

Advisory Committee on Water Supplies [2022-2024] Report on Visit to Dongjiang Water Supply System (13 – 14 November 2023)



Advisory Committee on Water Supplies

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INTRODUCTION

Delegation of the Advisory Committee on Water Supplies (ACWS) visited the Dongjiang (DJ) Water Supply System (東江供水系統) during the 2-day period from 13 to 14 November 2023. The delegation was led by the Chairman, Prof KWAN Kai Cho, Joseph, with seven non-official members and three official members of ACWS and six HKSAR Government officials (see **Annex 1**). The itinerary of the visit is appended at **Annex 2**. During the visit, the delegation met officials of the various Guangdong (GD) Authorities as listed in **Annex 3** and was updated on their work in protecting the DJ as well as the quality of DJ water supply to Hong Kong.

THE VISIT

2. On arrival at Heyuan (河源) on the first day (13 November 2023), the delegation took a boat ride at the Xinfengjiang Reservoir (新豐江水庫) which is also known as Wanlu Lake (萬綠湖). With a water surface area of about 370 square kilometres and a storage capacity of about 13.9 billion cubic metres, it is the largest reservoir at the upstream of DJ for regulating the flow in the river. During the boat ride, the delegation inspected the quality of DJ water in the reservoir from a close distance and had a fruitful discussion with the officials of the Heyuan Municipal People's Government (HMPG) on the protection and management of water resources in DJ. Noting the actions taken by the HMPG to prevent pollution, the delegation



was impressed by the good quality of DJ water in the reservoir.

3. After finishing the visit at the Xinfengjiang Reservoir, the delegation went to Dongguan (東莞) and arrived there in the evening.

4. In the morning of the second day (14 November 2023), the delegation went to visit the Taiyuan Pumping Station (太園泵站). The Taiyuan Pumping Station has a design capacity of 100 cubic metres per second (m^3/s) and a pump head of 11 metres (m). It is the point where the DJ water for supplying to Hong Kong is abstracted. The abstracted DJ water is conveyed through the Dedicated Aqueduct (東江供水專用輸水管道) to the Shenzhen Reservoir(深圳水庫) before delivery to Hong Kong. The delegation was shown the model of the Dongjiang-Shenzhen Water Supply System (東江—深圳供水系統) in the Taiyuan Pumping Station and briefed on the alignment and operation of Dedicated Aqueduct. The delegation noted that the intake point of DJ water for supplying to Hong Kong is at about 350 m upstream of the junction of Shima River and DJ and a new water gate was constructed at the mouth of Shima River to intercept polluted water from the river to safeguard the quality of DJ water.

5. At the exhibition hall of Taiyuan Pumping Station, a presentation on the history of various stages of expansion and improvement of the Dongjiang-Shenzhen Water Supply System was given to the delegation. The delegation was impressed by the scale of works and the efforts made by the GD Authorities in ensuring adequate supply of DJ water to Hong Kong. The delegation then proceeded to the Jinhu Aqueduct (金湖渡槽) which is connected to the fourth and the last Jinhu pumping station (金湖泵站) of the Dongjiang-Shenzhen Water Supply System for conveying the DJ water to the Shenzhen Reservoir. The pumping station has a design capacity

of 100 m³/s and a pump head of 25 m. The delegation noted the proper and quality maintenance of the installations of Dongjiang-Shenzhen Water Supply System which is crucial for maintaining a continuous supply of DJ water to Hong Kong.

6. In the afternoon of the second day, the delegation visited the Integrated Improvement Works for the Water Environment of Shawan River (沙灣河流域水環境綜合整治工程). The Shawan River (沙灣河) would discharge into the Shenzhen Reservoir during severe rainstorms to prevent flooding of the areas in the vicinity of the river. In the past, the Shawan River was polluted by the municipal wastewater discharged into the river, thus the quality of DJ water supply to Hong Kong would be affected when there was flood discharge from the Shawan River into the Shenzhen Reservoir. The delegation noted that with the completion of the Integrated Improvement Works for the Water Environment of Shawan River in 2020 which comprised desilting of Shawan River, laying of sewers for intercepting the municipal wastewater used to discharge into the river and conveying it to the Budixia Water Purification Plant (埔地嚇水質淨化廠) for treatment as well as expansion of the purification plant, the water quality in Shawan River had improved significantly. The delegation was satisfied with the water quality of the Shawan River and noted that the effect on the water quality in Shenzhen Reservoir during flood discharge from the Shawan River into the reservoir in severe rainstorm is greatly reduced thus protecting the quality of DJ water supply to Hong Kong. The delegation was grateful for the work done by the GD authorities in safeguarding the quality of DJ water.

