



Waterco Case Study

Jenkinson's Aquarium

# Healthy aquarium means happy animals

The average backyard swimming pool probably gets a few hours use each day for several months of the year, yet users can still be at risk if the health of the water is not maintained. So imagine the challenges involved with ensuring a clean, healthy environment for a group of two adults who spend much of their lives in the water. That's what happened when the team at Jenkinson's Aquarium at Point Pleasant Beach, New Jersey in the US found the exhibit for their two adult harbor seals wasn't staying clean – despite almost constant backwashing.

## New life support system

The challenge was to create a new life support system for two adult harbor seals that would not only provide the best possible water quality to ensure their health and wellbeing, but also reduce time and money spent on maintenance.

"In our old exhibit we ran two high rate sand filters that were constantly in need of backwash, and the sand was always channelled," Senior Aquarist Angela Pizza says. "Despite this we never really got the clarity and cleanliness from the sand and maintenance was time consuming."

The team had previously experimented with bead media on their penguin exhibit, but found it didn't provide the water clarity they had hoped for. They thought that meant the only option was to stick with sand.

## Optimal water quality

The previous failure of bead media didn't mean the team wasn't open to suggestions of products other than sand. "Our requirements were simply that the media had to give us good water clarity and polishing and keep the water quality optimal for animal

**“** After running the new seal exhibit for several months with Waterco filters, MultiCyclones and Glass Pearl media and being very happy with the results, the penguin exhibit, too, is running great. **”**

*says Senior Aquarist Angela Pizza*

health," Angela says. "After meeting with Waterco representatives at the Aquality Symposium in 2014 we were excited to hear of a product that could give us the polishing qualities of sand but with less maintenance."

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Angela and the rest of the aquarium team discussed the Glass Pearl media with Waterco's representatives and decided to try it out as part of the Harbor Seal Exhibit renovation. They were thrilled with the results.

"We installed the filters, MultiCyclones and Glass Pearl media on our seal exhibit in April 2015."

Glass Pearls operate on the basis of "depth filtration"; dirt is driven through the filter bed and trapped in minute spaces between the particles of filter media allowing the cleansed water to pass through. The water saving ability of Glass Pearl is due to the spherical smooth shape, as this results in a low coefficient of friction. After each backwash, Glass Pearls are cleansed of trapped contaminants.



*Waterco's Glass Pearls are manufactured from 100% pure virgin glass and provide an extremely narrow particle size range, enabling the creation of a dense homogeneous filter media bed.*



▲ Micron Side Mount fibreglass filters filled with Glass Pearl filter media and MultiCyclone centrifugal pre-filters.

"After running the new seal exhibit for several months with Waterco Filters, MultiCyclones and Glass Pearl media and being very happy with the results, it was decided we would retrofit a bead media filter on our penguin exhibit with Glass Pearls in July 2015," Angela says. The only change that needed to be done was a simple swap out of the lateral system inside the filter body," Angela adds. "The penguin exhibit, too, is running great."

### Enhanced living environment; time and money savings

Angela says both the seals and penguins are enjoying a better quality living environment, while the aquarium is saving time and money on maintenance with the peace of mind that the animals are safe and healthy.

"We run many large sand filters here and to have a media that requires less backwash and still gives the polishing quality of sand is great," she says. "Also, the use of the MultiCyclones on the Harbor Seal system has been a huge help in the removal of solids before they ever reach the filter. So far, the maintenance of these systems has been cut down dramatically, while still giving us the water clarity and quality we require. Also, a reduction in the amount and length of backwashes was a plus."

says Clint Holland from Waterco, "The MultiCyclone technology uses the most advanced hydro cyclone technology which ensures high water quality and clarity – and that was vital for these two water exhibits."

Then there is the added peace of mind that comes with reliability of product quality and service.

"Waterco definitely stands behind their products, which is important to us," Angela says. "We are a small facility and as such are sometimes overlooked by larger companies because we don't use the volume of products larger facilities use."



*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.*