

Advisory Committee on Water Supplies (2018-2020)
Minutes of Fifth Meeting

Date: 11 July 2019 (Thursday)

Time: 2:00 p.m.

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

Present

Ir Dr CHAN Hon Fai	Chairman
Prof. KWAN Kai Cho, Joseph	Vice-Chairman
Prof. WONG Wing Tak	Working Group Chairman
Mr. LAU Che Feng, Edwin	Working Group Chairman
Mr. TAM Kwok Wing, Ivan	Working Group Chairman
Sr Prof. WONG Bay	Working Group Vice-Chairman
Ir NG Chun Keung	Working Group Vice-Chairman
Ms. WONG Chi Shun, Carol	Working Group Vice-Chairman
Prof. CHAN Yan Keung, Thomas	Member
Prof. CHENG Man Chung, Daniel	Member
Prof. CHU Wei	Member
Prof. WU Xun	Member
Dr HO Shu Kwong, Raymond	Member
Dr LAU Wai Neng, Michael	Member
Dr WONG Siu Wing, Eric	Member
Ms. KAM Kin	Member
Mr. WONG Kwun Kit, William	Member
Mr. YEUNG Wai Sing	Member
Mr. MAK Ka Chun	Member (Architectural Services Department)
Mr. CHAN Tak Yeung	Member (Development Bureau)
Mr. CHEN Che Kong	Member (Environmental Protection Department)
Dr FUNG On Yee, Connie	Member (Department of Health)
Ms. LEE Lee	Member's representative (Housing Department)
Mr. WONG Chung Leung	Member (Water Supplies Department)
Mr. LAW Yuk Fat, Robin	Secretary (Water Supplies Department)

Water Supplies Department Representatives in Attendance

Mr. WONG Yan Lok, Roger	Assistant Director
Mr. LEE Tai On	Assistant Director
Mr. CHAN Chi Yuen, Stanley	Chief Engineer
Mr. CHEUNG Yip Kui, Rico	Chief Engineer
Mr. KWOK Yau Ting, Kelvin	Chief Chemist

Mr. YIP Ka Chun, Gary	Chief Engineer
Mr. LAM Chun Ngai, Avery	Senior Engineer
Mr. LAU Cheuk Fung Calvin	Senior Engineer
Mr. LAU Chi Ming	Senior Engineer
Mr. LEE Kwun Chung, Johnson	Senior Engineer
Mr. LO Tsz Lung, Warren	Senior Engineer
Mr. NGAI Man Fai	Senior Engineer
Mr. LAO Yin	Engineer
Mr. TANG Ho Wai	Chemist
Ms. WANG Qijun, Fairy	Engineer
Ms. TAM Ka Yan, Yan	Engineer (Note-Taker)

Absent with Apologies

Prof. CHIU Pauline	Member
Dr WONG TAAM Chi Woon, Vivian	Member
Ms. LEE Pik Yee, Peggy	Member

Item

1. Opening Remarks

- 1.1 The Chairman welcomed all Members of Advisory Committee on Water Supplies (“ACWS”) and representatives of Water Supplies Department (“WSD”) to the meeting.
- 1.2 The Chairman informed the meeting that Prof. CHIU Pauline, Dr WONG TAAM Chi Woon, Vivian and Ms. LEE Pik Yee, Peggy 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 revised draft minutes for last meeting, which had incorporated Members’ comments, had been re-circulated to the Members on 5 July 2019 with no further comment received. There being no further amendment proposed at the meeting, the revised draft minutes were confirmed.

3. Matters Arising

Pilot Trial on WhatsApp Hotline for Reporting Water Mains Leakage and Unlawful Taking of Water

- 3.1 Referring to the item 5.8 of the minutes of last meeting, the Secretary reported that a pilot trial on a WhatsApp hotline for WSD colleagues to report cases of water mains leakage and unlawful taking of water had been launched in May 2019. The WhatsApp hotline allowed easy reporting of the case details including photos and locations of the cases by means of text, google map location sharing function or any other map function through WhatsApp. In addition, an email was sent to the ACWS Members on 27 May 2019 inviting them to participate in the pilot trial. WSD would conduct review of the pilot trial in early November 2019.

4. Report of Working Group on Operational Matters

- 4.1 The Chairman invited Prof. WONG Wing Tak, Chairman of the Working Group (“WG”) on Operational Matters, to report the key issues discussed in the 4th WG meeting held on 17 May 2019.

