

**Confirmed Minutes of the 130th Meeting of
the Environmental Impact Assessment Subcommittee
held on 14 September 2015 at 2:00 pm**

Present:

Prof Nora TAM, BBS, JP (Chairperson)
Dr HUNG Wing-tat, MH (Deputy Chairman)
Ir Cary CHAN
Prof CHAU Kwai-cheong, BBS, JP
Dr Billy HAU
Dr Michael LAU
Ir MA Lee-tak, SBS
Prof John NG
Miss Yolanda NG, MH
Dr Eric TSANG
Mr Luther WONG
Miss Evelyn LEUNG (Secretary)

Absent with Apologies:

Prof Albert LEE

In Attendance:

Mr Andrew LAI	Deputy Director of Environmental Protection (3), Environmental Protection Department (EPD)
Mr K F TANG	Assistant Director (Environmental Assessment), EPD
Mr Simon CHAN	Assistant Director (Conservation) (Acting), Agriculture, Fisheries and Conservation Department (AFCD)
Mr Louis CHAN	Principal Environmental Protection Officer (Regional Assessment), EPD
Mr Richard WONG	Senior Environmental Protection Officer (Regional Assessment)3, EPD
Mr Eddie LEE	Senior Environmental Protection Officer (Regional Assessment)5, EPD
Miss Dora CHU	Executive Officer (CBD), EPD
Ms Daicie TONG	Executive Manager (CBD), EPD

Project Proponent Team

Water Supplies Department

Mr LEUNG Wing-lim, Assistant Director/New Works
Mr Thomas CHAN, Chief Engineer/Consultants
Management
Mr LAM Shing-tim, Senior Engineer/Consultants
Management

*Environmental Resource
Management Ltd. (ERM)*

Dr Jasmine NG, Principal Consultant
Ms Jamius YEUNG, Consultant

Black & Veatch

Dr Benjamin YEUNG, Technical Director
Ms Christina K. HARTINGER, Project Manager
Mr Kevin WONG, Project Engineer

Action

Item 1 : Matters arising from the minutes of the 129th meeting

The Chairperson informed Members that the EIA Subcommittee (EIASC) last met in May 2015 to discuss the EIA report on “Comprehensive Development and Wetland Protection near Yau Mei San Tsuen”. The minutes of meeting were confirmed via paper circulation on 7 July and had been uploaded on the website of the Advisory Council on the Environment (ACE) for public information.

2. In response to a Member’s enquiry about the approval status of that EIA report, Mr K F Tang said that the Director of Environmental Protection (DEP) had taken into account ACE’s comments and approved the report on 6 July. The project Environment Permit was issued on 12 August. The Chairperson proposed and Members agreed that the Secretariat should establish a reporting system on the EIA reports approved by DEP which had been submitted to the Council for discussion.

EPD /
Secretariat

[Post meeting notes: Information on approval of the EIA report on “Comprehensive Development and Wetland Protection near Yau Mei San Tsuen” and issue of the project Environmental Permit were circulated to all ACE Members for reference on 14 September 2015.]

3. There was no other matter arising from the minutes of the last meeting.

**Item 2 : EIA Report on “Desalination Plant at Tseung Kwan O”
(ACE-EIA Paper 2/2015)**

Internal Discussion Session

4. The Chairperson advised that the meeting would discuss the EIA report on “Desalination Plant at Tseung Kwan O”. It was a designated project under “Schedule 2” of the EIA Ordinance. The public inspection period of the report was from 30 July to 28 August 2015. As an administrative arrangement, public comments and the gist of major issues/concerns received by EPD had been circulated to Members for reference before the meeting. Written response from the project proponent (i.e. the Water Supplies Department (WSD)) to questions raised by Members had also been circulated for Members’ information before the meeting.

5. The Chairperson informed Members that the discussion would be divided into the open Presentation and Question-and-Answer Session which would be opened

to the public. The Internal Discussion Session would remain closed.

