漁農自然護理署
Agriculture, Fisheries and Conservation Department

香港濕地公園 Hong Kong Wetland Park

Hong Kong Wetland Park
Habitat Management Plan

1. The 60-hectare outdoor wetland reserve of the Hong Kong Wetland Park (HKWP) is composed of diverse habitats such as freshwater marsh, pond, reedbed, mangrove, mudflat and woodland (Annex 1). In general, the habitats of the HKWP are managed for the purposes of demonstrating the diversity of Hong Kong's wetland ecosystem and providing an education and recreation venue with a theme on the functions and values of wetlands for use by local residents and overseas visitors.

2. Habitat management in the HKWP is mainly conducted through enrichment planting, controlling water level, removal of invasive exotic species and creating suitable micro-habitats. Different habitats in the HKWP are managed according to their respective management objectives in Annex 2.

Management of mudflat and freshwater habitats

3. In the mudflat and freshwater marshes of the HKWP, overgrown vegetation such as Common Reedgrass (*Phragmites australis*) is removed regularly in order to maintain an open landscape in the areas as feeding and roosting habitats for birds such as ducks and egrets, and facilitate visitors to enjoy bird watching. Water circulation through the Reedbed filter is maintained to ensure water quality of the marshes. Parts of the freshwater marshes are kept vegetative and less disturbed to attract 'shy' birds such as Little Grebe (*Tachybaptus ruficollis*) and White-breasted Waterhen (*Amaurornis phoenicurus*) to roost and nest.

4. The mudflat is an important high-tide roost for waders in the Deep Bay Area and thousands of migratory shorebirds are recorded every year. Sluice gates in the mudflat are carefully controlled to manage the water level and mud exposure throughout the year to control growth of vegetation in summer, and create an environment favourable for waterbirds in migratory seasons.

Vegetation and debris on the mudflat are removed in late summer to prepare for roosting and feeding grounds for massive migratory waterbirds especially waders. Otherwise, human disturbance to the mudflat is kept minimal.

Management of mangroves

5. Mangroves are one of the key habitats of the HKWP in terms of ecological importance and public enjoyment. To encourage more luxuriant mangrove growth, selective locations along the mangrove channel in the HKWP have been sowed with mangrove droppers. Removal of the exotic mangrove *Sonneratia* spp. is carried out regularly.

Management of habitats for odonates and butterflies

6. In order to enhance the habitats for odonates, slow flowing streams with gentle slopes and shallow water level are maintained in selective locations in the HKWP. Along the Stream Walk, various isolated freshwater pools are maintained to encourage the growth of odonate larvae. Various emergent plants are also planted in the pools and ponds to facilitate the emergence of the odonate adults.

7. In 2015, the Butterfly Garden was renovated and various nectar plants and food plants were planted. Rare species including Swallowtail (*Papilio xuthus xuthus*), Metallic Cerulean (*Jamides alecto alocina*) and Forget-me-not (*Catochrysops strabo Strabo*) can be seen in the Butterfly Garden regularly. The Butterfly Garden brought positive impacts by recording more butterfly species and increasing visitors' viewing opportunities of butterflies. Planting in the Butterfly Garden will be reviewed from time to time.

Installation of artificial bird nest and bat boxes

8. Different sizes of artificial nest boxes for birds have been installed in the visitation area and woodlands of the HKWP. Monitoring of these nest boxes is conducted twice a month in the breeding season from April to August. While the small nest boxes have been occupied by birds such as Cinereous Tits (*Parus cinereus*) and Oriental Magpie Robins (*Copsychus saularis*), the big nest boxes have been used by Collared Scops Owls (*Otus lettia*) and Asian Barred Owlets (*Glaucidium cuculoides*) for breeding. Bat boxes of different designs have also been set up at various locations in the HKWP to provide roosting places for bats including Japanese Pipistrelle (*Pipistrellus abramus*)

and Lesser Yellow Bat (*Scotophilus kuhlii*).

Control of invasive exotic species

9. Exotic species are plants, animals and other organisms introduced either unintentionally or deliberately to areas outside their natural geographical ranges. Some exotic species which have fast growth rate, high reproduction rate, strong dispersal ability and tolerance to different environment are invasive in nature and would affect native species in the same habitat.

10. Invasive exotic plant species, namely the creeper Mile-a-minute Weed (*Mikania micrantha*), White Popinac (*Leucaena leucocephala*), Water Hyacinth (*Eichhornia crassipes*) and the exotic mangrove Sonneratia (*Sonneratia* spp.) have been found in the HKWP, and removal of these species has been taken place regularly in order to control their impacts on the native plants in the HKWP.

11. Control of invasive exotic animal species such as Tilapia (e.g. *Oreochromis spp.*), Red Imported Fire Ant (*Solenopsis invicta*) and Golden Apple Snail (*Pomacea canaliculata)* are also carried out regularly. Tilapias and Golden Apple Snails have been found damaging aquatic plants in shallow water in the HKWP. Tilapias are controlled mainly by trapping, and Golden Apple Snails and their eggs are removed by handpicking. Red Imported Fire Ants are controlled by applying specific insecticide at the ant mounts and its population in the HKWP has substantially declined due to the continuous efforts over the years.

