Annex K

Summary of key questions/concerns raised at the EIASC meetings on the EIA report on "Expansion of Hong Kong International Airport into a Three-Runway System" and response from AAHK

Chinese white dolphins (CWD) and the proposed marine park	
Questions/Concerns of Members	***Response from Proponent Team***
Experience in designating Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP) in 1990s as mitigation measure for marine works relating to the construction of Hong Kong International Airport (HKIA) at Chek Lap Kok	➢ AFCD data over the past years show a general increase in the density and abundance of CWD in SCLKCMP; there is some local experience from CWD monitoring done during the development of the Airport Fuel Receiving Facility near Sha Chau to suggest that CWD are likely to re-establish use of previous habitats within their range when disturbance (e.g. noisy construction activity) is reduced and if the habitats are returned to a healthy state ➢ A decrease in dolphin population between the airport and SCLKCMP is noted since 2004/05 and this is possibly as a result of an increase of high speed ferries (HSF) in the area including from the SkyPier
● Effectiveness of designating the proposed marine park in North Lantau waters which is not the most critical habitats for CWD ● Practicability for the mitigation measures to be implemented only in 2023 when 3RS is in full operation ● Quantitative analysis on dolphins (e.g. fidelity to own habitats) to support the claim that CWD would return to North Lantau waters in 7-10 years' time after all the disturbances and human activities	➢ Areas identified as critical habitats for CWD activities which require the highest standards of protection include Sha Chau and Lung Kwu Chau, Brothers Islands extending to the North Lantau coastline, and West Lantau extending to Fan Lau and Soko Islands; certain parts of these areas are already covered in the proposed marine park areas by the 3RS EIA and other studies ➢ Mitigation measures will focus on the areas immediately affected by the 3RS construction phase ➢ A multi-pronged approach will be implemented to address construction phase impacts on CWD, which will include management of SkyPier HSF traffic, management of construction vessel traffic, adoption of advanced design and specific construction methods (e.g. non-dredge during land formation, deep cement mixing (DCM) over the contaminated mud pits (CMPs), horizontal directional drilling (HDD) for submarine pipeline diversion, and acoustic decoupling of noisy equipment on barges), avoidance of bored piling during peak calving season for CWD, and enforcement of pre-defined routes for works vessels, etc.

which have been made in the area ● Feasibility of phased designation of the proposed marine park before or during construction to lessen the construction impacts on CWD, i.e. 2 400 ha of the proposed marine park less the actual temporary works area during different phases of construction	➢ AAHK experts reckon that while CWD will temporarily vacate habitats immediately when affected by marine works, dolphins will return once construction disturbance is reduced and the remaining habitats return to a healthy state and are well protected and this is supported by experience in other areas including in Hong Kong and by overseas examples (e.g. San Francisco Bay) ➢ The proposed marine park will be approximately 2 400 ha and will offer large area of good protection and will provide critical linkage between other 'hotspot' CWD habitats in North Lantau waters; AAHK will assist and cooperate fully with Government and the relevant authorities in relation to CWD mitigation/compensation measures and will set up a Marine Ecology Enhancement Fund (MEEF) to provide funding support to these measures ➢ It is not practicable to designate the proposed marine park before commencement of construction or to adopt the phased designation proposal as much of these area covered by the proposed marine park will be situated right in the area where construction works will take place ➢ That said, AAHK has proposed a Marine Ecology and Fisheries Enhancement Strategy (MEFES) in the EIA report and will work towards a 3-pronged proposal with a view to long-term protection/ conservation of CWDs, in particular during the construction stage :- (a) collaborate with the Mainland authorities to conduct further studies on CWDs in Pearl River Estuary (PRE); (b) work on enhancing dolphin protection in an area of some 1 000 ha around the proposed Third Runway site during the construction phase through administrative means, including imposing speed limit on the SkyPier HSFs and construction vessels, and deploying artificial reefs and releasing fish fry as well as other practicable measures if confirmed as having benefits; and (c) set up the MEEF to fund and support research studies in collaboration with marine ecology experts, NGOs, etc., on marine ecology including CWDs, enrichment of fisheries resources in other parts of HK waters around Lantau

