Water Use and Groundwater Protected Area Update - 2017

Water Management Advisory Committee (WMAC)

October 22, 2019

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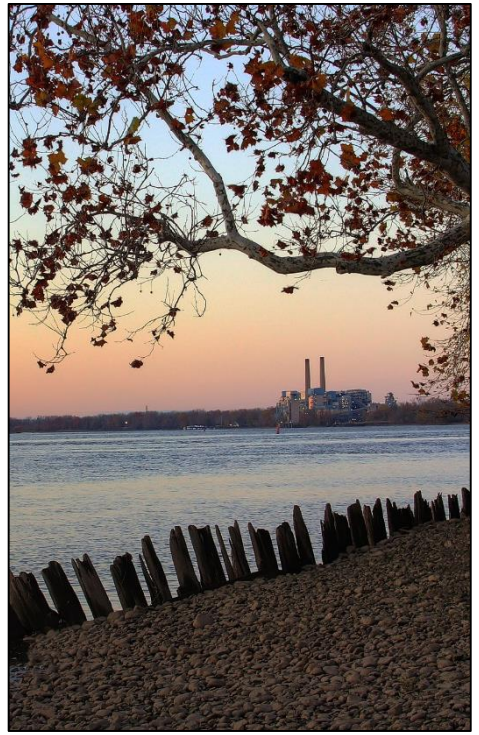
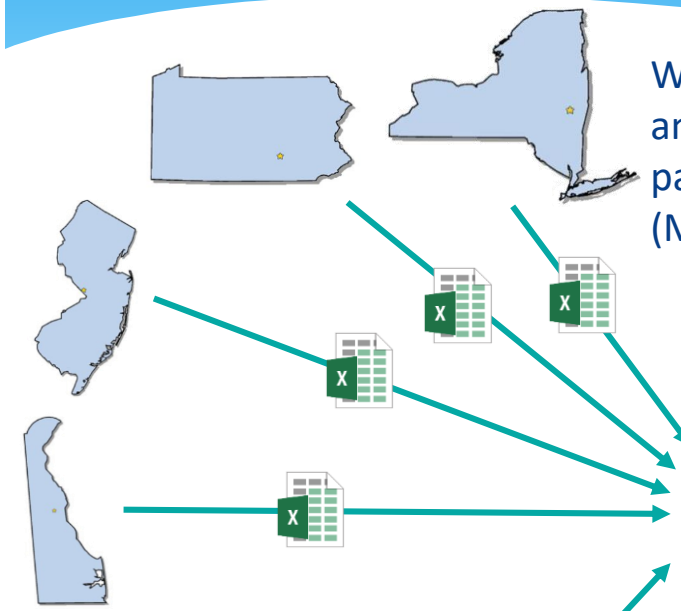


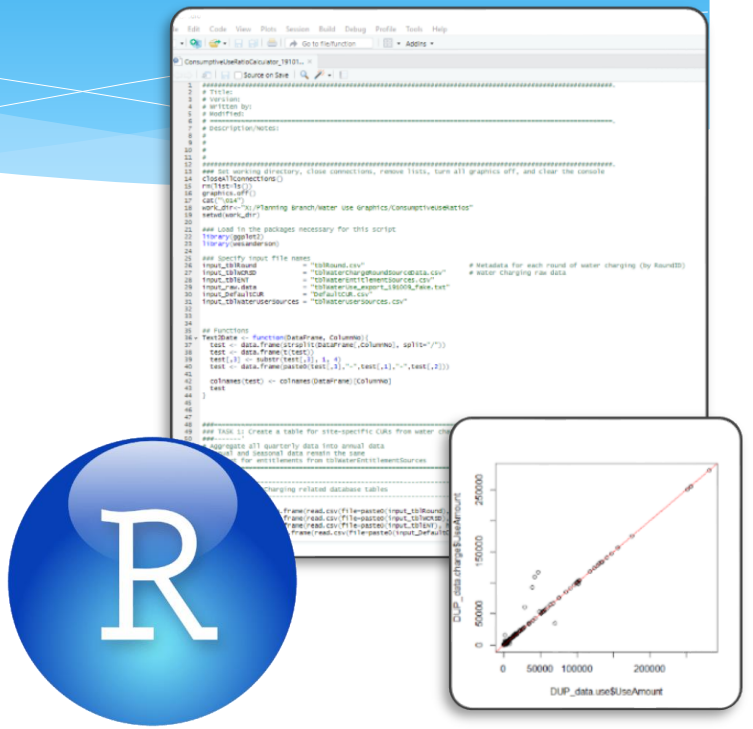
Photos: Samuel Vovsi

Where does all of this data come from?



WU data received annually from state partners (MS Excel)

Query the data for specific systems



Analyze data outputs using computational programs such as R-Studio and/or MS Excel.

WU data received annually through the DRBC Water Charging Program

DRBC staff:

- Review data (QAQC)
- Assign our own IDs
  (System Level) OAID = OrgAddressID
  (Source Level) WSID = WaterSourceID
- Upload to an MS Access Database