Implementation of Water Safety Plan for Buildings (建築物水安全計劃)

- 4.2 Prof. WONG reported the following:
- WSD briefed WG Members on the latest progress of implementation of Water Safety Plan (“WSP”) for Buildings and introduced the new WSP template prepared for hospitals which would be uploaded to WSD website in July 2019. WSD advised that the Quality Water Supply Scheme for Buildings – Fresh Water (Management System) 「大廈優質供水認可計劃-食水(管理系統)」 would accept applications from hospitals starting from July 2019.
 - WG Members welcomed the new WSP template for hospitals. Some WG Members suggested that the WSP template for hospitals might include more vigorous water quality tests at particular stages such as initial operation of the hospital and after each major renovation. WSD agreed to consider the need of reviewing the current requirements after gaining more experience and views from stakeholders in the use of the WSP template for hospitals.

Regulatory Control on Plumbing Works in Modular Integrated Construction (組裝合成建築法)

4.3 Prof. WONG reported the following:

- WSD had briefed WG Members on the regulatory measures and procedures to control the plumbing works in Modular Integrated Construction (“MiC”) modules constructed in off-site factory outside Hong Kong. For such plumbing works, the concerned MiC project would be required to submit Supervision Plan to ensure that sufficient supervision of the plumbing works would be provided by Licensed Plumbers (“LP”) and Registered Plumbing Workers at the off-site factory. WSD would deploy Inspection Agent to carry out inspections of the plumbing works in MiC modules before covered up and audit checks on the supervision provided.
- WG Members appreciated that WSD had reacted promptly to facilitate the adoption of the new and innovative technology of MiC in Hong Kong. WG Members were also satisfied that the regulatory measures and procedures of the plumbing works in MiC would be adequate to ensure water safety.

4.4 The Chairman enquired whether the plumbing materials used in MiC projects would be checked. Mr. WONG Chung Leung of WSD replied that the responsible LP had to submit the “List of Pipes and Fittings to be Installed” (WWO 1149) for approval by WSD prior to commencement of plumbing works which was the same arrangement as for plumbing works under conventional projects.

4.5 Dr WONG Siu Wing, Eric, enquired whether connection of water pipes between MiC modules would be supervised by LP. Mr. WONG Chung Leung of WSD replied that the connection of water pipes between MiC modules would be carried out after the MiC modules were delivered to the project site in Hong Kong. The responsible LP should ensure that the water pipe connection works would be properly carried out on site.

4.6 Mr. MAK Ka Chun of ArchSD mentioned that ArchSD had launched a pilot MiC project in Pak Shing Kok, Tseung Kwan O. He supplemented that the construction technology using MiC would be further reviewed including the connection of water pipes between MiC modules.

Reservoir Safety in Hong Kong

4.7 Prof. WONG reported the following:

- WSD briefed WG Members on the role of Reservoir Safety (“RS”) Section in ensuring the safety and structural integrity of impounding reservoirs, irrigation reservoirs and service reservoirs in Hong Kong by continuous monitoring, routine inspections and detailed inspections. Recently, the RS section also adopted new technology in the monitoring and inspection works, such as the use of drone to inspect the movement of monitoring devices installed on dam faces.
- WG Members were interested in the application of infrared technology to inspect the dam of Tai Tam Intermediate Reservoir. WG Members were also informed that WSD was considering the use of unmanned surface vessel to patrol impounding reservoirs and installation of surveillance devices at some hot spots of illegal activities to protect the water quality of impounding reservoirs.

5. Report of Working Group on Government Network and Inside Services

5.1 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 4th WG meeting held on 28 May 2019.

Installation of Master Meters for Monitoring Water Loss in Inside Service of Housing Estates

5.2 Mr. Ivan TAM reported the following:

- WSD briefed WG Members on the tentative programme of the installation of master meters (“MM”) at existing housing estates. WSD explained that the installation of MM at large housing estates (i.e. housing estates with more than 1,000 units) would be prioritized as they covered the majority of population and with more underground private water mains that were prone to leakage without being noticed.
- WG Members appreciated that WSD had taken active steps to enhance water loss management in private water mains and enquired whether WSD would impose charging on consumers or agents after the installation of MM. WSD advised that the installation of MM could reveal leakage in inside service, hence allowing the consumers or agents to take immediate

action to rectify it, and WSD would also consider measures including charging to urge the consumers or agents to rectify the leakage.

Water Loss Reduction in Inside Service of Housing Estates

5.3 Mr. Ivan TAM reported the following:

- WSD briefed the WG Members on the leak detection techniques commonly used for locating leaks in inside service of housing estates and some recent successful cases of water loss reduction in large housing estates.
- WG Members noted that most successful cases in water loss reduction in large housing estates relied on the collaboration of the property management offices and property owners. WG Members suggested that WSD might consider organising an award scheme to commend property management offices or property owner associations who were cooperative in tackling water loss in their housing estates.

