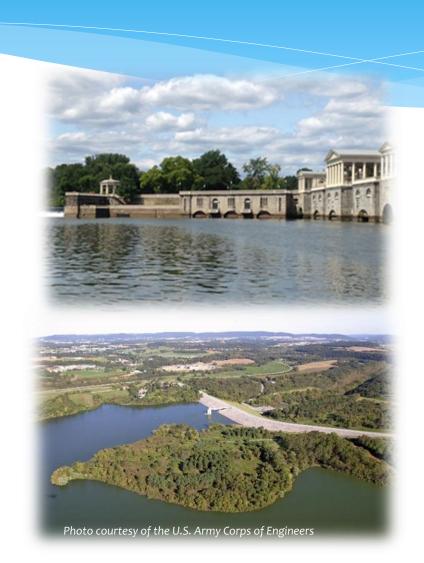
The Delaware River Basin Commission

Managing, Protecting and Improving the Basin's Water Resources Since 1961

Delaware River Governors' Leadership Summit

Independence Seaport Museum Philadelphia, Pa. May 16, 2019



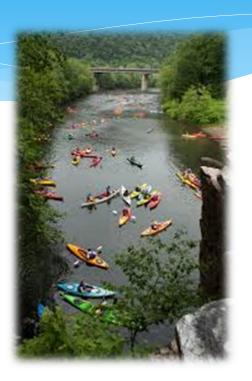
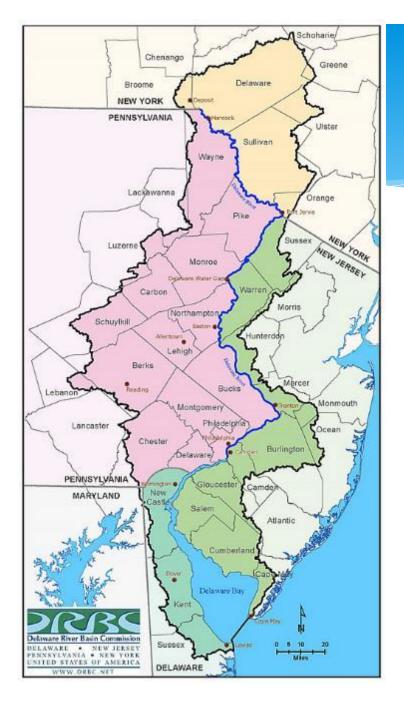


Photo: http://pariveroftheyear.org/wp-content/uploads/2014/01/cody20102.jpg





The Delaware River and its Watershed

- The Delaware River forms an interstate boundary its entire 330 mile length.
- Water resource and watershed management and leadership through (your choice):
 - ✓ Cooperation and Collaboration
 - Competition and Conflict
 - * Crisis

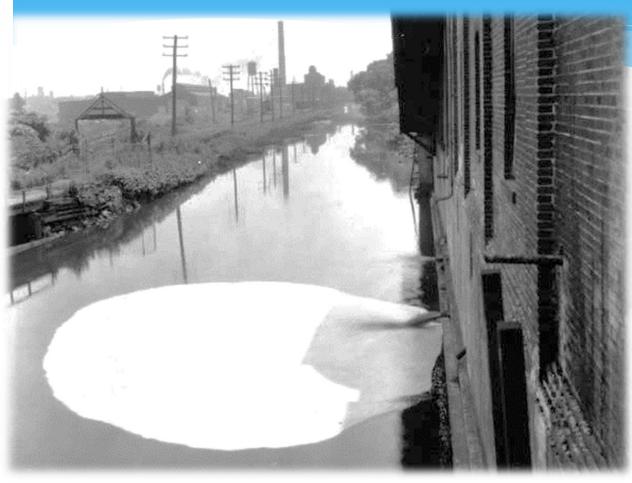


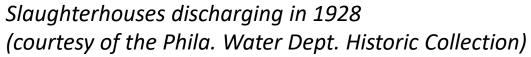
A Vision for Our Shared Water Resources with the Force of Law The Delaware River Basin Compact

"...the signatory parties recognize the water and related resources of the Delaware River Basin as regional assets vested with local, State and National interests, **for** which they have joint responsibilities..."