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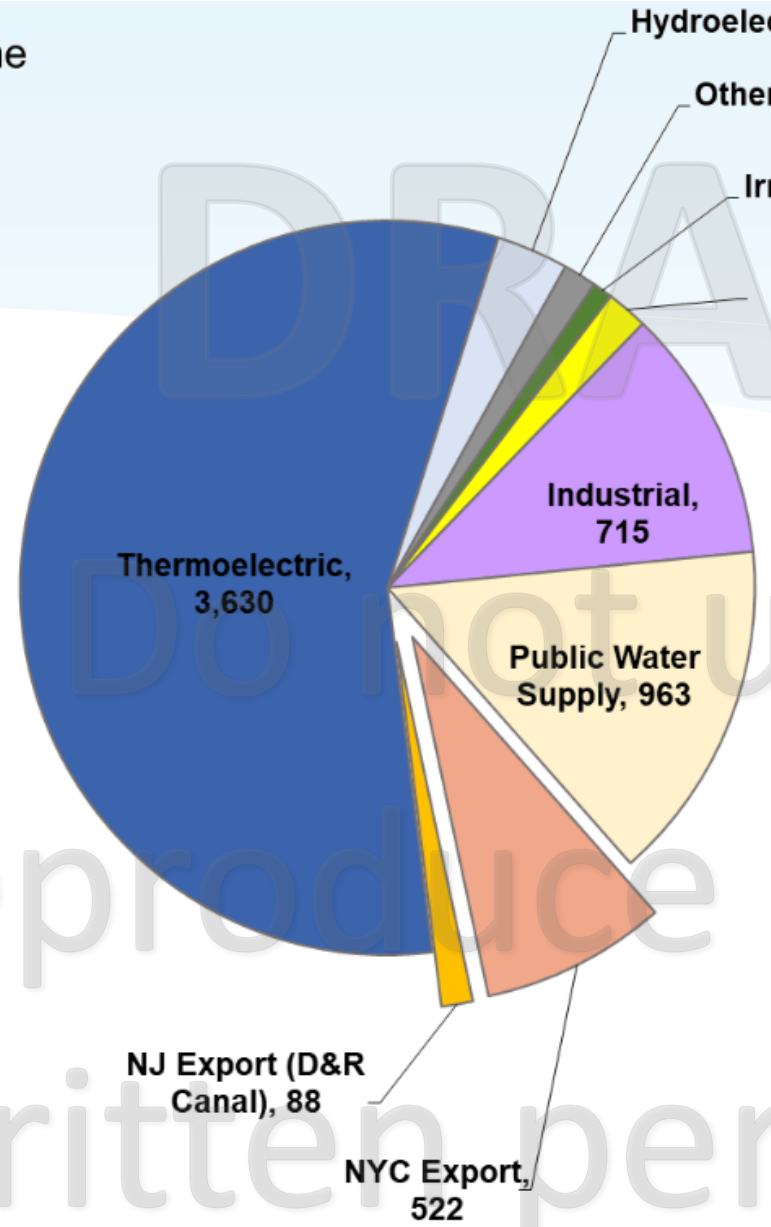
Total Water Withdrawals (ground and surface) from the Delaware River Basin, **2017**: 6,389 mgd



- Thermoelectric
- Hydroelectric
- Other
- Irrigation
- Self-Supplied Domestic
- Industrial
- Public Water Supply
- NYC Export
- NJ Export (D&R Canal)

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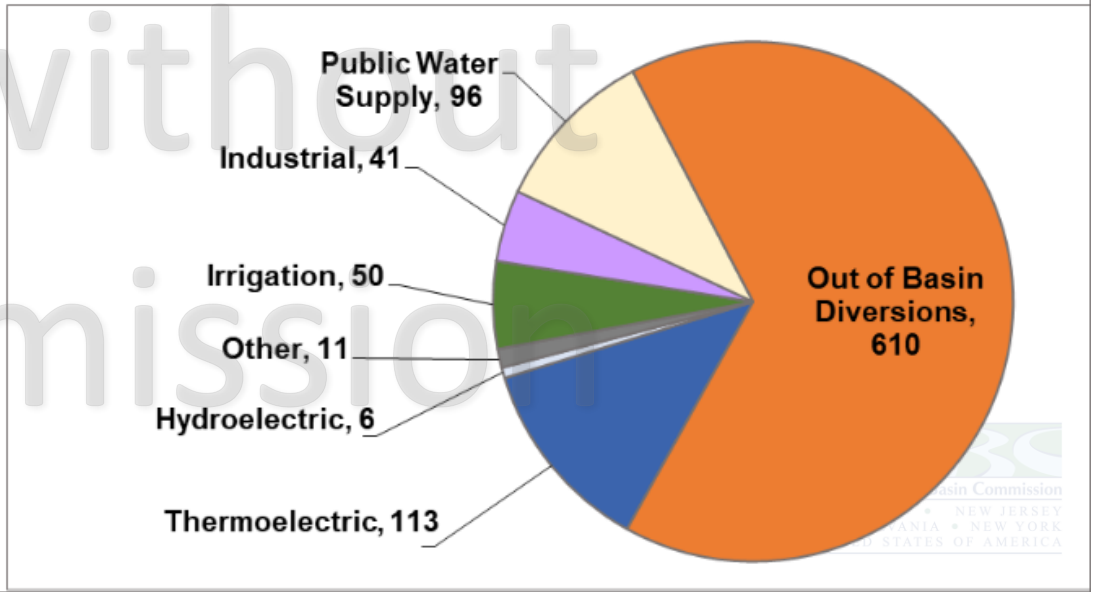
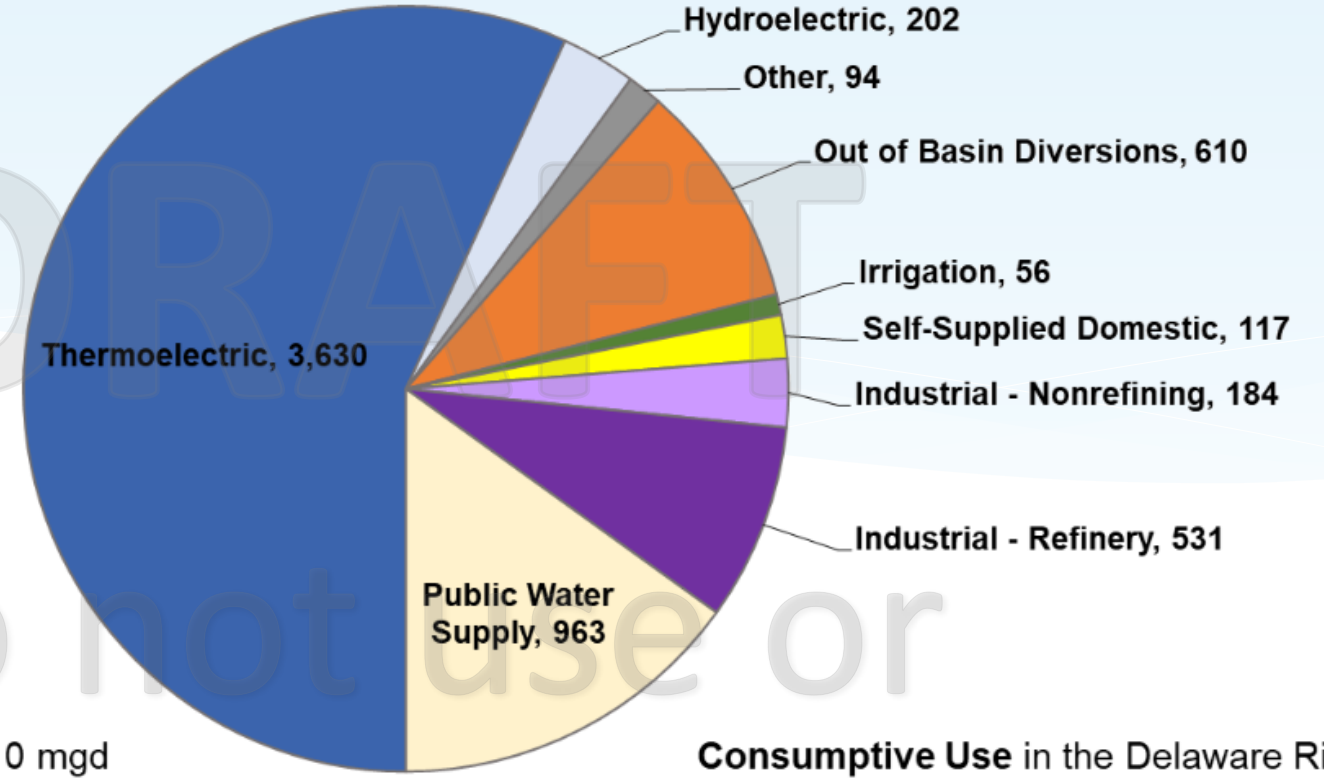
Consumptive Use and Major Basin Exports: 929 mgd



