
SHEUNG SHUI TO LOK MA CHAU SPUR LINE

Environmental Committee

Minutes of Meeting No. 23 held at 3:00pm
On Wednesday, 7 June 2012,
at Room 17A, 17/F, MTR Headquarters Building.

Present:		
Mr. John Allcock	WWF Hong Kong	Member (NGO)
Ms. Karen Barretto	Friends of the Earth (Hong Kong)	Member (NGO)
Mr. Michael Kilburn	The Hong Kong Bird Watching Society	Member (NGO)
Dr. Chan Kam-foon	Environmental Engineering Manager	Member (MTR)
Ms. Kenny Yiu	Manager - Environmental Engineering	Member (MTR)
Mr. Peter Choi	Environmental Engineer	Member (MTR)
Dr. Michael Leven	Ecological Consultant	Member (consultant)
Ms. Shirley Lam	Ecological Consultant	Member (consultant)
Absent with apology:		
Dr. Ng Cho-nam	The University of Hong Kong	Member (NGO)

	<u>Action By</u>
1. Welcomed Members to the No. 23 EC meeting.	
Item 1 - <u>Confirmation of minutes of Meeting No. 22</u>	
2. There were no comments on the minutes of Meeting No. 22 and the minutes were confirmed.	Noted
Item 2 - <u>Ecological Enhancement Works and Monitoring - an Update on Management Works and Look Ahead</u>	
3. <u>A Member (consultant)</u> reported on the ecological monitoring and management work undertaken between January and May 2012 at the LMC EEA (detailed in Annex A). It was noted that: <ul style="list-style-type: none"> • All management activities comprised routine management practices such as vegetation management, including grass cutting, weeding, and other micro-habitat management practices, pond drain down, fish stocking, and pest control. 	Noted
<ul style="list-style-type: none"> • <u>A Member (consultant)</u> noted that sourcing of fish continued to be a concern at the wetland. As noted in the fish stocking data between January and March this year, the site experienced a prolonged period of no stocking (more than 5 weeks) and sudden influx of huge quantities (with quantities up to 8,225kg on one day). Members expressed concern and suggested alternative ways of resolving the issue such as keeping excess fish on-site by means of an enclosed net, raise the price per kilogram of fish in the contractor's contract and speaking to the Hong Kong Bird Watching Society regarding their management agreement with the fish farmers for next year. <u>A Member (MTR)</u> noted that an alternative rate of fish was agreed with the contractor but the measure did not resolve the issue of fish sourcing. <u>A Member (consultant)</u> noted that discussion with the HKBWS will be undertaken and possibilities regarding arrangement explored. <p><i>[Post-meeting note: It was noted from Mr. Yu of HKBWS that arrangement with the Yuen Long Fisheries Association was made in January 2012, for a period of 12 months starting from 1st February 2012. The agreement reads that if the fish farmers provide some ecological enhancement measure for waterbirds (such as draining ponds), a subsidy would be paid. Mr. Yu noted that he understood from the fish farmers that the price of fish has gone up substantially and they are now reluctant to sell fish to MTRC due to 'cheap' rate. He further noted that HKBWS has been very promptly paying any fish farmers who have done such ecological enhancement measure.</i></p> <p><i>It appeared that the price of fish and the readiness to settle bills</i></p>	AEC

