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Claim nature:
A. Non-monetary claim only
B. Judicial Review

No. 86
Notice of application for leave to apply for judicial review
(O.53 r.3(2))

HCAL 1258/2023

IN THE HIGH COURT OF THE
HONG KONG SPECIAL ADMINISTRATIVE REGION
COURT OF FIRST INSTANCE
CONSTITUTIONAL AND ADMINISTRATIVE LAW LIST
NO. 1258 OF 2023

BETWEEN

HONG KONG GOLF CLUB

Applicant

and

DIRECTOR OF ENVIRONMENTAL PROTECTION Putative Respondent

NOTICE OF APPLICATION FOR LEAVE TO APPLY
FOR JUDICIAL REVIEW
(O.53 r.3(2))

This form must be read together with notes for guidance obtainable from the Registry.

To the Registrar, High Court, Hong Kong.

Name, description and address of applicant	Hong Kong Golf Club, of Lot No. 1 Fan Kam Road, Cheung Shui, New Territories
Name and description of proposed respondent	Director of Environmental Protection, of 16 th Floors, East Wing Central Government Offices, 2 Tin Mei Avenue, Tamar, Hong Kong

Judgment, order, decision or other proceeding in respect of which relief is sought	The decision dated 11 May 2023 to approve the Environmental Impact Assessment Report in relation to the Technical Study on Partial Development of Fanling Golf Course Site – Feasibility Study (Application No. EIA-282/2022) (the “ Decision ”).
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Relief sought

1. An order of *certiorari* quashing the Decision;
2. If leave is not granted on the papers, an oral hearing of the application for leave to apply for judicial review;
3. An interim stay of the Decision pending the final determination of the proceedings;
4. An expedited determination of this application and, if leave is granted, of the application for judicial review;
5. Such further or other remedy, relief, or order as the Court may provide; and
6. Costs.

Name, description and address of all interested parties (if any) known to the applicant	Government of the Hong Kong Special Administrative Region, by the Civil Engineering and Development Department (CEDD), of CEDD Building, 101 Princess Margaret Road, Kowloon.
Name and address of the applicant’s solicitors	Messrs. Mayer Brown, 16 th – 19 th Floors, Prince’s Building, 10 Chater Rd, Central, Hong Kong. MMH/AFK/13431215
Signed	Dated July 2023

Grounds on which relief is sought

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A. INTRODUCTION¹

1. The Applicant (“HKGC” or the “Club”) challenges by way of judicial review the decision of the Putative Respondent (“DEP”) dated 11 May 2023 (the “Decision”) [A/1/1-4] approving an environmental impact assessment (“EIA”) report submitted by the Civil Engineering and Development Department (“CEDD”) relating to the proposed development of a high-density public housing (the “EIA Report”) over part of the Fanling Golf Course (“FGC”). Specifically, the proposed development would destroy the historic Old Course.

2. The FGC is an ecological wonderland situated in Hong Kong’s northern New Territories. The Old Course has been used for the playing of golf for over 110 years, since 1911, when the Old Course was laid, and is the oldest championship golf course in China, and among the oldest in Asia. FGC has been under the stewardship and management of the HKGC since then, and has played host to the Hong Kong Golf Open – now a major international

¹ All emphasis in quoted text is added unless otherwise indicated.

tournament – each year since 1959, making it one of the longest standing golf tournaments in the world (see further §§14-15 below). The Club, acutely aware of its heavy responsibility in managing one of Hong Kong’s richest ecological habitats, has placed great emphasis on proper environmental management, certified under the Audubon Cooperative Sanctuary Programme for Golf and pursuing programmes in (among others) environmental planning, wildlife and habitat management, chemical use reduction and safety, water quality management, and water conservation.

3. In February 2019, following a recommendation of the Taskforce on Land Supply (the “TFLS”) to accord priority to studying and resuming the 32 hectares of land of FGC to the east of Fan Kam Road (comprising the first 8 holes of the Old Course), the Government of the Hong Kong Special Administrative Region (“**Government**”) decided that it “*will develop the 32 ha of land east of Fan Kam Road of FGC for the purpose of housing development (with emphasis on public housing), and will accordingly commence a detailed, technical study in the second half of 2019 to ascertain the highest flat yield attainable within the corresponding timeframe; assess the scope of infrastructural works required to support such development; identify environmental, ecological and other constraints, and formulate mitigation measures to contain any identified impacts to within acceptable limits; and come up with an implementation plan with timing and costs*”. A Project Profile was published for public comment in May 2019, followed by an environmental impact assessment study brief, issued under section 5(1)(a) of the Environmental Impact Assessment Ordinance (Cap. 499) (the “EIAO”) on 9 July 2019 (the “**Study Brief**” or “**SB**”) [B/3/37-85]. Thereafter, in May 2022, CEDD, as project proponent, submitted the EIA Report, entitled: *Technical Study on Partial Development of Fanling Golf Course Site – Feasibility Study* [C/13/238-2398].
4. The EIA Report was the subject of 1,451 public comments, the overwhelming majority (1,449, or 99.86%) opposing the proposed housing development. HKGC in particular engaged a range of independent expert environmental

consultants to analyse the EIA Report and conduct their own scientific studies and analyses. The Club's consultants reported back that the EIA Report was grossly deficient, unscientific, and analytically flawed. Their detailed analysis of the many respects in which the EIA Report breached the mandatory requirements of the technical memorandum issued under the EIAO (the "**Technical Memorandum**" or "**TM**") [B/4/86-171], and of the Study Brief, was published as part of the Club's public comments on the EIA Report (the "**Statutory Submission**").

5. The EIA Report and a summary of the public comments on it were also placed before the Advisory Council on the Environment ("**ACE**") for comment pursuant to section 7(5) of the EIAO. Following protracted discussions, ACE was unable to resolve whether to recommend that the EIA Report should be approved, and instead made a wide-ranging series of requisitions for further information, fresh studies, and adjustments to the project in an effort to reduce its impact on the existing environment at FGC. DEP then wrote to CEDD on 31 August 2022 requesting further information under section 8(1) of the EIAO in the same terms as the requisitions from ACE.
6. As a result, CEDD thereafter undertook certain limited further studies, and it is believed that CEDD provided that supplemental information to DEP on or about 3 May 2023 (the "**Additional Information**") [C/16/2451-2541]. It is understood that the Additional Information was supplied by CEDD to ACE in draft on 18 April 2023, but for information only. Although uploaded online, the Additional Information was not published for further public comment. The Club's request to DEP on 25 April 2023 for an opportunity to comment on the Additional Information went unanswered [F/38/4204-4206]. Nevertheless, the Club provided a detailed series of responses to the Additional Information – again prepared by its expert consultants and containing new studies and analysis – (the "**Club's Response to the Additional Information**") [D/21/3349-3925] which the Club supplied both to ACE [F/39/4207-4211] and directly to DEP [F/40/4212-4212] under cover of two letters both dated 3 May 2023.

7. On 11 May 2023, DEP purported to approve the EIA Report under section 8(3) of the EIAO, with certain conditions. This is the Decision challenged in these proceedings. The letter containing the Decision indicates on its face that DEP did not consider the Club's Response to the Additional Information.
8. Notwithstanding CEDD's limited attempts to address the issues raised by ACE through the Additional Information, the EIA Report (as supplemented by the Additional Information) remains, in the Club's submission, wholly defective and non-compliant with the Technical Memorandum and the Study Brief. Indeed, in the opinion of the Club's independent environmental consultants, the approval of the EIA Report seriously damages the credibility of Hong Kong's EIA system.
9. The grounds of review, in broad summary (and without prejudice to the generality of the grounds as developed below), are as follows:
 - 9.1. Ground 1: DEP acted *ultra vires*, alternatively procedurally unfairly, by purporting to approve the EIA Report without having first permitted/invited public comment on the Additional Information provided by CEDD following the requisitions from ACE.
 - 9.2. Ground 2: The Decision is flawed because DEP failed to consider the Club's Response to the Additional Information. This involved DEP ignoring relevant materials, breaching his *Tameside* duty, and/or acting *Wednesbury* unreasonably, or unfairly.
 - 9.3. Ground 3: The Decision was *ultra vires* because the EIA Report does not comply with the Technical Memorandum or the Study Brief. Further and/or alternatively, the Decision was *Wednesbury* unreasonable in that no rational decision-maker, properly directing himself, could have approved the EIA Report and/or that the DEP failed to take into consideration matters which are plainly relevant and which ought

reasonably (in the public law sense) to have been considered or taken into account matters which are plainly irrelevant.

9.4. Ground 4A: The conditions imposed in the Decision require CEDD to develop and submit to DEP for approval an entirely new layout plan and landscape and visual plan, adjusting the building heights, housing footprint, disposition, and density, and preserving (as far as practicable) 0.39 ha of woodland at the centre of Sub-Area 1 – and indeed CEDD is also required by the conditions to rethink whether Sub-Area 1 should be redeveloped for high-rise, high-density housing at all. Such substantial changes to the proposed project, and its attendant environmental impact, should have been opened up for public comment and comment by ACE under the EIAO. DEP acted unlawfully and/or unfairly by purporting to require a substantial revision to the proposed project without permitting the public and/or ACE the opportunity to comment on it. Further, in granting approval, the DEP set out recommendations from the ACE for the “*attention and action*” of CEDD. It is uncertain whether this was part of the conditions for approval.

9.5. Ground 4B: The Decision did not impose any condition requiring CEDD to give effect to the mitigation measures identified in the EIA Report, effectively rendering them voluntary at CEDD’s option. This is irrational because the mitigation proposed by CEDD in the EIA Report was an essential precondition to the EIA Report being approved at all.

B. FACTUAL BACKGROUND

B1. The Hong Kong Golf Club

10. The Club was founded in 1889 by golfing enthusiasts. Initially playing at Happy Valley, a small shed was built as a clubhouse in 1891. In 1898, the Government leased the Club a plot of land in Deep Water Bay a clubhouse was erected in the same year.

B2. Fanling Golf Course

11. In 1911, negotiations took place with the Government and local farmers to secure sufficient land in Fanling to build a full 18-hole course. The Old Course was laid by the end of 1911.
12. The Old Course is unique. It was laid out during the 'Golden Age' of golf course development (i.e. the early 20th Century) and is the oldest golf course in all of China. The Old Course was inspired by the Old Course at the home of golf in St Andrews, Scotland. Unlike modern golf courses, where the topography is largely flattened and then pre-planned features of the course are installed with heavy construction equipment, the Old Course presents golfers with challenging shots created by the landscape's existing topography. The course design follows natural features and construction work was carried out by oxen and human labour. As noted by a leading expert in golf course architecture:

"The primary inspiration back when the Old Course was built in 1911 was the Scottish way of playing close to the ground which differs greatly from the modern courses built post 1950 where the layout requires the golfer to attack the target more through the air. This is evident on the Old Course where it would be possible to get around with a putter and where there is typically always an open route into a green or landing area. During the golden period in the early twentieth century match play was the preferred format for playing golf. This allowed architects more freedom to create daring and unconventional holes that would often produce high scores. Golf is very different today. Stroke play is the primary competition where the goal is to complete a round in the fewest number of shots. Anything that is deemed too quirky or unconventional and requires an element of luck is seen in the negative because it's possible that a player will produce a high score which will impact the end score. This is one of the reasons why there are few courses left that look and play like the Old Course at Fanling today.

During the golden age period of architecture "luck" was regarded as part of the legitimate fun of the game, without which as a sport the game would suffer. The attraction that counted most was the test of ingenuity in getting round difficulties and overcoming new and unexpected situations. Contrary to this modern golf course architects and superintendents are asked to do everything in their power to eliminate luck, which limits more creative design concepts and unconventional golf. The outcome being that all of our modern golf courses have become relatively standardized in their demands and hazards to the point that the golfer seldom encounters a bad lie in the fairway or bunker, or a bad bounce on his approach.

...

The principal thought in designing and building golf courses of the golden age era was to limit the hand of man and in doing so provide a constant adventure in a natural setting like is the case at St Andrews and the Old course at Fanling."

13. Golf Hall-of-Famer Peter Thomson AO CBE, who played at the very first Hong Kong Open staged at FGC in 1959 (and later won that tournament on three occasions) wrote prior to his death in 2018:

"[T]he Hong Kong Golf Club is an incredibly special place in the world of golf. Not only is it historically important – its courses, notably the Old Course, are architectural gems that have been laid out over pristine ancient terrain – but its role as the focal point for all of Hong Kong golf cannot be understated."

14. Following the Old Course, the New Course was added in 1931 on additional land acquired by the Club. Finally, the Eden Course was added in 1970.
15. As noted by Mr Thomson, FGC has hosted the Hong Kong Open each year since 1959 (with the exception the period affected by COVID-19). The Open has been won by many famous golfers, such as Mr Thomson, Greg Norman, Tom Watson, Rory McIlroy, and Justin Rose, and has been played by countless other golf luminaries and other people of note.

B3. Taskforce on Land Supply

16. In September 2017 the then Chief Executive established the TFLS, chaired by Mr Stanley Wong Yuen-fai SBS JP ("**Mr Stanley Wong**"), to consider options for addressing Hong Kong's land supply challenges – including in particular the shortfall in housing. The TFLS reported in December 2018. Its report is entitled: *Striving for Multi-pronged Land Supply* ("**the TFLS Report**") [G/46/4674-4816].
17. In the TFLS Report, TFLS took the view that the Government's estimation of a 1,200 ha land shortfall was "*grossly conservative*".² The TFLS identified 18 land

² TFLS Report, Executive Summary §(2) [G/46/4679].

supply options, of which four were stated to be short-to-medium term options, six were medium-to-long term options, and eight were “*conceptional options*”.³

18. One of the topics considered by TFLS was the possibility of making alternative use of the 66 sites under private recreational leases, amongst which FGC was singled out for particular consideration as an illustrative case.⁴ The TFLS Report stated at §§5.37-5.38 [G/46/4731-4732]:

“5.37 In balancing the contributions of individual sites towards sports development and the need to increase land supply, the Task Force suggested the community consider whether individual PRL sites could be released for other purposes. The Task Force has cited one of the sites, the Fanling Golf Course (FGC), the largest of the PRL sites, to illustrate the factors to be considered when developing PRL sites for other purposes, as well as the potential benefits and limitations of developments.”

5.38 FGC has an area of 172 ha and its current lease will expire in 2020. Having conducted a broad assessment on the development potential of the site from a technical perspective, the consultant appointed by the Government put forward two development options for the site, namely the partial development option and the full development option. The partial development option involves development of the 32 ha of land to the east of Fan Kam Road (i.e. eight holes of the Old Course and the carpark of the golf club). Through limited upgrading of infrastructure including road interchange, sewerage, drainage and water supply, this option could provide land for housing development in the short-to-medium term, with an estimated flat yield of 4 600, while the remaining 140 ha (comprising two 18-hole courses and 10 holes of the Old Course) can still support the hosting of international golf tournaments. The full development option involves releasing the entire FGC site for housing purposes. The flat production under this option is estimated to be 13 000. Since substantial improvement to the strategic transport network and infrastructure is necessary, the government-appointed consultant has assumed that the full development option would be taken forward together with the proposed NTN development, so it could only be a medium-to-long term land supply option.”

19. Having set out some of the pros and cons of this illustrative option,⁵ and having noted that public views on the subject of building on the FGC were “*polarized*”,⁶

³ TFLS Report, Executive Summary §(2) [G/46/4679].

⁴ TFLS Report, §5.36 *et seq.* [G/46/4673]

⁵ TFLS Report, §§5.41-5.42 [G/46/4731-4732].

⁶ TFLS Report, §§5.40 and 5.45 [G/46/4732, 4734].

the TFLS Report made the following recommendation (at §5.47) [G/46/4733-4734]:

“... the Task Force considers that as far as the option of alternative uses of PRL sites is concerned, it is worthwhile for the Government to accord priority to studying and resuming the 32 ha of land of FGC to the east of Fan Kam Road under the partial option...”

20. This recommendation was qualified by the caveat that:

“Uses of PRL sites are not only a land supply matter, but also touch upon policy areas concerning sports, recreation, ecological conservation, as well as the issue of whether the PRL sites should be opened up further to the public. The Task Force has formulated its recommendations to the Government mainly from the perspective of increasing land supply.”⁷

B4. The Government’s Response to the TFLS Report

21. By a press release dated 20 February 2019 [G/47/4817-4852], the Government announced that it had “fully accepted” the recommendations of the TFLS. In response to the recommendation relating to FGC quoted above at §19 (i.e. that the Government “accord priority studying and resuming” 32 ha of FGC), the Government stated:

*“The Government will **develop the 32 ha of land east of Fan Kam Road of FGC for the purpose of housing development (with emphasis on public housing)**, and will accordingly commence a detailed, technical study in the second half of 2019 to ascertain the highest flat yield attainable within the corresponding timeframe; assess the scope of infrastructural works required to support such development; identify environmental, ecological and other constraints, and formulate mitigation measures to contain any identified impacts to within acceptable limits; and come up with an implementation plan with timing and costs.*

*We aim to complete the technical study in end-2020 or early 2021. Accordingly, the 32 ha of land will not be covered by any lease renewal for the FGC and will only be subject to a **special three-year hold-over arrangement** after expiry of the current lease in August 2020. After the special three-year hold-over*

⁷ TFLS Report, §5.44 [G/46/4733-4734].

arrangement, the 32 ha of land will revert to the Government.”⁸ (Original emphasis)

B5. The Project Profile and Study Brief

22. The Project Profile [B/2/5-36] was published in May 2019, identifying the proposed 32 ha development as a Schedule 3 project in the EIAO and outlining the scope of the technical study and environmental impact assessment.
23. On 29 May 2019, CEDD applied to DEP for the issue of a study brief under section 5(1)(a) of the EIAO. The Study Brief was duly issued by DEP on 9 July 2019, entitled: *Environmental Impact Assessment Study Brief No. ESB-318/2019*.
24. The SB noted that the proposed development was a Designated Project under Item 1 of Schedule 3 of the EIAO.⁹ It further noted that the project includes individual work items that may fall under Schedule 2 of the EIAO, to be identified in the course of the EIA study.
25. The purpose of the study was stated at §1.5 of the SB [B/3/40] in these terms:

“1.5 The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the Project under different development scenarios and associated activities that will take place concurrently. This information will contribute to decisions by the Director on:

- (i) the overall acceptability of any adverse environmental consequences that are likely to arise as a result of the Project and its staged implementation;*
- (ii) the conditions and requirements for the detailed design, construction and operation of the Project to mitigate against adverse environmental consequences wherever practicable; and*
- (iii) the acceptability of residual impacts after the proposed mitigation measures are implemented.”*

26. It was further stated at §3.1 of the SB [B/3/41] that:

⁸ *Government’s Response to Recommendations and Major Comments in the Report of Task Force on Land Supply (TFLS), Annex I, p.9 [G/47/4826].*

⁹ SB, §1.3 [B/3/39].

“The Applicant shall demonstrate in the EIA report whether the criteria in the relevant sections of the Technical Memorandum on the Environmental Impact Assessment Process of the Environmental Impact Assessment Ordinance (hereinafter referred to as “the TM”) are fully complied with.”

27. The SB then further identified particular topics to be assessed, including air quality, noise impact, water quality impact assessment, sewerage and sewage treatment implications, waste management, land contamination, ecological impact (terrestrial and aquatic), landscape and visual impacts, and impact on cultural heritage. A series of Appendices (numbered A through M) then set out the detailed requirements for each head of assessment. For the purpose of this application, HKGC will rely on the SB and the TM and in particular the provisions of the SB and the TM more particularly set out in **Annex 1** and **Annex 2** hereto.

B6. The EIA Report

28. WSP (Asia) Limited (“WSP”) was commissioned by CEDD as the lead consultant for the EIA. The EIA Report was prepared by WSP, together with its sub-consultants, and finalised in May 2022.

29. The EIA Report stated, contrary to the assumptions in the TFLS Report and the Project Profile, that only an 8.1 ha area at the northern tip of the site was suitable for housing development. This area is described in the EIA Report as Sub-Area 1.

30. The remaining area, described as Sub-Areas 2-4, was assessed to be too ecologically sensitive for housing development. It was stated at §2.3.4 of the Executive Summary [C/13/242] that:

“Apparently, the existing ecological habitats in the vicinity, including the ecological corridor at the northern end of Sub-Area 2, the woodland in the northern end of Sub-Area 3 near On Po, the marsh and swampy woodland in Sub-Area 4 create a precious ecological linkage in the Sub-Areas. Based on the selected Development Option, as only minor works in Sub-Areas 2 to 3 are recommended while no works is proposed in Sub-Area 4, the ecological sensitive areas could be largely preserved.”

31. It was therefore proposed that these areas be converted to form a “*recreation cum conservation area for public enjoyment and relaxation*”.¹⁰ However the ecological value of Sub-Area 1 was assessed to be “*relatively lower*” compared with Sub-Areas 2-4.¹¹
32. The development option proposed contemplates the construction of 12 high-rise housing blocks of up to 164m in height.¹² This would yield an estimated 12,000 public housing rental units and subsidised sale flats,¹³ with a plot ratio of 7.¹⁴ Provision is also made for commercial and retail facilities, a transport interchange, and certain educational and social facilities.¹⁵ The development parameters are set out in Table 2.3 and the proposed layout of the development (which included public housing, and a number of social welfare facilities, kindergartens, a special needs school and community hall, and a public transport interchange) is in Figure 2.2 [C/13/295] of the EIA Report (see §2.8.2 of the EIA Report [C/13/285]).
33. The EIA Report included, *inter alia*, the following assessments:
 - 33.1. Air Quality Impact assessment (at Section 3) [C/13/297-717];
 - 33.2. Noise Impact (at Section 4) [C/13/718-1133];
 - 33.3. Water Quality Impact Assessment (at Section 5) [C/13/1134-1206];
 - 33.4. Sewerage and Sewage Treatment Implications (at Section 6) [C/13/1207-1227];
 - 33.5. Waste Management Implications (at Section 7) [C/13/1228-1264];
 - 33.6. Land Contamination (at Section 8) [C/13/1265-1589];

¹⁰ EIA Report Executive Summary, §2.5.1 [C/13/242-243].

¹¹ EIA Report Executive Summary, §2.3 [C/13/241-242].

¹² EIA Report, Table 2.3 (at §2.8.3) [C/13/286].

¹³ EIA Report, Table 2.3 (at §2.8.3) [C/13/286].

¹⁴ EIA Report, §2.2.2 [C/13/273].

¹⁵ EIA Report, Table 2.3 (at §2.8.3) [C/13/286].

- 33.7. Ecological Impact Assessment (“EcoIA”) (at Section 9) [C/13/1590-1790];
- 33.8. Landscape and Visual Impact Assessment (“LVIA”) and Tree Survey (at Section 11) [C/13/1804-2070]; and
- 33.9. Cultural Heritage Impact Assessment (“CHIA”) (at Section 12) [C/13/2071-2284].

B7. Public Inspection of the EIA Report

- 34. On 17 May 2022, CEDD was informed of the suitability of the EIA Report for public inspection, and thereafter the EIA Report was exhibited for public comment from 20 May 2022 to 18 June 2022. During this public inspection period, 1,451 sets of written comments were received from members of the public (of which, as noted above, 1,449 objected to the proposed project), including the Club’s Statutory Submission.

B8. The Club’s Statutory Submission

- 35. The Club’s Statutory Submissions consisted of:
 - 35.1. Expert reports based on independent scientific studies conducted by the Club’s consultants addressing each of the topics identified in the SB; and
 - 35.2. Technical reviews of the EIA Report, again prepared by the Club’s independent consultants, analysing the accuracy and completeness of the EIA Report, and assessing whether it complies with the TM and the SB.
- 36. The Club’s consultants found gross errors in nearly every technical section of the EIA Report, including the use of flawed and unscientific study methodologies, very large errors in measurement, the use of incomplete and wholly inaccurate data, missing technical information that was critical to evaluating whether the EIA Report complied with the TM and the SB, and assessments as to environmental value and impact that were wholly

unsustainable. These detailed reports comprised the body of the Club's Statutory Submission. The Club's consultants also included a checklist identifying 303 *prima facie* major instances of non-compliance with the TM and/or SB ("EIA Checklist") [D/18/2968-3112].

B9. ACE - Part I

37. On 12 July 2022, 10 ACE members attended a site visit to the FGC, arranged by CEDD [E/24/3941]. Thereafter on 18 July 2022, the ACE EIA Sub-Committee ("ACE EIA SC") consisting of 12 ACE members held a meeting that was also attended by, *inter alia*, representatives of the Environmental Protection Department ("EPD"), Agriculture, Fisheries and Conservation Department ("AFCD"), CEDD, WSP and its ecological sub-consultants, Ecosystems Limited [E/24/3933-3935]. During the meeting, members of the ACE EIA SC raised a number of issues of concern relating to fauna and flora diversity, hydrology and hydrological impact, landscape impact, ecological impact, and light impact (§93 of the ACE EIA SC minutes [E/24/3954]).
38. At the end of the ACE EIA SC meeting, 9 of the 12 ACE EIA SC members (including the Chairperson) had "*reservations about the comprehensiveness, accuracy and adequacy of the ecological survey carried out by CEDD [and that] the information provided was insufficient to support the endorsement of the report at this stage*" (at §86) [E/24/3953]. Unable to reach a consensus, eventually the ACE EIA SC agreed that CEDD would be invited to attend the ACE full council meeting scheduled for 8 August 2022 and that CEDD would also be invited provide additional information to address the issues of concern, particularly in relation to ecological, hydrological, landscape, and light impact issues (§93) [E/24/3954].
39. In advance of the 8 August 2022 ACE meeting, CEDD provided additional information [C/14/2399-2417].
40. The 8 August 2022 ACE meeting was chaired by Mr Stanley Wong, and was attended by, *inter alia*, representatives of EPD, AFCD, CEDD, WSP, Ecosystems

Limited, and Professor Wang Min from South China Agricultural University [E/27/3969-3995]. During the meeting, the issues of concern raised during the ACE EIA SC meeting continued to be raised by ACE members, who queried the comprehensiveness, accuracy, and adequacy of the EIA Report (at §§26, 31, 33, 66 & 69) [E/27/3976-3978, 3987-3988]. On numerous occasions, Mr Stanley Wong intervened (in his role as Chairman) to remind ACE members of the possibility of ACE suggesting approval with conditions or recommendations to the DEP (§§60, 74 & 76) [E/27/3984-3985, 3989]. This recommendation was also repeatedly echoed by EPD's representatives (§§60, 76, 77 & 81) [E/27/3984-3985, 3989-3990].

41. Owing to the depth of outstanding issues to be deliberated, it was decided that the meeting would continue on 19 August 2022 [E/28/3996-4036], and during the intervening period the ACE secretariat would provide CEDD with a list of outstanding issues primarily relating to ecological, hydrological, landscape, and light impact concerns, to which CEDD was requested to provide supplementary information (§88) [E/27/3991-3992].
42. Supplementary information was provided by CEDD [C/15/2418-2450] in advance of the 19 August 2022 ACE meeting. CEDD, WSP or their consultants did not attend this meeting, but EPD and AFCD's representatives were present and EPD's representatives were invited by Mr Stanley Wong at the start of the meeting to highlight the key responses from the CEDD to the concerns raised by members at the previous meeting (§§6-7, 18, 22, 24, 26, 37, 40 & 41) [E/28/3997-3998, 4000-4002, 4005]. AFCD provided views on the adequacy of the ecological assessments (§§8, 10, 12 & 17) [E/28/3998-4000]. ACE members continued to express their reservations (§§57, 58, 60, 61, & 66) [E/28/4009-4011].
43. Notwithstanding the concerns expressed during the ACE meetings, Mr Stanley Wong once again made multiple interventions to suggest that an approval with conditions and recommendation could be appropriate (§§15, 34, 80, 84, 86) [E/28/3999, 4004, 4014-4015], and that he trusted CEDD "*would do its best to*

provide the additional information was requested and to comply with any conditions suggested by ACE” (§77) [E/28/4013]. Mr Stanley Wong also pressed his view that the “the current EIA report had basically fulfilled the requirements set out in the TM and EIA Study Brief. While there was room for improvement, he supported its approval with conditions and recommendations to elevate the standards of the project above the requirements set out in the TM” (§70) [E/28/4012]. Accordingly, at the end of the meeting, Mr Stanley Wong concluded that “ACE considered that the EIA report should not be rejected, however, further information would be required from the project proponent to facilitate the DEP’s consider of her final decision” (§145) [E/28/4030].

B10. Additional Information on the EIA Report

44. On 31 August 2022, DEP wrote to CEDD (the “**31 August Letter**”) [F/37/4202-4203] requesting under section 8(1) of the EIAO various additional studies, information, and in some cases revised proposals as identified by ACE, namely:
- 44.1. An additional, 7-month bird survey (to be conducted at different hours from CEDD’s original survey);
 - 44.2. An additional moth survey (again at different hours);
 - 44.3. Details of the survey methodology underpinning the bat survey in the EIA Report;
 - 44.4. A tree compensation plan “*which shall include details of planting numbers with a compensation ratio of at least 1:1.5” (cf. the originally proposed mitigation ratio of 1:1).*
 - 44.5. A detailed layout plan of the proposed housing development “*which shall illustrate, with the help of an overlay plan of the proposed housing blocks, the preservation of an additional 0.39 hectares of secondary woodland in Sub-Area 1”;*

- 44.6. A detailed analysis of the hydrological impact assessment to show the flow of water, including available information on the profile of the soil and bedrock conditions of the project site;
- 44.7. Additional analysis on the shading impact of the proposed housing blocks to the trees in the PDA (proposed development area) *“taking into account the revised layout plan”*; and
- 44.8. Elaboration on how the grave situated in Sub-Area 1 will be handled and whether it could be retained.
45. The 31 August Letter concluded:
- “Please note that the information provided to us will form part of the EIA report and will be uploaded onto our EIA Ordinance website for the public to access. Please provide us the information in both hard and soft copies to facilitate dissemination.”*
46. The Additional Information was provided to ACE in draft on 18 April 2023 [E/31/4141]. On or about 21 April 2023, it was uploaded onto the Internet as an annexure to ACE Paper No. 8/2023 [E/31/4049-4139]. It was indicated that the draft Additional Information would be discussed by ACE at a meeting on 3 May 2023.
47. On 25 April 2023 [F/38/4204-4206], the Club wrote to DEP, noting the upload of the Additional Information, and pointing out that it was not clear whether members of the public, including those like HKGC who are directly affected by the proposed project, would be permitted to comment on the Additional Information. The Club asked whether DEP and/or ACE would consider representations on the Additional Information, and if so what the deadline for the provision of further comments could be.
48. DEP never replied.

B11. HKGC's Response to the Additional Information

49. Notwithstanding DEP's failure to respond, the Club sent its responses to the Additional Information both to ACE and to DEP. The Club's Response to the Additional Information comprised *inter alia* the following:

49.1. A further, detailed, technical analysis of each section of the EIA Report explaining why, even taking into account the Additional Information, the Report was grossly defective and incompatible with the TM and the SB.

49.2. A new moth survey [D/21/3359-3384], as well as a responsive analysis of CEDD's own new moth study explaining why CEDD's findings could not (as had been claimed) confirm the purported validity of the original studies on these subjects [D/21/3385]. The new moth study commissioned by the Club:

(1) Concluded, from primary surveys and pre-existing data, that there are a total of 729 moth species with 453 found present within Sub-Areas 1-3, of which 107 are species of conservation concern. This comprises 57 species meeting IUCN Red List criteria for globally threatened species, and a further 50 species that are locally either (i) very rare and restricted to three or fewer sites; (ii) rare and restricted or (iii) rare and found from three or fewer zones of Hong Kong. 12 are endemic to Hong Kong (i.e. only known to occur in Hong Kong), 2 are nearly endemic to Hong Kong, all 14 of which meet IUCN Red List Criteria for species at risk, or greater threat, of extinction globally. One of these species (endemic to Hong Kong) is "*Stereodytis brevignatha*" which is listed as "*critically endangered*". Three other species (also endemic to Hong Kong) are "*Scaeosopha hongkongensis*", "*Fustius sterlingi*" and "*Spiralisigna gloriae*" which are listed as "*endangered*". Two other species endemic to Hong Kong are listed as "*Vulnerable*". Of the species not endemic to Hong

Kong, there are also three species listed as “*critically endangered*”, three are listed as “*endangered*”. The total of 57 species of international conservation concern is high, making the site of international conservation significance for moth fauna.

- (2) Noted that, by contrast, the EIA study (combined with the findings from the additional surveys) recorded only 83 species, which is less than 12% of the true number, and only 38 within the PDA.
- (3) Noted that in CEDD’s consultant team was an expert in butterflies (and in some cases insects), not moths, and that their report lacked analysis or discussion of critical ecological characteristics including species diversity and abundance of major taxa groups, community structure, seasonal patterns, and inter-dependence of the habitats and species.

49.3. Additional responsive analysis addressing the new, post-consultation bird survey conducted by CEDD, noting that “*the survey period undertaken during the EIA is not representative, nor valid for assessment*” [D/21/3357].

49.4. A fresh, 7-month study on bats replicating the methodology (purportedly) adopted by CEDD’s consultants [D/21/3386-3431]. While CEDD’s consultant had located just 1 bat species, and claimed its incidence was “*scarce*”, the study performed by the Club’s consultants:

- (1) Found a total of 15 bat species, representing 60% of the species found in Hong Kong.
- (2) Noted that 5 of those species are assessed as Near Threatened in China and one is assessed as vulnerable by IUCN.
- (3) Analysed the ecological importance of conserving foraging habitats – a matter overlooked in CEDD’s study.

- (4) Located 12 roost locations within the PDA (whereas CEDD's study had reported none).
- (5) Concluded that FGC is the best site for bats in Hong Kong.

49.5. A detailed audit of CEDD's tree survey and critique of CEDD's tree compensation plan [D/21/3449-3734]. The tree survey carried out by the Club's consultants revealed that CEDD's survey:

- (1) Missed some 300 trees, or about 30% of the total number within Sub-Area 1.¹⁶ (This in turn invalidates the claim in the EIA Report that planting 996 new trees would result in a 1:1 compensation ratio).
- (2) Failed to identify 26 rare or protected species.
- (3) Failed to identify 12 large Trees of Particular Interest ("TPIs") and misidentified 7 trees (which do not satisfy the dimensional criteria) as large TPIs.
- (4) Misidentified 57 tree species.
- (5) Recorded most tree dimensions incorrectly, underreporting trunk diameter by ~14% on average, height by ~24% on average, and canopy spread by, on average, ~36% in woodland areas and ~40% in open areas.
- (6) Grossly underestimates the amenity value of the trees present in Sub-Area 1, including failing to identify that 25 of the 29 large TPIs in Sub Area 1 are directly comparable in size and quality with existing, Old and Valuable Trees ("OVTs") on the Government's

¹⁶ The Club's tree audit was conducted later than CEDD's study. The Club's tree consultants identified 460 trees not recorded in CEDD's study. It was estimated that around 156 of these might not have been of the required dimensions to be included at the time of CEDD's study. However: "*the remaining 304 trees are far too big to have been undersize in 2021 so were clearly omitted from the EIA Tree Survey in error*".

OVT Register, meaning these trees are likely to be registered as OVTs if Government resumes the land and, therefore, they should not be cut down or subject to any attempted transplant; and noting that the proposed 5.1 ha woodland compensation is inconsistent with the tree compensation proposal and further the inaccurate plotting in the original EIA Report (plotting areas already covered by trees), which meant that compensatory woodland planting would have to extend further south into Sub-Area 4, thus greatly endangering the survival of the Chinese Swamp Cypress (“CSC”).

- 49.6. An analysis of the ecological consequences of CEDD’s insistence on destroying the 0.39 ha of secondary woodland – which ACE demanded should be preserved when it requested to be provided with “*a detailed layout plan of the proposed housing development which shall illustrate the preservation of an additional 0.39 ha of secondary woodland in Sub-Area 1*” [D/21/3432-3448].
- 49.7. An independent hydrological impact assessment [D/21/3735-3773], and a counter-analysis of CEDD’s new hydrological study and projected impact on the nationally and internationally protected, and critically endangered, CSC located in Sub Area 4 [D/21/3774-3775]. The Club’s consultants concluded that the combination of CEDD’s dense high rise housing development and foundations in Sub Area 1 and more than 5.1 ha of compensatory tree planting in Sub Areas 2 and 3 could lead to about 0.7m decrease of water table level in Sub Areas 2-4, which can adversely impact the survival of rare and water table sensitive CSC.
- 49.8. A counter-analysis of CEDD’s new shading impact assessment [D/21/3776-3790], including the impact that shading from high-rise towers would have on the surrounding ecology, nearby turfgrass on HKGC’s other golf courses, and on the playing of golf itself.

- 49.9. A new study on the heritage and cultural landscape of FGC [D/21/3791-3912], appraising that as objectively attaining the highest international ratings (“high” to “outstanding”).
- 49.10. Further observations on the significance in the EIA assessment of the pending grading of FGC by the AAB.
50. Finally, the Club’s Response to the Additional Information further contained a table, running to some 12 pages, which summarised the specific instances of non-compliance with the TM and the SB identified.
- B12. ACE – Part II
51. The ACE held a meeting on 3 May 2023 (“**3 May ACE Meeting**”) to consider the Additional Information, which had been supplied to the ACE by CEDD in draft on or before 21 April 2023, but for information only (see §§6 and 46 above). The Minutes of the 3 May ACE Meeting [E/33/4149.1-4149.14] (“**3 May ACE Minutes**”) were published on 12 July 2023, more than 2 months after the Decision. Together with the ACE Papers published for the 3 May ACE Meeting, the 3 May ACE Minutes indicate the following:
- 51.1. ACE Paper No. 7/2023 [E/31/4038-4043] provided background information and stated that the purpose of the 3 May ACE Meeting was for ACE to provide comments on the draft Additional Information (annexed to ACE Paper No. 8/2023 [E/31/4049-4139]) to CEDD for their consideration in submitting the Additional Information to the DEP. The ACE’s comments at the ACE 3 May Meeting were formally communicated to CEDD and copied to DEP by way of the letter dated 10 May 2023, included at the Annex to the 3 May ACE Minutes [E/33/4149.12-4149.14], although it is noted in the 3 May ACE Minutes that Dr. Samuel Chui, JP, the DEP, attended and participated in the 3 May ACE Meeting.

