

For information

30 May 2005

Legislative Council Panel on Environmental Affairs

Development of EcoPark

Purpose

This paper informs Members of the latest progress of the development of EcoPark in Area 38, Tuen Mun.

Background

2. The Waste Reduction Framework Plan in 1998 and Waste Reduction Committee formed in 1999 introduced a package of measures to promote the prevention, separation and recovery of municipal solid waste (MSW). Over the years, such effort has resulted in more recovered materials that are available for processing. It is pertinent to sustain and further develop the local recycling industry to prevent such useful materials from ending up in our landfills because of lack of outlet.

3. The provision of long-term affordable land provided with basic infrastructure has been identified as an important measure to promote the growth of the waste recycling and environmental industry in Hong Kong. In his 2005 Policy Address, the CE announced the target of commissioning the Recovery Park in 2006. To better reflect the policy intention of the Recovery Park to facilitate and promote the environmental and recycling industry, we have renamed the Recovery Park as EcoPark. A location plan of EcoPark is attached in Annex A.

The Recycling Industry

4. Waste reduction is a key element in our waste management strategy. Through effective waste reduction, natural resources can be conserved, and the burden on our landfills will be reduced. To ensure success, its three interrelated components – recovery, recycling and reuse, must be developed

in a co-ordinated fashion. For example, extensive programmes to divert recovered materials from MSW at source will not be effective if they are not supported by recycling to turn the materials into feedstock or useable products. On the other hand, recycling will not be sustainable if there is no market demand for the recycled products. The processes of collection, turning recovered materials into useable products, and the sale of these products, add values to the recovered materials and can create a circular economy that brings business and job opportunities.

5. Although as much as 2.4 million tonnes of MSW are recovered as recyclable materials annually, over 90% of these materials are exported for recycling. As the recovering rate of MSW increases steadily over the years, the proportion of recovered materials recycled locally has actually decreased from 15% in 1999 to 9% in 2004. Nevertheless, the export of recovered materials generates a considerable amount of revenue. In 2004, export of recovered materials amounted to \$3.4 billion.

6. The current over-dependence on export as an outlet for recovered materials makes our recycling industry insecure in the long run as the market demand for recyclable materials is highly volatile and the international trend is to increasingly restrict trans-boundary movement of waste, even recyclable waste. To address these problems and to realize the full potential of recycling, it is our aim to promote the local recycling industry so that recyclable materials can be turned into products that have higher economic values and more stable and reliable markets.

7. High land and labour costs, and insufficient recyclable materials collected have been identified by existing recycling operators as the major barriers to the growth of recycling industry in Hong Kong. We are developing a policy on promoting the recycling industry in Hong Kong. Apart from improving the collection network through separation of waste at source, Government has been allocating suitable land for the recycling trade on short term tenancies. So far, Government has already allocated 29 sites totally 5.6 hectares on short-term tenancies to recyclers. However, there is a further need to provide more permanent land to encourage long term investments and provide incentives to establish higher end industries and downstream services.

EcoPark

8. EcoPark will be developed solely for use by the environmental and recycling industry. Individual recycling companies can acquire an area of land at affordable costs with tenures sufficiently long to justify their investments in value-adding and for higher-end operations. EcoPark will cater for industries related to environmental technologies, products and services; and, in particular for the recycling industries processing recyclable materials including paper, plastics, metals, glass, textiles, rubber tyres, wood, organic food wastes, battery, and electronic and electrical appliances, which are the common recyclable materials collected in Hong Kong.

9. The successful development of EcoPark calls for careful planning both in terms of the types of infrastructure to be provided and how it should be managed. It requires integration of many disciplines including engineering, architecture, landscape design, environmental management, business management, property management, information systems design, etc.

Design

10. The basic physical infrastructure of EcoPark will be built and funded by the Government. It will comprise an internal road network, drainage, sewers, telecommunication networks, power supplies, berthing facilities, a wastewater treatment plant, a waste collection and management facility, and car parking spaces. Central to these will be a multi-purpose administration building containing management offices, and common facilities including a visitor and education centre, an information centre, training and conference rooms, and other supporting and ancillary facilities.

