection (EJMAP) Tool

- [Environmental Justice Mapping, Assessment and Protection \(EJMAP\) Tool](#)
- [EJMAP Tutorial](#)
- [EJMAP Technical Guidance](#)
- [OBC Technical Notes](#)
- [OBC Frequently Asked Questions](#)

## Applicant Resources

- [EJ Submission Service Instructions](#)
- Environmental Justice Impact Statement (EJIS) Guidance – coming soon
- [Where are Overburdened Communities \(OBCs\)?](#)



# Permitting of Fumigation Operations

- Why change the rule?
  - Extremely toxic substances
  - Preliminary Health Assessment showed elevated risk
- Rule Revisions Proposed March 2021
- Rule adopted February 2022
- Rule amended to require an air permit when an operation has the potential to emit 0.1 lb./hour of a fumigant.
- The previous applicability threshold of 50 pound per hour of raw materials no longer applies to fumigation operations.
- Allows for Emergency Fumigation
- Primary Pollutants (fumigants): Methyl Bromide, Sulfuryl Fluoride, Phosphine

# Permitting of Fumigation Operations

- **Operating Permits for sources emitting greater than 10 Ton/Year of fumigant**
- **Preconstruction Permits for sources emitting less than 10 Ton/Year of fumigant**
- **General Permit for specific facilities and source operations**
  - Indoor Cocoa Bean Fumigation using on Sulfuryl Fluoride (completed)
  - Outdoor Container fumigation using Methyl Bromide, Sulfuryl Fluoride, or Phosphine (in development)

# General Permits Recently Updated





# GP-021A for Indoor Fumigation Operations of Cocoa Bean Products

A permit is required when an operation has the potential to emit 0.1 lb/hour of a fumigant. The previous applicability threshold of 50 pound per hour of raw materials no longer applies to fumigation operations.



This GP Fumigation will be allowed under the following conditions:

Only for Cocoa Beans commodity	Sulfuryl Fluoride fumigant	Indoor operations (not trailers)	Commodity must be covered by a tarp and building must be closed.
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Public Comment Closed on  
September 6, 2023  
Available for Registration  
November 6, 2023

# GP-020A Research and Development Operation

- Equipment that is used in a surface coating operation including, but not limited to, spray or dip painting, roller coating, and electrostatic depositing, in which the quantity of coating or cleaning material used in any one hour is equal to or greater than one half gallon of liquid. and/or
- Equipment in which the combined weight of all raw materials used exceeds 50 pounds in any one hour(excluding air, water, containers, provided that the container is not consumed as part of the operation of the equipment; and paper, metal, or plastic that the twisting, bending, or folding, does not cause visible emissions or air pollutions.)

Public Comment Closed on August  
17, 2023

Available for Registration October  
16, 2023

# General Permits under Construction



# GP-021B Fumigation – Outdoor containers (Trailers)

A permit is required when an operation has the potential to emit 0.1 lb/hour of a fumigant. The previous applicability threshold of 50 pound per hour of raw materials no longer applies to fumigation operations.



This GP Fumigation will be allowed under the following conditions:

Containers	Fumigants: Sulfuryl Fluoride, Phosphine, Methyl Bromide	Process Constraints and Usage Limits	Must pass Risk
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Stakeholders working with the  
Risk Assessment Modeling

## **GP-017A and GP-018A**

Revised registrations allowing the applicant to add information of the burner and boiler plate.



Minor edits for clarification



Some requirements were revised to be in accordance with rule language

Note: Confirming calculations to share with the GP Workgroup



# GP-008A – Site Remediation

- **GP-008A – Site Remediation**
  - This GP will allow other type of site remediations beside Gas stations.

## Possible Changes:

- Allowing remediation of subsurface contamination by:
  - Gasoline
  - Diesel fuel and No. 2 fuel oil
  - Petroleum hydrocarbons
  - Hazardous Air Pollutants (HAPs)

# SOTA MANUALS UPDATE

November 17, 2023

## Completed

- **Municipal Solid Waste Landfills**
  - Published in Mar 2023 NJ Register. Finalized May 2023
  - Posted on the [BOSS SOTA Manuals webpage](#)
- **Combustion Turbines**
  - Published for public comments in Aug 2023 NJ Register
  - Comment period closed Sep 20, 2023
  - Final version published in Nov NJ Register
  - Posted on the [BOSS SOTA Manuals webpage](#)

## In Progress

- **Internal Combustion Engines**
  - DEP workgroup review and external stakeholder process completed Aug 2023
  - Notice for public comments in NJ Register planned for Nov 2023
- **Boilers and Process Heaters**
  - DEP workgroup review of draft outline completed Sep 2023
  - External stakeholder process completed Nov 2023
  - Notice for public comments in NJ Register expected in Dec 2023



Next in line: Graphic Arts. Surface Coating

# HELPLINES

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GENERAL PERMITS  
(609) 633-2829



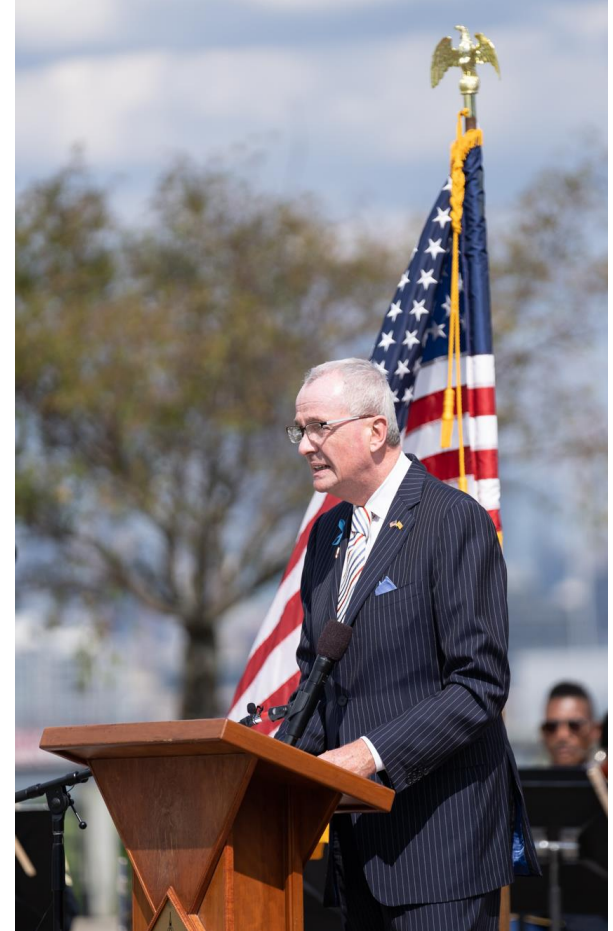
OPERATING PERMITS  
(609) 633-8248



PRE-CONSTRUCTION PERMITS  
(609) 292-6716



RADIUS  
(609) 633-8250



Thank you!





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# Questions?



# Director Richelle Wormley and Director Mike Hastry

Compliance and Enforcement Updates and Initiatives



# Division of Air Enforcement Update

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Richelle Wormley, November 17, 2023





# NEW STAFF since November 2022

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Richelle Wormley  
Director  
Division of Air Enforcement

Christoper Odgers, Chief  
Bureau of Air Compliance &  
Enforcement - CRO

James Scarvalli, Chief  
Bureau of Air Compliance &  
Enforcement - SRO

Jeffrey Meyer, Chief  
Bureau of Air Compliance  
& Enforcement - NRO

Larry Si, Chief  
Bureau of Diesel Enforcement  
& Emission Measurements

Michael Klein  
Section Chief  
EMS

Tim Davis  
Program Specialist  
Diesel Enforcement

# COMPLIANCE ADVISORIES

<https://www.state.nj.us/dep/enforcement/advisories-air.htm>





# Compliance Advisory

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Air Enforcement

#2023-12

Issued: 7/12/2023

## Phase I Vapor Recovery Rule Amendments Frequently Asked Questions (FAQ)

### WHO WOULD BENEFIT FROM REVIEWING THIS FAQ?

Anyone who is interested in learning about, or who is subject to the New Jersey Air Pollution Control Regulations for Gasoline Transfer Operations, Vapor Recovery Systems under N.J.A.C. 7:27-16.3.

### FAQ DESCRIPTION:

The New Jersey Department of Environmental Protection has developed Frequently Asked Questions regarding New Jersey's rule amendments for Phase I Gasoline Transfer Operations and Vapor Recovery Systems at N.J.A.C. 7:27-16.3.

### WHAT IS THE DEADLINE TO UPGRADE MY PHASE I SYSTEM:

A California Air Resources Board (CARB)-certified Phase I Enhanced Vapor Recovery (EVR) system pressure/vacuum relief vent valve on or before **December 23, 2018**; and  
A CARB-certified Phase I EVR system, the components of which shall have been approved in one or more CARB-certified Phase I EVR System executive orders in effect at the time of installation, but the components need not all be approved in the same executive order on or before **December 23, 2024**.

The New Jersey's Phase I FAQ can be found [here](#).

### WHO SHOULD I CONTACT WITH QUESTIONS?

<b>Air Compliance and Enforcement, Northern Field Office</b> For counties: Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex, Warren, and Union.	<b>973-656-4444</b> <a href="mailto:AirCE-Northern@dep.nj.gov">AirCE-Northern@dep.nj.gov</a>
<b>Air Compliance and Enforcement, Central Field Office</b> For counties: Burlington, Mercer, Middlesex, Monmouth, and Ocean.	<b>609-292-3187</b> <a href="mailto:AirCE-Central@dep.nj.gov">AirCE-Central@dep.nj.gov</a>
<b>Air Compliance and Enforcement, Southern Field Office</b> For counties: Atlantic, Camden, Cape May, Cumberland, Gloucester, and Salem.	<b>856-614-3601</b> <a href="mailto:AirCE-Southern@dep.nj.gov">AirCE-Southern@dep.nj.gov</a>

This advisory is intended to be a summary explanation of a DEP initiative. It does not include all potentially applicable requirements. If you have any questions related to compliance with this initiative, please contact the Enforcement numbers listed above.





## Testing and Maintenance Requirements for Emergency Generators

### WHO IS AFFECTED?

Any facility which operates an emergency generator with a rated capacity larger than 37 kilowatts (Kw) even if no air pollution permit is required.

### WHY IS DEP ISSUING THIS ADVISORY?

The New Jersey Department of Environmental Protection is reminding facilities with applicable emergency generators when they can perform testing and maintenance activities on the equipment in accordance with New Jersey Administrative Code 7:27-19.2(d). The prohibition from testing/maintaining Emergency Generators on certain days is designed to ensure that New Jersey's air quality does not get worse on those days with unhealthful air and helps protect the public from the harmful effects of unhealthy air.

### WHAT ARE THE COMPLIANCE REQUIREMENTS?

Emergency Generators shall not be used for normal testing and maintenance on days when the Department **forecasts** air quality anywhere in New Jersey to be "unhealthy for sensitive groups," "unhealthy," "very unhealthy," or "hazardous" as defined in the [EPA's Air Quality Index](#), as supplemented or amended and incorporated herein by reference, unless required in writing by a Federal or State law or regulation. Procedures for determining the air quality forecasts for New Jersey are available [here](#).

### WHAT ARE THE PROCEDURES FOR DETERMINING IF TESTING AND MAINTENANCE CAN BE CONDUCTED?

Check the air quality **forecast the day before** the tentative Emergency Generator normal testing/maintenance date using the following procedure:

- **After 4:00 pm on the day before** the emergency generator will be used for normal testing/maintenance, the [Air Quality Conditions and Forecast](#) shall be reviewed.
- Read the "Forecast" column for tomorrow's date.
- If this column lists the air quality **anywhere** in NJ as **Unhealthy for Sensitive Groups, Unhealthy, Very Unhealthy, or Hazardous**, then you CAN NOT perform testing/maintenance activities the following day.
- Reschedule your testing/maintenance for another day.





# Compliance Advisory

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Air Enforcement

#2023-21

Issued: 10/31/2023

## Requirements for Cargo Handling Equipment with Diesel-Fueled Compression Ignition Engines

### WHO IS AFFECTED?

Any person who owns or operates a terminal or business at a port and/or intermodal rail yard in New Jersey and operates cargo handling equipment at that location as well as any person conducting business in New Jersey who sells, offers for sale, leases, rents or purchases any cargo handling equipment or compression ignition (CI) engine that is used at any port or intermodal rail yard in New Jersey.

### WHY IS NJDEP ISSUING THIS ADVISORY?

The New Jersey Department of Environmental Protection is reminding affected persons of the requirements for mobile cargo handling equipment at ports and intermodal rail yards adopted at New Jersey Administrative Code (N.J.A.C.) 7:27-34 et seq. The purpose of this rule is to reduce oxides of nitrogen (NOx) and particulate matter (PM) from cargo handling equipment with diesel-fueled CI engines operating at these locations.

### WHAT ARE THE COMPLIANCE REQUIREMENTS?

**New cargo handling equipment** must comply with **performance standards** set forth at N.J.A.C. 7:27-34.5 on or after March 1, 2025.

**In-use yard trucks** must comply with **performance standards** set forth at N.J.A.C. 7:27-34.6 in accordance with the **Table 1 compliance schedule**.

**In-use non-yard trucks** must comply with **performance standards** set forth at N.J.A.C. 7:27-34.7 except as otherwise provided, in accordance with the **Table 1 compliance schedule**.

Any cargo handling equipment subject to these rules must not exceed the **opacity limits** set forth at N.J.A.C. 7:27-34.8 Table 2 on or after March 1, 2025 for new equipment and on or after the compliance deadlines at Table 1 for in-use equipment.

The rule provides for **alternate compliance options** set forth at N.J.A.C. 7:27-34.10, 10A and 10B and **compliance extensions** set forth at N.J.A.C. 7:27-34.11, 11A, 11B and 11C.

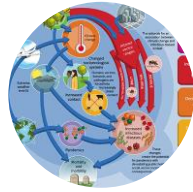
### RECORDKEEPING AND REPORTING REQUIREMENTS

Beginning **January 1, 2023**, an owner or operator subject to these requirements must **maintain records or copies of records** at a single location at the port or intermodal rail yard where the cargo handling equipment is operated or normally

# EPA's NATIONAL: ENFORCEMENT COMPLIANCE INITIATIVES (6)

Fiscal Years 2024-2027

(memo issued 8/17/2023)



**Mitigating Climate Change (new)**



**Reducing Air Toxics in Overburdened Communities (modified)**

## OTHER MEDIA RELATED

Protecting Communities from Coal Ash Contamination (RCRA) - NEW

Addressing Exposure to PFAS (CERCLA, CWA, SDWA, RCRA) - NEW

Increasing Compliance with Drinking Water Stds. (cont'd)

Chemical Accident Risk Reduction (cont'd)



**REMOVED – Stopping Aftermarket Defeat Devices for Vehicles and Engines (aka for NJ Tampering)**

# Alternate Compliance Monitoring Strategy

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EPA EJ  
Screening Tool



Minors and  
Unknowns



Majors



Mobile Sources

(idling, tampering, cargo  
handling)

## Bureau Contact Information

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### Air Compliance and Enforcement - Northern Field Office

(Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex, Warren, and Union Counties)

973-656-4444 or [AirCE-Northern@dep.nj.gov](mailto:AirCE-Northern@dep.nj.gov)

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### Air Compliance and Enforcement – Central Field Office

(Burlington, Mercer, Middlesex, Monmouth, and Ocean Counties)

609-292-3187 or [AirCE-Central@dep.nj.gov](mailto:AirCE-Central@dep.nj.gov)

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### Air Compliance and Enforcement – Southern Field Office

(Atlantic, Camden, Cape May, Cumberland, Gloucester, and Salem Counties)

856-614-3601 or [AirCE-Southern@dep.nj.gov](mailto:AirCE-Southern@dep.nj.gov)

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### BUREAU OF DIESEL ENFORCEMENT AND EMISSION MEASUREMENT

Emission Measurement (Stack Test, CEMS/COMS and related emissions monitoring activities)

609-984-3443 or [BTS@dep.nj.gov](mailto:BTS@dep.nj.gov)

### Diesel Enforcement

856-843-6774 or

[Idling@dep.nj.gov](mailto:Idling@dep.nj.gov) for IDLING

[Tampering@dep.nj.gov](mailto:Tampering@dep.nj.gov) for TAMPERING.

[njdieselenforcement@dep.nj.gov](mailto:njdieselenforcement@dep.nj.gov) for General or Others

# Supplemental Environmental Projects (SEPS)

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- <https://www.nj.gov/dep/enforcement/seps.html>
- **Environmental Mitigation Fund**
- **EPA Settlement with Suncor**
  - <https://www.epa.gov/system/files/documents/2023-09/suncorenergyusainc-revisedcafo.pdf>
  - Replaced gasoline/diesel powered lawn and garden equipment with electric equipment

# Contact

**Richelle Wormley**

Director

Division of Air Enforcement



Richelle.Wormley@dep.nj.gov



[www.nj.gov/dep/enforcement](http://www.nj.gov/dep/enforcement)



609-633-7288

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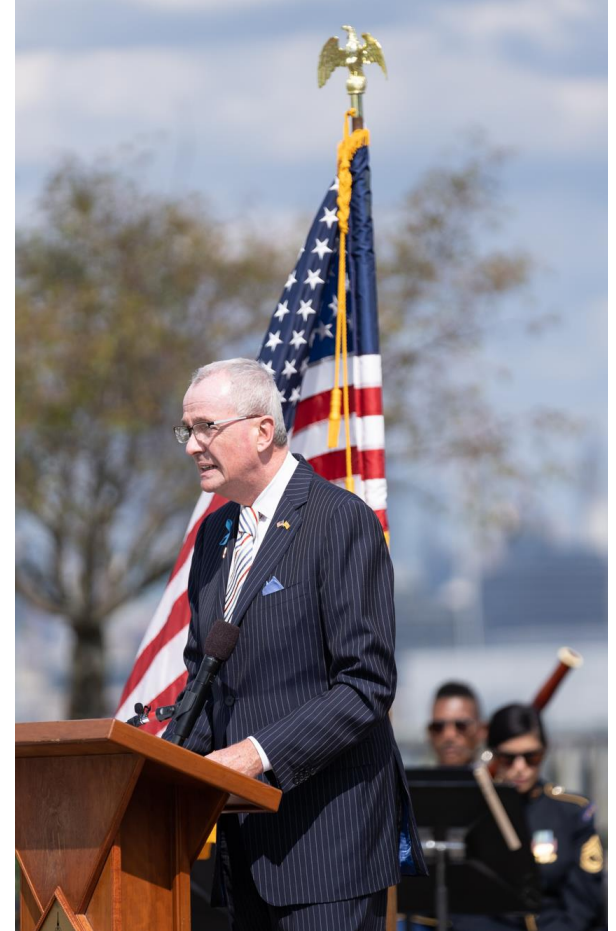


@newjerseydep



@nj.dep





Thank you!





A background image of a forest with sunlight filtering through the trees, creating a dappled light effect on the forest floor.

**Michael Hastry, Director**

**Waste and UST Compliance and  
Enforcement**

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**22<sup>nd</sup> ANNUAL A&WMA-NCNJ  
REGULATORY UPDATE CONFERENCE**





# UPDATES

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- ❖ Hazardous Waste Rulemaking
- ❖ Soil/Fill
- ❖ Sustainability
- ❖ Enhanced Vapor Recovery for Fuel Dispensing Tanks (UST)





# NJ Hazardous Waste Rule - Anticipated Changes

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- ❖ Update NJAC rule text to accurately reflect Federal rules (citations, terminology, etc.)
- ❖ Update Fee schedule for HW facilities, generators & transporters – unchanged since 2006
- ❖ Integrate Climate Change considerations into regulatory & permitting programs
- ❖ Cross-reference NJ Environmental Justice Law (C.13:1D-157) and regulations (N.J.A.C. 7:1C)
- ❖ Update/include new or missing applicable civil administrative penalties (N.J.A.C. 7:26G-2.4)
- ❖ Include management of solar panels as a Universal Waste and Class D recyclable material.
- ❖ Questions/comments: HW Rule Manager: Sonya Silcox, [sonya.silcox@dep.nj.gov](mailto:sonya.silcox@dep.nj.gov) 609-209-1799.



# Climate Change Impact Assessment

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- ❖ Owners and Operators to evaluate and plan for climate change resiliency:
  - Expand or include with the Environmental and Health Impact Statement (EHIS) process to incorporate other facility specific information to assess how the facility might be affected by climate change threats.
  - Evaluate certain minimum threats & scenarios applicable to a site or facility such as flood hazard areas, storm events & flooding, sea level rise projections, and other extreme weather.
  - Data and tools available from the Department's Climate Change website, or other scientific resources, could be used.
- ❖ An assessment may be conducted or updated with an application for a permit or permit renewal and/or whenever an EHIS is required.
- ❖ Relatedly, on October 18, 2023, EPA issued a draft memorandum with recommendations for EPA regions and RCRA authorized states about how to work with RCRA facility owners and operators to integrate climate change adaptation considerations into the RCRA corrective action process.



# Solar Panels

- ❖ New Jersey Solar Panel Recycling Commission (P.L. 2019, c. 215) - Study and investigate options for recycling and other end-of-life (EOL) management options for photovoltaic (PV) and other solar energy generation structures.
- ❖ Recommendation for NJDEP to pursue regulatory changes to facilitate the management of PV modules as Universal Waste.
- ❖ The Department is also considering including solar panels as a Class D Recyclable Material





## SOIL/FILL

- ❖ Ongoing rulemaking to fully implement 2020 A-901 licensing expansion to include soil and fill recycling industries in addition to the solid and hazardous waste industries.
  - Developed licensing exemption via certification for persons who exclusively handle non-contaminated soils/fills and have a QA/QC program in place to ensure compliance.
- ❖ Ancillary rulemaking to classify recyclable soils as a Class B recyclable material and develop QA/QC requirements for products generated at Class B facilities and sold into market.
- ❖ Developed comprehensive soil and fill guidance document which encompasses all DEP programs (CSRR, Waste, Dredge). <https://dep.nj.gov/wp-content/uploads/guardyourbackyard/docs/njdep-understanding-fill-requirements.pdf>



## SUSTAINABILITY

- ❖ A number of sustainability laws recently passed (bag/polystyrene bans, recycled content, food waste recycling). Others passed previously including banned containers, motor oil, toxics in packaging, batteries, mercury and asbestos products and covered electronic devices.
- ❖ Most of these laws have retailing requirements meaning that retailers (stores) are either prohibited from selling/providing certain products or require the retailer to provide recycling services or consumer information for these products.
- ❖ Developed team to enhance DEP's presence in the retail sector to ensure requirements are followed, provide compliance assistance and gather direct information to assist in reporting and efficacy analysis working towards improvement strategies.



## Enhanced Vapor Recovery for Fuel Dispensing Tanks

### ❖ Deadline for required upgrading of fuel dispensing tank systems (>2,000g) to California Air Resources Board (CARB) Phase 1 Enhanced Vapor Recovery (EVR) Standards

- 12/23/24 Phase 1 EVR deadline for fuel dispensing tank systems (>2,000g) existing prior to 2018.
- Requires use of system components having a vapor recovery collection efficiency of 98%.
- All new constructed facilities (post 2018) required to include Phase 1 EVR equipment at installation.
- Current Executive Orders/information can be found at:  
<https://ww2.arb.ca.gov/resources/documents/vapor-recovery-phase-i-evr-executive-orders>

The background features abstract, overlapping green geometric shapes in various shades of green, primarily on the right side of the slide. A thin, light gray line runs diagonally across the lower right portion of the slide.

# Questions?

# Reminders

- We will start promptly at 1 p.m. following the lunch break.
- Please continue to stay on mute while taking the lunch break.
- Please download handouts, including conference agenda, speaker bios, and survey form.
- Please complete the form and e-mail your responses to [sgupta@haleyaldrich.com](mailto:sgupta@haleyaldrich.com). You can also just send an e-mail with the following input:
  - Feedback on the conference
  - Topic(s) of interest for future programs
  - Thank you for your input and feedback!

# Lunch Break





AIR & WASTE MANAGEMENT  
ASSOCIATION

SINCE 1907

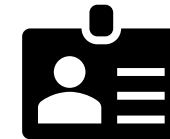
Northern and Central New Jersey Chapter

# Announcements

- The link to the slides will be e-mailed through NJDEP listserv to registered attendees. Slides will also be posted on AWMA-NCNJ website. [NJ Events \(mass-awma.net\)](#)
- Please complete the survey form and e-mail your responses to [sgupta@haleyaldrich.com](mailto:sgupta@haleyaldrich.com). You can also just send an e-mail with the following input:
  - Feedback on the conference
  - Topic(s) of interest for future programs
  - Thank you for your input and feedback!
- If you are not an AWMA member, please consider becoming one.
  - [Join A&WMA \(awma.org\)](#)
- **We are looking for members to become more involved and be part of the leadership team! Please connect with one of our leadership team members if interested.**

# Reminders

- Keep yourself on mute and video off
- Use question feature to type in your question
- Add your name and affiliation to the questions
- Moderators will try to get as many question as we can within the allotted session





# Director Kandyce Perry

Environmental Justice Updates and Initiatives



An aerial photograph of a large industrial facility, likely a refinery or chemical plant. The image shows a complex network of pipes, storage tanks, and processing units. Several smokestacks are visible, with thick white plumes of smoke rising from them. In the foreground, there are several large, circular storage tanks. The background shows a body of water and some greenery. The overall scene is industrial and somewhat hazy.

# Environmental Justice Rule



NEW JERSEY  
DEPARTMENT OF  
ENVIRONMENTAL  
PROTECTION



# The Environmental Justice Law (1/2)

The Legislature finds and declares...

- All New Jersey residents, regardless of income, race, ethnicity, color, or national origin, have a right to live, work, and recreate in a clean and healthy environment.
- Historically, New Jersey's low-income communities and communities of color have been subject to a disproportionately high number of environmental and public health stressors, including pollution from numerous industrial, commercial, and governmental facilities located in those communities.
- The legacy of siting sources of pollution in overburdened communities continues to pose a threat to the health, well-being, and economic success of the State's most vulnerable residents and that it is past time for the State to correct this historical injustice.

# The Environmental Justice Law (2/2)

The Legislature finds and declares...

- No community should bear a **disproportionate share** of the adverse environmental and public health **consequences that accompany the State's economic growth**.
- The State's overburdened communities must have a **meaningful opportunity to participate** in any decision to allow facilities which, by the nature of their activity, have the potential to increase environmental and public health stressors.
- It is in the public interest for the State, where appropriate, to **limit the future placement and expansion of such facilities in overburdened communities**.