- 51.2. ACE Paper No. 9/2023 [E/31/4140-4148] purported to set out the “Background on the Decisions made by the ACE under the Statutory Framework”. HKGC contends that the statement in §7 [E/31/4141] as to the ACE Chairman’s understanding at the 19 August 2022 meeting that Members understood that the EIA Report had met the requirements set out in the TM and SB, is not borne out by the Minutes of that meeting [E/28/3996-4031]. At §10 [E/31/4142], ACE Members were instructed to limit discussion to the 8 topics of the Additional Information responding to the 31 August Letter and the ACE would not be required to make a further decision on whether to recommend that the DEP approve, approve with condition or reject the EIA Report, as the final decision of approving the EIA report would rest with the DEP after considering all of the ACE’s deliberations and comments. §5 of the 3 May ACE Minutes [E/33/4149.3] stated that “no decision-making was required for this agenda item”.
- 51.3. At the 3 May ACE Meeting, presentations were made, respectively, by representatives of CEDD [E/31/4150-4180 & E/33/4149.2] and EPD [E/31/4198-4197 & E/33/4149.2]. §6 and §10 of the 3 May ACE Minutes [E/33/4149.3-4149.4] confirm that the Club’s Response to the Additional Information and the Club’s letter to ACE dated 3 May 2023 [E/39/4207-4211] (see §6 above) had been circulated to ACE Members before the 3 May ACE Meeting. At §23 of the 3 May ACE Minutes [E/33/4149.7], in response to the Chairman’s enquiry on the deviation between the data of CEDD and that of HKGC, Mr Terence Tsang, EPD’s Assistant Director (Environmental Assessment), responded that he received the information of HKGC shortly before the meeting and had not yet studied the details.
- 51.4. The information included in the Club’s Response to the Additional Information was also mentioned at §§9-13, 16 and 24, of the 3 May ACE Minutes [E/33/4149.4-4149.8], although at times EPD and AFCD

representatives appear from the 3 May ACE Minutes to be defending the quality of WSP's work, whilst intimating that the Club's Response to the Additional Information went beyond what was required under the TM and SB. HKGC submits therefore, that the Club's Response to the Additional Information was not sufficiently or adequately considered at the 3 May ACE Meeting, such that CEDD and DEP did not receive any or any sufficient comments from ACE on the Club's Response to the Additional Information prior to the Decision being made.

51.5. The ACE held a press conference after the meeting and this was followed by a press release [G/50/5005] which stated that the ACE Members unanimously considered that for 6 of the 8 key topics set out in the 31 August Letter, the Additional Information was "in general sufficient" to establish the conclusion of the EIA Report, whereas for the other 2 key topics, namely a detailed layout plan of the proposed housing development and information on how the grave situated in Sub-Area 1 should be handled, ACE members agreed that the project proponent has not fully addressed the concern of the ACE, and held the view that if the DEP decides to approve the EIA report, he should consider imposing a condition to request the project proponent to amend the detailed housing development layout plan to entail the preservation of the existing around 0.4 hectares of woodland.

B13. The Decision

52. On 11 May 2023, DEP sent a letter to CEDD stating that DEP had decided to approve the EIA Report with conditions [A/1/1-4]. Relevantly, the Decision records:

"Having considered the public comments received during the public inspection period from 20 May 2022 to 18 June 2022, the Comments from the Advisory Council on the Environment (ACE) given to us on 25 August 2022, and the Additional Information you submitted to us under Section 8(1) of the EIA Ordinance on 4 May 2023, I now advise you under Section 8(3) of the EIA Ordinance that the above EIA report exhibited under Section 7(1) of the EIA

Ordinance is approved subject to the conditions at Annex 1.” (Original emphasis)

53. It can thus be seen on the face of the Decision that DEP did not consider the Club’s Response to the Additional Information submitted by the Club directly to DEP on 2 May 2023. Indeed, given the very limited time between the submission of the Club’s Response to the Additional Information – which was voluminous, detailed, and technical – and the Decision, i.e. just 5 working days, it can in any event be inferred that DEP could not have engaged with this material in any conscientious way.

54. The Decision was also subject to certain conditions. These are considered in detail in Ground 4 below.

B14. CEDD’s Response to the Decision

55. By a press release dated 5 June 2023 [G/50.2/5005.2-5005.3], the Government announced that, in view of the conditions attached to the Decision, CEDD would review the project and adjust the development parameters. It was anticipated that the review would be completed by around the end of 2024, and the findings would be submitted to DEP for approval. It was stated that “*the turn of events will inevitably affect the scale and timetable of the proposed public housing development*”. It was further stated that:

“As the Government pointed out repeatedly before, irrespective of the progress of the town planning process, the short term tenancy of the entire 32 hectares of land east of Fan Kam Road will expire on August 31, 2023 and the Government will take back the land on September 1, 2023 as planned. The Leisure and Cultural Services Department (LCSD) will be responsible for the management and maintenance of the land, including the northernmost portion earmarked for public housing development until such is handed over to the CEDD for commencement of works. The LCSD will make separate announcement on the management and detailed opening arrangement. Separately, as the Government previously stated, in case the Hong Kong Golf Club requires temporary additional land in future for supporting the organisation of major events, the relevant departments would be happy to provide appropriate assistance where possible.”

56. The press release also stated that the Government's application to the Town Planning Board to have the land rezoned as "*Residential (Group A)*" would be amended to seek a temporary zoning of "*Undetermined*".

C. **LEGAL CONTEXT**

57. The relevant provisions of the EIAO and the TM are reproduced in **Annex 1**.

D. **GROUND OF REVIEW**

D1. **GROUND 1**

D1.1 *Overview of Ground 1*

58. Ground 1 is that the Additional Information supplied by CEDD in response to DEP's request for further information was of such volume, nature, and significance that it was required to be the subject of public inspection and comment by ACE. DEP acted unlawfully by approving the EIA Report, as supplemented by the Additional Information, without making provision for public inspection and comment by ACE.

59. Three core propositions are advanced:

59.1. First, public participation is a central feature of the EIA process and a requirement under the EIAO.

59.2. Second, while the legislation does not in express terms provide for public inspection of and comment on additional information supplied by a project proponent in response to a request for further information made by DEP under section 8(1) of the EIAO, if the further information constitutes a substantial addition or amendment to the EIA report, and/or includes new or revised proposals as to the particulars of the project, further consultation will be required.

59.3. Third, on the facts of this case, the breadth, nature, and significance of the Additional Information provided by CEDD was such that it was

unlawful, alternatively unfair, for DEP to approve the EIA Report as supplemented and amended without the public having the opportunity to review and comment on the Additional Information.

D1.2 *Public Participation in the EIA Process*

60. Public inspection and comment is a fundamental aspect of the EIA process. As the Court of Final Appeal emphasised in *Leung Hon Wai v Director of Environmental Protection* (2015) 18 HKCFAR 568 at §26: “the approval process is highly transparent and that during the approval process other stakeholders (including members of the public concerned about environmental issues) have full opportunity to comment and state their views.”
61. In *Belize Alliance of Conservation Non-Governmental Organisations v The Department of the Environment* [2004] UKPC 6, [2004] Env LR 38, noted that while EIA provisions vary between jurisdictions:
- “What each system attempts in its own way to secure is that a decision to authorise a project likely to have significant environmental effects is preceded by public disclosure of as much relevant information about such effects as can reasonably be obtained and the opportunity for public discussion of the issues which are raised.”*
62. Similarly, Lord Walker, giving the Advice of the Board in *Fishermen and Friends of the Sea v The Environment Management Authority* [2005] UKPC 32, [2006] Env LR 15 at §28, stated that: “Public consultation and involvement in decisions on environmental issues are matters of high importance in a democracy.” See also *Berkeley v Secretary of State for the Environment* [2001] 2 AC 603, 615-616, *per* Lord Hoffmann.
63. The centrality of full public participation to the EIA system in Hong Kong was consistently emphasised through the legislative process leading to the enactment of the EIAO. On moving the second reading of the EIA Bill,¹⁷ the Secretary for Planning, Environment and Lands stated that:

¹⁷ Legislative Council, Official Record of Proceedings, 31 January 1996 [G/42/4215-4448].

“... by providing a clear framework for the environmental assessment of projects likely to have a significant impact on the environment, the Bill will replace the existing administrative arrangements with statutory provisions that are clear-cut, transparent, and accountable to the public.

...

Clauses 5 to 8 of the Bill outline the EIA process, the key features of which are the requirement that a proponent of a Designated Project apply to the Director of Environmental Protection for an EIA study brief, the requirement that the Director act on such an application, and if necessary subsequent environment assessments, within statutory time limits; and the provision for formal public consultation.

On public consultation, this Council will be pleased to hear that project proponents will be required to make the EIA reports available for the inspection of the public and advisory committees. The comments from the public and advisory bodies, such as the Advisory Council on the Environment, will be taken into account when determining whether an Environmental Permit should be issued and what conditions, if any, should be stipulated.”

64. The minutes of the Bills Committee¹⁸ record the assurance from the Administration about ensuring transparency:

“EPD was examining the feasibility of uploading the reports on the Internet, and of requesting the project proponents to consult the district boards concerned. The Administration assured members that there would be internal guidelines or administrative measures to facilitate the EIA process and to ensure its transparency.” (Original emphasis)

65. The amendments to the Bill introduced to further enhance transparency and public participation were again emphasised at the third reading.¹⁹

“Mechanism for public consultation

Turning to the issue of public consultation in the EIA arrangements, we have strengthened the consultation procedures and widened the scope of public participation at various stages of the EIA process. The Bill makes it obligatory to make the EIA report available for public inspection and comment for one month. It also provides for independent review of EIA reports by the Advisory Council on the Environment. To further enhance the transparency of the EIA decision making process, the Bill sets up a register which makes key documents of the process accessible to the public.

¹⁸ Bills Committee on Environmental Impact Assessment Bill (Minutes) 27 Jun 96, §12 [G/44/4453].

¹⁹ Legislative Council, Official Record of Proceedings, 29 January 1997 [G/44/4457-4646].

Some professional organizations and environmental groups made submissions to the Bills Committee suggesting that arrangements should be made to allow the public to provide inputs for the preparation of an EIA study brief. Having regard to this aspiration, as well as the need to avoid lengthening the EIA process, we have devised a mechanism to require an applicant for a study brief to advertise the availability of the project profile, thereby inviting interested parties to raise environmental concerns which the EIA should address. Proceeding in parallel with consideration of the project profile by government departments, this arrangement will allow earlier and wider public participation in the EIA process while keeping it as short and simple as practicable."

66. Thus, public participation and the right of the public to comment on the substance of an EIA report are central pillars of the EIAO.

D1.3 *Section 8(1) of the EIAO*

67. Pursuant to section 8(1) of the EIAO, DEP is empowered to ask an applicant for additional information in writing. The information provided in response to a request under that section becomes an annex to the EIA report: see *Kowloon to Canton Railway Corporation v Director of Environmental Protection*, EIA Appeal Board 2 of 2000 ("*KCRC v DEP*"), referring to Annex 11 of the TM. While the EIAO does not expressly contemplate a further round of public inspection and comment, this will be required if the additional information is substantial and/or involves new proposals.
68. This proposition can be seen in the decision of the Environmental Impact Assessment Appeal Board in *KCRC v DEP*,²⁰ a decision which has been regularly cited by the higher courts and which bears similarities to the present case. In that case, following the submission of an EIA report by KCRC in relation to its proposal to develop a spur line from Sheung Shui to the Lok Ma Chau border crossing, some 225 public submissions (all negative) were received. Further, ACE had indicated to DEP that the views of its members were divided on whether the report should be endorsed, enclosing certain critical observations about the substance of the report. As here, DEP exercised

²⁰ The Decision indicates that all questions of law were decided by the chair alone, i.e. Mr Barry Mortimer GBS QC (as he then was).

the power under section 8(1) of the EIAO to request that KCRC provide “further written information and response to the comments raised by the ACE members and the public”. In response, KCRC provided “a considerable volume of further information” in an effort to answer DEP’s request. DEP nevertheless rejected the report and refused to grant an environmental permit.

69. Before the EIA Appeal Board, KCRC sought to adduce additional evidence and further mitigation proposals, contending that EIA report as revised should be approved under section 4.5.2 of the TM. KCRC argued that further public consultation was unnecessary, submitting that the EIAO made no provision for further public consultation following a request for information under section 8(1). The Board rejected that submission. It found:

“Clearly it is not the intention that either the Director, nor an appeal board, should exercise this discretion so widely as to defeat the integrity of the EIA process. We note that if the power under section 4.5.2 is exercised it does not require the amendments to be made to the report, which if approved, will be registered with the amendments as part of it.

The Discretion under Section 4.5.2

We turn to consider the effect of section 4.5.2 of the Technical Memorandum. The discretion provided by this section is to allow the approval of an EIA report with appropriate conditions in circumstances where the report requires an amendment which will not affect its validity as provided by the section. It is a “safety net” provision. It allows approval and therefore allows projects to go ahead in a timely way after a relatively minor oversight, omission, change of circumstance and the like without unnecessarily requiring an amendment which may entail the report being re-exhibited and returned to ACE for comments.

Public participation in the process prior to the Director’s approval or rejection of the report is an important step in the process. The discretion under the section is available and should be used to avoid unnecessary return to the public arena. Without it the process could become legalistic and inefficient. In other words the power is to be used to preserve the integrity of the process not to circumvent it.”

70. The Board further accepted the submission made on behalf of DEP that KCRC’s additional evidence and proposals were “afterthoughts and reactions to the Director’s reasons for refusal”, and that:

“they are major changes which must affect the validity of the assessment, overall results and conclusions of the report. They should be part of the EIA study otherwise the process is circumvented and public participation improperly avoided.”

71. The Board also emphasised the presence of newly proposed mitigation measures in the additional information supplied by KCRC, concluding:

“3. It is not the intention of section 4.5.2 that either the Director, when he makes his decision, or the Appeal Board on appeal, should exercise their discretion for major new proposals of the kind under consideration to be accepted with conditions as a substitute for amendment of the report, its re-exhibition for the public and its re-submission to ACE.

4. New proposals of this nature at the appeal stage circumvent the assessment process laid down in the Ordinance and the Technical Memorandum. In particular they circumvent proper public participation and the participation of ACE. If the process is to be successful its integrity must be maintained. We refer to the importance of each step in the process being properly taken.”

72. It is submitted that the ruling of the Chairman of the EIA Appeal Board in *KCRC v DEP* is correct. If, after the conclusion of the public inspection period, the project proponent provides DEP with significant additional information – particularly if it supplements or amends the EIA report, or is directed at establishing its compliance with the Technical Memorandum and Study Brief – then the additional information must be re-exhibited for public comment and comment by ACE. The right of the public to comment on EIA reports relating to projects of environmental significance may not be circumvented. It follows that DEP may not lawfully approve an EIA report where the required public consultation has not occurred.

D1.4 Application to the Present Case

73. In the present case, the Additional Information is wide-ranging, substantive, and clearly intended to affect the validity of the assessment and the overall results and conclusions of the EIA Report.
74. The Additional Information comprises some 91 pages of new information spanning the nine discrete topics identified by DEP [C/16/2451-2541]. As

summarised in Table 1 of the Additional Information, it comprises (adopting the lettering used in Table 1):

- (a) Additional bird surveys conducted at different hours, intended to reaffirm the validity original bird survey in the EIA Report [C/16/2459-2466].
- (b) An additional moth survey, again intended to reaffirm the validity of the original study, together with (some, but not all) of the information requested by DEP about the methodology used and qualifications of personnel engaged in the original study [C/16/2467-2472].
- (c) Details of the methodology adopted and qualifications of personnel carrying out the bat study in the EIA Report [C/16/2473-2476].
- (d) A tree compensation plan, extended to 3 years, and a new undertaking to ensure that compensatory trees would be monitored and if necessary replaced [C/16/2477-2489].
- (e) A response to ACE and DEP's request for a revised layout plan preserving the 0.39 ha of woodland at the centre of Sub-Area 1 - to the effect that doing so would not be practicable [C/16/2490-2495].
- (f) An entirely new Hydrological Impact Analysis ("**HydroIA**"), based on borehole and soil sampling. This commentary about the effect on water sources for the swampy woodland in Sub-Area 4, and proposing the use of treated effluent as a water source for compensatory planting [C/16/2496-2514].
- (g) A shading impact analysis with sun-path analysis, considering (for the first time) the impact of shading on trees that it was hoped could be preserved within the proposed development [C/16/2515-2519].
- (h) Elaboration on how the grave site within Sub-Area 1 would be handled [C/16/2520-2521].

75. In the Club's Response to the Additional Information, the nature and substance of the Additional Information sought, and actually provided, goes far beyond the limits of what is permissible to introduce after, and without, public participation and the full involvement of ACE. Of the eight categories identified above, at least categories (a), (b), (c), (d), (e), (f), and (g) contained new information that is necessary to assess the validity of the EIA Report by reference to the TM and the SB, and to assess the environmental impact of the proposed project. This information should have been in the original EIA Report.
76. The Additional Information is not *de minimis* or only filling information gaps that would not affect the assessment. On the contrary, it was provided in an attempt to allay the serious concerns raised by ACE - which remained divided after protracted meetings on the EIA Report - and reflected in DEP's request under section 8(1). It forms a substantive part of the final EIA Report as considered by DEP and required consideration in determining whether the EIA Report should be approved.
77. Several examples illustrate (non-exhaustively) the materiality of the Additional Information to the EIA Report:
- 77.1. HydroIA:
- (1) The Chinese Swamp Cypress (or CSC) is a globally critically endangered species. There are 38 CSC within Sub-Area 4 which are considered to be reproducing in the wild. Researchers Zhang & Fischer [H/63/5190-5204] noted that "*special reserves should be established to protect such rare populations and the vegetation in the surrounding water catchments has to be protected and restored to guarantee the long-term survival of this critically endangered species. Efforts have to be made to maintain a stable water table in the swampy areas of occurrence.*"

- (2) Nevertheless, a hydrological study was not conducted as part of the original EIA process. DEP's decision to request this under section 8(1) of the EIAO was doubtless made in light of ACE's concern that the proposed housing development, and/or the proposed compensatory tree planting, could place at risk the highly sensitive and critically endangered CSC in Sub-Area 4.
- (3) The HydroIA, provided as item (f) within the Additional Information, analysed surface water flow. It concluded that main water source for the swampy area of Sub-Area 4 (where the CSC are located) was not Sub-Areas 1-3. It also concluded that water required for compensatory tree planting could be sourced as reclaimed effluent from the Shek Wu Hui Sewage Treatment Works ("**SWHSTW**").
- (4) The analysis and conclusions in the HydroIA are critical to the acceptability of the EIA Report as a whole. The CSC are critically endangered. The swampy area in Sub-Area 4 may be the last stand of these trees anywhere in the world that is reproducing in the wild. The HydroIA clearly should have been part of the EIA Report and is a subject on which the public, including the Club, should have had the opportunity to consider CEDD's assessment and comment on its compatibility with the TM and the SB.
- (5) The Club is severely prejudiced by this failure to consult. As will be seen in Grounds 2 and 3 below, the Club commissioned independent hydrological consultants to (i) analyse the CEDD's HydroIA, and (ii) conduct their own hydrological impact assessment. The Club's consultants concluded that construction of buildings and compensatory tree planting can lead to about a 0.7m decrease of the water table level in (*inter alia*) Sub-Area 4 which may influence the hydrological environment of the CSC.

- (6) The Club's consultants further identified, among other flaws in CEDD's HydroIA, the following critical errors: (i) the HydroIA considered only the *sources* of water for the swampy woodland in Sub-Area 1, but did not consider the effect the project would have on *discharge*; and (ii) the assumption that any water loss due to housing development or tree planting can be added to the affected areas cannot be made without conducting any research. The "devil is in the details". The CSC have adapted well to the current water environment, specifically the water table depth and its variations. Even assuming that all the estimate figures are correct, the challenge remains of determining when, where, and how much water to add to ensure the preservation or restoration of the original water environment, particularly the water table in the area with the CSC.
- (7) Further, the figure adopted by CEDD's consultant in the HydroIA for compensatory tree planting is based on serious errors in CEDD's LVIA. The LVIA carried out by CEDD counted only 1,255 trees within Sub-Area 1. However, CEDD's tree study undercounted the number of trees present in the PDA by around 300 trees, missing various rare and protected species. The Club's consultants have advised that if the 300 missing trees are properly accounted for, and if the compensatory tree proposal were to follow the full requirements in DEVB TC(W) No. 4/2020 [H/59.1/5156.1-5156.28] (which requires the proponent to provide a 1:1 compensation by tree girth unless there are justifications otherwise), this would require an area of compensation that would exceed 5.1 hectares and would extend into Sub-Area 4.
- (8) Once it is seen that the HydroIA is built on the assumption that only 2 ha within Sub-Area 3 would be used for compensatory tree planting (see Additional Information §7.6.6 [E/31/4110]), and on the

assumption that there would be no compensatory tree planting within Sub-Area 4, it is immediately evident that the conclusions in the HydroIA cannot be relied upon. As the Club's Response to the Additional Information noted: *"The proposed compensation woodland planting is wrongly plotted in the EIA and will require incursion in Sub-Area 4, thus greatly threatening the survival of the Chinese Swamp Cypress."* The effect of compensatory tree planting in Sub-Area 4 on the survival of the CSC has not been assessed and is in any event contrary to the precautionary principle.

77.2. Shading Impact Assessment:

- (1) DEP requested that CEDD carry out a shading impact analysis to assess the impact on the survivability of trees (purportedly) to be retained with the proposed housing development. This is a significant matter in the context of the EIA as a whole. CEDD had proposed to retain some TPis *in situ* in an effort to mitigate the environmental impact of the contemplated housing development, and the information sought by DEP is necessary to assess the viability of that proposal.
- (2) In item (g) of the Additional Information, CEDD explained that a shading impact analysis with sun-path analysis had been conducted, assessing the impact of shading *"to the tree cluster to be preserved"*, concluding that the impact *"would not be substantial"*.
- (3) Given the importance of this issue, the Club (and anybody else who wanted to) should have been given the chance to comment. In the Club's Response to the Additional Information, it stated: *"The described levels of tree shading are wrong and very misleading. The tree cluster would receive less than 1 hour per day of sunlight in winter and less than 4 hours per day at the Spring and Autumn equinoxes. Sun-path diagrams and mpegs are provided to illustrate this fact."* The detailed

analysis supplied points to numerous serious, fundamental errors in the Additional Information, expressing grave doubts about the correctness of its conclusions.

- (4) Further, the Club's consultants opined that the Additional Information "*fails to rectify the omission in the original EIA of any professional assessment of the shading impact on the Fanling Golf Club (FGC) golf holes located west of Fan Kam Road*". The proposed development, in their analysis, would "*cause shading that will have serious detrimental effect to the turfgrass of several golf holes, including portions of holes used for the Hong Kong Open. The [proposed development] therefore poses a major risk to the future of Hong Kong's ability to host its oldest golf tournament, the world's second oldest continuously running international golf tournament, and Hong Kong's most internationally significant golfing event*", which is incapable of being hosted elsewhere.

77.3. Bats and moths:

- (1) Under item (b) of the Additional Information, CEDD carried out an additional moth survey, conducted at different hours, with a view to "*reconfirming*" (*sic*) the original moth study set out in the EIA Report. Further, under items (b) and (c), CEDD provided some (but not all of) of the additional information sought by DEP about the methodology of the moth and bat studies relied on in the EIA Report and the qualifications of those who had conducted them.
- (2) Both requests were for information (either existing information or newly generated data) that is necessary to assess the validity of the EIA Report as against the requirements of the TM and the SB. The TM requires that ecological impact assessments are based on "*adequate and accurate ecological baseline information*": §5.1.1 of Annex 16 of the TM [B/4/143]. The SB requires that the baseline "*data set*

should be comprehensive and representative”, and “up to date and valid for the purpose of this assessment”: §2(iv) of Appendix H of the SB [B/3/76-77]. It is impossible to ascertain whether the ecological baseline data presented by a project proponent satisfy these fundamental requirements without knowing the details of the methodology used.

- (3) Indeed, the TM expressly requires consideration to be given, in the evaluation of an EIA report, as to *“whether the assumptions and methodologies used are sound and adequate”*: TM §4.4.2(e) [B/4/98]. Further, Annex 16 of the TM (*Guidelines for Ecological Assessment*) further states at §5.1.2.2 [B/4/144]:

“To ensure that the baseline information obtained are accurate, reproducible and can be easily verified, the methodology used must be clearly stated in the ecological assessment report.”

- (4) Quite plainly the methodological information asked for by DEP, and provided by CEDD in the Additional Information, was necessary and material information required by consultees in order to investigate the validity of the ecological impact assessment (“EcoIA”) – here in connection with moths and bats.
- (5) On the facts of this case, this methodological information was critical. The Club’s consultants had conducted their own moth and bat surveys and come up with vastly divergent results. CEDD’s bat study found 1 bat species; the Club’s bat consultant demonstrated that 15 species inhabit and roost in the PDA within Sub-Area 1. CEDD’s moth study found 83 species, while the Club’s moth consultant demonstrated that there are no fewer than 729 moth species present in FGC. CEDD’s consultant failed to identify the presence of four moth species that meet IUCN “critically endangered” Red List criteria, and seven moth species that meet IUCN “endangered” Red List criteria.

- (6) Further, the Club's bat consultant identified that necessary methodological information was missing. CEDD had failed to supply *inter alia* the following required information: survey locations (§2.2, EIAO GN 7/2010 [B/9/189]); survey time and frequency (§2.2, EIAO GN 7/2010 [B/9/189]); duration of surveys (§3, EIAO GN 7/2010 [B/9/189-190]); the type(s) and number of bat detector(s) used for each survey event; and details of how roost surveys were conducted. While some further details were supplied in the Additional Information, the method of both transect surveys using handheld detectors and roost survey remains missing or severely lacking, and importantly, the duration spent in each Sub-Area was not provided.
- (7) The moth study – the first ever conducted in an EIA in Hong Kong – was designed by an expert in butterflies, not moths. The Club's moth consultant states that the methods adopted were entirely insufficient and fell far short of established international standards (as further detailed in Ground 3 below).
- (8) The TM Annex 16 requires the project proponent to assess the ecological importance of the project site. In Table 9.20 of the EIA Report, Sub-Area 1 was assessed to be “*low to medium*” [C/13/1637-1639]; and Sub-Areas 2 and 3 to be “*medium*” [C/13/1637-1639]. If the Club's information is taken into account, in particular, the assessment would have been materially different.

78. As can be seen from the above examples, the Additional Information was, by its nature, necessary for an evaluation of the validity and soundness of the EIA Report. This information should have been in the original EIA Report, and needed to be made available to consultees so that they could provide meaningful submissions on the EIA Report. To the extent necessary, the Club relies on the affirmation evidence provided by its consultants, who opine that

the Additional Information was necessary and material in assessing the validity of the EIA Report *vis-à-vis* the TM and the SB.

79. It bears emphasis that the duty to carry out a public consultation in this context is not merely a duty to seek comment on the proposed project generally, but a duty to consult on the adequacy of the EIA Report itself: section 7(1) of the EIAO. This is because the ultimate question to be assessed by DEP under section 8(3) of the EIAO is not whether the project is a good idea, but whether the EIA report complies with the TM and the relevant SB and is environmentally acceptable.
80. In the premises, since significant and material parts of the EIA Report were not published for inspection as required by section 7(1) of the EIAO, DEP had no jurisdiction to approve the EIA Report under section 8(3). The Decision was *ultra vires*.

D1.5 Procedural Unfairness

81. Further or in the alternative, the process by which the Decision was taken was procedurally unfair because consultees, including those (like the Club) with a direct and substantial interest in the subject-matter, were not given an opportunity to comment on the Additional Materials and on the overall EIA Report in light of the Additional Materials.
82. Any public consultation, whether mandatory or undertaken voluntarily, must be conducted fairly: *R (on the application of Edwards) v Environment Agency* [2006] EWCA Civ 877 at §§90-94 and 102-106; *R v North & East Devon Health Authority Ex p Coughlan* [2001] QB 213, where Lord Woolf MR summarised the “*Sedley criteria*” at §108.

“108. It is common ground that, whether or not consultation of interested parties and the public is a legal requirement, if it is embarked upon it must be carried out properly. To be proper, consultation must be undertaken at a time when proposals are still at a formative stage; it must include sufficient reasons for particular proposals to allow those consulted to give intelligent consideration and an intelligent response; adequate time must be given for this purpose; and the

product of consultation must be conscientiously taken into account when the ultimate decision is taken: R v Brent London Borough Council, Ex p Gunning (1985) 84 LGR 168."

83. It is well established that the second of the Sedley criteria may require reconsultation to be conducted if material developments occur after an initial public consultation. As was held in *Edwards v Environment Agency* [2007] Env LR 9 (CA) at §94:

"94. Thus if in the course of decision-making a decision-maker becomes aware of a new factor, as in Interbrew SA v Competition Commission [2001] EWHC Admin 367, or some internal material of potential significance to the decision to be made, as in R. v Secretary of State for Health, Ex p. United States Tobacco International Inc [1992] Q.B., 353, CA, at 370–371 (per Taylor L.J.) and 376 (per Morland J.), fairness may demand that the party or parties concerned should be given an opportunity to deal with it."

84. See further §§103-106, finding that the EIA assessment had been unfair because important additional information had not been disclosed for public consultation.

85. Similarly, in *Regina (Holborn Studios Ltd) v Hackney London Borough Council* [2018] PTSR 997 (QB), it was held that:

"75. When there is a statutory duty of consultation, the question whether reconsultation is required if there is a change to the proposal on which there has been consultation depends on what fairness requires. That will depend inter alia on the purposes for which the requirement of consultation is imposed, the nature and extent of any changes and their potential significance for those who might be consulted: see eg R (Stirling) v Haringey London Borough Council [2014] PTSR 1317, paras 23–24, per Lord Wilson JSC; and para 44, per Baroness Hale of Richmond DPSC and Lord Clarke of Stone-cum-Ebony JSC; and the Keep Wythenshawe Special case 148 BMLR 1, paras 73–75, per Dove J.

...

78. In considering whether it is unfair not to reconsult, in my judgment it is necessary to consider whether not doing so deprives those who were entitled to be consulted on the application of the opportunity to make any representations that, given the nature and extent of the changes proposed, they may have wanted to make on the application as amended."

86. In that case, a planning application had been exhibited for the redevelopment of a 19th century iron foundry. Following public objection *inter alia* on environmental grounds, substantial alterations to the development proposals were made but the amended proposals were not re-exhibited for public comment. The decision granting planning permission was challenged on procedural fairness grounds. The Court held, quashing the decision, that there should have been a reconsultation: §91 (and see also §70: “*amendments cannot be made that would have the effect of sidestepping the rights of such third parties*”).
87. It should be noted that in the context of cases on consultation in the planning context, the duty of fairness requires publication of sufficient information to inform consultees about the nature and details of the proposed project to enable them to comment on its desirability. As emphasised above, the context here is different. In an EIAO consultation, the question to be addressed through public consultation is whether the EIA Report complies with the TM and the SB and whether the proposed project is environmentally acceptable. In that context, it is procedurally unfair to deny consultees – *a fortiori* those, like the Club, with a strong interest in the project at hand – a chance to comment on material parts of the EIA Report.
88. Adapting the principle summarised in *R (Law Society) v Lord Chancellor* [2019] 1 WLR 1649 (DC) at §73, in assessing whether common law fairness requires reconsultation it is necessary to consider the whole of the context including (1) the nature and protentional impact of the proposal, (2) the importance of the information to the justification for the decision ultimately taken, (3) whether there was good reason for refusing to reconsult in light of the new information, and (4) whether consultees were prejudiced.
89. Applied here:
- 89.1. The potential impact of the project is enormous, both for Hong Kong generally and for the Club in particular. The development, if approved, would (among other impacts) destroy the historic Old Course; remove

the facilities (including parking) that the Club requires in order to be able to host major international tournaments; and place a high-rise housing development immediately adjacent to, and shading, several holes of the New and Eden Courses and the practice putting green (all of which are used for the Hong Kong Open) – which will cause the turf grass to deteriorate to a condition which would not be acceptable for a DP World Tour venue.

89.2. The Additional Information was, as identified above, essential to the Decision. Indeed, it can be inferred in the context that DEP requested the Additional Information, as recommended by ACE, precisely because DEP did not consider he was able to reach a decision (or to reach a positive decision) under section 8(3) without requesting that information.

89.3. No reason has been given for the decision not to allow public comment on the Additional Information, and on the overall EIA Report as it stood in light of the Additional Information.

89.4. Although the Club was able to consider and formulate its responses to the Additional Information, DEP failed or refused to consider it. The Club is severely prejudiced because it was denied the opportunity to have the decision-maker consider its representations about the Additional Information and about the validity of the EIA Report as a whole once the Additional Information was included.

90. For these reasons, the consultation was procedurally unfair and the Decision must accordingly be quashed.

D2. **GROUND 2**

91. Ground 2 is that DEP acted unlawfully, and/or unfairly, in failing to consider the Club's Response to the Additional Information.

92. DEP's letter of 11 May 2023 containing the Decision states that DEP considered "public comments received during the inspection period from 20 May 2022 to 18 June 2022, the comments from [ACE] given to us on 24 August 2022, and the additional information you [i.e. CEDD] submitted to us under section 8(1) of the EIA Ordinance on 4 May 2023..." [A/1/1]. It is clear from this statement that DEP did not consider the Club's Response to the Additional Information, even though this was provided to ACE on 2 May 2023 and to DEP directly on 3 May 2023.
93. It is submitted that DEP's failure or refusal to consider the Club's Response to the Additional Information was unlawful in three related respects:
- 93.1. First, DEP ignored relevant materials before taking a decision about the validity of an EIA report under section 8(3) of the EIAO.
- 93.2. Second, DEP has a *Tameside* duty to inform himself of relevant facts and matters before taking any such decision.
- 93.3. Third, the duty to consult requires the decision-maker conscientiously to consider the product of the consultation.
- 93.4. Fourth, the DEP having obtained the Club's Response to the Additional Information, was acting *Wednesbury* unreasonably in ignoring the materials.
94. As to the first point, the Club's Response to the Additional Information has been summarised above at §§49-50. The information supplied by the Club was plainly relevant to the issue that DEP had to decide – whether the EIA Report, as supplemented by the Additional Information, complied with the TM and the SB, and whether the project was environmentally acceptable. In particular, the Club's Response to the Additional Information:
- 94.1. Offered penetrating critiques of the Additional Information which undermine its validity;

- 94.2. Provided new and highly relevant data going to the questions DEP had put to CEDD under section 8(1); and
- 94.3. Identified why the EIA Report as a whole, as now supplemented by the Additional Information, did not comply with the TM and the SB and thus could not be approved.
95. It bears emphasis in this context that, as developed below in Ground 3 (see §112.1, *infra*), the TM and the SB require that an EIA report is based on the latest and “best and latest available information” and scientific analysis. That means DEP cannot simply choose to ignore bodies of scientific data and expert analysis that are available. Indeed Annex 20 the TM expressly requires DEP, when assessing an EIA report, to ask himself *inter alia* the following questions [B/4/163]:

“Baseline Conditions

4.4 Have the components of the environment potentially affected by the project been identified and described sufficiently for the prediction of impacts?

4.5 Were the methods used to investigate the affected environment appropriate to the size and complexity of the assessment task?

4.6 Has a prediction of the likely future environmental conditions in the absence of the project been developed?

4.7 Have existing technical data sources, including local records and studies carried out for environmental agencies and/or interest groups been searched?”

96. The Club’s Response to the Additional Information is self-evidently a material body of information to the resolution of these and other questions DEP had to decide. Indeed §4.7 of Annex 20 [B/4/163] could reasonably be said to describe what it was the Club supplied to DEP.
97. The materiality of the information put forward by the Club is illustrated by the examples given above at §77 under Ground 1. The analysis in Ground 3 below further demonstrates the obvious, objective relevance of the Club’s Response to the Additional Information to the questions DEP had to decide. No

reasonable decision-maker, acting conscientiously, could have ignored those materials.

98. DEP's failure to consider the Club's Response to the Additional Information can additionally be framed as an instance of a decision-maker failing to acquaint himself with relevant materials necessary to answer the question(s) before him, i.e. a breach of the *Tameside* duty.
99. It is accepted that the scope of the duty to enquire may well be narrower in a context where, as here, the legislation is quite prescriptive as to the information that is to be taken into account (compare *Ho Loy v Director of Environmental Protection*, unrep., HCAL 21/2015, 22 December 2016, at §§42-54). However, in the present case the decision-maker had placed before him a detailed set of materials prepared by highly qualified, independent consultants analysing, and presenting relevant scientific data on, the very question he had to address. It is submitted that, in the context, DEP did have a duty to engage with the material supplied by the Club and breached that duty by taking his Decision without considering it. A duty merely to read and consider highly relevant information that a consultee has supplied to the decision-maker is not an unduly onerous or unprincipled application of the duty to enquire.
100. Furthermore, DEP's failure or refusal to consider the Club's Response to the Additional Information was procedurally unfair and/or *Wednesbury* unreasonable. It is well-established at common law that a decision-maker must conscientiously take into account the product of a consultation exercise before taking a decision: see *Coughlan* (above) at §108; *R (Help Refugees Ltd) v Secretary of State for the Home Department* [2018] 4 WLR 168 (CA) at §90; *R (Moseley) v Haringey LBC* [2014] 1 WLR 3947 at §25 (UKSC). As was held in *R (British Academy of Songwriters, Composers and Authors) v Secretary of State for Business, Innovation and Skills* [2015] EWHC 1723 (Admin), [2015] Bus LR 1535 at §168, the fourth Sedley criterion:

“... reflects two broader principles (which apply also outside the context of consultations). First, a decision must be based on a reasonable or rational view of the evidence it is said to be based upon. This is a principle of long standing [citations omitted]. If the rational decision adopted bears no sensible relationship to the evidence relied on then the reasoning is unreasonable or irrational but, in a consultation context, it may be said also that the product of the consultation (the evidence) has not conscientiously been taken into account. The second broader principle is that the outcome of the consultation must not be predetermined. If it is then the decision-maker will not have acted fairly (the leitmotif of the principle governing consultations) and will not have conscientiously taken into account the evidence. ...”

101. Here, just as the Additional Information supplemented the EIA Report, the Club’s Response to the Additional Information, while submitted outside the formal period of public inspection, formed part of and built on the Club’s original Statutory Submission. Given that DEP had received significant additional information from CEDD after the conclusion of the public inspection period, fairness – and indeed the requirements of public participation and good governance – required DEP to consider the Club’s response to that. Indeed, in view of the nature and substance of the Club’s Response to the Additional Information, and the extent to which (summarised above at §77) this demonstrates the many serious, unresolved problems in the EIA Report, failing to take this into account was *Wednesbury* unreasonable.

102. In the premises, the Decision is also unlawful by reason of DEP’s failure to consider the Club’s Response to the Additional Information.

D3. **GROUND 3**

D3.1 *Overview of Ground 3*

103. Ground 3 is that the EIA Report does not comply with the requirements of the Technical Memorandum or the Study Brief. Further, no reasonable decision-maker could have come to the decision that the EIA Report complies with the requirements of the TM and the SB, nor that the project was environmentally acceptable. That being so, the Decision to approve the EIA Report is *ultra vires* and *Wednesbury* unreasonable. Further or alternatively, in coming to his

decision, the DEP has failed to take into account matters which ought reasonably (in the public law sense) have been taken into account, or had taken into account matters which are irrelevant and ought not to have been taken into account or had failed to seek necessary information and/or make enquiries necessary to make a lawful decision, breaching the *Tameside* duty (see further §191 below).

