

# A Marine Park or a Dolphin Sanctuary!

## Third runway: dolphins offered 'phoney' deal

Ernest Kao  
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Measures proposed in the Airport Authority's environmental impact assessment of the airport's planned third runway – due for release today – are unlikely to compensate for the loss of dolphin habitat, a conservation group says.

In particular, the Dolphin Conservation Society describes as "phoney" a proposal for a new marine park area to be established after the runway's completion in 2023. The society said yesterday that the planned reclamation for the runway would gobble up 650 hectares of sea used by the

rare Chinese white dolphin. As a result, 70 per cent of an estimated 65 dolphins that belong to the northern social cluster of dolphins north of Chek Lap Kok would be at direct risk from reclamation work, it said.

Society chairman Dr Samuel Hung Ka-yiu said the reclamation area was a major travelling corridor for dolphins roaming to and from feeding grounds between the Brothers Islands and the Sha Chau and Lung Kwu Chai Marine Park.

The runway expansion would also force the dolphins north and into busy shipping lanes used by high-speed vessels, Hung added.

The report is set to propose the merging of the Sha Chau ma-

rine park with a new one east of the runway after its completion in 2023 but the society dismissed this as a "phoney" attempt at compensation.

"Designating this marine park in 2023 will be too late and the

damage will already be done. It will not help bring the dolphins back."

The society has vowed to campaign hard during the 30-day public consultation period to persuade the Environmental



Protection Department to reject the report when it meets in August.

It will launch a campaign over the next month to highlight the plight of dolphins living in the area. The society hopes to collect 10,000 comments from the public against the report.

The authority said it studied the possible impact of the airport expansion in 12 key environmental aspects, and proposed measures to "avoid, reduce, mitigate and compensate for any potential environmental impact".

The runway is expected to cost HK\$130 billion. The authority says it will bring about HK\$912 billion in economic benefits over the course of 50 years.

Ng Cho Nam

Department of Geography, HKU

# The EIA Report of the Temporary Aviation Fuels Receiving Facilities Project (1994)

– **rejected** and then **endorsed with conditions** by **ACE**

- A 1200 ht Marine Park was designated for compensating the loss of the Chinese White Dolphin's habitat

