

North Chautauqua County Water District



Water Purchase/Supply Agreement

Who's Does What?

Chautauqua County Legislature (formally creates Water District)

Water District Board

- Legislature designates membership to the board
- Representatives of each of the municipalities in the District
- Administrative body & implements District obligations under Agreement



- **Three core cost elements:** treatment (purification & lab), employees (salary & benefits), investment (capital & amortization costs for \$18.6 million planned work)
- City of Dunkirk to notify District each year of **actual expenditures** and revise rate for following year (based on percent change in average cost to produce water averaged over previous 3 years).
- **Transparency!** City and District Board will meet to review sources of changing costs and water volumes
- Pursuant to the terms of the Water Purchase/Supply Agreement, the District Board will determine the Municipal Purchase Rate by adding district reserve and debt service costs to the annual District Purchase Rate.
- The District budget will be reviewed and approved by the Legislature on an annual basis.

How Does it Work?



City of Dunkirk
Water
Treatment Plant

*City sells water to the district
Projected District Purchase Rate of
\$3.57/1,000 gal.*

North Chautauqua
County Water
District

*District sells water to municipalities
at the Municipal Purchase Rate of
\$4.57/1,000 gal.
(adds reserve and debt service costs,
projected at **\$1.00/1,000 gal.**)*

Sheridan

NCIWD

Pomfret

T.
Dunkirk

Portland

Brocton

*Each municipality bills their residential and commercial customers and adds their **local O&M, debt service costs and cost of lost water** (due to waterline leakage and fire protection use)*

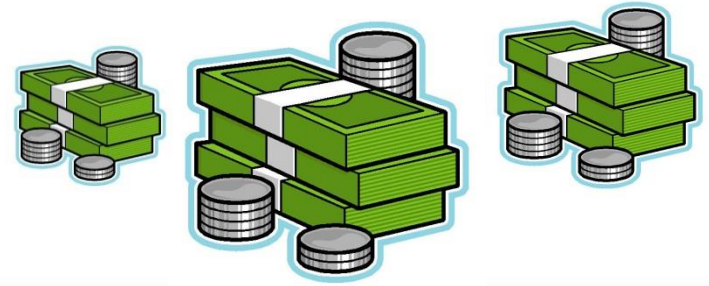
District Purchase Rate...

How is it calculated?

(First Year District Purchase Rate = \$3.57 per 1,000 gallons)

- Calculations based on FY 2013 and FY 2014 City water budget data
- Reducing the number of treatment plants and replacing with transmission lines saves the region approximately **\$350,000 per year**
- Cost allocation calculated top-down based on two principles:
 1. Everyone Wins
 2. Fairness
- Savings distributed to suppliers and users
 - 10% of savings assigned to suppliers
 - 90% of savings assigned to municipal users
- Cost allocation recalculated bottom-up based on:
 - The cost to produce and transmit water to District
 - Payment on pre-existing City assets used by the District

What will...



Increase the District Purchase Rate???

- Inflation in treatment costs or employee benefits
- Change in government treatment standards requiring higher treatment costs
- Additional treatment investments beyond expected \$18.6 million
- Higher bond interest rates than assumed 3% rate over 30 years
- Lower water volumes in City or District (high fixed costs)

Decrease the District Purchase Rate???

- Less than expected \$18.6 million treatment related investment bonded at time District begins operation
- Lower bond interest rates than assumed 3% rate over 30 years
- Higher water volumes in City or District or new service to other municipalities (high fixed costs)

Rate Adjustments

Basic Principles of District Purchase Rate Adjustment

Average Cost

- Over time, supplier must receive average cost of water spread over all customers to cover their total costs

$$\text{Average City cost per 1000 gallons} = \frac{\text{Total cost (\$)}}{\text{Total water produced (1000 gallons)}}$$

Simple analogy: If you pay \$26.00 for 10 gallons of gas, the average cost is \$2.60 per gallon!

Average Cost Adjustment Factor

- For years 4-40, as agreed upon
- Annual District Purchase Rate adj. = percent change in average City core cost elements** per thousand gallons output averaged over the three prior years (once available)

*Example: If the average City core expenses ** per thousand gallons of water output increases by 2.20%, 3.50% and 2.70% in three succeeding years, the District Purchase Rate would increase in the following year by 2.80% (the prior three-year average).*

** Core cost elements = treatment, employees, investments! (from slide #2)

Average cost changes

How can they change? Two factors

Total Cost...

Percent change in total cost determined by comparing from year-to-year the three *Core Cost Elements* of City water budget:

- 1) *Treatment* (Water purification and laboratory costs)
- 2) *Employees* (Salary and benefit costs)
- 3) *Investments* (Capital investment interest and amortization costs for \$18.6 million of currently planned investments that include treatment and future treatment investments and share of distribution investments attributable to District transmission from City plant).

Example: If core cost elements increase 2% each year and total plant output is the same, District Purchase Rate will increase 2% per year.

Average cost changes

...or Volume

Percent change in total plant output determined by comparing from year-to-year the total metered water into distribution system at treatment plant serving all City customers including the District.

Example: If total plant output increases 2% per year and total cost stays the same, District Purchase Rate with decrease approx. 2% per year.



Adjustments During First Three Years

Not enough actual operation data to calculate prior three-year average...

Therefore, use average cost and volumes over fewer than three years.



Adjustments During First Three Years

First year \$3.57 rate depends on estimates of water usage and distribution losses for Town of Dunkirk and the additional treatment cost based on projected water usage for current Brocton-served customers.

Therefore, when actual measurements with new master meters become available, adjust the District Purchase Rate based on the difference between actual measurements and pre-District estimates.

Adjustments take into account both the average revenue and treatment cost effects when the measured District water usage proportion differs from pre-agreement estimates.

For instance:

- The projected District water usage is 23.54% of City treatment plant total annual output.*
- If District water usage percent is less than 23.54%, then for each 1.00% less than 23.54%, the \$3.57 rate increases by \$0.06.*
- If District water usage percent is greater than 23.54%, then for each 1.00% greater than 23.54%, the \$3.57 rate decreases by \$0.06.*

Next Steps!!



WHO	WHAT
Member communities	Water Purchase/Supply Agreement approvals (sent to CCWA*)
CCWA*	Formal recommendation to County Legislature to form county water district
County Legislature	District formation approval
County Legislature	Board membership designation & obligations
County Legislature	District formed (based on Map, Plan & Report)
County Legislature	Selects engineering firm for design/construction of infrastructure
Engineering/Contractor	Infrastructure design and installation
City of Dunkirk	Supplies water to District according to Water Purchase/Supply Agreement

* Chautauqua County Water Agency (CCWA)