Water Loss Reduction in Government Network

5.4 Mr. Ivan TAM reported the following:

- WSD briefed WG Members on the water loss management strategy for government network, such as the implementation of water intelligent network and the trial use of performance-based contract for leak detection work. WSD also shared with WG Members some recent cases of tackling water loss in government network.
- WG Members appreciated WSD's efforts in tackling water loss in government network and suggested WSD to share the successful cases to the public in appropriate occasions.

5.5 In response to the query from the Vice-Chairman Prof. KWAN Kai Cho, Joseph, Mr. LEE Kwun Chung, Johnson of WSD explained that as compared with conventional contract, performance-based contract would provide higher incentive to the contractor by linking the contract payment to the leakage reduction achieved. The Chairman suggested that WSD could report the trial outcome of performance-based contract when available.

Development of Leak Detection Trade

5.6 Mr. Ivan TAM reported the following:

- WSD updated WG Members on the work in development of the leak detection trade. WSD reported that the first class of "Certificate Course on Leak Detection in Water Mains" was organised by the Hong Kong

Institute of Construction in April 2019 and the “Sample Contract Clauses and Specification for Procurement of Leak Investigation Services” was published in April 2019.

- WG Members appreciated WSD’s efforts in assisting the development of leak detection trade and opined that there should be a list of qualified contractors for reference by management offices and property owners when procuring leak detection services. WSD advised that they were working closely with relevant institutions / organisations on the development of the list of qualified leak detection contractors.

Public Activities to promote Proper Maintenance of Inside Service

5.7 Mr. Ivan TAM reported the following:

- WSD introduced the proposal to organise a briefing session for the WSD Customer Liaison Group and the property management offices through the Hong Kong Association of Property Management Companies to promote proper maintenance of inside service. WSD also proposed to organise a half-day introductory class on leak detection for relevant government departments and property management offices in 2019 Q3.
- WG Members supported WSD to organise more briefings and introductory classes to promote proper maintenance of inside service including leak detection.

6. Report of Working Group on Water Conservation and Education

6.1 The Chairman invited Mr. LAU Che Feng, Edwin, Chairman of the WG on Water Conservation and Education, to report the key issues discussed in the 3rd WG meeting held on 14 May 2019.

“Cherish Water Campus” Integrated Education Programme and “Cherish Water Ambassador” Scheme

6.2 Mr. Edwin LAU reported the following:

- “Cherish Water Campus” Integrated Education Programme (“IEP”) (《惜水學堂》節約用水教育計劃)
 - For secondary schools, WSD had invited a service provider to design the education programme suitable for the local secondary schools and international schools. Consultation with both local and international schools’ representatives would be carried out after the preliminary education programme was developed.

- For primary schools, WSD had engaged a service provider to revamp the teaching kit of IEP for launching in 2019/20 School Year. The new elements of the kit included 3 electronic games, lesson plans, and information on prevention of water loss.
- For kindergartens, WSD had scheduled to launch a parent-child colouring competition in 2019/2020 School Year (2019 Q4). Students were encouraged to bring the water-saving message home via this parent-child activity.
- "Cherish Water Ambassador" Scheme
 - WSD had tailor-made an array of events for the Ambassadors from December 2018 to July 2019 including the Appointment Ceremony, short film production workshop, Water Treatment Works Guided Tour, training camp, Video Competition and In-School Promotional Activities.
 - The Video Competition and In-School Promotional Activities were completed. The award ceremony for Video Competition and In-School Promotional Activities was held on 29 June 2019.

Collaboration with Green Groups and Other Relevant Stakeholders

6.3 Mr. Edwin LAU reported the following:

- The Hong Kong Water Race (organised by Wofoo Social Enterprises with WSD as co-organiser) was held successfully on 14 April 2019 in Tin Shui Wai. Being a check-point in the event, the Water Resources Education Centre ("H₂OPE Centre") was also opened to participants for visiting. Selective exhibits in the centre were made available to the 350 visitors during the opening. Opinions of visitors on the centre were positive.

Stickers on "Water Saving Tips for Catering Industry"

6.4 Mr. Edwin LAU reported the following:

- WSD had designed some stickers on "Water Saving Tips for Catering Industry" to promote water conservation in the catering industry. WSD had distributed about 1,900 sets of stickers (18 stickers per set) to four major catering trade associations including 現代管理(飲食)專業協會, 香港餐飲聯業協會, 香港餐務管理協會, 稻苗學會.

