

**Advisory Committee on the Quality of Water Supplies**  
**Minutes of Meeting No. 17**

Date: 30 April 2008 (Wednesday)

Time: 2:30 p.m.

Venue: Conference Room, 48/F, Immigration Tower, Wan Chai, Hong Kong

Members Present

Prof HO Kin Chung

Mr MA Lee Tak

Dr CHAN Hon Fai

Ms LEE Yoke Shum, Sam

Dr NG Cho Nam

Mr WONG Kwok Hay, Samuel

Mr CHAN Sheung Yan, Kenneth

Prof WONG Chun Yu, Benjamin

Prof YU Chai Mei, Jimmy

Ms WONG Wai Lan, Luciana

Mr POON Lock Kee, Rocky

Ms TONG Po Chun

Ms WONG Pik Yan, Nicole

Mr CHAN Yun Cheung

Mr TANG Kin Fai

Dr LEUNG Ting Hung

Mr LEE Kwok Wing, Albert

Mr LIU Tso Wing, Jerry

Chairman

Vice-Chairman, Director of Water Supplies

Cinotech Consultants Limited

World Wide Fund for Nature Hong Kong

The University of Hong Kong

Wong & Fok Solicitors

Chun Lee Engineering Co. Ltd

Queen Mary Hospital

Friends of the Earth (HK)

The Chartered Institution of Water and  
Environment Management Hong Kong

NWS Engineering Group Ltd

Sha Tin District Council

World Wide Fund for Nature Hong Kong

Principle Assistant Secretary,

Development Bureau

Assistant Director,

Environmental Protection Department

Consultant Community Medicine,

Department of Health

Assistant Director, Housing Department

Secretary, Senior Engineer,

Water Supplies Department

Members Absent with Apologies

Prof CHEN Yongqin, David

Ms HO Siu Fong, Betty

Dr SHIN Kam Shing, Paul

Mr LAM Ka Fai, Aaron

Mr CHAN Han Pan

Ms CHU Lan Ying

The Chinese University of Hong Kong

The Conservancy Association

City University of Hong Kong

Sham Shui Po District Council

Tsuen Wan District Council

Assistant Director,

Food and Environmental Hygiene Department

In Attendance

Mr CHAN Kwong Wei, Samuel

Mr NG Mang Tung, Bobby

Ms HO Suet Mei, Daisy

Mr TAM Yat Hung, Terence

Mr SUEN Kwok Keung

Deputy Director, Water Supplies Department

Assistant Director, Water Supplies Department

Chief Chemist, Water Supplies Department

Senior Engineer, Water Supplies Department

Senior Engineer, Water Supplies Department

1. The Chairman welcomed Members to attend this first meeting of the fifth two-year term of the Advisory Committee on the Quality of Water Supplies (the Committee, or in brief, ACQWS). He felt that it was a great honour for him having been appointed for another term as the Chairman of the Committee. He invited all Members to work together with him as a team and advise the Government on matters relating to the quality of water supplies.
2. The Chairman expressed special thanks to the six retired Members including, Mr CHEUNG Yan Hong, Mr LAW Wei Tak, Victor, Prof TSO Wung Wai, Ms KWAN Miu Mei, Anita, Mr LIN Mark and Ms WONG Choi Mei for their contributions in the past.
3. The Chairman welcomed seven new Members, including Ms WONG Wai Lan, Luciana, Mr POON Lock Kee, Rocky, Ms TONG Po Chun, Ms WONG Pik Yan, Nicole, Dr SHIN Kam Shing, Paul, Mr LAM Ka Fai, Aaron and Mr CHAN Han Pan for joining the Committee.
4. The Chairman noted the following changes have been made to the representatives of Government departments in the Committee :-
  - Ms CHU Lan Ying to replace Mr SIN Kwok Hau as the representative of the Food and Environmental Hygiene Department;
  - Mr LEE Kwok Wing, Albert to replace Mr WONG Bay as the representative of the Housing Department; and
  - Mr TANG Kin Fai to replace Dr CHIU Tak Lun, Michael as the representative of the Environmental Protection Department.He welcomed these new Official Members and also expressed special thanks to the ex-Official Members for their contribution in

the past.

