

The Delaware: *A National Treasure*



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The Delaware River Basin Commission Model

- **Development and Authorities**
- **Testing the Model**
- **Strengths**
- **Reasons to Consider the DRBC Model**
- **Problems to Avoid**



Delaware River Watershed Facts

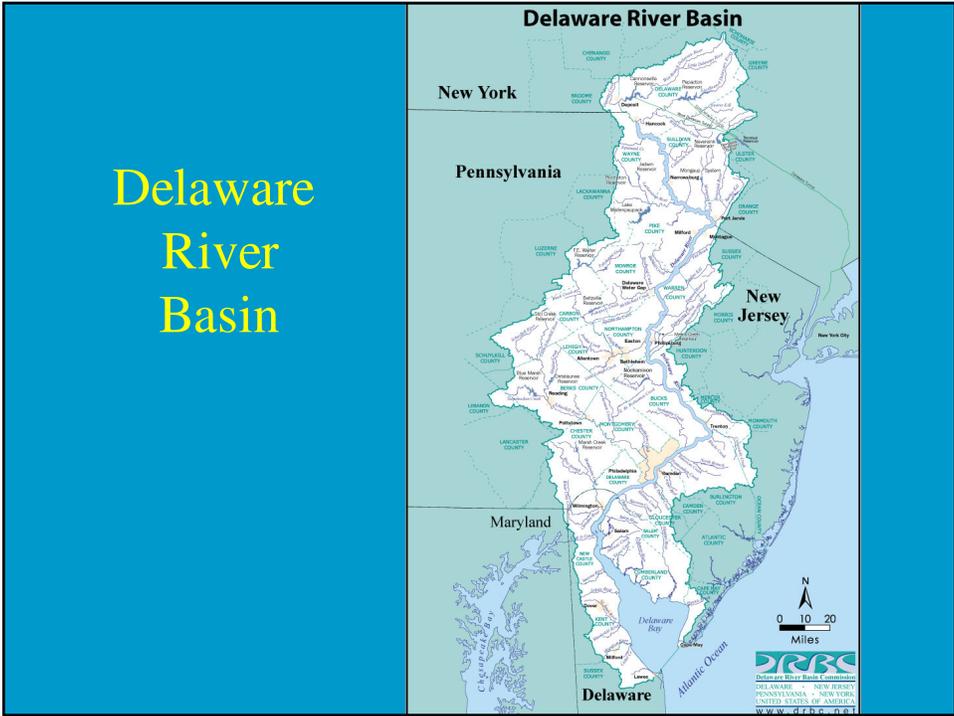
- ❑ Nearly 15 million people (about 5% of the U.S. population) rely on the waters of the basin
- ❑ Drains 13,539 mi², or 0.4 of 1% of the continental U.S. land area
- ❑ 216 tributary streams