# Disproportionate Impact

Goal: Avoid disproportionate impact to overburdened communities

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“Disproportionate impact” occurs under two scenarios:

1. Facility **creates** adverse cumulative stressors in an overburdened community as a result of its contribution; or
2. Facility **contributes to** an adverse environmental and public health stressor in an overburdened community that is already subject to adverse cumulative stressors.

Where facility cannot avoid: analyze and propose feasible measures to minimize contributions to environmental and public health stressors or provide a net environmental benefit.





# Step 1: Applicability Determination

(1) Located in **Overburdened Community** census block group in which:

- at least 35 percent of the households qualify as low-income households;
- at least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or
- at least 40 percent of the households have limited English proficiency

(2) **Facility**

- major sources of air pollution (e.g., power plants, cogeneration facilities);
- incinerators or resource recovery facilities;
- large sewage treatment plants (more than 50 million gallons per day);
- transfer stations or solid waste facilities;
- recycling facilities that receive at least 100 tons of recyclable material per day;
- scrap metal facilities;
- landfills; or
- medical waste incinerators, except those attendant to hospital and universities.



Scrap Yard

(3) **Permit:** solid waste and recycling, land use, water supply and pollution, and air pollution.

- Applies to individual permits (those permits for more substantial activities requiring deeper review) and excludes authorizations or approvals necessary to perform remediation and minor modification to major source air permits that do not increase emissions
- Applies to new facilities, expansions and Title V renewals only

Applicants seeking clarification regarding applicability of the rules to a specific activity, expansion, or otherwise, may seek an applicability determination pursuant to N.J.A.C. 7:1C-2.1(g).

**Note:** If the EJ rules are applicable, all permitting clocks are stopped until the completion of the EJ process.

# Definition of “Overburdened Community”

- **Low-Income:** At least 35% of households qualify as low- income households; or
- **Minority:** at least 40% of the residents identify as minority or as members of a state-recognized tribal community; or
- **Limited English Proficiency:** at least 40% of the households have limited English proficiency

## Overburdened Communities (OBC)

Under the Environmental Justice Rule

Data from the 5 Year American  
Community Survey (2017 to 2021)

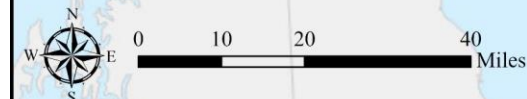
Overburdened Community Criteria	Number of Block Groups	Population
Adjacent	51	0
Limited English	2	771
Low Income	211	296,378
Low Income & Limited English	1	1,570
Low Income & Minority	1,112	1,604,345
Low Income, Minority, & Limited English	115	165,951
Minority	1,981	2,877,020
Minority & Limited English	23	30,126
<b>Total</b>	<b>3,496</b>	<b>4,976,161</b>

County  
Boundaries

The State has updated mapping of New Jersey's OBCs, as required by the Act (see the Overburdened Communities tab above). Specifically, OBCs are block groups with:

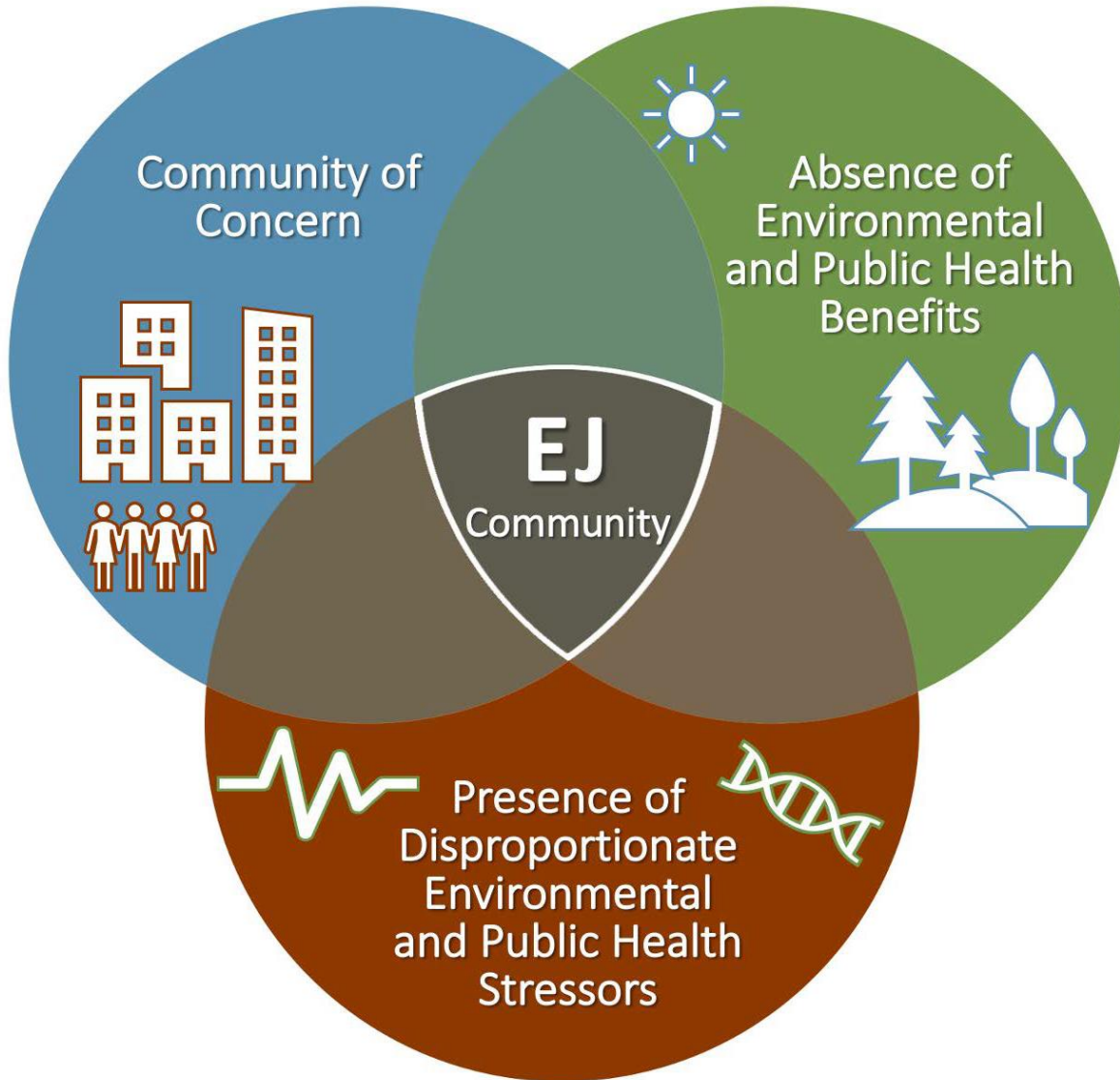
- (1) At least 35 percent low-income households; or
- (2) At least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or
- (3) At least 40 percent of the households have limited English proficiency

Census block groups with zero population and located immediately adjacent to an OBC are labeled as "adjacent." Existing or proposed facilities located in adjacent block groups may be required to conduct further analysis in accordance with the Environmental Justice Rules



For more information, visit:  
[nj.gov/dep/ej/communities.html](https://nj.gov/dep/ej/communities.html)

# Framing Environmental Justice in NJ



## Presence of Communities of Concern

Inclusive of all overburdened communities identified in the recently signed EJ law.

- **Low-Income:** At least 35% of households qualify as low-income households; **or**
- **Minority:** at least 40% of the residents identify as minority or as members of a state recognized tribal community; **or**
- **Limited English proficiency:** at least 40% of the households have limited English proficiency

Once EJIC convenes, additional considerations not specified in the recently signed EJ law include, but are not limited to:

- Carless households
- Social vulnerability index
- Low and moderate income (LMI)

## Presence of Disproportionate Environmental and Public Health Stressor

Inclusive of all environmental and public health stressors identified in the recently signed EJ law.

Disproportionate quantity of sources of environmental pollution, including, but not limited to:

- Concentration of stationary and mobile sources of air pollution
- Contaminated sites
- Waste transfer stations or other solid waste facilities
- Recycling facilities
- Water quality, water pollution from facilities, or combined sewer overflows; or
- Conditions that may cause potential public health impacts, including, but not limited to, asthma, cancer, elevated blood lead levels, cardiovascular disease, and developmental problems

Once EJIC convenes, additional considerations not specified in the recently signed EJ law include, but are not limited to:

- Maternal and prenatal health stressors
- Increased vulnerability to climate change stressors

## Lack or Absence of Environmental and Public Health Benefits

The lack or absence of net improvements in social welfare that result from changes in the quantity or quality of ecosystem goods and services attributable to policy or environmental decisions. Once EJIC convenes, additional considerations not specified in the recently signed EJ law include, but are not limited to:

- High quality parks
- A large quantity of parks
- Tree canopy resulting in reduced urban heat island effect
- Safe bicycle and pedestrian corridors in populated communities, and
- Green infrastructure
- Access to healthy food
- Access to quality public housing
- Access to quality public transportation
- Access to clean energy alternatives
- Access to resources to mitigate climate change stressors





# Environmental Justice in New Jersey





## Stressor Summary

[NJDEP Home](#)   [NJDEP EJ Home](#)

Find address or place

### Legend

Adjacent  
OBC

Municipalities with Overburdened Communities  
under the New Jersey Environmental Justice Law  
(2021)

## Counties

POWERED BY  
**esri**

Bucks County, PA, data.pa.gov, New Jersey Office of GIS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, ...

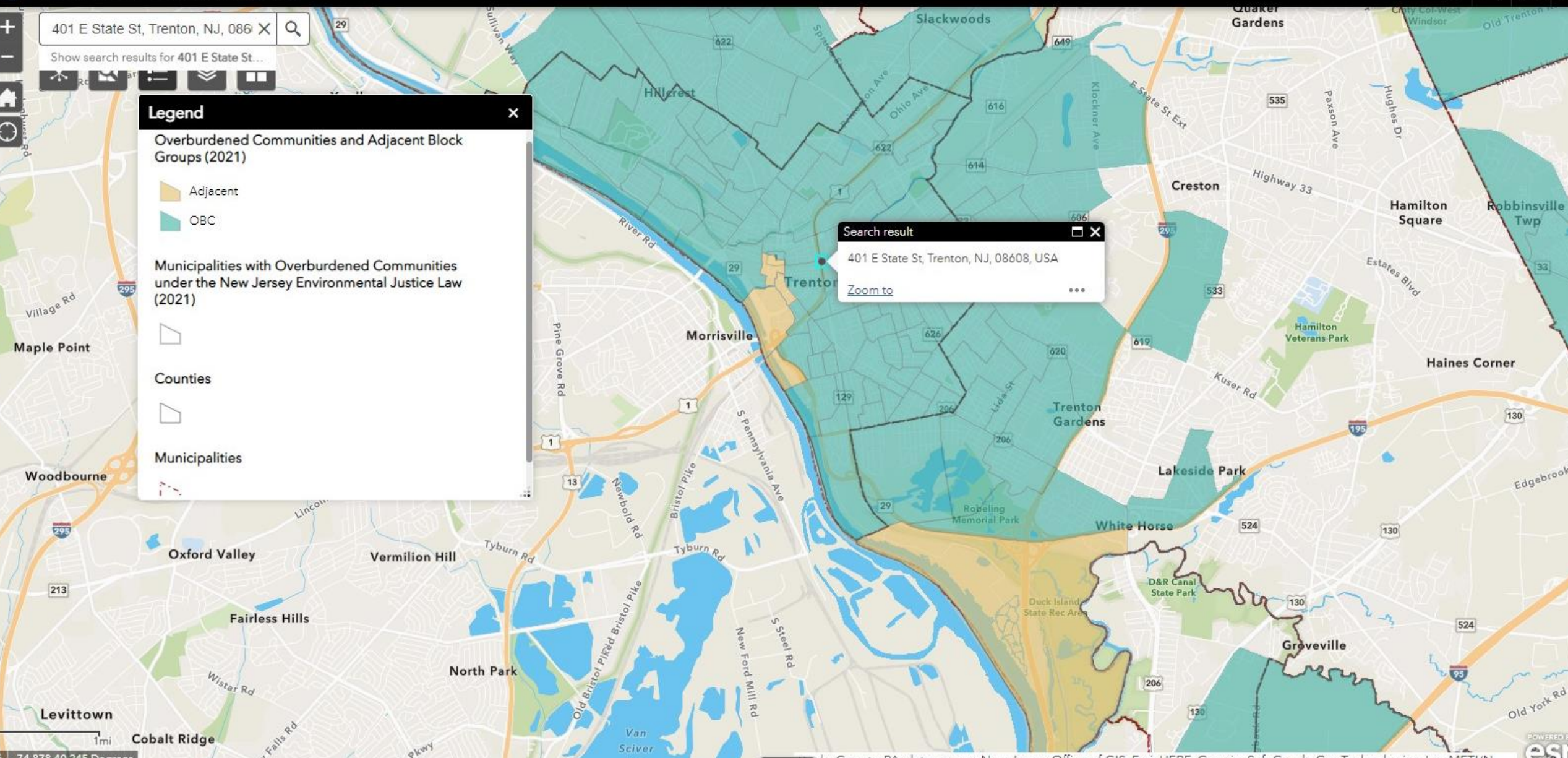


# Environmental Justice Mapping, Assessment and Protection Tool (EJMAP)



- Introduction
- Overburdened Communities
- Facilities
- Stressor Summary

Overburdened Communities NJDEP Home NJDEP EJ Home



**Legend**

Overburdened Communities and Adjacent Block Groups (2021)

- Adjacent
- OBC

Municipalities with Overburdened Communities under the New Jersey Environmental Justice Law (2021)

- Counties
- Municipalities

**Search result**

401 E State St, Trenton, NJ, 08608, USA

[Zoom to](#)



# Environmental Justice Mapping, Assessment and Protection Tool (EJMAP)



- Introduction
- Overburdened Communities
- Facilities
- Stressor Summary

**Overburdened Communities** NJDEP Home NJDEP EJ Home



401 E State St, Trenton, NJ, 08618 X

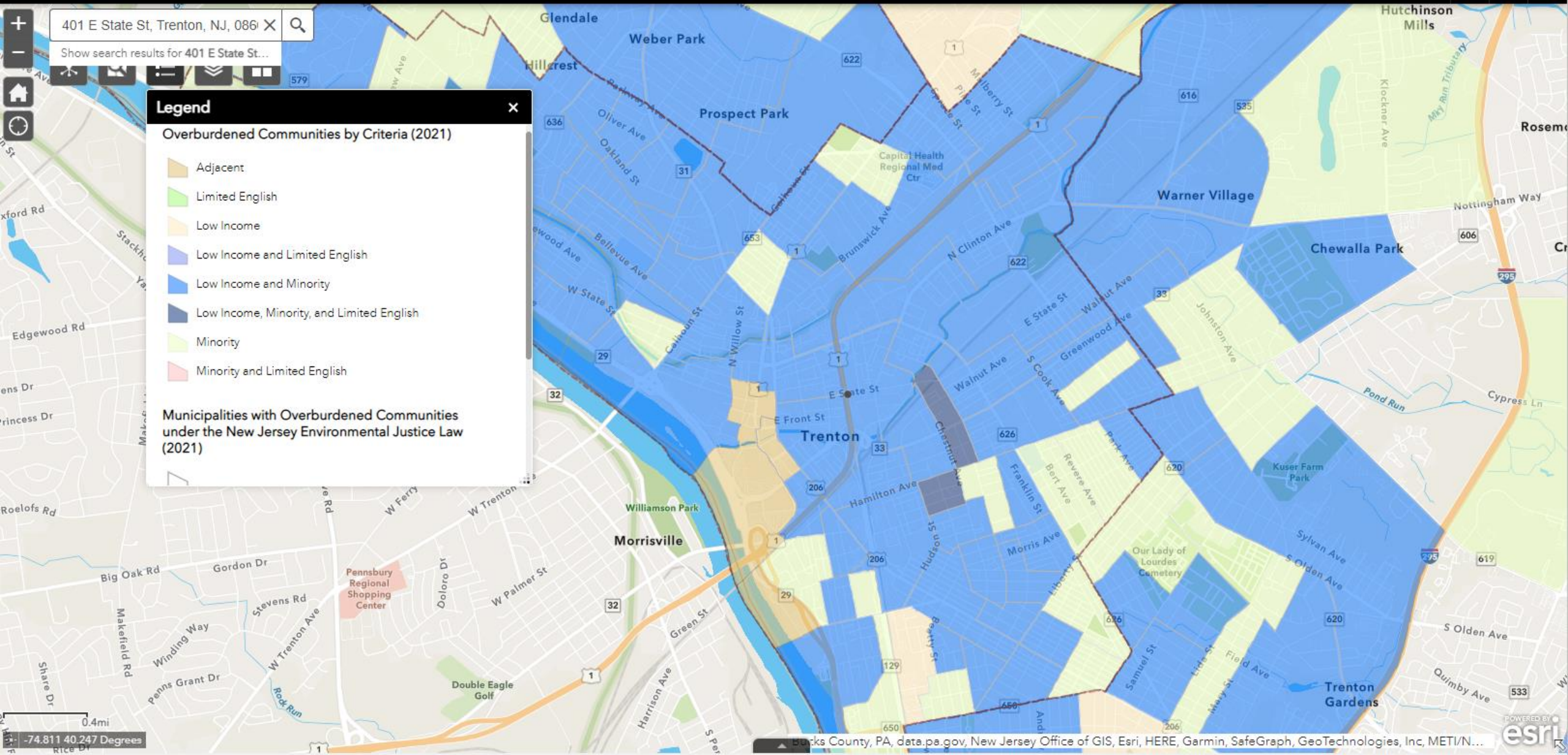
Show search results for 401 E State St...

**Legend**

Overburdened Communities by Criteria (2021)

- Adjacent
- Limited English
- Low Income
- Low Income and Limited English
- Low Income and Minority
- Low Income, Minority, and Limited English
- Minority
- Minority and Limited English

Municipalities with Overburdened Communities under the New Jersey Environmental Justice Law (2021)





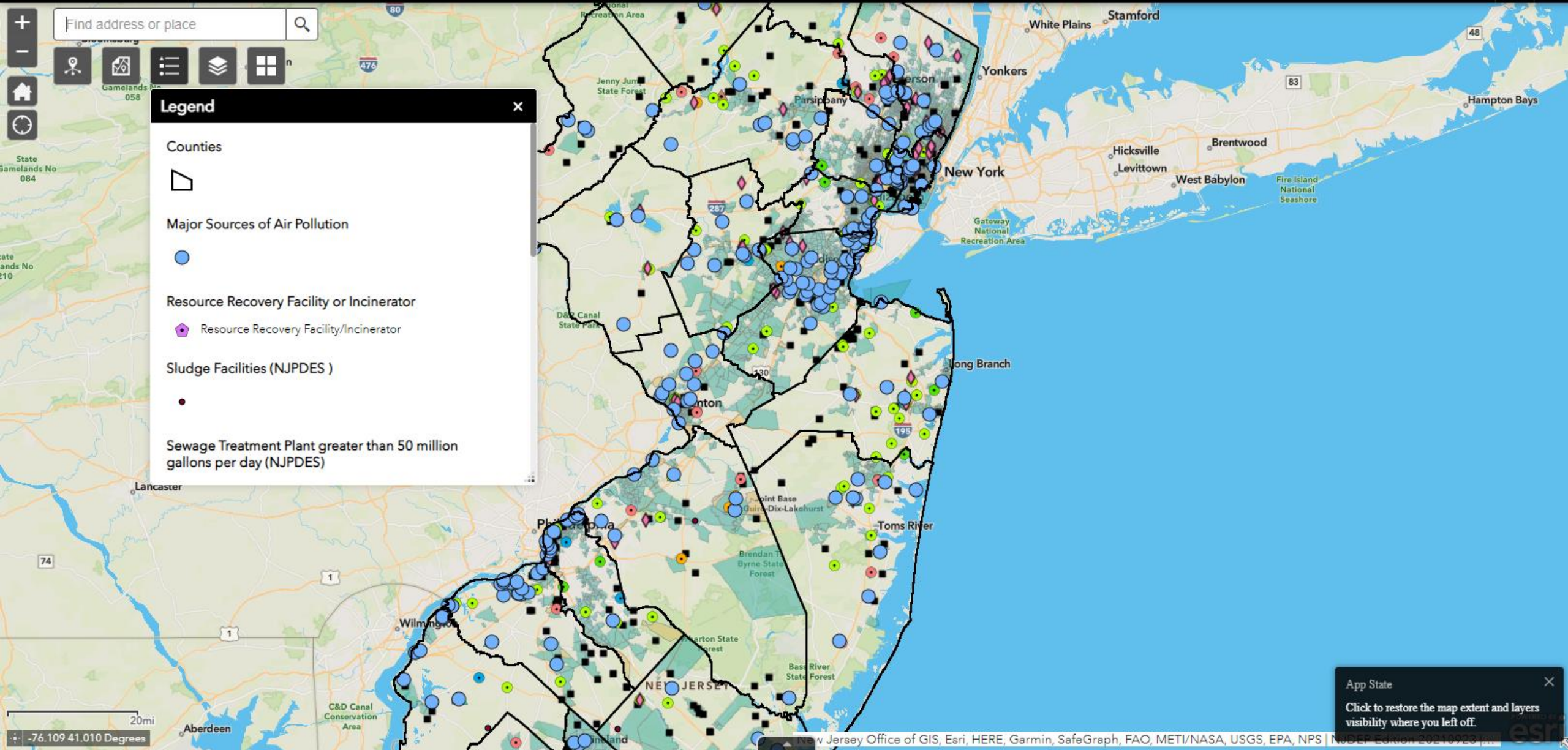


Find address or place

Map navigation controls: zoom in (+), zoom out (-), home, full screen, layers, legend, search, and other map tools.

**Legend**

- Counties
- Major Sources of Air Pollution
- Resource Recovery Facility or Incinerator
  - Resource Recovery Facility/Incinerator
- Sludge Facilities (NJPDES)
- Sewage Treatment Plant greater than 50 million gallons per day (NJPDES)



App State

Click to restore the map extent and layers visibility where you left off.

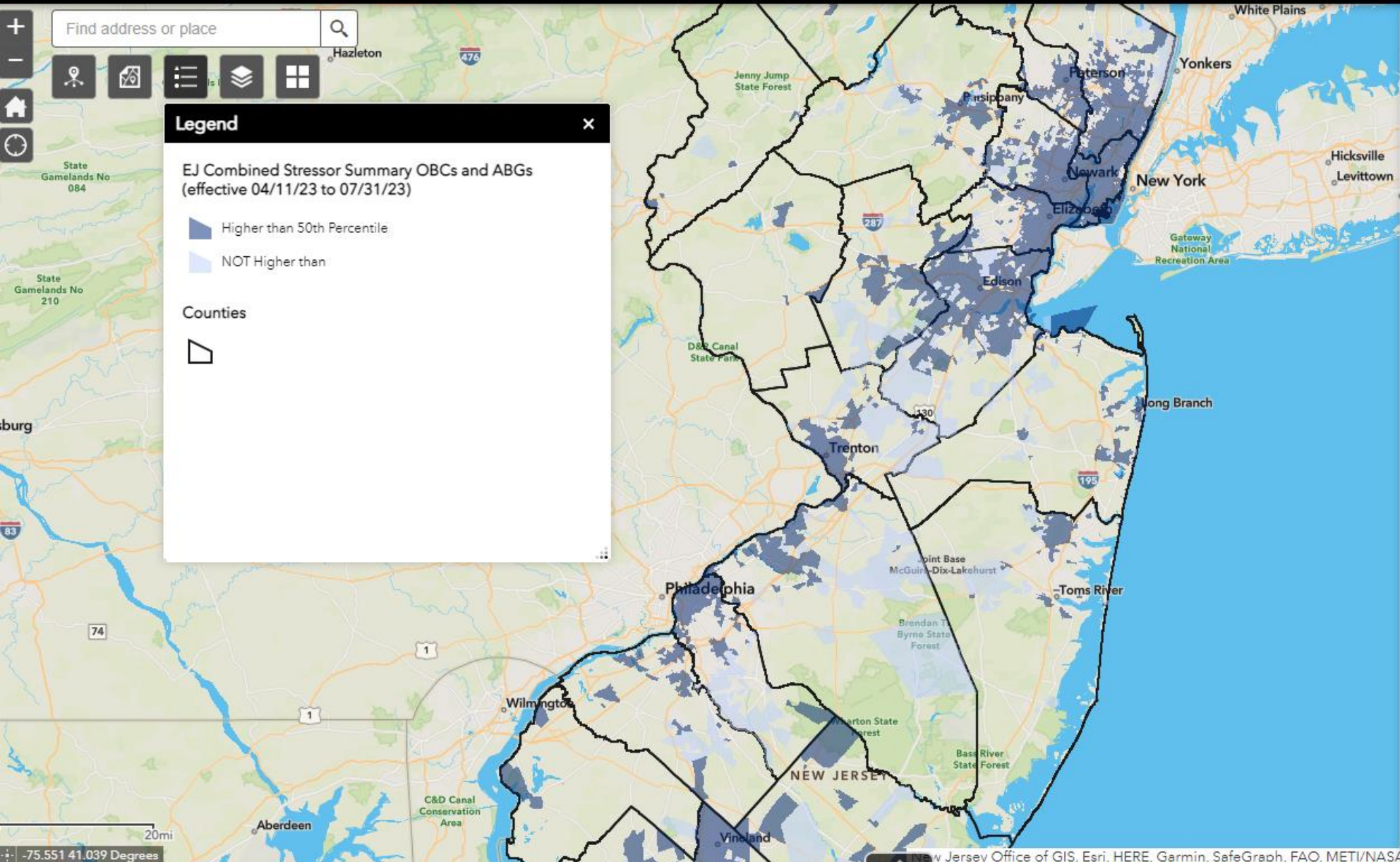


# Environmental Justice Mapping, Assessment and Protection Tool (EJMAP)



- Introduction
- Overburdened Communities
- Facilities
- Stressor Summary

Stressor Summary NJDEP Home NJDEP EJ Home



### Legend

EJ Combined Stressor Summary OBCs and ABGs (effective 04/11/23 to 07/31/23)

- Higher than 50th Percentile
- NOT Higher than

Counties

## About

The Stressor Summary tab presents the block group-level data for each of the 26 environmental or public health stressors and the Combined Stressor Total (CST), as well as the Geographic Points of Comparison (GPC) for each. The Geographic Point of Comparison is the lower of the 50th percentile of the State or relevant County Non-OBC block groups. For these calculations, ABGs are included in the non-OBC totals.

