

Delaware River Basin Commission

**Manage, Protect,
Improve & Connect
through Science &
Collaboration**

***Philadelphia's Water:
Preservation & Exploration***

***Philadelphia Geographical
Society***

April 22, 2021

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From All of Us to All of You

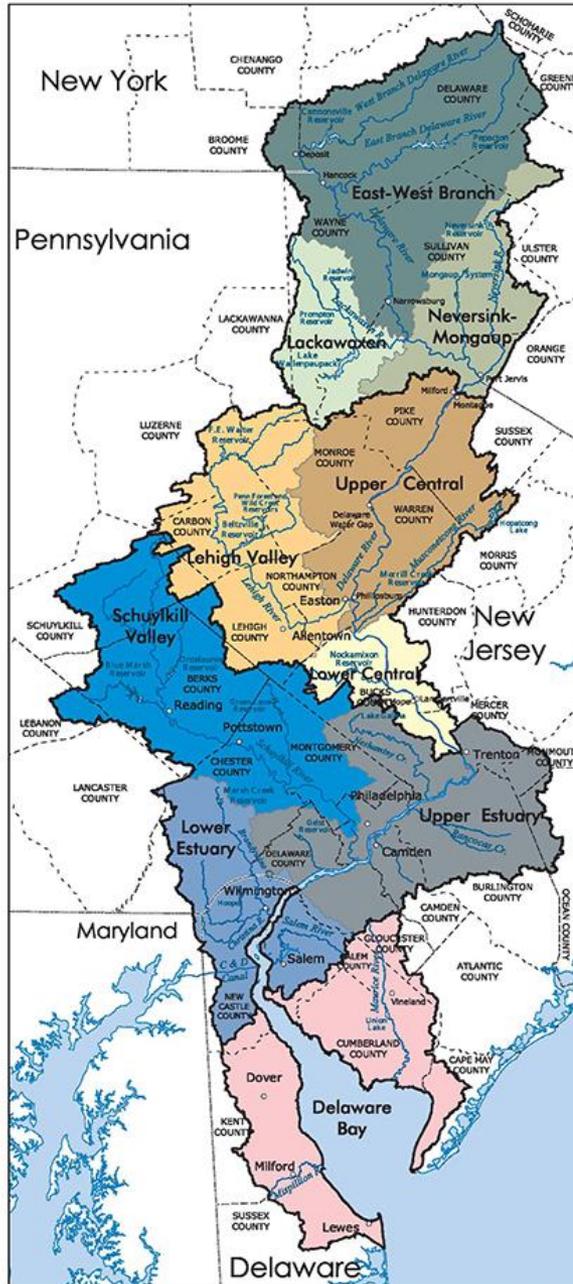


Watersheds of the Delaware River Basin

- UPPER REGION**
- East-West Branch Watersheds
 - Lackawaxen Watersheds
 - Neversink-Mongaup Watersheds
- CENTRAL REGION**
- Upper Central Watersheds
 - Lower Central Watersheds
 - Lehigh Valley
- LOWER REGION**
- Schuylkill Valley
 - Upper Estuary Watersheds
 - Lower Estuary Watersheds
- BAY REGION**
- Delaware Bay Watersheds



Delaware River Basin Commission
 DELAWARE • NEW JERSEY
 PENNSYLVANIA • NEW YORK
 UNITED STATES OF AMERICA
 WWW.DRBC.NET



Watersheds & Basins

A Basin is a large watershed, made up of smaller watersheds. Think of it like nesting dolls



