

# Facts About Pool Water Usage



**POOL &  
HOT TUB  
ALLIANCE**



**CPSA**  
California Pool & Spa Association

## Message points that demonstrate that pools are not “water wasters”

The message points below can be used in your company literature to demonstrate that pools are not water wasters. In fact, pools are beneficial to society as minireservoirs that collect rainwater and store a precious water supply throughout the entire year. They can be used as an emergency water supply to fight fires. Also, they can serve as an “oasis” to the people who use them during hot and dry times. And they have a huge economic impact on the community—contributing billions of dollars to the American economy each year.

- **In times of drought, myths about swimming pools have been created and disseminated by groups or individuals who want to take focus away from issues that have to do with the actual uses of water.** This sometimes has resulted in severe rationing of swimming pool water. It’s important that knowledge and facts replace the myths and emotion that have governed water politics in the past. While it takes more than 10,000 gallons of water to grow and process food for a backyard barbecue for four people, a swimming pool actually uses less water than a patch of grass of the same surface area. What is needed, therefore, is a more rational approach to the allocation of water. In the state of California, for example, the fact is that 85 percent of its developed water supplies are used by agriculture, while 10 percent are devoted to personal use, and the remaining 5 percent are used for industrial and commercial purposes. If agricultural water use in that state were reduced from 85-percent to 80 percent through conservation measures, the amount of water available for domestic and commercial uses would increase by onethird.



*(Source: “Facts emerge from drought,” by columnist Dan Walters, The Sacramento Bee, March 20, 1991.)*

- **In the past, drought emergencies have led to discussions of bans and restrictions on the construction or filling of swimming pools and spas.** But conservation measures, such as the use of covers in reducing water evaporation, and water-saving measures, such as less -frequent backwashing, show that pools and spas can serve as reservoirs and emergency containers of water—rather than being the targets of water-use restrictions. And studies have

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demonstrated the pool and spa industry's economic role in a local community, as well as the economic effects of proposed bans and restrictions on water use for pools and spas. For example, in a community where 800 new pools are built annually at an average cost of \$20,000 each, about 33 percent of that \$16 million (which comes to more than \$5 million) represents wages of approximately 400 workers that contribute to the local economy. In this same market, about 12 percent of the new pools will be serviced by pool technicians, leading to 96 service contracts. And the new pools will support 456 workers in distribution and retail operations for pool-related products. Obviously, restricting or banning pool construction or the filling of pools would affect the community at large. The taxes paid by these businesses and wage earners, as well as the amount of money they spend as consumers in the local economy, would certainly be affected by a water-use ban – or even the mere discussion of filling restrictions. If potential pool buyers wonder whether their pool can get filled, they might change their plans – and such changes will hurt the construction industry, thereby affecting the community.

(Source: "Strategies for the Water Wars," by Jim McCloskey, *Pool & Spa News*, May 8, 1989.)

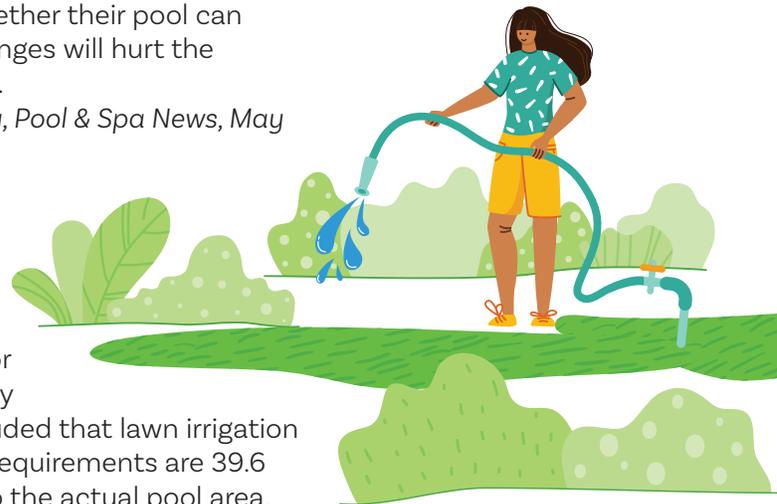
- **Did you know that a swimming pool uses substantially less water than comparable landscaped and planted areas such as lawn?**

That's the conclusion reached by an analysis of water use in swimming pools that was based on studies prepared by the City of Sacramento for use by the California SPEC (California Spa & Pool Industry Energy, Codes and Legislative Council). The study concluded that lawn irrigation use equals 49 inches per year and that swimming pool requirements are 39.6 inches per year, less walkway and decking areas equal to the actual pool area, which reduces total pool water use to 20 inches per year.

(Source: "Analysis of Water Use in Swimming Pools" by Gail Bash, General Manager, Arcade Water District, Sacramento, California. For a copy of the "Analysis Of Water Use in Swimming Pools" document, [click HERE](#).)

- **Did you know that normal evaporation does not cause substantial water loss or necessitate constant refilling of a swimming pool?**

While evaporation occurs in every body of water, the rate of evaporation is determined by a set of variable factors including: air temperature, level of humidity, water temperature and wind velocity. Most of the variables change as the seasons change or as the sun rises and sets. Therefore, higher rates of evaporation take place when the difference between air and water temperatures are greatest ... in the Spring or Fall, and/or at night. Industry experts have determined, after many years of servicing swimming pools, that water loss through evaporation over a 15-week swimming season "averages" 1/8 of an inch of water per day per pool. In an 18'X 36' pool this evaporation loss is 50.5 gallons per day or 5,302.5 gallons for the season (about the same amount of water that a family of four uses for brushing their teeth during the same period of time). The industry is taking steps to educate the pool-owning public to reduce evaporation loss through the use of



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solid pool covers, solar pool covers, or other devices when pools are not in use. This effort could reduce total evaporation rates by almost 50% since the pools would be covered at the times when the evaporation rate is the highest.

