



Draft 2024 New Jersey Statewide Water Supply Plan

Clean Water Council

June 11, 2024



Division of Water Supply & Geoscience

Trish Ingelido, Director
Director's Office

NJ Geological & Water
Survey Element

Water Systems Operations
Element


Bureau of Water Allocation
& Well Permitting

Bureau of Safe Drinking
Water

Bureau of Water Resources
& Geoscience


Bureau of Water System
Engineering

<https://www.nj.gov/dep/watersupply/>




STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER SUPPLY AND GEOSCIENCE


Governor Phil Murphy • Lt. Governor Tahesha Way
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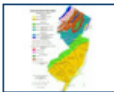
Drinking Water Customers (residential and commercial/industrial)
[Your Utility & Its Water Quality](#)
[Learn about Water Quality](#)
[Child Care Certification](#)
[Lead](#)




Drinking Water Systems
[Sampling & Regulatory Forms](#)
[Construction Permits](#)
[Emergencies & Security](#)
[Loans & Capacity Development](#)
[Water Quality Accountability Act](#)




Wells
[Well Permits & Information](#)
Residential Wells
[General Information](#)
[Private Well Testing Act](#)



NJ Geological and Water Survey
Mapping, research, interpretation and scientific information regarding the state's geology and water resources.



Water Allocation
[Water Allocation & Registrations](#)
[Dewatering](#)
[Drought](#)



General
[Laws & Regulations](#)
[Boards & Committees](#)
[Water & Wastewater System Operator Licensing](#)
[New Jersey Water Supply Plan](#)

[Physical Connection Permits](#)
[Water Conservation & Protection](#)
[Drinking Water Watch](#)
[Water Quality Complaints](#)

[Quantity, Conservation & Protection Training & Certification](#)
[Drinking Water Watch Lead](#)
[Harmful Algal Blooms](#)
[Covid-19 Information](#)

Well Drillers & Pump Installers
[NJ Advisory Board](#)
[Licensing & Exams](#)

[Division Organization](#)
[Office of Science Publications](#) including drinking water reports
[Useful Links](#)

What's New

Lead Service Line Replacement Resources Updated April 2024

Forms associated with LSL Inventories, Plans, and Guidance have been updated and are available [here](#) and [here](#). Please be sure to refresh your browser on the page to ensure you are using the current versions of those documents.

Draft 2024 New Jersey Statewide Water Supply Plan Published

The draft 2024 New Jersey Statewide Water Supply Plan has been published. You can read the complete Plan, and learn how to offer written or oral feedback [here](#).

2023 Capacity Development Implementation Report

- [Report](#)

Bureau of Water Allocation & Well Permitting – WAAS Tool

The Water Allocation Availability Screening (WAAS) Tool helps identify water supply areas of concern to assess probable water availability and potential permitting process impediments and/or issues. This tool hosted in the NJ Geology Information App. This tool is available [here](#). Click the "hammer" icon on the upper right of the toolbar to start the tool.

2022 Annual Report of Violations

- [2022 Annual Report of Violations](#)

Trenton Water Works Direct Operational Oversight

Out of Service Facilities Forms Update

DWSG has revised the Facility Out of Service form, which is available [here](#). A new form for reporting wells out of service after a GWR triggering event is also available [here](#).

Licensed Operator Program Update

- [In-Person Licensing Examination Update](#) (12/29/2022)


New Jersey Water Supply Plan Website

NJDEP is currently in the process of updating the New Jersey Statewide Water Supply Plan. To learn more and get involved in assisting NJDEP as it develops this key document, click [here](#).

Updated Operations & Maintenance Resources

- [O&M Manual Checklist](#)
- [O&M Procedure Template](#)

Third Party Representative Designation Updates- June 2022





What We'll Cover Today



- Water Supply Planning in NJ
- 2024 Plan Overview
- Highlights
- Findings and Recommendations

Draft plan released 2/26/24

Public comment period ended 4/26/24

Final Plan release ~ 9/24



Water Supply Planning in NJ



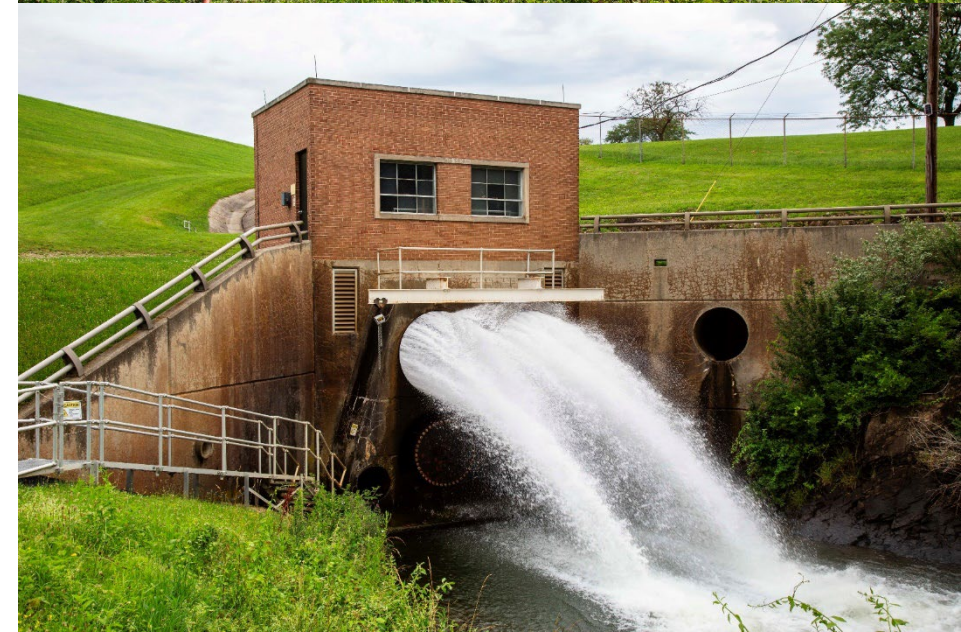
- 1981 Water Supply Management Act
 - Develop and periodically update a WSP
 - Historically focused on quantity
- 1982, 1996 and 2017 Plans
 - Numerous regional and statewide plans prior to 1982
- Fundamental Questions:
 - How much do we currently have and use?
 - How much will we need in the future?
 - What are the critical issues impacting supply?
 - What do we need to do to ensure adequate supply w/o unacceptable impacts?