6. The Chairperson invited any declaration of interest from Members. A Member declared that he was the former Director of Water Supplies and had been engaged in seeking funding approval from the Legislative Council for the preliminary study and the EIA study of the proposed desalination plant as well as the early stage of the planning of the project. He retired from the civil service in 2013 and was not involved in the EIA study. Another Member advised that he was a Member of the Advisory Committee on Water Resources and Quality of Water Supplies. He was also a member of the green group which had submitted comments to EPD on the EIA report. The meeting agreed that both Members could stay on and continue participating in the discussion.

[Post-meeting notes: A Member sent in apology on his oversight of not declaring at the meeting that he also was a Member of the Advisory Committee on Water Resources and Quality of Water Supplies. Taking into account the meeting's consideration in respect of a Member's declaration of membership in the same advisory committee and Members' agreement for the Member to stay on and participate in the discussion, he should be allowed to stay at the meeting and take part in the discussion.]

7. The Chairperson reminded Members to keep confidentiality of the discussion on the EIA report. Members should refer any enquiries to the Secretariat in case they were approached on the discussion and/or decision of EIASC.

8. For a more structured and focused discussion of the report, the Chairperson suggested and Members agreed to raise questions on the key subject areas of the EIA report in the order of –

- (a) Impacts on marine ecology and corals
- (b) Impact on fisheries
- (c) Hazard to life
- (d) Visual and landscape impacts
- (e) Other environmental concerns

[The project proponent team joined the meeting at this juncture.]

Presentation Session (Open Session)

9. Mr Leung Wing-lim gave an overview of the background and need for the project. Dr Jasmine Ng briefed Members on the environmental aspects of the desalination plant proposed at Tseung Kwan O (TKO) Area 137, key comments received during the public inspection period and response to these comments.

Question-and-Answer Session (Open Session)

Impacts on marine ecology and corals

10. A Member enquired about the construction method and extent of the submarine outfall and the constituents of the reverse osmosis (RO) concentrate to be discharged during the operation phase. He also asked about the location and coverage of corals being surveyed in the EIA study and the assessment on the potential ecological impact on corals during the operation phase. The Member suggested that as the EIA study only covered the impact on corals with the highest discharge rate, a hydraulic modelling of northerly current flow (for both dry and wet seasons) which would disperse effluent and RO concentrate should be conducted to show the potential impacts on corals identified particularly in the vicinity of the submarine outfall area, i.e. SR37. He also enquired on the need of translocating the corals.

11. Mr Kevin Wong informed that micro-tunnelling method would be adopted for the construction of submarine intake/outfall pipelines to minimize the extent of dredging works and the associated impacts on water quality and marine ecology. Marine dredging for the seawater intake and outfall diffuser would be involved. Dr Jasmine Ng supplemented that the dredging volume for the outfall diffuser of less than 5 000 m³ was considered to be small in extent. While marine dredging would be inevitable during the construction phase for works including installation of above-seabed portion of the outfall diffuser and intake structures, measures to reduce the environmental impact of the dredging works and volume of sediments would be planned in the detailed design such as controlling the dredging rate and use of silt curtains to reduce dispersion of suspended solids. Dr Ng further advised that sediment testing conducted had confirmed that sediments within the proposed dredging area were uncontaminated. Furthermore, application for a marine dumping permit would be made for the disposal of sediments in full compliance with the Dumping at Sea Ordinance, Cap. 466.

12. In reply to the Chairperson's enquiry about the dredging volume, Dr Jasmine Ng said that the estimated dredging volumes were 1 740 m³ and 4 590 m³ for the seawater intake structures and outfall diffuser respectively.

