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CONSERVATION / REUSE

Modern areas clean, spacious, attractive

Common area laundry rooms can be effective conservation tool

RALEIGH, N.C. — A simple, cost-effective step exists for achieving greater water use conservation.

Since the 2002 release of "A National Study of Water & Energy Consumption in Multifamily Housing," it is widely recognized that water use rates are substantially higher in buildings with in-apartment clothes washers than in buildings with common area laundry rooms (CALRs).

The independent study, made by the National Research Center in Boulder, Colorado, found that water consumption was a staggering 330% higher in buildings with in-apartment clothes washers and, not surprisingly, energy consumption was 500% higher. This is primarily attributed to the convenience factor. Residents who have their own clothes washers do more loads of wash and more partial loads.

CALRs in decline

In recent years, the issue of central laundry facilities in multifamily housing has taken on greater significance. Across the nation, current trends indicate that condo conversions, new construction, and building renovations increasingly favor in-apartment clothes washers or laundry hook-ups. Consider these condo conversion statistics:

- Las Vegas: 7,500 apartments are being marketed as condos, with an additional 10,000 units proposed for conversion (Source: Home Builders Research)

- Orlando: 3,500 condo conversions have taken place in the downtown area in the past five years (Source: Fitch Ratings)

- Washington, DC: 4,900 condos conversions occurred in 2004 compared to only 200 in 2002 (Source: Delta Associates)

- San Diego: in 2003, condo conversions reached 3,000 — a 385% increase over the previous year (Source: CB Richard Ellis and L.J. Melody); developers are expected to convert an additional 4,000 units in 2005 (Source: London Group)

The 2002 study found that on average 8,200 gallons of water per unit per year could be saved by central laundry facilities. For a 150-unit building, this adds up to 1.23 million gallons — roughly enough water to supply eight families for an entire year. Once this is extrapolated across thousands of units, it is easy to see that water consumption can increase by millions of gallons in a very short period of time.

In the case of Las Vegas' 7,500

condos and assuming every unit has in-apartment clothes washers, this adds up to 61.5 million gallons per year (189 acre-feet annually), or 169,000 gallons per day.

Laundry as a conservation method

Laundry water in a typical multifamily property constitutes nearly 22% of total indoor water use, second to toilets. When coupled with a

growing population and drought conditions, it becomes clear that common area laundry rooms are an area of significant conservation. However, central laundry rooms have historically been an overlooked source for water conservation and use efficiency. When we think of indoor conservation programs, we immediately think of plumbing retrofits, leak detection and repair, clothes washer rebates, and resident education.

These and other conservation programs all share one thing in common: program funding. Budget woes over the past several years and competing priorities for these same budget dollars have made it more difficult to implement conservation projects, despite the need to do so.

Enter the common area laundry room. While many recognize the water conservation benefits of central laundry facilities, little has been done to fully leverage this method. Fortunately, state and local agencies, municipalities, and water authorities have a host of options available to them, including practical, no-cost measures that can have a long-term impact.

Best Management Practice

One of the easiest, most budget-friendly initiatives that can be pursued is designating common area

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Trends in common area laundry rooms include furnished lounge areas with television and music, modern artwork, and new technologies. When done right, central laundry rooms can be marketed as an improved amenity. Residents avoid paying a premium for private laundry.

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laundry rooms as a Best Management Practice and including it in state, regional, and local water plans or conservation programs.

BMPs are typically implemented on a voluntary basis and are generally accepted as practical, cost-effective means for conserving water or using water more efficiently. Coupled with other leading practices, common area laundry rooms can supplement existing conservation plans or help formulate those that are being developed.

The best possible scenario would be the use of modern high-efficiency commercial clothes washers in a central laundry facility. This offers an obvious double-benefit: the use efficiency of central laundry facilities and up to 40% or more savings from high-efficiency clothes washers. Also, building owners would not only benefit from having newer, better performing machines for their residents, but also being able to maintain or reduce current laundry water use rates and water/sewer costs.

Conservation Pricing

In multifamily housing, how many times have you heard the comment, "My water is included in the rent, so

I don't worry about how much I use."

Rate structures, also known as increasing block rates and multi-tiered pricing, are perhaps the most effective demand side tool for encouraging efficient water use. People respond favorably when they are required to pay more for excessive water consumption. In addition to the fairness of "paying for what you use," one of the greatest benefits is that it fosters a long-term conservation ethic — a change in water use behavior.

Irvine Ranch Water District in California is a great example. In this case, a five-tiered residential rate structure was designed and implemented in June 1991. In its first year, water use decreased 19%. It was also reported that customer approval for the rate structure change was overwhelmingly positive, ranging from 85-95%. Rate classes include low-volume, base rate, inefficient, excessive, and wasteful, with the most current per ccf rates of \$0.72, \$0.88, \$1.76, \$3.52, and \$7.04, respectively.

For properties with in-apartment laundry machines, rate structures provide a financial incentive that encourages owners and renters to be more water-wise. Unfortunately, the

challenge for conservation pricing in multi-family housing is whether water sub-metering or individually-metered units exist, which leads into our next measure.

Ordinances

A surefire way to affect water use is through mandatory restrictions or regulations.

Ordinances can target one or a combination of impact fees, tap fees, capacity charges, and connection charges. Such fees, generally levied as part of new construction projects, are intended to offset or compensate the local municipality for the additional costs of providing water and sewer services. Given the fact that laundry-water use rates are higher in buildings with in-apartment clothes washers, this is a prime opportunity to re-evaluate existing fee structures and adjust accordingly. Water suppliers, and wastewater

entities for that matter, can incur greater expenses and infrastructure wear and tear when the impact of new, multi-housing construction has been under-estimated.

For buildings with in-apartment clothes washers, water sub-metering and individually-metered units can play a crucial role in encouraging efficient water use. State and local building codes are a very practical measure to implement and doing so has many advantages.

A 2004 joint study between the U.S. Environmental Protection Agency, ten water utilities, and two national apartment associations found that sub-metering reduced annual water consumption by 15%. A similar study released five years earlier by the National Apartment Association and the National Multi-Family Housing Council found that "wa-

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Common area laundry rooms...

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ter consumption was 33-39% lower when residents pay their own water bill."

For conservation pricing to even be effective in multi-housing, residents must be made aware of their individual consumption and pay accordingly.

Incentives & rebates

If an ordinance is the stick, then incentives and rebates are the carrot.

Entities with the authority to set retail water rates can entice property owners and builders to include common area laundry rooms in new construction or eliminate

in-apartment laundry as part of condo conversions.

By offering substantial discounts in water and sewer rates, in addition to avoiding the costs of a major plumbing retrofit, the financial incentives are likely to become a significant consideration for owners.

Tax credits offer another incentive. Many state Qualified Allocation Plans that are part of the Low Income Housing Tax Credit program award points based on energy and water conservation criteria.

For more information, visit www.laundrywise.com.