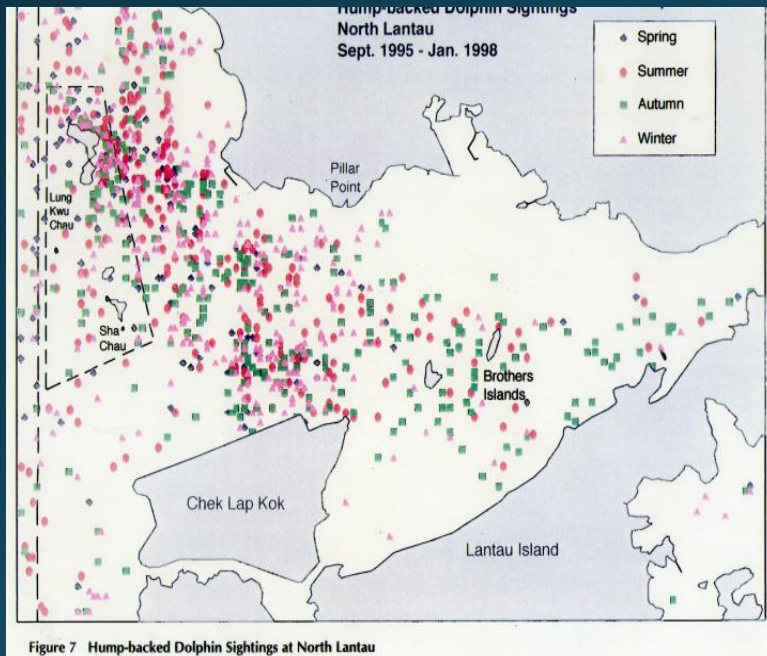


Figure 7 Hump-backed Dolphin Sightings at North Lantau



**AVRF**

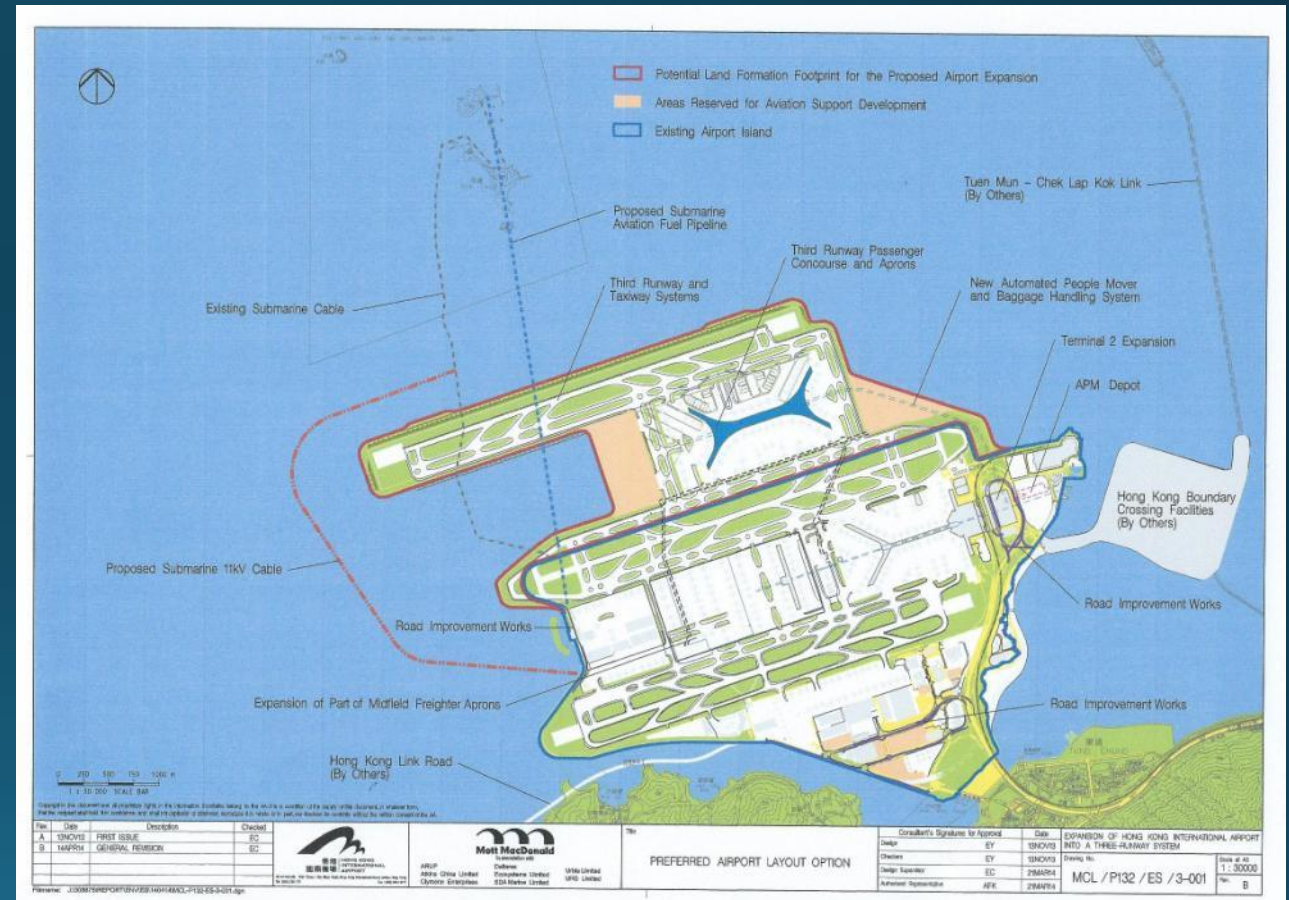


**Marine Park**

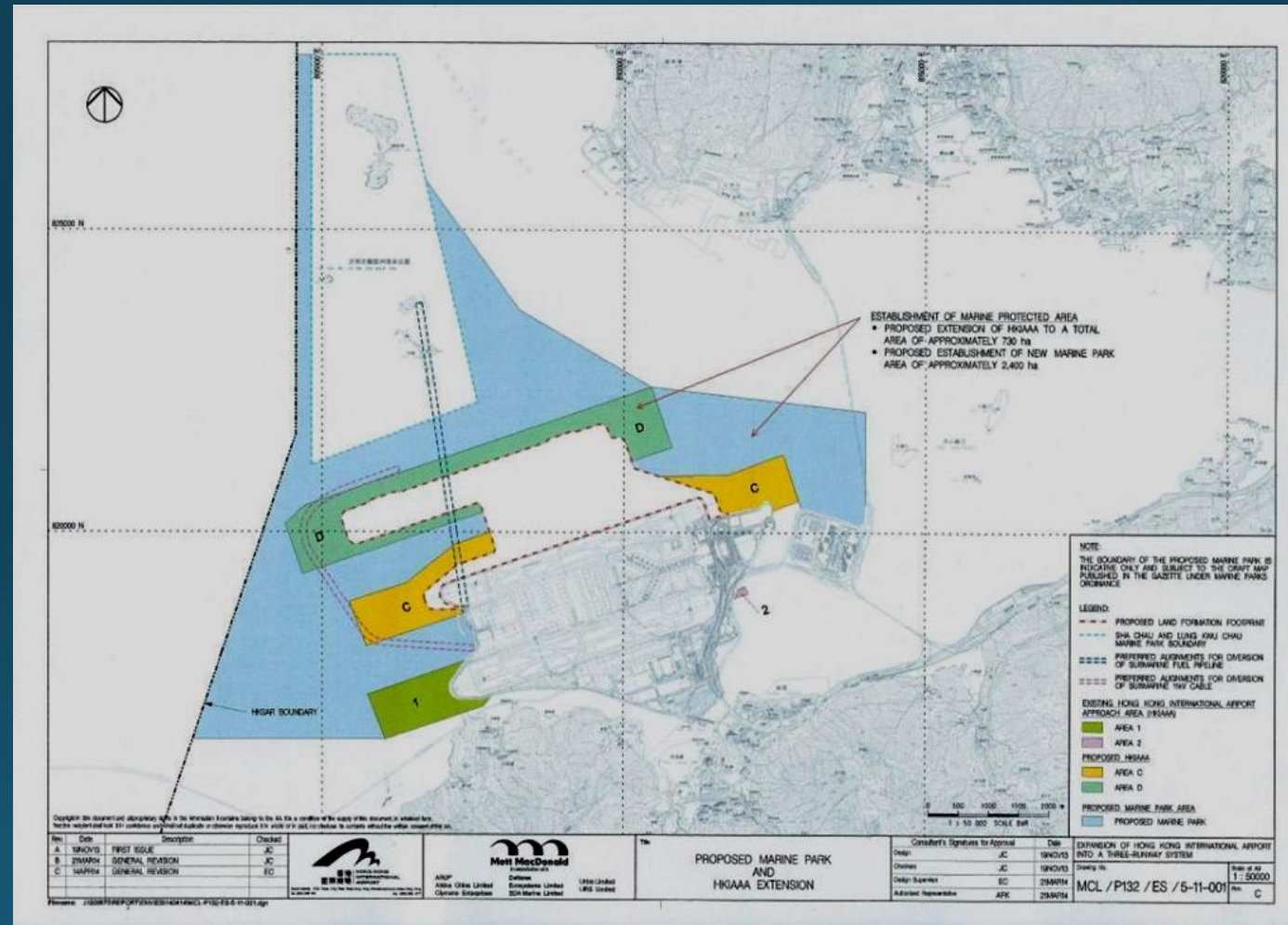
# The EIA Report of the 3<sup>rd</sup> Runway (2014)

## Habitat loss

- Temporary loss during construction phase: ~ 981 ht
- Permanent loss due to the project: 650 ht



# Proposed mitigation: a Marine Park of a total area of ~2400 ht



- How to ensure it will be properly delivered and the objectives be achieved, i.e. mitigate the loss of 650 ht of dolphin's habitat ?
- What is the best practice in HK?

## 'Runway plan may displace dolphins but they'll be back'

21.6.2014

'Dolphins are complex, they can move around,' says consultant as conservationist queries logic

Ernest Kao and Cheung Chi-fai

The loss of marine habitat to a new airport runway will probably displace the population of Chinese white dolphins from north Lantau – but they will come back eventually, airport officials and their consultants say.

The main draw would be a new 2,400-hectare marine park connecting the existing Sha Chau and Lung Kwu Chau Marine Park with a planned Brothers Islands Marine Park.

The plans were confirmed in the Airport Authority's environmental impact assessment for a third runway, released yesterday.

However, the report drew scorn from one dolphin conservationist, who described it as contradictory.

One of the airport's consultants, Dr Thomas Jefferson, told a media briefing yesterday that some decrease in dolphins was to be expected during construction. "But the plan and hope is that the large marine park will provide an attractive habitat for the dolphins to move back to," he said.

Jefferson noted that dolphin numbers declined when the airport at Chek Lap Kok was built in the 1990s but quickly rebounded after the Sha Chau marine park was designated. No projection was made in the report as to

where the dolphins would go while the runway was being built.

"Dolphins are very complex animals... they have the ability to move around," Jefferson said.

Dolphin Conservation Society chairman Dr Samuel Hung Ka-yiu dismissed the report as "contradictory".

"Imagine someone goes to your home, destroys it completely, and then tells you, 'Don't worry it will be fine in seven years', and where you go in the seven years is not their problem," he said. "Where is the logic in this?"

