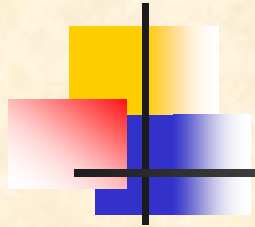


Green Compliance

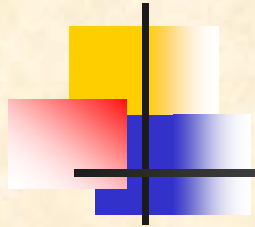
Environmental Impact Assessment Ordinance (Cap. 499)

Ir C.F. LAM



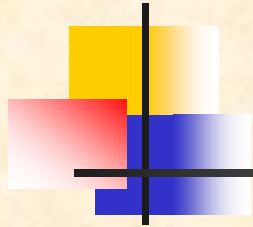
Environmental Impact Assessment Ordinance

An Ordinance to provide for ***assessing the impact*** on the environment of certain projects and proposals, for ***protecting the environment*** and for incidental matters.



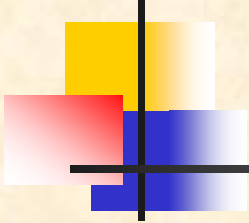
Purpose

- ◆ **Avoid, Minimize and Control** the adverse environmental impact of **Designated Projects (DPs)** by the EIA process and the EP system
- ◆ EIAO comes into operation on 1 April 1998
- ◆ DPs to follow **statutory EIA process**
- ◆ DPs require **Environmental Permit (EP)** to **construct, operate and decommission**



EIAO & Subsidiary Legislations

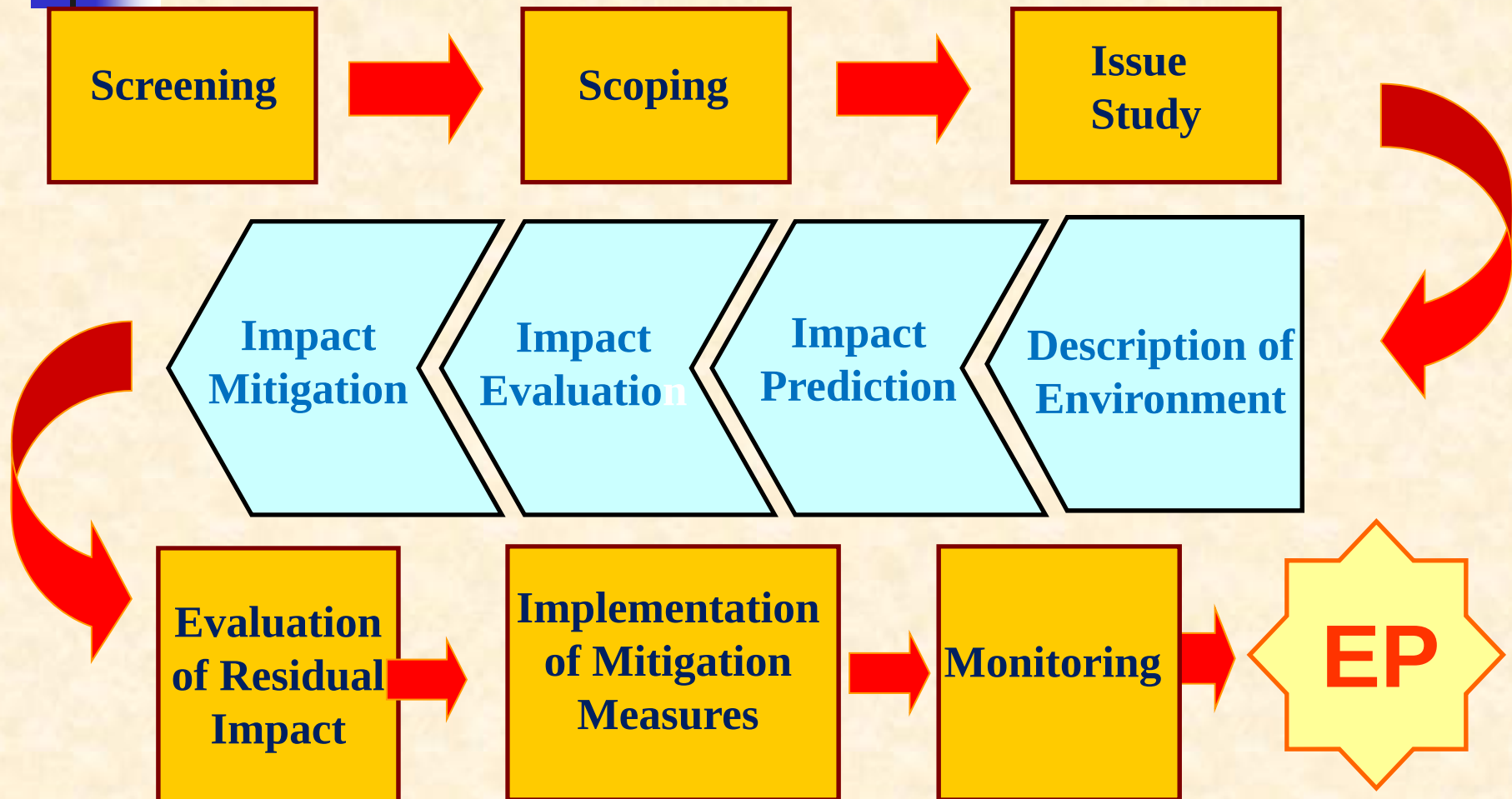
- ◆ **Cap. 499** - Environmental Impact Assessment Ordinance (EIAO)
- ◆ **Cap. 499A** - Environmental Impact Assessment (Appeal Board) Regulation
- ◆ **Cap. 499B** - Environmental Impact Assessment (Fees) Regulation



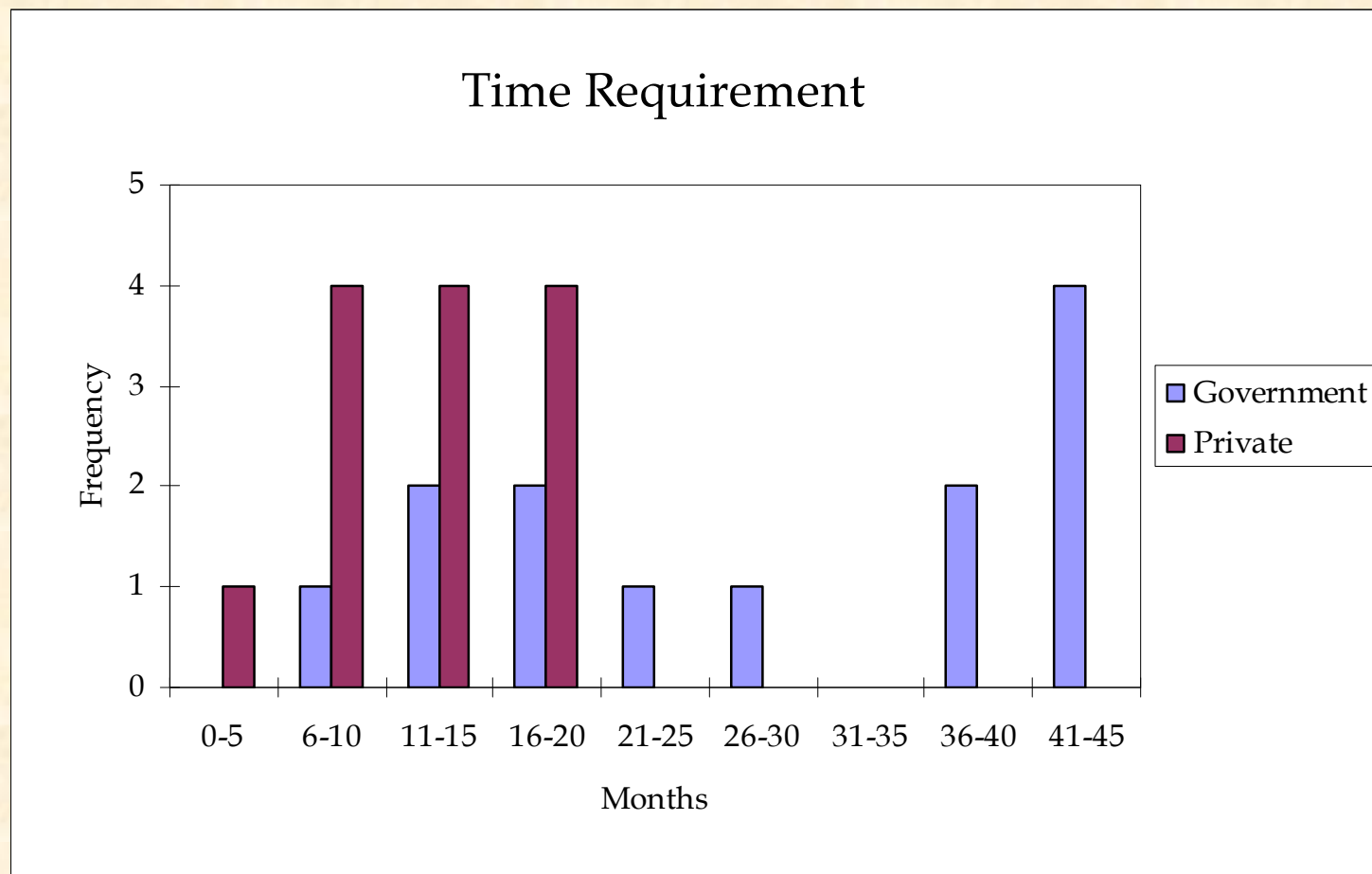
EIAO & Other Pollution Control Ordinances

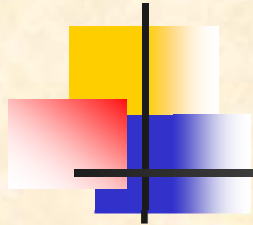
- ◆ EIAO – not ‘back door’ legislation to impose more stringent standards.
- ◆ e.g. If APCO is relevant to a particular matter, then the EIAO cannot impose a more stringent standard than that under APCO.
- ◆ However, EIAO can impose requirements if no similar requirement is imposed under other legislation.

Typical EIA Process



Time for Formal Approval of EIA Report

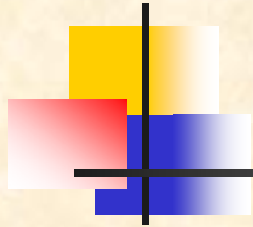




Additional Benefit of EIA Process

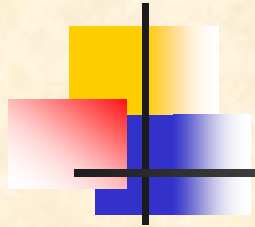
- EIA **buy-in** people during process
- Incorporate **design change** through EIA
- Use EIA as a **pro-active tool** to solicit view and solve problems





Frequently Asked Questions

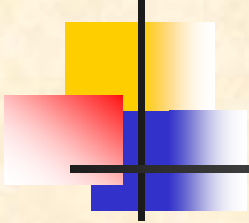
1. Whether a project requires an EIA?
2. How to plan and fast-track an EIA?
3. Can I do something before the statutory EIAO process kicks off?
4. Flexibility in Study Brief & Project Profile?
5. How to prepare an EIA report? Review of Mitigation Measures?
6. How should I view approval and permit conditions?