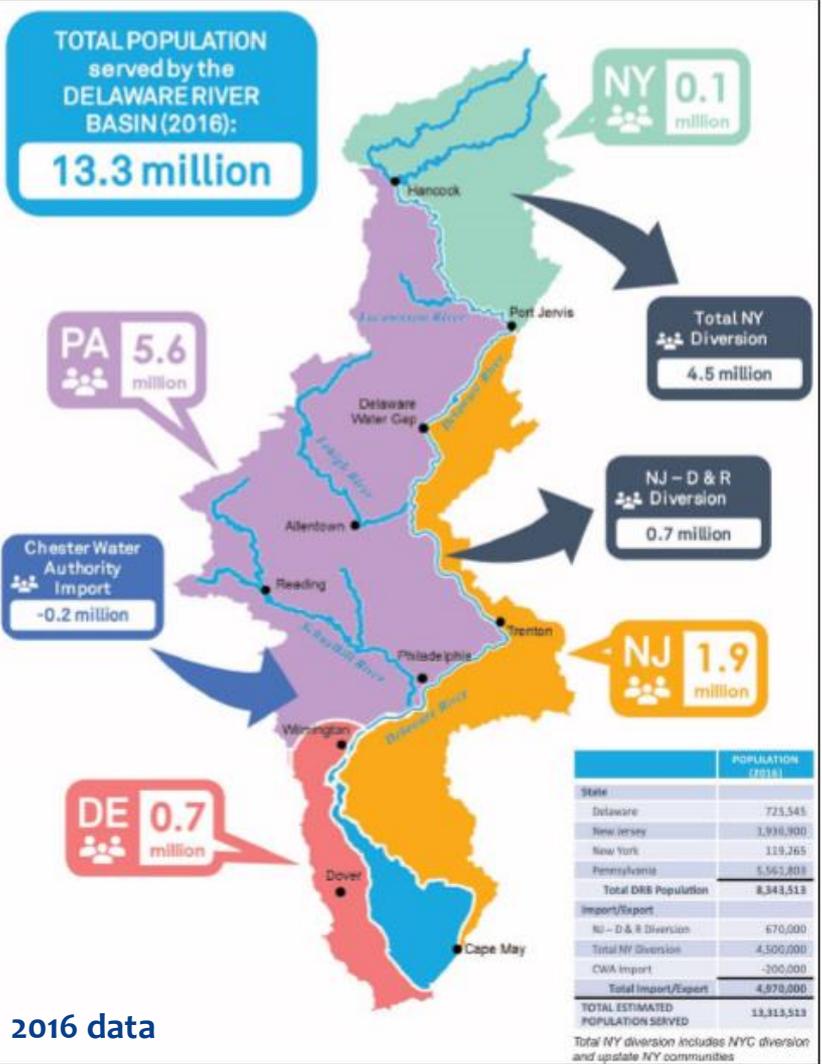
<https://www.theodmgroup.com>

The Delaware River



- 330 miles long
- Interstate boundary its entire length
- Longest, un-dammed U.S. river east of the Mississippi (dams are located on tributaries, not the main stem Delaware)
- Tidal to Trenton, N.J. (133 mi)
- Largest tributary: Schuylkill River

The Delaware River Basin



2016 data

- ~13.3 million people (about 4% of the U.S. population) rely on its waters
- Drains 13,539 square miles of watershed in 4 states
- 6.4 billion gallons are withdrawn every day (2016 data)
- Major Exports: NYC (up to 800 MGD) and N.J. (up to 100 MGD)
- Generates \$25 billion in annual economic activity

Basin-Scale Water Management

Shared Resources = Shared Problems

Early-Mid 1900s:

- Severe pollution in the tidal Delaware River and its major tributaries
- Water supply shortages and disputes over the apportionment of the Basin's waters
- Serious flooding

EDITORIAL PAGE
PHILADELPHIA RECORD

The War in Outline :: America Speaks :: Travel SUNDAY, MARCH 14, 1937 Screen :: Snaps :: Music :: Art :: Radio :: Puzzles

WATER, WATER EVERYWHERE, BUT NOT A DROP FIT TO DRINK.



