



NH&RA

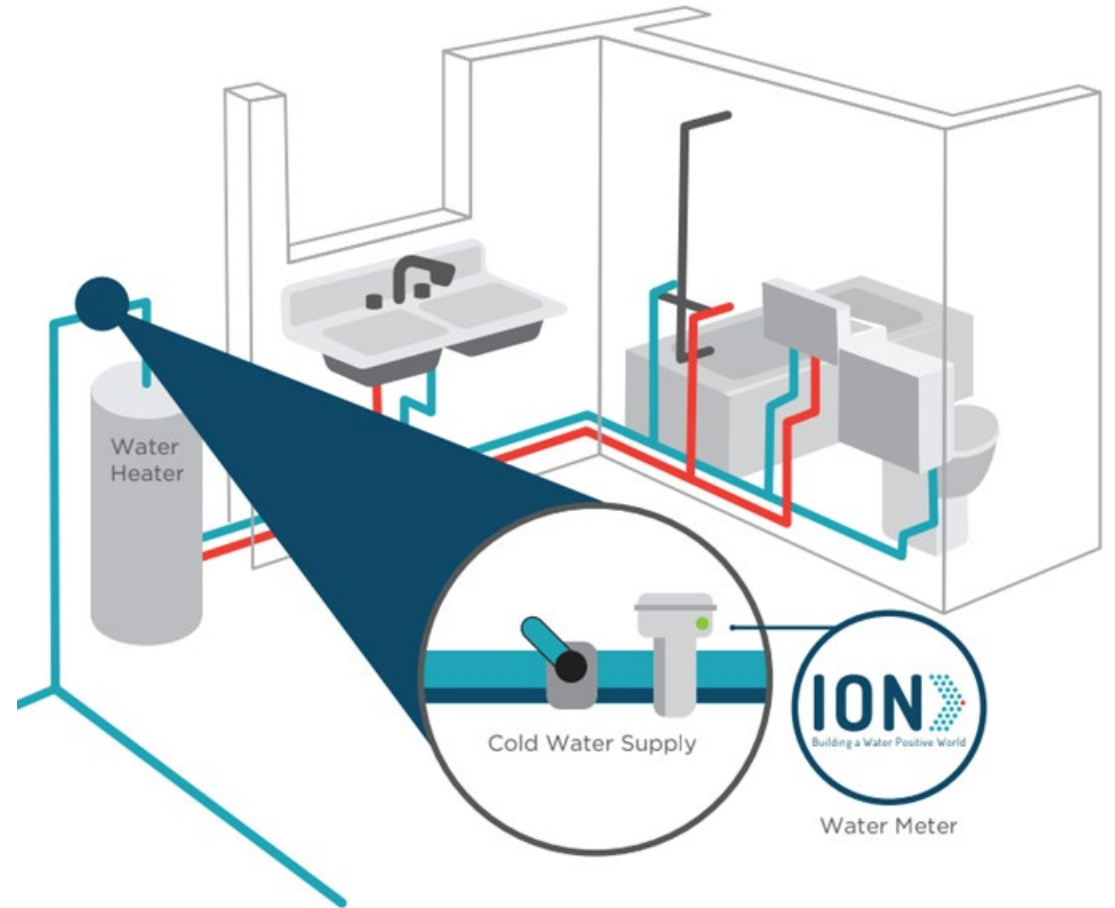
2024 Spring Developers Forum

Water Optimization in Affordable Housing



How ION Works

- Our water optimization platform provides unit-level, real-time, actionable water performance data via smart sensors
- ION installs water sensors in EVERY unit of a property
- **Defines: Consumption vs Leaks**
- Generates automated work orders for leaks so site personnel can stop water loss before it impacts a property's bottom line
- Saves time and resources of site staff in addition to utility costs