13. As regards the potential impact of RO concentrate and residual chemicals on corals during the operation phase, Dr Jasmine Ng said that based on the water quality modelling results under the worst case scenario with the ultimate discharge rate, the mixing zone recording where there might be a relative salinity elevation of over 10% would be highly localized without encroaching into the corals identified at SR36 and SR37, which were located around 80-100 m away from the intake and outfall locations. The increase in salinity at SR36 and SR37 was predicted to be around 1% to 2% from the modelling results. As the desalination plant would not be operating and discharging in its ultimate flow rate at its first stage of commissioning, the corals should be capable to acclimatize to the slight variation of salinity level in the surrounding waters. Regarding the constituents of RO concentrate, Dr Ng

advised that the constituents included anti-scalant, sodium metabisulphite and residual chlorine. These chemicals in RO concentrate would be below the assessment criteria, in which the criterion for anti-scalant was 1/1000 of the reported lethal concentration in water. The concerned chemicals in RO concentrate would not result in unacceptable effect to water quality, and hence minimal impacts on marine ecology and fisheries. She said that apart from considering the discharge rate of the desalination plant, they had also taken into account other factors when conducting the hydraulic model run to capture the worst case scenario. That included different tidal cycles and conditions such as spring and neap tides, wet and dry seasons, as well as current speed and flow directions.

14. Responding to the suggestion on translocation of corals, Dr Jasmine Ng advised that any translocation plan had to take into account the need and mobility of the corals in question, suitability of the recipient site, as well as the survival rate after translocation. Dr Ng said that most of the corals found at SR37 were small patches on seashore and bedrock. The EIA report had assessed that the translocation as proposed would not be necessary in light of the mitigation measures that the project would adopt.

15. A Member opined that the Environmental Monitoring & Audit (EM&A) programme of the project should include post-construction monitoring on corals identified at SR37 to ensure that the health status of the corals was kept in good condition. He stressed the importance of identifying water quality impact through regular monitoring during the operation phase as a mere 10% change of salinity level of ambient seawater would be hazardous to marine life including corals. He also commented that there should be substantial difference in the projected water quality impact when the desalination plant operated with an output capacity of 135 million litre per day (Mld) as compared with the operation at 270 Mld. Mr Leung Wing-lim explained that the modelling results on RO concentrate confirmed full compliance with the acceptance criteria as set out in the Technical Memorandum on EIA Process. He confirmed that the water quality impact had been assessed to be within the acceptable level and the results were in line with overseas experiences of other plants using similar desalination technology. Mr Leung agreed to undertake regular post-construction monitoring on the corals at SR37 when the first stage of the desalination plant with an output capacity of 135 Mld commenced operation in 2020 as targeted.

16. A Member enquired about the criteria in determining the optimal length of the submarine pipelines, noting that the main pipe runs would likely be constructed by horizontal directional drilling without the need of marine dredging works and only the outfall diffuser and intake structures would be constructed by dredging with structures installed above seabed level. He also asked about the standard adopted in the hydraulic modelling on the impact assessment on corals. Dr Jasmine Ng said that the figures presented were based on a three-dimensional grid modelling system. The water bodies of the project site were separated into grids with different sizes for simulations. Discharge of RO concentrate was placed in representative grids over the length of the outfall diffuser. She advised that the dimension of the grids as well as

the delineation of impacted areas as near-field and far-field were drawn up in compliance with EPD's requirement. Mr Kevin Wong added that in minimizing the potential impact of submarine construction, trenchless method would be adopted for installation of the intake pipelines while dredging method with suitable control measures be adopted for the outfall diffuser and intake structures. He said that the intake structures were required to reduce the intake flow rate while intake filters were to be built 1 - 2 meters above seabed which was noted to be comparatively smooth. Mr Wong further advised that while the length of the submarine pipelines would be kept to the minimum to reduce disturbance to seabed, sufficient distance had to be provided for the outfall diffuser for adequate mixing and diluting RO concentrate in ambient seawater. The diffuser was also designed to strategically align with the main current flow of Victoria Harbour to facilitate the dispersion process. On this, two Members echoed that, apart from the technical concerns on the length and alignment of the submarine pipelines, the project proponent should also consider the mitigation of potential ecological impact on the corals with the diffusers built farther away from the coral sites.