5. The Chairman extended his welcome to the new Vice-Chairman, Mr MA Lee Tak, the Director of Water Supplies. He further expressed thanks to Mr CHAN Chi Chiu, the ex Vice-Chairman for his contributions to the Committee in the past.
6. As there were many new faces in this Meeting, all participants took turns to introduce themselves around the table starting from the Chairman.
7. The Chairman drew Members' attention to the requirement for All members of Public Sector Advisory and Statutory Bodies to Members declare any conflict of interest to promote the image and credibility of the Committee. He advised Members to familiarize and comply with the requirements stipulated in the guidelines forwarded to them prior to the meeting regarding the general principles, potential conflict of interest situations and requirements on declaration of interests at meetings. The Chairman then introduced the background and the work of this Committee.
8. Agenda Item 1 : Confirmation of Minutes of the Last Meeting
  - 8.1 The minutes were confirmed without any amendment.
9. Agenda Item 2 : Matters Arising
  - 9.1 Quality of Water in Buildings

Quality Water Recognition Scheme for Buildings (QWRSB)

9.1.1 Mr TAM Yat Hung, Terence reported to the Meeting the following regarding the taking forward of the QWRSB:-

- (a) The “Fresh Water Plumbing Quality Maintenance Recognition Scheme” had been renamed as “Quality Water Recognition Scheme for Buildings”.
- (b) Three different grades of certificates had been introduced according to the following criteria:-
  - (i) Blue Certificate: new participation or continuous participation for less than 3 years;
  - (ii) Silver Certificate: continuous participation for 3 or more but less than 5 years; and
  - (iii) Gold Certificate: continuous participation for 5 years or more.
- (c) The new certificates would show conspicuously both the name of the building management company and the building owners’ corporation concerned.
- (d) The content of the promotional pamphlet for QWRSB had been enriched to include the following advice/information:-
  - (i) Make use of the Fresh Water Plumbing Maintenance Guides to resolve technical difficulties;
  - (ii) Seek assistance from Home Affairs Department for formation of owners’ corporation to resolve coordination difficulties; and
  - (iii) Make use of the Building Safety Loan Scheme of Buildings Department to help resolve financial difficulties.
- (e) Starting from July 2008, a message to promote the Scheme would be printed on the water bill envelopes.
- (f) As the last customer opinion survey showed that the level of satisfaction with the quality of tap water was normally the lowest in buildings of 10-to-20-year-old, letters would be sent to the building management companies and building

owners' corporations of these buildings in a bid to raise their awareness of the Scheme.

- (g) A new Announcement in the Public Interest (API) in TV and Radio would be broadcasted in May 2008 and posters would be displayed on buses and at bus stops to promote the Scheme.
- (h) WSD officers would pay visits to building management companies and building owners' corporations to promote the Scheme and answer questions in response to their concerns in order to motivate more companies to join the Scheme.
- (i) WSD had participated in seminars organized by HAD on building management to promote the Scheme.
- (j) A list of buildings that were awarded the certificate had been posted to the WSD's website.
- (k) The executive summary with the associated charts of the Opinion Survey on Quality of Water in Buildings 2006/07 had been posted in the WSD's website.

9.1.2 In response to Mr CHAN Sheung Yan, Kenneth's concern on the public's response to the new API, Mr TAM Yat Hung, Terence explained that WSD would closely monitor the public response with the number of new applications to the Scheme. The Chairman requested Mr TAM to report the results in the next meeting. WSD

9.1.3 The Chairman invited nomination for the chairmanship of the Working Group on Quality of Water in Buildings. The Committee then endorsed that Mr CHAN Sheung Yan, Kenneth to continue to chair the Working Group.

## 9.2 Publication of Water Quality Data

- 9.2.1 Ms HO Suet Mei, Daisy reported that the latest water quality data covering the period from 1 October 2006 to 30 September 2007 for the Dongjiang water received at Muk Wu Pumping Station and the drinking water in Hong Kong had been uploaded to WSD's website in November 2007. She commented that the water quality of both Dongjiang water and drinking water fully complied respectively with the Environmental Quality Standards for Surface Water GB3838-2002 and the World Health Organization Guidelines for Drinking-water Quality of 2004.