The Need for Basin-Scale Planning

- 4 States
- 25 Congressional Districts
- 42 Counties
- 838 Municipalities





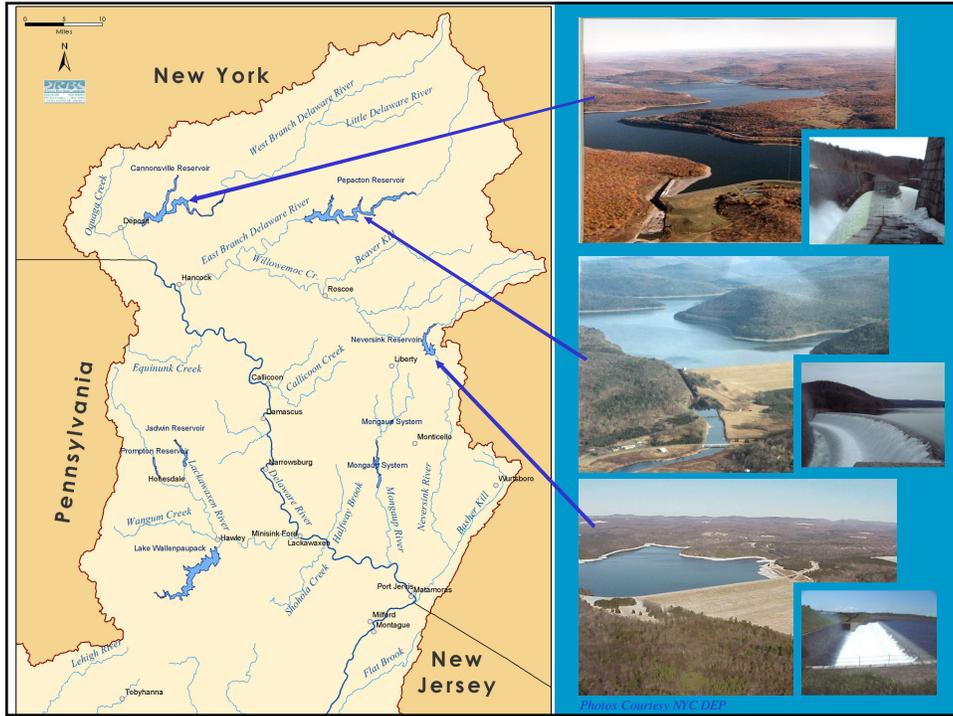
**Delaware
River
Basin**

Delaware River

**Longest Undammed River
East of the Mississippi**

330 miles





- World Class Trout Fishery
- Wild and Scenic River Designation





The complex block features a blue background with two bullet points. To the right is a photograph of a person in a waders and hat, standing in a river and fly fishing. Below the text is a photograph of a river winding through a dense, green forested valley. In the bottom right corner, the logo for the Delaware River Basin Commission (DRBC) is displayed, consisting of the letters "DRBC" in a stylized green font above the full name "Delaware River Basin Commission".