The report also concluded that the project would result in no adverse residual impact on air quality. But green groups said it was "flawed" and "selective".

The report, for instance, claims the project would deliver better air to Tung Chung in the form of reduced ozone pollution. It explained that simulations showed nitric oxides emitted from the airport could consume the ozone. "They are just playing a game of numbers," Friends of the Earth officer Melonie Chau Yuet-cheung said.

The authority says nitrogen oxide emissions are forecast to increase 53 per cent to 9,500 tonnes from 2011 to 2031. But fine particles will be cut by 40 per cent as pollution reduction technology improves.



## 環團：二跑完工海豚重回太樂觀

4.7.2014

機管局公開其環評報告供公眾查閱後，其中華白海豚的調查方法及緩解措施均受外界質疑。郊野公園及海岸公園委員會就機場第三跑道系統與機管局舉行會議，多個委員質疑，局方海豚專家估計完成工程才設立海岸公園，中華白海豚將重回該水域的說法過於樂觀，並擔心設立海岸公園後成效未必理想，要求機管局分階段設立海岸公園，並建議把部分水域劃為海岸保護區，禁止船隻航行及釣魚。

### 「先破壞後保育」做法被動

委員吳祖南在會上指出，設立海岸公園雖然限制船隻航行速度，但未有限制船隻流量，亦認為機管局「先破壞，後保育」，待2023年第三跑道系統運作後才設立海岸公園的做法被動。有委員指出，大小磨刀洲西面海域有一條貨運航道「鋼殼航道」，擔心即使機管局設立海岸公園，效用亦不大。

另一委員侯智恒則批評，環評報告對海豚的調查範圍不足，未有研究海豚晚間的作息地區，亦未有進行跨邊境的海豚數量調查，加上周邊地區近年工程頻繁，難以評估海岸公園的作用。委員要求機管局在工程進行期間，先在大嶼山西部水域設立海岸公園保育海狗覓食及游弋路線，在部分水域更應「升級」至海岸保護區，禁止船隻航行及釣魚。

機管局表示將研究建議，建築工程執行總監蔡新榮則重申，專家肯定機管局提出的2400公頃海岸公園的作用，並可與大小磨刀洲與沙洲及龍鼓洲海岸公園連接，產生協同效應，相信透過適當管理，有條件重新吸引中華白海豚回歸。機管局亦有信心，完成三跑道工程後落實成立海岸公園。

### 機管局設海岸公園恐甩底

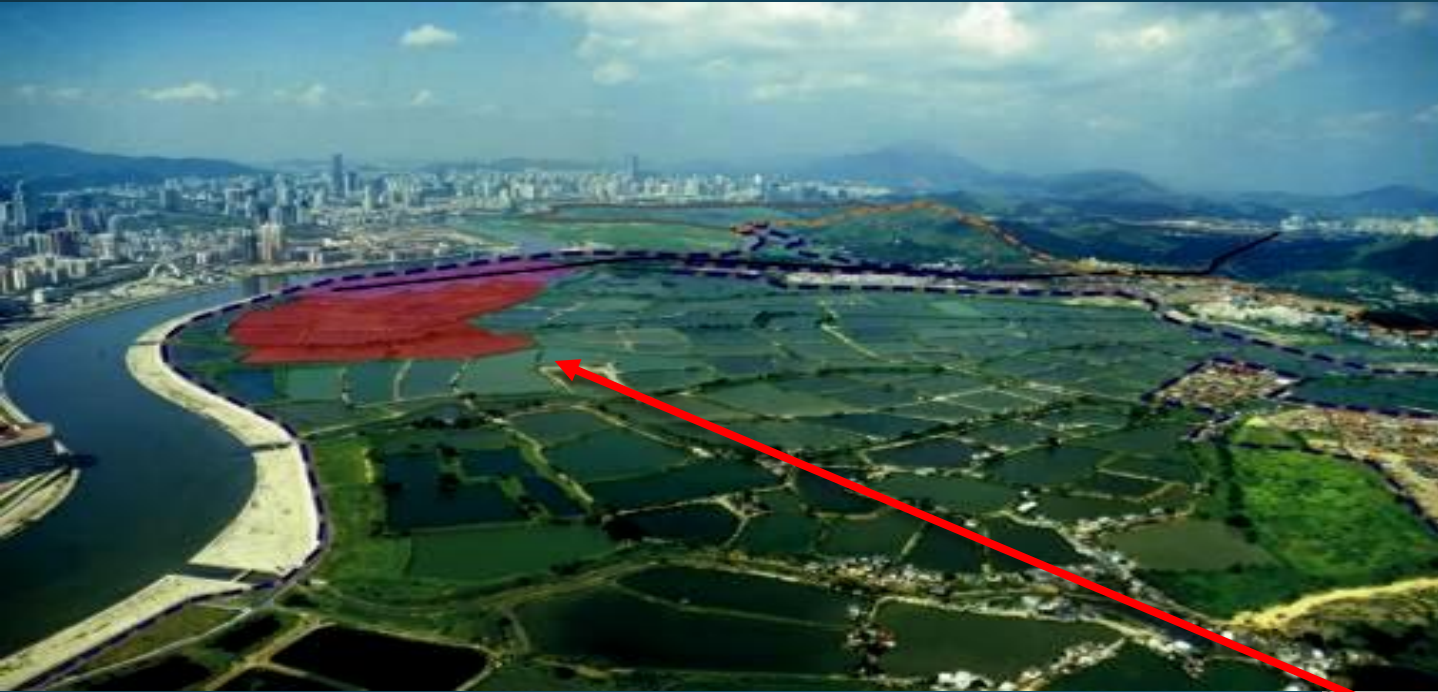
不過，會有委員提出，海岸公園的管理由漁農自然護理署負責，一旦機管局完成工程，卻未能設立其所訂下的海岸公園，或海岸公園未能有效吸引中華白海豚，最終責任並非機管局而由漁護署或委員會承擔。

旁聽會議的香港海狗保育學會會長洪家耀則批評，環評報告不盡不實，低估工程進行期間對海狗棲息地、大小磨刀洲與沙洲及龍鼓洲海岸公園的影響。

另外，四個環保團體聯署向機管局發公開信，指原定周日舉辦公眾論壇，並邀請機管局出席，惟被告知海狗、空氣及噪音專家均不在港而不出席，令論壇被逼延期。環保團體要求機管局未來一個月安排代表出席公開論壇，雙方可作更深入的討論。

