

**PROVISIONAL AIRPORT AUTHORITY
PRESENTATION TO THE ADVISORY COUNCIL ON THE ENVIRONMENT
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**Progress Report on Environmental Protection Measures of ACP Projects -
New Airport at Chek Lap Kok.**

1. Introduction

The New Airport Master Plan - Environmental Impact Assessment (NAMP-EIA) was completed in December 1991. A supplement to the NAMP-EIA was completed in November 1992. Both documents contained a range of recommended mitigation measures to be implemented by the PAA and Government for both the construction and operational phases of the New Airport. The EIA process was continued throughout the detailed design phase of the project (1993-1995). This design process was coordinated with the Environmental Protection Department (EPD) and resulted in refinements/improvements to existing mitigation recommendations, as well as the adoption of new agreed mitigation measures. These additional new mitigation measures focused mainly on operational aspects of the New Airport.

Ongoing and future environmental initiatives include the following:

- Regular coordination meetings with EPD to review status of designs and construction and to monitor site environmental compliance.
- A site based team of professional environmental scientists who conduct regular audits of contractor work areas.
- Environmental site induction course for all new contractors.
- A requirement that commercial franchisees prepare Environmental Management Plans for their facilities and appoint environmental representatives to liaise with Authority environmental staff.
- A commitment by the Authority to prepare an Environmental Management Plan for the New Airport prior to opening.

2. Progress of Construction Works

The site reclamation phase of the project commenced at the end of 1992. To date the entire 1248 hectare airport platform has been formed with only minor marine capping works required to reach final formation levels.

In addition to the site reclamation phase of construction, 34 major follow-on construction contracts have been awarded to date. These include the

1.2km long 490,000 square metre terminal building and associated ground transportation centre, the airfield works contract (including runway, taxiways, terminal aprons, business aviation, maintenance and air cargo aprons) and the Automated People Mover and Baggage Handling Systems. Work on these and other contracts is now well underway.

3. Environmental Monitoring and Audit Construction Phase

Environmental monitoring is carried out by PAA engineering technicians under the supervision of the Authority's professional environmental staff. If exceedences of target levels are recorded, EPD, AFD and NAPCO are notified and an Action Plan is initiated.

Water quality monitoring is conducted around the CLK reclamation site, as well as at each of the various marine borrow and disposal areas. During the peak phase of marine works samples were taken 3 times a week from over 50 individual sample sites. Air and noise monitoring is also conducted in accordance with EPD requirements at each of the three sensitive receiver sites located along the North Lantau coastline including the Town of Tung Chung and the villages of Sha Lo Wan and San Tau.

With the virtual completion of marine works, water quality monitoring has been reduced accordingly. However, water monitoring will continue to take place at Sha Chau during the construction of the Aviation Fuel Receiving Facility. Air and noise monitoring will be carried forward until the opening of the New Airport. Once the airport is open it is anticipated that the Authority's monitoring programme will be modified to take into account the particular monitoring requirements of an operating airport.

4. Monitoring Results

Air Quality: Recorded dust levels at the three North Lantau sensitive receiver sites have been well below EPD's guideline levels. The relatively low recorded dust levels are, as predicted in the NAMP-EIA, largely the result of the prevailing easterly winds found in the North Lantau region. In addition, rigorous efforts are made on site to reduce emissions at source. These measures include paving high-use haul-roads, water spraying unpaved haul-roads, and incorporating spray bars, dust shrouds and covered conveyors on dust generating plant.

The Government's policy for the prohibition of burning construction wastes has been rigorously enforced on Chek Lap Kok with no contraventions of contractual requirements.

Noise Control: During the start of the SPC phase of construction there were a number of recorded noise exceedences. However, these were determined to largely be the result of other sources of disturbance such as wave action, motor vehicles within Tung Chung and helicopter overflights.

Monitoring procedures were revised to account for these noise sources and there have been very few exceedences over the past 18 months. Key noise mitigation measures implemented by the Authority include the retention of the Southern Chek Lap Kok headland as a noise shield for Tung Chung, the installation of over 200 air conditioners in homes located in Sha Lo Wan and San Tau and the construction of a 3.8km noise bund along the southern perimeter of the airport platform.

Water Quality: During the SPC phase of construction a number of exceedences of water quality target levels were recorded. These exceedences were reported to both the EPD and AFD and the Authority initiated an Action Plan in an effort to determine the source of exceedence. In some cases the exceedences were directly attributable to construction activities and efforts were made to alter works, wherever practicable, to reduce the level of impacts. In other cases, the exceedences were not attributable to airport works and were either the result of natural conditions or other construction projects. Throughout the Site Reclamation phase of works, the Authority worked with EPD, NAPCO and other ACP project agencies to identify practicable means for further reducing impacts. As part of this effort, EPD and PAA staff made a joint visit to an operating trailer dredger to better understand the range of practicable measures that could be taken for reducing impacts. Key mitigation measures include GPS navigation systems to ensure that all dredging and dumping activities take place within designated borrow/disposal areas, keel discharge chutes on all trailer dredgers and rubber seals on hopper doors.

5. Implementation of Key Mitigation Measures

The attached tables provide implementation details on each of the specific mitigation measures recommended in the NAMP-EIA. However, specific areas of interest are highlighted below.

Sha Chau AFRF: Procedures for dolphin monitoring and worker training programmes are now being developed in close consultation with international cetacean expert Dr. Bernd Würsig. In addition, propeller and construction noise studies are now in progress and the results will be reviewed with Dr. Würsig and AFD prior to construction. Marine benthic surveys have been underway since January and the results reported on a bi-monthly basis to AFD and Dr. Würsig.

Permanent Aviation Fuel Pipeline: The Authority has gone out to tender on a feasibility study and Initial Environmental Assessment for a permanent bored tunnel fuel pipeline to Chek Lap Kok. The tenders have been returned and are currently under review with an award of the consultancy contract expected by the end of June.