Environmental Impact Assessment Ordinance

Purpose

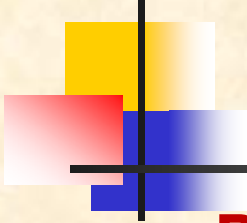
An Ordinance to provide for assessing the impact on the environment of certain projects & proposals, for protecting the environment and for incidental matter



Environmental Impact Assessment Ordinance

Section 9 of the EIAO says that a person shall not **construct or operate a designated project (DP)** listed in Part I of Schedule 2 or **decommission** a designated project listed in Part II of Schedule 2:

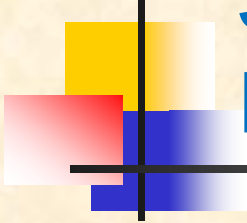
- Without an environmental permit for the project; or
- Contrary to the conditions, if any, set out in the permit



Schedule 2 : Designated Projects

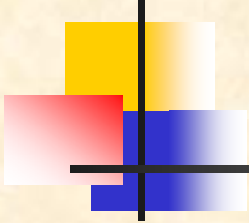
PART I - Construction & Operation

- | | |
|---|--|
| A. Roads, Railways & Depots | I. Waterways & Drainage Works |
| B. Airport & Port Facilities | J. Mineral Extraction |
| C. Reclamation, Hydraulic & Marine Facilities, Dredging and Dumping | K. Industrial Activities |
| D. Energy Supply | L. Storage, Transfer & Trans-shipment of Fuels |
| E. Water Extraction & Water Supply | M. Agriculture & Fisheries Activities |
| F. Sewage Collection, Treatment, Disposal & Reuse | N. Community Facilities |
| G. Waste Storage, Transfer & Disposal Facilities | O. Tourist & Recreational Developments |
| H. Utility Pipelines, Transmission Pipelines & Substations | P. Residential & Other Developments |
| | Q. Miscellaneous |



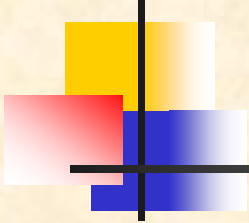
Schedule 2: Decommissioning Projects

1. Airports, including fueling and fuel storage, the aircraft maintenance and repair facilities.
2. An oil refinery.
3. A municipal, chemical or clinical waste incinerator.
4. A public utility-electricity power plant.
5. A public utility-gas generation plant.
6. A water treatment works of a treatment capacity of 100,000 m³ per day or more.
7. An installation for storage or disposal of radioactive waste.
8. A waste disposal facility for pulverised fuel ash, furnace bottom ash or gypsum.
9. A metallurgical works with melting capacity exceeding 200,000 tonnes per annum (expressed as metal)



Schedule 2: Decommissioning Projects

10. A petro-chemical works.
11. An explosives depot or explosives manufacturing plant.
12. A bulk chemical storage facility.
13. A store for liquefied petroleum gas with a storage capacity exceeding 200 tonnes.
14. A store for liquefied natural gas with a storage capacity exceeding 200 tonnes.
15. A store for coal and ores with a storage capacity exceeding 200 tonnes.
16. A store for oil with a storage capacity exceeding 200 tonnes.
17. A facility for ship building or repairing more than 1 ha in size or with a lifting capacity in excess of 20000 tonnes

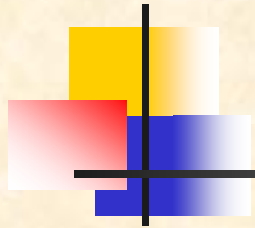


Designated Projects

Some key categories

Roads, Bridge and Railways





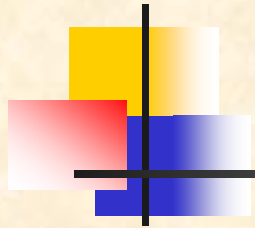
Designated Projects

Some key categories

Port Facilities



Power Stations



Designated Projects

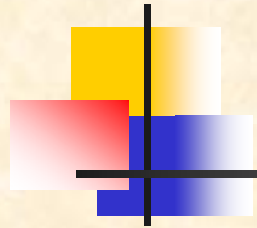
Some key categories



Sewage Treatment Works



Reclamations

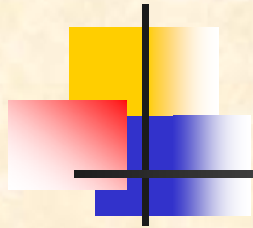


Designated Projects

Some key categories

Decommissioning Projects





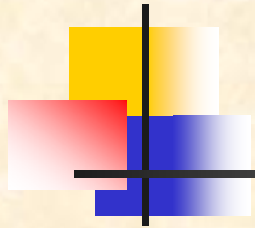
Designated Projects

Some key categories

Pier construction or minor project involving **dredging**

A dredging operation which is less than 500m from the nearest boundary of an existing or planned fish culture





Designated Projects

Some key categories

A **sewage pumping station** with an installed capacity of more than 2000m³ per day and a boundary of which is less than 150m from an existing or planned residential area...



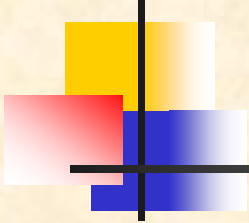
Designated Projects

Some key categories

Some slope works within Country Park

Projects within country park are DPs under Item Q.1 of Schedule 2 unless they fall into exception

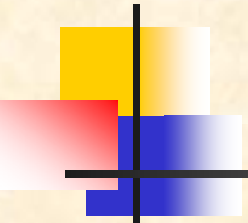




Schedule 3 : Major Designated Projects requiring EIA Reports

- Engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100,000.
- Engineering feasibility study of redevelopment projects with a study area covering more than 100,000 existing or new population.

Notes: s9(5) – The inclusion of a class of projects in Schedule 3 does not exempt the construction, operation or decommissioning of the whole or any part of the project from the need to have an environment permit

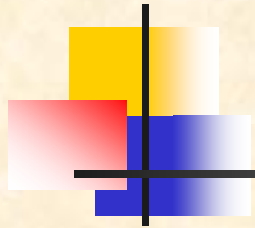


Designated Projects

Some key categories



Engineering
Feasibility Study of
**New Towns or
Developments**
more than 20 ha



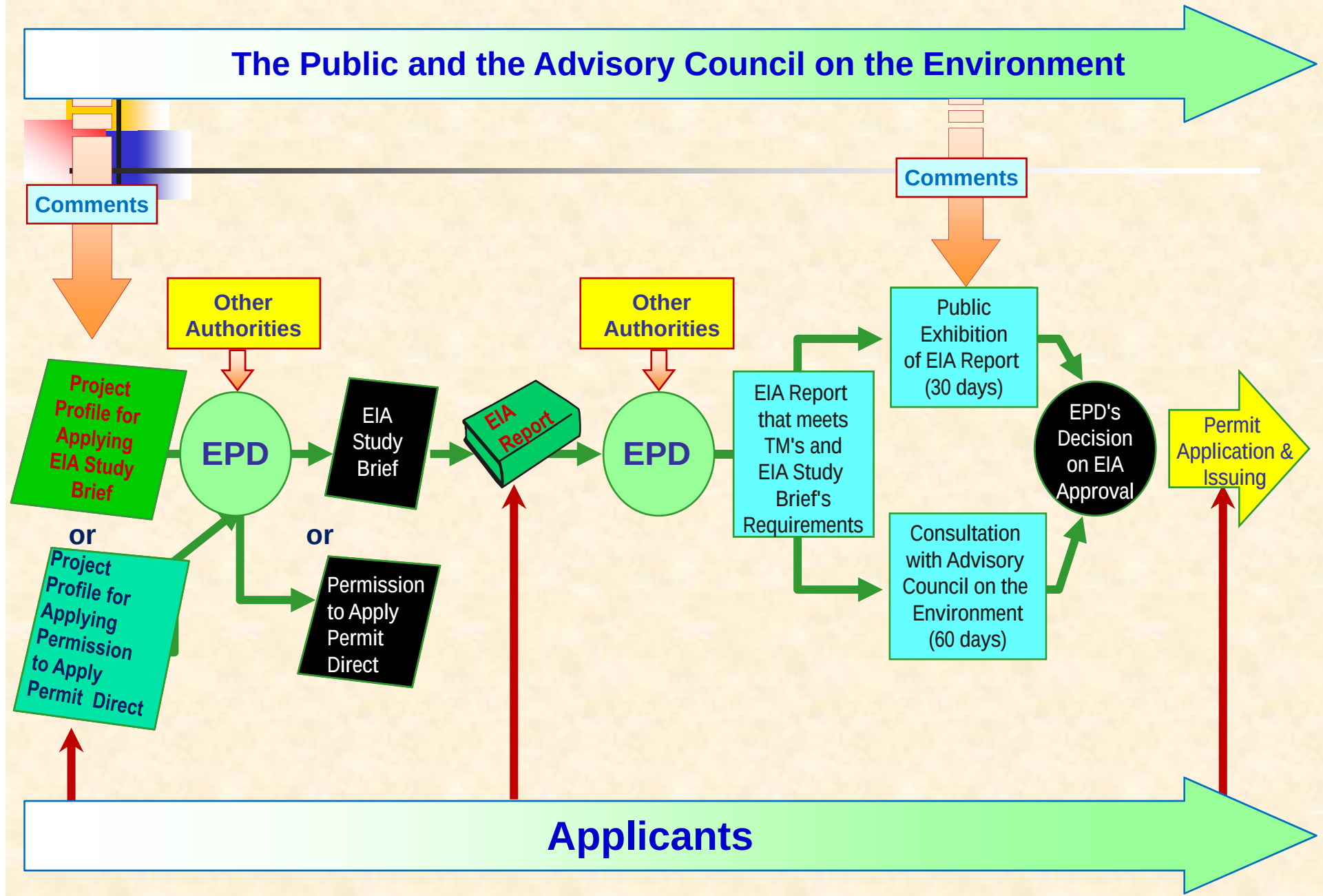
Designated Projects

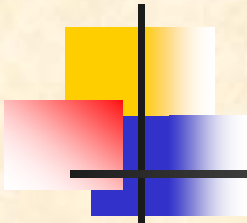
Some key categories

South East Kowloon Development



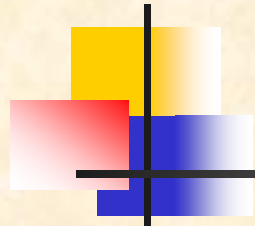
EIA Process Under EIA Ordinance





Time Limits

	Time limit for the Director	Time limit for the public	Time limit for the Advisory Council on the Environment
Application for an EIA study brief	45 days of receiving the application or further information	14 days of placing the advertisement	14 days of placing the advertisement
Application for approval to apply directly for an environmental permit	45 days of receiving the application or further information	14 days of placing the advertisement	14 days of placing the advertisement
Review of EIA report	60 days of receiving the EIA report		
Public inspection of EIA report		30 days of placing the advertisement	60 days of receiving the EIA report
Approval of EIA report	30 days of the expiry of the public inspection period, or the receipt of comments from the Advisory Council on the Environment, or the receipt of further information		



Best Practice



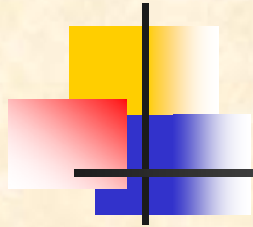
EIA Training and Capacity Building Programme for
Government Works Departments

TRAINING MANUAL FOR THE EIA MECHANISM

June 2003



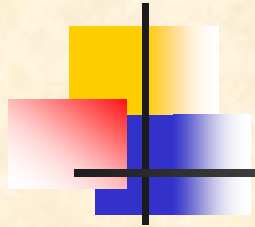
Environmental Protection
Department



Key Components



1. **Understand your Study Brief**
 - Clear vision of messages to be communicated
 - Emphasis on the positives
2. **Understand the Role of Public Comments**
 - Start consultation as early as possible, even before submission of Project Profile
 - Listen to and assimilate legitimate concerns
 - Maintain dialogue to facilitate resolution of issues
3. **Know your Scope of Alternatives**
 - Design to avoid-minimise-mitigate impacts

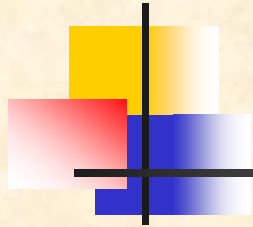


Early Actions



ETWB TC(W) No. 13/2003

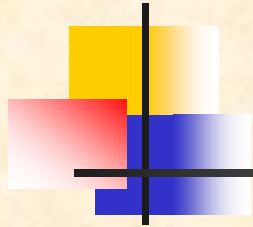
- Every opportunity should be taken for early consultation
- Public consultation can be started even before the onset of the statutory EIAO process



Consultation

- Consultation or information?
- When and how frequent?
- Whom should we speak to?
- Who will never agree?
- In addition to fulfilling statutory obligations, what are we trying to achieve?
- Win-win situations



