

Advisory Committee on Water Supplies
Minutes of Meeting No. 4

Date: 28 June 2017 (Wednesday)
Time: 2:00 p.m.
Venue: Room 4819, Water Supplies Department, 48/F, Immigration Tower,
7 Gloucester Road, Wan Chai, Hong Kong

Present

Dr CHAN Hon Fai	Chairman
Mr LAM Tin Sing, Enoch	Vice-Chairman (Water Supplies Department)
Dr MAN Chi Sum	Working Group Chairman
Prof KWAN Kai Cho, Joseph	Task Group Chairman
Sr WONG Bay	Working Group Vice-Chairman
Prof CHAN Yan Keung, Thomas	Member
Prof LI Xiao Yan	Member
Dr LEE Ka Yan, David	Member
Dr WONG Siu Wing, Eric	Member
Dr WONG TAAM Chi Woon, Vivian	Member
Mr CHAN Kwok Wai	Member
Mr LAU Yuet Fan, Ivan	Member
Ms WONG Pik Kiu	Member
Mr VY Ek Chin	Member's Representative (Development Bureau)
Mr WONG Tak Wai, David	Member (Environmental Protection Department)
Mr CHAN Chung Chi	Member's Representative (Food and Environmental Hygiene Department)
Dr CHING Cheuk Tuen, Regina	Member (Department of Health)
Mr WONG Man Wai, Billy	Member's representative (Housing Department)
Mr IP Chit Ki	Secretary (Water Supplies Department)

Water Supplies Department Representatives in Attendance

Mr CHAU Sai Wai	Assistant Director, Water Supplies Department
Mr KWOK Yau Ting, Kelvin	Chief Chemist, Water Supplies Department
Mr CATLIN Kit Wai, Stephen	Senior Engineer, Water Supplies Department
Mr PANG Kwok Fan, Gabriel	Senior Engineer, Water Supplies Department
Mr TSANG Chung Man, Alex	Senior Engineer, Water Supplies Department
Mr YU Man Tat	Senior Chemist, Water Supplies Department
Ms LAW Ming Chu, Cecilia	Engineer, Water Supplies Department (Notes Taker)

Absent with Apologies

Prof CHENG Man Chung, Daniel	Working Group Chairman
Prof WONG Wing Tak	Working Group Chairman
Mr TAM Kwok Wing, Ivan	Task Group Vice-Chairman
Prof CHIU Pauline	Member
Dr LAU Wai Neng, Michael	Member
Ms KWAN Sau Ling	Member
Ms LAM Yuk Chun	Member
Ms TONG Po Chun	Member
Mr YEUNG Wai Sing	Member

Item

Opening Remarks

- 1.1 The Chairman welcomed all the Members to the Advisory Committee on Water Supplies (ACWS) Meeting No. 4.
- 1.2 The Chairman informed the meeting that Prof CHENG Daniel, Prof WONG Wing Tak, Mr TAM Ivan, Prof CHIU Pauline, Dr LAU Michael, Ms KWAN Sau Ling, Ms TONG Po Chun, Ms WONG Pik Kiu and Mr YUENG Wai Sing had sent in their apology for not being able to attend the meeting.

Agenda Items

Confirmation of Minutes of Last Meeting (ACWS Meeting No. 3)

- 2.1 The Chairman remarked that the revised draft minutes of the meeting no. 3 (which had consolidated comments from Members) had been circulated to the Members on 23 May 2017 and no further comment was received before the meeting. There being no further amendment proposed at the meeting, the Chairman announced that the revised draft minutes of the meeting no. 3 sent to the Members on 23 May 2017 was confirmed.