Total Water Withdrawals (ground and surface) from the Delaware River Basin, **2017**: 6,389 mgd

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



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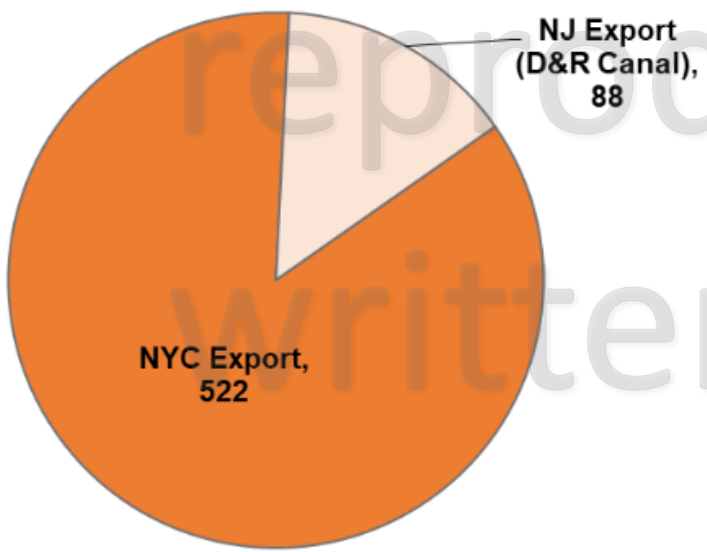
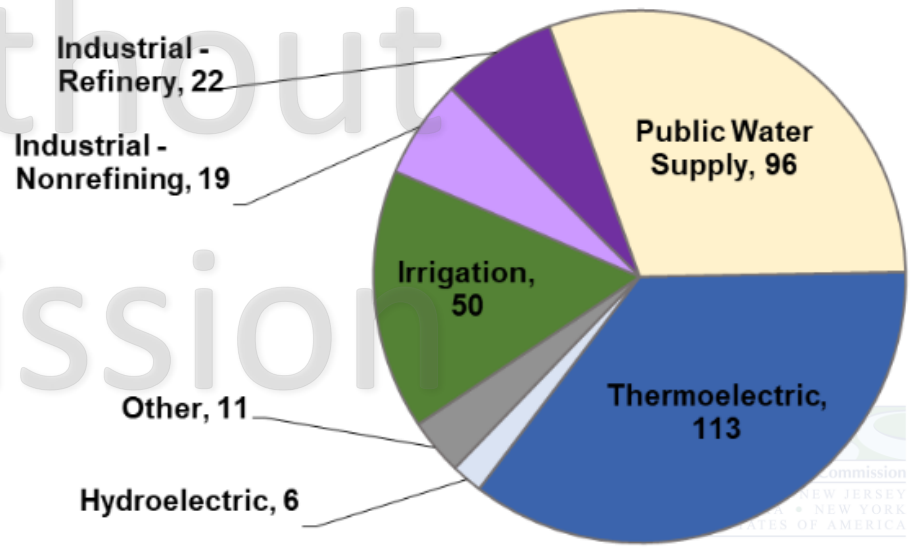
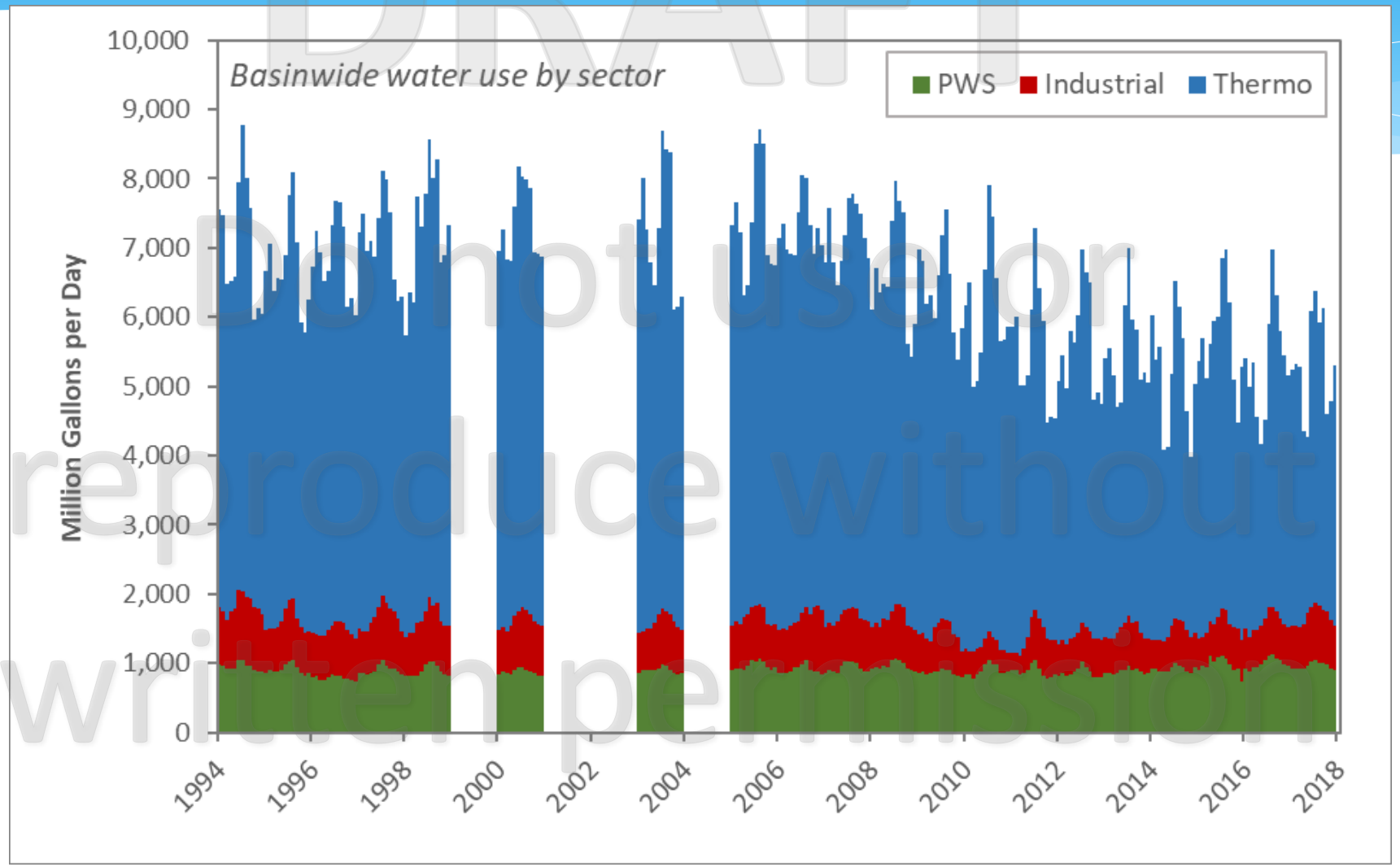
Major Exports from the Delaware River Basin: 610 mgd