The next updating of water quality data for 1 April 2007 to 31 March 2008 would be arranged in May 2008. Starting from 1 April 2008, WSD had monitored the treated water supply in accordance with the 1st Addendum to 3rd edition of the World Health Organization Guidelines for Drinking-water Quality in 2004 (WHO 2006). The Chairman added that the quality of Dongjiang water supplied to HK had improved significantly after the commissioning of the dedicated aqueduct in June 2003. WSD

- 9.2.2 In response to Dr CHAN Hon Fai, Ms HO Suet Mei, Daisy advised that questions about the quality of drinking water had been received through email from the public from time to time. One of their concerns was whether fluoride should be added. After consulting the Department of Health, WSD continued the current practice of maintaining the fluoride concentration of 0.5 mg/L to prevent dental caries problem. Dr CHAN pointed out his observation that WSD responded very fast to public concerns on the water quality after the occurrences of severe blooms of blue green algae in Taihu and Zhejiang. Ms HO elaborated that no such problem was encountered in the impounding reservoirs in

Hong Kong during the period.

- 9.2.3 Regarding Prof YU Chai Mei, Jimmy's enquiry on the changes introduced in the new guideline of WHO 2006, Ms HO Suet Mei, Daisy explained that the major difference with WHO 2004 was the deletion of three chemical parameters and the addition of two new chemical parameters, bringing the total number of chemical parameters to 92 (instead of 93 chemical parameters in WHO 2004).
- 9.2.4 In response to Prof WONG Chun Yu, Benjamin's concern, Ms HO Suet Mei, Daisy replied that WSD had tested more parameters in the drinking water than the minimum requirements in the World Health Organization Guidelines for Drinking-water Quality, e.g. pH and hardness, for operational need as well as quality monitoring and control purposes.
- 9.2.5 In response to the Chairman's enquiry on whether WSD had carried out any public education activities to improve the public's knowledge on the drinking water quality, Ms HO Suet Mei, Daisy explained that WSD had organized open days for water treatment works annually at Sha Tin, Ma On Shan and Ngau Tam Mei in order to enhance public's knowledge on water treatment and water quality control.
- 9.2.6 The Chairman invited nomination for the chairmanship of the Working Group on Publication of Water Quality Data. The Committee endorsed that Dr CHAN Hon Fai to continue to chair the Working Group.

Item	Action
9.3 Visit to Guangdong	
<p>9.3.1 <u>Mr NG Mang Tung, Bobby</u> reported that the Committee of the last term had visited Taiyuan Pumping Station, Shima River Sewage Diversion Works, Huizhou Dongjiang (Jian Tan) Water Project, Huizhou Meilake Water Purification Center and Environmental Monitoring Station at Shenzhen Reservoir on 27 and 28 November 2007. Members could see the continuous efforts made by the Guangdong Authorities in protecting the quality of Dongjiang water. A visit report prepared by WSD had been issued to all Members and posted in the ACQWS website. <u>Mr NG</u> advised that a similar visit would be arranged in October/November 2008 and invited Members' suggestions of spots to visit.</p>	WSD
<p>9.3.2 After discussions, the majority of Members preferred a 3-day trip to be organised this year such that the three major reservoirs in the upstream of Dongjiang could be visited. <u>Dr NG Cho Nam</u> suggested visiting some new works areas along Dongjiang in order to show Members the latest progress of improvement works of the Dongshen water supply system. The Chairman remarked that some spots of the Dongshen Water Supply System such as the Taiyuan Pumping Station, being the intake point of the System to convey Dongjiang water to Hong Kong, should be visited.</p>	
<p>9.3.3 <u>Mr NG</u> thanked Members' suggestions and said that WSD would arrange the forthcoming visit in collaboration with the Guangdong Authorities taking into account the above suggestions. Members would be notified of the details of the proposed visit through email later.</p>	WSD