2024 NJ Statewide Water Supply Plan



- 5-Year plan with 2050 planning horizon
- Addresses major comments on 2017 WSP
 - Lack of climate change evaluations
 - Limited public engagement and policy recommendations
- Major additions:
 - 5 more years of data
 - Climate change impacts to water availability
 - Statewide safe drinking water assessment
 - Environmental Justice/Overburdened Community water supply impacts
 - Detailed policy recommendations





Public Engagement To Date

- Water Supply Advisory Council
 - 10 public meetings since 2022
- Invited Stakeholders
 - 5 meetings with ~130 participants
- Website and email (live 9/2022)
 - <https://dep.nj.gov/water-supply-plan/>
 - watersupplyplan@dep.nj.gov
- Draft Plan released 2/26/2024
- Public meetings during 60-day comment period (per law)
 - In-person meeting
 - DEP Public Hearing Room
 - 401 East State Street, Trenton
 - March 15, 2024 10AM
 - Virtual meeting
 - Microsoft Teams
 - April 9, 2024 7PM
- Numerous legislatively required briefings plus others
- 60-day public comment period ended April 26, 2024



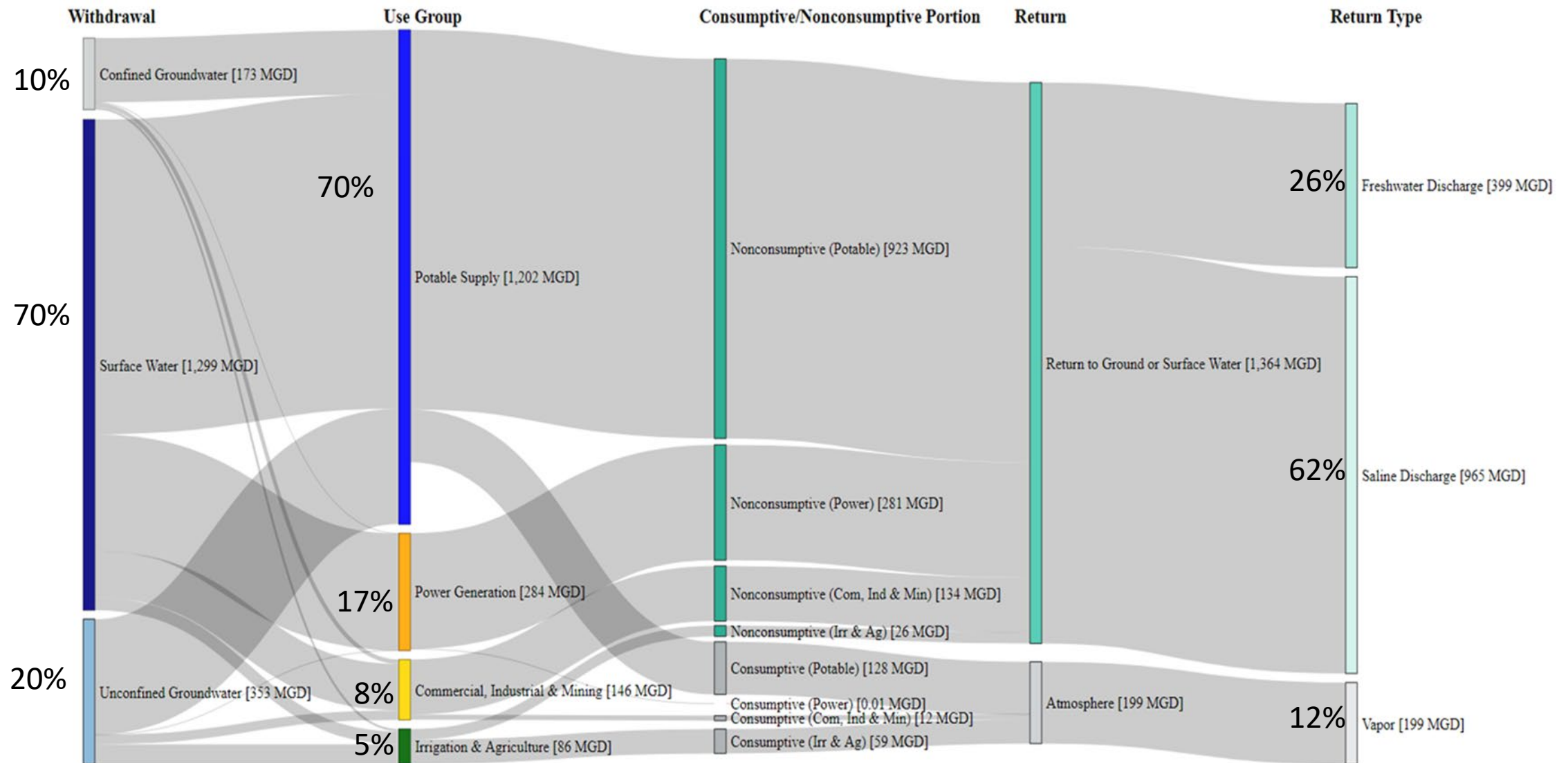
State of New Jersey
Department of Environmental Protection
2024 NEW JERSEY STATEWIDE WATER SUPPLY PLAN