17. Mr Leung Wing-lim advised that there would be marine water monitoring stations at SR36 and SR37 for conducting continuous monitoring on the impact on corals during the operation phase and checking for exceedance cases. Dr Jasmine Ng supplemented that apart from the concern on corals, consideration over dispersion efficiency, marine traffic and safety as well as other environmental impacts would be taken into account in devising the alignments and locations of the submarine pipelines, intake structures and outfall diffuser. She advised that any proposal to further extend the pipelines would need to take into account potential impact on other sensitive receivers, e.g. mariculture in Tung Lung Island. Dr Ng added that the site for the submarine outfall as currently proposed had taken into account these factors with optimal tidal flow to facilitate dispersion.

18. A Member suggested that apart from evaluating the ecological impact on corals indirectly by monitoring impact on water quality, the project proponent should also conduct regular on-site assessments to monitor any changes in coral coverage. An alternative was to invite AFCDD to include the corals at SR37 in the Hong Kong Reef Check in their annual survey exercise for collecting updated data on coral distribution and trends of abundance.

*[**Post meeting notes:** The project proponent provided clarifications based on the EIA report to address Members' concerns on possible current flow directing towards the corals at SR37 identified near the submarine outfall location and the dredging works for the intake and outfall utilities as follows –*

Hydraulic modelling on current flow at SR37

- *the prevailing current directions in the vicinity of the outfall area were northeast to southwest, parallel to the shoreline of Tit Cham Chau*
- *the corals at SR37 were located at northwest of the outfall; flow with current direction pointing towards the corals was not observed*
- *relevant figures illustrating the modelling results (with scale bars) were*

extracted from the EIA report to indicate the water current directions under the worst case scenario

Dredging works for intake and outfall utilities

- *the proposed dredging works were of relatively small scale and would be confined to the intake point and the outfall diffuser*
- *the dredging rate would be reduced to about 750 m³ and 3 500 m³ per day for the intake and the outfall respectively*
- *duration of the dredging works would take about 3-4 days and about 1-2 days to complete at the intake point and the outfall diffuser respectively*
- *the dredging works would not be carried out concurrently to minimize disturbance to the submarine conditions*
- *silt curtains will be used to confine dispersion of suspended sediments]*

Ecological baseline survey for ecological assessment

19. A Member enquired about the rationale of conducting ecological field surveys for only two occasions in dry season, as opposed to four in wet seasons. He further sought clarification on whether the simulated study on the impact of effluent discharge on corals was conducted on the desalination plant operating at an output capacity of 135 Mld or 270 Mld. Mr Leung Wing-lim replied that all water quality modelling simulations were based on the maximum production capacity of the plant, i.e. 270 Mld so that the extent of the mixing zone and impact to corals could be analysed under the worst case scenario. Dr Jasmine Ng supplemented that during operation, the desalination plant would be gradually geared up to reach the first stage of production capacity of 135 Mld and corals in the vicinity of the outfall area should be capable of acclimatizing to the condition. Regarding the rationale on the frequency/interval of field surveys conducted, Dr Ng explained that as some fauna groups were generally more active in the wet season, focused field surveys would be conducted mainly in the wet season and less in the dry season. For the desalination plant project, the EIA Study Brief had specified that necessary field surveys of six months should be conducted to cover both wet and dry seasons.

20. In reply to the Chairperson's enquiry on the expected change of salinity level in the waters around Tit Cham Chau (i.e. SR37), Dr Jasmine Ng informed that while the yellow areas in Figures 6.8a to 6.8d of the EIA report indicated a less than 5% change in salinity, the predicted percentage increase in salinity at SR37 would be between 1% and 2%, which would meet the Water Quality Objective criteria on salinity.

Impact on fisheries

21. The Chairperson advised that there was concern about the impact on existing fisheries resources. She opined that if the project site was found to be important fish spawning and nursery grounds, mitigation measures should be adopted to reduce the impact, and a requirement for regular monitoring of the fisheries resources be included in the EM&A programme.