Item		Action
9.3.4	<p><u>Mr NG</u> told the Meeting that in response to Members' request, WSD would arrange a visit to Muk Wu Pumping Station, the pumping station receiving Dongjiang water from Shenzhen Reservoir, in this term. Details of the visit would be given to Members through email later. The Chairman suggested and WSD agreed to consider organising for Members visits to other waterworks installations.</p>	WSD
9.4	Reclaimed Water Reuse Project at Ngong Ping	
9.4.1	<p><u>Mr NG Mang Tung, Bobby</u> reported that the operation of the pilot scheme to use reclaimed water at Ngong Ping continued and the Consultant was now reviewing the scheme. The quality of the reclaimed water in general complied with the design standard.</p>	
9.4.2	<p><u>Mr NG</u> stated that the Consultant had carried out a public opinion survey regarding the use of reclaimed water in Hong Kong. The first stage of the survey completed in June 2007 showed that the majority of respondents accepted the use of reclaimed water for flushing, suggesting that the Government could consider to widen the use of the reclaimed water in other areas. The second stage of the survey comprised both telephone and face-to-face interviews. The telephone interviews were being carried out and the face-to-face interviews would be conducted in June 2008. The conclusion of the opinion survey would be available in late 2008 for reporting to the Committee.</p>	WSD
9.4.3	<p>In response to the Chairman's concern with the scope of the face-to-face interviews, <u>Mr NG</u> explained that the survey included the awareness and acceptance of the public on the widely use of reclaimed water in future.</p>	

9.4.4 In response to Dr CHAN Hon Fai, Mr NG replied that the reclaimed water reuse projects in Ngong Ping and Shek Wu Hui were taken forward through the co-operation of DSD, EPD and WSD, among others. DSD was responsible for the operation of the treatment processes in the trial plant while WSD would maintain the reclaimed water supply system. The project in Shek Wu Hui was a demonstration scheme involving treatment of the effluent from the Shek Wu Hui Sewage Treatment Works in North District to produce a high quality disinfected reclaimed water, and then distributing it for use by a selected group of customers (comprising schools and homes for the elderly) for non-potable uses such as toilet flushing, landscape irrigation and water features.

9.5 Pilot Desalination Plant Study

9.5.1 Mr NG Mang Tung, Bobby reported to Members that the pilot desalination plant study had been completed in mid 2007 and the Consultant had submitted the final report in September 2007. Mr NG suggested and the Meeting endorsed that this item could be deleted in the next meeting.

9.6 Water Safety Plan

9.6.1 Ms HO Suet Mei, Daisy informed the Meeting that the development of the Water Safety Plan according to the WHO's new requirements had been completed. The implementation of the Plan had commenced since January 2007. Ms HO added that a brief summary on the Plan had been uploaded to WSD's website in December 2007. She suggested and Members endorsed that this item could be deleted in the next meeting.

## 9.7 Public Education

9.7.1 Mr SUEN Kwok Keung reported that the following public education activities had been carried out since the last meeting:-

- (a) Open days of Tai Po Water Treatment Works in August 2007 and Siu Ho Wan Water Treatment Works in December 2007;
- (b) Public waterworks seminar in September 2007;
- (c) Ceremony for the World Water Monitoring Day cum 40<sup>th</sup> Anniversary of Commissioning of Plover Cove Reservoir on 14 October 2007;
- (d) Giving interview to the media in February 2008 on re-provision of reservoirs for the Centennial Campus of HKU;
- (e) Publication of a newspaper supplement on World Water Day on 22 March 2008 with DSD to promote public awareness on “sanitation”;
- (f) TV and Radio APIs on air since December 2007 - A promotion campaign informing the public that internal plumbing systems should be maintained in good condition to prevent leakage and thus loss of precious water; and
- (g) New promotion campaign for the QWRSB including TV and Radio APIs and production of posters and leaflets.

9.7.2 Dr CHAN Hon Fai noted that only fifteen schools had participated in the World Water Monitoring Day and suggested that it would be worthwhile to involve more schools in this kind of events in future. Mr SUEN Kwok Keung replied that in fact 30 schools joined the event last year. Apart from those 30 schools, all other interested schools actually also participated in the event. They were provided with the testing kits to carry out

the same tests at their own preferred sites.

Mr NG further explained that WSD had organized a lot of events, other than the World Water Monitoring Day, for schools in order to enhance students' awareness of the importance of water conservation and protection of water resources.

9.7.3 Ms WONG Wai Lan, Luciana enquired and Mr SUEN Kwok Keung replied that WSD had invited the international schools to join the World Water Monitoring Day, like all other public education events.