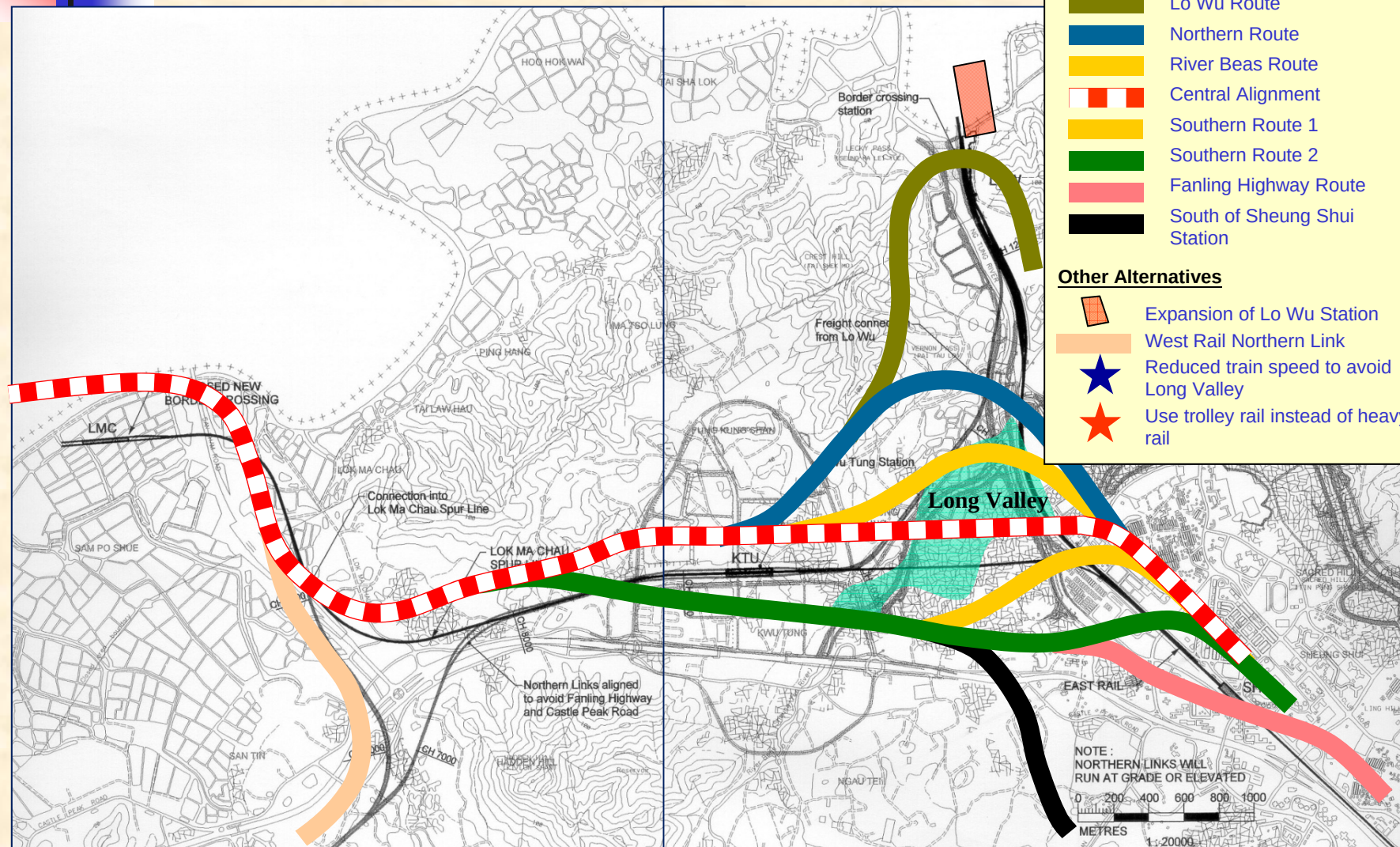


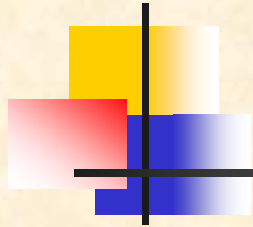
Use of Project Profile

- Identify range of **environmental concerns** at the early stage of project cycle
- The first document for **public consultation**
- Consideration of **alternatives**
- Applies **avoid-minimise-mitigate** principles
- Key **issues** and significant **impacts** to be considered
- Categorize the **impacts** that requires study

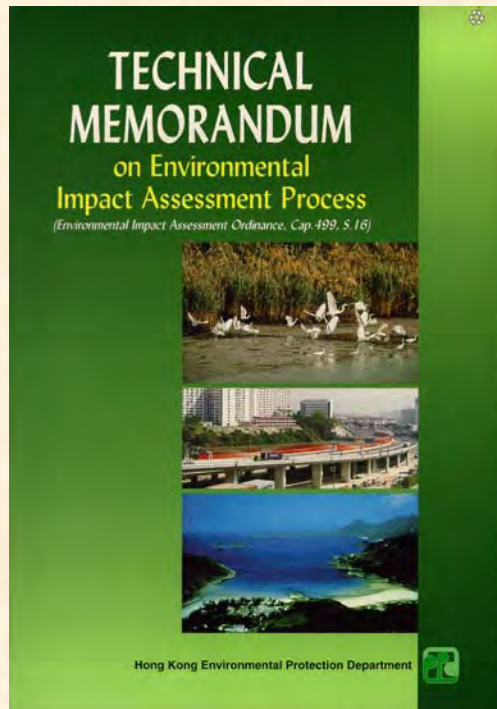
Sheung Shui - Lok Ma Chau Spur Line

Alternative Alignment

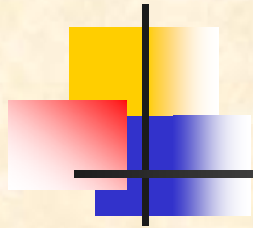




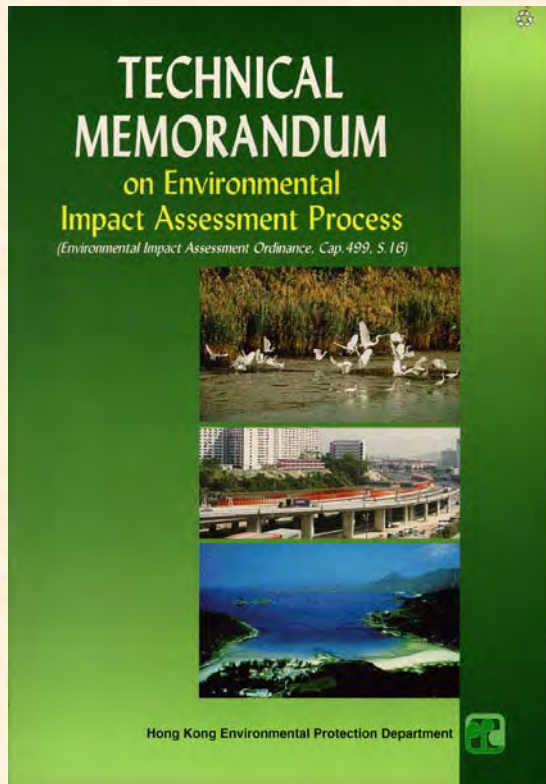
Technical Memorandum



- ◆ 12 sections and 22 annexes covering key EIA process steps and issues
- ◆ requirements of a project profile
- ◆ factors for consideration in identifying adverse environmental impacts
- ◆ issuance of EIA study brief
- ◆ contents of EIA report
- ◆ review of EIA report
- ◆ environmental monitoring and audit requirements
- ◆ issuance of environmental permit

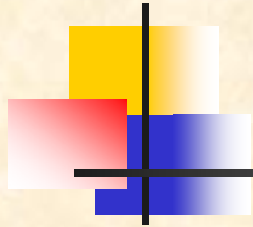


Technical Memorandum



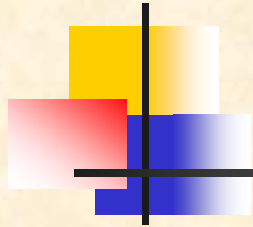
Criteria and Guidelines for assessment on:

- ◆ Air Quality
- ◆ Noise
- ◆ Water Pollution
- ◆ Waste Management
- ◆ Ecology
- ◆ Fisheries Impact
- ◆ Landscape and Visual Impact
- ◆ Impact on site of cultural heritage



Potential Environmental Impact

- Gaseous emissions
- Noise
- Generation and disposal of waste and wastewater
- Dangerous goods storage and handling
- Hazard to life
- Disruption of water movement
- Visual appearance
- Ecological impact
- Cultural Heritage



Practicality of Mitigation Measures

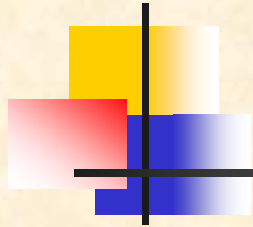
Example : Construction of wheel washing bay

- EIA recommendation:
“Wheel washing facility should be provided at the main entrance/exit of each of the worksite”
- Constraint on Implementation:
Worksite along existing road → no space to install

Practicality of Mitigation Measures

Works with ends in need!





Role of Engineers in EIA Process

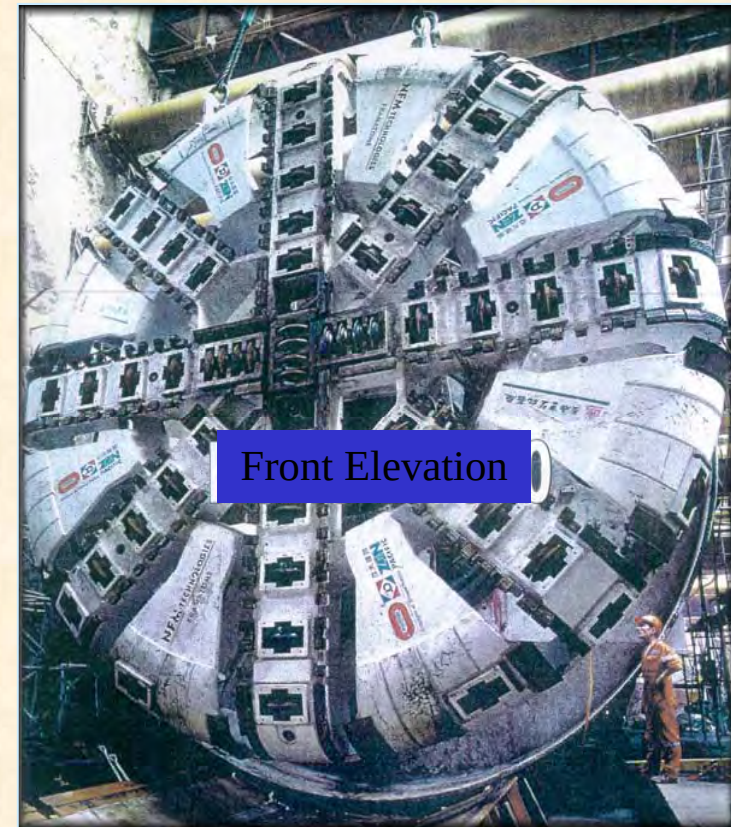
- Priority to **avoidance** of adverse impacts
- Be creative in **problem** solving, overcoming **constraints** and searching for **alternatives**
- Be a listener to concerns of the **community** and **environment** with an open mind
- Up-streaming and main-streaming of **environmental factors** in project planning
- Be bold in applying **new technologies**, especially web-based technology

Tunnel Boring Machine (TBM)

A well proven technology

Spurline

Avoidance of Long Valley



Reclamation Works

Penny's Bay Reclamation



Rare plant species were identified and protected as recommended in the EIA study before the commencement of construction



Closed grab dredgers were recommended in the EIA study for the removal of contaminated sediment



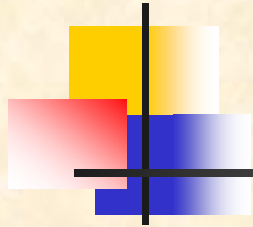
Silt curtains were adopted as part of the environmental monitoring and audit programme to protect the surrounding water bodies

Noise Reduction Design

West Rail

About 560,000 existing and future residents to be protected by the West Rail Phase 1 special **noise reduction design** devised through the EIA process (HK\$ 64 billion)





Theme Park Development Project

Hong Kong Disneyland



Armour rock sloped seawall design was adopted to facilitate recolonization of intertidal and subtidal hard surface assemblages

2 km long Natural Coastline preserved by adopting an open drainage channel design



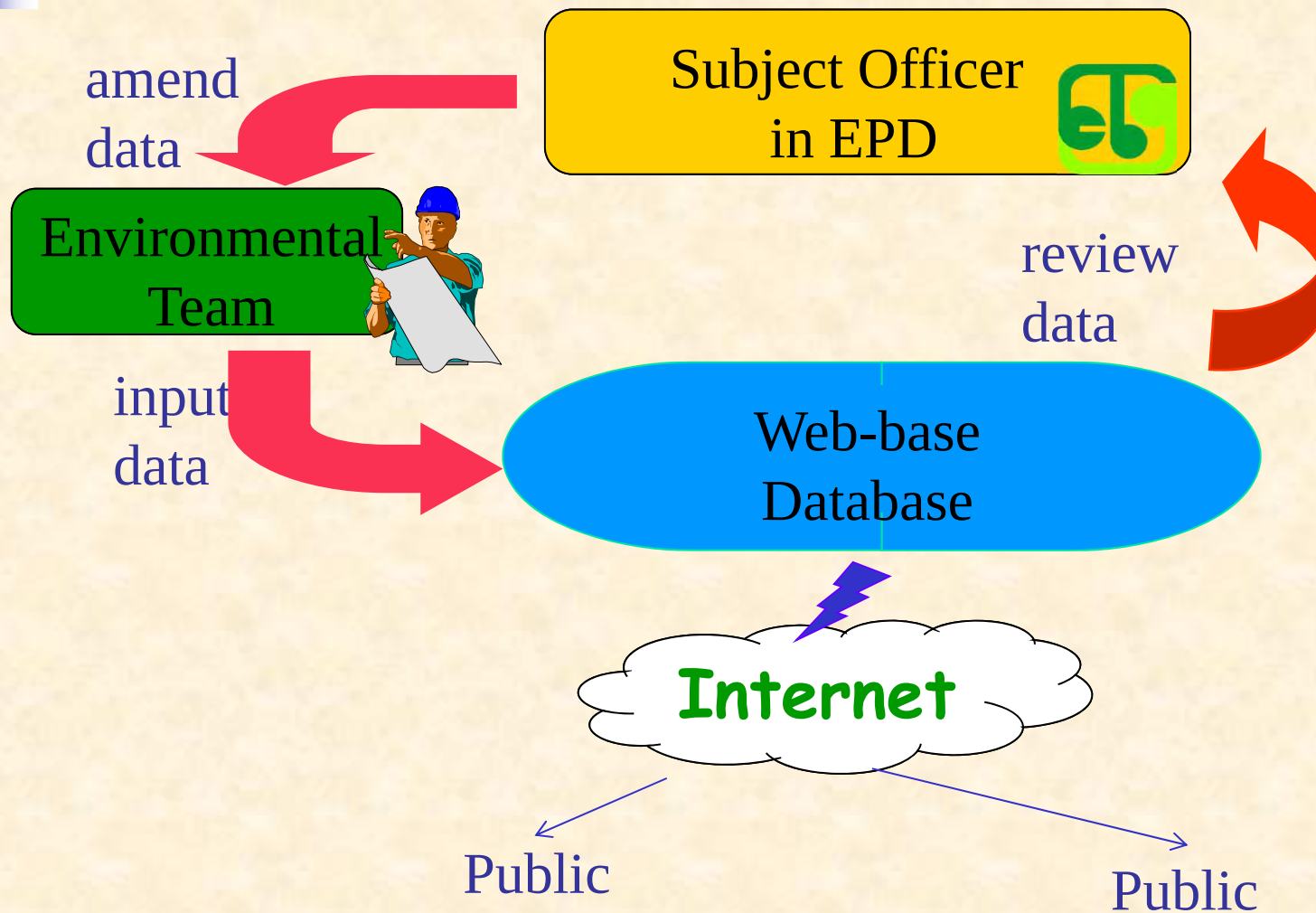
Ecologically sensitive area will be protected by zoning the Pa Tau Kwu Headland and nearby waters as Conservation Area as recommended by the EIA study