State of the Basin...Then

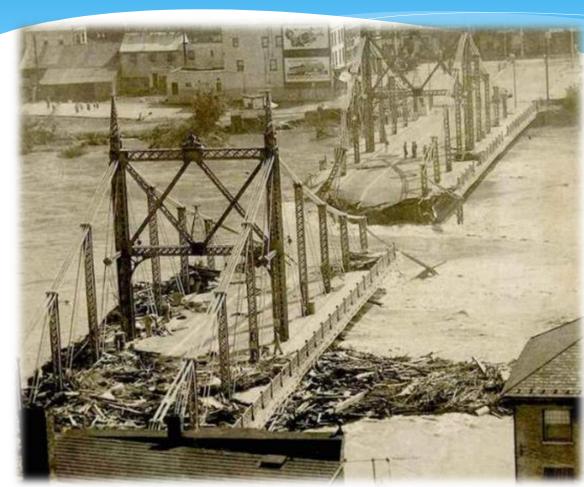






Fish kill on the Delaware from oil spill in 1929 (courtesy of Temple University Archives)

State of the Basin ... Then



Easton-Phillipsburg free bridge in 1955 (file photo courtesy of lehighvalleylive.com)



Delaware River at Trenton in 1965 (DRBC photo)

The Delaware River Today

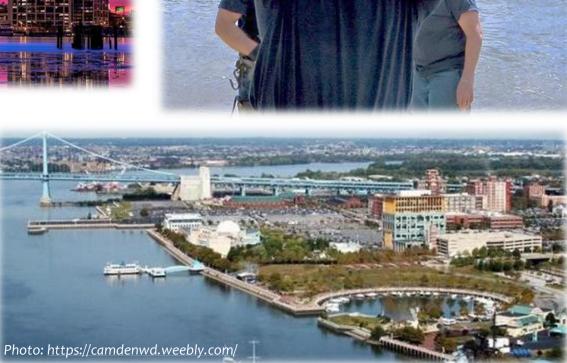


Photo: Greg Breese, USFWS



Photo: Justin Curtis







Delaware River Basin Commission



New Jersey Governor Phil Murphy, DRBC Chair





New York Governor Andrew Cuomo, DRBC Vice Chair





Pennsylvania Governor Tom Wolf





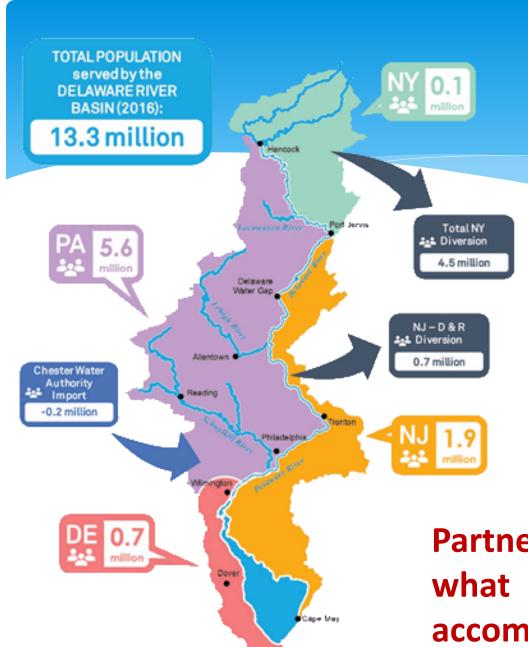
Delaware Governor John Carney





Major General Jeffrey Milhorn, U.S. Army Corps of Engineers





DRBC Core Water Resource Management Responsibilities

- Water FLOW Adequate, sustainable and resilient.
- Water QUALITY Clean and healthy.

