

# Multihousing Common Laundry Facilities

## Are a Significant Source of Water Conservation

It's a simple fact. As population increases, the demand for water rises. Growing industrial needs compound this problem. Unfortunately, the supply of water is a finite resource, and, more and more, cities are discovering that they must take action now to plan for their future water needs. Otherwise, many cities will face the hard realities of severe drought, dried-up rivers, poor water quality, groundwater depletion, escalating infrastructure costs, and diminishing alternatives.

Ask any city engineer responsible for procuring water what the most cost-efficient method for solving this problem is. Most, without blinking an eye, will tell you "conservation."

For years, cities have encouraged the conservation of water through a variety of methods, including building codes and regulations, incentive programs, and public education. Builders and developers are now required to use low-flow showerheads, faucet aerators, and low-flush toilets and are encouraged to conserve water in outdoor landscaping by installing automatic sprinkling and by xeriscaping.

### COMMON-AREA LAUNDRY ROOMS OFFER OPPORTUNITIES FOR WATER SAVINGS

Although these methods do reduce water use, a considerable amount of water is used in clothes washers. On average, US daily indoor water use per capita is approximately 56 gal (212 L) for a two-adult household. Forty-five percent of this figure is apportioned to bathroom use, whereas 21.5% is for laundry purposes (USDHUD, 2002).



Studies show that residents with in-unit washers use 3.3 times more water for their laundry than their counterparts in buildings with common-area laundries.

Many municipalities and utilities across the United States are already taking action to encourage water savings in laundry appliances in single-family residences. However, an often overlooked method of conservation, which can be applied to a large sector, is common-area laundry rooms in multihousing properties.

According to a 2002 water-use survey by an independent marketing research firm, washing machines located in apartment rental units use significant amounts of water. From September to December 2000, laundry water use was calculated using water meters attached to 191 in-unit washing machines and 50 common-area washing machines in eight

apartment properties matched for quality and size in four cities in the United States.

In a head-to-head comparison of washing machine usage rates in apartment unit versus that of coin-operated machines in common-area laundry rooms, the study found that each in-unit washer used an average of 11,804 gal (44,678 L) of water annually. Coin-operated machines in common-area laundry rooms, however, averaged water use of only 3,588 gal (13,580 L) a year per apartment unit served.

That figure amounts to 8,216 gal (31,098 L) of water required per in-unit machine per year. In total, residents with in-unit washers used 3.3 times more water for their laundry than their counterparts in buildings with common-area laundries.

### COMMON-AREA LAUNDRIES HAVE HIGH POTENTIAL FOR WATER SAVINGS

In 2001, the US Census Bureau completed an "American Housing Survey for the United States," to learn more about rental housing. Included in the survey were questions about amenities available to residents. Of the 15.9 million apartment units surveyed, 4.1 million of them have washing machines and 3.7 million of them have dryers. On the basis of these figures, more than 33 bil gal (125 GL) of water are potentially being wasted each year across the United States in apartments with in-unit washing machines. In-apartment laundry equipment can also consume a great deal of electricity and gas and generate large amounts of extra sewage. Encouraging the use of common-area laundry rooms in apartment complexes is an easy, yet significant way to preserve resources

without creating an insurmountable hardship for residents.

A common misconception is that apartment managers and owners believe their residents prefer in-unit connections. In reality, well-maintained, affordably priced, convenient laundry rooms make apartment complexes more desirable to residents than complexes that lack common-area laundry rooms but provide laundry connections inside the apartment units. Many managers are considering additions or enhancements to common-area laundry rooms as a way to improve the property they manage.

#### **COMMON-AREA LAUNDRY ROOMS REDUCE CONSTRUCTION COSTS**

Common-area laundry rooms relieve managers' concerns about noise or potential damages resulting from in-apartment laundry machines. In-unit connections take up valuable floor space and require more plumbing, venting, and electrical wiring, so construction costs are higher. In-apartment machines also create higher utility costs.

The cost of installing in-unit equipment in every apartment in a complex is far more than the cost of equipment in common-area laundry rooms. In general, only one washer/dryer combination will be required:

- per 8–12 units if serving low-to middle-cost, family-dominated buildings;
- per 10–15 units if serving mostly younger working adults;
- per 15–20 units if serving mostly older working adults or luxury complexes;
- per 25–40 units if serving senior citizens.

#### **WATER-SAVING PROGRAMS IMPLEMENTED IN A NUMBER OF CITIES**

Many cities across the United States have begun water programs that offer

incentives and rebates for the use of water-efficient laundry equipment. Currently, most actions that have been taken only apply to single-family residences. These efforts could be expanded to encourage the use of common-area laundry rooms in multifamily properties.

- Many municipalities already have guidelines in place requiring the utilization of low-flow showerheads, faucet aerators, and low-flush toilets and encouraging the use of xeriscaping in outdoor landscaping in multifamily properties. Adding the use of common-area laundry facilities would be simple on these properties. Those properties in compliance could receive a rebate or incentive on a sliding scale based on how many of the water-saving techniques they use.

- Property owners who demonstrate that they have common-area laundry rooms would receive discounted rates for water, sewer, gas, and electricity.

- New properties that include in-unit connections and/or exclude common-area laundry rooms could be penalized in the form of higher building permit fees.

Common-area laundry rooms actually lower the construction cost of building a new apartment complex. In addition, they decrease the cost of operating multifamily properties. These savings could be passed on to residents in the form of lower rent or increase the property's profitability.

In Denver, Colo., multifamily complexes account for 14% of water used in their service area. For 2002, this amounted to 10.9 bil gal (41.3 GL). Ten percent of that total can be attributed to laundry use. The city has a plan in place that targets multifamily properties.

"Based on our experience, it is much more economical to have common-area laundry rooms," stated Den-

ver Water's Manager of Water Conservation Elizabeth Gardener. "Tenants save money because they are not buying or renting their own machines. They have lower water and wastewater charges because they usually wash fewer loads of clothes.

"In addition," continued Gardener, "tenants see a reduction in rent and monthly fees because of reduced maintenance costs."

#### **CONCLUSION**

By promoting the inclusion of laundry rooms in multifamily properties, as well as the use of efficient technologies that reduce water and energy use, communities across the United States can save money and help the environment without sacrificing quality of service. Utility managers, working with city planners, engineers, and other decision-makers, can assist with the implementation of efficiency programs in their own service areas. Additional information about multihousing common laundry facilities is available in "A National Study of Water and Energy Consumption in Multifamily Housing," which can be obtained from Laundrywise at [www.laundrywise.com/study.htm](http://www.laundrywise.com/study.htm).

#### **REFERENCES**

USDHUD (US Department of Housing and Urban Development), Office of Policy Development and Research, 2002. Overview of Retrofit Strategies: A Guide for Apartment Owners and Managers.

*Laundrywise is a division of the Multi-Housing Laundry Association (MLA) and is dedicated to increasing awareness about the conservation benefits of common-area laundry rooms in multifamily properties. For more information about Laundrywise, call (800) 380-3652 or visit [www.laundrywise.com](http://www.laundrywise.com).*