9.7.4 In response to Ms WONG Wai Lan, Luciana's and Ms TONG Po Chun's concerns on the safety and health aspects of using drinking fountains, Dr LEUNG Ting Hung explained that the major concern would be students touching the orifice of the drinking fountain in schools. The Chairman added that the Open University had also carried out a similar study and found that the major hygiene problem was primarily due to the misuse of the fountains. Mr WONG Kwok Hay, Samuel commented that the filters used in the drinking fountains might cause water quality problems. After some discussions of this issue, the Meeting suggested WSD to work with other Government WSD departments in order to address the concerns of this Committee.

9.7.5 In response to Ms TONG Po Chun, Ms HO Suet Mei, Daisy and Mr SUEN Kwok Keung advised that, besides the annual open days of major water treatment works, Sha Tin Water Treatment Works and Ma On Shan Water Treatment Works would receive group/school visits on week days. Applications could be made to the WSD by email, telephone or letter.



Item	Action
10. Agenda Item 3 : Total Water Management Strategy in Hong Kong (ACQWS Paper No. 20)	
10.1 The ACQWS Paper No. 20 on the Total Water Management Strategy in Hong Kong (the Study) had been distributed to all Members before the meeting. <u>Mr NG Mang Tung, Bobby</u> presented to the meeting the details of the Study and invited comments from Members. The Chairman welcomed the Consultant's representatives who were in attendance in the meeting at this juncture.	
10.2 In response to <u>Mr POON Lock Kee, Rocky</u> 's concern on the effectiveness of the Replacement and Rehabilitation (R&R) of watermains programme in minimizing the watermains leakage, <u>Mr NG</u> reported that the estimated leakage rate would decrease from 23% to 15% after the completion of the current phase of R&R programme for 3,000 km of watermains. Upon the completion of the current phase of R&R, WSD would review the underground asset management to see if extension of the R&R Programme to cover the remaining watermains would be required.	WSD
10.3 <u>Dr LEUNG Ting Hung</u> enquired about the effectiveness of implementing the water conservation programme. <u>Mr NG</u> cited that based on overseas experience, the programme could save up to 100 million cubic metres (mcm) of water per year in 2030 with a forecasted consumption of 1,315 mcm if 40% of the customers would participate.	
10.4 <u>Mr POON Lock Kee, Rocky</u> pointed out that Beijing had set up a water conservation office with rules and regulations to control the size of flushing cisterns and the use of water saving devices in	

Item	Action
	WSD
10.5 In response to <u>Mr TANG Kin Fai</u> , <u>Mr NG</u> said that the service sector was the largest water consumers among non-domestic categories and WSD would consider issuing water conservation guidelines for them.	WSD
10.6 Regarding <u>Dr CHAN Hon Fai</u> 's concern on the water leakage in impounding reservoirs, <u>Mr NG</u> explained that the situation of leakage of impounding reservoirs was not serious and WSD impounding reservoirs were being continuously monitored.	WSD
10.7 <u>Dr NG Cho Nam</u> appreciated WSD's initiative to conduct the Study, but commented that, according to his experience, plans and strategies for such long period of up to 2030 would require continuous reviews and updating due to the discrepancies of the projections in population and water consumption. He also pointed out that when EPD carried out the Waste Reduction and Management Study, it was found that a main source of waste was from tourist. He suggested and WSD agreed that tourists would also be a target for promotion of water conservation. In response, <u>Mr NG Mang Tung, Bobby</u> said that WSD would be continuously monitoring the actual water consumption and population as well as reviewing the proposed measures for implementation.	WSD
10.8 <u>Dr LEUNG Ting Hung</u> asked if the Hong Kong Government	

would consider building more treatment works and supplying treated water back to Guangdong cities to cope with their continuous increase in population. In response, Mr NG pointed out that many Guangdong cities like Shenzhen had already been operating modern water treatment works producing good water quality to meet their needs and it would not be cost effective to supply treated water back to the Guangdong cities.