Partnering to achieve for the Basin what individual members could not accomplish alone.



When was the last drought?



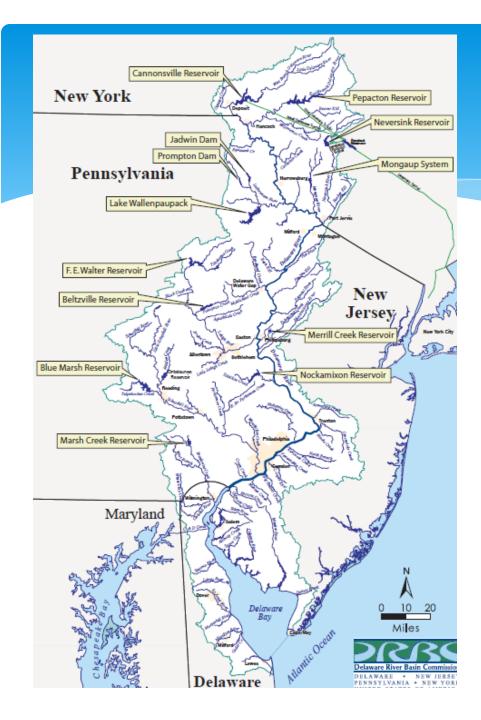
Photo: NYCDEP

When was the last drought?



Cannonsville Reservoir December 2001

Photo: NYCDEP



DRBC Comprehensive Plan includes more than 100 **Billion Gallons of water** stored for lower Basin drought management and flow management.



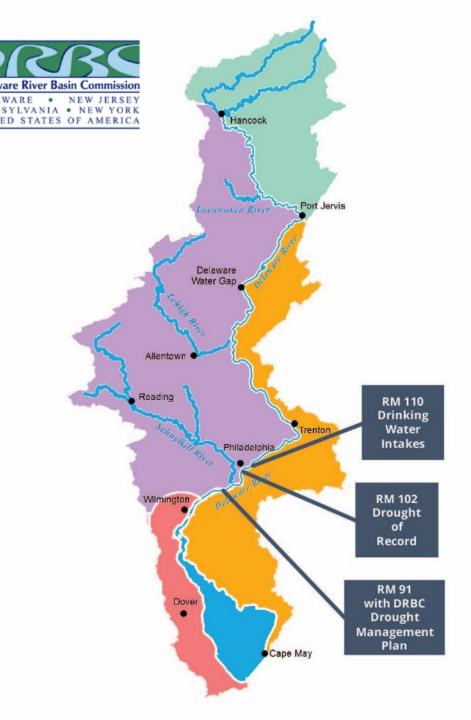
Exelon Limerick Generating Station, Montgomery County, Pa. Photo: Arturo Ramos [CC BY-SA 2.5 (https://creativecommons.org/licenses/by-sa/2.5)]



DRBC Comprehensive
Plan requires
consumptive use
mitigation for
thermoelectric power.

Merrill Creek Reservoir,
Warren County, N.J. Photo: https://merrillcreek.com/





DRBC Drought Management Plan protects drinking water and industrial intakes from salt intrusion.

Description	River Mile
Philadelphia and NJAW Drinking Water Intakes	110
Max. Salt Line during 1960s drought (without Trenton Flow Objective)	102
Max. Salt Line since DRBC drought management plan (with Trenton Flow Objective)	91



Frances E. Walter Reservoir, USACE
Luzerne County, PA
Photo courtesy of the U.S. Army Corps of Engineers



CESTALISE ONLY

Beltzville Reservoir, USACE Carbon County, PA

Reservoirs in the DRBC's Comprehensive Plan have resulted in more than \$500 million in cumulative flood loss prevention.

Blue Marsh Reservoir, USACE Berks County, PA

Photo: http://photos1.meetupstatic.com/photos/event/8/c/f/2/600 430296082.jpeg





Water Quality

- * Together, define how we want to use this resource.
- * Collaborate to achieve Clean Water Act "Fishable/ Swimmable" goals.