機管局則回應指，當局已舉辦多個與環保組織直接對話的論壇及會議，並須同時照顧其他持份者，爭取時間溝通。

# The Sheung Shui - Lok Ma Chau Spurline project (2002)

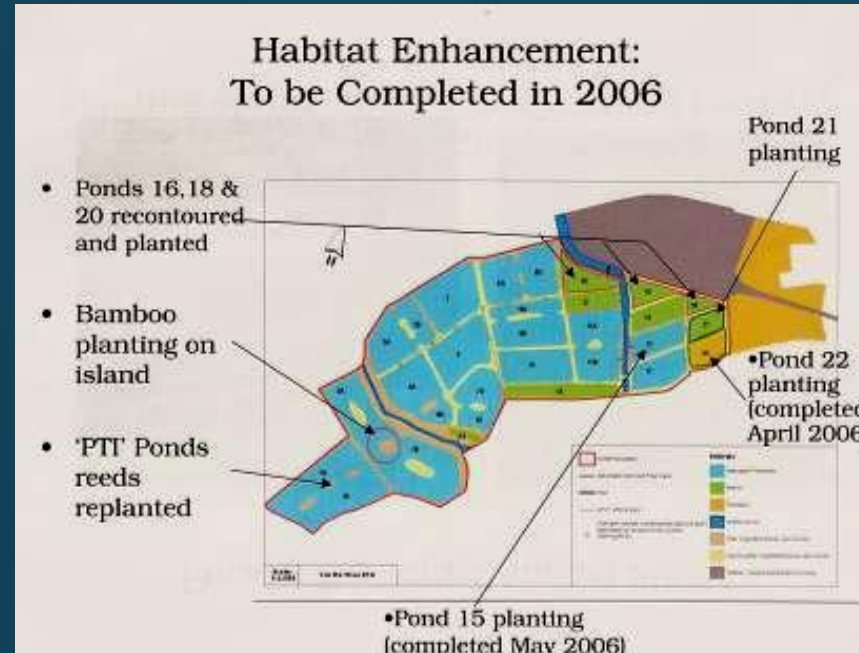


**Habitat Enhancement Programme** at the adjacent site of Lok Ma Chau KCRC Station



# Habitat Enhancement Programme

- the same time as the construction of the LMC station



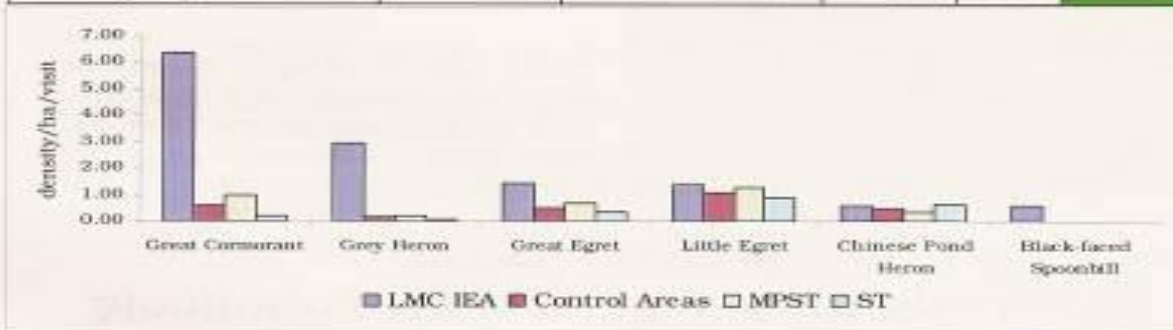
Otter Holt Under Construction May 2005



**Measurable targets** (species, density) are set, followed by regular monitoring and audit process.

**LMC IEA Running Targets  
2 May 2005 to 30 April 2006**

Density (mean/ha)	LMC IEA	Control Areas	MPST	ST	Ratio
Great Cormorant	6.35	0.59	0.99	0.19	10.76
Grey Heron	2.95	0.14	0.22	0.07	20.63
Great Egret	1.42	0.51	0.68	0.33	2.80
Little Egret	1.37	1.07	1.25	0.89	1.28
Chinese Pond Heron	0.58	0.49	0.37	0.62	1.17
Black-faced Spoonbill	0.60	0.01	0.02	0.01	45.09
<b>Total target species</b>	<b>13.27</b>	<b>2.82</b>	<b>3.52</b>	<b>2.12</b>	<b>4.71</b>



**Target species January – April 2006**

Number of ponds / replicates	Count method	Jan 06	Feb 06	Mar 06	Apr 06
Great Cormorant	A	18,583	6,430	5,892	0,004
Grey Heron	A	5,330	4,587	2,276	0,601
Great Egret	A	1,603	1,781	0,191	0,436
Little Egret	A	1,060	0,476	0,218	0,561
Chinese Pond Heron	B	0,334	0,147	0,045	0,325
Black-faced Spoonbill	A	1,262	1,015	0,267	0,116
Common Teal	B	4,275	0,145	1,416	0
Greater Spotted Eagle	A	0,069	0,001	0	0
Imperial Eagle	A	0,027	0,016	0,004	0
Japanese Quail	B	0	0	0	0
Black-winged Stilt	B	0,245	0*	0	0*
Common Stipe	B	0,022	0,011	0,027	0,022
Richard's Pipit	B	0,067	0,067	0,107	0,089
Bluethroat	B	0	0,033	0,009	0
Common Stonechat	B	0,125	0,156	0,214	0,104
Zitting Cisticola	B	0,111	0,236	0,205	0,022
Red-billed Starling	B	7,362	15,280	6,315	0
Black-naped Oriole	B	0	0	0	0,058

If targets are not achieved, it may need to fine tune or revise the management plan.

