# 環保報告

### Environmental Report



### 環保政策

#### Environmental Policy

我們在施行工程的各個階段,十分注重環保。我們通 過履行下述承諾,致力達到這個目標:

- 採用各種技術和施加規定,避免工程引致環境污染, 並緩解可能對環境構成的影響。
- 監察承建商的表現,確保他們遵守環保規定。
- 在可行的情况下,奉行以下原則:資源減省、資源 再用和資源循環再造。
- 進行環境美化和環境改善工程,以改善居住環境。
- 遵守適用的法例及其他規定。
- 加強員工的環保意識。
- 訂立和實現環保目標和指標,以持續改進表現。

We place due emphasis on environmental considerations in all stages of our projects. We endeavour to achieve this through commitment to the following:

- Adopting technologies and imposing requirements to prevent environmental pollution and mitigate potential environmental impacts resulting from our projects.
- Monitoring the performance of our contractors to ensure their compliance with environmental requirements.
- Observing the principles of reduction, reuse and recycling in the consumption of resources wherever practicable.
- Undertaking landscape and environmental improvement works to enhance the living environment.
- · Complying with applicable legal and other requirements.
- · Enhancing environmental awareness of our staff.
- Achieving continual improvement through the establishment and attainment of environmental objectives and targets.

# 我們的工作與環境息息相關

CEDD and The Environment —

為配合本港的發展,我們致力提供多項基本服務。我們明白到,我們的工作與環境息息相關,工程會對環境帶來影響。因此,我們審慎執行工作,評估工程對環境的影響,務求避免或盡量減少對環境的不良影響,亦同時藉機改善環境。

We are aware that in providing essential services to support the development of Hong Kong, our activities affect the environment. We take this challenge seriously and pay due attention to assessing, avoiding and mitigating the impacts arising from our work. We also endeavour to take every opportunity to enhance the environment.

盡量避免對環境造成不良影響 探討不同方法 規劃及設計 Explore options Planning and Design Avoid adverse environmental impacts as far as possible 為指定工程項目進行環境影響評估 如無可避免對環境造成不良影響·採 Carry out Environmental Impact 取適當的緩解措施 Assessment for designated projects Adopt suitable mitigation measures 加入緩解環境影響的措施 when adverse impacts are unavoidable Incorporate environmental mitigation 遵守減少廢物、廢物再用及廢物循環 再造的原則 編訂拆建物料管理計劃 Observe the principles of Waste Compile Construction & Demolition Reduction, Re-use, and Recycling Material Management Plan 確保承建商遵守環保規定 遵守環境許可證的審批條件 建造工程 Ensure that contractors comply with Comply with Environmental Permit Construction Works environmental requirements Conditions 實施環境監察及審核計劃 Implement Environmental Monitoring and Audit Programme 實施廢物管理計劃 Implement Waste Management Plan 環境改善工程 藉機改善環境 **廣泛植樹** Take every opportunity to improve Adopt extensive planting Environmental the environment Improvement Works 推行綠化總綱圖的工作 推廣綠化和採用創新的環境美化設計 Implement Greening Master Plans Promote greening and adopt 施行人造斜坡鞏固工程時美化斜坡 innovative landscape design Landscape man-made slopes in upgrading works 修復石礦場 Rehabilitate quarries 在天然山坡崩塌殘痕裝置生物工程設施 Install bioengineering measures at natural terrain landslide scars 清理河床 Clearing up river bed

措施

Measures

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我們的工作

**CEDD Activities** 

### 環境管理系統

#### Environmental Management System

我們自2001年12月起在各拓展處推行環境管理系統,並於2002年6月獲得ISO14001:1996認證。我們透過環境管理系統,有系統地密切監察承建商的環保表現,確保承建商遵守有關環保的法例和合約規定。我們在這方面取得顯著成效。香港品質保證局在2005年2月進行的續期審核並無發現任何不符合規定之處。審核員認為我們的環境管理系統整體表現良好,並認為管理層對保護環境,有堅定的承諾。

我們自2005年6月起,把環境管理系統提升至ISO 14001:2004標準。香港品質保證局在2005年12月根據新標準進行監督審核,並無發現任何不符合規定之處。審核員認為,我們的環境管理系統行之有效,而環保表現亦有明顯改善。