1937

The Delaware River at Philadelphia



From PWD Historic Collection

Poor Water Quality

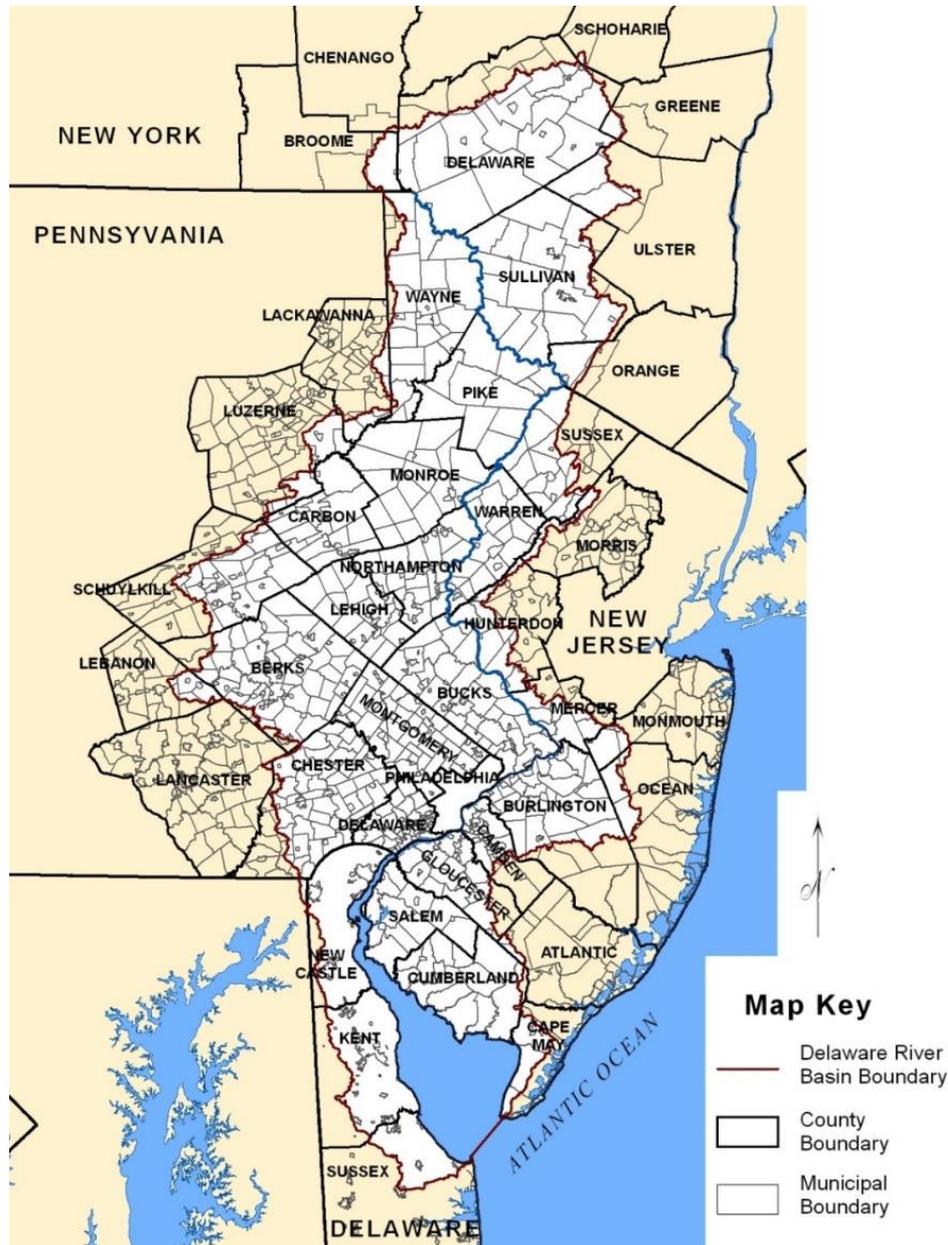


*Slaughterhouses discharging in 1928
(courtesy of the Phila. Water Dept. Historic Collection)*



*Fish kill on the Delaware from oil spill in 1929
(courtesy of Temple University Archives)*

The Challenge: How to Work Together



- 4 States
- Multiple Agencies
- 42 Counties
- 838 Municipalities
- NY City

Precursor to the DRBC

The logo for INCODEL, featuring the word "INCODEL" in a bold, serif font, centered on a black rectangular background.

THE INTERSTATE COMMISSION
ON
THE DELAWARE RIVER BASIN
A Decade of Planned Progress
1936-1946

“The story of INCODEL is a story of interstate cooperation.”

