

Follow-up and  
Enforcement

## **Seeing It Through To The End**

The EIA process does not stop with the issue of environmental permits nor is it just a paper-based process. While processing over \$326 billion worth of projects through the EIA process in just 3-1/2 years, enforcement work increased dramatically. Frequent site visits were undertaken to check on compliance with environmental permit conditions and to detect any illegal development projects. An innovative approach was adopted to achieve efficiency in enforcement.

### **EIA Follow Up**

Within the framework of environmental permit conditions, there are generally three areas of requirement provided for the continuation of EIA follow up.

#### **1. Review of Detailed Design and Management Plan**

At the time an environmental impact assessment is conducted, projects are often at the conceptual or feasibility stages. Often the detailed design of the project is not yet available. Some detailed designs can include mitigation measures such as placement of acoustic barriers, contaminated waste treatment, landscaping measures in addition to the temporary structures needed for construction of the project. A management plan also covers environmental issues during the construction stage of the project such as construction waste, ecological preservation or construction plants.

To preempt any deviation from EIA recommendations and findings, the Director requires both the detailed design and management plan to be submitted to follow up.

#### **2. Environmental Monitoring and Audit (EM&A) Program**

Since its pioneering use in the Airport Core Projects from 1992, the fundamental role of the EM&A program for following through on EIA study recommendations was further enhanced by the Ordinance when it became a statutory requirement. These requirements are often found in the form of an EM&A manual accompanying the EIA report and are stipulated in the subsequent environment permit when issued.

Environmental monitoring involves a systematic collection of data, for the purpose of determining the baseline, impact and compliance of the project. Environmental auditing comprises the audit of mitigation measures, design changes and compliance against legislative requirements and standards.

Although the parameters or impacts to be monitored are highly project specific and variable with different stages of a project, monitoring data are compared against trend indicators comprising on “action level” and “limit level” of environmental quality performance limits. Should monitoring results go beyond these limits, action will be taken according to the action plan set for these limits.

With regular reporting requirements from the monitoring program stipulated in every environmental permit, both identified mitigation measures and unanticipated severe impacts of the project can be more closely followed.

If any of the EM&A requirements are violated, a warning may be issued or prosecution actions taken against the project proponent and permit holders.

### 3. Submission of Certified Reports on Mitigation Measures Implemented -Use of Independent Environmental Checkers (IEC)

The provision of project information is primarily the responsibility of the permit holder’s environmental team. To avoid any bias due to conflict of interest, which may affect the reliability of the information submitted to the Director of Environmental Protection, another tier of checking is introduced into the system in the form of the Independent Environmental Checker (IEC).

Under this arrangement, project proponents are required to employ an IEC to audit the monitoring by the permit holder or his agent. The IEC will also check and certify reports on the status of the implementation and completion of mitigation measures as recommended in the EIA report.

As an additional measure of quality control, the qualification of the environmental team leader and IEC are also specified in every environmental permit.

### Enforcing the Ordinance on a Territory-wide Basis

Enforcement under the EIA Ordinance plays an essential role in achieving the Ordinance's deterrent effect and its ultimate goal of protecting the environment. The current enforcement strategy divides resources into four areas:

- (1) Satellite Photographs
- (2) Survey Maps and Photographs
- (3) Aerial and Land Based Surveillance
- (4) Site Inspection/Evidence Collection by EPD Staff

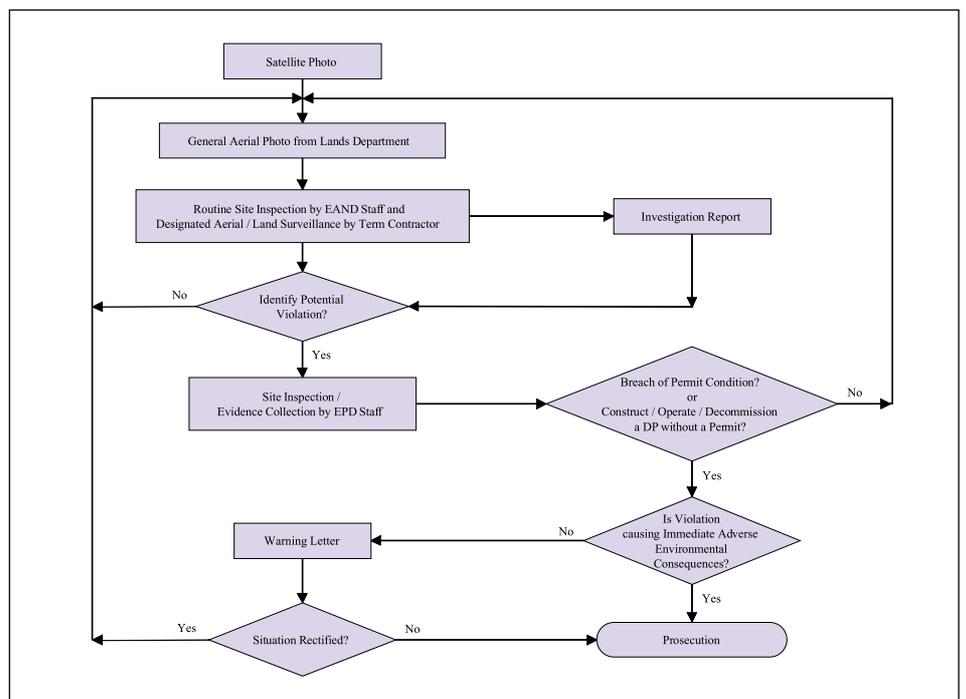


Figure 6A: The flow of actions for EIA Ordinance enforcement.