Cost of Water Waste



200B

Gallons Wasted



\$3B

Excess Expense



800K

Tons CO₂e

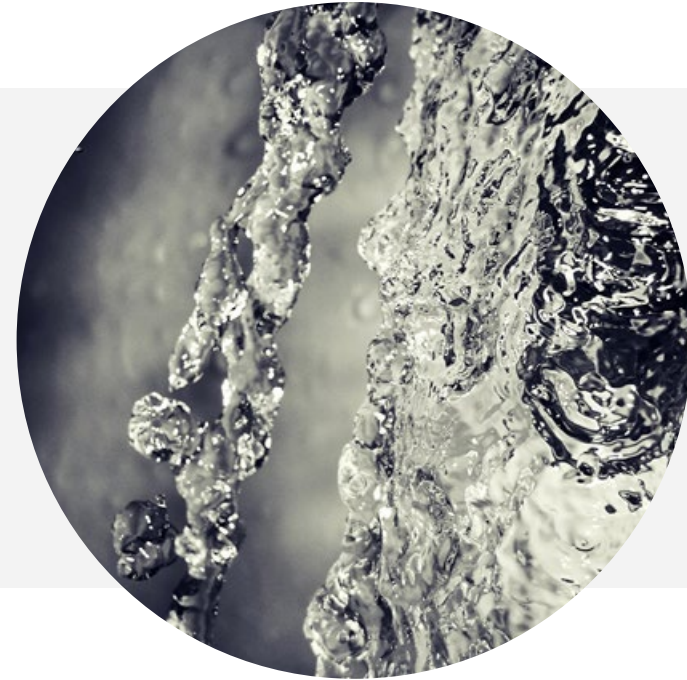


Affordable Water Performance



ION Under 50

Gallons per Bedroom per Day (GBD)



Affordable Avg 100

Gallons per Bedroom per Day (GBD)