- Formed 1936, 4 Basin States
- Main Programs include:
 - Pollution Abatement
 - Water Supply Development
 - Drought/Flood Control
- Created Delaware River Basin Advisory Committee in late 1950s to research creation of federal-interstate agency
- Officially dissolved January 1963

Solution: Delaware River Basin Commission Formed 1961

- Delaware River Basin Compact:
Federal Law & State Law
- First of its kind (Federal-
Interstate Water Regulatory
Agency)
- 5 Equal Members
- Governors are the
Commissioners; USACE NAD
Commanding General is
Federal Commissioner
- Staff of Engineers, Scientists,
Planners

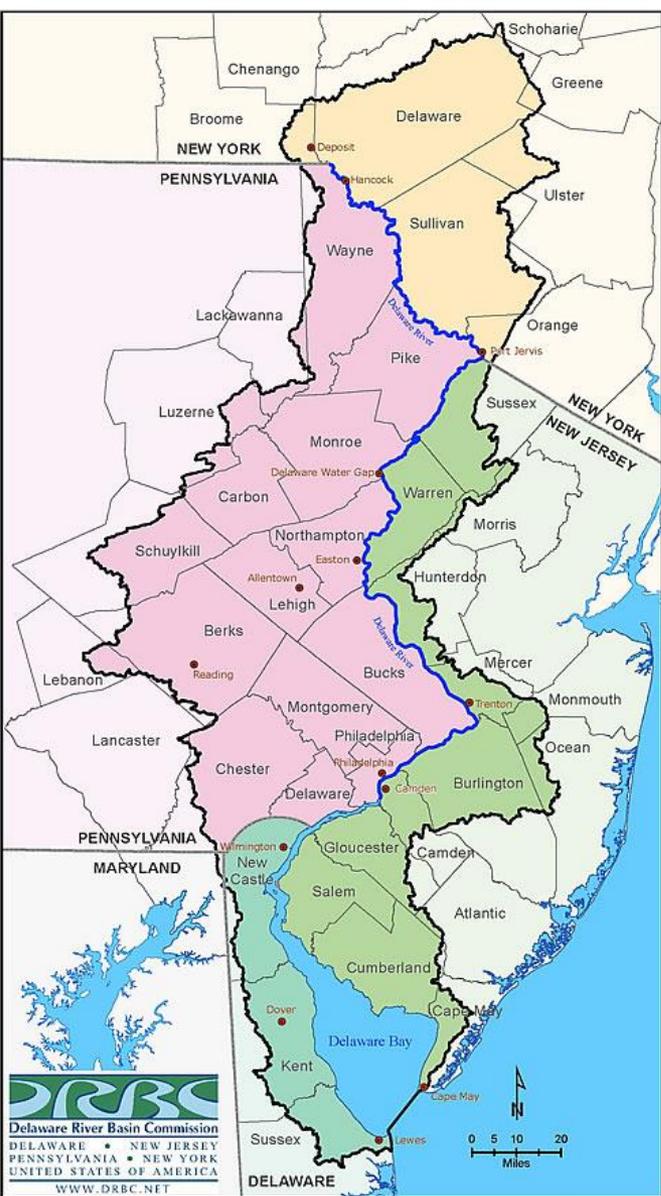


Ceremonial signing of the Delaware River Basin Compact, Nov. 2, 1961.