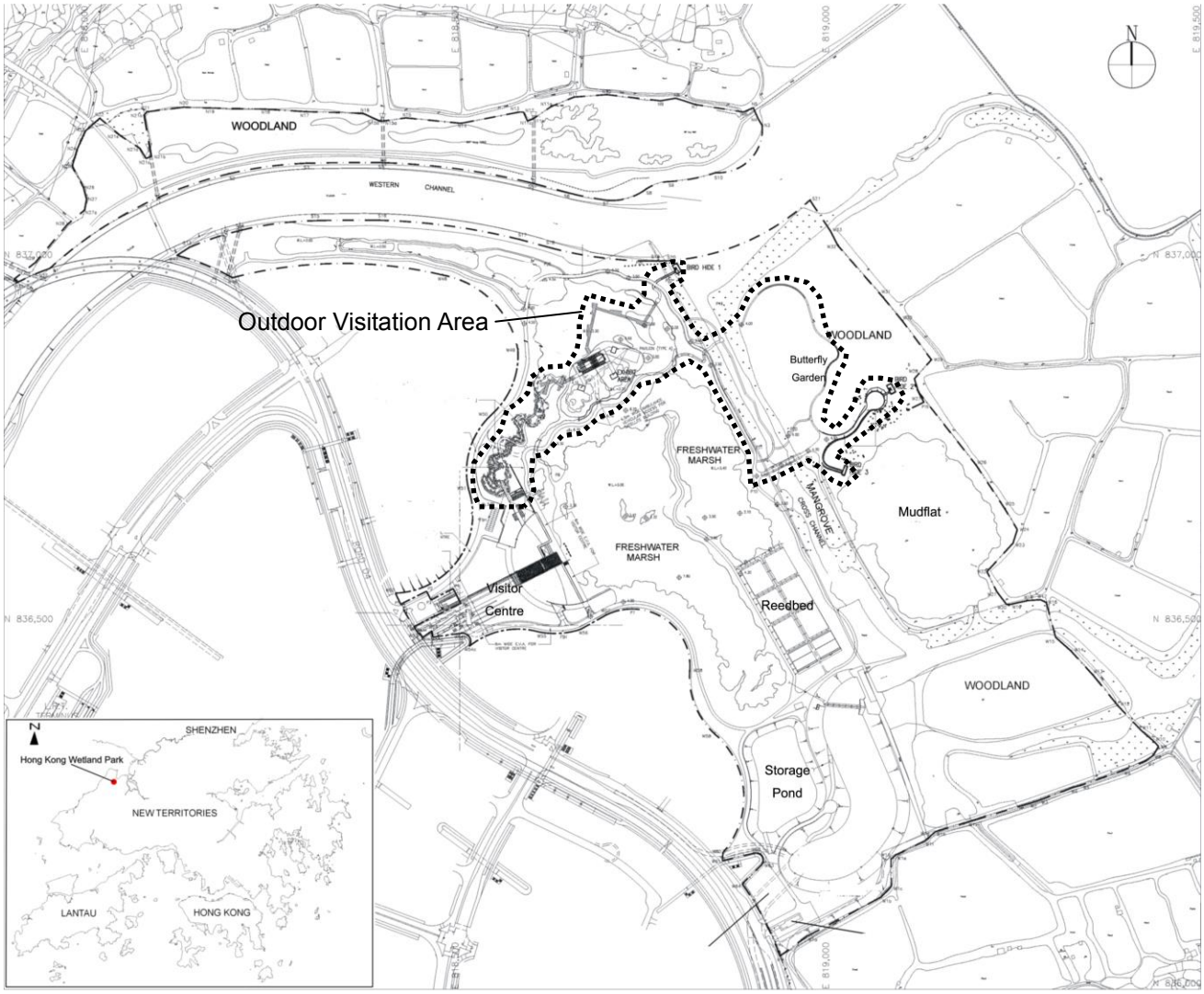
Landscape maintenance

12. Landscape maintenance work such as watering, fertilising, weeding and enrichment planting are carried out to enhance ecological and landscape value of the HKWP and to maintain a safe, enjoyable environment for visitors.

13. Regular tree risk assessment is carried out to inspect the health and structural conditions of trees in the visitation area, particularly those near footpaths and structures, and identify if any arboricultural maintenance work is required.

Annex 1

Map of the Hong Kong Wetland Park



Annex 2

Habitats in the HKWP and Their Management Objectives

Habitat	Management Objectives
Outdoor Visitation Area	To keep the vegetation in a neat, tidy and well-maintained condition for the enjoyment of visitors; to maintain and enhance diversity of plants for education and appreciation; to provide diverse freshwater habitats for amphibians, reptiles, freshwater fish and odonates; plantings along access paths for providing shelter, natural screening and landscape for amenity purposes.
Freshwater Marshes	To provide islands with less vegetation for ducks, moorhens, herons and egrets; to provide open water for ducks and cormorants; to provide dense emergent vegetation for waterbirds especially the 'shy' birds, and areas of floating-leaved plants for Pheasant-tailed Jacana (*Hydrophasianus chirurgus*) and Little Grebe (*Tachybaptus ruficollis*).
Reedbeds	To maintain reeds in healthy condition. Reedbeds provide water treatment and habitat for birds and insects.
Mudflat	To maintain the surface of mudflat free of vegetation and to control the water level for waterbirds especially waders.
Mangroves	To maintain mangroves in good condition and remove excessive climbers and invasive plants; to create viewing opportunities for visitors on floating board walk; to support crabs, mudskippers, the firefly *Pteroptyx maipo* and other intertidal animals.
Woodlands	To improve the condition of the woodlands by enrichment planting; to provide disturbance-free breeding habitats for woodland birds and mammals; to monitor mammals through auto trigger cameras and trapping.
Ponds	To provide habitats for fish, dragonflies and various waterbirds; to store water for normal functioning of freshwater wetlands.
Butterfly Garden	To provide abundant larval food plants and nectar plants for butterflies, and facilitate butterfly watching.