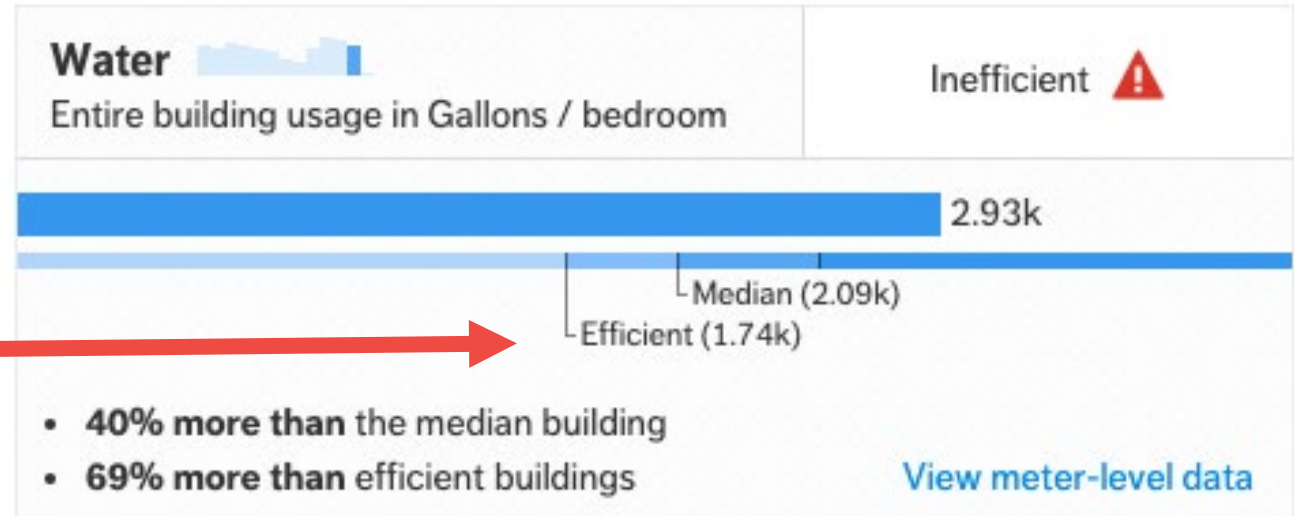
Optimization vs Benchmarking

Property	Units	Bedrooms	Gallons per Bedroom	Gallons	Leak Gallons	No Leak Gallons	Leak Gallons Percent	Last Month Gallons	Last Month Gallons	Last Month Leak Gallons Percent	Leak Trend
	271	528	27	448,781	3,718	445,063	1%	452,533	5,024	1%	0%
	258	520	37	601,955	14,631	587,324	2%	612,314	12,530	2%	0%
	312	726	42	937,051	78,640	858,411	8%	910,190	97,037	11%	-2%
	214	438	39	525,189	45,566	479,623	9%	536,684	38,337	7%	2%
	219	471	49	711,743	90,886	620,857	13%	733,943	75,932	10%	2%
	253	509	35	546,714	87,814	464,900	15%	541,060	69,898	13%	2%
	261	571	52	920,338	159,836	760,501	17%	910,113	132,784	15%	3%
	105	240	45	864,958	59,706	275,252	18%	373,265	48,608	13%	5%

27 GBD

VS

60 GBD





Impact of Water Optimization

Existing Water Performance of Top 25 Affordable Developers (Prior to Using ION)

Units	Bedrooms	Existing GBD
10,752	22,578	102

VS

Existing Water Performance of Top 25 Affordable Developers (Utilizing ION)

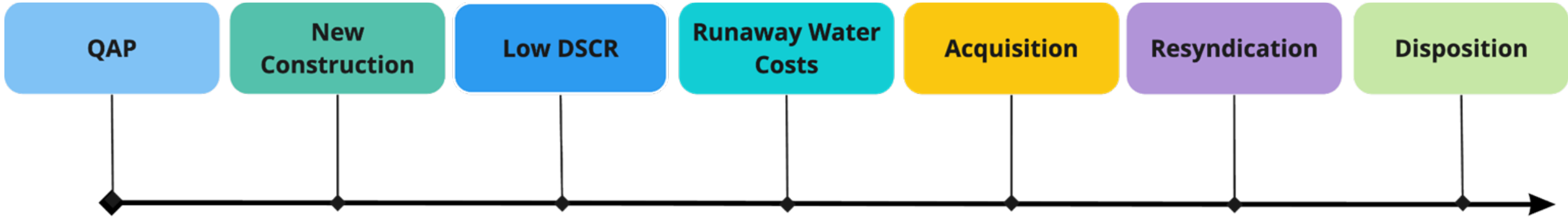
Units	Bedrooms	ION GBD
27,987	56,089	43

- If Kittle and Dominion were operating at these industry performance levels they would be wasting an additional **1.2 billion gallons of water** every year
- They would be emitting an additional **4,900 tons of CO2e** every year
- They would be wasting **\$18M of NOI** every year





Water Optimization - Lifecycle Value



Starting Early
 - Quarterly development team reviews
 - UW and UA reviews
 - QAP eligibility
 - Localized water scarcity issues

Closed \$1.2M Funding Gap
 - Underwriting impact on debt sizing
 - Previous HUD model assumptions were \$179K per year
 - ION validated target was \$96K per year

New Town - OCCH partner struggling with DSCR finds a life raft
 - Access to reserves enabled property to replenish reserves and generate cash flow for property maintenance

Alice Griffith on track to save over \$1M in water expense this year
 - 18+ month investigation into expenses
 - 120K gallons per day down to 12K gallons per day post ION