22. A Member said that with enforcement of the trawling ban in 2012, the depleted fisheries resources in Hong Kong should have gradually restored. He was concerned about the presence of potential fish spawning and nursery grounds near the project site and the impact on the fisheries stock as larvae and fish eggs could be sucked into and damaged by the intake utilities. An updated baseline fisheries survey should be conducted before commencement of construction of submarine works in order to verify the presence of any spawning and nursery grounds and to fine-tune the detailed design of the intake utilities as appropriate. Dr Jasmine Ng replied that the 1998 study was a territory-wide assessment on fishery resources for mapping out recognized spawning and nursery grounds for commercial fishing. The intake point as currently proposed would be located more than 2 km away from recognized fish spawning and nursery grounds. She also assured Members that the intake facilities would follow environmentally friendly design with careful control of intake rate. In the fisheries study conducted in 1998, transact/monitoring stations had not been assigned at TKO Area 137 or the nearby waters. Dr Ng said that water quality monitoring stations would be set up at SR36 and SR37 during the operation phase and under the EM&A programme. Furthermore, the EM&A programme would include triggering levels for action so that the change in salinity and impact on marine ecology and fisheries could be closely monitored and timely appropriate remedial actions taken.

Hazard to life and landscape and visual impacts

23. In reply to a Member's enquiry concerning the risk assessment of chlorine drum storage, Mr Leung Wing-lim said that the Chlorination Store would be planned at the centre of the desalination plant and designed to store at maximum 37 tonnes of liquid chlorine contained in 1-tonne chlorine drums. Computational Fluid Dynamics (CFD) simulation runs had shown that the design would comply with EPD's acceptance criteria in terms of both individual risk and societal risk as stipulated in the Hong Kong Risk Guidelines of the Technical Memorandum on EIA Process.

24. A Member enquired whether the project site could be shifted southwestward so that no works would be required on the natural slope within the Clear Water Bay Country Park in the northeast boundary of the project site. Mr Leung Wing-lim in reply advised that for the safety of the public (including country park visitors) as well as the construction workers and operators of the desalination plant, slope mitigation measures involving minimal disturbance to the natural slope were necessary to alleviate landslide risks and boulder hazard. Tree felling within the country park would be avoided. Mr Kevin Wong added that slope mitigation works would include rock and boulder stabilization, installation of flexible barriers for retaining the landslide debris and soil nailing for stabilizing the hillside. Taking on a Member's advice on the latest geotechnical standards, Members suggested the project proponent to make reference to the Technical Guidance Notes of the Civil Engineering and Development Department (CEDD) in planning the slope mitigation works.

Waste management

25. With a view to promoting wider use of renewable energy, a Member asked whether landfill gas generated from the nearby Southeast New Territories Landfill would be utilized as an alternative source of power supply for the operation of the desalination plant and its ancillary facilities. He also suggested that waste generated from the dredging works should be re-used in-situ as far as practicable.

26. Mr Thomas Chan in reply advised that they had planned to use landfill gas as an alternative power source for the desalination plant. They had already started discussion with EPD and the gas company on the matter. As regards the handling of construction waste from marine dredging and excavation works, Mr Leung Wing-lim said that the inert construction waste would be re-used in-situ as far as practicable. Any surplus would be transferred to the adjacent fill bank or other public fill reception facilities. The remaining non-inert construction waste would be disposed at landfills.

Water management

27. In response to a Member's enquiry on the desalination process, Mr Kevin Wong said that permeate produced for potable water use constituted about 40% of the total seawater intake, while the remaining would be discharged as RO concentrate via the outfall.

28. Considering that the desalination plant would contribute 5% to 10% of the total freshwater demand in Hong Kong, a Member enquired whether the aggregate freshwater supply was sufficient to cater for the long-term water demand in Hong Kong especially in times of severe droughts. Mr Leung Wing-lim said that the capacity of freshwater production by the desalination plant at 135 Mld had taken into account the projected freshwater demand in 2020 and the possibility of sustained severe droughts resulting from climate change. The need for increasing the production capacity to 270 Mld or constructing another desalination plant was dependent on the freshwater demand at that time and the associated production costs which should reduce progressively with advancement in technologies. At present, the cost of producing one cubic metre of freshwater by the desalination plant was about \$12 - \$13, which was higher than that for the supply of Dongjiang water at about \$9 per cubic metre. As regards a Member's further question on the carbon footprint for the operation of the desalination plant, Mr Leung said that seawater reverse osmosis technology to be adopted was more energy efficient when compared to conventional thermal distillation. He advised that with technological advances, alternative source of power supply such as solar energy and landfill gas would be further explored to support the operation of the desalination plant.

