

Advisory Committee on Water Supplies (2020-2022)
Minutes of Fourth Meeting

Date: 27 August 2021 (Friday)

Time: 2:30 p.m.

Venue: Room 4819, Water Supplies Department, 48/F, Immigration Tower,
7 Gloucester Road, Wan Chai, Hong Kong

Present

Prof KWAN Kai Cho, Joseph	Chairman
Prof WONG Wing Tak	Working Group Chairman
Mr LAU Che Feng, Edwin	Working Group Chairman
Mr TAM Kwok Wing, Ivan	Working Group Chairman
Ir NG Chun Keung	Working Group Vice-Chairman
Ms WONG Chi Shun, Carol	Working Group Vice-Chairman
Prof CHAN Yan Keung, Thomas	Member
Mr CHEUNG Hau Wai	Member
Mr LAM Yat Fung, James	Member
Mr LI Kam Wong, Arthur	Member
Prof SHIH Kaimin	Member
Sr WONG Kwok Leung, Paul	Member
Mr WONG Kwun Kit, William	Member
Dr WONG TAAM Chi Woon, Vivian	Member
Prof WU Xun	Member
Mr YIU Ming, Jeff	Member
Ms YUEN Yan Ling, Elaine	Member
Mr LO Kwok Wah, Kelvin	Member (Water Supplies Department)
Mr CHAN Tak Yeung, Thomas	Member (Development Bureau)
Ms HO Kit Yee, Kitty	Member (Architectural Services Department)
Mr LAU Shing Cheong, Edwin	Member (Drainage Services Department)
Mr CHEN Che Kong	Member (Environmental Protection Department)
Dr CHOW Chor Yiu, Tony	Member (Department of Health)
Mr LING Wai Kit, Ricky	Member's Representative (Housing Department)
Mr LAW Yuk Fat, Robin	Secretary (Water Supplies Department)

Water Supplies Department Representatives in Attendance

Mr MA Hon Wing, Wilson	Assistant Director
Mr CHOY Tak Yip	Chief Chemist
Mr LEUNG Chi Hung, Simon	Chief Engineer
Mr CHO Ping Ho	Chief Engineer
Mr CHAN Man Yin, Samson	Senior Engineer

Mr NG Chi Yuen, James	Senior Engineer
Mr LAM Ping Wah, Eric	Senior Engineer
Mr LAW Wai Ho, Milton	Senior Engineer
Mr LEE Hong Nin, Kevin	Senior Engineer
Mr LIU Kai Chun	Senior Engineer
Mr WONG Ming Kwong	Senior Engineer
Mr TANG Ki Lai, Thomson	Chemist
Mr HO Wai Ming, Joseph	Engineer
Ms WONG Dik Chi, Antonia	Engineer
Mr YEUNG Chun Kit	Engineer
Ms FUNG Bo Yin, Anthea	Engineer (Note-Taker)

Absent with Apologies

Ir TANG Ming Sum, Michelle	Working Group Vice-Chairman
Mr AU YEUNG Chi King, Artur	Member
Prof CHIU Pauline	Member
Prof CHU Wei	Member
Mr YAU Kam Wing	Member

Item

1. Opening Remarks

- 1.1 The Chairman welcomed all Members and representatives of Water Supplies Department (WSD) to the meeting.
- 1.2 The Chairman informed the meeting that Ir TANG Ming Sum, Michelle, Mr AU YUENG Chi King, Artur, Prof CHIU Pauline, Prof CHU Wei and Mr YAU Kam Wing were unable to attend the meeting and had sent in their apologies.

Agenda Items

2. Confirmation of Minutes of Last Meeting

- 2.1 The Chairman advised that the draft minutes for last meeting had been circulated to the Members on 28 July 2021 with no comments received. There being no further amendment proposed at the meeting, the draft minutes were confirmed.

3. Report of Working Group on Operational Matters

- 3.1 The Chairman invited Prof WONG Wing Tak, Chairman of the Working Group (WG) on Operational Matters, to report the key issues discussed in the 3rd WG meeting held on 9 July 2021.

Supply of Recycled Water in WSD

- 3.2 Prof WONG reported the following:

- WSD presented an overview of the use of recycled water in Hong Kong and a study of the ecological impact for the use of recycled water.
- WG Members appreciated WSD in enhancing the use of recycled water and suggested that future ecological impact studies could be refined by using native species as model organisms with high number of species data points to incorporate local information in assessing environmental risk of pollutants.

Regulation Control of Plumbing Works in New Buildings

- 3.3 Prof WONG reported the following:

- WSD presented the regulation control of plumbing works for new buildings from the initial proposal stage to the final commissioning stage, the General Acceptance (GA) system and the GA product shop scheme.
- WG Members appreciated the WSD's efforts in implementing various control measures over plumbing materials, design, construction and commissioning of new plumbing systems to strengthen water safety in inside service.