Matters Arising

3. Recognition Mechanism of Overseas WELS Products for Registration under WELS of Hong Kong

- 3.1 The Chairman invited Dr MAN Chi Sum, Chairman of Working Group on Conservation to update Members on Recognition Mechanism of Overseas WELS Products for Registration under WELS of Hong Kong.
- 3.2 Dr MAN reported that following the soft launch of the mandatory use of designated water efficiency devices in plumbing works proposals for domestic kitchens as well as bathrooms and toilets of all premises on 1 February 2017, WSD proceeded with the initial stage of a proposed recognition mechanism on 4 May 2017, facilitating the suppliers to apply for registration of their products under WELS. Under the initial stage, water efficient showers and water taps registered in water efficiency schemes in Australia and New Zealand could be recognised under WELS in Hong Kong and the local laboratory testing requirement for these products was waived.
- 3.3 Dr MAN reported that a consultancy study commenced concurrently on 4 May 2017 to review the water saving devices registered in other jurisdictions for inclusion in the above recognition mechanism.

4. Integrated Education Programme (IEP) 「惜水學堂」教育計劃 on Water Conservation

- 4.1 The Chairman invited Dr MAN Chi Sum, Chairman of WG on Water Conservation, to update the Members on the Integrated Education Programme (IEP) 「惜水學堂」教育計劃 on Water Conservation.
- 4.2 Dr MAN reported the following:
- 225 primary schools had joined the IEP, an increase of 51 from last 2015/16 school year's 174.
 - The third issue of IEP Newsletter was published in May 2017 and could be assessed via WSD website.
 - Two supplementary educational “water safety” game sets for inclusion in the IEP, respectively entitled “安全煮沸飲用水的步驟” and “如何保持大廈食水優質”, had been delivered to all primary schools in April 2017.

- The pilot education kit for kindergartens was under development, with drafts of the storybook and teacher resource handbook substantially prepared. The pilot scheme was scheduled to be rolled out in the coming 2017/18 school year. As at the end May 2017, 78 kindergartens/nursery schools from 5 sponsoring bodies or nominated by Council of Non-profit Making Organizations for Pre-primary Education (CNOPE, 非牟利幼兒教育機構議會) agreed to participate in the pilot scheme. Representatives from these sponsoring bodies and CNOPE had also agreed to join a Working Group on the development of the education kit. The first Working Group meeting would be convened after the pilot education kit was fully developed in July 2017. WSD

5. “Save Water” Competitions for Hotel and Catering Trades

5.1 The Chairman invited Dr MAN Chi Sum, Chairman of WG on Water Conservation, to update Members on “Save Water” Competitions for Hotel and Catering Trades

5.2 Dr MAN reported that the following:

- The Best Practice Guideline (BPG) for the catering industry was promulgated in the Water Conservation Week and hardcopies were distributed to the audience attending the Trade Forum on 21 Nov 2016. Softcopy has been uploaded on the Water Conservation website.
- The Hong Kong Federation of Restaurants & Related Trades Limited (香港餐飲聯業協會) was briefed on the BPG in a meeting with WSD on 12 May 2017.
- WSD was planning to conduct a questionnaire survey in the third quarter this year in collaboration with the four major catering services associations (四大飲食業商會) to gauge restaurants’ views on the BPG, in particular, the usefulness and effectiveness of the recommended measures in helping them to save water. WSD prepared the questionnaire and would be making arrangements with the four major catering services associations for questionnaires to be distributed to their member restaurants. [Post Meeting Notes- WSD sent the questionnaire to the four major catering services associations in July 2017]
- It was noted that in the last ACWS meeting, there were suggestions by Members that “Save Water” competitions be organised for restaurants. WSD would consider organising such competitions depending on the

results of the survey, from which restaurants' enthusiasm in participating would be assessed. However, Water Conservation Working Group Members at their recent meeting on 23 June 2017 recognised that it would indeed be very difficult to hold "Save Water" competitions in an objective manner given that there were many different types of eateries serving a large variety of cuisines and operating in many different modes (banquet, fine-dining, fast food, takeaway, etc.) and considered that a water conservation charter / recognition scheme, similar to the Food Wise Charter (惜食約章) and the Food Wise Eateries Scheme (咪嚟嘢食店計劃), in lieu of competitions, would be worth exploring.