29. In response to a Member's enquiry on the location of the volcanic vent as raised in the public comment, Dr Jasmine Ng replied that the volcanic vent was at the seabed near Ung Kong in Sai Kung. As the desalination plant site was to be located on reclaimed land far away from the volcanic vent, any impact to the geology of the

area was taken to be negligible.

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

[The project proponent team left the meeting at this juncture.]

Internal Discussion Session

31. A Member suggested the project proponent to run hydraulic modelling plots of northerly current flow to show the potential impact on corals identified in the vicinity of the submarine outfall area. The Chairperson proposed and Members supported to impose a condition requiring post-construction monitoring on corals at SR37 in the EM&A programme of the project.

32. As regards the potential impact on fisheries stock, a Member reiterated his earlier comment that literature review in the EIA report on the fisheries study conducted in 1998 was considered not adequate as the project site had not been covered. He pointed out that the waters near Ninepin Group, Port Shelter and Po Toi Island at the outer ring of the project site were well-recognized fish spawning and nursery grounds. Mr Simon Chan explained that the 1998 study was a territory-wide fisheries survey with major survey efforts focusing on areas of known fisheries significance. Taking into account the study results and relevant information in the EIA report, the project area should not be an important fish spawning and nursery ground. As no solid updated data were available, Mr K F Tang suggested for Members' consideration that the project proponent could be invited to conduct a baseline fisheries survey to verify any presence of significant fisheries resources in the vicinity of the intake area, and to draw up related mitigation measures should the notable fisheries stock was identified. The Chairperson proposed and Members supported to impose a condition to request the project proponent to conduct an updated baseline fisheries survey for verification before commencement of the submarine construction works.

33. A Member suggested that regular monitoring of fisheries resources in the surrounding waters of the project site should also be included in the project EM&A programme. Mr K F Tang remarked that a condition could be considered for the project proponent to conduct an updated baseline fisheries survey before commencement of the construction of submarine works to verify any fish spawning and nursery ground near the project site and to fine-tune the detailed design of the seawater intake facilities as required. The Chairperson suggested and Members supported to impose a condition to request the project proponent to conduct an updated baseline fisheries survey to verify any significant fisheries stock in the vicinity of the project site before commencement of the submarine construction works.

34. With reference to the earlier comments made during the discussion, the Chairperson suggested and Members agreed to recommend the project proponent to

explore the use of landfill gas as an alternative source of power supply for the operation of the desalination plant, to carry out slope mitigation works on the natural slope within the Clear Water Bay Country Park with reference to the guidelines issued by CEDD, and to minimize generation of marine dredged materials and rock fills from the project and re-use the materials in-situ as far as practicable.

35. A Member sought another Member's view on the effectiveness of the mitigation measures proposed by the project proponent on the marine dredging works for constructing the outfall diffuser and intake structures. He was concerned that the use of silt curtains might not be sufficient to contain the dispersion of suspended solids generated from the dredging works. The Member responded that the lowering of dredging rate and use of closed grab and silt curtains should effectively reduce the dispersion of sediments. He also said that the main pipe runs if to be constructed by horizontal directional drilling technique upon completion of detailed design should have little impact on marine ecology and marine life. Mr K F Tang informed that the estimated dredging volume for the project was comparatively small, and further reduction could be explored in the detailed design. For small-scale excavation works including this current desalination plant project, mitigation measures would typically include the control on dredging rate and dredging volume, and the use of closed grabs and double silt curtains to reduce dispersion of suspended solids. The Chairperson proposed and Members supported to recommend the project proponent to reduce the impacts on marine ecology and marine life by minimizing the dredging activities and volume of marine sediments to be dredged.

