

REAL ESTATE

# Forget Backyard Pools, Build a Swimming Pond Instead

Eco pools are specifically designed to minimize environmental impact—and look amazing while doing it

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No self-respecting Californian can let the summer pass without a dip in the backyard—pools are as much a part of culture as the 49ers, Schwarzenegger, and dire earthquake warnings.

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Now, though, there's something unseemly about pooling so much water for the occasional swim—enough, in fact, to generate its own hashtag, [#droughtshaming](#). There's one surefire way to mitigate opprobrium: Build a natural swimming pond that's specifically designed to minimize environmental impacts (or the [cash premiums](#) required to keep it up).

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Typical is one example in Sonoma County, where the the water seems to leak down from the rock perched on the ridge. Like a natural spring, it trickles and tumbles, pooling into water features as it falls; one feature is full of aquatic plants and flowers, while another is a swimming hole—clear, cool and inviting. It was built by Dave Whitney, chief executive officer of [Eco Solutions](#), a pioneer in engineering such eco swimming ponds. These dipping pools use natural filtration instead of chlorine pellets to keep the water clean.



“Think of the pleasure of swimming in natural areas vs. coming out of a chlorinated pool and having your skin get dry,” he explains via telephone from his office in Vermont. “In the heart of the Wine Country, you want something natural like this.”

## In the (Swim) Zone

The dos and don'ts of these outdoor swimming ponds are simple. Designers such as Whitney take the planned pool's footprint and divide it: Half is the plant or regeneration zone, 50 percent the swim zone. In the shallow planting area—perhaps a foot or so deep—flowering rushes, water lilies, and flag irises will siphon nitrates out of the water and reduce the phosphate level to prevent algae; the gravel in which they grow acts as a secondary filter. The swim zone, usually from 6.5-feet to 8-feet deep, will be cordoned off with a border of submerged timber or larch.



■ Not every natural swimming pond has to look as if it were last occupied by a family of Hobbits. Source: GartenArt via Bloomberg

Add decking to prevent feet from coming into contact with the slimy, somewhat gravelly floor of the pool and you're ready to take a dip in the ersatz natural swimming hole, surrounded by dragonflies, the occasional clump of tadpoles, and plenty of birds. (Designers deter snakes by keeping the grass around the pool's edges as short as a military haircut.)

It was the chance to bird watch during a morning dip that drove one client in Hanover, N.H. to commission [Gartenart](#), another design firm, to build a similar pond.

“They wanted to draw more birds to the location, as well as deer or moose, [for] somewhere their grandchildren could swim in nice, clear, fresh water,” explains designer Michael George, by phone from Boston. “It's designed to look like a natural waterscape, though this waterfall feature can be turned on and off remotely.”

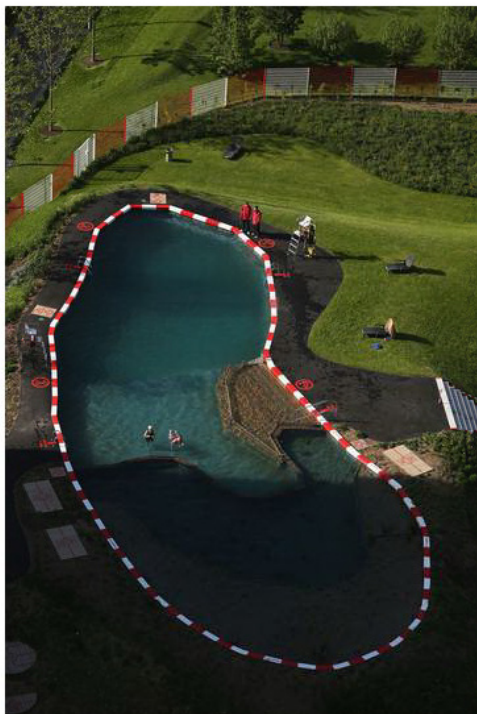


■ Gartenart was one of the first firms to bring the European swimming pond stateside. Source: GartenArt via Bloomberg

## European Origins

This idea was imported from Europe, where natural pools have been growing popular. They began three decades ago in Austria and Germany via such companies as [Biotop](#), which makes sense: In those countries, locals don't hesitate year-round to take dips in bracing Alpine streams. One industry estimate claims there are 900 public pools of this kind across the region; a second calculates that every second swimming pool built today in Germany uses natural filtration.