為加強所有職能及工作流程的環保表現,我們在2005年年中決定,把環境管理系統擴展至包括整個部門。為更有效管理品質管理系統及環境管理系統,我們會把兩個系統合併為符合ISO9001:2000及ISO14001:2004標準的綜合管理系統。我們在2005年12月委託香港生產力促進局制定及推行綜合管理系統。我們計劃由2006年9月起推行綜合管理系統,並打算在2007年年中整個部門獲得ISO14001:2004認證。

We implemented the Environmental Management System (EMS) in Development Offices since December 2001 and received ISO 14001:1996 Certification in June 2002. We have made use of the EMS as a tool to systematically monitor the environmental performance of our contractors to ensure compliance with the environmental legal and contractual requirements. Remarkable improvements have been seen. The renewal audit conducted by HKQAA in February 2005 did not identify any nonconformity. The auditors commented that the overall performance of the EMS was found satisfactory and strong commitment from top management was observed.

We upgraded the EMS to the new ISO 14001:2004 standard since June 2005. A surveillance audit was conducted by HKQAA in December 2005 using the new standard as the audit criteria. No nonconformity was identified and a revised Certificate conforming to the new standard will be issued by HKQAA. The auditors commented that the EMS was well implemented and significant improvement in environmental performance was observed.



In order to enhance the environmental performance in all the functions and processes, we decided in mid 2005 to extend the scope of the EMS to cover the whole department. To manage the current QMS and the extended EMS more effectively and efficiently, the two management systems will be combined to form an Integrated Management System (IMS) with a single set of documented procedures that fulfils the requirements of both ISO 9001:2000 and ISO 14001:2004. We commissioned Hong Kong Productivity Council in December 2005 to develop and implement a documented IMS. We have targeted to implement the IMS in September 2006 and obtain ISO 14001:2004 Certification for the whole department in mid 2007.



 簽訂綜合管理系統的顧問合約
 Signing of Consultancy Agreement for the Integrated Management System



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Environmental Activities 2005

#### 緩解環境影響措施

透過全面規劃和設計,我們致力減少擬議工程對環境可能造成的不良影響。倘若這些影響無可避免,我們在施工及設施運作期間,採取適當的緩解措施。

#### 將軍澳分層道路交匯處的隔音 罩及隔音屏障

這項工程的噪音緩解設施包括長120米的隔音罩、總長約1045米的隔音屏障和使用低噪音鋪路物料,以減低新建道路帶來的交通量對鄰近居民的影響。寶順路的隔音罩,是全港首個採用銷釘連接為基座的鋼結構封閉式隔音罩。



# Environmental Mitigation Measures

Through comprehensive planning and design, we endeavoure to minimize all possible environmental impacts resulting from proposed projects. When projects inevitably bring about environmental impacts, we adopt suitable mitigation measures in both construction and operation stages.

#### Noise Enclosures and Barriers in Tseung Kwan O Grade-separated Interchange

The noise mitigation measures provided by the project include a 120 m long noise enclosure, a total of about 1,045 m long noise barrier and the use of low noise road surfacing to alleviate the noise generated from the traffic to the nearby residents. The noise enclosure at Po Shun Road is the first pin-jointed structural steel full enclosure over the carriageway in Hong Kong.

#### • 施工期間的緩解環境影響措施

在施工期間,我們監察承建商的表現,確保他們遵守 環保規定,並實施適當的措施以緩解工程對環境構成 的影響。



■ 在冷卻水抽水站進水口安裝隔泥篩 Silt screen at the water intake of a cooling water



■ 竹棚架上的帆布防止泥塵到處飄揚 Tarpaulin sheets attached to bamboo scaffoldings to prevent dust emissions

# Environmental Mitigation Measures during Construction

During the construction stage, we monitor the performance of our contractors to ensure their compliance with environmental requirements. We also ensure that they implement adequate measures to mitigate the environmental impacts arising from the works.



■ 沉澱池處理工地產生的廢水 Sedimentation tank to treat wastewater generated on site



■ 在搬運物料前於物料儲存區灑水 Water spraying at stockpile area before removal

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Environmental Activities 2005

#### 拆建物料的管理

公眾填料委員會由我們的署長擔任主席,負責公眾填料的策略性管理。有關的管理工作是按下列三項原則執行。

- 減少
- 再用
- 循環再造

政府的政策是在公共工程的規劃、設計和施工階段,盡量減少產生拆建物料。我們為建造業提供服務,讓公眾填料可以卸置於設在策略性地點的公眾填料接收設施。 我們亦暫時儲存剩餘的公眾填料,以供日後再用。

在2005年,公眾填料接收設施和堆填區總共接收約1050萬公噸拆建物料,當中約800萬公噸屬公眾填料。



■ 屯門填料庫 Tuen Mun Fill Bank

# Management of Construction and Demolition Materials

The Public Fill Committee, under the chairmanship of our Director, is responsible for the strategic management of public fill. The strategic management builds on the 3R principle:

- Reduce
- Reuse
- Recycle

It is a government policy to reduce generation of construction and demolition (C&D) material in planning, design and construction of public works projects. We provide a service to the construction industry for the disposal of public fill at public fill reception facilities at strategic locations and we temporarily stockpile the surplus public fill for future reuse.