104. The Applicant's submissions in support of Ground 3 are made with reference to **Annex 2**. **Annex 2** sets out in tabular form, and as succinctly as possible, the precise respects in which the EIA Report fails to comply with the TM and the SB. Consistent with the guidance given in the case law (see *Shiu Wing Steel* at §88; *Join Smart Ltd v Director of Environmental Protection* [2022] 1 HKLRD 1110 at §27(5)), **Annex 2** has been prepared with the assistance of the Club's independent expert consultants.
105. It should be noted that the points of non-compliance with the TM and the SB identified in **Annex 2** are not newly raised in these proceedings. They comprise a synopsis of key defects already pointed out in the Club's Statutory Submission and the Club's Response to the Additional Information. The organisation and expression of the points has been edited for clarity and ease of consumption in a curial context.
106. To provide a proper evidential foundation for **Annex 2**, the Club's respective consultants have each provided affidavits or affirmations attesting *inter alia* that the matters related to them in **Annex 2**, and in the Club's Statutory Submission and the Club's Response to the Additional Information, represent their honestly held professional views.

D3.2 *Legal principles*

107. Whether or not an EIA report submitted under the EIAO meets the requirements of the TM and the relevant SB is an objective question for the Court: *Shiu Wing Steel* at §30. The Director has no jurisdiction to approve a

report that does not comply with either the TM or the SB: *Ho Loy v Director of Environmental Protection* (unrep., HCAL 21/2015, 22 December 2016) at §57. Such a purported decision is therefore *ultra vires*.

108. In *Join Smart Ltd* at §27, Chow JA (sitting as an additional judge of the CFI) summarised the applicable principles on a judicial review of an EIA report as follows:

108.1. An EIA report must meet the requirements of the TM and the relevant study brief. It would be contrary to the Director's duty to approve a report that does not meet the requirements.

108.2. If the EIA report does not meet the requirements of the TM and the study brief, the Director has no power to (i) approve it under section 8(3) of the EIAO, or (ii) issue an environmental permit under section 10(5) of the EIAO (if one is required).

108.3. Whether an EIA report meets or does not meet those requirements is a question of law for the Court.

108.4. The Court should find the meaning of the TM and the study brief and the procedure they prescribe in order to determine the scope of the Director's power to approve the relevant report.

108.5. The question of whether the relevant report meets the requirements of the TM and the study brief is to be determined objectively. It is a question of construction, although these documents are to be construed not as legislative instruments but as they would be understood by an expert risk assessor and should be read in a "*practical down-to-earth way*". Technical evidence may be needed to show that a report meets or does not meet the requirements so determined.

108.6. The true meaning of the TM and the study brief is a matter for the Court. When the Court construes the TM and the study brief, which are

instruments which affect legal rights and duties, the Court is constrained to arrive at a single meaning to define those rights and duties: *Shiu Wing Steel Ltd* at §§27-28.

- 108.7. In construing the TM and the study brief, the purpose of the EIAO – protecting the environment – should inform the meaning to be attributed to the instruments created under the authority of that Ordinance.
- 108.8. The TM is a document which applies generally to all designated projects, while a study brief is project-specific. The study brief sets the agenda for the rest of the process.
- 108.9. The general requirements of the relevant provisions in the TM should be informed of and prescribed by what have been set out at corresponding provisions of the study brief (if any), which is made specifically for the project.
- 108.10. Although it is a matter of construction for the Court to decide what is required by the TM and the study brief, it is often a question of professional judgment what information is required to be contained in the relevant EIA report to enable DEP to perform his or her duties. Unless the judgment is *Wednesbury* unreasonable, the Court will not interfere.
109. See further, the majority of the Court of Appeal in *Leung Hon Wai v Director of Environmental Protection* [2014] 5 HKLRD 194 at §§25-26.
110. It is also relevant to refer to section 4.4 of the TM [B/4/97-100], which makes provision for the review of EIA reports. Section 4.4.2 of the TM states:

“The quality of the EIA report shall be reviewed having regard to the guidelines in Annex 20 and in Section 4.3. The report shall be considered as adequate if there are no omissions or deficiencies identified which may affect the results and conclusions of the assessment.”

111. There then follows a (non-exhaustive) list of matters that “shall” be considered, indicating that the enumerated matters are mandatory relevant considerations.

112. Among the various requirements set out in §§4.3, 4.4, and Annex 20 of the TM [B/4/95-100,161-166], the following overarching principles bear emphasis in the present context:

112.1. First, the TM requires a study brief to specify that each EIA report shall be based on the “best available information at the time of the assessment” (§3.4 of the TM) and must be “objective” (§1.10 of Annex 20). In this case, §3.4.1 of the SB [B/3/44] states:

“The Applicant shall conduct the EIA study to address all environmental aspects of the activities as described in the scope as set out above. The assessment shall be based on the best and latest information available during the course of the EIA study.”

112.2. The Appendices to the SB repeat this requirement. For example, Appendix H [B/3/76-78], in relation to ecology, states:

“1. ... The assessment shall identify and quantify as far as possible the potential ecological impacts associated with the Project, both directly by loss of habitat, and indirectly by potential impacts such as human disturbance and/or change of water quality and/or hydrodynamic regime to natural environment, the associated wildlife groups/species and habitat connectivity between surrounding areas. ...”

And:

“2. The assessment shall include the following major tasks: ...

“(viii) evaluate ecological impacts based on the best and latest information available during the course of the EIA study, using quantitative approach as far as practicable and covering construction and operation phases of the Project.”

112.3. The requirement that the EIA Report be based on the “best and latest information available” means an EIA report may not be approved merely because DEP is satisfied that its analysis and conclusions are based on *some* information or *some* opinion. Rather, DEP must be

satisfied both that the information presented in the report is objective, and, where other information is available, that the information set out on in the report is qualitatively the best available. As noted above, this is a key reason why DEP acted unlawfully by failing even to consider the Club's Response to the Additional Information. A decision-maker acts unlawfully by failing to consider relevant considerations, or ignoring relevant considerations: see e.g. *R (Friends of the Earth Ltd and another) v Secretary of State for Transport* [2020] UKSC 52, [2021] PTSR 190 at §§116-120 (on relevant considerations), and *R (on the application of Sahota) v Herefordshire Council* [2023] Env LR 20 (CA) at §45 (on irrelevant considerations).

112.4. Second, the precautionary principle applies: §4.4.3(a)(x) of the TM.

112.5. The precautionary principle (to be distinguished from a 'precautionary approach') has a number of facets. At its essence the principle can be defined in these terms: where there is uncertainty concerning the impacts of an activity, rather than assuming human economic activities will proceed unless and until there is clear evidence that they are harmful, the precautionary principle supports action to anticipate and avert environmental harm in advance of, or without, a clear demonstration that such action is necessary.²¹ This is reflected in the text of §4.4.3(a)(x) itself, which mandates consideration of:

“(a) the importance of the residual environmental impacts in terms of the following factors: ...

(x) both the likelihood and degree of uncertainty of adverse environmental impacts: If the adverse environmental impacts are uncertain, they shall be treated more cautiously than impacts for which the effects are certain and the precautionary principle shall apply.” (Original emphasis)

²¹ IUCN Policy and Global Change Group, 'The Precautionary Principle in Biodiversity Conservation and Natural Resource Management', 2004, p.5.

112.6. Third, §1.11 of Annex 20 expressly requires that EIA reports identify and address the main concerns of the general public and special interest groups (clubs, societies etc) who may be affected by the project.

112.7. The Court will therefore be alive to whether the EIA Report addresses the many serious environmental issues raised by the Club in relation to the proposed project.

D3.3 *Nature of the TM and SB Non-compliance*

113. Turning to the substance of Ground 3, **Annex 2** sets out each of the respects in which, for the purposes of these proceedings, the Club submits that the EIA Report fails to comply with the TM and the SB. **Annex 2** is organised under 16 topics, a subset of which are discussed below in order to illustrate that the Decision to approve the EIA Report was unlawful. The Club also maintains that the EIA Report was not capable of lawful approval as a result of each of the 303 *prima facie* instances of non-compliance with the TM and/or SB set out in the Club's EIA Checklist [D/18/2968-3112].

114. The instances of non-compliance with the TM and the SB include:

114.1. Failure to assess mandatory topics and issues.

114.2. The adoption of unscientific and unrobust survey methods.

114.3. Reliance on flawed data and demonstrably incorrect assumptions, including factually incorrect and inaccurate survey information.

114.4. Failure to use the “best and latest”/up-to-date and valid information for assessment.

114.5. Consistent and gross underestimation of ecological or environmental value.

115. These flaws permeate every technical section of the EIA Report and the Additional Information.

116. As will be further submitted below, these are not merely minor or technical deficiencies. On the contrary, the flaws in the EIA Report go to the heart of the assessments across a range of key subjects, and render wholly invalid the conclusions reached about the supposed environmental costs and acceptability of the project.
117. In analysing the cogency of the critiques of the EIA Report developed by the Club with the aid of its consultants, it should be kept in mind that:
- 117.1. CEDD has at no point made any effort to respond to – still less answer – the many defects in the EIA Report identified in the Club’s Statutory Submission, or for that matter in the Club’s Response to the Additional Information; and
- 117.2. DEP did not give any reasons for his Decision to approve the EIA Report. It is therefore not known whether DEP failed to consider the Club’s representations as to why the EIA Report is flawed, or if he did consider them but rejected them for reasons that are not known.
118. In the latter connection, it is submitted that DEP’s Decision to approve the EIA Report, in the face of objections of the force and number put forward by the Club, without any explanation at all, is aberrant. As held by A Cheung J (as he then was) in *Smart Gain Investment Ltd v Chief Executive in Council & Anor* (unrep., HCAL 12/2006, 6 November 2007) at §§121-123, 125, and 127, even in a context in which there may be no duty to give reasons generally, a particular decision may be so aberrant as to require an explanation – and without one, will be liable to be quashed.
119. In *Smart Gain*, the Chief Executive-in-Council (“CEIC”) had approved an outline zoning plan (“OZP”) submitted by the Town Planning Board, which the Court found the draft OZP had been afflicted by material errors. It followed that, when approving the OZP, CEIC either must have not been alive to the errors (in which case, his approval had to be quashed) or alternatively he was

aware of the errors but decided to approve the OZP anyway (in which case, the Court found, reasons should have been supplied to explain why): §§123-125. The failure to do so resulted in the decision being quashed and remitted for fresh consideration: §127. This approach was approved in *Lister Assets Limited v Chief Executive in Council*, (unrep., CACV 172/2012, 19 April 2013), §21-22.

120. Here, the EIA Report approved by DEP falls far short of the requirements of the TM and the SB. In some cases – e.g. where mandatory issues have not been dealt with at all – the non-compliance with the TM and the SB is a matter of objective fact. But even in other areas where professional judgment may be involved, the Club’s technical consultants demonstrate that no reasonable decision-maker, properly directed, could approve the EIA Report.

D3.4 Illustrative Cases Demonstrating that the EIA Report does not Comply with the TM and SB

121. Without seeking to repeat the contents of **Annex 2**, it will be convenient to analyse here a substrata of the points raised to illustrate their nature and substance, and the impact that the flaws identified have on the validity of the EIA Report as a whole (i.e. that they render the Decision approving the EIA Report unlawful).

(1) Old and Valuable Trees

122. Appendix J §1 of the SB [**B/3/80**], requires the project proponent to identify existing sensitive landscape characteristics and landscape resources (including but not limited to Old and Valuable Trees (i.e. OVTs), trees of large size and protected/rare plant species. Plainly, this requirement of the SB must be construed against the background of the Government’s known policy regarding OVTs. The EIA Report repeatedly asserts categorically that: “No registered “Old and Valuable Trees” (OVT) were recorded during the tree survey.” (See §§11.6.3.11 [**C/13/1839**]).

123. However, this unqualified and categorical statement in the EIA Report is highly misleading. As explained in the Development Bureau's *Technical Circular (Works) No. 5/2020 ("DEVB TC(W) 5/2020")* [H/60/5157-5173]:

"6. It is Government policy to provide priority protection to the OVTs in the Register. Trees must satisfy one or more of the following criteria for registration as OVTs –

(a) Tree of large size (e.g. tree trunk diameter \geq 1m, measured at 1.3m above ground level);

(b) Tree of precious or rare species;

(c) Tree of particularly old age (e.g. \geq 100 years old);

(d) Tree of cultural, historical or memorable significance; or

(e) Tree of outstanding form.

Details on the above criteria are at Appendix B. Only trees on unleased government land within built-up areas or tourist attraction spots in village areas are eligible for inclusion in the Register."

124. By definition none of the trees within the PDA can *currently* be registered as OVTs because the PDA is under lease to HKGC. However, on its proper construction, the SB plainly requires the project proponent to identify trees which were potentially identifiable as OVTs once the land were to revert to the Government – which would necessarily need to happen for the project to proceed. The EIA Report plainly failed to do so, and thus failed to meet the requirements of the SB. The Club's consultants identified 25 TPIs which were "*likely or highly likely to be registrable*" [D/18/3134-3215] as OVTs immediately on reversion. As the consultants have demonstrated, those 25 trees each has characteristics similar to or greater than those on the existing OVT register, namely (a) a height in excess of 25m, (b) a trunk diameter over 1m measured at 1.3m above ground level, and (c) a canopy spread over 25m, and taking into account their species and form.

125. Quite clearly CEDD and WSP should have identified these potentially registrable OVTs. §1 of Appendix J of the SB [B/3/80] should be construed

together and in line with Government's own policy on OVTs (which is also mentioned in the Project Profile [B/2/18 & 33]). As stated unambiguously in §11 of DEVB TC(W) 5/2020 [H/60/5159]:

"11. For public works projects requiring tree surveys to be carried out, the responsible project departments should assist to identify potentially registrable trees in the surveys and submit the relevant details to GLTMS for assessment using the nomination form at Appendix C."

126. The presence of TPis on site, which would become registrable OVTs on reversion of the land to the Government, is highly significant. Once registered as OVTs, those trees cannot be cut down or transplanted to make way for a construction project. §15 of DEVB TC(W) 5/2020 [H/60/5160] states:

"15. It is Government policy to provide priority protection to the OVTs in the Register. The OVTs in the Register should be preserved throughout the different stages of their life cycles irrespective of the working situations in which they may interact with the operations of tree maintenance departments (which are also the project departments for trees in public works project) or their agents. In particular, for the following working situations, tree maintenance departments or their agents are required to follow the respective requirements as stipulated in paragraphs 16 to 32 to preserve the OVTs in the Register:

(a) Routine maintenance

(b) Removal

(c) Construction works in the vicinity"

127. On the topic of removal of OVTs, §20 of DEVB TC(W) 5/2020 [H/60/5161] permits the removal of an OVT only where it has died – and even then only with approval from Greening, Landscape and Tree Management Section ("GLTMS") (save where it poses an imminent danger). §21 confirms that, except in those situations, "removal of OVTs is prohibited". §21 continues that measures such as transplanting should only be considered if it is not practicable to retain the OVT at its existing location. (Read in context, it is clear that this applies in a case where the OVT would otherwise not survive *in situ*, not where the location of the tree is considered inconvenient because the land it sits on is sought for some other purpose). §21 further states that:

“If removal of an OVT is unavoidable, the responsible tree maintenance department concerned should demonstrate that removal of the tree is the best available and only practicable option.”

128. §25 [H/60/5163] adds:

“25. The general public loves OVTs. Adequate and earnest community engagement activities shall be arranged to address public sentiments towards tree removal proposals. In this regard, tree maintenance departments shall follow the tree removal protocol set out in DEVB TC(W) No. 4/2020 or its latest version.”

129. Relevantly, DEVB TC(W) No. 4/2020 [H/59.1/5156.8] also states:

“Feasibility stage

32. Due consideration should be given to ensure that the purposes of the government project can be satisfied while assigning priority to preserve valued tree assets. Trees of particular interest should be identified for priority preservation.

33. In accordance with DEVB TC(W) No. 5/2020, the removal of Old and Valuable Trees should only be permitted under very special circumstances with full justifications.”

130. In addition to the above requirements, DEVB TW(W) 5/2020 makes further provision, at §§26-32, for the protection of OVTs where construction works are contemplated in the vicinity. A protection zone must be established around the tree in all directions (§26) [H/60/5163]. Further, per §§27-28 [H/60/5163]:

“27. The planning and design of any construction works must take into account the need to preserve and avoid any damage to OVT(s) within and adjacent to the site. In addition, precautionary measures should be included in the design and contractual provisions to preserve and protect the trees during the construction stage. Within the tree protection zone of OVTs, construction works such as excavation, trenching, piling and landfilling, etc., should be avoided as far as possible.

28. If construction works within the tree protection zone are unavoidable, the project department shall submit an application with full justifications and method statements to GLTMS and the relevant tree maintenance department for comment at an early stage of the project before the design is finalised. ...”

131. §32 [H/60/5164] further requires that public works construction contracts to incorporate a requirement for the preservation of OVTs within a given site.

132. In this case, the EIA Report proposes that an attempt would be made to transplant 34 trees out of Sub-Area 1, among which are trees that the Club's consultants have identified as meeting the criteria for registration of OVTs (see §§11.6.3.5 - 11.6.3.13) [C/13/1838-1839]. However, the EIA Report fails to recognise that this proposal directly contravenes DEVB TC(W) 5/2020, which prevents removal or transplantation save in defined circumstances which are not present here (and in circumstances where, as far as the Club is aware, no application has been made to GLTMS for permission to remove them).
133. The significance of this point is difficult to overstate. This can be seen by reference to **Annex 3**, a plan prepared by URBIS Ltd, the Club's landscape and tree consultants, overlaying the location of the registrable OVTs throughout Sub-Area 1 (together with the protection zone around them required by §26 of DEVB TC(W) 5/2020) over the proposed layout set out in the EIA Report. As can be seen, the proposed location of at least 8 of 11 intended housing blocks, as well as the proposed transport interchange and special needs school, partly or completely overlap with locations where TPIs that are registerable as OVTs now lie.
134. Further, if one also takes into account the effect of the Condition (a) in the Decision, i.e. the preservation as far as practicable of the 0.39 ha of woodland at the centre of Sub-Area 1,²² the picture is starker still. But even ignoring that and focusing only on the potentially registerable OVTs scattered throughout and alongside Sub-Area 1, not only is the existing layout wholly incompatible with the preservation of those trees, but it is difficult to see how the site could be usefully developed at all.
135. Of course, the Court is not called upon to decide whether the site is suitable for the development high density housing. The simple point here is that the treatment of TPIs and OVTs in the EIA Report is not only wholly deficient but

²² See Item 4 on the legend of **Annex 2**.

is apt to mislead. It follows that DEP's Decision to approve the EIA Report is unsustainable.

136. It also bears mention that the Club, in its Statutory Submission, expressly identified the presence of a significant number of TPIs within Sub-Area 1 that would be registrable or potentially registrable as OVTs if the land reverted to the Government. The Club also pointed to the requirements of DEVB TC(W) 5/2020. As far as the Club is aware, neither CEDD nor DEP has ever responded to this. Since no reason has been given by the DEP, it is unknown whether DEP failed to consider this important point or whether he rejected it for some reasons known only to him. Suffice to say that the approval of the EIA Report in these circumstances, without any reasons explaining how this could be acceptable, is aberrant and stands to quashed.

(2) Cultural Heritage

137. The SB §3.4.12 [B/3/47] requires CEDD to follow the criteria and guidelines for evaluating and assessing cultural heritage impacts as stated in §2 of Annex 10 [B/4/126] and §2 of Annex 19 of the TM [B/4/158]. §2.1(a) of Annex 10 of the TM [B/4/126] sets out the general presumption in favour of the protection and conservation of all sites of cultural heritage because they provide an essential, finite and irreplaceable link between the past and the future and are points of reference and identity for culture and tradition. §2.1(b) provides that adverse impacts on sites of cultural heritage shall be kept to the absolute minimum. §2.1 of Annex 19 [B/4/158] provides that in general, sites of historical value will be considered as highly significant. §2.6 [B/4/158] provides that preservation in totality will be a beneficial impact; while §2.8 [B/4/158] provides that total destruction must be taken as the very last resort in all cases and shall only be recommended with a meticulous and careful analysis balancing the interest of preserving archaeological, historical, architectural and other cultural values as against that of the community as a whole.

138. The Cultural Heritage Impact Assessment (“CHIA”), in Chapter 12 of the EIA Report [C/13/2071-2284], is incoherent and self-contradictory.
139. The EIA Report recognises, correctly, that the Old Course is a “*site of cultural heritage*” within the meaning of the TM (see in particular Annex 10, §§1-2) [B/4/126]. The EIA Report thus states:
- 139.1. “*Fanling Golf Course itself... should be considered a heritage place in itself.*” (§12.4.2.1) [C/13/2084]; and
- 139.2. “*If the golf course is recognised as a heritage site and development goes ahead within the Old Course, **direct impacts are expected.***” (§12.5.4.1, Table 3) [C/13/2098-2120].
140. These conclusions are supported by the reasons developed at §§12.4.2.2–12.4.2.14 [C/13/2084-2087]. It was noted *inter alia* that:
- 140.1. The Old Course “*was laid out during what is known as the Golden Age of golf course development, i.e. the early decades of 20th century.*”
- 140.2. “*Early 20th century golf courses were on common land (versus private lands) and often shared with non-golfers. Generally open and accessible sites were chosen, requiring the minimum of maintenance and upkeep costs. (EIGCA 2017) It seems to have been very much a similar situation at Fanling in the selection of an open, undulating landscape all awhile ongoing villagers’ access onto the golf area for visiting graves and access routes.*”
- 140.3. “[T]he ‘*land dictates the play and gives rise to a layout that is unique in style and character and different from anything else in Hong Kong and indeed China*’. The Old Course is the only 18-hole golfing of such design in Hong Kong.”
- 140.4. “*The FGC is deemed one of the finest and most scenic golf courses in Asia...*”

140.5. *“The Hong Kong Open is touted on the Club’s website as ‘the oldest professional sporting event in the city and the second oldest professional golfing title in Asia, championship golf is at the very heart of Hong Kong Golf Club’s fabric.’ The inaugural Hong Kong Open took place in 1959 on the Old Course (and New Course) and included the Old Course until 1970.”*

141. Having concluded that the Old Course is a site of cultural heritage within the meaning of the TM, the EIA Report then considered the impact of the proposed housing development on the site. At §12.3.2.11 of the EIA Report [C/13/2080], it was stated that the following classification of the impact would be used:

“Beneficial Impact: The impact is beneficial if the project will enhance the preservation of the heritage site(s);

Acceptable Impact: If the assessment indicates that there will be no significant effects on the heritage site(s);

Acceptable Impact with Mitigation: If there will be some adverse effects, but if these can be eliminated, reduced or offset to a large extent by specific measures, such as conduct a follow-up Conservation Proposal or Conservation Management Plan for the affected heritage site(s) before commencement of work in order to avoid any inappropriate or unnecessary interventions to the building;

Unacceptable Impact: If the adverse effects are considered to be too excessive and are unable to mitigate practically; and

Undetermined Impact: If the significant adverse effects are likely, but the extent to which they may occur or may be mitigated cannot be determined from the study. Further detailed study will be required for the specific effects in question.”

142. This approach correctly adopts the criteria for assessment set out in §1.1 of Annex 10 of the TM [B/4/126].

143. Further, as correctly recognised in the EIA Report at §12.3.2.3 of the EIA Report [C/13/2078], §2 of Annex 10 of the TM was engaged [B/4/126]. This provides:

“2. Criteria for Assessment of Impact on Sites of Cultural Heritage

2.1 The criteria for evaluating impact on sites of cultural heritage include:

- a. The general presumption in favour of the protection and conservation of all sites of cultural heritage because they provide an essential, finite***

and irreplaceable link between the past and the future and are points of reference and identity for culture and tradition.

b. Adverse impacts on sites of cultural heritage shall be kept to the absolute minimum.”

144. Rather than applying these provisions, however, the EIA Report instead referred to the fact that the Old Course – and indeed FGC as a whole – had been pending grading before the AAB since 2018, and suggested that an impact assessment would be deferred pending AAB grading. The EIA Report [C/13/2101-2102] states:

“12.5.5.1 The proposed development on the Fanling Golf Course, Hong Kong Golf Club, a New Item to be graded by AAB may impact directly and adversely on holes 1 to 3 which are integral parts of the 18-hole Old Course. The impact is subject to further assessment pending to the grading of the golf course conducted by AAB and mitigation measures, where necessary, will be proposed to AMO [the Antiquities and Monuments Office] for agreement.

...

12.5.6.1 The proposed development on the Fanling Golf Course, Hong Kong Golf Club, a New Item to be graded by AAB may impact directly and adversely on holes 4 to 9 which are integral parts of the 18-hole Old Course. The impact is subject to further assessment pending to the grading of the golf course conducted by AAB and mitigation measures, where necessary, will be proposed to AMO for agreement.”

145. The relevant conclusions were then stated in Table 3 of §12.5.4.1 [C/13/2099] of the EIA Report, as follows:

<p>Holes 1 to 3 within Sub-Area 1</p>	<p>The development may directly and adversely impact holes 1 to 3 which is an integral part of the Old Course’s 18-hole playing area. It may thus also directly affect the rest of Old Course.</p> <p>The Old Course has been upgraded and modified over time but the use of topography which characterizes early golf course design (such as at holes 1, 2, 10 and 13) and the original play philosophy remains unaffected.</p> <p>The golf course is associated with international recognized tournaments and golf legends. If the golf course is recognized as a heritage site and development goes ahead within the Old Course, direct impacts are expected.</p> <p><i>Undetermined impact</i></p>
<p>Holes 4 to 9 is within Sub-Areas 2 to 4</p>	<p>The change of use may directly affect the Old Course and playing of golf. The golf course is associated with international recognized tournaments and golf legends. If the golf course is recognized as a heritage site and development goes ahead within the Old Course, direct impacts are expected.</p> <p><i>Undetermined impact</i></p>

146. The approach in §§12.5.5.1 and 12.5.6.1, and the conclusion that there is an “undetermined impact”, patently failed to comply with the SB and the TM and are thus wrong in law, and it is in any event manifestly irrational for the DEP to have accepted the same.

147. Beginning with the conclusion that there is an “undetermined impact”, as noted above at §141, this category applies “if significant adverse effects are likely”, but “the extent to which they may occur or may be mitigated cannot be determined from the study.” Here, however, there is no uncertainty at all about the extent to which the project would impact the Old Course as a site of cultural heritage, and also no uncertainty about the possibility of mitigation:

147.1. The proposal is to build housing blocks over what are now holes 1-3, and to engage in compensatory tree planting over the majority of what are now holes 4-9. They will be completely destroyed.

- 147.2. Since, as recognised in §12.5.5.1, “holes 1 to 3 ... are integral parts of the 18-hole Old Course”, and necessarily the same is true of holes 4-9, the only conclusion available is that the proposed project involves the destruction of the Old Course as a whole.
- 147.3. Self-evidently, where the project results in the destruction of a site of cultural heritage which cannot be relocated (which is an inescapable fact in the case of the Old Course, since the physical topography and surrounding environment are integral elements of the course), there can also be no possibility of mitigation.
148. Once this is recognised, it follows inexorably that the only available categorisation under the schema identified (and the correct categorisation) was one of “*Unacceptable Impact*”, because “*the adverse effects are considered to be too excessive and are unable to mitigate practically*”.
149. Turning to the reliance on the pending AAB grading, this is an irrelevance. The AAB will in due course advise the Government on whether the Old Course (and/or FGC as a whole) should be declared a monument under section 3(1) of the Antiquities and Monuments Ordinance (Cap. 53). That is to say, whether it is a:
- “place, building, site or structure, which the Authority considers to be of public interest by reason of its historical, archaeological or palaeontological significance, to be a monument, historical building or archaeological or palaeontological site or structure”.*
150. The AAB may also consider whether the Old Course and/or FGC should be graded within one of the two administrative grading categories i.e. Grades II and III (although note that the definitions under the administrative scheme appear to relate more narrowly to buildings).
151. However, whatever decision the AAB comes to, this can have no relevance at all on the outcome of the CHIA. CEDD is required by the SB to conduct cultural heritage assessment in accordance with the TM. The EIA Report already

concluded that the Old Course is a site of cultural heritage within the meaning of the TM. A positive or negative grading by the AAB, under different legislation / administrative policies, cannot affect that conclusion. The EIA Report does not suggest that it could.

152. Rather, what §12.5.6.1 of the EIA Report does say, is, first, that “*the impact is subject to further assessment*” pending the AAB grading. But this is wrong. The AAB will not assess the impact of CEDD’s proposal to build a housing estate over part of the Old Course, and to use another part of it for compensatory tree planting. And in any event, as noted above, the impact is plain and obvious: the Old Course will be destroyed.
153. The second thing §12.5.6.1 says is that “*mitigation measures, where necessary, will be proposed to AMO for agreement*”. But again this is meaningless. No mitigation is possible.
154. In the premises, the EIA Report fails to comply with the SB and the TM. Having correctly assessed the Old Course as a site of cultural heritage importance, it incorrectly categorised the impact of the proposed project as “*undetermined*”, and sought to defer reaching any conclusion on impact and mitigation based on an irrelevance external AAB assessment on unrelated questions, and even though the impact and the possibility of mitigation were plain and obvious. It also failed to give effect to §2 of Annex 10 of the TM [B/4/126]. The DEP erred in approving the EIA Report. Further or alternatively, the DEP acted *Wednesbury* unreasonably in approving the EIA Report. In the absence of any reasons given by the DEP for the Decision, it is to be inferred that the DEP failed to take into consideration the impact of the project on the Old Course as an accepted heritage, or that the Director wrongly took into account an irrelevant consideration, namely, that the AAB has not graded the site; or that the Decision was aberrant and is liable to be quashed.
155. The failings in the CHIA are of particular significance to the Club. The Old Course is aptly described in the terms of §2 of Annex 10 to the TM, i.e. it is a

site of cultural heritage in Hong Kong that provides an essential, finite, and irreplaceable link between the past and the future, and a point of reference and identity for culture and tradition. The EIA Report seeks to evade the inescapable conclusion that the impact of the proposed project on this cultural heritage site is unacceptable.

(3) Failure to consider impact of the planned Northern Metropolis

156. Further, the EIA Report fails to analyse the function and placement of the Old Course, and the FGC as a whole, in the context of the planned Northern Metropolis and the Government policies relating to it. The relevant requirements in the TM and the SB are as follows:

156.1. TM §4.4.2(f) requires DEP to determine *“whether the assessment has considered and compared the environmental benefits and disbenefits of various scenarios with or without the project”*. SB §3.3.1 imposes a like requirement.

156.2. SB Appendix J §1: provides: *“Any guidelines on landscape and urban design strategies and frameworks that may affect the appreciation of the Project shall also be reviewed. The aim is to gain an insight to the future outlook of the area affected so as to assess whether the Project can fit into the surrounding setting. ... Cumulative landscape and visual impacts of the Project with other existing, committed and planned developments in the assessment area shall be assessed.”*

156.3. EIAO GN 8/2010 §3.5, entitled *“Review of Planning and Development Control Framework”*, provides (footnote omitted): *“The review should cover information in the statutory plans prepared under the Town Planning Ordinance, and non-statutory plans published by the Planning Department when the EIA report is under public inspection. Planning Department can advise on the updated information in respect of planned use.”*

156.4. TM Annex 18 §5.1 provides: *“The main objective of the baseline study is to provide an understanding of the landscape in the area that may be affected, and to establish a visual envelope or a zone of visual influence in which the*

development might be visible, the visual amenity which might be affected, and public viewers who may experience views towards the development."

157. The Government's plans for the Northern Metropolis were announced in the Chief Executive's Policy Address in October 2021 (7 months before publication of the EIA Report). However it has not been considered in the EIA Report or in the Additional Information at all.

158. The Northern Metropolis is significant in at least two major respects. First, the Northern Metropolis presents the opportunity to generate far greater public housing yields without the same degree of damage to the environment and cultural heritage. This alternative should have been considered: TM §4.4.2(f) and SB §3.3.1.

159. Second, the proposal to build housing over the Old Course is in tension with the Government's published policy with respect to the Northern Metropolis, which regards FGC as a green corridor and open space amenity lying at the very heart of the planned Metropolis area. The Northern Metropolis Development Strategy Report ("NMDSR") dated 6 October 2021 [G/48/4853-4938], Chapter 2, page 17, §30 states: "*The Development Strategy should follow the three levels of strategic directions taken by our country, the GBA and Hong Kong:*"

159.1. "***National Level:** Our country proposes the development goals of "Construction of Ecological Civilisation" and "Construction of Beautiful Villages", which places emphasis on the harmonious advancement of economic development and ecological conservation and the balanced development of urban and rural areas..."*

159.2. "***GBA Level.** The Outline Development Plan puts forward six basic principles, namely ... to pursue green development and ecological conservation..."*

159.3. "***Hong Kong Level.** Hong Kong 2030+ proposes three building blocks as the guiding **principles** for the territory's strategic planning, namely "planning for a liveable high-density city", "embracing new economic challenges and*

opportunities” and “creating capacity for sustainable growth”. In addition, the Government proposes development goals of biodiversity and carbon neutrality.”

160. Further, NMDSR, Chapter 2, page 21, §32 states “..... a set of six planning principles is adopted under the Development Strategy”. The first three of the six planning principles are:

- (1) ***“Urban-Rural Integration.*** *The rich cultural and natural resources in the northern New Territories, comprising urban areas, rural townships, villages, hilly terrains, rivers, wetlands, fishponds, agricultural land, countryside areas, bay areas, islands, etc., should be suitably utilised, revitalised and conserved in such a way as to create the Northern Metropolis with unique metropolitan landscape featured with “Urban-Rural Integration and Co-existence of Development and Conservation”.* *This unique landscape will be no less spectacular than that along both sides of the Victoria Harbour, a world-class metropolitan landscape with a beautiful blend of mountain ranges, cityscape and harbour.*
- (2) ***Proactive Conservation.*** *Proactive conservation measures should be adopted, and plans for building a major ecological habitat network should be formulated. Efforts should be made to enhance the ecological value of ecologically sensitive areas, expand environmental capacity and preserve the integrity of strategic ecological corridors.* *Steps should also be taken to guard against damage to the ecosystem by unauthorised developments, and reasonably compensate for the environmental impact of development activities.*
- (3) ***High-quality outdoor eco-recreation/ tourism outlets.*** *In anticipation of a considerable growth of the residential and working population in the Northern Metropolis, quality outdoor eco-recreation/tourism outlets of high landscape value should be created in a timely manner. This can enrich people’s lives and encourage a healthy lifestyle while avoiding damage to cultural and natural resources caused by unregulated recreation and tourism activities.”* (Boldface emphasis original; underlining added)

161. These should plainly have been considered in the EIA Report. The Proposed Development is inconsistent with these national and local policies. Further, the Proposed Development, and its benefits and disbenefits, should have been considered in the broader context of the Northern Metropolis.

162. In that context, it is that ACE recommended, in Annex 2 to the Decision, that CEDD should: *“review the scale of the development at Sub-Area 1 in view of the potential ecological and visual impact on the surrounding environment, as well as the*

integration of the site to the development of the Northern Metropolis". The EIA Report singularly failed to do this, when clearly this should have been done.

163. In circumstances where the Northern Metropolis presents alternative options for providing public housing (and at far greater volume), the requirements of TM Annex 19 §2.8 [B/4/158] and Annex 10 §2.1 [B/4/126] are not met. Destroying the Old Course is not only *not* a measure of last resort, but is in fact inconsistent with and detrimental to the key objectives identified for the broader Northern Metropolis plans.

(4) Chinese Swamp Cypress

164. The approach taken to the CSC stand in Sub-Area 4 is wholly incompatible with the requirements of the TM and the SB. This involves intersecting consideration of the EcoIA, HydroIA, and LVIA (tree compensation plan).
165. Chinese Swamp Cypress are listed as critically endangered globally, and appear on IUCN's Red List. They are also highly sensitive to hydrological changes. Given these two facts, the Club's ecology consultants identify this as a rare case in which the precautionary principle is engaged. This means that even in the presence of a very low risk (or uncertainty as to the risk) of irreversible catastrophic impact, no action should be taken: see §4.4.3(a)(x) of the TM [B/4/98-99]. This is because, as the Board put it when analysing the precautionary principle in *KCRC v DEP*: "*The more ecologically important the site, the more caution is necessary.*"
166. The EIA Report and Additional Information consistently fail to apply the precautionary principle to the CSC At §9.5.1.30 [C/13/1618] it was stated that a "*precautionary approach*" would be taken. However, this just means acting carefully. It does not entail an insistence that no action be taken unless the risk of this species being adversely impacted has been eliminated. The Club's ecological consultants consider that the inadequate literature review in the EIA Report is the likely cause of the failure throughout the study to recognise the

critical importance of the CSC, and the need to proceed on the basis of the precautionary principle.

167. In seeking to ascertain the ecological baseline, the CEDD's EcoIA adopted a methodological approach that is wholly inconsistent with the critical importance of this species. Instead of surveying the CSC stand using a quadrant (preferably) or a transect method, which would ensure that all CSC individuals including seedlings are systematically recorded (see §4 of EIAO Guidance Note 10/2010 [B/11/208-209]), the EIA Report adopted a typical aboricultural survey method whereby any CSC species spotted are tagged and counted. This approach implies that this survey was undertaken as part of generalised tree survey rather than a targeted, systematic botanical survey which would aim to identify all individuals including seedlings.
168. Even though the SB specifically required that the hydrological impact be identified and quantified (see §2(vii) of Appendix H to the SB [B/3/77-78]), this was not done. The EIA Report instead relies on the sweeping assertion, at §9.12.1.2 [C/13/1676], that: "*Besides, the hydrological disruption due to the proposed development is not expected, potential impacts to the hydrology of the swampy woodland are thus not likely*". This cavalier approach (which directly incompatible with the precautionary principle) is doubtless why ACE recommended, and DEP required, the HydroIA to be performed as part of the Additional Information.
169. The flaws in the HydroIA have been mentioned above: see §77.1(5)-77.1(7). As noted, the HydroIA attempted to respond to the DEP's request for "*A detailed analysis of the hydrological impact to show the flow of water, including available information on the profile of soil and bedrock conditions of the project site.*" It only provides detail on the flow of surface water and the potential impact on the sources of the groundwater and the potential additional water demand from compensatory tree planting in Sub-Area 3.