Draft for Public Comment



Current Water Use: Statewide Transfers

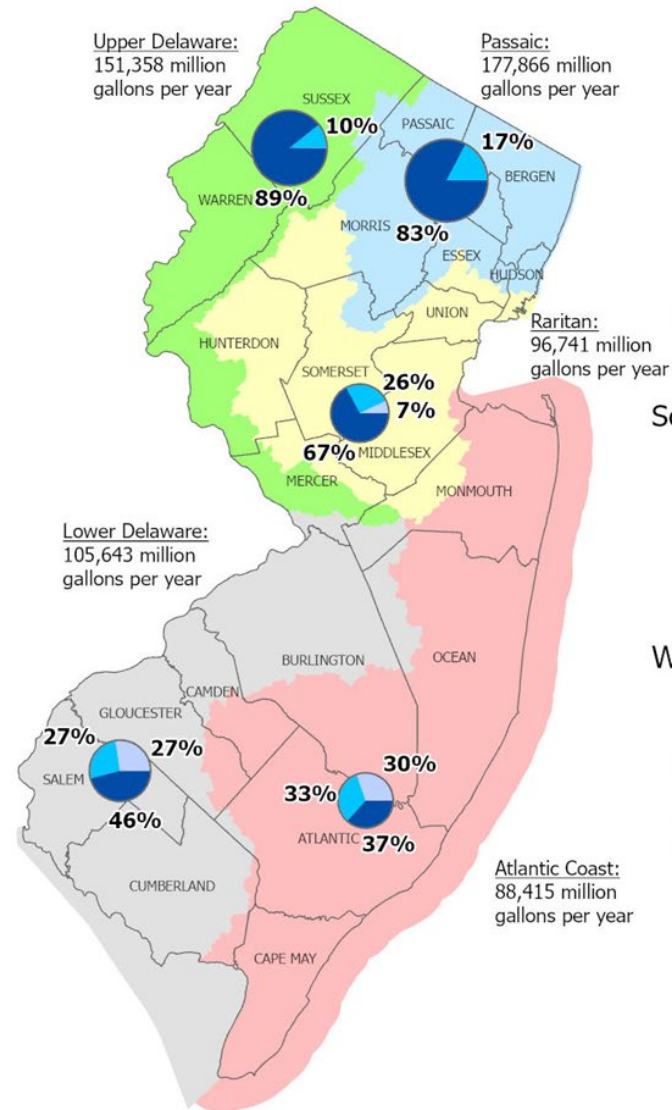




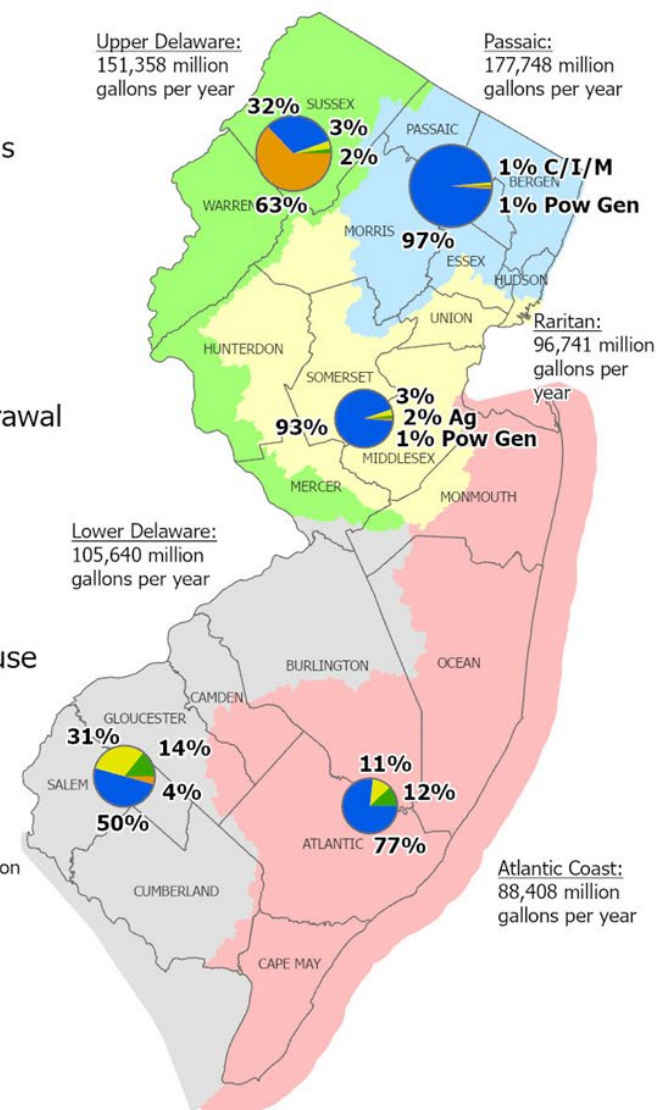
Average annual source of water withdrawal, by water region, 2016 - 2020 (millions of gallons).

Average annual use of water, by water region, 2016-2020 (millions of gallons).