The table below shows the GPC values and identifies the GPC used the CST comparison. Using this approach, approximately 2973 out of 3496 OBC block groups (85%) are considered subject to adverse cumulative stressors ("higher than"). OBC block groups that are considered "higher than" account for 58% of the land area where OBC block groups are covered. Clicking any block group brings a pop up with a link to a table with all the relevant information for that specific area.

County	County Non-OBC 50th Percentile	State Non-OBC 50th Percentile	Geographic Point of Comparison
Atlantic	11	13	11
Bergen	15	13	13
Burlington	13	13	13
Camden	14	13	13
Cape May	12	13	12
Cumberland	12	13	12
Essex	14	13	13
Gloucester	11	13	11
Hudson	17	13	13
Hunterdon	11	13	11
Mercer	13	13	13
Middlesex	14	13	13
Monmouth	12	13	12
Morris	13	13	13
Ocean	11	13	11
Passaic	14	13	13
Salem	12	13	12
Somerset	13	13	11
Sussex	13	13	10.5
Union	13	13	13
Warren	13	13	12

App State

Click to restore the map extent and layers visibility where you left off.



# Environmental & Public Health Stressors

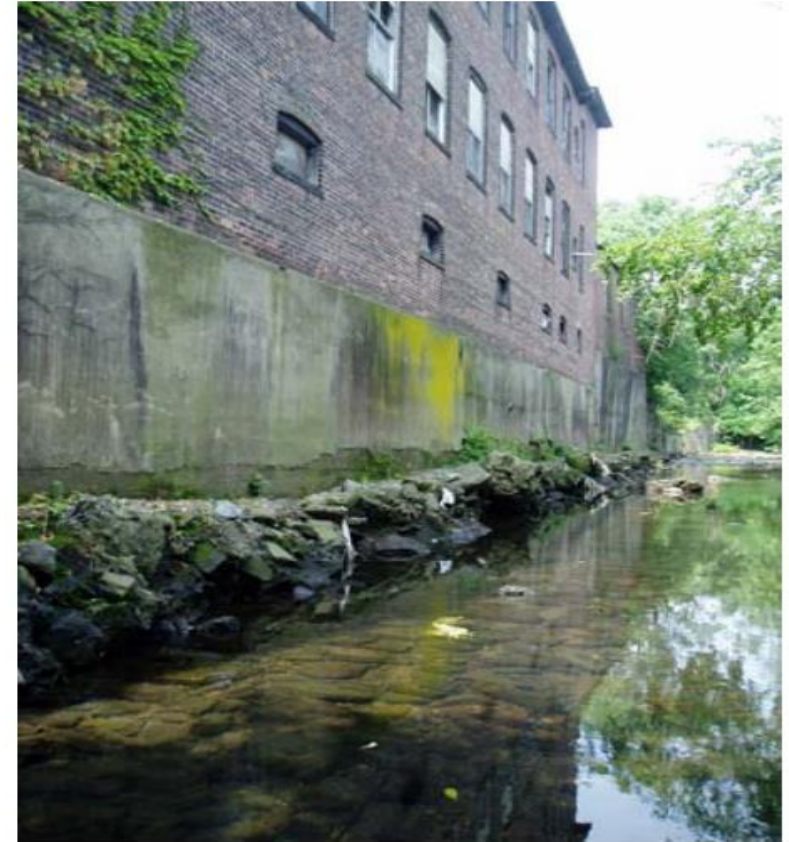
“Environmental or public health stressors” means sources of environmental pollution, including, but not limited to:

1. concentrated areas of air pollution,
2. mobile sources of air pollution,
3. contaminated sites,
4. transfer stations or other solid waste facilities, recycling facilities, scrap yards, and
5. point-sources of water pollution including, but not limited to, water pollution from facilities or combined sewer overflows;

or conditions that may cause potential public health impacts, including, but not limited to:

1. asthma,
2. cancer,
3. elevated blood lead levels,
4. cardiovascular disease, and
5. developmental problems in the overburdened community.

**Note:** The Department provides baseline stressor information via [EJMAP](#).



Second River, Newark

# Environmental & Public Health Stressors

- After considering data availability, data quality, appropriate geographic scale, quantifiability, and marginal value, we are now considering 26 stressors.



# Concentrated Areas of Air Pollution

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
1	Ground-Level Ozone	Days above National Ambient Air Quality Standard (NAAQS)	<ul style="list-style-type: none"> <li>NJ monitoring data</li> <li>Points (monitors)</li> </ul>	✓	✓
2	Fine Particulate Matter (PM 2.5)	Days above National Ambient Air Quality Standard (NAAQS)	<ul style="list-style-type: none"> <li>NJ monitoring data</li> <li>Points (monitors)</li> </ul>	✓	✓
3	Cancer Risk from Diesel PM	Estimated cancer risk	<ul style="list-style-type: none"> <li>NATA data</li> <li>Census Tract</li> </ul>	✓	✓
4	Cancer Risk from Air Toxics Excluding Diesel PM	Estimated cancer risk	<ul style="list-style-type: none"> <li>NATA data</li> <li>Census Tract</li> </ul>	✓	✓
5	Non-Cancer Risk from Air Toxics	Estimated noncancer risk	<ul style="list-style-type: none"> <li>NATA</li> <li>Census Tract</li> </ul>	✓	
6	Permitted Air Sites	Number of sites per square mile	<ul style="list-style-type: none"> <li>NJ Air Permitting data</li> <li>Points (facility locations)</li> </ul>		

# Mobile Sources of Air Pollution

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
7	Traffic - Cars, Light- and Medium-Duty Trucks	Vehicle density per square mile	<ul style="list-style-type: none"> <li>• USDOT FHA</li> <li>• Highway Performance Monitoring System (HPMS)</li> </ul>	✓	✓
8	Traffic – Heavy-Duty Trucks	Vehicle density per square mile	<ul style="list-style-type: none"> <li>• USDOT FHA</li> <li>• Highway Performance Monitoring System (HPMS)</li> </ul>		
9	Railways	Rail miles per square mile	<ul style="list-style-type: none"> <li>• ArcGIS Railroad Layer</li> <li>• Line segments</li> </ul>		



# Point Sources of Water Pollution

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
10	Surface Water	Non-attainment of designated uses for the Integrated Report	<ul style="list-style-type: none"> <li>Integrated Report</li> <li>Block Group</li> </ul>		✓
11	Combined Sewer Overflows	Number of CSOs in block group	<ul style="list-style-type: none"> <li>NJPDES Permitting Database</li> <li>Points (CSO locations)</li> </ul>		
12	NJPDES Sites	Number of sites per square mile	<ul style="list-style-type: none"> <li>NJPDES Permitting Database</li> <li>Points (facility locations)</li> </ul>		

# Solid Waste & Scrap Yards

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
13	Solid Waste Facilities	Number of transfer stations, solid waste and recycling facilities, and incinerators per square mile	<ul style="list-style-type: none"> <li>NJDEP Division of Solid and Hazardous Waste Database</li> <li>Points (facility locations)</li> </ul>		✓
14	Scrap Metal Facilities	Number of sites per square mile	<ul style="list-style-type: none"> <li>NJ Environmental Management System</li> <li>Points (facility locations)</li> </ul>		✓

# Contaminated Sites

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
15	Known Contaminated Sites	Density of Weighted Known Contaminated Sites (KCSL)	<ul style="list-style-type: none"> <li>NJDEP Site Remediation Database</li> <li>Points (facility locations)</li> </ul>	✓	✓
16	Soil Contamination Deed Restrictions	Percent acres of the block group with Deed Notice restrictions	<ul style="list-style-type: none"> <li>NJDEP Site Remediation Database</li> <li>Polygons</li> </ul>		
17	Groundwater Classification Exception Areas/Current Known Extent Restrictions	Percent acres of block group with Classification Exception Area (CEA) or Currently Known Extent (CKE) notice restrictions	<ul style="list-style-type: none"> <li>NJDEP Site Remediation Database</li> <li>Polygons</li> </ul>		

# May Cause Public Health Issues (Environmental, 1/2)

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
18	Drinking Water	Number of Maximum Concentration Level (MCL), Treatment Technique (TT), and Action Level Exceedance (ALE) violations	<ul style="list-style-type: none"> <li>Public Violations Reports for MCL, TT, and ALE</li> <li>Purveyor Areas</li> </ul>		✓
19	Emergency Planning Sites	Density of TCPA, DPCC and CRTK facilities	<ul style="list-style-type: none"> <li>FACITS, NJEMS, NJDEP databases</li> <li>Points (facility locations)</li> </ul>	✓	
20	Potential Lead Exposure	Percent of pre-1950 housing	<ul style="list-style-type: none"> <li>US Census Data</li> <li>Block Group</li> </ul>	✓	✓



# May Cause Public Health Issues (Environmental, 2/2)

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
21	Lack of Recreational Open Space	Population living greater than a ten-minute walk (¼ mile) from Public Recreational Open Space	<ul style="list-style-type: none"> <li>ArcGIS Dataset</li> <li>Polygons of open space</li> </ul>		
22	Lack of Tree Canopy	Spatially weighted mean tree canopy cover	<ul style="list-style-type: none"> <li>USDA Tree Cover Data</li> <li>Raster, 100 ft. grids</li> </ul>		
23	Impervious Cover	Percent impervious surface in a block group	<ul style="list-style-type: none"> <li>ArcGIS Data Layer</li> <li>Polygons</li> </ul>		
24	Flooding (Urban Land Cover)	Percent of urban land use area flooded	<ul style="list-style-type: none"> <li>FEMA Maps/NJDEP Flood Hazard Standards</li> <li>Polygons</li> </ul>		

# May Cause Public Health Issues (Social)

	Stressor	Description	Data Source & Scale	EJScreen	CalEnviroScreen
25	Unemployment	Percent of an adult population that is unemployed	<ul style="list-style-type: none"> <li>US Census Data</li> <li>Block Group</li> </ul>		✓
26	Education	Percent of an older population that has less than a high school diploma	<ul style="list-style-type: none"> <li>US Census Data</li> <li>Block Group</li> </ul>	✓	✓

# Environmental Justice Mapping, Assessment and Protection Tool (EJMAP)



- Introduction
- Overburdened Communities
- Facilities
- Stressor Summary

Stressor Summary NJDEP Home NJDEP EJ Home



401 E State St, Trenton, NJ, 08618 X

Show search results for 401 E State St...

**Legend**

EJ Combined Stressor Summary OBCs and ABGs (effective 04/11/23 to 07/31/23)

Higher than 50th Percentile

NOT Higher than

Counties

340210009001

OBC Criteria

Percent Low Income

Percent Minority

Percent Limited English

OBC Criteria

Low Income and Minority

Combined Stressor Total

Combined Stressor Total

County

State

Geographic Point of Comparison

OBC "Higher than"

Zoom to

## About

The Stressor Summary tab presents the block group-level data for each of the 26 environmental or public health stressors and the Combined Stressor Total (CST), as well as the Geographic Points of Comparison (GPC) for each. The Geographic Point of Comparison is the lower of the 50th percentile of the State or relevant County Non-OBC block groups. For these calculations, ABGs are included in the non-OBC totals.

The table below shows the GPC values and identifies the GPC used the CST comparison. Using this approach, approximately 2973 out of 3496 OBC block groups (85%) are considered subject to adverse cumulative stressors ("higher than"). OBC block groups that are considered "higher than" account for 58% of the land area where OBC block groups are covered. Clicking any block group brings a pop up with a link to a table with all the relevant information for that specific area.

County	County Non-OBC 50th Percentile	State Non-OBC 50th Percentile	Geographic Point of Comparison
Atlantic	11	13	11
Bergen	15	13	13
Burlington	13	13	13
Camden	14	13	13
Cape May	12	13	12
Cumberland	12	13	12
Essex	14	13	13
Gloucester	11	13	11
Hudson	17	13	13
Hunterdon	11	13	11
Mercer	13	13	13
Middlesex	14	13	13
Monmouth	12	13	12
Morris	13	13	13
Ocean	11	13	11
Passaic	14	13	13
Salem	12	13	12
Somerset	11	13	11
Sussex	10.5	13	10.5
Union	14	13	13
Warren	12	13	12



401 E. State St. Trenton, NJ 08611

340210009001	
OBC Criteria	
Percent Low Income	59.814106
Percent Minority	95.245727
Percent Limited English	13.457077
OBC Criteria	Low Income and Minority
Combined Stressor Total	
Combined Stressor Total	23
County	13.000000
State	13.000000
Geographic Point of Comparison	13.000000
OBC "Higher than"	Higher than 50th Percentile

**Data**  
For a detailed look at the complete stressor evaluation, click on the data table link below.  
[Download data table specific to 340210009001](#)

[EJMAP Tool Technical Guidance](#)

[Download all data as CSV](#)



## Overburdened Community Stressor Summary

**Block Group: 340210009001**

**Municipality:** Trenton City

**County:** Mercer

**OBC Criteria: Low Income and Minority**

Combined Stressor Total	
Block Group Value: Combined Stressor Total	23
Greatest Stressed OBC Neighbor CST Value if applicable	NA
County	13
State	13
Geographic Point of Comparison	13
Adverse Cumulative Stressors	Higher than 50th Percentile

Concentrated Areas of Air Pollution					
Stressor	Block Group Value	County Non OBC 50th	State Non OBC 50th	Geographic Point of Comparison	Adverse Stressor
Ground-Level Ozone (3-year average days above standard)	2.667	2.333	0.999	0.999	Yes
Fine Particulate Matter (PM <sub>2.5</sub> ) (3-year average days above standard)	0.333	0.333	0.333	0.333	No
Cancer Risk from Diesel Particulate Matter (estimated cancer risk/million)	117.482	83.509	82.000	82.000	Yes
Cancer Risk from Air Toxics Excluding Diesel Particulate Matter (estimated cancer risk/million)	38.923	34.646	33.994	33.994	Yes
Non-Cancer Risk from Air Toxics (Combined Hazard Quotient)	2.252	1.910	1.841	1.841	Yes

Mobile Sources of Air Pollution					
Stressor	Block Group Value	County Non OBC 50th	State Non OBC 50th	Geographic Point of Comparison	Adverse Stressor
Traffic – Cars, Light- and Medium-Duty Trucks (Annual Average Daily Traffic (AADT)-mile/square mile)	535568.787	50997.167	19817.503	19817.503	Yes
Traffic – Heavy-Duty Trucks (AADT-mile/square mile)	27076.701	2663.673	974.211	974.211	Yes
Railways (rail mile/square mile)	4.969	0.000	0.000	0.000	Yes

Contaminated Sites					
Stressor	Block Group Value	County Non OBC 50th	State Non OBC 50th	Geographic Point of Comparison	Adverse Stressor
Known Contaminated Sites (weighted sites/square mile)	22.223	1.411	1.417	1.411	Yes
Soil Contamination Deed Restrictions (percent area)	10.585	0.000	0.000	0.000	Yes
Ground Water Classification Exception Area/Currently Known Extent Restrictions (percent area)	0.000	0.021	0.000	0.000	No

Transfer Stations, or Other Solid Waste Facilities, Recycling Facilities, Scrap Metal Facilities					
Stressor	Block Group Value	County Non OBC 50th	State Non OBC 50th	Geographic Point of Comparison	Adverse Stressor
Solid Waste Facilities (sites/square mile)	0.065	0.000	0.000	0.000	Yes
Scrap Metal Facilities (sites/square mile)	0.256	0.000	0.000	0.000	Yes

Point-Sources of Water Pollution					
Stressor	Block	County Non	State Non	Geographic	Adverse Stressor

## Overburdened Community Stressor Summary

Block Group: 340210021004

Municipality: Trenton City

County: Mercer

OBC Criteria: Low Income and Minority

Combined Stressor Total	
Block Group Value: Combined Stressor Total	24
Greatest Stressed OBC Neighbor CST Value if applicable	NA
County	12
State	13
Geographic Point of Comparison	12
Adverse Cumulative Stressors	Higher than 50th Percentile

Concentrated Areas of Air Pollution					
Stressor	Block Group Value	County Non OBC 50th	State Non OBC 50th	Geographic Point of Comparison	Adverse Stressor
Ground-Level Ozone (3-year average days above standard)	2.667	2.333	0.999	0.999	Yes
Fine Particulate Matter (PM <sub>2.5</sub> ) (3-year average days above standard)	0.333	0.333	0.333	0.333	No
Cancer Risk from Diesel Particulate Matter (estimated cancer risk/million)	104.164	82.081	82.459	82.081	Yes
Cancer Risk from Air Toxics Excluding Diesel Particulate Matter (estimated cancer risk/million)	43.603	39.078	37.728	37.728	Yes
Non-Cancer Risk from Air Toxics (Combined Hazard Quotient)	1.913	1.735	1.663	1.663	Yes

Mobile Sources of Air Pollution					
Stressor	Block Group Value	County Non OBC 50th	State Non OBC 50th	Geographic Point of Comparison	Adverse Stressor
Traffic – Cars, Light- and Medium-Duty Trucks (Annual Average Daily Traffic (AADT)-mile/square mile)	77063.326	32064.270	23004.559	23004.559	Yes
Traffic – Heavy-Duty Trucks (AADT-mile/square mile)	1486.136	988.970	417.954	417.954	Yes
Railways (rail mile/square mile)	1.534	0.000	0.000	0.000	Yes

## Overburdened Community Stressor Summary

Block Group: 340210021004

Municipality: Trenton City

County: Mercer

OBC Criteria: Low Income and Minority

Combined Stressor Total	
Block Group Value: Combined Stressor Total	24
Greatest Stressed OBC Neighbor CST Value if applicable	NA
County	12
State	13
Geographic Point of Comparison	12
Adverse Cumulative Stressors	Higher than 50th Percentile

Concentrated Areas of Air Pollution					
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Traffic – Cars, Light- and Medium-Duty Trucks (Annual Average Daily Traffic (AADT)-mile/square mile)	77063.326	32064.270	23004.559	23004.559	Yes
Traffic – Heavy-Duty Trucks (AADT-mile/square mile)	1486.136	988.970	417.954	417.954	Yes
Railways (rail mile/square mile)	1.534	0.000	0.000	0.000	Yes

# Step 2: Environmental Justice Impact Statement & Meaningful Public Participation

## Environmental Justice Impact Statement (EJIS) Assesses

- The potential environmental and public health stressors associated with the facility;
- The environmental or public health stressors already borne by the overburdened community;
- Any adverse environmental or public health stressors that cannot be avoided if the permit is granted; and
- Measures to avoid or minimize facility contributions to stressors in the OBC.

## EJIS plus Supplemental Information

- Supplement information required when a community is already subject to adverse cumulative stressors, or where a facility will create adverse cumulative stressors.

## Meaningful Public Participation

- The applicant conducts a public hearing in the overburdened community to present EJIS.
- Public Notice in multiple forms: newspaper, property owners within 200 feet, sign at facility, online and additional community-specific methods.
- There is a minimum 60-day public comment period, and applicants must respond to all public comments in writing.



# Step 3: Department Decision

The Department considers the EJS and any supplemental information, testimony, written comments, the applicant's response to comments, and determines whether the facility can avoid a disproportionate impact.

If the facility **can avoid a disproportionate impact to the overburdened community**, the Department would impose permit conditions necessary to ensure that a disproportionate impact remains avoided.

If the facility **cannot avoid a disproportionate impact to the overburdened community**, the Department would:

- **Deny** an application for a new facility unless it demonstrates it will serve a compelling public interest **in the overburdened community**.
- Expanded facilities/Major source renewals: authorize the applicant to proceed with Department permitting subject to appropriate conditions to address facility impacts to environmental and public health stressors.

# Guidance and Supportive Materials

The Office of Environmental Justice's [website](#) is updated to include the final copy of the rule and supportive materials.

## **Policy**

- [Environmental Justice Law](#)
- [Environmental Justice Rule](#)
- [Frequently Asked Questions](#)
- [EJ Rule Training Video](#)
  - [EJ Rule Training Presentation](#)
- [Glossary of Terms](#)

## **Environmental Justice Mapping, Assessment and Protection (EJMAP) Tool**

- [Environmental Justice Mapping, Assessment and Protection \(EJMAP\) Tool](#)
- [EJMAP Tutorial](#)
- [EJMAP Technical Guidance](#)
- [OBC Technical Notes](#)
- [OBC Frequently Asked Questions](#)

## **Applicant Resources**

- [EJ Submission Service Instructions](#)
- [Public Hearing Best Practices](#)



# Thank You!

Learn more about Environmental Justice  
[nj.gov/dep/ej/](https://nj.gov/dep/ej/)

**Kandyce Perry**

Director, Office of Environmental Justice  
[Kandyce.Perry@dep.nj.gov](mailto:Kandyce.Perry@dep.nj.gov) | (609) 292-2908

@NJGov

@NewJerseyDEP

The background features abstract, overlapping green geometric shapes in various shades of green, primarily on the right side of the slide. A thin, light gray line runs diagonally across the lower right portion of the slide.

# Questions?





# Director Janine MacGregor

Sustainable Waste Management Updates and Initiatives



# Division of Sustainable Waste Management

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Air and Waste Management Association, Nov. 17, 2023





**Division of  
Sustainable  
Waste  
Management**

**Bureau of Solid Waste  
Permitting**

**Bureau of Recycling and  
Hazardous Waste Permitting**

**Bureau of Solid Waste  
Planning and Licensing**

# Bureau of Solid Waste Permitting

**ANTHONY  
FONTANA**

## **Types of Permits**

12 Solid Waste Landfills

4 Solid Waste Incinerators/Resource  
Recovery Facilities

58 Solid Waste Transfer  
Stations/Materials Recovery Facilities

8 Intermodal Container Facilities

**These facilities manage about 9.5 million tons  
of waste per year**

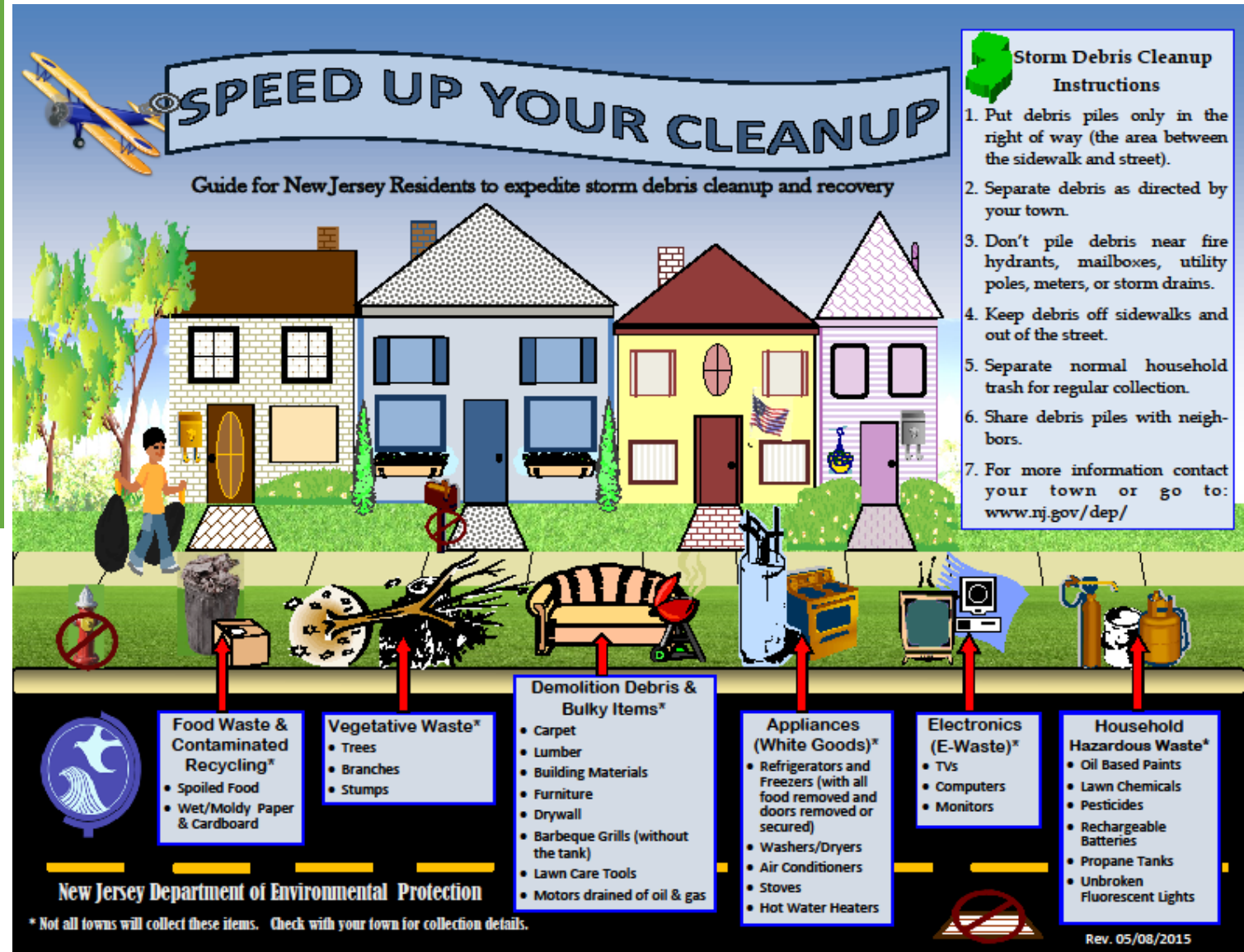


# Bureau of Solid Waste Permitting

(continued)

## Emergency Planning

Standby Contracts  
Temporary Debris  
Management Areas  
(TDMAs)



# Bureau of Recycling & Hazardous Waste Management

**DANA LAWSON**

- Rules
  - E-waste revisions
  - Recycling rule exemptions
- Solar Panel Commision
- Food Waste Recycling Market Development Council

- Electronic Waste (E-waste)
- Hazardous Waste Permitting
- Recycling Facilities
- Regulatory Initiatives
- Regulated Medical Waste



**Bureau of  
Recycling &  
Hazardous Waste  
Management**

**Solar Panel Commission Report  
- in final stages of review**

**Food Waste Recycling Market  
Development Council Report  
- being drafted  
- goal is Summer 2024 release**

# Bureau of Solid Waste Planning & Licensing

## SETH HACKMAN

### 5 Units

- A-901
- Solid Waste Utility Control
- Data
- Escrow
- Planning/Legislation

- Get Past Plastic Law
- Food Waste Reduction
- Food Waste Recycling Law
- Recycled Content Law
- Dirty Dirt Law





# Post Consumer Recycled Content Law

- Jan. 18th, 2022, P.L. 2021, c. 391 signed into Law.
- Stimulates recycling markets as manufacturers meet minimum recycled content standards.
- Establishes % of recycled content in effect 2024 with periodic increases.
- Packing Peanuts Prohibited for sale beginning 2024.