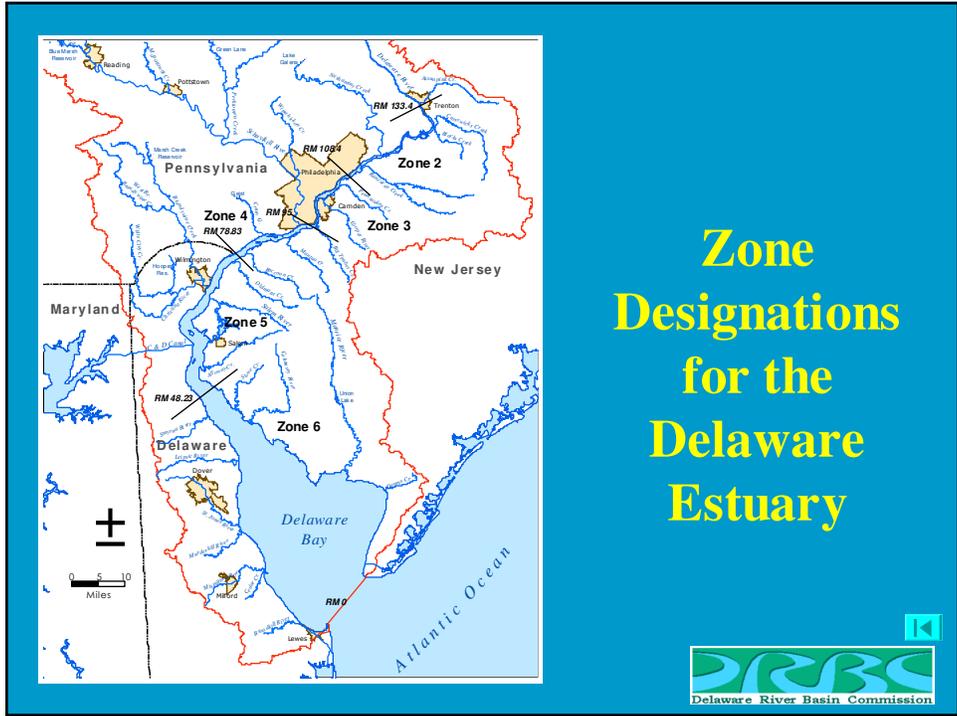




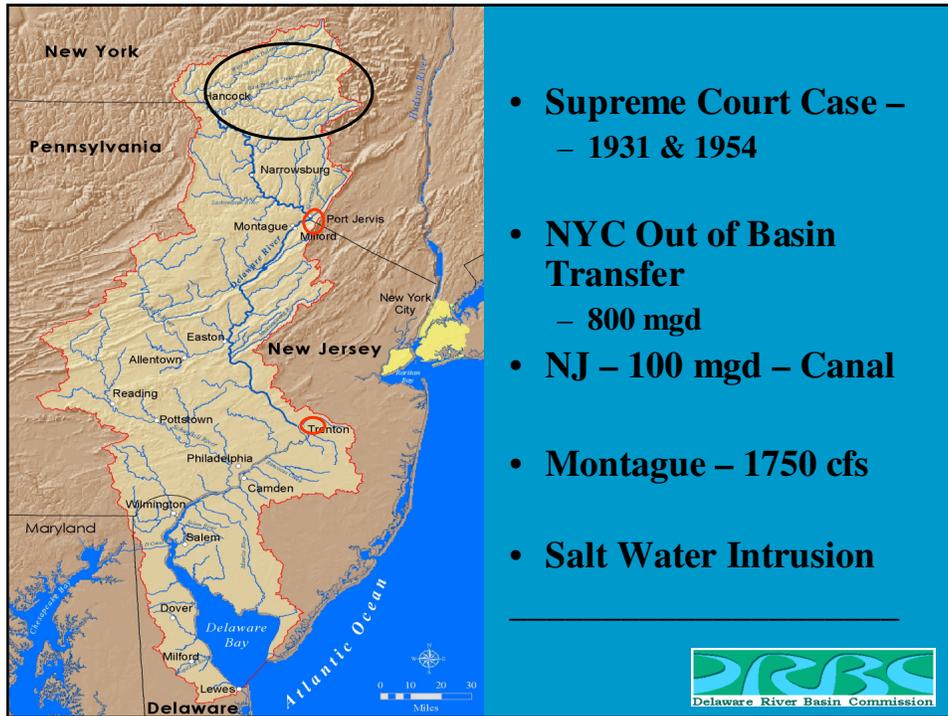
Photo courtesy of USEWS



Why was the Delaware River Basin Commission (DRBC) Created?

- Water Supply Shortages And Disputes Over The Apportionment Of The Basin's Waters (Supreme Court 1931,1954);
- Severe Pollution in the Delaware River and its Major Tributaries; and
- Serious Flooding -1955 Flood of Record





Drivers of the Formation of the DRBC

- Tired of Long Supreme Court Litigation and Threats from Individual States
- Supreme Court Allocation
- Allowed Parties to Revisit Allocation
- Priority Projects Identified,
 - Need For Planning By All Parties –
 - No Renegades!
- WRA- DRB Commissioned Study



Delaware River Basin Commission



Commitment to Resolve Disputes

- Committed to work through the Commission
- The States mutually agreed – for the 100-year duration of the Compact – to waive and relinquish any right or privilege to apply for modification of the 1954 Supreme Court Decree



The map shows the Delaware River Basin (DRBC) outlined in yellow, covering parts of New York, Pennsylvania, New Jersey, Delaware, and Maryland (MD.). The United States is marked with a red star. To the right, the text 'DRBC General Powers:' is followed by a list of powers: *Coordination, *Planning, *Regulation, *Management, and *Development. Below this list is a small image of the '1961 Compact' document cover.

New York
Pennsylvania
New Jersey
MD.
United States
Delaware

DRBC
General Powers:

- *Coordination
- *Planning
- *Regulation
- *Management
- *Development

DELAWARE RIVER BASIN COMPACT
1961
1961 Compact

DRBC Functional Responsibilities

- Water Supply**
- Pollution Control**
- Regulation/Permitting**
- Flood Protection**
- Watershed Management**
- Education & Outreach**

The logo for the Delaware River Basin Commission (DRBC) is located in the bottom right corner of the slide. It features the letters 'DRBC' in a stylized, bold font with a green-to-blue gradient, and the full name 'Delaware River Basin Commission' written in a smaller font below it.

WHAT DOES DRBC DO?

- ✓ Manages Water Resources Without Regard to Political Boundaries
- ✓ Regulates Water Quality & Quantity
- ✓ Directs a Fair Distribution of Water
 - ✓ Equitable Apportionment
- ✓ Plan for Best Use of Water Resources
- ✓ Coordinates / Facilitates
- ✓ Educates about Water Resources



Planning Role

- Required to Have A Comprehensive Plan
- Water Resources Plan for the Delaware River Basin (2004)
- Required Water Resources Program
 - 6 year action plan, updated annually
- Annual Work Plan and Budget
- State of the Basin Report
- Numerous Studies, Projections and Project Prioritization



Regulatory Role

- Water Withdrawals - > 100,000 gpd
 - Special Protection Areas > 10,000 gpd
- Water Quality
 - Set Water Quality Standards
 - States can be more stringent
 - Wastewater Effluents
 - Basinwide Criteria
 - Impact to Shared Waters
 - Establish Special Protections Areas
 - SE PA Groundwater Protection Area
 - Special Protection Waters Program