Consumptive Use in the Delaware River Basin: 318 mgd



Water Use Trend – Three Key Sectors



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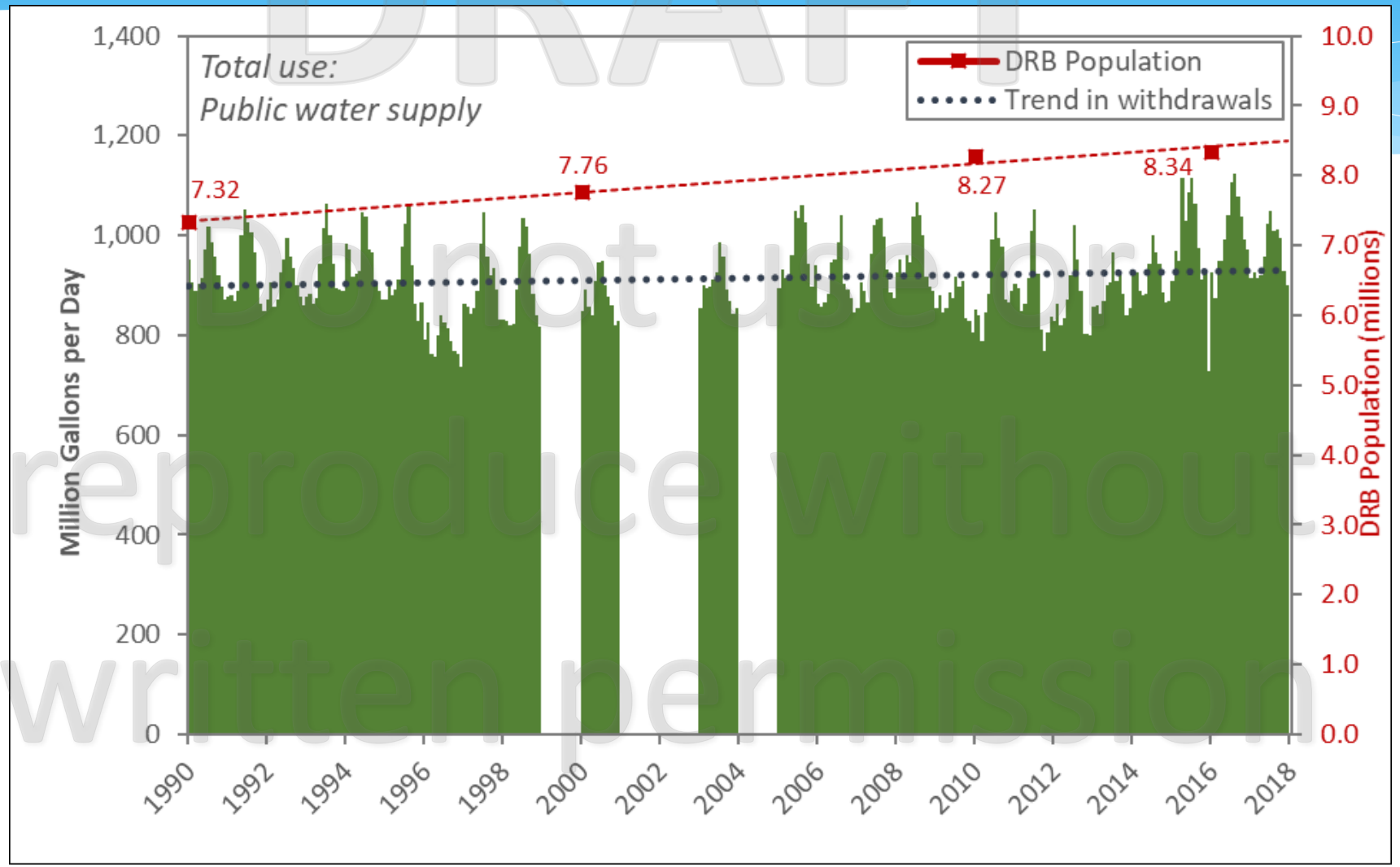
Water Use Trend – Public Water Supply