6 km long landscaped earth bunds were incorporated in the Theme Park Layout Plan to protect 25,000 and 11,000 residents at Discovery Bay and Peng Chau respectively



Web-based Environmental Monitoring and Audit System



Real-time Monitoring by WebCam at Cheoy Lee Shipyard

(<http://www.pennysbaycontract2.com/tkw.htm>)

Please re-focus the webcam to the site after use.

IRIS Close Open

FOCUS Near Far

ZOOM Wide Tele

Select
preset
position:

None

PAN-TILT



Environmental Permits

Environmental Impact Assessment Ordinance - Microsoft Internet Explorer

檔案(F) 編輯(E) 檢視(V) 我的最愛(A) 工具(T) 說明(H)

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網址(1) http://www.epd.gov.hk/eia/english/register/aep/all_2003.html

移至 連結 » Norton AntiVirus

- Projects profiles submitted for application for

- [EIA study brief](#)
- [Permission to apply directly for permit \(DIR\)](#)

- EIA Study Brief

- [Issued under Ordinance](#)
- [List of Study Brief issued prior to commencement of the Ordinance](#)

- [Decisions on Applications for \(DIR\)](#)

- List of EIA Report

- [Received by the Director](#)
- [Exhibited for public inspection](#)
- [Approved under the ordinance](#)
- [Approved prior to 1 April 1998 \(listed under the Register\)](#)

- Application of Environmental Permits/Permits Issued

- [Environmental Permits](#)
- [Further Permits](#)
- [Variations of Permits](#)

▶ [Environmental Permits](#)

▶ [Further Environmental](#)

Environmental Impact Assessment Ordinance

[Permits](#)

Applications of Environmental Permits

To Search by [District](#) or Application Number.

Year : 2003 | [2002](#) | [2001](#) | [2000](#) | [1999](#) | [1998](#)

Application Number	Date of Application	Project Title	Applicant	Status
AEP-172/2003	19 Aug 2003	Design and Construction of Causeway Bay Flyover	Highways Department	Under Consideration
AEP-171/2003	20 June 2003	Improvement to Castle Peak Road between Ka Loon Tsuen and Siu Lam	Highways Department	Granted on 17 Jul 2003  EP-171/2003 (HTML)
AEP-170/2003	30 May 2003	Improvement to Tung Chung Road between Lung Tseng Tau and Cheung Sha	Highways Department	Granted on 27 Jun 2003  EP-170/2003 (HTML)
AEP-169/2003	19 May 2003	Cement Silos addition works in Tai Po Cement Depot	K.WAH MATERIALS LTD.	Granted on 12 Jun 2003  EP-169/2003 (HTML) Superseded by EP-169/2003/16

Variations of Environmental Permits

Environmental Impact Assessment Ordinance - Microsoft Internet Explorer

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網址(1) http://www.epd.gov.hk/eia/english/register/index8/all_2003.html

- Projects profiles submitted for application for
 - [EIA study brief](#)
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- Application of Environmental Permits/Permits Issued
 - [Environmental Permits](#)
 - [Further Permits](#)
 - [Variations of Permits](#)

Environmental Permits

Further Environmental Permits

Variations of Environmental Permits

Applications of Variations of Environmental Permits

To Search by [District](#) or Application Number

Year : 2003 | [2002](#) | [2001](#) | [2000](#) | [1999](#) | [1998](#)

Application Number	Date of Application	Project Title	Applicant	Status
VEP-110/2003	30 Aug 2003	On-Site Concrete Batching Plan at Telegraph Bay for Cyberport Development	Maunsell Environmental Management Consultants Ltd	Under Consideration
VEP-109/2003	8 Aug 2003	LCC - 300 Lok Ma Chau Terminus and Associated Works	Balfour Beatty - Lam Joint Venture	(*This application was withdrawn on 21 August 2003)
VEP-108/2003	6 Aug 2003	Trunk Road T7 in Ma On Shan	Territory Development Department	(*This application was withdrawn on 6 August 2003)
VEP-107/2003	30 Jul 2003	Modifications to MTRC Tsim Sha Tsui Station	MTR Corporation Limited	Issued on 19 Aug 2003 EP-113/2001/C
VEP-106/2003	23 Jul 2003	Decommissioning of Cheoy Lee Shipyard at Penny's Bay	Civil Engineering Department	Issued on 15 Aug 2003 EP-116/2002/D Submissions
VEP-105/2003	10 Jul 2003	Proposed Temporary Bus Depot at Tseung Kwan O Area 85	New World First Bus Services Limited	Issued on 5 Aug 2003 EP-080/2000/C

完成

網際網路

Further Environmental Permits

Environmental Impact Assessment Ordinance - Microsoft Internet Explorer

檔案(F) 編輯(E) 檢視(V) 我的最愛(A) 工具(T) 說明(H)

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網址(D) http://www.epd.gov.hk/eia/english/register/index7/all_2003.html



The Register

- Projects profiles submitted for application for

- [EIA study brief](#)
- [Permission to apply directly for permit \(DIR\)](#)
- EIA Study Brief
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 - [List of Study Brief issued prior to commencement of the Ordinance](#)

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- Application of Environmental Permits/Permits Issued

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- [Further Permits](#)
- [Variations of Permits](#)

[Environmental Permits](#)

[Further Environmental Permits](#)

[Variations of Environmental Permits](#)

Applications of Further Environmental Permits

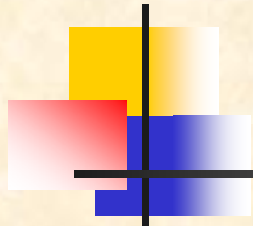
To Search by [District](#) or Application Number

Year : 2003 | [2002](#) | [2001](#) | [2000](#) | [1999](#) | [1998](#)

Application Number	Date of Application	Project Title	Applicant	Status
FEP-063/2003	30 Jul 2003	Low-level Radioactive Waste Storage Facility	ATAL - BELGPROCESS CONSORTIUM	Under Consideration
FEP-062/2003	14 Mar 2003	Central Reclamation Phase III	Leighton - China State - Van Oord Joint Venture	Issued on 10 Apr 2003 FEP-01/122/2003
FEP-061/2003	20 Feb 2003	Cyberport Sewage Treatment Works	Drainage Service Department	Issued on 20 Mar 2003 FEP-01/040/2003
FEP-060/2003	10 Jan 2003	Yuen Long Bypass Floodway	Sun Fook Kong (Civil) Limited	Issued on 6 Feb 2003 FEP-01/075/2003

[Submissions](#)

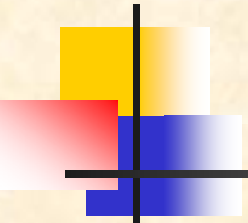
Back



Schedule 4 :

Matters that may be specified in EP

1. The design, alignment, plan, layout or visual appearance of a designated project.
2. The physical scale, scope or extent of a designated project.
3. The methods of carrying out a designated project,...
4. ...
5. The mitigation of the environmental impact of a designated project, and the timing, phasing or order of mitigation measures, including...
-
17. The requirements of the implementation and completion of mitigation measures to be checked and certified by qualified personnel, and for the submission of certified reports on the status of the implementation of mitigation measures.



Specific Conditions : Measures before Commencement of Construction of the Project *(Examples)*

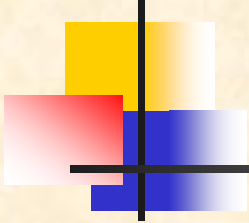
Employment of EM&A Personnel

- ◆ ET & IEC shall be established to conduct the EM&A programme
- ◆ The ET leader / IEC shall have at least 7 years of relevant experience
- ◆ The ET / IEC shall not be an associated body of each other or the contractor
- ◆

Submission of EM&A Manual / Organization Chart, etc.

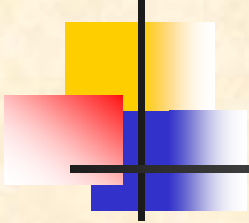
Submission of Mitigation Measures / Layout Plans, etc. for approval / deposit, etc.

....



Specific Conditions : Measures before Commencement of Construction of the Project *(Examples)*

- ◆ Set up an Environmental Committee
- ◆ Report to ACE every 6 months
- ◆ Set up a 24-hour complaint / enquiry hotline
- ◆ Set up a dedicated website with EM&A data
- ◆ Set up a system of web camera monitoring all major works areas
- ◆



EM&A Requirements

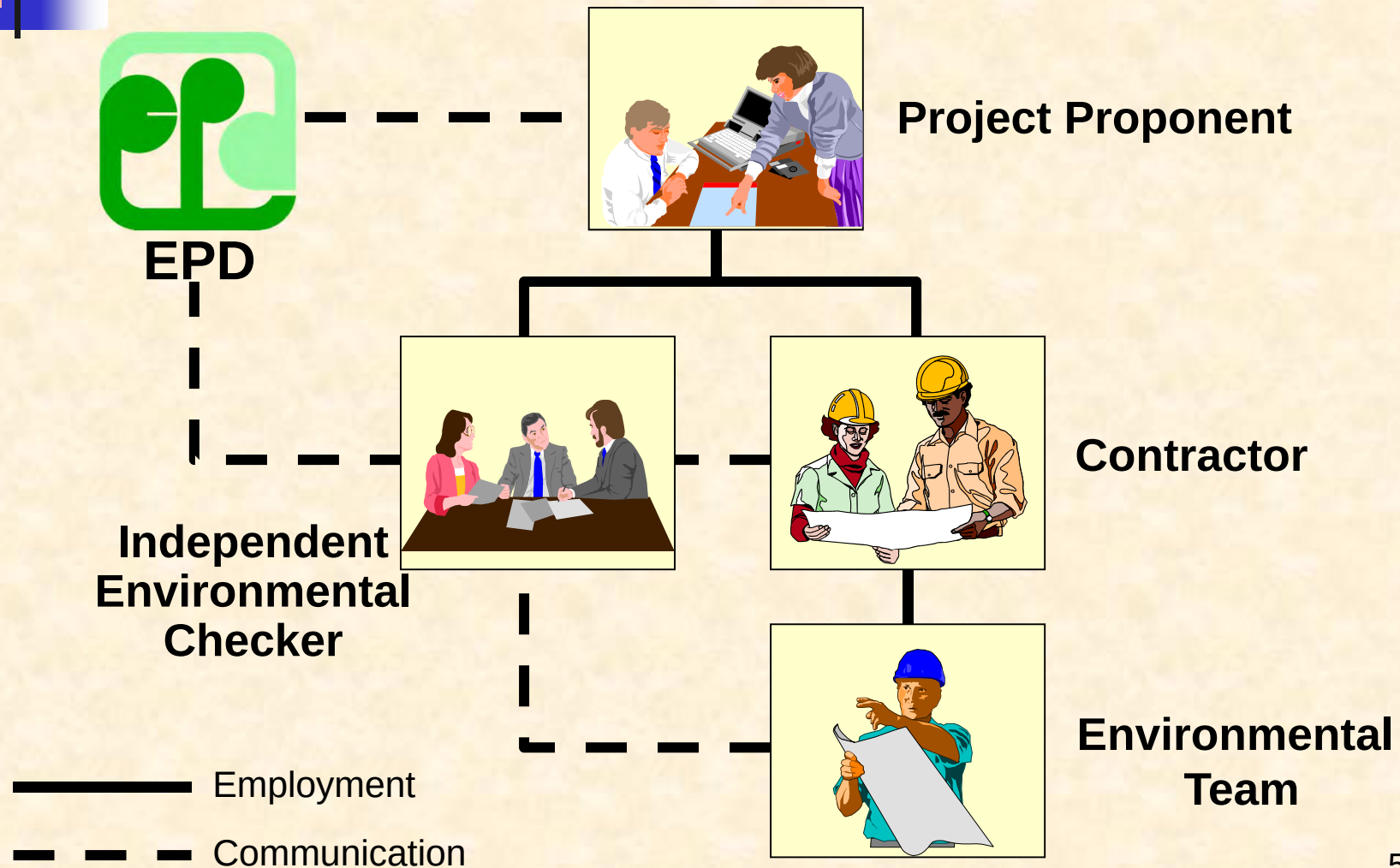


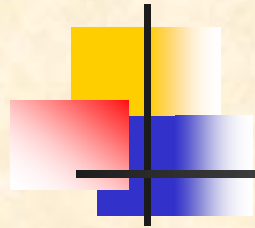
**EM&A
Manual**



**Environmental
Permit**

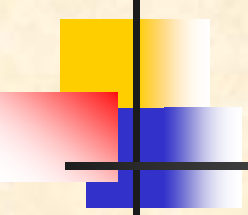
Management Structures of EM&A Projects *(Typical Example)*





