

Advisory Committee on Water Resources and Quality of Water Supplies
Minutes of Meeting No. 2

Date: 16 August 2012 (Thursday)

Time: 2:00 p.m.

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

Present

Dr CHAN Hon Fai	Chairman
Mr MA Lee Tak	Cinotech Consultants Ltd.
	Vice-Chairman
	Director of Water Supplies
Ms WONG Pik Yan, Nicole	World Wide Fund for Nature Hong Kong
Dr CHEUNG Yun Hing, Richard	The City University of Hong Kong
Mr LAU Yuet Fan, Ivan	Sandbrook Ltd.
Dr SHIN Kam Shing, Paul	The City University of Hong Kong
Ms WONG Wai Lan, Luciana	LNS Ltd.
Ms SO Yee Ching, Phyllis	Wong & Fok Solicitors
Mr WONG Siu Wai, Kenny	Hong Kong Productivity Council
Prof CHAN Lung Sang	The University of Hong Kong
Dr LEE Ka Yan, David	Medical Practitioner (Private Practice)
Ms AU Wing Tsz, Michelle	Friends of the Earth (HK)
Dr MAN Chi Sum	Green Power
Mr CHAN Kwok Wai	Kin Man Garment Fty Ltd.
Ms MOK Ka Han, Rosanda	Kowloon City District Council
Ms SIU Ka Yi	Central and Western District Council
Mr CHAN Pai Ming, Jimmy	Principal Assistant Secretary
	Development Bureau
Mr TANG Kin Fai	Assistant Director
	Environmental Protection Department
Mr LAM Kam Kong	Senior Superintendent
	Food and Environmental Hygiene Department
Dr LEUNG Ting Hung	Consultant
	Department of Health
Mr CHAN Siu Tack	Assistant Director
	Housing Department
Mr WONG Kwok Fai, Alfred	Secretary
	Senior Engineer, Water Supplies Department

Water Supplies Department Representatives in Attendance

Mr CHAN Kwong Wei	Deputy Director, Water Supplies Department
Mr NG Mang Tung, Bobby	Assistant Director, Water Supplies Department
Mr CHAN Kin Man	Chief Chemist, Water Supplies Department
Mr HO Ying Chung	Chief Engineer (Ag), Water Supplies Department
Mr PANG Kwok Fan, Gabriel	Senior Engineer, Water Supplies Department

Mr CHAN Shu Key, Charles	Senior Engineer, Water Supplies Department
Mr CHAN Kim Lap	Senior Engineer, Water Supplies Department
Mr LAM Shing Tim	Senior Engineer, Water Supplies Department
Mr WONG Yee Shing	Engineer, Water Supplies Department
Ms KWAN Kai Yin	Engineer, Water Supplies Department
Ms HO Wai Chun	Public Relation Manager, Water Supplies Department
Mr FONG Kai Leung	Engineer, Water Supplies Department (Notes Taker)

Absent with Apologies

Mr POON Lock Kee, Rocky	FSE Engineering Group Ltd.
Prof CHAU Kwai Cheong	The Chinese University of Hong Kong
Ms TONG Po Chun	Educationalist
Ms LAU Kwai Yung	Yuen Long District Council
Ms CHU Lan Ying	Assistant Director Food and Environmental Hygiene Department

