Annex B

EIA report on
"Relocation of Diamond Hill Fresh Water
and Salt Water Service Reservoirs to Caverns"

Relevant Extract of the draft minutes of
the Environmental Impact Assessment Subcommittee meeting
held on 13 September 2021

Question-and-Answer Session (Open Session) Action

Project Details

1. In response to a Member's question about the estimated cost of this EIA project, Ms Melody Wong informed that the cost was estimated to be around $3 billion (in money-of-the-day prices) in 2018. As the detailed design was still being fine-tuned, the estimated cost would be subject to review and updating prior to seeking the necessary funding approval from the Finance Committee next year.

2. In respect of the demolition of the existing Diamond Hill Fresh Water and Salt Water Service Reservoirs (DHSRs) and associated facilities, Ms Melody Wong advised that they would not be covered by the proposed project but to be handled by CEDD separately.

Air Quality Monitoring

3. A Member was concerned about the assessment and mitigation measures for radon gas within the caverns arising from the proposed construction. While the relocated DHSRs would generally be unmanned, Mr Tony Lau explained that a ventilation system would be devised to ensure the safety of the personnel working in the caverns for routine inspection and maintenance. The Chairperson further enquired whether the assessment of radon gas emissions was covered in the EIA report. Ms Esther Tong advised that as set out in Chapter 2.14 of the EIA report, adequate ventilation would be provided to dilute the level of radon gas in line with the Indoor Air Quality Objectives for Office and Public Places and relevant regulations.

4. In response to a Member's question on smoke extraction in the caverns, Mr Tony Lau advised that smoke extraction system would be incorporated in the ventilation system. Another Member was concerned about the potential health hazards caused by gas emissions in the caverns and suggested that relevant guidelines should be devised such as the maximum working hours allowed for workers in the

caverns. Mr Lau assured that sufficient ventilation would be ensured during the construction as well as the operation phase to mitigate potential health hazards to workers. Mr William Leung added that an operation and maintenance manual which included evacuation and safety plans would be provided to staff working in the caverns.

5. A Member enquired whether indicators would be deployed in the caverns to monitor the air quality. Mr William Leung advised that devices such as sensors would be installed in the caverns to monitor the concentration of the major gas emissions with a view to ensuring the safety of personnel working in the caverns.

6. Considering that the facility would be unmanned, a Member remarked that it might not be environmentally-friendly for the ventilation system in the caverns to operate at full strength. He suggested deploying sensors or indicators for monitoring the air quality in the caverns for optimising the operation of the ventilation system. Mr Tony Lau advised that the ventilation would be designed to operate at high or low flow rate according to the operational need. He thanked the Member's suggestion and would take them into consideration where appropriate.

7. A Member was concerned about the safety for disinfection of potable water by chlorination within the enclosed caverns and sought for the details of water disinfection process as well as the mitigation measures for removing any hazardous gas in the caverns. Mr Tony Lau advised that disinfection was conducted in facilities outside the caverns such as water treatment works, no water chlorination would be performed in the project facility. It was expected that level of hazardous gas within the caverns would be low. Mr William Leung supplemented that adequate ventilation would be maintained in the caverns to remove any hazardous gas such as chlorine gas.

8. A Member suggested that the project proponent should state clearly in the EIA report that disinfection process would not be performed in the caverns in the operation phase. Mr Tony Lau replied in the affirmative.

Impact on Watercourses

9. Considering the potential ecological impacts on the watercourses, a Member enquired and Ms Esther Tong advised that the construction works would be carried out mainly at the underground.

10. In reply to a Member's enquiry about mitigation measures for potential contamination to watercourses due to surface runoff, Ms Esther Tong said that mitigation measures such as proper drainage system and the use of silt traps would be adopted to receive surface runoff. She added that any discharge effluent would comply with the requirements of the discharge license of EPD.

11. With reference to a public comment, the Chairperson enquired about details of the proposed mitigation measures for potential groundwater drawdown. Mr Tony Lau advised that while groundwater infiltration was unlikely due to the low permeability of the rocks in the project site, grouting measures as well as waterproof lining would be adopted to mitigate any groundwater infiltration.

12. A Member pointed out the discrepancies in records of watercourses between different chapters of the EIA report and sought clarification on whether there were watercourses within the project area and confirmation on whether ecological survey had been conducted for those watercourses.