Rigid Plastic  
Containers (up to  
50% PCR\*)



Plastic Beverage  
Containers (up to  
50% PCR)



Glass Containers  
(up to 35% PCR)



Paper Carryout  
Bags (up to 40%  
PCR)



Plastic Carryout  
Bags (up to 40%  
PCR)



Plastic Trash Bags  
(up to 40% PCR)



Polystyrene Loose-  
fill Packaging  
(Packing Peanuts)

# Post Consumer Recycled Content Law

## Rule

- Stakeholder Mtgs Nov '22, Jan '23
- Governor's Office Summer '24
- Anticipated publication in NJ Register March '25

## Determining Compliance

- Manufacturers register and pay a registration fee by July 18th, 2022. Required annually thereafter.
- Beginning July 18<sup>th</sup>, 2025, registered manufacturers are required to certify compliance.
- Compliance certification reports must include:
  - amount, in pounds, of virgin plastic, glass, or paper;
  - amount, in pounds, of postconsumer recycled material used by the manufacturer for any covered products;
  - any other information DEP deems necessary.
- DEP is authorized to conduct random audits.

# Dirty Dirt Law

## Guidance to Assist Compliance

Posted three versions of FAQs:

October 7, 2021; March 16, 2022; July 6, 2022

Posted two compliance advisories:

March 16, 2022; July 8, 2022

N.J.S.A. 13:1E-127-135, January 21, 2020

- Expands A-901 licensing to persons engaging in soil and fill recyclable materials industry
- Expands the definition of “key employee” (must submit Personal History Disclosure Form) to certain “family members,” “consultants,” “brokers”, and “salespersons”
- Rule will establish new fee structure to reflect State (DEP, OAG and State Police) operating costs
- Rule will include new section for assessing penalties

# **“Get Past Plastic” Law**

## **Plastics Reduction Team**

Develops recommendations to the Division of Sustainable Waste Management by researching circular economy strategies to support and mitigate NJ’s transition past plastic.

## **Single-Use Reduction Law**

**P.L. 2020 c. 117**

Banned single-use plastic bags in retail establishments, and paper carryout bags from large grocery stores

Established Plastics Advisory Council, Report issued May 2023. Successes:

An estimated 8 billion plastic bags eliminated in the state May-Dec 2022 from grocery stores alone!

Clean Ocean Action reports

37.31% fewer single-use plastic bags

39.04% fewer plastic straws, and

37.84% less foam waste found

In 2022 compared to 2021.



# Food Waste Reduction Act (P.L. 2017, c. 136)

- Signed into law on July 21, 2017
- Goal to reduce food waste 50% by 2030
- Food Waste Reduction Plan drafted 2019, public hearings, currently being finalized

DEP is supporting the 50x30 Goal

- Higher ed grants funding food waste projects
- Working with established organizations like Sustainable Jersey's Waste Task Force
- Assessing food waste reduction strategies at DEP HQ
- Developing guidance and toolkit to support local government under EPA's SWIFR grant



# Food Waste Recycling and Food Waste-to-Energy Production Act (P.L. 2020, c. 24)

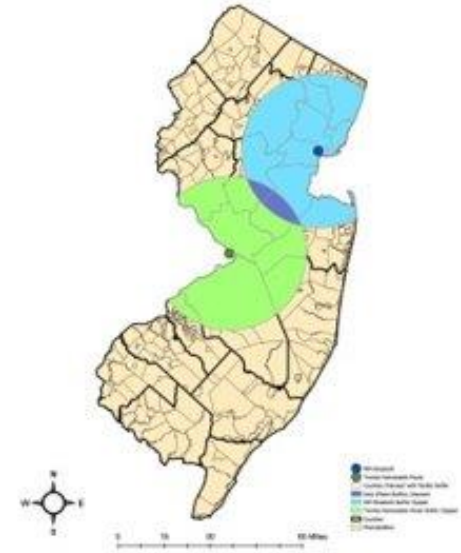
## Rule

- Stakeholder Mtgs Nov '22, Jan '23
- Governor's Office Summer '24
- Anticipated publication in NJ Register March '25

- Signed into law April 14, 2020
- DEP implementation and rules
- Large food waste generators (52T/yr) within 25 road miles of authorized food waste recycling facility must source separate/recycle food waste
- Established a Food Waste Recycling Market Development Council

# Food Waste Recycling Law (continued)

Operating Food Waste Facilities Plus 25-Mile Radius in NJ



COMMERCIAL FOOD  
WHOLESALE



DISTRIBUTOR



INDUSTRIAL FOOD  
PROCESSOR



SUPERMARKET



RESORT



CONFERENCE  
CENTER



BANQUET HALL



RESTAURANT



ED/RELIGIOUS  
INSTITUTION



MILITARY  
INSTALLATION



PRISON



HOSPITAL



MEDICAL FACILITY



CASINO

# Upcoming Legislation

- **S426 Extended Producer Responsibility**  
Producers of various packaging products responsible for using recyclable materials
- **S3723 Electric and Hybrid Vehicle Battery Management Act**  
Recycling mandates for used electric and hybrid vehicle batteries
- **S2730 Food Waste Reduction at District Level**  
Counties to develop and implement food waste reduction policies to help meet the 50x30 goal
- **A4821/4823 Study & Removal of Microplastics**  
ID and testing of microplastics in drinking water, study and promote removal technologies



Questions?

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# Afternoon Break

# Environmental Justice: Perspectives and Solutions to Build a Sustainable Future Together

AWMA-NCNJ Event, in collaboration  
with  
and Rutgers Camden Business  
School

27 September 2023





# Director Peg Hanna

Climate Change Mitigation and Monitoring Updates and Initiatives



# What is CPRG?

The **Climate Pollution Reduction Grant (CPRG) program** is a nationwide, two-phase EPA grant, funded via the Inflation Reduction Act

## Phase One: \$250 Million

**Noncompetitive planning grants** to states, local governments, tribes, and territories to develop and implement climate action plans for reducing greenhouse gas emissions and other harmful air pollution.

## Phase Two: \$4.6 Billion

**Competitive implementation grants** to carry out the greenhouse gas reduction measures proposed in the climate action plans.



**For more information visit:** <https://www.epa.gov/inflation-reduction-act/climate-pollution-reduction-grants>

# CPRG Phase I · Grant Recipients

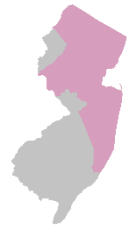
## 4 Planning Grants covering New Jersey



State of New Jersey

**NJDEP Lead**

*Statewide*



New York-Newark-Jersey City, NY-NJ-PA Metro Area

**NYCEDC + NJTPA Lead**

*Covered Counties: Essex, Hunterdon, Morris, Sussex, Union, Middlesex, Monmouth, Ocean Somerset, Bergen, Hudson, Passaic*



Allentown-Bethlehem-Easton, PA-NJ Metro Area

**LVPC Lead**

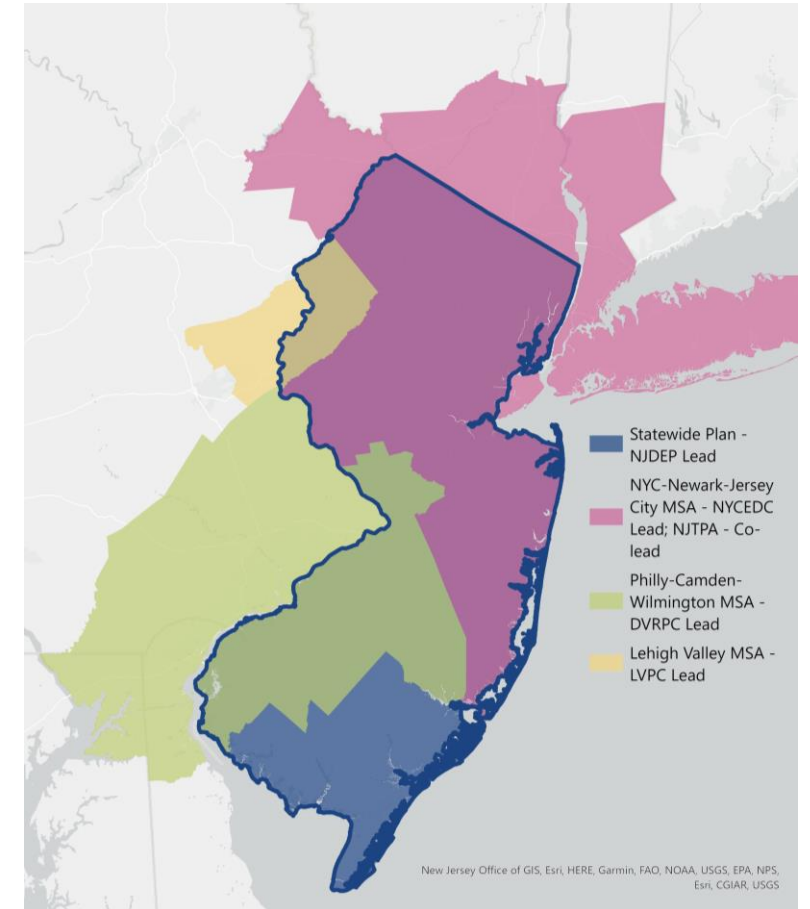
*Covered Counties: Warren*



Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metro Area

**DVRPC Lead**

*Covered Counties: Burlington, Camden, Gloucester, Mercer, Salem*



CPRG Workplan Areas within New Jersey

# CPRG Phase I · Planning Grants

One planning grant, three deliverables over 4 years



## Priority Climate Action Plan (PCAP) *Due March 2024*

- Near-term, implementation ready, priority greenhouse gas reduction
- Prerequisite for implementation grant



## Comprehensive Climate Action Plan (CCAP) *Due Mid-2025*

- All sectors/significant greenhouse gas sources and sinks
- Near- and long-term greenhouse emission reduction goals and strategies



## Status Update Report *Due 2027*

- Update on implementation, analysis and plans
- Progress and next steps for key metrics

# CPRG Phase II Implementation Grants



**Total program funds:** \$4.6 Billion nationally



**Award amounts:** \$2 million to \$500 million



**Anticipated Number of Awards:** 30-115



**Applications due:** April 1, 2024



# Examples of Eligible Project Sectors



Transportation



Electric Power



Buildings



Industrial



Waste, Water, and Sustainable Materials Management



Agricultural

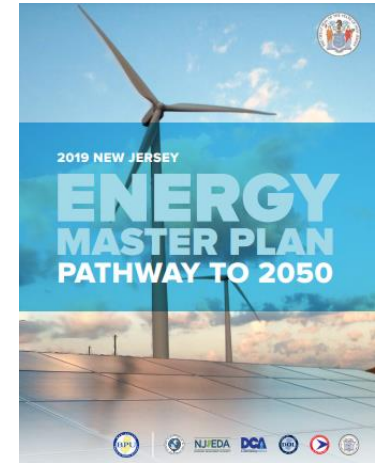


Carbon Removal

# New Jersey's Approach to the CPRG Planning Deliverables

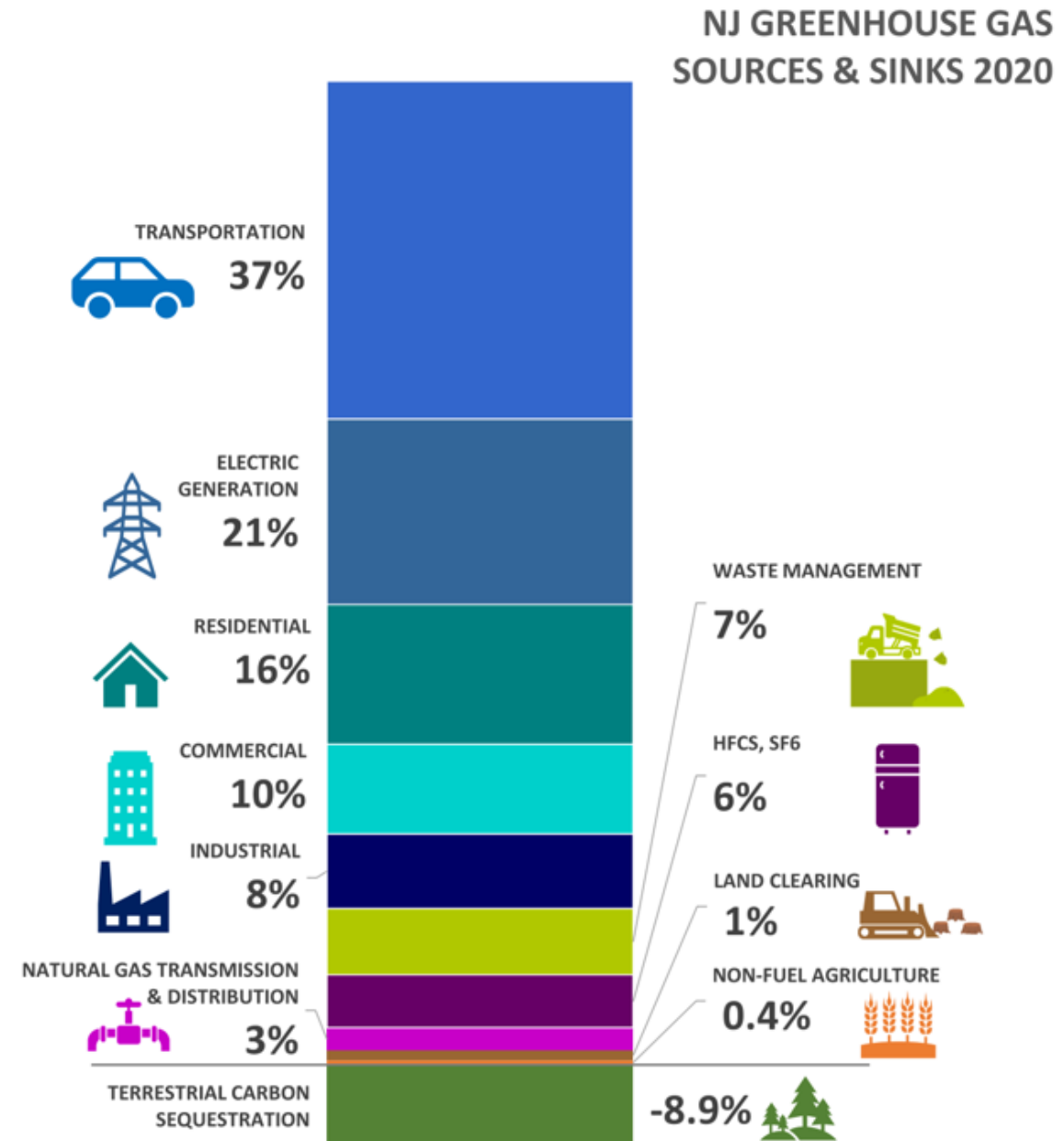
New Jersey will expand on, enhance, and implement existing climate plans:

- [Energy Master Plan](#)
- [Global Warming Response Act 80x50 Report](#)
- [NJ RGGI Strategic Funding Plan](#)



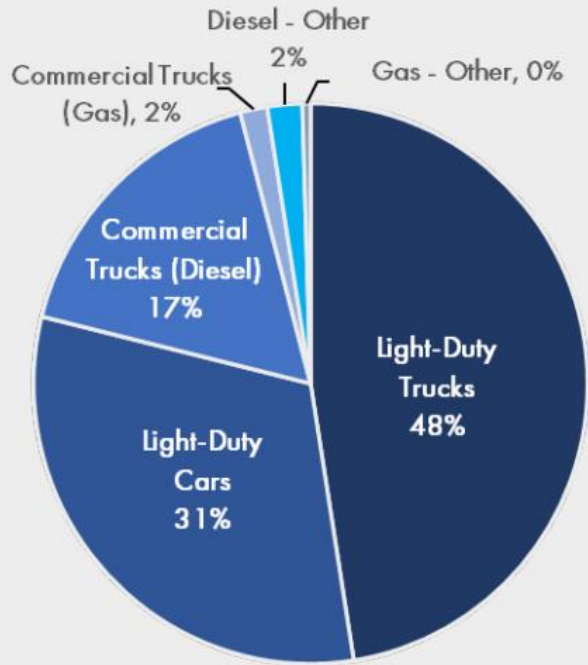
# New Jersey's Priority Sectors for PCAP

- Transportation
- Buildings
- Electric Generation
- Organic Waste
- Hydrofluorocarbons (HFCs) / Highly Warming Gases
- C-Sequestration



# Transportation Snapshot

## Sources of On Road Emissions (2018)



GWRA 80x50 Report, Figure 1.4

Goals	Priority Reduction Pathways
100% electric vehicle light duty sales by 2035	1. Electrify light duty vehicles
30% zero-emission medium-and heavy-duty vehicle sales by 2030	2. Decarbonize medium and heavy-duty vehicles
100% of all new medium-and heavy-duty vehicle sales be zero emission vehicles by 2050	3. Reduce VMT



# Driving Investment in Transportation

## Vehicles

- **Charge Up New Jersey** incentivizes the purchase or lease of zero-emission vehicles
- **DEP, BPU & EDA fund** medium- and heavy-duty electric vehicles and charging stations.
- **eMobility grants** provide residents of underserved areas with access to zero-emission vehicles.

## Infrastructure

- **BPU & DEP (It Pay\$ to Plug In)** provide funding to offset the cost of charging equipment.

## Reducing VMT

- Financial support for **commuter vanpools** in areas where public transit is not available or feasible.
- The **Transit Village Program** promotes transit-oriented development in neighborhoods surrounding transit hubs, encouraging transit use.



# Potential Opportunities



Light-duty electric vehicle charging infrastructure

Public medium-and heavy-duty vehicle charging and fueling infrastructure



Funding for electrifying medium-and heavy-duty vehicle and port equipment

Support for Mid-Atlantic Hydrogen Hub



Grid-supportive strategies

Improve walking, biking, and transit infrastructure



Technical assistance for fleet owners

Technical assistance for multi-unit dwelling charging infrastructure



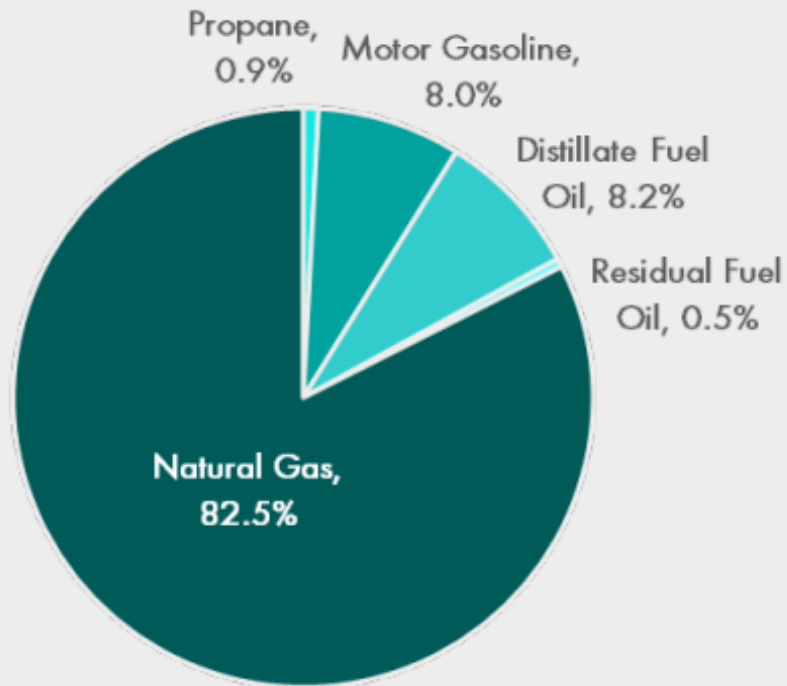
Workforce programs for EVSE maintenance and installation



eMobility

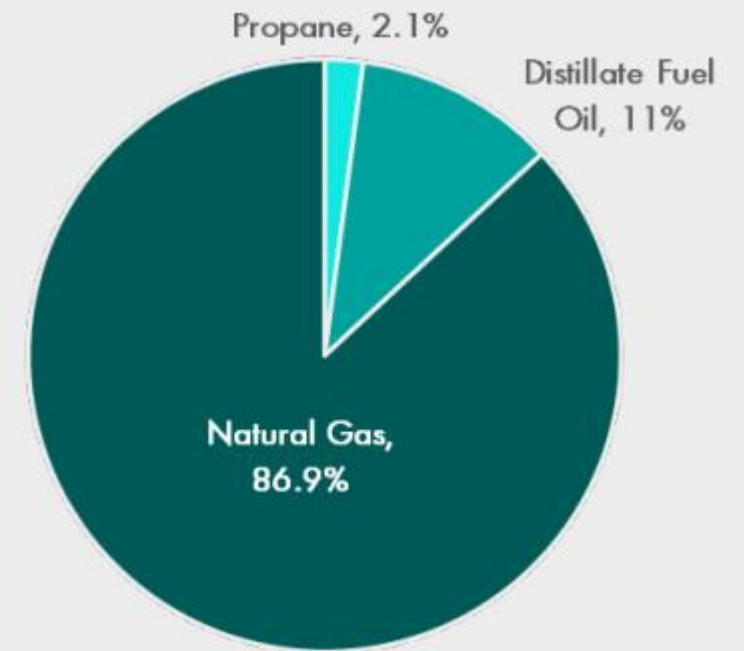
# Buildings Snapshot

**Sources of Residential Building Emissions (2018)**



GWRA 80x50 Report, Figure 2.1

**Sources of Commercial Building Emissions (2018)**



GWRA 80x50 Report, Figure 2.3

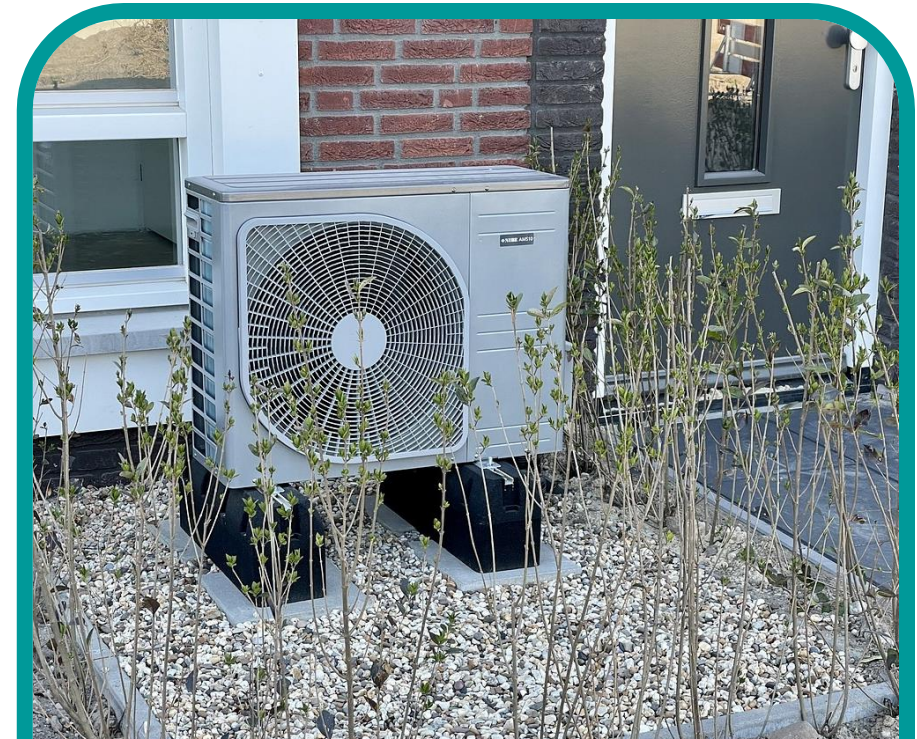
# Buildings Snapshot

Goals	Priority Reduction Pathways
<b>90% of buildings must be converted to 100% clean energy systems, with full scale conversion beginning in 2030</b>	1. Electrify space and water heating (existing and new)
<b>Electrify 400,000 residential dwelling units and 20,000 commercial properties by 2030</b>	2. Maximize energy efficiency in existing buildings
<b>Make 10% of all low-to-moderate income (LMI) properties electrification-ready by 2030</b>	
<b>United States Climate Alliance commitment to install 20 million heat pumps across participating states by 2030</b>	



# Driving Investment in Buildings

- Appliance Standard Law
- Whole House Pilot Program
- Utility Building Decarbonization Start up programs as part of Energy Efficiency Triennium (round 2)
- Other Key NJ Building Incentive programs:
  - [Comfort Partners Program \(BPU + Utilities\)](#)
  - [Weatherization Assistance Program](#)
  - [Energy Benchmarking Programs](#)
  - [Utility Programs](#)
  - [Free Local Government Energy Audit Program](#)
  - New Construction Buildings Programs
    - [Smart Start Program](#)
    - [Pay for Performance Program](#)
  - [Commercial Property Assessed Clean Energy \(C-PACE\) program \(EDA\)](#)
  - [Large Energy Users Program](#)



# Potential Opportunities



Proof of concept pilots and demonstration projects



Funding for residential and commercial electrification



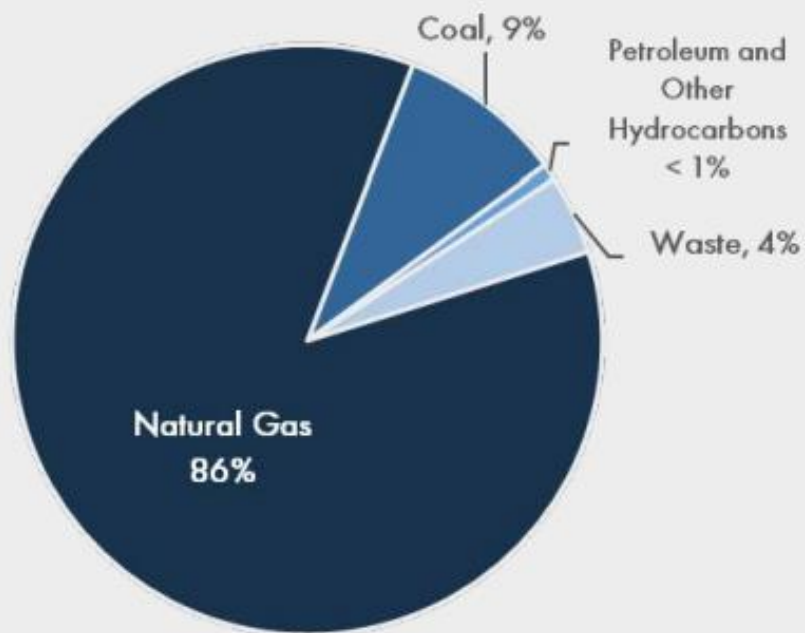
Workforce development for building electrification