WSD

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- Water Conservation Working Group Members would also like WSD to consider a similar water conservation charter / recognition scheme for hotels as well.

6. Green Group Collaboration

6.1 The Chairman invited Dr MAN Chi Sum, Chairman of WG on Water Conservation, to update the Members on the green group collaboration.

6.2 Dr MAN reported that WSD had co-organised, supported or participated in 11 events / activities organised by green groups and NGOs since the last ACWS meeting in February 2017 to promote water conservation, including Wofoo (和富基金)'s "Hong Kong Water Race", FoE's "Water Forum" and WWF's "Water Saver School" project, which were co-organised by WSD.

6.3 Dr MAN reported that arising from the first green group tea gathering on 30 August 2016 was the collaborative effort between WWF and WSD to implement the "Water Saver School" project, just mentioned. Under the project, which went well underway, there were some 30 tertiary students being engaged and having been trained up to conduct water conservation activities, including school water audits, installation of flow controllers to reduce water consumption, talks about water footprints and effects of climate change on water resources, with school children in 15 primary schools.

6.4 Dr MAN mentioned that subsequent to the second tea gathering on 25 January 2017, there had been collaboration between Green Power and WSD in respect of the biodiversity of the Tung Chung River, looking at the possibility and practicability of continuous release from the upstream catchwater.

- 6.5 Dr MAN stated that the third green group tea gathering would be arranged for WSD the third quarter of 2017. Members of the Water Conservation Working Group would be invited to participate.

7. Permanent Water Resources Education Centre at Tin Shui Wai

- 7.1 The Chairman invited Dr MAN Chi Sum, Chairman of WG on Water Conservation, to update the Members on the Permanent Water Resources Education Centre at Tin Shui Wai
- 7.2 Dr MAN reported that the exhibit design and construction management consultancy had awarded on 21 Feb 2017. The design process would take 8 months for completion in October 2017. It was now midway through the design process. The design process would be followed by a tendering process for engaging appropriate fabricators to carry out fabrication works. Fabrication was planned for completion by early 2019.
- 7.3 After studying the proposals from the design consultant, the permanent WREC was proposed to be named as “H2OPE Centre” (Water Public Education Centre) “水知園” (水知識的園地).
- 7.4 Dr MAN stated that the design consultant would give a presentation and seek Members’ views on the exhibit design later at the meeting (Agenda item no. 9 refers).

8. Standard Answer for Responding Media on Issues of DJ Water Quality

- 8.1 The Chairman invited Mr YU Man Tat of WSD, Secretary of WG on Water Quality, to update on behalf of Prof WONG Wing Tak, the Chairman of WG of Water Quality, the Members on the standard response for media enquiry on issues of DJ water quality.
- 8.2 Mr YU reported that the Secretariat had prepared and uploaded the “Standard Responses to Media in Relation to Enquiries About DJ Water (有關傳媒查詢東江水事宜的一般回應)” to the ACWS App – TeamNote on 31 May 2017. The responses took into account questions on: 1. 水價; 2. 水量(統包總額方式); and 3. 水質.

- 8.3 Mr YU remarked that the Members are welcome to browse through the responses from the “Document Sharing” - “檔案分享” folder of the App.

9. Working Group on Water Quality

- 9.1 The Chairman invited Mr YU Man Tat of WSD, Secretary of WG on Water Quality, to report on behalf of Prof WONG Wing Tak, the Chairman of WG of Water Quality, the key issues from the forth WG meeting which had been held on 26 May 2017.

Publication of Water Quality Data

- 9.2 Mr YU reported that the DJ and drinking water quality data for the period from April 2016 to March 2017 were reported in that meeting. Both the DJ and drinking water quality continued to be satisfactory and the WG endorsed the water quality data. WSD published the water quality data on the Internet on 31 May 2017.

