

RTS

Water Solutions 

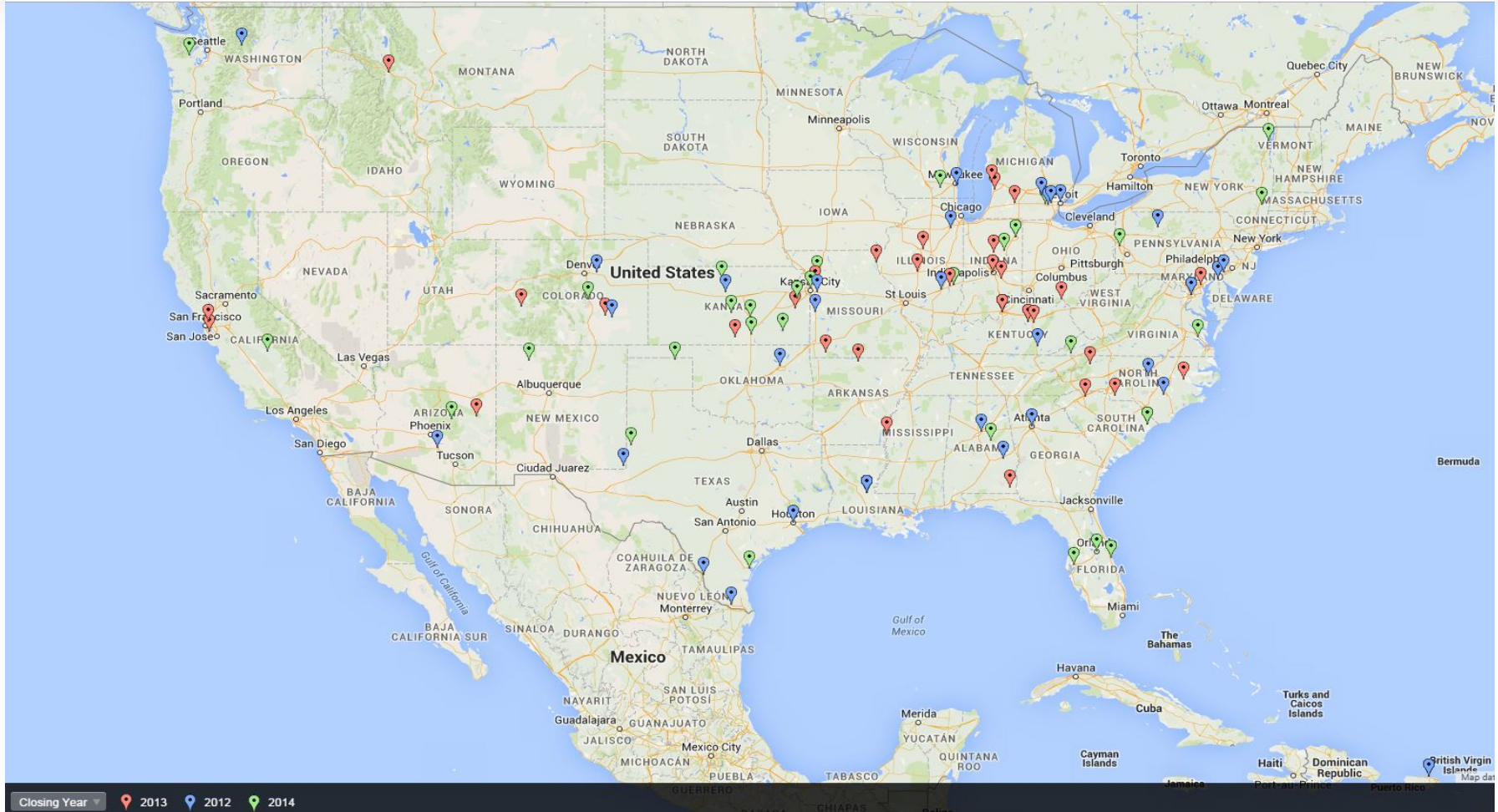
Agenda

- RTS Water Background
- Water Conservation Capabilities
- Water Conservation Case Study
- History with JCI