170. What the HydroIA did not assess is the impact of the housing development and tree planting on groundwater discharge. The housing development, with deep foundations consisting of almost impermeable construction materials down the bedrock, will hamper the groundwater discharge, potentially elevating the ground water table. The compensatory tree planting will have the opposite effect, that is, to increase groundwater discharge, potentially leading to a decrease in the water table in Sub-Area 1.
171. The conclusions in the Additional Information at §§7.7.4 to 7.7.5 [E/31/4112] only focus on the total volume of water required by Sub-Area 1 for compensating the loss of surface water infiltration (from the housing development) and irrigation water required to support compensatory tree planting in Sub-Area 3, and suggests that both of these needs can be met from reclaimed water produced by SWHSTW. However, the irrigation water currently supplied to the fairways is primarily used for syringing and is not intended to support the wellbeing of the trees.
172. Moreover, the off-hand assumption in the HydroIA that the additional water demand could be met using from reclaimed water produced by SWHSTW overlooks the fact that this would require approval of an EIA report for an EIAO Schedule 2 Designated Project, and would require an environmental permit. Item F4 of Schedule 2 of the EIAO applies to: "*An activity for the reuse of treated sewage effluent from a treatment plant*". However, it should have made reference to the use of reclaimed water produced by SWHSTW being a Schedule 2 Designated Project and, upon approval, an environmental permit should have been applied for. It did not - the EIA Report remains that for a Schedule 3 project. No environmental permit has been sought.
173. The Club commissioned its own much more detailed HydroIA, which was provided to ACE and DEP, which (among other things):
- 173.1. Properly addressed the sources and flow of ground and surface water;

- 173.2. Considered a range of different permutations for the scale of compensatory tree planting in Sub-Areas 2 and 3;
- 173.3. Found that the building foundations downstream in Sub-Area 1 would likely increase the ground water table water level, but that, after compensatory tree planting, the water level decreases in these 3 upstream points by as much as about 0.7 m; and
- 173.4. Concluded that such a lowering of the water table creates a risk to the survival of the CSC.
174. The failure of the EIA Report and Additional Information to demonstrate the ability to retain the CSC cluster in a healthy state breaches the TM §4.4.2 quality requirements, including §§4.4.2(i) [B/4/98] (*“whether the report has sufficiently defined all environmental protection requirements and measures necessary to avoid or reduce the adverse environmental impacts to within the applicable standards or criteria”*) and (k) (*“whether the report has assessed and determined the feasibility, practicability, programming and effectiveness of the recommended mitigation measures”*).
175. Further, as noted above, the HydroIA is based on an assumption of 20,452 m² of compensatory tree planting in Sub-Area 3 (see §7.6.6 of the Additional Information [C/16/2512-2513]). No calculation is provided to show how this figure is derived from the area of 5.1 ha covering Sub-Areas 2 and 3 as stated elsewhere in the Additional Information. Further, as stated in §77.1(7) above and §196 below, if the compensatory tree calculation had been done correctly and followed DEVB TC(W) No. 4/2020 [H/59.1/5156.1-5156.28], the total area of tree compensation overall, and in Sub-Area 3 in particular, should have been greater and hence the assumption in §7.66 of the HydroIA would need to be adjusted upwards.
176. Moreover, as explained below at §§196-197, CEDD’s estimates about the scale and location of the compensatory tree planting are wrong. As the Club’s

Response to the Additional Information noted as to the location of the contemplated 5.1 ha of compensatory planting: *“The proposed compensation woodland planting is wrongly plotted in the EIA and will require incursion in Sub-Area 4, thus greatly threatening the survival of the Chinese Swamp Cypress.”* Thus the HydroIA is based on incorrect assumptions about the extent and location of compensatory tree planting. This error is a breach of the TM and the SB, including *inter alia* the following requirements:

176.1. The TM requires, at §4.4.2(b) [B/4/97], that *“information and descriptions in the EIA report are factually correct”*; (d), that the *“identification and descriptions of potential environmental impacts in the EIA report are complete”*, and further, at (e), that *“assumptions and methodologies used are sound and adequate”*.

176.2. SB §3.4.1 [B/3/44]: The assessment shall be based on the *“best and latest information available”* during the course of the EIA study.

176.3. SB Appendix H §2(vii) [B/3/77-78] required CEDD to *“identify and quantify as far as possible any direct (e.g. loss of habitats), indirect (e.g. ... changes in water qualities, hydrodynamics properties, hydrology, ...), on-site, off-site, primary, secondary and cumulative ecological impacts on the wildlife groups and habitats identified such as direct loss of habitats, potential diversion or modification of stream courses, disturbance to wildlife, destruction of habitats, reduction of species abundance/diversity”*, including specifically: *“(a) ecological impacts of loss of habitats of conservation importance, in particular woodland, marshes, semi-natural/natural streams and ponds due to the construction of the Project”* and *“(c) indirect ecological impacts due to potential hydrological disruption and/or deterioration of the water quality in the marshes, semi-natural/natural streams, ponds or other wetland habitats in the assessment area due to drainage diversification works, surface runoff, drainage and effluent discharge, waste dumping/spillage, etc. during the construction and operation phases.”*

176.4. SB §3.2.1 (viii) [B/3/42-43] further required CEDD to assess, accurately and completely: *“potential terrestrial and aquatic ecological impacts, in particular impacts on habitats including but not limited to semi-natural/natural streams, marshes, ponds, secondary woodlands, grasslands, plantation; and species of conservation importance including but not limited to Somanniathelphusa zanklon, Aquilaria sinensis, Aristolochia tagala, Glyptostrobos pensilis [i.e. CSC], arising from the construction and operation of the Project”*.

176.5. SB Appendix J §2 [B/3/80]: The project proponent shall *“describe, appraise, analyse and evaluate the existing and planned landscape resources and character of the assessment area. The landscape impact assessment shall quantify the potential landscape impacts as far as possible so as to illustrate the significance of such impacts arising from the proposed development”*.

177. The treatment in the EIA Report of the vitally important CSC stand within Sub-Area 4 is thus wholly inadequate and incompatible with the requirements of the TM and the SB.

(5) Bats and Moths

178. The flaws in the bat and moth studies have been discussed above at §77.3. As there noted, the moth study is based on a flawed methodology while the methodology of the bat study is not sufficiently known. What is known is that the results of both studies found only a small portion of the species and populations established by the Club’s consultants. The bat and moth studies relied on by CEDD fall far short of the TM and SB requirements.

179. The TM and the SB require *“adequate and accurate ecological baseline information”*: §5.1.1 of Annex 16 to the TM [B/4/143] and §2(iv) of Appendix H to the SB [B/3/76-77]. This is critical in terms of the overall scheme of an ecological impact assessment, which pursuant to §5 of Annex 16 to the TM is structured as follows:

“4.1 An ecological assessment shall consist of 5 parts of equal importance:

- 1. provision of comprehensive and accurate information on the ecological baseline;*
- 2. identification and prediction of potential ecological impacts;*
- 3. evaluation of the significance of the impacts identified;*
- 4. recommendations of effective and practicable alternatives and mitigation measures; and*
- 5. recommendations of the need for and the scope of an appropriate monitoring and audit programme.”*

180. Failure to properly establish the baseline will necessary invalidate the remaining four steps in the process.

181. In the case of moths, the moth consultant engaged by the Club identifies critical methodological flaws in CEDD’s moth studies. He notes that the failure to consult the key literature means that the EIA Report failed to consider four fundamental points in its survey methodology namely:

181.1. Light source (inappropriate usage of actinic lights for establishing a baseline of moths present at a site, which is biased towards particular moth families);

181.2. Weather and lunar cycle (which can greatly impact moth activity);

181.3. Flight periodicity (nocturnal moth activity is documented in the key literature as usually being from dusk for several hours and again for the several hours immediately before dawn, and therefore there is a need to record all night to account for variation in flight periodicity);

181.4. Multiple record methods are required to give an accurate baseline survey. This is because moths are not restricted to nocturnal activity, nor do all moth species respond to light trapping, and so other recording methods are needed to give an accurate and comprehensive as possible baseline of the moth species to be found at a site.

182. He opines that these methodological errors mean that the moth study fell far short of internationally recognised standards for a baseline study. Consequently, the data and analyses presented in the EIA Report and Additional Information must be regarded as insufficient to “provide sufficient and accurate ecological data to allow a complete and objective identification, prediction and evaluation of the potential ecological impacts” (§1.2 of Annex 16 to the TM [B/4/142]), and the mitigation measures proposed in the EIA reports are based upon unscientific, false assumptions, and are invalid.
183. Given the flawed methodology used in CEDD’s studies, it is perhaps unsurprising that the results of the Club’s moth study establish the existence of a far more diverse range of moth species in the study area, including within Sub-Area 1. CEDD’s study missed numerous species of conservation concern, including one “critically endangered” species (*Stereodytis brevignatha*) and three “endangered” species (*Scaeosopha hongkongensis*, *Fustius sterlingi* and *Spiralisigna glorioae*) on IUCN’s Red List within the PDA, all of which are endemic to Hong Kong.
184. In relation to bats, even though §2(v) in Appendix H of the SB specifically mentioned three species of bats as species of conservation importance that need to be studied as part of the exercise of establishing the ecological baseline information, and §2(viii) requires the project proponent to evaluate ecological impacts based on the “best and latest information available”, CEDD concluded that only one bat species (which is not any of the three bat species mentioned in the SB) was present within project site, and one of the three species was found within the SB specified the study area (i.e. within 500m of the project site: see SB §3.4.9.2 [B/3/46]) but no bat roost found within the PDA (see §9.7.2.57 of the EIA Report [C/13/1659]). Each of these three bats have distinctly different roosting and foraging behaviour, and the SB also directs the project proponent to: “investigate and describe the existing wildlife uses of various habitats with special attention to those wildlife groups and habitats with conservation importance, including but not limited to the following:.... (c) roosting, breeding and/or

feeding sites of mammals... and (e) mammals (both terrestrial and flying, e.g. Cynopterus sphinx, Tylonycteris pachypus and Scotophilus kuhlii” (§§2(v)(c) and (e) of Appendix H to the SB [B/3/77]).

185. As mentioned above at §77.3(6), the information provided by CEDD as to the bat survey methodology is lacking critical details – even though this information was explicitly requested by DEP. This makes it impossible to evaluate the appropriateness of the study, and therefore its validity. This breaches the requirement in §5.1.2.2 of the TM *“to ensure that the baseline information obtained are accurate, reproducible and can easily verified, the methodology used must be clearly stated in the ecological assessment report.”*
186. Again unsurprisingly, the Club’s bat study, provided as part of the Club’s Response to the Additional Information, diverged widely as to: (a) the number of bat species recorded, (b) abundance of bats, (c) the bat roosts, and (d) bat foraging. Of particular note is the fact that the Club’s study recorded 15 bat species; CEDD’s study recorded only 1. Further, while the Club’s study recorded bat roosting and foraging through the PDA, this was not detected at all by CEDD’s study. As with the Club’s other studies, this was provided to CEDD but no changes were proposed to the EIA Report to reflect these data.
187. As a consequence, the EIA Report is not compliant with the requirements of §§4.1 and 5.1 of Annex 16 to the TM and §2(v) and (viii) of Appendix H to the SB. Further, §3.1(a) of Annex 16 of the TM [B/4/142] states:

“3.1 The guiding principle for ecological assessment shall be that:

a. areas and/or habitats of ecological importance (e.g. those listed in Note 1 and 2 of Appendix A) shall be conserved as far as possible. Any project that is likely to result in adverse ecological impacts in areas of ecological importance shall not normally be permitted unless the project is necessary; it has been proven that no other practical and reasonable alternatives are available, and, adequate on-site and/or off-site mitigation measures are to be employed” .

188. The findings of the Club’s consultants establish that Sub-Area 1 is an area or habitat of ecological importance – both because of the diversity and richness of

its ecology, and in particular due to the presence of very rare and endangered moth species. CEDD failed to consider the application of this provision because (1) its baseline survey was deeply flawed, inadequate, and incomplete, and (2) because it failed or refused to consider the far more comprehensive data presented by the Club.

189. The failure to apply the guiding principle set out in §3.1(a) of Annex 16 to the TM [B/4/142] was an error of law. Further, no rational decision-maker, appraised of the contents of the Club's Statutory Submission and the Club's Response to the Additional Information, could have accepted as valid CEDD's assessment of the ecological value of Sub-Area 1 as "Low-to-medium".

(5) Tree Survey

190. One major shortcoming in the tree survey conducted in Sub-Area 1, as part of the LVIA in Chapter 11 of the EIA Report has been summarised above at §49.5. As there noted, the Club conducted a detailed audit which found, to briefly recapitulate, that CEDD's study variously: (1) undercounted the number of trees (CEDD counted 1,255 trees; the Club's survey tagged a further 460 trees not recorded in CEDD's survey, of which at least 304 would have been of the requisite size at the time of CEDD's survey and should have been recorded); (2) failed to identify 26 rare and/or protected species; (3) failed to identify 12 large TPis and misidentified 7 trees (which do not satisfy the dimensional criteria) as large TPis; (4) misidentified 57 tree species; (5) recorded most tree dimensions incorrectly, underreporting trunk diameter by ~14% on average, height by ~24% on average, and canopy spread by, on average, ~36% in woodland areas and ~40% in open areas; and (6) grossly underestimated the amenity value of the trees present in Sub-Area 1.
191. Numerous shortcomings in the CEDD's tree survey were identified in the Club's Statutory Submission, together with the detailed audit dated 25 April 2023. The shoddy quality of CEDD's tree survey invalidates the LVIA.

192. §4.3.1(a) of the TM [B/4/95] requires that:

“Where necessary, baseline environmental surveys shall be carried out to determine the existing environmental conditions on the site and in all environs likely to be affected by the proposed project. ... The type and duration of baseline surveys shall be such that there will be adequate information taking account of natural variation to define the existing conditions.”

193. §4.4.2 of the TM [B/4/97-98], further states:

“4.4.2 Quality of the EIA Report: The quality of the EIA report shall be reviewed having regard to the guidelines in Annex 20 and in Section 4.3. The report shall be considered as adequate if there are no omissions or deficiencies identified which may affect the results and conclusions of the assessment. In particular, the following factors shall be considered: ...

(b) whether the information and descriptions in the EIA report are factually correct;

...

(d) whether the identification and descriptions of the potential environmental impacts in the EIA report are complete and whether all applicable criteria in Annexes 4 to 10 inclusive have been considered;

(e) whether the assumptions and methodologies used are sound and adequate; ...”

194. The SB [B/3/44] further provides:

“3.4.1 The Applicant shall conduct the EIA study to address all environmental aspects of the activities as described in the scope as set out above. The assessment shall be based on the best and latest information available during the course of the EIA study.”

195. Given the gross errors in CEDD’s tree study, none of the above requirements is satisfied. The Club’s tree audit shows, as on objective fact, that the EIA Report is not based on descriptions that are factually correct, is not complete in its identification of the potential environmental impacts of the project, and that the LVIA is not based on the best or latest available information.

196. In addition to invalidating the LVIA, and thus rendering the EIA Report incapable of lawfully being approved, as has been seen above the errors riddled throughout CEDD’s tree survey will also have knock-on effects in other

technical sections. Furthermore, the compensatory tree proposal does not follow the full requirements in DEVB TC(W) No. 4/2020 [H/59.1] which requires the proponent to justify why a 1:1 compensation by tree girth is not provided. If provided, this would require an area of compensation that would exceed 5.1ha. No explanation was provided in the Additional Information.

197. Moreover, even assuming *arguendo* that 5.1 ha was a sufficient area to achieve 1:1 woodland compensation, as described in the Additional Information (at §5.3.7 [E/31/4078]), its location has been incorrectly plotted because it overlaps with existing woodland to be retained. To create the contemplated 5.1 ha of woodland, it would be necessary to extend the planting further south into Sub-Area 4.

D3.5 Conclusion on Ground 3

198. For these reasons and for those set out in **Annex 2** hereto, the EIA Report fails to meet the requirements of the TM or the SB, from which it follows that the Decision was *ultra vires*. Further, as can be seen above, the deficiencies in the EIA Report identified by the Club's consultants, and conveyed to DEP prior to his Decision, fatally undermine the factual assumptions on which the EIA Report is based, the analysis contained in it, and the fundamental conclusions reached.
199. In the premises, with respect of each matter set out in this Ground 3 (including **Annex 2**), the Decision to approve the EIA Report was unlawful in that the EIA Report failed to meet the requirements of the SB and the TM and/or that the Decision was *Wednesbury* unreasonable in that the DEP, properly directing himself, could only have disapproved the EIA Report or that the DEP has failed to take into consideration matters which ought reasonably (in the public law sense) to have been considered or took into account matters which are plainly irrelevant. Further, with respect of each matter set out in this Ground 3 (including **Annex 2**), DEP failed to seek necessary information and/or make

enquiries necessary to make a lawful decision, breaching the *Tameside* duty. The Decision therefore stands to be quashed.

D4. **GROUND 4**

200. Ground 4A is that the conditions imposed by DEP are unlawful and invalidate the Decision to approve the EIA Report. Ground 4B is that the Decision failed to impose any requirement that CEDD actually carry into effect the mitigation measures set out in the EIA Report, effectively rendering them voluntary.

201. The Decision states that the approval of the EIA Report is subject to the conditions at Annex 1, and that:

*“The conditions have asked for, among others, the submission of a revised Layout Plan (LP) and a detailed Landscape and Visual Plan (LVP) to the Director of Environmental Protection (DEP). The revised LP shall, by adjusting the housing footprint, disposition and density, aim to minimizing [sic] the number of trees to be felled and preserving the 0.39 ha of woodland at the centre of Sub-Area 1 as far as practicable. The detailed LVP shall review the building heights for the proposed housing development and adopt a stepped height profile with the building height descending from north to south, with a view to reducing the footprint while at the same time minimizing the visual impact to the surrounding rural environment. Before these are submitted and approved, the project proponent should review if the currently assumed development parameters for the proposed housing development in Sub-Area 1 remain valid and consider whether it is appropriate to propose high-density and high-rise development for Sub-Area 1. In addition, recommendations from the ACE are contained in **Annex 2** for your attention and action.”*

202. These requirements are reflected in conditions (a) and (b) in Annex 1 to the Decision, which read:

“(a) The project proponent shall review and revise the Layout Plan (LP) by adjusting the housing footprint, disposition and density with an aim to minimizing the number of tree to be felled and preserving the 0.39 ha of woodland at the centre of Sub-Area 1 as far as practicable. The revised LP shall be submitted to the DEP for approval before commencement of construction of the relevant phase of the project;

(b) The project proponent shall submit a detailed Landscape and Visual Plan (LVP) which covers a review of the building heights for the proposed housing development and adoption of a stepped height profile with the building height descending from north to south, with a view to reducing the footprint while at

the same time minimising the visual impact to the surrounding rural environment. The project proponent shall also minimise tree felling in Sub-Area 1 to reduce visual impact and to use the trees and woodland for generating a natural outlook as well as a barrier to minimise light impact to the surrounding rural environment. The detailed LVP shall be submitted to the DEP for approval before commencement of construction of the relevant phase of the project”

203. They are mandatory conditions (with the exception that the 0.39 ha of woodland at the centre of Sub-Area 1 is to be preserved “*as far as practicable*”).

204. Further, Annex 2 (which is headed *Recommendations of the Advisory Council on the Environment*) states:

“The project proponent is recommended to ...”.

(a) make good use of Sub-Areas 2 & 3 to provide an active area for public education and enjoyment, as well as maintaining a good balance between recreational activities and habitat conservation, through developing a comprehensive public education and ecological management plan.

(b) Review the scale of the development in Sub-Area 1 in review of the potential ecological and visual impact on the surrounding environment, as well as the integration of the site to the development of the Northern Metropolis.

(c) review the cultural heritage importance and function of the site in connection with surrounding land use, and consider how to mitigate the development of Sub-Area 1 on the cultural heritage of the entire Fanling Golf Course are; and

(d) review the traffic impact and arrangement for the site.”

205. By way of preliminary observation, although framed as “*conditions*” imposed together with a decision “*approving*” the EIA Report, it is difficult to avoid the conclusion that the EIA Report has not been approved at all. After all DEP has required the project proponent to go away and totally redesign and rethink the project, and submit any new plans for his consideration. It could fairly be said that the conditions are in fact inconsistent with the notion that approval has even been granted.

206. In any event, the conditions contained in the Decision are bad in law, and vitiate the Decision as a whole, for at least four reasons. The first reason is that the conditions involve DEP arrogating to himself new powers which are not provided for in the EIAO.

207. Under section 8(3) of the EIAO, DEP is empowered to do one of three things: to approve a report, approve it with conditions with conditions, or reject it. His decision is to be made within the fixed statutory period. In this case, however, DEP has purported to require, as a condition of approval, that the project proponent go off and carry out a full redesign of the project – and indeed to rethink its *a priori* appropriateness – and then resubmit revised plans to DEP for consideration.
208. This new process set out in the conditions – a re-design of the project by CEDD, re-submission to DEP, and (if appropriate) approval of the revised plan – is not contemplated by the EIAO. Indeed, it is inconsistent with the scheme of the EIAO, because all of this would all take place without any public consultation and without further review by ACE.
209. As submitted above under Ground 1 (at §§60-72), transparency and public engagement are fundamental pillars of the EIAO. The procedure crafted by DEP in his conditions would bypass those essential requirements. It is wholly at odds with the proper statutory procedure.
210. Second, and relatedly, the conditions are procedurally unfair to parties like the Club who have an interest in being heard by DEP on any decision to approve or reject a project on environmental grounds. Under the conditions, CEDD is required to:
- 210.1. Submit an entirely new layout plan and landscape and visual plan;
 - 210.2. Adjust the housing footprint, disposition, density of the project, and building heights;
 - 210.3. Take steps to minimise the number of trees felled, and to preserve the additional 0.39 ha of woodland at the heart of the site as far as is practicable; and

- 210.4. Reconsider whether the currently assumed development parameters for the proposed housing development in Sub-Area 1 remain valid and consider whether it is appropriate to propose high-density and high-rise development for Sub-Area 1.
211. This wholesale redesign of the proposed housing project will self-evidently change its environmental impact. For the same reasons identified in Ground 1 above, further public consultation is required if material changes are introduced to the proposed project after the formal public inspection period.
212. By way of comparison, it will be recalled that in the *KCRC v DEP* case, the project proponent had proposed additional mitigation measures for the construction phase of the project after the public inspection period, and the Tribunal found that this should have been opened up for public comment. Here, the changes anticipated by the redesign required by the conditions go far further. It is patently unfair that changes of this magnitude should be formulated, proposed, and considered by DEP without public comment – particularly in the context of a controversial project which will, on any view, have a considerable environmental impact.
213. The third vice in the conditions is that they are impermissibly vague and uncertain. As the authors of the *Encyclopedia of Planning Law and Practice* state, at §4-111:

“Vague conditions

31. A condition which is not sufficiently precise for the applicant to be able to ascertain what must be done to comply with it is ultra vires and cannot be imposed. Vague expressions which sometimes appear in conditions, for example such as “keep the buildings in a tidy state”, or “so as not to cause annoyance to nearby residents”, give occupants little idea of what is expected of them. Conditions should not be subject to qualifications such as “if called upon to do so”, or “if the growth of traffic makes it desirable”, which do not provide any objective criteria by which the applicant can ascertain what is required.”

214. In the present case, the conditions are uncertain in at least two respects:

- 214.1. First, the conditions require CEDD to preserve the 0.39 ha in the centre of the PDA “*as far as practicable*”. This condition fails to provide an objective yardstick by which DEP, CEDD, or indeed member of the public, is able to judge whether or not the condition has been complied with.
- 214.2. Second, the Decision states that the recommendations supplied by ACE “*are contained in Annex 2 for your attention and action*”. This leaves wholly unclear whether the observance of ACE’s recommendations is mandatory or is simply a matter of choice for CEDD.
215. The fourth (and related) reason that the conditions are *ultra vires* is that they impermissibly delegate to the project proponent decisions about the environmental acceptability of the project.
216. In connection with the 0.39 ha of woodland, the “*conditions*” leave it to CEDD to decide whether or not some or all of that woodland will be destroyed to make way for housing. Similarly, the extent of CEDD’s compliance with the ACE recommendations in Annex 2 has been left entirely at CEDD’s discretion.
217. While it may be accepted that DEP may leave the granular detail of matters to be subject to future approval by a public authority tasked with environmental preservation, it is another matter entirely to leave such decisions in the hands of the project proponent. In *Smith v Secretary of State for the Environment, Transport and the Regions* [2003] 2 P & CR 11 (CA), Waller J said at §33:

“33. In my view it is a further important principle that when consideration is begin given to the impact on the environment in the context of a planning decision, it is permissible for the decision-maker to contemplate the likely decisions that others will take in relation to details where those others have the interest of the environment as one of their objectives. The decision-maker is not however entitled to leave the assessment of the likely impact to a future occasion simply because he contemplates that the future decision-maker will act competently. Constraints must be placed on the Planning Permission within which future details can be worked out, and the decision-maker must form a view about the likely details and their impact on the environment.”

218. The decision to leave CEDD to decide whether the 0.39 ha of woodland should be preserved, and if so to what extent, is extraordinary in the context. As noted above, ACE had previously recommended that CEDD should prepare a revised layout plan preserving that area of woodland, and DEP had asked CEDD under section 8(1) to provide such a plan. In the Additional Information, at item (e), CEDD stated that it had considered this but had:

“concluded that there will be adverse impact on the scale of public housing and range of commercial and public facilities proposed for the development as presented in the detailed layout plan in the EIA report if the woodland in concern is to be preserved”.

219. In circumstances where CEDD had already made very clear that, in its view, preserving the 0.39 ha of woodland was *not* practicable and was obviously not prepared to modify the scale of the proposed development to preserve even part of the 0.39 ha of woodland, it is inexplicable that DEP would think it fit to impose this as a “*condition*” subject to the caveat of practicability. DEP must have been fully aware that imposing such a condition would be of no avail.

220. The imposition of the conditions also left uncertain the basis on which approval had been granted. It can be rhetorically asked, when DEP decided that the EIA Report should be approved, and that the environmental impact of the project overall was acceptable, what portion of the 0.39 ha of woodland (if any) did he assume would be preserved? And which (if any) of ACE’s conditions would be adhered to?

221. In these circumstances, the imposition of the conditions in the Decision – which were evidently integral to DEP’s decision to approve the EIA Report at all – vitiates the Decision itself. The Decision stands to be quashed.

222. Finally, under Ground 4B, it is submitted the Decision is unlawful on account of DEP’s failure to require, as a condition of approval, that CEDD carries into effect the mitigation measures identified in the EIA Report.

223. The ultimate conclusion in the EIA Report that the proposed project is environmental acceptable is based on CEDD's description of its *residual* impact – that is, the impact of the project after mitigation has been taken into account. Even assuming (which is denied) that the EIA Report was correct to conclude that the project is environmentally acceptable, that conclusion is necessarily premised on all of the measures of mitigation identified in the EIA Report being implemented.
224. That being so, it is irrational for DEP to have approved the EIA Report without imposing any condition requiring CEDD to give effect to any of the mitigating measures identified in the EIA Report. The result of the failure to do so is that (among other things):
- 224.1. There is no legal obligation on CEDD to carry out the mitigation it contemplated in the EIA Report – or indeed any mitigation. This is effectively left as a voluntary choice to CEDD and/or its construction contractor(s).
- 224.2. Neither DEP nor any other party has a means of requiring CEDD, or its contractor(s), to carry out the mitigation set out in the EIA Report.
225. Given that the implementation of the proposed mitigation was an essential premise to approval of the EIA Report having been approved, it is irrational for DEP not to require the proposed mitigation to be carried into effect as a condition of approval.

E. STANDING

226. The Club has a sufficient interest in the matter to which the application relates within the meaning of O.53 r.3(7) of the Rules of the High Court (Cap. 4A).
227. First, the Club has formally submitted statutory comments under section 7 of the EIAO. Second, the Club is directly affected by the Decision because it is the current tenant of the PDA.

228. It is recognised, in this connection, that the Club would cease to be the leaseholder of the PDA if its lease over the land which is the subject of the proposed development is not renewed. The Club nevertheless has a clear and substantial interest in the matter because:

228.1. The Club has been the steward of the PDA for over a century. It has a special connection with the area and particular knowledge and expertise in its management. It is a proper person to seek a review of what would *ex hypothesi* be an unlawful and environmentally unacceptable usage of the land.

228.2. The Decision paves the way for the destruction of the Club's historic Old Course, diminishing the amenities it is able to provide to members and the public for golf and other recreational and ecological activities.

228.3. Even if the PDA reverts to the Government, the Club would remain the immediate neighbour to the site. It thus has a clear interest in ensuring that the abutting land is used is managed in a lawful, environmentally appropriate way that causes no physical damage to the Club, for example by severe shading of golf turfgrass that would destroy its viability if the proposed housing development were to proceed.

F. AMENABILITY

229. A decision of the DEP to approve an EIA report is taken under statutory powers and is amenable to review: see *Shiu Wing Steel* at §§17-22.

G. PROMPTNESS

230. This application has been brought promptly and in any event within 3 months of the Decision.

H. INTERIM RELIEF

231. The Club applies for a stay of the Decision pursuant to O.53 r.3(10)(a) of the RHC and §10 of Practice Direction SL-3 pending the determination of this application for judicial review.
232. It is submitted that there is a real risk of irreversible harm if the project proceeds, and that the balance of convenience favours preserving the *status quo* pending the Court's determination of the lawfulness of the Decision. The following factors can be identified:
- 232.1. A major construction project in an environmentally sensitive area should not be permitted to proceed in circumstances where, assuming the Court grants leave, it will have been found that EIA process and its output were flawed and unlawful.
- 232.2. If the project proceeds while this application is pending, the conduct even of preliminary works – such as ground works, and other preparatory steps in advance of a major construction project – risk causing irreversible environmental damage.
- 232.3. Absent a stay, there is a real risk of CEDD entering into contracts with third parties for the conduct of proposed project, thereby incurring or committing itself to incurring public funds. That is not in the public interest and may cause unfair detriment to third parties, as well as wastage of public funds, if the Decision is later quashed.
- 232.4. The Club's lease is due to expire on 31 August 2023 and the Government has announced an intention to take back the land. An interim stay could make way for the Club to be appointed to manage FGC as an operational golf course so as to preserve its cultural heritage on an interim basis pending a resolution of this case – both for the continued use of the Old Course for the playing of golf as part of maintaining the cultural heritage

and also for the Club to continue its ongoing environmental management of the site.

232.5. The Club has received representations from organisers of large scale international golf tournaments that if the Old Course ceases to be maintained as a golf course, there is a high likelihood that they will regard FGC as not being able to host international golf tournaments. This would cause serious harm to Hong Kong's status as a golf hub in Asia, as well as significant economic loss to the city.

232.6. Organisers have informed the Club that the events at risk of not coming to Hong Kong include the Aramco Team Series ("ATS"), a Ladies European Tour-sanctioned professional event featuring some of the world's best female golfers, as well as LIV Golf, a men's professional event featuring a prize purse of US\$25 million per event that the Club has been shortlisted to host in the first quarter of 2024. The ATS organisers have given the Club their schedule for the tournament week, which includes golfing activities on the Old Course.

232.7. The Club believes that, unless it is able to give assurances in the near future, with a sufficient degree of certainty about the arrangements for use of FGC as an international tournament venue, in particular that the Old Course will be available as an operating golf course for use during any such tournaments, the sponsoring bodies and other stakeholders interested in holding international tournaments will reconsider the FGC as a site for hosting such events.

232.8. It is in the public interest that, given the Government's announcement that it will require at least a further 18 months to re-study the Proposed Development as required under the Conditions to the Decision, the Old Course should in the meantime continue to be maintained as a golf course. *A fortiori* so if there are reasonable grounds for concluding, at least at a preliminary stage, that the environmental impact of the

proposed development of the PDA may have been grossly underestimated.

232.9. The validity or otherwise of the EIA Report and the Decision are likely to be material considerations for the Town Planning Board, which has completed meetings to consider the appropriate zoning for Sub-Areas 1 to 4 with detailed reference to the contents of the EIA Report between 12 and 29 June 2023 and is, at the time of filing this Application, in the course of its deliberations. The Town Planning Board may fall into error in treating the Decision as valid unless it is stayed or has been set aside, which risks an *ex hypothesi* unlawful EIA decision causing a knock-on effect in the planning context. That may be difficult (and costly) to unravel.

233. For these reasons, the Club submits that an interim stay in order to “hold the ring” would be just and convenient in this case. And finally, insofar as it may affect the ultimate balance, it is respectfully submitted that the proposed grounds of review are strong.

I. EXPEDITION

234. The Club respectfully asks that this application be dealt with on an expedited basis. Given the matters identified to above as relevant to the question of interim relief, it is in the public interest that the matter be dealt with speedily to avoid a protracted period of uncertainty about the status of proposed development (*a fortiori* absent an interim stay).

J. CONCLUSION

235. In the premises, the Applicant respectfully seeks the relief identified above.

Dated 21 July 2023

Benjamin Yu SC
Timothy Parker
Counsel for the Applicant

A handwritten signature in black ink that reads "Mayer Brown". The signature is written in a cursive, flowing style.

Mayer Brown
Solicitors for the Applicant

HCAL 1258/2023

IN THE HIGH COURT OF THE
HONG KONG SPECIAL ADMINISTRATIVE REGION
COURT OF FIRST INSTANCE
CONSTITUTIONAL AND ADMINISTRATIVE LAW LIST
NO. 1258 OF 2023

HONG KONG GOLF CLUB

Applicant

and

DIRECTOR OF ENVIRONMENTAL
PROTECTION

Putative Respondent

Dated the 2nd day of July 2023

Filed the 2nd day of July 2023

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Annex 1: Relevant Legal Context of Form 86

C1. The EIAO

1. The Long Title of the EIAO is: “*An Ordinance to provide for assessing the impact on the environment of certain projects and proposals, for protecting the environment and for incidental matters.*” In *Shiu Wing Steel Ltd v Director of Environmental Protection* (2006) 9 HKCFAR 478 at §7, the Court stated that this identifies the purpose of the Ordinance.
2. Pursuant to section 4 of the EIAO, the projects listed in Schedules 2 and 3 are ‘designated projects’. Designated projects under Schedule 2 require an environmental permit. Designated projects under Schedule 3 do not require an environmental permit, but must be the subject of an environmental impact assessment.
3. Section 5 of the EIAO makes provision for the issue of a study brief:

“(1) A person who is planning designated project shall apply to the Director-

(a) for an environmental impact assessment study brief to proceed with an environmental impact assessment study for the project;

...

(2) The applicant shall –

(a) submit the application in the form approved by the Director;

(b) submit a project profile that complies with the technical memorandum;

(c) advertise in the form the Director may require the availability of the project profile on the day following the lodging of the project profile with the Director in a Chinese language daily newspaper and an English language daily newspaper, each of which circulate generally in Hong Kong; and

(d) pay the prescribed application fee.

(3) The Director shall inform the Advisory Council on the Environment on the receipt of a project profile and forward a copy of the project profile to it.

- (4) *The Director may within 14 days of receiving the application request the applicant to give further information concerning the project profile or notify the applicant of any defects in the application.*
- (5) *If the Director requires further information, the Director may also require the applicant to advertise the availability of the additional information or details relating to the information.*
- (6) *The Advisory Council on the Environment and any person may comment on a project profile to the Director on environmental issues covered by the technical memorandum relevant to the designated project within 14 days of its being advertised. The Director is to consider any comments received in drawing up the study brief for the designated project.*
- (7) *The Director shall within 45 days of receiving the application or further information under subsection (4) –*
 - (a) *issue to the applicant an environmental impact assessment study brief; and*
 - (b) *notify the Advisory Council on the Environment that he has issued the environmental impact assessment study brief; or*
 - (c) *by notice in writing permit the applicant to apply directly for an environmental permit.*
- (8) *The Director is taken to have given his consent for an applicant under subsection (7)(c) to apply directly for an environmental permit if the Director has not given notice in writing refusing permission within 45 days of receiving the application or further information under subsection (4)."*

4. Section 6 of the EIAO governs the preparation of environmental impact assessment reports by project proponents:

- "(1) An applicant shall prepare an environmental impact assessment report in accordance with –*
 - (a) *the requirements of the environmental impact assessment study brief; and*
 - (b) *the technical memorandum applicable to the assessment.*
- (2) *The applicant shall deliver an environmental impact assessment report to the Director for approval and pay the prescribed application fee. The Director may require the applicant to supply sufficient copies of the report so that the Director is able to circulate copies to relevant parties as defined in the technical memorandum.*

- (3) *The Director shall, within 60 days of receiving the environmental impact assessment report, decide if the assessment –*
 - (a) *meets the requirements of the environmental impact assessment study brief and technical memorandum; or*
 - (b) *does not meet the requirements of the environmental impact assessment study brief and technical memorandum.*
- (4) *If the Director decides that the environmental impact assessment report meets the requirements of the brief and the technical memorandum, he shall advise the applicant when the report must be exhibited for public inspection, whether the advertisement is to contain any specific material and whether a submission to the Advisory Council on the Environment or its subcommittee is required.*
- (5) *The Director is taken to have decided that the environmental impact assessment report meets the requirements of the environmental impact assessment study brief and the technical memorandum if the Director has not given notice in writing that the report does not meet the requirements of the brief and the technical memorandum within 60 days of receiving the report. The applicant is required to submit the number of copies of the report as set out in the brief.*
- (6) *If the Director decides that the environmental impact assessment report does not meet the requirements of the brief and the technical memorandum, he shall advise the applicant of the reasons why the report is unacceptable.*
- (7) *The applicant shall present his environmental impact assessment report to the Advisory Council on the Environment at the times and places advised by the Director if the applicant is required to submit the report to the Council."*

5. By section 7, the project proponent is required to publish its environmental impact assessment report for public inspection and comment by ACE:

- "(1) The applicant shall as soon as reasonably practicable after he has been notified under section 6(3)(a) that an environmental impact assessment report meets the requirements of the environmental impact assessment study brief –*
- (a) *make the report available in such numbers as the Director may reasonably require at locations approved by the Director for public inspection free of charge for a period of 30 days;*
 - (b) *advertise as the Director may require the availability of the report once every 10 days of the period in a Chinese language newspaper and*

an English language newspaper, each of which circulate generally in Hong Kong; and

(c) provide free of charge sufficient quantities as the Director may require of the report to comply with paragraph (a).

(2) The applicant shall set out in the advertisement –

(a) the nature of the designated project and the site where the project is proposed to be carried out;

(b) the period for which, the places at which and the hours during which the report is available for public inspection;

(c) that a member of the public may give the Director written comments on the report before the period of public inspection expires;

(d) the address to which the comments are to be sent; and

(e) any other information that the Director may reasonably require relating to the project.

(3) The Director shall require an applicant to readvertise or extend the period of public inspection for up to another 30 days if the applicant fails to comply with any requirement under this Part or a direction that the Director gives to an applicant under this section unless the Director is satisfied that the failure is not significant.

(4) The Director shall notify the Advisory Council on the Environment if an environmental impact assessment report is suitable for public inspection.

(5) The Advisory Council on the Environment may give any comments it has on the report to the Director within 60 days of its receiving a copy of the report.”

6. Section 8 governs the process of approval by the DEP of environmental impact assessment reports, and sets out the mandatory timeline governing that process:

“(1) The Director may, within 14 days of the expiry of the public inspection period or the receipt of comments from the Advisory Council on the Environment, whichever is later, ask an applicant in writing to give him the information he requires to decide whether to approve an environmental impact assessment report. The Director shall supply the applicant with one set of written comments received from members of the public and the Advisory Council on the Environment free of charge where comments have been received.