DRBC Functional Responsibilities

Manage, Protect & Improve the Basin's Water Resources

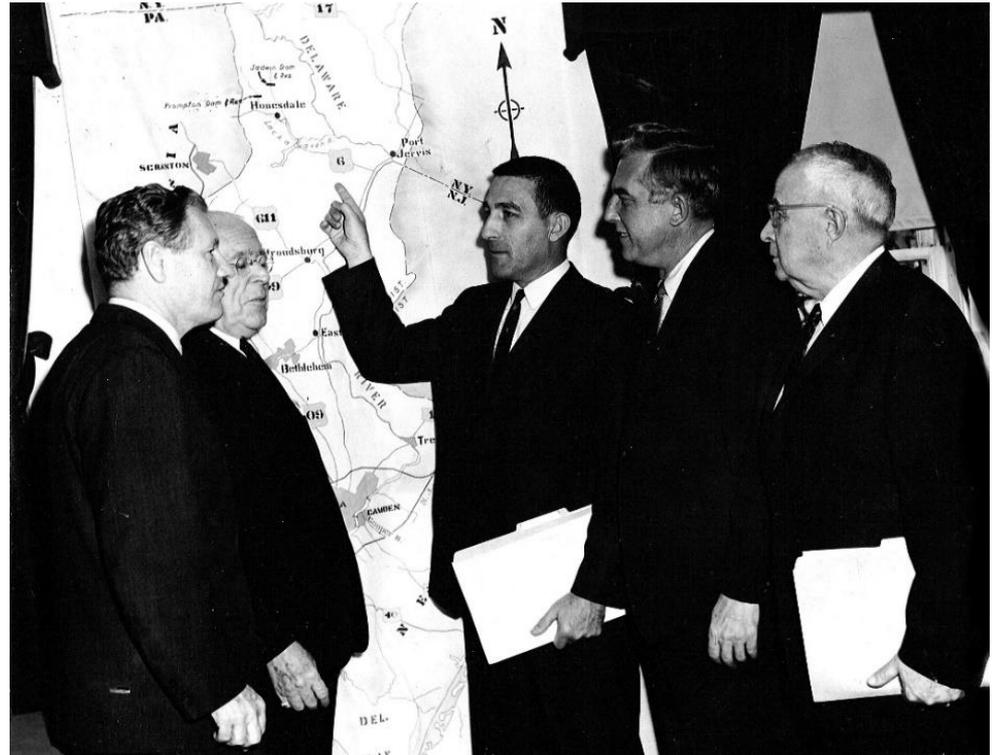
- Water Quality Protection & Improvement
- Drought Management
- Flood Loss Reduction
- Water Supply & Watershed Planning
- Regulatory Review (Permitting)
- Outreach/Education
- Recreation



Early Focus: Water Quality Improvement

1967: Adopted the most comprehensive water quality standards of any interstate river basin in the