Quality Water Supply Scheme for Buildings – Fresh Water (Plus)

- 9.3 Mr YU reported that as at 20 June 2017, 970 new applications to the “Quality Water Supply Scheme for Buildings–Fresh (Plus)” (the “Q-Plus”) had been received. 860 of those applications had been approved with certificates awarded. 46 applications were being processed and 64 applications required additional information. A total of 331,200 private households were covered by the successful applications.

10. Working Group on Water Resources

- 10.1 The Chairman invited Mr Gabriel Kwok Fan PANG, to report on behalf of Prof Daniel Man Chung CHENG, the Chairman of WG on Water Resources, the key issues from the forth WG meeting held on 8 June 2017.

Review of Total Water Management Strategy – Topical Study on Use of Groundwater

- 10.2 Mr Gabriel PANG reported that WSD’s consultants, Black & Veatch HK Ltd (BV), had been invited to give a presentation on the results of the Topical

10.3 Terrestrial groundwater resources was found to be limited in Hong Kong and its abstraction was highly constrained by the following:

- Most aquifers in Hong Kong were so thin that abstraction of groundwater therein for potable uses would be difficult and inefficient.
- Despite there existed a considerable amount of groundwater in the Northwest New Territories, the groundwater should have been contaminated by animal waste, salinity and other pollutants. It would require expensive treatment before groundwater could be supplied to the consumers for potable uses.
- Due to high density of developments, the risk of ground subsidence that would lead to damage to structures would be high if continuously taking of groundwater from urban area

10.4 Some studies unveiled that there existed some submarine freshwater springs in Hong Kong. Because of its very low salinity, they could be a more cost-effective resource of water for desalination. Further investigations were recommended to explore the potential of utilizing those submarine springs for desalination.

10.5 Mr Gabriel PANG reported that the Members agreed that submarine groundwater was considered as one of the available water resources in Hong Kong. However, the cost for taking the submarine groundwater, when compared to other water resources (such as rainwater harvesting and grey water recycling), would be relatively high.

10.6 Mr WONG Bay enquired whether the “spongy city” concept had been considered as collecting rainfall would be easier than extracting the submarine aquifer. Mr SW CHAU of WSD advised that WSD had considered the concept. If the rain fell onto the water gathering grounds (WGG), it would have been collected for potable uses. If the rain fell outside the WGG, the runoff would probably be contaminated when passing through the developed areas. It was not appropriate to mix with the aforesaid contaminated runoff with the high quality of rainwater collected in the WGG. Thus, dedicated storage and treatment would be required before it could be provided to

consumers for non-potable uses. WSD had considered the harvesting of the stormwater collected by DSD drainage tunnels and flood attenuation tanks. Large storage tanks or reservoirs would be required to store the collected stormwater as drainage tunnels and flood attenuation tanks needed to be drained off right after the rainstorm event to prepare for the next one. For new developments (e.g. Anderson Road Quarry Development), space had been allowed for building rainwater storage tanks while for developed areas, it would be difficult to find suitable sites for rainwater storage tanks. Dr Regina CHING added that while she supported rainwater harvesting and greywater recycling in principle, the recycled water should comply with the quality standard for reclaimed water in order not to pose a risk to human health.

Discussion on report of “Hong Kong’s water security, working towards regional water harmony” published by Civic Exchange

- 10.7 Mr Gabriel PANG reported that the Members had discussed about the views expressed in the report. WSD considered the views in the report and would look for collaboration opportunities with Civic Exchange.

Latest Development of Reclaimed Water Supply to Northeast New Territories

- 10.8 Mr Gabriel PANG reported that in response to Members’ view on the use of alternative local water resources, an update of the latest development of reclaimed water supply to Northeast New Territories was provided as follows:
- WSD carried on the works for the supply of reclaimed water to the Northeast New Territories for toilet flushing in phases starting with Sheung Shui and Fanling (SSF) from 2022 onwards.
 - The construction of a service reservoir and trunk water mains for flushing water supply in SSF commenced in April 2017.
 - When the system was fully commissioned, the supply of reclaimed water would ultimately save 21 million cubic metres of fresh water each year.
 - On the other hand, WSD’s consultants were studying appropriate charging and legal framework for effecting reclaimed water supply in Hong Kong.