Key Elements of EM&A Programme

- ◆ Baseline Monitoring Data
- ◆ Impact/Compliance Monitoring Programme
- ◆ Action/Limit Levels & Event/Action Plan
- ◆ Reporting Procedures



EM&A Reporting

Notice of Exceedance – ET / IEC should *notify EPD once exceedance is monitored* and follow the event and action plan to identify the cause and rectify any irregularities

EM&A report – standardized to highlight key information:

- ◆ Number of non-compliance recorded
- ◆ Complaints recorded
- ◆ Key activities and any changes made
- ◆ Status of EP submission
- ◆ Notifications of summons/prosecutions under all environmental legislation
- ◆ Future key issues

EIAO Register

Environmental Impact Assessment Ordinance - Microsoft Internet Explorer

檔案(F) 編輯(E) 檢視(V) 我的最愛(A) 工具(T) 說明(H)

← 上一頁 → 搜尋 ★ 我的最愛 媒體

網址(1) http://www.epd.gov.hk/eia/english/register/index.html

移至 連結 » Norton AntiVirus



[The Register]

Environmental Impact Assessment Ordinance

- Projects profiles submitted for application for

- [EIA study brief](#)

- [Permission to apply directly for permit \(DIR\)](#)

- EIA Study Brief

- [Issued under Ordinance](#)

- [List of Study Brief issued prior to commencement of the Ordinance](#)

- [Decisions on Applications for \(DIR\)](#)

- List of EIA Report

- [Received by the Director](#)

- [Exhibited for public inspection](#)

- [Approved under the ordinance](#)

- [Approved prior to 1 April 1998 \(listed under the Register\)](#)

- Application of Environmental Permits/Permits Issued



[Project Profiles submitted for Applications for EIA Study Briefs](#)



[EIA Study Briefs Issued](#)



[List of EIA Reports Received By the Director](#)



[EIA Reports Approved under the Ordinance](#)



[List of EIA Reports Approved prior to the commencement of the Ordinance](#)



[EIA Reports Exhibited for Public Inspection](#)



Application of Environmental Permits :

- [Environmental Permits](#)

- [Further Permits](#)

- [Variations of Permits](#)



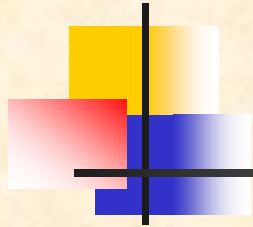
[Project Profiles submitted for Applications for Permission to Apply Directly for an Environmental Permit](#)



[Decisions of the Director of Environmental Protection \(DEP\) on Applications for Permission to Apply Directly for an Environmental Permit](#)

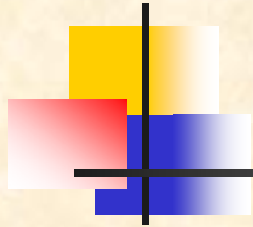
For EIA study Briefs issued prior to the commencement of the Ordinance

▶ [List of Study Briefs](#)



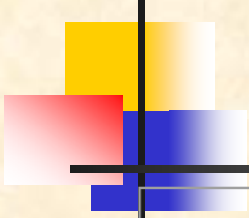
Strict Liability

S.26(7) - In proceedings for an offence under this section (s.26), *the prosecution does not have to prove that the acts or omissions in question were accompanied by any intention, knowledge or negligence on the part of the defendant as any element of the offence.*



s.26 Penalty for s.9 offences

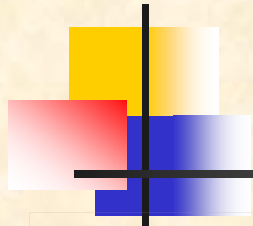
	Fine	Imprisonment
First conviction (on indictment)	\$2,000,000	6 months
Second or subsequent conviction (on indictment)	\$5,000,000	2 years
First summary conviction	Level 6	6 months
Second or subsequent summary conviction	\$1,000,000	1 year



s.27 Offences in relation to enforcement

Sections	Offences
s.27(a)	Willful obstruction
s.27(b)	Fails to comply with requirements under s.23
s.27(c)	Produce false/inaccurate information
s.27(d)	Gives incorrect / withholds information wilfully / recklessly

Penalty: a fine at level 5 on conviction



Offences relating to EP

Key Offences	Defences
s.26(1) A person who constructs, operates, decommissions a designated project <u>without an EP</u> , contrary to s.9(1)(a)	s.26(2) Emergency and Interests of public safety or Interests of public health
s.26(1) A person who constructs, operates, decommissions a designated project <u>contrary to the EP conditions</u> , contrary to s.9(1)(b)	s.26(2) Emergency and Interests of public safety or Interests of public health s.26(3) Without consent or connivance AND due diligence taken
s.26(4) A person <u>for whom</u> a project is constructed, operated or decommissioned and <u>who permits</u> the carrying out of the project contrary to s.9	s.26(5) Without consent or connivance AND due diligence taken
s.26(6) A person who either alone or with an associated person, <u>separates contiguous projects</u> , ... to avoid the purpose of the ordinance is taken to have contravened subsection (4) if he permits the carrying out .. without first applying to the Director under s.4(5)	s.26(5) Without consent or connivance AND due diligence taken

EIAO Website: www.info.gov.hk/epd/eia

中文



香港環境保護署

Hong Kong Environmental Protection Department
Hong Kong Special Administrative Region Government

Environmental Impact Assessment Ordinance

Legislative
Framework

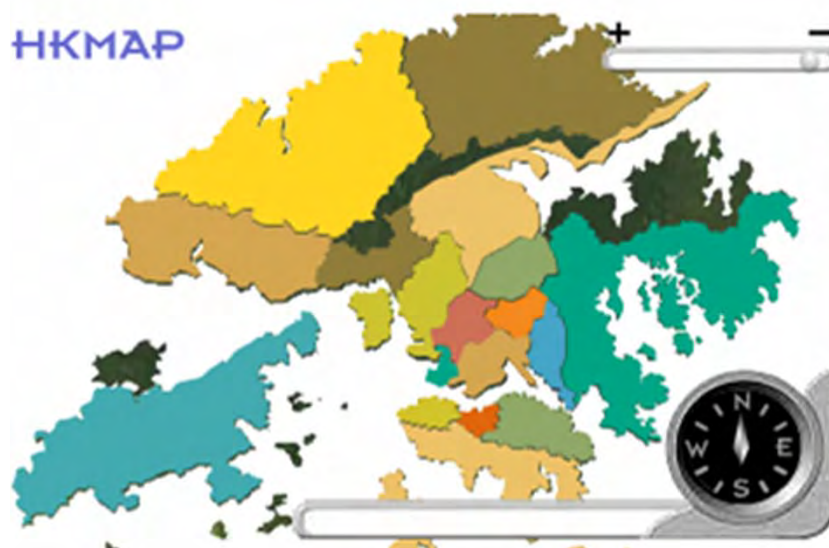
Guidance
Notes

Forms

Advertisement
Notices

The Register

HKMAP



Cyber EIA
(demo version)

Web-based
Environmental
Monitoring & Audit
(demo version)

EIAO Help Bench

Documents that are currently exhibited for the public to comment

PROJECT PROFILES

Decommissioning of a clinical waste
incinerator at Pok Oi Hospital

Inspection Period: 6/11/01 - 19/11/01

[\[Send Comment\]](#)

Drainage Improvements in Sai Kung

EIA REPORTS

Tseung Kwan O Roads D1, D8 and D10

Inspection Period: 18/10/01 - 16/11/01

[\[Send Comment\]](#)

What's New

New Application Fees
from 22nd December
2000

Other Key Applications or Documents

Project Profiles for
study Briefs

EIA Reports

Project Profiles for
Permission

to apply permit direct
Environmental Permits
Further Permits

Variations of Permits

Search

[Go!]

Alphabetical Search
for Project



政府資訊中心
Government
Information Center



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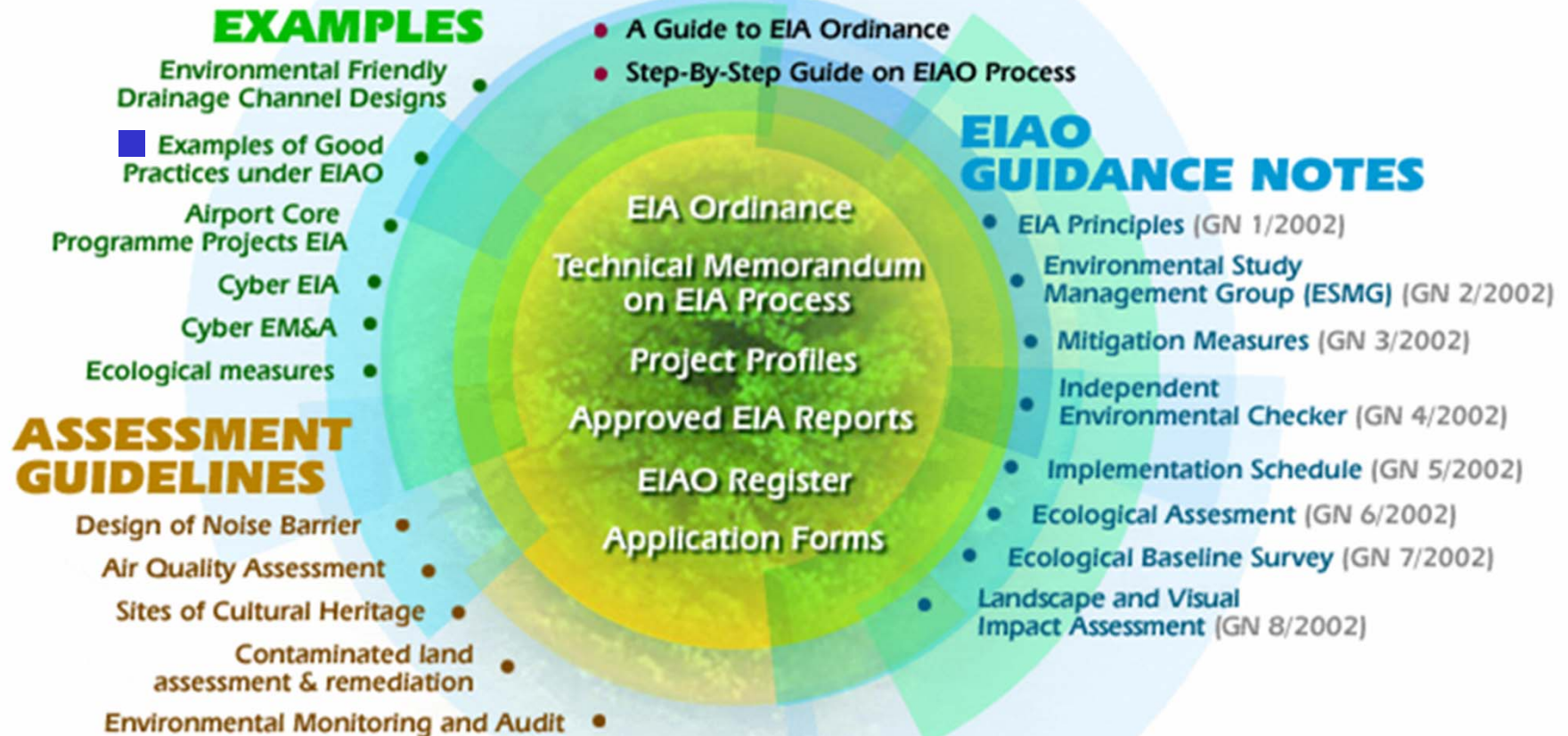
Guidance Notes