36. Having regard to the findings and recommendations of the EIA report and the information provided by the project proponent, Members agreed to recommend to ACE that the EIA report could be endorsed with the following proposed conditions and recommendations –

Conditions of endorsement

- (a) The Project Proponent should conduct an updated fisheries survey as early as possible and in any case, not later than 12 months before commencement of the construction of submarine works to verify if there is any fish spawning and nursery ground in the vicinity of the planned location and alignment of the seawater intake and submarine outfall for fine-tuning of the detailed design of these facilities as necessary. Details of the baseline fisheries survey shall be drawn up in consultation with the Agriculture, Fisheries and Conservation Department (AFCD) for submission to the Director of Environmental Protection (DEP) for approval before commencement of the survey.
- (b) The Project Proponent should include in the Environmental Monitoring & Audit (EM&A) programme of the project post-construction regular monitoring on fisheries in the vicinity of seawater intake and submarine outfall areas to ensure no significant impacts on fisheries resources. The EM&A programme should also include post-construction regular monitoring on corals identified in the vicinity of the submarine outfall area to ensure that the health status of the corals was kept in good condition. Details of the fisheries and coral monitoring

programme shall be submitted to DEP for approval prior to commencement of operation of the desalination plant.

Recommendations

- (c) The Project Proponent should conduct further run(s) of the effluent dispersion model to ensure that the nearby coral groups near the submarine outfall will not be adversely affected under the most critical conditions including tidal water current or seasonal water current which will bring effluent or reverse osmosis (RO) concentrate to the direction of the corals and typhoons which will blow the RO concentrate towards the corals. The Project Proponent should report the model run results to ACE EIA Subcommittee.
- (d) The Project Proponent should explore the use of landfill gas as an alternative source of power supply for the operation of the desalination plant and its ancillary facilities.
- (e) The Project Proponent should carry out all slope mitigation works on the natural slopes within the Clear Water Bay Country Park in the northeast boundary of the desalination plant with reference to the guidelines and standards adopted by the Civil Engineering and Development Department, and prior written consent of AFCD should be sought for any proposed slope works inside the country park.
- (f) The Project Proponent should minimize the generation of marine dredged materials and rock fills from the project, and these materials should be re-used in-situ as far as practicable.
- (g) The Project Proponent should consider further mitigation measures to keep impacts on marine ecology and marine life to a minimum, including the use of double silt curtain, further minimization of both daily volume of marine sediments to be dredged and the dredging rate.

*[**Post-meeting notes:** ACE considered the Subcommittee's recommendation at its meeting on 12 October. Members agreed to upgrade recommendation (e) to an endorsement condition to enhance the slope mitigation works inside the Clear Water Bay Country Park in the northeast boundary of the desalination plant.]*

37. The meeting agreed that the project proponent team would not be required to attend the full Council meeting on the report.

Item 3 : Any other business

Ecological Baseline Survey for Ecological Impact Assessment

38. For field surveys that were required to cover both wet and dry seasons, a Member opined that EPD should include an advisory note in the Study Brief for the project proponent to stagger the survey samplings more evenly so as to avoid possible bias towards any particular period. Mr K F Tang explained that the survey requirements were drawn up on a case-by-case basis depending on the targets to be surveyed. In cases where certain targets with typical seasonality were likely to be present in the survey area, a specific requirement on the timing and duration of the

survey would be included in the Study Brief. Mr Simon Chan supplemented that there was a clear distinction between wet and dry seasons as defined in the Guidance Notes on Ecological Baseline Survey for Ecological Assessment under the EIA Ordinance. Considering that the survey targets might exhibit distinct activity patterns/behaviour at different cycles of the year, each should be surveyed at a time when it was more active in order to obtain credible survey results. With variations between different projects, AFCD would assess carefully whether the survey data obtained were adequate and representative. Mr Tang said that his team would take into account Members' concern when drawing up Study Briefs for different EIA studies. EPD

Item 4 : Date of next meeting

39. The Chairperson informed that the Secretariat had not received any EIA reports for discussion at the October meeting. Members would be advised on the date of the next meeting and the agenda in due course.

**EIA Subcommittee Secretariat
October 2015**