

Cherish Water Campus

惜水學堂

ISSUE 24

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People A: Dave, you know what are the upcoming challenges of water supply in Hong Kong?

- Fluctuating local yield and Dongjiang water supply due to climate change
- Keen competition for the Dongjiang water resource
- Increasing water demand arising from population and economic growth

Dave: You are right! Water Supplies Department (WSD) is striving to strengthen Hong Kong water supply management through exploring new sources of water supply. Today, I would like to introduce one of the new water source - DESALINATION.

Do you know DESALINATION?

Tseung Kwan O Desalination Plant (TKODP)

DESALINATION is a new and stable water source that is not susceptible to climate change.

The first stage of the Tseung Kwan O Desalination Plant (TKODP) commissioned for supplying water in December 2023. The TKODP is the first waterworks in Hong Kong to adopt an **advanced reverse osmosis desalination technology**. Upon entering into full operation, the TKODP will meet around 5 per cent of the overall fresh water demand in Hong Kong with a water production capacity at 135 000 cubic metres per day. The TKODP, together with the Pak Kong Water Treatment Works and the Tseung Kwan O Primary Fresh Water Service Reservoir, will supply drinking water to Sai Kung as well as parts of East Kowloon and Hong Kong Island.

水務署

Water Supplies Department

What is REVERSE OSMOSIS?

People A: Dave, are we safe to drink the desalinated water?

Dave: No problem! Desalinated water complies with World Health Organisation's Guidelines for Drinking-water Quality on a par with the quality of water supplied by other water treatment works in Hong Kong. To ensure drinking water safety in Hong Kong, the WSD has implemented a series of measures to monitor and strictly control the overall water quality produced by the TKODP.

- Seawater and fresh water with the same volume are separated by a semi-permeable membrane in a container.
- Natural Osmosis  
Under normal osmosis, water diffuses from less concentrated solution to more concentrated solution through a semi-permeable membrane to achieve osmotic equilibrium.
- At Osmotic Equilibrium  
Modest pressure is applied to the seawater side so that fresh water cannot flow pass through the membrane.
- Reverse Osmosis  
Reverse osmosis is the process of forcing water from concentrated solution to less concentrated solution through a semi-permeable membrane under high pressure. The membrane allows fresh water to pass through while it retains salts and other impurities.

If you wish to know more about DESALINATION, please join WSD Open Day 2024. You may visit the webpage for details.

QR code: <https://www.facebook.com/watersavedave.hk>

## “Cherish Water Campus” Water Saving Week 2024

“Cherish Water Campus” Water Saving Week 2024 concluded successfully. We would like to express our gratitude to all participating schools, teachers and students for their support to this event.

### “The Most Active Participation Award”

- Shau Kei Wan Government Primary School
- Tuen Mun Government Primary School
- Chiu Sheung School, Hong Kong

### “Save Water Today for a Sustainable Future” Poster Design Competition

Junior Primary

Champion

Hong Kong Baptist Convention Primary School

Chong Sun Wai

1st Runner-up

Q.E.S. Old Students' Association Branch Primary School

Pang Yuen Hei

2nd Runner-up

CCC Kei Chun Primary School

Siu Sum Yiu

Senior Primary

Champion

Hon Wah College

(Primary Section)

Wong Tik Long Khson

1<sup>st</sup> Runner-up

YL Long Ping Estate Wai Chow School

Weng Chi Wing

2nd Runner-up

Salesian School

Lam Chi Him

Dave: Congratulations to all awardees!

More Awardees

QR code: <https://waterconservation.gov.hk/tc/at-school/cherish-water-primary-school/teaching-resources/suggested-activities/-save-water-today-for-a-sustainable-future-poster/index.html>

## Event Notice Board

### Water Save Wonderland

The “Water Save Wonderland” Roving Roadshows launch from September 2024. Join us to learn more water saving tips, participate in the interactive games and win the fabulous prize!

7 – 10 Nov 2024

EVENT HALL, G/F,

OLYMPIAN CITY 2

14 – 17 Nov 2024

COVERED PIAZZA, G/F,

TIMES SQUARE, CAUSEWAY BAY

Fun Games Free Goodies

### Water Conservation Carnival

5 – 15 Dec 2024

HarbourChill (near Wan Chai Ferry Pier)

Exciting Activities Let’s play together!

### New Water Saving AR Filter Launched

Come and Join!

Water Supplies Department (Water Conservation Unit)

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This publication is available on WSD’s Water Conservation website