

Eco-Friendly Pool Draining

by Eric Herman

There was a time when draining a pool was a fairly straightforward exercise. There might be issues involved, depending on the location of the pool and the means of discharge, but beyond that, there was little to worry about.

But it's a new age. Almost every act that involves the physical environment is being scrutinized for its effect on the planet, and the release of millions of gallons of water into the earth's hydrological system certainly qualifies for review.

The main consideration is the long list of chemical constituents contained in swimming pool discharge, including chlorine, phosphates, nitrogen, calcium hardness, high total dissolved solids, bacteria and protozoa, acidic water and a variety of mineral salts, among others.

"For those who are working in the swimming pool industry, it's important to understand the impact swimming pools can have upon our earth's water system," says Terry Arko, product specialist for SeaKlear, a certified pool/spa operator, author and specialist in chemical water treatment. "When backwashing or draining, whatever is in the water eventually gets deposited into our waterways."

Drain Smarts

Whether from backwashing or draining for repairs, acid wash discharge, or drain/fill to improve water quality, concerns over the content of swimming pool and spa water released into the environment have prompted various guidelines and regulations in a number of regions governing how, when and where pools can be drained. Most of these rules focus largely on the chemical content and overall condition of the water being discharged.

"It is the pool professional's responsibility to know the local regulations for pool draining," says Arko. "Many areas have strict requirements for lowering chlorine levels and buffering acidic water. Others do not allow draining into storm drains or gutters.

"There are even some requirements," he adds, "that forbid pool water from touching any properties other than the property where the pool is located. So, it would be against the law if any of the water from a particular pool were to spill over into an adjacent property."

Indeed, surveying codes and guidelines for varying regions can make it difficult to establish universal guides to draining and as Arko and others point out, it is always the individual's responsibility to be aware of local regulations prior to draining.

That doesn't mean we can't identify measures that move us in a positive direction. In that spirit, the adjoining sidebar contains a registry of measures that will help in complying with local mandates, while also promoting cleaner water in our rivers and lakes, and ultimately our oceans.

Taking Care

It's important to keep in mind that in many areas, draining into a sanitary sewer removes the need for any pre-draining treatment. In those situations where draining to a sewer is not possible, however, it's fair to assume that we have a responsibility to avoid contributing to the contamination of natural waterways.

And make no mistake, draining into a storm drain, gutter or an open field will result in the chemicals in the water finding their way into natural systems.

It also bears mentioning, as has been covered in past AQUA articles, that in some areas there are firms now providing portable reverse-osmosis treatments as an alternative to draining.

In the grand scheme of things, a conscientious approach to draining pools is one part of establishing practices and attitudes that demonstrate our industry's commitment to helping maintain a healthy environment, protect economic resources, and ultimately be part of an ever-growing world community dedicated to conserving natural resources.

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When preparing to drain a pool, the first step is to evaluate the condition of the water. Is the water properly balanced? Has the pool been properly sanitized or is it a swamp? Is the chlorine high? Does it contain high levels of metals or salts? Has it been tested and treated for phosphates?

- **Superchlorinate/Shock:** If the water hasn't been sanitized recently or is in a swamp condition, then the pool should be superchlorinated to deal with bacteria, algae and organic matter. If draining to the sewer is permitted then you may not need to superchlorinate as the water will be treated at the municipal plant.

If you do superchlorinate to clean up the pool before draining, you should try to get the chlorine to 30 ppm and hold it for 12 hours. This will inactivate most bacteria and protozoa that can be present.

- **De-chlorinate:** Before draining, the water should be de-chlorinated. The best way to achieve this is to allow several days before draining so the water can lower the chlorine level naturally. If this is not possible, the pool can be de-chlorinated using sodium thiosulfate.

- **Treat for phosphates:** Once the pool has been de-chlorinated you should test for phosphates and, if needed, treat to lower the phosphates to at least 200 ppb before discharging. Phosphates are a prime pollutant to our waterways and are responsible for numerous algae outbreaks in lakes and streams. Treating for phosphates is a simple eco-friendly practice that will help minimize a pool's environmental impact during draining.

- **Filter:** After treating for phosphates, the pool should be treated with a good natural-based clarifier and filtered for at least 24 hours. Look for products that are oil-free and non-synthetic.

- **Drain:** Once it is time to drain, check the hydrostatic pressure. Before draining, make sure the pool has a hydrostatic relief valve that relieves pressure from possible ground water. At a minimum, you should always know what the water table level is for the particular area in which you are draining. Failure to check this could lead to the pool literally popping out of the ground. This can cause major damage and expense.

Courtesy of Terry Arko and SeaKlear Pool & Spa Products

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