	<u>Action By</u>
<i>could be a genuine issue relating to sourcing fish for LMC. Mr. Yu suggested seeking an agreement with the Yuen Long Fisheries Association directly might be more feasible in the long run.]</i>	
<ul style="list-style-type: none"> • <u>Members (NGO)</u> applauded the attempt of the egret decoys and noted that it might be worth re-positioning some of the decoys now to attract interest of non-breeding birds. <u>A Member (consultant)</u> agreed to the suggestion and noted that many of the Great Egrets on-site were obviously non-breeding birds given bill colour. He further noted that sourcing better (more robust) decoys will investigate in due course. 	AEC
<ul style="list-style-type: none"> • <u>A Member (NGO)</u> noted her concern over the impact of fencing the two streamcourses. It was noted that the design of the fence has incorporated elements for wildlife movement and was approved by AFCD. Further visual impact could be mitigated by screen planting once the fence is erected. 	Noted
<ul style="list-style-type: none"> • <u>A Member (MTR)</u> reported that the Government is proposing to construct a viaduct to connect the LMC Loop to the PIT/LMC Station, which will go through the Wastewater treatment reedbed. He noted that in order to minimize number of reedbed cells to be affected, MTRC had proposed an alternative alignment. <u>A Member (NGO)</u> noted that potential compensation area for the temporary ecological impact and permanent reduced ecological function of the reedbed in question was identified and might include the ponds southwest of LMC EEA. He further noted that there might be additional flight line impact from the proposed alignment. However, it was agreed by <u>Members (NGO)</u> present that from the MTRC/LMC perspective, the proposed alternative alignment would be preferred. 	Noted
<p>Item 3 - <u>Any Other Business</u></p> <p>4. <u>A Member (NGO)</u> noted that due to his work schedule and his availability to attend EC meetings, he would like to propose to be replaced by Mr Cheng Nok Ming of the HKBWS. While there was no adverse comments from the MTRC regarding the proposed replacement, <u>A Member (consultant)</u> noted that <u>a Member (NGO)</u> should write to MTRC regarding this proposal.</p>	Noted
<p>Item 4 - <u>Date of Next Meeting</u></p> <p>5. The date of the next meeting is to be advised.</p>	Noted

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Report on Ecological Monitoring & Management & Works Programme
Jan – May 2012

7th June 2012



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Overview of Management Works Jan-May 2012

Vegetation Management

- Routine grass cutting & weeding
- Routine removal of unwanted species (*Phragmites*, *Typha*, *Mimosa*, *Mikania* etc.)
- Removal of sedge patches from Pond 17 and 19
- Removal of the selected *Ficus hispida* at Ponds 18 and 20
- Tree trimming and maintenance
- Manual removal of *Nelumbo* & Parrot Feather *Myriophyllum aquaticum* from Pond 21



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Overview of Management Works Jan-May 2012

Trash Fish Stocking In Winter

Trash fish stocked between Jan and Mar 2012, and quantity stocked.

Species Pond No.	Mud Carp <i>Cirrhinus molitorella</i> (kg)	Trash Fish* (kg)
3	-	3,326
4	5,284	5,322
6	-	3,387
Total (Actual Stocked)		17,319
Total (Instructed)		12,186

* Included Mud Carp, Edible Goldfish *Carassius auratus*, Tilapia *Oreochromis* sp.

Substantial delay in sourcing of trash fish was again reported. This resulted in prolonged period of no fish on-site and sudden influx of huge quantities of fish being delivered and stocked.



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Overview of Management Works Jan-May 2012

Trash Fish Stocking In Winter

Stocking Dates and Quantity Stocked between Jan and Mar 2012.

	Stocking Date	Quantity Stocked (kg)
Jan 2012	3 rd Jan	2,200
	9 th Jan	1,572
Feb 2012	23 rd Feb	8,225
Mar 2012	13 th Mar	3,810



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Overview of Management Works Jan-May 2012

Summer Fish Stocking

Quantity Instructed & Actual Stocked (as of May 2012).

	Quantity Instructed	Stocked Quantity
Tilapia	11,000 kg	-
Grass Carp	1,100 no.	21 st May

Comparison of Instructed Stocking Dates & Actual Date of Stocking.

	Instructed Stocking Date	Date of Stocking
Tilapia	By 30 th April	-
Grass Carp	By 30 th April	21 st May



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Overview of Management Works Jan-May 2012

General Site Management

- Pest Control: Red Fire Ant nests and Apple Snail
- Water quality management
- Dog trapping
- Nest box maintenance
- Water level adjustment
- Erection of a temporary site fence prior to opening of the FCA for site delineation and security purposes
- MPST Tower hide maintenance



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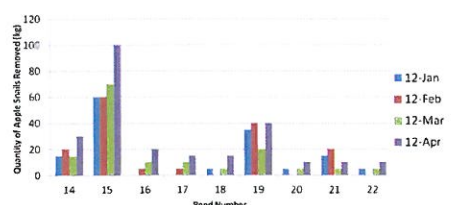
Overview of Management Works Jan-May 2012