- (2) *The Director shall not make a request for further information where comments have not been submitted to him on the report as a result of the public consultation or from the Advisory Council on the Environment.*
- (3) *The Director shall, within 30 days of—*
 - (a) *the expiry of the public inspection period;*
 - (b) *the receipt of comments from the Advisory Council on the Environment; or*
 - (c) *the receipt of information under subsection (1),**whichever is the later, approve, approve with conditions or reject an environmental impact assessment report for the designated project.*
- (4) *The Director is taken to have approved without conditions an environmental impact assessment report if the Director has not given notice in writing rejecting the report or approving it with conditions within 30 days of the happening of the later of the events set out in subsection (3)(a), (b) or (c).*
- (5) *The Director shall place an approved environmental impact assessment report on the register.*
- (6) *If the Director rejects an environmental impact assessment report, he shall give the applicant the reasons for the rejection."*

7. Section 16(1) of the EIAO sets out the power of the Secretary for Environment and Ecology (the "**Secretary**") to issue technical memorandums setting out principles, procedures, guidelines, requirements and criteria for, among other things:

- 7.1. the technical content of a project profile;
- 7.2. the technical content of an environmental impact assessment study brief or environmental impact assessment report;
- 7.3. deciding whether a designated project is environmentally acceptable; and
- 7.4. deciding whether an environmental impact assessment report meets the requirements of the environmental impact assessment study brief.

8. Pursuant to section 16(4), DEP shall be guided by all applicable technical memorandums when deciding on matters under sections 5, 6, 8, 10, 12, 13 and 14, although a technical memorandum is not subsidiary legislation section 16(12).¹
9. Schedule 3 of the Ordinance defines major projects requiring environmental impact assessment reports (but not environmental permits) as being:
 - “1. *Engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000.*
 2. *Engineering feasibility study of redevelopment projects with a study area covering more than 100 000 existing or new population.*”

C2. The Technical Memorandum

10. The Secretary issued a technical memorandum “*on Environmental Impact Assessment Process*” (i.e. the TM, as defined above) which was published in the Government Gazette on 16 May 1997.
11. Section 3 of the TM deals with the contents of study briefs. Section 4 then addresses the form and contents of EIA reports:
 - “4.1.1 *An EIA report shall comprise a document or series of documents providing a detailed assessment in quantitative terms, wherever possible, and in qualitative terms of the likely environmental impacts and environmental benefits of the project. The requirements for the EIA report shall be set out in accordance with this technical memorandum. The EIA report shall be produced in accordance with the EIA study brief issued by the Director to the Applicant.*”
12. Section 4.2 of the TM then sets out further details concerning the objectives and contents of an EIA report:
 - “4.2.1 *The project-specific study objectives and the detailed scope of any required EIA study shall be set out in a study brief issued by the Director. Typical study objectives may include the following:*

¹ The legislative history reveals that this was done to limit the volume of law books: Bills Committee on Environmental Impact Assessment Bill, Minutes of Meeting held on Thursday, 27 June 1996 at §17.

(a) to describe the proposed project(s) and associated works together with the requirements and environmental benefits for carrying out the proposed project(s);

(b) to identify and describe the elements of the community and environment likely to be affected by the proposed project(s), and/or likely to cause adverse impacts to the proposed project(s), including both the natural and man-made environment and the associated environmental constraints;

(c) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;

(d) to identify and quantify any potential losses or damage to flora, fauna and natural habitats;

(e) to identify any negative impacts on sites of cultural heritage and to propose measures to mitigate these impacts;

(f) to propose the provision of infrastructure or mitigation measures to minimize pollution, environmental disturbance and nuisance during construction, operation (or decommissioning) of the project(s);

(g) to investigate the feasibility, effectiveness and implications of the proposed mitigation measures;

(h) to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the cumulative effects expected to arise during the construction, operation (or decommissioning) phases of the project(s) in relation to the sensitive receivers and potential affected uses;

(i) to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction, operation (or decommissioning) of the project(s) which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels;

(j) to design and specify the environmental monitoring and audit requirements; and

(k) to identify any additional studies necessary to implement the mitigation measures or monitoring any proposals recommended in the EIA report.

4.2.2 The contents of an EIA report shall fully meet the purposes and objectives set out in the EIA study brief issued by the Director, and shall adequately address all the issues set out in the study brief."

13. The general approaches and methodologies to be applied by DEP when evaluating the assessment methodologies are set out in section 4.3, the principal heads being: description of the environment; impact prediction; impact

evaluation; and impact mitigation. The detailed standards laid down in Annexes 4 to 10 and 12 to 19 are adopted.

14. Section 4.4 of the TM governs the review of EIA reports, stipulating the mandatory steps to be followed. They are:

14.1. Compliance with the SB and TM (section 4.4.1).

14.2. Quality of the EIA report (section 4.4.2). This shall be reviewed having regard to the guidelines in Annex 20 and Section 4.3. In particular, the following factors must be considered:

“(a) whether the scope and extent the project as presented in the EIA report covers all the phases and key sequences of the project which the application under consideration is intended to cover;

(b) whether the information and descriptions in the EIA report are factually correct;

(c) whether the assessment methodologies adopted in the EIA report are consistent with the methodologies set out in Annexes 12 to 19 inclusive and with the general principles laid down in Section 4.3, and whether the evaluation of the predicted impacts are consistent with the criteria listed in Annexes 4 to 10 inclusive. Where specific methodologies are not listed in the annexes or where the methodologies for certain issues can only be established on a case-by-case basis, the Director will assess whether the proposed methodologies are consistent with the methodologies adopted for Hong Kong projects having similar issues or with methodologies accepted by recognised international organisations;

(d) whether the identification and descriptions of the potential environmental impacts in the EIA report are complete and whether all applicable criteria in Annexes 4 to 10 inclusive have been considered;

(e) whether the assumptions and methodologies used are sound and adequate;

(f) whether adverse environmental effects are avoided to the maximum practicable extent;

(g) whether the assessment has considered and compared the environmental benefits and disbenefits of various scenarios with or without the project;

(h) whether lessons learned from other similar projects are incorporated into the project;

- (i) *whether the report has sufficiently defined all environmental protection requirements and measures necessary to avoid or reduce the adverse environmental impacts to within the applicable standards or criteria;*
- (j) *for impacts where there are no applicable quantitative standards or criteria, whether the report has defined the best practicable mitigation measures that shall be adopted for the project;*
- (k) *whether the report has assessed and determined the feasibility, practicability, programming and effectiveness of the recommended mitigation measures;*
- (l) *whether the report has adequately addressed the need for environmental monitoring and audit, and if it is considered to be necessary, whether it has sufficiently defined the required environmental monitoring and audit programme; and*
- (k) *whether the report has listed out in a schedule the environmental protection requirements and mitigation measures that the applicant is prepared to implement."*

14.3. Evaluation of the residual environmental impacts - i.e. the net environmental impacts after mitigation, taking into account the background environmental conditions and the impacts from existing, committed and planned projects (section 4.4.3).

15. Approval of EIA reports is governed by section 4.5 of the TM:

"4.5 Approval of the EIA Report

- 4.5.1. *After the public inspection of the report and, if required, the consultation with the Advisory Council on the Environment, the EIA report shall be approved with or without conditions if*
- a. *the requirements in the EIA study brief have been met;*
 - b. *the quality of the report meets the requirements as set out in section 4.4 and the results and conclusions are technically sound and reliable;*
 - c. *it addresses relevant environmental issues raised by the public and the Advisory Council on the Environment during the public inspection period; and*
 - d. *all relevant environmental principles and criteria laid down in this technical memorandum can be met and the residual environmental impacts are within the relevant criteria, unless with sound*

environmental justifications and without long term serious environmental implications.

4.5.2 *In case the report requires certain amendments but such amendments will not affect the validity of the assessment and the overall results and conclusions of the report, the Director may approve the report with conditions."*

Annex 2: Further Particulars of Ground 3

Unless otherwise stated, the terms defined in the Form 86, Application for Leave to Apply for Judicial Review have been used in a consistent manner.

References to documents in the List of Documents and Bundle which is exhibit “KWLA-1” to the Affirmation of Mr Kwok Wing Leung Andy, are referred to below as [File/Tab/page], such that, for example [B/6/56] is a reference to page 56 under Tab 6 in File B of exhibit “KWLA-1”.


No.	Subject Matter (§ of the EIA Report)	Errors and Omissions	EIA TM, SB, EIAO GN Reference	Club's PP Submissions, Club's Statutory Submissions & Club's Response to Additional Information Reference
	General comments regarding the requirements for reviewing and approving an EIA Report applicable to all issues identified below	1. The steps for reviewing the EIA Report by the DEP is set out in §4.4 of the TM [B/4/97-100], and particularly §§4.4.1, 4.4.2 and 4.5.1 which are set out in Annex 1 of this JR Application.	<u>TM</u> • §4.4.1 [B/4/97] • §4.4.2 [B/4/97-98] • §4.5.1 [B/4/100]	Not Applicable
1.	<p>Hydrology: the Hydrological Impact Assessment</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> • EIA Report: Sections 5 and 6 of the EIA Report [C/13/1134-1206; 1207-1227] generally, and especially §§5.6.2, 5.6.19, 5.7.1, 5.7.2, 5.9 & 5.10.1-5.10.5 [C/13/1148, 1151-1153 & 1159-1160], §8.3 [C/13/1272-1274], and §9.7.2.24 [C/13/1652] • CEDD's Additional Information: Section 7, especially §7.3.1 [C/16/2496] 	<p><u>The SB requirements on hydrology</u></p> <ol style="list-style-type: none"> 1. §2 of the Appendix D to the SB requires the CEDD to “<i>predict, quantify and assess any water quality impacts arising from the construction and operation of the Project. Should quantitative assessment by mathematical modelling is necessary, the proposed modelling shall be approved by the DEP before proceeding to modelling assessment.</i>” [B/3/68] 2. §§2(vii)(c) and (d) of Appendix H to the SB requires the CEDD to consider “<i>indirect ecological impacts due to potential hydrological disruption and/or deterioration of the water quality in the marshes, semi-natural/natural streams, ponds or other wetland habitats in the assessment area due to drainage diversification works, surface runoff, drainage and effluent discharge, waste dumping/spillage, etc. during the construction and operation phases.</i>” [B/3/77-78]. (<i>emphasis added</i>) <p><u>The HydroIA</u></p> <ol style="list-style-type: none"> 3. The hydrological impact of the proposed development is addressed only superficially in the EIA Report (see the Water Quality Impact Assessment section §§5.6.2, 5.6.19, 5.7.1, 5.7.2, 5.9 & 5.10.1-5.10.5 [C/13/1148, 1151-1153 & 1159-1160]). Subsequently, after ACE raised concerns about the absence of a proper assessment of hydrology, the DEP requested the CEDD to provide “<i>A detailed analysis of the hydrological impact to show the flow of water, including available information on the profile of soil and bedrock conditions of the project site</i>”. In response, a Hydrological Impact Assessment (“HydroIA”) was carried out by Dr. Chui on behalf of the CEDD and was provided at Section 7 of CEDD's Additional Information [C/16/2496-2514]. <p><u>Inadequacies in the HydroIA and failure to meet the requirements of the SB and TM</u></p> <ol style="list-style-type: none"> 4. The HydroIA is a wholly insufficient assessment as to the possible impact of the proposed development to the groundwater table. No quantitative assessment has been provided on how the anticipated foundation of the proposed development and the compensatory tree planting will impact the hydrological cycle. The Chinese Swamp Cypress (<i>Glyptostrobus pensilis</i>) (“CSC”) trees, which are especially sensitive to any change in water levels (see item 2 below), may be harmed by such changes in the hydrological cycle. 	<p><u>SB</u></p> <ul style="list-style-type: none"> • §2 of Appendix D to the SB [B/3/68] • §§2(vii)(c) and (d) of Appendix H [B/3/77-78] <p><u>TM</u></p> <ul style="list-style-type: none"> • §4.4.1 [B/4/97] • §4.4.2 [B/4/97-98] • §§4.5.1(a) & (b) [B/4/100] 	<p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> • §11 of the Executive Summary [D/21/3355] • HKGC April 2023 Groundwater Flow System Report at Item 11 [D/21/3735-3773], generally.

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		<p>5. The HydroIA, which attempts to respond to the DEP's request (§7.1.1 of CEDD's Additional Information [C/16/2496]) only provides detail on the flow of surface water and the potential impact on <i>the sources</i> of the groundwater but not the "hydrological impact" requested.</p> <p>6. Although §7.2.4 of CEDD's Additional Information states that Dr. Chui's HydroIA includes quantification of "the potential loss of surface water infiltrating into ground due to the proposed housing development in Sub-Area 1" and "the potential additional water demand for the compensatory tree planting in Sub-Area 3" [C/16/2496], the EIA Report and the analysis in the HydroIA do not attempt to "predict, quantify and assess" the impacts on water quality which would result from changes in groundwater levels caused by the construction and operation of the Project.</p> <p>7. As stated below, HKGC responded to Dr. Chui's report by commissioning Professor Jiu Jimmy Jiao of the University of Hong Kong to carry out his own hydrological assessment, and to consider and respond to Dr. Chui's report, as presented in the "Report on the Potential Impact of the Partial Development of Fanling Golf Course Site on Groundwater Flow System" ("Groundwater Flow System Report") [D/21/3735-3773]. The Groundwater Flow System Report deals with the issue above regarding the need to "predict, quantify and assess" the impacts on water quality which would result from changes in groundwater levels. The results of the Groundwater Flow System Report are discussed below at §17.</p> <p>8. Furthermore, the HydroIA is confined to the proposed development site boundary. No such boundaries are applied to the geological conditions and hence groundwater flow, both inflow and outflow. The HydroIA approach of imposing artificial boundary conditions is too simplistic. Hence, the requirement in §2 of Appendix D to the SB regarding the requirements for a Water Quality Impact Assessment [B/3/68] remains unsatisfied despite the DEP's request under s.8(1) of the EIAO [F/37/4202-4203] and the CEDD's responses [C/14/2911-2417 & C/15/2418-2450].</p> <p>9. §7.3 of the CEDD's Additional Information [C/16/2496-2498] outlines the surface water flow direction analysis in the HydroIA with a focus on the quantity of surface water received by the swampy woodland of Sub-Area 4 where CSC grows; and §7.4 [C/16/2498-2502] outlines the groundwater flow direction of the Potential Development Area ("PDA"), particularly in the regions around the swampy woodland in Sub-Area 4, by reference to groundwater level data measured between 28 February 2023 and 8 March 2023 from 6 boreholes shown in Figure 7C [C/16/2499].</p> <p>10. The foundations of the planned housing blocks, and also contemplated compensatory tree planting, will each have a profound impact on the hydrological cycle, of which groundwater is one element, to both the CSC and the Long Valley Nature Reserve. Lowering of the water table in the swamp area may increase competition for water by other species with the CSC trees and threaten the survival of the CSC trees. This impact on the groundwater table has not been quantified in the HydroIA or otherwise in the EIA Report as required under the SB (see §2 of Appendix D to the SB [B/3/68] and §§2(vii)(c) and (d) of Appendix H to the SB [B/3/77-78]).</p> <p>11. With reference to Figure 7J of the HydroIA in CEDD's Additional Information [C/16/2510], the sub-catchments involved in the assessment the area within the red</p>		

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		<p>broken line only (PDA) whereas SB §3.4.5.2 [B/3/45] requires the assessment area to include, inter alia, areas with a radius 500m from the boundary of the PDA, or more if deemed to be of consequence. For a groundwater assessment, if the foundation works will affect the water table, it is inevitable that there will also be changes to groundwater in surrounding areas, and therefore the omission of the requirement to study the 500m radius area from the boundary means that the study results are missing vital information.</p> <p>12. The assumption in §7.5.19 of CEDD's Additional Information [C/16/2511] "... that there is no infiltration from the housing development area into the native soil" is inconsistent with the development scenario which requires 30% greening (as set out in DEVB TC(W) 3/2012 'Site Coverage of Greenery for Government Building Projects' for sites over 2 ha [H/55/5069-5082]) of areas between the blocks.</p> <p>13. The conclusions at §§7.7.1 to 7.7.3 [C/16/2513] of the HydroIA only focus on whether the proposed housing development in Sub-Area 1 would or would not affect the <i>surface water sources</i> of the swampy woodland in Sub-Area 4, noting that the proposed housing development is not itself a source of groundwater for the swampy woodland.</p> <p>14. The conclusions at §§7.7.4 to 7.7.5 [C/16/2514] of the HydroIA accept that additional water would be required to compensate the loss of surface water infiltration (from the housing development) and irrigation water required to support compensatory tree planting, and suggests that both of these needs can be met from reclaimed water produced by Shek Wu Hui Sewage Treatment Works ("SWHSTW"). However, the irrigation water currently supplied to the fairways is primarily used for syringing and is not intended to support the wellbeing of the trees. Fairways comprise a layer of sand to promote root growth and hence resilience of the playing surface. This also enhances drainage characteristics and maintains the course playable during the wet season. Syringing takes place to offset the effects of the rapid draining sand layer and reduce "atmospheric drought".</p> <p>15. In addition to the insufficiency of the HydroIA analysis, it is noted that the proposal to meet the additional water demand from reclaimed water produced by SWHSTW would require approval of an EIA Report for an EIAO Schedule 2 Designated Project, and an environmental permit, without which the water reclamation proposal in this subject EIA Report should not be approved. Neither approval has been sought.</p> <p>16. The above issues were raised in Club's Response to Additional Information (see §11 of the Executive Summary [D/21/3355]), including the specific concerns regarding the adverse impact on the survival of rare and water table sensitive, nationally and internationally protected and critically endangered CSC.</p> <p>17. HKGC's Groundwater Flow System Report [D/21/3735-3773] demonstrated that:</p> <ul style="list-style-type: none"> • Based on the borehole logging data, water level data, and hydraulic conductivity data described in §2.1 [D/21/3740-3744], the K-sat experiments described in §2.2 and the falling-head tests described in §2.2 [D/21/3744-3747], a 3D hydrogeological model with a 3-layer structure as shown in figures 9 to 15 was constructed [D/21/3752-3758]. • After calibration of the groundwater flow model for both a uniform and non-uniform rainfall recharge rate as shown in §§3.2 to 3.3 [D/21/3758-3765], the future water 		

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		<p>level changes; §3.4 describes the investigation of the influence of an assumed typical building foundation on the water levels, as well as the combined effect of such a building foundation and the proposed compensatory tree planting on the water levels [D/21/3765-3770].</p> <ul style="list-style-type: none"> • §3.4.1 [D/21/3765-3767] states that although the influence of one building foundation is limited, if many building foundations are built downstream of Sub-Area 4, the water level will increase significantly. • §3.4.2 [D/21/3767-3768] assesses impacts based on 3 scenarios of the size of the compensatory tree planting: (1) 1.5 times the tree loss area of 4.1 hectares in sub-area 1 – 6.15 hectares; (2) the same size as the tree loss area of 4.1 hectares in sub-area 1; and (3) an area of 5.1 hectares (as predicted in the CEDD's Additional Information). • Figure 26 [D/21/3768] shows that even though the general flow direction in the modelling area does not change much, the water level in sub-areas 2-4 decreases significantly. • Table 2 under §3.4.3 [D/21/3768-3770] shows that, at 3 of the 5 observation points (B, C, and D), the water level increases after the construction of building foundations. However, after compensatory tree planting, the water level decreases significantly at the same 3 observation points, which are located at the upstream of sub-area 1. The water level decreases in these 3 upstream points by as much as about 0.7 m. In contrast, at the 2 observation points downstream of Sub-Area 1, the water levels decrease further after tree planting. • These results suggest that compensatory tree planting would cause significant water level decreases at Sub-Areas 2-3. Such a lowering of the water table may, in an adverse manner (§3.4.3 [D/21/3768-3770]), influence the hydrological environment for the CSC trees (§4 [D/21/3770-3771]). <p>18. The following further methodological critiques of the HydroIA were set out in §5 of the Club's Response to Additional Information [D/21/3771-3772] - comments on Section 7 of the CEDD's Additional Information [C/16/2496-2514]:</p> <ul style="list-style-type: none"> • The Green-Ampt infiltration method is simplified and the Storm Water Management Model ("SWMM") cannot provide any information on the water table change due to the proposed housing development and water loss from tree planting because the SWMM is not about groundwater flow and hydrogeology. • The summary of the HydroIA has not addressed the issue that: <i>"Although the 'sources' of surface water and groundwater in Sub-Area 4 will not be affected by the housing development in Sub-Area 1 and the compensatory tree planting, this does not mean that these activities will not impact the water regimes in Sub-Area 1. They will modify the water regimes by changing the conditions of groundwater discharge."</i> • The proposal to remedy any loss of water due to the housing development or tree planting by adding reclaimed water is made without any supporting research in the summary of the HydroIA and achieving that objective could be challenging, as the CSC trees have adapted well to the current water environment, specifically the water table depth and its variation. Further, even if the HydroIA figures are correct (which the same Groundwater Flow System Report shows they are not), it would be necessary to determine when, where, and how much water to add to ensure the preservation or restoration of the original water environment, and another aspect of 		

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		<p>concern is guaranteeing sufficient irrigation for the planted area, given the varying rates of evapotranspiration and water demand of the trees over time.</p> <p>19. Based on HKGC's analysis, the building development and tree planting will result in flattening of the groundwater table, which will reduce the gradient and flow of the groundwater and thereby change the groundwater levels, which creates a risk to the survival of the CSC trees. In layperson's terms:</p> <ul style="list-style-type: none"> • "Water flows to the lowest point" means that water flows downhill. In relation to groundwater, this slope is referred to as the "hydraulic gradient" (see §7.3.5 of the CEDD's Additional Information [C/16/2497]). The term "phreatic surface" indicates the location where the pore water pressure is under atmospheric conditions (i.e. the pressure head is zero). This surface normally coincides with the water table. The ground water is in equilibrium and does not flow. Flow occurs when there is either an upstream or a downstream change of conditions. • Describing the anticipated changes qualitatively: <ol style="list-style-type: none"> (1) (Area 1) Piled foundations to be constructed for the housing development (Downstream) will obstruct groundwater flow requiring more potential energy to progress downstream. The water table will rise. There is the potential for the groundwater to take the route of least resistance and contribute to the already flood prone Ping Kong area to the south. (2) Urban (impermeable) development (i.e. piled foundations) will reduce recharge of the groundwater in Area 1. This will be offset to a limited degree by the reduction of ground water demand of the existing trees which are proposed to be removed. (3) Compensatory planting will increase the ground water demand, lowering the water table. (4) Assuming the upstream control supplying Sub-Area 4 and the CSC remains unchanged, the hydraulic gradient in Area 4 will be increased, providing increased potential energy promoting groundwater flow to areas 3 and 2, depriving the CSC trees and potentially providing more favourable conditions for other species to invade/take over, placing the CSC trees at risk. <p><u>Breaches of the TM and the SB</u></p> <p>20. Based on the above, CEDD's Additional Information has not quantified the impacts on the groundwater table as required under the SB, including Appendix D §4(vi) [B/3/69], which required the CEDD to "identify any alternation of any water courses, natural streams, ponds, wetlands; change of water holding/flow regimes of water bodies, change in underground water table, change of catchment types or areas; erosion or sedimentation due to the Project and any other hydrological changes in the assessment area".</p> <p>21. The HydroIA failed to demonstrate any sound technical ability to retain the CSC tree cluster (comprising TPIs) in a healthy state. As a result, the EIA Report failed to meet the TM quality requirements (§§4.4.2(i) and (k) of the TM [B/4/98]), resulting in a consequential breach of TM §§4.5.1(a) and (b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it (a) must meet the requirements of the study brief, and (b) comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable.</p>		

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		<p>Therefore per §§4.5.1(a) and (b) of the TM, the EIA Report should not have been approved by the DEP.</p> <p>22. With reference to Item 2 of this Annex 2 below, the “precautionary principle” is applicable to the hydrological assessment, since it concerns the endangered CSC Trees. The failure of the HydroIA and EIA’s assessment of hydrological impacts to engage the “precautionary principle” is a breach of §4.4.3(a)(x) of the TM [B/4/98-99].</p>		
2.	<p>Ecology: Impact and impact mitigation for the critically endangered Chinese Swamp Cypress</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: §§9.3.2.6, 9.4.1.3, 9.5.1.15, 9.5.1.17, 9.5.1.30, 9.7.28 & 9.12.1.2 [C/13/1598, 1602, 1614-1615, 1618, 1653 & 1676] and Table 9.2, 9.16, 9.17, 9.20, 9.21 [C/13/1603, 1634, 1637-1638 & 1640] CEDD's Response to Comments [C/14/2399, 2404 & 2407] CEDD's Response to Information Request [C/15/2426] CEDD's Additional Information: §§5.2.2 & 7.3.1 [C/16/2477 & 2496]  <p>CSC trees in the swampy woodland area (extracted from Club's Supplemental Information [D/20/3310])</p>	<p><u>An overview of the 5 fundamental steps in the TM and SB for an ecological impact assessment:</u></p> <ol style="list-style-type: none"> The 5 fundamental requirements of a standard ecological assessment is set out at §4.1 of the Annex 16 to the TM: <i>“An ecological assessment shall consist of 5 parts of equal importance:</i> <i>(a) provision of comprehensive and accurate information on the ecological baseline;</i> <i>(b) identification and prediction of potential ecological impacts;</i> <i>(c) evaluation of the significance of the impacts identified;</i> <i>(d) recommendations of effective and practicable alternatives and mitigation measures; and</i> <i>(e) recommendations of the need for and the scope of an appropriate monitoring and audit programme.” (emphasis added) [B/4/143]</i> Regarding the ecological baseline information, §5.1.1 of Annex 16 to the TM further states the need to provide <i>“adequate and accurate ecological baseline information” [B/4/143]</i> in order to facilitate the <i>“evaluation of the ecological importance of the flora, fauna and habitats found; identification, prediction and evaluation of impacts; and the formulation of appropriate mitigation measures and monitoring programme.” [B/4/144]</i>. In other words, an inadequate and inaccurate baseline information will result in fundamental flaws in the other 4 parts of an ecological assessment. In terms of providing a comprehensive and accurate ecological baseline information, §§2(i), (ii), (iv) and (viii) to Appendix H to the SB [B/3/76 & 78], which specify that: <ol style="list-style-type: none"> the literature review should collate <i>“the available information”</i> including <i>“information on all habitats/species of conservation importance, such as their occurrence, distribution and abundance”</i> (§2(i) of Appendix H to the SB). when evaluating the information collected, it is necessary to <i>“identify any information gap relating to the assessment of potential ecological impacts, and determine the ecological field surveys and investigations that are needed for an impact assessment ...” (emphasis added) (§2(ii) of Appendix H to the SB)</i> in establishing the ecological baseline, <i>“the data set should be comprehensive and representative covering the variations of the wet and dry seasons, and is up to date and valid for the purpose of this assessment” (emphasis added) (§2(iv) of Appendix H to the SB).</i> the evaluation of ecological impacts should be <i>“based on the best and latest information available during the course of the EIA study” (emphasis added) (§2(viii) of Appendix H to the SB, see also §3.4.1 of the SB [B/3/44])</i> In terms of impact assessment and mitigation, §4.4.3(a)(x) of the TM requires that <i>“if the adverse environmental impacts are uncertain, they shall be treated more cautiously</i> 	<p><u>TM</u></p> <ul style="list-style-type: none"> §3.4 [B/4/93] §§4.4.1, 4.4.2, §4.4.3(a)(x), 4.5.1(a) to 4.5.1(d) [B/4/97-100] §§4.1, 5.1 to 5.5 of Annex 16 [B/4/143-147] <p><u>SB</u></p> <ul style="list-style-type: none"> §2 of Appendix H to the SB, generally [B/3/76-78] and particularly §§2(i) to (ix) and (xii) <p><u>EIA Guidance Note</u></p> <ul style="list-style-type: none"> EIAO GN 7/2010, generally [B/9/188-194] §4, EIAO GN 10/2010, generally [B/11/207-217] 	<p><u>Club's PP Submission</u></p> <ul style="list-style-type: none"> §§4.4.4-4.4.5 of the Introductory Section [D/17/2553-2554] §§3.2.2-3.2.3, 10.1, 10.1.2, 10.1.4 of the Club's TFLS Submission appended to Club's PP Submissions [D/17/2591-2595; 2772-2782] <p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> §1.2.8 of the "Executive Summary" [D/18/2944] §2.1.5 "Technical Reviews: EIA Review – Ecology" [D/18/2949/2950] Items L2, L3, L21, L22, L23, L48, L49, L50, L64, L65, L66, L78, L79, L80 & L97 of the Club's EIA Checklist [D/18/3009-3010, 3015-3016, 3021-3023, 3027-3028, 3032-3033 & 3041] <p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §11 of the Executive Summary [D/21/3355] "Critique of CEDD item (f) Potential impact of a change of water level to Chinese Swamp Cypress" [D/21/3774-3775] Items L3, L22, L23, L48, L49, L64, L65, L66, L78, L79, L80 & L96 of the Club's Revised EcoIA Checklist [D/21/3913-3916, 3918, 3921 & 3924]



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		<p><i>than impacts for which the effects are certain and the precautionary principle shall apply” (emphasis added) [B/4/98-99].</i></p> <p><u>The failure to consider key literature on the critically endangered Chinese Swamp Cypress</u></p> <ol style="list-style-type: none"> 5. Having regard to the importance of establishing an adequate, accurate and comprehensive ecological baseline, and thereby enable a proper impact identification and assessment and recommendations of effective and practical mitigation measures, the EcoIA failed at the very first step. Two key pieces of literature relating to the critically endangered nature of the Chinese Swamp Cypress (<i>Glyptostrobus pensilis</i>) (i.e., the CSC) were not considered in the EcoIA, such that the conservation importance of the CSC was missed, and the precautionary principle was not applied. Given the critically endangered state of the CSC, this is rare instance where application of the precautionary principle was necessary (as noted above in relation to the HydroIA). 6. The two key pieces of literature on the CSCs are (a) Thomas, <i>et al.</i> (2020)¹ (“Thomas”) [H/62/5177-5189] and (b) Zhang and Fischer (2021)² (“Zhang & Fischer”) [H/63/5190-5204]. The Thomas paper details the sensitivity of the CSC to hydrological changes and the impact on reproduction and the viability of seedlings. The Zhang & Fischer paper considers the CSC stand at FGC and the seedlings found as a population that is potentially a remnant of or a successfully rewilded natural population. In the context of CSC’s IUCN critically endangered status globally, <u>the CSC at FGC therefore deserve the highest protection status</u>. Changes should not be made to the surrounding environment unless it can be conclusively shown that an adverse impact on the CSC trees will not ensue. 7. The precautionary principle (which should not be confused with taking a precautionary approach, which is another way of saying “being careful” or “being cautious”) is an established scientific principle that requires that, in rare instances where there is even the smallest risk of (or uncertainty as to the risk of) irreversible catastrophic impact (e.g. on a critically endangered species), then nothing should be done. While the precautionary principle is perhaps over relied upon, in Hong Kong, it is clear that the precautionary principle must be applied in cases where, as here, there is a risk of serious or irreversible damage (see §4.4.3(a)(x) of the TM [B/4/98-99] and §1.3 of the Club’s Statutory Submissions [D/18/2947-2948] and <i>Kowloon-Canton Railway Corporation v Director of Environmental Protection</i>, EIA Appeal No. 2 of 2000, 30 July 2001 (the “Spurline Decision”). 8. The omission of these two papers from the literature review in the EIA Report led to consequential deficiencies in the EIA Report at each step of the 5-step process for an ecological assessment (see §§4.1 and 5.1-5.5 of Annex 16 to the TM [B/4/143-147]), and the complete failure to apply the precautionary principle. 		



¹ Thomas, P., Yang, Y., Farjon, A., Nguyen, D. & Liao, W. 2020. *Glyptostrobus pensilis* (amended version of 2011 assessment). The IUCN Red List of Threatened Species 2020: e.T32312A177795446, available at: <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T32312A177795446.en> [H/62/5177-5189]

² Zhang, J-L. and Fischer, G.A., 2021. "Reconsideration of the native range of the Chinese Swamp Cypress (*Glyptostrobus pensilis*) based on new insights from historic, remnant and planted populations". *Global Ecology and Conservation*. V.32, 15pp [H/63/5190-5204]

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		<p><u>Inappropriate survey methodology for establishing an ecological baseline information</u></p> <p>9. It is evident from the survey methodology used for establishing the ecological baseline information relating to the CSC that the CEDD was not aware of the conversation importance of the CSC stand at FGC. Instead of surveying the CSC stand using a quadrant or transect method, which would ensure that all CSC individuals including seedlings are systematically recorded (see §4 of EIAO Guidance Note 10/2010 [B/11/208-209]), the EIA Report adopted a typical aboricultural survey method whereby any CSC species that are spotted are tagged and counted (see §9.3.2.5 [C/13/1598]). This approach implies that this survey was undertaken as part of a tree survey rather than a targeted, systematic botanical survey which would aim to identify all individuals including seedlings. This means that the ecological baseline information was inadequate and inaccurate, contrary to the requirements of §§4.1(a) and 5.1 of Annex 16 to the TM [B/4/143-144] and §§2(i) to (vi) of Appendix H to the SB [B/3/76-77].</p> <p>10. On the basis of inadequate and inaccurate ecological baseline information and a lack of understanding of the CSC, the EIA Report does not properly consider the unique ecology of the CSC and its sensitivity to hydrological changes, which would be essential to understanding and assessing potential impact. This is particularly evident in the failure of the EIA Report to consider the presence of a small stream running through the CSC habitat (i.e. the swampy woodland), which demonstrates that there is only a superficial understanding of the hydrology in this area and its impact on the CSC (see further elaboration below regarding the inadequate mitigation proposals), even though the SB specifically required that the hydrological impact be identified and quantified (see §2(vii) of Appendix H to the SB [B/3/77-78]).</p> <p><u>Inadequate mitigation proposals and failure to apply the precautionary principle</u></p> <p>11. A further illustration the EIA report's lack of understanding of the unique ecology of the CSC and its sensitivity to hydrological changes can be seen in the mitigations proposals put forward. To prevent potential hydrological impact on sensitive habitats, the EIA Report recommends as a mitigation measure that <i>"the location for woodland and compensation and compensation planning should avoid Sub-Area 4 to preserve the hydrology that supports the wetland habitat"</i> based on the reasoning that <i>"hydrological disruption is not expected if woodland compensation planting works are conducted in Sub-Areas 2 and 3, which contain large area of open area (turfgrass) with gentle topography and sufficient sunlight."</i> (see §9.7.2.25 of the EIA Report [C/13/1652]). However, this statement fails to address:</p> <ul style="list-style-type: none"> • Any hydrological connectivity between Sub-Areas 2, 3, and 4, and instead assumes these are different hydrological units. This assumption is unsubstantiated and likely incorrect. • That the swampy woodland in Sub-Area 4 <i>"was generally wet in nature probably due to its lower elevation in the topography"</i> (see §9.5.1.15 in the EIA Report [C/13/1614]) rendering it susceptible to potential impacts such as silty run-off from the compensation tree planting areas in Sub-Areas 2 and 3 when exposed soils might be washed into the swampy woodland which risks damaging seedlings or pneumatophores. 		