nation. **Udall said** only the Delaware among the nation's river basins was moving into "high gear" in its pollution abatement efforts.

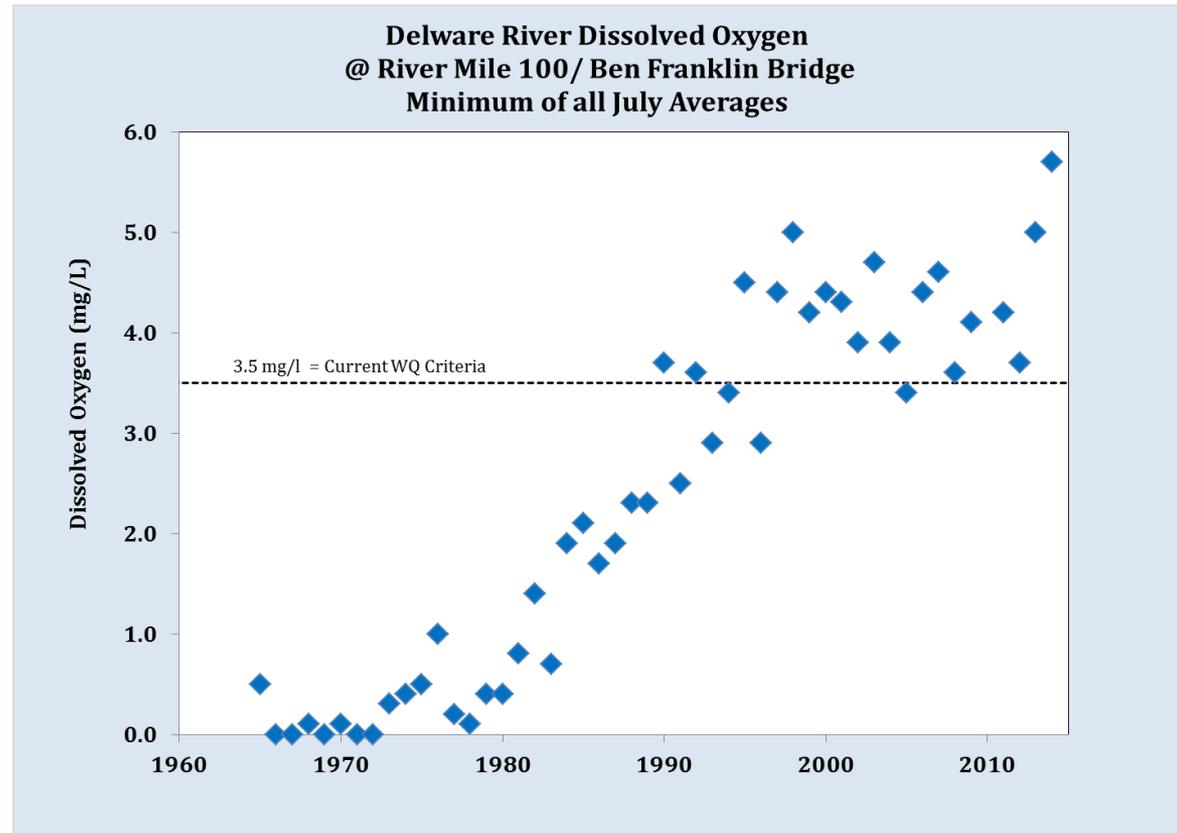
1968: Adopted regulations for implementing and enforcing the 1967 standards. The **Federal Water Pollution Control Administration** said, "This is the only place in the country where such a procedure is being followed. Hopefully, it will provide a model for other regulatory agencies."