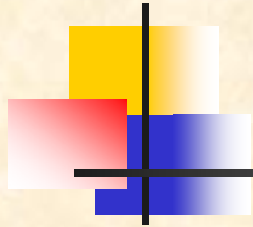
Guidance Notes

- [EIA Ordinance](#)
 - [Environmental Impact Assessment \(Appeal Board\) Regulation](#)
 - [Advertising Requirements and Public Inspection of Documents](#)
 - [Modus Operandi of the Environmental Impact Assessment Subcommittee of the Advisory Council on the Environment](#)
 - [For Applications under the Ordinance](#)
 - [Assessment of Impact on Sites of Cultural Heritage](#)
 - [Basic Principles of Environmental Impact Assessment Process](#)
 - [The Role and Operation of Environmental Study Management Group](#)
 - [Flexibility and Enforceability of Mitigation Measures proposed in an EIA Report](#)
 - [The Role of Independent Environmental Checker](#)
 - [Implementation Schedule for Environmental Impact Assessment Process](#)
 - [Some Observations on Ecological Assessment From the EIAO Perspective](#)
- * [A Guide to the EIA Ordinance](#) **UPDATE**
 - * [A Guide to the Environmental Impact Assessment \(Appeal Board\) Regulation](#) **NEW**
 - * [Advertising Requirements and Public Inspection of Documents](#)
 - * [Modus Operandi of the Environmental Impact Assessment Subcommittee of the Advisory Council on the Environment](#)
 - * [General Notes for Applications under the Environmental Impact Assessment Ordinance \(Chapter 499\)](#)
 - * [Assessment of Impact on Sites of Cultural Heritage in Environmental Impact Assessment Studies](#)
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 - * [The Role and Operation of Environmental Study Management Group](#)
 - * [Flexibility and Enforceability of Mitigation Measures proposed in an EIA Report](#)
 - * [The Role of Independent Environmental Checker](#)
 - * [Implementation Schedule for Environmental Impact Assessment Process](#)
 - * [Some Observations on Ecological Assessment From the Environmental Impact Assessment Ordinance Perspective](#)
 - * [Ecological Baseline Survey for Ecological Assessment](#)
 - * [Preparation of Landscape And Visual Impact Assessment Under the Environmental Impact Assessment Ordinance](#)

Guidance Notes

Cyber Help Bench for Environmental Impact Assessment



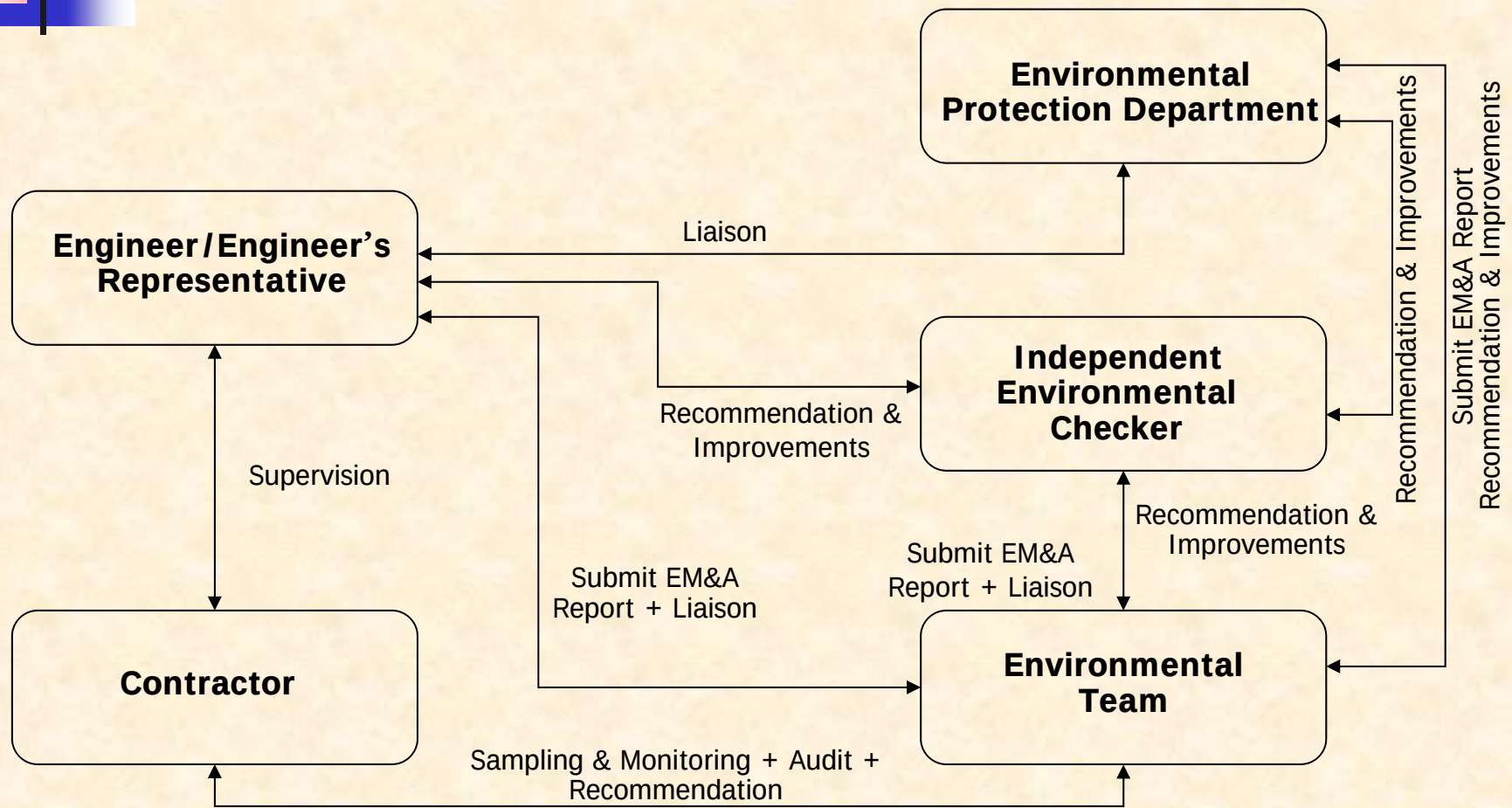


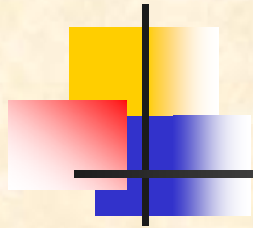
Environmental Monitoring & Audit

EM & A – EP Condition

- “The EM&A programme shall be implemented in accordance with the procedures and requirements in the EM&A Manual. Any changes to the EM&A programme shall be justified by the ET leader and verified by the IEC as conforming to the requirements as set out in the EM&A Manual and shall be submitted to the Director for approval.”

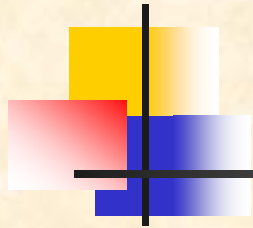
Designated Project EM&A Organization Chart





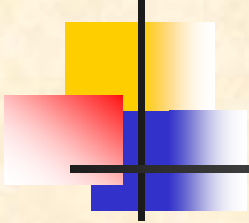
Role of Independent Environmental Checker

- **Validate and confirm the accuracy** of monitoring results, monitoring equipment, monitoring locations, monitoring procedures and locations of sensitive receivers and carry out random sample check
- **Audit EIA / Environmental Assessment** recommendations and requirement against the status of implementation of environmental protection measures on site
- **Review effectiveness** of environmental mitigation measures and project environmental performance



Role of Independent Environmental Checker

- **Verify and certify** environmental acceptability of the permit holder's construction methodology (both temporary and permanent works)
- **Verify** the investigation results of complaint cases and the effectiveness of corrective measures
- **Verify** EM&A report that has been certified by the ET leader
- **Feedback audit results** to ET/Permit Holder according to Event/Action Plan in the EM&A manual.



Construction Phase EM&A

■ Environmental Monitoring



Noise

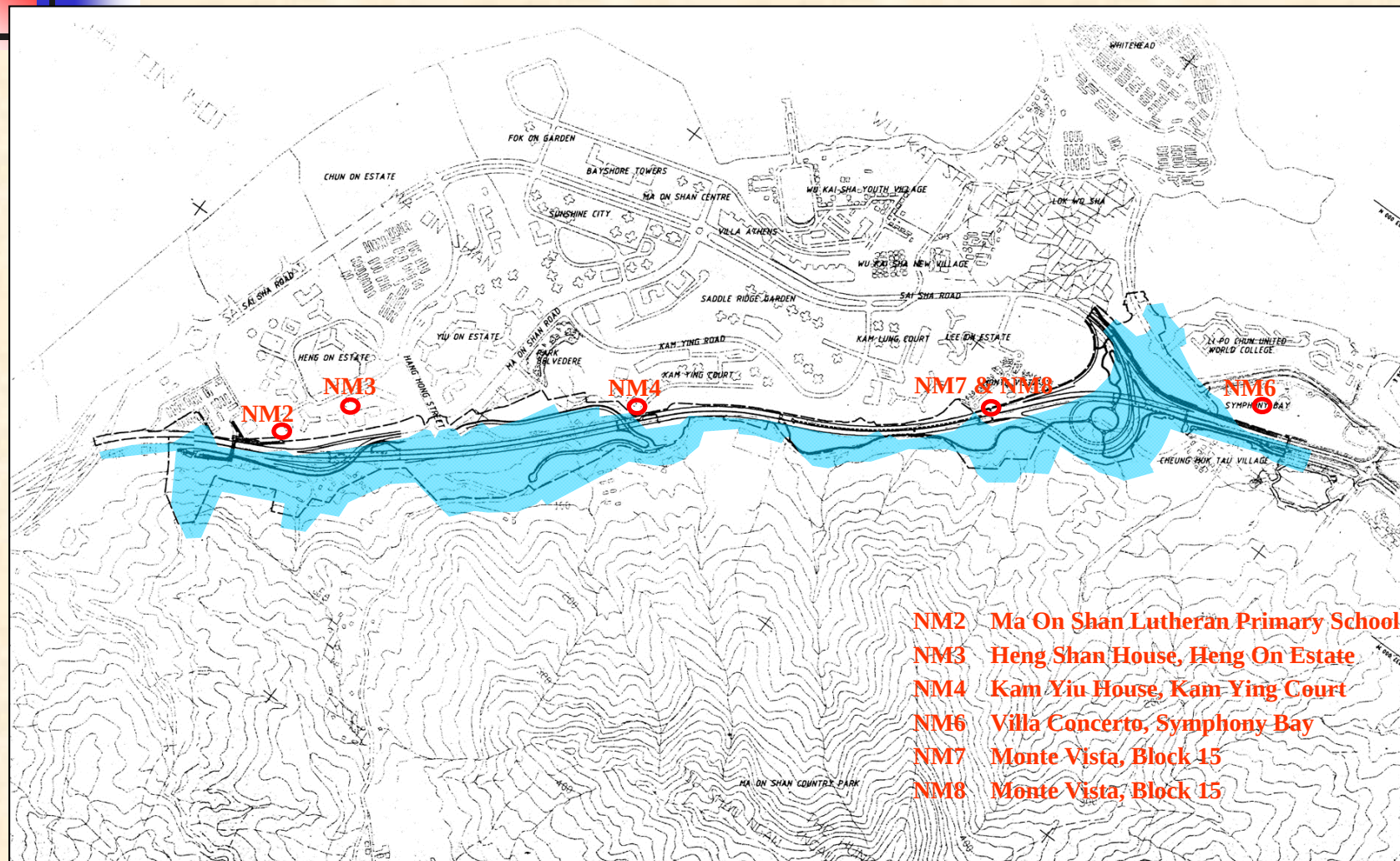
L_{eq} (30 mins)