## 26 Bird Target Species

Year	Jul 2009 - Jun 2010			Jul 2010 - Jun 2011			Jul 2011 - Jun 2012			Jul 2012 - Jun 2013			Jul 2013 - Jun 2014		
	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio
Density (mean/ha)															
Japanese Quail	<0.01	<0.01	4.50	<0.01	0.00	LMC	0.00	0.00	nr	0.00	0.00	nr	<0.01	0.00	LMC
Eurasian Teal	0.89	<0.01	209.54	1.75	0.01	195.23	1.12	0.01	135.38	1.36	<0.01	5755.24	0.87	0.12	7.09
Black-faced Spoonbill	0.69	0.02	36.94	1.18	0.04	30.01	1.08	0.04	29.94	0.71	0.02	29.36	0.21	0.08	2.60
Chinese Pond Heron	0.74	0.45	1.65	0.95	0.51	1.86	1.03	0.53	1.97	0.86	0.38	2.28	0.73	0.33	2.20
Grey Heron	2.04	0.12	16.78	2.39	0.12	19.38	1.66	0.19	8.83	1.50	0.17	8.79	1.28	0.18	7.15
Great Egret	1.33	0.48	2.79	2.34	0.64	3.68	1.43	0.50	2.87	0.89	0.53	1.68	0.61	0.47	1.28
Little Egret	0.72	0.67	1.07	1.18	0.87	1.36	0.75	0.68	1.11	0.49	0.55	0.89	0.23	0.52	0.45
Great Cormorant	2.51	0.38	6.62	3.29	0.22	15.01	2.71	0.65	4.15	5.42	0.48	11.34	3.44	0.54	6.32
Greater Spotted Eagle	<0.01	<0.01	20.97	0.01	0.00	LMC	0.02	0.00	LMC	0.01	0.00	LMC	0.01	<0.01	50.90
Eastern Imperial Eagle	0.01	<0.01	119.48	0.01	0.00	LMC	0.01	<0.01	39.45	0.01	0.00	LMC	<0.01	<0.01	2.50
Eurasian Hobby	<0.01	0.00	LMC	<0.01	0.00	LMC	<0.01	<0.01	2.45	0.00	0.00	nr	<0.01	0.00	LMC
Eurasian Coot	0.04	0.00	LMC	0.08	<0.01	162.93	0.04	0.00	LMC	0.01	0.00	26.95	0.01	0.00	LMC
Black-winged Stilt	0.12	0.03	4.60	0.37	0.11	3.23	0.37	0.09	4.13	0.29	0.02	14.94	0.44	0.10	4.54
Greater Painted-snipe	0.04	0.00	LMC	0.03	<0.01	17.15	0.09	0.00	LMC	<0.01	0.00	LMC	0.03	0.00	LMC
Pheasant-tailed Jacana	0.01	<0.01	53.98	0.02	<0.01	21.23	0.03	<0.01	29.40	<0.01	0.00	7.35	0.01	0.00	LMC
Pintail/Swinhoe's Snipe	0.03	0.01	4.30	0.04	<0.01	10.07	0.01	<0.01	3.02	0.02	0.00	5.78	0.04	<0.01	37.73
Common Snipe	0.05	0.02	2.55	0.09	0.01	8.24	0.04	0.01	5.77	0.03	0.01	4.70	0.03	0.01	3.56
Black-naped Oriole	<0.01	<0.01	2.25	0.00	<0.01	CA	0.00	<0.01	CA	<0.01	0.00	LMC	0.00	0.00	nr
Pallas's Grasshopper Warbler	<0.01	<0.01	2.53	0.01	<0.01	4.23	0.01	<0.01	6.74	0.01	<0.01	17.97	0.01	<0.01	9.39
Zitting Cisticola	0.10	0.09	1.14	0.15	0.08	1.83	0.06	0.03	1.93	0.05	0.06	0.88	0.09	0.07	1.23
Red-billed Starling	2.53	1.00	2.52	1.67	0.92	1.82	2.21	1.29	1.72	0.72	0.46	1.56	0.45	0.37	1.21
Bluethroat	0.01	<0.01	40.48	<0.01	0.00	LMC	<0.01	0.00	LMC	<0.01	0.00	LMC	<0.01	<0.01	12.25
Stejneger's Stonechat	0.11	0.06	1.90	0.14	0.05	2.51	0.11	0.05	2.33	0.10	0.04	2.67	0.09	0.05	1.97
Richard's Pipit	0.12	0.09	1.28	0.07	0.08	0.78	0.07	0.07	1.08	0.05	0.06	0.95	0.05	0.07	0.83
Japanese Yellow Bunting	0.00	0.00	nr	0.00	0.00	nr	0.00	0.00	nr	0.00	<0.01	CA	0.00	0.00	nr

**Key:**

- NR – Not recorded within WCA or Control Areas during the period
- Blue – Target met (i.e. density in WCA at least twice that in Control Areas)
- Yellow – Target not met, although density higher than in Control Areas
- Red – Target not met and density lower than in Control Areas
- \* Casual observation only

Better results can be obtained.

This exercise will go on as long as the Spur Line is running!

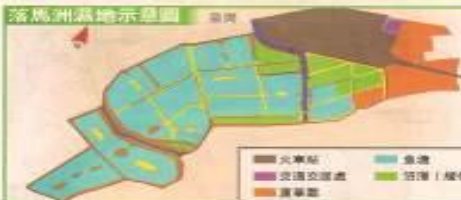
支線年中通車 斥 4600 萬元進行補償工程  
**九鐵落馬洲濕地招來4000鳥**

10.2.07



群鳥聚集 ▲九鐵昨日在落馬洲濕地中吸引了42種鳥類的鳥類，包括黑喉斑鵞及小白額雁。

▲大群鳥類，為地內的鳥類安全提供保障，並提高其繁殖率，增加和記工廠。



**KCRC wins full marks for new wetland, but greens fear flaw**



The Lok Ma Chau KCR station forms the backdrop to migratory birds settled yesterday on the prads of the new wetland, created out of a string of former fish ponds.



Lok Ma Chau Spur Line · 落馬洲支線



## Most important ...

Who is responsible for all these?

- KCRC - the **Environmental Permit holder**

## A successful ecological mitigation/enhancement plan should contain

- clear objectives
- measureable targets
- appropriate action and management plans
- a regular monitoring and auditing scheme
- a proper evaluation process
- a contingency plan in case it fails to meet the objectives/targets.

### Supported by

- solid commitment from the project proponent
- adequate resources and financial inputs
- expert advice from professionals
- a transparent public engagement process

Otherwise we may end up getting a ‘wet land’ not wetland.



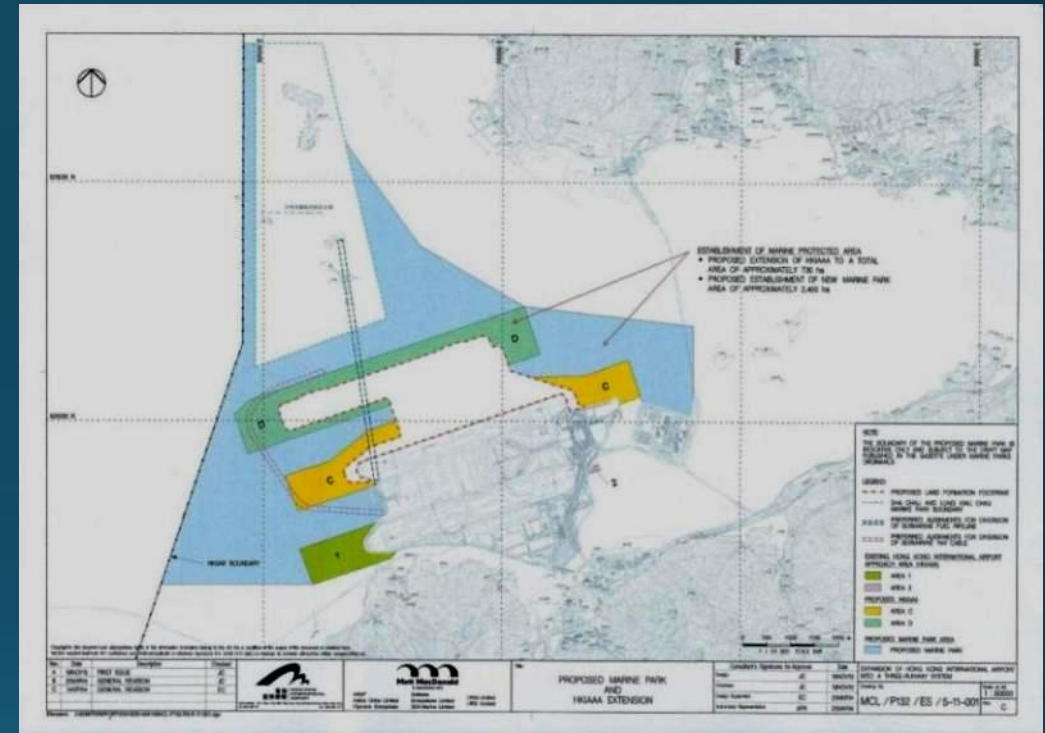
Some wild birds, but not those missing!