3rd from L: Sec. of the Interior Stuart Udall (Federal Rep) at the 1st meeting of the DRBC.

Multi-Decade Collaborative Effort

- 30 Miles of River around Philadelphia considered a “Dead Zone,” no oxygen
- 1970s: Creation of the U.S. EPA & 1972 CWA were instrumental in supporting cleanup efforts: investment in improved wastewater treatment.
- By 1990s – DO levels above 1967 standards, even during summer
- Return of migratory fish



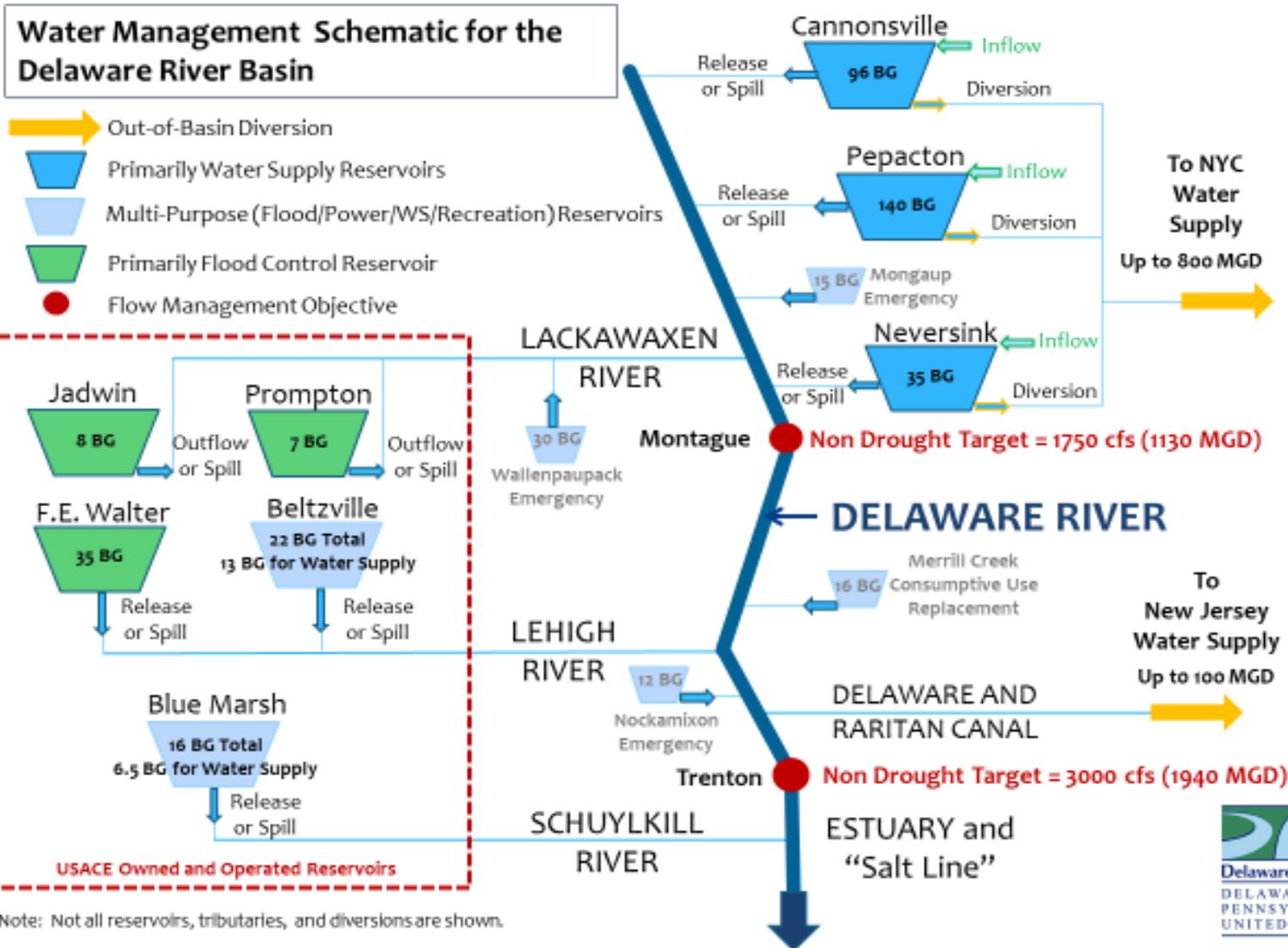
Early Focus: Flow & Drought Management

- The region experienced a severe, multi-year drought from 1961-67, which is still considered the Basin's drought of record.
- While Tocks Island Dam was eventually voted down in 1975, several reservoirs were built in the basin for water supply, flood mitigation & recreation
- Collaboration during 1970s & 1980s on drought mgmt. efforts: Good Faith Agreements



Delaware River at Morrisville, Pa. October 1963.

Free Flowing but Managed



Note: Not all reservoirs, tributaries, and diversions are shown.

DRBC Core Responsibilities

- **FLOW** - An adequate and sustainable supply of water.
- **QUALITY** - Clean and healthy water resources.

Collaboration & partnership to achieve for the Basin what individual members could not accomplish alone.



Delaware Canal Towpath by Keith Balderston

DRBC's Water Resource Management Programs

Planning	Operations	Regulation	Science
Sustainable Water Availability	Flow / Reservoir Management	Water Withdrawals	Water Quality Assessments
Future Water Use	Drought Management	Wastewater Discharges	Water Quality Monitoring
Consumptive Water Use	Salinity Control	Special Protection Waters	Designated Uses: Aquatic Life & Recreation
Water Efficiency	Decree Parties: Technical Assistance	Groundwater Protection Area	Toxic Pollutants: PCBs
Water Audits	Hydrologic Models	Water Quality Standards & Criteria - Interstate Waters	Fish Consumption
Climate Change	Water Charges	Flood Mitigation	Emerging Contaminants & Microplastics

Non-Tidal Delaware River

“Fortunately, the Delaware above Trenton is still a clean river, and it is to be kept that way.”