11. Working Group on Water Conservation

- 11.1 The Chairman invited Dr MAN Chi Sum, Chairman of WG on Water Conservation to summarize the discussions at the fourth WG meeting which

had been held on 23 June 2017.

Initiative of Installing Flow Controllers at Private Housing Estates

- 11.2 With more consumption data available, the latest saving derived by comparing full year consumption before and after installation of flow controllers for almost all 24 000 pilot scheme households was 16.37 litres per household per day, which was equated to a reduction of daily per capita domestic water consumption by about 6 litres based on the average public rental housing household size of 2.7, as published in the Housing Authority's "Housing in Figures 2016".
- 11.3 Dr MAN also reported that the initial assessment of full year consumption comparison for some 130 000 households that had received complimentary flow controllers under the "Let's Save 10L Water" campaign provided an indication of an average saving of some 6 litres per household per day, i.e. more than 2 litres per capita per day based on the latest household size of 2.8 published by the Census and Statistics Department.
- 11.4 Ms WONG Pik Kiu stated that the maintenance of flow controllers was very important and WSD should promote and remind households to clean them regularly. Sr Bay WONG also concurred that a guideline for cleaning of flow controllers should be made by WSD and distributed to all households. Dr WSD MAN further suggested to distribute the guideline together with the flow controllers in the beginning.
- 11.5 Dr MAN mentioned that WSD was planning to proceed with another round of liaison and coordination with District Council (DC) Members, seeking their assistance in promoting the "Let's Save 10L Water" campaign to the community and distributing flow controllers to households. One such exercise was carried out two / three years ago, in which flow controllers had been distributed to over 40 000 households through DC Members. The Chairman welcomed WSD to work closely with the DC Members on promoting the water saving campaigns.
- 11.6 Prof Thomas CHAN stated that while such hardware tools as flow controllers could certainly help reduce water consumption, it was more important to try

and build a water saving culture within the community. He suggested WSD take enhanced communication steps to promote a culture of using less water as a key part of water conservation promotional campaigns or initiatives. Dr Vivian WONG considered that social media could play an important part in promoting water conservation and there were a lot of water saving tips that WSD could share on social media.

- 11.7 Dr MAN reported at the recent Water Conservation Working Group meeting on 23 June 2017, the Members suggested that WSD consider providing flow controller installation demonstration to DC members' assistants so that they would be able to help not just distribute flow controllers, but also install them.

12. Task Group on Water Safety in Buildings

- 12.1 The Chairman invited Mr YU Man Tat of WSD, Secretary of TG on Water Safety in Buildings, to report on behalf of Prof KWAN Kai Cho, Joseph, the Chairman of TG on Water Safety in Building, to summarize the discussions at the third meetings of the TG which had been held on 1 June 2017.

Pilot Trials of WSP for buildings

- 12.2 Mr YU reported that with the assistance of Education Bureau, WSD had conducted WSP trials in one primary school and one secondary school with representative plumbing systems. It was expected that the WSP trials for schools would be completed in July or August 2017. One private residential building and one public residential building also participated in the WSP trials with 3 other private residential developments had expressed interest to implement the WSP.

Launching of WSP for buildings

- 12.3 Mr. YU reported that it was expected that WSP for buildings would be launched later in 2017. To prepare for the launching, WSD continued to promote WSP for buildings through organizing seminars, workshops or consultations with school councils, property management companies and plumbing practitioners.
- 12.4 Mr Ivan LAU reflected that the industry were not aware about the workshops or seminars. Mr Enoch LAM replied that there would be a Building Management Week in September 2017 for promoting WSP to property management companies and general public. Mr Bay WONG suggested WSD to work with

various institutes including HKIS, HKIH, HKIE etc. to promote the WSP for buildings. [Post Meeting Notes-WSD briefed plumbing practitioners including representatives of LPs, HKIS and HKIE on WSP for buildings in March 2017.]

