



## The Water Saving Condensate Myth

Some manufactures make a big issue about all the money saved by putting the condensate back in the pool. This is a subject that is constantly discussed as being irresponsible if the condensate is discharged to a drain vs. back to the pool. DXAir does not object, although in some communities, code no longer permits dumping this water back into the pool due to recent outbreaks of Legionnaires disease. Always follow your own local codes for all requirements of your building.

### Let's put it in proper perspective with a few examples:

An average pool size of 500 square feet at 80° water and 82° air, has an evaporation rate of 20 pounds per hour times 24 hours times 30 days equals 14,400 pounds divided by 8.33 = 1,728 gallons of water being discharged per month WITHOUT A POOL COVER. With a pool cover, this would average out to be approximately 425 gallons per month.

The average shower head dispenses 4 gallons per minute. If a husband and wife each take a shower every day for 10 minutes, they would use 80 gallons per day x 30 days = 2400 gallons per month.

The average toilet (depending on age) uses 6 gallons of water per flush. If two people use the facility 6 times a day,  $12 \times 6 = 72$  gallons x 30 days = 2160 gallons per month.

An average mid sized home with a lawn sprinkling system has three zones, the average zone has 6 sprinkler heads @ 3.5 gallons per minute = 21 gallons per minute x 30 minutes per zone = 630 gallons x 3 zones = 1,890 gallons x 30 days = 56,000 gallons per month.

We recommend never breaking the law which means one has to now find an alternative to discharging the condensate into the pool. Logic dictates at that point to discharge it down the drain.

### That brings us to the issue of “wasting water”

That's pure nonsense as it relates to the hydrologic cycle. The hydrologic cycle begins with the evaporation of water from the surface of the ocean. As moist air is lifted, it cools and water vapor condenses to form clouds. Moisture is transported around the globe until it returns to the surface as precipitation. Once the water reaches the ground, one of two processes occurs:

- 1) some of the water evaporates back into the atmosphere
- 2) the water may penetrate the surface and become groundwater

## **DXAIR INDOOR POOL DESIGN GUIDELINES**

### **CONDENSATE DISCHARGED TO POOL**



Groundwater either seeps its way to into the oceans, rivers, and streams, or is released back into the atmosphere through transpiration. The balance of water that remains on the earth's surface is runoff, which empties into lakes, rivers and streams and is carried back to the oceans, where the cycle begins again. So the water that is dumped down the drain eventually ends up either in the ground or on the surface and the natural hydrologic cycle continues wasting not one drop of water.

Bob Posch  
CEO- Chief Engineer