In 2005, the total quantity of C&D material received at public fill reception facilities and landfills was about 10.5 million tonnes, of which about 8 million tonnes was public fill.

#### 廢物管理計劃

為盡量減少在公眾填料接收設施和堆填區卸置的拆建物料數量,我們要求承建商必須推行工地廢物管理計劃。我們定期監察承建商的表現,確保他們有效實施計劃建議的措施。此外,我們透過各種推廣計劃,鼓勵承建商實施革新的工地廢物管理策略和措施。



■ 分類處理拆卸物料以供循環再用 Sorting of demolition materials for recycling



■ 採用金屬模板以減少建築廢料
Use of metal formwork to reduce construction waste

#### Waste Management Plan

To minimize the disposal of C&D material to public fill and landfill sites during construction, our contractors are required to implement waste management plans (WMPs) on sites. We monitor the performance of the contractors regularly to ensure that the measures proposed in the WMPs are implemented effectively. In addition, our contractors are encouraged through various promotion schemes to implement innovative waste management strategies and measures on sites.



■ 採用預製組件以減少建築廢料 Use of precast elements to reduce construction waste

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Environmental Activities 2005

#### 環境監察及審核計劃

我們為《環境影響評估條例》涵蓋的指定工程項目實施 環境監察及審核計劃,以密切監察承建商的環保表現, 並確保承建商實施環境影響評估報告指定的緩解措施。



■ 環境監察小組進行空氣質素監察
Air Quality Monitoring by Environmental Team

#### 舊技術 新應用

• 保存舊砌石牆外貌及牆樹

我們已完成長有樹木的砌石牆的研究。研究提出用以 評估樹木對砌石牆穩定性影響的方法。研究也建議了 妥善的方法,以鞏固不符合安全標準的舊砌石牆,同 時保存牆上的樹木及外貌。



■ 在擋土牆鞏固工程中採用泥釘可保留現存樹木 Existing trees are retained after upgrading works using soil nails

# Environmental Monitoring and Audit Programme

We have implemented the Environmental Monitoring and Audit Programme for each designated project covered by the Environmental Impact Assessment Ordinance to monitor the environmental performance of contractors closely and to ensure compliance with the mitigation measures specified in the Environmental Impact Assessment Report.

#### Old Technology. New Application

 Preserving the Appearance of Old Masonry Walls and the Wall Trees

A study on masonry walls with trees was completed. The study proposed a methodology to assess the effects of trees on the stability of masonry walls. The study also suggested appropriate methods for upgrading old substandard masonry walls to meet the required safety standards whilst preserving the associated trees on the walls as well as the existing masonry pattern where warranted.

#### 環保教育及培訓

要成功推行環保政策,員工的支持至為重要。因此, 我們為員工提供環保知識及相關技能的培訓,讓員工 持續進修,以應所需。在2005年,我們舉辦了下列 課程:

# Environmental Education and Training

For the successful implementation of our Environmental Policy, the commitment of our staff is of prime importance. To equip our staff with the necessary knowledge and skills, continuous education in environmental related subjects is provided. In 2005, the following training courses were organized for our staff:

課程 Course Title	課程數目 Number of Courses	參加人數 No of Participants
環保意識、管理及法例培訓課程 Training Course on Environmental Awareness, Management and Legislation	2	94
環境管理系統簡介 Briefing Session on Environmental Management System	1	25
綠色生活講座 Talk on Green Life	1	16
香港的環境保護工作講座 Talk on Environmental Protection Work in Hong Kong	1	21

我們又提名了140名員工參加13項由其他機構舉辦的 環保課程。 140 members of staff were also nominated to attend a total of 13 environment related training courses arranged by other organizations.