Water Supply

- River/Reservoirs Operation Plan
- Water Supply Fund
 - Fees for Water Use and Consumptive Use
 - Used to pay for water stored in USACE operated reservoirs for drought mitigation
- Project Development – Bonding Authority
- Declaration of Drought Emergency
 - Increased authority over reservoir operations
 - Conservation and water use reductions

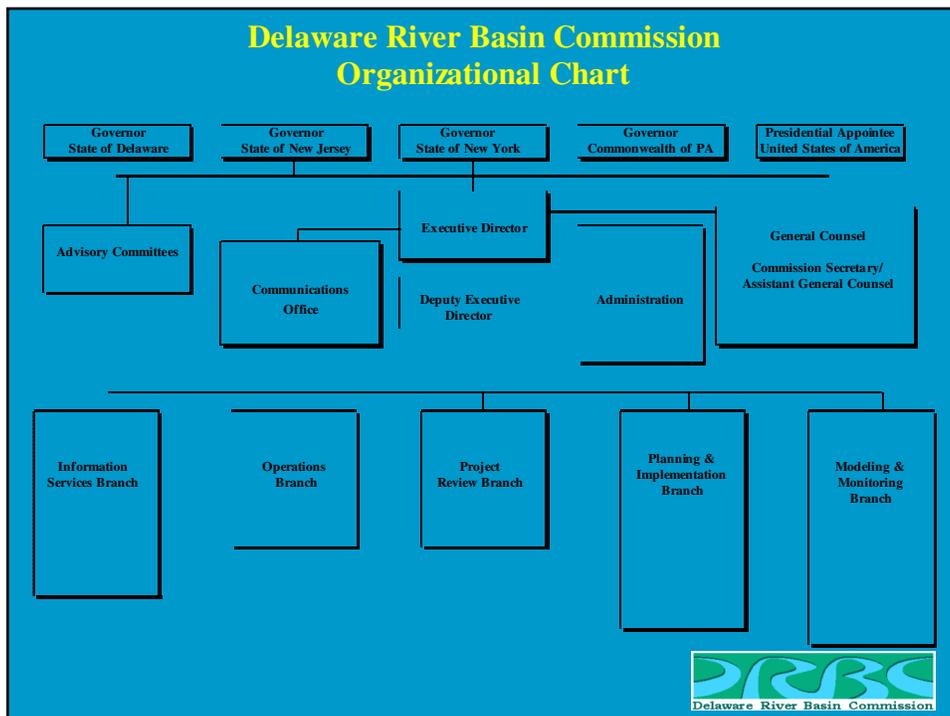


Water Quality

- Lead On Issues That Cannot Be Solved Solely By One State
- Special Protection waters
- Clean up of PCBs in the Estuary



Delaware River Basin Commission Organizational Chart



Budget and Fair Share Allocation

- ~ \$5M plus Special Projects
- Fair Share Allocation
 - PA 25%
 - NJ 25%
 - Federal 20%
 - NY 17.5%
 - DE 12.5%



DRBC Advisory Committees

- Flood
- Flow Management Technical
- Information Management
- Monitoring
- Toxics
- Water Management
- Water Quality



WHY DOES DRBC WORK?

- One vote for each state and federal government
- Members gave up portion of their sovereignty to manage a watershed
- DRBC is *OF*, not *ABOVE* the states
- Engage Stakeholders
- Forum for Adaptive Management



Mechanism for Response To Change

- DRBC assists its multiple authorities by creating the forum for coordinated response to change



DRBC Put To The Test!



NYC RESERVOIR STORAGE DECLINES TO RECORD LOWS



November 26, 2001
record low storage for Cannonsville,
3,245 bg or 3.39% of capacity.