13. Ms Esther Tong explained that Chapter 5 (Water Quality Impact) of the EIA report accounted for all the identified watercourses for the evaluation of water quality impact whereas Chapter 8 (Ecological Impact Assessment) focused on the assessment of ecological impact on the watercourses with ecological values and importance. Mr Gary Chow supplemented that initial assessment of all identified watercourses had been carried out through the transect survey, which would determine whether in-depth ecological survey would be required for the watercourses concerned based on their ecological values. The watercourses within the project area were considered as having no significant ecological value and adverse impact on the watercourses was not anticipated, thus detailed ecological survey was considered not necessary.

14. The Chairperson suggested that the project proponent should clarify that watercourses with significant ecological values were not found in the project area in Chapter 8 of the EIA report and elaborate on the assessment of ecological values for the watercourses concerned in the project area.

Occupational Safety and Health Hazards

15. A Member suggested devising a comprehensive risk management plan with a view to mitigating any occupational safety and health hazards such as flooding or fire risks in the caverns in order to safeguard the personnel working in the caverns. She added that unmanned operation in the caverns should be adopted as far as practicable. Mr Tony Lau advised that an operation and maintenance manual which

set out relevant risk management plan would be provided to the personnel who need to work in the caverns.

16. In case of emergency, a Member was concerned about the means of escape or emergency exits for personnel working in the caverns. Mr Tony Lau confirmed that sufficient means of escape would be provided for emergency.

Landscape Impact

17. A Member suggested reusing and recycling the trees felled in this project for purposes such as landscaping. Ms Esther Tong advised that there might not be enough space for landscaping in the project site but she agreed to explore the possibility to reuse or recycle the wood generated from the felled trees for other purposes as far as practicable.

18. In reply to a Member's question on the tree species for compensatory planting in the project area, Ms Esther Tong advised that the tree preservation and removal proposal was under preparation. Tentatively, mainly *Sapium discolor, Mallotus paniculatus* and *Polyspora axillaris* would be used for compensatory planting. The Member suggested using native and canopy tree species for better compatibility of the surrounding tree species. Given that the compensatory planting would be conducted in a sloped surface, Ms Esther Tong advised that the suitability of tree species to be planted would be carefully examined. They would explore and consider the use of more native and canopy tree species as far as practicable.

Potential Habitation of Wildlife

19. A Member enquired about measures to avoid any wildlife from inhabiting the caverns. Mr Tony Lau advised that an entrance gate would be installed at the tunnel portal to prevent trespassers and wildlife of larger size from entering.

Conclusion

20. There being no further questions from Members, the Chairperson thanked the project proponent team for their detailed presentation and clarification on the project.

(The presentation team left the meeting at this juncture.)

Internal Discussion Session (Closed-door session)

21. The Chairperson advised that the EIA Subcommittee should make recommendations to ACE on the EIA report with the following consideration:

(i) endorse the EIA report without condition; or
(ii) endorse the EIA report with conditions and/or recommendations; or
(iii) defer the decision to the full Council for further consideration, where issues or reasons for not reaching a consensus or issues to be further considered by the full Council would need to be highlighted; or
(iv) reject the EIA report and inform the project proponent of the right to go to the full Council.

22. The Chairperson proposed and Members agreed to endorse the EIA report with conditions and recommendations.

Impact on Watercourses

23. A Member considered that the discrepancies in records of watercourses in different chapters of the EIA report undesirable. Specifically, Chapter 8 of the EIA report stated that no watercourse was found within the project area whereas Chapter 5 showed that there were some watercourses overlapping with the proposed cavern. Another Member enquired whether the discrepancies were due to the different watercourses in project area and study area. Mr Terence Tsang suggested that the project proponent should be required to amend relevant chapters of the EIA report. This would not affect the approval of the EIA report provided that the amendments would not affect the validity of the assessment and the overall results and conclusions of the report.

24. With reference to Figure 5.1 of the EIA report, a Member pointed out that watercourses located on top of the proposed cavern, i.e. WSR2a and WSR2c, could be subject to groundwater drawdown impact and thus the ecology of the watercourses could be affected. In this connection, the Chairperson suggested, with the support of two Members that should watercourses be found in the project area, the project proponent should conduct ecological survey for the watercourses concerned as well as devise mitigation measures to minimise the groundwater infiltration.

