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Strategic Feasibility Study on the Development of Wetland Conservation Parks System under the Northern Metropolis Development Strategy

AFCD/CON/01/22

Part 2 Public Engagement Exercise

Agenda

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2 Baseline Review of the Study Area & Major Views under Part 1 Public Engagement Exercise

3 Proposed Positioning and Functions

4 Potential Management Options to be Considered

5 Factors for Consideration in the Development of the Wetland Conservation Parks System

6 Proposed Development Plan of Sam Po Shue WCP

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Introduction

Background

Wetlands and Fishponds in Deep Bay Area

- There are large areas of diverse wetland habitats in the northern and northwestern New Territories of Hong Kong, comprising **freshwater/brackish wetlands** such as **fishponds**, **marshes**, **reedbeds** and **mangroves**.

- The wetlands in Mai Po and Inner Deep Bay area, in particular, are **designated as a Wetland of International Importance under the Ramsar Convention**.

Background

Wetlands and Fishponds in Deep Bay Area

- These wetlands are recognised for their **high ecological value**, since they serve as an important over-wintering site for migratory waterbirds along the East Asian-Australasian Flyway, with **over 100,000 birds** using the area each year, of which some are globally threatened species.

- The wetlands also have **recreational and amenity values, as well as other important functions**, such as water storage and flood control, supporting aquaculture activities and providing recreation opportunities.

Proposal under the Northern Metropolis Development Strategy Published in 2021

Establishment of a Wetland Conservation Parks (WCPs) System in the Northern Metropolis

- The Northern Metropolis Development Strategy published in 2021 proposed to establish a multi-functional **WCPs System** covering wetlands and fishponds with conservation value in areas around **Tsim Bei Tsui**, **Nam Sang Wai**, **Fung Lok Wai**, **Tai Sang Wai**, **Sam Po Shue**, **Hoo Hok Wai** and **Sha Ling/Nam Hang**.

The proposed WCPs System aims to:

1. **Create environmental capacity**

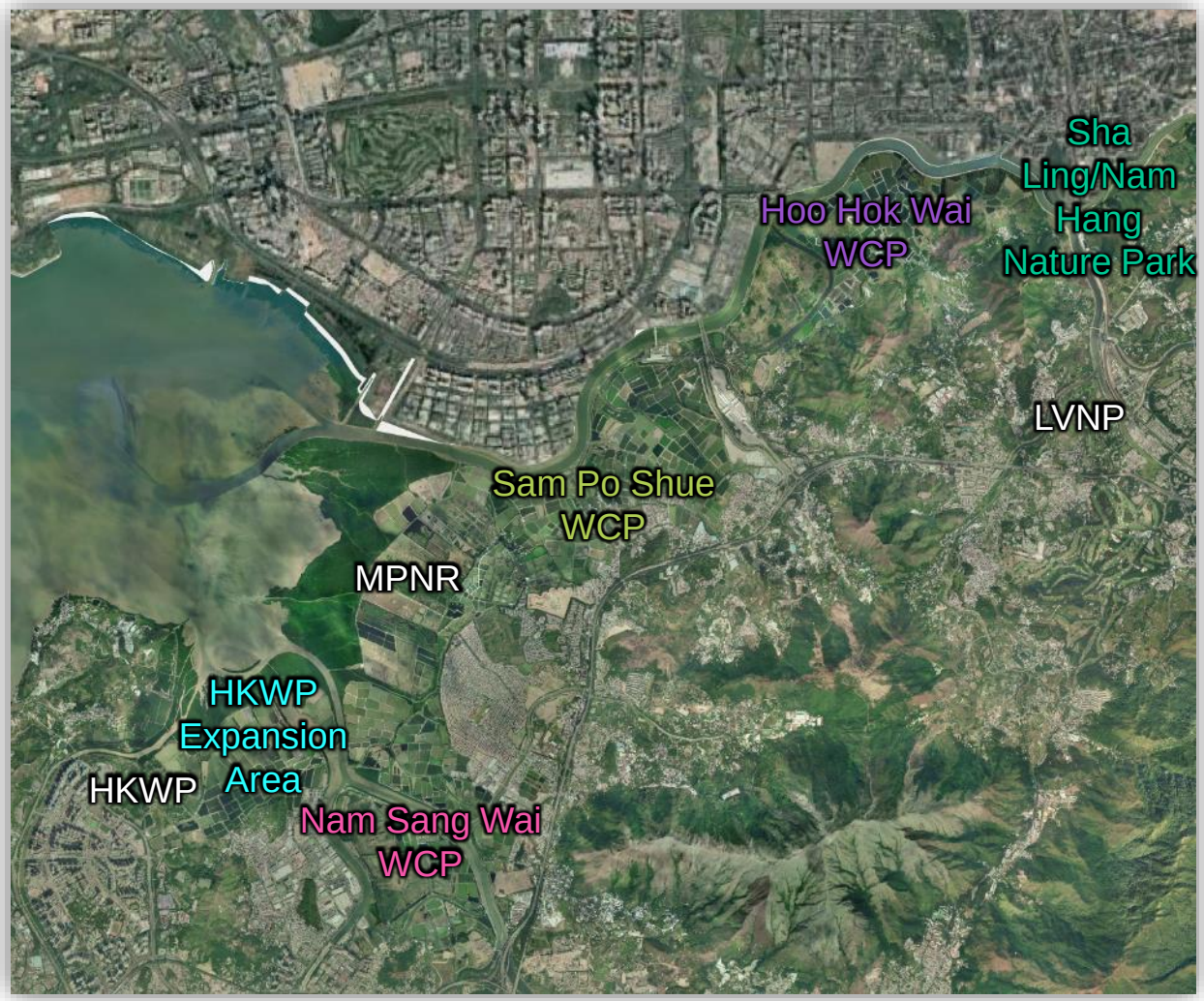
2. **Achieve "Co-existence of Development and Conservation"**