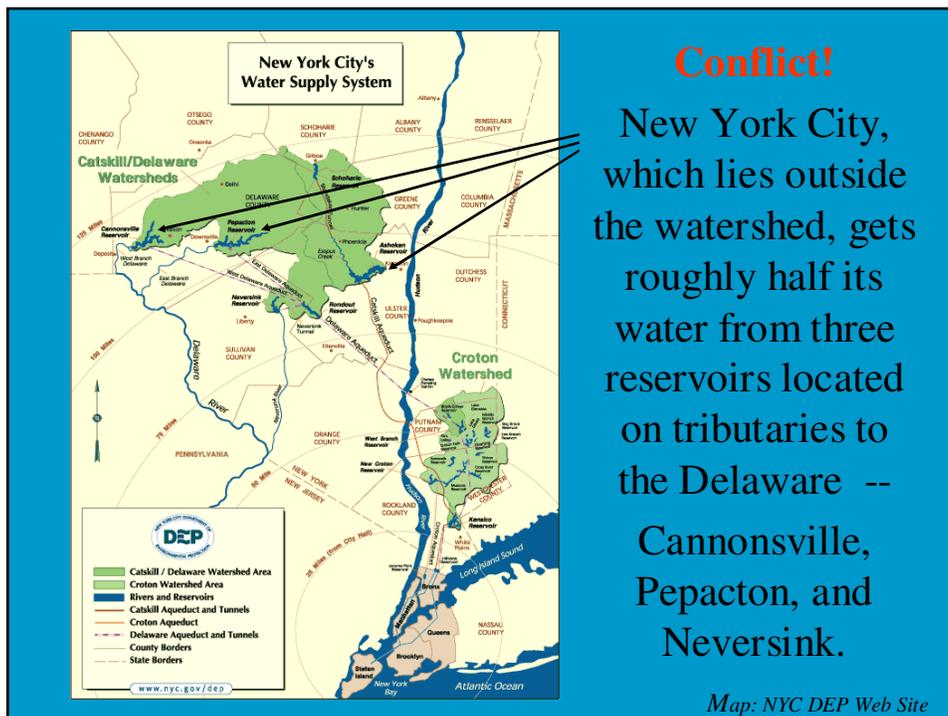
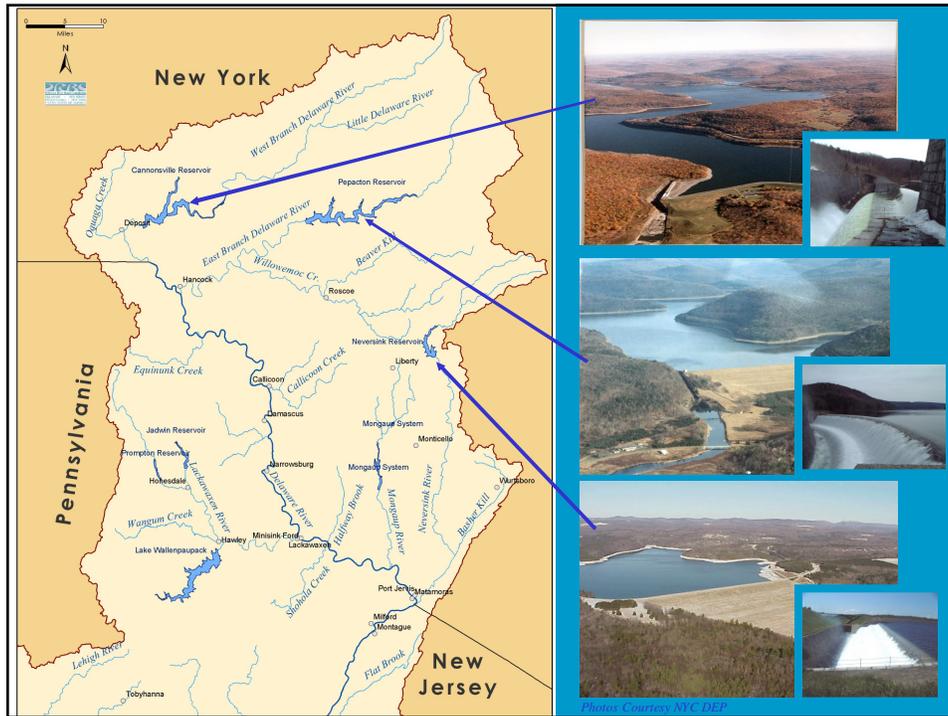