Pest Management

- Golden Apple Snail removal at Ponds 14 – 22

Quantity (kg) of Apple Snail Removed by Contractor

Pond	14	15	16	17	18	19	20	21	22	TOTAL
Jan-12	15	60	0	0	5	35	5	15	5	140
Feb-12	20	60	5	5	0	40	0	20	0	170
Mar-12	15	70	10	10	5	20	5	5	5	145
Apr-12	30	100	20	15	15	40	10	10	10	250



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Overview of Management Works Jan-May 2012

Wildlife Management

- Nest box maintenance
- Trial Egret decoys (9 No.) at island on Pond 2



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Scheduled Management Works for 2012 Wet Season

- Bund maintenance at Ponds 3 and 5
- Provision of a big floating platform at Pond 10
- Erection of permanent site fence
- Water level adjustment
- Fish stock management
- Routine grass cutting and general vegetation management
- Monitoring establishment of *Nymphaea* and control of *Nelumbo* at Pond 21
- Control & monitor of exotic plants
- Control of Apple Snails, Fire Ants and dog trapping
- Control of water quality

Update on Previously Recommended Items:

- Osprey platform (cancelled for budgetary reasons)

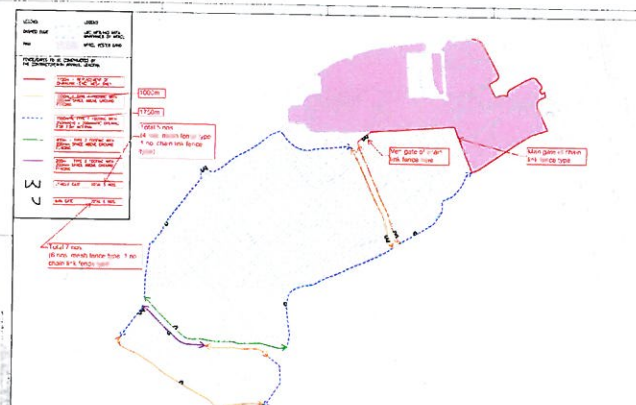



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Scheduled Management Works for 2012 Wet Season

- Site boundary fence erection

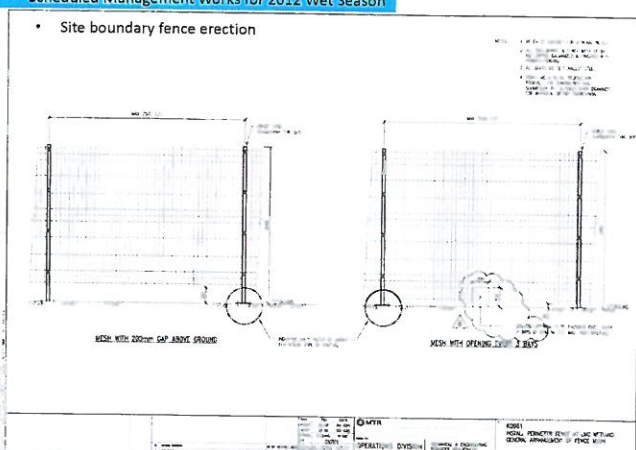




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Scheduled Management Works for 2012 Wet Season

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Operational Stage Monitoring

- Required as off August 2007 when Spurline commenced operation (although operational stage monitoring started in January 2006)
- Wildlife targets extended to cover species of conservation importance detailed in the Environmental Impact Assessment:
 - Eurasian Otter
 - 26 bird species (c.f. Table 2.3 of the HCMP)
 - Burmese Python, Chinese Soft-shelled Turtle, Chinese Bullfrog
 - Dragonflies (increased numbers and species diversity)





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Monitoring of Target Waterbird Species, protocol

- Counts from towers at LMC at Mai Po San Tsuen (MPST) for larger waterbirds and raptors.
- Transect survey for smaller target species at LMC and MPST and for all species at San Tin.
- Methodology for calculation of targets reviewed in early 2007 (included in HCMP)

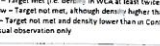
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26 Bird Target Species (Up to May 2012)