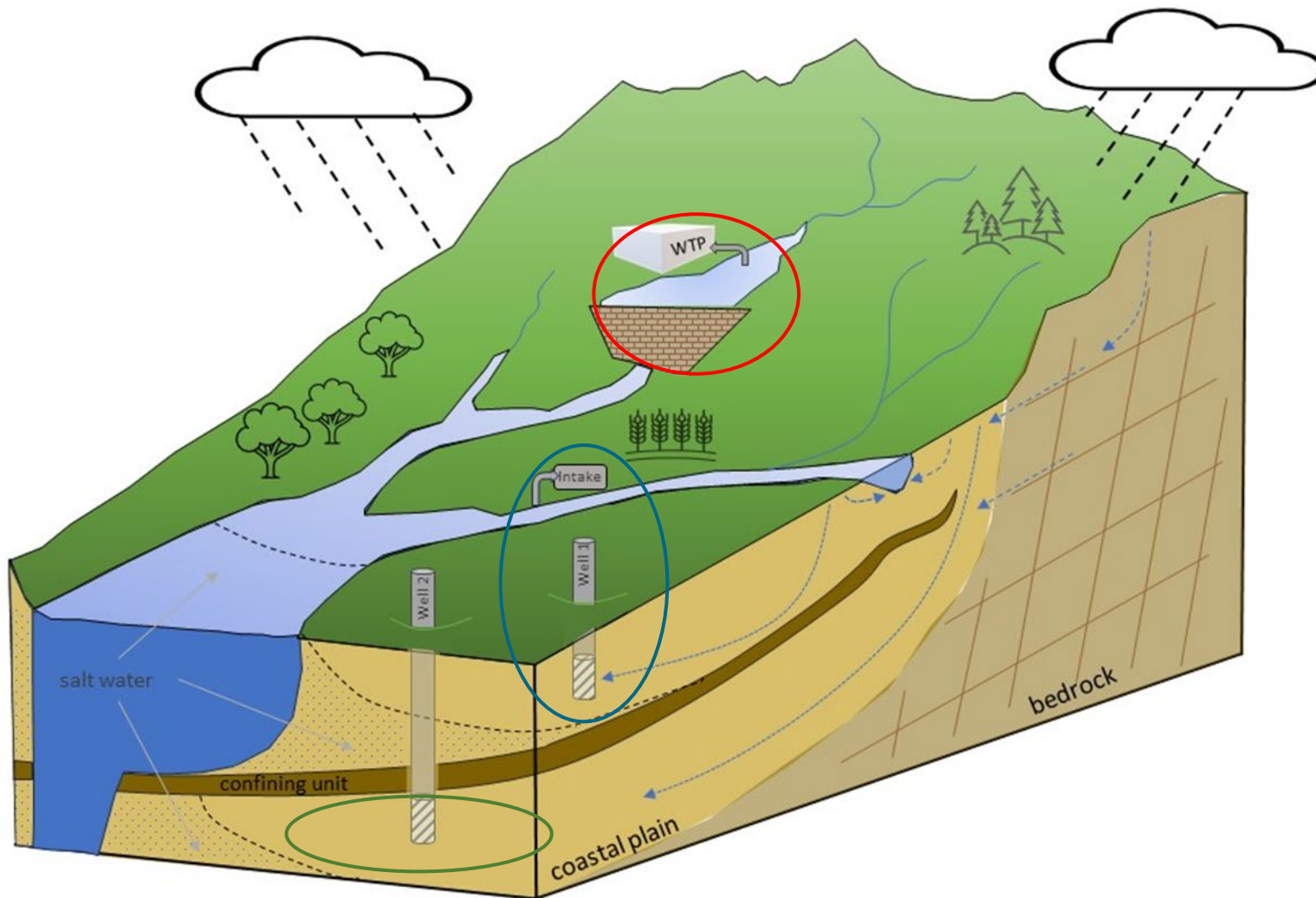
SOURCE



USE



Natural Resource Availability



One water cycle, but divided into three resources:

- Reservoir Systems
 - Reservoir models
 - 785 mgd available
- Unconfined Aquifers & Surface Water
 - Stream Low Flow Margin Method
 - 387 mgd net loss available
- Confined Aquifers
 - Groundwater models
 - 619 mgd available

Availability methods and models account for interconnectedness of water



Climate Change Findings

Statewide **water supply risks** from climate change **are manageable but only if** the state continues to take **actions to mitigate threats**.

The greatest concerns are associated with **saltwater intrusion** in near ocean-bay unconfined aquifers and estuaries.

Local problems do/will occur, and **resilient infrastructure** will be critical to withstand extreme events.

Assessments include:

- Sea level rise and saltwater intrusion/inundation
 - 2 ft ~2050 and 5 ft ~2100
- Groundwater recharge
- Streamflow trends and reservoir safe yields
- Still to do
 - water quality
 - drought
 - downscaling and seasonal impacts

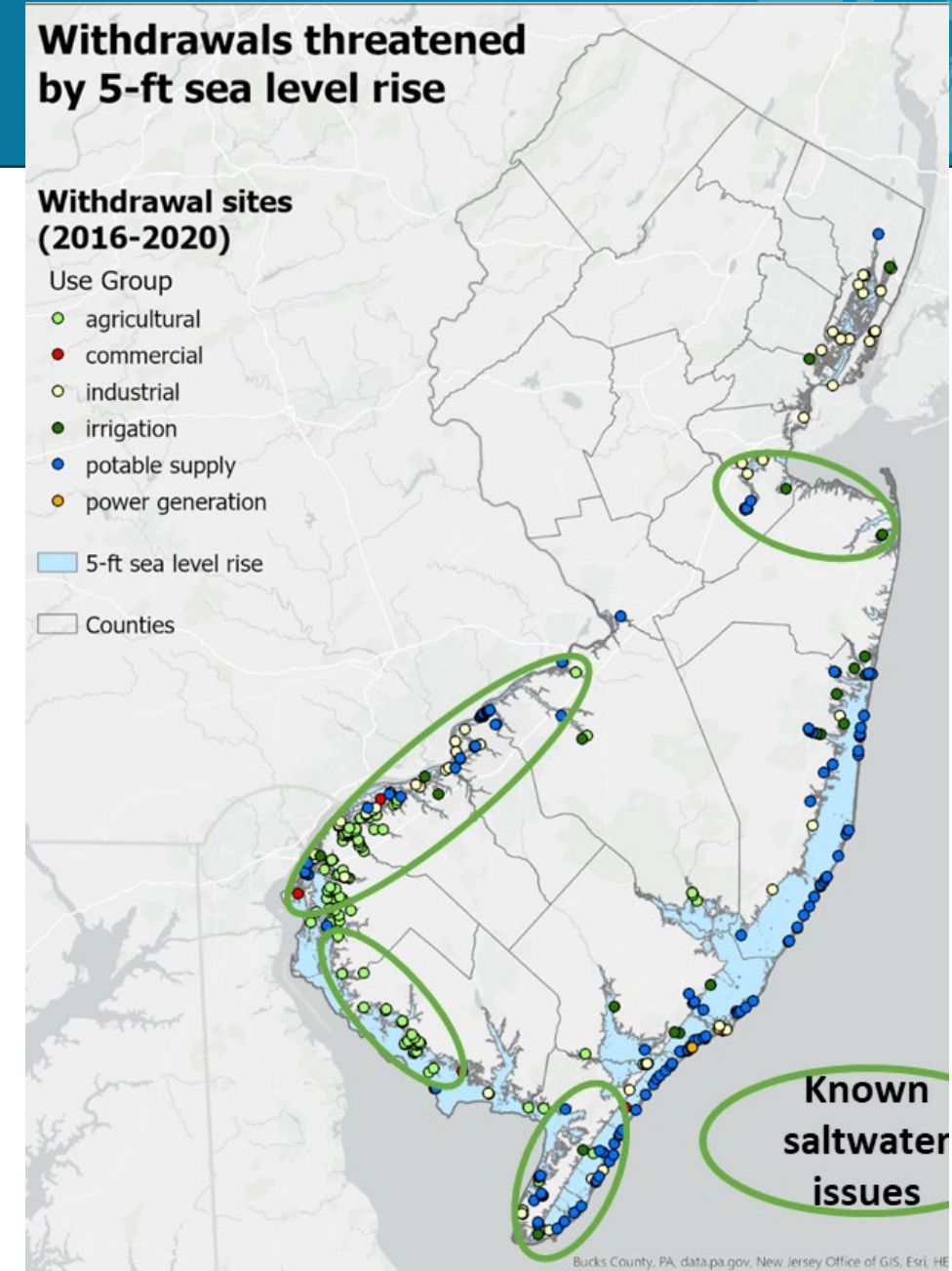
Withdrawals threatened by 5-ft sea level rise