● CMP)	➢ The range of specific construction practices such as non-dredged reclamation method and DCM in the CMPs , mitigation measures and monitoring programmes defined in the EIA report can address or directly mitigate impacts on the marine environment and are considered adequate and appropriate by AAHK experts ➢ Additionally, a Marine Ecology and Fisheries Enhancement Plan (MEFEP) comes under MEFES, which is proposed to outline a tentative management plan and measures to enhance marine ecology in North and Southwest Lantau waters, as well as to address the concerns raised by fishermen groups over impacts arising from the 3RS reclamation and the expected increase in marine protected area. The latter is important to smooth out the process of designation of the proposed marine park ➢ It is envisaged that enhancements and support initiatives as proposed in MEFEP will serve to further ensure that during and after the 3RS project a range of practicable actions and measures will be taken to give cumulative benefits to marine ecology and fisheries in North Lantau waters
Impact assessment on CWD over the proposed speed limit of 15 knots and route diversion for high speed ferries (HSF) by the SkyPier, i.e. reduction of speed limit vs congestion of vessels and increase in journey time in Sha Chau and Lung Kwu Chau waters	➢ Speed of HSF activities are considered the major threats to CWD :- (a) large number of HSF moving at high speed will increase the chance of collision with dolphins causing injuries or death; and (b) high underwater noise levels generated by HSF activities will cause disturbance to dolphins ➢ SkyPier accounts for 60% of daily HSFs (34 in 2011) navigating between HKIA and Sha Chau while the preferred route for other HSFs traveling between HK (Sheung Wan and Tsim Sha Tsui piers) and Macau/Zhuhai is via south of Lantau ➢ The proposed 15-knot speed limit for diverted SkyPier HSFs is a reasonable compromise for protection of dolphins at CWD hotspots and what is practical for HSF normally traveling at 30-40 knots particularly on making turns without causing unacceptable safety and operational impacts on passengers. According to overseas research and AFCD studies any reduction in speed from the 40 knots of HSFs will provide some benefit to CWDs ➢ Management of the SkyPier HSF traffic will include removing HSF traffic from the water channel between SCLKCMP and the third runway to be constructed, re-routing HSF to the north

	of Sha Chau and Lung Kwu Chau from as early as the construction phase to minimize chances of collision and disturbance to CWD, and reducing HSF speed close to and within any known CWD hotspots ➢ An additional initiative is proposed to cap the number of all HSFs operating to and from SkyPier at the current level of operation (i.e. an annual daily average of 99) prior to designation of the proposed marine park
Alternative or fall back in the event that the proposed marine park cannot proceed as planned	➢ The Administration has given its firm commitment to seek designation of the proposed marine park in North Lantau in accordance with the statutory process as a mitigation measure for the permanent habitat loss arising from the 3RS project ➢ AAHK will be required under the EIA Ordinance to implement all mitigation measures, and AAHK will seek to assist in completing the designation of the proposed marine park tentatively around 2023 to tie in with the full operation of 3RS ➢ A marine park management plan will be submitted for approval by EPD and AFCD before commencement of the project
● Information on the performance of the Pearl River Estuary (PRE) CWD National Nature Reserve where some dolphins are expected to move in during construction of the 3RS project ● Pollution and contamination in PRE and that the PRE CWD National Nature Reserve may not provide suitable habitat for CWD	➢ AAHK has identified rather limited information quantifying the performance of the PRE CWD National Nature Reserve ➢ Estimates on effectiveness of conservation measures of the Nature Reserve cannot currently be prepared as credible data are not available ➢ A MEEF under MEFEP will be set up and part of the planned efforts under the CWD mitigation measures will be to help establish a holistic conservation framework for the PRE CWD population in collaboration with NGOs and CWD experts in HK and elsewhere, for example the Ocean Park Conservation Foundation
Information on the proposed Marine Ecology and Fisheries Enhancement Plan (MEFEP) under the Marine Ecology and Fisheries Enhancement Strategy (MEFES) made in the	➢ MEFEP intends to achieve the following key objectives, and AAHK will provide funding support to achieve these objectives :- ● enhancement of habitats for marine ecology and fisheries resources; ● promotion of a sustainable fisheries industry (e.g. initiatives to enhance fisheries resources);