By the late 1990s, plant-based pools had taken root elsewhere in Europe, notably the UK: British telecommunications magnate [Charles Dunstone](#) built one in his back garden that stretched over more than 6,000 square feet; Superdry founder [Julian Dunkerton](#) is an adherent, too. Storied garden extravaganza the [Chelsea Flower Show](#) featured one this year.



Biotop was recently hired to create the kidney bean-shaped public swimming pond in central London, a piece of land art by artist Marjetica Potrč called [Of Soil and Water: King's Cross Pond Club](#), where anyone can take a chlorine-free swim just minutes from the Eurostar Terminal.

The longtime impasse in importing such eco dipping spots to America, at least until recently, lay with the tyranny of perceived cleanliness: that pools should be a bright, almost garish blue.

“Natural poolwater is clear, but it has a green cast to it because there are things living in it. The U.S. pool industry is a very good marketer of the perfectly clear, sterile, blue water look and has

■ Artist Marjetica Potrč conceived an all-natural public pool in London, which is accepting all-natural bathers starting this summer. Source: GartenArt via Bloomberg

made that very inviting,” notes Gartenart’s George. Such resistance is weakening in the wake of mandatory

water restrictions and a more widespread focus on resource-conservation.

## Enviro Upsides

Though the real appeal of an eco swimming pond is esthetic rather than environmental, installing one of these alternatives does provide some planet-friendly upsides. For instance, unlike conventional chlorinated pools, natural swimming ponds are not heated, saving on energy costs. Lower temperatures reduce evaporation and thus, water use. Owners can also bank the average \$350 to \$500 that most Americans spend on chlorine and pool chemicals each year.

The upfront outlay, unfortunately, is somewhat higher than that for a standard dipping spot. Michael George explains that cost per square foot is approximately equal, but the need for a regeneration zone boosts the pool’s footprint, usually by around 25 percent. There are also constraints on location—preventing algae blooms in Arizona and elsewhere in the Sun Belt requires extra-large plant zones, plus ozone or UV filters, raising costs even more.

## Happy Medium

Regardless of price or eco-benefits, though, most Americans still prefer a neat, traditional plunge pool to a plant-crammed woodland grotto. What about combining both? Andrew Cox runs Clear Water Revival and is a veteran of building eco-ponds in the U.K. He’s also the inventor of a new hybrid that closely resembles a California classic but is cheaper to run and more environmentally friendly.



■ A sleek example of Clear Water Revival's mashup of rustic swimming hole and Bond villain-worthy infinity pool: the natural swimming pool. Source: Clear Water Revival via Bloomberg

“We’ve found that those eco ponds are not everyone’s cup of tea—they often don’t like the slippery surfaces on the side or the floor,” he explains via telephone while vacationing in Abersoc, Wales.

In response, Cox has developed a new kind of natural filtration pump that uses harmless microorganisms to clean the water in conjunction with a much smaller, hydroponic plant zone that takes up only 10 percent to 15 percent of the swimming pool surface area. He calls the mashup a "natural swimming pool": It can be heated up to 86 degrees without harming the plants or encouraging algae, and it may be installed indoors or outdoors. The 70-100 watt pump itself uses less energy to process the water. (Cox estimates an annual saving of around \$3,000, compared with the conventional, 1.5-horsepower equivalent.)

## Clean Machine

His pump is currently in final tests at a special lab at the University of West England in Bristol; it has already proven how quickly it pulls urea—yep, that’s pee—from the water.

“We dosed a 57,000 liter [15,000 gallons] pool with 55 Olympic swimmers’ worth of urine, and the whole lot was gone within 36 hours,” he laughs. “And you’re not going to get that many adults pissing in a typical residential pool simultaneously.”

In fact, the water in Cox’s pools is far cleaner than a rocky swimming hole in nature. It’s so pure that he reaches into the test pond over lunch with prospective clients and fills their water glasses from the shallow end.

“There are no chemicals in there, and it’s mineralizing the water, so it’s like swimming in Evian.” And then drinking it, too: the ultimate in water recycling.