Background

- Formed in 2003 as a sister company to Retro-Tech
- Based in Kansas City, MO with offices in 10 other states
- Design and implemented \$60M in water conservation projects
- ESCO focused
- Staff Consists of:
 - Professional Engineers
 - Certified Energy Managers
 - Certified Irrigation Installers
 - USGBC Professionals
 - Licensed Plumbers and Electricians

Background – Projects Last 3 Yrs



Water Conservation Capabilities

- Plumbing Retrofits
 - Toilets, Urinals, Flush Valves
- Irrigation
 - Well water, Smart Controllers
- Cooling Towers
 - Make up water, Deduct Meters
- Swimming Pools
 - Pool Covers
 - Liquid Covers
- Rainwater Harvesting
- Solar Hot Water Heating
- Process Water Savings
- Water Cooled Ice Machines
- Hospital Equipment
 - Sterilizers, X-Ray, Lab
- Commercial Laundry
 - Ozone
- Electronic Usage Controls
 - Sloan PWT and ICON

Water Conservation Capabilities



Well Installation in Alabama



Water Conservation Capabilities



Bariatric Conversion in
Arkansas Hospital

Water Conservation Capabilities



Golf course irrigation
for US Air Force in OK.



Water Conservation Capabilities



Solar domestic hot water installation for US Forestry Dept in AZ.

FCC Beaumont Case Study

- 833K square feet federal correctional facility constructed in 1995 and located in Beaumont, TX.
- Over \$1.7M annual water and sewer spend at \$5.81 per kgal.
- Natural gas cost of \$0.902 per therm.