DRBC 1967 Annual Report

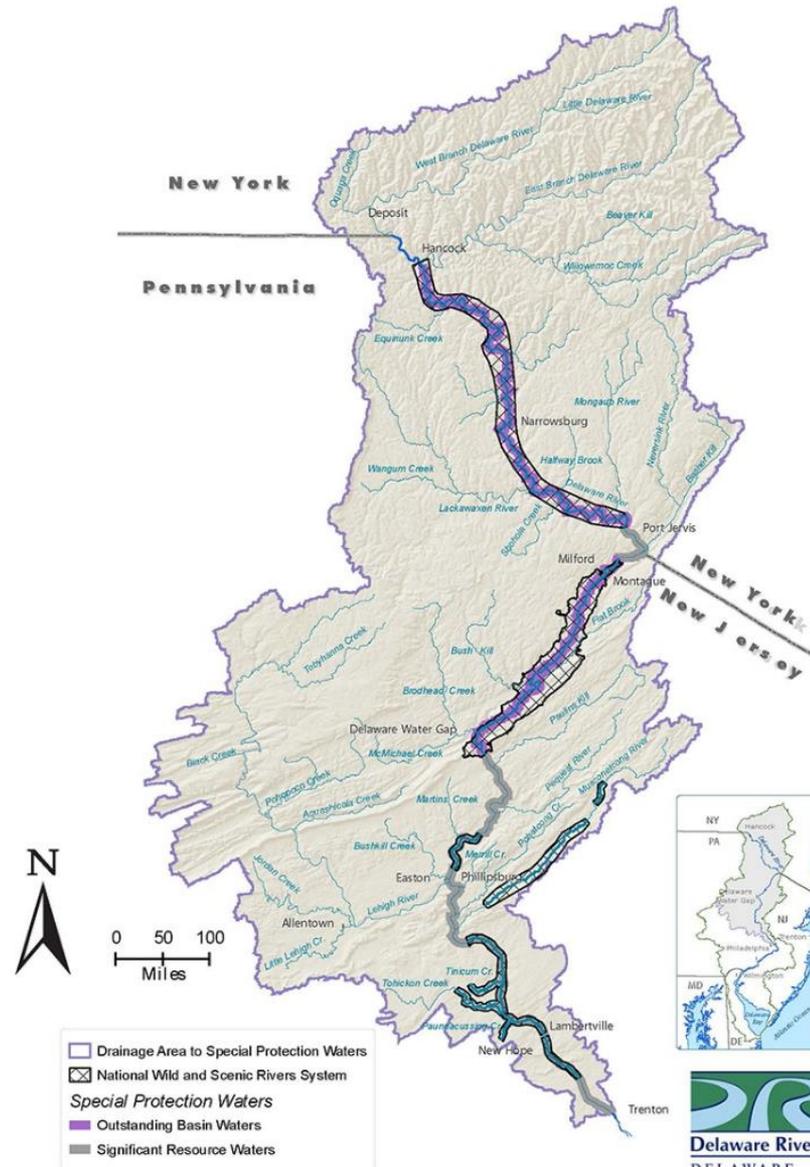
1978: Upper & Middle Delaware River added to National Wild & Scenic Rivers System

1992: DRBC designated Upper & Middle Delaware River as Special Protection Waters (SPW)

2000: Lower Delaware River added to the National Wild & Scenic Rivers System (75% non-tidal river, ~150 mi designated)

2008: DRBC designated the Lower Delaware SPW, establishing the longest stretch of anti-deg waters in the nation.

Drainage Area to Special Protection Waters



Basin Recreation: Opportunities Abound!

Delaware River Sojourn:

- Guided paddling & camping trip on the Delaware River and its tributaries
- Began in 1995; collaboratively planned
- Mission: Connect People to the River through Paddling, Create River Stewards
- Family-Friendly Experiential Learning
- Equipment & Basic Instruction Provided

Lehigh Sojourn: June 26-28

Schuylkill Sojourn: July 31-August 4



**2021 Delaware River Sojourn: August 6-13
Focus on Fish**

Reconnecting to a River Reborn

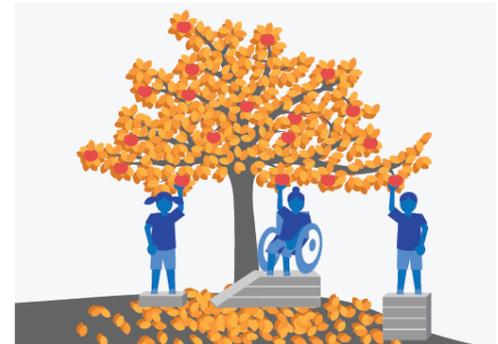
The Cleanup of the Delaware River around Philadelphia is Hailed as One of the World's Top Water Quality Success Stories.

- People Want to Reconnect:
 - Trails & Parks
 - Fishing
 - Birdwatching
 - On-Water Activities
 - Volunteering
 - Learning Opportunities



Looking Ahead: Working Together

Side by Side, Top Down & Bottom Up



While the waters of the Delaware River Basin have improved, there is more to do to ensure they are drinkable, fishable, swimmable & equitable for all.

Each of us can help protect & conserve the Basin's waters!

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Aerial view of Philadelphia by Jonathan Milne

Thank you!



Delaware River Basin Commission



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