11. Tenants will be allocated with empty serviced lots to allow them to build their own plant and facilities. To provide flexibility for a wide range of companies that have different land area requirements, the lots will be designed and allocated in different sizes, ranging from 400 sq.m. to over 8,000 sq.m., and with the majority sized at 800 sq.m and 1,600 sq.m. While larger lots will be reserved for users with large land area requirements e.g. paper recycling, small lots can be combined to create larger lots, subject to availability. This would allow companies to rent lots in a modular fashion to meet their own needs and acquire more lots as they expand their business.

Annex B suggests a conceptual layout for the EcoPark based on this approach.

12. The infrastructure of EcoPark must be reliable, attractive, easy to maintain and economical to operate. More importantly, the infrastructure must be “green”. We will incorporate environmentally friendly design concepts into EcoPark. It will be designed to achieve water, energy and material conservation and pollution prevention. As the EcoPark can be instrumental in promoting and championing use of recycled products, we will examine the feasibility of using recycled construction materials including materials such as recycled aggregates, recycled plastic and crumb rubber in EcoPark. In addition, EcoPark will make extensive use of landscaping to provide a pleasing environment for the business community. Where appropriate and practicable, walking trails, cycling tracks and sitting out areas will be provided.

Operation and Management

13. Public/private partnership (PPP) will have a role to play in enabling the development of EcoPark. While Government can provide incentives by funding and building the basic infrastructure, EcoPark must be operated and managed based on prudent commercial principles. It is therefore necessary to appoint an operator (the Operator) from the private sector for its operation and management. The Operator will be responsible for more functions than traditional estate management. The Operator must have full understanding of the needs of the environmental and recycling industries and be able to design and implement an effective marketing strategy to recruit and anchor a right mix of long-term tenants. Whilst maintaining a level playing field, the Operator must be given the flexibility to make use of market forces to encourage and promote business so that the environmental and recycling industries can run their operations at affordable prices with competitive returns.

14. In addition to the above functions, the Operator, as the management of EcoPark, has to manage and maintain the common facilities, plant and management office in the interest and for the benefits of its tenants. It will administer the shared support services and facilities to ensure that they are allocated to the tenants fairly and in a cost effective manner. It will also be responsible for the overall performance of EcoPark in terms of its compliance with government requirements. The Operator will play an

important role in establishing close working relationships with Government regulatory agencies, enforcing requirements of the environmental, safety and health regulations, and executing emergency response actions when necessary. It will need to implement the environmental measures set out in the Environmental Permit of the Environmental Impact Assessment Ordinance (EIAO) and by implementing a site-wide environmental management system, the Operator can monitor and audit the environmental performances of and provide feedback to the tenants.

15. The Operator will need to provide technical assistance and advisory services to the tenants. These may include advice and assistance on permit issues, waste exchange programmes, shared environmental health and safety training, emergency management, library and access to information and markets on environmental and recycled products. Through special financial incentives allowed for in the contract and collaboration with tenants, the Operator will be encouraged to provide additional value added services such as organizing business conferences, undertaking joint marketing, provision of recycling and reuse business assistance service, building services, legal advisory services, joint purchasing, joint recruitment of labour, joint research and development of new environmental technologies and product development, and new business incubation programmes. Recycling industries which are largely SMEs that lack the resources and technologies to undertake these functions on their own will greatly benefit from these shared services.

Procurement Arrangement

16. Developing an EcoPark is a complex undertaking demanding heavy investment and working capitals upfront. Financial assessment and market sounding carried out by EPD indicate that EcoPark will not be commercially viable if it were to be developed and funded by private investors. To ensure that EcoPark will offer the best benefits to the environmental and recycling industry and to ensure its sustainability, it has been decided that the basic physical infrastructure should be built and funded by the Capital Works Reserve Fund (CWRP). The estimated capital cost of EcoPark is \$316 Million (MOD).

17. The operation and management of the completed infrastructure of EcoPark would be entrusted to the Operator through leasing or licensing by way of open tender. The Operator will have to provide the working capital

required for the operation, management and maintenance of EcoPark. In return, he will receive a management fee. The Operator will be responsible for marketing and recruiting local and overseas tenants in accordance with Government's requirements. Sufficient safeguards and control will be provided through contract and lease/licence conditions to ensure that the Operator will act in the best interest of the tenants and Government. In this connection, appropriate requirements such as level of management fee, lots allocation method e.g. open bidding, rental charges, ways of allocation of common facilities and shared support services, industry mix, will be included. The aim is to ensure that lots are allocated to the right mix of industries at affordable rental rates for the intended purposes. As a further safeguard, we will consider building in suitable management audit procedures in the management contract to ensure that EcoPark is operated in an equitable, transparent and open manner.