7. Before the end of the trip, the delegation then visited the Bio-nitrification Plant (生物硝化廠) located at the inlet of Shenzhen Reservoir. The plant receives and treats incoming DJ water by removing the ammonia in the water before it enters



the Shenzhen Reservoir. The capacity of the plant is 4 million cubic metres per day. The delegation noted that the Bio-nitrification Plant had contributed to ensuring the quality of DJ water supply to Hong Kong.

CONCLUSION

8. Through the two-day visit, the delegation had a deeper understanding about the DJ water supplied to Hong Kong, especially the effort contributed by the GD side in safeguarding the quality of DJ water, which includes the formulation and implementation of regulations and measures to strictly protect water resources, and the tremendous infrastructure invested. The delegation also had the opportunity to observe the DJ water supply system facilities from a short distance and the stringent water quality examination system. They considered the visit, covering several major operation facilities of the DJ water supply system, to be enriching and appreciated the commitment and efforts made by the GD Authorities in maintaining a reliable DJ water supply to Hong Kong in full compliance with the required water quality standards in the DJ water supply agreement.

9. The delegation expressed gratitude to the WSD, the officials of the Water Resources Department of Guangdong Province (廣東省水利廳) and the executives of the Guangdong Yue Gang Water Supply Company Limited (廣東粵港供水有限公司) for arranging the visit for them. They appreciated the opportunity to have direct dialogue with the officials of GD Authorities on the quality of DJ water.

10. The delegation suggested that the visit should continue to be arranged for members of the ACWS in future so that they can monitor the DJ water quality and



keep abreast of the latest development of the work in protecting DJ and the quality of DJ water supply to Hong Kong by the GD Authorities.

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ANNEXURE

Annex 1	List of Delegates
Annex 2	Itinerary
Annex 3	List of Guangdong Authorities Met

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List of Delegates

姓名 Name		職銜 Title
水務諮詢委員會 Advisory Committee on Water Supplies		
1	關繼祖教授 Prof KWAN Kai Cho, Joseph	主席 Chairman
2	邱國鼎先生 Mr YAU Kwok Ting, Tony	委員, 水務署署長 Member, Director of Water Supplies
3	張孝威先生 Mr CHEUNG Hau Wai	委員 Member
4	李錦皇先生 Mr LI Kam Wong, Arthur	委員 Member
5	伍振強工程師 Ir NG Chun Keung	委員 Member
6	鄧銘心工程師 Ir TANG Ming Sum, Michelle	委員 Member
7	謝立亞教授 Prof TSE Lap Ah, Shelly	委員 Member
8	王鵬博士 Dr WANG Peng	委員 Member
9	余遠騁博士 Dr YU Yuen Ping, William	委員 Member
10	冼學斌先生 Mr SEN Hok Bun, Paul	發展局委員代表 Member's Representative, Development Bureau)
11	馮焯邦先生 Mr FUNG Cheuk Pong, Ronald	秘書, 水務署 Secretary, Water Supplies Department

姓名 Name		職銜 Title
香港特別行政區政府官員 HKSAR Government Officials		
12	馬漢榮先生 Mr MA Hon Wing, Wilson	水務署助理署長 Assistant Director, Water Supplies Department
13	葉家駿先生 Mr YIP Ka Chun, Gary	水務署總工程師 Chief Engineer, Water Supplies Department
14	蔡德業先生 Mr CHOY Tak Yip	水務署總水務化驗師 Chief Chemist, Water Supplies Department
15	潘鋒先生 Mr POON Fung, Calvin	水務署工程師 Engineer, Water Supplies Department
16	梁懋慈女士 Ms LEUNG Mou Tsz, Sarah	水務署高級新聞主任 Senior Information Officer, Water Supplies Department
17	陳善南先生 Mr CHAN Sin Nam, Ralph	政府新聞處攝影師 Photographer, Information Services Department

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Itinerary

Day 1 (13 November 2023, Monday)

08:45 Depart from Heung Yuen Wai Control Point
11:55 Arrive at Heyuan (河源)
12:00 Lunch
13:30 Visit Xinfengjiang Reservoir (新豐江水庫)
18:00 Arrive at Dongguan (東莞)
18:30 Dinner

Day 2 (14 November 2023, Tuesday)

09:00 Visit Taiyuan Pumping Station (太園泵站)
10:30 Visit Jinhu Aqueduct (金湖渡槽)
12:25 Arrive at Shenzhen (深圳)
12:30 Lunch
14:00 Visit Integrated Improvement Works for the Water Environment of Shawan River (沙灣河流域水環境綜合整治工程)
15:00 Visit Bio-nitrification Plant (生物硝化站) at Shenzhen Reservoir (深圳水庫)
16:00 Arrive at Heung Yuen Wai Control Point