Technical Assistance programs for building owners

# Electric Generation Snapshot

Sources of In-State Electric Generation Emissions (2018)



GWRA 80x50 Report, Figure 3.2

Goals	Priority Reduction Pathways
100% Clean Energy by 2050	1. Reduce demand through energy efficiency
100% Clean Electricity Sold in New Jersey by 2035	2. Transition from fossil fuel electric generation to renewable energy
35% RPS by 2025 and 50% RPS by 2030	3. Procure out-of-state renewables

# Driving Investment in Clean Electric Generation

## Wind

- Offshore Wind, procured 3.7 GW (3,758 MW)

## Solar

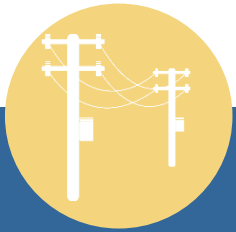
- Administratively Determined Incentive Program (ADI) ~336 MW of capacity
- Community Solar Program ~55 MW of capacity

Source: <https://njcleanenergy.com/renewable-energy/project-activity-reports/project-activity-reports>





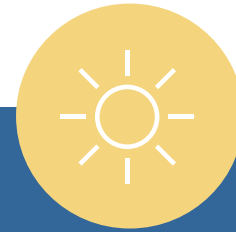
# Potential Opportunities



Distribution grid upgrades  
to enable greater adoption  
of distributed energy  
resources  
(such as solar + batteries)



Adoption of energy storage  
technologies in lieu of  
emergency generators



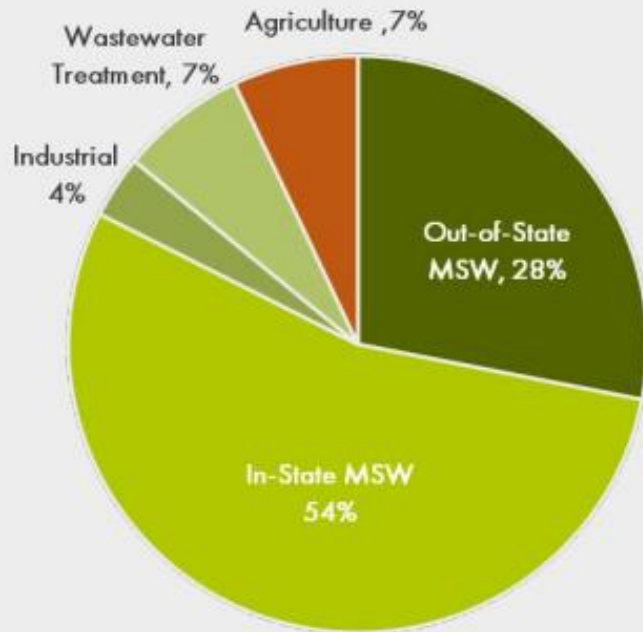
Continued expansion of  
solar throughout the state  
ensuring all communities  
have equal access



Building the workforce to  
satisfy New Jersey's clean  
energy goals

# Waste Snapshot

## Sources of Waste Sector Emissions (2018)



GWRA 80x50 Report, Figure 3.2

### Goals

**50% reduction in current food waste disposal in landfills by 2030**

**Reduce emissions from waste sector by 15%**

### Priority Reduction Pathways

1. Reduce and recover food waste

2. Optimize energy recovery efforts in wastewater treatment

# Driving Investment in Waste Reduction

## Distributed Food Waste Recycling Infrastructure

- Investment in Higher Education Aerobic Digesters + Rocket Composters

## Research, Education + Outreach

- New Jersey Food Asset Inventory and Mapping Project [Stockton University]
- Leave No Bite Behind Campaign [Rutgers University]



# Potential Opportunities



Food donation/food rescue  
supportive infrastructure



Distributed Composting  
Infrastructure



Large Scale Food-Waste  
Recycling Facilities

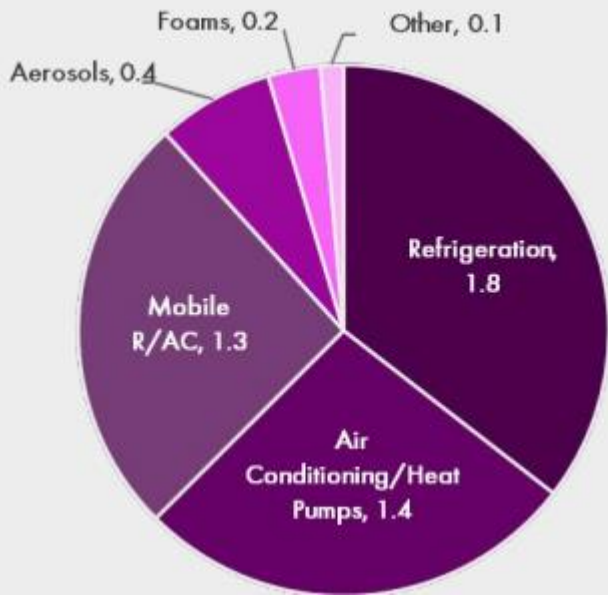


Waste to Energy Projects at  
Wastewater Treatment  
Facilities



# Highly Warming Gases Snapshot

Sources of HFC Emissions (2018)  
MMT CO<sub>2</sub>e



GWRA 80x50 Report, Figure 6.3.1

Goals	Priority Reduction Pathways
Stop the growth of emissions from HFCs by 2030	1. Containment through leak repairs, strict materials handling, and recycling
	2. Product phase out, involving outright bans by law or regulation

# Driving Investment in HFC Reduction

## HFC Law (P.L. 2019, c.507)

- Phases out sale, lease, rent or installation of certain equipment or products containing HFCs or other GHGs by 2024

## HFC Reporting Rule

- Requires large HFC uses to annually report to the Department



# Potential Opportunities



Incentive programs for low  
global warming potential  
refrigeration and chiller  
systems



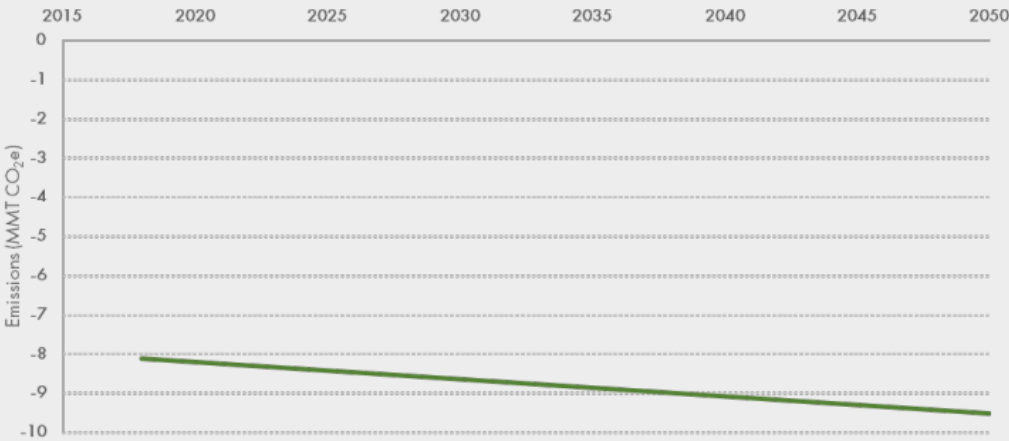
Refrigerant Management  
Program



Workforce Development +  
Markets for new cooling  
products and technologies

# Natural Working Lands Snapshot

Carbon Sequestration Projection  
MMT CO<sub>2</sub>e



GWRA 80x50 Report, Figure 7.2

Goals	Priority Reduction Pathways
Maintain existing carbon stores and increase carbon sequestration through balanced land management strategies	1. Reforestation
	2. Avoided conversion of natural lands
	3. Salt marsh and seagrass restoration and enhancement
	4. Conservation management of agricultural lands
	5. Proactive forest management

# Driving Investment in Natural Working Lands

## Natural Climate Solutions Program

- Awarded \$24.3M for 14 projects that create, restore, and enhance New Jersey's natural carbon sinks, such as salt marshes, seagrass beds, forests, urban parks and woodlands, and street trees

## Trees for Schools Program

- Awarded \$4.5M across 34 public schools, colleges and universities in the state to plant trees.

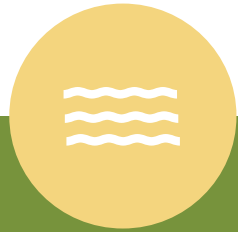




# Potential Opportunities



Forest and urban canopy  
restoration on private and  
public lands



Tidal marsh + living  
shoreline Restoration



Programs that support  
carbon sequestration on  
agricultural lands



Technical assistance for  
landowners and managers  
in the State

# Staying in the Know on NJ CPRG

Visit Our Webpage + Join the Email List

<https://dep.nj.gov/climatechange/mitigation/cprg/>

The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, ranging from light lime to dark forest green. These shapes are concentrated on the right side of the slide, creating a modern, layered effect. The rest of the slide is a plain, light gray.

# Questions?

# Bureau Chief Kimberly Cenno

Water Monitoring, Standards and Pesticides Control Updates and Initiatives



## **Division of Water Monitoring, Standards and Pesticide Control Updates and Initiatives**

### **22<sup>nd</sup> Annual Joint Venture NJDEP/A&WMA Regulatory Update Conference**

November 17, 2023

Kimberly Cenno, Bureau Chief

Bureau of Environmental Analysis, Restoration and Standards  
(BEARS)

Division of Water Monitoring, Standards and Pesticide Control  
New Jersey Department of Environmental Protection



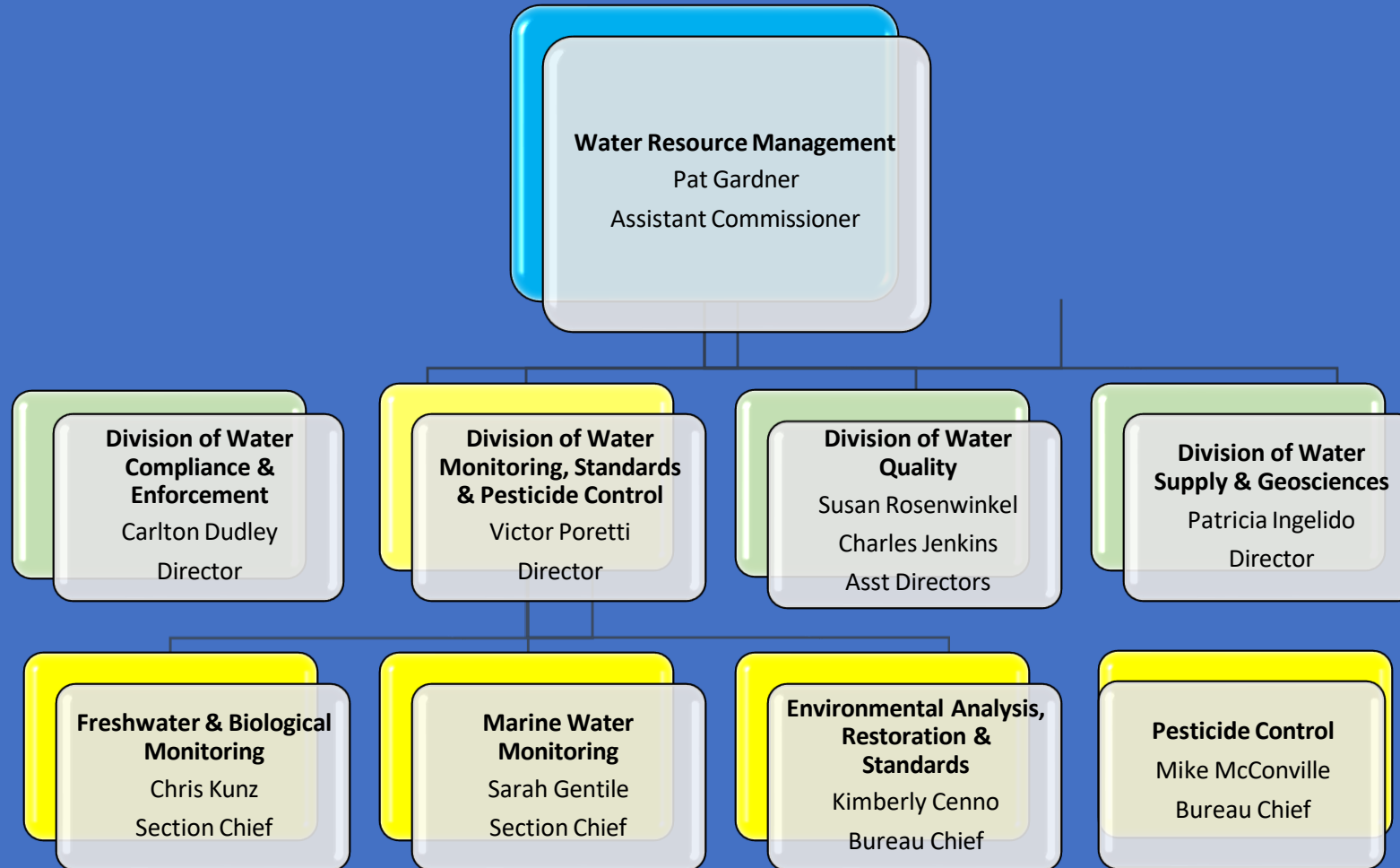
# Division of Water Monitoring Standards & Pesticide Control What We Do

The Division of Water Monitoring, Standards and Pesticide Control (DWMSPC) regulates pesticides and assesses New Jersey's waters in order to protect and manage public drinking water supplies, recreational uses, shellfish harvesting, and the health of aquatic organisms, in accordance with State and Federal regulations.

To accomplish its mission of protecting public and ecological health, DWMSPC collects and analyzes water quality data, coordinates the development of water quality standards and the restoration of impaired waters, ensures compliance with pesticide regulations, and provides public education and outreach.



# WATER RESOURCE MANAGEMENT





# The Bureau of Pesticide Control

## Two Major Initiatives

- Certification and Training Plan
- PL 1016 Neonicotinoid  
Legislative Mandate





# Certification and Training Plan

NJDEP, Pesticide Control Code  
NJAC 7:30-1(a) et seq.

- Target filing deadline has been extended until November 2024 for the adoption of the Federal requirements.
- New Jersey is presently well ahead of the scheduled deadline for approval.

**PESTICIDE TREATED AREA**

Date of last application \_\_\_\_\_

**AREAS TREATED**

☐ Greens    ☐ Tees    ☐ Fairways  
☐ Practice Areas    ☐ Other

Chemical used \_\_\_\_\_

Proposed date of next application \_\_\_\_\_

**ADDITIONAL INFORMATION AVAILABLE**

Tele # \_\_\_\_\_ By \_\_\_\_\_



## New Jersey PL 1016: Neonicotinoid Pesticide Restriction

The Legislative Rulemaking Process required to amend the Pesticide Control Act to restrict and curb the use of Neonicotinoids in NJ is continuing.

- A Stakeholder Meeting was conducted on September 27, 2023.
- October 31, 2023 the Law for Restriction became effective.
- Only agricultural uses of Neonicotinoids are permitted and only by valid pesticide applicator licensed individuals.
- Banning use of Neonicotinoids by golf courses, landscapers, retail use and by homeowners is now in effect.
- Exemptions exist for environmental emergencies.

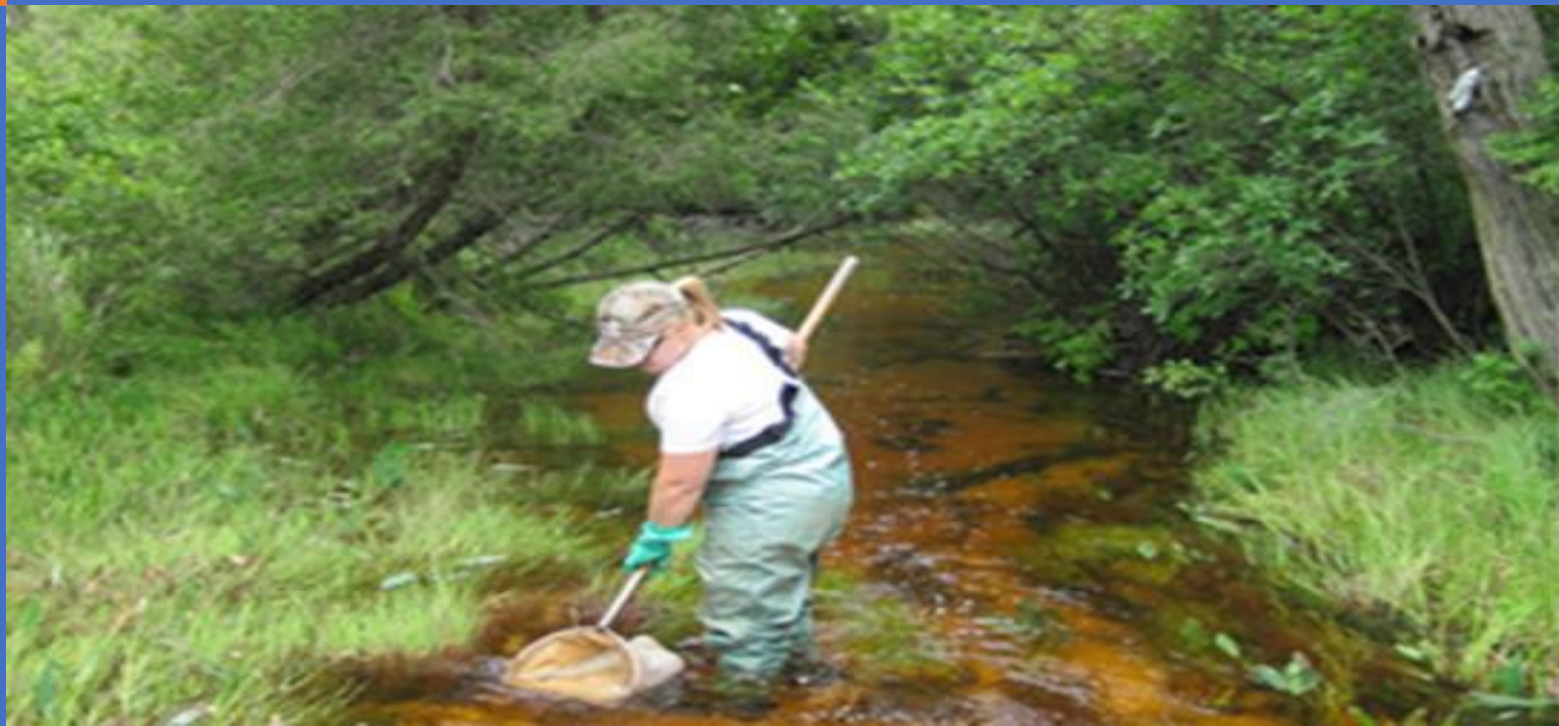




# BUREAU OF FRESHWATER AND BIOLOGICAL MONITORING (BFBM)

## Rivers/Streams, Lakes & Ground Water

- Chemical/Physical - water & sediment
- Biological – macroinvertebrates & fish assemblage, fish tissue
- Microbiological – pathogens, Harmful Algal Blooms (HABs)



- Data to assess **Clean Water Act uses** – aquatic life, recreation, drinking water & fish consumption
- Enhanced regional monitoring to support the Integrated Water Quality Assessment Report
- Environmental Trend/Performance Metric Indicators
- Contaminants of Emerging Concern (CEC)



# BFBM 2023 New and Enhanced Initiatives

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Contaminants of Emerging Concern (CEC)  
Source Trackdown and Status Monitoring

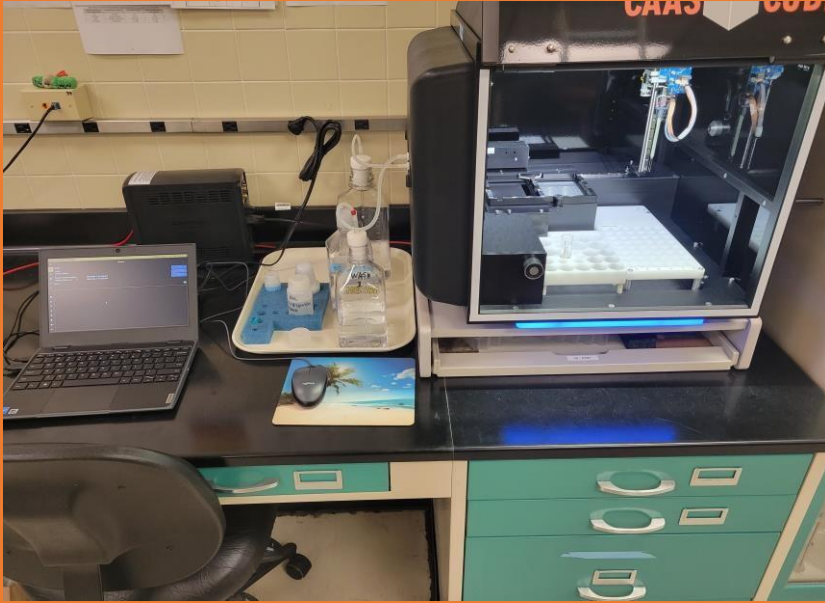
Millstone River:  
Continued intensive monitoring of Millstone  
River, Delaware and Raritan Canals and  
Carnegie Lake for nutrient and potential HABs.

PFAS:  
Cedar Brook/ Bound Brook status monitoring  
due to PFAS in groundwater discharge.

Delaware and Raritan Canal and Lawrence  
Brook monitoring in response to purveyor  
concerns.







## BFBM 2023 New and Enhanced Initiatives

### *Harmful Algal Blooms*

Additional analytical equipment purchased to expand capacity and improve efficiency.

Cozy Lake:  
Monitoring of Lake and private wells over drinking water concerns due to high toxin concentrations in the Lake and potential impact to nearby shallow wells.



# BFBM 2023 NEW AND ENHANCED INITIATIVES

## *Ambient Surface Water Quality Monitoring Network*

Ended long-term cooperation with USGS in the management and operation of the Bureau's main water quality network.

Will result in increased efficiencies, ability to respond more nimbly to emerging issues and concerns.

Will allow for eventual expansion of the network to include additional water bodies not currently represented.







## BFBM 2023 New and Enhanced Initiatives

### *Fish eDNA*

- Using a variety of laboratory techniques including qPCR and metabarcoding, trace amounts of DNA can be detected
- Detect invasive species, track species of concern, and an ability to monitor entire biological communities

Continued eDNA sampling and analysis in the Paulins Kill to track presence of shad in the river.

Expanded implementation of eDNA sampling alongside Fish IBI sampling to determine potential for more routine use.

Implementation of eDNA sampling to begin development of Pinelands specific IBI.





# Bureau of Marine Water Monitoring

Sarah Gentile, Section Chief

Sarah.Gentile@dep.nj.gov



## Field

Water Quality Sampling (NSSP)

Pollution Source Tracking

Slocum Glider

Real-Time Buoy

Remote Sensing

## Laboratories

### Chemistry

Phytoplankton

Ambient Marine Water



### Microbiology

*Vibrio* Analysis

Antibiotic Resistance Assay (ARA)

qPCR

Coliphage

### Bacteriology

Coliform

Enterococcus



## Assessments

Shellfish Water Classification

Ocean Benthic Index Monitoring

Barnegat Bay Monitoring & Analysis



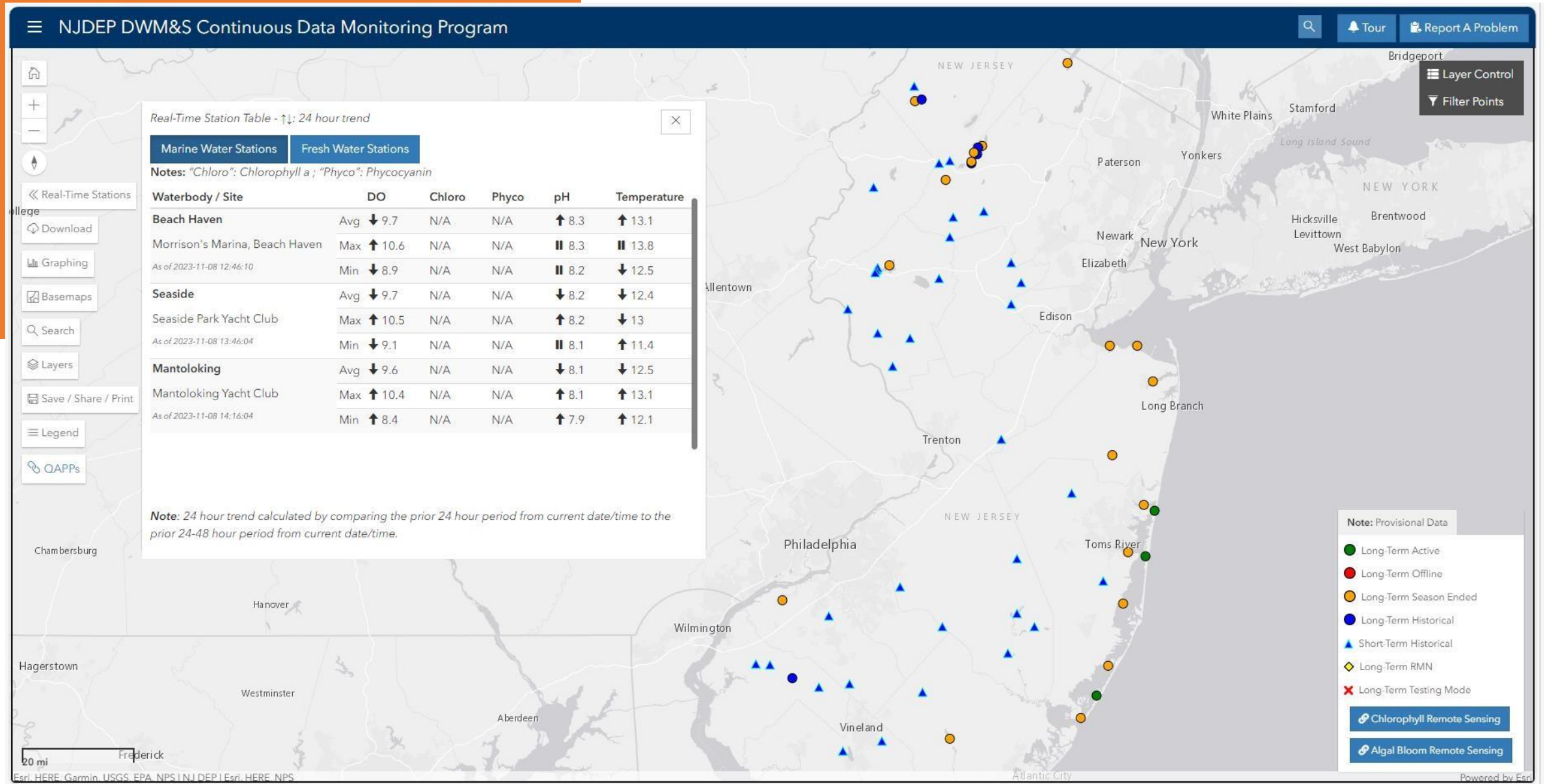


# BMWM Core Programs

- Shellfish water classification through administration and conformance with the National Shellfish Sanitation Program (NSSP).
- Issuance of Permits for Shellfish related Activities.
- Ambient Water Quality Monitoring.
- Real-time Continuous Water Quality Monitoring and Aircraft Remote Sensing.
- Microbial and Pollution source Tracking.
- Shellfish Vibrio Monitoring.
- Marine Phytoplankton Monitoring.