## The proposed Marine Park Plan should have

- clear objectives
- measurable targets
- appropriate action and management plans
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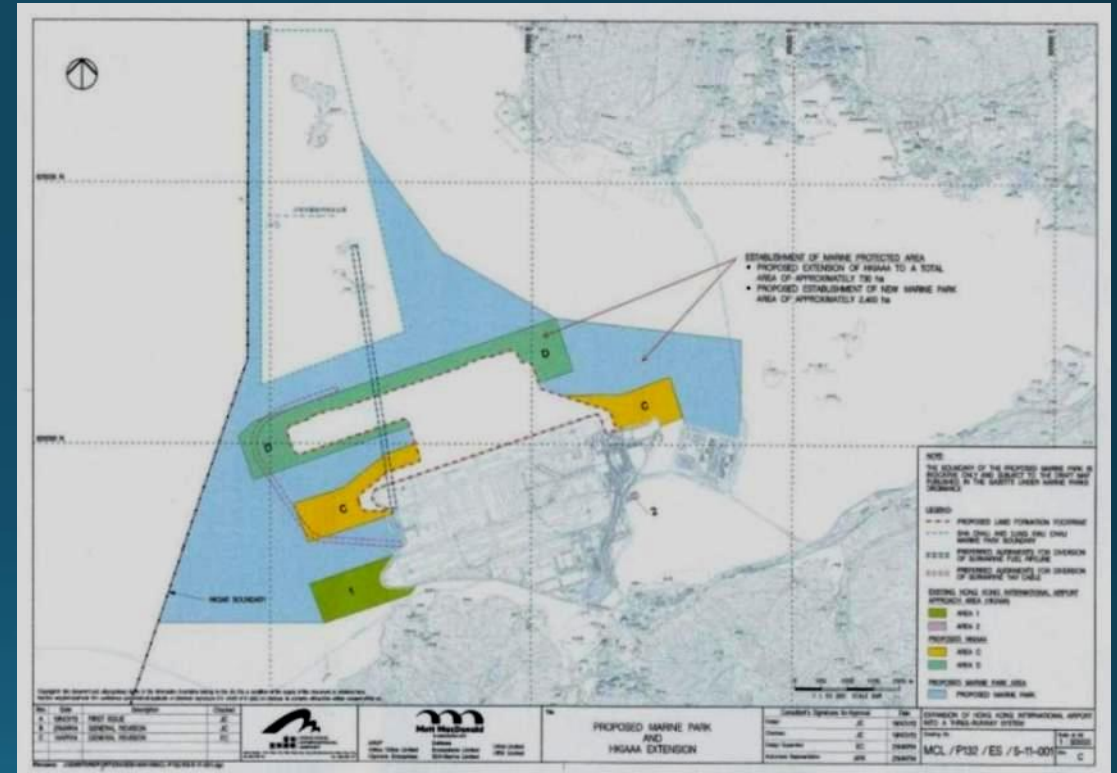
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*Can we find the answer and commitment in the EIA Report?*

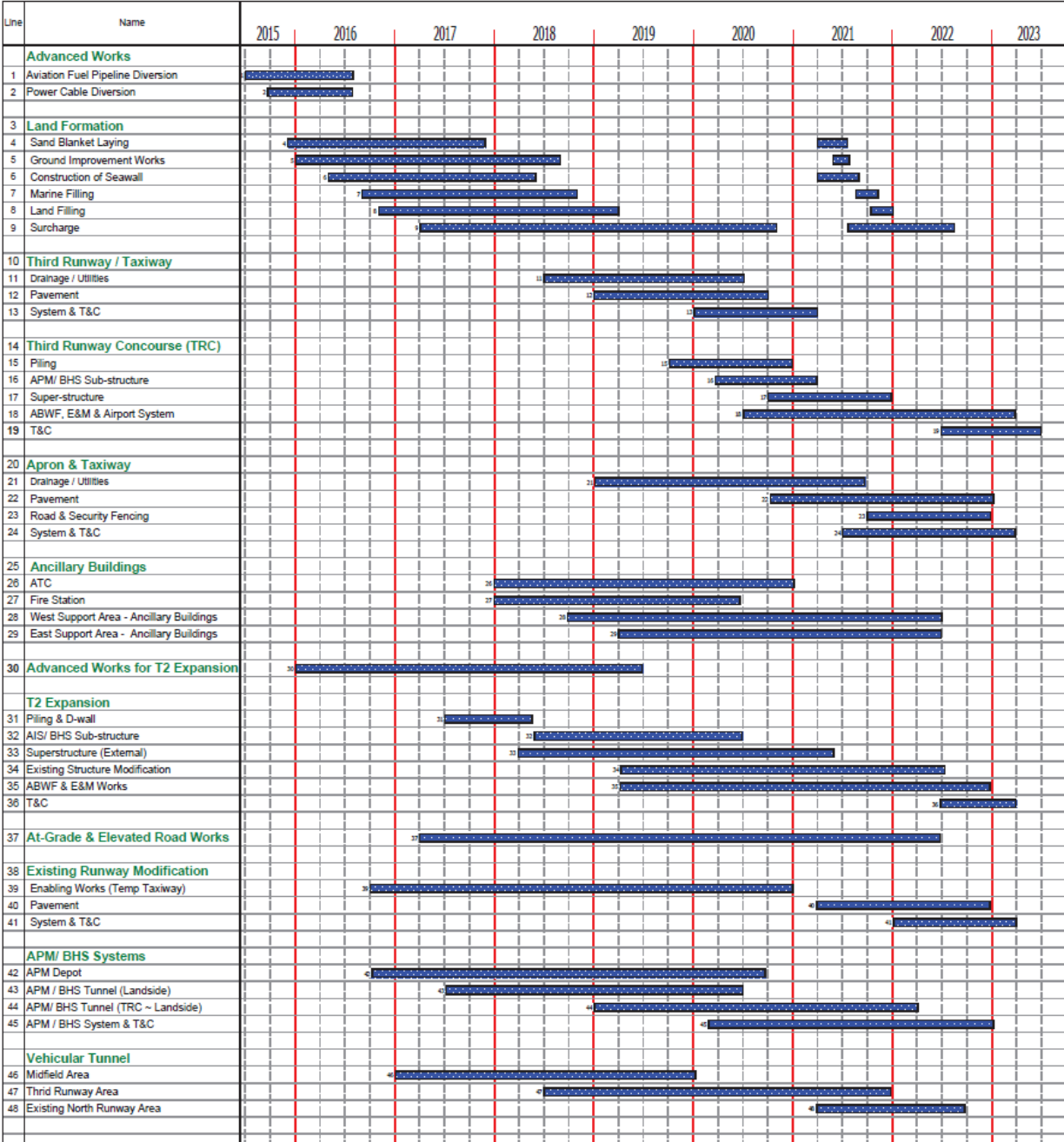
# The most important questions

- Who will and have the authority to manage the proposed Marine Park?
- Who will provide the necessary resources and financial supports?
- Who will be responsible if conservation targets are not met?
- What is the contingency plan?