EIA report which AAHK will implement for the 3RS project	● encouragement of scientific research and studies; and ● promotion of environmental education and eco-tourism ➢ A MEEF will be set up under MEFEP for CWD conservation to focus on :- (a) <u>CWD conservation around the 3RS marine works area</u> – formulate some 1 000 ha of dolphin protection area for implementing CWD protection measures earlier during the construction phase; protection measures will include (i) construction vessels should need permission to enter into these areas; (ii) SkyPier HSF speed should be limited to 15 knots, and that of construction vessels to 10 knots; (iii) implement conservation and fisheries enhancement measures; and (iv) set up a management committee with representatives from relevant stakeholders including green groups to oversee the implementation of the fund (b) <u>CWD conservation for HK territory</u> – develop and implement HK territory-wide marine ecology enhancement initiatives and assist proactively in CWD conservation; these measures will include (i) analysis of long-term CWD stranding data to better understand the threats and factors affecting reproduction and survival of CWD including water pollution and toxins in the food chains; (ii) comprehensive cumulative impact assessment of marine anthropogenic activities; (iii) conduct acoustic studies to evaluate noise impacts of marine construction activities; (iv) promote eco-tourism and support NGOs to conduct related education programme; (v) assist in CWD conservation in Southwest Lantau waters; (vi) evaluate habitat quality so as to maintain/enhance the quality standard; (vii) skipper workshops for HSF captains to raise awareness on CWD/ dolphins collision risk; and (viii) information sharing on CWD studies and status on both sides of HK/PRE border (c) <u>CWD conservation for PRE</u> – develop a holistic conservation framework for the PRE CWD population; the conservation framework is planned as follows :- (i) develop a “Conservation Strategy and Action Plan” in 2015; (ii) conduct initial study to assess the availability of PRE CWD data and to identify data gaps; (iii) carry out broader-scale PRE CWD surveys and studies to provide critical ecological information necessary for an effective conservation plan; and (iv) implement the conservation plan involving elements of research/public

	education/engagement and advocacy and review regularly, with the participation of NGOs and CWD experts in HK and elsewhere, for example the Ocean Park Conservation Foundation
Feasibility of relocating the SkyPier from the east end to the west end of the airport island so as to shorten ferry voyage distances and to avoid routing through CWD frequented areas, within and outside HK waters	➢ The SkyPier facility was located in its current location within the Restricted Area of HKIA to readily connect the transfer passengers between the aircraft terminal with mainland ports facilities via the Automated People Mover (APM) system. ➢ Relocating SkyPier to the west will not bring about reduced impacts on CWDs, for the following reasons: (a) HSFs to northern ports would have to re-route into and through the PRE CWD National Nature Reserve, whereas from the current SkyPier this is not necessary; (b) HSFs to some northern ports in Shenzhen (e.g. Shekou, Fuyong) may still need to re-route via airport north into Urmston Road to gain efficient access to and from these ports. This will render HSF travel through the future marine park areas; and (c) 3RS EIA surveys have identified that the Airport West area is regularly used by CWDs, mainly for travelling but also for some foraging, with the area considered of slightly higher habitat quality than the Airport North. ➢ In considering the viability of relocating SkyPier to the west, an apparent and significant disadvantage of the western location is that available water depth in the approach waters to a potential western HKIA SkyPier location are comparatively shallow, therefore a SkyPier location to the west would necessitate access channel dredging along with associated ongoing maintenance dredging to support the operation of SkyPier in this location. ➢ Moving SkyPier to a western HKIA location may also lead to operational challenges and restrictions, not limited to :- (a) The need for substantial redevelopment of an existing and functional airport facility; (b) The westerly location being much further from passenger processing terminals (e.g. existing Terminal 1 and future Third Runway Concourse); and

	(c) The need for substantial associated works to re-establish the connectivity between the pier and passenger processing terminals (e.g. provision of new APM or equivalent)

Fisheries and coral	
Questions/Concerns of Members	***Response from Proponent Team***
Mitigation measures for the loss of fishing grounds during the construction phase, e.g. artificial reefs, eco-design of seawall, etc. and supporting evidence on the suitability and sustainability of these measures	➢ The proposed 2 400-ha marine park, to be connected with the existing SCLKCMP and the planned The Brothers Marine Park (BMP), is designed to compensate for the permanent loss of fishing grounds and fisheries habitats (and resources) upon completion of the 3RS project ➢ Mitigation measures during the construction phase include minimization of land formation footprint to 650 ha, alternative alignment for submarine pipeline diversion and use of modern construction methods (e.g. non-dredge, DCM and HDD) to minimize impacts on the marine environment ➢ Fisheries resources recovery as a result of the protection measures to be applied for the proposed marine park can be achieved and will benefit the adjacent fishing grounds by spillover effect with the support by overseas examples ➢ A Fisheries Enhancement Fund (FEF) will be set up to support sustainable development of the fisheries industry, e.g. support and enhance ongoing fisheries operations, improve mariculture, fishing technologies and techniques, and support the promotion of fisheries-related business opportunities; fisheries stakeholder groups will be engaged during formulation of the FEF and the associated management arrangement, funding amounts and allocation mechanism, as well as implementation of the FEF. With all these measures in place, the designation process for marine park should be smoothened
Comparison of the economic loss over the loss of fishing grounds/fisheries resources with that in the HZMB project	➢ There is no specific data available for a direct comparison between the two projects ➢ Overall fisheries production in the 3RS project in terms of weight is assessed based on AFCD Port Survey results, as moderately low (100 - 200 kg/ha/year) and in terms of value as moderately

