

Presented to an advisory committee of the DRBC on October 16, 2018. Contents should not be published or re-posted in whole or in part without the permission of DRBC.

Population Served by the Delaware River Basin

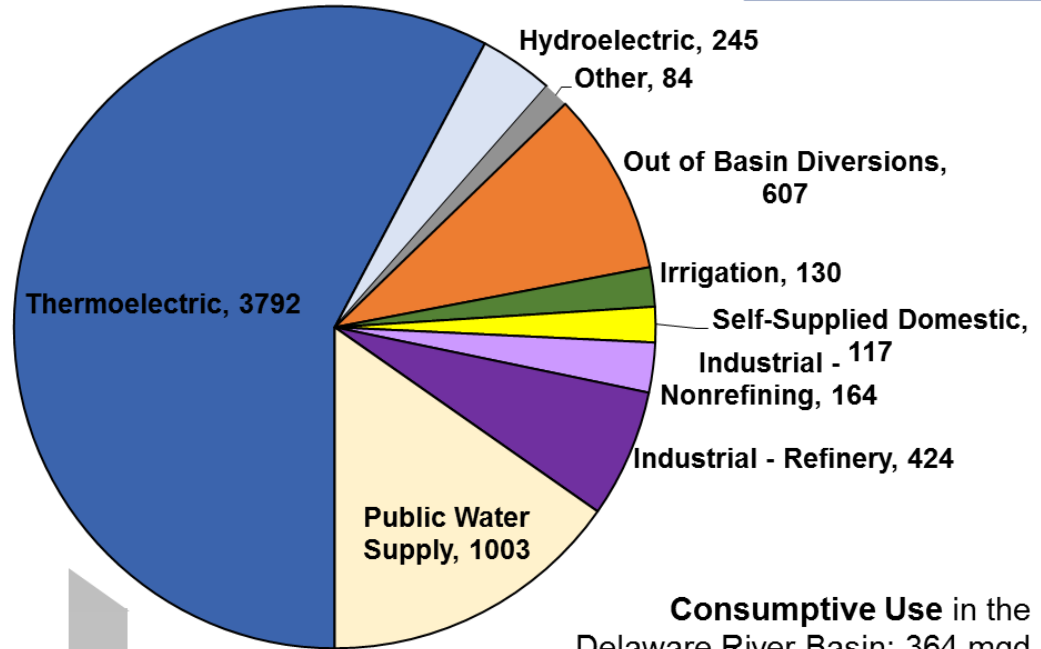
Seung Ah Byun, PhD, PE
Water Resource Engineer, DRBC
WMAC
October 2018

CY2016: Water Use

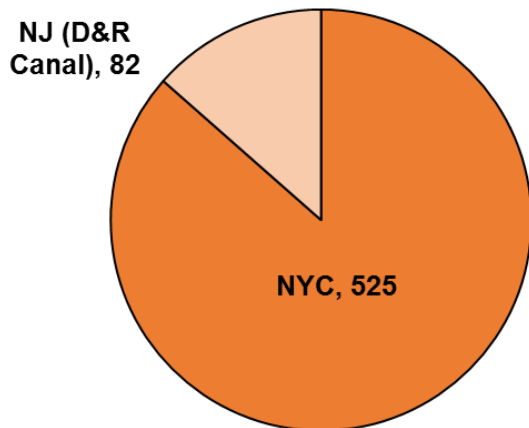


Total Water Withdrawals (ground and surface) from the Delaware River Basin: 6,565 mgd

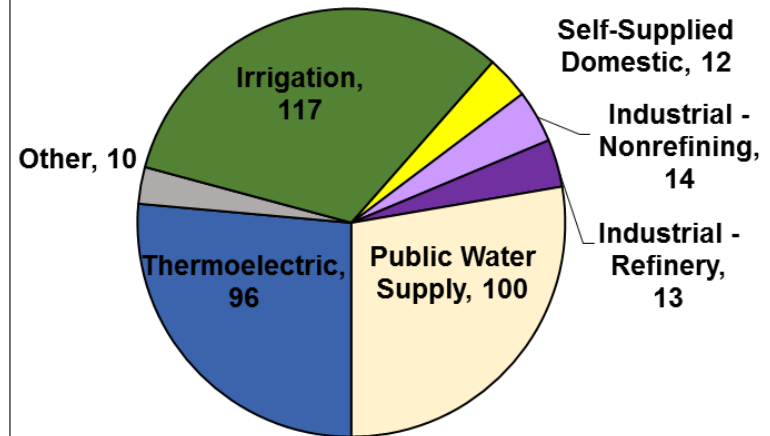
- Thermoelectric
- Hydroelectric
- Other
- Out of Basin Diversions
- Irrigation
- Self-Supplied Domestic
- Industrial - Nonrefining
- Industrial - Refinery
- Public Water Supply