Withdrawal sites (2016-2020)

- Use Group
- agricultural
 - commercial
 - industrial
 - irrigation
 - potable supply
 - power generation

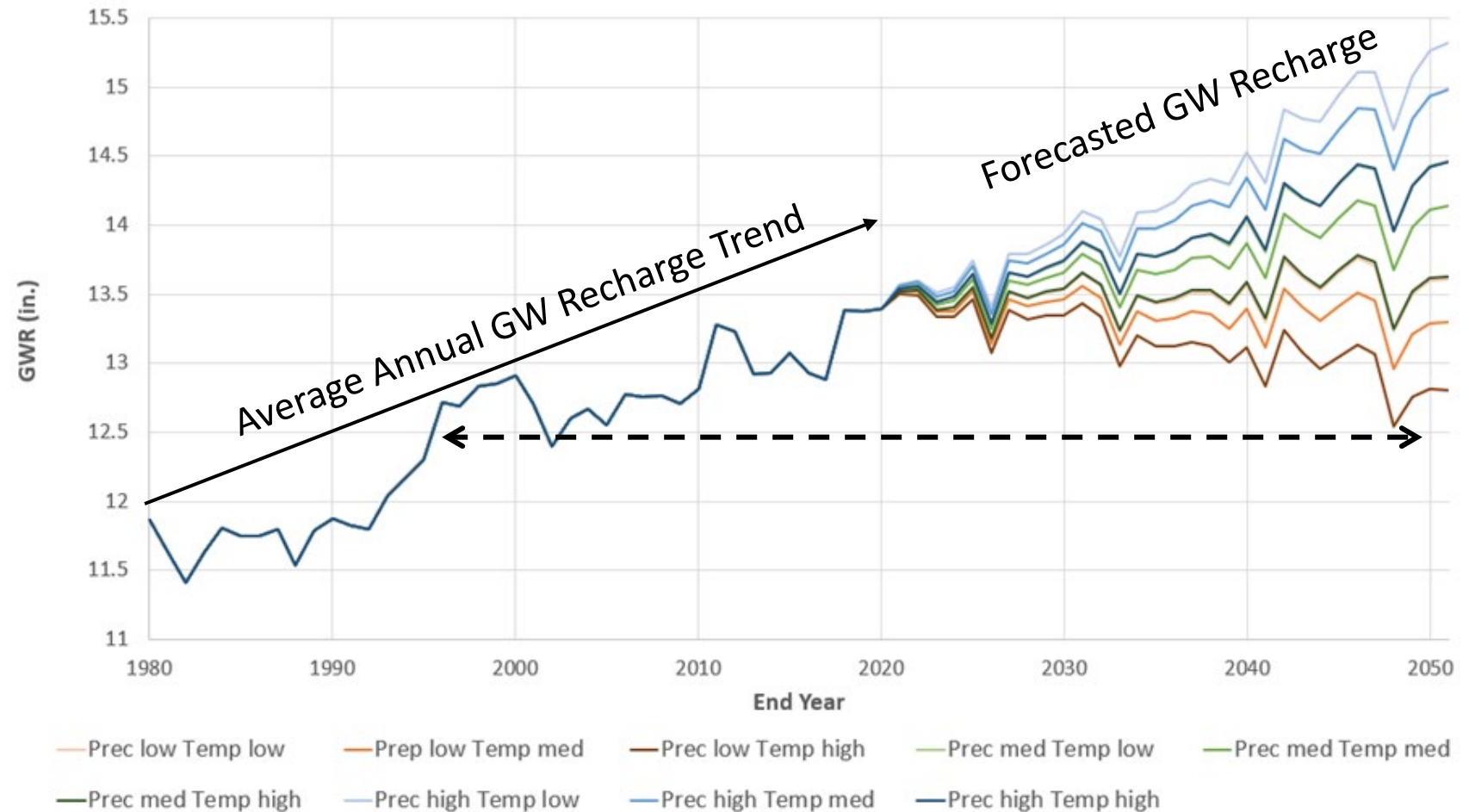
