

The Delaware in Conflict

SUMMARY:

The opportunity for the Delaware system's down-basin States to finally dispense with an accommodation that was extended to NYC in the 1980's, and protect their future interests; will occur with the return to service of the Croton system in 2013.

Trout Unlimited identified the 1980's "800mgd diversion" accommodation as unsustainable, and the root cause of major problems for the Delaware system that has allowed NYC to overdraft and withhold water from the Delaware's rivers and down-basin States, while underutilizing the available water from the Catskill and Croton systems.

Fishery and conservation coalitions agree: it's time to hit the reset button, and restore the principle of equitable apportionment to the management of the Delaware system's resources.

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What began as an effort to improve the upper-basin's cold water fisheries; is developing into a battle to protect the ecology of the entire river, and the future interests of the down-basin States.

Background:

NYC's Water Supply System (WWS) is comprised of three major systems: the Delaware system; the Catskill system; and the Croton system. The three systems are used in combination to supply drinking water to approximately 9 million people including: New York City (NYC), and residents of outside communities in Westchester, Putnam, Orange, and Ulster counties.

A dispute in the 1950's between New Jersey and New York, over NYC's intention to increase water diversions from the Delaware system after construction of Cannonsville reservoir, resulted in a US Supreme Court decree in 1954. The 1954 Decree authorized diversions of 800mgd by the City of New York, and 100mgd by the State of New Jersey; subject to meeting downstream flow guarantees at Montague NJ (1,750cfs) and Trenton NJ (3,400cfs); and the maintenance of an overall NYC Water Supply System safe yield of not less than 1,665mgd, linking the Delaware system to the performance of all three systems.

The 1954 Decree quantities were based on an analysis of the 1930's drought, which was the drought-of-record of that time. A subsequent more severe drought in the 1960's, became (and remains) the new drought-of-record; and resulted in a drop in NYC's overall Water Supply System's safe yield from 1,665mgd to 1,290mgd; and a drop in the Delaware system's safe (allowable diversion) yield from 800mgd to 480mgd.

It was clear at this point, that the Delaware system did not have the capacity to support the combined demands of NYC's 800mgd withdrawal rate, and the downstream flow guarantees for Montague and Trenton.

The drought of 1980-82 brought things to a head, and resulted in the development of a "Good Faith Agreement" (GFA) between the Delaware system Decree Parties. The average consumption rate of NYC's Water Supply System preceding the drought had climbed above 1,600mgd (close to the original WWS safe yield of 1,655mgd), and NYC needed help. The GFA accommodated NYC by permitting the City to continue to divert up to 800mgd from the Delaware system in normal conditions; but progressively reduced both NYC's permitted diversion rate and the down-basin flow guarantees during drought conditions. At the same time however, the City was placed on notice to take immediate steps to reduce its per capita consumption rate.

By 2009, NYC had reduced its average consumption rate from 1,600⁺mgd to approximately 1,150mgd, despite a growing population. While a notable achievement, this represents a per capita consumption rate of approximately 130gpd vs the national average for urban environments of just under 100gpd; so NYC still has a ways to go. The continuing trend in reduced consumption is encouraging.

With NYC's overall consumption now being below the 1960's (1,290mgd) revised safe yield, and continuing to fall; all should be well. However, this is not the case.

All is not well:

Despite the reduction in the City's consumption rate, NYC has continued to assert the right to divert up to 800mgd from the Delaware system; and all agreements between NYC and the Decree Parties since the GFA, have perpetuated this accommodation. Trout Unlimited (TU) has identified this issue as the root-cause of major problems that have been impacting the Delaware system for more than 40 years.

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So why, with the consumption problem being addressed, should NYC continue to need to make such high demands on the Delaware system?

Historical usage indicates that NYC has a preference for the Delaware system's water vs the Catskill and Croton systems; based on water quality. This preference has resulted in NYC over-drafting and withholding the Delaware system's water, at the expense of releases to the Delaware's rivers and down-basin States; while underutilizing the available water from the Catskill and Croton systems.