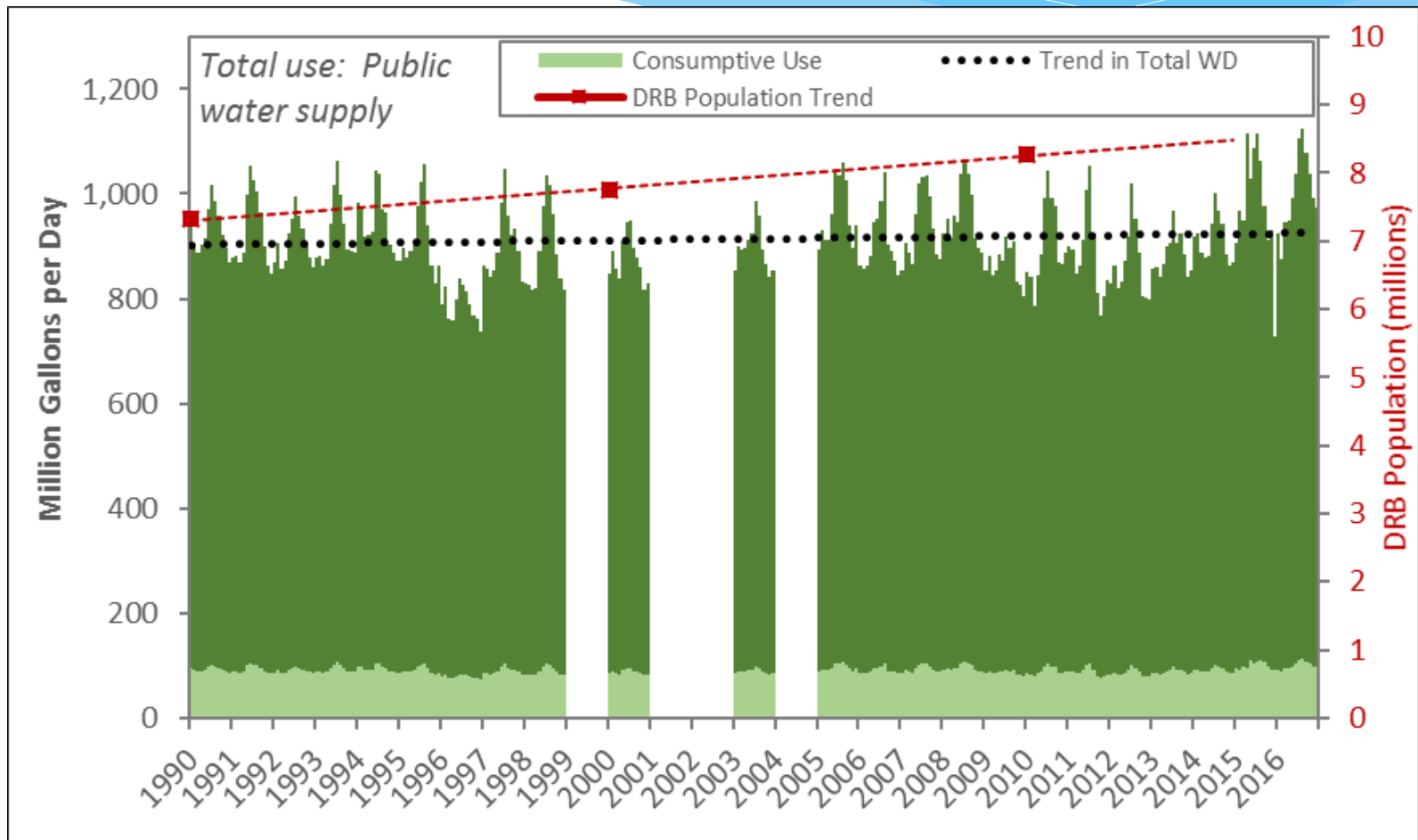
Major Exports from the Delaware River Basin: 607 mgd



Consumptive Use in the Delaware River Basin: 364 mgd



PWS Withdrawal Trend vs Population Growth in DRB



Estimation of Population Served by DRB Water

2016 Data

(provisional, under review by the WMAC)



Basin Population:

2010 population	8.25 MM	
Change in population 2010-16	0.09 MM	
Estimated DRB 2016 population		8.34 MM
NJ Served from Diversion		
Average NJ diversion	84 MGD	
2016 per capita use	125 gpcd	
Equivalent NJ population served		0.67 MM
NYC Population		
Estimated 2016 population	8.54 MM	
DRB fraction of 2016 supply	47%	
Equivalent NYC population served		4.01 MM
Outside NYC Served		0.50 MM
Chester County Import – 2016		
PADEP reporting	-0.14 MM	
Chester Water Authority bulk sales	-0.06 MM	
Total population served by Chester import		-0.20 MM

Grand Total Estimated Population Served		13.3 MM

**TOTAL POPULATION
in the
DELAWARE RIVER
BASIN:
8.3 million**

PA
5.6
million

NY
0.1
million

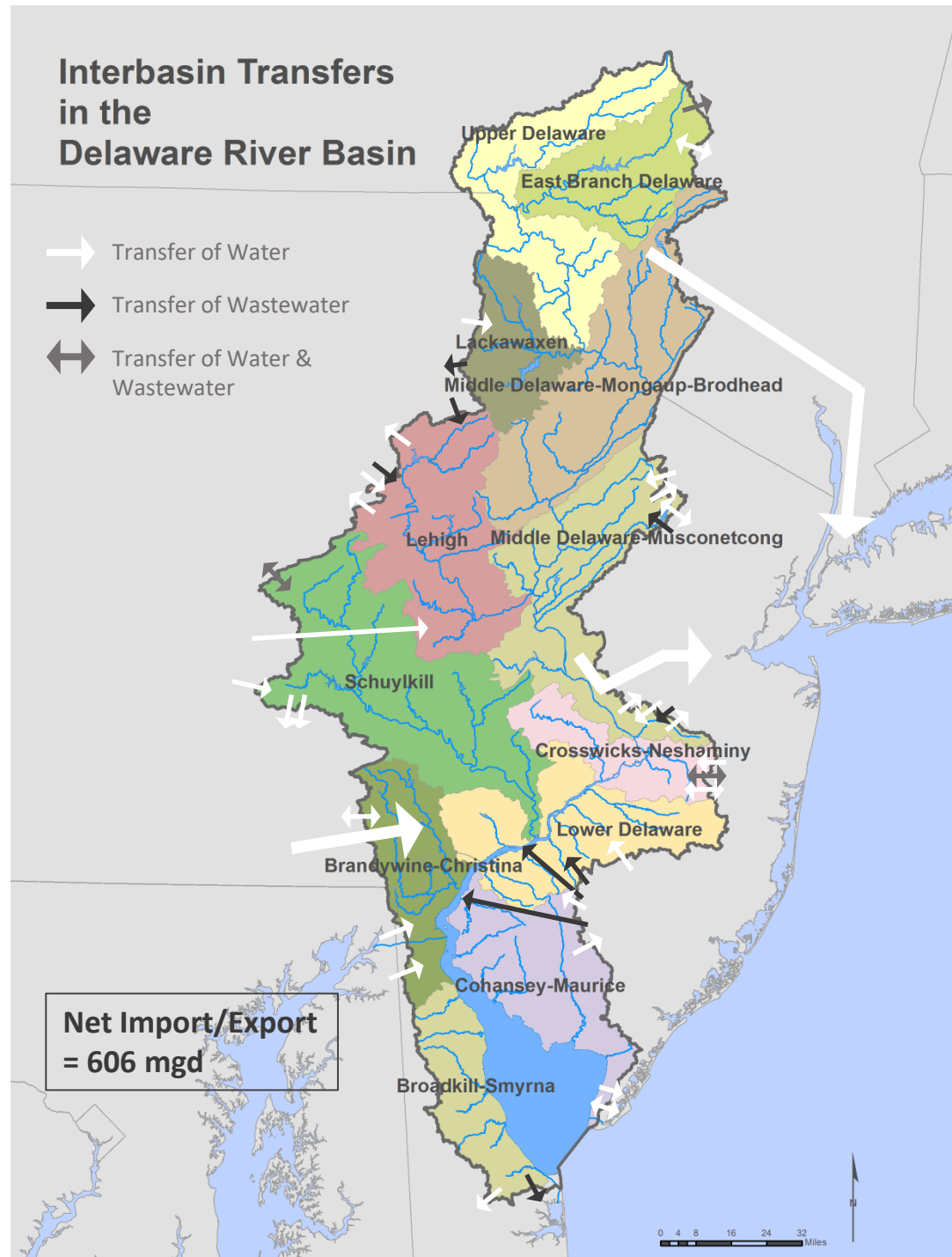
NJ
1.9
million

DE
0.7
million



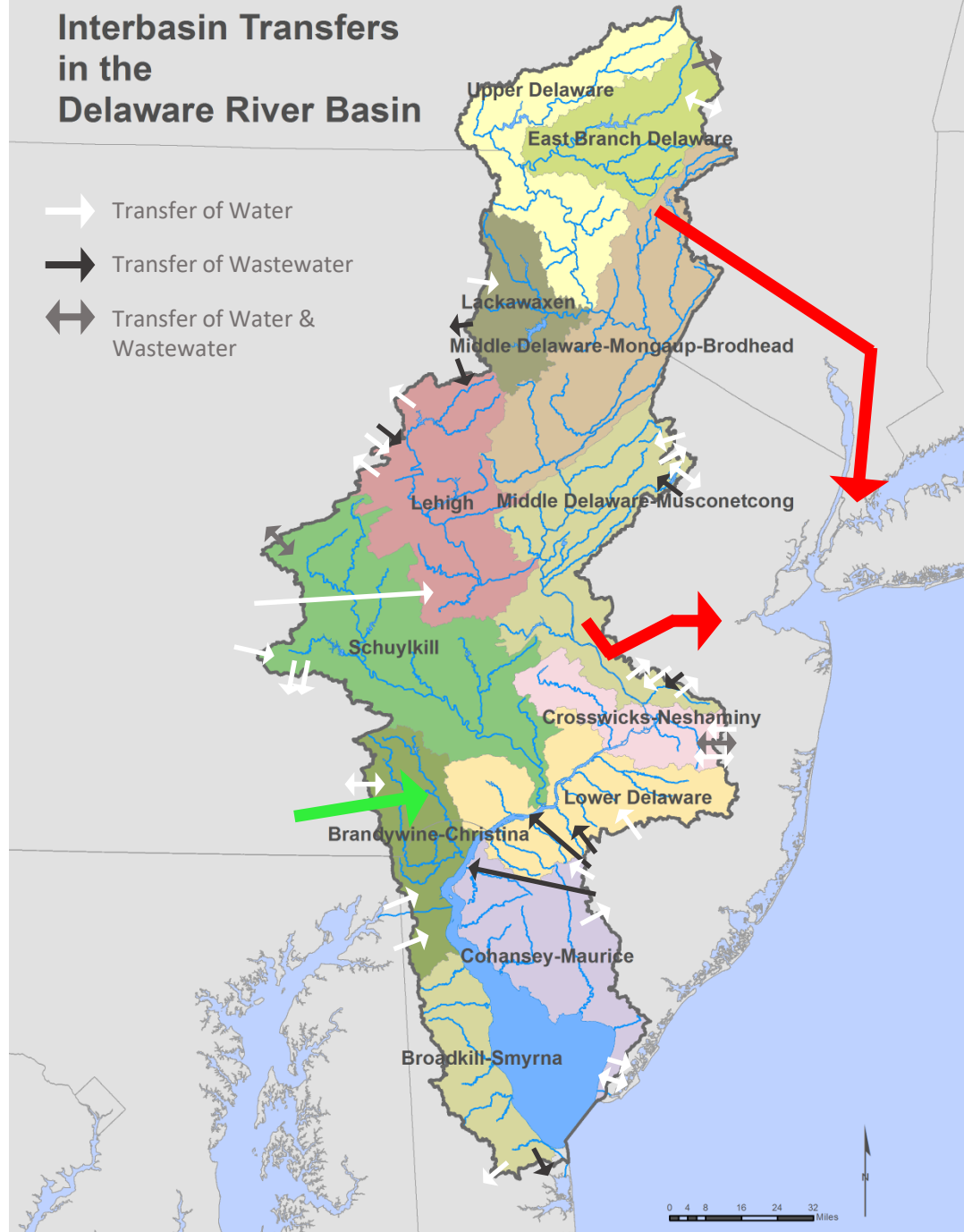
Interbasin Transfers in the Delaware River Basin

- Transfer of Water
- ➡ Transfer of Wastewater
- ↔ Transfer of Water & Wastewater