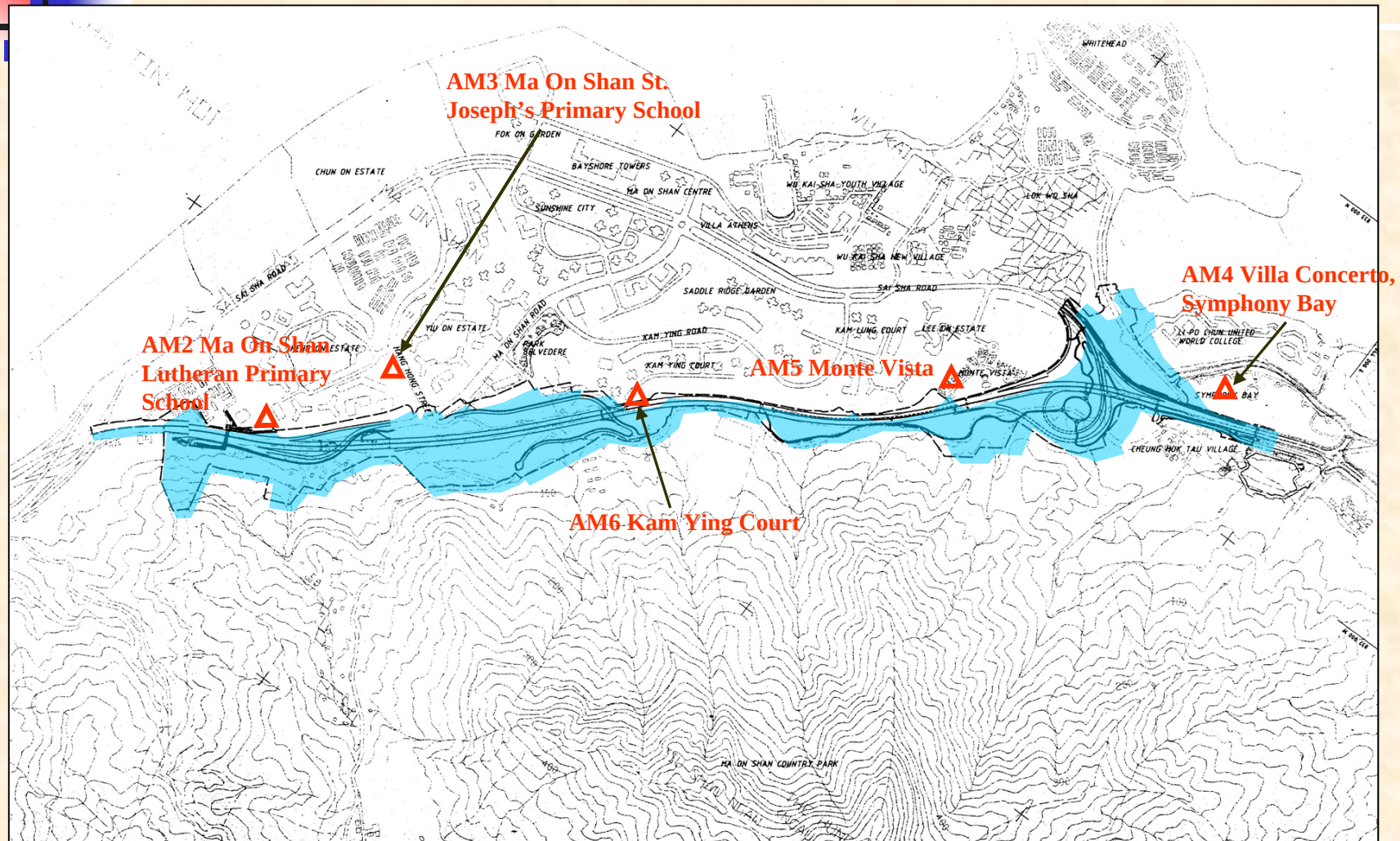
Air (Dust)

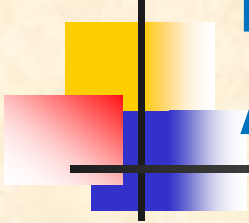
1-Hr & 24-Hr TSP ($\mu\text{g}/\text{m}^3$)

Noise Monitoring Locations



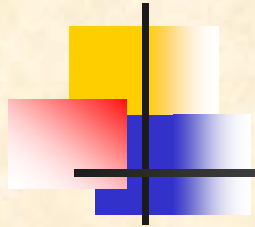
Air Quality Monitoring Locations





Environmental Impact Assessment Ordinance

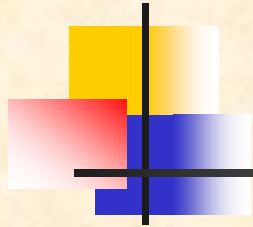
Case Study



Case Study 1

Implementation of Mitigation Measures

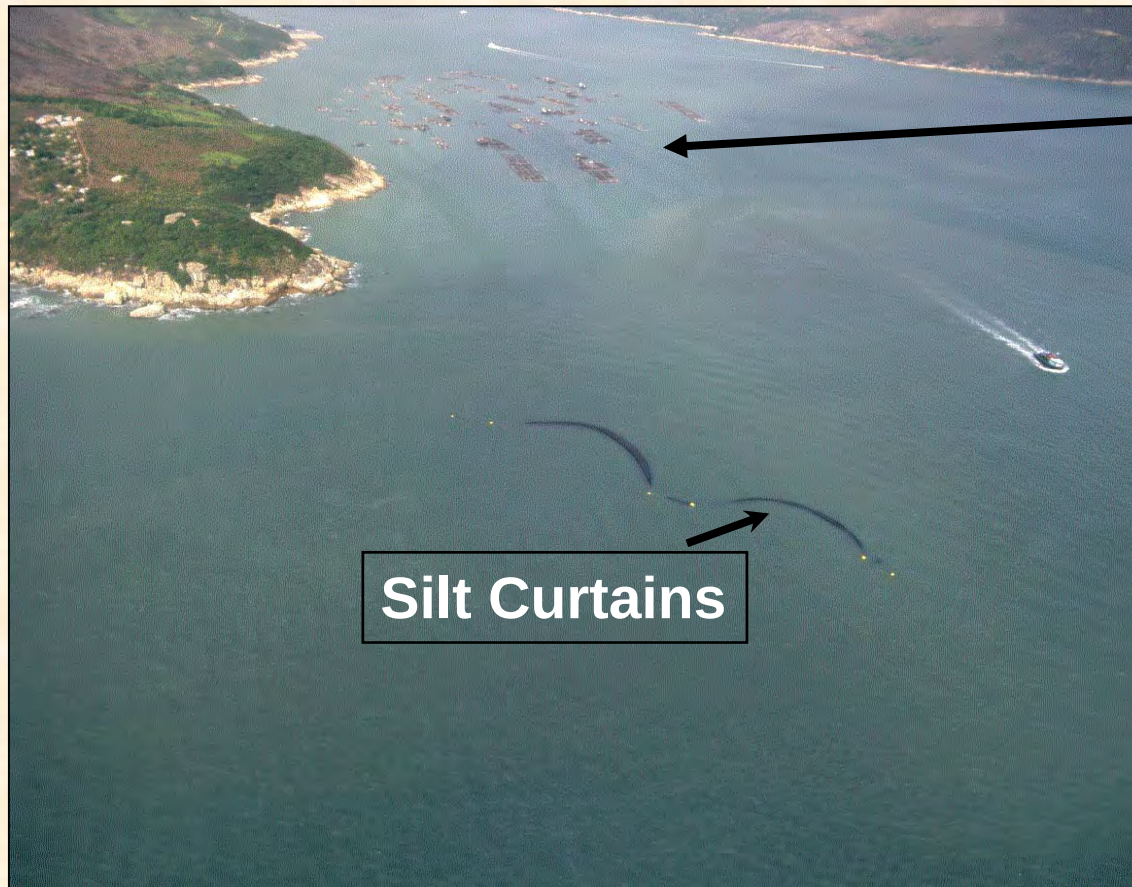
Silt Curtain



Silt Curtain – EP Condition

- “Silt curtains shall be used along the reclamation area during construction to control sediment suspension within the works area.”

Silt Curtain – EP Condition



22 ha Fish
Culture Zone
protected

Silt Curtains

**Silt Curtains to Protect FCZ
(Dredging at Cheung Sha Wan FCZ)**

Silt Curtain – EP Condition

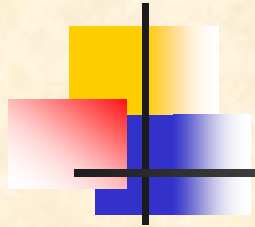


**Silt curtain for HEC 1800 MW
Gas-fired Power Station**

Silt Curtain – EP Condition



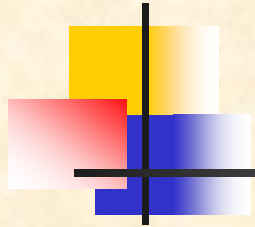
Effectiveness of Silt Curtain



Case Study 2

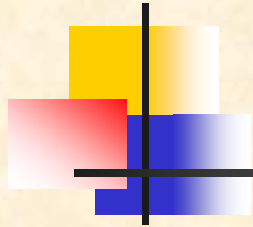
Implementation of Mitigation Measures

Noise Control Measures



Noise Control – EP Condition

- “The Permit Holder shall deposit ... construction noise mitigation proposal ... indicating the locations and the design of the temporary purposed-built barriers....”



Noise Control – EP Condition

- “...temporary noise barriers with no openings or gaps ... between the construction plant in operation and nearby residential development.

Noise barriers shall be erected close to, but no further than 20 metres from the plant in operation.”

Noise Control – EP Condition



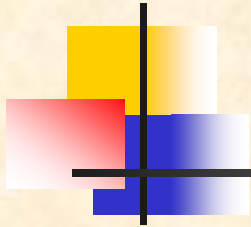
Noise Barrier (Cyber Port)

Noise Control – EP Condition



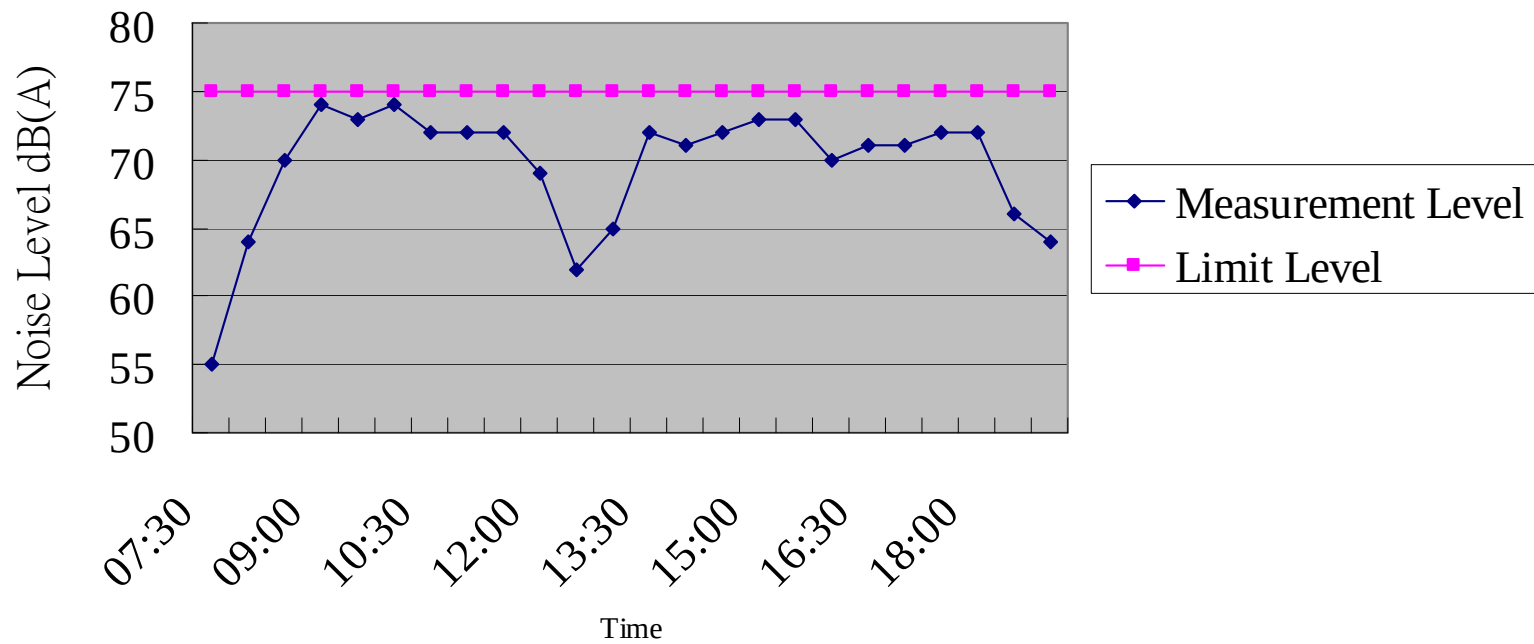
Noise cover

Noise Cover (Cyber Port)