	low to moderate ($1,000 - $5,000/ha)
Conservation of marine fauna and species of conservation importance, e.g. longheaded eagle ray, long-tooth grouper and gorgonian coral species	➢ Impact of direct habitat loss is assessed to be moderate in view of high mobility of these marine fauna, small population to be affected and availability of suitable habitats in the neighbouring waters such as SCLKCMP and Brothers Islands ➢ The gorgonian coral species to be affected is of very low coverage (<1%) and assessed as low-moderate impact significance ➢ There are relevant mitigation and enhancement measures recommended in the EIA report to sufficiently and adequately compensate the impacts
Translocation plan for coral colonies identified in the land formation area	➢ Potential for translocation will be reviewed prior to the commencement of construction and will be based on the conservation importance of the coral species, health conditions of the coral, size of the colonies and feasibility for translocation ➢ A coral translocation plan will be developed which will include information of coral colonies to be translocated, the proposed recipient area and baseline conditions, translocation methodology and monitoring of the transplanted coral colonies; approval by EPD and AFCD will be sought before implementation of the plan

Egretry on Sha Chau	
Questions/Concerns of Members	***Response from Proponent Team***
Potential disturbance on egrets arising from the works of diverting the existing submarine pipeline in Sha Chau and the potential impacts on the existing egretry during the operation phase	➢ Pre-construction surveys will be conducted during the breeding season to update the latest boundary of the egretry before confirming the daylighting location ➢ AAHK has adopted HDD construction methods for the proposed submarine aviation fuel pipeline to keep the disturbance on land to a minimum ➢ The HDD “daylighting” point should be kept to the minimum size and be situated as far away from the egretry boundary as practicable during the construction phase, with no nighttime works during construction and no works during the egretry breeding season ➢ Minimal impact is expected on the egretry during the operation phase as the frequency and nature of human activities will be limited to routine maintenance of the existing Aviation Fuel Receiving

	Facility (AFRF)

Air quality and noise and impact on health	
Questions/Concerns of Members	***Response from Proponent Team***
Information on assumptions and assessment criteria on air quality and noise modellings and comparison on emission inventory for airport related activities with and without the 3RS project	➢ Latest emission data and forecast on future air traffic movements (ATM), emission reduction plans adopted in Hong Kong, as well as emission reduction targets already agreed and announced by the HKSAR Government and the Guangdong Provincial Government, have been taken into account for the air quality impact assessment based on conservative assumptions ➢ The acceptable air quality in Sha Lo Wan under the 2031 scenario during the 3RS operation, including a predicted decrease in annual concentration of NO_2 when compared with the two-runway system scenario, are attributable to the planned design to put the existing south runway on standby mode in night time and shifting of dominant aircraft departure to the centre runway to help move the pollutants further away from North Lantau ➢ The global trend on continuous improvement on engine technology and more stringent emission standards as the international aviation standards have been factored in the air quality assessment, taking into account available information on engine specifications and input from engine manufacturers obtained through International Air Transport Association (IATA). ➢ Validity of the relevant assumptions, recommended measures and the input data (including the operation mode with 3RS) have been confirmed by the Civil Aviation Department (CAD) and supported with information from the relevant international authorities e.g. Federal Aviation Administration, IATA and International Civil Aviation Organization (ICAO) ➢ A comprehensive plan to rationalize flight routes and air space use over the Pearl River Delta (PRD) region has been devised under the Tripartite Working Group among the civil aviation authorities of the Mainland, HK and Macau, which can be fully implemented by 2020
● Justification on the assumption regarding the use of newer models of aircrafts with lower emission level and fitting engines	➢ Driving force for aircraft replacement include safety, pressure to reduce operating costs and maintenance, high fuel prices, increased utilization of aircraft and passenger preference for new aircraft. These are very practicable and realistic factors that would encourage fleet replacement