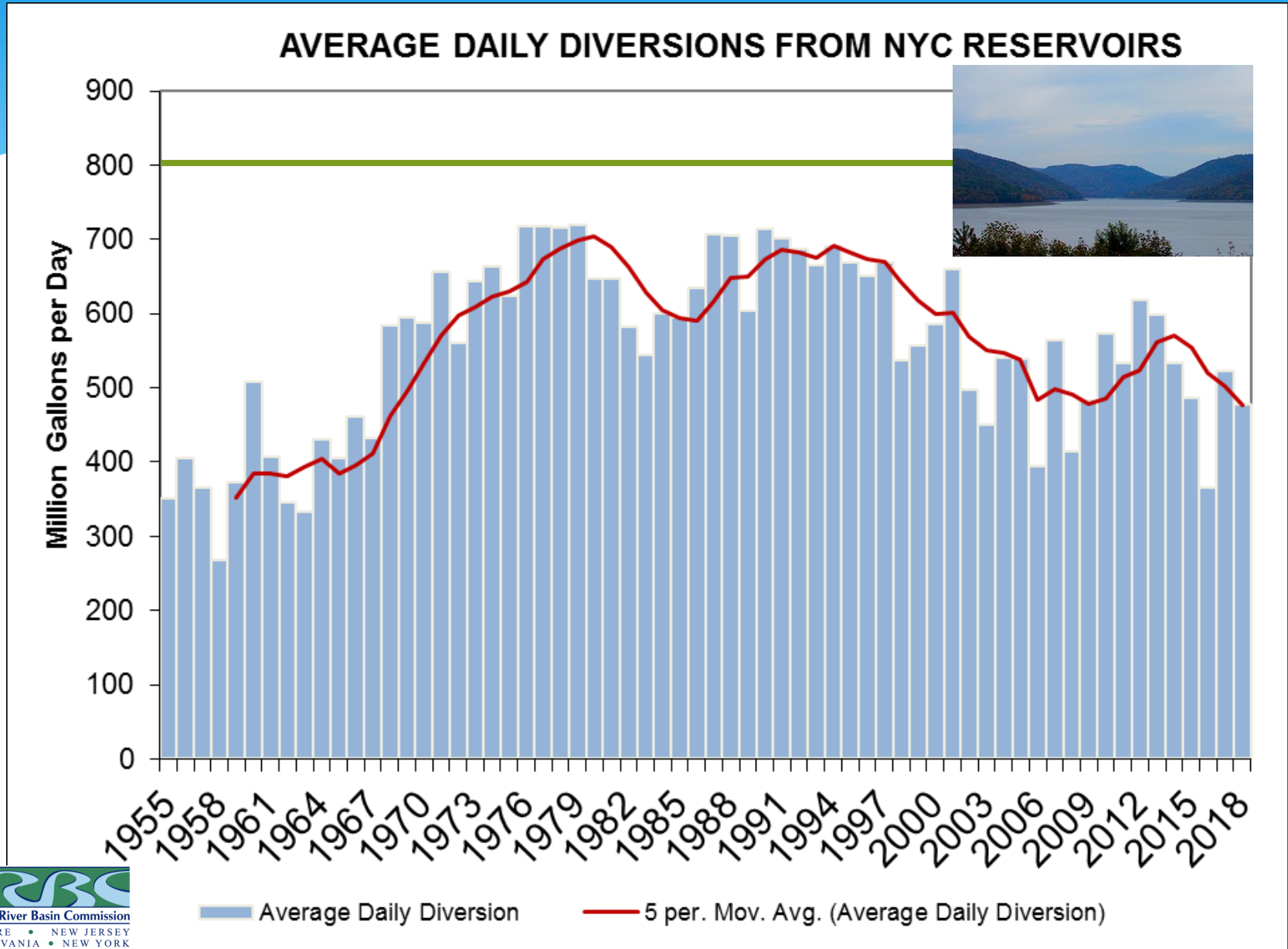


Interbasin Transfers in the Delaware River Basin

- Transfer of Water
- ➡ Transfer of Wastewater
- ↔ Transfer of Water & Wastewater