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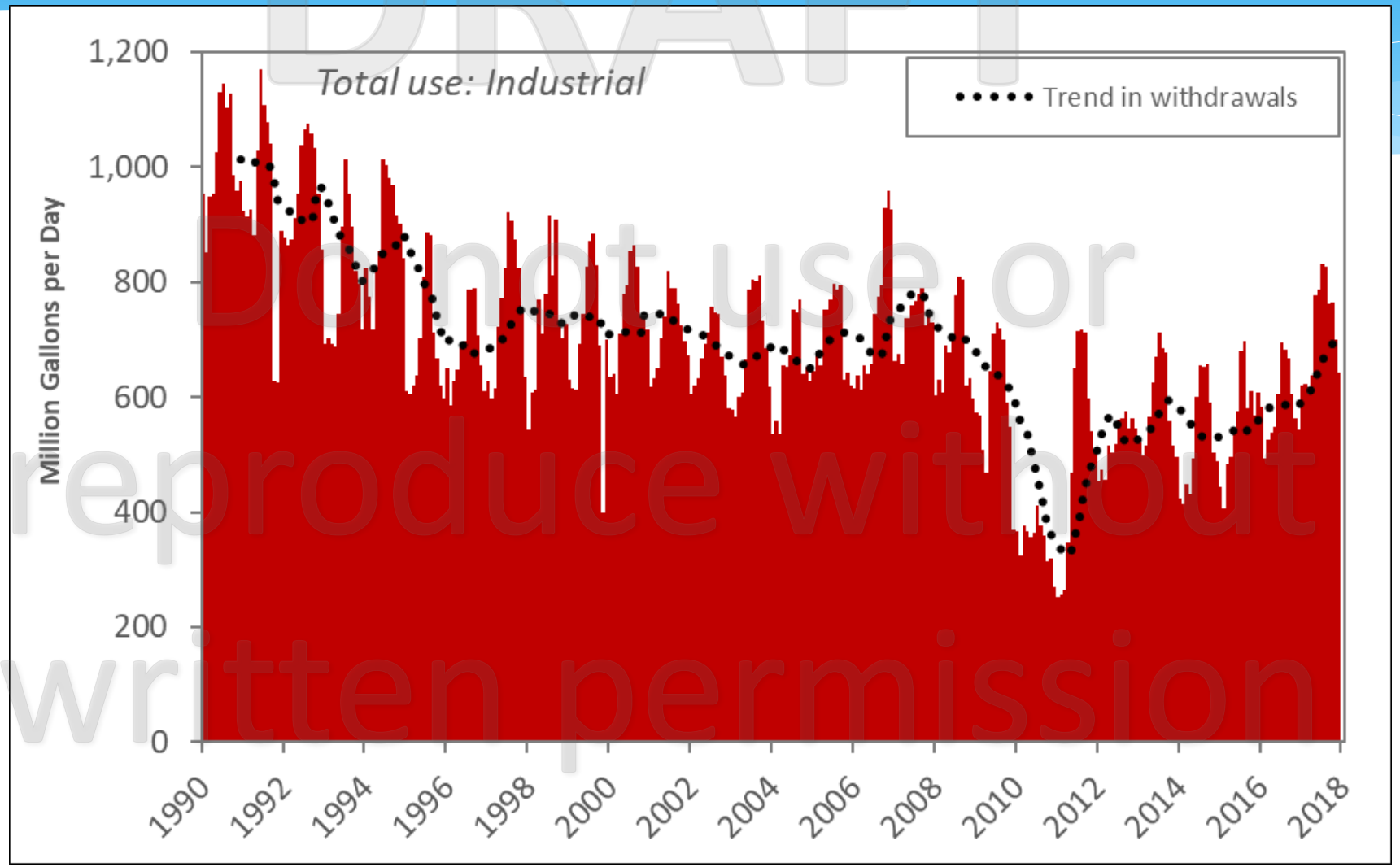
Water Use Trend – Industrial



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Water Use Trend – Spatial Distribution by Sub-Region