used in the EIA assessment ● Mechanism to ensure timely phasing out of aircrafts as assumed in the projection	by airlines ➢ IATA survey findings indicate the worldwide trend of the current average aircraft operational age by type at 20-25 years; information are consistent with those collected for airlines operating at HKIA and is in line with IATA findings. Indeed, home-based carriers have already announced their plans on fleet replacement and use of new aircraft in near future which are more environmentally friendly ➢ Annual review in the recommended EM&A programme, including fleet mix review, will allow a regular review of the latest situation of noisy aircraft phasing-out, and permit consideration of the need and possibility to introduce additional measures/initiatives to facilitate the further reduction of aircraft noise
● Explanation on the lower NOx level in Tung Chung/Sha Lo Wan as compared with the assessment result in the HZMB project ● Assessment of corresponding impacts for the Tsuen Wan/Ting Kau/Siu Lam/Tuen Mun areas	➢ More conservative assumption adopted in the 3RS EIA report with respect to emission quantity for sources in the PRD region than that assumed in the HZMB project as it will only affect the ambient NO_2 concentrations in the assessment area and the effect is not expected to be significant (relative to contribution from vehicular emissions in the proximity), given that the emission sources in the PRD region are located at great distances away from the Air Sensitive Receivers ➢ Vehicular emissions of NOx in Lantau in the 3RS EIA assessment at 50-80% lower than that of HZMB EIA can be explained by: (a) further tightening of vehicle emission standards i.e., Euro VI emission standard expected to be introduced as described in the Government's Clean Air Plan for Hong Kong, since the Euro V emission standard took effect for newly registered vehicles from June 2012; (b) subsidy for replacement of catalytic converters on LPG/petrol taxis and LPG light buses; and (c) mandatory retirement of pre-Euro IV diesel commercial vehicles in phases ➢ No operational air quality assessment for the Tsuen Wan/Ting Kau/Siu Lam/Tuen Mun areas has been conducted as those areas are outside the 5 km study area based on the EIA Study Brief requirements
● Scenario testing of the south runway	➢ Aircraft noise in terms of NEF represents cumulative noise for average-annual daily conditions

planned to be at standby mode after midnight at 1% use ● Commitment or understanding with CAD and the Mainland civil aviation authority on putting the south runway on midnight standby mode	rather than any individual/single event; it is not appropriate to model the 1% use of the south runway under a separate scenario based on the ICAO Doc 9911 recommendations ➢ The noise modelling run for 2030 and 2032 has put the south runway to be used for 1% of the total yearly night period; that have taken into account special operational requirements, such as recovering from major operational disruption due to inclement weather, e.g. typhoon ➢ The south runway standby is not related to discussion on the Mainland airspace. CAD has already confirmed the feasibility which is within HK air traffic control
● Assessment done for the 3RS project other than relying on the NEF calculation methodology ● Quantitative measures for environmental monitoring and audit (EM&A) purposes other than using NEF for noise modelling	➢ NEF is the assessment criteria for aircraft noise as stipulated in Technical Memorandum on Environmental Impact Assessment Process (EIAO TM) ➢ It will be a three-tier process on the recommended EM&A programme:- (a) verification of the actual operation data by the end of the first year of the operation of the proposed third runway with that predicated in the EIA report; (b) annual review report based on actual operation data and available aircraft noise monitoring data recorded at CAD's Aircraft Noise and Flight Track Monitoring System so collected; and (c) 5-year noise contour report to be undertaken to quantitatively monitor and audit aircraft noise upon the 3RS operation
● Reports of noise exceedances beyond 70 decibel (dB(A)) in the Ma Wan, Tsing Yi, Tsing Lung Tau and Siu Lam areas between 2300 and 0700 ● Potential impacts on residents in Ma Wan, Tsuen Wan and Tuen Mun by shifting the runway operation northwards under the 3RS operation	➢ NEF is a stringent control measure as stipulated in EIAO TM ➢ Noise level of L_{max} recorded by CAD monitoring stations is instantaneous noise level ➢ Some of the planned noise mitigation measures for 3RS, including the implementation of a preferential runway use programme when wind conditions allow and the use of the new arrival Track 6 during west flow direction would help reduce the percentage of flight movements near/ over Ma Wan. On this basis, populated areas in Ma Wan, Tsuen Wan and Tuen Mun are not covered by the NEF 25 contour (except for a Comprehensive Development Area (CDA) site at Lok On Pai for which it is recommended in the EIA Report that in developing the Master Layout Plan the alignment of the NEF 25 contour should be duly taken into consideration to ensure no noise sensitive uses in the CDA development situated within the NEF 25 contour