Proposal under the Northern Metropolis Development Strategy Published in 2021

Five Parks Proposed to be Established under the multi-functional WCPs System:

1. Nam Sang Wai Wetland Conservation Park
2. Sam Po Shue Wetland Conservation Park
3. Hoo Hok Wai Wetland Conservation Park
4. Hong Kong Wetland Park Expansion Area
5. Sha Ling/Nam Hang Nature Park

These five Parks, together with **Hong Kong Wetland Park (HKWP)**, **Mai Po Nature Reserve (MPNR)** and **Long Valley Nature Park (LVNP)** to be established, shall form the proposed multi-functional **WCPs System**.



Proposal under the Northern Metropolis Development Strategy Published in 2021

The WCPs System shall serve four major functions

1. Conserving the ecological value of the wetlands and safeguarding the integrity of the wetlands system

2. Developing modernised aquaculture industry

3. Promoting scientific research on aquaculture to facilitate the upgrading and transformation of the agriculture and fisheries industries

4. Providing ecological education and recreational facilities for the public

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Baseline Review of the Study Area & Major Views under Part 1 Public Engagement Exercise

Baseline Review on Current Uses, Planning and Land Administration Matters

- The Study Area mainly falls within conservation-related zones on statutory town plans.
- Major land uses in the Study Area of the five proposed Parks are as follows:

Land Use	Proportion (Approximate)
Mangroves, ponds and waterbodies	74%
Others (including roads, drainage channels, etc.)	13%
Terrestrial habitats (including woodland, shrubland and grassland)	9%
Brownfield and industrial land	2%
Villages/rural settlement and residential development	1%

- Under the land use of mangroves, ponds and waterbodies, around 57% are fishponds.

Fishponds and Government Facility

Fishponds and Village Settlements

Baseline Review on Ecological Conditions

- Habitats across the Study Area are dominated by actively managed, commercial fishponds. Other common habitats include seasonally wet grasslands, marshes/reedbeds and mangroves, etc.
- Several sites of conservation importance interface with the Study Area, including Mai Po Inner Deep Bay Ramsar Site, Priority Sites for Enhanced Conservation, SSSIs, “CA” zones, etc.
- The wetlands and fishponds in the Study Area are interconnected as a huge wetlands system with very high connectivity.
- Ecological value of the Study Area of the five proposed Parks are detailed as follows:

Study Area	Ecological Value
Proposed Sam Po Shue WCP	**High** – Physically linked to Mai Po Nature Reserve, fall partially within the Ramsar Site, with egretries and cormorant roosts recorded
Proposed Nam Sang Wai WCP	**High** – Sizable reedbeds, partially within the Ramsar Site, adjacent to the Mai Po Nature Reserve, with egretries and cormorant roosts recorded
Proposed HKWP Expansion Area	**High** – Within Ramsar Site and adjacent to HKWP
Proposed Hoo Hok Wai WCP	**High** – Eurasian Otters, ardeid and cormorant night roosts recorded
Proposed Sha Ling/Nam Hang Nature Park	**Moderate** – Existing compensatory wetland

Baseline Review on Aquaculture Activities

- Hong Kong's inland fishponds are mainly located within the WCPs System and various degrees of aquaculture activities are recorded in the Study Area of the five proposed parks.
- Overall, around 80% of fishponds are active.
- Polyculture is a common practice. Commonly cultivated aquaculture species include bighead carp, tilapia and grass carp, etc.
- Some pond fish farmers also cultivate other aquaculture species such as shrimp, crayfish and giant grouper, etc.