Progress

18. It is intended that EcoPark will be developed in two Phases. Phase I occupies an area of about 8.4 hectares and will contain all the common facilities to enable it to function, but will also allow seamless expansion into Phase II. Detailed design of the infrastructure has commenced and subject to confirmation of funds, construction for Phase I will commence in early 2006 with a view to making it ready for occupation in late 2006. Construction of Phase II occupying 11 hectares will commence in early 2009. As for the management contract, contract documents are being prepared and tenders will be invited for appointment of the Operator by mid 2006. This will allow the Operator sufficient lead time to carry out the necessary marketing and preparation work before occupation of Phase I.

19. As EcoPark is a Designated Project under the Environmental Impact Assessment Ordinance, an Environmental Impact Assessment (EIA) has been conducted. In addition, we are in the process of seeking zoning amendment to the Tuen Mun Outline Zoning Plan to expand the use of the site to cater for a wide range of environmental and recycling industries to be located in the EcoPark. We aim to obtain approval from Town Planning Board later this year.

Public Consultation

20. The EcoPark EIA report was made available for public inspection during the period from 29 April to 28 May 2005. The EIA Sub-committee of the Advisory Committee on the Environment (ACE) was also consulted on 23 May 2005 and endorsed the report.

21. In March 2005, the Environment, Hygiene, District Development Committee of the Tuen Mun District Council (TMDC) was consulted on the development of the EcoPark. Members of the Committee generally welcomed the development of EcoPark and asked us to be provided with further information as the project progressed. We undertook to keep the Committee informed of progress and will attend future meetings to hear their views.

Environmental Implications

22. The EcoPark EIA is unique in that the future scope of operation of EcoPark cannot be determined at this stage. The initial mix of tenants (and corresponding recycling processes) identified will not remain static but will change in response to market demands. Thus, an “Umbrella Approach” has been adopted to include as wide a range of processes as possible and based on the best available information. The aim is that tenants of EcoPark will not normally need to apply for their own Environmental Permits.

23. The EIA concludes that there are no significant impacts on the environment and has recommended a list of mitigation measures. By incorporating pollution prevention, energy conservation, water and water management resource recovery and other environmental management measures into the design and operation of EcoPark, the site tenants will reduce their environmental burden, and any adverse environmental impacts will be minimized.

24. In conclusion, the development of EcoPark will reduce many sources of pollution and waste, and will reduce the demand for natural resources. The synergy among the operations of the various tenants within EcoPark will result in waste reduction and enhanced recovery of materials for re-manufacture, thus further conserving our landfill space.

Advice Sought

25. Members are invited to note the progress of Government's efforts to deliver the EcoPark with a view to commissioning its Phase I in late 2006. We shall seek approval from the Public Works Subcommittee and the Finance Committee in the near future for securing CWRP funding for the construction of EcoPark infrastructure.