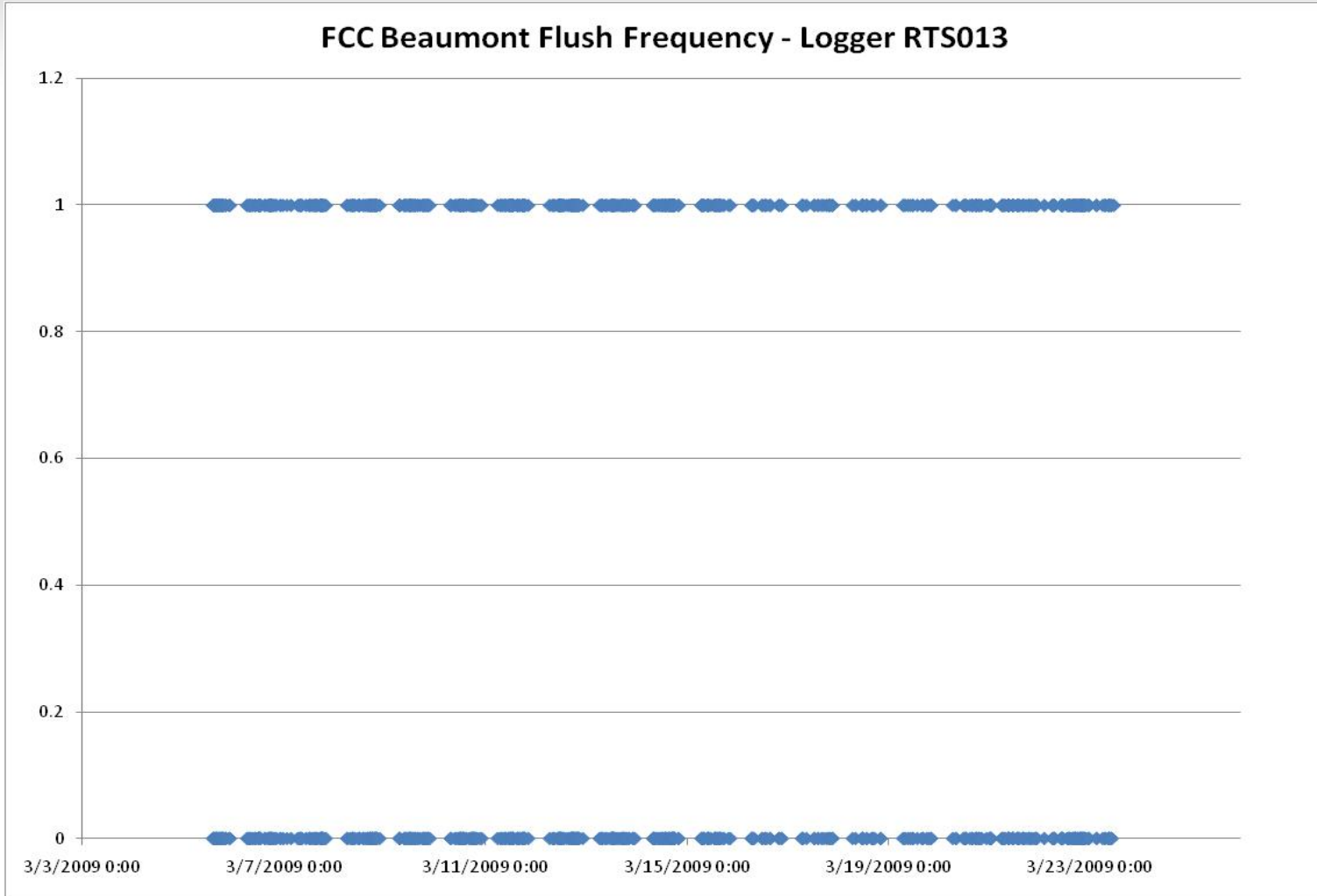


FCC Beaumont Case Study



Even though china and valves were rated for 1.6 gpf, overall average measured toilet flow was 3.1 gpf!