Baseline Review on Eco-Education and Recreation Facilities

- Various eco-education and recreation facilities, as well as cultural heritage resources are identified within the Study Area and its vicinity
- Eco-education facilities include Mai Po Nature Reserve, Hong Kong Wetland Park and the Nam Sang Wai River Education Trail, etc.
- Recreation facilities include lookouts, cycling and hiking routes, and public spaces, etc.
- Cultural heritage resources include MacIntosh Forts, temples and ancestral halls, etc.

Grassland within the Study Area of Nam Sang Wai WCP

Hong Kong Wetland Park

MacIntosh Fort at Pak Hok Chau (AMO, 2020) within the Study Area of Sam Po Shue WCP

Nam Sang Wai River Education Trail within the Study Area of Nam Sang Wai WCP

Lookout Pavilion in the vicinity of the Study Area of Hong Kong Wetland Park Expansion Area

Major Views under Part 1 Public Engagement Exercise

- Overall positive comments have been collected from stakeholders under Part 1 Public Engagement Exercise. Stakeholders supported the development of the WCPs system, to achieve “Co-existence of Development and Conservation”. Some stakeholders also pointed out the necessity to balance the needs of different stakeholders such as aquaculture operators and villagers, as well as to develop outdoor eco-education and recreation facilities for public under the WCPs System. There were also queries over the implementation details of the WCPs System, such as future management arrangements.

Conclusion of the Baseline Review and Part 1 Public Engagement Exercise

- The Study Area is of high ecological value and connectivity, and it also has important aquaculture resources.
- The Study established that the development of the WCPs System could achieve ecological conservation, sustainable development of aquaculture, eco-education and recreation objectives.

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Proposed Positioning and Functions

Boundary Delineation Criteria

- A set of boundary delineation criteria has been formulated under the Strategic Feasibility Study.
- This set of criteria balances the considerations under different categories, which include:
  - Area of wetland habitat
  - Ecological value
  - Level of aquaculture activities
  - Existing, committed and planned developments
  - Current land use
  - Land status and lot boundaries

Proposed Positioning and Functions of the Parks

- Each park shall achieve dual functions of ecological conservation and sustainable development of aquaculture at various degrees.
- Based on their respective conditions, specific positioning and functions are also recommended for each park, so that the parks could complement each other to form a comprehensive WCPs System.

Sam Po Shue WCP	HKWP Expansion Area	Nam Sang Wai WCP	Hoo Hok Wai WCP (including Sha Ling/Nam Hang area)
Biodiversity and Aquaculture in Harmony	**Wetlands For Learning**	**An Eco-tourism Paradise**	**A Rural Retreat**
• Enhancement of biodiversity and introduction of modernised aquaculture	• Synergy with adjacent existing ecological education facilities in HKWP to provide eco-education experience	• Capitalise on existing popular local leisure facilities / activities to further promote eco-tourism resources	• Utilise the habitat resources to provide rural experiences/ activities

Black-faced Spoonbill

Eurasian Otter

Pied Avocet

Crimson Darter

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Potential Management Options to be Considered

Potential Management Options to be Considered under the WCPs System

Direct Management by Government Department(s)

- Government Department(s) could manage the parks directly.
- Employ contractor(s) to carry out management and/or maintenance works.

➢ Existing management practices adopted in the HKWP.

Collaboration with NGOs, Local Communities, and Agriculture and Fisheries Associations

- The Government could formulate relevant park regulatory framework and collaborate with NGOs, local communities, and agriculture and fisheries associations under the framework for the management of the parks.

➢ Existing management practices adopted in the Mai Po Nature Reserve.

Public-Private Partnership

- The Government could explore the public-private partnership option for collaboration with land owners in managing the parks.
- Private landowners can propose land use recommendations to the Government, on conditions that the land use recommendations must support the functions of the WCPs System and can bring positive impacts to the long-term operation and management of the parks.

➢ Wetland conservation easement adopted overseas (such as the USA and Canada).

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Factors for Consideration in the Development of the Wetland Conservation Parks System

Factors for Consideration in the Development of the WCPs System

- The scale of the WCPs System is unprecedented, the associated implications and necessary requirements must be assessed in detail and considered thoroughly.

- As such, it is recommended to develop the WCPs System in phases.

- **Sam Po Shue WCP** is recommended to be the first park to be developed. On top of enhancing ecological conservation, the park also compensates for ecological and fisheries impacts arising from development of San Tin Technopole.