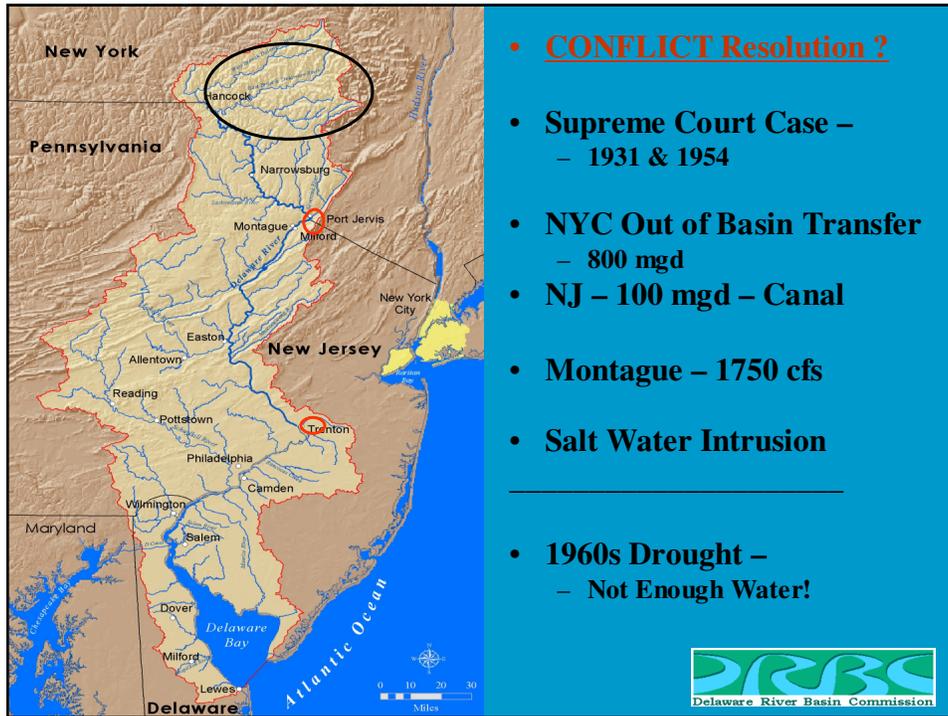
Cannonsville Reservoir under normal conditions.

Cannonsville Reservoir is located on the West Branch of the Delaware River



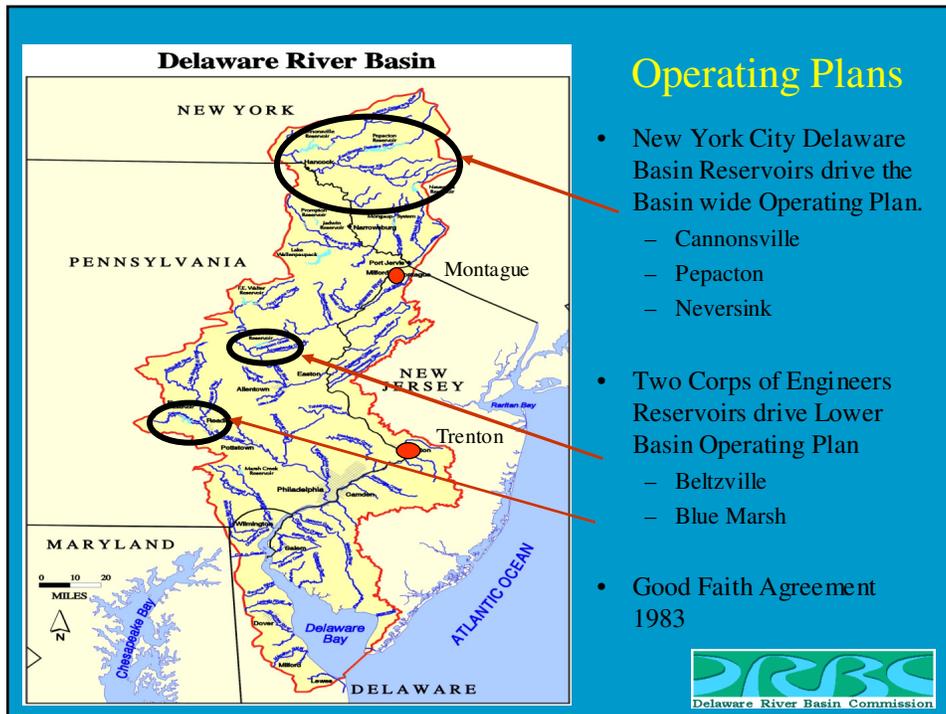
Cannonsville Reservoir (6.5% of capacity).