(Source: Northeast Spa & Pool Association - APSP Affiliate)

- **Did you know that the use of water in swimming pools and spas is negligible compared to any water district's annual water consumption?** That's what research has shown, according to California SPEC (California Spa & Pool Industry Energy, Codes and Legislative Council). A SPEC research project in the Santa Clara Valley district showed that if 800 pools were built in a typical year and each were filled with 20,000 gallons of water, the 16 million gallons needed for initial filling of those pools would only comprise 4.5% of one day's average water use. This means that all the water needed to fill all the new pools in the area would equal just one hour of typical public water use for this water district.

(Source: "Strategies for the Water Wars," by Jim McCloskey, Pool & Spa News, May 8, 1989.)

- **Did you know that swimming pools are not completely drained each year?** Swimming pools, both inground and aboveground, require water to maintain structural integrity. Therefore, a large quantity of water remains in each pool over the winter. Only a minimal amount of water is removed from each pool to expedite Winterization. Little or no water is removed from aboveground pools. The average amount of water drained from an inground pool for Winterization is 6 inches. Assuming the average size inground pool is 18' X 36', this means that a quantity of 2,400 gallons is drained. Of course, the quantity varies as the pool size varies.

(Source: Northeast Spa & Pool Association - APSP Affiliate)

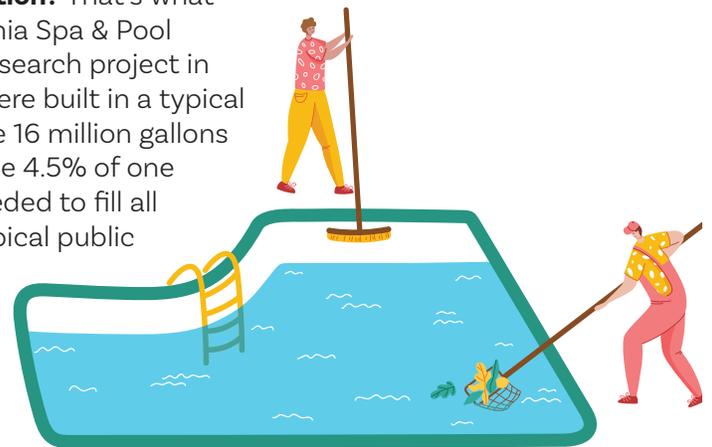
- **Did you know that the municipal water supply is not the only source that can be used to "top off" a residential pool** (raise the water level to a normal operating level)?

- Pools covered with mesh safety covers have accumulated enough water from rain, snow and ice to be opened without additional municipal water.
- The water collected on top of solid pool covers can be filtered and placed in the pool.
- Additionally, the home's downspouts can be extended to the edge of the pool to enable rainwater to augment water already in the pool.
- Water can be brought by truck from other areas.

(Source: Northeast Spa & Pool Association - APSP Affiliate)

- **Pools collect rain water and therefore can serve as mini-reservoirs.**

(Source: APSP)



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- **A pool owner can serve his or her local fire department in times of drought.**

This is another way that the pool can act as a reservoir and a pool owner can feel an added benefit in his or her pool; giving back to the community. The sample of a Pool Owner's Fire Protection Agreement (this bolded text is hyperlinked - click on it) provided here can be used to enter into an agreement with your local fire department, so that they may pump water from your pool in the case of a fire in your neighborhood. This agreement is an incentive for officials to see pools as a benefit in times of drought. (Source: APSP)

- **Put water use into perspective. Did you know that it takes over 10,000 gallons of water to grow and process the food for a basic barbecue for four people,** most of which would provide for the feed for two pounds of beef?

(Source: "Facts emerge from drought," by columnist Dan Walters, *The Sacramento Bee*, March 20, 1991.)

- **Did you know that backwashing only occurs about once every two weeks and the frequency of backwashing depends on how much debris is captured in the filter?** Backwashing a sand or pressure d.e. filter is required only when the actual operating pressure of the filter exceeds the normal operating pressure by 10 p.s.i. (pounds per square inch) or more. The rise in operating pressure is a normal result of the filter media capturing particles of solid matter in the pool water. Therefore, the frequency of backwashing is based on filter operation, not a pre-set schedule. Industry experts have determined that the "normal" pool is backwashed about once every two weeks. It takes about five minutes or less to backwash and rinse a filter system. During this time, the outflow of water is dependent upon the size of the pool's pump and the filter media surface area, this could range from 10 gallons per minute on the smallest aboveground pool to 60 gallons per minute on large inground pools. Therefore, the water "lost" during backwash ranges from 50 to 300 gallons every two weeks or 375 gallons to 2,250 gallons for the entire swimming season. No backwash water is used from\_pools equipped with diatomaceous earth filters with separation tanks or with cartridge filters.

(Source: *Northeast Spa & Pool Association - APSP Affiliate*)

- **Pools help people cool off from heat.** During hot weather people are more susceptible to heat exhaustion, heat stroke and other heat -related illnesses. Keeping cool, drinking water and avoiding excessive exertion are ways to limit these health problems. (Source: APSP)

- **People who use swimming pools take fewer showers and baths and thus conserve water.** (Source: APSP)