- Experiences drawn from the development of Sam Po Shue WCP can be used as reference for the planning of the other parks.

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Proposed Development Plan of Sam Po Shue WCP

Proposed Development Plan of Sam Po Shue WCP

- **2023 Policy Address:** Establish the Sam Po Shue Wetland Conservation Park – enhance the ecological quality and biodiversity of the Northern Metropolis; provide quality outdoor eco-education and recreation facilities for public enjoyment; as well as introduce modernised aquaculture in the park.

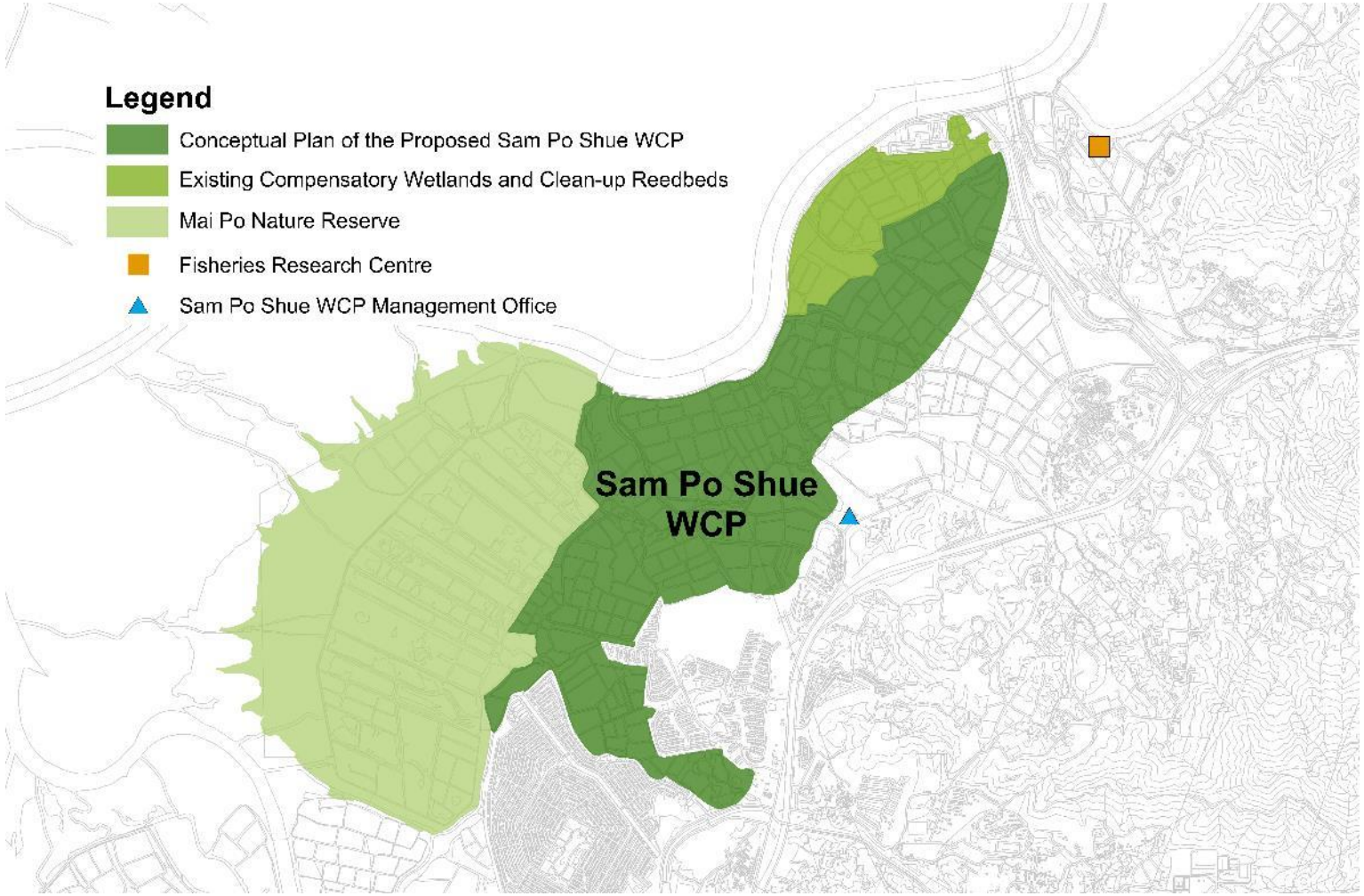
Sam Po Shue WCP

Proposed Area

- Approximately 338 ha

Functions

- Enhance the ecological quality and biodiversity of the Northern Metropolis
- Compensate for ecological and fisheries impacts arising from development of San Tin Technopole, to achieve no-net-loss in ecological function
- Provide quality outdoor eco-education and recreation facilities for public enjoyment
- Introduce ecologically friendly and modernised aquaculture in the park