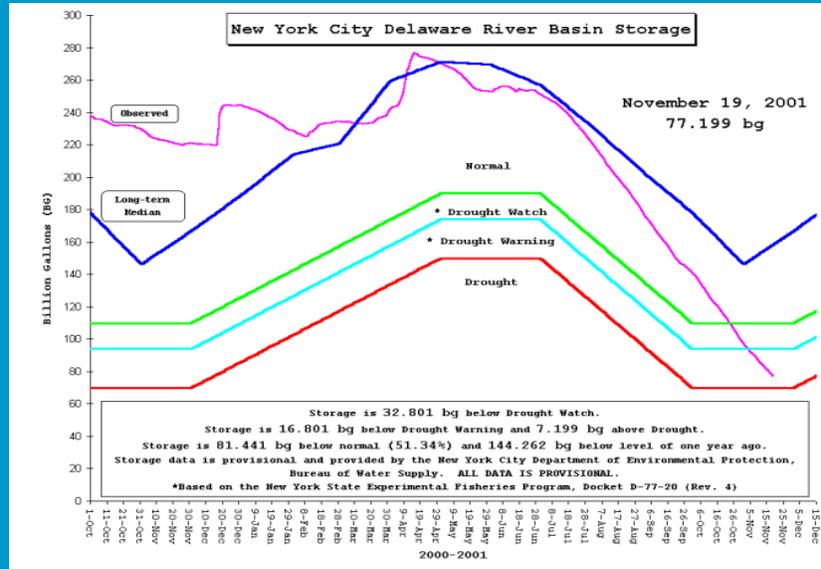


ISSUE!

- How To Manage Water When There Is Not Enough To Go Around?
- Back to Court?
- Answer: - Equitable Allocation through the DRBC



2001 NYC Reservoir Storage



Water Use Reductions and Flow Targets Under Differing Drought Conditions

Drought Condition	Diversion by New York City	Diversion New Jersey	Montaque Flow Target	Trenton Flow Target
Normal Operations	800 mgd	100 mgd	1,750 cfs	3000 cfs
Drought Watch	680 mgd	100 mgd	1,655 cfs	2,700 cfs
Drought Warning	560 mgd	70 mgd	1,550 cfs	2,700 cfs
Drought Emergency	520 mgd	65 mgd	1,100 – 1,650 cfs*	2,500 – 2,900 cfs*

* The target is dependent on the location of the 7-day 250 mg/l chloride concentration in the Delaware Estuary. mgd—million gallons per day cfs—cubic feet per second