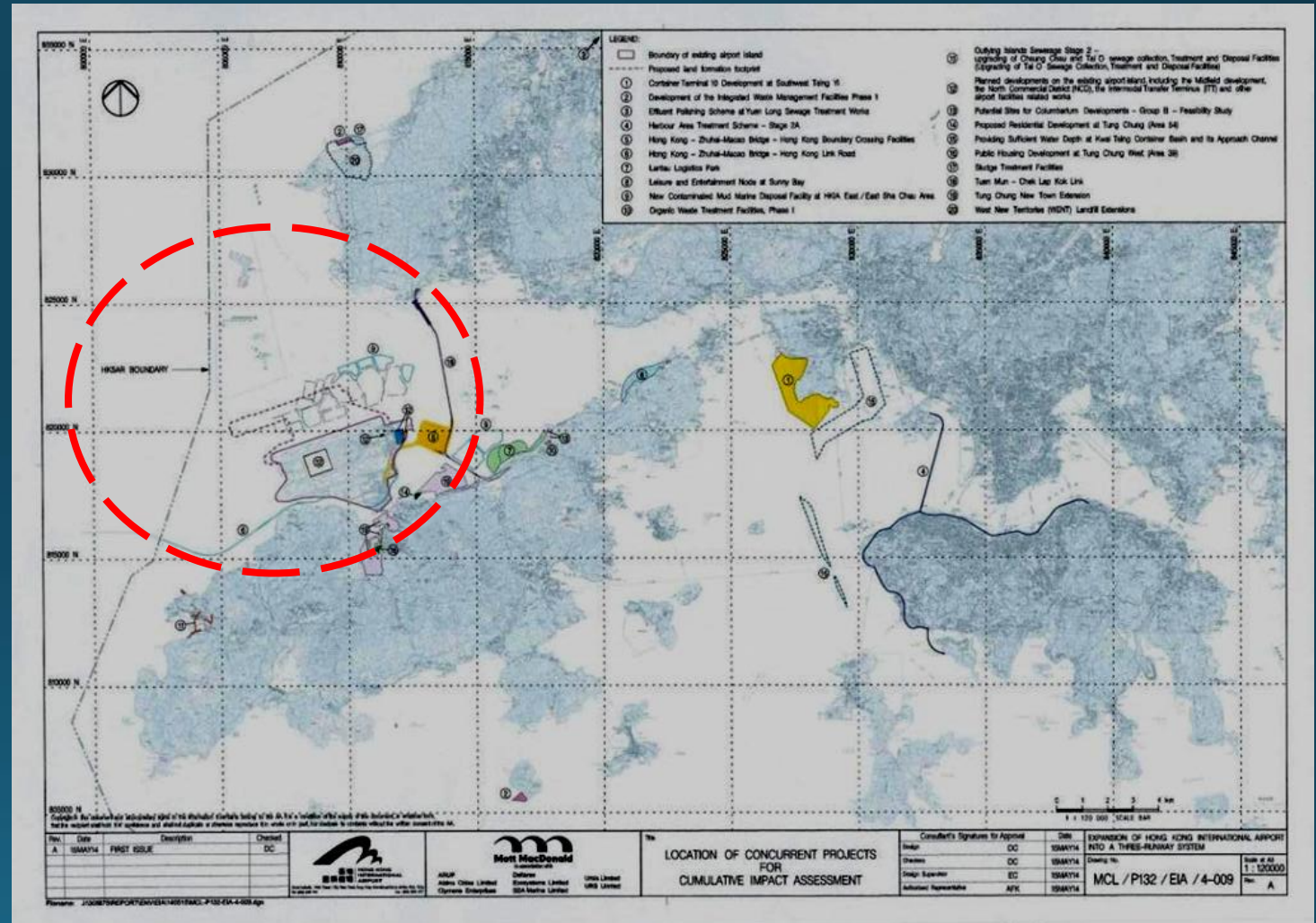
# How about the mitigation for construction phase impacts?

- A temporary loss of ~981 ht habitat



# Cumulative impacts issues

- space-crowded perturbations
- time-crowded perturbations
  - 3<sup>rd</sup> Runway: 2015-2023
  - HKZM Bridge: up to 2016
 => critical period: 2016 -2017