5-ft sea level rise

Counties

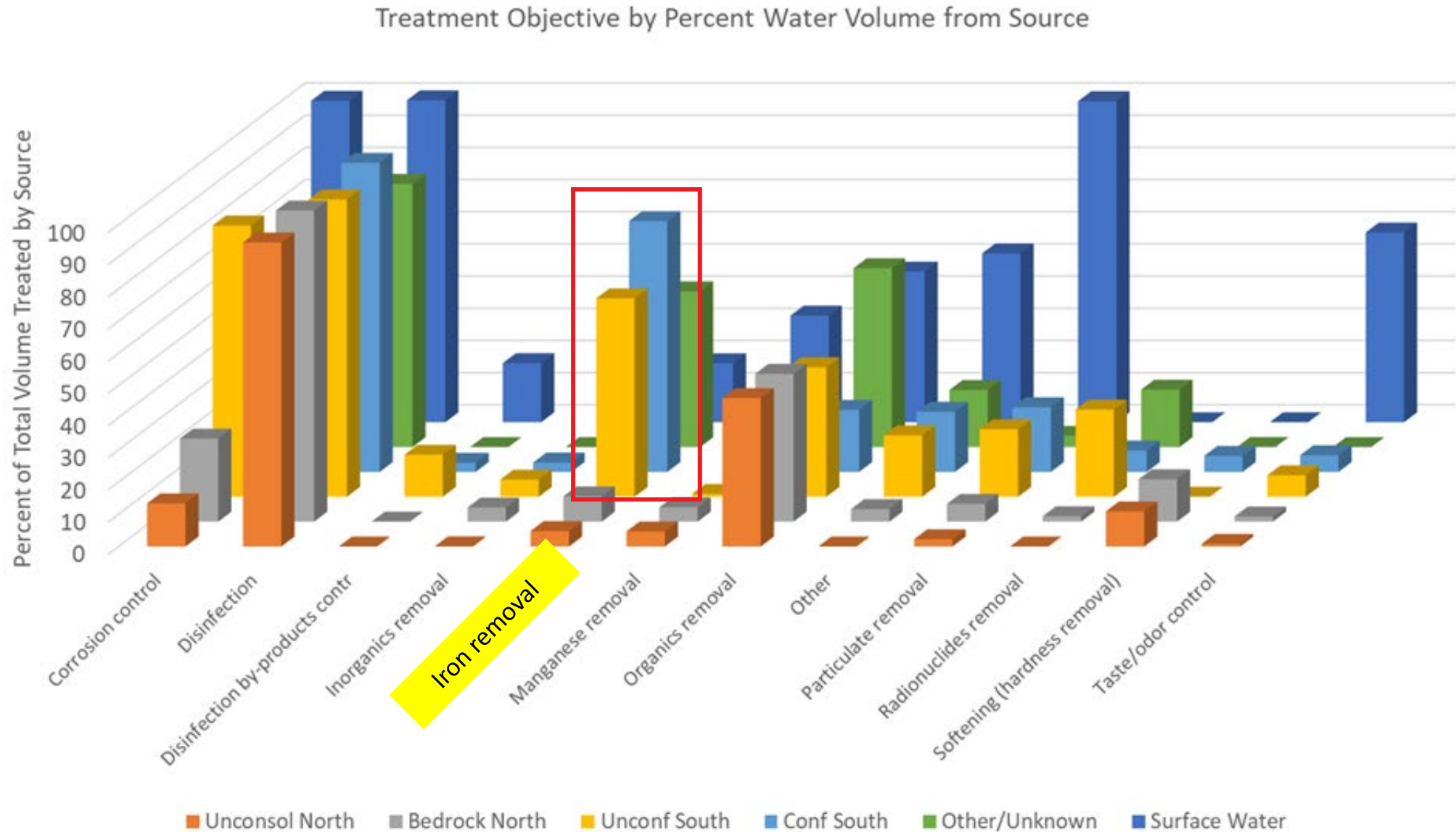




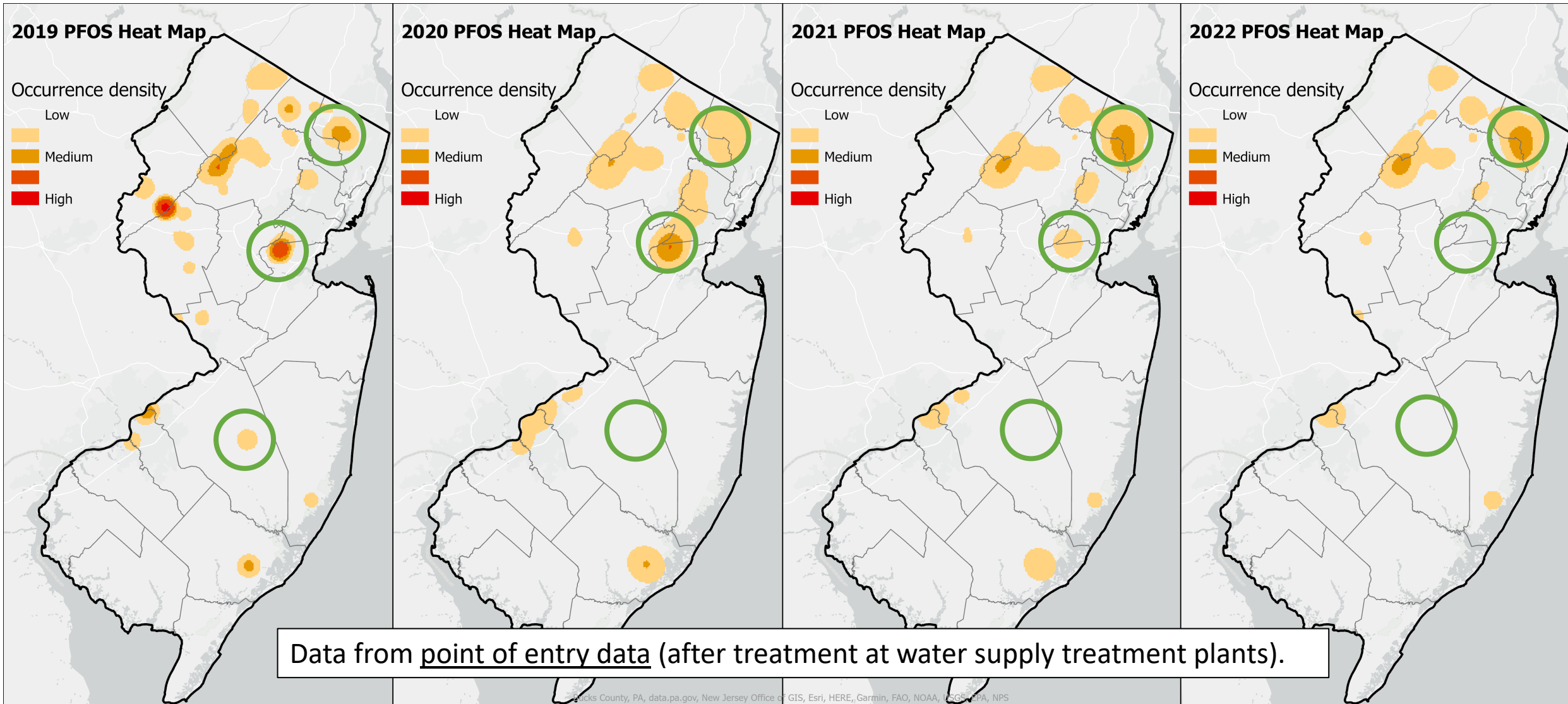
Climate Change and Impacts to Groundwater Recharge