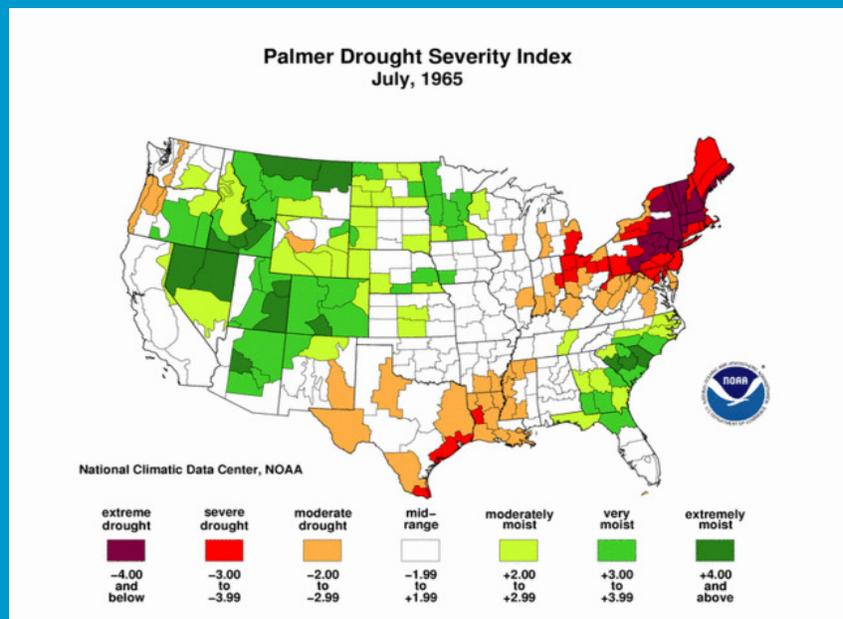


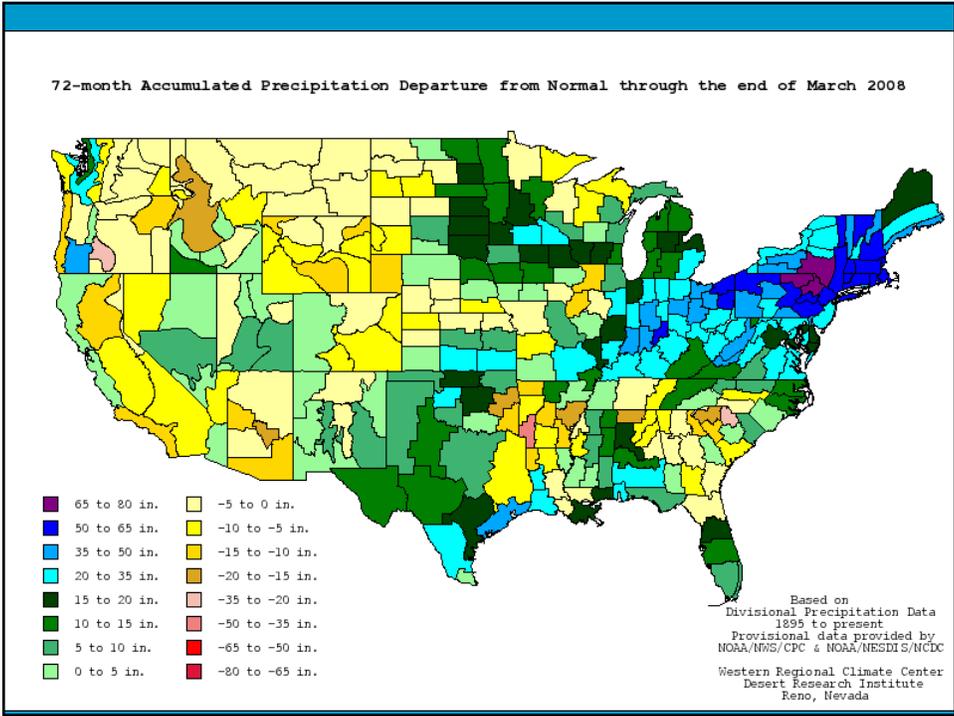
Adaptive Management

- Supreme Court set a strict water allocation
 - “A line in the sand”,.....BUT
 - it did not work in extreme conditions
- Parties were able to work out a new allocation scheme based on equalized hurt.
- Equitable Allocation



Drought of the 1960's





Need To Consider Fishery




World Class Trout Fishery Development

Delaware River Basin



New York
Pennsylvania
New Jersey
Maryland
Delaware

NYC Division
NJ Division

Delaware Bay
Atlantic Ocean

DRBC
Delaware River Basin Commission
DELAWARE - NEW YORK
PENNSYLVANIA - NEW JERSEY
UNITED STATES OF AMERICA
www.drbc.net

Ecological Issues

- Maintain Trout Fishery
- Protect Endangered Dwarf Wedgemussel
- Salinity Flux
 - Freshwater Tidal Marshes
 - Oysters
 - Anadromous Species
- Established SEF
 - Subcommittee for Ecological Flows



September 2004

April 2005

June 2006



**Third Major Flood along the Main Stem
Delaware River in less than Two Years**



No Silver Bullet !!



Strengths of the DRBC Model

- Able to Plan, Regulate, and Implement
- Mechanism to Bring Decision Makers Together to Adapt to Change
 - Science and Engineering Changes
 - Mother Nature's Curve Balls
 - Socio-economic Directions
- Organization that thinks about the Basin 24/7



Strengths of DRBC Model

- Continually Pushing to Move for “My” to “Our” Needs, Problems, Solutions
- Doctrine of Equitable Apportionment
- Been Tested – No Return the the Supreme Court
- No More Authority Than The Members Wish To Use
- Open Window on the Process –
 - Public Engagement



Helpful to Levee Safety Program

- Forum for Adaptive Management
- Equity among Authorities
- The “Nudge” to Focus on Interstate Levee Issues



Problems To Try To Avoid

- Funding
- Closed Door Court Negotiations v Open Public Process
- Need Decision Makers at the Table
 - Level of Engagement



Questions ????

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Commission / Decree Parties

- New York
- New Jersey
- Pennsylvania
- Delaware
- Federal Government
- New York
- New Jersey
- Pennsylvania
- Delaware
- New York City



Lessons Learned

- A River Should Bind a Region Together, Not Divide It. Focus on Needs and Solutions, Not Boundaries
- Each Party Must Be Willing To Give A Little
- Parties Have To Be Willing To Adapt – The Plan Should Not Be Expected To Last For Years
- Someone Needs To Be The “Nudge”



Difficulties

- Need for Unanimous Vote of the Parties to the Supreme Court Decree
- Very Slow Negotiations
- In Beginning, All about Water Supply;
 - Need to Account for Ecological Needs and Flood Mitigation
- Once an Allocation is Made, Difficult To Change
- Lack of Data, Place Holders
- **No Silver Bullet!**