## **Routine Site Inspection**

Staff from the Environmental Protection Department have been tasked with the routine monitoring of project implementation since the concept of Environmental Monitoring and Auditing was developed in the early 1990s. With the implementation of the EIA Ordinance, routine site inspections have been emphasized during the project planning, permit application and permit enforcement stages. The main purpose of site inspections is to monitor current on-site situations and to check whether permit conditions are fully complied with. Our staff are also responsible for collecting evidence for cases in which violations of environmental permit conditions are suspected.

## **Satellite Photographs**



Satellite photograph.

Satellite photographs provide a valuable snapshot of major developments in Hong Kong and its nearby environment. They provide especially vital information for border areas where access by helicopter or land is limited. However, the quality of satellite photos is dependent on weather conditions, with the best time for taking such photos in Hong Kong being the relatively cloud-free season of mid-autumn each year.

## **Survey Maps and Photographs from Lands Department**

The Photogrammetric and Air Survey Section of the Lands Department produces aerial photographs covering the whole region of Hong Kong from altitudes of 10,000 feet and 20,000 feet once each year. Other aerial photographs are also taken twice annually at 4,000 feet but do not cover all of Hong Kong. Annual aerial photographs taken from 10,000 feet provide valuable annual baseline conditions of land use. Photographs taken from 4,000 feet facilitate the determination of potential violations of the EIA Ordinance, such as construction being carried out without a permit or reclamation works exceeding the threshold limit.

## **Designated Aerial/Land Based Surveillance by Term Contractor**

In order to enhance efficiency and to free departmental resources to manage enforcement duties, a term contractor has been employed through a hire of service contract to carry out surveillance work. The arrangement facilitates the screening of potential violations of the EIA Ordinance, while leaving the Department's resources open to focus on collecting legal evidence and carrying out subsequent prosecution procedures.

There are two types of surveillance services provided by the term contractor: routine surveillance and emergency surveillance. These are carried out both on an aerial and land basis.

### **Routine Surveillance**

The term contractor carries out routine site surveillance for designated projects. In addition to checking compliance with permit conditions, the surveillance team also carries out spot checks and reports potential EIA Ordinance violations. Written reports and photo records are prepared after each trip. Photographs and records gathered through regular surveillance serve to track any potential offences.

### **Emergency Surveillance**

When a violation complaint is received or a suspected offence is detected the term contractor will visit the concerned project site as quickly as possible to investigate the case and record detailed observations. Photographs will be taken by digital camera and transmitted through e-mail immediately after the site visit. Upon receiving information provided by the term contractor, our staff may follow up by taking legal action when appropriate.

### **Aerial Based Surveillance**

Aerial surveillance is a rapid means of collecting data, as information is usually available within one to three days, depending on weather conditions. The contractor takes aerial photos at designated locations at agreed altitudes. The service is particularly useful in areas where land access is difficult, where an overview above ground is essential (e.g. surveillance of silt curtains used in dredging work) and where the project covers a large area.



Survey map of Kwai Chung at an altitude of 4000ft.



Land Based surveillance by EPD staff.

### **Land Based Surveillance**

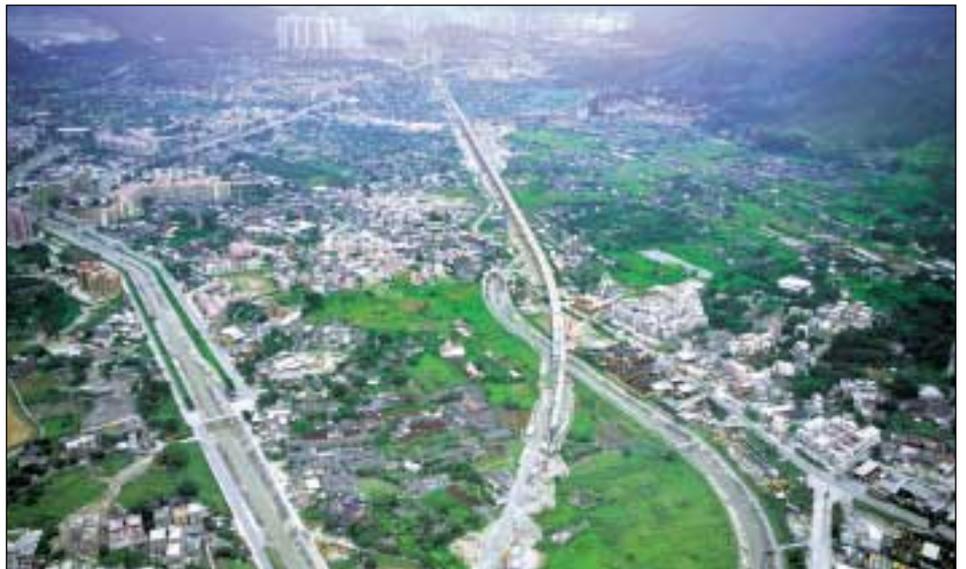
Land based surveillance provides a detailed field investigation and hence gives clearer advice on potential EIA Ordinance violations.

