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IWK expands water reclamation efforts by exploring new projects with PBAPP



KUALA LUMPUR: National sewerage company, Indah Water Konsortium (IWK) Sdn Bhd signed a Memorandum of Understanding (MoU) with Perbadanan Bekalan Air Pulau Pinang Sdn Bhd (PBAPP) yesterday to study the viability of implementing water reclamation projects at three (3) strategic locations in Penang. This brings IWK's overall potential of recycling bio-effluent to over 300 MLD with implementation of Water Reclamation Plants (WRP) in Klang Valley, Melaka and now, Penang.

The MoU between IWK and PBAPP explores the viability of recycling bio-effluent that is currently being released into waterways from three (3) existing IWK Sewage Treatment Plants (STPs) at Bayan Baru, Georgetown and Mak Mandin.

The bio-effluent discharged from these STPs is estimated to be at 260 MLD. In-depth study will be carried out by both companies to explore the potential and feasibility of utilising the bio-effluent for the production of reclaimed water.

“IWK embarked on the water reclamation initiative as part of its efforts to minimise water shortage in the future and ease the pressures on our water sources. We are excited by the expansion of our water recycling efforts in Penang through this collaboration with PBAPP. With PBAPP on board and together with our other water operators, we are delighted with the potential to recycle over 300MLD of our bio-effluent for the purpose of water reclamation subject to the detailed feasibility study.” said IWK’s Chief Executive Officer, Narendran Maniam.



Aside to the partnership with PBAPP, IWK is working with water operators and stakeholders in Selangor, Melaka and Johor to yield alternative water sources for non-potable purposes which in turn can contribute towards preserving the nation’s clean water resources and increase circular economy practices.

In 2021, IWK formed a partnership with Pengurusan Air Selangor Sdn Bhd (Air Selangor), through a special-purpose vehicle company, Central Water Reclamation Sdn. Bhd. (CWR) to jointly manage and

develop WRP in Klang Valley. Through this collaboration, the bio-effluent by IWK is supplied to CWR's WRP to produce non-potable reclaimed water.

“Since May 2021, CWR's WRP in Setia Alam has commenced its operation and yielded 4MLD of reclaimed water for industrial use. Apart from this, we also looking at other collaboration opportunities at locations around IWK's STPs,” said Narendran Maniam.



IWK also entered into a collaboration with Syarikat Air Melaka Berhad (SAMB) to develop a water reclamation initiative in Melaka. Together, the companies have identified suitable catchment areas and capacities for the WRP project. IWK and SAMB are working together to develop a feasible model for potential supply of reclaimed water to industrial areas in Melaka. IWK and SAMB expects the use of reclaimed water to be as much as 7 MLD for the initial phase of implementation.

Narendran said, the potential of reclamation of bio-effluent is immense. Being reused for industrial purposes as a start will reduce the amounts of clean water used for nearly every step of the manufacturing and production practices, whether it is used for producing, processing, washing, diluting, cooling and many more.

As early as 2015, IWK has taken steps to start small-scale projects with the Local Authorities to reuse bio - effluent to water landscape crops. This speaks of IWK's longstanding commitment to sustainability and efforts in protecting the environment and its clean water sources.

“We want to maximise water reuse options to ensure that our clean water sources are not stressed by industrial consumption. This is part of IWK's waste-to-wealth initiatives, looking at alternative solutions such as the reuse of its treated effluent in line with the target to recycle 33% of the nation's treated effluent by 2030 under the Green Technology Master Plan 2017 – 2030,” concluded Narendran Maniam.

Source: Indah Water Konsortium