* Examples:

- Public water supply (drinking water)
- * Aquatic Life
- * Water based recreation
- Fishing / fish consumption
- Industrial water supply
- Agricultural water supply







Photo: Rich Evans, National Park Service

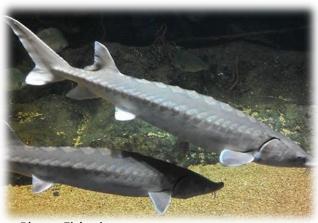
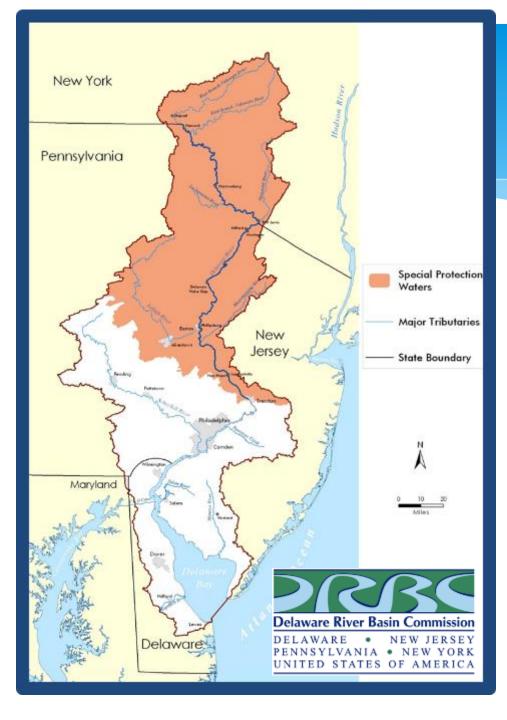


Photo: Fisheries.noaa.gov

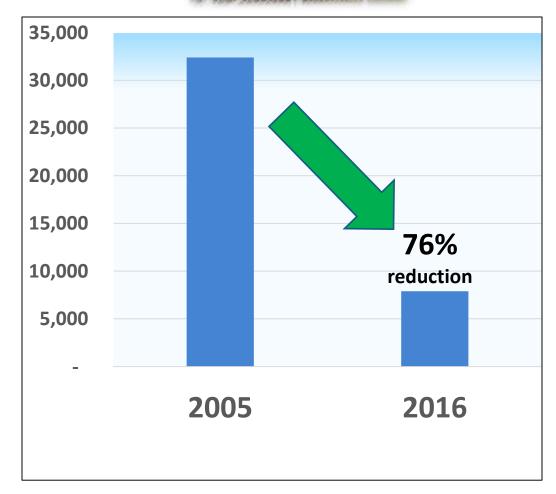


- 197 river miles of exceptional quality (out of 330 river miles), defined and managed as Special Protection Waters.
- Believed to be the longest anti-degradation reach in the U.S.
- Using monitoring and modeling to keep clean waters clean!





Photo: U.S. EPA



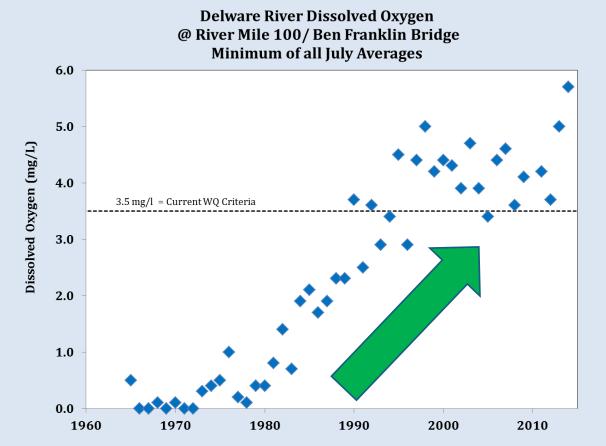
- Clean-up of legacy pollutants in the Delaware Estuary
- 76% reduction in PCB discharges from top point sources since 2005.