- 12.5 Mr Ivan LAU also enquired whether the WSP for buildings would supersede the existing Quality Water Supply Scheme for Buildings - Fresh Water (Plus). Mr Enoch LAM confirmed ultimately WSP for buildings would supersede the existing schemes but there would be a transition period.

13. Total Water Management Strategy (2.0)

- 13.1 The Chairman invited Mr Alan Hoi Leong MAN, of BV to give a presentation on the Total Water Management Strategy (2.0).
- 13.2 Sr Bay WONG suggested BV to study the water loss due to leakage and burst of WSD water mains and to recommend the preventive and predictive maintenance strategies.
- 13.3 The Chairman invited Mr IP Chit Ki of WSD to present on behalf of Dr Michael Wai Ling LAU the following comments on the proposed strategy-
- a) to consider resilience of biodiversity towards climate change in the proposal; and
 - b) to conduct an ecological assessment for the proposal.
- 13.4 The Chairman summarized the following major comments on the Total Water Management Strategy (2.0) raised by ACWS Members:
- a) to study the environmental and ecological impacts of the water supply initiatives ; and
 - b) to propose the overall strategy in reducing water loss.
- 13.5 The Chairman remarked that the Committee supported in principle the key WSD recommendations of the Total Water Management Strategy (2.0) and requested BV to fine tune the strategy to address the comments of ACWS Members.

14. Design for Permanent Water Resources Education Centre at Tin Shui Wai

- 14.1 The Chairman invited Mr Ricky Wai Lung HUNG of Leigh and Orange Limited to present the conceptual design for permanent Water Resources Education

Centre (WREC) at Tin Shui Wai.

- 14.2 Dr MAN suggested including the floating PV panel into the renewable energy WSD section of the WREC. Dr MAN also reminded Mr Ricky HUNG to ensure the exhibit arrangements, in particular those comprised of interactive elements, would be fit for the target groups of different ages.

15. Proposed Desalination Plant for Tung Ping Chau

- 15.1 The Chairman invited Ms Vicki Yu Yu WONG of WSD to present on the proposed Desalination Plant for Tung Ping Chau.
- 15.2 The Chairman enquired about the parties for maintenance and operation of the proposed Desalination Plant. Ms Vicki WONG of WSD replied that the plant would be maintained and operated by the project proponent, i.e. the Environmental Association.

16. Report on Visit to Muk Wu Pumping Station, Tai Po Water Treatment Works and Sha Tin Water Treatment Works

- 16.1 The Chairman invited Ms LAW Ming Chu, Cecilia of WSD to report on the visit to Muk Wu Pumping Station, Tai Po Water Treatment Works and Sha Tin Water Treatment Works held on 16 May 2017.

17. Proposed Visit to Shui Chuen O Estate and Holiday Inn Express Soho with Implementation of Water Conservation Strategies

- 17.1 The Chairman invited Ms LAW Ming Chu, Cecilia of WSD to present on the proposed visit to Shui Chuen O Estate and Holiday Inn Express Soho with Implementation of Water Conservation Strategies.
- 17.2 The Chairman welcomed the visit and encouraged all ACWS Members to join the visit.

18. Report on Launching of ACWS Mobile Apps – TeamNote

- 18.1 The Chairman invited Mr David WONG of TeamNote to present on the launching of ACWS Mobile Apps – TeamNote.

18.2 The Chairman reported that ACWS Members had enjoyed using TeamNote.

19. Any Other Business

19.1 There being no further items raised, the Chairman thanked Members for attending the meeting and adjourned the meeting at 6:15 p.m.