Item

Opening Remarks

- 1.1 The Chairman welcomed all Members and representatives of Water Supplies Department (WSD) to the Advisory Committee on Water Resources and Quality of Water Supplies (ACRQWS) Meeting No. 2.
- 1.2 The Chairman informed the meeting that Mr POON Lock Kee Rocky, Prof CHAU Kwai Cheong, Ms TONG Po Chun, Ms LAU Kwai Yung and Ms CHU Lan Ying had sent in their apology for not being able to attend the meeting and Mr LAM Kam Kong was attending the meeting on behalf of Ms CHU Lan Ying as representative of the Food and Environmental Hygiene Department. The Chairman welcomed Mr LAM for attending the meeting.
- 1.3 The Chairman also informed the meeting that Mr LAM Shing Tim of WSD and his team as well as his consultant's representatives (hereafter named the Consultant) and Mr CHAN Kim Lap of WSD and his team attended the meeting for introducing Agenda No. 3 – “Results of Domestic Water Consumption Survey” and Agenda No. 4 – “Proposals on Water Conservation Measures” respectively. The Chairman welcomed Mr HO, Mr LAM and Mr CHAN as well as their team members for attending the meeting.
- 1.4 As the Consultant and some members of WSD would only attend Agenda Nos. 3 and 4, the Chairman suggested and the meeting agreed to discuss these items, following the Agenda No. 1 – “Confirmation of the Last Meeting Minutes”.

Agenda Items

Confirmation of the Minutes of the 1st Meeting held on 22 May 2012

- 2.1 The Secretary reported that the draft minutes of the 1st Meeting had been circulated to Members and no comment was received before the meeting. There being no further amendment proposed at the meeting, the Chairman announced that the latest draft minutes of the 1st Meeting were confirmed.

Results of Domestic Water Consumption Survey

- 3.1 The Chairman invited Mr LAM Shing Tim of WSD to brief Members on the findings of Domestic Water Consumption Survey (hereafter named the Survey). Mr LAM and the Consultant presented the Survey findings to the meeting.
- 3.2 In response to Ms AU Wing Tsz, Michelle, the Consultant said that the consumption of flushing water was not included in the Survey. The reason was that the total water consumption of each surveyed domestic household was estimated by referring to the record of its water meter, which did not include the consumption of flushing water. Mr NG Mang Tung, Bobby of WSD supplemented that the consumption of flushing water, through temporary fresh water supplies at locations without seawater supply, was generally recorded by a bulk meter which recorded the flushing consumption data for the entire building block.
- 3.3 Dr MAN Chi Sum enquired the reasons for only selecting the primary school students being interviewed in the Survey. Mr NG Mang Tung, Bobby advised that WSD had been focusing the effort for water conservation campaigns on primary schools and it was a suitable time to check the effectiveness of the work done through conducting interviews with primary school students.
- 3.4 In response to the questions raised by Ms SIU Ka Yi and Prof CHAN Lung Sang, Mr LAM Shing Tim affirmed that the data in respect of “the reasons for being unlikely to install water saving devices” and “the households’ characteristics” were also collected in the Survey. Given the time constraint in the presentation, only the key findings was presented at the meeting. The Consultant also presented other analyses on the water consumption patterns under the households with different characteristics in the meeting. Mr MA Lee Tak advised that compilation of the raw data collected in the Survey was completed and WSD would like to collect the comments from ACRQWS and Green Groups on the preliminary analyses of the collected data before finalising the Survey report.

[Post-meeting note: WSD had held a meeting with Green Groups to collect their comments on the preliminary analyses of the Survey data on 21 August

2012.]