### **Outcomes**

When processing applications, on-site details identified during initial screening of a project are used to determine the boundary of the study area and subjects to be laid down in the EIA study brief. As such, site inspections have become an integral step taken during the processing of each application.

### **Enforcement Figures**

During the first 3-1/2 years of the Ordinance, over 70 designated projects with environmental permits have commenced construction work. These have included large-scale projects such as KCR West Rail, MTR Tseung Kwan O Extension, Pak Shek Kok Development, the Cyberport Development and Kai Tak Airport Decommissioning. Please refer to Appendix X for a complete list of projects.



Construction of West Rail at Yuen Long.



Construction of West Rail at Kam Tin.



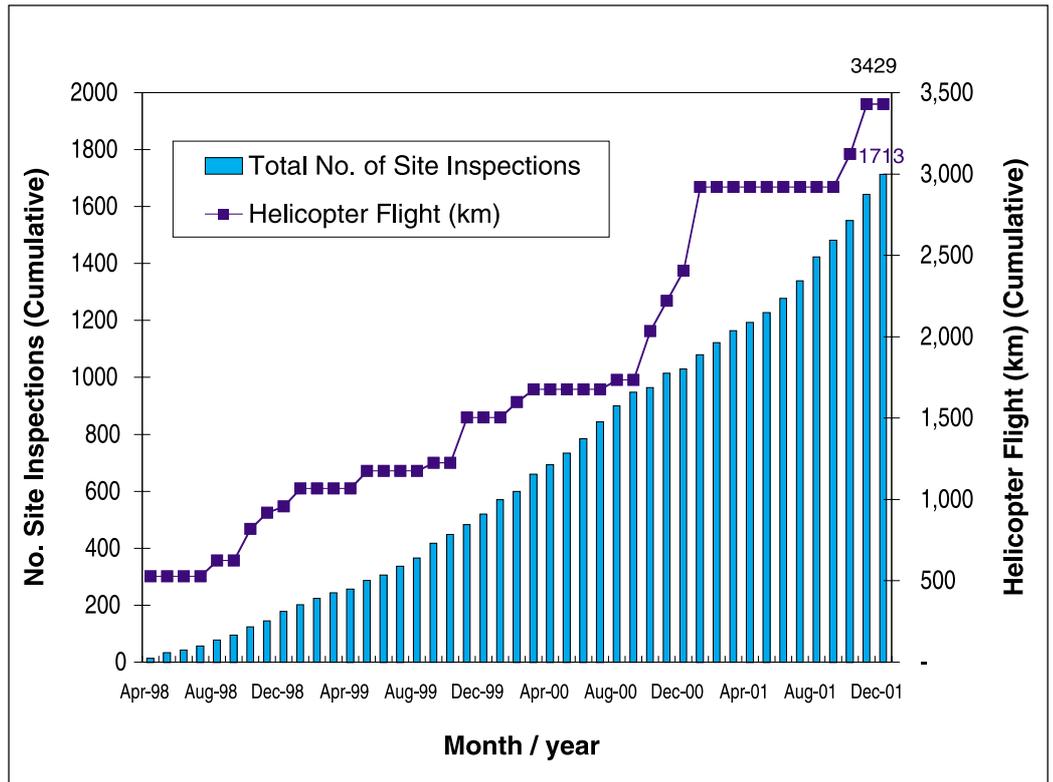
Cyberport Site Formation at Telegraph Bay.



Reclamation at Pak Skek Kok.

Total projects representing an area of no less than 386 hectares of land and 75 km of railways required regular monitoring at close distance. Overall, regular surveillance for illegal designated projects over the entire 1000km<sup>2</sup> area of Hong Kong presented a large challenge for the newly enacted Ordinance.

In meeting this challenge, a total of 1713 site trips were undertaken to identify issues, investigate complaints and check compliance with environmental monitoring and auditing requirements for over 100 environmental permits to ensure certain requirements such as baseline monitoring were carried out before the commencement of work. For regular survey work, a helicopter was used for more efficient coverage of remote areas. Total flights totaling 3429 km were carried out.



**Follow-up Actions**

Based on aerial or land surveillance work and investigation reports, staff from the Environmental Protection Department can identify if any potential violation of the EIA Ordinance has occurred. If permit conditions have been breached, a warning letter is issued and/or legal action is taken, depending on the severity of the offence.

**Prosecution of Offences**

To achieve full compliance with the EIA Ordinance, the threat of prosecution against offences must serve as a strong incentive for project proponents and permit holders to comply with EIA regulations.

A total of 43 warning letters were issued during the first 3-1/2 years of operation of the Ordinance to warn permit holders of minor issues.