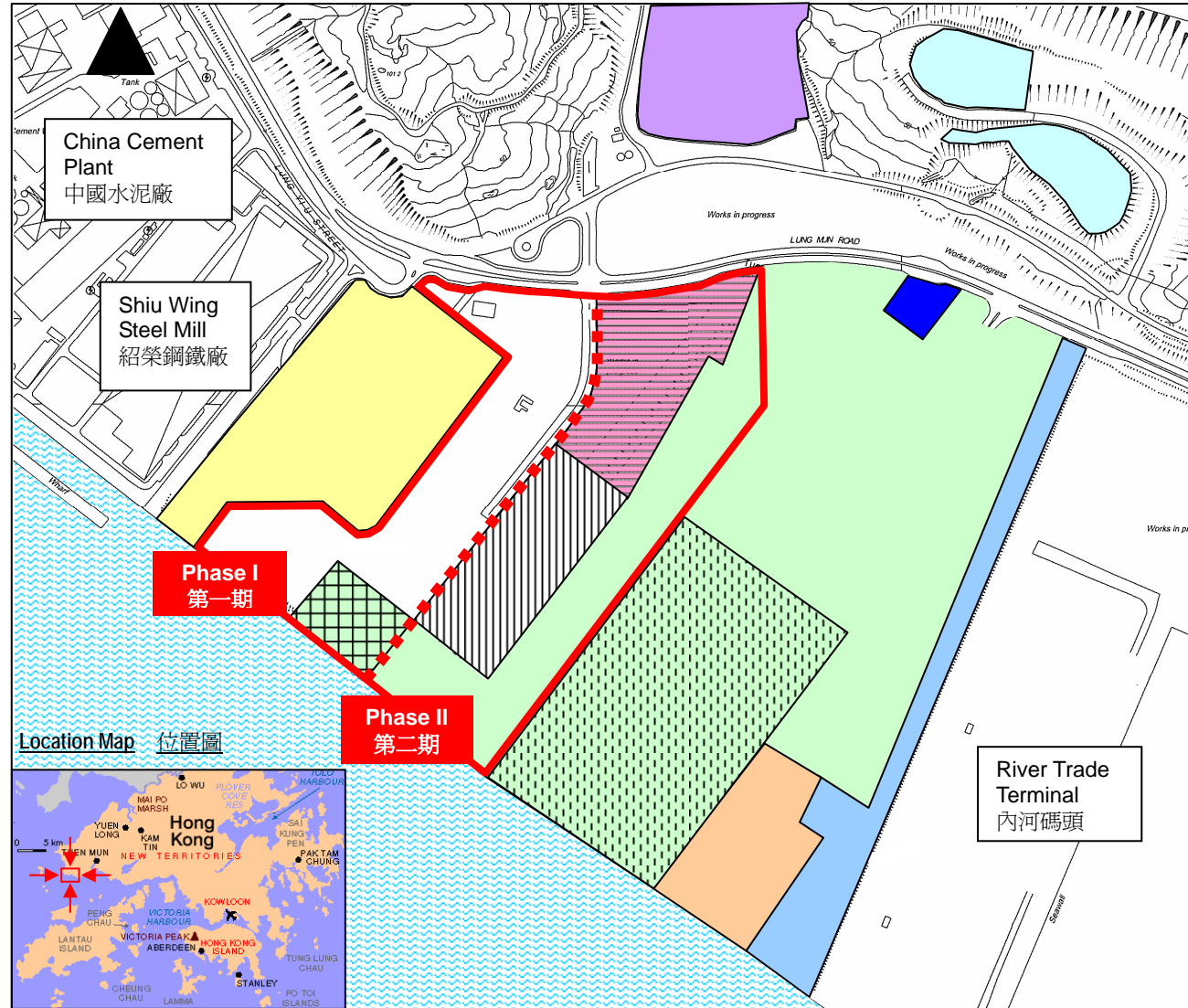
Environmental Protection Department
May 2005