NEW JERSEY, DELAWARE EASE ADVISORIES ON CERTAIN FISH

TOM JOHNSON | FEBRUARY 21, 2018

https://www.njspotlight.com/stories/18/02/20/new-jersey-delaware-ease-advisories-on-certain-fish/





- A dead zone in the Estuary restored.
- Significant improvement in dissolved oxygen.

Shad making a big comeback in Delaware

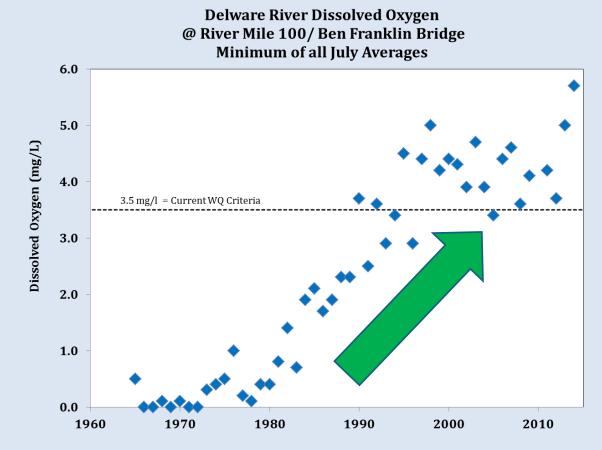
https://www.pressofatlanticcity.com/news/shad-make-a-big-comeback-in-delaware-river/article_bd2of7b6-9888-54ec-8930-8c476eec7013.html

There's good news for one of N.J.'s most endangered fish

Updated Oct 28, 2017; Posted Oct 28, 2017

https://www.nj.com/news/2017/10/atlantic_sturgeon_still_depleted_but_slowly_recove.html





- A dead river zone in the Estuary restored.
- Significant improvement in Dissolved Oxygen.

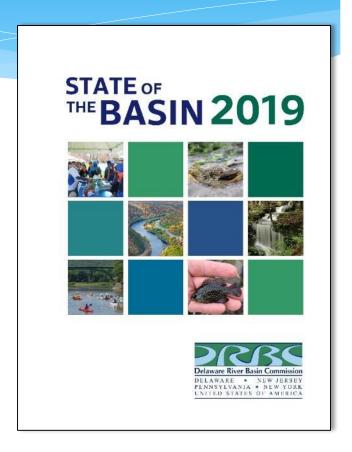


https://philly.curbed.com/maps/delaware-river-philadelphia-development-projects

Stakeholder and Public Input, Outreach Expertise and Collaboration



- Science, engineering, planning and input through Advisory Committees on:
 - ✓ Water Quality
 - ✓ Water Management
 - **✓** Toxics
 - ✓ Monitoring
 - ✓ Regulated Flow
 - ✓ Floods
- Public input, engagement, partnership, and outreach



We will be requesting <u>your</u> input on the State of the Basin in 2019.

Collaborate to Meet Future Needs and Challenges

Climate Change

Nutrients Water Efficiency

Energy/Water Nexus

Stormwater

Swimmable Waters

Reservoir Storage

Sea Level Rise

Wetlands Loss

Living Shorelines

Floods

Microplastics

Toxics

Critical Habitat

Clean Water Water Supply

Healthy Watersheds

Salinity Spill Response Decree Parties

Public Access

Road Salt

Forest Loss

Dam Removals

Cold Water Fisheries

Environmental Justice Emerging Contaminants



Waterfront Development

Endangered Species







































LEHIGH VALLEY

















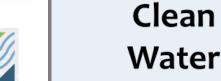














Sustainable Water Supply



































UNITED STATES OF AMERICA























Steve Tambini, Executive Director

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

Managing, Protecting and Improving the Basin's Water Resources Since 1961