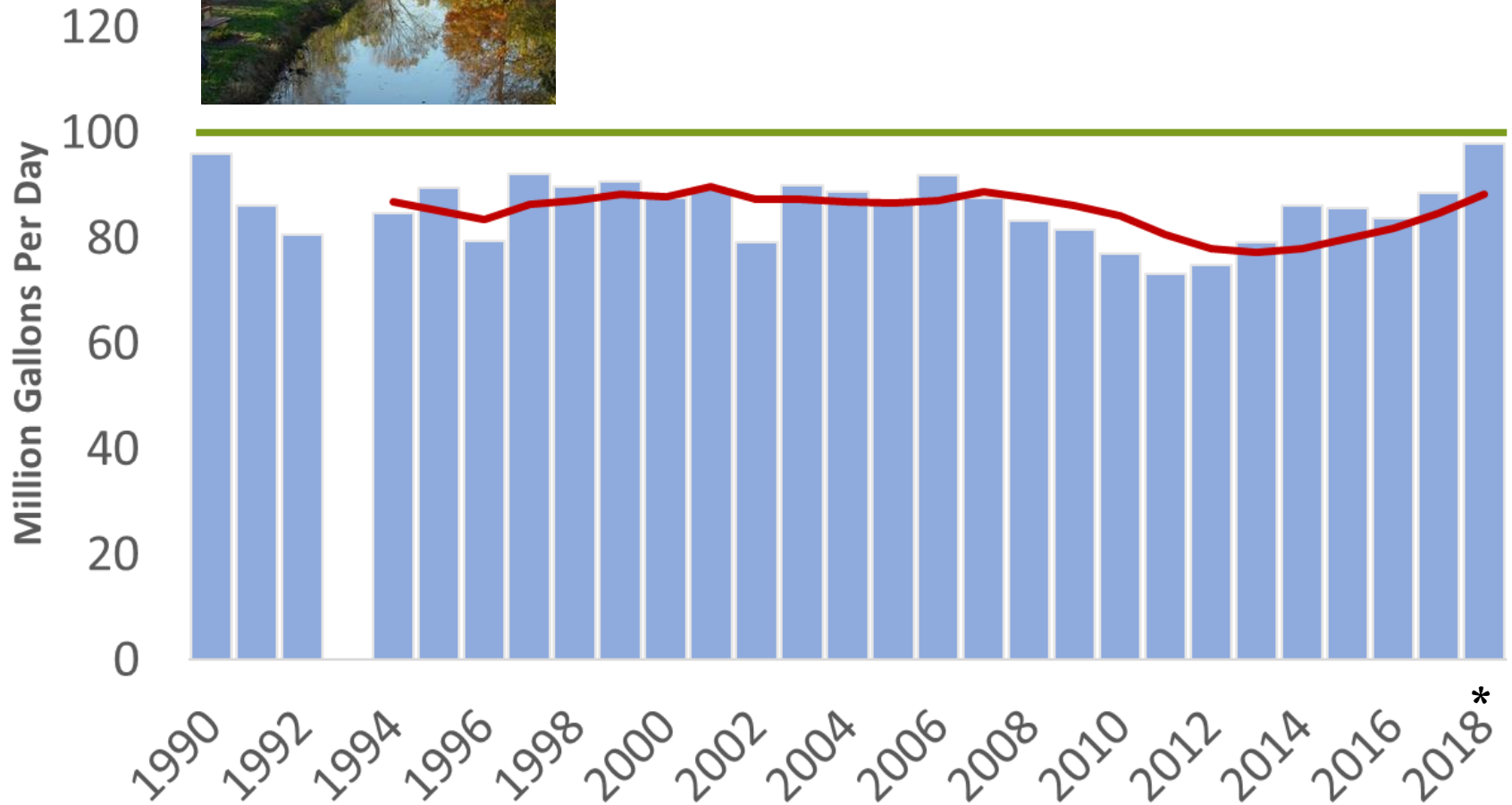
Water Exported to New York City from Delaware River Basin 1955 - 2018 (Annual Data)



Water Exported via D & R Canal from Delaware River Basin 1990 - 2014 (Annual Data)



AVERAGE DAILY DIVERSIONS D&R CANAL



Estimation of Population Served by DRB Water 2016 Data

(provisional, under review by the WMAC)



Basin Population:

2010 population 8.25 MM

Change in population 2010-16 0.09 MM

Estimated DRB 2016 population **8.34 MM**

NJ Served from Diversion

Average NJ diversion 84 MGD

2016 per capita use 125 gpcd

Equivalent NJ population served **0.67 MM**

NYC Population

Estimated 2016 population 8.54 MM

DRB fraction of 2016 supply 47%

Equivalent NYC population served **4.01 MM**

Outside NYC Served

0.50 MM

Chester County Import – 2016

PADEP reporting -0.14 MM

Chester Water Authority bulk sales -0.06 MM

Total population served by Chester import **-0.20 MM**

Grand Total Estimated Population Served

13.3 MM

Discussion / Questions



Photo: Thanasis Zovollis/Getty Images