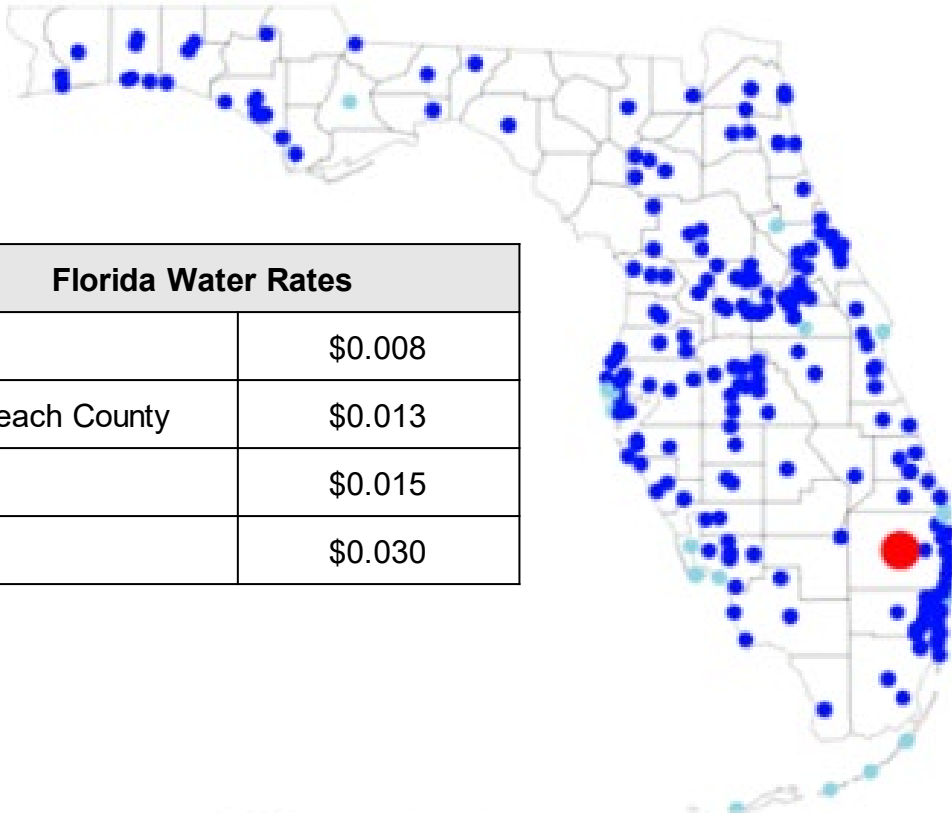
Crossings at Cape Coral - \$3M+ value add acquisition via water performance alone
 - Pre-acquisition 110 GBD
 - Post-ION 42 GBD
 - \$16K per month savings

San Francisco community wasting over \$500K per year in water expense
 - Assessment of over consumption with high variable rate
 - Planned NOI being factored into deal with lenders

Bradford Gwinnett Development increase in transaction value by \$2.8M
 - Annualized NOI with only two months of reduced expense on T12
 - After 50% reduction in consumption



Variability of Water



Florida Water Rates	
Low	\$0.008
Palm Beach County	\$0.013
Median	\$0.015
High	\$0.030

207 rate structures compared

Example Property (50 Units / 100 Bedrooms)		
	ION	Avg Affordable
GBD	50	100
Annual Consumption	1,825,000	3,650,000

Financial Variation			Delta	Debt Sizing
Low	\$14,545	\$29,091	\$14,545	\$207,789
Median	\$28,242	\$56,484	\$28,242	\$403,455
High	\$54,134	\$108,268	\$54,134	\$773,344



Low Flow



Low Leak

Property	Vista la Rosa (2018)	Maple Pointe (2020)	Fort Chaplin (2017)
Toilets	1.28 GPF WS	1.28 GPF WS	1.1 / 1.8 GPF WS
Showerheads	1.75 GPM WS	1.5 GPM WS	1.5 GPM WS
Bath Faucets	1.2 GPM	1.2 GPM	1.2 GPM
Kitchen Faucets	1.5 GPM	1.5 GPM	1.5 GPM
Performance	148 GBD	121 GBD	250 GBD



- These properties are **not using ION** yet
- They were efficiently constructed but their performance has degraded
- Recently construction or rehabilitated properties using efficient (watersense) fixtures with consumption above 3X to 5X of ION partner maintained performance

THANK YOU