	➢ CAD will implement a series of direct noise mitigation measures to reduce aircraft noise under the existing airport operation; these mitigation measures include banning Marginally Compliant Chapter 3 aircraft for landings and take-offs at HKIA during nighttime since end March 2014, and to extend the prohibited period to cover the whole day for the existing 2RS operation from late October 2014. As part of the proposed EM&A programme on aircraft noise, AAHK will review and analyze the available aircraft noise monitoring data measured by CAD's Aircraft Noise and Flight Track Monitoring System (ANFTMS)
● Information on the net health impact on HK population with and without the 3RS project, particularly for those under the new flight path under the 3RS operation	➢ The aircraft noise Health Impact Assessment (HIA) focused on comparing the changes in health impact between the operation of 3RS and 2RS in 2030, i.e. the year of "worst operation mode" that represents the maximum total aircraft noise emission ➢ The key self-reported health effects of annoyance and sleep disturbance were assessed based on the noise metrics of L_{den} and L_{night}, which have been found to be commonly used for evaluation of annoyance and disturbance to sleep based on relevant guidelines and other literatures such as that issued by the WHO and European Environment Agency (EEA) ➢ Noise sensitive populations in 2030 have been identified and considered collectively as the assessment area for a quantitative comparison of the "with" and "without" 3RS scenarios ➢ Aircraft noise mitigation measures have been recommended to minimize the impact to densely populated area ➢ There will be an overall decrease in the affected populations in the presence of the proposed mitigation measures which include putting the south runway on standby mode at nighttime

Water quality	
Questions/Concerns of Members	***Response from Proponent Team***
● Information on the use of barges and construction vessels to be deployed in the reclamation area which might increase the release of suspended solids	➢ There will be an average 64 transits per 24-hour period of barging activities throughout the construction period ➢ Sediment plumes generated from activities of barges and construction vessels and impact on water quality are considered to be temporary and insignificant in view that many of the vessels

(SS) and sediment plumes contaminating the surrounding waters ● Technical guidelines to be issued to contractors in minimizing such impacts	will be in a relatively stationary position or requiring slow position shift ➢ Vessel movements will be restricted to 10 knots or below and with designated routings and designated entry/exit points in the works areas; sediment released by the vessels should be limited and any disturbance to the seabed expected to be temporary ➢ With the mitigation measures in place, the volume of vessel traffic within and around the reclamation site has been judged to be not significant enough to result in potential adverse impact on water quality ➢ Relevant technical guidelines will be drawn up as part of the EM&A programme and AAHK's management and control practices for strict observance/compliance by contractors
● Information on the full list of pollutants and contaminants collected by storm water drains and surface runoff ● Assessment on the potential impacts of such pollutants on marine life	➢ No significant concentration of heavy metals and other contaminants are expected to be collected:- (a) aircraft apron and fuelling areas will be equipped with an oil interception system to prevent storm water runoff carrying fuel oils from being discharged into the marine environment; and (b) aircraft maintenance and washing areas are equipped with separate drainage systems to collect, treat and/or discharge into the sewer and hence do not form part of storm water discharge ➢ Main pollutants in storm water runoff from airport paved areas typically are SS, Biological Oxygen Demand (BOD) and nutrients; assessment findings show no exceedance of the relevant water quality criteria and hence no adverse impacts are expected on marine life ➢ The current measures adopted in 2RS in minimizing contaminants in runoff (i.e. roadside gullies to trap and remove silt and grit from storm water) has proved to be effective in reducing the amount of SS released into the marine environment, and thereby also reduce the associated pollutants that may be adsorbed to the SS; these measures will be adopted for the 3RS operation
● Information on technical specifications of the proposed double layer silt curtains and silt screens and their projected	➢ Double layer silt curtains (Type II and Type III) will be deployed at selected active works areas around the reclamation site to control sediment release ➢ Sites selected for deploying the silt curtains, type of silt curtain to be deployed and proper