Sam Po Shue WCP

Ecological Enhancement Measures to be Implemented

- Promote the establishment of ecologically friendly fishponds that serve dual ecological conservation and pond fish culture functions
- Increase the number and diversity of wildlife fishponds are able to support by incorporating various ecological features
- Establish enhanced freshwater wetland habitats to provide a mosaic of microhabitats for wildlife

Fisheries Enhancement Measures to be Implemented

- Promote the establishment of ecologically friendly fishponds that serve dual ecological conservation and pond fish culture functions
- Develop modernised and high production aquaculture techniques
- Other supporting measures:
  - Establish a fisheries research centre in San Tin Technopole to promote aquaculture research
  - Brand-building for aquaculture products

Proposed Ecological Enhancement Measures

Increase in pond area

Modification of pond habitats to increase environmental carrying capacity

Managing and sequencing pond drain down in the dry season

Enhance habitat connectivity

Proposed Modernised and High Production Aquaculture Techniques

In-pond raceway system

Use of renewable energy

Remote farming monitoring system

Real-time water monitoring system

Proposed Outdoor Eco-education and Recreation Facilities

- **Visitor/Recreation Facilities**
  - Visitor Centre
  - Footpaths and bird hides
  - Outdoor classrooms
  - Open space with grasslands, pavilions, picnic tables, benches, etc. for public use
  - Parking facilities, public toilets, etc.

Implementation Timeline and Strategy of Sam Po Shue WCP

- After the completion of the Strategic Feasibility Study, the Government shall use the findings of the Study as the basis to commence the next phase of detailed study of Sam Po Shue WCP in 2024.

- It is preliminarily recommended to develop Sam Po Shue WCP in phases, starting with the fishponds and wetland in the northern part of the park, to conserve the core bird flight path as early as possible.

- The commencement of development of the Sam Po Shue WCP is tentatively scheduled in 2026/2027, and strives to complete the first phase works by 2031.

- Sam Po Shue WCP is expected to be fully completed by 2039 or earlier.

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Discussion

Discussion Outline

Scope

1. Proposed Positioning and Functions of the Parks
2. Potential Management Options to be Considered under the WCPs System
3. Factors for Consideration in the Development of the Parks
4. Proposed Development Plan of Sam Po Shue WCP



Discussion Outline

Scope

1. Proposed Positioning and Functions of the Parks

Questions

- What do you think about the proposed positioning and functions of the parks? Are the proposed positioning and functions of the parks able to capture/reflect the key characteristics of the parks and match the overall environment of the Northern Metropolis?
- What are your views on the overall development of the WCPs System?

Discussion Outline

Scope

2. Potential Management Options to be Considered under the WCPs System

Questions

- What are your views on the three proposed management options for the WCPs System?
- Do you have other recommendations on the management option to be adopted for the WCPs System?

Discussion Outline

Scope

3. Factors for Consideration in the Development of the Parks

Questions

- What do you think should be taken into account in developing the parks?
- Do you have any suggestions on how to develop and manage the parks in a sustainable and pragmatic manner?
- Do you have any recommendations on how to achieve conservation and fisheries objectives on private land (such as public-private partnership, etc.)?

Discussion Outline

Scope

4. Proposed Development Plan of Sam Po Shue WCP

Questions

- What are some key factors that need to be considered for the development of Sam Po Shue WCP?
- Which management option do you think is preferable for Sam Po Shue WCP?
- How to strike a balance between different functions of Sam Po Shue WCP?
  - Enhance the ecological quality and biodiversity of the Northern Metropolis
  - Compensate for ecological and fisheries impacts arising from development of San Tin Technopole, to achieve no-net-loss in ecological function
  - Provide quality outdoor eco-education and recreation facilities for public enjoyment
  - Introduce ecologically friendly modernised aquaculture in the park

Way Forward

- We will analyse comments received under the Public Engagement exercise and submit the final recommendations on the approximate locations, positioning, functions and management options of each proposed park to the Government. This study is expected to be completed in the first half of next year.

- Our preliminary recommendation to the Government is to first take forward the development of Sam Po Shue WCP.

- For the other potential parks, the Government could take into account the experience in developing Sam Po Shue WCP, as well as other relevant factors, and further consider and study the development of the other potential parks in a pragmatic and sustainable manner in due course.

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Thank you.