Noise Monitoring

Noise Level at Baguio Villa (President Tower) on 24 Nov 01

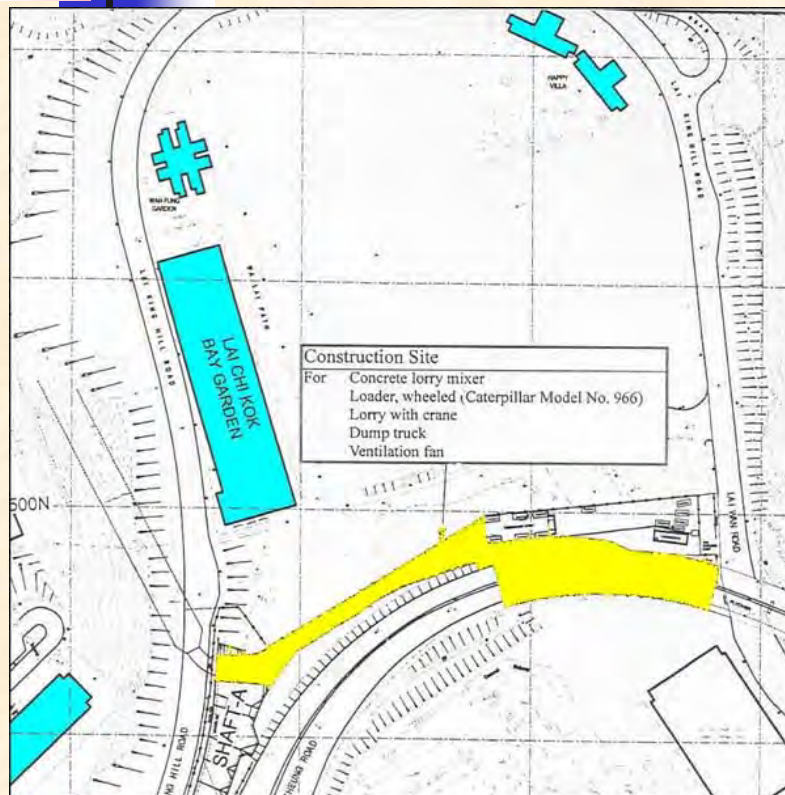


Noise Control – EP Condition



Noise Barrier (Road T7)

Noise Control – EP Condition



Noise Enclosure (West Rail)

Noise Control – EP Condition



Acoustic
Enclosure

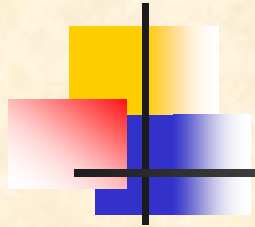


Noise Enclosure for Engines (Road T7)

Noise Control – EP Condition



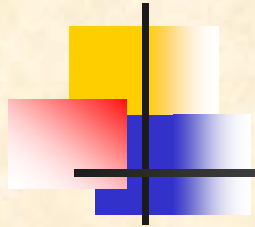
Silent Piler for Sheet Piling (MOS Rail)



Case Study 3

Implementation of Mitigation Measures

Subway Construction



Case Study 4

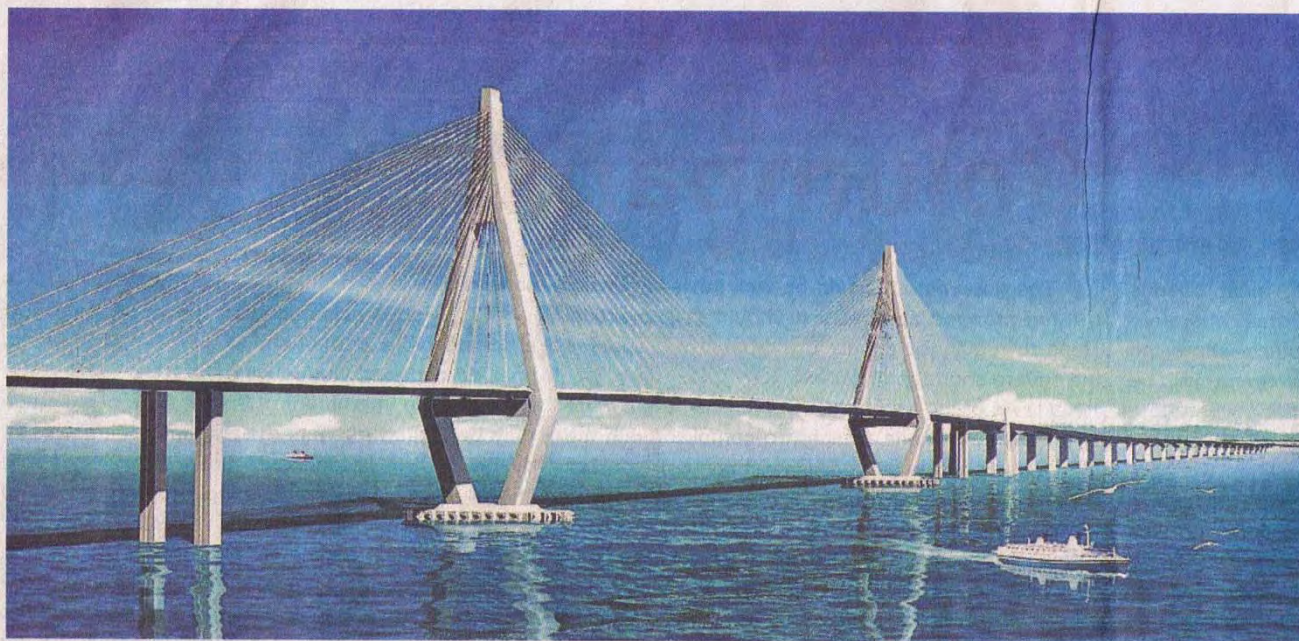
Hong Kong–Zhuhai–Macau Bridge

Judicial Review

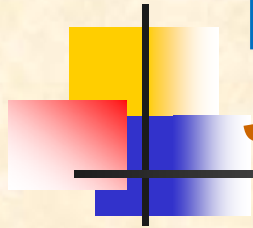
Hong Kong-Zhuhai-Macau Bridge

Judicial Review

讓港珠澳大橋司法覆核回歸原點 ——改善環評條例



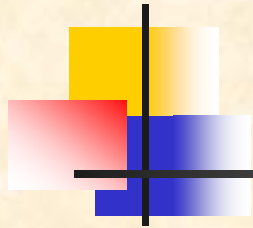
蔡家民：政府在港珠澳大橋司法覆核上訴得直，並不是事情的終結，而是一個開始。圖為港珠澳大橋設計圖。



Hong Kong–Zhuhai–Macau Bridge

Judicial Review

- Review by a judge of court of any exercise, or refusal to exercise, any public decision-making powers.
- Determine whether that decision is lawful or valid.
- Supervise how government officials or public officers exercise their powers or carry out their duties.

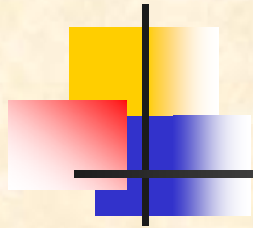


Hong Kong–Zhuhai–Macau Bridge

Judicial Review

Central Arguments of Applicant:

1. Lack of presentation of baseline assessment predicting future air quality without the project in place.
2. The PATH Model was incomprehensible to the Applicant and her experts and incapable of independent verification by a third party.
3. The 2031 assessment was not the worst case scenario as required by Study Brief.

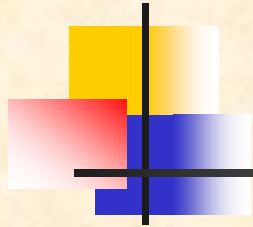


Hong Kong–Zhuhai–Macau Bridge

Judicial Review

Central Arguments of Applicant:

- (4) Failure to assess ozone as a key pollutant.
- (5) Failure to assess SO₂ as a key pollutant.
- (6) Failure to conduct a public health assessment or hazard assessment.
- (7) Failure to include known harmful pollutants e.g. toxic air pollutants and PM_{2.5} in EIA study.

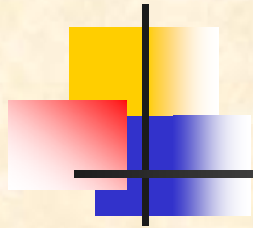


Hong Kong–Zhuhai–Macau Bridge

Judicial Review

Court of First Instance (18 April 2011):

- Director of Environmental Protection had no power to grant environmental permits since EIA was not conducted in accordance with EIAO.
- The project cannot proceed until its impact on air quality in Hong Kong is reassessed.
- The Judge accepted only 1 out of 7 objections i.e. EIA failed to identify the scale of the project impact on air quality.
- The Judge also ruled that compliance with AQOs is not the sole criterion for determining the acceptability of air quality impacts. It is necessary for the authorities to consider whether the predicted impacts can be avoided or reduced.



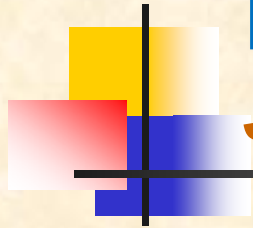
Hong Kong–Zhuhai–Macau Bridge

Judicial Review

Court of First Instance (18 April 2011):

The Judge ruled that the EIA reports should have included a **stand alone analysis of background air quality in the absence of the projects:**

“If environmental protection is to be meaningful ... contrary to the purpose of the EIAO ... treated the environment like a bucket into which water may be deposited until it is full. That approach does not protect the environment. Instead, protecting the environment means endeavouring to minimize the environmental impacts of a proposed project.”

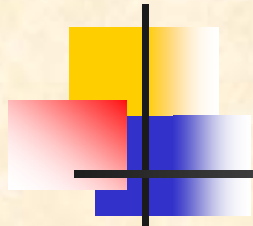


Hong Kong–Zhuhai–Macau Bridge

Judicial Review

Court of First Instance (18 April 2011):

“... the **choice of pollutants** for assessment is primarily a matter for the project proponent ... it was permissible for the Director of Environmental Protection approve the EIA reports without requiring a detailed assessment of the air pollutants’ impacts.

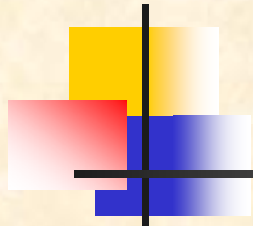


Hong Kong–Zhuhai–Macau Bridge

Judicial Review

Decision of the Court of First Instance:

“...**two distinct approaches** to the control of pollution. One approach...is to **impose limits on the quantities of polluting matter** which a given activity may emit. The other approach, ...is to **provide a framework for specific directives imposing quantitative limits on the extent to which the environment may be polluted**. A specific regulation... gives effect to the former approach by requiring applicants for relevant permits to satisfy the Environment Agency that they are using the best available techniques calculated to prevent, or at least to minimize, the emission of polluting matter irrespective of whether the emission would cause a breach of an overall pollution limit...”

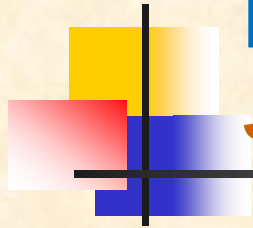


Hong Kong–Zhuhai–Macau Bridge

Judicial Review

Decision of the Court of First Instance:

“In my opinion, the EIAO is to be understood as incorporating the two approaches...and is **not to be construed as if the only relevant yardstick is whether particular benchmarks are exceeded**. If environmental protection is to be meaningful, it seems to me that it must aim to minimize the environmental impact of any project and, in the case of air quality, by minimizing the amount of pollutants released into the atmosphere. It would be **contrary to the purpose of the EIAO**, which recognizes that the environment is worthy of protection, if the statutory scheme in this jurisdiction were to be construed as if it treated the environment like a bucket into which waste may be deposited until it is full. That approach does not protect the environment. Instead, protecting the environment means endeavouring to minimize the environmental impacts of a proposed project.”



Hong Kong–Zhuhai–Macau Bridge

Judicial Review

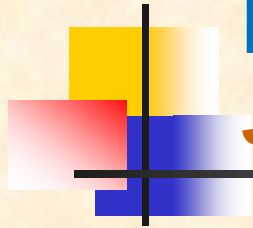
Decision of the Court of Appeal:

“The first issue turns on the construction of the Technical Memorandum (TM) and Study Brief (SB). The approach to their construction is governed by *Shiu Wing Steel*, which is authority that the construction of the TM and SBs,

“... is a question of law for the court if the Director’s decision is being judicially reviewed. ...”

“... the question of the EIA report’s meeting the requirements of the SB and TM is for the Court to determine. It is a question of construction, albeit the TM and the SB are to be construed not as legislative instruments but as they would be **understood by an expert** risk assessor. ...”

as well as in a “practical down-to-earth way”[24].”

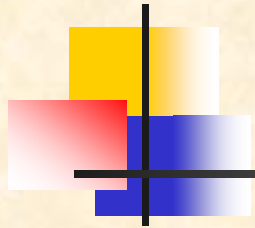


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Decision of the Court of Appeal:

“I agree with the learned judge the EIAO incorporates both of the two approaches...I am further of the view that the duty to minimize pollution would not depend on the extent of the pollution footprint of a designated project. Whatever the footprint of a project ((90%-80%) or (90%-30%)) a proponent must **minimize pollution**. Furthermore, unlike the learned judge, I do **not** believe it is **necessary to construe the TM or the SB as requiring a stand-alone assessment** in order that the Director can decide what **mitigating measures** should be adopted.”



Environmental Impact Assessment Ordinance

THANK YOU