Location of Concurrent Projects for Cumulated Impact Assessment

## Impacts outside HK territory but in the vicinity



- <http://www.f dine.com.cn/cn/newsShow.asp?ArticleID=420>

## Major mitigation measures proposed during the construction phase

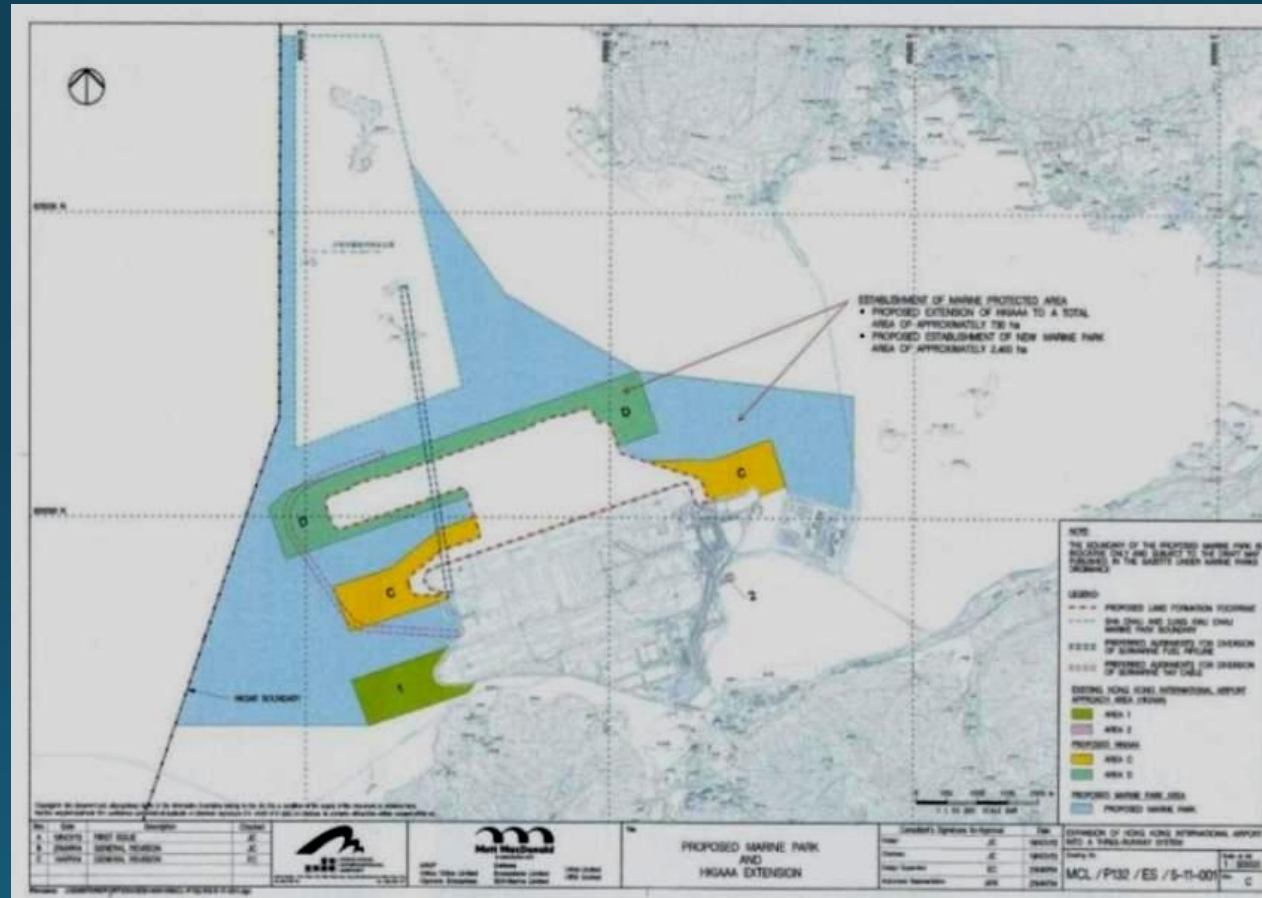
- Use of Horizontal Directional Drilling (HDD) Construction Methods to avoid disturbance to seabed
- Field joint location outside the existing marine park area to avoid disturbance to marine park
- Use of non-dredge methods during land formation to minimize risk / disturbance to the environment e.g. use of DCM for CMP area
- Re-routing of SkyPier ferries to/from Zhuhai & Macau Speed reduction of SkyPier ferries close to SCLKCMP

Other mitigation measures include:

- Avoidance of peak calving season for CWDs during bored piling
- Implementation of water quality mitigation measures (filling behind seawall, good construction site practices and silt curtains)
- Control the speed (<10 knots) of construction vessels within works area
- Establishment of 250m dolphin exclusion zones

*None of these is for mitigating habitat loss!*

Could certain sections of the proposed Marine Park be designated and managed first?  
 Ideally, starting in 2016.



Don't negate the needs for mitigating construction phase impacts!

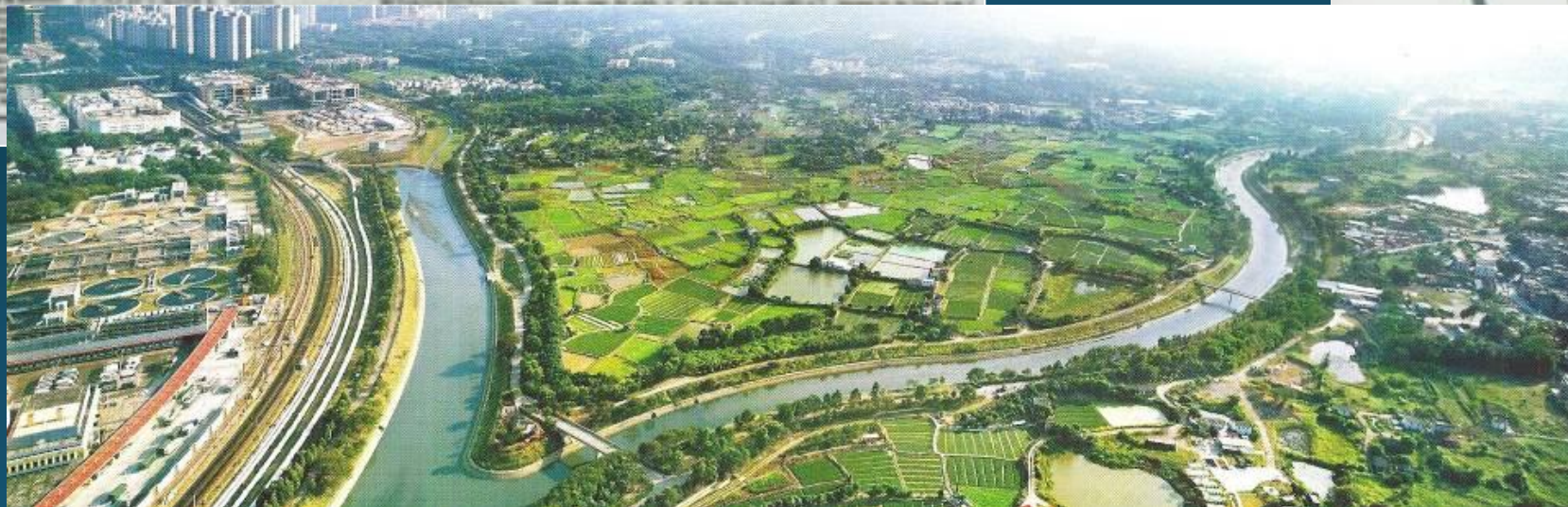
# Greens derail \$7b KCRC line



The article discusses the impact of the \$7 billion KCRC line on the environment, specifically focusing on the impact on birds and the need for mitigation measures. It mentions that the project has caused the displacement of many birds and that the government is required to provide compensation and mitigation measures to offset the impact.



Sheung Shui to Lok Ma Chau Spur Line  
Striking a Balance  
Between Impacting on People and Wildlife



# We want a dolphin sanctuary!

## Third runway: dolphins offered 'phoney' deal

**Ernest Kao**  
ernest.kao@scmp.com

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20.6.2014  
Protection Department to reject the report when it meets in August.

It will launch a campaign over the next month to highlight the plight of dolphins living in the area. The society hopes to collect 10,000 comments from the public against the report.

The authority said it studied the possible impact of the airport expansion in 12 key environmental aspects, and proposed measures to "avoid, reduce, mitigate and compensate for any potential environmental impact".

The runway is expected to cost HK\$130 billion. The authority says it will bring about HK\$912 billion in economic benefits over the course of 50 years.

Thank you!