6.5 Mr. YEUNG Wai Sing advised that the management in catering trade well-supported water conservation and he opined that the promotion stickers for catering industry were effective as they helped deliver the message of water

conservation to chefs and workers in the catering industry. He suggested that WSD could organize more water conservation activities, such as arranging chefs to visit H2OPE to educate them on water conservation. He also suggested that WSD might consider appointing Water Conservation Ambassadors amongst the chefs to foster a self-disciplined water conservation culture. Mr. WONG Yan Lok, Roger advised that WSD had published the “Best Practice Guidelines for Water Usage in Catering Industry” and the “Promotional Video for Water Conservation in Catering Industry” which had set out operational water saving measures for the catering industry aiming to promote efficient water usage in the industry.

Water Efficiency Labelling Scheme (“WELS”)

6.6 Mr. Edwin LAU reported the following:

- WSD updated WG Members on the proposed mandatory WELS via legislative amendments to the Waterworks Ordinance (“WWO”).
- WSD advised that the consultant engaged for the Business Impact Assessment study on the proposed mandatory WELS had completed the 1st round stakeholder consultation and was planning for the 2nd round stakeholder consultation taking into account the latest proposed regulatory framework for mandatory WELS.

“Let’s Save 10L Water” Campaign 2.0

6.7 Mr. Edwin LAU reported the following:

- With the help of Hong Kong Association of Property Management Companies, WSD would install flow controllers in 10 private housing estates as a pilot programme, with exhibitions on water conservation and water loss management and games booths in the estates. The programme was targeted to commence in 2019 Q4.
- Regarding programme for installation of flow controllers for schools, WSD had sent letters to invite all kindergartens to join the programme in June 2019 and invitation letters to primary and secondary schools would be sent in due course. Upon receiving applications to join the programme from kindergartens / schools, WSD would send plumbers to them to install flow controllers on water taps and showers free of charge.
- Regarding the “Product Design Competition - Showerhead”, WSD was inviting service provider to organize the competition which was targeted to commence in October 2019.
- A launching ceremony for the campaign would be held in conjunction with the opening ceremony of H2OPE Centre in late 2019.

Water Resources Education Centre (“H₂OPE Centre”)

6.8 Mr. Edwin LAU reported the following:

- WSD updated WG Members on the latest progress of the work for establishment of the new Water Resources Education Centre (“H₂OPE Centre”).
- WSD introduced the facilities and zonings of the H₂OPE Centre and advised that the target commissioning of the H₂OPE Centre would be in 2019 Q4. WSD would arrange ACWS Members to visit the H₂OPE Centre before its formal opening.

7. Legislative Review on Plumbing Works and Materials Control

7.1 Upon invitation of the Chairman, Mr. CHAN Chi Yuen, Stanley of WSD gave a presentation on “Legislative Review on Plumbing Works and Materials Control”.

8. On-site Generation of Chlorine Gas at Ngau Tam Mei Water Treatment Works

8.1 Upon invitation of the Chairman, Mr. LAO Yin of WSD gave a presentation on “On-Site Generation of Chlorine Gas (“OSCG”) at Ngau Tam Mei Water Treatment Works”.

8.2 Prof. CHENG Man Chung, Daniel supported the implementation of the OSCG at water treatment works and enquired whether the brine produced from the desalination plant might be used as the raw materials for the OSCG. Mr. KWOK Yau Ting, Kelvin of WSD explained that food grade salt with low bromide content was required to be used in the OSCG but the concentrated brine from the desalination plant was originated from seawater which contained higher concentration of bromide. He added that it was very costly and hence not cost effective to purify the brine (e.g. by de-bromination, etc.) for use in the OSCG.

9. Pilot Study on Unmanned Surface Vessel for Reservoir Water Quality Monitoring

9.1 Upon invitation of the Chairman, Mr. TANG Ho Wai of WSD gave a presentation on “Pilot Study on Unmanned Surface Vessel for Reservoir Water

Quality Monitoring”.

- 9.2 The Chairman enquired whether it was feasible for the unmanned surface vessel to take water samples at different water depths. Mr. TANG Ho Wai of WSD replied that the existing unmanned surface vessel could only take water samples at 0.5m under the water surface.
- 9.3 Members considered that the use of unmanned surface vessel could greatly improve both the efficiency and the quality of water sampling at reservoirs and appreciated WSD’s efforts in exploring new technologies to enhance works efficiency and for better result.

10. Any Other Business

- 10.1 The Secretary advised that the annual visit of ACWS to Dongjiang Water Supply System this year would be a 2-day visit and would be held in November 2019. The Chairman encouraged all Members to join the visit. The Secretary would send the details of the visit to all Members after meeting. WSD
- 10.2 There being no further items raised, the Chairman thanked Members for attending the meeting and adjourned the meeting at 5:00 p.m.