



Natural pools like Mother Earth intended: Waterco uses a natural process to keep bacteria at bay

- Create a healthy ecosystem for natural flora and fauna
- Reap the benefits of water savings with less backwashing
- Reduce maintenance time and costs with minimal bio-film build-up
- Completely tailor the filtration system to your swimming pool needs

Bio-filtration uses microorganisms and plants to clean the water, maintain clarity, and create healthy swimming conditions.

Challenges

As environmental sustainability becomes part of the global conversation, savvy pool designers and builders are responding to the growing demand from customers to come up with eco-friendly solutions in a market previously dominated by chemical processes.

In addition to exacerbating disorders such as eczema and asthma, traditional sanitising agents like chlorine and bromine can discharge anywhere up to six times its volume of water, per year, down the sewer.

From commercial swim schools to hydrotherapy centres and residential natural pools, the challenge to create a truly bespoke, natural filtration system has, until now, been restricted to product limitations and technological obstacles.

Solution

While biological water treatment has been used in Europe since the early 1900s, it was only two decades ago that the concept of a natural system was trialled by the swimming pool industry.

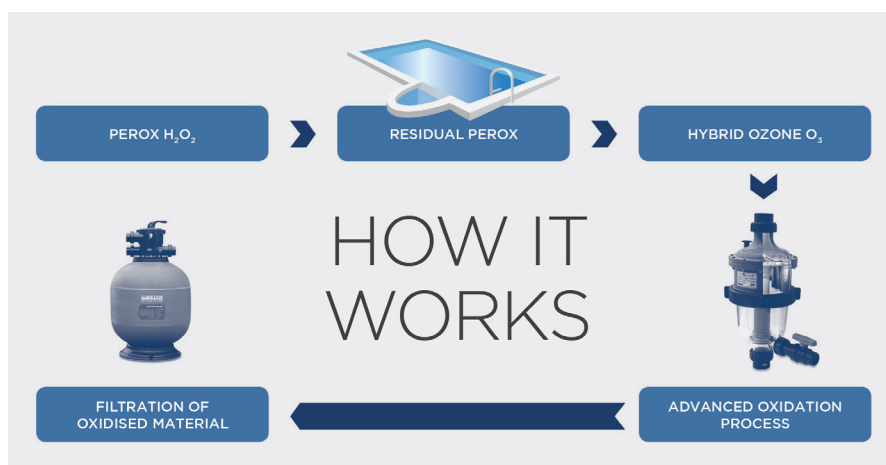
Described as a meeting between old world technology and new world mentality, bio-filtration uses microorganisms and plants to clean the water, maintain clarity, and create healthy swimming conditions. However, unlike traditional sanitisers that work on the theory of killing both good and bad bacteria in pool water; natural pool systems instead require biological processes to clean it.

In creating the Hydroxypure sanitisation system, Waterco Ltd. has adopted technology that has revolutionised drinking water treatment, simplified the process, and applied it to treating pool water.

Created by Gold Coast-based inventor Nick Briscoe in conjunction with international water treatment and swimming pool solutions manufacturer Waterco, Hydroxypure is a truly chlorine-free water treatment system. It's free of odours and taste, is soft and gentle on the skin – what's more, no shower is required after swimming.



Biological filtration is the most effective method of removing toxins (ammonia) and breaking it down into nitrites and then into nitrates which provides food for aquatic plants.



The use of ozone and Perox in harmony increases active oxygen levels in the water. This synergy ensures the safety of water environments without creating harmful chemical by-products.



Sensitive Choice® blue butterfly recognises products and services that support asthma and allergy care.

“Endorsed by the National Asthma Council of Australia and approved by its Sensitive Choice® program, **Hydroxypure** is the most advanced breakthrough in swimming pool and spa sanitisation,” Nick explains. “In fact, its Advance Oxidation Process has the ability to remove bacterial threats more effectively than any other oxidisation process currently available on the market.”

Benefits

It was Waterco's ecological approach to water filtration that attracted NZ-based **Pool Environments** to choose its chlorine-free Hydroxypure system into three different outdoor poolscapes – two natural swimming pools and one freshwater lake.



Engineered specifically for, natural pools, koi ponds and water gardens. Aquabiome provides mechanical and biological filtration in a single housing.



The MultiCyclone M16 is a pre-filtration device that works on the basis of centrifugal water filtration. There are no moving parts to wear and tear and no filter media to clean or replace.

“We loved utilising Waterco’s **Aquabiome** side-mount filters and **MultiCyclone** over many years, as they always played an integral role in our projects,” says Darin Abraham, managing director of Aqua Environs. “Newly on the scene is the Hydroxypure system, which we are enjoying experimenting with to meet the needs for high-end client demands for clear and sanitary water [coupled] with the ability to control algae.”

Karaka, Auckland



Blessed with a beautiful, five-megalitre, 3.6-metre freshwater lake near their home, the owners of this acreage property spent six years extensively researching the idea of creating a bio-diverse swimming oasis, one that could also be utilised by local wildlife as a drinking source.

Explains Nick Briscoe: “In order to attract wildlife to frequent the oasis, fresh water conditions must prevail. Normal chemical treatments used in swimming pools would normally deter wildlife from using a body of water.

“Many natural functions that are undertaken by plant and aquatic life are very effective at managing many aspects of water conditioning,” he continues. “The Hydroxypure system allows the natural water conditioning cycle to co-exist whilst still delivering sanitation.”

Coatesville, Auckland



Wanting to replicate the look and feel of a natural rock pool, the owners of this semi-rural property near Auckland needed a robust filtration system that would create clear, clean water to swim in.

Thanks to Waterco's Hydroxypure system and a host of filtration products, what looks like a sandstone watering hole complete with waterfall is actually a sophisticated, 105,000-litre poolscape (and 2,000-litre in-ground ballast tank for stream/pond start-up) filtered by one of the most powerful disinfecting processes currently available on the market.

The result is a living rock pool with clear, clean water that can be used for diving from the surrounding "cliffs" into the 3.1m-deep water, swimming and snorkelling with cichlids and schooling fish.

Grey Lynn, Auckland



Requiring no chemicals such as chlorine or bromine, this 110,000-litre contemporary swimming pool and water feature utilises the advanced oxidation process of Waterco's Hydroxypure to achieve its organic design. (There are also four in-ground ballast tanks below pool level for pool surface water catch and extra rainwater storage.)

Separated by a regeneration zone, where microorganisms help oxygenate the water and filter impurities and excess nutrients, the main swimming space contain pure, healthy, crystal clear water.

"The client wanted a robust freshwater filtering system to keep the pool clean and clear and enable a variety of plants to be grown in specially-created areas surrounding the pool," Darin explains.

"It was also vital to have low bio-film build-up and, thus, lower maintenance, particularly as the system was retrofitted, replacing the previous ionisation set up.

"The result is a living, organic, aesthetically beautiful pool with clear and clean water that blends well with the home setting."