Annex A: Location of the Proposed EcoPark and Other Users in Tuen Mun Area 38

附件 A：位於屯門 38 區建議中的環保園及其他使用者位置

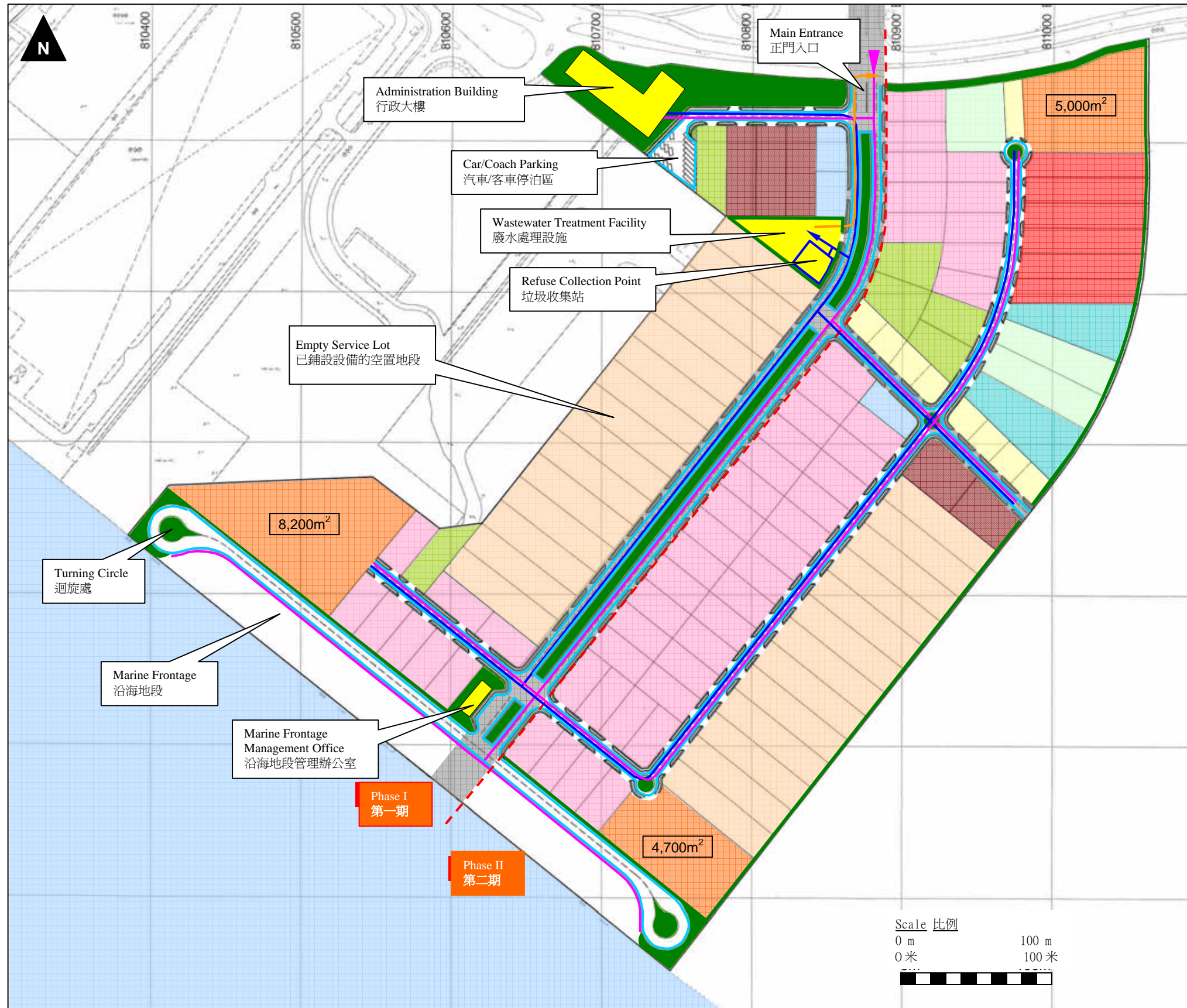
Key 圖例

-  EcoPark
環保園
-  Siu Lang Shui (SLSL) Closed Restored Landfill (Existing)
小冷水已關閉修復堆填區(現有)
-  Holiday Camp (Planned)
渡假營地(計劃中)
-  PAFF (Planned)
永久性飛機燃料設施(計劃中)
-  TMSPS (Existing)
屯門污水泵水站(現有)
-  Pilot C&D Material Recycling Facility (Existing)
建造及拆卸物料回收設施(現有)
-  Crushing Facility (Planned)
壓碎設施(計劃中)
-  Fill Bank (Existing)
填料庫(現有)
-  3.2ha Fill Bank Expansion (Planned)
3.2 公頃填料庫擴建(計劃中)
-  Tipping Hall for East Sha Chau (Existing)
沙洲東部海泥傾倒區(現有)
-  Penny's Bay Stage 2 Sorting Facility & Barging (Existing)
竹篙灣第二期分類設施及駁船裝卸區(現有)
-  Temporary Mixed Construction Waste Sorting Facility (Planned)
臨時混合建築廢物分類設施(計劃中)
-  C&D Materials Handling Facilities (indicative boundary) (Planned)
建造及拆卸物料處理設施(參考範圍)(計劃中)



Annex B : Conceptual Internal Layout

附件 B : 環保園的概念規劃



Key 圖例

- DSD Drainage Reserves
渠務處之渠務保留地
- Landscaping Works
園藝工程
- EcoPark Buildings
環保園之建築物

Approximate Lot Sizes 大約土地面積

- 400m²
- 700m²
- 800m²
- 1,000m²
- 1,200m²
- 1,400m²
- 1,600m²
- 1,700m²
- 2,100m²
- As Indicated 如圖示

Utilities 公用事業設施

- Electricity/Telecommunications/Water
(Potable/Non-potable)電力/電訊/飲用及非飲用水
- Recyclers' Effluent to WTF 循環再造廠排往廢水處理設施之廢水
- WTF Effluent to PPSTW 廢水處理設施排往望后石污水處理廠之廢水
- Uncontaminated Stormwater Drainage 雨水渠