10.9 Ms WONG Wai Lan, Luciana had the following queries/comments on the Study:-

- (a) The current Dongjiang water supply agreement that adopted a package deal approach was signed in April 2006 for the supply up to 2008. Had the government started to discuss the water price with Guangdong authorities?
- (b) The government should ban the use of “fresh” water in certain processes in the construction industries, such as cleaning of roads and dust suppression. A clause could be added in the relevant Technical Circular;
- (c) She supported the harvest of rainwater by installing storage tanks on the roof tops of new buildings and houses;
- (d) She supported the idea of developing the Water Efficiency Labelling Scheme and suggested that WSD should consider adopting a rebate system to reward consumers who had installed water saving devices as a way to encourage more participation;
- (e) In the current water bill, a daily water consumption of the current year was compared with the past consumption figures. She suggested to provide information on the estimated monthly water consumption of average households for the information of the customers;



- (f) The Study mentioned about the uncertainties such as acute climate changes. Had the government assessed the impact these may have on water supply from China to Hong Kong? and
- (g) Though there was a tiered tariff structure, it would be quite uncertain if an individual would be encouraged to lower consumption further by fitting water saving devices if the bill had already fallen or had already been low in the consumer's point of view.

Mr NG generally responded that:-

- (a) The Government had started to negotiate a new supply agreement beyond 2008 with the Guangdong Authority;
- (b) It was not easy to estimate the effect from the climate changes at this stage but WSD would be closely monitoring the effects of the climate changes on water resources; and
- (c) WSD would consider Ms WONG's other suggestions above. WSD

10.10 In response to the Chairman's comment that an increase in water tariff could achieve water conservation, Mr NG explained that this measure had been considered in the Study. But it would impact on the cost of living of the public, it should be considered carefully. Mr NG also noted that the effect on water conservation from the increase of water tariff was usually short-term. The Vice-Chairman added that WSD would consider first implementing all other water conservation measures recommended in the Study such as public education works. WSD

10.11 The Chairman suggested and WSD concurred to consider identifying and providing water conservation guidelines for high WSD

water consumption industries.

- 10.12 In response to Dr NG Cho Nam's concern that the promoted greening initiatives to buildings in Hong Kong might increase water consumption, Mr NG said that WSD would promote introduction of the water conservation concept to the implementation of greening initiatives, for example promoting the use of low water consumption plants. Mr TANG Kin Fai cited that the EPD had implemented a "green" roof with a rainwater harvesting system in one of the government buildings that embodied both the greening and water conservation concepts. The Chairman suggested EPD to consider more water conservation during the promotion of greening to buildings. Mr TANG commented that it would be more appropriate to promote water conservation to greening in new buildings first.

- 10.13 Ms LEE Yoke Shum, Sam recommended to promote rainwater harvesting for all buildings and water conservation in Hong Kong hotels. The Chairman suggested WSD to provide guidelines to hotels for this purpose. Mr TANG Kin Fai pointed out that the Hotel Association had in fact promoted water saving devices to their members and suggested WSD to follow up with the Association to strengthen these measures. Dr NG Cho Nam commented that more promotion efforts should be made to hotels with 3-star or below. The Chairman also suggested WSD to work with other departments, including the Housing Department and Buildings Department, to introduce rainwater harvesting in new buildings. Mr CHAN Sheung Yan, Kenneth pointed out that rainwater harvesting in buildings might not be effective particularly during dry seasons.

- 10.14 The Chairman considered that increasing the use of seawater for

flushing would reduce the demand of fresh water. In response to the Chairman's enquiry to what districts in Hong Kong had implemented seawater for flushing and whether the system would be extended to the Peak, Mr NG Mang Tung, Bobby replied that seawater for flushing would be extended to Pokfulam, Yuen Long and Tin Shui Wai soon. However, he said that there was no plan yet to extend the seawater system to the Peak because the energy requirement and the relatively low demand would render the option not cost-effective. Upon the completion of providing salt water for flushing to the above-mentioned areas, the coverage of seawater supply system would be over 90% of Hong Kong. The Chairman and Dr Chan Hon Fai suggested WSD to consider using reclaimed water for flushing in the Peak.

- 10.15 In response to Mr TANG Kin Fai's question regarding the programme of the Study, Mr NG replied that the Study was now at the consultation stage. He thanked Members for their valuable comments which would be considered in finalising the Study and he said that the implementation of the recommendations of the Study would be carried out after the consultation by stages according to their priorities.

11. Any Other Business

- 11.1 No item was raised by Members.

12. There being no other business, the Meeting was adjourned at 5:00 p.m.