# BMWM's Continuous Water Quality Network

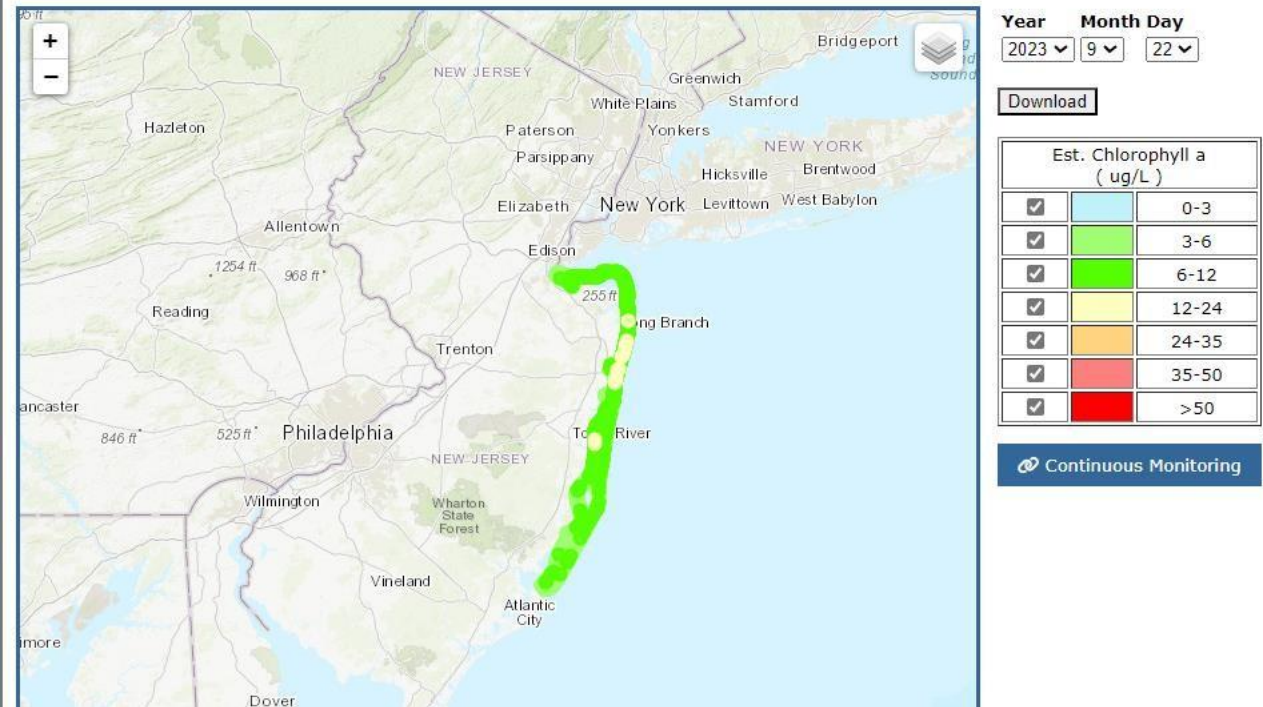






Chlorophyll Remote Sensing

NJDEP’s Bureau of Marine Water Monitoring, in cooperation with the NJ Forest Fire Service, Rutgers University and US EPA Region 2, conducts aircraft remote sensing for estimating chlorophyll levels in NJ’s coastal waters. Since chlorophyll is a plant pigment, high levels of chlorophyll in the water are typically associated with an algal bloom. To detect potential blooms, the plane flies 6 days a week during the summer months, in favorable weather conditions, over the coastal waters of New Jersey. These flights provide a valuable perspective on water conditions and trends that enable the Bureau to target boat sampling in locations where algal blooms may be occurring.



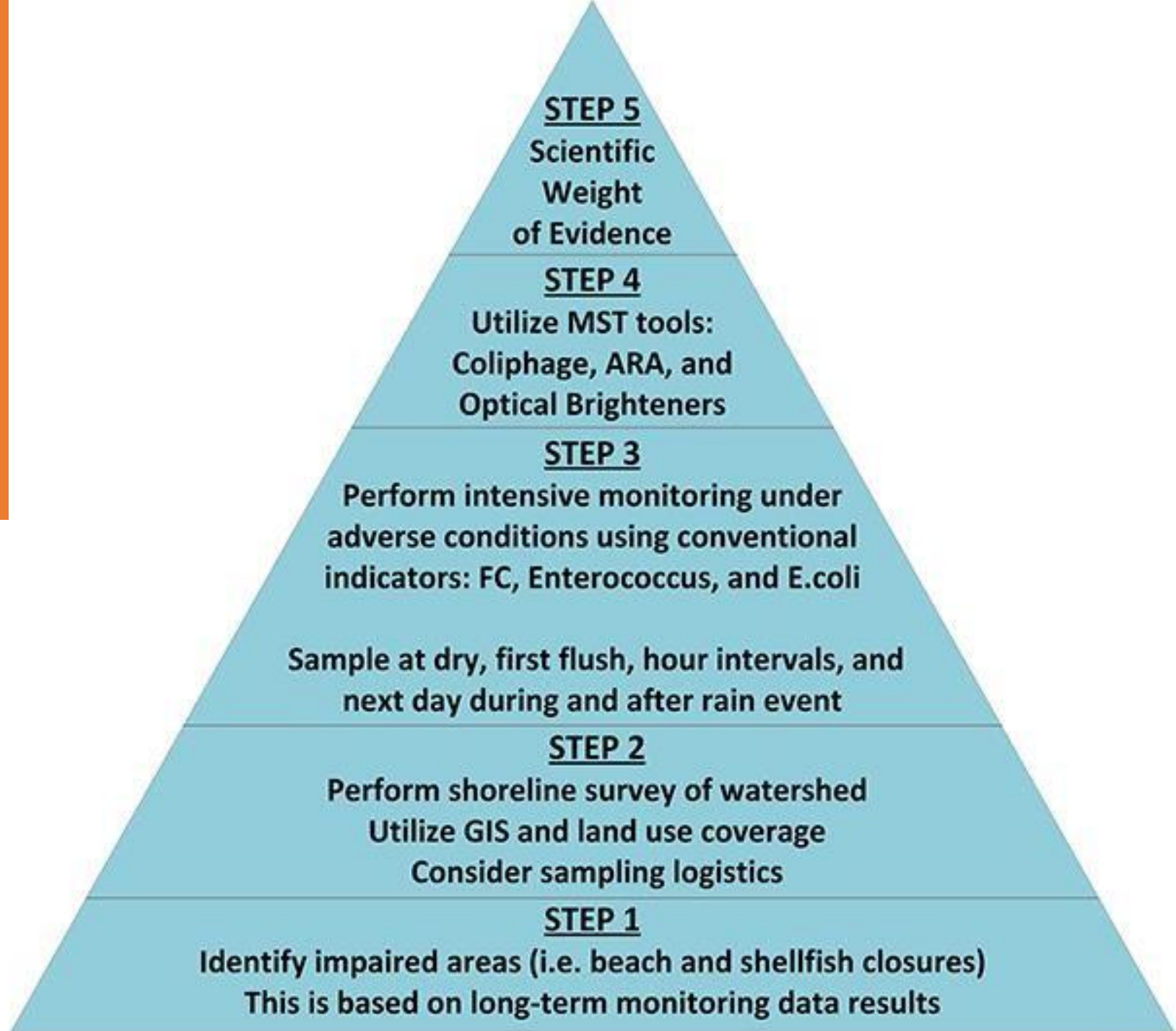
# BMWM’s Aircraft Remote Sensing



# BMWM's Pollution Source Trackdown

*The Bureau targets pollution source tracking through 5 key steps:*

- *Identification of Water Quality Impairments*
- *Survey of the Watershed Area*
- *Perform Intensive Monitoring*
- *Utilize Advanced Laboratory Analysis*
- *Collaborate with Community to Fix the Problem*





# Bureau of Environmental Analysis, Restoration and Standards

provides the scientific foundation for the restoration and protection of New Jersey's water resources so that all of our rivers, lakes and coastal waters are



fishable, swimmable and support healthy ecosystems, and so all of our freshwater resources are clean sources of drinking water.

Photo credit: DEP

# Surface Water Quality Standards (SWQS)

[HOME](#)

[OVERVIEW](#)

[RULES](#)

[FAQs](#)

[SWQS MAPS](#)

[C1 WATERS STORY MAP](#)

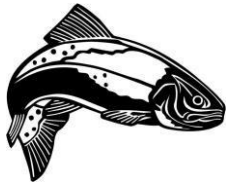


Photo Credit: NJ DEP



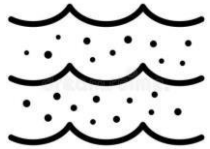
# Surface Water Quality Standards

(<https://www.nj.gov/dep/wms/bears/swqs.htm>)



## Designated Uses

- Aquatic life, drinking water after conventional treatment
- Agricultural and industrial supplies
- Navigation, recreation



## Stream Classifications

- Freshwaters: FW1, FW2 (TP, TM, NT)
- Saline Waters (SE1, SE2, SE3, SC)
- PL



## Water quality criteria necessary to protect the designated uses

- Aquatic life (based on toxicity studies in aquatic life)
- Human health (based on drinking water and fish consumption)
- Does not consider economic or technological feasibility or detectability to implement.



## Policies affecting implementation

- General and Technical
- Antidegradation
- Mixing Zone
- Variances

# SWQS Requirements

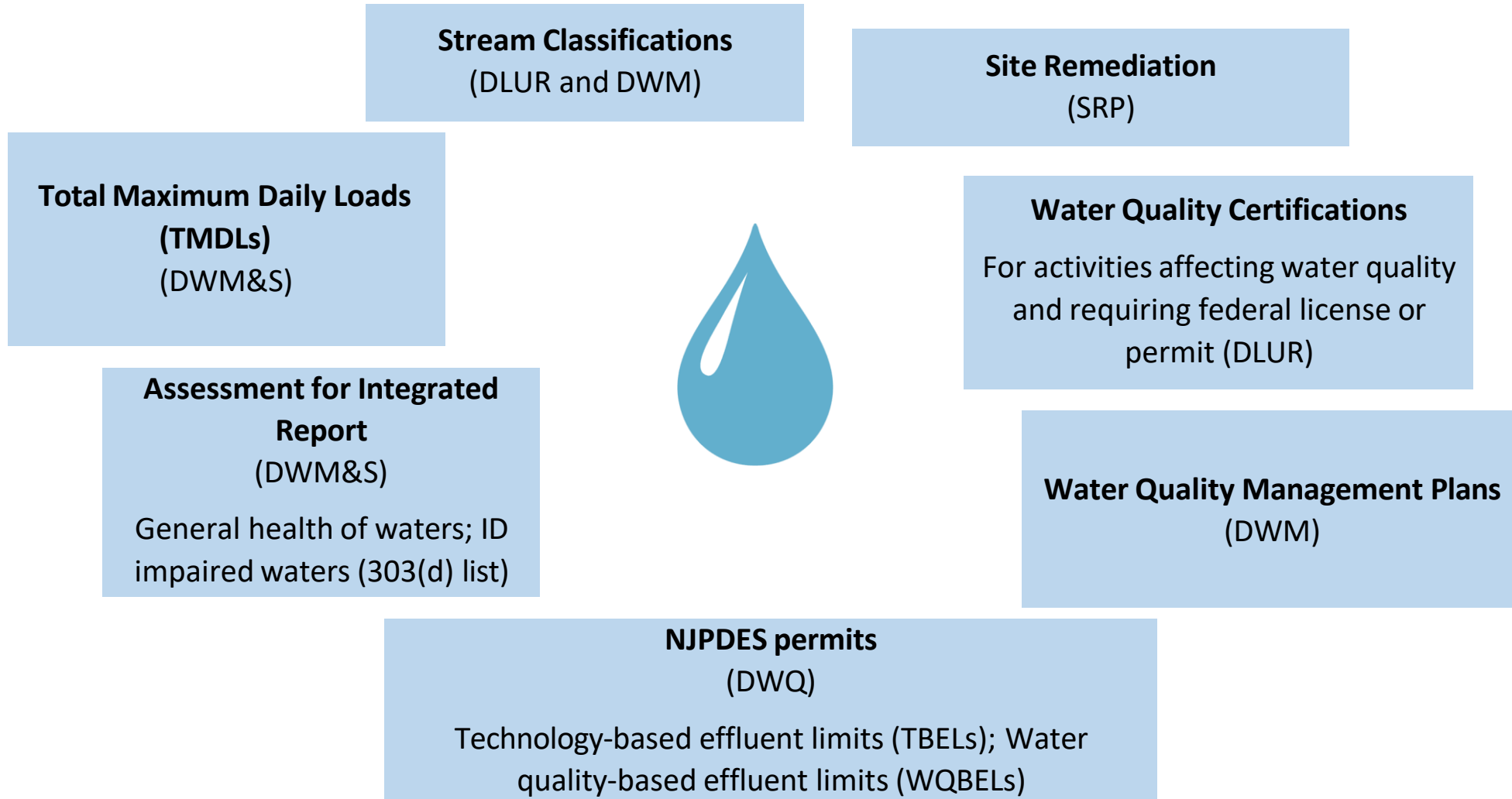
- Must be reviewed every three years (Triennial Review)
- Must be renewed every seven years – expires in 2023 (New Jersey Administrative Procedure Act (NJAPA) at N.J.S.A. 52:14B-1 et seq.)

## Statutory Authority

- Federal:
  - Clean Water Act (§101(a), §303(a-c))
  - Federal Regulations (40 C.F.R. 131.11)
- State:
  - NJ Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.)
  - Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.)



# SWQS Implementation



# SWQS Antidegradation Policy

## Outstanding National Resource Waters (ONRW)

- Waters within state and federal parks
- No manmade wastewater dischargers are allowed
- No activities which would cause a measurable change in water quality, except toward natural conditions

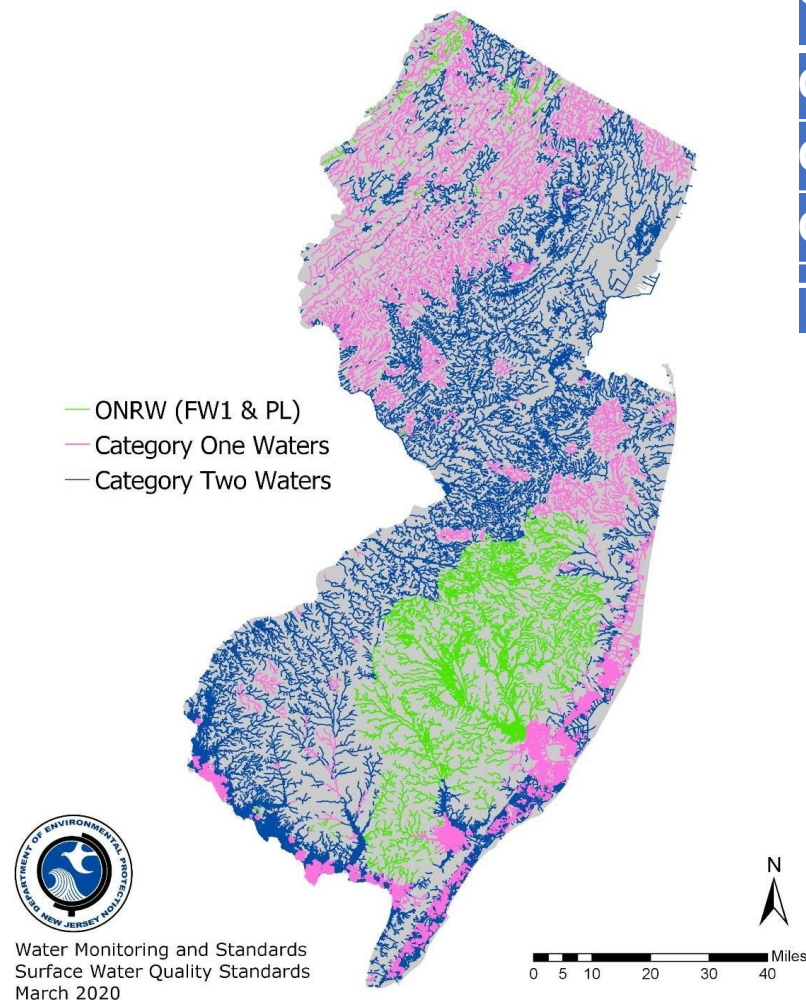
## Category One Waters

- Wastewater dischargers are required to maintain the current level of water quality
- C1 designation provides additional protection to waterbodies to discourage development (300-ft riparian zone)
- Waters shall be protected from measurable changes in water quality

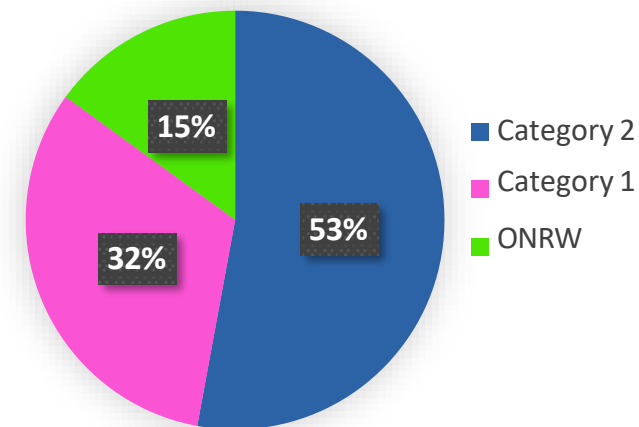
## Category Two Waters

- All streams that are not ONRW or C1
- Existing water quality is maintained
- Some degradation may be allowed to accommodate important economic and social development
- Must continue to meet SWQS criteria
- Review done on a pollutant-by-pollutant basis

Categories	River miles	Percent (%)
ONRW	3,527	15
C1	7413	32
C2	12581	53
Total	23,521	100



NJ Surface Water Antidegradation Designations





# Rule adoption on [August 7, 2023](#)

## What's new?

- a) More stringent bacterial quality criteria for primary contact recreation based on the recommendations of the U.S. Environmental Protection Agency (USEPA) in [2012](#);
- b) Updated freshwater (FW2) ammonia criteria based on the recommendations of the USEPA in [2013](#);
- c) A new subchapter to establish provisions for water quality standards (WQS) variances, based on USEPA regulations published in [2015](#);
- d) Updated total phosphorus narrative criteria
- e) Updates to the New Jersey Pollutant Discharge Elimination System (NJPDDES) rules at N.J.A.C. 7:14A to reflect the new WQS variances policy in the SWQS.



# Ongoing SWQS Rulemaking – “Toxics” Proposal

Refresher stakeholder meeting held on [August 29, 2023](#).

- Rule Proposal anticipated to be published in 2024
- Discussed potential updates to human health surface water quality criteria at [N.J.A.C. 7:9B-1.14](#):

New definitions for “carcinogen” and “non-carcinogen”

New significant figures and rounding policy

Revisions and additions to fresh and saline numeric criteria **for 94 toxic substances** (based on NJDEP’s review of [USEPA’s 2015 recommendations](#))

Adding new fresh water numeric criteria for **additional toxic substances** based on drinking water exposure:

Perfluorononanoic acid (PFNA)

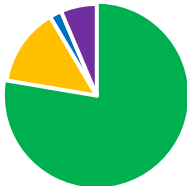
Perfluorooctanoic acid (PFOA)

Perfluorooctanesulfonic acid (PFOS)

1,4-dioxane

# “Toxics” Proposal

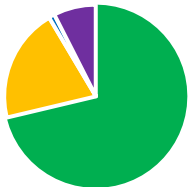
Revisions and additions to fresh and saline numeric criteria for 94 toxic substances (based on NJDEP’s review of [USEPA’s 2015 recommendations](#))



Fresh Water Recommended Criteria Versus Existing NJ SWQS Criteria	
Number of constituents <b>more stringent</b>	72
Number of constituents <b>less stringent</b>	13
<b>No difference</b>	2
Number of <b>new constituents</b>	7

## Impacts:

- 7 new toxic substances will be added to the SWQS
  - NJDEP will review data resulting from sampling and monitoring as part of the permit process.
- No impacts anticipated for 87 (fresh) / 86 (saline) toxic substances with existing criteria in the SWQS.
  - Already reviewed as part of the application review process;
  - Not typically present in wastewater effluent.



Saline Water Recommended Criteria Versus Existing NJ SWQS Criteria	
Number of constituents <b>more stringent</b>	66
Number of constituents <b>less stringent</b>	19
<b>No difference</b>	1
Number of <b>new constituents</b>	8

# “Toxics” Proposal

Adding new fresh water numeric criteria for additional toxic substances **based on drinking water exposure** (basis: [NJ Drinking Water Quality Institute recommendations](#))

- Perfluorononanoic acid (PFNA)
- Perfluorooctanoic acid (PFOA)
- Perfluorooctanesulfonic acid (PFOS)
- 1,4-dioxane

## Impacts:

- PFNA, PFOA, PFOS, and 1,4-dioxane are new substances that will be added to the SWQS
- NJDEP will review data resulting from sampling and monitoring as part of the permit process.
  - Industrial facilities (B, L, and DLAs) will be targeted for monitoring.
  - No additional/new violations are anticipated based on the anticipated rule amendments at this time.

Name	Recommended Fresh Water Criterion (Drinking Water Only)
PFNA	0.013 µg/L
PFOA	0.014 µg/L
PFOS	0.013 µg/L
1,4-dioxane	0.33 µg/L



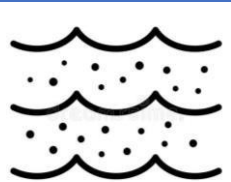
# Ground Water Quality Standards

N.J.A.C. 7:9C



## Designated Uses

- Maintenance of special ecological resources
- Potable water after conventional treatment
- Agricultural water and industrial water



## Ground Water Classifications

- Class I Ground Water of Special Ecological Significance (Class I-A, PL)
- Class II Ground Water for Potable Water Supply (Class II-A, II-B)
- Class III Ground Water With Uses Other Than Potable Water Supply (Class III-A, III-B)



## Water quality criteria necessary to protect the designated uses

- Human health (based on drinking water consumption)
- Considers detectability (PQL); the higher of the specific criterion and the PQL becomes the Constituent Standard.



## Policies affecting implementation

- Antidegradation

# GWQS Requirements

- Must be renewed every seven years – expires in 2028 (New Jersey Administrative Procedure Act (NJAPA) at N.J.S.A. 52:14B-1 et seq.)

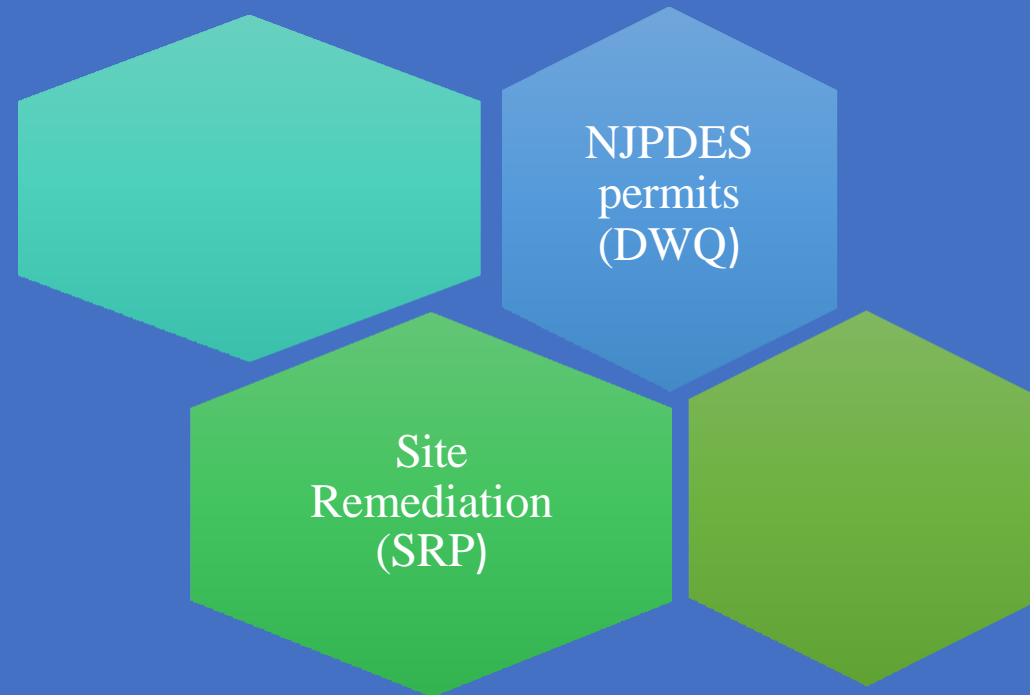
## GWQS Statutory Authority

- The Clean Water Act does not have authority over ground waters, so the NJDEP's authority for the GWQS is derived from state statutes:
  - NJ Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.)
  - Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.)





