

政府總部
發展局
工務科
香港花園道美利大廈



Works Branch
Development Bureau
Government Secretariat

Murray Building, Garden Road,
Hong Kong

本局檔號 Our Ref. :

來函檔號 Your Ref.

電話號碼 Telephone : 2848 2801

傳真號碼 Fax : 2189 7264

19 June 2009

Mrs Vivian Kam
Clerk to House Committee
Legislative Council
Legislative Council Building,
8 Jackson Road,
Central, Hong Kong
(Fax: 2509 0775)

Dear Mrs Kam,

Special House Committee meeting on 22 May 2009

I refer to your letter dated 4 June 2009, and enclose a paper on "Conservation of an Old Chinese Banyan Tree in Kowloon Park" prepared by the Leisure and Cultural Services Department for reference by Members, please.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Alan Au', with a stylized flourish at the end.

(Mr Alan Au)

for Secretary for Development

C.C.:

Administrative Assistant to the Chief Secretary
Director of Administration
Director of Leisure and Cultural Services

(Attn: AS2/CSO)
(Attn: AD(Adm)3)
(Attn: AD(LS)3)

For information
on 19 June 2009

Legislative Council House Committee
Conservation of an Old Chinese Banyan Tree in Kowloon Park

Purpose

At the Special Meeting of the House Committee of the Legislative Council on 22 May 2009, Members requested the Administration to provide information on the conservation of an old Chinese banyan tree in Kowloon Park. This paper aims to provide the relevant background information and the latest position.

Background

2. A Chinese banyan tree (*Ficus microcarpa*) located next to a mini-soccer pitch in Kowloon Park has been listed on the Register of Old and Valuable Trees with the Registration Number LCSD YTM/97. The Leisure and Cultural Services Department (LCSD) has been closely monitoring the health condition of the banyan tree and conducts regular inspections to observe its condition of growth. In late 2004, LCSD observed that the tree was suffering from abnormal defoliation (see [Annex 1](#)). It was believed to be caused by the damage to part of the root system of the banyan tree during the redevelopment of Kowloon Park in the 1980's. Moreover, the peripheral area of the tree base was paved with concrete slabs. When pedestrians passed by, they stepped on the slabs and caused soil compaction, thus hindering air and water infiltration into the soil layers. This had affected the respiration and development of its root system.

3. In view of the rapid deterioration in the health and vigour of the tree, LCSD staff have taken the following measures with a view to improving the growing environment and rejuvenating the vigour of the tree –

- (a) to fence off the tree base to prevent unnecessary stepping and activities which will result in further soil compaction and hinder air and water infiltration into the soil layers;
- (b) to treat the fungal infections on the roots by applying

fungicides;

- (c) to facilitate application of fertilisers by inserting PVC tubes along the drip line of the tree;
- (d) to improve air and water permeability by removing other plants at the tree base;
- (e) to increase the soil area by removing boulders and concrete slabs near the tree base;
- (f) to improve soil permeability by turning over the soil;
- (g) to apply foliar feeding ;
- (h) to induce growth of new shoots by grafting seedlings onto the twigs;
- (i) to understand the levels of macronutrients and micronutrients by conducting soil and leaf analyses;
- (j) to remove withered twigs;
- (k) to conduct detailed inspections of the internal structure of the tree by utilising the PICUS Sonic Tomograph;
- (l) to cover the tree base with a layer of fine mulch; and
- (m) to develop aerial roots into supporting roots by employing the method of inserting the aerial roots into bamboo poles.

4. The health condition of the banyan tree had improved after the implementation of the above measures (see **Annex 2**). From 2006 to 2007, LCS D closely monitored the growth of the tree and continued to take appropriate improvement measures.