Indeed, review of the Croton system indicates that there has been a progressive reduction in the use of the system since the early 1980's (coincidental with the Good Faith Agreement) due to water quality issues; and that the system has been essentially off-line since 2003. As a result, NYC has become more and more dependent on the remaining Catskill and Delaware systems.

Compounding the issue; during the same period, water quality standards have become more stringent, and with NYC striving to maintain a Filtration Avoidance Determination (FAD) status for the Delaware and Catskill systems, turbidity issues with the Catskill system have placed an even greater demand on the Delaware system.

Certain realities however, cannot be avoided:

- The poor quality of Croton system water does not change the safe yield of the Delaware system.
- Turbidity issues with the Catskill system, does not change the safe yield of the Delaware system.
- Future water quality standards will only become more stringent; and the eventual need to filter Delaware and Catskill water is inevitable.

Finally, NYC's Operations Support Tool (OST) White Paper contains language that suggests NYC intends to take even more water from the Delaware system in the future; and advises the down-basin States to start looking for alternative water supplies; switching the risk of the future from NY, to the down-basin States.

These developments run counter to the spirit and intent of the Good Faith Agreement, and the 1954 Decree.

So what's the Solution?

The Croton Water Treatment Facility (currently under construction) is forecast to come on-line in late 2013, and will restore up to 290mgd of high quality water to NYC's Water Supply System. At that point, all three systems will again be available to NYC.

With NYC's overall consumption under control, TU believes that the return of the Croton system will be the game changer that provides the opportunity for the Decree Parties to finally dispense with the 800mgd GFA accommodation, and restore the principle of equitable apportionment to the Delaware system's resources.

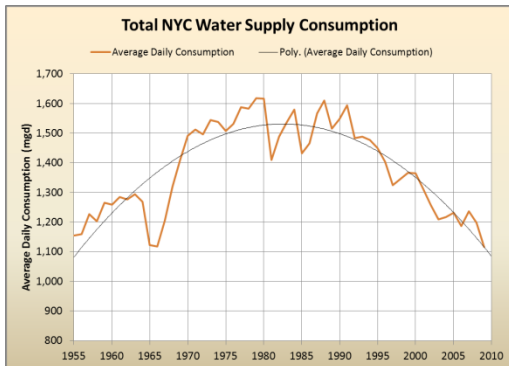
Accordingly, TU has presented the Decree Parties' Regulatory Flow Advisory Committee (RFAC) with an outline of a sustainable water management plan for the Upper Delaware River (UDR) system; called the Equitable Apportionment Plan (EAP).

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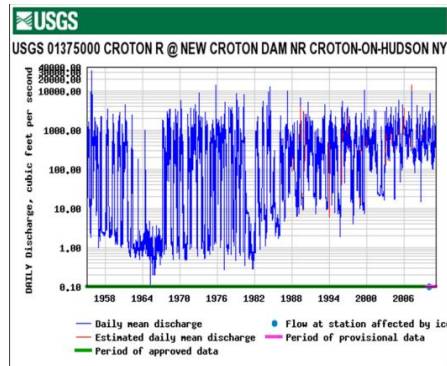
This plan:

- Provides and restores a sustainable and equitable apportionment of the Delaware system's resources between all Parties.
- Keys all water usage (both releases and diversions) to the available water quantity.
- Provides NYC with more water than traditional plans.
- Shares the risk of the future.
- Safeguards the future interests of the lower-basin States.

Recognizing NYC's current water issues and limitations; TU recommends that the Decree Parties adopt this plan once the Croton Water Treatment Facility comes fully on-line in 2013.



NYC's consumption has dropped from 1,600⁺ mgd to 1,150 mgd



Progressive increase in Croton System discharges to the Hudson



The Croton Water Treatment Facility under construction