performance and suitability under the assumed hydrodynamic model ● Supporting evidence for the assumption that up to 80% of SS can be screened out	maintenance of the silt curtains are all essential factors to determine the SS reduction efficiency ➢ Use of silt curtains in previous projects show a 60% to up to 96% silt reduction; projects quoted are Pak Shek Kok Reclamation, Lamma Power Station Navigation Channel Improvement, Sunny Bay Reclamation and Wanchai Development Phase II – Central-Wanchai Bypass; the 61% reduction adopted in 3RS is on the conservative end and represents the worst case in 2016 ➢ Event and action plans will be implemented during the construction phase
Precautionary measures to suppress the release of SS during construction of seawall, in particular if silt curtain is to be used when building the seawall	➢ Construction methods for seawall construction will include rock fill , with minimal fine content, as the seawall core, non-dredge method for ground improvement, and laying of sand blankets on top of the seabed to minimize release of SS ➢ Silt curtains may not be required around construction of new seawalls, except where sand blankets are being deployed for ground improvement works
Feasibility of setting up more water quality control stations and impact monitoring stations before, during and after the construction phase in view of the large site area	➢ Pre-construction phase water quality monitoring will be adopted to establish the baseline for water quality monitoring work ➢ Three control stations and 12 impact monitoring stations will be set up at strategic locations to cover the entire reclamation area to provide concurrent background water quality information to alert whether the construction works have caused any unacceptable impacts on water quality when compared to the water quality measured at the control stations; no additional merit is expected from setting up more stations for achieving this purpose ➢ Action and limit levels will be based on the baseline data and the data from the control stations for comparing and identifying any exceedance of water quality
Information on the locations of the proposed monitoring stations and the frequency of monitoring near the ecologically sensitive areas in Lantau such as San Tau Beach Site of Special Scientific Importance (SSSI), SCLKCMP and other potential marine parks in North and West Lautau before, during and	➢ There are minimal changes in the operation phase water quality between dry and wet seasons with and without the 3RS project (worst case in 2026) ➢ Exact locations of the proposed monitoring stations are detailed in the EM&A Manual; the frequency of monitoring is three days per week and two times each day (mid-flood and mid-ebb tide) ➢ There will be monitoring of heavy metals, nutrients and alkalinity of waters around the impact monitoring stations to ascertain any potential contamination released during the DCM process

after the construction phase in order to ensure that the habitats of these areas will not be affected by changes in hydrodynamics and water quality due to construction and operation of the 3RS project	

Landscape and visual	
Questions/Concerns of Members	***Response from Proponent Team***
Information on specific landscape and visual quality criteria to be adopted in the overall visual environment of the project to confirm sustainability of the project	➢ General and broad language adopted in the EIA report to give flexibility for detailed design planning ➢ Relevant legislation/guidelines/standards of Hong Kong will be followed to address the landscape and visual impacts identified; there is no specific % or area requirement of greening or planting at this stage. Nevertheless, based on the Landscape and Visual Mitigation Arrangement Plans presented as part of the EIA report, it can be noted that some of the quantifiable greening or planting measures will include :- (a) Greening of the reclamation edge and this will apply to the new reclamation edge which is measured at approximately 13 km long; (b) Land formation works shall be followed with advanced hydroseeding around taxiways and runways. The area of airside soft landscape to be grassed is estimated at 270 ha; and (c) All streetscape areas and hard and soft landscape areas disturbed during construction shall be reinstated to equal or better quality. The requirement is that 100% of disturbed areas shall be reinstated ➢ Third Runway Concourse (TRC) will form the central feature of the 3RS project and will balance operational efficiency of the airport with HKIA's commitment to being one of the world's greenest airports; green amenities will include open air courtyard area and sunken gardens with green lawn and landscaped area ➢ AAHK will benchmark the 3RS project against best airport practices and best practice building

	environmental performance compared to similar buildings in Hong Kong and similar airport buildings around the world; BEAM Plus Gold or equivalent is currently the design target for the TRC and AAHK will target to achieve the rating of Platinum or equivalent for relevant BEAM Plus assessment
Experience on the visual and landscape impacts having regard the planning and operation of the existing HKIA which could be of reference for mapping out the landscaping and greening plans of 3RS	➢ Experience gained and comments received from the landscape and greenery measures in the early years of HKIA operation, among others, will be of good reference for planning the 3RS project
Broad-brush targets to be adopted for greening or planting in the overall 3RS project	➢ Broad language are used in the EIA report to define the mitigation measures without detailed prescription in order to allow some maneuvering by the design consultant at the detailed planning stage ➢ There are detailed assessments on existing landscape resources during the EIA study
Quantitative environmental targets/pledges and benchmarks against international standards/best practices adopted in other world-renowned airports	➢ BEAM Plus Gold or equivalent is currently the design target for the TRC and AAHK will target to achieve the rating of Platinum or equivalent for relevant BEAM Plus assessment