Year	Jun 2007- May 2008			Jun 2008- May 2009			Jun 2009- May 2010			Jun 2010- May 2011			Jun 2011- May 2012		
	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio
Great Cormorant	3,032	6,524	0.46	3,481	6,281	0.55	2,393	5,174	0.46	2,319	5,154	0.45	2,613	5,622	0.47
Gray Heron	102	1,183	0.09	157	1,296	0.12	2,413	2,011	1.20	2,892	2,121	1.36	2,241	1,418	1.58
Great Egret	1,147	7,759	0.15	1,131	8,530	0.13	1,517	9,454	0.16	1,446	10,374	0.14	2,333	12,488	0.19
Little Egret	1,116	1,066	1.05	1,050	0,785	1.34	0,728	0,683	1.10	1,182	0,862	1.37	6,712	0,676	1.12
Chinese Pond Heron	1,116	1,066	1.05	1,050	0,785	1.34	0,728	0,683	1.10	1,182	0,862	1.37	6,712	0,676	1.12
Black-faced Spoonbill	1,030	1,277	0.81	1,316	1,471	0.90	1,611	1,819	0.89	1,641	1,914	0.86	3,101	2,612	1.19
Common Teal	1,312	1,044	1.26	1,744	1,035	1.68	1,891	1,258	1.50	1,616	1,000	1.62	1,116	1,075	1.04
Greater Spotted Eagle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imperial Eagle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eurasian Hobby	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Japanese Quail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eurasian Coot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plains-crowned Jacana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greater Painted-snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black-winged Stilt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pintail/Swinhoe's Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Snipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richard's Pipit	0.079	0.040	1.96	0.073	0.062	1.19	0.117	0.091	1.28			0.073	0.068	1.08	
Bluetit															
Common Stonechat															
Pallas's Grasshopper Warbler							0.108	0.057	1.90	1.77	0.84	2.11	0.81	2.64	
Jetting Chiffchaff	0.195	0.113	1.72	0.145	0.112	1.29	0.105	0.089	1.18	0.148	0.082	1.80	0.056	0.029	1.96
Japanese Yellow Bunting	0.000	0.000	nr	0.000	0.000	nr	0.000	0.000	nr	0.000	0.000	nr	0.000	0.000	nr
Red-billed Starling	2,349	1,424	1.65							1,668	0,917	1.82	2,312	1,280	1.82
Black-naped Oriole															

Key:
 NR = Not recorded within LMC 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




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Endangered Birds Jan – May 2012

Species name	Status	Highest Count				
		Jan	Feb	Mar	Apr	May
Black-faced Spoonbill [*]	Endangered	334	148	182	0	0
Greater Spotted Eagle	Vulnerable	2	2	1	0	0
Imperial Eagle	Vulnerable	2	2	1	0	0

Remarks:
^{*} A record count of 334 Black-faced Spoonbill was obtained on 10th January 2012, which is the highest record of this species since the establishment of EEA (85% of Hong Kong peak count in winter 2011/12 of 393).



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Mammal Targets

- One **Leopard Cat** record between January and May 2012.



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Herpetofauna Observations

Maximum Total Number of Individuals recorded in all ponds in LMC EEA		2006	2007	2008	2009	2010	2011	2012*
Asian Common Toad	<i>Bufo melanostictus</i>	0	3	3	1	2	4	2
Asiatic Painted Frog	<i>Kaloula pulchra</i>	0	0	0	0	0	2	1
Butler's Pigmy Frog	<i>Microhyla butleri</i>	0	0	0	1	2	0	0
Ornate Pigmy Frog	<i>Microhyla ornata</i>	0	9	13	46	128	25	5
Paddy Frog	<i>Feyervarya limnocharis</i>	35	25	23	14	12	7	3
Chinese Bullfrog	<i>Hoplobatrachus chinensis</i>	0	1	1	2	4	2	1
Günther's Frog	<i>Rana guentheri</i>	130	157	145	74	137	86	98
Two-striped Grass Frog	<i>Rana taipehensis</i>	0	0	0	0	2	1	0
Brown Tree Frog	<i>Polypedates megacephalus</i>	12	16	32	33	27	33	11
No. of species recorded		3	6	6	7	8	8	7
Total No. of species recorded		9						