- 3.5** Mr MA Lee Tak advised the meeting that it was the first time for WSD to carry out this kind of water consumption survey and expected similar surveys would be conducted in the future. Mr MA also pointed out that based on the Survey findings, most of the showers for bathing and washing machines in domestic households were water efficient products (i.e. classified as grade 1 or 2 under the water efficiency labelling scheme). Mr MA added that WSD was studying the use of flow restrictors in water taps noting the water consumption from water taps was quite high and replacement of water taps was not easy in domestic households.
- 3.6** In response to Ms AU Wing Tsz, Michelle, Mr MA Lee Tak pointed out the general public might have an impression that water saving devices would be more expensive than the conventional products, however this might not be true, in particular to the products of showers for bathing and washing machines. Mr MA also advised that promoting the public to use water saving devices and to change their water consumption patterns were both considered challenging at this stage. In addition, Mr MA said that prior to the commencement of the Survey, WSD had considered the options of installing separate flow meter to each water device in the household or a smart meter to an entire household for capturing the detailed patterns of water consumption of households. Considering that installation of meters inside the household might encounter difficult site constraints and that these two options were comparably expensive and time consuming, WSD eventually decided to distribute a log book to each household for its household members to record their water using patterns during the 7-day survey period. Mr MA added that WSD was open-minded to explore/consider any feasible method to record the water consumption in the similar survey in the future.
- 3.7** Dr SHIN Kam Shing, Paul suggested that the Consultant and WSD could make use of the Survey findings to carry out some comparisons on the water consumptions between Hong Kong and other overseas cities. Mr MA Lee Tak advised that the per capita domestic fresh water consumption in Hong Kong was around 130 litres/day, which was just slightly above the global mean water consumption. However, if the domestic flushing water consumption was also counted, the per capita total water consumption in Hong Kong would be around 220 litres/day which was much higher than the global mean level. Mr MA agreed that more efforts should be put in reducing the domestic flushing water consumption in Hong Kong.
- 3.8** In response to Ms WONG Pik Yan, Nicole, Mr MA Lee Tak agreed to mention the limitations of the Survey at the beginning of the Survey report in order to point out that the methodology adopted was considered as the best option under the available resources in WSD at this stage.
- 3.9** Ms AU Wing Tsz, Michelle enquired whether the materials presented in the meeting could be distributed to Members. Mr MA Lee Tak replied that the presentation file of the Survey results could be provided after the meeting.

[Post-meeting note: The presentation file of the results of Domestic Water Consumption Survey, which was amended according to Members' and Green Groups' comments, was sent to all Members on 20 September 2012.]

Proposals on Water Conservation Measures

- 4.1** The Chairman invited Mr CHAN Kim Lap of WSD presented the proposals on water conservation measures. Mr CHAN and his colleague Mr WONG Yee Shing of WSD briefed the Members on the current water conservation campaigns of WSD and the proposals on water conservation measures being planned by WSD scheduled for implementation in the coming year.
- 4.2** Ms WONG Pik Yan, Nicole agreed to WSD's direction in the proposals on water conservation measures as WSD was devising the promotional activities with clear focus for relevant target groups.
- 4.3** Prof CHAN Lung Sang expressed his appreciation on the teaching kit for liberal studies, "Water: Learn & Conserve" (知水、惜水) produced by WSD. On the other hand, Prof CHAN suggested organising a series of public lectures at Hong Kong Science Museum (HKSM) with a view to enhancing public awareness and understanding on the quality and technology of water. Mr MA Lee Tak supported Prof CHAN's suggestion and agreed WSD to be one of the supporting organisations to the lectures.
- 4.4** After deliberations, Mr MA Lee Tak summarised and the meeting agreed that ACRQWS should take a lead to organise 8 public lectures each of 1 hour at HKSM in 4 sessions. The Chairman suggested and the meeting agreed to invite some Non-Government Organisations as well as academic institutions as supporting organisations to the lectures.
- 4.5** Mr MA Lee Tak agreed WSD to circulate some draft topics and a list of proposed supporting organisations to Members for comments after the meeting and welcomed Members to propose the speakers.

WSD

[Post-meeting note: The 1st draft framework of the public lectures was circulated to all Members on 19 September 2012 for comment.]

- 4.6** Ms AU Wing Tsz, Michelle suggested exploring to deliver some messages or to arrange some water conservation campaigns around the World Water Day on 22 March 2013. Mr MA Lee Tak suggested that Ms WONG Pik Yan, Nicole might further discuss the issue in the next meeting of the Working Group on Public Education.

Matters Arising

5 Quality of Water in Buildings - Quality Water Recognition Scheme for Buildings (the Scheme)

5.1 The Chairman invited Mr Chan Shu Key, Charles of WSD to brief Members on the progress of WSD's actions in exploring ways to encourage more applicants to join the Scheme.