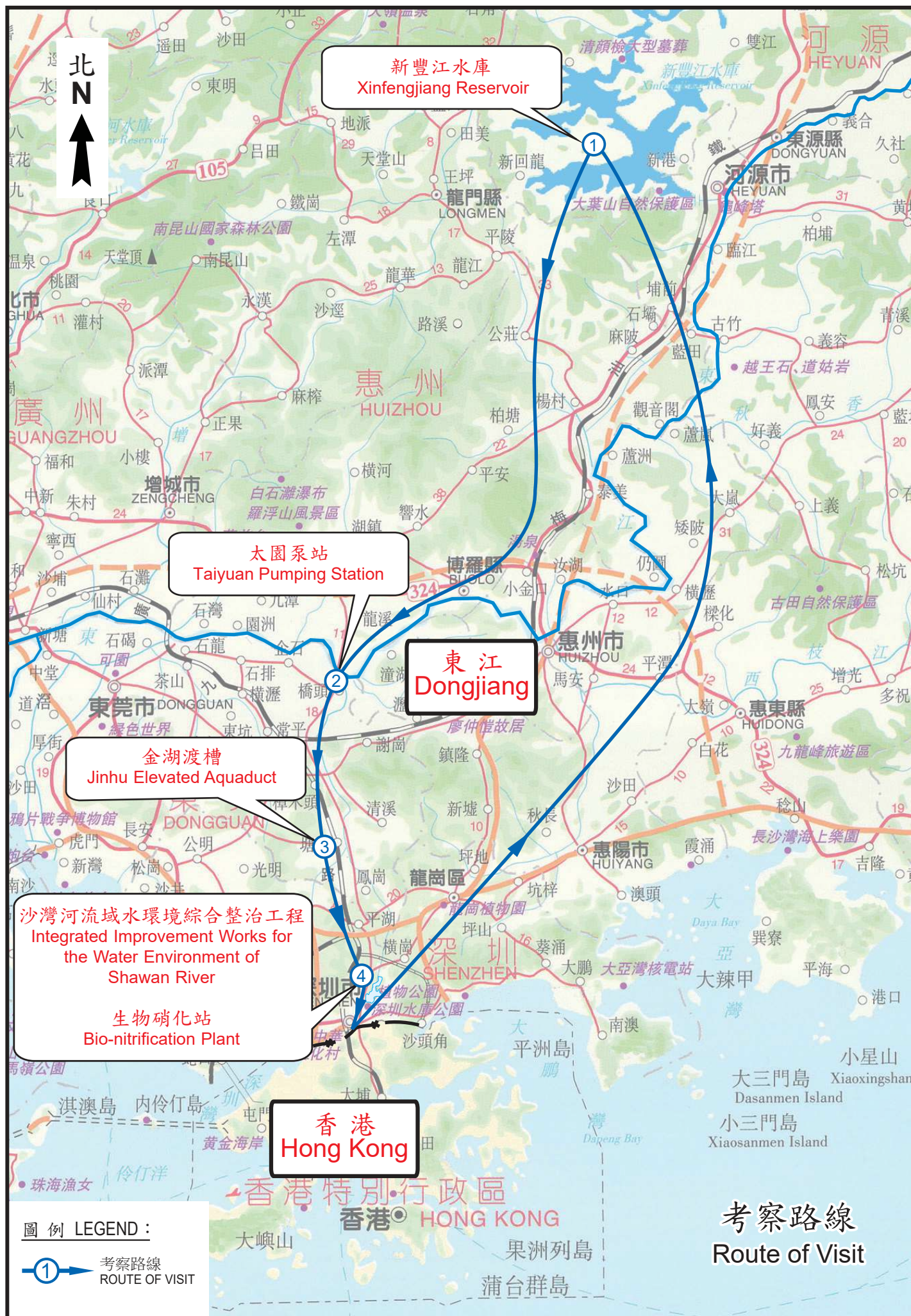
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1	廣東省水利廳 Water Resources Department of Guangdong Province
2	廣東省東江流域管理局 Bureau of Dongjiang River Basin Administration
3	河源市人民政府 Heyuan Municipal People's Government
4	河源市水務局 Heyuan Water Authority
5	深圳市水務局 Shenzhen Water Authority
6	廣東粵港供水有限公司 Guangdong Yue Gang Water Supply Company Limited