25. Mr Simon Chan explained that in some cases, watercourses might be seasonal or even be dried out and thus conducting ecological survey might not be necessary. Mr Chan supplemented and echoed by Mr Terence Tsang that the need for conducting

ecological survey would be subject to various factors such as the presence of species of conservation importance and the size or significance of the habitats. According to the information provided by the project proponent during the meeting, he considered that the project proponent should have assessed the need for conducting ecological survey for the watercourses in accordance with the Technical Memorandum as well as the study brief. Thus, he suggested asking the project proponent to supplement the considerations for not conducting ecological survey for the watercourses in the project area.

26. Having considered the views of Mr Terence Tsang and Mr Simon Chan, the Chairperson proposed and Members supported to impose a condition to require the project proponent to clarify and elaborate on the discrepancies in records of watercourses within the project area between different chapters of the EIA Report. The detailed assessment and justifications for not conducting ecological surveys at some of the watercourses concerned should be submitted to the satisfaction of the DEP and the Director of Agriculture, Fisheries and Conservation before approval of the EIA report by DEP.

Air Quality Monitoring

27. A Member suggested and another Member concurred that an online monitoring system with remote sensors should be installed in the caverns in order to optimise the operation of the ventilation system to ensure the safety of the personnel working in the caverns. The Chairperson suggested and Members agreed to recommend the project proponent to adopt the most efficient design and equipment for real-time tracking and monitoring of the air quality within the proposed caverns, including but not limited to the level of radon gas, with a view to optimising the efficiency of the ventilation/filtration in the project site and safeguarding the personnel working in the caverns.

28. In view of the safety concern for emissions generated from potable water disinfection by chlorination, a Member considered that the project proponent should state clearly in the EIA report that disinfection by chlorination would be performed outside the caverns. With reference to the information provided by the project proponent during the meeting, Mr Terence Tsang explained that water treatment such as chlorination or disinfection should be completed in water treatment facilities instead of the service reservoirs of this project. While Mr Tsang considered that it might not be necessary to impose a condition or recommendation for banning water chlorination in the caverns, he said that EPD would address this concern by including

this requirement in the Environmental Permit (EP) instead. The meeting agreed that a condition or recommendation on water chlorination would not be necessary.

Occupational Safety and Health Hazards

29. In addition to the air quality control, the Chairperson suggested recommending the project proponent to mitigate occupational safety and health hazards such as flooding and fire risks. A Member enquired if a recommendation on occupational safety and health hazards could be covered under the scope of EIA Ordinance (EIAO). Mr Terence Tsang considered that it would be acceptable to incorporate a recommendation for the project proponent to address occupational safety and health issues although they were not covered in the scope of EIAO. In this connection, the Chairperson suggested and the meeting agreed to recommend the project proponent to devise a comprehensive risk management plan with a view to mitigating occupational safety and health hazards such as flooding or fire risks in the caverns during the construction and operation phases.

Potential Habitation of Wildlife

30. A Member was concerned about the potential habitation of the caverns by wildlife such as bats and suggested that the project proponent should take precautionary measures such as installation of curtains at the tunnel portal. The Chairperson proposed and Members agreed that the project proponent should adopt necessary precautionary measures to prevent any wildlife from inhabiting the caverns and take appropriate remedial actions should any wildlife be found in the caverns during the construction and operation phases.

Landscape Impact

31. A Member remarked that the use of felled trees for purposes such as landscaping in the project site would help educate the public on environmental protection and conservation. He suggested imposing a condition for the project proponent to reuse and recycle the wood generated from the project. The Chairperson reminded that the project proponent expressed difficulty in reusing and recycling the felled trees due to the physical constraint of the project site. As such, the Chairperson suggested with the support of the meeting to recommend the project proponent to explore ways to facilitate the reuse and recycle of the wood generated from the felled trees in the project area as far as practicable.

32. In order to conserve native tree species and enhance the diversity, a Member suggested and Members supported to recommend the project proponent to explore and consider the use of appropriate and additional tree species, in particular native and canopy species, for compensatory planting in the project area.

Surface Runoff

33. In view that mitigation measures such as proper drainage system and use of silt traps had been set out in the EIA report, the meeting agreed that no condition or recommendation was necessary in respect of surface runoff.

34. There being no other comments from Members, the meeting agreed that the EIA report could be endorsed with one condition and five recommendations. The project proponent team would not be required to attend the full Council meeting scheduled for 11 October 2021.

(Post-meeting notes: The list of proposed condition and recommendations was circulated to Members for comments on 20 September 2021.)

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EIA Subcommittee Secretariat
September 2021