Safe Drinking Water Assessment



New & Emerging Contaminants- PFOS



Impacts of New and Emerging Contamination

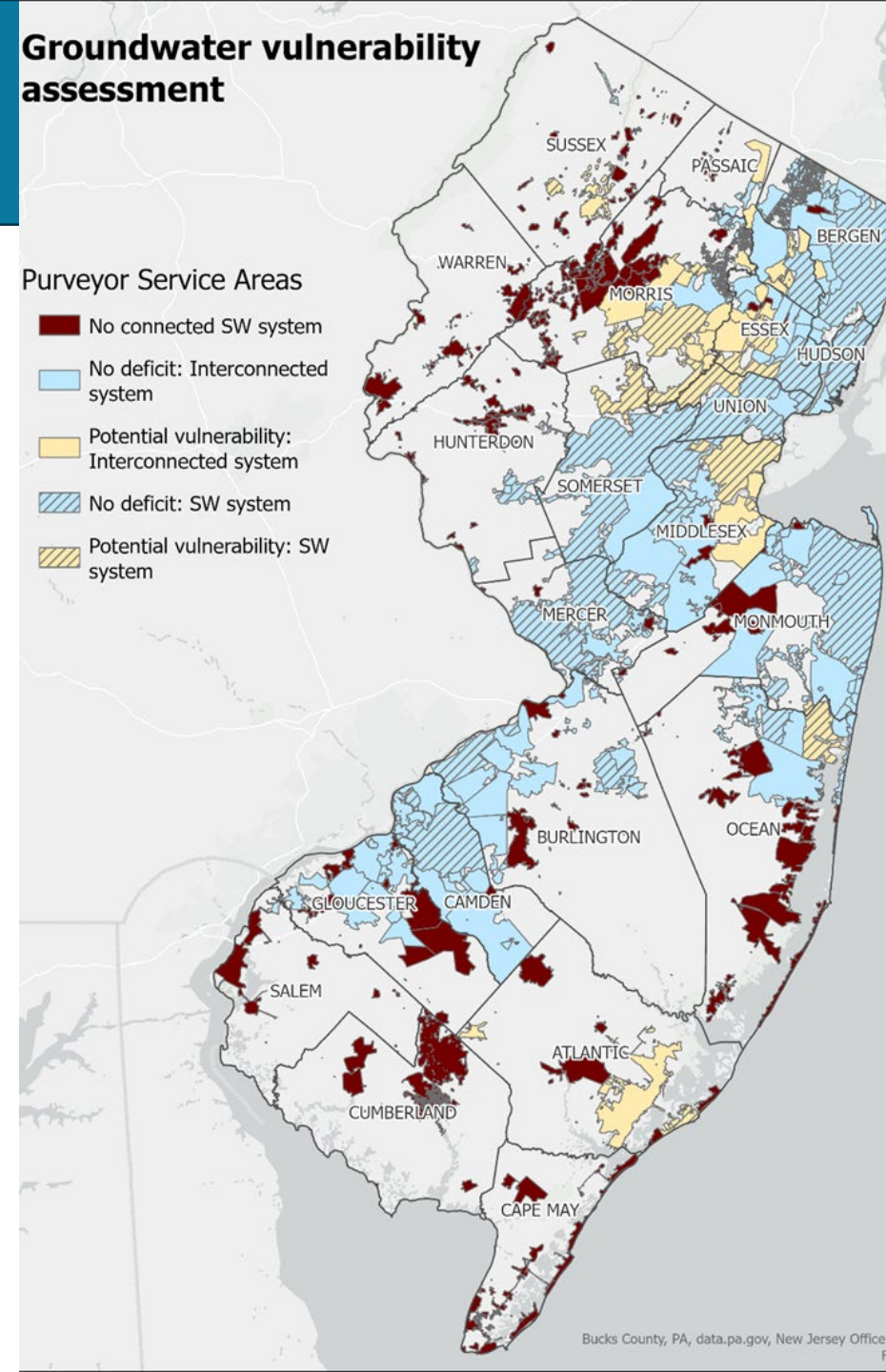
- Long-term treatment costs
- Water source changes
- Unintended consequences