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		<p>12. Further, there is a complete failure in the EIA Report to apply the precautionary principle to the CSC. §9.12.1.2 of the EIA Report states “<i>Besides, the hydrological disruption due to the proposed development is not expected, potential impacts to the hydrology of the swampy woodland are thus not likely</i>” [C/13/1676]. This expressly acknowledges that there remains a risk of adverse impact on the CSC, but neither the degree of risk nor its impact (were it to occur) have been quantified. On a proper application of the precautionary principle, the existence of a risk to the CSC, even at a low level of probability, should have been considered unacceptable. This should have been evident from the beginning – and would have been had the literature review taken into account the highly salient papers by Thomas and by Zhang & Fischer.</p> <p><u>Failure to meet the quality requirements of the SB and TM</u></p> <p>13. The SB and TM mandate that an ecological assessment must “<i>evaluate ecological impact base on the best and latest information available</i>” (see §3.4 of the TM [B/4/93] and §2(viii) of Appendix H of the SB [B/3/78]). The deficiencies of the EIA Report arising from the failure to establish an accurate and adequate ecological baseline means that the EIA Report failed to meet the standards of an ecological assessment set out at §§4.1 and 5.1-5.5 of Annex 16 to the TM [B/4/143-147] and §2 of Appendix H to the SB [B/3/76-78].</p> <p>14. As above, the EIA Report also failed to take into account and assess the CSC based on the precautionary principle as required by §4.4.3(a)(x) of the TM [B/4/98-99].</p> <p>15. As a result, the EIA Report failed to meet the TM quality requirements (§§4.4.2(c), (d) and (e) of the TM [B/4/97-98]), resulting in a consequential breach of TM §§4.5.1(a), (b) and (c) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it (a) must meet the requirements of the study brief, (b) comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable, and (c) must address issues raised by the public and ACE during the public inspection period. Therefore per §§4.5.1(a), (b) and (c) of the TM, the EIA Report should not have been approved by the DEP.</p>		
3.	<p>Ecology: Fundamentally flawed moth recording methodology and deficient analysis and impact assessment</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> • EIA Report: §§9.3.1.1, 9.3.2.13, 9.4.2.3, 9.5.8, 9.7.2.29 & 9.7.2.54 [C/13/1597, 1600, 1603, 1627, 1653 & 1659], Tables 9.1, 9.2 & 9.22 [C/13/1600-1601, 1608-1610 & 1614] and Appendix 9G [C/13/1766-1769] • CEDD's Response to Comments [C/14/2403-2405] • CEDD's Response to Information Request [C/15/2421-2422 & 2439-2440] • CEDD's Additional Information: §3 [C/16/2467-2472] 	<p><u>The TM and SB requirements relating to moths</u></p> <p>1. The 5-step process for an ecological impact assessment have been discussed above (see item 2). TM §5.1.2.2 of Annex 16 states: “<i>To ensure that the baseline information obtained are accurate, reproducible and can be easily verified, the methodology used must be clearly stated in the ecological assessment report. The methods employed must be sound and scientific. References shall be made to those standardized or accepted internationally. Results of survey shall be recorded in specifically designed standard forms as appropriate. Data obtained shall be quantified and statistical analysis shall be applied wherever appropriate.</i>” (emphasis added) [B/4/144].</p> <p>2. Furthermore, for the first time for an EIA in Hong Kong, the SB required that moths be studied as part of the ecological assessment (§2(v)(g) of Appendix H to the SB [B/3/77]). As part of that study, the SB required that they be studied in their habitat and that details be provided such as “<i>size, vegetation and/or substrate type, species present, dominant species found, species diversity and abundance of major taxa groups, community structure, seasonal patterns, ecological value, inter-dependence of the habitats and</i></p>	<p><u>TM</u></p> <ul style="list-style-type: none"> • §§4.4.1, 4.4.3(a)(x) and 4.5.1(a), (b) & (c) [B/4/97-100] • §3.1 of Annex 16 [B/4/142] • §§4.1, 5.1 to 5.5 of Annex 16 to the TM [B/4/143-147] <p><u>SB</u></p> <ul style="list-style-type: none"> • §§2(i) to (vi) of Appendix H to the SB, generally [B/3/76-77] and especially §§2(iv)(c) and 2(v)(g) 	<p><u>Club's PP Submission</u></p> <ul style="list-style-type: none"> • §4.4.13 of the Introductory Section [D/17/2557] • §3.2.2.1 of the Club's TFLS Submission appended to the Club's PP Submissions [D/17/2591-2594] • Appendix 3.1 to 3.3 to the Club's TFLS Submission [D/17/2805-2822] <p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> • §1.1.2 of "Decision Maker's Précis" [D/18/2940] • §§2.1.5-2.1.6 of "Technical Reviews: EIA Review - Ecology" [D/18/2949-2950]


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	 <p><i>Stereodytis brevignatha</i>, a species that endemic to Hong Kong, that meets the ICUN Red List criteria for critically endangered (Photo from C&R Wildlife)</p>  <p>Pterophorinae genus & sp. A (possibly the only record globally of this species) that meets the ICUN Red List criteria for critically endangered (Photo from C&R Wildlife)</p>	<p><i>species, and presence of any features of ecological importance.” (emphasis added) (§2(v)(c) of Appendix H to the SB [B/3/76-77]).</i></p> <p><u>Failure to address moth recording methodology in the literature review</u></p> <p>3. The EIA Report was fundamentally deficient in this regard as there was no coverage of literature in section §9.3.1.1 of the EIA Report [C/13/1597-1598] targeting moth recording methodology at all, despite the abundance of highly relevant literature available and despite the fact that this is the first EIA Report that has been required to study moths (see SB §2(v)(g) [B/3/76]). Instead of conducting a literature review, the approach taken in the EIA Report was to consult with a Professor Wang, a Lepidoptera expert (especially <i>Lycaenidae</i>), on the methodology to be used for conducting a moth survey [C/14/2403-2405, C/15/2421-2422 & C/16/2467-2472]. The rationale given that this was the first time that an EIA Report had required a moth survey does not detract from the TM and SB requirement to conduct a literature review [C/14/2403-2405 & C/15/2421-2422]. On the contrary, a proper literature review was all the more important to ensure that a robust methodology was adopted.</p> <p>4. The available literature includes data from three sets of moth surveys conducted by HKGC (i.e. the 2018 Moth Survey, the data from which was incorporated into CEDD/DEP with the Club’s PP Submissions [D/17/2591-2594 & 2805-2822]; the 2020 Moth Survey, the data from which was incorporated into the Club’s Statutory Submissions [D/18/3222-3226]; and the 2022-2023 Moth Survey provided with the Club’s Response to the Additional Information [D/21/3359-3384]). These three moth surveys pertaining to the FGC site specifically: in the case of the 2018 Moth Survey, all 3 golf courses were included. The 2020 Moth Survey covered Sub-Areas 1, 2 and 4 of the Old Course, and the 2022-2023 Moth Survey covered Sub-Areas 1, 2 and 3 of the Old Course). These surveys demonstrated the presence of critically endangered moth species of global concern that are endemic to Hong Kong, and also provides the relevant literature [D/17/2600-2604] pertaining to, amongst other things, methodology for recording their presence and abundance [D/17/2600-2604]).</p> <p><u>Inappropriate baseline survey methodology</u></p> <p>5. To produce an accurate and robust baseline survey, one would follow Fry and Waring (1996) [H/78/5498-5530] and use mercury vapour (“MV”) light source with a retaining trap (e.g. Skinner or Robinson trap or a bucket). With MV lights, the catchment radius is up to approximately 25m (Bowden, 1975) [H/73/5361-5406] and may capture moths from other habitats outside the study area, particularly if the trap is on the boundary between two interfacing habitats. In addition, it would be necessary to conduct a habitat analysis, a smaller powered UV light (e.g. actinic or LepiLED light) with a smaller catchment radius of 2-3m (Baker & Sadovy, 1978) [H/70/5324-5327].</p> <p>6. The EIA moth survey attempted to record the moth assemblage by first using Lepi LED [C/14/2403-2405], and subsequently, after ACE requested a further moth survey, using 20W actinic lights (§3.3.20 [C/16/2467]). Whether alone or in combination, these were wholly inappropriate and inadequate survey methodologies to establish an ecological baseline with respect to moths for an EIA study. This would have been obvious had proper literature review been carried out.</p>	<p><u>EIA Guidance Note</u></p> <ul style="list-style-type: none"> EIAO GN 7/2010, generally [B/9/188-194] 	<ul style="list-style-type: none"> §2 of Annex 1 to Appendix 3.6 (Ecological Annexes) [D/18/3222-3226] Items L1, L15, L62, L74, L81 (re literature) [D/18/3009, 3014, 3026, 3031 & 3033-3035]; L9, L12, L13, L18, L34, L35 (re method) [D/18/3011-3014 & 3019]; L10, L16, L24, L27, L35, L39, L48, L53, L54, L67, L70, L77, L78, L83 (re analysis) [D/18/3012, 3014, 3017, 3019-3024, 3028-3029, 3032 & 3037]; L69, L75, L76, L86, L88, L89, L90, L91, L92, L95, L103 (re mitigation) [D/18/3029, 3031, 3038-3040 & 3042] of the Club's EIA Checklist <p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §3 of the Executive Summary [D/21/3352] "Observations and comments on issues with bats in the ACE Paper 8/2023" [D/21/3385] HKGC's 2022-2023 Moth Survey [D/21/3359-3384] Items L9, L12, L13, L15, L24, L33, L34, L35, L55, L39, L48, L53, L54, L62, L74, L78, L81 & L83 of the Club's Revised Ecological Checklist [D/21/3913-3917 & 3920-3922]

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	 <p>Enarmoniini genus & sp indeterminate D, found at sub-area 1 that meets the ICUN Red List criteria for critically endangered (Photo from C&R Wildlife)</p>  <p><i>Microchilo</i> sp. indeterminate near <i>inouei</i> found at sub-area 3 that meets the ICUN Red List criteria for critically endangered (Photo from C&R Wildlife)</p>	<p>7. Although the moth surveys were conducted during both the dry, wet, and transitional seasons [C/13/1600-1601 & C/14/2403-2405], none of the seasonality analysis was presented in the results with reference to species phenology (the moths that were recorded), nor to the distribution of the species amongst the sub-areas. In other words, there is no way of knowing what was recorded where, and when.</p> <p>8. Furthermore, in Hong Kong (and indeed globally), moth species are active throughout the year with many species flying in a short window of one or two weeks each year. In the Additional Information, CEDD requested two rounds of surveys with a duration of two hours each, i.e., one at two hours after sunset and the other one between 12:00 midnight and 2:00 am each night. [C/16/2467-2472]. These approaches used in the EIA Report do not take into account, fully or at all, the four fundamental points that impact upon the recording of moth data, namely:</p> <ol style="list-style-type: none"> (1) Seasonality: time of year - many moth species have a short flight window of one or two weeks at a particular time of year, which monthly baseline monthly recording is unlikely to detect; (2) duration of record (moth flight periodicity): i.e. times at which moths are active - at night, most activity usually occurs for a couple of post-dusk and pre-dawn, but not for all species, and not if weather conditions are sub-optimal, thus all night recording is considered a minimum requirement for baseline nocturnal moth recording at light; (3) weather and moon phase: all moth recording should take place under appropriate weather conditions and the conditions should be documented as part of the methodology. The lunar cycle greatly impacts moth activity and the literature states to avoid light-trap recording during the brightest quarter (one week) of the lunar cycle; (4) baseline vs habitat use: i.e. light source catchment radius of actinic lights and MV lights are different, and used for very small catchment of up to 5m radius (actinic) and larger catchment of up to 50m radius (MV), as well as the other approaches to consider daytime species and species that do not respond to light. All of these will greatly impact upon the species observed. <p>9. Consequently a woefully incomplete survey methodology was selected for the EIA Report. Moths are not restricted to nocturnal activity. Nor do all moth species respond to light trapping. Other recording methods are additionally needed to give an accurate and comprehensive baseline of the moth species to be found at a site.</p> <p>10. To meet TM and SB requirements ALL the following methodological components have to be done to provide an accurate and adequate ecological baseline information (which would have been apparent had Fry and Waring (1996) [H/78/5498-5530], been taken into consideration):</p> <ol style="list-style-type: none"> (1) daytime baseline moth survey, similar to Pollard Walk method of butterfly transect (Pollard & Yates, 1993³) [H/90/5631-5656], counting number of species and abundance of each species along the transect (2) night time (all night) baseline moth recording with 125W mercury vapour lights on Robinson or Skinner traps, counting number of species) and abundance of each species (N) along the transect; sample sites approx. 50m apart and not in line of sight, traps located in sheltered situation (out of the wind). 		

³ Pollard E. & Yates T.J. (1993) Monitoring butterflies for ecology and conservation. Chapman and Hall, London [H/90/5631-5656]

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		<p>(3) night time (all night) ecological moth sampling with low wattage (max 20W) actinic lights on box traps (e.g. Pennsylvania, or Heath traps), counting R & N.</p> <p>(4) daytime and night time surveys for larvae</p> <p>(5) bait trapping with nectar substitutes and other amino acid (dung, urine) baits</p> <p>(6) pheromone traps deployed weekly in all locations recorded for 2 & 3 above</p> <p>(7) Observations should be undertaken at least once a month throughout the year, though weekly is going to pick up species with short flight seasons. Night time work needs to be done in suitable weather conditions, avoiding the full moon (+/- 3 nights).</p> <p>(8) Field recording for moths requires observation skills not obtained using other groups (e.g. butterflies). It usually takes two to three years field experience (i.e. in the field every week for two to three years) to gain sufficient competence to undertake moth surveys unsupervised.</p> <p>11. For context, the EIA Report did part of (3) (but with no abundance data, partial night recording), but did not take (7) & (8) into account.</p> <p>12. The data from HKGC's three moth surveys (in 2018, 2020, and 2022-2023) is far more comprehensive, but even that is not complete. HKCG's studies did part of (2) (partial night recording), taking (7) & (8) into account. Thus, even with the HKGC moth surveys, the total data on moths is insufficient for a baseline survey to obtain a fit for task understanding of the moth ecology at the Study Site.</p> <p>13. Although this may be a shortcut to some degree with representative trapping (for items (1), (2) and (3)), the caveat being that with appropriate statistical analysis of species estimation, one would then be able to glean some understanding of how many species are likely to be on site. Then, one can start implementing mitigation measures based on overall diversity. Even then, there is no way of knowing which of the missing species are ones of conservation concern.</p> <p>14. This deficiency was raised by HKGC in its Statutory Submissions and subsequently the DEP also requested the CEDD to <i>"provide data or proof to demonstrate that the assessments on the diversity and rarity of the fauna species of conservation interest such as... moths were comprehensive and accurate given that the critical activity time for the species concerned, e.g. ... moths in late nights, were not covered"</i> [C/14/2400].</p> <p>15. Although there appears to be a Methodology Statement for the Terrestrial and Aquatic Ecological Impact Assessment that was submitted to AFCD together with the CV of Professor Wang [C/15/2440], this methodology statement was never included in the EIA Report or in CEDD's Additional Information, and therefore the public never had the opportunity to examine and comment on the methodology. This goes against the scientific need to replication and verification of methods used (c.f. §5.1.2.2 of Annex H to the TM [B/4/144]).</p> <p>16. Due to the different methods undertaken by CEDD and HKGC for the moth surveys, there are large differences (a factor of ten) in the number of species observed. The CEDD method of using light-emitting diodes ("LEDs") (initial survey) and 20W actinic lights (additional survey) is suitable for habitat usage by moths as these light sources have a very small catchment radius of typically up to 5m, and also appear to favour microlepidoptera and Geometroidea over the rest of the macrolepidoptera species. The</p>		

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		<p>use of MV light sources is the baseline survey approach adopted internationally (see Fry & Waring, 1996) [H/78/5498-5530] as the catchment radius is larger (typically up to 50m), sufficient to encompass all the species in a larger area without attracting species from hundreds of metres away from the sampling site. Compounding the issue, low wattage LEDs and actinic lights are regarded as having low effect in areas where there is moderate or high light pollution loads, as found in Hong Kong. Even in low light pollution areas, MV lights typically capture a statistically larger sample (often a factor of two to three times more species) than that obtained with LED or actinic lights.</p> <p><u>Inadequacies in the analysis of moth data, impact assessment, mitigation proposals, and failure to apply the precautionary principle</u></p> <p>17. Due to the absence of an accurate and complete ecological baseline information relating to moths and CEDD failing to undertake a species richness estimation, there is no way of knowing scientifically what is the baseline assemblage of moths at FGC. Consequently, and in addition to the lack of habitat and ecological interaction analyses, and failure to present data of species diversity statistics, it is impossible to undertake any meaningful assessment of the ecological attributes of the site (moths or otherwise).</p> <p>18. At minimum, a scientific analysis should include (1) diversity statistics (α, β, γ diversity) (2) species richness estimation, (3) habitat comparison, (4) ecological relationships, (5) species conservation status.</p> <p>19. Without each of these analyses, any attempt to make interpretations as to how to assess what is at risk and how to mitigate for that risk is flawed and invalid. Consequently, the data and analyses presented must be regarded as insufficient to “provide sufficient and accurate ecological data to allow a complete and objective identification, prediction and evaluation of the potential ecological impacts” (§1.2 of Annex 16 to the TM [B/4/142]), and the mitigation measures proposed in the EIA reports are based upon unscientific, false assumptions and are invalid.</p> <p>20. This is most evidently illustrated by the complete failure to apply the precautionary principle to the four species meeting IUCN critically endangered species status, namely the Pterophorinae genus & sp. indeterminate A. (which belongs to a sub-family of moths known to be sedentary and not highly dispersive), Enarmoniini genus & sp indeterminate D, <i>Microchilo</i> sp. indeterminate near <i>inouei</i>, and the <i>Stereodytis brevignatha</i>, all of which are endemic to Hong Kong. The Pterophorinae genus & sp. indeterminate A is found only in the PDA at Sub-Area 1. Both the DEP and the CEDD should have been alive to this in light of the information provided by HKGC in the 2020 and/or 2022-2023 Moth Surveys. Consequently, the EIA Report also failed to take into account and assess moths based on the precautionary principle as required by §4.4.3(a)(x) of the TM [B/4/98-99].</p> <p>21. As a result, the EIA Report failed to meet the TM quality requirements (§§4.4.2(c), (d) and (e) of the TM [B/4/97-98]), resulting in a consequential breach of TM §§4.5.1(a), (b) and (c) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it (a) must meet the requirements of the study brief, (b) comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable, and (c) must address issues raised by the public</p>		



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		and ACE during the public inspection period. Therefore per §§4.5.1(a), (b) and (c) of the TM, the EIA Report should not have been approved by the DEP.		
4.	<p>Ecology: Uncertain and unverifiable ecological baseline survey methodology for bats leading to an unreliable analysis and impact assessment</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: §§9.3.1.1, 9.3.2.7, 9.5.2.2, 9.5.2.6, 9.7.2.30-9.7.2.31 & 9.7.2.57 [C/13/1597, 1619, 1653-1654 & 1659] and Tables 9.2, 9.10 & 9.22 [C/13/1606, 1631 & 1644] CEDD's Response to Comments [C/14/2401-2402] CEDD's Response to Information Request [C/15/2419-2421] CEDD's Additional Information: §4 [C/16/2473-2476]  <p>Two Short-nosed Fruit Bats in a Chinese fan-palm roost in Sub-Area 1 on 17 April 2023 (extracted from HKGC's 2022-2023 Bat Survey [D/21/3394])</p>	<p><u>The TM and SB requirements relating to bats</u></p> <ol style="list-style-type: none"> Against the backdrop of the 5-step ecological impact assessment methodology outlined above, the SB specifically mentions three species of bats as species of conservation importance that needed to be studied as part of the EIA exercise, and the ecological baseline established. The three are: (1) <i>Cynopterus sphinx</i> (aka the “Short-nosed Fruit Bat”) (2) <i>Tylonycteris pachypus</i> (aka the “Lesser Bamboo Bat”), and (3) <i>Scotophilus kuhlii</i>” (aka the “Lesser Yellow Bat”) (collectively, the “Three Bats”) (see §2(v) of Appendix H to the SB [B/3/77]). Specifically, the SB directs the project proponent to “investigate and describe the existing wildlife uses of various habitats with special attention to those wildlife groups and habitats with conservation importance, including but not limited to the following:.... (c) roosting, breeding and/or feeding sites of mammals... (e) mammals (both terrestrial and flying, e.g. <i>Cynopterus sphinx</i>, <i>Tylonycteris pachypus</i> and <i>Scotophilus kuhlii</i>...” [B/3/77]. <p><u>The nature of the Three Bats</u></p> <ol style="list-style-type: none"> The Short-nosed Fruit Bat (<i>Cynopterus sphinx</i>) is frugivorous and does not echolocate as insectivorous bats do. Active at dusk and throughout the night, it feeds on fruit and nectar. It is common and widespread in Hong Kong and can be found in both rural areas and urban areas on account of their daytime roosting habitats (Shek 2006 [H/65/5208-5217]⁴). The male fruit bat builds shelters by chewing the veins of the fronds of Fan-palms (often planted for ornamental purposes), letting them collapse to form 'tent-roosts' under which bats hang and roost as individuals or small family parties. The Lesser Bamboo Bat (<i>Tylonycteris pachypus</i>) is one of the smallest bats in the world. It is insectivorous and feeds on small invertebrates. As its name suggests, it roosts in the internodes of bamboo stems. Studies of this species in Southern China show it has two bouts of activity c. 30 minutes, right after dusk and just before dawn, with an intervening period of night roosting at diurnal roosts. This fits with behaviour in Hong Kong. It is a distinct 'edge' species, with an ability to forage in complex habitat [H/64/5205-5207]⁵. It has a wider distribution in Hong Kong than previously recognised, though generally occurs in low abundance where documented (Zhang et al. 2015 [H/68/5309-5314]⁶, Tong 2016 [H/67/5224-5308]⁷, and AEC Ltd. Pers. Obs.). Lesser Yellow Bat <i>Scotophilus kuhlii</i> is an aerial insectivore that eats beetles, termites, moths and other flying insects. It roosts in buildings and trees and forages early in the 	<p><u>TM</u></p> <ul style="list-style-type: none"> §§4.4.1, 4.4.2, 4.5.1(a), (b) & (c) [B/4/97-98 & 100] §3.1 of Annex 16 [B/4/142] §§4.1, 5.1 to 5.5 of Annex 16 [B/4/143-147] <p><u>SB</u></p> <ul style="list-style-type: none"> §2 of Appendix H to the SB, generally [B/3/76-78] and particularly §§2(i) to (vii) <p><u>EIA Guidance Note</u></p> <ul style="list-style-type: none"> EIAO GN 7/2010, generally [B/9/188-194] 	<p><u>Club's PP Submission</u></p> <ul style="list-style-type: none"> §§4.4.8-4.4.9 of the Introductory Section to HKGC PP Submissions [D/17/2555-2556] Tables 3.2.1 and 10.1 and §§3.2.1, 3.4 & 10.1.4 of Club's TFLS Submission appended to Club's PP Submissions [D/17/2585-2588 & 2780-2782; 2772-2776 & 2780-2782], and especially Table 3.2.1 <p><u>Club's Statutory Submissions</u></p> <ul style="list-style-type: none"> §2.1.6 "Technical Reviews: EIA Review - Ecology [D/18/2950] §1 of Annex 1 to Appendix 3.6 (Ecological Annexes) [D/18/3220-3223] Items L4, L13, L15, L16, L24, L25, L26, L27, L28, L39, L44, L45, L46, L48, L51, L53, L54, L55, L58, L59, L60, L61, L62, L63, L67, L69, L70, L71, L72, L73, L74, L75, L76, L78, L81, L82, L83, L84, L85, L86, L87, L88, L89, L91, L92, L94, L95, L99, L96, L97 and L98 of Club's EIA Checklist [D/18/3010, 3012-3014, 3017, 3020-3026 & 3028-3041] <p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §4 of the Executive Summary [D/21/3353] "Observations and comments on issues with bats in the

⁴ Shek, C.T. 2006. *A Field Guide to the Terrestrial Mammals of Hong Kong*. Agriculture, Fisheries and Conservation Department, Friends of the Country Parks and Cosmos Books Ltd. [H/65/5208-5217]

⁵ Jones, G. & Zhang, S., 2023. *Bats in China - Tylonycteris pachypus - Lesser Bamboo Bat*, Available at: <https://www.bio.bris.ac.uk/research/bats/China%20bats/tylonycterispachypus.htm> [H/64/5205-5207]

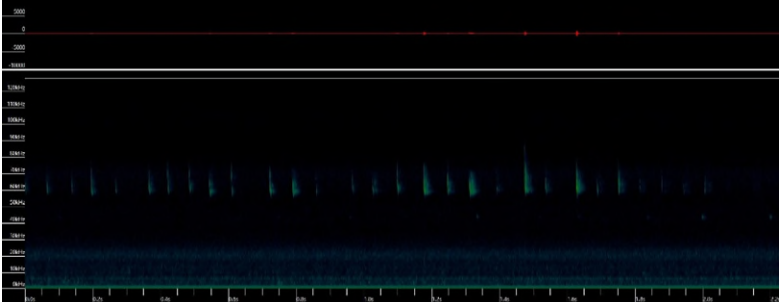
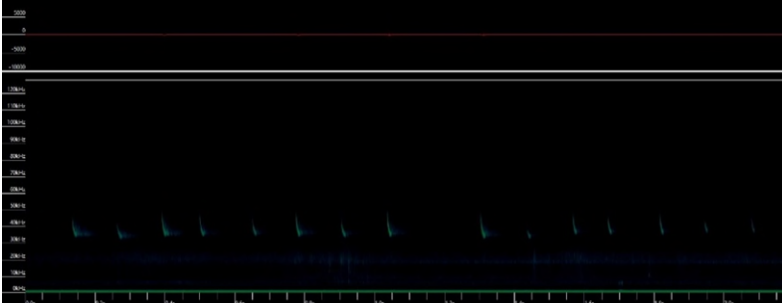
⁶ Zhang, L. B., Wang, F. M., Liu, Q., & Wei, L. (2015). The activity time of the lesser bamboo bat, *Tylonycteris pachypus* (Chiroptera: Vespertilionidae). *Zoologia (Curitiba)*, 32, 201-206. [H/68/5309-5314]

⁷ Tong, C. P. 2016. Distribution and preference of landscape features and foraging sites of insectivorous bats in Hong Kong urban parks. *HKU Theses Online* (HKUTO). [H/67/5224-5308]

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	 <p>Screen grab (from InfraRed Video) of Lesser Bamboo Bat entering roost in Sub-area 1 (extracted from HKGC's 2022-2023 Bat Survey [D/21/3395])</p>  <p>Screen grab (from iPhone) of Lesser Yellow Bat foraging over turfgrass in Sub-Area 1 (from HKGC's 2022-2023 Bat Survey, Dec 2022) (AEC File Photo)</p>	<p>evening and can fly low to ground. It is fairly widely distributed throughout Hong Kong (Shek 2006 [H/65/5208-5217]⁸, Smith & Xie 2008 [H/66/5218-5223]⁹).</p> <p>6. As evident from the above, each of these Three Bats have distinctly different roosting and foraging (i.e. feeding) behaviour, hence the SB requirement to study the roosting, breeding, and feeding sites of these bats.</p> <p><u>Failure to address the Three Bats in the literature review</u></p> <p>7. It is unusual for individual species to be specifically mentioned in a SB unless the site is significant to a particular species. Therefore, at bare minimum, it would be expected that those species would be addressed comprehensively in an EIA Report. Despite this, the EcoIA completely omitted consideration of the key literature pertaining to these Three Bats at the FGC site:</p> <ol style="list-style-type: none"> (1) There is no literature referenced that addresses the distinct differences in the roosting and foraging behaviour of the Three Bat species identified in the SB. (2) There is no reference to Tong (2016) [H/67/5224-5308], which provides the most authoritative and up-to-date overview of the distribution and preference of landscape features and foraging sites of insectivorous bats in Hong Kong urban parks (which is particularly relevant to the FGC site). (3) Other than a superficial mention in Table 9.2 [C/13/1606] listing the bat species to be found (all of which were already identified in the Project Profile (at §3.6.4 [B/2/16]) and in the Club's PP Submissions [D/17/2542-2933]), no consideration was given to the information provided by the Club regarding the nature and behaviour of the Three Bats and their habitat usage of the bats at FGC generally and specifically the Project Site [D/17/2585-2596 & 2598; 2772-2773 & 2780], which was based on the wealth of information collected by the Club dating back to 2018 and before. (4) Instead, the EIA Report references [C/13/1597 & 1603; C/14/2402] the approved EIA Report of North East New Development Area (AEIAR-175/2013) ("NENT NDA EIA Report") [G/45/4647-4673], which included a bat survey conducted over 14 years ago (between July 2008 to June 2009) that <i>excluded</i> the FGC site and therefore did not contain relevant and/or up-to-date data. <p><u>Lack of information regarding survey methodology and inability to verify the adequacy and accuracy of the ecological baseline information</u></p> <p>8. In the EIA Report, critical details pertaining to the survey methodology are missing, such as (see specifically §§2.2 and 3 and generally of EIAO GN 7/2010 [B/9/188-194] and §5.1.2.2 of Annex 16 to the TM [B/4/144]);</p> <ol style="list-style-type: none"> (1) Survey locations; (2) Survey time and frequency; (3) Duration of surveys; (4) Type(s) and number of bat detector(s) used for each survey event; and (5) Details of how roost surveys were conducted (i.e. whether all buildings in Project Site were checked for potential roosts, or trees to be lost were carefully 		<p>ACE Paper 8/2023" [D/21/3385]</p> <ul style="list-style-type: none"> • Executive Summary, §§1.1.2, 1.3.4, 1.3.6, 3.1.6-3.1.8, 3.2.5-3.2.6, 3.3.2, 4.3.1, Tables 2, 3 and 5, and Appendices 1-2 of the "Bat Survey Report Summary" and generally [D/21/3386-3431] • Items L4, L25, L26, L54, L71, L72, L73, L85 and L87 of Club's Revised EcoIA Checklist [D/21/3913-3914, 3916, 3919-3920 & 3922-3923]

⁸ Shek, C.T. 2006. *A Field Guide to the Terrestrial Mammals of Hong Kong*. Agriculture, Fisheries and Conservation Department, Friends of the Country Parks and Cosmos Books Ltd. [H/65/5208-5217]

⁹ Smith, AT, and Y. Xie (eds.). 2008. *A Guide to the Mammals of China*. Contributing authors RS Hoffmann, D. Lunde, JR MacKinnon, DE Wilson, and WC Wozencraft; illustrator F. Gemma; honorary editor S. Wang. Princeton University Press, Princeton, New Jersey, 544 pp. [H/66/5218-5223]

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	 <p>Sonogram recording of Lesser Bamboo Bat from a bat detector, HKGC 20 Dec 2022 (AEC File Records)</p>  <p>Sonogram of Lesser Yellow Bat, HKGC 26 Sept 2022 (AEC File Records)</p>	<p>surveyed/assessed for defects and potential roost locations); and any dawn surveys conducted for swarming surveys (i.e. checking for bats returning to roost) to identify potential roost locations.</p> <p>9. Without the above critical information, it is not possible to verify that the adequacy and accuracy of the ecological baseline information, which is a critical part of any EcoIA (see the §5.1.2.2 of Annex 16 to the TM [B/4/144]).</p> <p>10. The lack of a proper literature review and the paucity of information in the survey methodology were raised by HKGC in its Statutory Submissions (see §2.1.7 [D/18/2949]) and brought to the CEDD and DEP's attention. Bat data covering the June 2018-2022 period was also provided with the Club's Statutory Submissions [D/18/3220-3222] ("HKGC's 2018-2022 Bat Data") to highlight and supplement the inadequate ecological baseline information in the EIA Report. This promoted the DEP's requests for details of survey methodology, including information relating to location, frequency, duration spent of each Sub-Area, the comprehensiveness and accuracy of the surveys in the context of the critical activity time for the species concerned [C/14/2401-2402; C/15/2419-2421; C/16/2473-2476 and F/37/4203], and the results of the surveys [C/15/2419-2421], demonstrating that the DEP was cognisant of the inadequacies of the survey methodology, and thus the EIA Report's non-compliance with §§4.1(a) and 5.1 of Annex 16 to the TM and §§2(i) to (vii) of Appendix H to the SB.</p> <p>11. Subsequently, CEDD provided some clarification on the survey methodology pertaining to the type of bat detector used [C/14/2401-2402]. CEDD also indicated that "<i>bat species reported in the area started their activities and were most active in the evening and after sunset [and] that the surveys inside the PDA had already covered their most active duration of a day</i>" [C/14/2400 & 2402; C/15/2419-2421 and C/16/2473-2476]. However, key information to make the survey replicable remained missing, which meant that the adequacy and accuracy of the ecological baseline information remained impossible to verify by DEP or any outside observer:</p> <ol style="list-style-type: none"> (1) Details of the transect survey method are ambiguous and difficult to replicate. The transects provided in Figure 4A of CEDD's Additional Information [C/16/2474], for bat surveys only covered the Project Site/PDA and did not extend to habitats potentially impacted in the wider Assessment Area. Lack of survey data for habitats outside of the PDA here makes it impossible to assess indirect impacts to these areas with respect to bats. (2) This is necessary information in this case because a transect approach to recording bats would only be appropriate if you have small teams going around a small area. If the area covered by each team is too large, then you will not be able to record certain species in the areas that you were not present at during the critical period of time close to sunset. (3) Details of the roost survey method is missing. It appears that surveys for roost were only conducted along the transect, but this approach only covers a small percentage of potential roost locations within the PDA and hence no bat roosts were recorded [D/21/3385]. Roost features in Figure 4A of CEDD's Additional Information [C/16/2474], are incorrectly located e.g. the location of bamboo in Sub-Area 1 is incorrect as no bamboo is in this location. A bamboo clump is located on the survey transect; this has been missed by the surveyors and not marked on Figure 4A. HKGC's 2022-2023 Bat Survey [D/21/3395] recorded a Lesser Bamboo Bat roost in this bamboo. This information is critical to 		

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		<p>establishing potential for roosts as bats are protected under the Wild Animal Protection Ordinance (Cap. 170), destruction of roosts (in buildings, trees, bamboo, fan palms) may cause deaths of bats and thus contravene the Ordinance. Large areas of woodland are to be lost as part of the development; no attempt to assess potential for trees as roosts were made despite several bat species found at HKGC being tree-roosting species.</p> <p>(4) The survey duration spent for each Sub-Area <i>was not provided</i>, yet this information was specifically requested by DEP. This is critical for surveying Lesser Bamboo Bat, which has a short activity period (c. 30 minutes after sunset); surveys of the Lesser Bamboo Bat should occur near bamboos¹⁰. Without details of the survey location, it cannot be verified whether this may be a factor as to why (in contrast to HKGC's data covering the same period) no Lesser Bamboo Bats were identified in the ecological baseline survey. The location of bamboos in Sub-Area 1 Figure 4A of CEDD's Additional Information [C/16/2474] is in the wrong location and there is no way of knowing if transects covered suitable habitat for this species.</p> <p><u>Unreliable survey results, analysis, impact assessment, and mitigation proposals</u></p> <p>12. The problematic survey methodology led in this case to grossly flawed survey results, and a presentation of the ecological baseline that was entirely inaccurate and insufficient. This meant that the public could not meaningfully comment on the impact assessment, mitigation proposals, residual impact, or environmental appropriateness of the proposed development.</p> <p>13. HKGC's parallel bat surveys (i.e. HKGC 2022-2023 Bat Survey [D/21/3386-3431]), that had been designed having taken into account the above literature, produced a very different result. There are four areas in particular where the survey results in the EIA Report and the parallel HKGC 2022-2023 Bat Survey are different: (1) the number of bat species recorded, (2) abundance of bats (3) the bat roosts, and (4) bat foraging.</p> <p>14. As there is no information in the methodology on call identification or whether these were recorded and analysed using appropriate software, questions arise as to how the Japanese Pipistrelle reported was identified, and whether this identification is reliable, particularly as no quantification was given.</p> <p>15. The handheld bat detector (Wildlife Acoustic EM3+,) used for the EIA study [C/14/2401-2402 and C/16/2474] is an old and obsolete model that is regarded in the industry as "a bit deaf" and not fit for purpose. It is no longer used for modern bat surveys, and therefore not readily available on the market. From AEC's enquiries with the manufacturer, the microphone (based on the Knowles SPM0404UD5 MEMS ultrasonic sensor) for this model was discontinued by Knowles in 2012 and is no longer available (see Exhibit DJS-2). As such, the age of this model of handheld bat detector may be the limiting factor for such a low bat diversity and abundance being recorded in the EIA Study.</p>		

¹⁰ Tong, C. 2016. [H/67/5224-5308]

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		<p>16. Regarding bat foraging, no information was provided whatsoever in the EIA Report, CEDD's Response to Comments [C/14/2399-2417], CEDD's Response to Information Request [C/15/2418-2450], or CEDD's Additional Information [C/16/2451-2541], despite the fact that a study of the foraging was specifically included in the SB requirements (§§2(v)(c) and 2(vii)(e) of Appendix H [B/3/78]).</p> <p>17. Several tree-roosting bat species (including Lesser Yellow Bat from the SB) are known to be at FGC and CEDD's Additional Information Table 4A, reflects this. It is recognised that trees are notoriously difficult to survey for bat roosting evidence, but there is insufficient information from either the EIA Report or CEDD's Additional Information, on how trees were searched for potential bat roosts other than "active search" (§§3.3.4 & 3.3.5 [C/16/2468]). With over 4ha of woodland in Sub-Area 1, searching every individual tree is outside of the scope of a normal EIA study; these limitations should be noted in the report. Failure to do so is misleading, with §9.7.2.31 stating "... no other bat roost was found within the assessment area." [C/13/1654]. This is misleading to decision makers when only a small portion of the Project Site (and wider Assessment Area) have been surveyed.</p> <p>18. HKGC also provided its parallel bat survey to the DEP and CEDD for their consideration (i.e. the HKGC 2022-2023 Bat Survey [D/21/3386-3431]), but no scientifically sound attempt was made to explain the disparity in the findings between data in the literature provided (for example with Club's PP Submissions), or the other best available data (e.g. the details of HKGC's 2018-2022 Bat Survey submitted with Club's Statutory Submissions [D/18/2950 and D/18/3220-3222]), HKGC's 2022-2023 Bat Survey [D/21/3386-3431]). Instead, CEDD provided an explanation that is wholly inconsistent with the literature, demonstrating that CEDD was completely unaware of the findings in the existing literature. For example, in an attempt to explain the discrepancy between the survey results of only "scare [sic] numbers" and the common and wide distribution of the Japanese Pipistrelle recognised (as recognised in §9.5.2.8 [C/13/1620] and Appendix 9B(1) and (2) of the EIA Report [C/13/1732 & 1734]), the EIA Report suggests that "habitats within Sub-Area 1 are not their typical habitats" (§9.7.2.30 [C/13/1653]). However, as the existing literature shows, this lowland mosaic of habitats is in actual fact a favoured habitat for foraging Japanese Pipistrelle in Hong Kong (Shek 2006 [H/65/5208-5217], Tong 2016 [H/67/5224-5308]).</p> <p>19. It should be apparent to any trained ecologist, especially when the Three Bat species were specifically mentioned in the SB, that there is a gap in the survey findings, and this should be redressed. Whilst no two surveys are the same on any two days, the chasm in differences between abundance and number of species should be a red flag for the surveyor, and these differences should be explained/reviewed before moving onto other habitat evaluations and impact assessments.</p> <p><u>Habitat evaluation</u></p> <p>20. Inadequacy in survey results will result in a flawed habitat evaluation, impact identification, and prediction, assessment of impacts, particularly in relation to the subjects of direct habitat loss, secondary impacts arising from mitigation proposals (e.g. compensation woodland), bat roosts, loss of foraging habitat, disturbance to species (including as a result of light pollution). Since the EIA Report only identified a Short-nosed Fruit Bat outside the project site, and no other bat roost was found within the</p>		

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		<p>assessment area, the EIA Report concluded that the potential indirect impacts to flying mammals including the bat species mentioned in the SB were minor (see §9.7.2.31 of the EIA Report [C/13/1654]), and therefore no mitigation proposals for this species group were put forward (see §9.8.3 and Table 9.24 of the EIA Report [C/13/1653-1676]). This is a prime example of how a failure to conduct a proper literature review and include relevant information into the ecological baseline has a knock-on effect on the various steps that follow in an ecological assessment.</p> <p>21. The habitat evaluation tables of the EIA Report (see Tables 9.5-9.19 [C/13/1629-1636]) has incorrectly evaluated the overall ecological value for individual habitats due to an incomplete ecological baseline information and failure to include findings available to the consultant through various HKGC various submissions (including the Club's PP Submissions and the Club's Statutory Submissions). These habitat evaluations have been made with incomplete data sets in particular the following criteria: "Diversity", "Rarity", and "Abundance/Richness of wildlife".</p> <p>22. It is significant to note in the evaluation of <i>Turfgrass Land within Assessment Area</i> [Table 9.17, C/13/1634-1635], the overall ecological value is evaluation as being "Low, as most of the recorded species are associated to other habitats" but this is not explored further in Table 9.20 [C/13/1637-1639]. This is a valuable component in bat ecology, species such as Lesser Bamboo Bat (mentioned specifically in the SB) are "edge" species and thrive on the interface of two habitat types e.g. woodland and turfgrass. As a result, the impacts to the bat species that require this mosaic are severely underestimated.</p> <p>23. These errors are further compounded when in Table 9.20 "Evaluation of the Four Sub-Areas" [C/13/1637-1639], the ecological values of each of the 4 Sub-Areas is attempted to be evaluated as a mosaic of habitats. However, the information provided by HKGC in the Club's PP Submissions and in the Club's Statutory Submissions regarding rarity, diversity and abundance of bats (which is the best information available regarding bats—c.f. TM §3.4 [B/3/93]) was disregarded, leading to an underestimation of the overall ecological value of each Sub-Area. This is particularly significant for Sub-Area 1, where the Overall Ecological Value in the EIA Report is "Low to medium" [C/13/1639]. Had HKGC's bat data demonstrating more diversity, more species of conservation importance, and higher abundance, been plugged into this table, the overall ecological value would be raised to "Medium" at least. This higher ecological value would be in line with those for Sub-Areas 2 and 3, both "Medium" in the EIA report, and on account of their <i>relatively higher ecological values</i>, which were precluded from development (see §9.7.1.1 of the EIA Report [C/13/1646]). The same comment applies to other species of conservation importance, including moths, birds, other mammals etc. Had HKGC's data on these species been taken into account, then the total number of species of conservation importance that would have been found at Sub-Area 1 would be 82, instead of 4, as suggested in Table 9.20 EIA Report under the "Rarity" row [C/13/1637].</p> <p><u>Impact Assessment and Mitigation</u></p> <p>24. By failing to accurately evaluate the ecological value of Habitats, Sub-Areas and Species of Conservation Interest, the knock-on effect is that the magnitude of impacts is not properly assessed, if at all.</p>		