FCC Beaumont Case Study



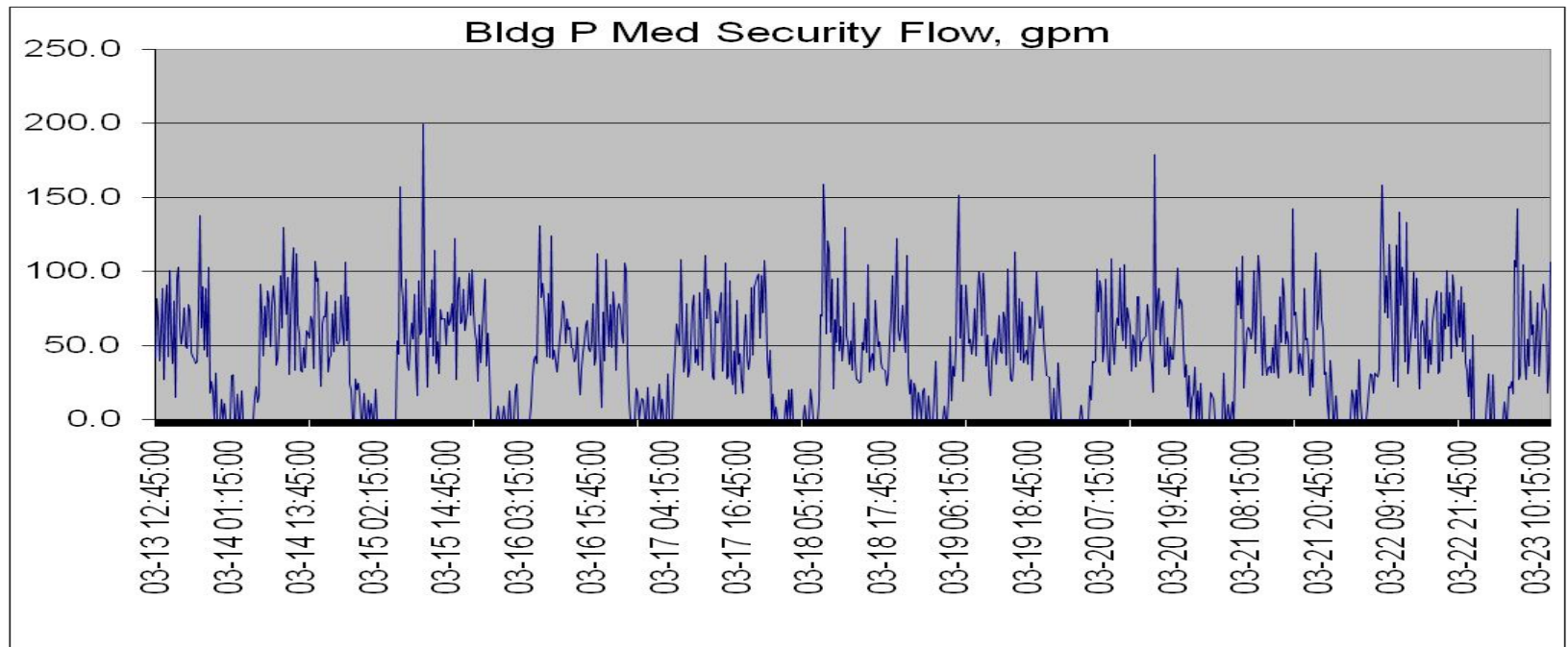
FCC Beaumont Case Study

FCC Beaumont Flush Logger Summary

Logger	# of Flushes in Dataset	Avg Flushes Per Day	# Occurring Within 5 Minutes of One Another	% Locked-Out in Modeling
RTS 005	1378	57.3	43%	45%
RTS 006	1557	65.4	28%	36%
RTS 009	484	51.5	36%	49%
RTS 012	1748	108.1	27%	34%
RTS 007	1389	99.1	35%	40%
RTS 011	770	31.9	36%	39%
RTS 016	1659	65.4	32%	38%
RTS 010	864	35.8	34%	38%
RTS 013	1369	56.9	20%	27%
RTS 002	708	29.3	31%	38%
RTS 003	868	36.0	21%	26%
Average	1163	57.9	31%	37%

FCC Beaumont Case Study

Installed ultra-sonic meter to confirm projected flows. Data was within 7% of predicted.



FCC Beaumont Case Study

Resulting Project

- Convert over 1500 top spud porcelain toilets to rear spud, 1.6 gpf
- Installation of flush frequency controls in all detention areas
- Installation of shower controls on over 700 detention area showers
- Installation of pint urinals
- Installation of ozone injection on existing laundry systems
- **Over \$600,000 annual savings**

History with JCI – Last 3 Years

Project Name	Amount	Project Location	Closing Year
Fort Buchanan	\$489,694	Puerto Rico	2012
Christian Care Center	\$212,358	KY	2012
LA DOC - David Wade	\$56,154	LA	2012
Kokomo Housing Authority	\$331,764	IN	2013
LA DOC - Headquarters	\$47,600	LA	2012
LA DOC - Elayn Hunt	\$365,324	LA	2012
LA DOC - Rayburn	\$20,948	LA	2012
LA DOC - Angola	\$185,831	LA	2012
LA DOC - Phelps	\$31,584	LA	2012
OSU - Tulsa	\$107,818	OK	2012
Cudahy School District	\$171,199	WI	2012
Detroit Zoo Detailed Study	\$260,630	MI	2012
Phillips	\$48,523	LA	2012
Indiana Dept of Corrections Phase II	\$149,124	IN	2013
Sanger CA Water Meters	\$534,000	CA	2014
Mason County	\$106,507	WA	2014
City of Louisville-Fire Dept	\$93,825	KY	2013
City of Louisville-Zoo	\$391,429	KY	2013
City of Louisville-Parks and Recs	\$95,029	KY	2013
City of Louisville-Police Dept	\$48,667	KY	2013
City of Louisville-Library	\$34,181	KY	2013
Ottawa County	\$510,817	MI	2013
Holland Community Hospital	\$146,316	MI	2013
Nueces County Phase 2	\$663,636	TX	2014
Ft Wayne Housing Authority	\$456,724	IN	2014
Washtenaw ISD	\$100,879	MI	2014
Utica Housing Authority	\$387,603	NY	2015
Ft Carson	\$893,359	CO	2014
Health First Hospitals Florida	\$727,781	FL	2014
Cheyenne Housing Authority	\$295,726	WY	2015
Tampa Housing Authority	\$15,428	FL	2014
Sanger CA Water Meters CO	\$65,000	CA	2015
Total	\$8,045,458		
# of Projects	32		



Thank You