5.2 Mr Chan Shu Key, Charles reported the progress as follows -

WSD

(a) There had been continuous increase in the no. of buildings joining the Scheme despite its voluntary nature. The no. of valid certificates up to early July had been increased to 3,538 and the no. of households enjoying the Scheme had been increased to over 1.10 million.

(b) The Working Group on Quality of Water in Buildings had conducted its meeting on 1 August 2012. In order to promote proper maintenance of internal flushing systems in buildings, it was proposed to take forward a new initiative to encourage property owners and occupants to maintain the flushing systems inside buildings, which was similar to the current "Quality Water Recognition Scheme for Buildings". The Working Group supported in principle the new initiative and the implementation details were being studied.

5.3 Members had no objection to the new initiative as mentioned in 5.2(b) above.

6 Publication of Water Quality Data

6.1 The Chairman invited Mr CHAN Kin Man of WSD to report the progress on the publication of water quality data of Dongjiang water received in Hong Kong at Muk Wu Pumping Station and that of the drinking water in Hong Kong. Mr CHAN reported that the Working Group on Publication of Water Quality Data met on 12 June 2012 to endorse the water quality data for the period from 1 April 2011 to 31 March 2012, which was then uploaded to WSD's website on 14 June 2012.

6.2 Mr CHAN Kin Man also reported that the quality of both Dongjiang water and drinking water complied with the national standard set out for Type II waters in the "Environmental Quality Standards for Surface Water, GB3838-2002" and the World Health Organization's "Guidelines for Drinking-water Quality, 2008" respectively.

6.3 Mr CHAN Kin Man informed the meeting that the next publication of updated water quality data from 1 October 2011 to 30 September 2012 was scheduled for October/November 2012 after endorsement by the Working Group.

WSD

6.4 Mr CHAN Kin Man advised that laboratory work for the development of

suitable methods on testing the water quality in compliance with the WHO 2011 was completed and the associated water quality monitoring was commenced in August 2012.

6.5 Mr CHAN Kin Man also informed the meeting that he and Mr MAK Shing Cheung Vincent, Chief Engineer of WSD had delivered the briefing on “Water treatment, water quality monitoring and control in Hong Kong” and “Total Water Management strategy” respectively to Members on 13 July 2012.

6.6 Dr CHEUNG Yun Hing, Richard supplemented that the radiological quality data of drinking water would be published in the next update of the water quality data scheduled for October/November 2012 as agreed in the Advisory Committee on the Quality of Water Supplies Meeting No. 23.

WSD

7 Visit to Guangdong

7.1 The Chairman invited Mr NG Mang Tung, Bobby to report the progress of the visit to Dongjiang water supply system. Mr NG briefed the meeting that WSD had discussed with the Guangdong authorities about the visit which had been scheduled for the 3 days during 28 to 30 November 2012.

7.2 Mr NG Mang Tung, Bobby said that Members’ availability on these 3 days and their preferences for the visit of either 2 days or 3 days would be checked. Subject to Members’ responses, the visit date would be finalised in October 2012 and the itinerary would then be worked out.

7.3 Dr LEE Ka Yan, David enquired whether his video shooting team could accompany the delegation to take video during the visit. Mr NG Mang Tung, Bobby replied that WSD would arrange with Guangdong Water Resources Department (廣東省水利廳) for such video shooting.

7.4 In response to Prof CHAN Lung Sang, Mr NG Mang Tung, Bobby replied that generally some key installation/facilities of the Dongjiang water supply system including Xinfengjiang Reservoir (新豐江水庫), Taiyuan Pumping Station (太園泵站), the Dongshen Water Supply Improvement Works Exhibition Centre (東深供水改造工程展覽館) and Shenzhen Reservoir (深圳水庫) as well as the sewage treatment plants within the catchment of the Dongjiang would be visited. Mr NG added that the risk in pollution to our Dongjiang water received had been reduced after commissioning a dedicated aqueduct from the Dongjiang intake to Shenzhen Reservoir. Some Members had indicated interest in visiting the upper part of Dongjiang, Mr NG advised that subject to Members’ availability, WSD could discuss with the Guangdong authorities for such visit arrangement.

