

South China Morning Post – Letters to editor

By using much more rainwater, HK can reduce imports from Guangdong

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The important issue of Hong Kong's future water security was raised by Su Liu of Civic Exchange ("To avoid a future crisis, Hong Kong needs to come up with a water plan", July 7).

A sustainable way forward is for Hong Kong to utilise local water resources more effectively than at present rather than relying on importation from Dongjiang.

Importing water is counter to the principle of sustainability. Guangdong province is increasingly facing water shortages and serious water pollution problems. Also, the cost of treating the imported water to meet our more stringent standard will increase.

Because of Hong Kong's coastal location and the subtropical monsoonal maritime climate, its average annual rainfall of about 2,228mm per annum is higher than much of Guangdong. But, only about 25 per cent of this natural water resource is captured by our reservoirs while the remainder enters the South China Sea often causing flooding in low-lying areas.

In order to move towards total water management, Hong Kong must exploit the remaining 75 per cent of water resource. This can be achieved through an integrated water management plan involving the utilisation of groundwater.

A number of factors make tapping Hong Kong's groundwater aquifers attractive. The volcanic rocks in Tai Mo Shan, Victoria Peak, Lantau Peak and Sunset Peak are composed of well-jointed volcanic rocks making them good aquifers. This was demonstrated by the construction of the Butterfly Valley (water supply) tunnel in the New Territories, where a record groundwater flow rate of about 250 litres per second was found. The groundwater stored in these rocks has a huge potential.

The majority of the highland areas has already been designated country parks and is virtually free from industrial contamination. Through natural filtration in soil and rock, this groundwater is potable with little treatment. The exploitation of groundwater resource can also reduce the risk of landslides and floods through the lowering of the groundwater table.

Groundwater extraction can be maximised by recharging the aquifers through a run-off circulation system. We can save money by reducing water imports and treatment as well as being a good neighbour by reducing water demand in Guangdong.

Hong Kong needs to get its own house in order through better utilisation of its most valuable natural resource - water. The challenge is for our engineers to increase the efficiency of local water resource usage to at least 50 per cent.

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