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ROUTE OF VISIT



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PHOTOS

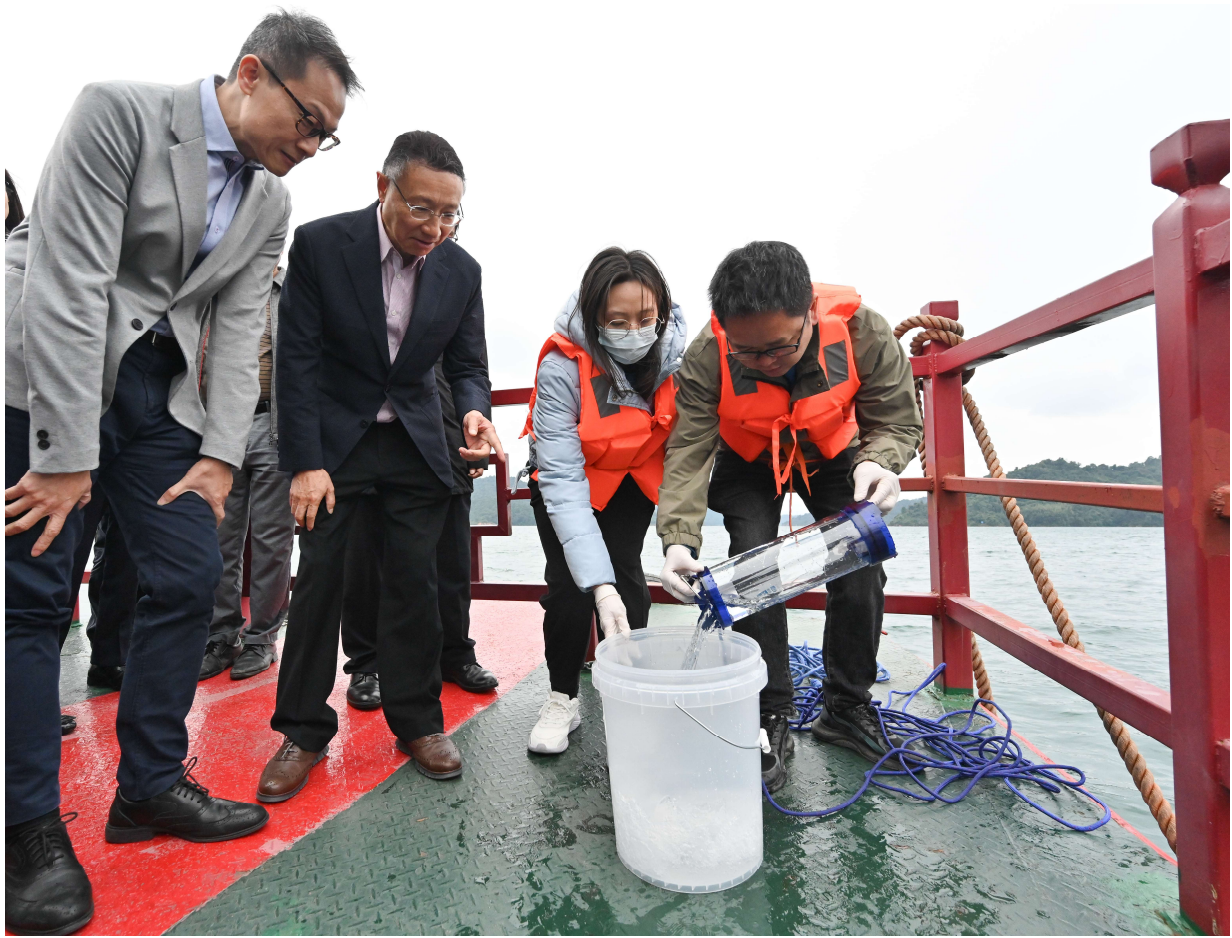


Photo 1 – Inspection by the delegation on the quality of water sample in Xinfengjiang Reservoir during the boat ride in the reservoir



Photo 2 – Visit of the delegation to Xinfengjiang Reservoir



Photo 3 – Briefing of the delegation on the Dongjiang water supply system at the exhibition hall of Taiyuan Pumping Station



Photo 4 – Visit of the delegation to Taiyuan Pumping Station



Photo 5 – Inspection by the delegation on the water quality at Jinhu Aqueduct



Photo 6 – Briefing of the delegation on Integrated Improvement Works for the Water Environment of Shawan River



Photo 7 – Visit of the delegation to Integrated Improvement Works for the Water Environment of Shawan River



Photo 8 – Inspection by the Chairman of Advisory Committee on Water Supplies on the growth of nitrifying bacteria at Bio-nitrification Plant at Shenzhen Reservoir



Photo 9 – Visit of the delegation to Bio-nitrification Plant at Shenzhen Reservoir