[Post-meeting note: A 3-day visit had been conducted on 28 to 30 November 2012 with an option for Members to return Hong Kong earlier at the end of the 2nd day of the visit.]

8 Use of Reclaimed Water

8.1 The Chairman invited Mr NG Mang Tung, Bobby to brief Members on the progress in respect of the use of reclaimed water. Mr NG reported that: **WSD**

- (a) The implementation of reclaimed water supply to Sheung Shui, Fanling as well as the North East New Territories New Development Areas (NENT NDA) viz. Kwu Tung North, Fanling North and Ping Che/Ta Kwu Ling was being worked out with CEDD and DSD; and
- (b) With the agreement to the proposed water quality standard of reclaimed water by the Working Group, the next steps to take forward the implementation of reclaimed water including the associated legislation and charges were being studied.

9 Water Conservation Campaign for Primary Schools

9.1 The Chairman invited Mr PANG Kwok Fan, Gabriel of WSD to brief the meeting on the progress of the water conservation campaigns for primary schools. Mr PANG reported that: **WSD**

- (a) In the new school year 2012/13, roadshows should continue to be conducted in primary schools starting from September/October 2012. With the new “School Water Audit” disc dispatched to all the primary schools in October 2011, it was expected that some schools would make use of the audio-visual Powerpoint in the disc to convey the water conservation messages to their students.
- (b) For the Water Conservation Ambassador Selection Scheme, 587 Water Conservation Ambassadors were selected. The certificate presentation ceremony was held on 6 July 2012.
- (c) For the Water Conservation Competition, the award presentation ceremony was held on 2 June 2012. A drawing and design competition with the theme on water conservation for primary schools and secondary schools students was under planning and its launching ceremony would be held together with the upcoming World Water Monitoring Challenge (previously known as World Water Monitoring Day) in October 2012.

9.2 In order to explore some water conservation campaigns to be arranged around the World Water Day in March 2013, the next meeting of the Working Group on Public Education originally scheduled for December 2012 would be advanced. **WSD**

10 The Hong Kong Voluntary Water Efficiency Labelling Scheme (WELS)

10.1 The Chairman invited Mr NG Mang Tung, Bobby to brief the meeting on the progress of the implementation of WELS. Mr NG reported that - **WSD**

- (a) Registration of showers under WELS had commenced in September 2009. Up to mid July 2012, 184 models had been registered.
- (b) Registration of water taps under WELS had commenced in September 2010. Up to mid July 2012, 111 models had been registered.
- (c) Registration of washing machines under WELS had commenced in March 2011. Up to mid July 2012, 68 models had been registered.
- (d) Registration of urinal equipment under WELS had commenced in March 2012. Up to mid August 2012, applications of 7 models of urinal equipment had been received.

10.2 Mr NG Mang Tung, Bobby added that the scheme was being planned to further cover flushing cisterns and flow restrictors. Mr NG said that it might be more practical for domestic households using flow restrictors instead of replacing their water taps with a view to saving water. Mr NG added that WSD was studying the implementation details for the use of flow restrictors.

10.3 Dr LEE Ka Yan, David enquired how much water could be saved if using flow restrictors in water taps. Mr NG Mang Tung, Bobby quoted the test results of WSD on some flow restrictors available in local market and reported that about 30-50% of water could be saved with the use of flow restrictors in water taps.

10.4 Prof CHAN Lung Sang quoted his past experience in the United States and suggested WSD considering to provide flow restrictor as a gift to the public for the water conservation purpose.

11 Discussion on matters related to Legionnaires' Disease

11.1 The Chairman invited Mr HO Ying Chung of WSD to brief the meeting on the recommendations of the Prevention of Legionnaires' Disease Committee (PLDC) and WSD's follow-up actions.

