



Waterco Case Study

Kalabakan Water Treatment Plant

Clean water for Sabah communities

Waterco filters play a vital role

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says Yong Heng Foo,
Waterco Sales Manager – Asian Region.

In the East Malaysian state of Sabah, there are myriad water treatment plants operating throughout the state to provide an average of 1.05 billion litres of water every day to meet demand in urban and rural communities.

The Kalabakan Water Treatment Plant, operated by water treatment contractor Kejuruteraan Empunya Jaya Sdn Bhd, is one such facility; it sources water from the Kalabakan River (which many crocodiles call home) to provide 50 cubic metres of water an hour to Kampung Murut (a Murut Village) and the surrounding area.

In January 2014 Waterco installed five commercial fibreglass deep bed filters at the water treatment facility to filter the surface water and river water for primary/potable and secondary purposes.

“Our client originally used water filters from a different provider, but these were not user friendly and required a lot of maintenance, which is why they made the decision to change,” says Yong Heng Foo, Waterco Sales Manager – Asian Region.



◀ Two Micron M5000 (horizontal) filters and three SMD1400 (side mount) filters.

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To address the operator’s needs, Waterco recommended installing two Micron M5000 (horizontal) filters and three SMD1400 (side mount) filters.

“We recommended these filters because the effect of deep bed media bed improves the filtration efficiency,” says Yong Heng Foo. “And they are sized to increase in-depth filtration and increased dirt capacity.”

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For a water treatment facility such as Kalabakan, a significant challenge is the non-point pollution that affects the water body, such as polluted run-off from agricultural areas draining into the river.

“Sediment may enter surface waters from eroding stream banks and from surface run-off due to improper plant cover, which is another challenge that affects the surface water,” says Yong Heng Foo.

“This will create large pollutant loading, which needs to be treated before the water can be consumed safely by the local population. Thus proper design of the water treatment plant and prudent selection of water treatment equipment – such as Waterco’s fibreglass commercial filters – is essential to ensure the challenges can be overcome.”

Since the installation of the Waterco filters, the local population has been enjoying enhanced water quality. “The water quality is up to our client’s expectations and they like the consistency of the performance of the filters,” Yong Heng Foo adds.