



Water Conservation at Thomson Reuters

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Driven to DiscoverSM

Company Background

History

- 1872-Founded as West Publishing in St. Paul, MN
- 1992-Moved to Eagan, MN
- 1996-Thomson acquired West Publishing
- 2008-Thomson acquired Reuters



THOMSON REUTERS

Products

- Hardbound, softbound, loose-leaf, and side-stitched books
- Legal, educational, culinary, tax, and accounting clientele

Fun facts

- 5,500 employees on campus
- 2.7 million sq.ft.
- 18 million books/year
- 10 petabytes of data

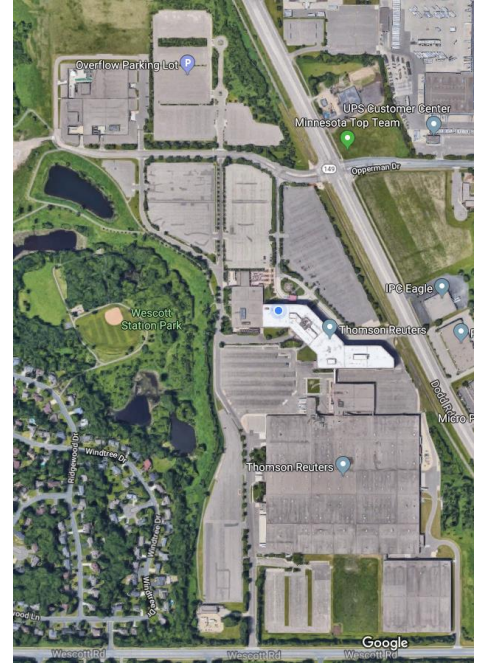
Project Overview

Incentives to change

- Pride taken in environmental initiatives and waste reduction
- Largest water user in Eagan

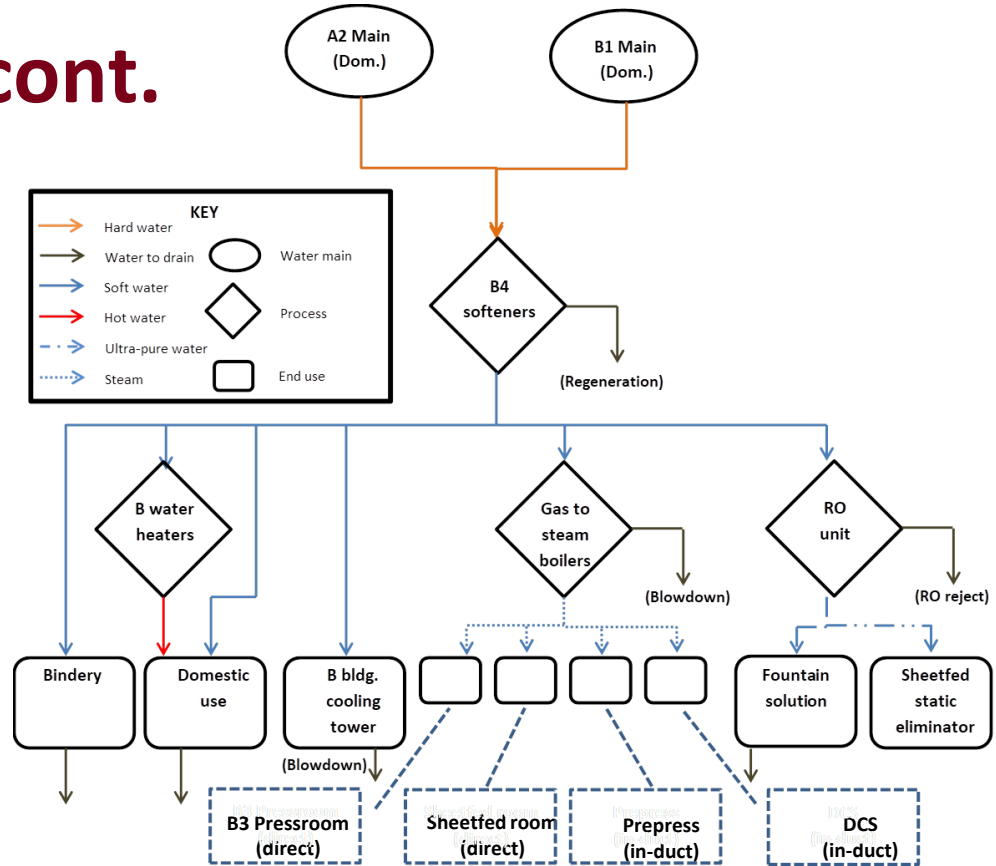
Focus

- Holistic examination (A, B, C, & D buildings)
- Industrial focus



Project Overview cont.

Industrial water map



Approach

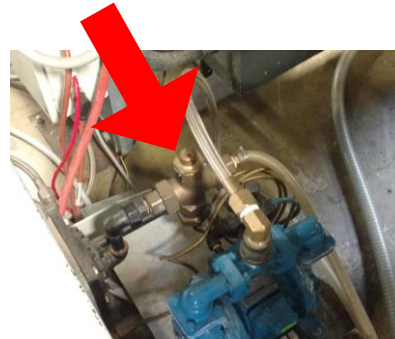
- Received multiple tours and explored
- Conducted rough water balance
- Held conversations with varied employees
- Investigated major water uses
 - RO Unit
 - Water softeners
 - Cooling tower/boiler blowdown
 - C & D bldg. cafeteria
 - Single pass cooling – Primary recommendation



Recommendation

Single pass cooling used for Laminator heat exchanger

- Softened water @ 5 gpm for 15 hrs/day
 - Used 1,170,000 gal/year
- Thermostat that should control this has malfunctioned
- Replace thermostat and clean scale
- Establish preventive maintenance
- Install solenoid valves on water lines
- Eliminate single-pass cooling?



Cost/Benefit Analysis

Net savings (per year)

- 1,072,500 gallons of water
- \$7,000

Costs

- Thermostat and replacement labor – \$1,400
- Annual inspection and cleaning - \$500/year
- Solenoid valve retrofit - \$1,000
- Simple payback: 5 months

Recommendations

Recommendation	Waste / energy reduced (per year)	Implementation cost	Net savings (per year)	Payback period	Status
1. Decrease D dishroom trough rinser water volume	7,883,000 gallons water	\$200	\$54,000	Immediate	In progress
2. Replace dishroom Troughveyor solenoid valve	1,175,000 gallons water 5,500 therms	\$200	\$10,000	1 week	In progress
3. Limit Troughveyor operation	300,000 gallons water 2,500 therms 2,000 kWh electricity	\$3,000	\$2,500	1.2 years	Recommended
4. Decrease C dishroom trough rinser water volume	15,000 gallons water 100 therms	\$0	\$150	Immediate	In progress
5. Replace, maintain laminator heat exchanger thermostat	1,072,000 gallons water	\$3,000	\$7,000	5 months	In progress
TOTALS	10,500,000 gallons water 8,000 therms 2,000 kWh electricity	\$6,400	\$73,500		

Takeaways

- Challenges in gathering data
- Organizational complexity of large corporations
- Uncertainty/risk involved in all engineering decisions
- Importance of first-hand knowledge



Thank you!