Collapse of a Portion of the Tree Trunk in 2007

5. On 11 August 2007 after the passage of Severe Tropical Storm Pabuk, about one third of the main trunk of the tree split and fell due to the typhoon attack. LCS D tried its best to save the banyan tree and, based on the advice of its Tree Expert Group (TEG), took active measures to save the tree. After thorough study and discussion, TEG considered

that supporting structures could be used to stabilise the branches of the banyan tree and that the small banyan court where the tree was located should be closed to prevent park-goers from stepping on the soil there. Moreover, TEG also held the view that bamboo poles should continue to be used to facilitate the growth of aerial roots to the soil surface and their development into supporting roots. Please refer to **Annex 3** for the conditions of the tree before and after the collapse of a portion of its trunk. When LCSD attended a meeting of the Yau Tsim Mong District Council in September of the same year, the Department gave a detailed account of the possible causes of the collapse of a portion of the tree trunk and the feasible measures proposed by TEG to enhance the preservation and the saving of the tree. Members present at the meeting had a thorough discussion over the conservation of old trees.

6. After a comprehensive study of the input from TEG and the Architectural Services Department, LCSD has devised a long-term plan for stabilising the tree. Apart from putting up three sets of metal props to provide additional support to some of the major side branches, a metal base frame measuring approximately 18 metres in length and 11 metres in width has also been put up to surround the tree. The trusses of the entire metal base frame rest on the soil area like a bridge to avoid possible damage to the roots of the tree. Vertical props can also be added at suitable locations along the base frame when necessary with a view to stabilising the outward stretching branches in the form of a “hanging bridge” (see **Annex 4**). The cost of the whole project is about \$950,000.

Present Situation and Way Forward

7. After the collapse of a portion of its trunk in August 2007, the banyan tree in Kowloon Park has remained firm and stable, notwithstanding several attacks by typhoons since then. This shows that the installation of new vertical props has achieved its desired effect in conserving the tree. The tree is now in its recovery stage. It is in stable condition, with no signs of risk of further collapse (see **Annex 5**). However, although new leaves and aerial roots are observed on the trees from time to time, the recovery will take time. LCSD will continue to implement the improvement measures mentioned in Paragraph 3 above as appropriate and carry out foliar feeding at ten-day intervals (see **Annex 6**). In addition, LCSD has also tried to use organic compost provided by the Environmental Protection Department to improve the soil structure and promote microbial activities in the soil. Meanwhile, a mechanism has also been put in place by LCSD to monitor and prevent termite infestation on the tree. Nonetheless, the tree needs to go through a relatively long

period of time before it may regain its vigour. LCSD will continue to take good care of the tree and closely monitor its recuperation.

8. Members of the House Committee are invited to note the conservation measures for the old banyan tree in Kowloon Park and its current condition.

Leisure and Cultural Services Department
June 2009

Old Chinese Banyan Tree in Kowloon Park (No. LCSD YTM/97)

Condition in 2004



Photo taken on 9 November 2004

The tree was suffering from abnormal defoliation

Old Chinese Banyan Tree in Kowloon Park (No. LCSD YTM/97)

Growth condition in 2005 and 2006



Photo taken on 22 September 2005



Photo taken on 21 February 2006

Compared to the condition in 2004, the health condition of the Chinese banyan tree had improved

Old Chinese Banyan Tree in Kowloon Park (No. LCSD YTM/97)

Condition before and after the collapse
of a portion of its trunk in 2007



Photo taken on 20 June 2007

Condition before the collapse of a portion of its trunk



Photo taken on 21 August 2007

Condition after the collapse of a portion of its trunk

Old Chinese Banyan Tree in Kowloon Park (No. LCSD YTM/97)

Condition after installation of metal props and metal base frame



Photo taken on 10 May 2009

Old Chinese Banyan Tree in Kowloon Park (No. LCSD YTM/97)

Condition in May 2009



Photo taken on 11 May 2009

Old Chinese Banyan Tree in Kowloon Park (No. LCSD YTM/97)

Improvement Measures



Photo taken on 5 June 2008

Use of bamboo poles to facilitate the growth of aerial roots into supporting roots



Photo taken on 9 April 2009

Foliar feeding to stimulate growth