Environmental Activities 2005

#### 環保辦公室

我們一向重視辦公室的環保措施,亦貫徹推行各種關於節能、減少用紙和回收廢紙等方面的指引。

在用紙量方面,我們緊守節約的原則,除訂定減低用紙量的目標,亦繼續推行以電子郵件進行對外及對內通訊、在用過紙張的背面影印或列印文件、雙面影印、使用循環再造紙及重複使用信封等辦公室實務守則;另外,我們積極擴展內聯網的功能以配合環保辦公室的意念,讓員工可以透過各自的終端機閱覽便箋、通告及會議記錄等,而不必傳閱印文本。

亦支持綠色採購政策,選用環保產品支援辦公室的運作, 其中包括再造紙、環保電池、環保塗改液、環保鉛筆等 。此外,我們更鼓勵服務承辦商盡量採用環保物品如環 保清潔劑及可降解垃圾袋。

位於何文田公主道的總部大樓現正進行翻新工程,工程 亦加入環保辦公室的元素:除了在平台擴建花槽及增加 植樹,為員工提供綠化工作環境外,工程還包括下列節 能設計以達到節能的目標:

- 把辦公室內的衡常空調溫度設定在攝氏25.5度;並設定時間掣,自動控制空調每天的開關;
- 新的節能燈盤,利用燈盤的拆射功能集中燈光,令每個 燈盤的光管可由三條減至兩條而照明度不受影響;以及
- 改用較省電的電子鎮流器啟動光管。

#### **Green Office Operation**

We place due emphasis on environmentally-friendly office practices and fully implement the guidelines on conservation of energy, minimization of paper usage and collection of waste paper for recycling.

We strictly comply with the principle of economy on paper consumption. Apart from setting targets on reducing paper consumption, we continue to promote the use of electronic means for internal and external communication. Good office practices such as photocopying on two sides, using used paper for photocopying or printing, using recycled paper and re-using office envelopes are also adopted. Moreover, we actively enhanced the functions of our intranet in supportive of our green office operation. Instead of circulating hard copies, departmental memorandum, circulars and minutes of meetings can now be read by staff through their own terminals.

We support the Green Procurement Policy by using green office products, including recycled paper, rechargeable batteries, environmentally friendly correction fluids and lead-replaceable pencils. Furthermore, we encourage our service contractors to use green products such as environmentally friendly cleansing agents and degradable rubbish bags.

The department's headquarters building on Princess Margaret Road, Homantin, is currently under renovation. Green office elements have also been incorporated into the project. Apart from constructing large planters and planting more trees on the podium to create a greener working environment for our colleagues, the project also includes energy saving design as follows to achieve the goal of saving energy:

- Setting the air-conditioning temperature of the office at 25.5°C and using timer to switch on/off the air-conditioners automatically daily;
- The reflective function of the new energy saving light panel makes the light emitted more focused so that the number of fluorescent tubes installed in each light panel can be reduced from three to two without affecting the lighting intensity; and
- Using energy saving electronic ballasts to activate the fluorescent tubes.



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# 2005年的環保表現

我們每年訂定環保目標和指標,務求環保工作持續改善。2005年的工作成效如下:

#### 目標 Objectives

改善居住環境

Enhancement of living environment

減少用紙及用電量

Reduction of paper and electricity consumption

改善所有人造斜坡的外觀 Enhance the appearance of all man-made slopes

修復所有正在運作的石礦場 Rehabilitate all active quarry areas

#### Environmental Performance 2005

To achieve continual improvement in our environmental performance, we set annual environmental objectives and targets. Below is a summary of our achievement in 2005.

指標	進展	
Targets	Progress	
種植110萬棵樹/灌木	達到指標	
Plant 1.1 million trees/shrubs	Target achieved	
<ul> <li>減少部門的總用紙量,較2003年少5% Reduce total departmental paper consumption over that in 2003 by 5%</li> <li>減少本署大樓的用電量,較2003年少3% Reduce electricity consumption of the Civil Engineering and Development Building over that in 2003 by 3%</li> </ul>	達到指標 Target achieved 達到指標 Target achieved	
<ul> <li>美化所有在防止山泥傾瀉計劃下已予鞏固的斜坡 Landscape all the slopes upgraded under the Landslip Preventive Measures Programmes</li> <li>制定妥善的方法,以鞏固不符合標準的舊砌石牆,同時保存砌石牆上的樹木及砌石牆的外貌 Develop appropriate methods for upgrading old substandard masonry walls whilst preserving the associated trees on the walls and the existing masonry pattern where warranted</li> </ul>	達到指標 Target achieved 達到指標 Target achieved	
修復9,000平方米採石區	達到指標	
Rehabilitate 9,000 m² of quarry areas	Target achieved	

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