# GWQS Implementation



# June 5, 2023 Publication

## Interim Specific Ground Water Quality Standard for GenX

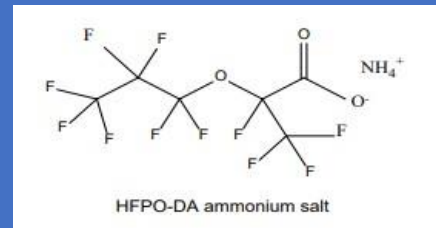
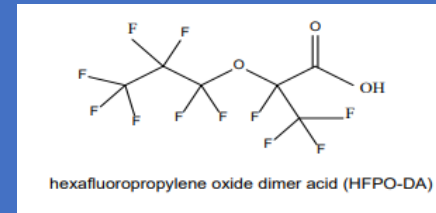
**Parameter:** Hexafluoropropylene oxide dimer acid (HFPO-DA) and HFPO-DA ammonium salt (collectively referred to as GenX)

**Interim specific ground water quality criterion:** 0.02 µg/L

**Interim practical quantitation level (PQL):** 0.0075 µg/L

**Applicable enforceable standard:** 0.02 µg/L

Basis	
Reference dose	3 ng/kg/day based on histopathological changes in mouse liver
Total uncertainty factor	3,000
Adult body weight	80.0 kg/day
Daily water consumption	2.4 L/day
Relative source contribution from drinking water	20%





# GWQS Updates Under Consideration

Updates to Specific Ground Water Quality Criteria and/or PQLs for 73 constituents of Class II-A ground water

- Status: Anticipated NJR Publication in December 2023

Specific Ground Water Quality Standard for GenX based on the Interim Specific Ground Water Quality Standard

- Status: Anticipated rulemaking in 2024

Interim Specific Ground Water Quality Standard for Perfluoropolyether Dicarboxylates (PFPE-DCAs)

- Status: Anticipated establishment in 2024

Specific Ground Water Quality Standard for Chloroperfluoropolyether Carboxylates (ClPFPECAs)

- Status: Practical Quantitation Level being developed

# Upcoming GWQS Rulemaking – “Toxics” Proposal

- Updates to existing specific ground water quality criteria, PQLs and standards for constituents in Class II A (potable use) ground water; Appendix Table 1.
- Amendments to the default values for body weight and drinking water consumption rate at N.J.A.C. 7:9C-1.7(c)4i and ii to be consistent with USEPA.
  - Average adult weight: 80.0 kg
  - Daily water consumption: 2.4 L/day
- Amendments to the rounding provisions at N.J.A.C. 7:9C-1.7(c)4iii and -1.9(c)3i to round new or revised criteria and PQLs to two significant figures, rather than one, when scientifically supportable.

Updates	# of Constituents
Updates to criteria or PQLs identified	73
• Change in standard	65
• More stringent	50
• Less stringent	13
• Order of magnitude change (more stringent)	7

# Stakeholders and Economic Impacts – “Toxics” Proposal

- Stakeholder meeting held on May 28, 2019.
  - Attendees: LSRPs and other consultancies, commercial laboratories, local government, environmental organizations, academia, and the Highlands Council.
- All updated & new standards will be applied to all existing **Site Remediation** cases
  - May result in additional monitoring wells, additional sampling, treatment of additional groundwater, or treatment of impacted supply wells.
  - May trigger additional remediation of contaminated sites for constituents becoming more stringent by an order of magnitude
- Amendments may result in additional costs to **NJPDES permittees** with a DGW (discharge to ground water) permit
- Some **laboratories** may have to upgrade analytical equipment to achieve detection of the updated PQLs
- Status: Anticipated December 18 NJR

# Bureau of Environmental Analysis, Restoration and Standards

## **New and Enhanced Initiatives:**

- 2022 Integrated Water Quality Report and 303(d) List of Impaired Waters  
Anticipated December 18 NJR
- Barnegat Bay Stakeholder Meeting - Developing a Rigorous Water Quality Standard for Nitrogen Through a Total Maximum Daily Load  
November 29 Ocean County College





For questions, please contact:

Pesticides	Bureau Chief, Mike McConville <a href="mailto:mike.mcconville@dep.nj.gov">mike.mcconville@dep.nj.gov</a>	609 984-6513
BMWM	Section Chief, Sarah Gentile <a href="mailto:sarah.gentile@dep.nj.gov">sarah.gentile@dep.nj.gov</a>	609 748-2000
BFBM	Section Chief, Chris Kunz <a href="mailto:christopher.kunz@dep.nj.gov">christopher.kunz@dep.nj.gov</a>	609 292-0427
BEARS	Bureau Chief, Kimberly Cenno <a href="mailto:kimberly.cenno@dep.nj.gov">kimberly.cenno@dep.nj.gov</a>	609 633-1441

Director Victor Poretti  
<https://www.state.nj.us/dep/wms/>



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# Questions?

# Bureau Chief Metthea Yepsen

Division of Science and Research

Updates on Current and Recently Completed Research Projects

# Division of Science and Research

## 2023 Update on Current and Recent Research

Metthea Yepsen

Bureau Chief, Division of Science and Research

NJDEP

November 17, 2023

DEP/A&WMA Conference





# DSR Goals:

- Provide the department **expertise and information** that supports its technical, program, and policy needs.
- Perform **research** to meet the information and problem-solving needs of the department, and to identify and understand **emerging issues** that require the department's attention and response.
- Act as liaisons to the **Science Advisory Board** and Standing Committees that will help provide the DEP with outside expertise on scientific issues.
- Promote and integrate a **multi-disciplinary perspective** into the department's identification, analysis, and resolution of environmental issues.

# Staff Expertise

<https://dep.nj.gov/dsr/research-staff-expertise/>

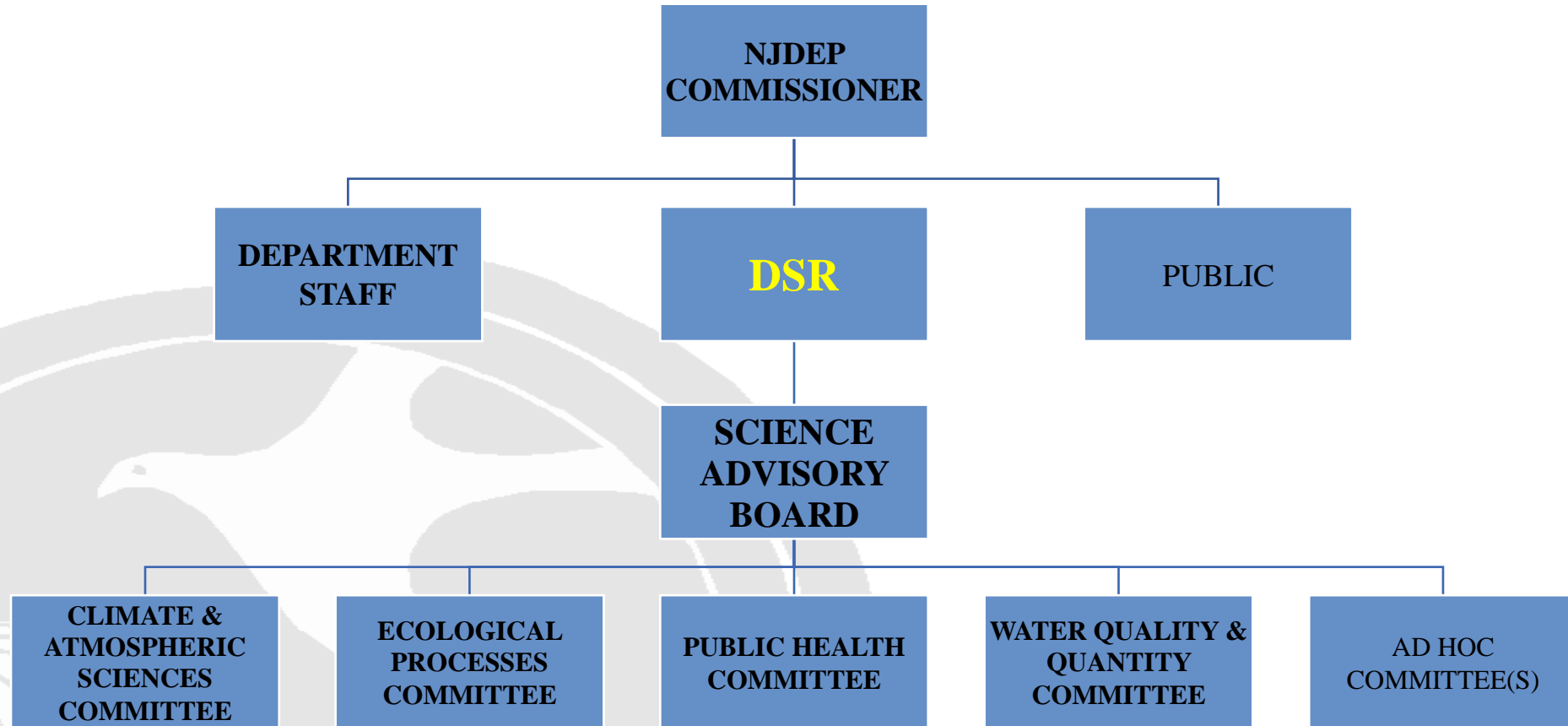
- 
- Climate Change
  - Toxicology
  - Risk Assessment
  - Air Quality/Modeling
  - Water Quality Assessments
  - Chemistry
  - Microbiology
  - Quality Assurance and Quality Control
  - Environmental Remediation
  - Drinking and Wastewater Treatment Technology
  - Biology/Ecology – wetlands, fisheries
  - Solid waste
  - GIS
  - Statistics and Data Analysis
  - Environmental Science

# Science Based Support

- Fish Consumption Advisories
  - Ecosystem and Air Monitoring/ Modeling
  - Human Health Risk Assessment
  - Standards Development
  - Data Analysis & Interpretation
  - Analytical Chemistry
  - Field Investigations and Sample Collection
  - Literature Reviews
  - Life Cycle Assessments
  - Quality Assurance
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- A decorative background graphic in the bottom-left corner consisting of several concentric, overlapping circles and arcs in shades of gray, creating a swirling, organic pattern.

# Science Advisory Board

<https://dep.nj.gov/sab/>





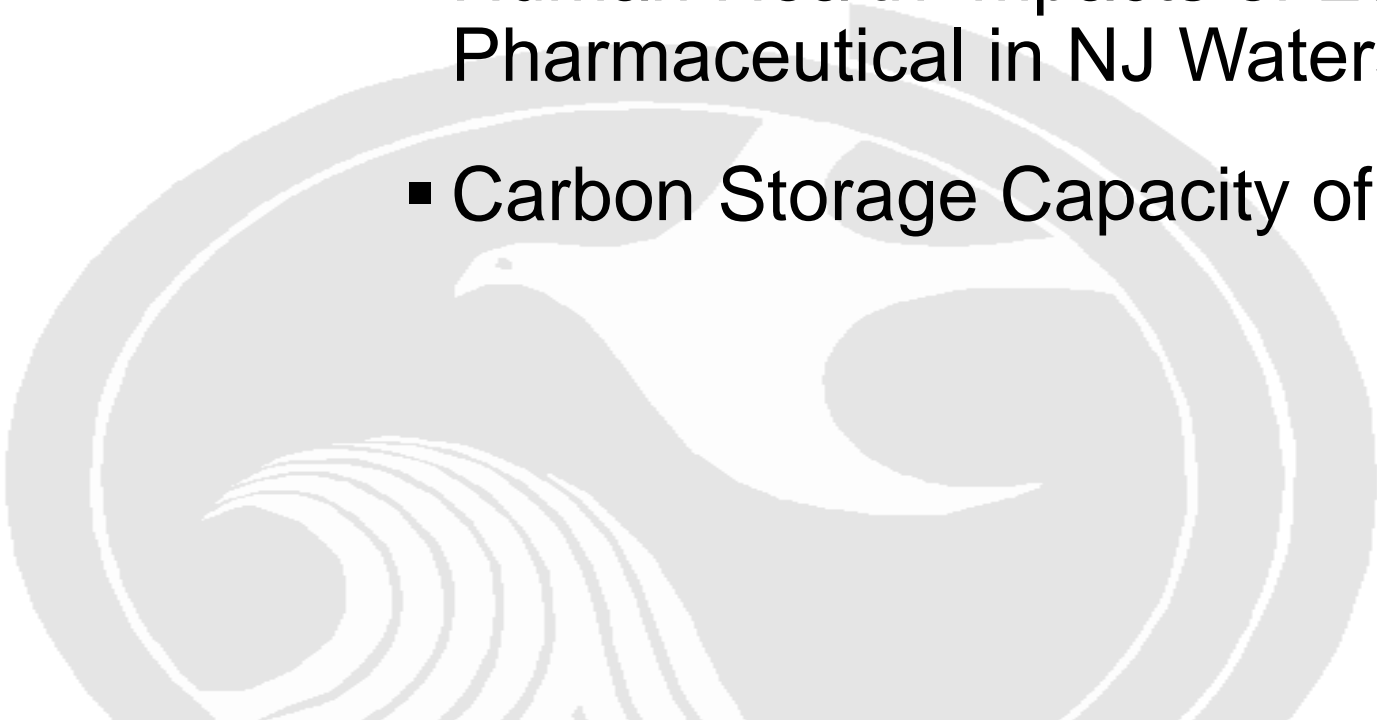
# Science Advisory Board

## Recently Completed Reports:

- ❖ Biofuels
- ❖ Microplastics in the aquatic environment: Sources, occurrences, and currently known risks
- ❖ Peer Review - “Addendum to the 2020 NJ Scientific Report on Climate Change: Climate Change Impacts on Human Health and Communities”
- ❖ Peer review: two reports on historic and expected changes in Hourly and Daily Extreme Rainfall Amounts in NJ

# Science advisory board – ongoing work

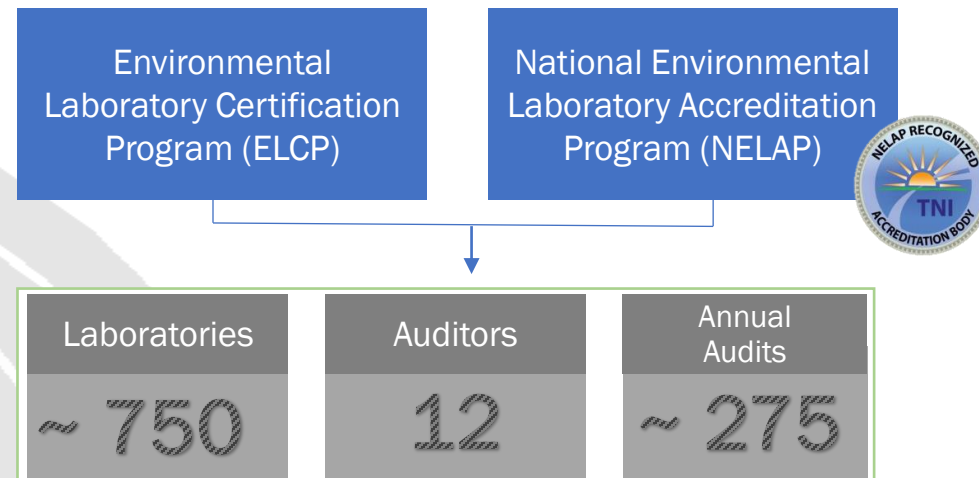
- Low-embodied carbon concrete
- Bioplastics
- Human Health Impacts of Estrogens and Pharmaceutical in NJ Waters
- Carbon Storage Capacity of Forest Soils



# DSR – Office of Quality Assurance

## The NJ Laboratory Certification Program

- A two-tier program administered by the OQA in accordance with N.J.A.C. 7:18 *et. seq.*, the Regulations Governing the Certification of Laboratories and Environmental Measurements

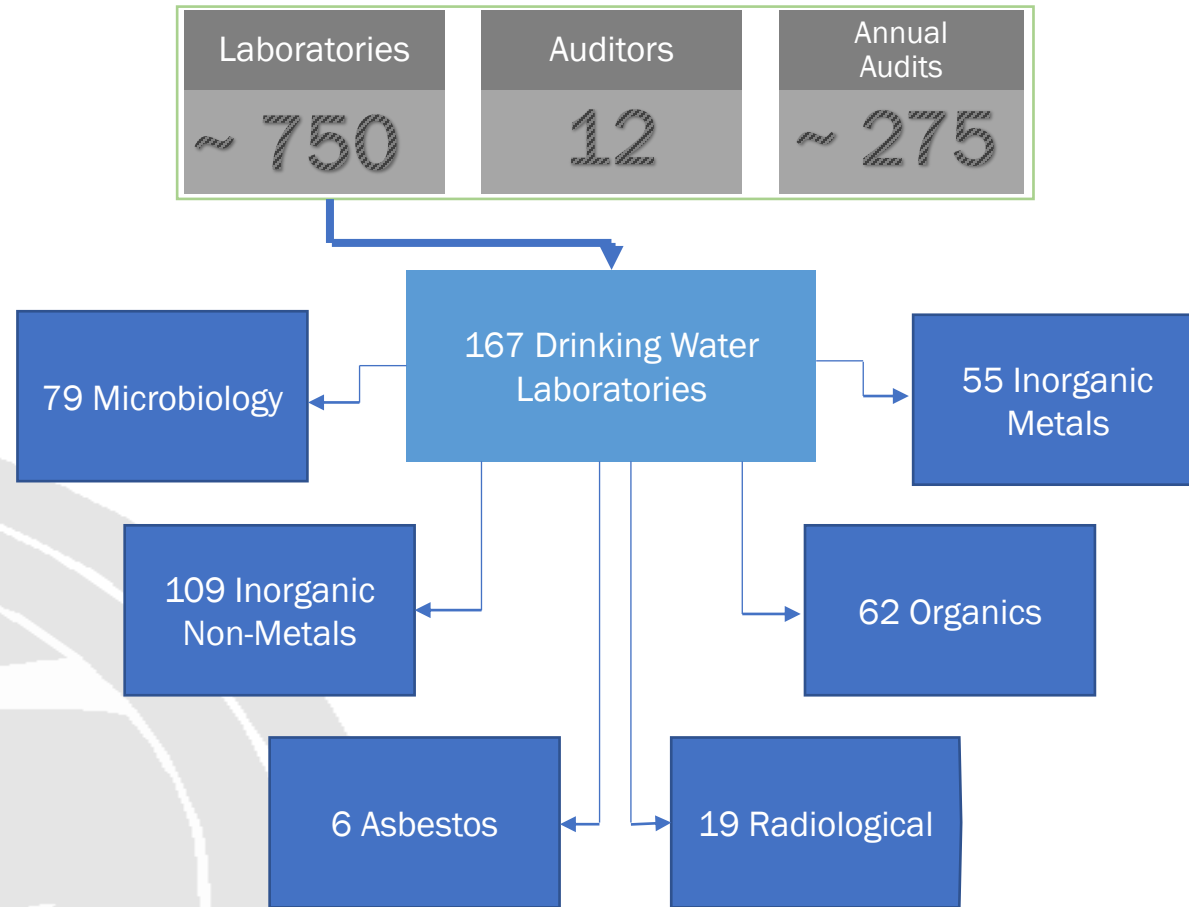


- Labs are certified by:

MATRIX – ANALYTE – METHOD – TECHNOLOGY

# DSR – Office of Quality Assurance

The NJ  
Laboratory  
Certification  
Program –  
Drinking Water



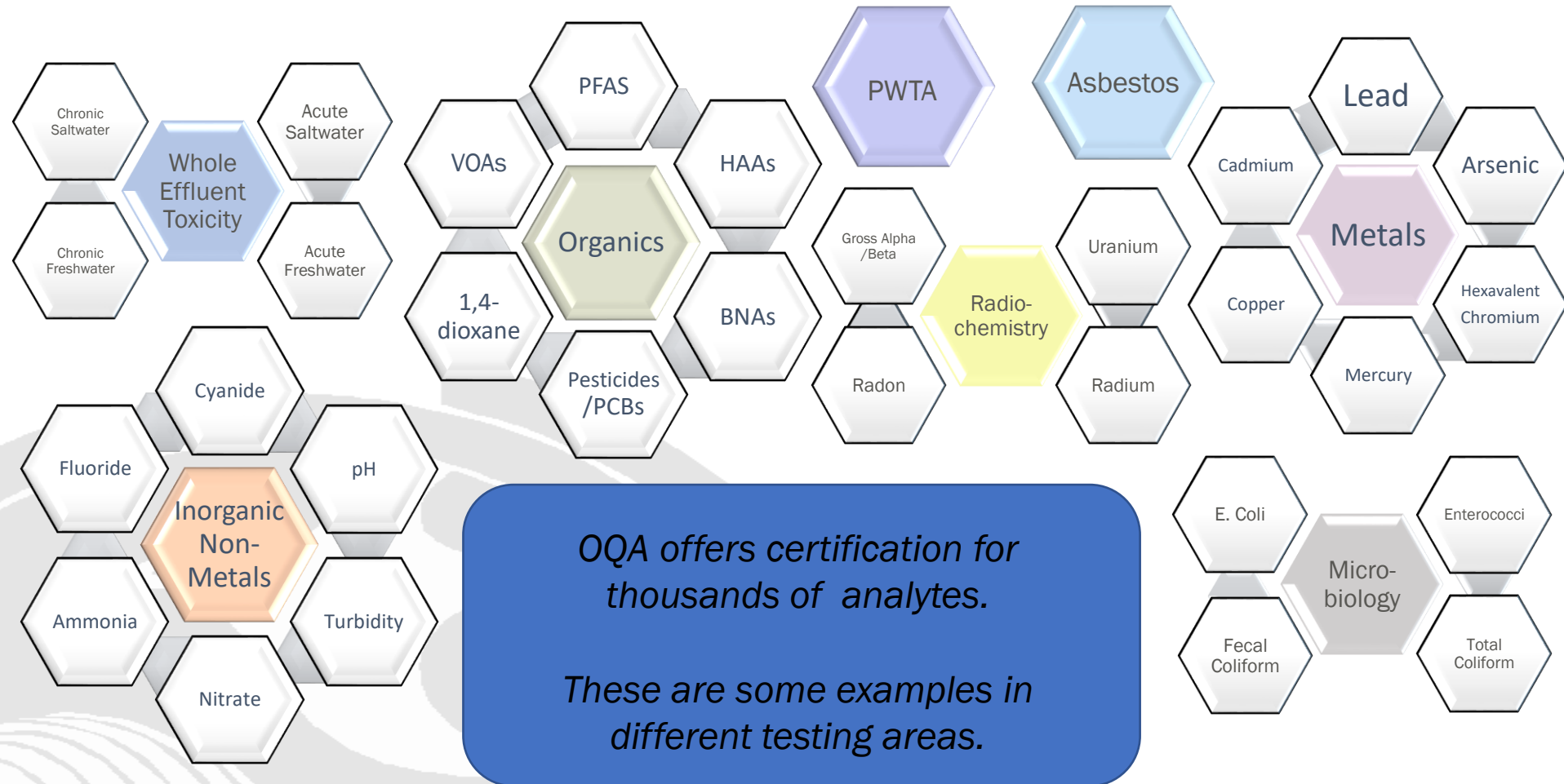


# Certification provided for samples of multiple matrices:

- Drinking water
- Non-potable water
- Air
- Solid-chemical materials
- Biological tissue



# Analytes





# Quality Assurance Program

## Department's Quality Assurance Program

- Ensure that environmental data is generated, compiled and reviewed using specific quality assurance / quality control (QA/QC) procedures
- ensure that data is of documented quality and suitable for its intended use
- Requirements based on federal standards to meet requirements for federally funded programs





**DSR - Active Research**



## Technical support for human health and toxicology issues

---

- Use of predictive modeling to locate and prioritize lead service lines for removal
- Reviewed toxicological information for
  - geothermal well additives
  - pesticides
  - manganese in drinking water
- Human health impacts of synthetic/artificial turf



# Development of human health toxicity factors, criteria, and guidance values

- Human health criteria for Ground Water Quality Standards and Surface Water Quality Standards
  - Compounds such as PFOA, PFOS, GenX, and 1,4-dioxane
- Non-cancer toxicity factor (Reference Dose) and fish consumption triggers for perfluoroundecanoic acid (PFUnDA), a bioaccumulative PFAS detected in fish in New Jersey and elsewhere.
- Recreational advisory for brevetoxin, an algal toxin produced in marine waters.

# **Reviews of human health toxicity factors, criteria, and guidance values developed by other agencies**

- Contributed to NJ Drinking Water Quality Institute Health Effects Subcommittee report: "Review of interim USEPA Health Advisories for PFOA and PFOS and related information"
- Commented on draft USEPA IRIS Toxicological Reviews of various contaminants
- Commented on draft World Health Organization Drinking Water Guidelines for PFOA and PFOS
- Reviewed the toxicological basis for pesticide/fumigant toxicity factors.