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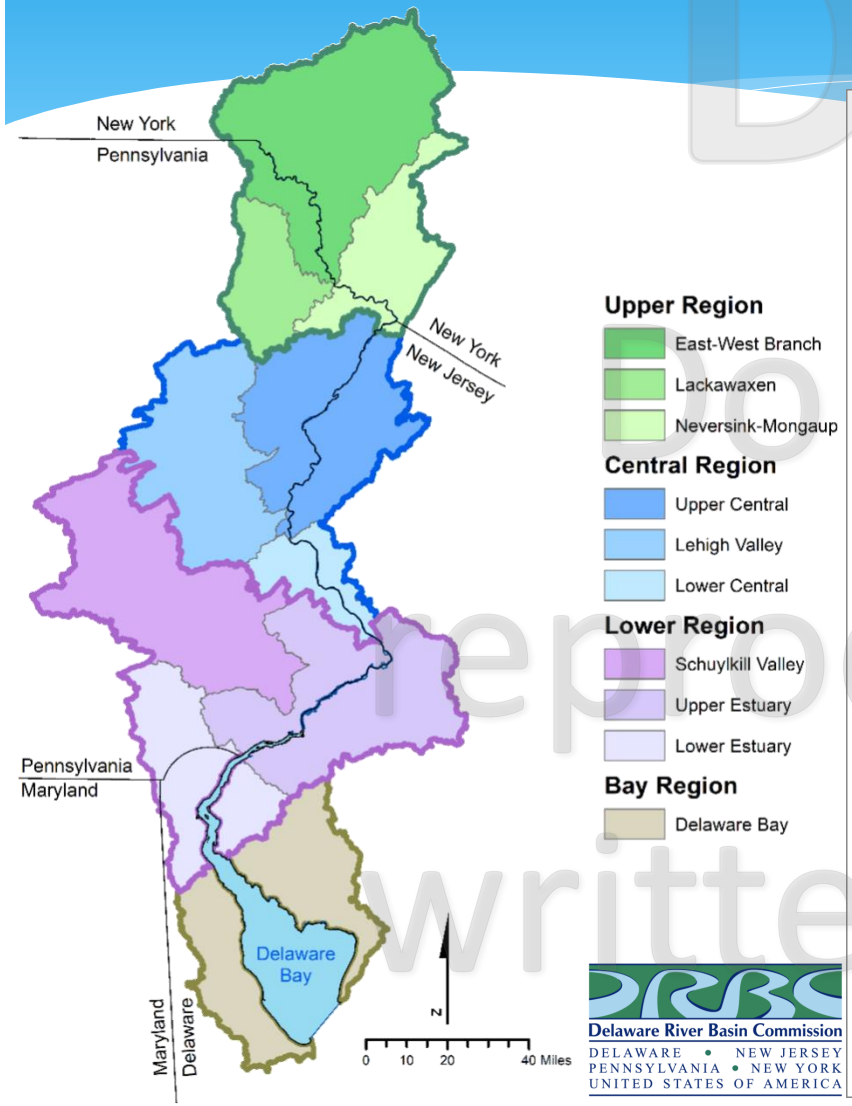

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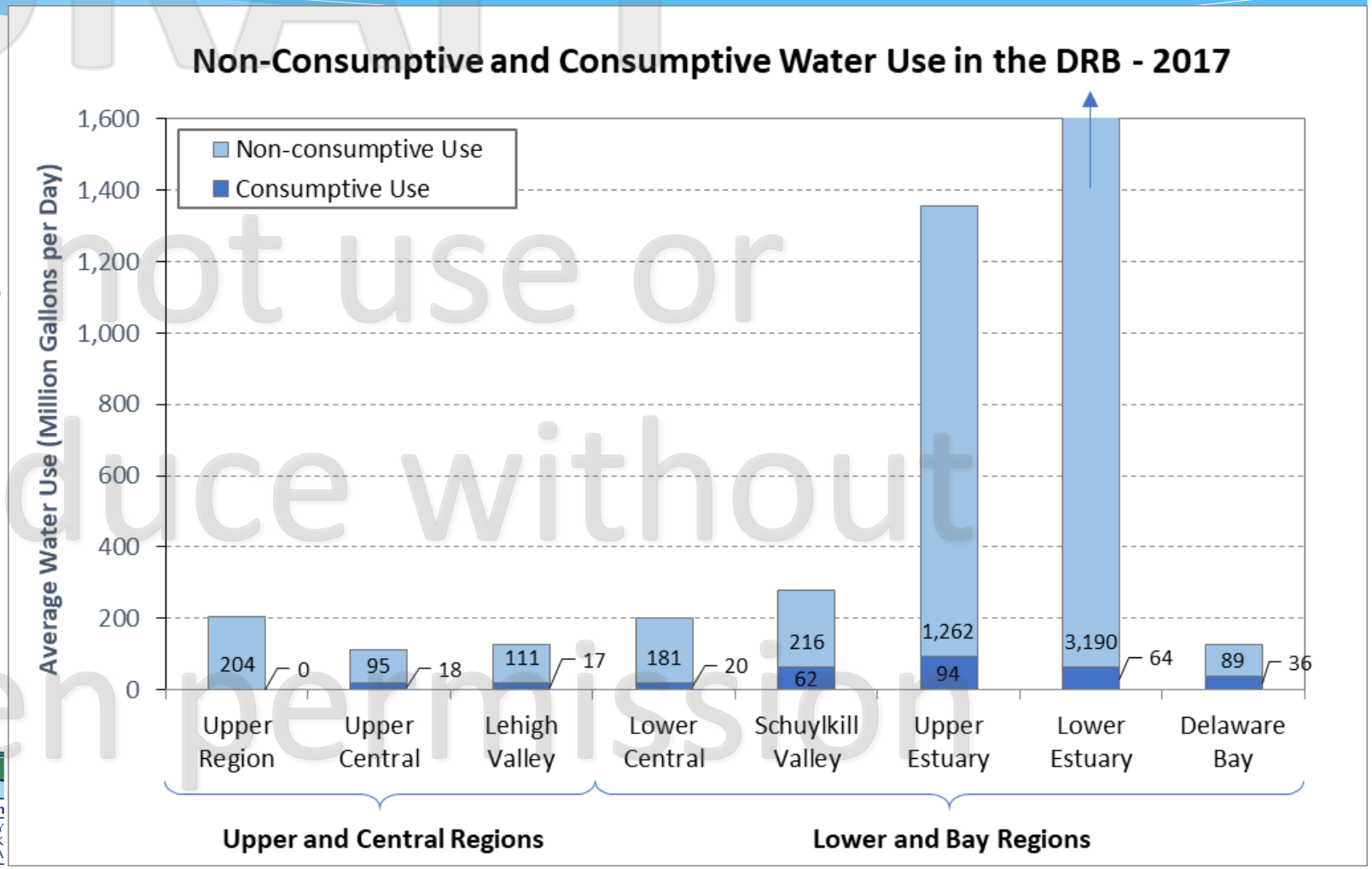
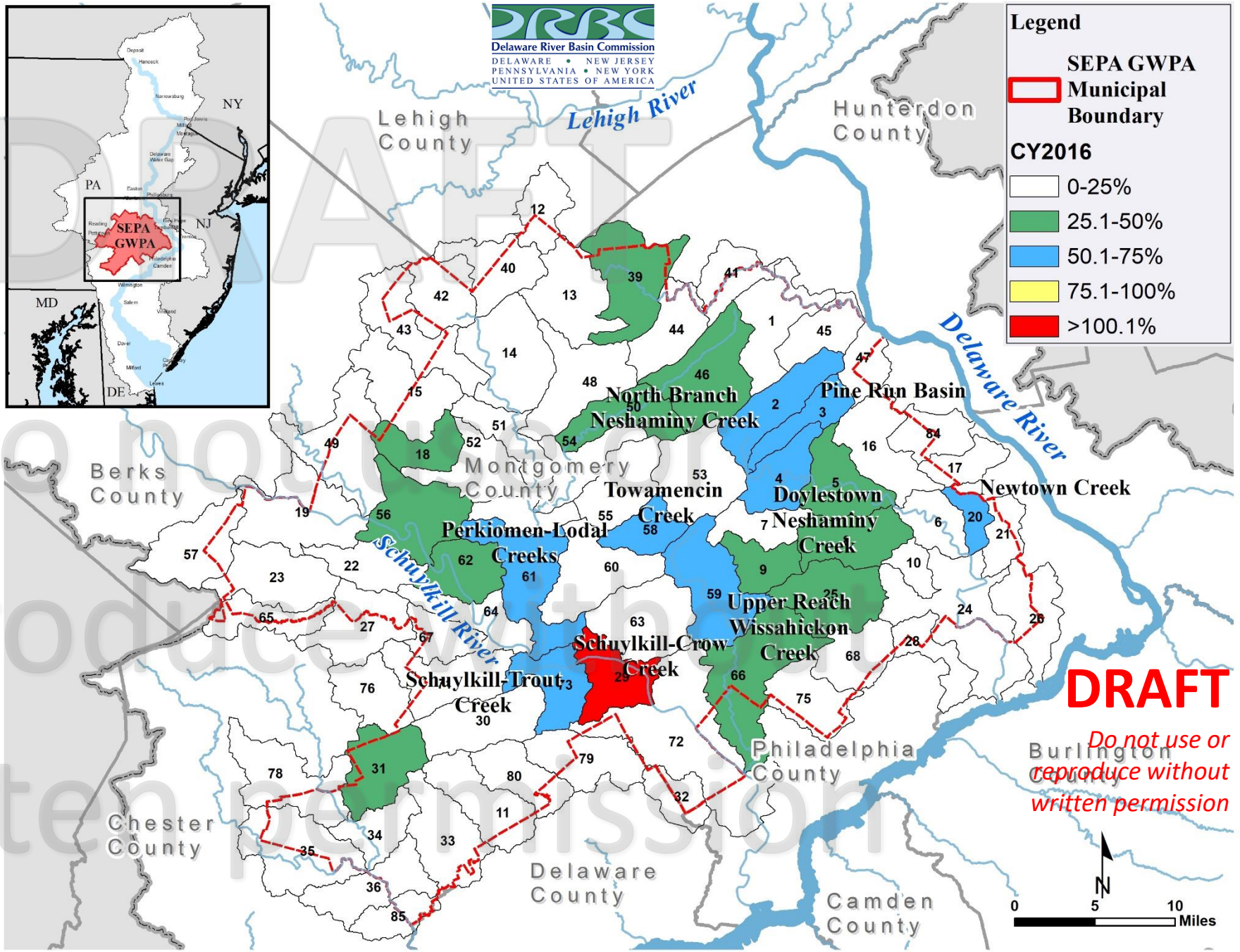