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		<p>25. Regarding the impact to the bats, due to the poor methodology, incomplete ecological baseline, and failure to consider best available information, the impacts are assessed in using an incomplete data set. This has resulted in an underestimate of impacts to bat species using in particular Sub-Area 1, but also to bat use of Sub-Areas 2-4 and the wider assessment area. CEDD claimed that their ecological impact assessment of Sub-Area 1 was based on literature review and ecological survey: "<i>Our ecological impact assessment based on the literature review and the ecological survey has shown that none of the 4 habitats are critical/unique to the fauna species identified in Sub-Area 1, as a major roosting/breeding site or foraging ground cannot be found in Sub-Area 1.</i>" (see the comment under "minimal impact to fauna" of CEDD's Response to Information Request [C/15/2422]). This is incorrect and misleading as the available literature was not included in the impact assessment. Had CEDD used HKGC's bat data in their literature review, this would not have been the case [C/15/2422].</p> <p>26. Furthermore, impacts to bat feeding grounds have not been considered at all. Many species of bats present in this area prefer the mosaic habitat within the PDA for feeding. There is simply insufficient data in the EIA to properly assess any impacts to bat foraging habitats as required under §2(vii) of Appendix H to the SB [B/3/77-78].</p> <p>27. As for the impacts of light pollution to nocturnal mammals, this is described in §§9.7.2.47-9.7.2.48 [C/13/1658] though this cannot be assessed as no surveys for bats have been conducted outside of the PDA. The survey methodology in the EIA Report and in CEDD's Additional Information, Table 4A and §4.2.3 [C/16/2473-2475] show the extent of survey transects; all are restricted to within the PDA. As these transects do not extend into habitat adjacent or close to any proposed development, there is no way that these impacts can be properly evaluated or assessed as no data has been collected from these areas. Broad assumptions are made on impacts and their assessment is formulated without any sound ecological survey results.</p> <p>28. Based on the incomplete data set arising from the inadequacies in the ecological baseline information, the EIA Report concludes that the impacts on bats are minor (§§9.7.2.31 and 9.7.2.57 [C/13/1654 & 1659]), and therefore no mitigation proposals are put forward. This conclusion is obviously flawed, in light of the information on bat diversity and abundance provided by HKGC, which demonstrates that the magnitude of impact on the bats is far from minor and mitigation would certainly be required.</p> <p><u>Breaches of the TM & SB</u></p> <p>29. As a result, the EIA Report failed to meet the TM quality requirements (§§4.4.2(c), (d) and (e) of the TM [B/4/97-98]), resulting in a consequential breach of TM §§4.5.1(a), (b) and (c) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it (a) must meet the requirements of the study brief, (b) comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable, and (c) must address issues raised by the public and ACE during the public inspection period. Therefore per §§4.5.1(a), (b) and (c) of the TM, the EIA Report should not have been approved by the DEP.</p>		

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5.	<p>Culture: Cultural Heritage Impact</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 12 generally [C/13/2071-2284], and specifically §§12.4.2.1, 12.5.4.1, 12.5.5.1 and 12.5.6.1 [C/13/2084, 2101] and Table 3 [C/13/2099-2100] 	<p><u>The SB and TM requirements on Cultural Heritage</u></p> <ol style="list-style-type: none"> §2.1(vi) of the SB requires the EIA study “to identify any negative impacts on sites of cultural heritage and to propose measures to mitigate these impacts” [B/3/40]. While §3.2.1(xi) of the SB requires the EIA study to address “potential cultural heritage impacts, in particular impacts on built heritage including Fanling Lodge, Clubhouse of the Hong Kong Golf Club Fanling Golf Course, Half-way House of the Hong Kong Golf Club Fanling Golf Course, and No. 5 Ng Uk Tsuen, as well as graves, due to the Project” [B/3/43]. §2.8 of Annex 19 of the TM [B/4/158], specifies that “total destruction must be taken as the very last resort in all cases and shall only be recommended with a meticulous and careful analysis balancing the interest of preserving the archaeological, historical, architectural” and other cultural values as against that of the community as a whole.” <p><u>The Cultural Heritage Assessment in the EIA</u></p> <ol style="list-style-type: none"> Cultural heritage is covered at Section 12 of the EIA Report [C/13/2071-2284], and the Cultural Heritage Impact Assessment (“CHIA”) concludes that there will be “Undetermined impact” on the FGC (at Table 3 under §12.5.4.1 of the EIA Report [C/13/2099-2100]). <p><u>Failure to assess the cultural heritage impact on the whole of the FGC</u></p> <ol style="list-style-type: none"> The CHIA failed to assess the potential cultural heritage impact on the whole of the FGC – and on the Old Course in particular – on the incorrect premise that such assessment and mitigation measures be deferred to a later date pending the potential Antiquities Advisory Board (“AAB”) grading of FGC as a golf course with heritage significance including human-landscape interactions. The whole of FGC is currently being assessed as a new item (N340) for grading as a historical building or site by the AAB¹¹, with the result of the assessment still pending. The EIA Report concedes that: <ul style="list-style-type: none"> “...Fanling Golf Course itself... should be considered a heritage place in itself.” (at §12.4.2.1 [C/13/2084]) “If the golf course is recognised as a heritage site and development goes ahead within the Old Course, direct impacts are expected.” (at Table 3 under §12.5.4.1 of the EIA Report [C/13/2099-2100]) Yet, despite this concession the CHIA does not go on to assess any impact. Instead it concludes that: <p style="text-align: center;"><i>“The proposed development on the Fanling Golf Course, Hong Kong Golf Club, a New Item to be graded by AAB may impact directly and adversely on holes 1 to 3 which are integral parts of the 18-hole Old Course. The impact is subject to further assessment pending to the grading of the golf course conducted by AAB and mitigation measures, where necessary, will be proposed to AMO for</i></p> 	<p><u>Study Brief</u></p> <ul style="list-style-type: none"> §2.1(vi) [B/3/40] §3.2.1(xi) [B/3/43] <p><u>Technical Memorandum</u></p> <ul style="list-style-type: none"> §§4.4.2(e) & (k) [B/4/97-98] §4.5.1(b) [B/4/99] 	<p><u>Club's PP Submissions</u></p> <ul style="list-style-type: none"> §4.5.3 [D/17/2559] §5.5 of Club's TFLS HKGC's TFLS Submission appended to Club's PP Submissions [D/17/2680-2681] <p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> §§1.2.13, 2.3.1 (last bullet point) and 2.4.1 (1st bullet point) [D/18/2945, 2954 & 2965] Item O1 of Club's EIA Checklist [D/18/3102] “Recommendation of the FGC as a Cultural Landscape for Inscription in Heritage Grading” (September 2021) at Appendix 3.3 [C/9/2670-2674] “The Hong Kong Golf Club (Old Course): A landmark for Golden Age Architecture in Asia” (February 2021) at Appendix 3.5 [D/18/3216-3218] <p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §§12 & 13 of the Executive Summary [D/21/3355] HKGC's AAB and AMO Submission (27 September 2021) [D/21/3874-3912] “Hong Kong Golf Club's Cultural Landscape Report on Fanling Golf Course – Study of the Heritage Cultural Landscape of Fanling Golf Course” (April 2023) [D/21/3791-3873], especially §11.4 [D/21/3858-3859]

¹¹ “List of new items for grading assessment with assessment results (as of 1 June 2023)”, Antiquities Advisory Board (1 June 2023), available at: https://www.aab.gov.hk/filemanager/aab/en/content_29/list_new_items_assessed.pdf [H/56/5083-5101]

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		<p><i>agreement.</i>" (§§12.5.5.1 and 12.5.6.1 of the EIA Report [C/13/2101]). As a result, the EIA Report states that there will be "Undetermined impact" [C/13/2099-2100].</p> <p>8. CEDD appears to take the view that the pending status of the AAB review is a sufficient reason to delay the cultural impact assessment on the whole of FGC until after the EIA approval. However, it is wrong to assume that a pending heritage grading means no heritage value or significance. Indeed the EIA Report has in Section 12 recognised, the importance of FGC as a heritage site.</p> <p>9. Having recognised that the Old Course, in its function as a golf course is a place of heritage, the EIA Report should have concluded that the project would inevitably destroy the Old Course; that no mitigation would be possible; and that the impact of this destruction of a cultural heritage site was unacceptable (as per the SB requirements, in particular SB §§2.1(vi) and (ix) [B/3/40]).</p> <p>10. This is particularly important in the context of the TM Annex 19 §2.8 requirement that the total destruction of a site of cultural heritage be taken only as a last resort after balancing the other cultural values and that of the community as a whole. This is a requirement for the 32 ha for public residential housing be assessed against the proposed development of the Northern Metropolis, but no such assessment was made. This is further elaborated in §156 of the Form 86.</p> <p>11. As a result, the EIA Report failed to meet the TM quality requirements (§§4.4.2(e) and (k) of the TM [B/4/97-98]), resulting in a consequential breach of TM §§4.5.1(b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. Therefore per §4.5.1(b) of the TM, the EIA Report should not have been approved by the DEP.</p>		
6.	<p>Landscape and Visual: Old and Valuable Trees (OVTs)</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 11 of the EIA Report generally [C/13/1804-2070], and specifically §§11.5.1.3, 11.6.3.11 and 11.14.2 [C/13/1816, 1839 & 1874] 	<p><u>The Requirements in the SB and relevant DEVB Circulars relating to OVTs</u></p> <p>1. §1 of Appendix J to the SB requires CEDD to “<i>review relevant plan(s) and conduct surveys/studies to identify existing sensitive landscape characters and landscape resources (including but not limited to Old and Valuable Tree (OVT), tree of large size, and protected/rare plant species such as Aquilaria sinensis), and recommend landscape areas of high landscape value as country park, coastal protection area, green belt, conservation area designations, watercourses and woodland areas. Any guidelines on landscape and urban design strategies and frameworks that may affect the appreciation of the Project shall also be reviewed.</i> [B/3/80].</p> <p>2. §2 of Appendix J to the SB requires CEDD to “<i>describe, appraise, analyse and evaluate the existing and planned landscape resources and character of the assessment area. A system shall be derived for judging landscape and visual impact significance. The sensitivity of the landscape framework and its ability to accommodate change shall be particularly focused on. The Applicant shall identify the degree of compatibility of the Project with the existing and planned landscape setting, recreation and tourism related uses, and scenic spot. The landscape impact assessment shall quantify the potential landscape impacts as far as possible so as to illustrate the significance of such impacts arising from the proposed development. Clear mapping of the landscape impacts is required. Broad brush tree and vegetation survey shall be carried out and the impacts on</i></p>	<p><u>TM</u></p> <ul style="list-style-type: none"> §§4.4.2(b) & (d) [B/4/97-98] §4.5.1(b) and (c) [B/4/100] <p><u>SB</u></p> <ul style="list-style-type: none"> Appendix J §§1 & 2 [B/3/80] <p><u>EIAO Guidance Notes</u></p> <ul style="list-style-type: none"> §§1.4 & §2.4 of EIAO GN 8/2010 [B/10/195-196] <p><u>Other References</u></p> <ul style="list-style-type: none"> §§2, 6, 11 & 20-21 of DevB Circular 5/2020 [H/60/5157-5159 & 5161] 	<p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> §B.4.a of Appendix 3.4 (LVIA Annexes) [D/18/3147-3149] §B.3.c.vi of Appendix 3.4 (LVIA Annexes) [D/18/3145] <p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §7 of the Executive Summary [D/21/3354] §C.4.a [D/21/3435-3440], §6.9, §7.3 of HKGC's Review of the Tree Survey [D/21/3463-3464] Appendix B2, Figure 5.3 [D/21/3587-3588] to HKGC's Review of Tree Survey

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		<p><i>existing trees shall be addressed. Cumulative landscape and visual impacts of the Project with other committed and planned developments shall be assessed” [B/3/80].</i></p> <p>3. The removal (or transplanting) of living Old and Valuable Trees (“OVTs”) is prohibited under DevB Circular 5/2020 (at §§2, 6, 11 & 20-21 [H/60/5157-5159 & 5161]).</p> <p><u>The EIA Report's coverage of OVTs</u></p> <p>4. OVTs are addressed in a limited manner in the Tree Survey section of the LVIA, where at §11.5.1.3 of the EIA Report, it states that “<i>a tree survey will be undertaken to estimate the numbers of existing trees, dominant species, maturity, rarity, Old and Valuable Trees ...</i>” [C/13/1816] and §§11.6.3.11 and 11.14.2 concludes that no registered OVT were recorded during the tree survey [C/13/1839 & 1874].</p> <p><u>Inadequacies in the EIA Report's coverage of OVTs</u></p> <p>5. The EIA Report fails to report that, on the basis of objective like-for-like comparison of diameter at breast height (“DBH”), height and canopy spread with existing trees already on the Register of OVTs (refer to Figure 5.3 and accompanying narrative [D/21/3587-3588] and the table at Appendix B2 of HKGC's Technical Review of Tree Survey (“HKGC's Review of Tree Survey”) [D/21/3449-3734] submitted together with the Club's Response to the Additional Information [D/21/3349-3925]), 25 of the 29 large Trees of Particular Interest (“TPIs”) found by HKGC in Sub-Area 1 are very likely (16) or likely (9) to meet the criteria to be registrable as OVTs, which classification would give them protection from removal in accordance with DEVB TC(W) 5/2020(§21 [H/59]). See §C.4.a [D/21/3435-3440] §6.9 and §7.3 of HKGC's Review of Tree Survey [D/21/3463-3464] and the table at Appendix B2 of HKGC's Review of Tree Survey [D/21/3587-3588].</p> <p>6. The existence of “<i>about 80 potentially registrable Old and Valuable Trees</i>” at FGC was already known to Government as they were recognised in 2017 in the Agreement No. CE 42/2013 (CE) Preliminary Feasibility Study on Developing the New Territories North, Executive Summary, page 29, footnote 1 [H/58/5138].</p> <p>7. Furthermore, in the Project Profile:</p> <ul style="list-style-type: none"> • §3.9.1 of states “<i>The cluster of trees in the PDA, which are landscape, fairway and woodland with many trees considered as potential Old and Valuable Trees (OVTs), symbolizes the long history of FGC development since year 1911...</i>” [B/2/18]. • §3.9.2 states “<i>Potential OVTs (including trees with a DBH over 1000mm) and protected species in Hong Kong in accordance with the “Rare and Precious Plants of Hong Kong” possess significant amenity value. The survival rate of potential OVTs after transplanting is low due to their maturity.</i>” [B/2/18] and • §5.9.5 (7th point) states “<i>The design should take into account the location of the potential OVTs and associated clearance zones and avoid disturbance of the soil levels around these trees.</i>” [B/2/33]. <p>Despite these references, there is no mention of potential OVTs in the LVIA.</p>		<ul style="list-style-type: none"> • HKGC's Review of Tree Survey [D/21/3449-3734] generally, including Appendix A5

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		<p>8. The large number of potentially registrable OVTs puts Sub-Area 1 on a par with Kowloon Park (42 OVTs) and greater than Victoria Park (14 OVTs), two other open spaces with similar dense concentration of beautiful old trees. The 25 potential OVTs are scattered throughout Sub-Area 1 (see Drawing HKGC2-ADD4-TPZ-01 - TPZs and Remaining Developable Area after Preservation of Large TPIs at Appendix A5 of HKGC's Review of Tree Survey [D/21/3528]) and if registered as OVTs their removal would be prohibited, thus rendering the PHD development as essentially not feasible, as explained in the following paragraph. The failure to identify the potential non-feasibility of the project due to the 25 potential OVTs (combined with the preservation of 0.39 hectares of woodland, all in Sub-area 1) is a fundamental failure of the EIA.</p> <p>9. When the location of the potentially registrable OVTs in Drawing HKGC2-ADD4-TPZ-01 [D/21/3528] is considered together with condition (a) of the DEP's Approval Letter of 11 May 2023 requiring a revised layout plan aiming to protect the of woodland 0.39ha in the centre of SA-1 [A/1/3] (see overlay aerial photos showing the area superimposed at Exhibit AMD-2), these two fundamental failures render any large-scale development of SA-1 as essentially impossible.</p> <p>10. The failure to identify and advise ACE/DEP of: (1) the existence of so many potential OVTs in Sub-Area 1; and (2) the requirement to go through a potential OVT review process in accordance with DEVB TC(W) 5/2020 [H/59], are significant omissions and deficiencies, with consequential substantial adverse impact on the results and conclusions of the assessment.</p> <p>11. The LVIA is therefore in breach of the requirements of the TM quality requirements (§§4.4.2(b) and (d) of the TM [B/4/97-98]), resulting in a consequential breach of TM §§4.5.1(b) and (c) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. It also fails to address issues raised by the public and ACE during the public inspection period. Therefore per §§4.5.1(b) and (c) of the TM, the EIA Report should not have been approved by the DEP.</p>		
7.	<p>Landscape and Visual: Tree Compensation Plan</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 11 generally [C/13/1804-2070] CEDD's Additional Information: Section 5 [C/16/2477-2489], specifically §§5.3.3 and 5.3.4 [C/16/2478] 	<p><u>The SB/TM requirements on Compensatory Tree Planting (mitigation measure for destruction of trees in Sub Area 1)</u></p> <ol style="list-style-type: none"> §§1 and 2 of item 6 above is repeated. In August 2022, the ACE members raised concerns as to the survival rate of compensatory trees to be planted, which they estimated would have a 50% survival rate. As such, they recommended that the ratio of tree compensation should be increased to take this survival rate into account. See §§33-34 of the ACE meeting minutes [E/28/4003-4004]. Subsequently, the DEP requested CEDD to provide a: "... (d) <i>Tree compensation plan which shall include details of planting numbers with compensation ratio of at least 1:1.5 having regard to the number of trees affected, locations and tree species to be compensated as well as a management plan taking into account the water demand of the compensatory trees.</i>" [F/37/4203]. 	<p><u>TM</u></p> <ul style="list-style-type: none"> §§4.4.2 and 4.4.2(k) of the TM [B/4/98] §§4.5.1(b) & (c) of the TM [B/4/100] <p><u>EIAO Guidance Notes</u></p> <ul style="list-style-type: none"> §2.4, EIAO GN 8/2010 [B/10/196] 	<p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §8 of the Executive Summary [D/21/3354]

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		<p><u>Compensatory Tree Planting in CEDD's Additional Information</u></p> <p>4. However, the CEDD Additional Information failed to provide the tree compensation plan with the 1:1.5 ratio as requested, and insisted that the compensation ratio remain at 1:1 [E/31/4075-4076].</p> <p>5. §5.3.3 of the CEDD Additional Information merely says that approved specialist contractors or the maintenance department will be responsible for “<i>keeping the compensatory trees in satisfactory condition</i>” and “<i>replacement of any compensatory trees not survived</i>” [C/16/2478]. In other words, the contractors will replace any trees that do not survive and it will keep the compensatory trees in satisfactory condition.</p> <p>6. §5.3.4 of the CEDD Additional Information then says “<i>Based on the established procedure as discussed above, the ACE Members could be reassured of a full and continuous compliance with the tree compensatory requirement without being affected by the tree survival rate after planting...</i>” [C/16/2478] without even attempting to provide the tree compensation plan with the 1:1.5 ratio as requested by DEP, and which was expressed at the 19 August 2022 ACE meeting, to be agreeable by the CEDD's representative, Mr Terence Tsang (last sentence of §34 of the meeting minutes [E/28/4004]).</p> <p>7. The proposed 5.1ha woodland compensation area is inconsistent with the tree compensation proposal described in the CEDD Additional Information §5 and illustrated in Figure 5B [C/16/2480]. Furthermore, the 5.1ha is inaccurately plotted in the original EIA Report - some of the compensation woodland planting is shown in locations where there is existing woodland to be retained. This means that to create 5.1ha of woodland it would be necessary to extend the planting further south into Sub-Area 4, thus greatly endangering the survival of the CSC trees located there. See Figure 6.1 of HKGC Review of Tree Issues [D/21/3441] which shows the actual area required to provide 5.1ha of woodland planting. See also overlay aerial photos showing the area superimposed at Exhibit AMD-2.</p> <p>8. Given this unsatisfactory response, the DEP attempted to address this issue as to tree survival rate by imposing the following conditions of approval in its Decision letter on 11 May 2023 [A/1/3]:</p> <p style="padding-left: 40px;"><i>“(d) The project proponent shall prepare and deposit a tree management plan covering the compensatory planting of trees in Sub-Areas 2 & 3 as well as a maintenance and monitoring programme to ensure tree survival rate of compensatory trees.”</i></p> <p>For the reasons stated under Ground 4 in the Form 86, it is impermissible to defer such an important part of the EIA Report assessment to be dealt with by way of depositing a tree management plan at an unidentified future time.</p> <p>9. As such, the EIA Report and CEDD's Additional Information failed to properly address DEP's request (arising from ACE's concerns) for specific information on tree compensation plan including details of planting numbers with a compensation ratio of at least 1:1 and related information, not to offer coherent mitigation measures, such that no proper assessment as to tree survival rate was conducted.</p>		

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		<p>10. Furthermore, the compensatory tree proposal does not follow the full requirements in DEVB TC(W) NO. 4/2020 [59.1] which requires the proponent to justify why a 1:1 compensation by tree girth is not provided. If provided, this would require an area of compensation that would exceed 5.1 hectares. No explanation was provided in the Additional Information.</p> <p>11. The failure to properly address DEP request (arising from ACE's concerns) for additional information as to mitigation measures in relation to tree compensation is a breach of the TM quality requirements (§4.4.2(k) of the TM [B/4/98]), resulting in a consequential breach of TM §§4.5.1(b) and (c) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. It also fails to address issues raised by the public and ACE during the public inspection period. Therefore per §§4.5.1(b) and (c) of the TM, the EIA Report should not have been approved by DEP.</p>		
8.	<p>Landscape and Visual: Consideration of the 0.39ha preserved woodland</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 11 generally [C/13/1804-2070] CEDD's Additional Information: Section 6 [C/16/2490-2495], specifically §§6.1, 6.5.3, 6.6.1, Figure 6A, §5, Figure 5B [C/16/2480, 2491, 2494] 	<p><u>The SB/TM requirements on preservation of secondary woodland in Sub Area 1.</u></p> <ol style="list-style-type: none"> §§1 and 2 of item 6 above is repeated. During the 19 August 2022 ACE meeting, ACE members had expressed views that the 0.39ha of an additional secondary woodland at SA1 should be preserved (see §§28 to 30 of the ACE meeting minutes [E/28/4002-4003]), and at §119 of the same meeting minutes [E/28/4023], it was suggested that the layout plan should be revised with reference to the proposed preservation of 0.39ha of woodland in SA1. Following the ACE meeting, the DEP requested under s.8(1) of the EIAO in their letter of 31 August 2022 "...<i>(e) a detailed layout plan of the proposed housing development which shall illustrate the preservation of an additional 0.39 ha of secondary woodland in Sub-Area 1 (Annex 1) (on top of those woodland, mixed woodland and Trees of Particular Interest (TPI) recommended for preservation in the EIA report), the locations of the trees to be retained, the location, disposition and design of the proposed housing blocks with a view to minimising adverse ecological impact</i>" (see [F/37/4203]). <p><u>Failure to provide the additional information requested on the preservation of the secondary woodland</u></p> <ol style="list-style-type: none"> CEDD failed, however, to provide the layout plan illustrating the information requested by DEP. The proposed housing development (PHD) layout in Figure 6A of the CEDD's Additional Information "<i>Location of Woodland suggested by ACE to be preserved</i>" [C/16/2491] provided in answer to the DEP's s.8 EIAO request, fails to show the correct number and locations of existing TPI locations and their necessary tree protection zones ("TPZs") derived in accordance with Government's own tree protection guidelines (i.e. the DEVB GLTMS Tree Management Practice Note 1: Tree Preservation during Construction [Sept 2019] [H/59/5155-5156]). See Figure 5.2 of the '<i>Technical Review of Tree Related Issues in ACE Paper 8/2023</i>' at Item 7 of the Club's Response to Additional Information ("HKGC's Review of Tree Issues") [D/21/3437] for the correct situation. 	<p><u>TM</u></p> <ul style="list-style-type: none"> §4.5.1(c) [B/4/100] <p><u>EIAO Guidance Notes</u></p> <ul style="list-style-type: none"> §2.4, EIAO GN 8/2010 [B/10/196] 	<p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §9 of the Executive Summary [D/21/3354] Item 7, Figure 5.2, Figure 6.1, §D.1 [D/21/3437, 3440-3441] HKGC's Landscape and Trees Submission [D/18/3134-3215]

No.	Subject Matter (§ of the EIA Report)	Errors and Omissions	EIA TM, SB, EIAO GN Reference	Club's PP Submissions, Club's Statutory Submissions & Club's Response to Additional Information Reference
		<p>5. Furthermore, the assessment of the ecological value of the woodland in CEDD's Additional Information is based on a grossly inaccurate tree survey in the original EIA Report which has not been revised in the Additional Information, despite HKGC's comments in June 2022 (see the "EIA Review – Landscape and Trees" enclosed with the Club's Statutory Submission [D/18/3134-3160]) having alerted the CEDD/EPD to such inaccuracies. The EIA Report Tree Survey omitted some 300 trees, including 26 rare and/or protected species (see §5 of Item 10 of this Annex 3 below).</p> <p>6. As stated at §3 above, the CEDD failed to provide the requested detailed layout plan. Further, §6.6.1 of the CEDD Additional Information [C/16/2494] stated that "... the scale of proposed public housing and range of commercial and public provided under the development will be affected if the woodland in concern is to be preserved", and §6.5.3 of CEDD Additional Information [C/16/2494] stated that "Preserving the woodland would displace a residential block, the integrated commercial cum carpark building and part of the PTI cum GIC building. It would be difficult for the affected housing block as well as commercial and public facilities to be relocated elsewhere within the proposed development, as sufficient space in other area of Sub-Area 1 would not be available."</p> <p>7. These very serious omissions were recognised by the DEP as being so fundamental that it required a change of the fundamental parameters of the layout plan for the proposed housing development. The DEP attempted to address these serious omissions by imposing the following conditions of approval in its Decision letter on 11 May 2023 [A/1/3]:</p> <p><i>"(a) The project proponent shall review and revise the Layout Plan (LP) by adjusting the housing footprint, disposition and density with an aim to minimizing the number of tree to be felled and preserving the 0.39 ha of woodland at the centre of Sub-Area 1 as far as practicable. The revised LP shall be submitted to the DEP for approval before commencement of construction of the relevant phase of the project.</i></p> <p><i>(b) The project proponent shall submit a detailed Landscape and Visual Plan (LVP) which covers a review of the building heights for the proposed housing development and adoption of a stepped height profile with the building height descending from north to south, with a view to reducing the footprint while at the same time minimising the visual impact to the surrounding rural environment. The project proponent shall also minimise tree felling in Sub-Area 1 to reduce visual impact and to use the trees and woodland for generating a natural outlook as well as a barrier to minimise light impact to the surrounding rural environment. The detailed LVP shall be submitted to the DEP for approval before commencement of construction of the relevant phase of the project"</i></p> <p>8. It is clear and obvious that adjusting the housing footprint, disposition and density aiming to preserve the 0.39 ha of woodland at the centre of Sub-Area 1, adoption of a stepped height profile with the building height descending from north to south with a view to reducing the footprint, and minimising tree felling in Sub-Area 1, including preservation of OVTs within their tree protection zones, would require a wholesale reassessment of the landscape, ecological and other assessments in the EIA Report. This renders the entire EIA process since publication of the EIA Report as meaningless, as the</p>		

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		<p>previous assessments having been superseded by a new layout and development parameters, and needing to be re-assessed.</p> <p>9. For the reasons stated under Ground 4 in the Form 86, it is impermissible to defer such an important part of the EIA Report assessment to be dealt with by way of a wholesale adjustment of the layout of the PHD and submission of a detailed Landscape and Visual Plan (LVP) plan at an unidentified future time.</p> <p>10. In addition to the ground set out in Ground 4 of the Form 86 and the failure of CEDD to provide information requested by the DEP under s.8(1) of the EIAO which was required by the DEP to form a view that the EIA Report (as supplemented by the Additional Information) complies with the SB and TM, this failure to address issues raised by the public and ACE during the public inspection period is also a breach of §4.5.1(c) [B/4/100] of the TM. The EIA Report should not, therefore, have been approved by the DEP.</p>		
9.	<p>Landscape and Visual: Shading assessment</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 11 generally [C/13/1804-2070] CEDD's Additional Information: Section 8 [C/16/2515-2519], specifically §§8.2.5 and 8.2.9 [C/16/2517-2518] 	<p><u>The SB/TM requirements on preservation of trees in Sub Area 1</u></p> <ol style="list-style-type: none"> §§1 and 2 of item 6 above is repeated. During the 19 August 2022 ACE meeting, ACE members had suggested that "<i>the building blocks would block the sunlight and undoubtedly had certain shading impact on the flora species as well as habitats nearby.... [and] the project proponent to submit further information to demonstrate that there would be no adverse impact in this respect.</i>" Another Member "<i>echoed that the shading impact during the operational phase should be considered.</i>" While another Member "<i>opined that the project proponent should bear in mind the potential shading effect on flora species in considering the design and layout plan. She added that shade tolerant trees should be deployed for tree compensation where appropriate.</i>". §43 of the minutes of the 19 August 2022 ACE meeting [E/28/4006]. These views were echoed again at §133 of the minutes where it was proposed "<i>with the support of the meeting that the project proponent could be requested to provide additional analysis on the shading impact of the proposed housing blocks to the trees in the potential development area taking into account the revised layout plan</i>" [E/28/4006-4007] Following the ACE meeting, the DEP requested under s.8(1) of the EIAO in their letter of 31 August 2022 "<i>...(g) Additional analysis on the shading impact of the proposed housing blocks to the trees in the potential development area taking into account the revised layout plan;</i>" [F/37/4203]. <p><u>Shading Assessment in CEDD's Additional Information</u></p> <ol style="list-style-type: none"> In Section 8 of CEDD's Additional Information, CEDD responds to DEP's request by providing a shading assessment, to which Dr Kuo Yau-lun of the National Pingtung University of Science and Technology provided comment [C/16/2515-2519] based on the layout plan in the EIA Report which will be the subject of a wholesale revision in layout under the Conditions of Approval (see item 8 of this Annex 2 above) ("Shading Assessment"). <p><u>Inadequacies in the Shading Assessment</u></p>	<p><u>TM</u></p> <ul style="list-style-type: none"> §§4.4.2, 4.4.2(i) & (k) [B/4/98] §§4.5.1(b) & (c) [B/4/100] §9.1 of Annex 18 [B/4/157] <p><u>EIAO Guidance Notes</u></p> <ul style="list-style-type: none"> §§3.1.3 & 4.1.1 of EIAO GN 3/2010 [B/6/175-176] §§1.4, 2.4, 2.7 & 3.8(b) of EIAO GN 8/2010 [B/10/195-197 & 203] 	<p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> Item 7 (HKGC's Review of Tree Issues) and 11 (Shade Impact Report) [D/21/3432-3448, 3776-3790]

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		<p>5. The Shading Assessment is inadequate, firstly because the layout plan was not revised as requested by DEP (see item 8 of this Annex 2 above) and secondly, because the analysis of the shading upon the trees proposed to be retained is neither robust nor credible for the following reasons: (1) some TPIs are omitted from analysis; (2) the Sun Path Analysis is inadequate; and (3) Dr Kuo's advice is based on the wrong information.</p> <p>6. Regarding the TPIs omitted from the analysis, CEDD Additional Information Section 8 [C/16/2515-2519] addresses shading impacts upon the proposed retained tree cluster between PHD Blocks, 5, 6 and 12 but completely fails to address shading impacts upon the 11 TPIs proposed to be retained.</p> <p>7. Regarding the Sun Path Analysis, §8.2.5 of CEDD Additional Information states "<i>In spring equinox (春分), summer equinox (夏至), autumn equinox (秋分), the retained tree clusters would be able to receive direct sunlight, although in some time of a day, the trees may be shaded by the proposed housing development. The shading is not significant.</i>" [C/16/2517]. This statement greatly understates the actual shading that will be caused by the buildings, and it is wrong to say the shading is not significant. To demonstrate this, hourly sun-path diagrams for the Winter and Summer Solstices and the Spring and Autumn Equinoxes were provided in 'Shading Impact Upon Fanling Golf Course West of Fan Kam Road' ("Shade Impact Report") at Item 11 of HKGC's Further Submissions [D/21/3776-3790], together with mpegs showing videos of the movement of the shadows from sunrise to sunset at each time of year. Based on this information:</p> <ol style="list-style-type: none"> (1) It is demonstrated that the tree cluster is surrounded to the north and south by the very tall housing blocks and will receive less than 1 hour per day of sunlight at the Winter Solstice and less than 4 hours per day at the Spring and Autumn Equinoxes. (2) This means the tree cluster will receive less than 4 hours per day of direct sunlight for more than 6 months of the year, which constitutes a very significant and serious shading effect, contrary to the claims in CEDD's Additional Information. (3) Some of the 11 large TPIs which are (unrealistically) being proposed to be retained within the scheme would suffer even more shading than the tree cluster. (4) This is a most significant change from the current situation in which all trees have direct sunlight from soon after sunrise to just before sunset. (5) To say that the shading is not significant is therefore quite incorrect and very misleading. <p>8. Dr Kuo's opinions are evidently based on factually inaccurate information. Dr Kuo is correct in saying at §8.2.9 that "<i>mature trees being periodically shaded for two months in winter, while receiving direct sunlight in other time of the year, would not be significantly impacted in health.</i>" [C/16/2518]. However, as explained above and as illustrated by the sun-path diagrams in the Shade Impact Report [D/21/3776-3790] and the related mpegs, the degree of shading described in Dr Kuo's quote is not the degree of shading that would result from the proposed PHD. Dr Kuo therefore appears to have based his advice on incorrect information.</p> <p>9. There was also a failure to assess the severe shading impacts on the golf turfgrass to the west of Fan Kam Road, the impact of which was also noted by ACE members (see §2</p>		

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		<p>above). These shading impacts will cause substantial adverse impact upon the turfgrass quality of remaining golf holes sufficient to render Old Course hole #18 unplayable and reduce the quality of other areas to a level that renders the Club unable to host international tournaments.</p> <p>10. All of the above points on shading are exacerbated by the requirement in the Conditions of Approval of the EIA Report that a new and revised layout of the PHD blocks be provided – see §3 above. Such a revision in layout of the PHD blocks will inevitably render all of the shading assessments included in the ‘approved’ EIA Report as entirely superseded. As shading impact was an important issue identified in the DEP’s s.8(1) request for further information, such new shading reports should have been put forward with the new layout of the blocks prior to the approval of the EIA Report and not left to be assessed privately between CEDD and EIA in the post-approval stage.</p> <p>11. For the reasons stated under Ground 4 in the Form 86, it is impermissible to defer such an important part of the EIA Report assessment to be dealt with by way of new shading plans which will need to follow a wholesale adjustment of the layout of the PHD and submission of a detailed Landscape and Visual Plan (“LVP”) plan at an unidentified future time.</p> <p>12. The failure to provide any information on how the shading will affect the 11 TPis proposed to be retained, and the incorrect information with regard to the shading effect on the tree cluster proposed to be retained is a breach of the requirements of TM Annex 18 §9.1 regarding using appropriate presentation methods [B/4/157].</p> <p>13. The above breaches lead to a failure to demonstrate any sound technical ability to retain the TPis and tree cluster in a healthy state, which is a breach of the TM quality requirements (§§4.4.2(i) and (k) of the TM [B/4/98]), resulting in a consequential breach of TM §§4.5.1(b) and (c) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. It also fails to address issues raised by the public and ACE during the public inspection period. Therefore per §§4.5.1(b) and (c) of the TM, the EIA Report should not have been approved by the DEP.</p>		
10.	<p>Landscape and Visual: Tree survey</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 11 generally [C/13/1804-2070], specifically §§11.9, 11.10, 11.11 [C/13/1852-1872] 	<p><u>The SB/TM requirements on tree surveys</u></p> <p>1. §§1 and 2 of item 6 above is repeated.</p> <p><u>The tree surveys in the EIA Report</u></p> <p>2. The tree survey in the EIA Report is highly inaccurate, with a litany of factual errors in omitting trees and consistently undermeasuring (or, more likely, underestimating) their height and girth, which calls into doubt the reliability of the tree survey and any analysis and assessment relying on its findings.</p> <p><u>The inaccuracies in the tree surveys</u></p>	<p><u>TM</u></p> <ul style="list-style-type: none"> §§4.4.2(b) & (d) [B/4/98] §4.5.1(b) & (c) [B/4/100] <p><u>SB</u></p> <ul style="list-style-type: none"> §§1 & 2 of Appendix J [B/3/80] <p><u>EIAO Guidance Notes</u></p> <ul style="list-style-type: none"> §§1.4 & 2.4 of EIAO GN 8/2010 [B/10/195-196] 	<p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> §B.3.c.ii of Annex 3.4 (LVIA Annexes) [D/18/3143-3145] <p><u>Club's Response to Additional Information</u></p> <ul style="list-style-type: none"> §5 to the Executive Summary [D/21/3353] Item 7 (HKGC's Review of Tree Issues) [D/21/3432-3448]; Figure 5.1 [D/21/3434] Item 8 (HKGC's Review of Tree Survey) [D/21/3449-

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		<p>3. Prior to the Decision on 11 May 2023, HKGC informed the ACE and the DEP in §5 of the of the Executive Summary to the Club's Responses to the Additional Information [D/21/3353] that a detailed audit of the EIA Report Tree Survey by HKGC's consultants had been carried out in February and March 2023, a copy of which was attached.</p> <p>4. The results of this detailed audit are set out in "<i>Hong Kong Golf Club's Trees Survey- Technical Review of the Tree Survey prepared under CE17/2019(CE) Technical Study on Partial Development of Fanling Golf Course</i>" ("HKGC's Review of Tree Survey") at Item 8 of the Club's Responses to the Additional Information [D/21/3449-3734], which demonstrated that the EIA Tree Survey was factually inaccurate to a very high degree, meaning that all subsequent related tree and landscape impact assessments in the EIA Report are also inaccurate to a high degree. See also Figure 5.1 [D/21/3434] of HKGC's Review of Tree Issues for a visualisation demonstrating a typical example of the substantial inaccuracies of the tree dimensions in the EIA Tree Survey.</p> <p>5. Objective (physically measurable) and indisputable factual inaccuracies in the EIA Tree Survey that are reported in the WS-TRTS and that that may be easily verified by a site visit include:</p> <ol style="list-style-type: none"> (1) 460 trees are missing (27.6% of 1665 trees located in Sub-Area 1) (see §6.3 [D/21/3461-3462], §8.1.2 [D/21/3465]). The Club's tree audit was conducted later than CEDD's study. The Club's tree experts identified some 300 trees not recorded in CEDD's study. It was estimated that around 156 of these might not have been of the required dimensions to be included at the time of CEDD's study. However as noted in HKGC's "<i>the remaining 304 trees are far too big to have been undersize in 2021 so were clearly omitted from the EIA Tree Survey in error</i>" [D/21/3461]. (2) 31 TPIs are missing (30.7% of 101 TPIs in Sub-Area 1) (see §6.3 [D/21/3461-3462], §6.9 [D/21/3463-3464], §§8.1.4 to 8.1.5 [D/21/3465]) (3) Tree DBH is under-measured by average 86% and to as low as 23% of actual diameter at breast height (DBH), (this has substantive impact on identification of TPIs). There are numerous errors as to the DBH measurements of all trees (see §6.4 [D/21/3462-3463], §8.1.7 [D/21/3465]) (4) Tree height is under-measured by average 76% and to as low as 29% of actual height (this has substantive impact on identification of TPIs and their Tree Protection Zones) (see §6.5 [D/21/3463], §8.1.8 [D/21/3465]) (5) Tree canopy spread is under-measured by average 60% and to as low as 25% of actual canopy spread in open areas and by average 66% and to as low as 11% of actual canopy spread in woodland areas (this has substantive impact on identification of TPIs and their Tree Protection Zones) (see §§6.6 and 6.7 [D/21/3463-3464], §8.1.9 [D/21/3465]) (6) Over 60 trees are mapped at the wrong locations with locational errors of up to 20m (see §6.10.1 [D/21/3464], §8.1.6 [D/21/3465]) (7) 57 cases of incorrect tree species identification (this has substantive impact on identification of TPIs) (see §6.3.6 [D/21/3462]). <p>The data in (1) to (7) above is derived from the HKGC's Review of Tree Survey included in the Club's Response to Additional Information [D/21/3449-3734].</p>		<p>3734], §§6.3, 6.3.6, 6.4, 6.5, 6.6, 6.7, 6.10.1, 8.1.2, 8.1.4, 8.1.5, 8.1.6, 8.1.7, 8.1.8, 8.1.9 [D/21/3461-3465]</p> <ul style="list-style-type: none"> • Appendix A5 of HKGC's Review of Tree Survey [D/21/3527-3529]