# Environmental Trends

<https://dep.nj.gov/dsr/trends>

*Reports provide general information on trends and conditions for a variety of environmental factors that, together, comprise an overall assessment of our state's environmental health*

Home / Environmental Trends

- ✓ 39 chapters on the status of key environmental parameters
- ✓ Updated as new data become available
- ✓ Provides a summary of a major environmental issue
- ✓ Each chapter includes references, DEP contacts, and sources of additional information

Vehicle Miles Traveled – September 2020

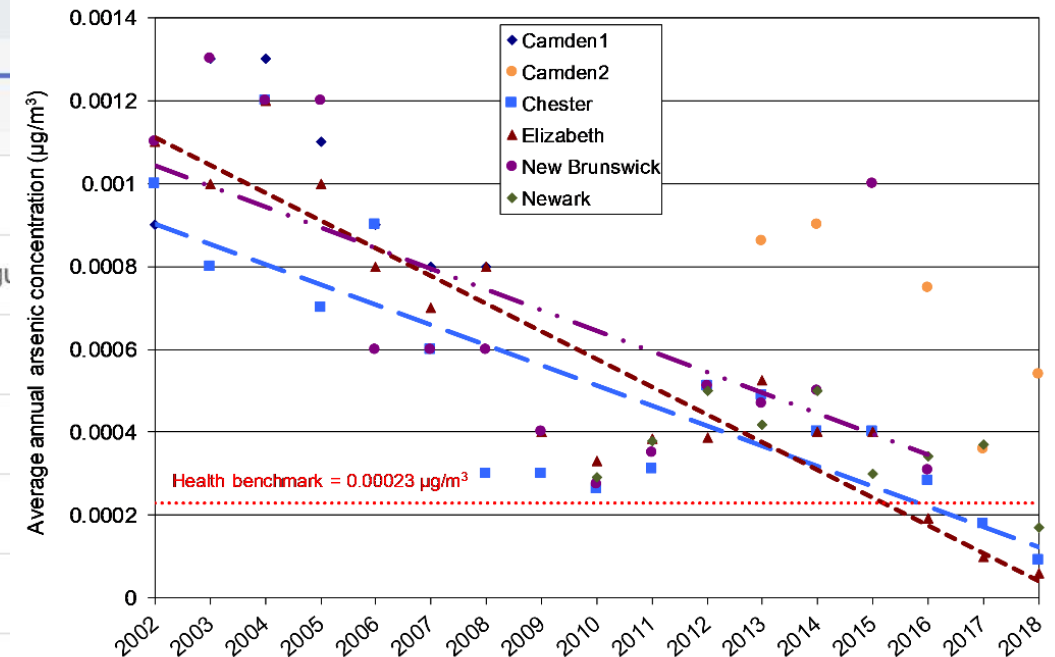


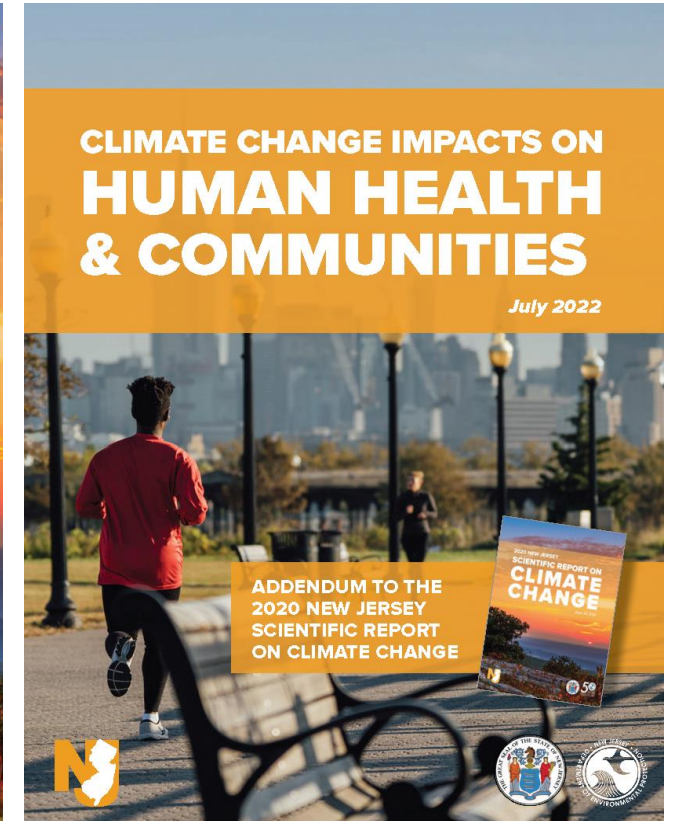
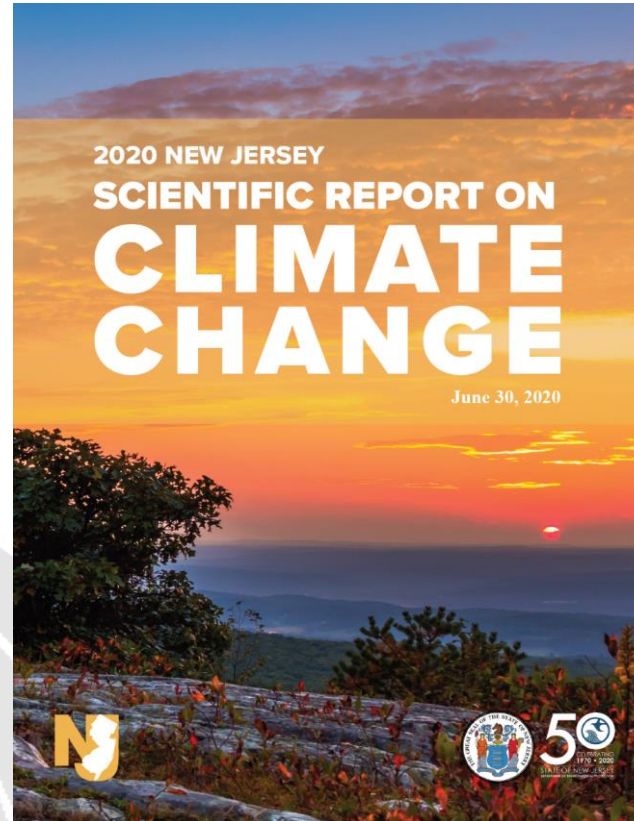
Figure 1: Average annual concentrations of arsenic in particulate matter at five air monitoring stations between 2002–2018 with health benchmark shown in red. Significant trend lines (Kendall Tau P-value  $\leq 0.05$ ) are shown.



# Scientific Report on Climate Change

[www.nj.gov/dep/climatechange](http://www.nj.gov/dep/climatechange)

- Greenhouse Gases & Climate Pollutants
  - Temperature
  - Precipitation
  - Sea-Level Rise
  - Ocean Acidification
  - Resources and Ecosystem Impacts
  - Research and Data Gaps
- An addendum to the report on Human Health was released in 2022.
  - A web resource entitled "Climate Change in New Jersey: Impacts and Effects" was released in 2023.



<https://dep.nj.gov/climatechange/science/overview/>

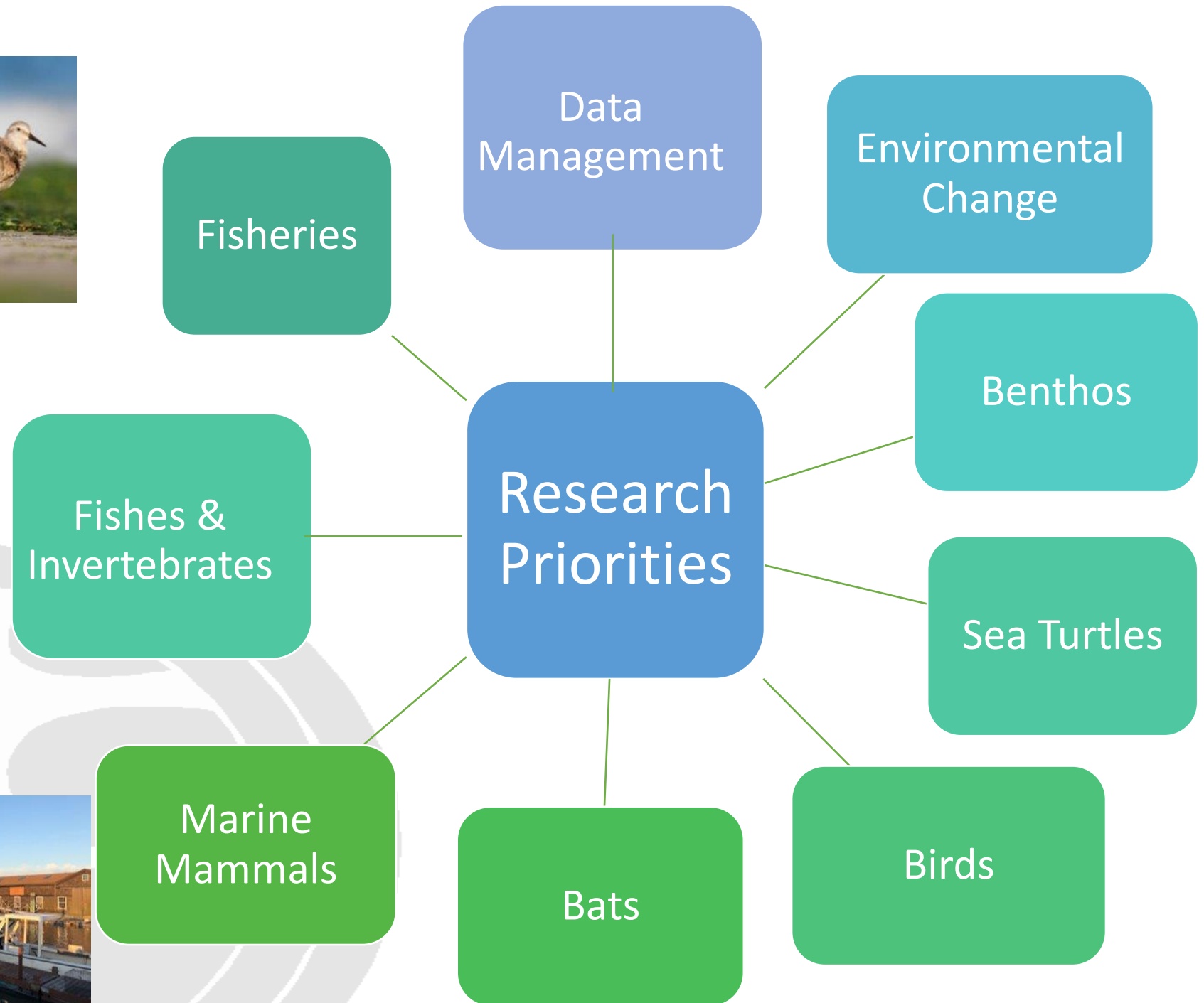
# NJ Offshore Wind (OSW) Research & Monitoring Initiative (RMI)

[www.dep.nj.gov/offshorewind/rmi](http://www.dep.nj.gov/offshorewind/rmi)

- Addresses the need for regional research & monitoring of marine/coastal resources during offshore wind development
- Process: ID most vulnerable resources → coordinate regionally → form rigorous scientific questions → develop project to address those questions







# Carbon sequestration in New Jersey's natural and working lands

## The Natural and Working Lands Strategy aims to:

mitigate climate change through the protection, restoration, and strategic management of natural and working lands to maximize carbon sequestration.

- Strategy out early 2024
- Improving GHG Inventory for NWL

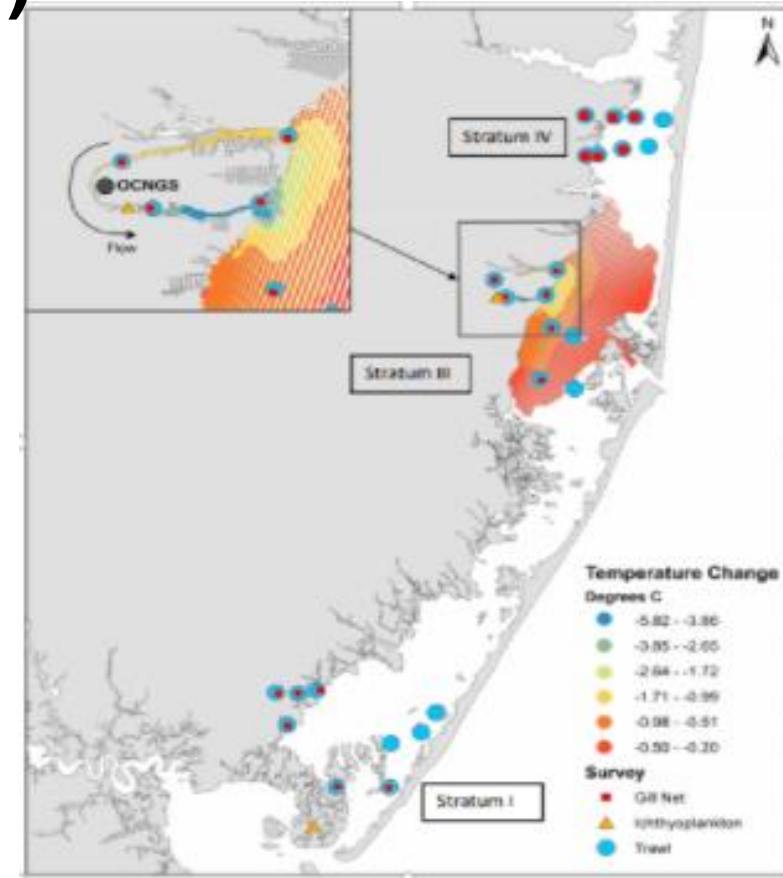




# Ecosystem monitoring of pre- and post-closure of Oyster Creek Nuclear Generating Station (Year 3)

Assessment of the impacts of the OCNGS on

- COMPLETE: gelatinous zooplankton and planktonic community structure (*Montclair State Univ.*)
- COMPLETE: effect of cooling water effluent on fish, crab, and benthic invertebrates (*Rutgers and Rider Univ.*)
- zooplankton (*Monmouth Univ.*)
- phytoplankton community changes (*George Mason Univ.*)



# Fish Monitoring – Toxics in Fish



- Fish consumption advisories
- Bioaccumulation factors that can be used to calculate protective surface water quality criteria in freshwater and saline waters
- Monitoring of Fish tissue and surface water
  - 6PPD Quinone
  - Pharmaceuticals and Personal Care Products (PPCPs)
  - Selected Pesticides
  - Polybrominated Diphenyl Ethers (PBDE)
  - Chlorinated paraffins
  - PFAS and PFOS



# Invasive species management strategy

- Developing a DEP Invasive Species website
- Development of a NJ Aquatic Invasive Species Management Plan
  - Grant received from Mid-Atlantic Panel for Aquatic Invasive Species
  - To be released early 2024
- Pilot projects using eDNA detection
  - Clinging jellyfish
  - New Zealand mudsnails
  - Cnidarian communities





# Clinging jellyfish - ongoing monitoring

## Objectives:

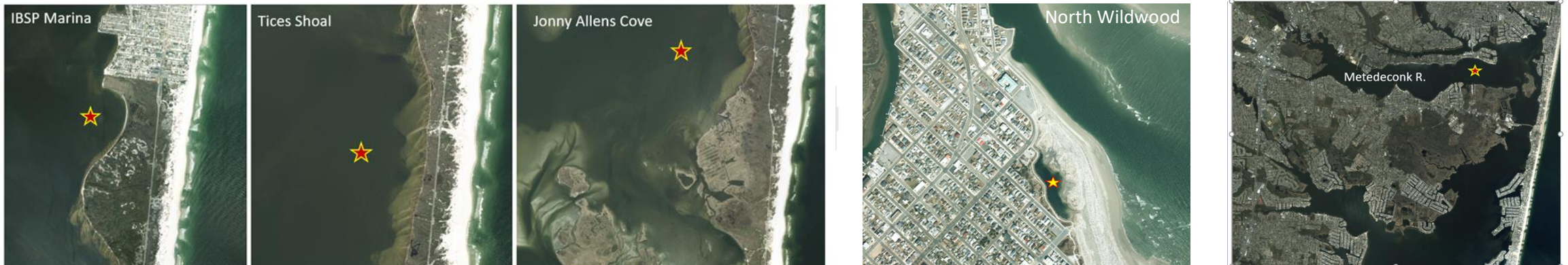
Assess abundance/distribution, habitat preferences, and life cycle

## Focused Sampling:

- Northern & Central Barnegat Bay (Metedeconk River, Island Beach SP)
- Cape May (North Wildwood, Cape May NWR)
- Shrewsbury River

## Research:

- Understanding Physiological Tolerance/Plasticity (salinity)
- Molecular detection (eDNA) – CJ's and other marine/aquatic invasives in New Jersey





# Harmful algal blooms

Harmful cyanobacteria blooms are increasing in both frequency and duration on inland waters. Some blooms are producing toxins not typically monitored while other blooms with similar species composition produce common toxins. Factors determining which toxins are produced remain unknown.

## Research Objectives:

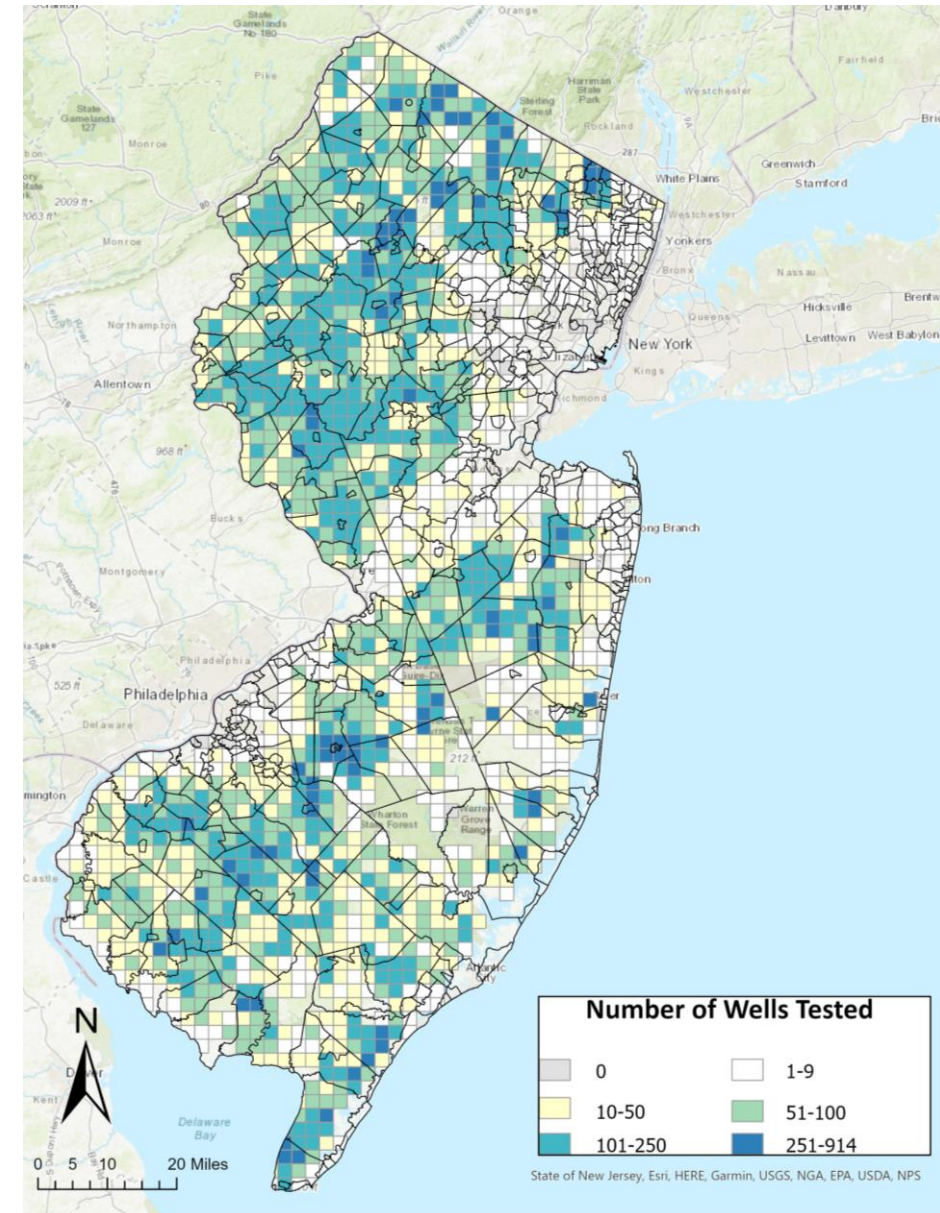
- + Increase understanding of drivers behind both non-toxic and toxigenic blooms.
- + Build out a rapid and accurate field assessment kit to determine bloom composition and toxin capacity.
- + Build a risk assessment model for NJ waterbodies to help assess their ability to support either a toxigenic bloom or non-toxigenic bloom.



# New Jersey Private Well Testing Act

- ✓ Approximately 400,000 private wells (13% of residents) in NJ.
- ✓ Wells are required to be tested for:
  - ✓ Coliform bacteria
  - ✓ Nitrates
  - ✓ 26 volatile organic compounds
  - ✓ 3 synthetic organic compounds
  - ✓ Lead
  - ✓ pH
  - ✓ Arsenic
  - ✓ Gross alpha (radionuclides)
  - ✓ Iron
  - ✓ Manganese
  - ✓ PFOA, PFOS, and PFNA
  - ✓ *Mercury and Uranium are only required in certain counties*
- ✓ Analysis of data show the variability in the concentration of each parameter to state standards.
- ✓ Data from the PWTA can be used to identify vulnerable communities and direct outreach efforts.
- ✓ Data is also used by SDW, SRP, and NJGS.

<http://arcg.is/1CPkHyC>



# Wetlands

## New Jersey Wetland Program Plan 2023-2027



The seven core elements:

- 1) Monitoring and Assessment
- 2) Regulation
- 3) Voluntary Wetland Restoration, Creation, Enhancement, and Protection and Improved Coastal Shoreline Resilience
- 4) Wetlands Water Quality Standards
- 5) Adaptation, Resilience, and Mitigation in a Changing Climate
- 6) Public Outreach and Education
- 7) Environmental Justice

Beneficial Use of Dredged Material to Enhance Salt Marsh Habitat in New Jersey

Reports:

- [Monitoring Plan](#) (2014)
- [Lessons Learned and Project Summary – Full Report](#) (2021)
- [Monitoring and Project Assessment – Full Report](#) (2023)

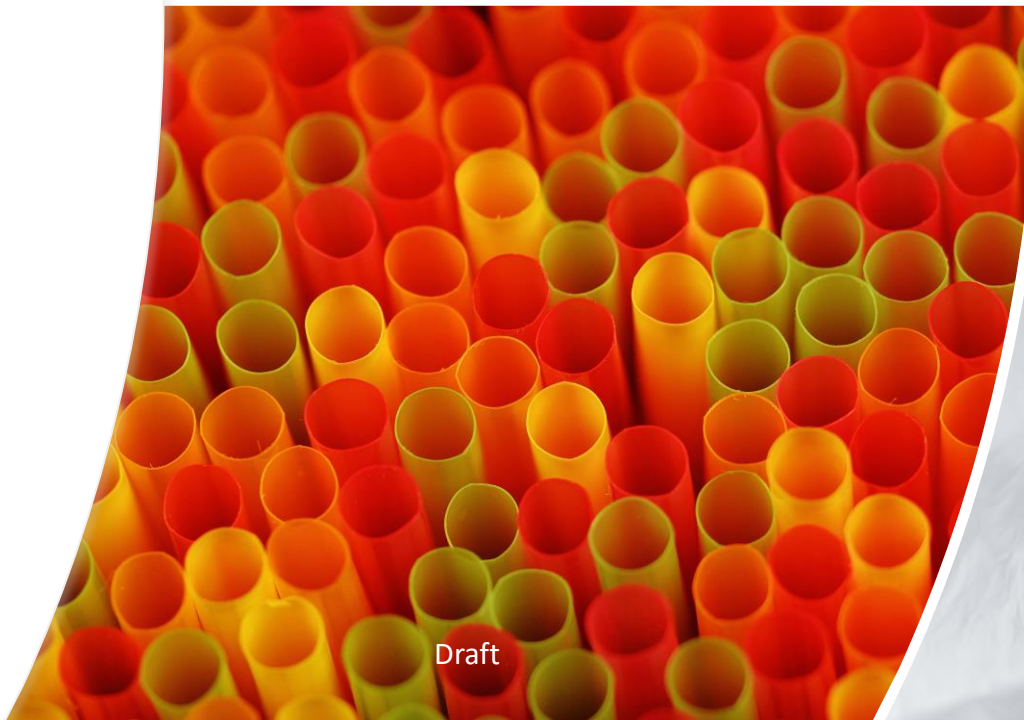
Other current research topics:

- Carbon sequestration in wetlands
- Use of drones to assess tidal wetland condition
- HABs in salt marsh ponds
- NJ Tidal Wetlands Monitoring Network



# Waste management

- PFAS and microplastic removal in wastewater treatment plants
- Advanced/chemical recycling
- Bioplastics and plant-based plastic alternatives



Draft



Gleason, J.A., **Newby, R.**, Gaynor, J.J., Lee, L.H., Chu, T., Bliese, A.D., Taylor, C.W., Yoon, P., DeLorenzo, S., Pranitis, D., Bella, J. "Legionella monitoring results by water quality characteristics in a large public water system" *Environmental Science and Pollution Research*. (2023)

Schwartz, Rebecca I., Gleason, J. A., **H. S. O'Neill, N. A. Procopio**, S. E. Spayd. Targeted Education and Outreach to Neighbors of Homes with High Gross Alpha Radioactivity in Domestic Well Water. *Journal of Environmental Radioactivity*. 259-260 (2023):107124

**O'Neill, Heidi S.**, Sara V. Flanagan, Jessie A. Gleason, Steven E. Spayd, Rebecca I. Schwartz, and **Nicholas A. Procopio**. Targeted private well outreach following a change in drinking water standard: Arsenic and the New Jersey Private Well Testing Act. *Journal of Public Health Management and Practice*. 29(1) (2023): E29-E36.

Seliga, Alecia, Steven E. Spayd, **Nicholas A. Procopio**, Sara V. Flanagan, and Jessie A. Gleason. "Evaluating the impact of free private well testing outreach on participants' private well stewardship in New Jersey." *J Water Health*. 20 (1) (2022): 1–11

**Post, Gloria B.** "Invited Perspective: Current Breast Milk PFAS Levels in the United States and Canada Indicate Need for Additional Monitoring and Actions to Reduce Maternal Exposures." *Environ Health Perspect*. 130(2) (2022): 21301

**Procopio, N. A.** and R. A. Zampella. (2022) Assessing land-use/water-quality relationships across contrasting geologic areas in New Jersey. *Journal of the American Water Resources Association*.

**Enache, Mihaela D.**, Marina G. Potapova, Meredith Tyree Polaskey, and Sara A. Spaulding. (2022) *Aulacoseira newjerseyana* sp. nov. (Bacillariophyta) a new freshwater centric diatom species from the northeastern USA. *Diatom Research*.

*All DSR Peer-reviewed publications are available on our website, <https://dep.nj.gov/dsr/division-peer-reviewed-publications/>*

# Division of Science and Research

Acknowledgements: DSR Scientists, DEP Programs,  
Principal Investigators and their Universities

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[nick.procopio@dep.nj.gov](mailto:nick.procopio@dep.nj.gov)

Metthea Yepsen  
Chief, Bureau of Environmental Assessment

Information and Publications:  
<https://dep.nj.gov/dsr/>

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# Questions?

# Closing Remarks





AIR & WASTE MANAGEMENT  
ASSOCIATION

SINCE 1907

Northern and Central New Jersey Chapter

# Announcements

- The link to the slides will be e-mailed through NJDEP listserv to registered attendees. Slides will also be posted on AWMA-NCNJ website. [NJ Events \(mass-awma.net\)](#)
- Please complete the survey form and e-mail your responses to [sgupta@haleyaldrich.com](mailto:sgupta@haleyaldrich.com). You can also just send an e-mail with the following input:
  - Feedback on the conference
  - Topic(s) of interest for future programs
  - Thank you for your input and feedback!
- If you are not an AWMA member, please consider becoming one.
  - [Join A&WMA \(awma.org\)](#)
- **We are looking for members to become more involved and be part of the leadership team! Please connect with one of our leadership team members if interested.**



AIR & WASTE MANAGEMENT  
ASSOCIATION

SINCE 1907

Northern and Central New Jersey Chapter

# Thank you for joining us!