11.2 Mr HO Ying Chung said that a PLDC meeting was held on 16 July 2012 to discuss the issues arising from the investigation of the recent detection of Legionnaires' Disease (LD) at Tamar. Mr HO reported that the PLDC had completed preparing the Housekeeping Guidelines for use of building management in May 2012 based on the latest revised Code of Practice (CoP).

11.3 Mr HO Ying Chung advised that WSD had updated the relevant guidelines based on the latest CoP and had circulated to the licensed plumbers and other stakeholders.

Discussion on formation of a new Working Group on Water Resources in view of the new TOR

- 12.1** The Chairman invited Mr NG Mang Tung, Bobby to brief the meeting on proposed Terms of Reference (TOR) of the new Working Group (WG) dedicated for water resources.
- 12.2** Mr NG Mang Tung, Bobby advised that with the input from the Chairman and comment from Mr WONG Siu Wai, Kenny, an information paper with respect to the formation of the new WG and the associated TOR had been circulated for Members' consideration before the meeting.
- 12.3** The meeting unanimously agreed to the formation of a new WG with the following name and TOR-

Working Group on Water Resources

To provide advice to Water Supplies Department on the implementation of the Total Water Management strategy with focuses on protecting and conserving the existing water resources and exploring opportunities to develop new water resources.

- 12.4** The Chairman invited nominations for the Chairperson of the new WG. Ms AU Wing Tsz, Michelle nominated Dr MAN Chi Sum while Dr CHEUNG Yun Hing, Richard nominated Prof CHAN Lung Sang. After some discussion, the Chairman suggested and Members unanimously agreed that Dr MAN Chi Sum was to be elected as the Chairperson of the WG on Water Resources.

13 Development of the desalination plant at Tseung Kwan O

- 13.1** The Chairman invited Mr NG Mang Tung, Bobby to brief the meeting on the progress of the desalination project. Mr NG reported that WSD had successfully sought funding approval for the Feasibility Study from the Finance Committee of the Legislative Council on 8 June 2012.
- 13.2** Mr NG Mang Tung, Bobby reported that selection and engagement of consultants to carry out the Feasibility Study was in progress. The Feasibility Study was to commence in December 2012 for completion by December 2014.
- 13.3** Mr MA Lee Tak advised the WG on Water Resources as well as the Advisory Committee would be consulted on the desalination project in due course. Mr MA added that the Feasibility Study to be commissioned by consultants would cover the preparation works of the desalination project mainly including the environmental impact assessment, preliminary design, cost effectiveness, impact on the raw water resource due to climate change and implementation of the new technology in desalination.

WSD

Any Other Business

- 14 Prof CHAN Lung Sang enquired whether WSD had regular contacts with other international organisations/institutions relating to water resources. Mr MA Lee Tak replied that WSD had been working closely with International Water Association (IWA) and Director of Water Supplies was the Chairman of the Hong Kong Region of IWA. With the suggestions raised by Prof CHAN of inviting overseas institution to exchange their knowledge and experience with our local organisations/experts, Mr MA agreed that the WG on Water Resources could consider arranging such exchange as opportunity arisen.
- 15 Dr CHEUNG Yun Hing, Richard suggested and Mr MA Lee Tak agreed WSD to provide an information paper on the standard for the quality of reclaimed water for the discussion in the upcoming meeting of the Advisory Committee or the WG on Water Resources. Mr MA supplemented that relevant government departments, academic institutions and professional bodies had been consulted on the standard for the quality of reclaimed water. In response to the case in LOHAS Park (日出康城) raised by Dr CHEUNG, Mr MA pointed out that the cost effectiveness for the operation of a water reclamation system was crucial to its success. Mr NG Mang Tung, Bobby added that the standard for the quality of reclaimed water would depend on its purposes and the allowable limit of the discharge location.
- 16 There being no further items raised, the Chairman thanked Members for attending the meeting and adjourned the meeting at 5:15 p.m.

WSD