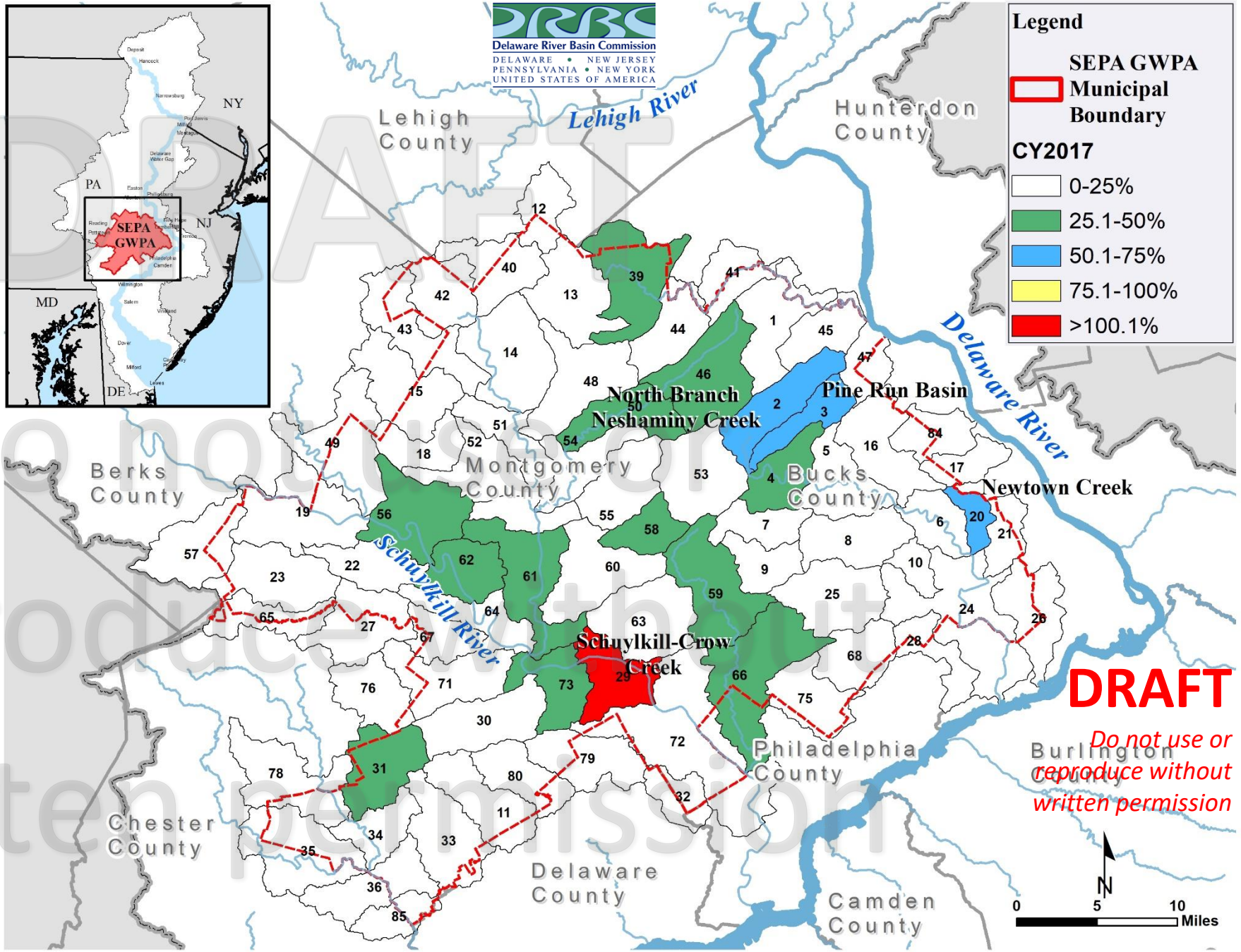
2016 Groundwater Percent Withdrawals Based on Withdrawal Limits