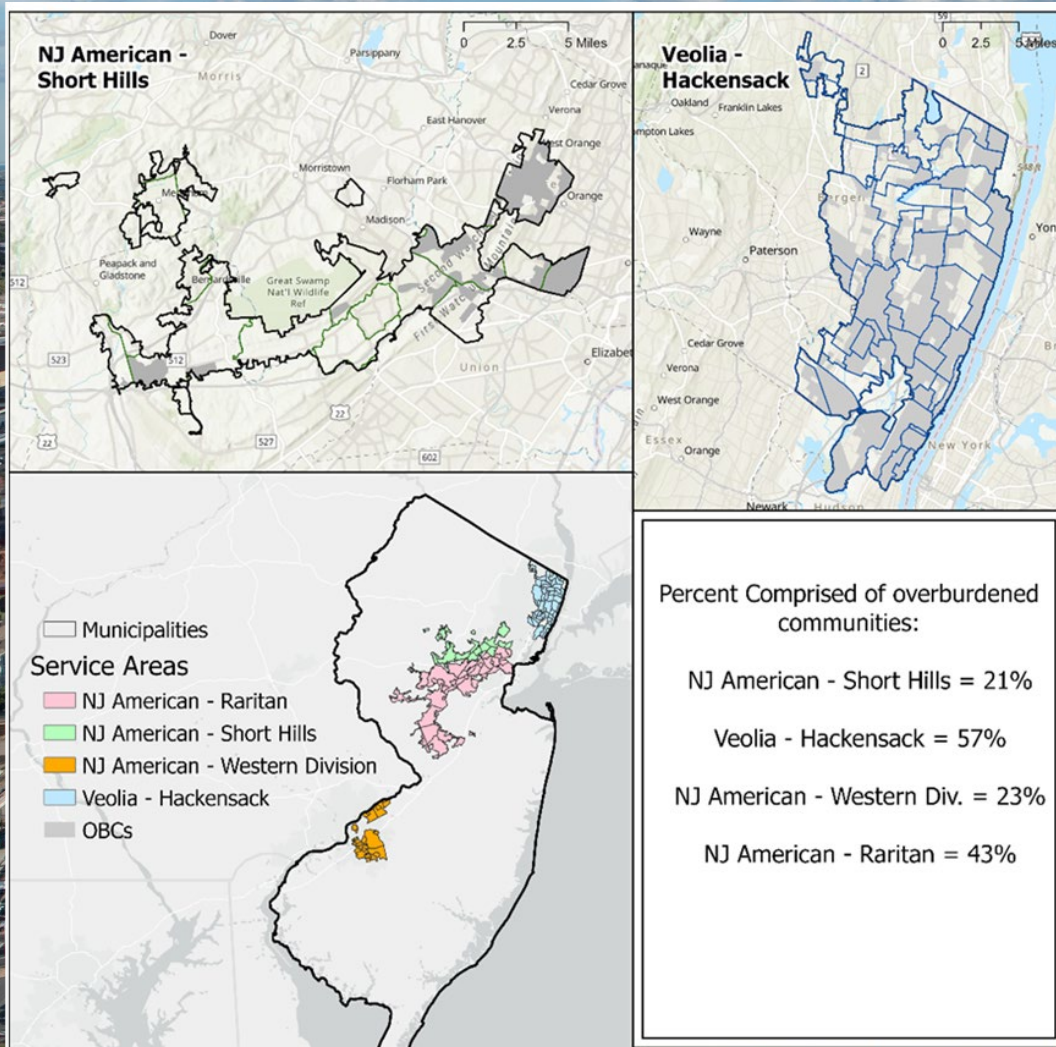
Groundwater vulnerability assessment

Purveyor Service Areas

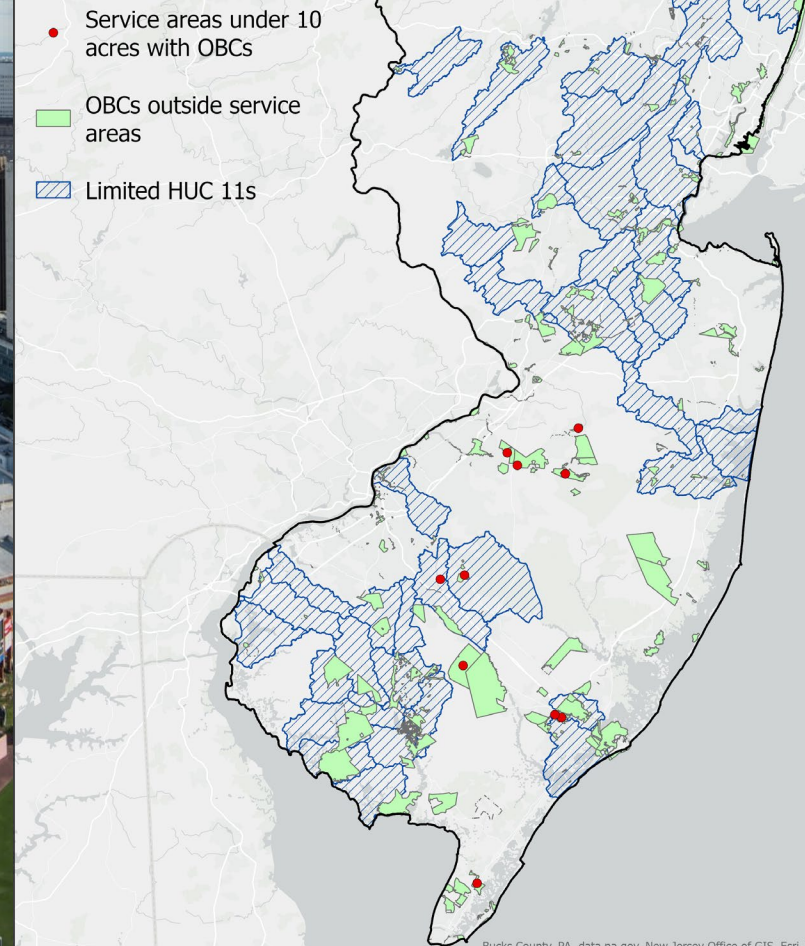
- No connected SW system
- No deficit: Interconnected system
- Potential vulnerability: Interconnected system
- No deficit: SW system
- Potential vulnerability: SW system



Within Service Areas



Outside Service Areas





Overall Plan Findings



The draft plan concludes that, under normal conditions and in most regions, New Jersey has **adequate volumes of source water supply** and is **well-positioned** to address water supply **challenges** *as long as* the state **continues to take actions** to mitigate the **threats of climate change, aging infrastructure** and **emerging contaminants**.

The **availability** of surface water, unconfined groundwater, and confined aquifers, the use of which **varies geographically**, was modeled to investigate potential shortages. Although not evenly distributed throughout the state, total **natural water resource availability** (including reservoirs) remains about the same as the 2017 New Jersey Statewide Water Supply Plan determined. However, **current and forecasted use** did change, and a few regions showed **potential shortages**.



Action Areas



To meet the draft plan requirements and ensure that New Jerseyans continue to have ample, reliable, and safe supplies of water now and in the future, the following action areas are covered in the draft plan:

- **Hydrologic Data, Monitoring, Models, and Assessments**
- **Regional and Statewide Water Supply Planning and Protection**
- **Climate Change - Water Availability Research and Modeling**
- **Climate Change - Infrastructure Resilience Recommendations**
- **Water Policy Modernization**
- **Asset Management and Resilience**
- **Policies and Priorities for Efficient Water Use**
- **Public Outreach**

Details can be found in Chapter 8



Thanks



- Water Supply Plan Team

- Department Leads:

- NJGWS Water Supply Modeling and Planning
 - Division of Water Supply and Geoscience
 - Water Resource Management

- Water Supply Advisory Council

- Rutgers, The State University

- More info

- email: watersupplyplan@dep.nj.gov

- website: www.dep.nj.gov/watersupplyplan

- New Jersey Water Withdrawal Data Summary Viewer

<https://experience.arcgis.com/experience/9da78182503e467989c280bfdf741d3a>