Remarks: *Up to May 2012



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Dragonfly Targets

Species Diversity

Dragonfly recorded as adults or exuviae at LMC EEA		2006	2007	2008	2009	2010	2011	2012*
Orange-tailed Midget	<i>Agrionema sinense</i>							
Wandering Midget	<i>Agrionema pygmaea</i>	✓	✓	✓		✓	✓	
Orange-tailed Sprite	<i>Ceragrion aurantulum</i>	✓	✓	✓	✓	✓	✓	✓
Common Bluet	<i>Ischnura elegans</i>	✓	✓	✓	✓	✓	✓	✓
Blue Spire	<i>Pseudagrion microcephalum</i>							✓
Pale-spotted Emperor	<i>Anax guttator</i>	✓	✓	✓	✓	✓	✓	✓
Lesser Emperor	<i>Anax parthenope</i>	✓	✓	✓	✓	✓	✓	✓
Common Fungus	<i>Trinidocentrus perinus</i>	✓	✓	✓	✓	✓	✓	✓
Golden Fungus	<i>Sin-tinocentrus clavatus</i>	✓	✓					✓
Regal Pond Cruiser	<i>Egaphana elegans</i>	✓	✓	✓	✓			
Asian Pheasant	<i>Aeschna pinnigifera</i>	✓	✓	✓	✓	✓	✓	✓
Blue Darter	<i>Brachyptera chalybeata</i>	✓	✓	✓	✓	✓	✓	✓
Asian Amberwing	<i>Brachyptera consimulata</i>	✓	✓	✓	✓	✓	✓	✓
Crimson Darter	<i>Crocothemis servida</i>	✓	✓	✓	✓	✓	✓	✓
Blue Pecher	<i>Diplacodes trinitatis</i>	✓	✓	✓	✓	✓	✓	✓
Amber-winged Glider	<i>Hydrocoelus cruceus</i>	✓	✓	✓	✓	✓	✓	✓
Crescent Glider	<i>Macropodops cava</i>	✓	✓	✓	✓	✓	✓	✓
Pied Pecher	<i>Neurothemis tullia</i>	✓	✓	✓	✓	✓	✓	✓
Common Red Skimmer	<i>Orethemis perla</i>	✓	✓	✓	✓	✓	✓	✓
Green Skimmer	<i>Orethemis pinnigera</i>	✓	✓	✓	✓	✓	✓	✓
Wandering Glider	<i>Pantala flavescens</i>	✓	✓	✓	✓	✓	✓	✓
Pied Skimmer	<i>Pseudischnura zanzibar</i>				✓	✓		✓
Ruby Darter	<i>Rhodopygia rufa</i>				✓			
Vincolated Flutterer	<i>Rhyothymus variegata</i>	✓	✓	✓	✓	✓	✓	✓
Evening Skimmer	<i>Thalysia hirsuta</i>	✓	✓	✓	✓	✓	✓	✓
Saddlebag Glider	<i>Tromasus virgata</i>	✓	✓	✓	✓	✓	✓	✓
Towering Darter	<i>Tritheimis pinnigera</i>	✓	✓	✓	✓	✓	✓	✓
Scarlet Basher	<i>Urothemis cinctata</i>	✓	✓	✓	✓	✓	✓	✓
No. of Species Recorded		22	23	23	22	24	21	20
Total No. of Species Recorded		28						

Remarks: *Up to May 2012

Mammal Targets (Max recorded)

Species Name/No. of records	2006	2007	2008	2009	2010	2011	2012*
Eurasian Otter <i>Lutra lutra</i>	2	2	2	1	3*	0	0

Remarks: *Up to May 2012

* Up to 3 individuals recorded between Pond 1 and 2 by AFCD.

Herpetofauna Targets

Species Name/ Maximum Count	2006	2007	2008	2009	2010	2011	2012*
Chinese Bullfrog <i>Hoplobatrachus chinensis</i>	0	1	1	2	4	2	1
Burmese Python <i>Python molurus</i>	1	0	1	0	0	0	0
Chinese Soft-shelled Turtle <i>Pelodiscus sinensis</i>	1	1	1	1	1	1	0

Remarks: *Up to May 2012



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Update on the Preparation of the 5-yearly Review of HCMP

- Work in progress



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