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		<p>6. The above factual inaccuracies in the EIA Report Tree Survey have the following consequential adverse effect on the landscape impact assessment and, therefore, constitute major breaches of the requirements of the SB and TM:</p> <ol style="list-style-type: none"> (1) Gross under-evaluation of the true quantum of tree-felling leading to incorrect evaluation of impact significance before mitigation (at §11.9 of the EIA Report). See Exhibit AMD-3 for a table comparing the correct impacts on trees with the incorrect impacts reported in the EIA Report. (2) Failure to recognise that the proposed development would require removal of 25 large TPIs that have the potential to be registered as Old and Valuable Trees (OVTs). (see §11.9 of the EIA Report [C/13/1852-1861] and “HKG2-ADD4-TPZ-01 – TPZs and Remaining Developable Area after Preservation of Large TPIs” [D/21/3528] found at Appendix A5 of HKGC’s Tree Survey Review [D/21/3527-3529]. (3) Inadequate Tree Compensation that fails to recognise, and compensate for, the correct quantum of tree felling (see §11.10 of the EIA Report [C/13/1862-1866]). (4) Resultant gross under-evaluation of Residual Landscape Impact Significance (EIA Report §11.11 ‘Residual Impact’). <p>7. These factual inaccuracies in the EIA Tree Survey constitute a major breach of the TM quality requirements (§§4.4.2(b) and (d) of the TM [B/4/97-98]), resulting in a consequential breach of TM §§4.5.1(b) and (c) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. It also fails to address issues raised by the public and ACE during the public inspection period. Therefore per §§4.5.1(b) and (c) of the TM, the EIA Report should not have been approved by the DEP.</p>		
11.	<p>Land Contamination: Land Contamination Assessment</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> • EIA Report: Section 8 generally [C/13/1265-1589], specifically §§8.4.64, 8.7.5 [C/13/1291, 1302] and Appendix 8.1 [C/13/1314-1316] • Contamination Assessment Plan (appended to section 8 of the EIA Report) generally [C/13/1317-1589], specifically §§2.2-2.5 [C/13/1324-1336], 4.1.3 [C/13/1345] and Appendix D [C/13/1477-1519] 	<p><u>The SB/TM requirements on LCAs and CAPs</u></p> <ol style="list-style-type: none"> 1. §3 of Appendix G to the SB sets out the requirements for CEDD when carrying out Land Contamination Assessment (“LCA”) and a Contamination Assessment Plan (“CAP”) when potential contaminated sites are inaccessible for conducting sampling and analysis e.g. due to a site access problem. In particular, “(iii) <i>If there are potential contaminated sites which are inaccessible for conducting sampling and analysis during the course of the EIA study, e.g. due to site access problem, [CEDD’s] CAP shall include: ... (c) a confirmation of whether the contamination problem at these sites would be surmountable</i>” [B/3/74]. 2. §3.4.8.3 of the SB requires CEDD to “refer to the results of land contamination assessment, and where necessary, carry out further work to assess whether there is the presence of high level of arsenic within the Project area and any associated works area. If confirmed, the Applicant shall determine with justifications whether the arsenic is arising from anthropogenic input or natural occurrence” [B/3/46]. 3. §3.4.8.4 of the SB sets out that “If high level of naturally-occurring arsenic is found present within the Project area and any associated works area, a health impact assessment shall be conducted, which shall be based on established international practices. A literature search shall be carried out to determine the best approach and methodology for the health impact assessment, including any codes of practices, 	<p><u>SB</u></p> <ul style="list-style-type: none"> • §3(iii)(c) to Appendix G [B/3/74] • §§3.4.8.3 and 3.4.8.4 [B/3/46] <p><u>TM</u></p> <ul style="list-style-type: none"> • §4.4.1 [B/4/97] • §§4.4.2(i) & (k) [B/4/98] • §§4.5.1(a) & (b) [B/4/100] 	<p><u>Club’s Statutory Submission</u></p> <ul style="list-style-type: none"> • §§2.3.13, 2.3.14-2.3.16 [D/18/2963-2964] • Items K1 & K6 of the EIA Checklist [D/18/3006-3007]

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		<p><i>guidelines, etc. applicable to Hong Kong with suitable reference to the approved EIA report of North East New Territories New Development Areas (Register no.: AEIAR-175/2013)" [B/3/46].</i></p> <p><u>The LCA in the EIA Report</u></p> <p>4. At §§8.3.2 and 8.3.4 of the EIA Report [B/4/1202-1203], details are given of 'Site Inspection' carried out in May 2020 for the purposes of validating the initial evaluation of desktop reviews relating to land contamination assessment and to verify the potential contamination areas and hotspots, including identification of the current land uses in the PDA, and whether there is any known or potential contamination on neighbouring properties. HKGC was requested on 12 May 2020 to provide access for such 'Site Inspection', which took place on 15 and 20 May 2020.</p> <p>5. CEDD included a CAP with the EIA Report, but claimed (§§8.3.8,8.4.64, 8.8.11 of the EIA Report [B/4/1203, 1221, 1234]) that an LCA was not conducted for the EIA Report due to the site not being accessible, and that the archaeological survey needed to be conducted first. This is not correct, since:</p> <ol style="list-style-type: none"> (1) access was never denied by HKGC and to the contrary, as explained below, HKGC acceded to a formal proposal for Ground Investigation ("GI") Works in February 2021; (2) the site is huge; (3) access for boreholes was given for the HydroIA referred to at Items 1 and 2 of this Annex 2 above, as detailed in the HydroIA. Details of the boreholes and soil sampling carried out for the HydroIA are set out at §§7.4.1 to 7.4.4 [D/20/3734-3735], §§7.5.10 to 7.5.12 and Figure 7F [D/20/3740-3741], of the HydroIA and Appendix 7.1 of the Additional Information [D/20/3773-3776]; and (4) Other CEDD/WSP experts also had very significant access to FGC for various other purposes relating to the EIA Studies, including numerous ecological and tree surveys (see supplementary information given by HKGC to ACE under cover of its letter dated 3 August 2022 [C/12/2862-2864] ("3/8 Letter"), which listed such access on numerous occasions between January 2020 and February 2021 under the heading "II. Records of requests and granting of access for EIA and Ecology Surveys by WSP" (with a detailed table in the letter and supporting documents at its Exhibit 2). <p>6. Among the correspondence attached as Exhibit 2 to the 3/8 Letter is a chain of emails between WSP and HKGC dated 24 to 30 November 2020, by which WSP requested access for "Site Investigation Works" at the Old Course with a total of 16 sampling boreholes. In a draft letter sent on 30 November 2020, WSP stated that such "Site Investigation Works" were "to facilitate various assessments in our Study such as geotechnical and land contamination assessment". Further, as set out in HKGC's Affidavit evidence, Exhibit KWLA-2 includes letters exchanged between WSP and HKGC between 8 December 2020 and 16 February 2021 in relation to WSP's request to carry out proposed "Ground Investigation ("GI") Works" involving 16 boreholes and two trial pits throughout Sub-Area 1. Following HKGC's written confirmation that it had no objection to the GI Works proposal and provision of related comments, WSP appear to have abandoned the proposal for the GI Works without explanation. HKGC's environmental consultant, Mr. Bhanja, has advised that such "Site Investigation Works" and "GI Works" are consistent with soil and groundwater sampling required for an LCA.</p>		

No.	Subject Matter (§ of the EIA Report)	Errors and Omissions	EIA TM, SB, EIAO GN Reference	Club's PP Submissions, Club's Statutory Submissions & Club's Response to Additional Information Reference
		<p>7. No attempt is made in Section 8 of the EIA or in the CAP to explain why the extent of sampling recommended in Section 4 of the CAP [B/4/1275-1286] could not reasonably have been carried out for the purpose of producing an LCA prior to publication to the EIA Report, does not disclose the GI Works proposal that HKGC had acceded to in February 2021 or explain that proposal, instigated and pursued by WSP was abandoned.</p> <p>8. Instead, §8.4.64 of the EIA Report [C/13/1291] and §4.1.3 of the CAP [C/13/1345] state that because the PDA is inaccessible and the golf course is operational (emphasis added) “... undertaking site investigation works to determine the actual land contamination impact is not feasible at this stage. The assessment of whether naturally occurring arsenic or due to anthropogenic activities with appropriate mitigation measures will be provided following the SI results”. This statement is contrary to the letters exchanged between WSP and HKGC between 8 December 2020 and 16 February 2021 and prior correspondence, which established that the GI Works proposed were feasible with a similar degree of co-operation as HKGC had given to the various surveys by other consultants and access for boreholes given for the HydroIA.</p> <p>9. On site accessibility, the records set out in the 3/8 Letter and in HKGC’s Affidavit records demonstrate that, as a matter of fact, CEDD/WSP experts were never denied access to the site to conduct land contamination assessments and HKGC had in fact acceded to the GI Works proposed by WSP apparently for an LCA, such that FGC was not at any material time a “potential contaminated sites which are inaccessible for conducting sampling and analysis during the course of the EIA study” under §3 of Appendix G to the SB.</p> <p><u>Insufficient reasons for not carrying out a LCA</u></p> <p>10. Given that other surveys including boreholes for the hydrological report were carried out with HKGC’s consent and in cooperation with CEDD’s consultant WSP and its sub-consultants, the suggestions in relation to the failure to prepare an LCA that it was necessary not to disturb the site, or safety issues of lack of access, and further that the LCA should be postponed until the archaeological survey is done at a future date, are not credible. The DEP should have insisted that these surveys be done before the EIA report is capable of approval.</p> <p>11. Despite the lack of an LCA, §8.7.5 of the EIA Report [C/13/1302] concludes that “... no adverse residual impacts are anticipated from the construction and operation of Project activities as the land contamination assessment and remediation would be completed before the commencement of any construction works” based only upon a desktop study and site walkover (two days in 2020 and 2021: see photos at Appendix D to the CAP [C/13/1477-1519]) and inquiries made to various Government Departments (specifically EPD, Fire Services Department, Lands Department) (see CAP §§2.2 to 2.5 [C/13/1324-1336]).</p> <p>12. This conclusion is not supported by the limited assessments carried out for the EIA Report and is based on the unjustified assumptions that: (i) whatever remediation options are chosen will be 100% effective in removing contamination to acceptable levels; and (ii) there will be no secondary impacts from the remediation activities themselves, including potential transport impacts if large volumes of soil have to be moved off-site.</p>		

No.	Subject Matter (§ of the EIA Report)	Errors and Omissions	EIA TM, SB, EIAO GN Reference	Club's PP Submissions, Club's Statutory Submissions & Club's Response to Additional Information Reference
		<p>13. Adopting these unjustified assumptions effectively means that any impacts, whatever their magnitude, can somehow be mitigated to acceptable levels such that there is no adverse residual impact. This approach is not justified and is not reasonable under the framework of the SB and TM.</p> <p>14. In general, EIA Report Section 8 [C/13/1265-1589] does not provide a sufficient level of assessment to draw the conclusions it has made, i.e. that there will be no adverse residual impacts relating to land contamination. At best, EIA Report Section 8 can only say that there is insufficient information available at this time to draw any conclusion as to the extent and level of contamination within the site and therefore the impacts (or residual impacts after any remediation) cannot be predicted at this time.</p> <p>15. This is a breach of the TM quality requirements (§§4.4.2(i) and (k) of the TM [B/4/98]), resulting in a consequential breach of TM §§4.5.1(a) and (b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it (a) must meet the requirements of the study brief, and (b) comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. Therefore per §§4.5.1(a) and (b) of the TM, the EIA Report should not have been approved by the DEP.</p>		
12.	<p>Drainage: Sewage capacity</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 6 [C/13/1207-1227] generally, specifically §6.8.3 [C/13/1214] 	<p><u>The SB/TM requirements on sewage capacity</u></p> <ol style="list-style-type: none"> The Project Profile §1.5.2 identified three potential EIAO Schedule 2 Designated Projects (“DPs”) [B/2/10], which were also set out in the SB at §1.3 [B/3/39]: <ul style="list-style-type: none"> (i) “Construction of sewage treatment works with an installed capacity of more than 5,000m³/day and a boundary of which is less than 200m from the nearest boundary of an existing or planned residential area. [under Schedule 2, Part I, F.2] (ii) Construction of a sewage pumping station with an installed capacity of more than 2,000m³/day and a boundary of which is less than 150m from the nearest boundary of an existing or planned residential area. [under Schedule 2, Part I, F.3] (iii) An activity for the reuse of treated effluent from a treatment plant. [under Schedule 2, Part I, F.4]” <p><u>Sewage capacity in the EIA Report</u></p> <ol style="list-style-type: none"> However, there is no discussion of any of these DPs in EIA Report Section 6. There is no mention of the how the sewage from 33,600 residents will be conveyed from the proposed residential blocks to proposed offsite municipal sewer and hence to SWHSTW. No details of the number or capacity of pumping stations are provided. Consistent with what was written in the Project Profile [B/2/10], a >2,000m³/day sewage pumping station is, more likely than not, required. According to §6.8.3 of EIA Report [C/13/1214], total sewage from proposed development is estimated at 8,578.9 m³/day + 200m³ from Areas 2 to 4. If there are only 4 points of outflow from the proposed development, it would logically be anticipated that at least one is greater than 2,000m³/day. Without justification to the 	<p><u>SB</u></p> <ul style="list-style-type: none"> §1.3 [B/3/39] <p><u>TM</u></p> <ul style="list-style-type: none"> §4.4.1 [B/4/97] §§4.4.2(b) & (d) [B/4/97-98] §§4.5.1(a) & (b) [B/4/100] 	<p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> §2.3.9 [C/9/2502-2503]

No.	Subject Matter (§ of the EIA Report)	Errors and Omissions	EIA TM, SB, EIAO GN Reference	Club's PP Submissions, Club's Statutory Submissions & Club's Response to Additional Information Reference
		<p>contrary, the EIA Report erred in omitting the need for a >2,000m³/day sewage pumping, which is a Schedule 2 DP and would therefore require an Environmental Permit under the EIAO.</p> <p>5. This is a breach of the TM quality requirements (§§4.4.2(b) and (d) of the TM [B/4/97-98]), resulting in a consequential breach of TM §§4.5.1(a) and (b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it (a) must meet the requirements of the study brief, and (b) comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. Therefore per §§4.5.1(a) and (b) of the TM, the EIA Report should not have been approved by the DEP.</p>		
13.	<p>Waste: Trucks/Waste</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: §3.5.3 of Executive Summary [C/13/250], Section 7 [C/13/1228-1264] generally, specifically §7.5.36 [C/13/1248] 	<p><u>The SB/TM requirements on construction waste</u></p> <ol style="list-style-type: none"> §3.4.3.2 of the SB states that “<i>The assessment area for the air quality impact assessment shall be defined by a distance of 500 metres from the boundary of the Project area and the works of the Project as identified in the EIA, which shall be extended to include major existing, committed and planned air pollutant emission sources identified to have a bearing on the environmental acceptability of the Project. The assessment shall include the existing, committed and planned sensitive receivers within the assessment area as well as any proposed air sensitive receivers within the Project as identified in the EIA and areas where air quality may be potentially affected by the Project. The assessment shall be based on the best available information at the time of the assessment. Odour impacts from the operation of new sewage treatment works, the sewage pumping station and refuse collection points proposed under the Project shall also be assessed. The assessment shall also take into account the impacts of emission sources from nearby concurrent projects, if any. The Applicant shall describe the transportation routings and frequency of the dump trucks, if any, with a view to addressing potential nuisance caused by dump truck movements during the construction phase of the Project</i>” [B/3/44]. According to CEDD’s ‘Handling of Public Fill Information Sheet (7)’¹², inert and non-inert construction and demolition (C&D) materials are defined as follows: <ol style="list-style-type: none"> “... inert C&D Materials, collectively known as “public fill”, consist of rock, concrete, asphalt, rubble, bricks, stones and earth. Since these materials would not decay or decompose, they are suitable for reuse in reclamation or site formation works.” (page 3) [H/51/5008] “... non-inert C&D Materials (or known as “C&D waste”), including plastic pipes, paper and timber scaffold, would be disposed of at landfills as other domestic wastes.” (page 3) [H/51/5008] Surplus Inert C&D Material is generally taken off-site to: (a) a nearby construction project where it can be used directly as fill material – controlled by the Fill Management Committee (FMC) of CEDD, or (b) a Public Fill Reception Facility (PFRF), such as a Fill Bank (e.g. in Tuen Mun Area 38 or Tseung Kwan O Area 137), either directly or via a Public Fill Barging Point (PFBP). The Fill Bank acts as a store of Inert C&D Materials for use on other projects in Hong Kong or on the Mainland. [H/51/5011-5012] 	<p><u>TM</u></p> <ul style="list-style-type: none"> §4.4.2(b) [B/4/97] EIAO TM §4.5.1(b) [B/4/100] <p><u>SB</u></p> <ul style="list-style-type: none"> §3.4.3.2 [B/3/44] 	<p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> §§2.3.3 (first bullet point), 2.3.10 [D/18/2955-2956, 2962-2963] Items F1 and J5 of the Club's EIA Checklist [D/18/2994 & 3005]

¹² "Handling of Public Fill Information Sheet" published by the CEDD, available at https://www.cedd.gov.hk/filemanager/eng/content_954/Info_Sheet7.pdf [H/51/5006-5012]

No.	Subject Matter (§ of the EIA Report)	Errors and Omissions	EIA TM, SB, EIAO GN Reference	Club's PP Submissions, Club's Statutory Submissions & Club's Response to Additional Information Reference
		<p><u>The EIA Report and construction waste</u></p> <p>4. The §3.5.3 of the Executive Summary to the EIA Report [C/13/250] says “<i>The inert C&D materials generated from the Project will be reused within the Project or other concurrent projects as far as practical...</i>”; §7.5.36 also says [C/13/1248] “<i>...It is anticipated that a maximum of 30 vehicles per day for transporting the wastes identified during the construction phase of the Project (year 2024 to 2029). The frequency of trucks for inert C&D materials enroute to Tuen Mun Area 38 Fill Bank PFRF is estimated at 16 vehicles per day during the construction phase (Year 2024 to 2029)...</i>” (<i>emphasis added</i>).</p> <p><u>Inaccuracies in calculations of truck trips for construction waste</u></p> <p>5. As such, we can see that in the EIA Report an <u>average</u> of 30 trucks/day (for all waste, of which 16 trucks/day are for inert C&D materials) is estimated across the entire 6-year construction stage, with no maximum number of truck movements on a monthly or even yearly basis, so the worst-case impacts cannot be assessed. There is no calculation provided to justify the average of 30/16 trucks/day.</p> <p>6. HKGC estimates an average of at least 42 trucks/day for inert C&D materials and an average of 52 trucks/day for all waste materials (inert plus non-inert C&D materials) for every working day throughout the entire six years construction stage (see §2.3.10 of the Club's Statutory Submissions [D/18/2962-2963] – this is a 250% difference for inert C&D materials. These calculations do not account for the higher rate of soil excavation and disposal at the start of construction during site formation, which is normal in construction projects. Assuming 423,119m³ Inert and Non-Inert C&D Material ÷ 7.5m³ truck capacity = 56,415 trucks, and assuming that the material would be excavated over 12 months, 302 working days over the year, the worst case would be 186 trucks per day on average over the first year of construction.</p> <p>7. The air quality impacts from truck movement are grossly underestimated. In each case, a truck per day includes 2 movements (arrival and departure), such that 16 trucks = 32 truck movements, and the worst case of 186 trucks is 372 truck movements per day.</p> <p>8. The basis for the estimate of 42 trucks/day is mentioned in EIA Checklist §J5 [D/18/3005] and the 5th bullet point of §2.3.10 of HKGC's submission on 17 June 2022 [D/18/2962] based on CEDD's (underestimated) volume of 570,000m³ of inert C&D material, a six year construction phase, and a truck capacity of 7.5m³ (typically this ranges from 5.5m³ to 7.5m³), excluding Sundays and general holidays when there will be no construction activities.</p> <p>9. As a result, the EIA Report failed to meet the TM quality requirements (§4.4.2(b) of the TM [B/4/97]), resulting in a consequential breach of TM §4.5.1(b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. Therefore per §4.5.1(b) of the TM, the EIA Report should not have been approved by the DEP.</p>		

No.	Subject Matter (§ of the EIA Report)	Errors and Omissions	EIA TM, SB, EIAO GN Reference	Club's PP Submissions, Club's Statutory Submissions & Club's Response to Additional Information Reference
14.	<p>Noise: Noise Sensitive (NSR) Receivers</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 4 [C/13/718-1133] generally, specifically §§4.2.1, 4.4.5 and Figure 4.4.1a [C/13/722, 727 & 792] 	<p><u>The EIA Report and NSR</u></p> <ol style="list-style-type: none"> §3.2.1(iii) of the SB requires the EIA study to cover: “potential noise impacts on the noise sensitive receivers (NSRs) (e.g. domestic premises including Ming Tak Court, Cheung Lung Wai Estate, On Po Tsuen, Ping Kong Village; education institutions including Tung Wah Group of Hospitals Ma Kam Chan Memorial Primary School, HHCKLA Buddhist Wisdom Primary School and Elegiantia College; North District Hospital, etc.) during the construction and operation of the Project, including noise impacts from construction activities, road traffic, operation of fixed noise sources and helicopters. Consideration shall be given to assessing the noise impacts during different phases of the Project on the residents of the development upon population intake;” [B/3/42] When identifying construction noise impact, §2.2.1(a) of Appendix C to the SB requires CEDD to “propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the construction noise impact assessment shall generally include areas within 300 metres from the boundary of the Project area and the works of the Project” [B/3/59]. When identifying road traffic noise impact, §3.2.1(b) of Appendix C to the SB requires CEDD to “identify all existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out quantitative road traffic noise impact assessment” [B/3/61]. When identifying fixed noise sources impact, §4.2.1(b) of Appendix C to the SB requires CEDD to “identify all existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out fixed noise sources impact assessment” [B/3/64]. When identifying helicopter noise impact, §5.2.1(b) of Appendix C to the SB requires CEDD to “identify all existing, committed and planned NSRs on the proposed Project in the assessment area” [B/3/66]. <p><u>NSR in the EIA Report</u></p> <ol style="list-style-type: none"> §4.4.5 of the EIA Report [C/13/727] selects residential buildings, schools, church, hospital and social welfare facilities as representative the noise sensitive receivers (“NSRs”), but not the Old, Eden or New Course at FGC, the latter two which host the Hong Kong Open. §3 of Annex 13 to the TM [B/4/131] does not limit the definition of NSRs, meaning that other NSRs can be added as needed. It is known that golfers need a quiet environment when playing and, particularly during competitions, Tournament Marshalls hold up “Quiet Please” signs for every shot for every player. §4.2.1 of the EIA Report [C/13/722] says that “... relevant legislation and associated guidance applicable to the present study for the assessment of noise impacts include: Technical Memorandum (TM) on Noise from Construction Work other than Percussive Piling (GW-TM)... [and] TM for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites (IND-TM)...” These two 	<p><u>SB</u></p> <ul style="list-style-type: none"> §3.2.1(iii) [B/3/42] §§2.2.1(a), 3.2.1(b), 4.2.1(b) & 5.2.1(b) of Appendix C [B/3/59, 61, 64, 66] <p><u>TM</u></p> <ul style="list-style-type: none"> §§1.1 & 3 of Annex 13 [B/4/131] §§4.4.2(b) & (d) of the TM [B/4/97-98] §4.5.1(b) [B/4/100] <p><u>Other References</u></p> <ul style="list-style-type: none"> §2.1 of the Technical Memorandum on Noise from Construction Work other than Percussive Piling (i.e. the GW-TW) [H/53/5044] §2.2 of the Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites (i.e. the IND-TM) [H/54/5061-5062] 	<p><u>Club's PP Submission</u></p> <ul style="list-style-type: none"> §4.2.1 [D/17/2552] <p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> Items G1 and G2 of Club's EIA Checklist [D/18/2995-2996]

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		<p>technical memorandums are issued pursuant to s.9 and s.10 of the Noise Control Ordinance (Cap. 400), respectively.</p> <p><u>Inadequacies in the assessment of NSR</u></p> <p>9. §2.1 of the GW-TW [H/53/5044] and §2.2 of the IND-TM [H/54/5061-5062] both state “...Any other premises or place, not being in the nature of either industrial or commercial premises, which is considered by the Authority to have a similar sensitivity to noise as the premises and places above shall also be considered to be a NSR. Any premises or place shall, however, be considered to be a NSR only when it is in use for its intended purpose.”</p> <p>10. Furthermore, in §4.2.1 of the Club's PP Submissions [D/17/2552], HKGC explicitly stated that FGC should be considered should be assessed as an NSR for potential noise impacts from construction and operation: <i>Section 3.2.1 of the PP indicates potential noise impacts from both construction and operational impacts which must be considered upon both users and workers at FGC, and also the over 50,000 local and international spectators who view the Hong Kong Open golf tournament each year...</i>”</p> <p>11. As shown in EIA Report Figure 4.4.1a [C/13/792], Old Course (west of Fan Kam Road), Eden Course, New Course and the Clubhouse at FGC are located with the 300m assessment area. However, none of these were not identified as Representative NSRs.</p> <p>12. It is therefore a significant omission that the Eden and New Courses at FGC were not identified as Representative NSRs for the noise assessment, nor was the FGC Clubhouse, located 90m from the proposed construction works and 110m from the proposed tower blocks.</p> <p>13. This is a breach of the TM quality requirements (§§4.4.2(b) & (d) of the TM [B/4/97-98]), resulting in a consequential breach of TM §4.5.1(b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. Therefore per §4.5.1(b) of the TM, the EIA Report should not have been approved by the DEP.</p>		
15.	<p>Noise: Fan Kam Road widening</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 4 [C/13/718-1133] generally; Figure 2.2 [C/13/295], Appendix 4.6.2 [C/13/1017-1025] and Figure 4.4.1 of Appendix 11 [C/13/2066-2067] 	<p><u>The SB/TM requirements on Emission</u></p> <p>1. §2.1(iii) of the SB requires the EIA study “to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potentially affected uses” [B/3/40].</p> <p>2. §3.2.1 of the SB sets out the scope of the EIA study and the key issues that the EIA study must identify. In particular, “(i) environmental benefits and dis-benefits of different land use options and layout options under different development scenarios, design and construction methods of the Project with a view to deriving the preferred land use option(s) and layout option(s) that will avoid or minimize adverse environmental impact. Particular attention shall be given to the acceptability of the overall environmental performance of the Project and associated works at all stages of implementation and cumulative effects due to interfacing existing, committed and planned projects in the vicinity of the Project” [B/3/42] and “(xiv) identification of individual DPs proposed</p>	<p><u>SB</u></p> <ul style="list-style-type: none"> §2.1(iii) [B/3/40] §§3.2.1(i) & (xiv) [B/3/42-43] §§3.1.2, 3.2.2(a), 3.3.1(c) of Appendix C [B/3/61-62] <p><u>TM</u></p> <ul style="list-style-type: none"> §§4.4.2(b), (d) & (k) [B/4/97-98] §4.5.1(b) [B/4/100] 	<p><u>Club's Statutory Submission</u></p> <ul style="list-style-type: none"> §2.3.4 (third and fourth bullet point) [D/18/2957-2958] Items G3 and G4 of Club's EIA Checklist [D/18/2996-2997]

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		<p><i>under the Project that fall under Schedule 2 of the EIAO, in addition to those mentioned in section 1.3 of this EIA Study Brief, including but not limited to the potential widening of Fan Kam Road and/or other road works, and the treatment and disposal of pre-treated organic waste from internal and external sources in the proposed sewage treatment works; to ascertain whether the findings of this EIA study have adequately assessed and addressed the environmental impacts of those DPs; and where necessary to identify the outstanding issues that need to be assessed and addressed in any further detailed EIA studies” [B/3/43].</i></p> <p>3. For road traffic noise impact assessment, §3.1.2 of Appendix C to the SB requires CEDD to “provide the input data set of the road traffic noise computational model adopted in the assessment for various scenarios. The data shall be in electronic text file (ASCII format) containing road segments, barriers and noise sensitive receivers information. CD-ROM(s) containing the above data shall be submitted together with the EIA report” [B/3/61].</p> <p>4. §3.2.2(a) of Appendix C to the SB requires CEDD to “analyse the scope of the proposed road alignment(s) to identify appropriate new and existing road sections for the purpose of road traffic noise impact assessment. Road sections to be included in road traffic noise impact assessment shall be confirmed with the Director prior to the commencement of the assessment. In determining whether the traffic noise impact due to road improvement project/works is considered significant, detailed information with respect to factors including at least the change of nature of road, change of alignment and change of traffic capacity or traffic composition, and change of traffic flow pattern in the associated road networks, shall be assessed. Figures showing extents of new/altered roads, existing roads and the associated road networks shall be provided in the EIA report” [B/3/62].</p> <p>5. §3.3.1(c) of Appendix C to the SB requires CEDD to “provide the input data sets of traffic noise prediction model adopted in the EIA study as requested by the DEP for ... (i) unmitigated scenario at assessment year; (ii) mitigated scenario at assessment year; (iii) scenario without the Project at assessment year; and (iv) prevailing scenario for indirect mitigated measures eligibility assessment” [B/3/62].</p> <p><u>Emissions in the EIA Report</u></p> <p>6. Road segments of the noise model are shown in EIA Report Appendix 4.6.2 (Traffic Data) [C/13/1017-1025]. The input data was in the form of e-copy and provided to EPD for vetting only (per §3.1.2 of Appendix C to the SB [B/3/61]).</p> <p>7. The EIA Report proposes that the noise impact at future residential blocks facing Fan Kam Road be attenuated by virtue of the setback provided by the 10m “proposed amenity area” strip within the Project Site that runs along the west side of the Sub-Area 1. This has been shown in a number of figures within the EIA Report, or example Figure 2.2 [C/13/295]</p> <p>8. However, another section of the EIA Report also refers to this “proposed amenity area” as a “10m Setback for Future Road”, which indicates widening Fan Kam Road (but this does not also extend into Sub-Areas 2-4) (see Figure 4.4.1 of Appendix 11.4 to the EIA Report [C/13/2066-2067] and CE17/R09/2.7.2 [C/13/1927]).</p>		

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		<p><u>Inadequacies in the assessment of emissions</u></p> <p>9. This “10m Setback for Future Road” is clearly of significance, since it brings the road (and associated noise and exhaust fumes) 10m closer to Blocks 2, 5, and 7 facing Fan Kam Road. There is nothing in the text of the EIA Report that addresses the proposed “10m Setback for Future Road”. The potential widening of Fan Kam Road is specifically mentioned in §3.2.1(xiv) of the SB [B/3/43].</p> <p>10. As such, the noise assessment for Sub-Area 1 has not addressed the increased noise levels at future residential blocks due to the "amenity area" being replaced by a “future road”, which would significantly change the conclusions of the current EIA Report Sections 4 to 6 EIA Report. The widened Fan Kam Road has not been modelled (see EIA Report Appendix 4.6.2 (Traffic Data) [C/13/1017-1025]), and therefore traffic noise impacts during the operation stage of the Project have been underestimated in Sections 4 to 6 of the EIA Report [C/13/718-1227].</p> <p>11. Given that the planned widening of Fan Kam Road within the project study area and, indeed, within the project site itself has not been addressed in the noise assessment, it would significantly change the current conclusions on acceptability of cumulative effects of the Project and associated works at all stages, in accordance with §3.2.1(i) of the SB [B/3/41].</p> <p>12. This is a breach of the TM quality requirements (§§4.4.2(b), (d) and (k) of the TM [B/4/97-98]), resulting in a consequential breach of TM §4.5.1(b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. Therefore per §4.5.1(b) of the TM, the EIA Report should not have been approved by the DEP.</p>		
16.	<p>Air quality</p> <p><u>EIA Report & Additional Information</u></p> <ul style="list-style-type: none"> EIA Report: Section 3 [C/13/297-717] generally, specifically §§3.5.16, 3.5.17 and 3.5.29, 3.8.24 [C/13/313-314, 316, 333], Appendix 3.10 [C/13/589-591]; and §2.12.1 and Table 2.5 [C/13/293], Figure 3.3 [C/13/333] 	<p><u>The SB/TM requirements on air quality</u></p> <p>1. §2(i) to Appendix B to the SB sets out the requirement for identification of Air Sensitive Receivers (ASRs) and Examination of Emission/Dispersion Characteristics during the air quality impact assessment [B/3/53]. In particular, “(iii) <i>Identification of existing and potential chimneys and obtainment of relevant chimney emission data in the assessment area, where appropriate, by carrying out a survey for assessing the cumulative air quality impacts of air pollutants through chimneys. The Applicant shall ensure and confirm the validity of the emission data used in their assessment. Any errors found in their emission data used may render the submission invalid</i>” [B/3/54].</p> <p>2. §3.5.29 of the EIA Report [C/13/316] says that the fuel used by the 2 chimneys at NDH shown in Figure 3.3 [C/13/364] are Towngas which is extremely low in sulphur content. There is no correspondence included in the EIA Report confirming this.</p> <p><u>Inadequate and inaccurate assessments in the EIA Report regarding air quality</u></p> <p>3. The EIA for North East New Territories New Development Areas approved in 2013 (i.e. the NENT NDA EIA Report) [G/45/4647-4673] suggested that ultra-low sulphur diesel (“ULSD”) combustion fuel was also used for NDH (see §3.5.2.5 of the NENT NDA EIA Report, which states that “Moreover, for the chimney emission from the North District</p>	<p><u>SB</u></p> <ul style="list-style-type: none"> §2(iii) to Appendix B [B/3/54] <p><u>TM</u></p> <ul style="list-style-type: none"> §3.6 of Annex 12 [B/4/130] §§4.4.2(b)&(d) [B/4/97-98] §4.5.1(b) [B/4/100] 	<p><u>Club’s Statutory Submission</u></p> <ul style="list-style-type: none"> §2.3.3 (second bullet point) [D/18/2956] Item F2 of Club's EIA Checklist [D/18/2995]

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		<p><i>Hospital (NDH), it is noted from the fuel consumption data provided by the hospital (NDH) that about 1,250,000 unit of town gas and 3190 litres of ultra low sulphur diesel oil were used in Year 2009-10" [G/45/4669-4671]). No information has been provided to show that the ULSD was changed to Towngas between 2009-2010 and this EIA Report.</i></p> <p>4. The assessment of chimney emissions in Section 3 of the EIA Report has not taken into account the expanded North District Hospital ("NDH") despite this being shown in Figure 3.3 of the EIA Report [C/13/364]. As stated in EIA Report §3.8.24 [C/13/333] and under Note 1 to Appendix 3.10 "Emission Inventory on Chimneys" the emissions are based on 2019 data from the unexpanded NDH [C/13/590], which has 600 beds and two chimneys, and not the expanded NDH, currently under construction, which has some 2,100 beds and so will likely require additional chimneys due to additional fuel consumption. LegCo Paper No. CB(4)600/20-21(07) states at §7 of Enclosure 2 [H/52/5023-5024] in relation to the NDH expansion states that "Upon the completion of the whole expansion project targeted for 2028, we aim to provide around 1 500 additional beds in the NDH". The NDH will remain functional at all times during the works period. The implementation programme at §2.12.1 and Table 2.5 of the EIA Report [C/13/293] shows that the Special School is targeted for completion in 2028 and the public housing development on 2029. The assessment of impacts from NDH on the public housing development should therefore be based on 2,100 beds rather than 600 beds.</p> <p>5. Aside from the SB, §3.6(a) of Annex 12 to the TM [B/4 /130] is also not complied with for the worst-case scenario. Chimney emissions from NDH are underestimated: according to Appendix 3.10 of the EIA Report [C/13/589-591], the maximum monthly consumption rate of 5,863,104 MJ in 2019 of the boilers NDHC01-03 of NDH was adopted and it was treated as a conservative approach.</p> <p>6. Whilst the calculation details were not shown, it appears that the maximum monthly Towngas consumption rate was divided by 31 days/month, 24 hours/day, 60 minutes/hour and 60 seconds/minute, resulting in an average of 0.2027 kWh/s/boiler. This calculation of average per second is an unreasonable assumption resulting in potential underestimation in nitrogen dioxide (NO₂) concentration for both 1-hour average and 1-year average NO₂ concentrations at the Air Sensitive Receivers (ASRs) due to Towngas combustion from the boilers.</p> <p>7. The consumption rate per boiler in kWh/s in EIA Report Appendix 3.10 [C/13/589-591] is calculated based on the maximum monthly consumption rate, however, this is not the highest <i>hourly</i> consumption rate. Hourly average NO₂ concentration is the key parameter of concern, and monthly consumption cannot be considered as the worst case scenario. Assessment of chimney emissions must be conducted based on: (i) the installed/design capacity of each boiler; and (ii) the <i>hourly</i> usage of each boiler as confirmed by the chimney operator. Additionally, the potential impact of Sulphur Dioxide (SO₂) is ignored.</p> <p>8. This is a breach of the TM quality requirements (§§4.4.2(b) and (d) of the TM [B/4/97-98]), resulting in a consequential breach of TM §4.5.1(b) [B/4/100]. It fails to meet the minimum standard for approval of an EIA Report which is, that it must comply with the quality requirements in TM §4.4, and the results and conclusions of the EIA Report must also be technically sound and reliable. Therefore per §4.5.1(b) of the TM, the EIA Report should not have been approved by the DEP.</p>		