Waste management	
Questions/Concerns of Members	***Response from Proponent Team***
● Information on waste management plan for building design and operation phases which should drive towards a stricter waste minimization and recycling strategy ● Building design to factor in waste management design with zero-carbon as	➢ Continued discussion with existing tenants and caterers will be pursued on more vigorous waste management plan, taking into account the operational and physical constraints of the existing HKIA buildings/facilities and the associated arrangements ➢ Green building design has factored in to 3RS designs and energy and resource use efficiencies as well as AAHK's waste minimization and recycling strategy are components that will contribute towards planned achievement of the BEAM Plus Gold certification or equivalent for ensuring good building environmental performance

the target	
Projected increase in food waste generated from F&B outlets and plan for handling and reducing waste so generated	➢ Active waste management and minimization initiatives are ongoing at HKIA and these will be rolled out in all new AAHK facilities ➢ AAHK is already proactive in addressing food waste separation and re-use. AAHK makes its targets for waste recycling and reduction public and these targets are relevant for the entire HKIA including the future 3RS facilities
● Possibility of mapping out a more efficient works schedule to minimize the use of construction and demolition (C&D) materials to be disposed of (including those generated from the golf course on the airport island upon its removal) so as to reduce the net volume of inert C&D materials to be generated	➢ There will be a rolling arrangement on the use of C&D materials as surcharge materials to achieve the required settlement of the reclamation activities ➢ AAHK will maximize the amount of fill materials to be taken from public fills reception facilities (PFRF) to supplement the need of import of these materials ➢ AAHK will work for optimal re-use of the C&D materials as an effective environmental green measure during the construction phase ➢ Net inert C&D materials so generated will be directed for use by other concurrent projects in HK or for off-site delivery to PFRF for use by future projects; the fill materials will not be put to landfills

Hazard to human life	
Questions/Concerns of Members	***Response from Proponent Team***
Concern on safety for staff working in open environment during inclement weather conditions, e.g. lightning and gale wind	➢ There are adequate shelters and lightning conductors as well as lightning protection system to provide early warnings for staff working in large open areas like aprons and taxiways
Design, alignment and laying of fuel pipelines to comply with government risk guidelines	➢ Replacement future aviation fuel pipelines will be laid between 40 – 120 m below the seabed in the reclamation area to ward off chances of damage to the pipeline and possible spills/incidents

Cultural heritage	
Questions/Concerns of Members	***Response from Proponent Team***
● Discovery on relics and antiques of archaeological significance ● Rescue plan to resurrect items of conservation value/significance	➢ A comprehensive marine archaeological investigation has been conducted for the entire project area employing sonar scanning, metal detecting technique and dive survey to screen out spots with potential relics and finds ➢ A Rescue Plan will be included in contract clauses in the event of archaeological discovery during project construction

Overview of 3RS project	
Questions/Concerns of Members	***Response from Proponent Team***
● Clarification on a public comment calling for removing the "air wall" (i.e. air space flow control) to increase aircraft handling capacity at HKIA ● Clarification about the design capacity of the existing 2RS at 86 ATM per hour rather than 68 ATM as indicated in the EIA report ● Possibility of imposing discriminatory charging on small aircrafts so as to encourage airlines to use larger aircrafts with a view to maximizing HKIA's carrying capacity ● Consolidation of air space use with the targeted 5 000 ATM per day by 2020 to be shared by the five airports in the Great Pearl River Delta region, and the	➢ "Air wall" is an misconception which is actually an air space boundary arrangement between different air traffic control zones with their own regulations and standards; it is a common and international practice where the different jurisdictions of air traffic controls running the air space zones will hand over and receive aircrafts through different entry points at different altitudes with safe operation distance between aircrafts. Similar arrangements are imposed on all international airports (including Macau International Airport) with busy air traffic ➢ The bottleneck of air traffic of the existing 2RS at HKIA is at the two runways where their capacity is constrained by the spacing between aircrafts (i.e. standards on the spacing between aircrafts for landing/take-off set by ICAO) ➢ The 1992 Airport Master Plan assessed that the capacity of the two-runway system may range from 52 to 86 ATM per hour; however, consideration of the relevant factors including the local hilly terrain would mean that the maximum of 86 ATM per hour would not be achievable. In fact, CAD re-visited the design in 1994 which indicated that the maximum ATM per hour achievable was only 63 ATM per hour for 2RS; subsequently, AAHK in 2008 commissioned National Air Traffic Service (NATS) to undertake an airspace and runway capacity study which concluded that the maximum ATM per hour should be 68 with advancement in aircraft and air traffic control technology and system. The same consultant has conducted a similar study for

proportion that HK will get under the new arrangement	London Heathrow Airport; CAD has reaffirmed the information in late 2013 ➢ AAHK has to adhere to the international guidelines governed by ICAO in setting standard charges of parking and landing for all airlines operating at HKIA; smaller aircrafts in fact can help fully utilize the time gaps in between the usage by large aircraft and result in more efficient operation at HKIA ➢ The comprehensive plan for rationalizing airspace and air traffic management has been devised by the Tripartite Working Group of the civil aviation authorities in the Mainland, HK and Macau. The planned third runway would not be constrained by the air space management of the region.

EIASC Secretariat
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