* **Subbasin Names > 50% Withdrawal Limits**
  * 29-Schuylkill- Crow Creek (171%)
  * 61-Perkiomen-Lodal Creeks (64%)
  * 3-Pine Run Basin (64%)
  * 2-North Branch Neshaminy Creek (63%)
  * 20-Newtown Creek (63%)
  * 4-Doylestown Subbasin Neshaminy Creek (63%)
  * 59-Upper Reach Wissahickon Creek (58%)
  * 73-Schuylkill-Trout Creek (53%)
  * 58-Towamencin Creek (52%)



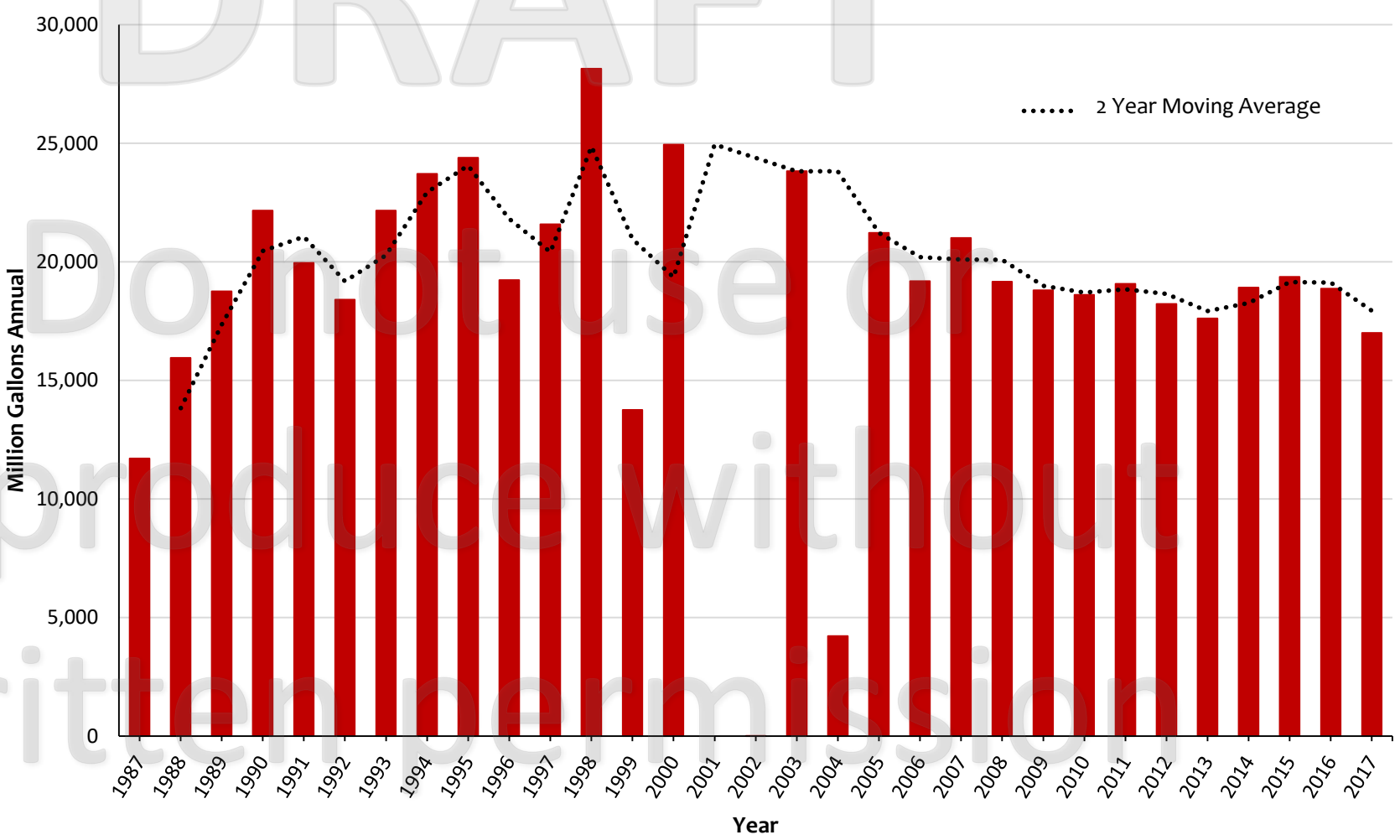
2017 Groundwater Percent Withdrawals Based on Withdrawal Limits

* **Subbasin Names > 50% Withdrawal Limits**
  * 29-Schuylkill- Crow Creek (168%)
  * 3-Pine Run Basin (70%)
  * 2-North Branch Neshaminy Creek (67%)
  * 20-Newtown Creek (61%)



Southeastern Pennsylvania Groundwater Protected Area

- Cumulative groundwater withdrawals from 1987-2017
- Reductions since 2000



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