

# Drinking Water Safety Advisory Committee visits advanced water treatment facilities in Tai Po Water Treatment Works, Unmanned Surface Vessel System and Floating Solar Power System in Plover Cove Reservoir (with photos)

The Drinking Water Safety Advisory Committee, accompanied by the Director of Water Supplies, Mr Tony Yau, visited the advanced water treatment facilities in Tai Po Water Treatment Works (TPWTW), the Unmanned Surface Vessel (USV) System and the Floating Solar Power (FSP) System in Plover Cove (PC) Reservoir this afternoon (October 17).

The expansion of TPWTW was completed in 2018. The expansion not only increased the daily output capacity of TPWTW to meet the fresh water demand but also introduced several advanced water treatment technologies.

The Advisory Committee first toured the Central Control Centre at TPWTW to learn about its operation, the advanced water treatment process and the Integrated Treatment Information & Tele-alert System which assists in water quality monitoring.

They then visited the ozone generation plant to know about the use of ozone as an advanced and efficient drinking water disinfection technology which can reduce the chlorine consumption by around 30 per cent. After that, they arrived at the first on-site chlorine generation facility in Hong Kong. The facility can generate the chlorine amount on demand and largely eliminate the risk of chlorine leakage during transportation and storage of liquid chlorine. The above facilities can help enhance the operational safety and flexibility of drinking water disinfection.

They then visited the USV System for use in the water quality monitoring in PC Reservoir. Each USV is equipped with a Global Positioning System and an automatic water quality monitoring and sampling unit. It enables simultaneous monitoring of water quality at different locations in the reservoir and automatic generation of visualised water quality reports. The Water Supplies Department is currently enhancing the intelligence of the USV System to increase the efficiency of water quality monitoring, including intelligent route planning and intelligent water quality monitoring and sampling capabilities, by allowing the USV System to automatically plan cruise routes and respond in real time to changes in water quality.

Lastly, they visited the FSP System in PC Reservoir. The pilot project

can generate as much as 120 000 units (kilowatt-hours) of electricity annually, reducing around 84 tonnes of carbon dioxide emission. The pilot project will lay a solid foundation for a long-term development of renewable energy with some useful reference data for the future implementation of large-scale floating photovoltaic farms in Hong Kong.