4. Report of Working Group on Government Network and Inside Service

- 4.1 The Chairman invited Mr TAM Kwok Wing, Ivan, Chairman of the WG on Government Network and Inside Service, to report the key issues discussed in the 3rd WG meeting held on 30 July 2021.

Smart Water Model

- 4.2 Mr Ivan TAM reported the following:

- WSD presented the use of “Smart Water Model” to illustrate the application of new technologies and innovative ideas to meet the water supply strategy and challenges iteratively. The “Smart Water Model” was adopted to explore a better way for planning water resources, deliver a smarter design of water supply networks particularly in New Development

Areas (NDAs) and investigate more innovative measures for operation and maintenance of water supply networks.

- WG Members appreciated the effort of WSD in enhancing the water supply network particularly in NDAs and suggested WSD to extend the Smart Water Model to cover other developed areas.

4.3 Prof SHIH Kaimin enquired whether the use of reclaimed water and treated grey water could be reviewed together as the two items were similar. Mr LO Kwok Wah, Kelvin of WSD replied that the use of reclaimed water and treated grey water would be reviewed taking into account considerations from different perspectives which would involve coordination within WSD and cross-departmental collaboration.

Hydraulic Model for Water Supply Network

4.4 Mr Ivan TAM reported the following:

- WSD presented the “Hydraulic Model for Water Supply Network” which could be used as an integral part to facilitate decision making for planning, design and operation. The application of the hydraulic model in some cases for planned works and water quality analysis was also demonstrated.
- WG Members appreciated the adoption of hydraulic models by WSD and agreed that WSD had been taking active steps for monitoring the water distribution network systematically and enhancing the planning management and operation of system.

5. Report of Working Group on Water Conservation and Education

5.1 The Chairman invited Mr LAU Che Feng, Edwin, Chairman of the WG on Water Conservation and Education, to report the key issues discussed at the 3rd WG meeting held on 19 July 2021.

Cherish Water Campus - Water Saving Week 2021

5.2 Mr Edwin LAU reported the following:

- WSD reported the results of the “Water Saving Week 2021” for kindergartens and primary schools from 21 to 25 June 2021. The event consisting of the Cherish Water Booklet (惜水小手冊), 4-minute Shower Challenge(挑戰沖涼 4 分鐘), Water Saving 4-Panel Comic Drawing Competition (「節約用水」 4 格漫畫創作比賽) and Water Resources Online Quiz Competition (水資源知識網上問答比賽) was held by WSD to echo the event of “Water Saving Week” in both China and UK as well as

to promote the awareness of water saving.

- WG Members appreciated WSD's efforts to promote the importance of cherishing water to students by different competitions and activities.

Introduction of Water Consumption Benchmarking for Schools in Hong Kong

5.3 Mr Edwin LAU reported the following:

- WSD gave a presentation on the "Introduction of Water Consumption Benchmarking for Schools in Hong Kong" which aim to encourage schools, including kindergartens, primary schools and secondary schools, to compare their own water efficiency performance with their counterparts and develop plans or measures for improvement of their water efficiency performance. A Water Efficiency Index has been developed as a performance indicator for water efficiency and the Water Efficiency Index median was found after analyzing the data from about 1,300 typical schools.
- Members appreciated WSD's efforts to establish this benchmarking and expected schools to review their water consumption performance seriously.

ECH2O - Enterprises Cherish Water Campaign (「商約」惜水運動)

5.4 Mr Edwin LAU reported the following:

- Green Council presented the "ECH2O - Enterprises Cherish Water Campaign". With the non-domestic sector contributing to a large portion of the total fresh water consumption demand in Hong Kong, WSD has engaged Green Council to formulate the campaign which includes a series of engagement programme, including signing of charter, appointment of cherishing water manager, education & promotion, equipment improvement and recognition programmes, for various trades to promote water conservation.
- Members supported the campaign and agreed that the series of engagement programme could encourage different trades to cherish water together.

5.5 The Chairman mentioned that the WG members opined that apart from rising the public's awareness of water conservation, behavioural change would also be required to sustainably achieve water conservation and reduction in fresh water demand. The Secretary replied that WSD's consultant had similar findings while formulating the Three-year Water Conservation Strategy and

recommended campaigns with longer time span for participants to build up water conservation habits and sustain the impact.

- 5.6 Mr Edwin LAU opined that it is important to form water conservation culture and suggested to establish a water conservation manager for both the commercial and public sector to promote conservation among their peer groups with recognition to their efforts. Mr CHAN Tak Yeung, Thomas of DEVB thanked Mr Edwin LAU for his suggestion and advised that WSD had carried out similar programmes such as the Water Conservation Star Award and Water Conservation Pioneer Award for students to recognise their efforts to promote water conservation and similar campaigns could be considered in other sectors.

6. Report on Q-Leak Opening Ceremony

- 6.1 Mr NG Chi Yuen, James of WSD gave an introduction of Q-Leak, the underground water mains leak detection training centre, and reported the opening ceremony held on 26 July 2021.
- 6.2 Members noted that the establishment of Q-Leak provides better facilities for strengthening the industry with training and research capabilities on leak detection. With facilities simulating the complicated water supply network of Hong Kong and underground water main leakage under various conditions and scenarios, the centre provides a safe environment for leak detection practitioners to conduct training and skills assessments on various leak detection technologies in simulated district metering areas. Q-Leak would serve as a teaching and research cooperation platform amongst WSD, the trade and post-secondary education institutions in Hong Kong in the field of water mains leak detection, with a view to strengthen training of premises management and serve as a platform for promoting leak detection to the public.

7. Special Features of Expansion of Tai Po Water Treatment Works

- 7.1 Mr CHAN Man Yin, Samson and Mr TANG Ki Lai, Thomson of WSD gave a presentation on “Special Features of Expansion of Tai Po Water Treatment Works”.
- 7.2 Prof SHIH Kaimin enquired whether the water treatment works was using both ozone and chlorine for disinfection. Mr Thomson TANG of WSD advised that ozone was used for odour control, manganese removal, reduction in chlorine

dose and its by-product trihalomethane (THM). Mr CHOY Tak Yip of WSD further advised that ozone as a powerful oxidant could remove more pollutants and reduce THM to improve drinking water quality. However, ozone would decompose rapidly in water and chlorine would be added into water before leaving water treatment works for disinfection and to maintain the residual disinfecting power in distribution system.

7.3 Prof SHIH Kaimin further enquired about the by-products sodium hydroxide and hydrogen gas during on-site chlorine generation. Mr CHOY Tak Yip of WSD advised that the sodium hydroxide would be used to generate sodium hypochlorite to be used as a disinfectant in the water treatment process and would also be added to drinking water for pH adjustment. For the hydrogen gas, it would be vented out by the safety system to prevent accumulation.

7.4 Ms YUEN Yan Ling, Elaine enquired whether zebrafish and light-emitting bacteria would be used to safeguard drinking water quality apart from the Integrated Treatment Information & Tel-Alert System (INTEL) presented. Mr Thomson TANG of WSD affirmed that the Biosensing Alert System consisting of the WSD self-developed zebrafish biosensing system for continuous monitoring and the light-emitting bacteria for batchwise toxicity test had been adopted at Tai Po Water Treatment Works.

8. Automatic Meter Reading for Water Supplies in Hong Kong

8.1 Mr WONG Ming Kwong of WSD gave a presentation on “Automatic Meter Reading for Water Supplies in Hong Kong”.

8.2 Mr CHEN Che Kong of EPD shared that EPD has collaborated with DSD to launch the Anti-epidemic Subsidy Scheme for the Laundry Trade under the Anti-epidemic Fund to help the laundry trade cope with the challenges brought about by the economic situation and the water consumption of the applicants were used to determine the scale of their business. Apart from improving meter reading efficiency and to keep abreast of the development of technology, the automatic meter readings could be beneficial to other departments and help to serve businesses, industries and citizens.

8.3 Prof SHIH Kaimin opined that the automatic meter readings have high potential to facilitate a quicker response to attend water leakage and look forward to the breakthrough of its costing.

9. Any Other Business

- 9.1 The Secretary had received suggestions from members and would like to provide response on the follow-up actions. Member suggested to have more updates on the Water Safety Plan Subsidy Scheme (WSPSS) and the topic would be included in the WG on Government Network and Inside Service as a regular item. Member expressed interest in the new technologies used in R&R works, a topic on “Technologies and New Materials adopted in R&R works” would be included in the next meeting of WG on Operational Matters. Members expressed interest about WSD’s work in Energy Management, a topic on “Plumbing Efficiency and Energy Management” would also be included in the next meeting of WG on Operational Matters. The Secretary advised members that they could contact the Secretariat if they have topics of specific interest.
- 9.2 Mr Ivan TAM opined that it was difficult to convene owners’ meeting for the resolution for application of WSPSS for buildings due to the COVID-19 pandemic. Although the application of WSPSS could be supported by owners in writing, it was still hard to have support from more than 50% of the owners. He also suggested WSD to provide samples of successful cases with rectification works completed within the cap of \$250,000 per building. Mr Kelvin LO of WSD advised that WSD would review the alternative arrangements for buildings to satisfy the relevant requirements of WSPSS and provide the sample cases to facilitate promotion to potential participants.
- 9.3 There being no other business, the Chairman adjourned the meeting at 5:00 p.m.